

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.11.47											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1500	3	0	In	5,49		mm	,00	11,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		124,22					
259	3	0	In			mm	,00	1,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		9,00					
2782	3	1	In			mm	,00	8,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		22,40					
4680	3	0	In			mm	,00	1,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,60					
976	1	1/2	In			mm	,00	5,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		0,95					
4574	3	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,00					
M Erection													Total Kg:	162,17				
SZ1	PIPING BOM SABIZ					01101 - 0			A	AREA A			1 / 1	TOTAL Kg:	162,17			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.11.47											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1500	3	0	In	5,49		mm	,00	23,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		259,72							
2782	3	1	In			mm	,00	3,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		8,40							
2784	3	1+1/2	In			mm	,00	1,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,80							
976	1	1/2	In			mm	,00	1,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		0,19							
4439	3	2	In			mm	,00	1,00	NR	202	Coupling Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,16							
4574	3	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,00							
M Erection												Total Kg:	274,27							
SZ1	PIPING BOM SABIZ					01102 - 0					A	AREA A	1 / 1	TOTAL Kg:	274,27					

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification		
	Line 01102 - 0	Fluid	System		
	Dang. fluid type	Coating	De pres		Op tem
	Area AREA A	Sketch Sht 1 / 1	Isometric code		Page 1
	Zones				

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.11.47											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1495	1	0	In	3,38		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		12,51										
2765	1	1/2	In			mm	,00	4,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,28										
4675	1	0	In			mm	,00	1,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,57										
4569	1	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,25										
M Erection													Total Kg:		15,61								
SZ1	PIPING BOM SABIZ					01103 - 0					A	AREA A	1 / 1		TOTAL Kg:		15,61						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.11.47											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1497	1+1/2	0	In	3,68		mm	,00	20,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		80,98							
256	1+1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		9,60							
2770	1+1/2	1/2	In			mm	,00	8,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		10,24							
4571	1+1/2	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,75							
M Erection													Total Kg:		101,57					
SZ1	PIPING BOM SABIZ					01104 - 0					A	AREA A	1 / 1		TOTAL Kg:		101,57			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.11.48											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1495	1	0	In	3,38		mm	,00	27,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		67,56										
254	1	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,20										
2765	1	1/2	In			mm	,00	19,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		10,83										
4569	1	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,25										
M Erection													Total Kg:		80,84								
SZ1	PIPING BOM SABIZ					01105 - 0					A	AREA A		1 / 1		TOTAL Kg:		80,84					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.11.48												DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1498	2	0	In	3,91		mm	,00	24,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		130,49							
257	2	0	In			mm	,00	1,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,30							
2774	2	3/4	In			mm	,00	18,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		32,40							
974	3/4	1/2	In			mm	,00	18,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		1,98							
4572	2	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60							
M Erection												Total Kg:	169,77							
SZ1	PIPING BOM SABIZ					01106 - 0				A	AREA A	1 / 1		TOTAL Kg:	169,77					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.11.48											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1498	2	0	In	3,91		mm	,00	14,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		76,12							
257	2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		6,60							
4678	2	0	In			mm	,00	3,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		5,40							
4572	2	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60							
M Erection													Total Kg:		89,72					
SZ1	PIPING BOM SABIZ				01108 - 0				A	AREA A			1 / 1		TOTAL Kg:		89,72			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01108 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.48											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1495	1	0	In	3,38		mm	,00	10,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		25,02											
254	1	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,30											
2765	1	1/2	In			mm	,00	3,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,71											
4675	1	0	In			mm	,00	2,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,14											
4569	1	0	In			mm	,00	3,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,75											
M Erection												Total Kg:		31,92										
SZ1	PIPING BOM SABIZ					01109 - 0					A	AREA A		1 / 1		TOTAL Kg:		31,92						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01109 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.11.48											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1495	1	0	In	3,38		mm	,00	14,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		35,03					
254	1	0	In			mm	,00	1,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,10					
2765	1	1/2	In			mm	,00	2,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,14					
4569	1	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,25					
M Erection													Total Kg:		37,52			
SZ1	PIPING BOM SABIZ				01110 - 0			A	AREA A			1 / 1	TOTAL Kg:		37,52			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01110 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.11.48											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1495	1	0	In	3,38		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		12,51										
254	1	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,30										
2765	1	1/2	In			mm	,00	3,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,71										
4569	1	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,25										
M Erection													Total Kg:		17,77								
SZ1	PIPING BOM SABIZ					01112 - 0					A	AREA A		1 / 1		TOTAL Kg:		17,77					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01112 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.11.49											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1493	1/2	0	In	2,77		mm	,00	10,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		12,66										
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20										
4673	1/2	0	In			mm	,00	4,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,12										
4567	1/2	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,12										
M Erection													Total Kg:		15,1								
SZ1	PIPING BOM SABIZ					01113 - 0			A	AREA A			1 / 1		TOTAL Kg:		15,1						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	01113 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.49											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)		As.bly	Branch				
1498	2	0	In	3,91		mm	,00	18,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized						97,87							
257	2	0	In			mm	,00	1,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						3,30							
2775	2	1	In			mm	,00	2,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						3,60							
4678	2	0	In			mm	,00	1,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						1,80							
976	1	1/2	In			mm	,00	2,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized						0,38							
986	2	1	In			mm	,00	1,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized						0,60							
4572	2	0	In			mm	,00	1,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						1,60							
M Erection															Total Kg:		109,15							
SZ1	PIPING BOM SABIZ					01114 - 0					A	AREA A					1 / 1		TOTAL Kg:		109,15			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification
	Line 01114 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
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Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.49									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1454	4	0	In	3,18		mm	,00	11,00	m	205	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		95,85									
298	4	0	In	3,18		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,07									
4461	4	0	In	3,18		mm	,00	1,00	NR	205	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,86									
M Erection													Total Kg:		98,78							
SZ1	PIPING BOM SABIZ						03101 - 0			A	AREA A		1 / 1		TOTAL Kg:		98,78					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.49										DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1438	2	0	In	3,91		mm	,00	11,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		59,81										
327	2	0	In	3,91		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,66										
4458	2	0	In	3,91		mm	,00	1,00	NR	205	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,31										
M Erection													Total Kg:		60,79								
SZ1	PIPING BOM SABIZ						03102 - 0			A	AREA A		1 / 1		TOTAL Kg:		60,79						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.49											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1437	1+1/2	0	In	3,68		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		28,34											
1453	3	0	In	3,18		mm	,00	23,00	m	205	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		154,61											
403	1+1/2	0	In			mm	,00	1,00	NR	205	Flange Blind ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	1,60											
469	1+1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	1,40											
158	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,18											
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10											
1754	1+1/2	1/2	In	3,68	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,26											
1756	1+1/2	1	In	3,68	3,38	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,26											
4460	3	0	In	3,18		mm	,00	1,00	NR	205	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,41											
5193	1/2	0	In			mm	75,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,48											
663	1+1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection												Total Kg:		188,65										
SZ1	PIPING BOM SABIZ				03103 - 0				A	AREA A		1 / 1		TOTAL Kg:		188,65								

	Plant SZ1 PIPING BOM SABIZ	Piping Class 205	Welding specification SP.1406/2-SP.1407/2
	Line 03103 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.11.50										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1438	2	0	In	3,91		mm	,00	23,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		125,05									
4551	2	0	In			mm	,00	1,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		1,60									
M Erection													Total Kg:		126,65							
SZ1	PIPING BOM SABIZ					03104 - 0			A		AREA A		1 / 1		TOTAL Kg:		126,65					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.50									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1438	2	0	In	3,91		mm	,00	20,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		108,74									
327	2	0	In	3,91		mm	,00	2,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33									
4551	2	0	In			mm	,00	1,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		1,60									
M Erection													Total Kg:		111,67							
SZ1	PIPING BOM SABIZ						03105 - 0			A	AREA A		1 / 1		TOTAL Kg:		111,67					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.50									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	20,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		80,98									
326	1+1/2	0	In	3,68		mm	,00	2,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,74									
4550	1+1/2	0	In			mm	,00	1,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		82,47							
SZ1	PIPING BOM SABIZ						03106 - 0			A	AREA A		1 / 1		TOTAL Kg:		82,47					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.50									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1438	2	0	In	3,91		mm	,00	25,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		135,93									
327	2	0	In	3,91		mm	,00	2,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33									
4458	2	0	In	3,91		mm	,00	1,00	NR	205	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,31									
M Erection													Total Kg:		137,57							
SZ1	PIPING BOM SABIZ						03107 - 0			A	AREA A		1 / 1		TOTAL Kg:		137,57					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03107 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.50														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1437	1+1/2	0	In	3,68		mm	,00	26,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		105,28														
326	1+1/2	0	In	3,68		mm	,00	2,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,74														
4457	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,18														
M Erection													Total Kg:		106,2												
SZ1	PIPING BOM SABIZ						03108 - 0				A	AREA A	1 / 1		TOTAL Kg:		106,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03108 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.50										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	8,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		10,13										
3107	1/2	0	In			mm	,00	3,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		5,10										
4942	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		0,80										
4687	1/2	0	In			mm	,00	2,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,56										
M Erection													Total Kg:		16,59								
SZ1	PIPING BOM SABIZ				03111 - 0				A		AREA A		1 / 1		TOTAL Kg:		16,59						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03111 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.51										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86										
3107	1/2	0	In			mm	,00	3,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		5,10										
4942	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		0,80										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		15,04								
SZ1	PIPING BOM SABIZ					03112 - 0				A	AREA A		1 / 1		TOTAL Kg:		15,04						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03112 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.51									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	19,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		76,94									
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37									
4550	1+1/2	0	In			mm	,00	1,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		78,05							
SZ1	PIPING BOM SABIZ						03115 - 0			A	AREA A		1 / 1		TOTAL Kg:		78,05					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03115 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.51									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	13,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		52,64									
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37									
4550	1+1/2	0	In			mm	,00	1,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		53,76							
SZ1	PIPING BOM SABIZ						03116 - 0				A	AREA A	1 / 1		TOTAL Kg:		53,76					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03116 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.11.51									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1435	1	0	In	3,38		mm	,00	14,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		35,03									
324	1	0	In	3,38		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14									
4548	1	0	In			mm	,00	1,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,25									
M Erection													Total Kg:		35,42							
SZ1	PIPING BOM SABIZ					03117 - 0					A	AREA A		1 / 1		TOTAL Kg:		35,42				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03117 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.11.51										DOC:		1E35-65-1103								
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	18,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							22,78						
M Erection																Total Kg:		22,78						
SZ1	PIPING BOM SABIZ					03118 - 0					A	AREA A					1 / 1		TOTAL Kg:		22,78			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03118 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5				16/11/2010 10.11.52									DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1452	2+1/2	0	In	3,18		mm	,00	12,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		65,70					
296	2+1/2	0	In	3,18		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,59					
4459	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,32					
M Erection													Total Kg:	67,61				
SZ1	PIPING BOM SABIZ					04101 - 0			A	AREA A			1 / 1	TOTAL Kg:	67,61			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	04101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.52									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1452	2+1/2	0	In	3,18		mm	,00	12,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		65,70									
296	2+1/2	0	In	3,18		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,59									
4459	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,32									
M Erection													Total Kg:		67,61							
SZ1	PIPING BOM SABIZ					04102 - 0			A	AREA A			1 / 1		TOTAL Kg:		67,61					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	04102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.52										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1452	2+1/2	0	In	3,18		mm	,00	11,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		60,23										
296	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,80										
5775	2+1/2	1+1/2	In	3,18	3,68	mm	,00	1,00	NR	203	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,48										
4459	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,32										
M Erection													Total Kg:		61,82								
SZ1	PIPING BOM SABIZ					05101 - 0					A	AREA A		1 / 1		TOTAL Kg:		61,82					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.52											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1452	2+1/2	0	In	3,18		mm	,00	11,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		60,23											
296	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,80											
5775	2+1/2	1+1/2	In	3,18	3,68	mm	,00	1,00	NR	203	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,48											
4459	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,32											
M Erection													Total Kg:		61,82									
SZ1	PIPING BOM SABIZ						05102 - 0		A	AREA A		1 / 1		TOTAL Kg:		61,82								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.11.52											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1437	1+1/2	0	In	3,68		mm	,00	22,50	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		91,11										
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75										
M Erection													Total Kg:		91,86								
SZ1	PIPING BOM SABIZ				05103 - 0				A		AREA A		1 / 1		TOTAL Kg:		91,86						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.11.53											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1437	1+1/2	0	In	3,68		mm	,00	22,50	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		91,11										
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75										
M Erection													Total Kg:		91,86								
SZ1	PIPING BOM SABIZ				05104 - 0				A		AREA A		1 / 1		TOTAL Kg:		91,86						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.53									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	20,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		80,98									
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37									
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		82,1							
SZ1	PIPING BOM SABIZ						05105 - 0			A	AREA A		1 / 1		TOTAL Kg:		82,1					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.53									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	20,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		80,98									
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37									
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		82,1							
SZ1	PIPING BOM SABIZ						05106 - 0			A	AREA A		1 / 1		TOTAL Kg:		82,1					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.11.53										DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1437	1+1/2	0	In	3,68		mm	,00	10,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		40,49					
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10					
M Erection													Total Kg:		41,6			
SZ1	PIPING BOM SABIZ					05107 - 0			A	AREA A		1 / 1	TOTAL Kg:		41,6			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05107 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5				16/11/2010 10.11.53									DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1437	1+1/2	0	In	3,68		mm	,00	10,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		40,49					
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10					
M Erection													Total Kg:	41,6				
SZ1	PIPING BOM SABIZ				05108 - 0				A	AREA A				1 / 1	TOTAL Kg:	41,6		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05108 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.54									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	14,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		56,69									
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37									
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		57,81							
SZ1	PIPING BOM SABIZ						05109 - 0			A	AREA A		1 / 1		TOTAL Kg:		57,81					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05109 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.54									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	14,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		56,69									
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37									
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection													Total Kg:		57,81							
SZ1	PIPING BOM SABIZ						05110 - 0			A	AREA A			1 / 1		TOTAL Kg:		57,81				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05110 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.54											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1437	1+1/2	0	In	3,68		mm	,00	21,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								85,03					
326	1+1/2	0	In	3,68		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB								0,74					
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105								0,75					
M Erection																	Total Kg:		86,52					
SZ1	PIPING BOM SABIZ						05111 - 0				A	AREA A				1 / 1		TOTAL Kg:		86,52				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification		SP.1406/2-SP.1407/3
	Line	05111 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres		Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		Page 1
	Zones						

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.11.54									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1437	1+1/2	0	In	3,68		mm	,00	21,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		85,03									
326	1+1/2	0	In	3,68		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,74									
4550	1+1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,75									
M Erection												Total Kg:		86,52								
SZ1	PIPING BOM SABIZ					05112 - 0				A	AREA A		1 / 1		TOTAL Kg:		86,52					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05112 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra				SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5		16/11/2010 10.11.54				DOC:							1E35-65-1103		
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1452	2+1/2	0	In	3,18		mm	,00	11,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		60,23		
296	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,80		
4459	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,32		
M Erection												Total Kg:	61,34		
SZ1	PIPING BOM SABIZ				07101 - 0				A	AREA A	1 / 1	TOTAL Kg:	61,34		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	07101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010			
PUMA5			16/11/2010 10.11.55											DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1452	2+1/2	0	In	3,18		mm	,00	23,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		125,93											
4459	2+1/2	0	In	3,18		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,32											
M Erection												Total Kg:		126,25										
SZ1	PIPING BOM SABIZ					07102 - 0			A		AREA A		1 / 1		TOTAL Kg:		126,25							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	07102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.55									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1438	2	0	In	3,91		mm	,00	27,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		146,80									
327	2	0	In	3,91		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33									
4458	2	0	In	3,91		mm	,00	1,00	NR	203	Cap ASME B16.9 BE Seamless ASTM A 234 GR. WPB		0,31									
M Erection													Total Kg:		148,45							
SZ1	PIPING BOM SABIZ						07103 - 0			A	AREA A		1 / 1		TOTAL Kg:		148,45					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	07103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.11.55									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	21,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		26,58									
4546	1/2	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12									
M Erection													Total Kg:		26,7							
SZ1	PIPING BOM SABIZ				07104 - 0				A		AREA A		1 / 1		TOTAL Kg:		26,7					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	07104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.55											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1435	1	0	In	3,38		mm	,00	20,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		50,04											
324	1	0	In	3,38		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14											
4548	1	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,25											
M Erection													Total Kg:		50,43									
SZ1	PIPING BOM SABIZ						07105 - 0				A	AREA A	1 / 1		TOTAL Kg:		50,43							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	07105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.56									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1435	1	0	In	3,38		mm	,00	15,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		37,53									
324	1	0	In	3,38		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14									
4548	1	0	In			mm	,00	1,00	NR	203	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,25									
M Erection													Total Kg:		37,92							
SZ1	PIPING BOM SABIZ						07106 - 0			A	AREA A		1 / 1		TOTAL Kg:		37,92					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	07106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.11.56										DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13						
M Erection																Total Kg:		0,13						
SZ1	PIPING BOM SABIZ					62001 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,13			

62Y8	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62001 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.56											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								0,13					
M Erection																	Total Kg:		0,13					
SZ1	PIPING BOM SABIZ					62003 - 0					A		AREA A					1 / 1		TOTAL Kg:		0,13		

62Y10 62Y32	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62003 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5				16/11/2010 10.11.57											DOC:	1E35-65-1103			
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63						
1454	4	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		4,36						
1457	6	0	In	3,96		mm	,00	3,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		48,15						
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90						
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60						
475	6	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	7,50						
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66						
1662	6	4	In	3,96	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,18						
5201	5/8	0	In			mm	95,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		3,68						
5214	3/4	0	In			mm	100,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		6,72						
699	4	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B								
701	6	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B								
M Erection													Total Kg:	86,38					
SZ1	PIPING BOM SABIZ				62015 - 0				A	AREA A			1 / 1	TOTAL Kg:	86,38				

HV_62.4	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 62015 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.11.57												DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1437	1+1/2	0	In	3,68		mm	,00	0,30	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,21								
1457	6	0	In	3,96		mm	,00	1,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		24,07								
2852	1+1/2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		3,20								
5058	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5223	10,30								
475	6	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	7,50								
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66								
2072	3	2	In	3,18	3,91	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57								
2086	6	3	In	3,96	3,18	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,18								
5223	3/4	0	In			mm	155,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,48								
M Erection												Total Kg:		63,18							
SZ1	PIPING BOM SABIZ			62016 - 0			A		AREA A		1 / 1		TOTAL Kg:		63,18						

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 62016 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Op tem
	Zones		Isometric code

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.11.58														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1453	3	0	In	3,18		mm	,00	40,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		268,88														
472	3	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10														
129	3	0	In	3,18		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,60														
297	3	0	In	3,18		mm	,00	5,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,88														
1644	3	1+1/4	In	3,18	3,56	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57														
5201	5/8	0	In			mm	95,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,92														
698	3	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B																
M Erection												Total Kg:		280,96													
SZ1	PIPING BOM SABIZ				62017 - 0				A		AREA A		1 / 1		TOTAL Kg:		280,96										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62017 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.11.58		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1454	4	0	In	3,18		mm	,00	31,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		270,13		
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60		
298	4	0	In	3,18		mm	,00	7,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		14,47		
5201	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,84		
699	4	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	292,04		

SZ1	PIPING BOM SABIZ		62018 - 0		A	AREA A	1 / 1		TOTAL Kg:	292,04
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62018 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.11.58									DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63									
1454	4	0	In	3,18		mm	,00	6,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		52,28									
1541	4	0	In	2,11		mm	,00	1,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		5,96									
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90									
4960	4	0	In			mm	,00	1,00	NR	212	Valve Bottom & Screw ST.46591/3 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 216 GR. WCB Type A S 128		33,00									
454	4	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	11,20									
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60									
298	4	0	In	3,18		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		6,20									
1234	4	0	In	2,11		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,25									
5201	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,84									
5138	5/8	0	In			mm	110,00	16,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		4,00									
699	4	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B											
718	4	0	In			mm	,00	2,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F											
M Erection												Total Kg:		123,86								
SZ1	PIPING BOM SABIZ				62019 - 0				A	AREA A		1 / 1		TOTAL Kg:		123,86						

KV_63.9	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62019 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.11.58		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1453	3	0	In	3,18		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		13,44		
472	3	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10		
297	3	0	In	3,18		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,35		
5201	5/8	0	In			mm	95,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,92		
698	3	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	20,82		

SZ1	PIPING BOM SABIZ		62020 - 0		A	AREA A	1 / 1		TOTAL Kg:	20,82
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62020 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.11.59		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1454	4	0	In	3,18		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		17,43		
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60		
298	4	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,07		
5201	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,84		
699	4	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	26,93		

SZ1	PIPING BOM SABIZ				62021 - 0				A	AREA A				1 / 1	TOTAL Kg:	26,93
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3	
	Line	62021 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.11.59														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1438	2	0	In	3,91		mm	,00	28,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		152,24														
2833	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,20														
5023	3	0	In			mm	,00	1,00	NR	203	Valve Butterfly With Gasket ST.46373/5 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 74	5209	3,50														
470	2	0	In			mm	,00	3,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	6,60														
472	3	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10														
129	3	0	In	3,18		mm	,00	3,00	NR	203	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,81														
297	3	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18														
327	2	0	In	3,91		mm	,00	5,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		3,32														
1646	3	2	In	3,18	3,91	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57														
1259	2	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		2,01														
5199	5/8	0	In			mm	85,00	8,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,68														
5209	5/8	0	In			mm	140,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,16														
664	2	0	In			mm	,00	2,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection												Total Kg:		180,38													
SZ1	PIPING BOM SABIZ				62022 - 0				A		AREA A		1 / 1		TOTAL Kg:		180,38										

FQ_62.1	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 62022 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Op tem
	Zones	Isometric code	Page 1

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.11.59										DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1438	2	0	In	3,91		mm	,00	14,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		76,12										
2833	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,20										
3179	2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type ST.46326/4 THRD-F NPT 200 LB Forged BRONZE F 70		5,00										
470	2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20										
327	2	0	In	3,91		mm	,00	5,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		3,32										
1259	2	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		2,01										
5199	5/8	0	In			mm	85,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84										
664	2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C												
M Erection												Total Kg:		91,69									
SZ1	PIPING BOM SABIZ				62023 - 0				A		AREA A		1 / 1		TOTAL Kg:		91,69						

LCV_62.1	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62023 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.00		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1453	3	0	In	3,18		mm	,00	3,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		20,17		
472	3	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10		
297	3	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18		
5201	5/8	0	In			mm	95,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,92		
666	3	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	26,36		

SZ1	PIPING BOM SABIZ		62024 - 0		A	AREA A	1 / 1		TOTAL Kg:	26,36
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62024 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.00											DOC:	1E35-65-1103				
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1438	2	0	In	3,91		mm	,00	1,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44						
2833	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,20						
470	2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20						
1259	2	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		2,01						
5199	5/8	0	In			mm	85,00	2,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,42						
664	2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C								
M Erection													Total Kg:		12,27				
SZ1	PIPING BOM SABIZ					62025 - 0					A	AREA A	1 / 1		TOTAL Kg:		12,27		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62025 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.00									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)		As.bly	Branch		
1454	4	0	In	3,18		mm	,00	33,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B						287,56					
130	4	0	In	3,18		mm	,00	2,00	NR	203	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB						2,04					
298	4	0	In	3,18		mm	,00	4,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB						8,27					
M Erection															Total Kg:		297,86					
SZ1	PIPING BOM SABIZ					62026 - 0					A	AREA A					1 / 1		TOTAL Kg:		297,86	

FUNNEL ST.46250/2 Fe360 - 4" N.1pz	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62026 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.01											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1453	3	0	In	3,18		mm	,00	6,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		40,33								
1539	2+1/2	0	In	2,11		mm	,00	1,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		3,76								
5023	3	0	In			mm	,00	2,00	NR	203	Valve Butterfly With Gasket ST.46373/5 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 74	5209	7,00								
452	2+1/2	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5136	7,20								
472	3	0	In			mm	,00	3,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	12,30								
297	3	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18								
351	2+1/2	0	In	2,11		mm	,00	1,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		0,54								
1647	3	2+1/2	In	3,18	3,18	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57								
1232	2+1/2	0	In	2,11		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		0,65								
5209	5/8	0	In			mm	140,00	8,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,32								
5136	5/8	0	In			mm	100,00	8,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		1,84								
716	2+1/2	0	In			mm	,00	2,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F										
M Erection												Total Kg:		77,69							
SZ1	PIPING BOM SABIZ				62027 - 0				A	AREA A		1 / 1		TOTAL Kg:		77,69					

KV_63.5	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 62027 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.01											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25					
1438	2	0	In	3,91		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44					
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90					
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20					
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33					
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84					
696	2	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B							
M Erection												Total Kg:	11,96					
SZ1	PIPING BOM SABIZ				62029 - 0				A	AREA A		1 / 1	TOTAL Kg:	11,96				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62029 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.01									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																	Total Kg:		0,13			
SZ1	PIPING BOM SABIZ					62036 - 0					A	AREA A		1 / 1		TOTAL Kg:		0,13				

62Y10A 62Y32A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62036 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010			
PUMA5				16/11/2010 10.12.01									DOC:		1E35-65-1103									
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13						
M Erection																Total Kg:		0,13						
SZ1	PIPING BOM SABIZ					62041 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,13			

62Y9	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62041 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.02										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				62042 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

62Y9A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62042 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.02											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63											
1454	4	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		4,36											
1457	6	0	In	3,96		mm	,00	3,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		48,15											
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90											
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60											
475	6	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	7,50											
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66											
1662	6	4	In	3,96	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,18											
5201	5/8	0	In			mm	95,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		3,68											
5214	3/4	0	In			mm	100,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		6,72											
699	4	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
701	6	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
M Erection													Total Kg:		86,38									
SZ1	PIPING BOM SABIZ				62046 - 0				A		AREA A		1 / 1		TOTAL Kg:		86,38							

HV_62.5	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 62046 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.02											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1457	6	0	In	3,96		mm	,00	4,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		64,19			
5058	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5223	10,30			
475	6	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	7,50			
301	6	0	In	3,96		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		11,33			
5223	3/4	0	In			mm	155,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,48			
M Erection												Total Kg:	101,8			
SZ1	PIPING BOM SABIZ		62047 - 0		A		AREA A		1 / 1		TOTAL Kg:		101,8			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62047 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.02		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1454	4	0	In	3,18		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		17,43		
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60		
298	4	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,07		
5201	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,84		
699	4	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	26,93		

SZ1	PIPING BOM SABIZ				62048 - 0				A	AREA A				1 / 1	TOTAL Kg:	26,93
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62048 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.02														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1438	2	0	In	3,91		mm	,00	4,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		21,75														
2833	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,20														
470	2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20														
159	2	0	In	3,91		mm	,00	2,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,63														
1259	2	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		2,01														
5199	5/8	0	In			mm	85,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84														
664	2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection												Total Kg:		29,62													
SZ1	PIPING BOM SABIZ				62049 - 0				A		AREA A		1 / 1		TOTAL Kg:		29,62										

	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 62049 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST								PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.03												DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F								Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch										
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25												
1438	2	0	In	3,91		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44												
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90												
4957	2	0	In			mm	,00	1,00	NR	212	Valve Bottom & Screw ST.46591/3 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 216 GR. WCB Type A S 128		10,50												
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20												
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33												
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84												
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B														
M Erection												Total Kg:		22,46											
SZ1	PIPING BOM SABIZ				62050 - 0				A	AREA A		1 / 1		TOTAL Kg:		22,46									

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62050 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.03											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1438	2	0	In	3,91		mm	,00	6,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		32,62										
2843	2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH)	5376	10,50										
											Forged ASTM A 105 S 127												
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	5199	2,20										
											ASTM A 105												
159	2	0	In	3,91		mm	,00	2,00	NR	212	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234		0,63										
											GR. WPB												
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9		0,84										
											ASTM A 193 B7/ASTM A 194 GR.2H												
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B												
5376	5/8	0	In			mm	40,00	16,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		2,40										
M Erection												Total Kg:		49,19									
SZ1	PIPING BOM SABIZ					62052 - 0				A	AREA A	1 / 1		TOTAL Kg:		49,19							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	62052 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.03														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1453	3	0	In	3,18		mm	,00	43,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		289,05														
5023	3	0	In			mm	,00	1,00	NR	203	Valve Butterfly With Gasket ST.46373/5 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 74	5209	3,50														
472	3	0	In			mm	,00	2,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	8,20														
297	3	0	In	3,18		mm	,00	7,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		8,24														
5209	5/8	0	In			mm	140,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,16														
M Erection													Total Kg:		310,14												
SZ1	PIPING BOM SABIZ				62053 - 0				A	AREA A				1 / 1		TOTAL Kg:		310,14									

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62053 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.03														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		6,86												
SZ1	PIPING BOM SABIZ					62101 - 0					A	AREA A	1 / 1		TOTAL Kg:		6,86										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.04														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		6,86												
SZ1	PIPING BOM SABIZ					62102 - 0					A	AREA A		1 / 1		TOTAL Kg:		6,86									

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification		
	Line	62102 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		
	Zones						

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.04														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		8,13												
SZ1	PIPING BOM SABIZ					62103 - 0					A	AREA A	1 / 1		TOTAL Kg:		8,13										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.04											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection													Total Kg:		6,86									
SZ1	PIPING BOM SABIZ					62104 - 0					A	AREA A	1 / 1		TOTAL Kg:		6,86							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.04											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection													Total Kg:		6,86									
SZ1	PIPING BOM SABIZ					62105 - 0					A	AREA A	1 / 1		TOTAL Kg:		6,86							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.04											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1435	1	0	In	3,38		mm	,00	2,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,00											
1437	1+1/2	0	In	3,68		mm	,00	8,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		32,39											
3111	1+1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		14,00											
3125	1	0	In			mm	,00	1,00	NR	205	Valve Globe ST.46274/3 SW-F 800# Forged ASTM A 105 D 72		5,40											
3189	1+1/2	0	In			mm	,00	1,00	NR	205	Strainer Y-Type ST.46276/1 SW-F 800# Forged ASTM A 105 F 69		3,20											
467	1	0	In			mm	,00	3,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	2,40											
158	1+1/2	0	In	3,68		mm	,00	2,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,37											
324	1	0	In	3,38		mm	,00	2,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,27											
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10											
1756	1+1/2	1	In	3,68	3,38	mm	,00	4,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,03											
5192	1/2	0	In			mm	70,00	12,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7//ASTM A 194 GR.2H		1,32											
661	1	0	In			mm	,00	3,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection												Total Kg:		66,49										
SZ1	PIPING BOM SABIZ				62108 - 0				A	AREA A		1 / 1		TOTAL Kg:		66,49								

TVC_62.1	Plant SZ1 PIPING BOM SABIZ	Piping Class 205	Welding specification SP.1406/2-SP.1407/2
	Line 62108 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.05										DOC:	1E35-65-1103				
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70					
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80					
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14					
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection													Total Kg:	10,67				
SZ1	PIPING BOM SABIZ					62110 - 0			A	AREA A		1 / 1	TOTAL Kg:	10,67				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62110 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.05											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86											
3107	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		6,80											
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80											
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14											
4687	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,84											
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44											
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection													Total Kg:		17,88									
SZ1	PIPING BOM SABIZ					62111 - 0					A	AREA A	1 / 1		TOTAL Kg:		17,88							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62111 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.05											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		9,29								
SZ1	PIPING BOM SABIZ				62112 - 0				A		AREA A		1 / 1		TOTAL Kg:		9,29						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62112 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.06											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86											
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70											
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80											
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14											
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44											
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection													Total Kg:		11,94									
SZ1	PIPING BOM SABIZ					62113 - 0					A	AREA A	1 / 1		TOTAL Kg:		11,94							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62113 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.06												DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86							
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40							
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80							
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14							
4687	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,84							
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44							
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C									
M Erection													Total Kg:		14,48					
SZ1	PIPING BOM SABIZ					62114 - 0					A	AREA A	1 / 1		TOTAL Kg:		14,48			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62114 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.06									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33									
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30									
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38									
M Erection													Total Kg:		7,01							
SZ1	PIPING BOM SABIZ						62115 - 0		A		AREA A		1 / 1		TOTAL Kg:		7,01					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62115 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.06											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80											
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70											
1056	1/2	0	In			mm	,00	1,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		5,									
SZ1	PIPING BOM SABIZ					62116 - 0					A	AREA A		1 / 1		TOTAL Kg:		5,						

PI_62.6B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification		SP.1406/2-SP.1407/3
	Line	62116 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres		Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		Page 1
	Zones						

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.06										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		8,03								
SZ1	PIPING BOM SABIZ					62117 - 0					A	AREA A		1 / 1		TOTAL Kg:		8,03					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62117 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.07										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,06										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		6,76								
SZ1	PIPING BOM SABIZ					62118 - 0					A	AREA A		1 / 1		TOTAL Kg:		6,76					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62118 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.07											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							6,33					
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							3,40					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105							0,28					
M Erection																Total Kg:		10,01					
SZ1	PIPING BOM SABIZ					62119 - 0					A	AREA A					1 / 1	TOTAL Kg:		10,01			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62119 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ: 1E35		REV: 0		16/11/2010					
PUMA5				16/11/2010 10.12.07									DOC: 1E35-65-1103									
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33									
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70									
1011	1/2	1/4	In	2,77	2,24	mm	,00	1,00	NR	205	Reducing Insert M/F TA 50.6/1 SW-F x PL 3000# Forged ASTM A 105 TYPE 12		0,06									
M Erection												Total Kg:		8,09								
SZ1	PIPING BOM SABIZ					62120 - 0					A	AREA A	1 / 1		TOTAL Kg:		8,09					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62120 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.08														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component										Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B											6,33					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61											1,70					
M Erection																	Total Kg:		8,03								
SZ1	PIPING BOM SABIZ					62121 - 0					A		AREA A					1 / 1		TOTAL Kg:		8,03					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62121 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.08											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							7,59					
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							3,40					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105							0,28					
M Erection																Total Kg:		11,27					
SZ1	PIPING BOM SABIZ				62122 - 0				A		AREA A				1 / 1		TOTAL Kg:		11,27				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62122 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.08											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1435	1	0	In	3,38		mm	,00	2,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,00			
467	1	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80			
156	1	0	In	3,38		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07			
324	1	0	In	3,38		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14			
5192	1/2	0	In			mm	70,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44			
661	1	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C					
M Erection												Total Kg:	6,45			
SZ1	PIPING BOM SABIZ					62123 - 0					A	AREA A	1 / 1	TOTAL Kg:	6,45	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62123 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.08											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		7,01									
SZ1	PIPING BOM SABIZ						62124 - 0			A	AREA A			1 / 1		TOTAL Kg:		7,01						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62124 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.09											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59											
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70											
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80											
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14											
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44											
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection													Total Kg:		10,67									
SZ1	PIPING BOM SABIZ						62136 - 0				A	AREA A	1 / 1		TOTAL Kg:		10,67							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62136 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.09												DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86							
3107	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		6,80							
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80							
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14							
4687	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,84							
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44							
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C									
M Erection													Total Kg:		17,88					
SZ1	PIPING BOM SABIZ					62137 - 0					A	AREA A	1 / 1		TOTAL Kg:		17,88			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62137 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	16/11/2010			
PUMA5			16/11/2010 10.12.09										DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							7,59					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							1,70					
M Erection															Total Kg:		9,29						
SZ1	PIPING BOM SABIZ				62138 - 0				A		AREA A				1 / 1		TOTAL Kg:		9,29				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62138 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.09											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		7,01									
SZ1	PIPING BOM SABIZ						62139 - 0				A	AREA A	1 / 1		TOTAL Kg:		7,01							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62139 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.10											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80										
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70										
1056	1/2	0	In			mm	,00	1,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12										
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38										
M Erection													Total Kg:		5,								
SZ1	PIPING BOM SABIZ					62140 - 0					A	AREA A		1 / 1		TOTAL Kg:		5,					

PI_62.6A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62140 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.10											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,06										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		6,76								
SZ1	PIPING BOM SABIZ				62141 - 0				A		AREA A		1 / 1		TOTAL Kg:		6,76						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62141 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.10											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							6,33					
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							3,40					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105							0,28					
M Erection																	Total Kg:		10,01				
SZ1	PIPING BOM SABIZ					62142 - 0					A	AREA A					1 / 1	TOTAL Kg:		10,01			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62142 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.10									DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33						
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70						
1011	1/2	1/4	In	2,77	2,24	mm	,00	1,00	NR	205	Reducing Insert M/F TA 50.6/1 SW-F x PL 3000# Forged ASTM A 105 TYPE 12		0,06						
M Erection													Total Kg:	8,09					
SZ1	PIPING BOM SABIZ				62143 - 0				A	AREA A		1 / 1		TOTAL Kg:	8,09				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62143 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.11											DOC:		1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33								
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70								
M Erection													Total Kg:		8,03						
SZ1	PIPING BOM SABIZ				62144 - 0				A	AREA A		1 / 1		TOTAL Kg:		8,03					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62144 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.11											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59										
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		11,27								
SZ1	PIPING BOM SABIZ					62145 - 0					A	AREA A	1 / 1		TOTAL Kg:		11,27						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	62145 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.11											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1435	1	0	In	3,38		mm	,00	2,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,00			
467	1	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80			
156	1	0	In	3,38		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07			
324	1	0	In	3,38		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,27			
5192	1/2	0	In			mm	70,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44			
661	1	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C					
M Erection												Total Kg:	6,58			
SZ1	PIPING BOM SABIZ					62146 - 0					A	AREA A	1 / 1	TOTAL Kg:	6,58	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	62146 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.11														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,52												
SZ1	PIPING BOM SABIZ					62150 - 0					A	AREA A			1 / 1			TOTAL Kg:		5,52							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62150 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.12											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	7,18					
SZ1	PIPING BOM SABIZ					62151 - 0		A		AREA A		1 / 1		TOTAL Kg:	7,18			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	Op tem
	Line 62151 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	
	Area AREA A	Sketch Sht 1 / 1	Isometric code	
	Zones			

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.12											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64							
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection												Total Kg:		8,77						
SZ1	PIPING BOM SABIZ					62152 - 0		A		AREA A		1 / 1		TOTAL Kg:		8,77				

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	
	Line 62152 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area AREA A	Sketch Sht 1 / 1	Isometric code	Page 1
	Zones			

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.12										DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80		
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30		
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32		
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80		
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30		
M Erection												Total Kg:		5,52	
SZ1	PIPING BOM SABIZ					62153 - 0			A	AREA A	1 / 1	TOTAL Kg:		5,52	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62153 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.12										DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80		
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30		
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80		
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30		
M Erection												Total Kg:	5,2		
SZ1	PIPING BOM SABIZ					62154 - 0			A	AREA A	1 / 1	TOTAL Kg:	5,2		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62154 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.13											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32							
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection												Total Kg:		8,45						
SZ1	PIPING BOM SABIZ				62155 - 0				A	AREA A		1 / 1		TOTAL Kg:		8,45				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62155 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.13											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	8,45					
SZ1	PIPING BOM SABIZ					62156 - 0			A	AREA A			1 / 1	TOTAL Kg:	8,45			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	
	Line 62156 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	
	Area AREA A	Sketch Sht 1 / 1	Isometric code	
	Zones		Op tem	
				Page 1

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.13														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ					62157 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62157 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.13											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection												Total Kg:		5,2										
SZ1	PIPING BOM SABIZ					62158 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62158 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.14											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection													Total Kg:		5,2									
SZ1	PIPING BOM SABIZ					62159 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	62159 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.14												DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)		As.bly	Branch		
1539	2+1/2	0	In	2,11		mm	,00	62,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316					233,35					
2873	2+1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46588/2 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 CF8 S 125				5384	10,41					
452	2+1/2	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized				5136	7,20					
351	2+1/2	0	In	2,11		mm	,00	8,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316					4,31					
1232	2+1/2	0	In	2,11		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A					0,65					
5136	5/8	0	In			mm	100,00	8,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized					1,84					
716	2+1/2	0	In			mm	,00	3,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F										
5384	5/8	0	In			mm	40,00	16,00	NR	216	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7 Galvanized					2,40					
M Erection															Total Kg:		260,15				
SZ1	PIPING BOM SABIZ					63001 - 0					A	AREA A			1 / 1			TOTAL Kg:		260,15	

KV_63.7	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63001 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010	
PUMA5				16/11/2010 10.12.14											DOC:		1E35-65-1103						
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1541	4	0	In	2,11		mm	,00	3,50	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		20,85										
454	4	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	16,80										
185	4	0	In	2,11		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		0,69										
1234	4	0	In	2,11		mm	,00	3,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,87										
5138	5/8	0	In			mm	110,00	32,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		8,00										
718	4	0	In			mm	,00	4,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F												
M Erection												Total Kg:		48,21									
SZ1	PIPING BOM SABIZ				63002 - 0				A	AREA A		1 / 1		TOTAL Kg:		48,21							

KV_63.19A GC_33 - 4" PZ.1	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63002 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.14											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1438	2	0	In	3,91		mm	,00	12,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		65,25											
2843	2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH) Forged ASTM A 105 S 127	5376	10,50											
470	2	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	4,40											
159	2	0	In	3,91		mm	,00	2,00	NR	212	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,63											
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33											
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84											
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
5376	5/8	0	In			mm	40,00	16,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		2,40											
M Erection												Total Kg:		85,34										
SZ1	PIPING BOM SABIZ					63003 - 0				A	AREA A		1 / 1		TOTAL Kg:		85,34							

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63003 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.14											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1543	6	0	In	2,77		mm	,00	16,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		184,60											
456	6	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5147	15,00											
187	6	0	In	2,77		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		2,03											
355	6	0	In	2,77		mm	,00	4,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		16,17											
1236	6	0	In	2,77		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		2,66											
5147	3/4	0	In			mm	115,00	16,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		14,40											
720	6	0	In			mm	,00	2,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F													
M Erection												Total Kg:		234,85										
SZ1	PIPING BOM SABIZ				63004 - 0				A	AREA A		1 / 1		TOTAL Kg:		234,85								

KV_63.18B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63004 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.15											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1539	2+1/2	0	In	2,11		mm	,00	56,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		210,77								
2873	2+1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46588/2 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 CF8 S 125	5384	10,41								
452	2+1/2	0	In			mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5136	14,40								
351	2+1/2	0	In	2,11		mm	,00	7,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		3,77								
1232	2+1/2	0	In	2,11		mm	,00	4,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,29								
5136	5/8	0	In			mm	100,00	12,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,76								
716	2+1/2	0	In			mm	,00	4,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F										
5384	5/8	0	In			mm	40,00	16,00	NR	216	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7 Galvanized		2,40								
M Erection												Total Kg:	245,79								
SZ1	PIPING BOM SABIZ					63005 - 0				A	AREA A	1 / 1	TOTAL Kg:	245,79							

KV_63.8	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63005 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.15											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)		As.bly	Branch				
1543	6	0	In	2,77		mm	,00	16,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316						184,60							
456	6	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized					5147	22,50							
187	6	0	In	2,77		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316						2,03							
355	6	0	In	2,77		mm	,00	4,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316						16,17							
1236	6	0	In	2,77		mm	,00	3,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A						3,99							
5147	3/4	0	In			mm	115,00	32,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized						28,80							
720	6	0	In			mm	,00	4,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F													
M Erection															Total Kg:		258,08							
SZ1	PIPING BOM SABIZ					63006 - 0					A	AREA A					1 / 1		TOTAL Kg:		258,08			

KV_63.18A 6"- GC_33 PZ.1	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification		SP.1406/2-SP.1408/3	
	Line	63006 - 0	Fluid		System			
	Dang. fluid type		Coating		De pres		Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		Page 1	
	Zones							

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.15										DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1454	4	0	In	3,18		mm	,00	60,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		522,83										
1541	4	0	In	2,11		mm	,00	1,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		5,96										
5056	4	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5210	6,70										
454	4	0	In			mm	,00	1,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	5,60										
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60										
298	4	0	In	3,18		mm	,00	8,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		16,54										
1234	4	0	In	2,11		mm	,00	1,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		0,62										
5201	5/8	0	In			mm	95,00	-4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		-0,92										
5210	5/8	0	In			mm	145,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,40										
5138	5/8	0	In			mm	110,00	8,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,00										
718	4	0	In			mm	,00	1,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F												
M Erection												Total Kg:		567,33									
SZ1	PIPING BOM SABIZ				63007 - 0				A	AREA A		1 / 1		TOTAL Kg:		567,33							

KV_63.10	Plant SZ1 PIPING BOM SABIZ	Piping Class 216	Welding specification SP.1406/2-SP.1408/3
	Line 63007 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.15														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1541	4	0	In	2,11		mm	,00	3,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		17,87														
454	4	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	11,20														
185	4	0	In	2,11		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		0,69														
1234	4	0	In	2,11		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,25														
5138	5/8	0	In			mm	110,00	16,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		4,00														
718	4	0	In			mm	,00	2,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F																
M Erection												Total Kg:		35,01													
SZ1	PIPING BOM SABIZ				63008 - 0				A	AREA A		1 / 1		TOTAL Kg:		35,01											

KV_63.19B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63008 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.16														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1540	3	0	In	2,11		mm	,00	60,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		276,47														
453	3	0	In			mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5137	16,40														
352	3	0	In	2,11		mm	,00	9,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		7,17														
1233	3	0	In	2,11		mm	,00	4,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,60														
5137	5/8	0	In			mm	105,00	12,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,88														
717	3	0	In			mm	,00	3,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F																
M Erection												Total Kg:		304,52													
SZ1	PIPING BOM SABIZ				63009 - 0				A		AREA A		1 / 1		TOTAL Kg:		304,52										

KV_63.6	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63009 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:		IE35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.16												DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F								Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch										
1539	2+1/2	0	In	2,11		mm	,00	18,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		67,75												
452	2+1/2	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5136	10,80												
183	2+1/2	0	In	2,11		mm	,00	2,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		0,52												
351	2+1/2	0	In	2,11		mm	,00	4,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		2,15												
1232	2+1/2	0	In	2,11		mm	,00	3,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		0,97												
5136	5/8	0	In			mm	100,00	12,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,76												
716	2+1/2	0	In			mm	,00	3,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F														
M Erection												Total Kg:		84,94											
SZ1	PIPING BOM SABIZ					63010 - 0					A	AREA A		1 / 1		TOTAL Kg:		84,94							

KV_63.7	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63010 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.16												DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63								
1438	2	0	In	3,91		mm	,00	9,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		48,93								
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20								
159	2	0	In	3,91		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,31								
327	2	0	In	3,91		mm	,00	6,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		3,99								
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84								
696	2	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B										
M Erection												Total Kg:		56,91							
SZ1	PIPING BOM SABIZ					63011 - 0				A	AREA A	1 / 1		TOTAL Kg:		56,91					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63011 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.16											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1532	10	0	In	3,4		mm	,00	6,00	m	215	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 304		138,39											
4999	1/2	0	In			mm	,00	1,00	NR	215	"Y" Valve Check ST.46360/5 FLG 150 LB RF (125÷250 AARH) Forged ASTM A 182 GR. F304 R 92	5125	3,06											
446	1/2	0	In			mm	,00	1,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	0,40											
458	10	0	In			mm	,00	2,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5158	37,00											
465	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40											
1207	1/2	0	In	2,77		mm	,00	1,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP304 Type A		0,08											
1225	10	0	In	3,4		mm	,00	2,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP304 Type A		7,29											
5191	1/2	0	In			mm	65,00	2,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,22											
5125	1/2	0	In			mm	65,00	4,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,44											
5127	1/2	0	In			mm	75,00	2,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,24											
5158	7/8	0	In			mm	140,00	42,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		26,88											
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
710	1/2	0	In			mm	,00	2,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F													
722	10	0	In			mm	,00	4,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F													
M Erection												Total Kg:		214,4										
SZ1	PIPING BOM SABIZ						63012 - 0				A	AREA A		1 / 1		TOTAL Kg:		214,4						

KV_63.11B GC_33 - 10" PZ.1	Plant SZ1 PIPING BOM SABIZ	Piping Class 215	Welding specification SP.1406/2-SP.1408/3
	Line 63012 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.16										DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1438	2	0	In	3,91		mm	,00	12,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		65,25					
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33					
M Erection													Total Kg:	66,58				
SZ1	PIPING BOM SABIZ					63014 - 0			A	AREA A		1 / 1	TOTAL Kg:	66,58				

FUNNEL ST.46250/2 Fe360 - 2" N.1pz	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63014 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.17		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1532	10	0	In	3,4		mm	,00	6,00	m	215	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 304		138,39			
4999	1/2	0	In			mm	,00	1,00	NR	215	"Y" Valve Check ST.46360/5 FLG 150 LB RF (125÷250 AARH)	5125	3,06			
											Forged ASTM A 182 GR. F304 R 92					
446	1/2	0	In			mm	,00	1,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	0,40			
458	10	0	In			mm	,00	2,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5158	37,00			
465	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40			
1207	1/2	0	In	2,77		mm	,00	1,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP304 Type A		0,08			
1225	10	0	In	3,4		mm	,00	2,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP304 Type A		7,29			
5191	1/2	0	In			mm	65,00	2,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,22			
5125	1/2	0	In			mm	65,00	4,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,44			
5127	1/2	0	In			mm	75,00	2,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,24			
5158	7/8	0	In			mm	140,00	42,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		26,88			
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C					
710	1/2	0	In			mm	,00	2,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F					
722	10	0	In			mm	,00	4,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F					
M Erection												Total Kg:		214,4		
SZ1	PIPING BOM SABIZ				63015 - 0				A	AREA A		1 / 1	TOTAL Kg:		214,4	

KV_63.11A GC_33 - 10" PZ.1	Plant SZ1 PIPING BOM SABIZ	Piping Class 215	Welding specification SP.1406/2-SP.1408/3
	Line 63015 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.17		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1531	8	0	In	2,77		mm	,00	1,50	m	215	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 304		22,62		
457	8	0	In			mm	,00	1,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5150	12,60		
1224	8	0	In	2,77		mm	,00	1,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP304 Type A		2,01		
5150	3/4	0	In			mm	130,00	8,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		7,68		
721	8	0	In			mm	,00	1,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F				
M Erection												Total Kg:	44,9		

SZ1	PIPING BOM SABIZ				63016 - 0				A	AREA A		1 / 1		TOTAL Kg:	44,9
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	215	Welding specification	SP.1406/2-SP.1408/3	
	Line	63016 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.17											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1530	6	0	In	2,77		mm	,00	2,00	m	215	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 304		23,07			
456	6	0	In			mm	,00	2,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5147	15,00			
342	6	0	In	2,77		mm	,00	2,00	NR	215	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP304		8,08			
1806	8	6	In	2,77	2,77	mm	,00	2,00	NR	215	Reducer Concentric ASME B16.9 BE Wrought W ASTM A 403 GR. WP304		4,52			
1223	6	0	In	2,77		mm	,00	2,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP304 Type A		2,66			
5147	3/4	0	In			mm	115,00	32,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		28,80			
720	6	0	In			mm	,00	4,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F					
M Erection												Total Kg:	82,14			
SZ1	PIPING BOM SABIZ					63017 - 0					A	AREA A	1 / 1	TOTAL Kg:	82,14	

GC_33 - 6" PZ.2	Plant	SZ1 PIPING BOM SABIZ	Piping Class	215	Welding specification	SP.1406/2-SP.1408/3
	Line	63017 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.17		DOC:	1E35-65-1103			

Ballestra		SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1527	3	0	In	2,11		mm	,00	1,00	m	215	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 304		4,61		
1531	8	0	In	2,77		mm	,00	5,00	m	215	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 304		75,39		
2911	8	0	In			mm	,00	1,00	NR	215	Valve Butterfly ST.46439/5 WAFER 150 LB RF (125÷250 AARH) Cast ASTM A 351 CF8 B 80	5155	21,43		
453	3	0	In			mm	,00	1,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5137	4,10		
457	8	0	In			mm	,00	3,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5150	37,80		
472	3	0	In			mm	,00	1,00	NR	206	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10		
343	8	0	In	2,77		mm	,00	3,00	NR	215	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP304		21,20		
1220	3	0	In	2,11		mm	,00	1,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP304 Type A		0,40		
1224	8	0	In	2,77		mm	,00	3,00	NR	215	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP304 Type A		6,02		
5201	5/8	0	In			mm	95,00	2,00	NR	206	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,46		
5137	5/8	0	In			mm	105,00	4,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,96		
5146	3/4	0	In			mm	110,00	-8,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		-7,04		
5150	3/4	0	In			mm	130,00	16,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		15,36		
5155	3/4	0	In			mm	170,00	8,00	NR	215	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		8,96		
666	3	0	In			mm	,00	1,00	NR	206	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
717	3	0	In			mm	,00	1,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F				

63Y9	Plant SZ1 PIPING BOM SABIZ		Piping Class 215		Welding specification SP.1406/2-SP.1408/3	
	Line 63018 - 0		Fluid		System	
	Dang. fluid type		Coating		De pres	
	Area AREA A		Sketch Sht 1 / 1		Isometric code	
	Zones				Op tem	

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.18										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch	
721	8	0	In			mm	,00	3,00	NR	215	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F												
M Erection																	Total Kg:		193,74				
SZ1	PIPING BOM SABIZ					63018 - 0			A		AREA A			1 / 1			TOTAL Kg:		193,74				

63Y9	Plant	SZ1 PIPING BOM SABIZ	Piping Class	215	Welding specification	SP.1406/2-SP.1408/3
	Line	63018 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 2

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.18											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1459	8	0	In	4,78		mm	,00	3,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		75,79			
5059	8	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5225	17,90			
476	8	0	In			mm	,00	4,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	50,40			
303	8	0	In	4,78		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		35,85			
5216	3/4	0	In			mm	110,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		14,08			
5225	3/4	0	In			mm	170,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,96			
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B					
M Erection												Total Kg:	202,98			
SZ1	PIPING BOM SABIZ					63020 - 0					A	AREA A	1 / 1	TOTAL Kg:	202,98	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63020 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.18											DOC:		IE35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63										
1435	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,25										
1455	5	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		5,42										
1459	8	0	In	4,78		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		50,53										
2850	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		1,40										
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90										
476	8	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	12,60										
303	8	0	In	4,78		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		23,90										
324	1	0	In	3,38		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14										
2093	8	5	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82										
1126	1	0	In			mm	,00	1,00	NR	212	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,15										
5216	3/4	0	In			mm	110,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		7,04										
702	8	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B												
M Erection												Total Kg:		108,77									
SZ1	PIPING BOM SABIZ				63021 - 0				A	AREA A		1 / 1		TOTAL Kg:		108,77							

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63021 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.18		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1435	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,25		
1452	2+1/2	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		2,74		
1459	8	0	In	4,78		mm	,00	1,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		25,26		
2850	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		1,40		
476	8	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	25,20		
324	1	0	In	3,38		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14		
1650	4	2+1/2	In	3,18	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,86		
1666	8	4	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82		
1126	1	0	In			mm	,00	1,00	NR	212	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,15		
5216	3/4	0	In			mm	110,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		14,08		
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	74,9		
SZ1	PIPING BOM SABIZ		63022 - 0		A		AREA A		1 / 1		TOTAL Kg:		74,9		

HV_63.2A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63022 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.18											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1459	8	0	In	4,78		mm	,00	3,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		75,79											
5059	8	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5225	17,90											
476	8	0	In			mm	,00	4,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	50,40											
303	8	0	In	4,78		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		35,85											
5216	3/4	0	In			mm	110,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		14,08											
5225	3/4	0	In			mm	170,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,96											
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
M Erection												Total Kg:		202,98										
SZ1	PIPING BOM SABIZ					63023 - 0				A	AREA A	1 / 1	TOTAL Kg:		202,98									

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63023 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.18											DOC:		IE35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63										
1435	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,25										
1455	5	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		5,42										
1459	8	0	In	4,78		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		50,53										
2850	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		1,40										
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90										
476	8	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	12,60										
303	8	0	In	4,78		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		23,90										
324	1	0	In	3,38		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14										
2093	8	5	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82										
1126	1	0	In			mm	,00	1,00	NR	212	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,15										
5216	3/4	0	In			mm	110,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		7,04										
702	8	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B												
M Erection												Total Kg:		108,77									
SZ1	PIPING BOM SABIZ				63024 - 0				A	AREA A		1 / 1		TOTAL Kg:		108,77							

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63024 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST					PROJ:	1E35	REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.19									DOC:	1E35-65-1103				
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1435	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,25				
1452	2+1/2	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		2,74				
1459	8	0	In	4,78		mm	,00	24,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		606,31				
2850	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		1,40				
476	8	0	In			mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	37,80				
135	8	0	In	4,78		mm	,00	4,00	NR	212	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		26,00				
303	8	0	In	4,78		mm	,00	5,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		59,75				
1650	4	2+1/2	In	3,18	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,86				
1666	8	4	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82				
1056	1/2	0	In			mm	,00	2,00	NR	212	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,24				
1126	1	0	In			mm	,00	1,00	NR	212	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,15				
5216	3/4	0	In			mm	110,00	24,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		21,12				
702	8	0	In			mm	,00	3,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B						
M Erection												Total Kg:		761,44			
SZ1	PIPING BOM SABIZ					63025 - 0					A	AREA A	1 / 1			TOTAL Kg:	761,44

HV_63.2B	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
PI_63.2	Line 63025 - 0	Fluid	System
PT_63.11	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.19		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63		
1459	8	0	In	4,78		mm	,00	11,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		277,89		
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90		
5059	8	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5225	17,90		
465	1/2	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80		
476	8	0	In			mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	37,80		
303	8	0	In	4,78		mm	,00	4,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		47,80		
2093	8	5	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82		
5191	1/2	0	In			mm	65,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44		
5216	3/4	0	In			mm	110,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		14,08		
5225	3/4	0	In			mm	170,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,96		
691	1/2	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	412,03		
SZ1	PIPING BOM SABIZ					63026 - 0			A	AREA A		1 / 1		TOTAL Kg:	412,03

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3	
	Line	63026 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		
	Zones					Page 1	

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.20											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63					
1459	8	0	In	4,78		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		50,53					
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90					
5059	8	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5225	17,90					
465	1/2	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80					
476	8	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	25,20					
303	8	0	In	4,78		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		23,90					
2093	8	5	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82					
5191	1/2	0	In			mm	65,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
5225	3/4	0	In			mm	170,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,96					
691	1/2	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B							
M Erection												Total Kg:		134,08				
SZ1	PIPING BOM SABIZ				63027 - 0				A	AREA A		1 / 1		TOTAL Kg:		134,08		

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63027 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Op tem
	Zones	Isometric code	Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.20											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1435	1	0	In	3,38		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		2,50								
1452	2+1/2	0	In	3,18		mm	,00	0,30	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		1,64								
1459	8	0	In	4,78		mm	,00	1,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		25,26								
2850	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		1,40								
476	8	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	25,20								
303	8	0	In	4,78		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		11,95								
324	1	0	In	3,38		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14								
1650	4	2+1/2	In	3,18	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,86								
1666	8	4	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82								
5216	3/4	0	In			mm	110,00	24,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		21,12								
702	8	0	In			mm	,00	3,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B										
M Erection												Total Kg:		93,9							
SZ1	PIPING BOM SABIZ				63028 - 0				A	AREA A				1 / 1		TOTAL Kg:		93,9			

HV_63.4A	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63028 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.20		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1435	1	0	In	3,38		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		2,50		
1452	2+1/2	0	In	3,18		mm	,00	0,30	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		1,64		
1457	6	0	In	3,96		mm	,00	1,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		16,05		
1459	8	0	In	4,78		mm	,00	5,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		126,31		
2850	1	0	In			mm	,00	3,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		4,20		
5058	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5223	10,30		
475	6	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	15,00		
476	8	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	25,20		
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66		
303	8	0	In	4,78		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		35,85		
324	1	0	In	3,38		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14		
1650	4	2+1/2	In	3,18	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,86		
1666	8	4	In	4,78	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82		
1671	8	6	In	4,78	3,96	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82		
5216	3/4	0	In			mm	110,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		14,08		
5223	3/4	0	In			mm	155,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,48		
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	273,92		

PT_63.4
PI_63.4
HV_63.4B

Plant SZ1 PIPING BOM SABIZ
Line 63029 - 0
Dang. fluid type
Area AREA A
Zones

Piping Class 212
Fluid
Coating
Sketch Sht 1 / 1

Welding specification SP.1406/2-SP.1407/3
System
De pres
Isometric code

Op tem

Page 1

Ballestra				SKETCHES MATERIAL LIST								PROJ: 1E35		REV: 0		16/11/2010					
PUMA5		16/11/2010 10.12.20										DOC: 1E35-65-1103									
Ballestra				SULPHUREX GH/F								Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)	As.bly	Branch	
SZ1	PIPING BOM SABIZ				63029 - 0					A	AREA A				1 / 1		TOTAL Kg: 273,92				

PT_63.4	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
PI_63.4	Line	63029 - 0	Fluid		System	
HV_63.4B	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 2
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5				16/11/2010 10.12.20											DOC:	1E35-65-1103			
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1435	1	0	In	3,38		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		2,50						
1457	6	0	In	3,96		mm	,00	1,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		16,05						
1459	8	0	In	4,78		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		50,53						
2850	1	0	In			mm	,00	2,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		2,80						
5058	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5223	10,30						
475	6	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	15,00						
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66						
1671	8	6	In	4,78	3,96	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82						
5223	3/4	0	In			mm	155,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,48						
M Erection												Total Kg:		115,14					
SZ1	PIPING BOM SABIZ				63033 - 0				A	AREA A		1 / 1		TOTAL Kg:		115,14			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63033 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.21											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1435	1	0	In	3,38		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		2,50					
1457	6	0	In	3,96		mm	,00	1,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		16,05					
1459	8	0	In	4,78		mm	,00	10,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		252,63					
2850	1	0	In			mm	,00	2,00	NR	212	Valve Ball Full Port ST.46544/1 THRD-F NPT 800# Forged ASTM A 105 S 98		2,80					
5058	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5223	10,30					
475	6	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	15,00					
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66					
303	8	0	In	4,78		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		11,95					
1671	8	6	In	4,78	3,96	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82					
5223	3/4	0	In			mm	155,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,48					
M Erection												Total Kg:	329,2					
SZ1	PIPING BOM SABIZ				63037 - 0				A	AREA A		1 / 1		TOTAL Kg:	329,2			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63037 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5				16/11/2010 10.12.21									DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1438	2	0	In	3,91		mm	,00	4,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		21,75					
159	2	0	In	3,91		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,31					
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33					
M Erection												Total Kg:		23,39				
SZ1	PIPING BOM SABIZ						63041 - 0		A	AREA A		1 / 1		TOTAL Kg:		23,39		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63041 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.21										DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25				
1437	1+1/2	0	In	3,68		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,81				
1438	2	0	In	3,91		mm	,00	5,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		27,19				
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90				
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33				
1761	2	1+1/2	In	3,91	3,68	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,43				
M Erection												Total Kg:	31,91				
SZ1	PIPING BOM SABIZ				63042 - 0				A	AREA A		1 / 1	TOTAL Kg:	31,91			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63042 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.22										DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25				
1437	1+1/2	0	In	3,68		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,81				
1438	2	0	In	3,91		mm	,00	4,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		21,75				
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90				
159	2	0	In	3,91		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,31				
327	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,66				
1761	2	1+1/2	In	3,91	3,68	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,43				
M Erection												Total Kg:	26,12				
SZ1	PIPING BOM SABIZ				63043 - 0				A	AREA A		1 / 1		TOTAL Kg:	26,12		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63043 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.22										DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25						
1437	1+1/2	0	In	3,68		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,81						
1438	2	0	In	3,91		mm	,00	5,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		27,19						
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90						
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33						
1761	2	1+1/2	In	3,91	3,68	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,43						
M Erection												Total Kg:		31,91					
SZ1	PIPING BOM SABIZ				63044 - 0				A	AREA A		1 / 1		TOTAL Kg:		31,91			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63044 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.22											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25										
1438	2	0	In	3,91		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44										
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90										
4957	2	0	In			mm	,00	1,00	NR	212	Valve Bottom & Screw ST.46591/3 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 216 GR. WCB Type A S 128		10,50										
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20										
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33										
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7//ASTM A 194 GR.2H		0,84										
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B												
M Erection												Total Kg:		22,46									
SZ1	PIPING BOM SABIZ				63045 - 0				A	AREA A		1 / 1		TOTAL Kg:		22,46							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63045 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.22												DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25											
1438	2	0	In	3,91		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44											
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90											
4957	2	0	In			mm	,00	1,00	NR	212	Valve Bottom & Screw ST.46591/3 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 216 GR. WCB Type A S 128		10,50											
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20											
327	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,33											
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84											
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
M Erection												Total Kg:		22,46										
SZ1	PIPING BOM SABIZ				63046 - 0				A	AREA A		1 / 1		TOTAL Kg:		22,46								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63046 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.22											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	0,50	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63								
1453	3	0	In	3,18		mm	,00	2,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		13,44								
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30								
4932	3	0	In			mm	,00	1,00	NR	203	Valve Foot ST.46358/1 FLG 150 LB RF (125÷250 AARH) Cast DUCTILE IRON R 89	5201									
472	3	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10								
297	3	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18								
6084	3	1	In	3,18	3,38	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57								
2073	3	2+1/2	In	3,18	3,18	mm	,00	1,00	NR	203	Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57								
4401	1	1/2	In			mm	,00	1,00	NR	203	Coupling Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,08								
5201	5/8	0	In			mm	95,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,92								
666	3	0	In			mm	,00	2,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C										
M Erection												Total Kg:		21,8							
SZ1	PIPING BOM SABIZ				63047 - 0				A	AREA A		1 / 1		TOTAL Kg:		21,8					

	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 63047 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.23														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1435	1	0	In	3,38		mm	,00	0,50	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,25														
1438	2	0	In	3,91		mm	,00	30,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		163,11														
2830	1	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60														
2833	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,20														
6029	2	0	In			mm	,00	1,00	NR	203	Valve Check ST.46396/3 THRD-F NPT 150 LB Forged BRONZE R 96		2,05														
470	2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20														
324	1	0	In	3,38		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14														
327	2	0	In	3,91		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,99														
1761	2	1+1/2	In	3,91	3,68	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,43														
1124	1/2	0	In			mm	,00	1,00	NR	203	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,06														
5199	5/8	0	In			mm	85,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84														
664	2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection												Total Kg:		174,88													
SZ1	PIPING BOM SABIZ				63048 - 0				A	AREA A		1 / 1		TOTAL Kg:		174,88											

PI_63.6	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 63048 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.23		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1437	1+1/2	0	In	3,68		mm	,00	6,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		24,30		
2832	1+1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		1,50		
158	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,18		
326	1+1/2	0	In	3,68		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,74		
1258	1+1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		1,26		
M Erection												Total Kg:	27,98		
SZ1	PIPING BOM SABIZ						63050 - 0		A	AREA A	1 / 1	TOTAL Kg:	27,98		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63050 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:		IE35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.23												DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F								Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch										
1438	2	0	In	3,91		mm	,00	2,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		10,87												
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20												
327	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,66												
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84												
696	2	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B														
M Erection												Total Kg:		14,58											
SZ1	PIPING BOM SABIZ						63051 - 0				A	AREA A	1 / 1		TOTAL Kg:		14,58								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63051 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.24														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1437	1+1/2	0	In	3,68		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		4,05														
2842	1+1/2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH)	5374	7,00														
											Forged ASTM A 105 S 127																
469	1+1/2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	5193	1,40														
											ASTM A 105																
326	1+1/2	0	In	3,68		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234		0,37														
											GR. WPB																
5193	1/2	0	In			mm	75,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9		0,48														
											ASTM A 193 B7/ASTM A 194 GR.2H																
695	1+1/2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B																
5374	1/2	0	In			mm	35,00	16,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		1,28														
M Erection												Total Kg:		14,58													
SZ1	PIPING BOM SABIZ				63052 - 0				A		AREA A		1 / 1		TOTAL Kg:		14,58										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63052 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.24														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1453	3	0	In	3,18		mm	,00	1,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		10,08														
2845	3	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH) Forged ASTM A 105 S 127	5377	22,50														
472	3	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10														
129	3	0	In	3,18		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,60														
297	3	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18														
5201	5/8	0	In			mm	95,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,92														
698	3	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B																
5377	5/8	0	In			mm	45,00	16,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		2,56														
M Erection												Total Kg:		41,94													
SZ1	PIPING BOM SABIZ					63053 - 0					A	AREA A	1 / 1		TOTAL Kg:		41,94										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63053 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.24											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25								
1438	2	0	In	3,91		mm	,00	20,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		108,74								
2843	2	0	In			mm	,00	2,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH)	5376	21,00								
											Forged ASTM A 105 S 127										
2989	2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		15,00								
470	2	0	In			mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	6,60								
159	2	0	In	3,91		mm	,00	2,00	NR	212	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,63								
327	2	0	In	3,91		mm	,00	5,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		3,32								
1056	1/2	0	In			mm	,00	1,00	NR	212	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12								
5199	5/8	0	In			mm	85,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,68								
696	2	0	In			mm	,00	4,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B										
5376	5/8	0	In			mm	40,00	32,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		4,80								
M Erection												Total Kg:		162,15							
SZ1	PIPING BOM SABIZ				63054 - 0				A	AREA A		1 / 1		TOTAL Kg:		162,15					

PI_63.5	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 63054 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.24											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1438	2	0	In	3,91		mm	,00	4,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		21,75										
2843	2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH)	5376	10,50										
											Forged ASTM A 105 S 127												
470	2	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	5199	4,40										
											ASTM A 105												
327	2	0	In	3,91		mm	,00	4,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234		2,66										
											GR. WPB												
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9		0,84										
											ASTM A 193 B7//ASTM A 194 GR.2H												
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B												
5376	5/8	0	In			mm	40,00	16,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		2,40										
M Erection												Total Kg:		42,55									
SZ1	PIPING BOM SABIZ					63055 - 0					A	AREA A	1 / 1		TOTAL Kg:		42,55						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63055 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.24		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1459	8	0	In	4,78		mm	,00	12,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		303,16		
476	8	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	25,20		
303	8	0	In	4,78		mm	,00	7,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		83,65		
5216	3/4	0	In			mm	110,00	16,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		14,08		
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	426,09		

SZ1	PIPING BOM SABIZ		63056 - 0		A	AREA A	1 / 1		TOTAL Kg:	426,09
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63056 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.25												DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F								Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch										
1543	6	0	In	2,77		mm	,00	67,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		772,99												
456	6	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5147	15,00												
187	6	0	In	2,77		mm	,00	2,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		4,07												
355	6	0	In	2,77		mm	,00	7,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		28,29												
1236	6	0	In	2,77		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		2,66												
5147	3/4	0	In			mm	115,00	16,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		14,40												
720	6	0	In			mm	,00	2,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F														
M Erection													Total Kg:		837,41										
SZ1	PIPING BOM SABIZ					63060 - 0					A	AREA A		1 / 1		TOTAL Kg:		837,41							

KV_63.13	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63060 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.25											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1541	4	0	In	2,11		mm	,00	20,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		119,13											
454	4	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	16,80											
185	4	0	In	2,11		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		0,69											
353	4	0	In	2,11		mm	,00	4,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		5,60											
1234	4	0	In	2,11		mm	,00	3,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,87											
5138	5/8	0	In			mm	110,00	24,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		6,00											
718	4	0	In			mm	,00	3,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F													
M Erection												Total Kg:		150,09										
SZ1	PIPING BOM SABIZ					63061 - 0				A	AREA A	1 / 1		TOTAL Kg:		150,09								

KV_63.13	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63061 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.25									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)		As.bly	Branch		
1543	6	0	In	2,77		mm	,00	2,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316						23,07					
355	6	0	In	2,77		mm	,00	2,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316						8,08					
M Erection															Total Kg:		31,16					
SZ1	PIPING BOM SABIZ					63062 - 0					A	AREA A			1 / 1		TOTAL Kg:		31,16			

KV_63.12	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63062 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.25														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1541	4	0	In	2,11		mm	,00	18,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		107,21														
454	4	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	16,80														
353	4	0	In	2,11		mm	,00	4,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		5,60														
1234	4	0	In	2,11		mm	,00	3,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,87														
5138	5/8	0	In			mm	110,00	16,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		4,00														
718	4	0	In			mm	,00	2,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F																
M Erection												Total Kg:		135,49													
SZ1	PIPING BOM SABIZ				63063 - 0				A		AREA A		1 / 1		TOTAL Kg:		135,49										

KV_63.12	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63063 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.26											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1457	6	0	In	3,96		mm	,00	16,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		256,77										
475	6	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	15,00										
133	6	0	In	3,96		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,85										
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66										
5214	3/4	0	In			mm	100,00	12,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		10,08										
701	6	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B												
M Erection												Total Kg:		290,37									
SZ1	PIPING BOM SABIZ				63064 - 0				A	AREA A		1 / 1		TOTAL Kg:		290,37							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	63064 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.26											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1541	4	0	In	2,11		mm	,00	16,00	m	216	Pipe ASME B36.19 PL E.R.W. ASTM A 312 TP 316		95,30											
454	4	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5138	16,80											
185	4	0	In	2,11		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		0,69											
353	4	0	In	2,11		mm	,00	2,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought W ASTM A 403 GR. WP316		2,80											
1234	4	0	In	2,11		mm	,00	3,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought W ASTM A 403 GR. WP316 Type A		1,87											
5138	5/8	0	In			mm	110,00	24,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		6,00											
718	4	0	In			mm	,00	3,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F													
M Erection												Total Kg:		123,46										
SZ1	PIPING BOM SABIZ					63065 - 0					A	AREA A		1 / 1		TOTAL Kg:		123,46						

KV_63.10	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	63065 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.26											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		8,31								
SZ1	PIPING BOM SABIZ				63101 - 0				A	AREA A		1 / 1		TOTAL Kg:		8,31							

63Y11	Plant SZ1 PIPING BOM SABIZ	Piping Class 205	Welding specification SP.1406/2-SP.1407/2
63Y13	Line 63101 - 0	Fluid	System
63Y15	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.26											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		7,29									
SZ1	PIPING BOM SABIZ				63102 - 0				A		AREA A		1 / 1		TOTAL Kg:		7,29							

63Y12 63Y14 63Y16	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.26											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	7,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
3174	1/2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type ST.46326/4 THRD-F NPT 200 LB Forged BRONZE F 70		0,50											
465	1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40											
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28											
1124	1/2	0	In			mm	,00	1,00	NR	203	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,06											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
5191	1/2	0	In			mm	65,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44											
659	1/2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection												Total Kg:		11,22										
SZ1	PIPING BOM SABIZ				63103 - 0				A	AREA A		1 / 1		TOTAL Kg:		11,22								

KV_63.1 PI_63.1	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.27									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33									
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70									
M Erection													Total Kg:		8,03							
SZ1	PIPING BOM SABIZ				63105 - 0				A		AREA A		1 / 1		TOTAL Kg:		8,03					

KY_63.15	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.27										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		8,03								
SZ1	PIPING BOM SABIZ				63106 - 0				A		AREA A		1 / 1		TOTAL Kg:		8,03						

KY_63.16	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.27									DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							3,80				
M Erection																Total Kg:		3,8				
SZ1	PIPING BOM SABIZ				63107 - 0				A		AREA A		1 / 1		TOTAL Kg:		3,8					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63107 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.27											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1431	1/4	0	In	2,24		mm	,00	0,20	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,13											
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33											
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40											
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28											
4447	1/2	1/4	In			mm	,00	1,00	NR	205	Coupling Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,03											
M Erection													Total Kg:		10,17									
SZ1	PIPING BOM SABIZ				63108 - 0				A		AREA A		1 / 1		TOTAL Kg:		10,17							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63108 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.28		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1435	1	0	In	3,38		mm	,00	2,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,00		
467	1	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80		
324	1	0	In	3,38		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14		
5192	1/2	0	In			mm	70,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44		
661	1	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	6,38		

SZ1	PIPING BOM SABIZ		63109 - 0		A	AREA A	1 / 1		TOTAL Kg:	6,38
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3	
	Line	63109 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5				16/11/2010 10.12.28									DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33					
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40					
465	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28					
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection													Total Kg:	10,85				
SZ1	PIPING BOM SABIZ					63110 - 0					A	AREA A	1 / 1	TOTAL Kg:	10,85			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63110 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.28										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							3,80				
M Erection																Total Kg:		3,8				
SZ1	PIPING BOM SABIZ				63111 - 0				A		AREA A		1 / 1		TOTAL Kg:		3,8					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63111 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.28														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1435	1	0	In	3,38		mm	,00	9,50	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		23,77														
3109	1	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,30														
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80														
156	1	0	In	3,38		mm	,00	1,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07														
324	1	0	In	3,38		mm	,00	6,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,81														
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44														
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection												Total Kg:		29,19													
SZ1	PIPING BOM SABIZ				63112 - 0				A		AREA A		1 / 1		TOTAL Kg:		29,19										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63112 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.28											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1435	1	0	In	3,38		mm	,00	2,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,00										
3109	1	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,30										
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80										
324	1	0	In	3,38		mm	,00	4,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,54										
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44										
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C												
M Erection													Total Kg:		10,09								
SZ1	PIPING BOM SABIZ					63113 - 0					A	AREA A	1 / 1		TOTAL Kg:		10,09						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63113 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.12.29									DOC:		1E35-65-1103								
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							6,33					
M Erection																Total Kg:		6,33					
SZ1	PIPING BOM SABIZ				63114 - 0				A		AREA A				1 / 1		TOTAL Kg:		6,33				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63114 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.29											DOC:		1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33								
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40								
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28								
4447	1/2	1/4	In			mm	,00	1,00	NR	205	Coupling Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,03								
M Erection												Total Kg:		10,04							
SZ1	PIPING BOM SABIZ					63115 - 0			A		AREA A		1 / 1		TOTAL Kg:		10,04				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63115 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.29		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1435	1	0	In	3,38		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,51		
467	1	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80		
324	1	0	In	3,38		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14		
5192	1/2	0	In			mm	70,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44		
661	1	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	8,88		
SZ1	PIPING BOM SABIZ					63116 - 0			A	AREA A		1 / 1	TOTAL Kg:	8,88	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63116 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5				16/11/2010 10.12.29									DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33					
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40					
465	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28					
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection													Total Kg:	10,85				
SZ1	PIPING BOM SABIZ					63117 - 0					A	AREA A	1 / 1	TOTAL Kg:	10,85			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63117 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.12.30										DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								6,33					
M Erection																	Total Kg:		6,33					
SZ1	PIPING BOM SABIZ					63118 - 0					A	AREA A					1 / 1		TOTAL Kg:		6,33			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63118 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.30										DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33						
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30						
3174	1/2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type ST.46326/4 THRD-F NPT 200 LB Forged BRONZE F 70		0,50						
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28						
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38						
M Erection													Total Kg:		7,79				
SZ1	PIPING BOM SABIZ					63120 - 0					A	AREA A	1 / 1		TOTAL Kg:		7,79		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63120 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.30									DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							3,80				
M Erection																Total Kg:		3,8				
SZ1	PIPING BOM SABIZ				63121 - 0				A		AREA A		1 / 1		TOTAL Kg:		3,8					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63121 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.12.30									DOC:		1E35-65-1103								
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							6,33					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							1,70					
M Erection																Total Kg:		8,03					
SZ1	PIPING BOM SABIZ				63124 - 0				A		AREA A				1 / 1		TOTAL Kg:		8,03				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63124 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.30											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86										
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		12,54								
SZ1	PIPING BOM SABIZ				63125 - 0				A	AREA A			1 / 1		TOTAL Kg:		12,54						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63125 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.30										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33									
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70									
466	3/4	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,70									
1748	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,06									
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44									
660	3/4	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C											
M Erection													Total Kg:		9,23							
SZ1	PIPING BOM SABIZ					63126 - 0					A	AREA A		1 / 1		TOTAL Kg:		9,23				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63126 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.31												DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	7,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		8,86											
3107	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		6,80											
4942	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		0,80											
466	3/4	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,70											
1748	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,06											
4687	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,84											
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7//ASTM A 194 GR.2H		0,44											
660	3/4	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection													Total Kg:		18,5									
SZ1	PIPING BOM SABIZ					63127 - 0				A	AREA A		1 / 1		TOTAL Kg:		18,5							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63127 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.31										DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1431	1/4	0	In	2,24		mm	,00	0,20	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,13						
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33						
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30						
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38						
4447	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,03						
M Erection												Total Kg:		7,17					
SZ1	PIPING BOM SABIZ					63128 - 0			A	AREA A		1 / 1		TOTAL Kg:		7,17			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63128 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.31										DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1431	1/4	0	In	2,24		mm	,00	0,20	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,13						
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33						
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30						
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38						
4447	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,03						
M Erection												Total Kg:		7,17					
SZ1	PIPING BOM SABIZ					63129 - 0			A	AREA A		1 / 1		TOTAL Kg:		7,17			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63129 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.32										DOC:	1E35-65-1103				
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33					
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38					
M Erection												Total Kg:		7,01				
SZ1	PIPING BOM SABIZ					63130 - 0					A	AREA A	1 / 1		TOTAL Kg:		7,01	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63130 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.32										DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33				
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30				
3174	1/2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type ST.46326/4 THRD-F NPT 200 LB Forged BRONZE F 70		0,50				
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28				
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38				
M Erection													Total Kg:	7,79			
SZ1	PIPING BOM SABIZ					63131 - 0					A	AREA A	1 / 1	TOTAL Kg:	7,79		

	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 63131 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.32										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								5,06				
M Erection																	Total Kg:		5,06				
SZ1	PIPING BOM SABIZ					63132 - 0					A		AREA A			1 / 1			TOTAL Kg:		5,06		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63132 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.32											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33			
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30			
3174	1/2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type ST.46326/4 THRD-F NPT 200 LB Forged BRONZE F 70		0,50			
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28			
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38			
M Erection												Total Kg:	7,79			
SZ1	PIPING BOM SABIZ					63135 - 0		A		AREA A		1 / 1		TOTAL Kg:	7,79	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63135 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.32									DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							5,06				
M Erection																Total Kg:		5,06				
SZ1	PIPING BOM SABIZ					63136 - 0					A	AREA A					1 / 1		TOTAL Kg:		5,06	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63136 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.32											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33										
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30										
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38										
M Erection													Total Kg:		7,29								
SZ1	PIPING BOM SABIZ					63139 - 0					A	AREA A		1 / 1		TOTAL Kg:		7,29					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63139 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.33											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80											
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70											
1056	1/2	0	In			mm	,00	1,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		5,									
SZ1	PIPING BOM SABIZ					63140 - 0					A	AREA A		1 / 1		TOTAL Kg:		5,						

PI_63.12	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63140 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.33											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		7,29									
SZ1	PIPING BOM SABIZ				63141 - 0				A	AREA A		1 / 1		TOTAL Kg:		7,29								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification		SP.1406/2-SP.1407/3
	Line	63141 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres		Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		Page 1
	Zones						

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.33										DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80										
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70										
1056	1/2	0	In			mm	,00	1,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12										
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38										
M Erection													Total Kg:		5,								
SZ1	PIPING BOM SABIZ					63142 - 0					A	AREA A		1 / 1		TOTAL Kg:		5,					

PI_63.12B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63142 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.33									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33									
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30									
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38									
M Erection													Total Kg:		7,01							
SZ1	PIPING BOM SABIZ					63144 - 0					A	AREA A	1 / 1		TOTAL Kg:		7,01					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63144 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.34											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		8,31								
SZ1	PIPING BOM SABIZ				63145 - 0				A	AREA A			1 / 1		TOTAL Kg:		8,31						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63145 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.34											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							5,06					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							1,70					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105							0,28					
M Erection																Total Kg:		7,04					
SZ1	PIPING BOM SABIZ				63146 - 0				A		AREA A				1 / 1		TOTAL Kg:		7,04				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63146 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.34														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1435	1	0	In	3,38		mm	,00	12,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		30,03														
3109	1	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		6,60														
3188	1	0	In			mm	,00	1,00	NR	205	Strainer Y-Type ST.46276/1 SW-F 800# Forged ASTM A 105 F 69		1,40														
467	1	0	In			mm	,00	3,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	2,40														
156	1	0	In	3,38		mm	,00	1,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07														
324	1	0	In	3,38		mm	,00	4,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,54														
5192	1/2	0	In			mm	70,00	12,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7//ASTM A 194 GR.2H		1,32														
661	1	0	In			mm	,00	3,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection													Total Kg:		42,35												
SZ1	PIPING BOM SABIZ					63151 - 0					A	AREA A	1 / 1		TOTAL Kg:		42,35										

TV_63.1A 63Y6A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63151 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.34										DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	0,30	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,38										
1435	1	0	In	3,38		mm	,00	10,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		25,02										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
3109	1	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,30										
4944	1	0	In			mm	,00	1,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		3,40										
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80										
324	1	0	In	3,38		mm	,00	6,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,81										
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7//ASTM A 194 GR.2H		0,44										
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C												
M Erection													Total Kg:		35,85								
SZ1	PIPING BOM SABIZ				63152 - 0				A	AREA A		1 / 1		TOTAL Kg:		35,85							

63Y7A	Plant SZ1 PIPING BOM SABIZ	Piping Class 205	Welding specification SP.1406/2-SP.1407/2
	Line 63152 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra				SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5		16/11/2010 10.12.34				DOC:							1E35-65-1103		
Ballestra				SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1435	1	0	In	3,38		mm	,00	12,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		30,03		
3109	1	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		6,60		
3188	1	0	In			mm	,00	1,00	NR	205	Strainer Y-Type ST.46276/1 SW-F 800# Forged ASTM A 105 F 69		1,40		
467	1	0	In			mm	,00	3,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	2,40		
156	1	0	In	3,38		mm	,00	1,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07		
324	1	0	In	3,38		mm	,00	4,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,54		
5192	1/2	0	In			mm	70,00	12,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,32		
661	1	0	In			mm	,00	3,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	42,35		
SZ1	PIPING BOM SABIZ				63153 - 0				A	AREA A	1 / 1	TOTAL Kg:	42,35		

TV_63.1B 63Y6B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63153 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.34		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1433	1/2	0	In	2,77		mm	,00	0,30	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,38		
1435	1	0	In	3,38		mm	,00	10,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		25,02		
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70		
3109	1	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,30		
4944	1	0	In			mm	,00	1,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		3,40		
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80		
156	1	0	In	3,38		mm	,00	1,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07		
324	1	0	In	3,38		mm	,00	6,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,81		
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44		
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	35,92		
SZ1	PIPING BOM SABIZ					63154 - 0				A	AREA A	1 / 1		TOTAL Kg:	35,92

63Y7B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63154 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.35									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80									
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30									
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38									
M Erection													Total Kg:		4,48							
SZ1	PIPING BOM SABIZ						63165 - 0				A	AREA A	1 / 1		TOTAL Kg:		4,48					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63165 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.35											DOC:		1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80								
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70								
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28								
1056	1/2	0	In			mm	,00	2,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,24								
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38								
M Erection													Total Kg:		5,4						
SZ1	PIPING BOM SABIZ				63166 - 0				A	AREA A		1 / 1		TOTAL Kg:		5,4					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63166 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.35											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		7,01									
SZ1	PIPING BOM SABIZ						63167 - 0				A	AREA A	1 / 1		TOTAL Kg:		7,01							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63167 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.35										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33										
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70										
4687	1/2	0	In			mm	,00	2,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,56										
1056	1/2	0	In			mm	,00	2,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,24										
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38										
M Erection													Total Kg:		8,21								
SZ1	PIPING BOM SABIZ					63168 - 0					A	AREA A	1 / 1		TOTAL Kg:		8,21						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63168 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.36											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	6,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59											
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38											
M Erection													Total Kg:		8,27									
SZ1	PIPING BOM SABIZ						63169 - 0				A	AREA A	1 / 1		TOTAL Kg:		8,27							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63169 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.36									DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80									
2828	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30									
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38									
M Erection													Total Kg:		4,48							
SZ1	PIPING BOM SABIZ					63170 - 0					A	AREA A	1 / 1		TOTAL Kg:		4,48					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63170 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.36											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80										
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70										
4687	1/2	0	In			mm	,00	2,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,56										
1056	1/2	0	In			mm	,00	2,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,24										
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38										
M Erection													Total Kg:		5,68								
SZ1	PIPING BOM SABIZ					63171 - 0					A	AREA A		1 / 1		TOTAL Kg:		5,68					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63171 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.36											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80										
3116	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		0,70										
4687	1/2	0	In			mm	,00	2,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,56										
1056	1/2	0	In			mm	,00	2,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,24										
1289	1/2	0	In			mm	,00	1,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38										
M Erection													Total Kg:		5,68								
SZ1	PIPING BOM SABIZ				63172 - 0				A	AREA A		1 / 1		TOTAL Kg:		5,68							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63172 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.36											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		9,29								
SZ1	PIPING BOM SABIZ				63173 - 0				A		AREA A		1 / 1		TOTAL Kg:		9,29						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63173 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.36										DOC:	1E35-65-1103				
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70					
465	1/2	0	In			mm	,00	2,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80					
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28					
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection													Total Kg:	10,81				
SZ1	PIPING BOM SABIZ					63174 - 0					A	AREA A	1 / 1	TOTAL Kg:	10,81			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63174 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.37											DOC:	1E35-65-1103				
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1433	1/2	0	In	2,77		mm	,00	3,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80						
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70						
3186	1/2	0	In			mm	,00	1,00	NR	205	Strainer Y-Type ST.46276/1 SW-F 800# Forged ASTM A 105 F 69		0,50						
465	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40						
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44						
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C								
M Erection													Total Kg:		6,84				
SZ1	PIPING BOM SABIZ					63175 - 0				A	AREA A		1 / 1		TOTAL Kg:		6,84		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63175 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.37											DOC:	1E35-65-1103				
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1433	1/2	0	In	2,77		mm	,00	3,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80						
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70						
3186	1/2	0	In			mm	,00	1,00	NR	205	Strainer Y-Type ST.46276/1 SW-F 800# Forged ASTM A 105 F 69		0,50						
465	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40						
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44						
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C								
M Erection													Total Kg:		6,84				
SZ1	PIPING BOM SABIZ					63176 - 0					A	AREA A	1 / 1		TOTAL Kg:		6,84		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63176 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.37		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1437	1+1/2	0	In	3,68		mm	,00	12,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		48,59		
469	1+1/2	0	In			mm	,00	3,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	4,20		
326	1+1/2	0	In	3,68		mm	,00	7,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		2,58		
5193	1/2	0	In			mm	75,00	12,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,44		
663	1+1/2	0	In			mm	,00	3,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	56,81		

SZ1	PIPING BOM SABIZ			63177 - 0			A	AREA A			1 / 1	TOTAL Kg:	56,81
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TV_63.3	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3	
	Line	63177 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.37		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1437	1+1/2	0	In	3,68		mm	,00	4,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		16,20		
469	1+1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	1,40		
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10		
5193	1/2	0	In			mm	75,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,48		
663	1+1/2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	19,18		

SZ1	PIPING BOM SABIZ				63178 - 0				A	AREA A				1 / 1	TOTAL Kg:	19,18
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	Plant	SZ1 PIPING BOM SABIZ				Piping Class	203				Welding specification SP.1406/2-SP.1407/3				
	Line	63178 - 0				Fluid									
	Dang. fluid type					Coating									
	Area	AREA A				Sketch Sht	1 / 1				Isometric code				
	Zones													Op tem	Page 1

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.38														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1437	1+1/2	0	In	3,68		mm	,00	7,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		28,34														
469	1+1/2	0	In			mm	,00	3,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	4,20														
158	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,18														
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10														
5193	1/2	0	In			mm	75,00	12,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7//ASTM A 194 GR.2H		1,44														
663	1+1/2	0	In			mm	,00	3,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection													Total Kg:		35,27												
SZ1	PIPING BOM SABIZ				63179 - 0				A		AREA A		1 / 1		TOTAL Kg:		35,27										

TY_63.2	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification SP.1406/2-SP.1407/3	
	Line	63179 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.38														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1437	1+1/2	0	In	3,68		mm	,00	5,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		20,25														
469	1+1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	1,40														
158	1+1/2	0	In	3,68		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,18														
326	1+1/2	0	In	3,68		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,10														
5193	1/2	0	In			mm	75,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,48														
663	1+1/2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection													Total Kg:		23,41												
SZ1	PIPING BOM SABIZ				63180 - 0				A		AREA A		1 / 1		TOTAL Kg:		23,41										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	63180 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.38											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70					
465	1/2	0	In			mm	,00	2,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80					
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection													Total Kg:		9,27			
SZ1	PIPING BOM SABIZ					63187 - 0			A	AREA A		1 / 1		TOTAL Kg:		9,27		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63187 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.38										DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		6,33				
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70				
465	1/2	0	In			mm	,00	2,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80				
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44				
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C						
M Erection													Total Kg:	9,27			
SZ1	PIPING BOM SABIZ					63188 - 0			A	AREA A		1 / 1	TOTAL Kg:	9,27			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63188 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.38										DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59				
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70				
465	1/2	0	In			mm	,00	2,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80				
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44				
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C						
M Erection													Total Kg:	10,53			
SZ1	PIPING BOM SABIZ					63189 - 0				A	AREA A	1 / 1	TOTAL Kg:	10,53			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63189 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010				
PUMA5			16/11/2010 10.12.39											DOC:	1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size:	In	Thk:	mm	Temp:	°C	Pres:	BAR	Corr:	mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,59										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
465	1/2	0	In			mm	,00	2,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,80										
5191	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44										
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C												
M Erection													Total Kg:	10,53									
SZ1	PIPING BOM SABIZ					63190 - 0					A	AREA A	1 / 1	TOTAL Kg:	10,53								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	63190 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.39														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ					63192 - 0					A	AREA A		1 / 1		TOTAL Kg:		5,2									

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63192 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.39														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ					63193 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63193 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.39														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ					63194 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63194 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.40											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80								
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30								
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80								
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30								
M Erection												Total Kg:		5,2							
SZ1	PIPING BOM SABIZ					63195 - 0			A	AREA A		1 / 1		TOTAL Kg:		5,2					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63195 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.40											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection												Total Kg:		5,2										
SZ1	PIPING BOM SABIZ				63196 - 0				A		AREA A		1 / 1		TOTAL Kg:		5,2							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63196 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.40											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80								
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30								
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80								
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30								
M Erection												Total Kg:		5,2							
SZ1	PIPING BOM SABIZ				63197 - 0				A	AREA A		1 / 1		TOTAL Kg:		5,2					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63197 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.40														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ					63198 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63198 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.40											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection												Total Kg:		5,2										
SZ1	PIPING BOM SABIZ					63199 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63199 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.41											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	8,85					
SZ1	PIPING BOM SABIZ					63200 - 0			A	AREA A		1 / 1	TOTAL Kg:	8,85				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63200 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.41														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ					63201 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63201 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.41											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80					
2828	1/2	0	In			mm	,00	2,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60					
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80					
4673	1/2	0	In			mm	,00	1,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,28					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection													Total Kg:	5,78				
SZ1	PIPING BOM SABIZ					63202 - 0			A	AREA A			1 / 1	TOTAL Kg:	5,78			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63202 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.42											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80					
2828	1/2	0	In			mm	,00	2,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60					
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80					
4673	1/2	0	In			mm	,00	1,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,28					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection													Total Kg:	5,78				
SZ1	PIPING BOM SABIZ					63203 - 0			A	AREA A			1 / 1	TOTAL Kg:	5,78			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63203 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.42										DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80		
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30		
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80		
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30		
M Erection												Total Kg:	5,2		
SZ1	PIPING BOM SABIZ					63204 - 0		A		AREA A		1 / 1		TOTAL Kg:	5,2

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63204 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.42											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64							
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection												Total Kg:		9,17						
SZ1	PIPING BOM SABIZ				63205 - 0				A	AREA A		1 / 1		TOTAL Kg:		9,17				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	63205 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.43												DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1437	1+1/2	0	In	3,68		mm	,00	29,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		117,43											
3140	1+1/2	0	In			mm	,00	1,00	NR	212	Valve Globe ST.46696/0 SW-F 800# Forged ASTM A 105 D 87		10,70											
469	1+1/2	0	In			mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	4,20											
326	1+1/2	0	In	3,68		mm	,00	7,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		2,58											
5193	1/2	0	In			mm	75,00	12,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,44											
695	1+1/2	0	In			mm	,00	3,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
M Erection													Total Kg:		136,34									
SZ1	PIPING BOM SABIZ					64003 - 0					A	AREA A		1 / 1		TOTAL Kg:		136,34						

KV_64.15	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	64003 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.43											DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,40	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,51			
1438	2	0	In	3,91		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44			
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20			
327	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,66			
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14			
1759	2	1	In	3,91	3,38	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,43			
1289	1/2	0	In			mm	,00	1,00	NR	212	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38			
5199	5/8	0	In			mm	85,00	6,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,26			
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B					
M Erection												Total Kg:	11,01			
SZ1	PIPING BOM SABIZ					64004 - 0				A	AREA A	1 / 1		TOTAL Kg:	11,01	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	64004 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.43											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	0,40	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,51								
1438	2	0	In	3,91		mm	,00	3,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		16,31								
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20								
327	2	0	In	3,91		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,99								
1749	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14								
1759	2	1	In	3,91	3,38	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,43								
1289	1/2	0	In			mm	,00	1,00	NR	212	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,38								
5199	5/8	0	In			mm	85,00	6,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,26								
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B										
M Erection												Total Kg:		23,22							
SZ1	PIPING BOM SABIZ				64005 - 0				A	AREA A		1 / 1		TOTAL Kg:		23,22					

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 64005 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.43		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1453	3	0	In	3,18		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		13,44		
472	3	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	4,10		
297	3	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18		
5201	5/8	0	In			mm	95,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,92		
698	3	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	19,64		

SZ1	PIPING BOM SABIZ		64006 - 0		A	AREA A	1 / 1		TOTAL Kg:	19,64
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3	
	Line	64006 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.44		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1433	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,63		
1454	4	0	In	3,18		mm	,00	7,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		65,35		
1457	6	0	In	3,96		mm	,00	33,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		529,60		
2984	1/2	0	In			mm	,00	1,00	NR	212	Valve Check ST.46275/1 SW-F 800# Forged ASTM A 105 R 83		1,90		
5058	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket ST.46856/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5223	10,30		
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60		
475	6	0	In			mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5214	22,50		
298	4	0	In	3,18		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		4,13		
301	6	0	In	3,96		mm	,00	8,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		45,30		
1662	6	4	In	3,96	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,18		
5201	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,84		
5214	3/4	0	In			mm	100,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		6,72		
5223	3/4	0	In			mm	155,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		8,48		
699	4	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
701	6	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	704,54		
SZ1	PIPING BOM SABIZ			64009 - 0			A			AREA A			1 / 1	TOTAL Kg:	704,54

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3	
	Line	64009 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.44		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1454	4	0	In	3,18		mm	,00	3,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		26,14		
473	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	5,60		
298	4	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		2,07		
5201	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,84		
699	4	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
M Erection												Total Kg:	35,65		

SZ1	PIPING BOM SABIZ		64021 - 0		A	AREA A	1 / 1		TOTAL Kg:	35,65
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3	
	Line	64021 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.44										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				64026 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

64Y34	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64026 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.44										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				64028 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

64Y15	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64028 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.44										DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1435	1	0	In	3,38		mm	,00	0,20	m	206	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,50		
1454	4	0	In	3,18		mm	,00	12,00	m	206	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		104,57		
3007	4	0	In			mm	,00	1,00	NR	206	Valve Check ST.46357/5 WAFER 150 LB RF (125÷250 AARH) Cast ASTM A 36 CADMIUM PLATED R 87	5204	2,00		
4728	4	0	In			mm	,00	2,00	NR	206	Flange Slip-On x Wafer ASME B16.5 150 LB FF (125÷250 AARH) Forged ASTM A 105	5201	11,20		
130	4	0	In	3,18		mm	,00	1,00	NR	206	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,02		
298	4	0	In	3,18		mm	,00	4,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		8,27		
1124	1/2	0	In			mm	,00	2,00	NR	206	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12		
1126	1	0	In			mm	,00	1,00	NR	206	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,15		
5204	5/8	0	In			mm	110,00	8,00	NR	206	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,00		
667	4	0	In			mm	,00	2,00	NR	206	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	129,82		
SZ1	PIPING BOM SABIZ					64035 - 0			A	AREA A		1 / 1	TOTAL Kg:	129,82	

64Y22	Plant SZ1 PIPING BOM SABIZ	Piping Class 206	Welding specification SP.1406/2-SP.1407/3
PSH_64.6	Line 64035 - 0	Fluid	System
PI_64.6	Dang. fluid type	Coating	De pres
TI_64.10	Area AREA A	Sketch Sht 1 / 1	Isometric code
PSV_64.6	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.45											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1454	4	0	In	3,18		mm	,00	6,00	m	206	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		52,28											
5036	4	0	In			mm	,00	1,00	NR	206	Valve Butterfly With Gasket ST.46566/4 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5210	4,50											
4728	4	0	In			mm	,00	2,00	NR	206	Flange Slip-On x Wafer ASME B16.5 150 LB FF (125÷250 AARH) Forged ASTM A 105	5201	11,20											
298	4	0	In	3,18		mm	,00	2,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		4,13											
5210	5/8	0	In			mm	145,00	8,00	NR	206	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,40											
M Erection												Total Kg:		74,52										
SZ1	PIPING BOM SABIZ				64036 - 0				A		AREA A		1 / 1		TOTAL Kg:		74,52							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	206	Welding specification	SP.1406/2-SP.1407/3
	Line	64036 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.45										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				64037 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

64Y21	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64037 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.45											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1457	6	0	In	3,96		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		8,02								
1459	8	0	In	4,78		mm	,00	25,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		631,57								
2837	8	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 216 GR. WCB S 127	5379	89,00								
476	8	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5216	25,20								
301	6	0	In	3,96		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		5,66								
303	8	0	In	4,78		mm	,00	4,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		47,80								
1671	8	6	In	4,78	3,96	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		3,82								
5216	3/4	0	In			mm	110,00	8,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		7,04								
702	8	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B										
5379	3/4	0	In			mm	50,00	32,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		20,80								
M Erection												Total Kg:		838,92							
SZ1	PIPING BOM SABIZ				64041 - 0				A	AREA A				1 / 1		TOTAL Kg:		838,92			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
	Line 64041 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.45										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				64042 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

64Y9	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64042 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.46											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1435	1	0	In	3,38		mm	,00	0,20	m	206	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,50								
1454	4	0	In	3,18		mm	,00	9,00	m	206	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		78,43								
3007	4	0	In			mm	,00	1,00	NR	206	Valve Check ST.46357/5 WAFER 150 LB RF (125÷250 AARH) Cast ASTM A 36 CADMIUM PLATED R 87	5204	2,00								
473	4	0	In			mm	,00	2,00	NR	206	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	11,20								
130	4	0	In	3,18		mm	,00	1,00	NR	206	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,02								
298	4	0	In	3,18		mm	,00	4,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		8,27								
1124	1/2	0	In			mm	,00	2,00	NR	206	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12								
1126	1	0	In			mm	,00	1,00	NR	206	Coupling Half TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,15								
5204	5/8	0	In			mm	110,00	8,00	NR	206	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,00								
667	4	0	In			mm	,00	2,00	NR	206	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C										
M Erection												Total Kg:		103,68							
SZ1	PIPING BOM SABIZ				64043 - 0				A	AREA A		1 / 1		TOTAL Kg:		103,68					

64Y30	Plant SZ1 PIPING BOM SABIZ	Piping Class 206	Welding specification SP.1406/2-SP.1407/3
PSH_64.7	Line 64043 - 0	Fluid	System
PI_64.7	Dang. fluid type	Coating	De pres
TI_64.11	Area AREA A	Sketch Sht 1 / 1	Isometric code
PSV_64.7	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.46														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1454	4	0	In	3,18		mm	,00	6,00	m	206	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		52,28														
5036	4	0	In			mm	,00	1,00	NR	206	Valve Butterfly With Gasket ST.46566/4 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	5210	4,50														
4728	4	0	In			mm	,00	2,00	NR	206	Flange Slip-On x Wafer ASME B16.5 150 LB FF (125÷250 AARH) Forged ASTM A 105	5201	11,20														
298	4	0	In	3,18		mm	,00	2,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		4,13														
5210	5/8	0	In			mm	145,00	8,00	NR	206	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,40														
M Erection													Total Kg:		74,52												
SZ1	PIPING BOM SABIZ				64044 - 0				A	AREA A		1 / 1		TOTAL Kg:		74,52											

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	206	Welding specification	SP.1406/2-SP.1407/3
	Line	64044 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.46											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	15,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B							18,99					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61							1,70					
M Erection															Total Kg:		20,69						
SZ1	PIPING BOM SABIZ				64101 - 0				A		AREA A				1 / 1		TOTAL Kg:		20,69				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	64101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.46										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	3,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		3,80										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		5,5								
SZ1	PIPING BOM SABIZ					64102 - 0			A		AREA A		1 / 1		TOTAL Kg:		5,5						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	64102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5			16/11/2010 10.12.46											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	16,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							20,25					
4687	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105							0,28					
M Erection																Total Kg:		20,53					
SZ1	PIPING BOM SABIZ				64103 - 0				A		AREA A				1 / 1		TOTAL Kg:		20,53				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.46											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	12,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		15,19										
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		18,87								
SZ1	PIPING BOM SABIZ				64104 - 0				A	AREA A				1 / 1		TOTAL Kg:		18,87					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	64104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.47		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1433	1/2	0	In	2,77		mm	,00	1,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,27		
465	1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40		
925	1	1/2	In			mm	,00	1,00	NR	203	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105		0,19		
5191	1/2	0	In			mm	65,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44		
659	1/2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	2,3		

SZ1	PIPING BOM SABIZ		64105 - 0		A		AREA A		1 / 1		TOTAL Kg:	2,3
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3	
	Line	64105 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.47											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1435	1	0	In	3,38		mm	,00	43,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		107,59											
2830	1	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60											
467	1	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80											
156	1	0	In	3,38		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,07											
324	1	0	In	3,38		mm	,00	10,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,35											
1256	1	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,65											
5192	1/2	0	In			mm	70,00	2,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,22											
661	1	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C													
M Erection												Total Kg:		111,28										
SZ1	PIPING BOM SABIZ				64106 - 0				A		AREA A		1 / 1		TOTAL Kg:		111,28							

	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 64106 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Op tem
	Zones		Isometric code
			Page 1

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.47										DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1495	1	0	In	3,38		mm	,00	11,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		27,52		
2830	1	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60		
254	1	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		4,40		
1277	1	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,65		
M Erection												Total Kg:	33,17		
SZ1	PIPING BOM SABIZ					64107 - 0			A	AREA A	1 / 1	TOTAL Kg:	33,17		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64107 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.47		DOC:	1E35-65-1103			

Ballestra				SULPHUREX GH/F				Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1493	1/2	0	In	2,77		mm	,00	7,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		8,86		
1495	1	0	In	3,38		mm	,00	0,20	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		0,50		
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30		
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32		
252	1/2	0	In			mm	,00	5,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,00		
976	1	1/2	In			mm	,00	1,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		0,19		
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30		

M Erection												Total Kg:	12,47
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SZ1	PIPING BOM SABIZ					64108 - 0	A		AREA A	1 / 1	TOTAL Kg:	12,47
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	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification
	Line 64108 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.48		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1495	1	0	In	3,38		mm	,00	33,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		82,57		
2830	1	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60		
254	1	0	In			mm	,00	8,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		8,80		
2765	1	1/2	In			mm	,00	1,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,57		
976	1	1/2	In			mm	,00	1,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		0,19		
1277	1	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,65		
M Erection												Total Kg:	93,38		
SZ1	PIPING BOM SABIZ			64109 - 0			A			AREA A			1 / 1	TOTAL Kg:	93,38

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64109 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.48										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	14,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		17,72										
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		19,42								
SZ1	PIPING BOM SABIZ					64110 - 0					A	AREA A		1 / 1		TOTAL Kg:		19,42					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	64110 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.48														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	7,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		8,86														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64														
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection												Total Kg:		11,7													
SZ1	PIPING BOM SABIZ					64111 - 0					A	AREA A	1 / 1		TOTAL Kg:		11,7										

KY64.10	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64111 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.48											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	31,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		39,24					
1435	1	0	In	3,38		mm	,00	0,30	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,75					
3107	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70					
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80					
925	1	1/2	In			mm	,00	1,00	NR	205	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105		0,19					
5192	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44					
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection													Total Kg:	43,12				
SZ1	PIPING BOM SABIZ					64112 - 0			A	AREA A		1 / 1		TOTAL Kg:	43,12			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 205	Welding specification SP.1406/2-SP.1407/2
	Line 64112 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.48										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							3,80				
M Erection																Total Kg:		3,8				
SZ1	PIPING BOM SABIZ				64113 - 0				A		AREA A		1 / 1		TOTAL Kg:		3,8					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64113 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.49											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1433	1/2	0	In	2,77		mm	,00	12,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		15,19										
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40										
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28										
M Erection													Total Kg:		18,87								
SZ1	PIPING BOM SABIZ					64114 - 0					A	AREA A		1 / 1		TOTAL Kg:		18,87					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	64114 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.49		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1433	1/2	0	In	2,77		mm	,00	1,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,27		
465	1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40		
925	1	1/2	In			mm	,00	1,00	NR	203	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105		0,19		
5191	1/2	0	In			mm	65,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,44		
659	1/2	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C				
M Erection												Total Kg:	2,3		

SZ1	PIPING BOM SABIZ		64115 - 0		A		AREA A		1 / 1		TOTAL Kg:		2,3
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64115 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.49														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1435	1	0	In	3,38		mm	,00	3,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		7,51														
2830	1	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60														
467	1	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80														
324	1	0	In	3,38		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,27														
1256	1	0	In			mm	,00	1,00	NR	203	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,65														
5192	1/2	0	In			mm	70,00	2,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,22														
661	1	0	In			mm	,00	1,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C																
M Erection													Total Kg:		10,05												
SZ1	PIPING BOM SABIZ						64116 - 0				A	AREA A		1 / 1		TOTAL Kg:		10,05									

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64116 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.50											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32							
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection													Total Kg:	7,18						
SZ1	PIPING BOM SABIZ					64119 - 0					A	AREA A	1 / 1		TOTAL Kg:	7,18				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64119 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.50											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection													Total Kg:	7,18				
SZ1	PIPING BOM SABIZ					64121 - 0			A	AREA A			1 / 1	TOTAL Kg:	7,18			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64121 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.50														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32														
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		7,18												
SZ1	PIPING BOM SABIZ					64122 - 0					A	AREA A	1 / 1		TOTAL Kg:		7,18										

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification		
	Line 64122 - 0	Fluid	System		
	Dang. fluid type	Coating	De pres		Op tem
	Area AREA A	Sketch Sht 1 / 1	Isometric code		Page 1
	Zones				

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.50											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32							
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection													Total Kg:		7,18					
SZ1	PIPING BOM SABIZ					64123 - 0			A	AREA A			1 / 1		TOTAL Kg:		7,18			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification		
	Line 64123 - 0	Fluid	System		
	Dang. fluid type	Coating	De pres		Op tem
	Area AREA A	Sketch Sht 1 / 1	Isometric code		Page 1
	Zones				

Ballestra								SKETCHES MATERIAL LIST					PROJ: 1E35		REV: 0		16/11/2010					
PUMA5			16/11/2010 10.12.50										DOC: 1E35-65-1103									
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1453	3	0	In	3,18		mm	,00	2,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		13,44									
297	3	0	In	3,18		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		1,18									
M Erection												Total Kg:		14,62								
SZ1	PIPING BOM SABIZ					64126 - 0					A	AREA A					1 / 1		TOTAL Kg:		14,62	

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	64126 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.50												DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F								Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch							
1438	2	0	In	3,91		mm	,00	0,50	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		2,72									
1453	3	0	In	3,18		mm	,00	71,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L GR. B		477,27									
3006	3	0	In			mm	,00	1,00	NR	203	Valve Check ST.46357/5 WAFER 150 LB RF (125÷250 AARH) Cast ASTM A 36 CADMIUM PLATED R 87	5204	1,60									
472	3	0	In			mm	,00	5,00	NR	203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5201	20,50									
129	3	0	In	3,18		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,60									
297	3	0	In	3,18		mm	,00	11,00	NR	203	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		12,94									
1646	3	2	In	3,18	3,91	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE E.R.W. ASTM A 234 GR. WPB		0,57									
1056	1/2	0	In			mm	,00	1,00	NR	203	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,12									
5201	5/8	0	In			mm	95,00	12,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		2,76									
5204	5/8	0	In			mm	110,00	4,00	NR	203	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		1,00									
666	3	0	In			mm	,00	5,00	NR	203	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C											
M Erection												Total Kg:		520,08								
SZ1	PIPING BOM SABIZ				64127 - 0				A	AREA A		1 / 1		TOTAL Kg:		520,08						

PI_64.8 KV_64.9	Plant SZ1 PIPING BOM SABIZ	Piping Class 203	Welding specification SP.1406/2-SP.1407/3
	Line 64127 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.51		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1497	1+1/2	0	In	3,68		mm	,00	0,50	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		2,02		
1498	2	0	In	3,91		mm	,00	12,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		65,25		
2833	2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,20		
89	2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,00		
257	2	0	In			mm	,00	1,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,30		
988	2	1+1/2	In			mm	,00	1,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		0,90		
1279	1+1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,26		

M Erection												Total Kg:	77,93
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SZ1	PIPING BOM SABIZ		64129 - 0		A		AREA A		1 / 1		TOTAL Kg:	77,93
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	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64129 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.51											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	7,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		8,86					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64					
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	11,7					
SZ1	PIPING BOM SABIZ					64130 - 0			A	AREA A		1 / 1	TOTAL Kg:	11,7				

KY_64.2	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64130 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.51														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1495	1	0	In	3,38		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		12,51														
2830	1	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,60														
254	1	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		3,30														
1277	1	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,65														
M Erection												Total Kg:		17,06													
SZ1	PIPING BOM SABIZ					64131 - 0					A	AREA A	1 / 1		TOTAL Kg:		17,06										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	64131 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.52											DOC:		1E35-65-1103				
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1433	1/2	0	In	2,77		mm	,00	32,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		40,50							
1435	1	0	In	3,38		mm	,00	0,30	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,75							
3107	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		3,40							
4942	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		0,80							
467	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,80							
4687	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28							
925	1	1/2	In			mm	,00	1,00	NR	205	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105		0,19							
5191	1/2	0	In			mm	65,00	2,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,22							
5192	1/2	0	In			mm	70,00	2,00	NR	205	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,22							
659	1/2	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C									
661	1	0	In			mm	,00	1,00	NR	205	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C									
M Erection												Total Kg:		47,16						
SZ1	PIPING BOM SABIZ				64132 - 0				A	AREA A		1 / 1		TOTAL Kg:		47,16				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	64132 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.52											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	10,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		12,66					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection													Total Kg:	15,18				
SZ1	PIPING BOM SABIZ					64135 - 0			A	AREA A			1 / 1	TOTAL Kg:	15,18			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	Op tem
	Line 64135 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	
	Area AREA A	Sketch Sht 1 / 1	Isometric code	
	Zones			

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010			
PUMA5				16/11/2010 10.12.52									DOC:		1E35-65-1103									
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13						
M Erection																Total Kg:		0,13						
SZ1	PIPING BOM SABIZ					65003 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,13			

65Y8	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65003 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.52											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13					
M Erection															Total Kg:		0,13						
SZ1	PIPING BOM SABIZ				65004 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,13				

65Y13	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65004 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.52											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								0,13					
M Erection																	Total Kg:		0,13					
SZ1	PIPING BOM SABIZ					65005 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,13			

65Y9	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65005 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.52										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								0,13				
M Erection																	Total Kg:		0,13				
SZ1	PIPING BOM SABIZ					65006 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,13		

65Y14	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65006 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.53										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65007 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,13			

65Y21	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65007 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.53										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65008 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y22	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65008 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.53														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component										Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B											0,13					
M Erection																	Total Kg:		0,13								
SZ1	PIPING BOM SABIZ					65009 - 0					A	AREA A					1 / 1					TOTAL Kg:		0,13			

65Y23	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65009 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.53										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65010 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y24	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65010 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.54										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65011 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y25	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65011 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.12.54														DOC:		1E35-65-1103								
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component										Gen. Bolt		Weight (Kg)		As.bly		Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B												0,13					
M Erection																		Total Kg:		0,13								
SZ1	PIPING BOM SABIZ						65012 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,13							

65Y26	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65012 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.54										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65013 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y28	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65013 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.54										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65014 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y40	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65014 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.54											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B								0,13					
M Erection																	Total Kg:		0,13					
SZ1	PIPING BOM SABIZ					65015 - 0					A		AREA A					1 / 1		TOTAL Kg:		0,13		

65Y41	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65015 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.12.54										DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13						
M Erection																Total Kg:		0,13						
SZ1	PIPING BOM SABIZ					65016 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,13			

65Y42	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65016 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.12.55										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65017 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y46	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65017 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.55									DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,10	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,13				
M Erection																Total Kg:		0,13				
SZ1	PIPING BOM SABIZ				65018 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,13					

65Y45	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	65018 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.55		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch	
1520	1/2	0	In	2,77		mm	,00	0,40	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		0,52			
1521	3/4	0	In	2,87		mm	,00	3,50	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		6,02			
2862	1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,71			
2863	3/4	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,92			
2868	3/4	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46588/2 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 CF8 S 125	5381	1,94			
3192	3/4	0	In			mm	,00	1,00	NR	216	Strainer Y-Type ST.46350/5 FLG 150 LB RF (125÷250 AARH) Cast ASTM A 351 GR. CF8M F 72	5125	2,86			
447	3/4	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	1,40			
165	3/4	0	In	2,87		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,03			
333	3/4	0	In	2,87		mm	,00	2,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,18			
1214	3/4	0	In	2,87		mm	,00	2,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP316 Type A		0,20			
5125	1/2	0	In			mm	65,00	4,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,44			
5127	1/2	0	In			mm	75,00	14,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		1,68			
711	3/4	0	In			mm	,00	6,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F					
5381	1/2	0	In			mm	30,00	16,00	NR	216	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7 Galvanized		1,28			
M Erection													Total Kg:	18,18		
SZ1	PIPING BOM SABIZ				65029 - 0				A	AREA A		1 / 1	TOTAL Kg:	18,18		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	65029 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.55											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1520	1/2	0	In	2,77		mm	,00	9,00	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		11,62								
2862	1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,71								
446	1/2	0	In			mm	,00	7,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	2,80								
1776	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	216	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,06								
4695	1/2	0	In			mm	,00	2,00	NR	216	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F316		0,57								
1213	1/2	0	In	2,77		mm	,00	7,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP316 Type A		0,59								
1297	1/2	0	In			mm	,00	1,00	NR	216	Union TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F316		0,39								
5127	1/2	0	In			mm	75,00	24,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,88								
710	1/2	0	In			mm	,00	6,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F										
M Erection												Total Kg:		19,63							
SZ1	PIPING BOM SABIZ					65030 - 0					A	AREA A	1 / 1		TOTAL Kg:		19,63				

PSV_65.1	Plant SZ1 PIPING BOM SABIZ	Piping Class 216	Welding specification SP.1406/2-SP.1408/3
KY_65.27A	Line 65030 - 0	Fluid	System
PSH_65.1	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.56		DOC:	1E35-65-1103			

Ballestra			SULPHUREX GH/F			Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1520	1/2	0	In	2,77		mm	,00	0,40	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		0,52		
1521	3/4	0	In	2,87		mm	,00	4,00	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		6,88		
2862	1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,71		
2863	3/4	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,92		
2868	3/4	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46588/2 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 CF8 S 125	5381	1,94		
3192	3/4	0	In			mm	,00	1,00	NR	216	Strainer Y-Type ST.46350/5 FLG 150 LB RF (125÷250 AARH) Cast ASTM A 351 GR. CF8M F 72	5125	2,86		
447	3/4	0	In			mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	2,80		
165	3/4	0	In	2,87		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,03		
333	3/4	0	In	2,87		mm	,00	2,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,18		
1214	3/4	0	In	2,87		mm	,00	4,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP316 Type A		0,41		
5125	1/2	0	In			mm	65,00	4,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,44		
5127	1/2	0	In			mm	75,00	18,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,16		
711	3/4	0	In			mm	,00	7,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F				
5381	1/2	0	In			mm	30,00	16,00	NR	216	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7 Galvanized		1,28		
M Erection												Total Kg:	21,12		
SZ1	PIPING BOM SABIZ					65031 - 0			A	AREA A		1 / 1		TOTAL Kg:	21,12

	Plant	SZ1 PIPING BOM SABIZ				Piping Class	216		Welding specification SP.1406/2-SP.1408/3						
	Line	65031 - 0				Fluid									
	Dang. fluid type					Coating									
	Area	AREA A				Sketch Sht	1 / 1		Isometric code						
	Zones														

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.56											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1520	1/2	0	In	2,77		mm	,00	9,00	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		11,62								
2862	1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,71								
446	1/2	0	In			mm	,00	5,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	2,00								
1776	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	216	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,06								
4695	1/2	0	In			mm	,00	2,00	NR	216	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F316		0,57								
1213	1/2	0	In	2,77		mm	,00	5,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP316 Type A		0,42								
1297	1/2	0	In			mm	,00	1,00	NR	216	Union TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F316		0,39								
5127	1/2	0	In			mm	75,00	16,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		1,92								
710	1/2	0	In			mm	,00	4,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F										
M Erection												Total Kg:		17,7							
SZ1	PIPING BOM SABIZ					65032 - 0				A	AREA A	1 / 1	TOTAL Kg:		17,7						

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	65032 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5				16/11/2010 10.12.56											DOC:	1E35-65-1103			
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch				
1520	1/2	0	In	2,77		mm	,00	0,40	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		0,52						
1521	3/4	0	In	2,87		mm	,00	5,00	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		8,60						
2862	1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,71						
2863	3/4	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,92						
2868	3/4	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46588/2 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 CF8 S 125	5381	1,94						
3192	3/4	0	In			mm	,00	1,00	NR	216	Strainer Y-Type ST.46350/5 FLG 150 LB RF (125÷250 AARH) Cast ASTM A 351 GR. CF8M F 72	5125	2,86						
447	3/4	0	In			mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	2,80						
79	3/4	0	In			mm	,00	1,00	NR	216	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 182 GR. F316		0,52						
333	3/4	0	In	2,87		mm	,00	3,00	NR	216	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,26						
1214	3/4	0	In	2,87		mm	,00	4,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP316 Type A		0,41						
5125	1/2	0	In			mm	65,00	4,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		0,44						
5127	1/2	0	In			mm	75,00	18,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,16						
711	3/4	0	In			mm	,00	7,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F								
5381	1/2	0	In			mm	30,00	16,00	NR	216	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7 Galvanized		1,28						
M Erection												Total Kg:	23,42						
SZ1	PIPING BOM SABIZ				65033 - 0				A	AREA A		1 / 1	TOTAL Kg:	23,42					

	Plant SZ1 PIPING BOM SABIZ	Piping Class 216	Welding specification SP.1406/2-SP.1408/3
	Line 65033 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.12.56											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1520	1/2	0	In	2,77		mm	,00	9,00	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		11,62								
2862	1/2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port ST.46545/1 THRD-F NPT 800# Forged ASTM A 182 GR. F316 S 99		0,71								
446	1/2	0	In			mm	,00	7,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	5127	2,80								
1776	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	216	Reducer Concentric ASME B16.9 BE Wrought S ASTM A 403 GR. WP316		0,06								
4695	1/2	0	In			mm	,00	2,00	NR	216	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F316		0,57								
1213	1/2	0	In	2,77		mm	,00	7,00	NR	216	Stub-End MSS SP-43 FLG x BE Wrought S ASTM A 403 GR. WP316 Type A		0,59								
1297	1/2	0	In			mm	,00	1,00	NR	216	Union TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F316		0,39								
5127	1/2	0	In			mm	75,00	24,00	NR	216	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		2,88								
710	1/2	0	In			mm	,00	6,00	NR	216	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5F										
M Erection												Total Kg:		19,63							
SZ1	PIPING BOM SABIZ				65034 - 0				A	AREA A		1 / 1		TOTAL Kg:		19,63					

PSV_65.2	Plant SZ1 PIPING BOM SABIZ	Piping Class 216	Welding specification SP.1406/2-SP.1408/3
KY_65.27B	Line 65034 - 0	Fluid	System
PSH_65.2	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.56											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	7,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		8,86					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64					
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	11,7					
SZ1	PIPING BOM SABIZ					65101 - 0			A	AREA A		1 / 1	TOTAL Kg:	11,7				

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	Op tem	Page 1
	Line 65101 - 0	Fluid	System		
	Dang. fluid type	Coating	De pres		
	Area AREA A	Sketch Sht 1 / 1	Isometric code		
	Zones				

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.12.56										DOC:	1E35-65-1103			
Ballestra			SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1493	1/2	0	In	2,77		mm	,00	8,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		10,13		
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30		
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64		
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60		
1275	1/2	0	In			mm	,00	3,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,90		
M Erection												Total Kg:	13,57		
SZ1	PIPING BOM SABIZ					65102 - 0		A		AREA A		1 / 1		TOTAL Kg:	13,57

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.57											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64							
252	1/2	0	In			mm	,00	6,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,40							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection												Total Kg:		9,97						
SZ1	PIPING BOM SABIZ				65103 - 0				A	AREA A		1 / 1		TOTAL Kg:		9,97				

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	Op tem	Page 1
	Line 65103 - 0	Fluid	System		
	Dang. fluid type	Coating	De pres		
	Area AREA A	Sketch Sht 1 / 1	Isometric code		
	Zones				

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.57											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	8,45					
SZ1	PIPING BOM SABIZ					65104 - 0			A	AREA A			1 / 1	TOTAL Kg:	8,45			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	
	Line 65104 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	
	Area AREA A	Sketch Sht 1 / 1	Isometric code	
	Zones		Op tem	
				Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.57											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch					
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33							
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30							
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64							
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20							
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30							
M Erection												Total Kg:		8,77						
SZ1	PIPING BOM SABIZ					65105 - 0			A	AREA A		1 / 1		TOTAL Kg:		8,77				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.57											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	8,85					
SZ1	PIPING BOM SABIZ					65106 - 0			A	AREA A		1 / 1	TOTAL Kg:	8,85				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.58											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	7,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		8,86					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64					
252	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,60					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection													Total Kg:	11,7				
SZ1	PIPING BOM SABIZ					65107 - 0					A	AREA A	1 / 1		TOTAL Kg:	11,7		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65107 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.58											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:		7,18				
SZ1	PIPING BOM SABIZ					65108 - 0			A	AREA A		1 / 1		TOTAL Kg:		7,18		

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification
	Line 65108 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5			16/11/2010 10.12.58											DOC:	1E35-65-1103					
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)	As.bly	Branch	
1493	1/2	0	In	2,77		mm	,00	10,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized						12,66			
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87						0,30			
390	1/2	0	In			mm	,00	2,00	NR	202	Flange ASME B16.5 THRD-F NPT 150 LB RF (125÷250 AARH) Forged ASTM A 105 Galvanized					5125	0,80			
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						0,64			
252	1/2	0	In			mm	,00	6,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						2,40			
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized						0,30			
5125	1/2	0	In			mm	65,00	4,00	NR	202	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized						0,44			
659	1/2	0	In			mm	,00	1,00	NR	202	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C									
M Erection															Total Kg:		17,54			
SZ1	PIPING BOM SABIZ					65109 - 0					A	AREA A			1 / 1		TOTAL Kg:		17,54	

PICV_65.1 PSL_65.1 KY_65.28	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification
	Line 65109 - 0	Fluid	System
	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.58											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		5,06					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection													Total Kg:	7,18				
SZ1	PIPING BOM SABIZ					65111 - 0				A	AREA A	1 / 1	TOTAL Kg:	7,18				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65111 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.58														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
84	1/2	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,64														
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection												Total Kg:		8,77													
SZ1	PIPING BOM SABIZ						65112 - 0				A	AREA A	1 / 1		TOTAL Kg:		8,77										

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	Op tem
	Line 65112 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	
	Area AREA A	Sketch Sht 1 / 1	Isometric code	
	Zones			

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.12.58											DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch			
1493	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		6,33					
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30					
84	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,32					
252	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,20					
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30					
M Erection												Total Kg:	8,45					
SZ1	PIPING BOM SABIZ					65154 - 0			A	AREA A			1 / 1	TOTAL Kg:	8,45			

	Plant SZ1 PIPING BOM SABIZ	Piping Class 202	Welding specification	
	Line 65154 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	
	Area AREA A	Sketch Sht 1 / 1	Isometric code	
	Zones		Op tem	
				Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.59											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection												Total Kg:		5,2										
SZ1	PIPING BOM SABIZ					65155 - 0			A	AREA A		1 / 1		TOTAL Kg:		5,2								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65155 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.12.59												DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F								Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch										
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80												
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30												
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80												
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30												
M Erection													Total Kg:		5,2										
SZ1	PIPING BOM SABIZ					65156 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2								

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65156 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.59														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ						65157 - 0				A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65157 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.12.59											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80											
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30											
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80											
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30											
M Erection												Total Kg:		5,2										
SZ1	PIPING BOM SABIZ					65158 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2							

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65158 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.13.00														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection												Total Kg:		5,2													
SZ1	PIPING BOM SABIZ					65159 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65159 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.13.00														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection												Total Kg:		5,2													
SZ1	PIPING BOM SABIZ					65160 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65160 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.13.00										DOC:	1E35-65-1103			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80		
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30		
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80		
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30		
M Erection												Total Kg:	5,2		
SZ1	PIPING BOM SABIZ					65161 - 0		A		AREA A		1 / 1		TOTAL Kg:	5,2

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65161 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.13.00														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection													Total Kg:		5,2												
SZ1	PIPING BOM SABIZ						65162 - 0			A	AREA A		1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65162 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.13.00														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection												Total Kg:		5,2													
SZ1	PIPING BOM SABIZ					65163 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65163 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.13.01														DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch												
1493	1/2	0	In	2,77		mm	,00	3,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		3,80														
2828	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		0,30														
252	1/2	0	In			mm	,00	2,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,80														
1275	1/2	0	In			mm	,00	1,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,30														
M Erection												Total Kg:		5,2													
SZ1	PIPING BOM SABIZ					65164 - 0					A	AREA A	1 / 1		TOTAL Kg:		5,2										

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	202	Welding specification	
	Line	65164 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	16/11/2010
PUMA5			16/11/2010 10.13.01										DOC:	1E35-65-1103			
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	296,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		374,66				
1434	3/4	0	In	2,87		mm	,00	60,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		101,19				
3107	1/2	0	In			mm	,00	35,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		59,50				
3108	3/4	0	In			mm	,00	6,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		12,60				
4942	1/2	0	In			mm	,00	13,00	NR	205	Steam Trap ST.46212/3 SW-F 300 LB Forged ASTM A 105 T 66		10,40				
323	3/4	0	In	2,87		mm	,00	24,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		2,07				
324	1	0	In	3,38		mm	,00	12,00	NR	205	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,62				
2797	3/4	1/2	In			mm	,00	26,00	NR	205	Tee Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		9,62				
4687	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,84				
1091	1/2	0	In			mm	,00	2,00	NR	205	Coupling TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,28				
4546	1/2	0	In			mm	,00	3,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,36				
4547	3/4	0	In			mm	,00	6,00	NR	205	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		1,14				
M Erection												Total Kg:	574,28				
SZ1	PIPING BOM SABIZ				TRAC. VB - 0				A	AREA A			1 / 1	TOTAL Kg:	574,28		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	TRAC. VB - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	16/11/2010	
PUMA5				16/11/2010 10.13.01											DOC:	1E35-65-1103					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °C	Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch						
1433	1/2	0	In	2,77		mm	,00	60,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		75,95								
1434	3/4	0	In	2,87		mm	,00	100,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		168,65								
2828	1/2	0	In			mm	,00	6,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		1,80								
2829	3/4	0	In			mm	,00	10,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		4,00								
3116	1/2	0	In			mm	,00	6,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		4,20								
3117	3/4	0	In			mm	,00	10,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		8,00								
4687	1/2	0	In			mm	,00	12,00	NR	205	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		3,36								
4398	1/2	1/4	In			mm	,00	24,00	NR	203	Coupling Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,72								
4449	3/4	1/2	In			mm	,00	20,00	NR	205	Coupling Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,60								
M Erection												Total Kg:		267,28							
SZ1	PIPING BOM SABIZ				TRAC. WH - 0				A	AREA A		1 / 1		TOTAL Kg:		267,28					

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	TRAC. WH - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.01														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component										Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B											0,25					
M Erection																	Total Kg:		0,25								
SZ1	PIPING BOM SABIZ						VEST. 62A1A - 0				A		AREA A				1 / 1		TOTAL Kg:		0,25						

TI_62.4	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 62A1A - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.13.02											DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,25					
M Erection															Total Kg:		0,25						
SZ1	PIPING BOM SABIZ				VEST. 62A1B - 0				A		AREA A				1 / 1		TOTAL Kg:		0,25				

TI_62.2	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 62A1B - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5			16/11/2010 10.13.02										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,25				
M Erection																Total Kg:		0,25				
SZ1	PIPING BOM SABIZ				VEST. 62A2 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,25			

TI_62.3	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 62A2 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.02										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
3155	1/4	0	In			mm	,00	1,00	NR	212	Valve Plug ST.46019/1 THRD-F NPT PN 16 Forged ASTM A 182 GR. F316 M 53							0,20					
M Erection															Total Kg:		0,2						
SZ1	PIPING BOM SABIZ					VEST. 62F6A - 0					A	AREA A					1 / 1		TOTAL Kg:		0,2		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 62F6A - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.02										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)	As.bly	Branch			
3155	1/4	0	In			mm	,00	1,00	NR	212	Valve Plug ST.46019/1 THRD-F NPT PN 16 Forged ASTM A 182 GR. F316 M 53							0,20					
M Erection																Total Kg:		0,2					
SZ1	PIPING BOM SABIZ					VEST. 62F6B - 0					A	AREA A					1 / 1	TOTAL Kg:		0,2			

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 62F6B - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.02										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1504	1/2	0	In	2,77		mm	,00	0,20	m	215	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 304							0,26					
M Erection																Total Kg:		0,26					
SZ1	PIPING BOM SABIZ					VEST. 63A1A - 0					A	AREA A					1 / 1	TOTAL Kg:		0,26			

TL_63.1A TET_63.1A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	215	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 63A1A - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.13.03										DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1504	1/2	0	In	2,77		mm	,00	0,20	m	215	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 304							0,26						
M Erection																Total Kg:		0,26						
SZ1	PIPING BOM SABIZ					VEST. 63A1B - 0					A	AREA A					1 / 1		TOTAL Kg:		0,26			

TL_63.1B TET_63.1B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	215	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 63A1B - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra		SKETCHES MATERIAL LIST									PROJ:	1E35	REV:	0	16/11/2010
PUMA5	16/11/2010 10.13.03										DOC:	1E35-65-1103			
Ballestra			SULPHUREX GH/F						Size: In	Thk: mm	Temp: °C	Pres: BAR	Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25		
4956	1+1/2	0	In			mm	,00	1,00	NR	212	Valve Bottom & Screw ST.46591/3 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 216 GR. WCB Type A S 128		7,00		
469	1+1/2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5193	1,40		
5193	1/2	0	In			mm	75,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,48		
695	1+1/2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
698	3	0	In			mm	,00	1,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B				
5374	1/2	0	In			mm	35,00	8,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		0,64		
M Erection												Total Kg:	9,77		
SZ1	PIPING BOM SABIZ					VEST. 63A2 - 0				A	AREA A	1 / 1	TOTAL Kg:	9,77	

TI_63.2 TET_63.3 LT_63.2	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 63A2 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.03									DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch	
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,25				
M Erection															Total Kg:		0,25					
SZ1	PIPING BOM SABIZ					VEST. 63A3 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,25	

TL_63.3	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 63A3 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010			
PUMA5			16/11/2010 10.13.03											DOC:		1E35-65-1103									
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch			
3155	1/4	0	In			mm	,00	1,00	NR	212	Valve Plug ST.46019/1 THRD-F NPT PN 16 Forged ASTM A 182 GR. F316 M 53								0,20						
M Erection												Total Kg:							0,2						
SZ1	PIPING BOM SABIZ					VEST. 63F2A - 0					A	AREA A					1 / 1		TOTAL Kg:		0,2				

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 63F2A - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.04										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch	
3155	1/4	0	In			mm	,00	1,00	NR	212	Valve Plug ST.46019/1 THRD-F NPT PN 16 Forged ASTM A 182 GR. F316 M 53								0,20				
M Erection															Total Kg:		0,2						
SZ1	PIPING BOM SABIZ					VEST. 63F2B - 0					A	AREA A					1 / 1		TOTAL Kg:		0,2		

	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 63F2B - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.04										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch		
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B							0,25					
M Erection															Total Kg:		0,25						
SZ1	PIPING BOM SABIZ					VEST. 63V1 - 0					A	AREA A					1 / 1	TOTAL Kg:		0,25			

TI_63.4 LSH_63.1 LSL_63.1 TET_63.2	Plant	SZ1 PIPING BOM SABIZ	Piping Class	212	Welding specification	SP.1406/2-SP.1407/3
	Line	VEST. 63V1 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.04											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1504	1/2	0	In	2,77		mm	,00	0,20	m	215	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 304								0,26					
M Erection																	Total Kg:		0,26					
SZ1	PIPING BOM SABIZ				VEST. 63V2 - 0				A		AREA A		1 / 1		TOTAL Kg:		0,26							

LG_63.1	Plant	SZ1 PIPING BOM SABIZ	Piping Class	215	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 63V2 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.04														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component										Gen. Bolt	Weight (Kg)		As.bly	Branch		
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316											0,26					
M Erection																	Total Kg:		0,26								
SZ1	PIPING BOM SABIZ						VEST. 63WG1 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,26						

TL_63.1 63Y20	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 63WG1 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.13.04										DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316							0,26						
M Erection																Total Kg:		0,26						
SZ1	PIPING BOM SABIZ					VEST. 63WG2 - 0					A	AREA A					1 / 1		TOTAL Kg:		0,26			

TL_63.2 63Y19	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 63WG2 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	16/11/2010		
PUMA5				16/11/2010 10.13.05											DOC:		IE35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch									
1433	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		0,25											
1438	2	0	In	3,91		mm	,00	1,00	m	212	Pipe ASME B36.10 PL Seamless API 5L GR. B		5,44											
2843	2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port ST.46590/3 LUG 150 LB RF (125÷250 AARH)	5376	10,50											
											Forged ASTM A 105 S 127													
470	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5199	2,20											
327	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,66											
5199	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/ASTM A 194 GR.2H		0,84											
696	2	0	In			mm	,00	2,00	NR	212	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5B													
5376	5/8	0	In			mm	40,00	16,00	NR	212	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7		2,40											
M Erection												Total Kg:		22,3										
SZ1	PIPING BOM SABIZ				VEST. 64V10 - 0				A		AREA A		1 / 1		TOTAL Kg:		22,3							

TL_64.15	Plant SZ1 PIPING BOM SABIZ	Piping Class 212	Welding specification SP.1406/2-SP.1407/3
LSH_64.10	Line VEST. 64V10 - 0	Fluid	System
LSL_64.10	Dang. fluid type	Coating	De pres
	Area AREA A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.05											DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch		
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316								0,26					
M Erection																	Total Kg:		0,26					
SZ1	PIPING BOM SABIZ				VEST. 65V4 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,26					

LSL_65.4	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 65V4 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.05														DOC:		1E35-65-1103							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component										Gen. Bolt	Weight (Kg)		As.bly	Branch		
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316											0,26					
M Erection																	Total Kg:		0,26								
SZ1	PIPING BOM SABIZ						VEST. 65V5 - 0				A		AREA A				1 / 1		TOTAL Kg:		0,26						

LG_65.5	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 65V5 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0		16/11/2010		
PUMA5				16/11/2010 10.13.05									DOC:		1E35-65-1103								
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch								
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316		0,26										
M Erection													Total Kg:		0,26								
SZ1	PIPING BOM SABIZ						VEST. 65V8A - 0				A	AREA A	1 / 1		TOTAL Kg:		0,26						

LG_65.8A	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 65V8A - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010	
PUMA5				16/11/2010 10.13.05										DOC:		1E35-65-1103							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component							Gen. Bolt	Weight (Kg)		As.bly	Branch	
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316								0,26				
M Erection																	Total Kg:		0,26				
SZ1	PIPING BOM SABIZ					VEST. 65V8B - 0					A	AREA A					1 / 1		TOTAL Kg:		0,26		

LG_65.8B	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3
	Line	VEST. 65V8B - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area	AREA A	Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		16/11/2010		
PUMA5			16/11/2010 10.13.06											DOC:		1E35-65-1103								
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °C		Pres: BAR		Corr: mm		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component						Gen. Bolt	Weight (Kg)		As.bly	Branch			
1520	1/2	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 316							0,26						
M Erection																Total Kg:		0,26						
SZ1	PIPING BOM SABIZ					VEST. 65V8C - 0					A	AREA A					1 / 1		TOTAL Kg:		0,26			

LG_65.8C	Plant	SZ1 PIPING BOM SABIZ	Piping Class	216	Welding specification	SP.1406/2-SP.1408/3	
	Line	VEST. 65V8C - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area	AREA A	Sketch Sht	1 / 1	Isometric code		Page 1
	Zones						