

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.00											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	30,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		163,11										
2775	2	1	In			mm	,00	7,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		12,60										
2777	2	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		3,60										
976	1	1/2	In			mm	,00	7,00	NR	202	Reducing Insert M/F TA 50.7/2 THRD-M NPT x THRD-F 3000# Forged ASTM A 105 Galvanized		1,33										
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:		182,24									
SX3	SLS - SECT. 77 - UTIL					01160 - 0					SX1		1 / 1		TOTAL Kg:		182,24						

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	01160 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:	1E35		REV:	0	13/04/2010
PUMA5				13/04/2010 11.07.00												DOC:	1E35-65-024				
Ballestra								SULPHUREX GH/F								Size: In	Thk: mm	Temp: °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	46,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		186,26								
256	1+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		4,80								
2770	1+1/2	1/2	In			mm	,00	5,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		6,40								
2772	1+1/2	1	In			mm	,00	1,00	NR	202	Tee Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,28								
4677	1+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		1,28								
4571	1+1/2	0	In			mm	,00	2,00	NR	202	Cap TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,50								
M Erection												Total Kg:	201,52								
SX3	SLS - SECT. 77 - UTIL						01161 - 0		SX1		1 / 1		TOTAL Kg:	201,52							

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	01161 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.01											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	30,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		75,07										
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										
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:		76,46								
SX3	SLS - SECT. 77 - UTIL					01169 - 0					SX1		1 / 1		TOTAL Kg:		76,46						

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	01169 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST						PROJ:		1E35		REV:		0	13/04/2010		
PUMA5				13/04/2010 11.07.01										DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F						Size: In		Thk: mm		Temp: °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	25,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized						62,55						
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						
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:		65,57					
SX3	SLS - SECT. 77 - UTIL					01170 - 0					SX1					1 / 1		TOTAL Kg:		65,57			

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	01170 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	13/04/2010
PUMA5	13/04/2010 11.07.01		DOC:	1E35-65-024			

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	30,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		121,48		
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		
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:	124,96		

SX3	SLS - SECT. 77 - UTIL				03125 - 0				SX1		1 / 1		TOTAL Kg:	124,96	
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	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2	
	Line	03125 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area		Sketch Sht	1 / 1	Isometric code	Page 1	
	Zones						

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.01											DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	25,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		62,55											
401	1	0	In			mm	,00	1,00	NR	205	Flange Blind ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,90											
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	2,00	NR	205	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	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:		64,97										
SX3	SLS - SECT. 77 - UTIL					03126 - 0					SX1	1 / 1		TOTAL Kg:		64,97								

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	03126 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0	13/04/2010		
PUMA5				13/04/2010 11.07.01											DOC:		IE35-65-024							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	30,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		121,48											
403	1+1/2	0	In			mm	,00	1,00	NR	203	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	203	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	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:		124,96									
SX3	SLS - SECT. 77 - UTIL						05115 - 0				SX1		1 / 1		TOTAL Kg:		124,96							

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	05115 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	13/04/2010
PUMA5	13/04/2010 11.07.01		DOC:	1E35-65-024			

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	30,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		121,48		
403	1+1/2	0	In			mm	,00	1,00	NR	203	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	203	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	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:	124,96		

SX3	SLS - SECT. 77 - UTIL				05116 - 0				SX1		1 / 1		TOTAL Kg:	124,96
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	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3	
	Line	05116 - 0	Fluid		System		
	Dang. fluid type		Coating		De pres	Op tem	
	Area		Sketch Sht	1 / 1	Isometric code	Page 1	
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Ballestra		SKETCHES MATERIAL LIST	PROJ:	1E35	REV:	0	13/04/2010
PUMA5	13/04/2010 11.07.01		DOC:	1E35-65-024			

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	30,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		121,48		
403	1+1/2	0	In			mm	,00	1,00	NR	203	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	203	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	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:	124,96		

SX3	SLS - SECT. 77 - UTIL				07105 - 0				SX1		1 / 1		TOTAL Kg:	124,96
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	Plant	SX3 SLS - SECT. 77 - UTIL	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		Sketch Sht	1 / 1	Isometric code		Page 1
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Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.02														DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °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	25,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		62,55														
401	1	0	In			mm	,00	1,00	NR	203	Flange Blind ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5192	0,90														
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														
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:		64,97													
SX3	SLS - SECT. 77 - UTIL					07106 - 0					SX1					1 / 1					TOTAL Kg:		64,97				

	Plant	SX3 SLS - SECT. 77 - UTIL	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		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.02														DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °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														
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														
1289	1/2	0	In			mm	,00	2,00	NR	203	Union TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,76														
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:		9,99													
SX3	SLS - SECT. 77 - UTIL						77101 - 0				SX1		1 / 1		TOTAL Kg:		9,99										

KY_77.1	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	77101 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
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Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0	13/04/2010		
PUMA5			13/04/2010 11.07.02											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	1,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		1,27										
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:		1,39								
SX3	SLS - SECT. 77 - UTIL				77102 - 0				SX1		1 / 1		TOTAL Kg:		1,39								

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	77102 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
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Ballestra								SKETCHES MATERIAL LIST					PROJ: 1E35		REV: 0		13/04/2010					
PUMA5			13/04/2010 11.07.02										DOC: 1E35-65-024									
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °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									
M Erection												Total Kg:		4,1								
SX3	SLS - SECT. 77 - UTIL					77103 - 0					SX1		1 / 1		TOTAL Kg:		4,1					

77Y2	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	77103 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST								PROJ:		IE35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.02												DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F								Size: In		Thk: mm		Temp: °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												
M Erection													Total Kg:		4,9										
SX3	SLS - SECT. 77 - UTIL					77104 - 0					SX1		1 / 1		TOTAL Kg:		4,9								

77Y2	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77104 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.02											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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								
SX3	SLS - SECT. 77 - UTIL				77105 - 0				SX1		1 / 1		TOTAL Kg:		5,5								

77Y2	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	77105 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:		1E35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.02									DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °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					
M Erection															Total Kg:		4,1					
SX3	SLS - SECT. 77 - UTIL					77106 - 0					SX1		1 / 1			TOTAL Kg:		4,1				

77Y2	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	77106 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.03											DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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											
1504	1/2	0	In	2,77		mm	,00	1,00	m	226	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 304		1,29											
5397	1/2	0	In			mm	,00	1,00	NR	226	Valve Check SB-ATI-VR134/0 FLG 900 LB LF (125÷250 AARH)	5145												
											Forged AISI 304 R 174													
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											
5399	1/2	0	In	2,77		mm	,00	2,00	NR	226	Flange Weld Neck ASME B16.5 900 LB LM (125÷250 AARH)	5145												
											Forged ASTM A 182 GR. F304													
263	1/2	0	In			mm	,00	2,00	NR	226	90° Elbow TA 50.6/1 SW-F 3000# Forged ASTM A 182 GR. F304		0,51											
5145	3/4	0	In			mm	100,00	12,00	NR	226	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9		10,08											
											ASTM A 193 B7/A194 2H Galvanized													
5394	1/2	0	In			mm	,00	3,00	NR	226	Gasket TA 50.5/31 900 LB LM-LF (125÷250 AARH) _ B4C FLAT													
M Erection													Total Kg:		17,38									
SX3	SLS - SECT. 77 - UTIL					77107 - 0					SX1	1 / 1		TOTAL Kg:		17,38								

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	226	Welding specification	SP.1406/2-SP.1408/2
	Line	77107 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST							PROJ:	1E35		REV:	0	13/04/2010	
PUMA5				13/04/2010 11.07.03											DOC:	1E35-65-024					
Ballestra								SULPHUREX GH/F							Size: In	Thk: mm	Temp: °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								
1504	1/2	0	In	2,77		mm	,00	1,00	m	226	Pipe ASME B36.19 PL Seamless ASTM A 312 TP 304		1,29								
5396	1/2	0	In			mm	,00	1,00	NR	226	Valve Ball Full Port SB-ATI-VS120/0 LUG 900 LB LF (125÷250 AARH) Forged AISI 304 S 194	5381									
5397	1/2	0	In			mm	,00	1,00	NR	226	Valve Check SB-ATI-VR134/0 FLG 900 LB LF (125÷250 AARH) Forged AISI 304 R 174	5145									
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								
5399	1/2	0	In	2,77		mm	,00	4,00	NR	226	Flange Weld Neck ASME B16.5 900 LB LM (125÷250 AARH) Forged ASTM A 182 GR. F304	5145									
1049	1/2	0	In			mm	,00	1,00	NR	226	Coupling TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 182 GR. F304		0,12								
5145	3/4	0	In			mm	100,00	20,00	NR	226	Stud Bolt + 2 Nuts TA 50.48B/28 ASME B18.2.1 UNC/2.2 TAB. 9 ASTM A 193 B7/A194 2H Galvanized		16,80								
5394	1/2	0	In			mm	,00	6,00	NR	226	Gasket TA 50.5/31 900 LB LM-LF (125÷250 AARH) _ B4C FLAT										
5381	1/2	0	In			mm	30,00	16,00	NR	226	Screws for valves ASME B 18.2.1 /UNC ASTM A 193 B7 Galvanized		1,28								
M Erection												Total Kg:		29,22							
SX3	SLS - SECT. 77 - UTIL					77108 - 0					SX1	1 / 1		TOTAL Kg:		29,22					

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	226	Welding specification	SP.1406/2-SP.1408/2
	Line	77108 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.03											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		15,19										
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:		16,89								
SX3	SLS - SECT. 77 - UTIL				77109 - 0				SX1		1 / 1		TOTAL Kg:		16,89								

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	77109 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		1E35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.03											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	1,00	NR	205	Valve Gate ST.46270/3 SW-F 800# Forged ASTM A 105 G 61		1,70										
M Erection													Total Kg:		16,89								
SX3	SLS - SECT. 77 - UTIL				77110 - 0				SX1			1 / 1		TOTAL Kg:		16,89							

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	77110 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0		13/04/2010	
PUMA5				13/04/2010 11.07.03														DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °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	40,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		161,97														
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	5,00	NR	203	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		1,84														
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:		165,87													
SX3	SLS - SECT. 77 - UTIL						77111 - 0				SX1		1 / 1		TOTAL Kg:		165,87										

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	77111 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra		SKETCHES MATERIAL LIST										PROJ:	1E35	REV:	0	13/04/2010
PUMA5	13/04/2010 11.07.03											DOC:	1E35-65-024			
Ballestra					SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		2,50			
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	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:		4,48		
SX3	SLS - SECT. 77 - UTIL					77112 - 0					SX1	1 / 1		TOTAL Kg:		4,48

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	203	Welding specification	SP.1406/2-SP.1407/3
	Line	77112 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ: 1E35		REV: 0		13/04/2010					
PUMA5			13/04/2010 11.07.03										DOC: 1E35-65-024									
Ballestra								SULPHUREX GH/F					Size: In		Thk: mm		Temp: °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									
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									
M Erection													Total Kg:		7,53							
SX3	SLS - SECT. 77 - UTIL					77113 - 0					SX1		1 / 1		TOTAL Kg:		7,53					

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77113 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		IE35		REV:		0	13/04/2010		
PUMA5				13/04/2010 11.07.04														DOC:		IE35-65-024							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °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	6,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		7,59														
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	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:		9,79												
SX3	SLS - SECT. 77 - UTIL						77114 - 0				SX1		1 / 1		TOTAL Kg:		9,79										

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77114 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	13/04/2010
PUMA5			13/04/2010 11.07.04											DOC:	1E35-65-024			
Ballestra							SULPHUREX GH/F							Size: In	Thk: mm	Temp: °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	18,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		72,89					
2832	1+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		1,50					
394	1+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	5127	3,00					
256	1+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		7,20					
5127	1/2	0	In			mm	75,00	8,00	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		0,96					
663	1+1/2	0	In			mm	,00	2,00	NR	202	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection												Total Kg:	85,55					
SX3	SLS - SECT. 77 - UTIL					77115 - 0			SX1		1 / 1		TOTAL Kg:	85,55				

PICV_77.1	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77115 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.04											DOC:		1E35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	25,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		62,55										
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										
392	1	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	5126	1,80										
254	1	0	In			mm	,00	5,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		5,50										
5126	1/2	0	In			mm	70,00	8,00	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		0,88										
661	1	0	In			mm	,00	2,00	NR	202	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C												
M Erection												Total Kg:		71,33									
SX3	SLS - SECT. 77 - UTIL						77116 - 0				SX1		1 / 1		TOTAL Kg:		71,33						

PICV_77.2	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77116 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	
	Zones					Page 1

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	13/04/2010
PUMA5			13/04/2010 11.07.04											DOC:	1E35-65-024			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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	30,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		37,97					
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	5,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,00					
4673	1/2	0	In			mm	,00	3,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,84					
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					
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:	42,13					
SX3	SLS - SECT. 77 - UTIL					77117 - 0			SX1		1 / 1		TOTAL Kg:	42,13				

KY_77.2A
KY_77.2B
KY_77.2C

Plant SX3 SLS - SECT. 77 - UTIL
Line 77117 - 0
Dang. fluid type
Area
Zones

Piping Class 202
Fluid
Coating
Sketch Sht 1 / 1

Welding specification
System
De pres
Isometric code
Op tem

Ballestra							SKETCHES MATERIAL LIST							PROJ:		IE35		REV:		0		13/04/2010	
PUMA5			13/04/2010 11.07.04											DOC:		IE35-65-024							
Ballestra							SULPHUREX GH/F							Size: In		Thk: mm		Temp: °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	48,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		60,76										
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	5,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,00										
4673	1/2	0	In			mm	,00	3,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,84										
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										
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:		64,92									
SX3	SLS - SECT. 77 - UTIL					77118 - 0					SX1		1 / 1		TOTAL Kg:		64,92						

KY_77.3A
KY_77.3B
KY_77.3C

Plant SX3 SLS - SECT. 77 - UTIL
Line 77118 - 0
Dang. fluid type
Area
Zones

Piping Class 202
Fluid
Coating
Sketch Sht 1 / 1

Welding specification
System
De pres
Isometric code
Op tem

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	13/04/2010
PUMA5			13/04/2010 11.07.04											DOC:	1E35-65-024			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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	20,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		25,32					
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	5,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,00					
4673	1/2	0	In			mm	,00	2,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,56					
1275	1/2	0	In			mm	,00	2,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,60					
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:	28,9					
SX3	SLS - SECT. 77 - UTIL					77119 - 0			SX1		1 / 1		TOTAL Kg:	28,9				

KY_77.4A KY_77.4B	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77119 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	13/04/2010
PUMA5			13/04/2010 11.07.04											DOC:	1E35-65-024			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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	12,00	m	202	Pipe ASME B36.10 THRD-M NPT Seamless API 5L GR. B Galvanized		15,19					
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	5,00	NR	202	90° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		2,00					
4673	1/2	0	In			mm	,00	2,00	NR	202	Tee Straight TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,56					
1275	1/2	0	In			mm	,00	2,00	NR	202	Union TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		0,60					
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:	18,77					
SX3	SLS - SECT. 77 - UTIL					77120 - 0		SX1			1 / 1		TOTAL Kg:	18,77				

KY_77.5A KY_77.5B	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77120 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST							PROJ:	1E35	REV:	0	13/04/2010
PUMA5			13/04/2010 11.07.05											DOC:	1E35-65-024			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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					
392	1	0	In			mm	,00	1,00	NR	202	Flange ASME B16.5 THRD-F NPT 150 LB RF (125÷250 AARH) Forged ASTM A 105 Galvanized	5126	0,90					
86	1	0	In			mm	,00	2,00	NR	202	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105 Galvanized		1,70					
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					
5126	1/2	0	In			mm	70,00	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					
661	1	0	In			mm	,00	1,00	NR	202	Gasket TA 50.5/31 150 LB RF (125÷250 AARH) _ B5C							
M Erection												Total Kg:	32,46					
SX3	SLS - SECT. 77 - UTIL					77121 - 0			SX1		1 / 1		TOTAL Kg:	32,46				

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	202	Welding specification	
	Line	77121 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST										PROJ:		1E35		REV:		0	13/04/2010		
PUMA5			13/04/2010 11.07.05															DOC:		1E35-65-024							
Ballestra								SULPHUREX GH/F										Size: In		Thk: mm		Temp: °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	10,00	m	205	Pipe ASME B36.10 PL Seamless API 5L GR. B		25,02														
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	2,00	NR	205	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 GR. WPB		0,14														
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:		30,24													
SX3	SLS - SECT. 77 - UTIL					77122 - 0					SX1	1 / 1					TOTAL Kg:		30,24								

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	205	Welding specification	SP.1406/2-SP.1407/2
	Line	77122 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra								SKETCHES MATERIAL LIST					PROJ:	1E35	REV:	0	13/04/2010
PUMA5				13/04/2010 11.07.05									DOC:	1E35-65-024			
Ballestra								SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	5191	0,40				
98	1/2	0	In			mm	,00	2,00	NR	207	45° Elbow TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,36				
266	1/2	0	In			mm	,00	3,00	NR	207	90° Elbow TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,75				
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:		11,24			
SX3	SLS - SECT. 77 - UTIL						77123 - 0			SX1	1 / 1			TOTAL Kg:		11,24	

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	207	Welding specification	SP.1406/2-SP.1407/2
	Line	77123 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	13/04/2010	
PUMA5			13/04/2010 11.07.05										DOC:	1E35-65-024				
Ballestra							SULPHUREX GH/F						Size: In	Thk: mm	Temp: °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					
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					
63	1/2	0	In			mm	,00	2,00	NR	207	45° Elbow TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,64					
266	1/2	0	In			mm	,00	6,00	NR	207	90° Elbow TA 50.6/1 SW-F 3000# Forged ASTM A 105		1,50					
4687	1/2	0	In			mm	,00	1,00	NR	207	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:	22,68					
SX3	SLS - SECT. 77 - UTIL					77124 - 0					SX1	1 / 1			TOTAL Kg:	22,68		

	Plant	SX3 SLS - SECT. 77 - UTIL	Piping Class	207	Welding specification	SP.1406/2-SP.1407/2
	Line	77124 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	Op tem
	Area		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					

Ballestra							SKETCHES MATERIAL LIST						PROJ:	1E35	REV:	0	13/04/2010
PUMA5			13/04/2010 11.07.06										DOC:	1E35-65-024			
Ballestra							SULPHUREX GH/F					Size: In	Thk: mm	Temp: °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	80,00	m	203	Pipe ASME B36.10 PL Seamless API 5L GR. B		101,26				
2828	1/2	0	In			mm	,00	8,00	NR	203	Valve Ball Full Port ST.46330/3 THRD-F NPT 200 LB Forged BRASS NICKEL PLATED S 87		2,40				
3116	1/2	0	In			mm	,00	8,00	NR	203	Valve Globe ST.46004/3 THRD-F NPT 200 LB Forged BRONZE D 51		5,60				
4687	1/2	0	In			mm	,00	14,00	NR	203	Tee Straight TA 50.6/1 SW-F 3000# Forged ASTM A 105		3,92				
4398	1/2	1/4	In			mm	,00	28,00	NR	203	Coupling Reducing TA 50.7/2 THRD-F NPT 3000# Forged ASTM A 105		0,84				
4449	3/4	1/2	In			mm	,00	2,00	NR	205	Coupling Reducing TA 50.6/1 SW-F 3000# Forged ASTM A 105		0,06				
M Erection												Total Kg:	114,08				
SX3	SLS - SECT. 77 - UTIL				TRAC WH - 0				SX1		1 / 1		TOTAL Kg:	114,08			

	Plant	SX3 SLS - SECT. 77 - UTIL	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		Sketch Sht	1 / 1	Isometric code	Page 1
	Zones					