	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F							J: 2F11		REV: 0	23	/07/2012
	PUMA5	;		23/07/2	012 15.00	.08	1						DOC	2F11	1.65.102	•		
		D	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): ℃	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Ur	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
982	1	0	In	3,38		mm	,00	16,0	0 m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THR	D-M NPT	sch.40		40,04		
986	2+1/2	0	In	5,16		mm	,00	12,0	0 m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THR	D-M NPT	sch.40		103,59		
68	1	0	In			mm	,00	2,0	0 NI	R 202	45° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000‡	Forged A	STM A		1,70		
181	1	0	In			mm	,00	4,0	0 NI	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000‡	Forged A	STM A		4,40		
2568	2+1/2	0	In			mm	,00	1,0	0 NI	R 202	Tee Straight SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 300	0# Forged A	ASTM A				
767	1	0	In			mm	,00	1,0	0 NI	R 202	Plug Hex. SB-ATI-PR008/0 THRD-M	NPT 3000	# Forged A	STM A		0,35		
2349	2+1/2	1/2	In			mm	,00	1,0	0 NI	R 202	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105 Galvanized	HRD-F N	PT 3000# I	Forged		0,13		
2351	2+1/2	1	In			mm	,00	1,0	0 NI	R 202	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105 Galvanized	HRD-F N	PT 3000# I	Forged		0,13		
2354	2+1/2	2	In			mm	,00	2,0	0 NI	R 202	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105 Galvanized	HRD-F N	PT 3000# I	Forged		0,26		
										N	M Erection				Total Kg:	150,59		

Plant SZ1 SABIZ PLANT ANSI	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			

Α

Area A

SABIZ PLANT ANSI

01101 - 0

TOTAL Kg:

1 / 1

150,59

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2						: 2F11		REV: 0	23/	07/2012
	PUMA5	5		23/07/2	012 15.0	00.08							DOC:	2F11	.65.102			
		D	ESME	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
984	1+1/2	0	In	3,68		mm	,00	20,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	D-M NPT s	ch.40		80,98		
183	1+1/2	0	In			mm	,00	1,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F	NPT 3000‡	Forged AS	ГМ А		2,40		
1743	1+1/2	1/2	In			mm	,00	7,00	NR	202	Tee Reducing SB-ATI-PR008/0 THRD-A 105 Galvanized	-F NPT 30	00# Forged	ASTM				
2498	1+1/2	0	In			mm	,00	1,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 3	000# Forge	ed ASTM A	105		0,75		
										1	M Erection				Total Kg:	84,13		
SZ1	SABIZ PI	LANT A	ANSI			01103	- 0			A	Area A 1	/ 1			TOTAL Kg:	84,13		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 21								REV:	23	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.08							DOC:	2F11	.65.102			
		D	ESMET	Γ - Ballestr	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): °C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	21,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	D-M NPT s	ch.40		26,58		
179	1/2	0	In			mm	,00	1,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000#	Forged AS	ГМ А		0,40		
2562	1/2	0	In			mm	,00	6,00	NR	202	Tee Straight SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 300	0# Forged A	STM A		1,68		
2494	1/2	0	In			mm	,00	1,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 30 Galvanized	000# Forge	ed ASTM A	105		0,12		
										ı	M Erection				Total Kg:	28,78		
SZ1	SABIZ	PLANT A	ANSI			01104	- 0			A A	Area A 1 /	/ 1			TOTAL Kg:	28,78		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:						: 2F11		REV: 0	23/07/2	.012
	PUMA	A 5		23/07/20	012 15.00	0.08							DOC:	2F11.6	55.102		•	
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °	С	Pres: Bar(g)	Corr: n	ım
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg) A	s.bly Bra	nch
982	1	0	In	3,38		mm	,00	13,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRI	O-M NPT s	sch.40		32,53		
1738	1	1/2	In			mm	,00	16,00	NR	202	Tee Reducing SB-ATI-PR008/0 THRD-A 105 Galvanized	-F NPT 300	00# Forged .	ASTM				
2496	1	0	In			mm	,00	1,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 30 Galvanized	000# Forge	d ASTM A	105		0,25		
										I	M Erection				Total Kg:	32,78		
SZ1	SABIZ	PLANT A	ANSI			01105	- 0			A	Area A 1	/ 1		TO	OTAL Kg:	32,78		

Plant SZ1 SABIZ PLANT ANSI	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:						: 2F11		REV: 0	23/07/2012
	PUMA	A 5		23/07/20	012 15.00	0.08							DOC:	2F11.65.	.102	•	•
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C		Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Ge	en. Bolt	Weight (Kg) As	s.bly Branch
982	1	0	In	3,38		mm	,00	19,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	8000# THRI	D-M NPT s	ch.40		47,54	
1738	1	1/2	In			mm	,00	15,00	NR	202	Tee Reducing SB-ATI-PR008/0 THRD-A 105 Galvanized	-F NPT 300	00# Forged	ASTM			
2496	1	0	In			mm	,00	1,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 3 Galvanized	000# Forge	d ASTM A	105		0,25	
										1	M Erection			Т	otal Kg:	47,79	
SZ1	SABIZ	PLANT A	ANSI			01106	- 0			A	Area A 1	/ 1		TOT	TAL Kg:	47,79	

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

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ							2F11		REV: 0	23	/07/2012
	PUMA5	5		23/07/2	012 15.0	0.08							D	OC:	2F11	.65.102			
		D	ESMET	- Ballestr	a						SABIZ 8000 kg/h	Size: In	Thk: m	n	Temp	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		Т1	T2		Len mm	Qty	Um	Pip. clas	SS Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
984	1+1/2	0	In	3,68		mm	,00	46,00	m	202	Pipe ASME B36.10+Coupling ASME Seamless API 5L GR. B Galvanized	3000# THE	RD-M N	PT sc	ch.40		186,26		
183	1+1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000	# Forged	AST	МА		9,60		
1743	1+1/2	1/2	In			mm	,00	1,00	NR	202	Tee Reducing SB-ATI-PR008/0 THRD A 105 Galvanized)-F NPT 30	000# For	ged A	STM				
1745	1+1/2	1	In			mm	,00	1,00	NR	202	Tee Reducing SB-ATI-PR008/0 THRD A 105 Galvanized	O-F NPT 30	000# For	ged A	STM				
2566	1+1/2	0	In			mm	,00	1,00	NR	202	Tee Straight SB-ATI-PR008/0 THRD-105 Galvanized	F NPT 300	00# Forge	ed AS	TM A				
2498	1+1/2	0	In			mm	,00	2,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 3 Galvanized	3000# Forg	ed ASTN	I A 10	05		1,50		
											M Erection					Total Kg:	197,36		
SZ1	SABIZ PI	LANT A	ANSI			01107	- 0			A	Area A 1	/ 1			7	ΓΟΤΑL Kg:	197,36		

Plant SZ1 SABIZ PLANT ANSI Line 01107 - 0	Piping Class 202 Fluid	Welding specification System		
Dang. fluid type	Coating	De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code		Page 1
Zones				

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:					2F11		REV: 0	23/	07/2012	
	PUMA	15		23/07/2	012 15.0	00.08							DOC:	2F11	.65.102			
		D	ESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
982	1	0	In	3,38		mm	,00	24,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	8000# THR	D-M NPT so	ch.40		60,05		
181	1	0	In			mm	,00	2,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000#	Forged AST	ГМ А		2,20		
2564	1	0	In			mm	,00	2,00	NR	202	Tee Straight SB-ATI-PR008/0 THRD-F	NPT 3000)# Forged AS	STM A		1,14		
2496	1	0	In			mm	,00	1,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 30 Galvanized	000# Forge	d ASTM A 1	105		0,25		
										1	M Erection				Total Kg:	63,64		
SZ1	SABIZ	PLANT A	ANSI			01108	- 0			A	Area A 1	/ 1		,	TOTAL Kg:	63,64		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
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			

		DESM	ET - E	Ballestra				SKETCHES MATERIAL LIST PROJ:								REV:	23	3/07/2012
	PUMA	\ 5		23/07/20	012 15.0	0.08							DOC:	2F11	.65.102			
		D	ESME'	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	15,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRI	D-M NPT s	sch.40		18,99		
179	1/2	0	In			mm	,00	1,00	NR	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000#	Forged AS	ГМ А		0,40		
2562	1/2	0	In			mm	,00	2,00	NR	R 202	Tee Straight SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000	# Forged A	STM A		0,56		
2494	1/2	0	In			mm	,00	1,00	NR	R 202	Cap SB-ATI-PR008/0 THRD-F NPT 30 Galvanized	000# Forge	d ASTM A	105		0,12		
										N	M Erection				Total Kg:	20,07		
SZ1	SABIZ	PLANT A	ANSI			01110	- 0			A A	Area A 1	/ 1			TOTAL Kg:	20,07		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
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			

	DESMET - Ballestra													2F11		REV:	0 2	23/07/2012
	PUMA	A 5		23/07/20	012 15.0	0.08							DOC:	2F11.	.65.102	•		
		D	ESMET	Γ - Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	:°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Un	Pip. class	Component				Gen. Bolt	Weight (K	g) As.bly	Branch
982	1	0	In	3,38		mm	,00	12,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRE	O-M NPT so	ch.40		30,0	3	
181	1	0	In			mm	,00	3,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000#	Forged AST	M A		3,30	0	
1738	1	1/2	In			mm	,00	2,00	NR	202	Tee Reducing SB-ATI-PR008/0 THRD-A 105 Galvanized	F NPT 300	0# Forged A	ASTM				
2496	1	0	In			mm	,00	1,00	NR	202	Cap SB-ATI-PR008/0 THRD-F NPT 30 Galvanized	000# Forged	ASTM A 1	.05		0,2	5	
										N	M Erection				Total Kg:	33,5	8	
SZ1	SABIZ	PLANT A	ANSI			01111	- 0			A A	Area A 1 /	['] 1		7	ΓΟΤΑL Kg:	33,5	8	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
Line 01111 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								,	SKETCH	IES MATERIAL LIST		PR	OJ : 2	2F11		REV:) 23	3/07/2012
	PUMA	A5		23/07/20	012 15.00	0.08							DO	C : 2	2F11.65.	102		•	
		D	ESMET	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	7	Гетр: °С		Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qt	y Un	Pip. class	Component				Ge	n. Bolt	Weight (Kg) As.bly	Branch
985	2	0	In	3,91		mm	,00,	6,0	0 m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	D-M NF	T sch.	.40		32,62		
1748	2	1	In			mm	,00	1,0	0 NF	202	Tee Reducing SB-ATI-PR008/0 THRD-A 105 Galvanized	-F NPT 30	00# Forg	ed AS	TM				
2567	2	0	In			mm	,00	1,0	0 NF	202	Tee Straight SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000	0# Forgeo	i ASTI	МА				
544	1	1/2	In			mm	,00	1,0	0 NF	202	Reducing Insert M/F SB-ATI-PR008/0 3000# Forged ASTM A 105 Galvanized		NPT x T	HRD-F	F		0,19		
2499	2	0	In			mm	,00	1,(0 NF	202	Cap SB-ATI-PR008/0 THRD-F NPT 30 Galvanized	000# Forge	ed ASTM	A 105	5		1,60		
										N	M Erection				Т	otal Kg:	34,41		
SZ1	SABIZ	PLANT A	ANSI			01113 -	- 0			A A	Area A 1	/ 1			ТОТ	TAL Kg:	34,41		

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

	DESMET - Ballestra					SKETCHES MATERIAL LIST PROJ:					2F11	REV: 0	23/	07/2012	
	PUMA	\ 5		23/07/20	012 15.00.08					Γ	OOC:	2F11.65.102	•		
		D	ESMET	- Ballestra	ı				SABIZ 8000 kg/h	Size: In Thk:	mm	Temp: °C	Pres: Bar(g)	Corr: mm	
Mark	S1	S2		T1	T2	Len mm	Qty	Um Pip. cl	ass Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
982	1	0	In	3,38	mm	,00			Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	NPT scl	h.40	15,01	•	
2564	1	0	In		mm	,00	1,00	NR 202	Tee Straight SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000# For	ged AS	ГМ А	0,57		
2496	1	0	In		mm	,00	1,00	NR 202	Cap SB-ATI-PR008/0 THRD-F NPT 3 Galvanized	000# Forged AST	ГМ А 10)5	0,25		
									M Erection			Total Kg:	15,83		
SZ1	SABIZ	PLANT A	ANSI		01114	- 0		A	Area A	/ 1		TOTAL Kg:	15,83		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
Line 01114 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - I	Ballestra					5	SKETCH	HES MATERIAL LIST		PROJ	2F11		REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	0.09							DOC:	2F11.	.65.102	•	•	
		D	ESME'	T - Ballestra	ı					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRI	D-M NPT s	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	ГHRD-F NI	PT 200 LB I	Forged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000#	Forged AS7	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	7 3000# Forg	ged ASTM A	A 105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT /	ANSI			01115	- 0			Α /	Area A 1	/ 1		7	TOTAL Kg:	9.79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 01115 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								5	SKETCH	HES MATERIAL LIST		PROJ	2F11	[REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	0.09							DOC	2F11	1.65.102			
		D	ESME'	T - Ballestra	ı					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp): ℃	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	D-M NPT	sch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/07 BRASS NICKEL PLATED S 87	THRD-F N	PT 200 LB	Forged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000#	Forged AS	TM A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	Γ 3000# For	ged ASTM	A 105		0,30		
										ı	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT.	ANSI			01117	- 0			Α ,	Area A 1	/ 1			TOTAL Kg:	9.79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 01117 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								5	SKETCH	HES MATERIAL LIST		PROJ:	2F11		REV:) 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.09							DOC:	2F11.6	55.102	•		
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			01118	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	l
Line 01118 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								5	SKETCH	HES MATERIAL LIST		PROJ	2F11		REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	0.09							DOC	2F11	1.65.102		•	
		D	ESME'	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp); °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	D-M NPT	sch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/07 BRASS NICKEL PLATED S 87	THRD-F N	PT 200 LB	Forged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000#	Forged AS	TM A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	Γ 3000# For	ged ASTM	A 105		0,30		
										ı	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT.	ANSI			01119	- 0			Α ,	Area A 1	/ 1			TOTAL Kg:	9.79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 01119 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESME	ET - E	Ballestra						SKET	CHES MATERIAL LIST			PROJ	2F11		REV: 0	23	/07/2012
	PUMA	\ 5		23/07/20)12 15.00	0.09								DOC:	2F11	.65.102			
		Dl	ESME'	Γ - Ballestra	ì						SABIZ 8000 kg/h	Size: In	Thk:	mm	Temp	:℃	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Q	ty U	m Pip. c	ass Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
982	1	0	In	3,38		mm	,00	0 8,	00 n	n 202	Pipe ASME B36.10+Coupling A Seamless API 5L GR. B Galvan		IRD-M	NPT s	ch.40		20,02		
181	1	0	In			mm	,00	2,	00 N	R 202	90° Elbow SB-ATI-PR008/0 TF 105 Galvanized	HRD-F NPT 300	0# Forg	ed AS	ГМ А		2,20		
1738	1	1/2	In			mm	,00	0 2,	00 N	R 202	Tee Reducing SB-ATI-PR008/0 A 105 Galvanized	THRD-F NPT 3	3000# F	Forged A	ASTM				
2564	1	0	In			mm	,00	0 1,	00 N	R 202	Tee Straight SB-ATI-PR008/0 T 105 Galvanized	THRD-F NPT 30	000# Fo	rged A	STM A		0,57		
2496	1	0	In			mm	,00	0 1,	00 N	R 202	Cap SB-ATI-PR008/0 THRD-F Galvanized	NPT 3000# For	ged AS	TM A	105		0,25		
											M Erection					Total Kg:	23,04		
SZ1	SABIZ	PLANT A	NSI			01122	- 0			A	Area A	1 / 1			,	TOTAL Kg:	23,04		

Plant SZ1 SABIZ PLANT ANSI Line 01122 - 0	Piping Class 202 Fluid	Welding specification System	0.4	
Dang. fluid type Area Area A Zones	Coating Sketch Sht 1/1	De pres Isometric code	Op tem Page	ge 1

	DESMET - Ballestra PUMA5 23/07/2012 15.00.09								S	KETCE	HES MATER	IAL LIST		PRO) J : 2	2F11	REV	: 0	23/07/2012
	PUMA	\ 5		23/07/2	012 15.	00.09								DO	C: 2	2F11.65.102			
		D	ESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h		Size: In	Thk: mm	7	Гетр: °С	Pres: Bar(g)	Corr: mm
								,		,							-		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg) As.b	oly Branch
900	3	0	In	3,18		mm	,00	12,00	m	205	Pipe ASME B36.	10 PL E.R.W. API 5L	Gr.B				80	,66	
2421	3	0	In	3,18		mm	,00	1,00	NR	205	Cap ASME B16.	9 BE sch.40 Seamless A	ASTM A 2	34 Gr. W	PB		C	,41	
										N	M Erection					Total Kg	81	,08	
SZ1	SABIZ PLANT ANSI 03101 - 0				- 0			A A	Area A	1 /	1			TOTAL Kg	81	,08			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 03101 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra PUMA5 23/07/2012 15.00.09								S	KETCH	HES MAT	ERIAL LIST		PRO	J: 2F1	1	REV:	0	23/07/2012
	PUMA5	í		23/07/20	012 15.0	00.09								DOC	2F1	1.65.102	•		
		Dl	ESMET	T - Ballestra	a					S	SABIZ 8000 kg/h	l	Size: In	Thk: mm	Tem	ıp: ℃	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	1 Qty	Um	Pip. class	Component					Gen. Bolt	Weight (K	(g) As.bl	y Branch
935	1+1/2	0	In	3,68		mm	,00	12,00	m	205	Pipe ASME	B36.10 PL sch.40 Seamless	API 5L Gr	.B			48,5	59	
2418	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	Cap ASME l	B16.9 BE sch.40 Seamless	ASTM A 2	34 Gr. WF	В		0,	18	
									•	N	M Erection					Total Kg:	48,	77	
SZ1	Z1 SABIZ PLANT ANSI 03102 - 0					- 0			A A	Area A	1 /	1			TOTAL Kg:	48,	77		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra								S	KETCI	HES MATE	CRIAL LIST		PRO	OJ:	2F11		REV:	0 2	3/07/2012
	PUMA	\ 5		23/07/2	012 15.0	00.09								DO	C:	2F11.65.102				
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h		Size: In	Thk: mm		Temp: °C	Pr	es: Bar(g)		Corr: mm
										,										
Mark	S1	S2		T1	T2		Len mm	ı Qty	Um	Pip. class	Component					Gen. Bol	t W	eight (Kg	g) As.bly	Branch
936	2	0	In	3,91		mm	,00	21,00	m	205	Pipe ASME B	336.10 PL sch.40 Seamless	API 5L Gr	:.В				114,13	8	
2419	2	0	In	3,91		mm	,00	1,00	NR	205	Cap ASME B	16.9 BE sch.40 Seamless	ASTM A 2	34 Gr. W	PB			0,3	1	
										1	M Erection					Total K	g:	114,4	9	
SZ1	SZI SABIZ PLANT ANSI 03103 - 0					- 0			A .	Area A	1 /	′ 1			TOTAL K	g:	114,49	9		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 03103 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCH	HES MAT	ERIAL LIST		PRO	J : 2	F11	REV	: 0	23/07/2012
	PUMA	A 5		23/07/2	012 15.0	00.09	1							DO	2: 2:	F11.65.102	•		
	DESMET - Ballestra									S	SABIZ 8000 kg/h	l	Size: In	Thk: mm	Т	`emp: °C	Pres: Bar	(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight ((Kg) As.b	ly Branch
933	1	0	In	3,38		mm	,00	21,00	m	205	Pipe ASME	B36.10 PL sch.40 Seamless	API 5L G	r.B			52	2,55	
2416	1	0	In	3,38		mm	,00	1,00	NR	205	Cap ASME I	B16.9 BE sch.40 Seamless A	ASTM A 2	34 Gr. Wl	РΒ		(),10	
										1	M Erection					Total Kg:	52	2,65	
SZ1	ZI SABIZ PLANT ANSI 03104 - 0					- 0			A A	Area A	1 /	1			TOTAL Kg:	52	2,65		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

	DESMET - Ballestra								S	KETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	3/07/2012
	PUMA	A 5		23/07/20	12 15.00	0.09							DOC:	2F11.6	55.102			
		D	ESMET	Γ - Ballestra	1					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °	С	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Otv	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00		-	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				50,04	·	
229	1	0	In	3,38		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wro	ught S AS	STM A		0,14		
2416	1	0	In	3,38		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 234	Gr. WPB			0,10		
									N	M Erection			'	Total Kg:	50,28			
SZ1	SABIZ	SABIZ PLANT ANSI 03105 -				- 0			A A	Area A 1	/ 1		TO	OTAL Kg:	50,28			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificatio	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							S	KETCI	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012	
	PUMA	\ 5		23/07/20	012 15.00	0.09							DOC:	2F11.65	5.102			
		D	ESMET	Γ - Ballestra	ì					S	SABIZ 8000 kg/h	Size: In Thl	k: mm	Temp: °C	C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		Т1	Т2		Len mm	Qty	Um	Pip. class	Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00	20,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				50,04	<u> </u>	
229	1	0	In	3,38		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wro	ught S AS	STM A		0,14		
2416	1	0	In	3,38		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 234 (Gr. WPB			0,10		
									,	1	M Erection				Total Kg:	50,28		
SZ1	SABIZ PLANT ANSI 03106 - 0			- 0			A	Area A 1	/ 1		TO	TAL Kg:	50,28					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra								S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	/07/2012
	PUMA5			23/07/20	12 15.00).09							DOC:	2F11.6	55.102			
		D	ESMET	- Ballestra	l					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °	C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	17,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr	r.B			68,84		
231	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Vrought S AS	STM A		0,37		
2418	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 2	34 Gr. WPB			0,18		
									N	M Erection			•	Total Kg:	69,39			
SZ1	1 SABIZ PLANT ANSI 03107 - 0			- 0			A A	Area A 1	1		T	OTAL Kg:	69,39					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23.	/07/2012
	PUMA	.5		23/07/2	012 15.0	0.09							DOC:	2F11.	65.102		•	
		D	ESMET	- Ballestr	a					SA	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	17,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				21,52		
193	1/2	0	In			mm	,00	1,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105			0,25		
2576	1/2	0	In			mm	,00	4,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	TM A 10)5				
2508	1/2	0	In			mm	,00	1,00	NR	205	Cap SB-ATI-PR007/0 SW-F 3000# For	ged ASTM A 1	05			0,12		
									N	I Erection				Total Kg:	21,89			
SZ1	1 SABIZ PLANT ANSI 03108 - 0			0			A A	area A 1	1		Т	OTAL Kg:	21,89					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SB-A SP00*	
Line 03108 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra											PROJ:	2F11		REV: 0	23.	/07/2012	
	PUMA	.5		23/07/20	012 15.00.0)9							DOC:	2F11.	65.102		•	
		D	ESMET	- Ballestra	ı					S	ABIZ 8000 kg/h	Size: In Thl	K: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2	Len n	m	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77	1	mm ,	00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				7,59		
2025	1/2	0	In		1	mm ,	00	3,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged AST	M A 105	G 61		5,10		
2678	1/2	0	In		1	mm ,	00	1,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 300	LB Forged A	STM A 1	05 T		0,80		
				'						'	66				·			
193	1/2	0	In		1	mm ,	900	9,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	# Forged AST	M A 105			2,25		
2576	1/2	0	In		1	mm ,	00	2,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 300	00# Forged AS	TM A 10)5				
						•	•			N	1 Erection				Total Kg:	15,74		
SZ1	1 SABIZ PLANT ANSI 03111 - 0					3111 - 0				A A	Area A 1 /	1		Т	OTAL Kg:	15,74		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificat	tion SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ:					2F11	REV: 0	23	3/07/2012		
	PUMA	\ 5		23/07/2	012 15.00	0.10							DOC:	2F11.65.102	•		
		D	ESMET	- Ballestr	a					SA	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	Т2	Lei	n mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	7,00			Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B			8,86		
2025	1/2	0	In			mm	,00	3,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged AST	M A 105	G 61	5,10		
2678	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 300) LB Forged A	STM A 1	05 T	0,80		
											66						
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	# Forged AST	TM A 105		0,75		
2576	1/2	0	In			mm	,00	2,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10)5			
										N	1 Erection			Total Kg:	15,51		
SZ1	.1 SABIZ PLANT ANSI 03112 - 0							A A	rea A 1	1		TOTAL Kg:	15,51	1			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	/07/2012
	PUMA	\ 5		23/07/20	012 15.0	0.10							DOC:	2F11.6	55.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00	18,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	API 5L G	r.B			45,04		
229	1	0	In	3,38		mm	,00	3,00	NR	205	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 V	Vrought S AS	STM A		0,41		
2416	1	0	In	3,38		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 2	34 Gr. WPB			0,10		
	'	1	'	'		1				N	M Erection			'	Total Kg:	45,55		
SZ1	SABIZ PLANT ANSI 03115 -				- 0			A A	Area A 1	′ 1		T	OTAL Kg:	45,55				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							S	KETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	3/07/2012	
	PUMA	A 5		23/07/20	12 15.0	0.10							DOC:	2F11.6	55.102			
		D	ESMET	Γ - Ballestra	1					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °	С	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	Т2		Len mm	Otv	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg)	As,blv	Branch
933	1	0	In	3,38		mm	,00		-	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				35,03		
229	1	0	In	3,38		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 Wro	ught S AS	STM A		0,14		
2416	1	0	In	3,38		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 234	Gr. WPB			0,10		
								•	N	M Erection			'	Total Kg:	35,27			
SZ1	SABIZ PLANT ANSI 03116 - 0				- 0			A A	Area A 1	/ 1		TO	OTAL Kg:	35,27				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificat	tion SB-ATI-SP006/0 SB-ATI- SP007/0
Line 03116 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST						PROJ:	2F11		REV:	23	/07/2012
	PUMA	.5		23/07/2	012 15.0	00.10							DOC:	2F11.	65.102	•		
		DI	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2]	Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	14,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				17,72		
193	1/2	0	In			mm	,00	1,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105			0,25		
2576	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10)5				
2508	1/2	0	In			mm	,00	1,00	NR	205	Cap SB-ATI-PR007/0 SW-F 3000# For	ged ASTM A	.05			0,12		
	1	'	'		_		•	,		N	I Erection				Total Kg:	18,09		
SZ1	1 SABIZ PLANT ANSI 03117 - 0)			A A	area A 1	/ 1		T	OTAL Kg:	18,09				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificat	ion SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ:				: 2F11		REV: 0	23	/07/2012			
	PUMA	A 5		23/07/20	012 15.00	.10							DOC:	2F11.6	55.102		•	
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00	19,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:.B			47,54		
229	1	0	In	3,38		mm	,00	1,00	NR	205	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Vrought S A	STM A		0,14		
2550	1	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR008/0 THRD-F	NPT 3000	# Forged A	STM A		0,57		
2416	1	0	In	3,38		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 2	34 Gr. WPB			0,10		
	'	'							,	N	M Erection				Total Kg:	48,35		
SZ1	SABIZ	PLANT A	ANSI			03118	- 0			Α Α	Area A 1	/ 1		T	OTAL Kg:	48.35		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra								S	KETCH	ES MATERIAL LIST		PROJ:	2F11		REV:	23	/07/2012
	PUMA	5		23/07/20	012 15.0	0.10							DOC:	2F11.6	55.102	•	•	
		DE	SMET	Ballestra	ı					SA	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00,	4,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				5,06		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged AST	M A 105	G 61		1,70		
193	1/2	0	In			mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AST	M A 105			1,00		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10)5				
										N	1 Erection			•	Total Kg:	7,76	i	
SZ1	SABIZ PLANT ANSI 03119 - 0				0			A A	area A 1 /	1		T	OTAL Kg:	7,76				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SB- SPO	ATI-SP006/0 SB-ATI- 007/0
Line 03119 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	23	/07/2012
	PUMA	.5		23/07/2	012 15.0	00.10							DOC:	2F11.	65.102	•		
		DI	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2]	Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				7,59		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged AST	M A 105	G 61		1,70		
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105			0,75		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10)5				
		'	'		'		-	,		N	I Erection				Total Kg:	10,04		
SZ1	SABIZ I	PLANT A	NSI			03120 - 0	0			A A	area A 1	/ 1		T	OTAL Kg:	10,04		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SB- SP0	ATI-SP006/0 SB-ATI- 007/0
Line 03120 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	0 23	3/07/2012
	PUMA5			23/07/20	12 15.00	0.10							DOC:	2F11.65.10)2			
		D	ESMET	- Ballestra	1					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C	Pı	es: Bar(g)	(Corr: mm
							T			1								
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen.	Bolt W	eight (Kg	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	18,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B					72,89)	
231	1+1/2	0	In	3,68		mm	,00	5,00	NR	NR 205 90° Elbow Long Radius ASME B16.9 BE sch.40 Wrought S ASTM			TM A		1,84			
	'		,					-			234 Gr. WPB							
2418	1+1/2	0	In	3,68		mm	,00	1,00	NR	205	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 234	Gr. WPB			0,18	3	
		•			•	•				N	M Erection			Tota	al Kg:	74,91		
SZ1	SABIZ PLANT ANSI 03121				- 0			A A	Area A 1	1		TOTA	L Kg:	74,91				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 03121 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra PUMA5 23/07/2012 15.00.10								S	KETCH	HES MATER	IAL LIST		PRO.	I: 2F1	1	REV:	0 2	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.10								DOC	2F1	1.65.102			
		D	ESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h		Size: In	Thk: mm	Tem	p: ℃	Pres: Bar(g)		Corr: mm
	_																		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	-					Gen. Bolt	Weight (K	g) As.bly	Branch
936	2	0	In	3,91		mm	,00	40,00	m	203	Pipe ASME B36	5.10 PL sch.40 Seamless	API 5L Gr.	В			217,4	.9	
2419	2	0	In	3,91		mm	,00	2,00	NR	203	Cap ASME B16	.9 BE sch.40 Seamless	ASTM A 23	4 Gr. WP	3		0,6	3	
										N	M Erection					Total Kg:	218,1	1	
SZ1	Z1 SABIZ PLANT ANSI 04101 - 0					- 0			A A	Area A	1 /	1			TOTAL Kg:	218,1	1		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra PUMA5 23/07/2012 15.00.10								S	KETCH	HES MATERI	IAL LIST		PRO	J: 2F	11	REV:	0 2	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.10								DOC	: 2F	11.65.102			
		D	ESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h		Size: In	Thk: mm	Ter	mp: °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	-					Gen. Bolt	Weight (K	g) As.bly	Branch
936	2	0	In	3,91		mm	,00	40,00	m	203	Pipe ASME B36.	10 PL sch.40 Seamless	API 5L Gr	.B			217,4	.9	
2419	2	0	In	3,91		mm	,00	2,00	NR	203	Cap ASME B16.9	BE sch.40 Seamless	ASTM A 23	34 Gr. WP	В		0,6	3	
										N	M Erection					Total Kg:	218,1	1	
SZ1	Z1 SABIZ PLANT ANSI 04102 - 0					- 0			A A	Area A	1 /	′ 1			TOTAL Kg:	218,1	1		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra PUMA5 23/07/2012 15.00.10								S	KETCE	HES MATER	RIAL LIST		PR	OJ:	2F11		REV:	0 2	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	00.10								DO	C:	2F11.65.1	102	-		
		D	ESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h		Size: In	Thk: mm		Temp: °C		Pres: Bar(g)		Corr: mm
								1		1	-									
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	ss Component					Gen	ı. Bolt	Weight (K	g) As.bly	Branch
936	2	0	In	3,91		mm	,00	18,00	m	203	Pipe ASME B3	6.10 PL sch.40 Seamless	API 5L G	r.B				97,8	7	
2419	2	0	In	3,91		mm	,00	1,00	NR	203	Cap ASME B16	5.9 BE sch.40 Seamless A	ASTM A 2	34 Gr. W	/PB			0,3	1	
			•							N	M Erection					To	tal Kg:	98,1	18	
SZ1	SABIZ PLANT ANSI 05101 - 0					- 0			A A	Area A	1 /	1			TOT	AL Kg:	98,1	.8		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ						PROJ:	2F11	REV: 0	23	/07/2012
	PUMA	.5		23/07/2	012 15.00	.10							DOC:	2F11.65.102			
	DESMET - Ballestra								S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	(Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bol	t Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00	22,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B		119,62		
2419	2	0	In	3,91		mm	,00	2,00	NR	203	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 2	34 Gr. WPB		0,63		
	·	•	•]	A Erection			Total K	g: 120,24		
SZ1	Z1 SABIZ PLANT ANSI 05102 - 0			- 0			Α .	Area A 1	/ 1		TOTAL K	g: 120,24					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra				SKETCHES MATERIAL LIST PROJ: 2F1								REV: 0	23	/07/2012
	PUMA	15		23/07/20	12 15.00	.10							DOC:	2F11.	65.102			
	DESMET - Ballestra									S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		Т1	T2		Len mm	Otv	Ilm	Pip. class	Component				Gen. Bolt	Weight (Kg)	Ac bly	Branch
936	2	0	In	3,91	12	mm	,00		-	-	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.I	3		Gen. Bon	114,18	•	Branch
2485	2 0 In mm ,00 1,00 NR 203 Cap SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105							05		1,60								
								M Erection						Total Kg:	115,78			

TOTAL Kg:

115,78

Area A

Α

SZ1

SABIZ PLANT ANSI

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specificati	ion SB-ATI-SP006/0 SB-ATI- SP007/0
Line 05103 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1

		DESME	T - B	allestra				SKETCHES MATERIAL LIST PROJ. 2F11							REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	12 15.00	.10							DOC:	2F11.65.102			
	DESMET - Ballestra									S	ABIZ 8000 kg/h	Size: In Thk	: mm	Temp: °C	Pres: Bar(g)	C	orr: mm
							1								-		
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00	,00 21,00 m 203 Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B					114,18				
2485	2	0	In			mm	,00	,00 1,00 NR 203 Cap SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105)5	1,60				

M Erection

Area A

A

SZ1

SABIZ PLANT ANSI

05104 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

Total Kg:

TOTAL Kg:

115,78

115,78

	DESMET - Ballestra					SKETCHES MATERIAL LIST PROJ: 21					2F11		REV: 0	23	/07/2012			
	PUMA5	;		23/07/20	012 15.00	0.10							DOC:	2F11.6	55.102			
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	20,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.I	3			80,98		
169	1+1/2	0	In			mm	,00	1,00	NR	203	90° Elbow SB-ATI-PR008/0 THRD-F 1 105	NPT 3000# F	orged AST	МА		2,40		
2484	1+1/2	0	In			mm	,00,	1,00	NR	203	Cap SB-ATI-PR008/0 THRD-F NPT 30	000# Forged	ASTM A 1	05		0,75		
	•		•			•				N	M Erection				Total Kg:	84,13		
SZ1	SABIZ PLANT ANSI 05105 - 0		- 0	A Area A 1 / 1			1		T	OTAL Kg:	84,13							

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra										PROJ:	2F11		REV:	23	/07/2012		
	PUMA5	í		23/07/20	012 15.00	0.10							DOC:	2F11.6	5.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In Th	nk: mm	Temp: °	С	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	20,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				80,98		
169	1+1/2	0	In			mm	,00	1,00	NR	203	90° Elbow SB-ATI-PR008/0 THRD-F	NPT 3000# Fo	orged AST	M A		2,40		
								-	_		105							
2484	1+1/2	0	In			mm	,00	1,00	NR	203	Cap SB-ATI-PR008/0 THRD-F NPT 30	000# Forged A	ASTM A 1	05		0,75		
										N	M Erection			•	Total Kg:	84,13		
SZ1	I SABIZ PLANT ANSI 05106 - 0			- 0			A A	Area A 1	['] 1		TO	OTAL Kg:	84,13					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra										PROJ:	2F11		REV:	23	/07/2012		
	PUMA5	í		23/07/20	012 15.00	0.11							DOC:	2F11.6	55.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °	°C	Pres: Bar(g)	(Corr: mm
							1											
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg)	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	20,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				80,98		
169	1+1/2	0	In			mm	,00	1,00	NR	203	90° Elbow SB-ATI-PR008/0 THRD-F 1	NPT 3000# Fo	rged AST	M A		2,40		
								-	_		105							
2484	1+1/2	0	In			mm	,00	1,00	NR	203	Cap SB-ATI-PR008/0 THRD-F NPT 30	000# Forged A	STM A 1	05		0,75		
										N	M Erection				Total Kg:	84,13		
SZ1	1 SABIZ PLANT ANSI 05107 - 0			- 0			A A	Area A 1 /	1		TO	OTAL Kg:	84,13					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SB-A SP00	
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F					2F11		REV: 0	23	07/2012	
	PUMA5	;		23/07/20	012 15.0	0.11							DOC:	2F11.6	55.102		-	
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	20,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			80,98	<u> </u>	
169	1+1/2	0	In			mm	,00	1,00	NR	203	90° Elbow SB-ATI-PR008/0 THRD-F 1 105	NPT 3000# 1	Forged AST	МА		2,40		
2484	1+1/2	0	In			mm	,00,	1,00	NR	203	Cap SB-ATI-PR008/0 THRD-F NPT 30	000# Forged	ASTM A 1	05		0,75		
			,	,	,					N	M Erection			•	Total Kg:	84,13		
SZ1	SABIZ PI	LANT A	ANSI			05108	- 0			A A	Area A 1 /	/ 1		Т	OTAL Kg:	84,13		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra													PRO.	1: 2F1		REV:	0 2	23/07/2012
	PUMA	A 5		23/07/2	012 15.0	00.11								DOC	2F1	1.65.102			
	DESMET - Ballestra									S	SABIZ 8000 kg/h		Size: In	Thk: mm	Temp): °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	T2		Len mn	Otv	Um	Pip. class	Component					Gen. Bolt	Weight (K	a) As bly	Branch
936	2	0	In	3,91	12	mm	,00		-	•	-	6.10 PL sch.40 Seamless	API 5L G	:.B		Gen. Boit	65,2	· •	Dranen
2419	2	0	In	3,91		mm	,00	1,00	NR	203	Cap ASME B16	5.9 BE sch.40 Seamless	ASTM A 2	34 Gr. WP	3		0,3	1	
										N	M Erection					Total Kg:	65,5	6	
SZ1	SZ1 SABIZ PLANT ANSI 07101 - 0					- 0			A A	Area A	1 /	1			TOTAL Kg:	65,5	6		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra													PRO.	J: 2F1	.1	REV:	0 2	23/07/2012
	PUMA	15		23/07/2	012 15.0	00.11								DOC	2F1	1.65.102			
		D	ESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h		Size: In	Thk: mm	Tem	ıp: °C	Pres: Bar(g)		Corr: mm
										_									
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (K	g) As.bly	Branch
936	2	0	In	3,91		mm	,00	22,00	m	203	Pipe ASME B36	.10 PL sch.40 Seamless	API 5L Gr.	В			119,6	2	
2419	2	0	In	3,91		mm	,00	1,00	NR	203	Cap ASME B16.	9 BE sch.40 Seamless A	ASTM A 23	4 Gr. WP	3		0,3	1	
										N	M Erection					Total Kg:	119,9	93	
SZ1	SZI SABIZ PLANT ANSI 07102 - 0				- 0			A A	Area A	1 /	1			TOTAL Kg:	119,9	3			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ:						2F11		REV:	23	3/07/2012	
	PUMA	15		23/07/20	012 15.00	0.11							DOC:	2F11.65.1	102			
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C		Pres: Bar(g)	(Corr: mm
							1											
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Ger	n. Bolt	Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00	19,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				103,31		
232	2	0	In	3,91		mm	,00	1,00	NR	203	90° Elbow Long Radius ASME B16.9 E	BE sch.40 Wro	ught S AS	TM A		0,66		
		'						-			234 Gr. WPB							
2419	2	0	In	3,91		mm	,00	1,00	NR	203	Cap ASME B16.9 BE sch.40 Seamless	ASTM A 234 (Gr. WPB			0,31		
						•				N	M Erection			To	otal Kg:	104,28		
SZ1	SABIZ	PLANT A	ANSI			07103	- 0			A A	Area A 1	1		TOT	AL Kg:	104,28		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SI	B-ATI-SP006/0 SB-ATI- P007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F1						2F11		REV: 0	23	3/07/2012
	PUMA	.5		23/07/20	012 15.00	0.11							DOC:	2F11.6	55.102			
		D	ESME'	T - Ballestra	ì					S	ABIZ 8000 kg/h	Size: In Thk	: mm	Temp: °	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		Т1	Т2		Len mm	Otv	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	Ac bly	Branch
931	1/2	0	In	2,77	12	mm	.00		-	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B			Gen. Don	24,05	•	Dianch
165	1/2	0	In	7		mm	,00	1,00	NR	203	90° Elbow SB-ATI-PR008/0 THRD-F		ged AST	МА		0,40		
2480	1/2	0	In			mm	,00	1,00	NR	203	105 Cap SB-ATI-PR008/0 THRD-F NPT 30	000# Forged AS	STM A 1	05		0,12		
					"	M Erection							Total Kg:	24,57				
SZ1	SABIZ I	PLANT A	ANSI			07104	- 0			A A	Area A 1 /	1		TO	OTAL Kg:	24,57		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SE SF	B-ATI-SP006/0 SB-ATI- P007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:						2F11		REV:	23	/07/2012
	PUMA	.5		23/07/20	012 15.0	0.11							DOC:	2F11.65.1	102			
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In Thl	K: mm	Temp: °C		Pres: Bar(g)	(Corr: mm
																	1	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gei	n. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00	26,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				65,06		
229	1	0	In	3,38		mm	,00	4,00	NR	203	90° Elbow Long Radius ASME B16.9 E	BE sch.40 Wro	ight S AS	TM A		0,54		
	,						•	-			234 Gr. WPB				•			
2482	1	0	In			mm	,00	1,00	NR	203	Cap SB-ATI-PR008/0 THRD-F NPT 30	000# Forged A	STM A 1	05		0,25		
									N	M Erection			To	otal Kg:	65,85			
SZ1	SABIZ I	PLANT A	ANSI			07106	- 0			A A	Area A 1 /	1		TOT	AL Kg:	65,85	1	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SI	B-ATI-SP006/0 SB-ATI- P007/0
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			

		DESMI	ET - Ba	allestra					S	KETCH	HES MATERIAL LIST	PR	OJ: 2F11		REV: 0	23/07/2012
	PUMA	15		23/07/20	12 15.00	.11						DC	C: 2F11	.65.102	•	•
		D	ESMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: In Thk: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg) A	s.bly Branch
936	2	0	In	3,91		mm	,00	9,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B			48,93	
1806	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	ΓHRD-F NPT 200 I	B Forged		2,20	
2087	2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type SB-ATI-VF018/0 THR BRONZE F 70	RD-F NPT 200 LB I	Forged		5,00	
330	2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 AARH) Forged	2838	2,20	
232	2	0	In	3,91		mm	,00	6,00	NR	203	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 Wrought	S ASTM A		3,99	
826	2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR008/0 THRD-F NPT	3000# Forged AST	M A 105		2,01	
2838	5/8	0	In			mm	85,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UN	C/2.2		0,84	
376	2	0	In			mm	,00,	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH) _ E	5C			
				1	I	1	1		1	N	M Erection	·		Total Kg:	65,17	l
SZ1	SABIZ	PLANT A	ANSI			62023	- 0			A A	Area A 1	/ 1	,	TOTAL Kg:	65,17	

LCV_62.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

		DESM	ET - 1	Ballestra					SKETCE	HES MATERIAL LIST	F	ROJ:	2F11	REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.00	0.11					Γ	OC: 2	2F11.65.102		
		Ι	DESME	T - Ballestr	a				5	SABIZ 8000 kg/h	Size: In Thk:	nm '	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Um Pip. class	Component			Gen. Bolt	Weight (Kg) As.bl	y Branch
900	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	
332	3	0	In			mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 AAF	H) Forg	ed 2840	4,10	
199	3	0	In	3,18		mm	,00	1,00	NR 203	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W. ASTM	I A 234 (Gr.	1,18	
2840	5/8	0	In			mm	95,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 U	NC/2.2		0,92	
378	3	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH)	B5C			
	, 				']	M Erection			Total Kg:	26,36	'
SZ1	SABIZ	PLANT	ANSI			62024	- 0		Α .	Area A 1	/ 1		TOTAL Kg:	26,36	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	Ballestra					SKETC	HES MATERIAL LIST	-	PROJ:	2F11		REV: 0	23.	/07/2012
	PUMA	15		23/07/20	012 15.00).11					-	DOC:	2F11.65	5.102	•	•	
		Ε	ESME	Γ - Ballestra	a					SABIZ 8000 kg/h	Size: In Thk:	mm	Temp: °C		Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Um Pip. class	S Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00	1,00	m 203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				5,44		
1806	2	0	In			mm	,00	1,00	NR 203	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	THRD-F NPT 20	00 LB Fo	orged		2,20		
330	2	0	In			mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷250 AA	RH) Forg	ged 28	338	2,20		
2838	5/8	0	In			mm	85,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1	UNC/2.2	2		0,84		
376	2	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH)	_ B5C					
	"		<u>'</u>			1				M Erection			, 1	Fotal Kg:	10,68		
SZ1	SABIZ	PLANT .	ANSI			62025	- 0		A	Area A 1	/ 1		ТО	TAL Kg:	10,68		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - E	Ballestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	A 5		23/07/20	012 15.0	00.11							DOC:	2F11.65	5.102		-
		D	ESME	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	2	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			G	Gen. Bolt	Weight (Kg) As.	bly Branch
901	4	0	In	3,18		mm	,00	27,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				235,28	
87	4	0	In	3,18		mm	,00	2,00	NR	203	45° Elbow Long Radius ASME B16.9 B WPB	BE E.R.W.	ASTM A 234	4 Gr.		2,04	
200	4	0	In	3,18		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 B WPB	BE E.R.W.	ASTM A 234	4 Gr.		4,13	
										N	M Erection				Total Kg:	241,44	
SZ1	SABIZ	PLANT A	ANSI			62026	- 0			A A	Area A 1 /	1		TO	TAL Kg:	241.44	

FUNNEL ST. 46250 TYPE B > 4" Pz. N. 1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	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			

		DESMI	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	07/2012
	PUMA	15		23/07/20	012 15.00).11							DOC:	2F11.65	5.102		•	
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C	2	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
900	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		
2742	3	0	In			mm	,00	1,00	NR	203	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		FER 150 LB	3 RF 28	848	5,20		
332	3	0	In			mm	,00	2,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 .	AARH) For	rged 28	840	8,20		
199	3	0	In	3,18		mm	,00	2,00	NR	203	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W. A	STM A 234	4 Gr.		2,35		
2840	5/8	0	In			mm	95,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	.1 UNC/2.2	2		0,92		
2848	5/8	0	In			mm	145,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	.1 UNC/2.2	2		1,20		
378	3	0	In			mm	,00	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AAR	(H) _ B5C					
2985	5/8	0	In			mm	45,00	4,00	NR	216	Screws for valves ASME B 18.2.1/UNC	C ASTM A 19	3 B7 Galva	anized		0,64		
		'		,			•			N	M Erection			,	Total Kg:	58,85		
SZ1	SABIZ	PLANT A	ANSI			62027	- 0			A A	Area A 1	/ 1		TO	TAL Kg:	58,85		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62027 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESME	T - Ba	llestra					S	KETCH	IES MATERIAL LIST		PRO.	J: 2F11		REV: 0	23/	/07/2012
	PUMA	5		23/07/20	12 15.00	.12							DOC	: 2F11	.65.102			
		DE	SMET -	Ballestra						S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00			203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L C	ir.B			135,93		
1806	2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	ГHRD-F N	VPT 200 LB	Forged		2,20		
2742	3	0	In			mm	,00	1,00	NR	203	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		AFER 150 I	LB RF	2848	5,20		
330	2	0	In			mm	,00,	3,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷25	0 AARH) F	orged	2838	6,60		
332	3	0	In			mm	,00,	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷25	0 AARH) F	orged	2840	4,10		
119	2	0	In	3,91		mm	,00	2,00	NR	203	45° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40	Wrought S A	ASTM A		0,63		
199	3	0	In	3,18		mm	,00,	1,00	NR	203	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W.	ASTM A 2	34 Gr.		1,18		
232	2	0	In	3,91		mm	,00	8,00	NR	203	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40	Wrought S A	ASTM A		5,32		
1011	3	2	In	3,18	3,91	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE I	E.R.W. AS	ГМ A 234 C	Gr. WPB		0,57		
826	2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR008/0 THRD-F NPT	3000# Fo	rged ASTM	A 105		2,01		

Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2

Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C

1 / 1

Tab.9 ASTM A 193 B7 / A 194 Gr.2H

Tab.9 ASTM A 193 B7 / A 194 Gr.2H

2838

2848

376

SZ1

5/8

2

0

0

SABIZ PLANT ANSI

In

In

mm

mm

62029 - 0

85,00

145,00

,00

12,00 NR 203

4,00 NR 203

3,00 NR 203

Α

FQ_62.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

M Erection

Area A

2,52

1,20

167,45

167,45

Total Kg: TOTAL Kg:

		DESM	ET - I	Ballestra					S	SKETCH	HES MATERIAL LIST		PROJ:	2F11	REV: 0	23	/07/2012
	PUMA	A 5		23/07/20	012 15.0	0.12							DOC:	2F11.65.102	•		
		D	ESME	T - Ballestra	a					S	ABIZ 8000 kg/h	Size: In Th	nk: mm	Temp: °C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bol	t Weight (Kg)	As.bly	Branch
901	4	0	In	3,18		mm	,00	1,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B			13,07		
333	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 A	ARH) Forg	ged 2840	5,60		
200	4	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 F WPB	BE E.R.W. AS	STM A 234	Gr.	2,07		
2840	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.	1 UNC/2.2		1,84		
407	4	0	In			mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARI	H) _ B5B				
								•		N	M Erection			Total K	ig: 22,58		
SZ1	SABIZ	PLANT A	ANSI			62030	- 0			Α Α	Area A 1	/ 1		TOTAL K	(g: 22.58		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62030 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

]	DESMI	ET - Ba	allestra					SKETCH	ES MATERIAL LIST		PROJ:	2F11		REV: 0 2	3/07/2012
	PUMA	5		23/07/20	12 15.00).12						DOC:	2F11.	65.102		
		D	ESMET	- Ballestra	l				SA	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
904	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	
931	1/2	0	In	2,77		mm	,00	0,50	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.E	3			0,63	
1898	1/2	0	In			mm	,00	0 1,00	NR 212	Valve Check SB-ATI-VR018/0 SW-F 80	00# Forged A	STM A 10	5 R 83		1,90	
335	6	0	In			mm	,00	2,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 A	AARH) For	ged	2850	15,00	
203	6	0	In	3,96		mm	,00	1,00	NR 212	90° Elbow Long Radius ASME B16.9 B WPB	BE E.R.W. AS	STM A 234	Gr.		5,66	
2850	3/4	0	In			mm	100,0	8,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	.1 UNC/2.2			6,72	
409	6	0	In			mm	,00	3,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AAR	H) _ B5B				
2978	3/4	0	In			mm	50,00	16,00	NR 212	Screws for valves ASME B 18.2.1/UNC	C ASTM A 19	3 B7			10,24	
					"	M Erection							104,35			

A

Area A

SZ1

SABIZ PLANT ANSI

62031 - 0

HV_62.2 DN 6"	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62031 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

TOTAL Kg:

104,35

	D	ESME	T - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ	J: 2F11		REV: 0	23/	/07/2012
	PUMA5	1		23/07/20	12 15.00	0.12							DOC:	2F11.	.65.102		•	
		Dl	ESMET	- Ballestra	I					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
904	6	0	In	3,96		mm	,00	2,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				32,10		
935	1+1/2	0	In	3,68		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			2,02		
1829	1+1/2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 T ASTM A 105 S 98	THRD-F N	PT 800# Fo	orged		3,20		
2757	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		AFER 150 L	B RF	2858	10,30		
335	6	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250	0 AARH) F	orged	2850	7,50		
203	6	0	In	3,96		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W.	ASTM A 23	34 Gr.		11,33		
231	1+1/2	0	In	3,68		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 V	Wrought S A	ASTM A		0,37		
1026	6	3	In	3,96	3,18	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE I	E.R.W. AST	TM A 234 G	ir. WPB		2,18		
2858	3/4	0	In			mm	160,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		8,64		
										N	M Erection				Total Kg:	77,63		

Α

Area A

1 / 1

TOTAL Kg:

77,63

SZ1

SABIZ PLANT ANSI

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specificat	ion SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62032 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - E	Ballestra					SKETCH	IES MATERIAL LIST	PI	2F 1	1	REV: 0	23/07/2012
	PUMA	A 5		23/07/2	012 15.0	0.12					De	OC: 2F1	1.65.102		
		D	ESME	Γ - Ballestr	a				S	ABIZ 8000 kg/h	Size: In Thk: mr	Tem	p: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component			Gen. Bolt	Weight (Kg) As.bl	y Branch
900	3	0	In	3,18		mm	,00	34,00	m 212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B			228,55	
332	3	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 AARI	I) Forged	2840	4,10	
199	3	0	In	3,18		mm	,00	6,00	NR 212	90° Elbow Long Radius ASME B16.9 F WPB	BE E.R.W. ASTM	A 234 Gr.		7,06	
1011	3	2	In	3,18	3,91	mm	,00	1,00	NR 212	Reducer Concentric ASME B16.9 BE E	E.R.W. ASTM A 23	4 Gr. WPE	3	0,57	
2840	5/8	0	In			mm	95,00	4,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UN	C/2.2		0,92	
406	3	0	In			mm	,00	1,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH) _ 1	B5B			
	1				-		1		N	1 Erection			Total Kg:	241,2	
SZ1	SABIZ	PLANT A	ANSI			62033	- 0		A A	Area A 1	/ 1		TOTAL Kg:	241.2	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62033 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - B	allestra					SKETC	HES MATERIAL LIST	PROJ:	2F11	REV: 0	23/07/2012	
	PUMA	15		23/07/20	012 15.00	0.12					Ī	OC:	2F11.65.102		
		Ε	ESMET	- Ballestra	a					SABIZ 8000 kg/h	Size: In Thk:	mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. clas	s Component			Gen. Bolt	Weight (Kg) As.h	ly Branch
900	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	
285	3	0	In			mm	,00	1,00	NR 212	Flange Blind ASME B16.5 150 LB RF ASTM A 105	(125÷250 AARH) Forged	2840	5,00	
199	3	0	In	3,18		mm	,00	2,00	NR 212	90° Elbow Long Radius ASME B16.9 WPB	BE E.R.W. ASTM	I A 234	Gr.	2,35	
2840	5/8	0	In			mm	95,00	4,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 U	JNC/2.2		0,92	
406	3	0	In			mm	,00	1,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH)	_B5B			
	'							•	<u></u>	M Erection			Total Kg	: 21,72	<u> </u>
SZ1	SABIZ	PLANT	ANSI			62034	- 0		A	Area A 1	/ 1		TOTAL Kg	: 21,72	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62034 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PROJ	2F11		REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.00	0.12							DOC:	2F11	.65.102		•	
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
901	4	0	In	3,18		mm	,00	4,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				34,86		
931	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	.B			0,63		
1898	1/2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A 1	05 R 83		1,90		
2695	4	0	In			mm	,00	1,00	NR	212	Valve Ball Type Bottom SB-ATI-VS05 AARH) Cast ASTM A 216 Gr. WCB S		0 LB RF (1	25÷250		33,00		
333	4	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	AARH) Fo	orged	2840	11,20		
200	4	0	In	3,18		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W. A	ASTM A 23	34 Gr.		4,13		
2840	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.	2.1 UNC/2	2		1,84		
407	4	0	In			mm	,00	3,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1)	25÷250 AA	RH) _ B5B	ļ				
2975	5/8	0	In			mm	45,00	8,00	NR	212	Screws for valves ASME B 18.2.1/UNC	ASTM A 1	93 B7			1,28		
		,					•			N	1 Erection				Total Kg:	88,84		

Α

Area A

1 / 1

SZ1

SABIZ PLANT ANSI

62035 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62035 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

88,84

TOTAL Kg:

		DESM	ET - 1	Ballestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11	REV: 0	23/	07/2012
	PUMA	A 5		23/07/20	012 15.00	0.12							DOC:	2F11.65.102	•		
		D	ESME	T - Ballestra	ı					S	ABIZ 8000 kg/h	Size: In Th	ık: mm	Temp: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
901	4	0	In	3,18		mm	,00	40,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B			348,56	<u> </u>	
333	4	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 A	ARH) Forg	ged 2840	5,60		
200	4	0	In	3,18		mm	,00	8,00	NR	212	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W. AS	TM A 234	Gr.	16,54		
2840	5/8	0	In			mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1	1 UNC/2.2		1,84		
407	4	0	In			mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH	H) _ B5B				
								•		N	M Erection			Total Kg:	372,53		
SZ1	SABIZ	PLANT A	ANSI			62036	- 0			A A	Area A 1	/ 1		TOTAL Kg:	372.53		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra					SKETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	15		23/07/20	012 15.00).13						DOC:	2F11.	65.102		
		D	ESMET	- Ballestra	ì				S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
931	1/2	0	In	2,77		mm	,00	0,20	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.E	3			0,25	
936	2	0	In	3,91		mm	,00	2,00	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.E	3			10,87	
1898	1/2	0	In			mm	,00	1,00	NR 212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged A	ASTM A 10)5 R 83		1,90	
2692	2	0	In			mm	,00	1,00	NR 212	Valve Ball Type Bottom SB-ATI-VS05 AARH) Cast ASTM A 216 Gr. WCB S		LB RF (12	25÷250		10,50	
330	2	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	AF (125÷250 A	AARH) For	rged	2838	2,20	
232	2	0	In	3,91		mm	,00	2,00	NR 212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wr	ought S AS	STM A		1,33	
404	2	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1:	25÷250 AAR	H) _ B5B				
	'	'						•	N	1 Erection				Total Kg:	27,06	
SZ1	SABIZ	PLANT A	ANSI			62037	- 0		A A	Area A 1	/ 1		T	OTAL Kg:	27,06	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specificat	ion SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62037 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - Ba	allestra			SKETCHES MATERIAL LIST PROJ: 2F1							REV: 0 2	23/07/2012
	PUMA	15		23/07/20	12 15.00	0.13					DOC	: 2F11	1.65.102		
		D	ESMET	- Ballestra	ļ				S	ABIZ 8000 kg/h	Size: In Thk: mm	Temp): ℃	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component			Gen. Bolt	Weight (Kg) As.bly	Branch
900	3	0	In	3,18		mm	,00	34,00	m 203	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B			228,55	
2742	3	0	In			mm	,00	1,00	NR 203	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		LB RF	2848	5,20	
332	3	0	In			mm	,00	2,00	NR 203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 AARH) I	orged	2840	8,20	
86	3	0	In	3,18		mm	,00	1,00	NR 203	45° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W. ASTM A 2	34 Gr.		0,60	
199	3	0	In	3,18		mm	,00	6,00	NR 203	90° Elbow Long Radius ASME B16.9 B WPB	BE E.R.W. ASTM A 2	34 Gr.		7,06	
2848	5/8	0	In			mm	145,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/	2.2		1,20	
									N	1 Erection			Total Kg:	250,81	
SZ1	SABIZ	PLANT A	ANSI			62038	- 0		A A	area A 1	/ 1		TOTAL Kg:	250,81	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
Line 62038 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESMI	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PRO	J: 2F1	1	REV: 0	23/	/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.13							DO	2F1	1.65.102	•	•	
		D	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	p: °C	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
955	4	0	In	2,11		mm	,00	25,00	-		Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 3	12 TP304			148,91		
2991	4	0	In			mm	,00	1,00	NR	215	Valve Butterfly SB-ATI-VB024/0 WAF AARH) Cast ASTM A 351 CF8 B 80	ER 150 LI	3 RF (125-	-250	2995	5,92		
314	4	0	In			mm	,00	4,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face S	Smooth Fo	ged	2924	22,40		
132	4	0	In	2,11		mm	,00	1,00	NR	215	45° Elbow Long Radius ASME B16.9 E A 403 Gr. WP304	BE sch.5S	Wrought V	ASTM		0,69		
245	4	0	In	2,11		mm	,00	3,00	NR	215	90° Elbow Long Radius ASME B16.9 F A 403 Gr. WP304	BE sch.5S	Wrought V	ASTM		4,20		
788	4	0	In	2,11		mm	,00	4,00	NR	215	Stub-End MSS SP-43 BE sch.5S Wroug WP304 Type A	ght W AST	M A 403	Gr.		2,50		
2924	5/8	0	In			mm	110,00	16,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 2H Gal		3.2.1 UNC	2.2		4,00		
2995	5/8	0	In			mm	170,00	8,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 2H Gal		3.2.1 UNC	2.2		2,64		
426	4	0	In			mm	,00	4,00	NR	215	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B5	F				
2985	5/8	0	In			mm	45,00	8,00	NR	215	Screws for valves ASME B 18.2.1/UNC	ASTM A	193 B7 G	lvanized		1,28		
	*	*		•	*		·			N	// Erection				Total Kg:	192,53		

TOTAL Kg:

192,53

Plant SZ1 SABIZ PLANT ANSI	Piping Class 215	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP008/0
Line 62040 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

A

Area A

62040 - 0

SZ1

SABIZ PLANT ANSI

		DESM	ET - Ba	allestra					SKETCH	IES MATERIAL LIST		PROJ	: 2F11		REV: 0 2	23/07/2012
	PUMA	A 5		23/07/20	12 15.00	0.13						DOC:	2F11.	65.102		
		D	ESMET	- Ballestra	1				SA	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		Т1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
936	2	0	In	3,91		mm	,00	34,00		Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			184,86	
1839	2	0	In			mm	,00	1,00	NR 212	Valve Ball Full Port SB-ATI-VS050/0 I AARH) Forged ASTM A 105 S 127	LUG 150 LB	RF (125÷2	250	2974	6,50	
330	2	0	In			mm	,00	4,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250	AARH) Fo	rged	2838	8,80	
232	2	0	In	3,91		mm	,00	5,00	NR 212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wi	rought S A	STM A		3,32	
2838	5/8	0	In			mm	85,00	8,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	2.1 UNC/2.	.2		1,68	
404	2	0	In			mm	,00	4,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AAF	RH) _ B5B				
2974	5/8	0	In			mm	40,00	12,00	NR 212	Screws for valves ASME B 18.2.1/UNC	C ASTM A 19	93 B7			1,80	
	,	'		· 	,				N	I Erection				Total Kg:	206,97	
SZ1	SABIZ	PLANT A	ANSI			62041	- 0		A A	area A 1	/ 1		Т	OTAL Kg:	206,97	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specificati	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESME	T - Ba	allestra				SKETCHES MATERIAL LIST PROJ. 24								REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.00).13							DOC:	2F11.	.65.102		•	
		DH	ESMET	- Ballestra	ì					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
952	2	0	In	3,91		mm	,00	34,00	m	216	Pipe ASME B36.19 PL sch.40S Seamle	ess ASTM A	312 TP316			188,63		
1858	2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS047/0 I AARH) Cast ASTM A 351 Gr. CF8M S		3 RF (125÷2	250	2984	6,63		
311	2	0	In			mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face S	mooth Forge	ed	2921	8,80		
242	2	0	In	3,91		mm	,00	5,00	NR	216	90° Elbow Long Radius ASME B16.9 I A 403 Gr. WP316	BE sch.40S	Wrought S A	ASTM		3,39		
785	2	0	In	3,91		mm	,00	4,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrot WP316 Type A	ught S AST	M A 403 Gr.	•		1,92		
2921	5/8	0	In			mm	95,00	4,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Gal		.2.1 UNC/2.	2		0,92		
423	2	0	In			mm	,00	4,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	125÷250 AA	RH) _ B5F					
2984	5/8	0	In			mm	40,00	12,00	NR	216	Screws for valves ASME B 18.2.1/UNC	C ASTM A	193 B7 Galv	anized		1,80		
		'		'						N	M Erection				Total Kg:	212,08		
SZ1	SABIZ	PLANT A	NSI			62042	- 0			A A	Area A 1	/ 1		7	ΓΟΤΑL Kg:	212,08		

KV_62.11	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP008/0
	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			

		DESMI	ET - Ba	allestra					S	KETCH	HES MATERIAL LIST		PROJ	2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.13	1						DOC:	2F11	.65.102	•	<u>. </u>	
		D	ESMET	- Ballestra	ì					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:℃	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
952	2	0	In	3,91		mm	,00	34,00	_	216	Pipe ASME B36.19 PL sch.40S Seamle	ess ASTM A	312 TP316	5		188,63		
1858	2	0	In			mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS047/0 I AARH) Cast ASTM A 351 Gr. CF8M S		B RF (125÷2	250	2984	6,63		
311	2	0	In			mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized		mooth Forg	ed	2921	8,80		
242	2	0	In	3,91		mm	,00	5,00	NR	216	90° Elbow Long Radius ASME B16.9 I A 403 Gr. WP316	BE sch.40S	Wrought S	ASTM		3,39		
785	2	0	In	3,91		mm	,00	4,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrot WP316 Type A	ught S AST	M A 403 G	r.		1,92		
2921	5/8	0	In			mm	95,00	4,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Gal		.2.1 UNC/2	.2		0,92		
423	2	0	In			mm	,00	4,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5F					
2984	5/8	0	In			mm	40,00	12,00	NR	216	Screws for valves ASME B 18.2.1/UNC	C ASTM A	193 B7 Gal	vanized		1,80		
	•	,		•		•				1	M Erection				Total Kg:	212,08		

TOTAL Kg:

212,08

Α

Area A

SZ1

SABIZ PLANT ANSI

KV_62.12	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216		SB-ATI-SP006/0 SB-ATI- SP008/0
	Line 62043 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESMI	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ: 2F11		REV: 0	23/	/07/2012
	PUM	A5		23/07/20	12 15.00	0.13							DOC: 2F11	.65.102			
		D	ESMET	- Ballestra	l					S	SABIZ 8000 kg/h	Size: In Thk:	mm Temp); °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
941	1	0	In	3,38		mm	,00	34,00	m	215	Pipe ASME B36.19 PL sch.40S Seamle	ess ASTM A 312	TP304		86,81		
1844	1	0	In			mm	,00	1,00	NR	215	Valve Ball Full Port SB-ATI-VS045/0 I AARH) Cast ASTM A 351 CF8 S 123	LUG 150 LB RF	(125÷250	2981	2,86		
308	1	0	In			mm	,00	4,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face Smoot	h Forged	2910	3,20		
234	1	0	In	3,38		mm	,00	5,00	NR	215	90° Elbow Long Radius ASME B16.9 I A 403 Gr. WP304	BE sch.40S Wro	ight S ASTM		0,69		
776	1	0	In	3,38		mm	,00	4,00	NR	215	Stub-End MSS SP-43 BE sch.40S Wrot WP304 Type A	ught S ASTM A	403 Gr.		0,65		
2910	1/2	0	In			mm	80,00	8,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Gal		JNC/2.2		0,96		
420	1	0	In			mm	,00	4,00	NR	215	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH)	_ B5F				
2981	1/2	0	In			mm	30,00	12,00	NR	215	Screws for valves ASME B 18.2.1/UNC	C ASTM A 193 I	7 Galvanized		0,96		
	,	1	1	,					•	1	M Erection			Total Kg:	96,12		
SZ1	SABIZ	PLANT A	ANSI			62044	- 0			A	Area A 1	/ 1		TOTAL Kg:	96,12		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 215	Welding specification SB-AT	TI CDOOG/O CD ATI
Fight SZ1 SADIZ FLANT ANSI	riping Class 213	SP008	
Line 62044 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

DESMET -	- Ballestra	SKETCHES MATERIAL LIST	PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.13		DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
949	1	0	In	3,38	mm	,00	1,00	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		2,55	
952	2	0	In	3,91	mm	,00	1,00	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		5,55	
967	3	0	In	2,11	mm	,00	1,00	m	216	Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP316		4,61	
968	4	0	In	2,11	mm	,00	2,00	m	216	Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP316		11,91	
969	5	0	In	2,77	mm	,00	0,50	m	216	Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP316		4,83	
970	6	0	In	2,77	mm	,00	3,00	m	216	Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP316		34,61	
308	1	0	In		mm	,00	1,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged	2910	0,80	
211	2	0	T.o.			00	2.00	NID	216	ASTM A 105 Galvanized	2021	6.60	
311	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	2921	6,60	
313	3	0	In		mm	,00	1,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged	2923	4,10	
										ASTM A 105 Galvanized			
314	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	2924	11,20	
316	6	0	In		mm	,00	1,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged	2933	7,50	
										ASTM A 105 Galvanized			
2807	6	0	In		mm	,00	1,00	NR	216	Flange Blind + Disk ASME B16.5 - SB-ATI-PF007/0 (DISK) 150 LB	2933	0,89	
						_		•		RF (125÷250 AARH) Forged FLG: ASTM A 105 Galvanized - DISK: A240 TYPE 316			
260	6	0	In	2,77	mm	,00	1,00	NR	216	90° Elbow Long Radius ASME B16.9 BE sch.5S Wrought W ASTM		4,04	
								_		A 403 Gr. WP316			
1191	6	5	In	2,77	2,77 mm	,00	1,00	NR	216	Reducer Concentric ASME B16.9 BE sch.5S Wrought W ASTM A		1,55	
	1.	-	_	1				1	I	403 Gr. WP316			
782	1	0	In	3,38	mm	,00	1,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrought S ASTM A 403 Gr. WP316 Type A		0,16	
785	2	0	In	3,91	mm	,00	3,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrought S ASTM A 403 Gr.		1,44	T

KV_62.7 KV_62.8	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	Welding specificati	on SB-ATI-SP006/0 SB-ATI- SP008/0
KV_62.9	Line 62045 - 0	Fluid	System	
KV_62.11	Dang. fluid type	Coating	De pres	Op tem
KV_62.13	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
•	Zones			

		DESM	ET - B	allestra					5	SKETCH	IES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
	PUMA	15		23/07/2	2012 15.00.	13							DOC:	2F11.65.102		
]	DESMET	- Ballesti	ra					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Otv	Un	n Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly Branch
800	3	0	In	2,11		mm	,00		+	216	Stub-End MSS SP-43 BE sch.5S Wrou WP316 Type A	ght W AST	M A 403 Gr.		0,40	
801	4	0	In	2,11		mm	,00	2,00	NR	216	Stub-End MSS SP-43 BE sch.5S Wrou WP316 Type A	ght W AST	M A 403 Gr.		1,25	
803	6	0	In	2,77		mm	,00	1,00	NR	216	Stub-End MSS SP-43 BE sch.5S Wrou WP316 Type A	ght W AST	M A 403 Gr.		1,33	
2910	1/2	0	In			mm	80,00	2,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		8.2.1 UNC/2.2	2	0,24	
2921	5/8	0	In			mm	95,00	6,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		8.2.1 UNC/2.2	2	1,38	
2923	5/8	0	In			mm	105,00	2,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		8.2.1 UNC/2.2	2	0,48	
2924	5/8	0	In			mm	110,00	8,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		8.2.1 UNC/2.2	2	2,00	
2932	5/8	0	In			mm	150,00	8,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		8.2.1 UNC/2.2	2	2,48	
2933	3/4	0	In			mm	115,00	12,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		8.2.1 UNC/2.2	2	10,80	
420	1	0	In			mm	,00	2,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B5F			
423	2	0	In			mm	,00	3,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B5F			
425	3	0	In			mm	,00	2,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B5F			
426	4	0	In			mm	,00	4,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B5F			
428	6	0	In			mm	,00	1,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B5F			
2981	1/2	0	In			mm	30,00	4,00	NR	R 216	Screws for valves ASME B 18.2.1/UNG	ASTM A	193 B7 Galva	anized	0,32	
2984	5/8	0	In			mm	40,00	12,00	NR	216	Screws for valves ASME B 18.2.1/UNG	ASTM A	193 B7 Galva	anized	1,80	
2985	5/8	0	In			mm	45,00	24,00	NR	216	Screws for valves ASME B 18.2.1/UNG	ASTM A	193 B7 Galva	anized	3,84	
										N	M Erection			Total Kg:	128,66	
KV_62.7 KV 62.8							Plant SZ1	SABIZ PI	LAN	Γ ANSI	Piping Class 216			Welding specifica	ation SB-ATI-SP006 SP008/0	5/0 SB-ATI-
KV_62.9							Line 6204	5 - 0			Fluid			System		
KV_62.							Dang. fluid	type			Coating			De pres	Op to	em
KV 62	12						A A				Cl 4 1 Cl 4 1 / 1		-	4		D 2

Sketch Sht 1/1

Area Area A

Zones

KV_62.13

Page 2

Isometric code

		DESME	T - B	allestra					SKE	ЕТСН	IES MATEI	RIAL LIST		PROJ:	2F11	REV: 0	23	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.14								DOC:	2F11.65.102			
		DE	ESMET	- Ballestra	ı					SA	ABIZ 8000 kg/h		Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip	. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
SZ1	SABIZ I	PLANT A	NSI			62045 -	0		A	. A	Area A		1 / 1		TOTAL Kg:	128,66		

KV_62.7 KV_62.8	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216		SB-ATI-SP006/0 SB-ATI- SP008/0
KV_62.9	Line 62045 - 0	Fluid	System	
KV_62.11	Dang. fluid type	Coating	De pres	Op tem
KV_62.13	Area Area A	Sketch Sht 1/1	Isometric code	Page 3
	Zones			_

		DESM	ET - 1	Ballestra					S	SKETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	A 5		23/07/2	012 15.0	00.14							DOC:	2F11.	65.102		
		Γ	DESME	T - Ballestr	a					S	ABIZ 8000 kg/h	Size: In Thl	: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
980	1/2	0	In	2,77		mm	,00	2,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		2,53	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	ged AST	M A		1,20	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	4,33	
SZ1	SABIZ	PLANT .	ANSI			62101	- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	4,33	

PICV_62.1	Plant SZ1 SABIZ PLANT ANSI	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			

		DESM	ET - I	Ballestra					5	SKETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.14							DOC:	2F11.	65.102		
		D	ESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Thi	k: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	ly Branch
980	1/2	0	In	2,77		mm	,00	4,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	1 NPT sc	ch.40		5,06	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	rged AST	M A		1,20	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	6,86	
SZ1	SABIZ	PLANT .	ANSI			62102	- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	6.86	

PICV_62.2	Plant SZ1 SABIZ PLANT ANSI	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	Page 1
	Zones			

		DESM	ET - E	Ballestra					9	SKETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.0	0.14							DOC:	2F11.	65.102		
		D	DESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Thi	K: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.b	ly Branch
980	1/2	0	In	2,77		mm	,00	4,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	h.40		5,06	
1801	1/2	0	In			mm	,00	1,00) NF	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	3,00) NF	202	90° Elbow SB-ATI-PR008/0 THRD-F I 105 Galvanized	NPT 3000# For	ged AST	МА		1,20	
835	1/2	0	In			mm	,00	1,00) NF	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	6,86	
SZ1	SABIZ	PLANT.	ANSI			62103	- 0			Α /	Area A 1/	′ 1		Т	OTAL Kg:	6.86	

PICV_62.3	Plant SZ1 SABIZ PLANT ANSI	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			

		DESM	ET - I	Ballestra					5	SKETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.14							DOC:	2F11.	65.102		
		D	DESME	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Thl	k: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
980	1/2	0	In	2,77		mm	,00	2,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	1 NPT sc	h.40		2,53	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	rged AST	МА		1,20	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	4,33	
SZ1	SABIZ	PLANT .	ANSI			62104	- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	4.33	

PICV_62.4	Plant SZ1 SABIZ PLANT ANSI	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			

	I	ESMI	ET - B	allestra					SKETCH	ES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA:	5		23/07/2	012 15.0	00.14	1					DOC:	2F11	.65.102		
		D	ESMET	- Ballestr	a				S	ABIZ 8000 kg/h	Size: In T	Thk: mm	Temp	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	04	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	v Branch
933	1	0	In	3,38	12	mm	.00	- •	m 205	Pipe ASME B36.10 PL sch.40 Seamless	API 51 Gr I	 R		Gen. Don	5,00	у Бгансп
935	1+1/2	0	In	3,68		mm	.00		m 205	Pipe ASME B36.10 PL sch.40 Seamless					32,39	
2029	1+1/2	0	In	3,00		mm	.00		NR 205	Valve Gate SB-ATI-VG001/0 SW-F 800			G 61		14,00	
2042	1	0	In			mm	.00		NR 205	Valve Globe SB-ATI-VD012/0 SW-F 80					5,40	
2091	1+1/2	0	In			mm	,00		NR 205	Strainer Y-Type SB-ATI-VF016/0 SW-F					3,20	
325	1/2	0	In			mm	,00	2,00	NR 205	69 Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 .	AARH) For	ged	2830	0,80	
327	1	0	In			mm	,00	1,00	NR 205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 A	AARH) For	ged	2831	0,80	
229	1	0	In	3,38		mm	,00	1,00	NR 205	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	E sch.40 Wı	rought S AS	STM A		0,14	
231	1+1/2	0	In	3,68		mm	,00	4,00	NR 205	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	E sch.40 Wi	rought S AS	STM A		1,47	
1084	1+1/2	1/2	In	3,68	2,77	mm	,00	2,00	NR 205	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wroug	ht S ASTM	Α		0,52	
1086	1+1/2	1	In	3,68	3,38	mm	,00	1,00	NR 205	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wroug	ht S ASTM	Α		0,26	
2830	1/2	0	In			mm	65,00	8,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	2.1 UNC/2.2	2		0,88	
2831	1/2	0	In			mm	70,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	2.1 UNC/2.2	2		0,44	
2816	1/2	0	In			mm	,00	2,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF ((125÷250 A	ARH)			
2818	1	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF ((125÷250 A	ARH)			
									N	1 Erection				Total Kg:	65,3	
TCV_62	.1						Plant SZ1 S	SABIZ PL	ANT ANSI	Piping Class 205			We	lding specifica	tion SB-ATI-SP006/0 SI SP007/0	B-ATI-
							Line 62108 Dang. fluid			Fluid Coating			Sys De p		Op tem	
							Area Area	• •		Sketch Sht 1/1		Ison	metric c		Op tem	Page 1

Zones

		DESME	T - B	allestra					SF	KETC	HE	ES MATE	RIAL LIST			F	PROJ:	2F11		REV:	0 2	3/07/2012
	PUMA5 23/07/2012 15.00.14															Ī	OC:	2F11.65	5.102			
	DESMET - Ballestra									1	SAB	BIZ 8000 kg/h			Size: In	Thk:	mm	Temp: °C	2	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	s (Component						G	en. Bolt	Weight (K	g) As.bly	Branch
SZ1	SZ1 SABIZ PLANT ANSI 6210			62108 - 0	0			A	Are	ea A		1 / 1	1			TC	TAL Kg:	65,3				

TCV_62.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62108 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 2
	Zones			

		DESMI	ET - Ba	allestra					SKETCH	IES MATERIAL LIST	PROJ: 21	F11	REV: 0 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.14					DOC: 21	F11.65.102	•	
		D	ESMET	- Ballestra	a				SA	ABIZ 8000 kg/h	Size: In Thk: mm T	emp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00		Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B		5,06	
2025	1/2	0	In			mm	,00	1,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged ASTM A 105 G	61	1,70	
327	1	0	In			mm	,00	1,00	NR 205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 AARH) Forged	d 2831	0,80	
193	1/2	0	In			mm	,00	3,00	NR 205	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged ASTM A 105		0,75	
1079	1	1/2	In	3,38	2,77	mm	,00	1,00	NR 205	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wrought S ASTM A		0,14	
2831	1/2	0	In			mm	70,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/2.2		0,44	
2818	1	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF (125÷250 AAF	RH)		
									N	1 Erection		Total Kg:	8,89	
SZ1	SABIZ	PLANT A	ANSI			62110	- 0		A A	area A 1	/ 1	TOTAL Kg:	8,89	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

		DESME	T - Ba	llestra					S	KETCH	IES MATERIAL LIST		PRO)J: 2F1	1	REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	12 15.0	0.14							DO	C: 2F1	1.65.102	•		
		DE	SMET	- Ballestra	Į.					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	ıp: ℃	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00		_	205	Pipe ASME B36.10 PL sch.40 Seamless	S API 5L C	ir.B			5,06		
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800)# Forged	ASTM A	105 G 61		3,40		
2678	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 300) LB Forg	ed ASTM	A 105 T		0,80		
327	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH)	Forged	2831	0,80		
80	1/2	0	In			mm	,00	1,00	NR	205	45° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged	ASTM A	105		0,18		
193	1/2	0	In			mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM A	105		1,00		
1079	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wro	ught S AS	TM A		0,14		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d ASTM A	105				
2831	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B1	8.2.1 UNC	2/2.2		0,44		
2818	1	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 G5N INNER OUTER RING	150 LB R	F (125÷25	0 AARH	D)			
										N	1 Erection				Total Kg:	11,82		

Area A

62111 - 0

SABIZ PLANT ANSI

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

TOTAL Kg:

1 / 1

11,82

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:					2F11		REV:	0 2	23/07/2012	
	PUMA	.5		23/07/20	012 15.00).15							DOC:	2F11.6	5.102			
		D	ESMET	Γ - Ballestra	ì					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °	С	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	T2		Len mn	ı Otv	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg) As.bly	y Branch
931	1/2	0	In	2,77		mm	,00		_	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.E	3			6,33		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AS	TM A 105	G 61		1,70)	
193	1/2	0	In			mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	TM A 105			1,00)	
										N	M Erection				Total Kg:	9,03	3	
SZ1	SABIZ PLANT ANSI 62112 - 0				- 0			A A	Area A 1	/ 1		TO	OTAL Kg:	9,03	3			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra								SKETCH	2F11	REV: 0 23	3/07/2012		
	PUMA	15		23/07/2	012 15.0	0.15					DOC:	2F11.65.102		
		D	ESMET	- Ballestr	a				S	ABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	6,00	m 205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B		7,59	
2025	1/2	0	In			mm	,00						1,70	
327	1	0	In			mm	,00	,00 1,00 NR 205 Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forg					0,80	
193	1/2	0	In			mm	,00	4,00	NR 205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged ASTM A 105		1,00	
1079	1	1/2	In	3,38	2,77	mm	,00	1,00	NR 205	Reducer Concentric ASME B16.9 BE s 234 Gr. WPB	ch.40 Wrought S ASTM	A	0,14	
2831	1/2	0	In			mm	70,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/2.2		0,44	
2818	1	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF (125÷250 AA	ARH)		
									N	A Erection		Total Kg:	11,67	
SZ1	ZI SABIZ PLANT ANSI 62113 - 0 A						- 0		A A	Area A 1	/ 1	TOTAL Kg:	11,67	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							S	KETCH	IES MATERIAL LIST		P	ROJ:	2F11		REV:	23	/07/2012	
	PUMA	15		23/07/20	012 15.0	0.15							D	OC:	2F11	.65.102	•		
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk:	nm	Temp	:℃	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		Т1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L C	ir.B				7,59		
2025	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged	ASTM	A 105	G 61		6,80		
2678	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 30	0 LB Forge	ed AST	M A 1	05 T		0,80		
327	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AAR	H) Foi	rged	2831	0,80		
193	1/2	0	In			mm	,00	5,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM	A 105			1,25		
1079	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	205	Reducer Concentric ASME B16.9 BE s 234 Gr. WPB	ch.40 Wro	ught S	ASTM	A		0,14		
2576	1/2	0	In			mm	,00	2,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d ASTN	M A 10)5				
2831	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B1	8.2.1 U	NC/2.2	2		0,44		
2818	1	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB R	F (125	-250 A	ARH)				
										N	M Erection					Total Kg:	17,82]	
SZ1	SABIZ I	PLANT A	ANSI			62114	- 0			A A	Area A 1	/ 1			,	TOTAL Kg:	17,82]	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra												2F11	REV: 0	23/0	7/2012	
	PUMA	.5		23/07/20	012 15.00).15							DOC:	2F11.65.102			
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C	Pres: Bar(g)	Cor	rr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.E	3		6,33		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	7 200 LB F	orged	0,30		
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	TM A 105		1,00		
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM	A 105		0,38		
	'		,		'					N	M Erection			Total Kg	g: 8,01	•	
SZ1	SABIZ I	PLANT A	ANSI			62115	- 0			A A	Area A 1	/ 1		TOTAL Kg	g: 8,01		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV:	23	/07/2012
	PUMA	.5		23/07/20	012 15.0	0.15							DOC:	2F11.65	5.102			
	DESMET - Ballestra								S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C	С	Pres: Bar(g)		Corr: mm	
		~ A					1-	en mm Oty Um Pip. class Component									1	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			G	Gen. Bolt	Weight (Kg	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				3,80		
193	1/2	0	In			mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged AST	M A 105			0,50		
										N	M Erection				Total Kg:	4,3		
SZ1	SABIZ I	PLANT A	ANSI		62116 - 0			6 - 0 A Area A 1 / 1				TO	TAL Kg:	4,3				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ:					2F11	REV:	23	3/07/2012	
	PUMA	5		23/07/20	012 15.00.15							DOC:	2F11.65.102			
		DE	ESMET	- Ballestra	ı				SA	ABIZ 8000 kg/h	Size: In Th	nk: mm	Temp: °C	Pres: Bar(g)	(Corr: mm
													_			
Mark	S1	S2		T1	T2	Len mn	n Qty	Um Pij	p. class	Component			Gen. Bolt	Weight (Kg	As.bly	Branch
931	1/2	0	In	2,77	mm	,00	5,00	0 m 20:)5	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			6,33		
2025	1/2	0	In		mm	,00	0 1,00	NR 20:)5	Valve Gate SB-ATI-VG001/0 SW-F 800	O# Forged AS	ΓM A 105	G 61	1,70		
193	1/2	0	In		mm	,00	0 3,00	NR 20:)5	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS'	TM A 105		0,75		
	·		•			•	M Erection					Total Kg	: 8,78			
SZ1	Z1 SABIZ PLANT ANSI 62117 - 0					- 0		A	A A	area A 1	/ 1		TOTAL Kg	: 8,78		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2					2F11		REV:	0 2	23/07/2012	
	PUMA	15		23/07/20	012 15.00	.15							DOC:	2F11.6	55.102	•		
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °	°C	Pres: Bar(g)		Corr: mm
	S1 S2 T1 T2									1								
Mark	S1	S2		T1	T2		Len mm	ı Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (K	g) As.bl	y Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.I	3			5,0	6	
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AS	TM A 105	G 61		1,7	0	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	STM A 105			0,7	5	
								N	M Erection				Total Kg:	7,5	1			
SZ1	SZ1 SABIZ PLANT ANSI 62118 - 0					0			A A	Area A 1	/ 1		T	OTAL Kg:	7,5	1		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

		DESMI	ET - B	allestra				SKETCHES MATERIAL LIST PROJ: 21							2F11		REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.00	0.15							DO	C: 2	2F11.65.	.102			
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	,	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Ge	en. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	Gr.B				5,06		
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged	ASTM A	105 C	G 61		3,40		
325	1/2	0	In			mm	,00								ged 283	30	0,40		
											ASTM A 105								
193	1/2	0	In			mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM A	105			1,00		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d ASTM	A 105	5				
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B1	8.2.1 UN	C/2.2			0,44		
					_	_			1		Tab.9 ASTM A 193 B7 / A 194 Gr.2H								
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 G5N INNER OUTER RING	150 LB R	F (125÷2:	50 AA	ARH)				
									N	M Erection				Т	otal Kg:	10,3			
SZ1	SABIZ PLANT ANSI 62119 -						19 - 0 A Area A 1 / 1					TOT	ΓAL Kg:	10,3					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	sB-ATI-SP006/0 SB-ATI-SP007/0
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			

	DESMET - Ballestra												PROJ	: 2F11		REV:	0 2	3/07/2012		
	PUMA	.5		23/07/20	012 15.0	0.15								DOC:	2F11.6	5.102		•		
	DESMET - Ballestra									S	SABIZ 8000 kg/h		Size: In T	hk: mm	Temp: °	С	Pres: Bar(g)		Corr: mm	
										1										
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				(Gen. Bolt	Weight (Kg	g) As.bly	Branch	
931	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B36	.10 PL sch.40 Seamless	API 5L Gr.I	3			5,06	5		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-A	TI-PR007/0 SW-F 3000)# Forged AS	STM A 10:	5		0,75	5		
										N	M Erection				•	Total Kg:	5,8	1		
SZ1	SZ1 SABIZ PLANT ANSI 62120 - 0					- 0			A A	Area A	1 /	1		TO	OTAL Kg:	5,81	l			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST						J : 2F	11	REV:	0 2:	3/07/2012
	PUMA	.5		23/07/20	012 15.00	0.15							DO	2F	11.65.102			
		DF	ESMET	- Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Ter	mp: °C	Pres: Bar(g)		Corr: mm
	S1 S2 T1 T2																	
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr	:В			5,06	5	
80	1/2	0	In			mm	,00	1,00	NR	203	45° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A	105		0,18	;	
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A	105		0,75	i	
									N	1 Erection				Total Kg:	5,99)		
SZ1	SABIZ PLANT ANSI 62121 - 0					- 0			A A	Area A 1	/ 1			TOTAL Kg:	5,99)		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 21						J: 2F11	1	REV: 0	23/07/2012
	PUMA	A 5		23/07/2	012 15.00).15	1						DOC	: 2F11	1.65.102		
		D	ESMET	- Ballestra	a					;	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	p: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	s Component				Gen. Bolt	Weight (Kg) As.b	y Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L G	r.B			6,33	
2025	1/2	0	In			mm	,00	,00 2,00 NR 205 Valve Gate SB-ATI-VG001/0 SW-F 800# Forged ASTM A 105 G 61							3,40		
325	1/2	0	In			mm	,00							Forged	2830	0,40	
80	1/2	0	In			mm	.00	1,00	NR	205	45° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged	ASTM A 1	05		0,18	
193	1/2	0	In			mm	,00			205	90° Elbow SB-ATI-PR007/0 SW-F 300					0,75	
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	000# Forge	d ASTM A	105			
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/	2.2		0,44	
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	5 150 LB R	F (125÷250	AARH))		
						M Erection								Total Kg:	11,5		
SZ1	SABIZ PLANT ANSI 62122 - 0					22 - 0 A Area A 1 / 1						TOTAL Kg:	11,5				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificati	ion SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra			SKETCHES MATERIAL LIST PROJ: 2F11								REV: 0	23/07/2012
	PUMA	.5		23/07/20	12 15.00).16						DOC:	2F11.6	55.102		
		D	ESMET	` - Ballestra	ı				S	ABIZ 8000 kg/h	Size: In T	Γhk: mm	Temp: °	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	Branch
933	1	0	In	3,38		mm	,00	,00 3,00 m 203 Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B							7,51	
327	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				2831	0,80	
116	1	0	In	3,38		mm	,00	1,00	NR 203	45° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	STM A		0,07			
229	1	0	In	3,38		mm	,00	3,00	NR 203	90° Elbow Long Radius ASME B16.9 BE sch.40 Wrought S ASTM A 234 Gr. WPB					0,41	
2831	1/2	0	In			mm	70,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	2.1 UNC/2.2	2		0,44	
373	1	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AAF	RH) _ B5C				
							N	1 Erection				Total Kg:	9,22			
SZ1	Z1 SABIZ PLANT ANSI 62123 - 0						- 0		A A	Area A 1 /	/ 1		T	OTAL Kg:	9,22	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2							2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.16							D(OC:	2F11.65	.102			
		D	ESMET	Γ - Ballestra	ì						SABIZ 8000 kg/h	Size: In	Thk: mn	1	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mn	ı Q	y U	n Pip. cla	ass Component				G	en. Bolt	Weight (Kg) A	s.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,	20 n	n 203	Pipe ASME B36.10 PL sch.40 Se	amless API 5L	Gr.B				0,13		
931	1/2	0	In	2,77		mm	,00	5,	00 n	n 203	Pipe ASME B36.10 PL sch.40 Se	amless API 5L	Gr.B				6,33		
1801	1/2	0	In			mm	,00	1,	00 N	R 203	Valve Ball Full Port SB-ATI-VS0 BRASS NICKEL PLATED S 87	14/0 THRD-F	NPT 200	LB Fo	orged		0,30		
193	1/2	0	In			mm	,00) 3,	00 N	R 203	90° Elbow SB-ATI-PR007/0 SW-	F 3000# Forge	d ASTM A	105			0,75		
849	1/2	0	In			mm	,00) 1,	00 N	R 203	Union SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10:	5			0,38		
2384	1/2	1/4	In			mm	,00	1,	00 N	R 203	Coupling Reducing SB-ATI-PR00 105	7/0 SW-F 300	0# Forged	ASTM	И А		0,03		
											M Erection				1	Гotal Kg:	7,92		
SZ1	SABIZ I	PLANT A	ANSI			62124	- 0			A	Area A	1 / 1			TO	TAL Kg:	7,92		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST								REV: 0	23/07/2012
	PUMA5	;		23/07/20	12 15.00	0.16							DOC:	2F11.	.65.102		•
		D	ESMET	- Ballestra	l						SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Um	Pip. clas	ss Component				Gen. Bolt	Weight (Kg) As	.bly Branch
935	1+1/2	0	In	3,68		mm	,00,	6,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			24,30	
1805	1+1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	THRD-F N	PT 200 LB I	Forged		1,50	
329	1+1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷25)	0 AARH) Fo	orged	2832	1,40	
118	1+1/2	0	In	3,68		mm	,00	2,00	NR	203	45° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 V	Wrought S A	STM A		0,37	
231	1+1/2	0	In	3,68		mm	,00	3,00	NR	203	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 V	Wrought S A	STM A		1,10	
2832	1/2	0	In			mm	75,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2.	.2		0,48	
375	1+1/2	0	In			mm	,00,	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	ARH) _ B5C				
			*	•	*	•		•			M Erection				Total Kg:	29,15	<u> </u>
SZ1	SABIZ PI	LANT	ANSI			62125	- 0			A	Area A 1	/ 1		7	TOTAL Kg:	29,15	

63	3Y30	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SB- SPO	ATI-SP006/0 SB-ATI- 007/0
		Line 62125 - 0	Fluid	System	
		Dang. fluid type	Coating	De pres	Op tem
		Area Area A	Sketch Sht 1/1	Isometric code	Page 1
		Zones			

	Γ	DESM	ET - B	allestra				SKETCHES MATERIAL LIST PROJ: 2F								REV: 0	23/07/2012
	PUMA5	5		23/07/20	012 15.00	0.16							DOC	2 F11	.65.102		
		D	ESMET	- Ballestra	ì					SA	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mn	ı Qty	Um F	Pip. class	Component				Gen. Bolt	Weight (Kg) As.h	ly Branch
935	1+1/2	0	In	3,68		mm	,00	00 5,00 m 203 Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B								20,25	
2037	1+1/2	0	In			mm	,00	,00 1,00 NR 203 Valve Globe SB-ATI-VD001/0 THRD-F NPT 200 LB Forged BRONZE D 51								3,45	
329	1+1/2	0	In			mm	,00	1,00	NR 2	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250) AARH) F	orged	2832	1,40	
231	1+1/2	0	In	3,68		mm	,00	3,00	NR 2	203	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	BE sch.40 V	Vrought S	ASTM A		1,10	
2832	1/2	0	In			mm	75,00	4,00	NR 2	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2	2.2		0,48	
375	1+1/2	0	In			mm	,00	1,00	NR 2	203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AA	RH) _ B50	2			
	ı	1	-	1	1	1	1	M Erection							Total Kg:	26,68	1
SZ1	SABIZ PLANT ANSI 62126 - 0									A A	area A 1 /	['] 1		ŗ	ΓΟΤΑL Kg:	26,68	

63Y31	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62126 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra								S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV:	0 2	3/07/2012
	PUMA	15		23/07/20	012 15.0	00.16							DOC:	2F11	.65.102	•	•	
		D	ESMET	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	12,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THR	D-M NPT so	ch.40		15,19)	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F N	PT 200 LB F	orged		0,30)	
179	1/2	0	In			mm	,00	5,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000#	Forged AST	M A		2,00)	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# For	ged ASTM A	105		0,30)	
										N	M Erection				Total Kg:	17,7	9	
SZ1	SABIZ I	PLANT .	ANSI			62127	- 0			A A	Area A 1	/ 1		,	TOTAL Kg:	17,79)	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification		
Line 62127 - 0	Fluid	System		
Dang. fluid type	Coating	De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code		Page 1
Zones				

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV:	2.	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.16							DOC:	2F11.6	55.102		•	
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	ık: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	I ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79)	
SZ1	SABIZ	PLANT A	ANSI			62128	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	9,79)	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 62128 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F								REV: 0	23	/07/2012
	PUMA	.5		23/07/20	012 15.0	00.16							DOC:	2F11.6	65.102			
		D	ESME	Γ - Ballestra	a					S	SABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,0) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,0) NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	7 200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,0) NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# F	orged AST	МА		1,60		
835	1/2	0	In			mm	,00	1,0) NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forge	d ASTM A	105		0,30		
										I	M Erection			,	Total Kg:	9,79		
SZ1	SABIZ I	PLANT A	ANSI			62129	- 0			A	Area A 1	['] 1		T	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 62129 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F								REV:) 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.16							DOC:	2F11.6	55.102		•	
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			62131	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	9,79	7	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 62131 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	0.16							DOC:	2F11.	.65.102		•	
		D	ESME	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In T	Thk: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Uı	m Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00) n	n 202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD	-M NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00) N	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB F	Forged		0,30		
179	1/2	0	In			mm	,00	4,00) N	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# F	Forged AST	M A		1,60		
835	1/2	0	In			mm	,00,	1,00) N	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forge	ed ASTM A	A 105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			62132	: - 0			A A	Area A 1 /	/ 1		7	TOTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 62132 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	00.16							DOC:	2F11.	65.102			
		Γ	DESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In The	: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	h.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT 2	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	ged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ PLANT ANSI 62133 - 0					- 0 A Area A 1 / 1						T	OTAL Kg:	9,79				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	1
Line 62133 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 21								REV:) 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.17							DOC:	2F11.6	55.102			
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	ık: mm	Temp: °	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	0 6,0	0 m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	0 1,00	0 NI	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	0 4,00	0 NI	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	0 1,0	0 NI	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	I ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			62134	- 0			Α Δ	Area A 1	/ 1		T	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 62134 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ								REV: 0	23	/07/2012
	PUMA	\ 5		23/07/20	012 15.0	0.17							DOC:	2F11.	65.102	•		
		D	ESME	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Γ hk: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	ı Qty	Uı	m Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00) n	n 202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD	-M NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00) N	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00) N	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# I	Forged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00) N	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forgo	ed ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			62135	- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 62135 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 21								REV: 0	23	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.17							DOC:	2F11.0	65.102		•	
		D	ESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In The	C: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	M A		1,60		
835	1/2	0	In			mm	,00,	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection			,	Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			62136	- 0			A A	Area A 1 /	/ 1		Т	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F11								REV: 0	23	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.17							DOC:	2F11.6	65.102			
	DESMET - Ballestra								S	SABIZ 8000 kg/h	Size: In The	C: mm	Temp:	°C	Pres: Bar(g)		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,0) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	8000# THRD-M	I NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00,	1,0) NF	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00,	4,0	NF	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	МА		1,60		
835	1/2	0	In			mm	,00,	1,0) NF	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection			,	Total Kg:	9,79		
SZ1	SABIZ	PLANT	ANSI			62137	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	9,79		

Plant SZ Line 62	SABIZ PLANT ANSI Piping Class 2 37 - 0 Fluid	202 Welding : System	specification
Dang. flu		De pres	Op tem
Area Are Zones	a A Sketch Sht	1 / 1 Isometric code	Page 1

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F11								REV: 0) 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.17							DOC:	2F11.6	55.102		•	
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	0 6,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	0 1,00) NI	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	0 4,00) NI	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	0 1,00) NI	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			62138	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	9,79	7	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification		
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				

	DESMET - Ballestra						SKETCHES MATERIAL LIST							1	REV: 0	23/07/2012	
	PUMA	A 5		23/07/20	12 15.0	0.17							DOC:	2F1	1.65.102		
		D	ESMET	' - Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	p: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As	bly Branch
969	5	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 3	12 TP316			1,93	
970	6	0	In	2,77		mm	,00	5,00	m	216	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 3	12 TP316			57,69	
316	6	0	In			mm	,00	3,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face S	mooth Forg	ed	2933	22,50	
147	6	0	In	2,77		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 F A 403 Gr. WP316	BE sch.5S V	Wrought W	ASTM		2,03	
260	6	0	In	2,77		mm	,00	1,00	NR	216	90° Elbow Long Radius ASME B16.9 F A 403 Gr. WP316	BE sch.5S V	Wrought W	ASTM		4,04	
1191	6	5	In	2,77	2,77	mm	,00	1,00	NR	216	Reducer Concentric ASME B16.9 BE se 403 Gr. WP316	ch.5S Wrou	ight W AST	МА		1,55	
803	6	0	In	2,77		mm	,00	3,00	NR	216	Stub-End MSS SP-43 BE sch.5S Wroug WP316 Type A	ght W AST	M A 403 Gr			3,99	
2933	3/4	0	In			mm	115,00	16,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 2H Gal		3.2.1 UNC/2	.2		14,40	
2940	3/4	0	In			mm	170,00	8,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 2H Gal		3.2.1 UNC/2	.2		8,96	

M Erection

Area A

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F

1 / 1

3,00 NR 216

A

63001 - 0

428

SZ1

SABIZ PLANT ANSI

KV_63.1A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	Welding specification	SB-ATI-SP006/0 SB-ATI-SP008/0
	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			

Total Kg:

TOTAL Kg:

117,09

117,09

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST		PRO)J: 2F1	1	REV: 0	23/	/07/2012
	PUMA	15		23/07/2	2012 15.00	0.17							DO	C: 2F1	1.65.102			
		Dl	ESMET	- Ballestr	a					S.	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	ıp: ℃	Pres: Bar(g)		orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
969	5	0	In	2,77		mm	,00	0,20	m	216	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 3	312 TP316			1,93		
970	6	0	In	2,77		mm	,00	4,50	m	216	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 3	312 TP316			51,92		
316	6	0	In			mm	,00	2,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face	Smooth Fo	rged	2933	15,00		
147	6	0	In	2,77		mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 F A 403 Gr. WP316	BE sch.5S	Wrought V	V ASTM		2,03		
260	6	0	In	2,77		mm	,00	1,00	NR	216	90° Elbow Long Radius ASME B16.9 F A 403 Gr. WP316	BE sch.5S	Wrought V	V ASTM		4,04		
1191	6	5	In	2,77	2,77	mm	,00	1,00	NR	216	Reducer Concentric ASME B16.9 BE se 403 Gr. WP316	ch.5S Wro	ught W A	STM A		1,55		
803	6	0	In	2,77		mm	,00	2,00	NR	216	Stub-End MSS SP-43 BE sch.5S Wroug WP316 Type A	ght W AST	TM A 403	Gr.		2,66		
2933	3/4	0	In			mm	115,00	8,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 2H Gal		8.2.1 UNC	/2.2		7,20		
2940	3/4	0	In			mm	170,00	8,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 2H Gal		8.2.1 UNC	/2.2		8,96		
428	6	0	In			mm	,00	2,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B	5F				

M Erection

Area A

A

1 / 1

SABIZ PLANT ANSI

SZ1

63002 - 0

KV_63.1B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216		SB-ATI-SP006/0 SB-ATI- SP008/0
	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			

Total Kg:

TOTAL Kg:

95,3

95,3

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F							1	REV: 0	23/	/07/2012
	PUMA	15		23/07/20	12 15.00	0.18							DOC:	2F11	1.65.102			
		D	ESMET	- Ballestra	1					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	p: °C Pres: Bar(g)		Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
939	1/2	0	In	2,77		mm	,00	0,50	m	215	Pipe ASME B36.19 PL sch.40S Seamle	ess ASTM A	312 TP304	1		0,65		
957	6	0	In	2,77		mm	,00	6,00	m	215	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 3	12 TP304			69,22		
2727	1/2	0	In			mm	,00	1,00	NR	215	"Y" Valve Check SB-ATI-VR028/0 FL AARH) Forged ASTM A 182 Gr. F304		aF (125÷250)	2909	3,06		
306	1/2	0	In			mm	,00	1,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face S	mooth Forg	ed	2909	0,40		
316	6	0	In			mm	,00	2,00	NR	215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face S	mooth Forg	ed	2933	15,00		
134	6	0	In	2,77		mm	,00	2,00	NR	215	45° Elbow Long Radius ASME B16.9 I A 403 Gr. WP304	BE sch.5S V	Vrought W	ASTM		4,07		
774	1/2	0	In	2,77		mm	,00	1,00	NR	215	Stub-End MSS SP-43 BE sch.40S Wrot WP304 Type A	ught S AST	M A 403 G	r.		0,08		
790	6	0	In	2,77		mm	,00	2,00	NR	215	Stub-End MSS SP-43 BE sch.5S Wroug WP304 Type A	ght W AST	M A 403 Gr			2,66		
2909	1/2	0	In			mm	75,00	6,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Gal		.2.1 UNC/2	.2		0,72		

Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F

1 / 1

Tab.9 ASTM A 193 B7 / A 194 2H Galvanized

115,00

,00

.00

mm

mm

mm

63003 - 0

24,00 NR 215

2,00 NR 215

3,00 NR 215

Α

2933

418

428

SZ1

3/4

1/2

SABIZ PLANT ANSI

In

In

KV_63.2A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 215		SB-ATI-SP006/0 SB-ATI- SP008/0
	Line 63003 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

M Erection

Area A

21,60

117,46

117,46

Total Kg:

TOTAL Kg:

		DESM	ET - B	allestra				SKETC	HES MATERIAL LIST	PROJ	: 2F11		REV: 0 2	3/07/2012
	PUMA	15		23/07/20	012 15.00.	18				DOC:	2F11.6	55.102		
		D	ESMET	' - Ballestra	a				SABIZ 8000 kg/h	Size: In Thk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2	Len r	ım Qt	y Um Pip. clas	s Component			Gen. Bolt	Weight (Kg) As.bly	Branch
939	1/2	0	In	2,77		mm	00 0,5		Pipe ASME B36.19 PL sch.40S Seamle	ess ASTM A 312 TP304			0,65	
957	6	0	In	2,77		mm	00 6,0	0 m 215	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 312 TP304			69,22	
2727	1/2	0	In			mm	00 1,0	0 NR 215	"Y" Valve Check SB-ATI-VR028/0 FL AARH) Forged ASTM A 182 Gr. F304	,	1	2909	3,06	
306	1/2	0	In			mm	00 1,0	0 NR 215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized		ed 2	2909	0,40	
316	6	0	In			mm	00 2,0	0 NR 215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	3 Flat Face Smooth Forge	ed 2	2933	15,00	
134	6	0	In	2,77		mm	00 2,0	0 NR 215	45° Elbow Long Radius ASME B16.9 A 403 Gr. WP304	BE sch.5S Wrought W	ASTM		4,07	
774	1/2	0	In	2,77		mm	00 1,0	0 NR 215	Stub-End MSS SP-43 BE sch.40S Wro WP304 Type A	ought S ASTM A 403 Gr			0,08	
790	6	0	In	2,77		mm	00 2,0	0 NR 215	Stub-End MSS SP-43 BE sch.5S Wrou WP304 Type A	ight W ASTM A 403 Gr.			2,66	
2909	1/2	0	In			mm 75	00 6,0	0 NR 215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		.2		0,72	
2933	3/4	0	In			mm 115	00 24,0	0 NR 215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Ga		.2		21,60	
2933	3/4	0	In			mm 115	00 24,0	0 NR 215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B18.2.1 UNC/2.	2		21,60	

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F

1 / 1

KV_63.2B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 215		SB-ATI-SP006/0 SB-ATI- SP008/0
	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			

M Erection

Area A

2,00 NR 215

3,00 NR 215

Α

mm

mm

63004 - 0

,00

.00

418

428

SZ1

1/2

SABIZ PLANT ANSI

Total Kg:

TOTAL Kg:

117,46

117,46

		DESMI	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV:	0	23/07/2012
	PUMA	\ 5		23/07/20	012 15.00	0.18							DOC:	2F11.	65.102			
	DESMET - Ballestra									S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Otv	Um	Pip. class	Component				Gen. Bolt	Weight (K	a) As bl	y Branch
	51	0	Y		12					-	•	4 CFD 4 4 212	TD204		Gen. Don			y Di anch
957	6	U	ın	2,77		mm	,00	3,00	m	215	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 312	TP304			34,6	1	
247	6	0	In	2,77		mm	,00	2,00	NR	215	90° Elbow Long Radius ASME B16.9 I	BE sch.5S Wi	ought W A	STM		8,0	8	
		l							_		A 403 Gr. WP304				'			
										N	M Erection				Total Kg:	42,7	'	
SZ1	Z1 SABIZ PLANT ANSI 63005 - 0					- 0			A A	Area A 1	/ 1		Т	TOTAL Kg:	42,7	,		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 215		SB-ATI-SP006/0 SB-ATI- SP008/0
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			

		DESMI	ET - B	allestra					SKETCH	HES MATERIAL LIST		PROJ	: 2F11		REV: 0 2	23/07/2012
	PUMA	15		23/07/20	012 15.0	0.18						DOC:	2F11.6	65.102		
		D	ESMET	- Ballestra	ì				S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
957	6	0	In	2,77		mm	,00	4,00	m 215	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 31	2 TP304			46,15	
958	8	0	In	2,77		mm	,00	2,00	m 215	Pipe ASME B36.19 PL sch.5S E.R.W.	ASTM A 31	2 TP304			30,16	
317	8	0	In			mm	,00	1,00	NR 215	Flange Lap-Joint ASME B16.5 150 LB ASTM A 105 Galvanized	Flat Face Sn	nooth Forge	ed	2935	12,60	
1144	8	6	In	2,77	2,77	mm	,00	1,00	NR 215	Reducer Concentric ASME B16.9 BE s 403 Gr. WP304	sch.5S Wroug	ght W AST	МА		2,26	
791	8	0	In	2,77		mm	,00	1,00	NR 215	Stub-End MSS SP-43 BE sch.5S Wroug WP304 Type A	ight W ASTM	1 A 403 Gr			2,01	
2935	3/4	0	In			mm	130,00	8,00	NR 215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H Gal		2.1 UNC/2.	.2		7,68	
429	8	0	In			mm	,00	1,00	NR 215	Gasket SB-ATI-PV009/5 150 LB RF (1	125÷250 AAI	RH) _ B5F				
	'								N	M Erection			'	Total Kg:	100,85	
SZ1	SABIZ	PLANT A	ANSI			63006	- 0		A	Area A 1	/ 1		T	OTAL Kg:	100,85	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 215		SB-ATI-SP006/0 SB-ATI- SP008/0
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			

DESMET -	- Ballestra	SKETCHES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.18			DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In Thk	K: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
954	3	0	In	2,11	mm	,00	0,50		Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP304		2,30	
955	4	0	In	2,11	mm	,00	0,50	m 215	Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP304		2,98	
958	8	0	In	2,77	mm	,00	4,00	m 215	Pipe ASME B36.19 PL sch.5S E.R.W. ASTM A 312 TP304		60,31	
1871	8	0	In		mm	,00	1,00	NR 215	Valve Butterfly SB-ATI-VB024/0 WAFER 150 LB RF (125÷250	2941	19,69	
									AARH) Cast ASTM A 351 CF8 B 80			
313	3	0	In		mm	,00	1,00	NR 215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged	2923	4,10	
								1	ASTM A 105 Galvanized			
314	4	0	In		mm	,00	1,00	NR 215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	2924	5,60	
317	8	0	In		mm	,00	3,00	NR 215	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged	2935	37,80	
	1		1	1	"			<u> </u>	ASTM A 105 Galvanized		· · · · · · · · · · · · · · · · · · ·	
332	3	0	In		mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	2840	4,10	
	I								ASTM A 105			
333	4	0	In		mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	2840	5,60	
	1		1	1	"			<u> </u>	ASTM A 105		· · · · · · · · · · · · · · · · · · ·	
1142	8	4	In	2,77	2,11 mm	,00	1,00	NR 215	Reducer Concentric ASME B16.9 BE sch.5S Wrought W ASTM A		2,26	
	1		1	1	"			<u>'</u>	403 Gr. WP304		· · · · · · · · · · · · · · · · · · ·	
787	3	0	In	2,11	mm	,00	1,00	NR 215	Stub-End MSS SP-43 BE sch.5S Wrought W ASTM A 403 Gr.		0,40	
			,					-	WP304 Type A		<u> </u>	
788	4	0	In	2,11	mm	,00	1,00	NR 215	Stub-End MSS SP-43 BE sch.5S Wrought W ASTM A 403 Gr.		0,62	
									WP304 Type A			
791	8	0	In	2,77	mm	,00	3,00	NR 215	Stub-End MSS SP-43 BE sch.5S Wrought W ASTM A 403 Gr.		6,02	
	1		1	1	"			<u>'</u>	WP304 Type A		· · · · · · · · · · · · · · · · · · ·	
2840	5/8	0	In		mm	95,00	6,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		1,38	
L				1				<u>.</u>	Tab.9 ASTM A 193 B7 / A 194 Gr.2H		l .	
2923	5/8	0	In		mm	105,00	4,00	NR 215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		0,96	
					1				Tab.9 ASTM A 193 B7 / A 194 2H Galvanized		1	

63Y1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 215	Welding specification SF SF	3-ATI-SP006/0 SB-ATI- P008/0
	Line 63007 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESMI	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
	PUMA	.5		23/07/2	012 15.0	0.18							DOC:	2F11.65.102	•	
		D	ESMET	- Ballestr	a					S.	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	s.bly Branch
2924	5/8	0	In			mm	110,00	8,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 2H Gal		.2.1 UNC/2.2	2	2,00	
2935	3/4	0	In			mm	130,00	8,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 2H Gal		.2.1 UNC/2.2	2	7,68	
2941	3/4	0	In			mm	205,00	8,00	NR	215	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 2H Gal		.2.1 UNC/2.2	2	10,08	
378	3	0	In			mm	,00	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5C			
379	4	0	In			mm	,00	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5C			
425	3	0	In			mm	,00	1,00	NR	215	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5F			
426	4	0	In			mm	,00	1,00	NR	215	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5F			
429	8	0	In			mm	,00	3,00	NR	215	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5F			
					·	· .				N	/ Erection			Total Kg:	173,89	

Area A

SABIZ PLANT ANSI

63007 - 0

63Y1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 215	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP008/0
	Line 63007 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 2
	Zones			

TOTAL Kg:

1 / 1

173,89

		DESM	ET - B	allestra					SK	ETCH	IES MATERIAL LIST		PRO.	J: 2F11		REV: 0 2	23/07/2012
	PUMA	15		23/07/20	012 15.00	.19							DOC	: 2F11	.65.102		
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mn	ı Qty	Um P	ip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
936	2	0	In	3,91		mm	,00	7,00	m 2	12	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			38,06	
1839	2	0	In			mm	,00	1,00	NR 2	12	Valve Ball Full Port SB-ATI-VS050/0 L AARH) Forged ASTM A 105 S 127	UG 150 L	B RF (125÷	-250	2974	6,50	
330	2	0	In			mm	,00	2,00	NR 2	12	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH) F	orged	2838	4,40	
232	2	0	In	3,91		mm	,00	4,00	NR 2	12	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Wrought S	ASTM A		2,66	
404	2	0	In			mm	,00	2,00	NR 2	12	Gasket SB-ATI-PV009/5 150 LB RF (1:	25÷250 AA	ARH) _ B5I	3			
2974	5/8	0	In			mm	40,00	8,00	NR 2	12	Screws for valves ASME B 18.2.1/UNC	ASTM A	193 B7			1,20	
			,	'	'	•	•	•	-	M	1 Erection				Total Kg:	52,82	
SZ1	SABIZ	PLANT A	ANSI			63009	- 0			A A	area A 1 /	/ 1		,	TOTAL Kg:	52,82	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - Ba	allestra			SKETCHES MATERIAL LIST PROJ:						2F11		REV: 0	23/07/2012
	PUMA	15		23/07/20	012 15.00).19						DOC:	2F11.	.65.102		-
		D	ESMET	- Ballestra	ı				S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.b	ly Branch
931	1/2	0	In	2,77		mm	,00	0,50	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.H	В			0,63	
936	2	0	In	3,91		mm	,00 4,00 m 212 Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B								21,75	
330	2	0	In			mm	,00 1,00 NR 212 Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forgo					rged	2838	2,20		
										ASTM A 105						
193	1/2	0	In			mm	,00	2,00	NR 212	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AS	STM A 105	5		0,50	
232	2	0	In	3,91		mm	,00	6,00	NR 212	90° Elbow Long Radius ASME B16.9 E	BE sch.40 Wr	rought S AS	STM A		3,99	
										234 Gr. WPB						
2838	5/8	0	In			mm	85,00	4,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B18.2	2.1 UNC/2.	2		0,84	
							•			Tab.9 ASTM A 193 B7 / A 194 Gr.2H						
404	2	0	In			mm	,00	1,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AAR	RH) _ B5B				
								M Erection						Total Kg:	29,91	
SZ1	Z1 SABIZ PLANT ANSI 63010 - 0					63010	- 0 A Area A 1 / 1					7	ΓΟΤΑL Kg:	29,91		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESME	T - Ba	allestra					S	KETCH	ETCHES MATERIAL LIST PROJ: 2F					REV: 0	23/	07/2012
	PUMA	15		23/07/2	012 15.00).19							DOC:	2F11.	.65.102		•	
		DE	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	С	orr: mm
											_							
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00	18,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr	.B			97,87		
232	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 B	E sch.40 W	rought S AS	STM A		1,33		
		·	•								234 Gr. WPB						_	
										λ	1 Erection				Total Kg:	99.2		

1 / 1

TOTAL Kg:

99,2

Α

Area A

SABIZ PLANT ANSI

FUNNEL ST.46250/1 TYPE B >2" Pz. N.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ								REV: 0	23/	/07/2012
	PUMA	\ 5		23/07/20	012 15.00	0.19							DOC:	2F11	.65.102	•	•	
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	С	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
900	3	0	In	3,18		mm	,00	16,00	_	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				107,55	<u> </u>	
2754	3	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		FER 150 L	B RF	2848	5,20		
332	3	0	In			mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250	(AARH) Fo	orged	2840	12,30		
86	3	0	In	3,18		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 F WPB	BE E.R.W.	ASTM A 23	34 Gr.		0,60		
199	3	0	In	3,18		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 F WPB	BE E.R.W.	ASTM A 23	34 Gr.		2,35		
2840	5/8	0	In			mm	95,00	4,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2	2		0,92		
2848	5/8	0	In			mm	145,00	4,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2	2		1,20		
406	3	0	In			mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5B	}				
		<u>'</u>	'	'		'	<u> </u>			N	M Erection				Total Kg:	130,13		
SZ1	SABIZ	PLANT A	ANSI			63015	- 0			A A	Area A 1	/ 1		7	ΓΟΤΑL Kg:	130,13		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
Line 63015 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:							REV: 0	23/07/2012
	PUMA	15		23/07/20	012 15.00).19						DOC:	2F11.	65.102		
		Γ	ESMET	- Ballestra	a					SABIZ 8000 kg/h	Size: In Th	nk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. cla	ss Component				Gen. Bolt	Weight (Kg) As.b	ly Branch
904	6	0	In	3,96		mm	,00	14,00	m 212	Pipe ASME B36.10 PL E.R.W. API 5I	Gr.B				224,68	
335	6	0	In			mm	,00	2,00	NR 212	Flange Slip-On ASME B16.5 150 LB I	RF (125÷250 A	ARH) For	ged	2850	15,00	
	,				,					ASTM A 105					,	
203	6	0	In	3,96		mm	,00	6,00	NR 212	90° Elbow Long Radius ASME B16.9	BE E.R.W. AS	TM A 234	Gr.		33,98	
									_	WPB						
2850	3/4	0	In			mm	100,00	16,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B18.2.	1 UNC/2.2	2		13,44	
										Tab.9 ASTM A 193 B7 / A 194 Gr.2H					•	
409	6	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (25÷250 AARI	H) _ B5B				
	*	*	*	•	*	•		•	•	M Erection				Total Kg:	287,09	<u> </u>
SZ1	Z1 SABIZ PLANT ANSI 63016 - 0					A	Area A 1	/ 1		Т	TOTAL Kg:	287,09				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ	I: 2F11		REV: 0	23/	/07/2012
	PUMA	\ 5		23/07/20	012 15.0	0.19							DOC	2F11	.65.102	•	•	
		D	ESMET	- Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)		orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
904	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		
931	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			0,63		
1898	1/2	0	In			mm	,00	2,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A	05 R 83		3,80		
2757	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		AFER 150 L	B RF	2858	10,30		
335	6	0	In			mm	,00	4,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250) AARH) F	orged	2850	30,00		
203	6	0	In	3,96		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W.	ASTM A 23	34 Gr.		16,99		
2850	3/4	0	In			mm	100,00	24,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		20,16		
2858	3/4	0	In			mm	160,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		8,64		
409	6	0	In			mm	,00	3,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	ARH) _ B5E	3				
	I	1			1	ı				N	M Erection				Total Kg:	138,67		1

1 / 1

TOTAL Kg:

138,67

Α

Area A

SZ1

SABIZ PLANT ANSI

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

		DESME	T - B	allestra					S	KETCH	RETCHES MATERIAL LIST			2F11		REV:	0 2	23/07/2012
	PUMA	.5		23/07/20	12 15.00	.19							DOC:	2F11	.65.102		•	
		DI	ESMET	' - Ballestra						S	ABIZ 8000 kg/h	Size: In The	: mm	Temp	: °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bly	y Branch
904	6	0	In	3,96		mm	,00	3,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				48,13	5	
931	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				0,63	3	
933	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				1,2:	5	
1827	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 T	HRD-F NPT 8	800# Forg	ged		1,40	О	

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
904	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		
931	1/2	0	In	2,77	mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		0,63		
933	1	0	In	3,38	mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		1,25		
1827	1	0	In		mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 THRD-F NPT 800# Forged		1,40		
			•							ASTM A 105 S 98			•	
1898	1/2	0	In		mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 800# Forged ASTM A 105 R 83		1,90		
335	6	0	In		mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	2850	7,50		
						_				ASTM A 105				
203	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.		11,33		
										WPB				
229	1	0	In	3,38	mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE sch.40 Wrought S ASTM A		0,14		
								-		234 Gr. WPB				
2850	3/4	0	In		mm	100,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		6,72		
			•							Tab.9 ASTM A 193 B7 / A 194 Gr.2H				
409	6	0	In		mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B				
		•							N	M Erection	Total Kg:	79,01		
SZ1	SABIZ F	LANT A	NSI		63021	- 0			A A	Area A 1/1	ΓΟΤΑL Kg:	79,01]	

I	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line 63021 - 0	Fluid	System	
I	Dang. fluid type	Coating	De pres	Op tem
A	area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zo	ones			

]	DESME	T - Ba	llestra						S	KETCH	IES MATERIAL LIST		PRO	J: 2F11		REV: 0	23	/07/2012
	PUMA	5		23/07/20	12 15.00	.19								DOC	2F11	.65.102			
		DE	SMET .	Ballestra							S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mn	n (Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
904	6	0	In	3,96		mm	,00	0 2	2,00		212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				32,10	<u> </u>	
933	1	0	In	3,38		mm	,00	0 (),50	m	212	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			1,25		
1827	1	0	In			mm	,00	0	00,1	NR	212	Valve Ball Full Port SB-ATI-VS019/0 T ASTM A 105 S 98	ΓHRD-F N	IPT 800# Fo	orged		1,40		
335	6	0	In			mm	,00	0 2	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH) F	orged	2850	15,00		
203	6	0	In	3,96		mm	,00	0	00,1	NR	212	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W.	ASTM A 2	34 Gr.		5,66		
2850	3/4	0	In			mm	100,00	3 0	3,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		6,72		
2858	3/4	0	In			mm	160,00	3 0	3,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		8,64		
409	6	0	In			mm	,00	0 2	2,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	ARH) _ B5E	3				

M Erection

1 / 1

Area A

A

63022 - 0

SZ1

SABIZ PLANT ANSI

HV_63.2A PISH_63.2A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

Total Kg:

TOTAL Kg:

70,77

70,77

		DESM	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PROJ	2 F11		REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.00	0.20							DOC:	2F11.	.65.102	•		
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	s.bly	Branch
904	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		
931	1/2	0	In	2,77		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:.В			0,63		
1898	1/2	0	In			mm	,00	2,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A 10	05 R 83		3,80		
2757	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		AFER 150 L	B RF	2858	10,30		
335	6	0	In			mm	,00	4,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250) AARH) Fo	rged	2850	30,00		
203	6	0	In	3,96		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W.	ASTM A 23	4 Gr.		16,99		
2850	3/4	0	In			mm	100,00	24,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2.	2		20,16		
2858	3/4	0	In			mm	160,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2.	2		8,64		
409	6	0	In			mm	,00	3,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5B					T
			-			-				N	1 Erection				Total Kg:	138,67		

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TOTAL Kg:

138,67

Α

Area A

SZ1

SABIZ PLANT ANSI

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specificati	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra						S	KETCE	IES MATERIAL LIST		PRC	J: 2F1	1	REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.20								DOC	C: 2F1	1.65.102	•	•	
		D	ESMET	- Ballestra	ì						S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	p: °C	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	Т2		Len mm	ı Ç	ty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
904	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		
931	1/2	0	In	2,77		mm	,00	0	,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			0,63		
933	1	0	In	3,38		mm	,00	0	,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			1,25		
1827	1	0	In			mm	,00) 1	,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 T	ΓHRD-F N	PT 800# F	Forged		1,40		
											_	ASTM A 105 S 98							
1898	1/2	0	In			mm	,00) 1	,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forgeo	l ASTM A	105 R 8	3	1,90		
335	6	0	In			mm	,00) 1	,00	NR	212	Flange Slip-On ASME B16.5 150 LB R	F (125÷25	0 AARH)	Forged	2850	7,50		
												ASTM A 105							
203	6	0	In	3,96		mm	,00	2	,00	NR	212	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W.	ASTM A	234 Gr.		11,33		

234 Gr. WPB

M Erection

Area A

90° Elbow Long Radius ASME B16.9 BE sch.40 Wrought S ASTM A

1 / 1

Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B

Tab.9 ASTM A 193 B7 / A 194 Gr.2H

229

2850

409

SZ1

3/4

0

0

SABIZ PLANT ANSI

In

3,38

,00

,00

100,00

mm

mm

mm

63024 - 0

1,00 NR 212

8,00 NR 212

1,00 NR 212

Α

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	on SB-ATI-SP006/0 SB-ATI-
			SP007/0
Line 63024 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

0,14

6,72

79,01

79,01

Total Kg:

TOTAL Kg:

DESMET -	- Ballestra	SKETCHES MATERIAL LIST	PRO	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.20		DOC	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C 1	res: Bar(g)	Corr: mm

Mark	S1	S2		TT:1	T2		T	04	T 1	D:1	G	Gen. Bolt	W-:-14 (V-) A - 1-1-	D
	~-	52		T1	12		Len mm			Pip. class		Gen. Boit	Weight (Kg) As.bly	Branch
904	6	0	In	3,96		mm	,00	27,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		433,31	
933	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		1,25	
1827	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 THRD-F NPT 800# Forged		1,40	
		1	1			-1	<u> </u>		_		ASTM A 105 S 98			
1959	6	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR055/0 WAFER 150 LB RF (125÷250	2854	5,00	
											AARH) Forged ASTM A 105 R 111			
335	6	0	In			mm	,00	5,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	2850	37,50	
											ASTM A 105			
90	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.		2,85	
											WPB			
203	6	0	In	3,96		mm	,00	6,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr.		33,98	
											WPB			
2850	3/4	0	In			mm	100,00	24,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		20,16	
		1	1			-1	· -		•		Tab.9 ASTM A 193 B7 / A 194 Gr.2H			
2854	3/4	0	In			mm	120,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		7,36	
											Tab.9 ASTM A 193 B7 / A 194 Gr.2H			
2858	3/4	0	In			mm	160,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		8,64	
			1			1			_		Tab.9 ASTM A 193 B7 / A 194 Gr.2H			
409	6	0	In			mm	,00	5,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B			
	1	-	1							1	M Erection	Total Kg:	551,45	
SZ1	SABIZ	PLANT A	ANSI			63025	- 0			A A	Area A 1 / 1	TOTAL Kg:	551,45	

PI_63.2 HV_63.2B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
PISH_63.2B	Line 63025 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

DESMET -	- Ballestra	SKETCHES MATERIAL LIST	PR)J: 2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.20		DO	C: 2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
902	5	0	In	3,18	mm	,00	0,20	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		2,17	
904	6	0	In	3,96	mm	,00	18,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		288,87	
931	1/2	0	In	2,77	mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		0,25	
1898	1/2	0	In		mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 800# Forged ASTM A 105 R 83		1,90	
2757	6	0	In		mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-VB030/0 WAFER 150 LB RF	2858	10,30	
				-		<u> </u>				(125÷250 AARH) Cast DUCTILE IRON B 85	1		
335	6	0	In		mm	,00	3,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	2850	22,50	
										ASTM A 105	,	<u> </u>	
90	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.		2,85	
										WPB			
203	6	0	In	3,96	mm	,00	6,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr.		33,98	
										WPB			
1253	6	5	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	
2850	3/4	0	In		mm	100,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		6,72	
			- 1							Tab.9 ASTM A 193 B7 / A 194 Gr.2H			
2858	3/4	0	In		mm	160,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		8,64	
						<u> </u>				Tab.9 ASTM A 193 B7 / A 194 Gr.2H			
409	6	0	In		mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B			
		1	,		· · · · · · · · · · · · · · · · · · ·				N	M Erection	Total Kg:	380,36	
SZ1	SABIZ	PLANT A	ANSI		63026	- 0			A A	Area A 1/1	TOTAL Kg:	380,36	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63026 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST		PROJ	2F11		REV: 0	23/0	07/2012
	PUMA	\ 5		23/07/20	12 15.0	0.20							DOC:	2F11	.65.102			
		D	ESMET	' - Ballestra	l					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C		Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
902	5	0	In	3,18		mm	,00	0,20	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				2,17		
904	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		
931	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr	.В			0,25		
1898	1/2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	300# Forged	ASTM A 1	05 R 83		1,90		
2757	6	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		FER 150 L	B RF	2858	10,30		
335	6	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250	AARH) Fo	orged	2850	15,00		
203	6	0	In	3,96		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 I WPB	BE E.R.W.	ASTM A 23	34 Gr.		11,33		
1253	6	5	In	3,96	3,18	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.I	R.W. ASTM	I A 234 Gr.	WPB		2,18		
2858	3/4	0	In			mm	160,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	2.1 UNC/2	.2		8,64		
										N	M Erection				Total Kg:	99,91		

Area A

SZ1

SABIZ PLANT ANSI

63027 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63027 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

TOTAL Kg:

99,91

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DESMET	- Ballestra	SKETCHES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.20			DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
899	2+1/2	0	In	3,18	mm	,00	0,20	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		1,10	
901	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	
933	1	0	In	3,38	mm	,00	1,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		2,50	
1827	1	0	In		mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 THRD-F NPT 800# Forged ASTM A 105 S 98		1,40	
333	4	0	In		mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	2840	11,20	
200	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	
229	1	0	In	3,38	mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE sch.40 Wrought S ASTM A 234 Gr. WPB		0,14	
1015	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	
2840	5/8	0	In		mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		1,84	
2849	5/8	0	In		mm	150,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		2,48	
407	4	0	In		mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B			
	I.	1						J		M Erection	Total Kg:	49,72	
SZ1	SABIZ PI	LANT A	NSI		6302	8 - 0			A	Area A 1/1	TOTAL Kg:	49,72	

HV_63.4A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 63028 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

DESMET	- Ballestra	SKETCHES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.20			DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In The	k: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
899	2+1/2	0	In	3,18		mm	,00	0,20	_	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		1,10	
901	4	0	In	3,18		mm	,00	20,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		174,28	
931	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		0,25	
933	1	0	In	3,38		mm	,00	2,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		5,00	
1827	1	0	In			mm	,00	2,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 THRD-F NPT 800# Forged ASTM A 105 S 98		2,80	
1898	1/2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 800# Forged ASTM A 105 R 83		1,90	
2755	4	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-VB030/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	2849	6,70	
333	4	0	In			mm	,00	6,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	2840	33,60	
200	4	0	In	3,18		mm	,00	6,00	NR	212	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB		12,40	
229	1	0	In	3,38		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 BE sch.40 Wrought S ASTM A 234 Gr. WPB		0,41	
1015	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	
2840	5/8	0	In			mm	95,00	16,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		3,68	
2849	5/8	0	In			mm	150,00	16,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		4,96	
407	4	0	In			mm	,00	2,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B			
			1							-	M Erection	Total Kg:	247,94	
SZ1	SABIZ P	LANT A	NSI			63029	- 0			A .	Area A 1 / 1	TOTAL Kg:	247,94	

PT_63.4 PI_63.4	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		B-ATI-SP006/0 SB-ATI- P007/0
HV_63.4B	Line 63029 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ								REV: 0	23/	/07/2012
	PUMA	5		23/07/20	12 15.00	.20							DOC:	2F11.	.65.102		•	
		DE	SMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
901	4	0	In	3,18		mm	,00		_	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				39,21	<u> </u>	
931	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	.B			0,25		
933	1	0	In	3,38		mm	,00	0,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	.B			1,25		
1827	1	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 T ASTM A 105 S 98	THRD-F N	PT 800# For	rged		1,40		
1898	1/2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A 1	05 R 83		1,90		
2755	4	0	In			mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRO		FER 150 L	B RF	2849	6,70		
333	4	0	In			mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	AARH) Fo	orged	2840	11,20		
200	4	0	In	3,18		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 F WPB	BE E.R.W.	ASTM A 23	4 Gr.		4,13		
2849	5/8	0	In			mm	150,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2	.2		2,48		
										N	M Erection				Total Kg:	68,53		

Area A

1 / 1

TOTAL Kg:

68,53

SZ1

SABIZ PLANT ANSI

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESME	ET - B	allestra			SKETCHES MATERIAL LIST PROJ: 2F					2F11		REV:) 23	3/07/2012		
	PUMA	\ 5		23/07/2	012 15.00	0.21							DOC:	2F11.6	55.102			
	DESMET - Ballestra SABIZ 8000						ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm				
											_							
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	As.bly	Branch
936	2	0	In	3,91		mm	,00	3,00	m	212	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			16,31		
232	2	0	In	3,91		mm	,00	2,00	NR	212	90° Elbow Long Radius ASME B16.9 I	BE sch.40 V	Vrought S AS	STM A		1,33		
	·	,					'			•	234 Gr. WPB				•		_	
										N	1 Erection				Total Kg:	17,64		
SZ1	SABIZ	PLANT A	NSI			63041	- 0			A A	Area A	/ 1		T	OTAL Kg:	17,64		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	Ι	DESME'	T - B	allestra			SKETCHES MATERIAL LIST PROJ: 21					J: 2F1	1	REV: 0	23	/07/2012		
	PUMA5	5		23/07/20	12 15.00	0.21							DOC	2F1	1.65.102			
		DE	SMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	p: ℃	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:В			0,25		
935	1+1/2	0	In	3,68		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:В			0,81		
936	2	0	In	3,91		mm	,00	3,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:В			16,31		
1898	1/2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A	105 R 8	33	1,90		
119	2	0	In	3,91		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 W	Vrought S	ASTM .	A	0,31		
232	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 W	Vrought S	ASTM .	A	0,66		
1091	2	1+1/2	In	3,91	3,68	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE se 234 Gr. WPB	ch.40 Wrou	ght S AS	ГМ А		0,43		
										N	M Erection				Total Kg:	20,68		
SZ1	SABIZ P	LANT A	NSI			63042	- 0			A A	Area A 1	/ 1			TOTAL Kg:	20,68		

PSV_63.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F					J: 2F1	1	REV: 0	23	/07/2012		
	PUMA5	5		23/07/20	12 15.00	0.21							DOC	2F1	1.65.102	•		
		DE	SMET	- Ballestra	1					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	p: ℃	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:В			0,25		
935	1+1/2	0	In	3,68		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:В			0,81		
936	2	0	In	3,91		mm	,00	3,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	:В			16,31		
1898	1/2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A	105 R 8	33	1,90		
119	2	0	In	3,91		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 W	Vrought S	ASTM A	A	0,31		
232	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 W	Vrought S	ASTM A	A	0,66		
1091	2	1+1/2	In	3,91	3,68	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wrou	ght S AS	ГМ А		0,43		
										N	A Erection				Total Kg:	20,68		
SZ1	SABIZ PI	LANT A	NSI			63043	- 0			A A	Area A 1 /	/ 1			TOTAL Kg:	20,68		

PSV_63.2	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

		DESM	ET - B	allestra			SKETCHES MATERIAL LIST PROJ: 2F					2F11		REV: 0	23/07/2012	
	PUMA	15		23/07/20	12 15.00).21						DOC:	2F11.6	65.102		•
		D	ESMET	- Ballestra	l				S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As	s.bly Branch
931	1/2	0	In	2,77		mm	,00	0,50	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.E	3			0,63	
936	2	0	In	3,91		mm	,00	1,00	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.E	3			5,44	
1898	1/2	0	In			mm	,00	1,00	NR 212	Valve Check SB-ATI-VR018/0 SW-F 800# Forged ASTM A 105			5 R 83		1,90	
2692	2	0	In			mm	,00	1,00	NR 212	Valve Ball Type Bottom SB-ATI-VS05 AARH) Cast ASTM A 216 Gr. WCB S		LB RF (12	5÷250		10,50	
330	2	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	AF (125÷250 A	AARH) Foi	ged	2838	2,20	
232	2	0	In	3,91		mm	,00	2,00	NR 212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wr	ought S AS	STM A		1,33	
404	2	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1:	25÷250 AAR	H) _ B5B				
		'						•	N	1 Erection			'	Total Kg:	22,	
SZ1	SABIZ PLANT ANSI 63045 - 0			5 - 0 A Area A 1 / 1			T	OTAL Kg:	22,							

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

	DESMET - Ballestra								SKETCH	IES MATERIAL LIST		PRO.	J: 2F11		REV: 0	23/07/2012
	PUMA	15		23/07/20	12 15.00).21						DOC	: 2F11	.65.102	•	•
		D	ESMET	- Ballestra	l				S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: ℃	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As	s.bly Branch
931	1/2	0	In	2,77		mm	,00	0,50	m 212	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L G	r.B			0,63	
936	2	0	In	3,91		mm	,00	1,00	m 212	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L G	r.B			5,44	
1898	1/2	0	In			mm	,00	1,00	NR 212	Valve Check SB-ATI-VR018/0 SW-F 800# Forged ASTM A 105			105 R 83		1,90	
2692	2	0	In			mm	,00	1,00	NR 212	Valve Ball Type Bottom SB-ATI-VS05 AARH) Cast ASTM A 216 Gr. WCB S		50 LB RF (125÷250		10,50	
330	2	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷25	0 AARH) F	orged	2838	2,20	
232	2	0	In	3,91		mm	,00	2,00	NR 212	90° Elbow Long Radius ASME B16.9 234 Gr. WPB	BE sch.40 V	Wrought S A	ASTM A		1,33	
404	2	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1	125÷250 AA	ARH) _ B5E	3			
	, 	' 	'	<u>'</u>	1		-		N	M Erection				Total Kg:	22,	
SZ1	SABIZ	PLANT A	ANSI			63046	- 0		A	Area A 1	/ 1		-	TOTAL Kg:	22,	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specificati	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F1					: 2F11		REV: 0	23/	07/2012		
	PUMA	15		23/07/20	012 15.00).21							DOC:	2F11.	.65.102			
		DI	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
900	3	0	In	3,18		mm	,00	2,50	m	203	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				16,81		
931	1/2	0	In	2,77		mm	,00	1,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			1,27		
936	2	0	In	3,91		mm	,00	0,20	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			1,09		
1801	1/2	0	In			mm	,00	1,00) NR	203	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	ГHRD-F N	PT 200 LB 1	Forged		0,30		
2668	3	0	In			mm	,00	1,00) NR	203	Valve Foot SB-ATI-VR025/0 FLG 150 DUCTILE IRON R 89	LB RF (12	5÷250 AAR	H) Cast	2840	10,00		
332	3	0	In			mm	,00	1,00) NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷25	0 AARH) Fo	orged	2840	4,10		
199	3	0	In	3,18		mm	,00	1,00) NR	203	90° Elbow Long Radius ASME B16.9 I	BE E.R.W.	ASTM A 23	4 Gr.		1,18		

M Erection

Area A

Reducer Eccentric ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB

1 / 1

Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C

Tab.9 ASTM A 193 B7 / A 194 Gr.2H

3,91

mm

mm

63047 - 0

3,18

In

1236

2840

378

SZ1

5/8

0

0

SABIZ PLANT ANSI

,00

,00

95,00

1,00 NR 203

4,00 NR 203

2,00 NR 203

Α

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specificatio	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63047 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

0,57

0,92

36,23

36,23

Total Kg:

TOTAL Kg:

	Ι	ESME	T - B	allestra					SKETCH	HES MATERIAL LIST		PROJ	: 2F11		REV: 0 2	23/07/2012
	PUMA:	;		23/07/20	012 15.0	0.21	1					DOC:	2F11	.65.102	•	
		DE	SMET	- Ballestra	ı				S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Otr	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	v Brancl
933	1	0	In	3,38	12	mm	.00	1.00		Pipe ASME B36.10 PL sch.40 Seaml	ess API 5L.C	ir B		Gen. Don	2,50	y Dianci
934	1+1/4	0	In	3,56		mm	,00	0,20		Pipe ASME B36.10 PL sch.40 Seaml					0.68	
936	2	0	In	3,91		mm	.00		m 203	Pipe ASME B36.10 PL sch.40 Seaml					195,74	
1803	1	0	In			mm	,00		NR 203	Valve Ball Full Port SB-ATI-VS014/ BRASS NICKEL PLATED S 87			Forged		0,60	
1806	2	0	In			mm	,00	1,00	NR 203	Valve Ball Full Port SB-ATI-VS014/9 BRASS NICKEL PLATED S 87	0 THRD-F N	NPT 200 LB 1	Forged		2,20	
1893	2	0	In			mm	,00	1,00	NR 203	Valve Check SB-ATI-VR072/0 THR BRONZE R 126	D-F NPT 20	0 LB Forged			2,05	
330	2	0	In			mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB ASTM A 105	RF (125÷25	50 AARH) Fo	orged	2838	2,20	
119	2	0	In	3,91		mm	,00	3,00	NR 203	45° Elbow Long Radius ASME B16. 234 Gr. WPB	9 BE sch.40	Wrought S A	STM A		0,94	
229	1	0	In	3,38		mm	,00	1,00	NR 203	90° Elbow Long Radius ASME B16. 234 Gr. WPB	9 BE sch.40	Wrought S A	STM A		0,14	
232	2	0	In	3,91		mm	,00	6,00	NR 203	90° Elbow Long Radius ASME B16. 234 Gr. WPB	9 BE sch.40	Wrought S A	STM A		3,99	
1090	2	1+1/4	In	3,91	3,56	mm	,00	1,00	NR 203	Reducer Concentric ASME B16.9 BE 234 Gr. WPB	E sch.40 Wro	ought S ASTN	ΙА		0,43	
709	1/2	0	In			mm	,00	1,00	NR 203	Coupling Half SB-ATI-PR008/0 THE A 105	RD-F NPT 3	000# Forged	ASTM		0,06	
2838	5/8	0	In			mm	85,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/ Tab.9 ASTM A 193 B7 / A 194 Gr.2		8.2.1 UNC/2	.2		0,84	
376	2	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF		ARH) _ B5C				
		-								M Erection				Total Kg:	212,36	
SZ1	SABIZ P	LANT A	NSI			63048	- 0		Α .	Area A	1 / 1		-	TOTAL Kg:	212,36	
PI_63.6							Plant SZ1	SABIZ PI	ANT ANSI	Piping Class 203			We	elding specificat	ion SB-ATI-SP006/0 SB	-ATI-
										•					SP007/0	
							Line 6304			Fluid			•	tem	0.4	
							Dang. fluid	type		Coating			De p	res	Op tem	

Sketch Sht 1/1

Isometric code

Area Area A

Zones

Page 1

	DESMET - Ballestra								S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA:	5		23/07/20	012 15.0	0.21							DOC:	2F11.6	5.102			
		D	ESME	T - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp: °	С	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg)	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	6,0) m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			24,30		
1805	1+1/2	0	In			mm	,00	1,0) NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB Fo	orged		1,50		
118	1+1/2	0	In	3,68		mm	,00	1,00) NR	203	45° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 W	rought S AS	TM A		0,18		
231	1+1/2	0	In	3,68		mm	,00	3,0	NR	203	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 W	rought S AS	TM A		1,10		
825	1+1/2	0	In			mm	,00	1,0) NR	203	Union SB-ATI-PR008/0 THRD-F NPT	3000# Forg	ed ASTM A	105		1,26		
		1	-	'	'	'		•		N	M Erection				Total Kg:	28,34		
SZ1	SABIZ P	LANT .	ANSI			63050	- 0			A A	Area A 1 /	1		TO	OTAL Kg:	28,34		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specifica	ation SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - 1	Ballestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	07/2012
	PUMA	A 5		23/07/20	012 15.00	0.21							DOC:	2F11.65	.102			
		D	DESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Ge	en. Bolt	Weight (Kg)	As.bly	Branch
936	2	0	In	3,91		mm	,00	2,50	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.I	3			13,59		
330	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 A	AARH) For	ged 28	38	2,20		
232	2	0	In	3,91		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wi	ought S AS	TM A		0,66		
2838	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	.1 UNC/2.2	!		0,84		
404	2	0	In			mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1:	25÷250 AAR	(H) _ B5B					
	'	'					•	•	-	N	M Erection			1	Total Kg:	17,3		
SZ1	SABIZ	PLANT A	ANSI			63051	- 0			Α Α	Area A 1	/ 1		TO	TAL Kg:	17.3		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	Ι	DESM	ET - Ba	allestra					SKETCH	IES MATERIAL LIST	PROJ	J: 2F11		REV: 0 2	23/07/2012
	PUMA5	5		23/07/20	12 15.00.	.22					DOC:	2F11.6	5.102		
		D	ESMET	- Ballestra	l				S	ABIZ 8000 kg/h	Size: In Thk: mm	Temp: °	С	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Um Pip. class	Component		(Gen. Bolt	Weight (Kg) As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	1,00	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			4,05	
1838	1+1/2	· · · · · · · · · · · · · · · · · · ·						1,00	NR 212	Valve Ball Full Port SB-ATI-VS050/0 I AARH) Forged ASTM A 105 S 127	UG 150 LB RF (125÷	250 2	2971	7,00	
329	1+1/2	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 AARH) Fo	orged 2	2832	1,40	
231	1+1/2	0	In	3,68		mm	,00	1,00	NR 212	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 Wrought S A	ASTM A		0,37	
403	1+1/2	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH) _ B5B	3			
2971	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	
								•	N	M Erection		'	Total Kg:	13,46	
SZ1	I SABIZ PLANT ANSI 6305						- 0		A A	Area A 1	′ 1	TO	OTAL Kg:	13,46	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PRO.	J: 2F11		REV: 0	23/07/2012
	PUMA	\ 5		23/07/20	012 15.0	0.22							DOC	: 2F11	1.65.102		•
		D	ESMET	' - Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): ℃	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.	bly Branch
900	3	0	In	3,18		mm	,00	1,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr	r.B				10,08	
936	2	0	In	3,91		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless A	API 5L Gr.	В			1,09	
1841	3	0	In			mm	,00	,00 1,00 NR 212 Valve Ball Full Port SB-ATI-VS050/0 LUG 150 LB RF (12 AARH) Forged ASTM A 105 S 127							2975	14,00	
332	3	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (ASTM A 105	(125÷250	AARH) F	orged	2840	4,10	
86	3	0	In	3,18		mm	,00	1,00	NR	212	45° Elbow Long Radius ASME B16.9 BE WPB	E.R.W. A	ASTM A 2	34 Gr.		0,60	
199	3	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 BE WPB	E.R.W. A	ASTM A 2	34 Gr.		1,18	
1236	3	2	In	3,18	3,91	mm	,00	1,00	NR	212	Reducer Eccentric ASME B16.9 BE E.R.V	W. ASTM	A 234 Gr	. WPB		0,57	
406	3	0	In			mm	,00	2,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125-	÷250 AA	RH) _ B5I	3			
2975	5/8	0	In			mm	45,00	8,00	NR	212	Screws for valves ASME B 18.2.1/UNC A	ASTM A 1	93 B7			1,28	
	•	•	•							N	1 Erection				Total Kg:	32,9	

Area A

SZ1

SABIZ PLANT ANSI

63053 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	1 SB-ATI-SP006/0 SB-ATI- SP007/0
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			

TOTAL Kg:

32,9

1 / 1

	D	ESME'	Т - В	allestra					S	KETCH	IES MATERIAL LIST		PR	OJ: 2	2F11		REV: 0	23	/07/2012
	PUMA5			23/07/20	12 15.00	0.22							DO	C : 2	2F11.6	55.102	•	•	
		DE	SMET	- Ballestra	1					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Т	Γemp: °	C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				(Gen. Bolt	Weight (Kg)	As.bly	Branch
934	1+1/4	0	In	3,56		mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B				0,68		
936	2	0	In	3,91		mm	,00	21,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B				114,18		
1903	2	0	In			mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 8	00# Forged	ASTM A	A 105	R 83		15,00		
330	2	0	In			mm	,00	1,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250) AARH)	Forge	ed 2	2838	2,20		
119	2	0	In	3,91		mm	,00	2,00	NR	212	45° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Vrought S	S AST	МА		0,63		
232	2	0	In	3,91		mm	,00	7,00	NR	212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Vrought S	S AST	МА		4,65		
1090	2	1+1/4	In	3,91	3,56	mm	,00	1,00	NR	212	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wrou	ight S AS	STM A	1		0,43		
2838	5/8	0	In			mm	85,00	4,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNO	C/2.2			0,84		
404	2	0	In			mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (1:	25÷250 AA	ARH) _ B	5B					
	·			'						N	M Erection					Total Kg:	138,61		

Area A

1 / 1

TOTAL Kg:

138,61

SZ1

SABIZ PLANT ANSI

PI_63.5	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		B-ATI-SP006/0 SB-ATI- P007/0
	Line 63054 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESM	ET - B	allestra					SKETCH	IES MATERIAL LIST		PROJ	: 2F11		REV: 0	23/07/2012
	PUMA	A 5		23/07/20	12 15.00	0.22						DOC:	2F11.0	65.102		
		D	ESMET	- Ballestra	1				S	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		Т1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
936	2	0	In	3,91		mm	,00	,							16,31	
1839	2	0	In			mm	,00	1,00	NR 212	Valve Ball Full Port SB-ATI-VS050/0 I AARH) Forged ASTM A 105 S 127	250	2974	6,50			
330	2	0	In			mm	,00	2,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250	AARH) Fo	rged	2838	4,40	
119	2	0	In	3,91		mm	,00	1,00	NR 212	45° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 W	rought S A	STM A		0,31	
232	2	0	In	3,91		mm	,00	3,00	NR 212	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 W	rought S A	STM A		1,99	
404	2	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AAI	RH) _ B5B				
2974	5/8	0	In			mm	40,00	8,00	NR 212	Screws for valves ASME B 18.2.1/UNC	C ASTM A 1	93 B7			1,20	
	<u>'</u>		'	* 	*	*			N	1 Erection				Total Kg:	30,72	
SZ1	SABIZ PLANT ANSI 63055 -					63055	- 0		A A	Area A 1	/ 1		Т	OTAL Kg:	30,72	

Plant SZ1 SABIZ PLANT ANSI	n SB-ATI-SP006/0 SB-ATI- SP007/0		
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			

	Г	ESM	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ	: 2F11		REV: 0	23	/07/2012
	PUMA5	;		23/07/20	012 15.00	.22							DOC:	2F11.	65.102			
		D	ESMET	' - Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00		_	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G1	r.B			16,20		
1829	1+1/2	0	In			mm	,00	1,00	NR	212	Valve Ball Full Port SB-ATI-VS019/0 T ASTM A 105 S 98	THRD-F N	PT 800# For	ged		3,20		
231	1+1/2	0	In	3,68		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Vrought S A	STM A		1,10		
825	1+1/2	0	In			mm	,00	1,00	NR	212	Union SB-ATI-PR008/0 THRD-F NPT	3000# For	ged ASTM	A 105		1,26		
	1	'	'		'	1				ľ	M Erection				Total Kg:	21,76		
SZ1	SABIZ PI	ANT	ANSI			63056	- 0			Α /	Area A 1	/ 1		Т	OTAL Kg:	21.76		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

]	DESME	T - Ba	llestra			SKETCHES MATERIAL LIST				PROJ:	2F11		REV:	23	/07/2012		
	PUMA	5		23/07/20	012 15.0	0.22							DOC:	2F11.6	55.102		•	
		DE	SMET	Ballestra	ı					SA	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				6,33		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged AST	M A 105	G 61		1,70)	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AST	M A 105			0,75		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10)5				
		1			1		•			N	1 Erection				Total Kg:	8,78	3	
SZ1	SABIZ P	LANT A	NSI			63101 -	. 0			A A	area A 1	1		T	OTAL Kg:	8,78	:	

Plant SZ1 SABIZ PLANT ANSI	SB-ATI-SP006/0 SB-ATI- SP007/0		
Line 63101 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	.5		23/07/2	012 15.0	0.22							DOC:	2F11.6	55.102			
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: In	Γhk: mm	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			6,33		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB F	Forged		0,30		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	STM A 105	5		0,75		
2576	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged	ASTM A 10	05				
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM	I A 105			0,38		
	*		*	•	•	•				N	M Erection				Total Kg:	7,76		
SZ1	SABIZ I	PLANT A	ANSI			63102	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	7,76		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification S	B-ATI-SP006/0 SB-ATI- P007/0
Line 63102 - 0	Fluid	System	. 007/0
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		PRO.	J: 2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	012 15.0	0.22							DOC	: 2F11	1.65.102	•		
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): °C	Pres: Bar(g)	С	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	8,00		203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			10,13		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	ΓHRD-F N	PT 200 LB	Forged		0,30		
2082	1/2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type SB-ATI-VF018/0 THR BRONZE F 70	D-F NPT	200 LB For	ged		0,50		
325	1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	AF (125÷250) AARH) F	orged	2830	0,40		
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 10)5		1,00		
2576	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 30	000# Forged	l ASTM A	105				
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged AST	M A 105			0,38		
2830	1/2	0	In			mm	65,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		0,44		
371	1/2	0	In			mm	,00	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	ARH) _ B50	2				
	-	-	1	1	1	-				N	/I Erection				Total Kg:	13,15		

TOTAL Kg:

13,15

A

Area A

SZ1

SABIZ PLANT ANSI

63103 - 0

KV_63.4 PI_63.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
_	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2						OJ: 2F	11	REV: 0	23	/07/2012
	PUMA	.5		23/07/20	012 15.00	.22							DO	C: 2F	11.65.102			
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Te	mp: °C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	2,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			2,53		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800)# Forged A	ASTM A	105 G 6	1	1,70		
325	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	0 AARH)	Forged	2830	0,40		
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A	105		0,75		
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNO	C/2.2		0,44		
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RI	F (125÷2:	50 AAR	H)			
										N	M Erection				Total Kg:	5,82		
SZ1	SABIZ I	PLANT A	ANSI			63105	- 0			A A	Area A 1 /	1			TOTAL Kg:	5,82		

KY_63.3A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 63105 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
1	Zones			

]	DESM	ET - Ba	llestra			SKETCHES MATERIAL LIST PROJ: 2						2F11		REV: 0 2	23/07/2012
	PUMA	.5		23/07/20	012 15.00	.22						DOC: 2	2F11.65.1	02		
		D	ESMET -	- Ballestra	ì				;	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C		Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Um Pip. class	Component			Gen	. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	0 4,00	m 205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				5,06	
2025	1/2	0	In			mm	,00	0 1,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged AST	ГМ A 105 С	G 61		1,70	
325	1/2	0	In			mm	,00	0 1,00	NR 205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 A	ARH) Forgo	ed 2830)	0,40	
193	1/2	0	In			mm	,00	0 3,00	NR 205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	ΓM A 105			0,75	
2830	1/2	0	In			mm	65,00	0 4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1	1 UNC/2.2			0,44	
2816	1/2	0	In			mm	,00	0 1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF (1	25÷250 AA	ARH)			
										M Erection			Tot	tal Kg:	8,35	
SZ1	SABIZ F	PLANT A	ANSI			63106	- 0		A	Area A 1	/ 1		TOTA	AL Kg:	8,35	

KY_63.3B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificati	on SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F						2F11		REV: 0	23/	/07/2012	
	PUMA	.5		23/07/20	012 15.0	0.22							DOC:	2F11	.65.102	•		
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g) Co		orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00	16,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			40,04		
2027	1	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged A	ASTM A 105	G 61		6,60		
2090	1	0	In			mm	,00	1,00	NR	205	Strainer Y-Type SB-ATI-VF016/0 SW-	F 800# Forg	ged ASTM A	105 F		1,40		
327	1	0	In			mm	,00	3,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250) AARH) Fo	rged	2831	2,40		
229	1	0	In	3,38		mm	,00	11,00	NR	205	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 V	Vrought S A	STM A		1,49		
2831	1/2	0	In			mm	70,00	6,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2.	2		0,66		
2970	1/2	0	In			mm	30,00	8,00	NR	205	Screws for valves ASME B 18.2.1/UNC	C ASTM A	193 B7			0,64		
2818	1	0	In			mm	,00	3,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 G5N INNER OUTER RING	5 150 LB RF	F (125÷250 A	AARH)				
										N	M Erection				Total Kg:	53,22		

Α

Area A

SZ1

SABIZ PLANT ANSI

63107 - 0

TV_63.1A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

53,22

TOTAL Kg:

	DESMET - Ballestra								SKETCH	IES MATERIAL LIST	PROJ:	2F11	REV: 0 23	3/07/2012
	PUMA	A 5		23/07/20	12 15.00	0.23	1				DOC:	2F11.65.102		
		D	ESMET	- Ballestra	1				S.	ABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
933	1	0	In	3,38		mm	,00	11,00	m 205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B		27,52	
2027	1	0	In			mm	,00	4,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged ASTM A 105 (G 61	13,20	
2680	1	0	In			mm	,00	1,00	NR 205	Steam Trap SB-ATI-VT005/0 SW-F 30 66	0 LB Forged ASTM A 10	5 T	3,40	
327	1	0	In			mm	,00	1,00	NR 205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 AARH) Forg	ed 2831	0,80	
229	1	0	In	3,38		mm	,00	6,00	NR 205	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 Wrought S AST	ГМ А	0,81	
2831	1/2	0	In			mm	70,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/2.2		0,44	
2818	1	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF (125÷250 AA	ARH)		
									N	M Erection		Total Kg:	46,18	
SZ1	SABIZ PLANT ANSI 63108 - 0				- 0	A Area A 1 / 1				TOTAL Kg:	46,18			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - Ba	allestra					SKETCH	IES MATERIAL LIST	PROJ:	2F11	REV: 0 23	3/07/2012
	PUMA	15		23/07/20	12 15.00	0.23					DOC:	2F11.65.102		
		D	ESMET	- Ballestra	l				S	ABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m 205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B		5,06	
2025	1/2	0	In			mm	,00	1,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged ASTM A 105 (G 61	1,70	
2088	1/2	0	In			mm	,00	1,00	NR 205	Strainer Y-Type SB-ATI-VF016/0 SW-	F 800# Forged ASTM A	105 F	0,50	
325	1/2	0	In			mm	,00	1,00	NR 205	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷250 AARH) Forg	ged 2830	0,40	
193	1/2	0	In			mm	,00	4,00	NR 205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged ASTM A 105		1,00	
2830	1/2	0	In			mm	65,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/2.2		0,44	
2816	1/2	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF (125÷250 AA	ARH)		
									N	M Erection		Total Kg:	9,1	
SZ1	SABIZ PLANT ANSI 63109 - 0				9 - 0 A Area A 1 / 1 T					TOTAL Kg:	9,1			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificat	tion SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - Ba	allestra						SKETCH	IES MATERIAL LIST		PRO.	J: 2F11		REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.0	0.23							DOC	: 2F11	.65.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	С	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00	10,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			25,02		
2027	1	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged .	ASTM A 10)5 G 61		6,60		
2090	1	0	In			mm	,00	1,00	NR	205	Strainer Y-Type SB-ATI-VF016/0 SW-	F 800# For	ged ASTM	A 105 F		1,40		
											69							
327	1	0	In			mm	,00	3,00	NR	205	Flange Slip-On ASME B16.5 150 LB R	F (125÷25	0 AARH) F	orged	2831	2,40		
									_	_	ASTM A 105						T	
229	1	0	In	3,38		mm	,00	7,00	NR	205	90° Elbow Long Radius ASME B16.9 F	BE sch.40 V	Wrought S	ASTM A		0,95		
					_				1		234 Gr. WPB							
2831	1/2	0	In			mm	70,00	6,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B18	3.2.1 UNC/2	2.2		0,66		
									1		Tab.9 ASTM A 193 B7 / A 194 Gr.2H						1	
2970	1/2	0	In			mm	30,00	8,00	NR	205	Screws for valves ASME B 18.2.1/UNC	ASTM A	193 B7			0,64		
2818	1	0	In			mm	,00	3,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5	150 LB R	F (125÷250	AARH)				
		,	·			,					_ G5N INNER OUTER RING							
										N	A Erection				Total Kg:	37,67		

A

Area A

SABIZ PLANT ANSI

63110 - 0

TV_63.1B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	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			

37,67

TOTAL Kg:

		DESMI	ET - Ba	allestra					SKETCH	IES MATERIAL LIST	PROJ: 2	2F11	REV: 0 2:	3/07/2012
	PUMA	15		23/07/20	12 15.00	0.23					DOC: 2	2F11.65.102		
		D	ESMET	- Ballestra	ı				S	ABIZ 8000 kg/h	Size: In Thk: mm	Гетр: °С	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
933	1	0	In	3,38		mm	,00	11,00	m 205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B		27,52	
2027	1	0	In			mm	,00	4,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged ASTM A 105 C	61	13,20	
2680	1	0	In			mm	,00	1,00	NR 205	Steam Trap SB-ATI-VT005/0 SW-F 300	0 LB Forged ASTM A 105	5 T	3,40	
327	1	0	In			mm	,00	1,00	NR 205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 AARH) Forgo	ed 2831	0,80	
229	1	0	In	3,38		mm	,00	7,00	NR 205	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 Wrought S AST	M A	0,95	
2831	1/2	0	In			mm	70,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ATab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/2.2		0,44	
2818	1	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF (125÷250 AA	RH)		
									N	M Erection		Total Kg:	46,31	
SZ1	SABIZ PLANT ANSI 63111 - 0				- 0	0 A Area A 1/1					46,31			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra					S	KETCH	HES MATERIAL LIST		PRO	J: 2F11	[REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.0	0.23							DOC	: 2F1	1.65.102	•	•
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp): ℃	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.l	oly Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			5,06	
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged A	ASTM A 1	05 G 61	İ	1,70	
2088	1/2	0	In			mm	,00	1,00	NR	205	Strainer Y-Type SB-ATI-VF016/0 SW-69	F 800# For	ged ASTM	A 105 F	7	0,50	
325	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷25)	O AARH) I	Forged	2830	0,40	
193	1/2	0	In			mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged	ASTM A 1	05		1,00	
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/	2.2		0,44	
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	5 150 LB RI	F (125÷250	AARH)			
										l	M Erection				Total Kg:	9,1	
SZ1	SABIZ	PLANT A	ANSI			63112	- 0			A	Area A 1	/ 1			TOTAL Kg:	9,1	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
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			

		DESM	ET - B	allestra					S	KETCI	HES MATERIAL LIST		PROJ	2F11		REV: 0	23/07/2012
	PUMA	\ 5		23/07/20	012 15.0	00.23							DOC:	2F11.6	55.102		
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.l	oly Branch
933	1	0	In	3,38		mm	,00	10,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			25,02	
2027	1	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged A	ASTM A 105	G 61		3,30	
327	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷25)	0 AARH) Fo	rged 2	2831	0,80	
116	1	0	In	3,38		mm	,00	2,00	NR	205	45° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 V	Wrought S A	STM A		0,14	
229	1	0	In	3,38		mm	,00	5,00	NR	205	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 V	Wrought S A	STM A		0,68	
2831	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2.	2		0,44	
2818	1	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	5 150 LB RI	F (125÷250 A	AARH)			
]	M Erection				Total Kg:	30,37	
SZ1	SABIZ	PLANT .	ANSI			63115	- 0			Α .	Area A 1	/ 1		T	OTAL Kg:	30,37	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificati	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - Ba	allestra					S	KETCH	ES MATERIAL LIST		PRO	I: 2F11		REV: 0 2	23/07/2012
	PUMA	.5		23/07/20	012 15.00	0.23							DOC	2F11.	.65.102		
		D	ESMET	- Ballestra	ì					SA	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
933	1	0	In	3,38		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L G	r.B			12,51	
2027	1	0	In			mm	,00	0 1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged A	ASTM A 10	5 G 61		3,30	
327	1	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB RI ASTM A 105	F (125÷250) AARH) F	orged	2831	0,80	
229	1	0	In	3,38		mm	,00	4,00	NR	205	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	E sch.40 V	Vrought S A	ASTM A		0,54	
2831	1/2	0	In			mm	70,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		0,44	
2818	1	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RF	F (125÷250	AARH)			
										M	Erection				Total Kg:	17,59	
SZ1	SABIZ I	PLANT A	ANSI			63116	- 0			A A	rea A 1 /	1		7	ГОТАL Kg:	17,59	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	sB-ATI-SP006/0 SB-ATI-SP007/0
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			

]	DESM	ET - B	allestra									PROJ	2F11	REV: 0	23	3/07/2012
	PUMA	.5		23/07/2	012 15.00	.23							DOC:	2F11.65.102			
		D	ESMET	- Ballestr	a					;	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B36.10 PL sch.40 Seamle	ss API 5L G	r.B		5,06		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 30	00# Forged	ASTM A 105	5	0,75		
		•	*	•		•		•			M Erection			Total K	g: 5,81		
SZ1	SABIZ F	PLANT A	ANSI			63117	- 0			A	Area A	1 / 1		TOTAL K	g: 5,81		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra			SKETCHES MATERIAL LIST PROJ:)J: 21	F11	REV: 0	23	/07/2012		
	PUMA	15		23/07/20	012 15.00).24							DO	C: 2I	F11.65.102		•	
		D	ESMET	- Ballestra	ì					S	SABIZ 8000 kg/h	Size: In	Thk: mm	To	emp: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			6,33		
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged .	ASTM A	105 G	61	3,40		
325	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH)	Forgeo	1 2830	0,40		
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM A	105		0,75		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d ASTM A	A 105				
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	8.2.1 UNC	2/2.2		0,44		
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB R	F (125÷25	0 AAF	RH)			
										N	M Erection				Total Kg:	11,32		
SZ1	SABIZ I	PLANT A	ANSI			63118	- 0			A A	Area A	/ 1			TOTAL Kg:	11,32		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra		SKETCHES MATERIAL LIST PROJ: 2F					: 2F11		REV: 0 2	3/07/2012		
	PUMA	15		23/07/20	012 15.0	0.24						DOC:	2F11.0	65.102		
		D	ESMET	T - Ballestra	a				SA	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
933	1	0	In	3,38		mm	,00	3,00	m 203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			7,51	
327	1	0	In			mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	AARH) Fo	orged	2831	0,80	
116	1	0	In	3,38		mm	,00	1,00	NR 203	45° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	BE sch.40 W	rought S A	STM A		0,07	
229	1	0	In	3,38		mm	,00	3,00	NR 203	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	BE sch.40 W	rought S A	STM A		0,41	
2831	1/2	0	In			mm	70,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2	2.1 UNC/2.	.2		0,44	
373	1	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AAI	RH) _ B5C	!			
		-				1	1		M	1 Erection				Total Kg:	9,22	
SZ1	SABIZ	PLANT A	ANSI			63119	- 0		A A	area A 1 /	/ 1		Т	OTAL Kg:	9,22	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63119 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESMI	ET - B	' - Ballestra							PROJ:	2F11	REV: 0	23/	/07/2012		
	PUMA	.5		23/07/20	012 15.00	.24							DOC:	2F11.65.102			
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	ık: mm	Temp: °C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			6,33		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged	0,30		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	ΓM A 105		0,75		
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM	A 105		0,38		
			'	'	'			•	_	ı	M Erection			Total Kg	: 7,76		
SZ1	SABIZ I	PLANT A	ANSI			63120	- 0			A A	Area A 1	/ 1		TOTAL Kg	: 7,76		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra									PROJ:	2F11		REV: 0 2	23/07/2012
	PUMA	15		23/07/20	012 15.0	0.24							DOC:	2F11.65.102			
		D	ESMET	- Ballestra	ì					SA	ABIZ 8000 kg/h	Size: In Thi	k: mm	Temp:	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	3,00) m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				3,80	
2033	1/2	0	In			mm	,00	1,00) NF	203	Valve Globe SB-ATI-VD001/0 THRD-I	F NPT 200 LB	Forged			0,70	
						<u>'</u>					BRONZE D 51						
193	1/2	0	In			mm	,00	4,00	NF	203	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105			1,00	
2576	1/2	0	In			mm	,00	1,00) NF	R 203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10:	5			
667	1/2	0	In			mm	,00	1,00) NF	R 203	Coupling SB-ATI-PR008/0 THRD-F N	PT 3000# Forg	ged ASTM	A		0,12	
	1		1							1	105						
849	1/2	0	In			mm	,00	1,00) NF	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM A	A 105			0,38	
	•	•	•	•	•	•		-		N	1 Erection				Total Kg:	6,	
SZ1	SABIZ I	PLANT A	ANSI			63121	- 0			A A	area A 1	1		1	FOTAL Kg:	6,	

PI_63.F2A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ:					2F11		REV:	0 2	23/07/2012		
	PUMA	15		23/07/20	012 15.00).24							DOC:	2F11.	65.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	C1	62		T1	тэ		T	- 04-		. D:1	G				C D-14	W-:-1-4 (V	_\ A _ L1	. Dh
Mark	S1	S2		11	T2		Len mn	ո Չեչ	Un	Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bi	y Branch
931	1/2	0	In	2,77		mm	,00	5,0) m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.	В			6,33	3	
2025	1/2	0	In			mm	,00	0 1,0) NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged A	STM A 105	G 61		1,70	О	
193	1/2	0	In			mm	,00	3,0) NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged A	STM A 105	5		0,7:	5	
	·									N	M Erection				Total Kg:	8,7	8	
SZ1	1 SABIZ PLANT ANSI 63122 - 0				- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	8,78	8			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63122 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	allestra					S	KETCI	HES MATERIAL LIST		PROJ	2F11		REV: 0	23/07/2012	
	PUMA	15		23/07/20	012 15.00	0.24							DOC:	2F11	.65.102		
		D	ESMET	- Ballestra	ì						SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:℃	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L Gr	:.В			6,33	
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	00# Forged A	ASTM A 10:	5 G 61		3,40	
325	1/2	0	In	mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB I ASTM A 105	RF (125÷250) AARH) Fo	orged	2830	0,40			
80	1/2	0	In			mm	,00	1,00	NR	205	45° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged A	ASTM A 10	5		0,18	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged A	ASTM A 10	5		0,75	
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	000# Forged	ASTM A 1	.05			
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		.2.1 UNC/2	.2		0,44	
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	5 150 LB RF	F (125÷250 A	AARH)			
]	M Erection				Total Kg:	11,5	
SZ1	SABIZ PLANT ANSI 63123 -					- 0			A	Area A 1	/ 1		-	TOTAL Kg:	11,5		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63123 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESMI	ET - B	allestra					S	KETCI	HES MATE	RIAL LIST		PROJ:	2F11		REV:) 23	3/07/2012
	PUMA	.5		23/07/20	012 15.0	0.24								DOC:	2F11.65	5.102			
	DESMET - Ballestra									S	SABIZ 8000 kg/h		Size: In Thl	K: mm	Temp: °C	2	Pres: Bar(g)	(Corr: mm
										,									
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				G	Gen. Bolt	Weight (Kg	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B	36.10 PL sch.40 Seamless	API 5L Gr.B				5,06		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-	-ATI-PR007/0 SW-F 3000	# Forged AST	M A 105			0,75		
										1	M Erection				•	Total Kg:	5,81		
SZ1	SZI SABIZ PLANT ANSI 63124 -					- 0			A	Area A	1 /	1		TO	TAL Kg:	5,81			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra					S	KETCE	IES MATERIAL LIST		PROJ:	2F11		REV:	0 2	23/07/2012
	PUMA	.5		23/07/20	012 15.00	.24							DOC:	2F11.6	65.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	Т2		Len mn	ı Otv	Um	Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bly	Branch
931	1/2	0	In	2,77		mm	,00		_	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.E	3			6,33		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AS	TM A 105	G 61		1,70	O	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	STM A 105			0,75	5	
										N	M Erection				Total Kg:	8,7	8	
SZ1	SABIZ PLANT ANSI 63125 - 0					- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	8,78	8		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	D	ESMET	Γ - Bal	llestra					SKETCH	ES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	07/2012
	PUMA5		- 2	23/07/20	12 15.00.	.24						DOC:	2F11.65.102				
		DES	SMET -	Ballestra					SA	BIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C		Pres: Bar(g)	Co	orr: mm
Mark	ark S1 S2 T1 T2 I						Len mm	Qty	Um Pip. class	Component			Gen. B	olt	Weight (Kg)	s.bly	Branch
931	1/2	0	In	2,77		mm	,00	3,00	m 203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.l	3			3,80		

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77	mm	,00	3,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		3,80		
193	1/2	0	In		mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 3000# Forged ASTM A 105		0,75		
			•						N	1 Erection	Total Kg:	4,55		
SZ1	SZ1 SABIZ PLANT ANSI 63126 - 0			A A	Area A 1 / 1	TOTAL Kg:	4,55							

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - B	allestra					S	KETCE	IES MATERIAL LIST		PI	ROJ:	2F11		REV: 0	23	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.24							D	OC:	2F11	.65.102	•	•	
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: m	m	Temp	: °C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	Gr.B				5,06		
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged	ASTM A	A 105	G 61		3,40		
325	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R	F (125÷25	0 AARI	H) For	rged	2830	0,40		
											ASTM A 105								
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM .	A 105	i		0,75		
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d ASTM	I A 10)5				
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B18	8.2.1 UN	NC/2.2	2		0,44		
						•					Tab.9 ASTM A 193 B7 / A 194 Gr.2H								
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5	150 LB R	F (125÷	250 A	AARH)				
											_ G5N INNER OUTER RING								
										N	M Erection					Total Kg:	10,05		
SZ1	SABIZ I	PLANT A			63127	- 0			A A	Area A 1	/ 1			7	TOTAL Kg:	10,05			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SI	
Line 63127 - 0 Dang, fluid type	Fluid Coating	System De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - B	allestra					SKETO	CHES MATERIAL LIST		PROJ	2F11		REV: 0	23/07/2012
	PUMA	15		23/07/20	012 15.0	0.24						DOC:	2F11.6	65.102		
		D	ESMET	` - Ballestra	ì					SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Um Pip. cla	ss Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
933	1	0	In	3,38		mm	,00	3,00	m 203	Pipe ASME B36.10 PL sch.40 Seamle	ss API 5L Gr.	.B			7,51	
327	1	1 0 In mm ,00						1,00	NR 203	Flange Slip-On ASME B16.5 150 LB ASTM A 105	RF (125÷250	AARH) Fo	rged	2831	0,80	
116	1 0 In 3,38 mm					mm	,00	1,00	NR 203	45° Elbow Long Radius ASME B16.9 234 Gr. WPB	BE sch.40 W	rought S A	STM A		0,07	
229	1	0	In	3,38		mm	,00	3,00	NR 203	90° Elbow Long Radius ASME B16.9 234 Gr. WPB	BE sch.40 W	rought S A	STM A		0,41	
2831	1/2	0	In			mm	70,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		2.1 UNC/2.	2		0,44	
373	1	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AA	RH) _ B5C				
	'				1	'	1	•	'	M Erection			'	Total Kg:	9,22	<u> </u>
SZ1	SABIZ PLANT ANSI 63					63128	- 0		A	Area A	1 / 1		T	OTAL Kg:	9,22	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F1							REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.00	0.24							DOC:	2F11.65.102		•
		D	ESMET	Γ - Ballestr	a					S	ABIZ 8000 kg/h	Size: In Thk	: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg) As	.bly Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			6,33	
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT 2	200 LB F	orged	0,30	
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105		0,75	
849	1/2	0	In			mm	,00	2,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM A	. 105		0,76	
	'			'	'				•	N	1 Erection			Total Kg:	8,14	·
SZ1	SABIZ	PLANT A	ANSI			63129	- 0			A A	Area A 1	/ 1		TOTAL Kg:	8,14	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PRO								REV: 0	23/0	07/2012
	PUMA	.5		23/07/20	12 15.00	.25							DOC:	2F11.	65.102		•	
		DF	ESMET -	- Ballestra	l					SA	ABIZ 8000 kg/h	Size: In The	k: mm	Temp:	°C	Pres: Bar(g)	Co	rr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
931	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				3,80		
2033	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-F	F NPT 200 LB	Forged			0,70		
		_		_	_					1	BRONZE D 51							
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105			1,00		
2576	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 105	5				
667	1/2	0	In			mm	,00	1,00	NR	203	Coupling SB-ATI-PR008/0 THRD-F N	PT 3000# Forg	ged ASTM	A		0,12		
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM A	105			0,38		
						M Erection								Total Kg:	6,			
SZ1	Z1 SABIZ PLANT ANSI 63130 - 0					0	A Area A 1 / 1						Т	OTAL Kg:	6,			

PI_63.F2B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 21						2F11		REV:	0 2	23/07/2012
	PUMA	.5		23/07/20	012 15.00	.25							DOC:	2F11.6	5.102		•	
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °	С	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	Т2		Len mn	n Otv	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg	g) As.bly	v Branch
931	1/2	0	In	2,77		mm	,00		+	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.E	3			6,33		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AS	TM A 105	G 61		1,70	О	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	TM A 105			0,75	5	
										N	M Erection				Total Kg:	8,78	8	
SZ1	1 SABIZ PLANT ANSI 63131 - 0					- 0			A A	Area A 1	/ 1		TO	TAL Kg:	8,78	8		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63131 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F						2F11		REV: 0	23/07/2012	
	PUMA	A 5		23/07/20	012 15.00	0.25							DOC:	2F11.	65.102	•	•
		D	ESMET	' - Ballestra	a					1	SABIZ 8000 kg/h	Size: In	Γhk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	s Component				Gen. Bolt	Weight (Kg) As.	bly Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L Gr.	В			6,33	
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	00# Forged A	STM A 105	G 61		3,40	
325	1/2	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷250	AARH) For	rged	2830	0,40	
80	1/2	0	In			mm	,00	1,00	NR	205	45° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged A	STM A 105	5		0,18	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged A	STM A 105	5		0,75	
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	000# Forged	ASTM A 10	05			
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		2.1 UNC/2.2	2		0,44	
2816	1/2	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	5 150 LB RF	(125÷250 A	AARH)			
											M Erection				Total Kg:	11,5	
SZ1	SABIZ PLANT ANSI 63132 - 0					- 0			A	Area A 1	/ 1		Т	OTAL Kg:	11,5		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificat	ion SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:						OJ:	2F11		REV:	0	23/07/2012
	PUMA	.5		23/07/20	012 15.0	00.25							DC	OC:	2F11.6	5.102	-		
	DESMET - Ballestra									S	SABIZ 8000 kg/h	Size: In	Thk: mm	1	Temp: °	С	Pres: Bar(g)	Corr: mm
	ul. C1 C2 T1 T2									_									
Mark	S1	S2		T1	T2		Len mn	ı Qty	Um	Pip. class	Component				(Gen. Bolt	Weight (Kg) As.bl	y Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seaml	ess API 5L G	r.B				6.	33	
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 3	00# Forged	ASTM A	105			0.	75	
								N	M Erection				•	Total Kg:	7	,08			
SZ1 SABIZ PLANT ANSI 63133 - 0					- 0			A A	Area A	1 / 1			TO	OTAL Kg:	7	.08			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63133 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2						2F11		REV:	0	23/07/2012
	PUMA	15		23/07/20	012 15.00).25							DOC:	2F11	.65.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)		Corr: mm
Mark	S1 S2 T1 T2					T	. 04-	T 1	D:1	G				C D-14	W-:-1-4 (V	_) A - L1	D	
Mark	21	32		11	12		Len mn	ı Qıy	UIII	Pip. class	Component				Gen. Bolt	Weight (K	g) As.bi	y Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.	В			6,3	3	
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged A	STM A 105	G 61		1,70	0	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged A	STM A 105	5		0,7	5	
						-		N	1 Erection				Total Kg:	8,7	8			
SZ1	Z1 SABIZ PLANT ANSI 63134 - 0					- 0			A A	Area A 1	/ 1		7	ΓΟΤΑL Kg:	8,7	8		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
Line 63134 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	Γ	ESM	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		PRO	J: 2F1	1	REV: 0 2	3/07/2012
	PUMA5	5		23/07/20	12 15.0	0.25							DOC	2F1	1.65.102		
		Ι	ESMET	- Ballestra	1					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	p: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	12,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			48,59	
1805	1+1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	THRD-F N	PT 200 LE	Forged		1,50	
2086	1+1/2	0	In			mm	,00	1,00	NR	203	Strainer Y-Type SB-ATI-VF018/0 THR BRONZE F 70	D-F NPT	200 LB Fo	rged		2,20	
327	1	0	In			mm	,00	2,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25)	O AARH) l	Forged	2831	1,60	
329	1+1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25)	0 AARH) l	Forged	2832	1,40	
231	1+1/2	0	In	3,68		mm	,00	6,00	NR	203	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 V	Wrought S	ASTM A	A	2,21	
1373	1+1/2	1	In	3,68	3,38	mm	,00	2,00	NR	203	Reducer Eccentric ASME B16.9 BE scl Gr. WPB	1.40 Wroug	tht S ASTN	Л A 234		0,52	
2831	1/2	0	In			mm	70,00	8,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/	2.2		0,88	
2832	1/2	0	In			mm	75,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/	2.2		0,48	

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C

Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C

1 / 1

2,00 NR 203

1,00 NR 203

Α

mm

mm

63135 - 0

,00

373

375

SZ1

1+1/2 0

SABIZ PLANT ANSI

TV_63.3	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

M Erection

Area A

Total Kg:

TOTAL Kg:

59,37

59,37

	Γ	DESM	ET - B	allestra					SF	KETCH	ES MATERIAL LIST		PROJ	2F11		REV: 0	23/07/2012
	PUMA5	5		23/07/20)12 15.00	0.25							DOC:	2F11	.65.102		
		D	ESMET	- Ballestra	ı					SA	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Um I	Pip. class	Component				Gen. Bolt	Weight (Kg) As.h	ly Branch
935	1+1/2	0	In	3,68		mm	,00	4,00	m 2	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr	.B			16,20	
1892	1+1/2	0	In			mm	,00	1,00	NR 2	203	Valve Check SB-ATI-VR072/0 THRD-I BRONZE R 126	F NPT 200	LB Forged			1,50	
329	1+1/2	0	In			mm	,00	1,00	NR 2	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	AARH) F	orged	2832	1,40	
231	1+1/2	0	In	3,68		mm	,00	3,00	NR 2	203	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	E sch.40 W	Vrought S A	ASTM A		1,10	
2832	1/2	0	In			mm	75,00	4,00	NR 2	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2	2		0,48	
375	1+1/2	0	In			mm	,00	1,00	NR 2	203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AA	RH) _ B50	2			
	1		-	1	1	1	1	1		N	I Erection				Total Kg:	20,68	1
SZ1	SABIZ PI	LANT A	ANSI			63136	- 0			A A	rea A 1 /	1		ŗ	ΓΟΤΑL Kg:	20,68	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	Ι	ESME	ET - Ba	llestra					5	SKETCI	HES MATERIAL LIST		PR(J: 2F	11	REV: 0	23/07/2012
	PUMA5	;		23/07/20	12 15.0	0.25							DO	2F	11.65.102		
		DI	ESMET .	- Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Ter	np: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
935	1+1/2	0	In	3,68		mm	,00	8,0	_	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L G	r.B			32,39	
1805	1+1/2	0	In			mm	,00	1,0) NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F N	IPT 200 LI	3 Forge	d	1,50	
2086	1+1/2	0	In			mm	,00	1,00) NR	203	Strainer Y-Type SB-ATI-VF018/0 THR BRONZE F 70	D-F NPT	200 LB Fo	rged		2,20	
327	1	0	In			mm	,00	2,0) NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH)	Forged	2831	1,60	
329	1+1/2	0	In			mm	,00	1,00) NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH)	Forged	2832	1,40	
231	1+1/2	0	In	3,68		mm	,00	5,0) NR	203	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	E sch.40	Wrought S	ASTM	A	1,84	
1373	1+1/2	1	In	3,68	3,38	mm	,00	2,0) NR	203	Reducer Eccentric ASME B16.9 BE sch Gr. WPB	.40 Wroug	ght S AST	M A 23	4	0,52	
2831	1/2	0	In			mm	70,00	8,0) NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	8.2.1 UNC	/2.2		0,88	
2832	1/2	0	In			mm	75,00	4,0) NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	8.2.1 UNC	/2.2		0,48	
373	1	0	In			mm	,00	2,0) NR	203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 A	ARH) _ B5	C			
375	1+1/2	0	In			mm	,00	1,0) NR	203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 A	ARH) _ B5	C			

TV_63.2	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 63137 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

M Erection

Area A

Α

1 / 1

63137 - 0

SZ1

SABIZ PLANT ANSI

Total Kg:

TOTAL Kg:

42,81

42,81

	Ι	DESM	ET - Ba	allestra					SKETCH	IES MATERIAL LIST	PROJ: 21	F11	REV: 0 2	3/07/2012
	PUMA5	5		23/07/20	12 15.0	0.25					DOC: 21	F11.65.102		
		D	ESMET	- Ballestra	ı				S	ABIZ 8000 kg/h	Size: In Thk: mm To	e mp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
935	1+1/2	0	In	3,68		mm	,00	6,00	m 203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B		24,30	
1892	1+1/2	0	In			mm	,00	1,00	NR 203	Valve Check SB-ATI-VR072/0 THRD-BRONZE R 126	F NPT 200 LB Forged		1,50	
329	1+1/2	0	In			mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250 AARH) Forgeo	1 2832	1,40	
118	1+1/2	0	In	3,68		mm	,00	1,00	NR 203	45° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 Wrought S ASTN	1 A	0,18	
231	1+1/2	0	In	3,68		mm	,00	2,00	NR 203	90° Elbow Long Radius ASME B16.9 F 234 Gr. WPB	BE sch.40 Wrought S ASTN	1 A	0,74	
2832	1/2	0	In			mm	75,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 . Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1 UNC/2.2		0,48	
375	1+1/2	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AARH) _ B5C			
				•					N	M Erection		Total Kg:	28,6	
SZ1	SABIZ P	LANT A	ANSI			63138 -	- 0		A A	Area A 1	/ 1	TOTAL Kg:	28,6	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63138 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	1	DESME	T - B	allestra				SKETCI	HES MATERIAL LIST		PROJ:	2F11	REV: 0	23	3/07/2012
	PUMA	5		23/07/20	012 15.00.25						DOC:	2F11.65.102			
		DE	SMET	- Ballestra	ì			5	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2	Len mn	Otv	Um Pip. class	Component			Gen. Bolt	Weight (Kg)	Ac bly	Branch
931	1/2	0	In	2,77	mm	,00			Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B		Gen. Bon	7,59	•	Dranch
2025	1/2	0	In		mm	,00	1,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AST	M A 105	G 61	1,70		
193	1/2	0	In		mm	,00	4,00	NR 205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AST	TM A 105		1,00		
]	M Erection			Total Kg	10,29		
SZ1	SABIZ P	LANT A	NSI		63139	- 0		Α .	Area A 1	/ 1		TOTAL Kg	10,29		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

]	DESMI	ET - B	allestra					SKETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	5		23/07/20	12 15.00	.26						DOC:	2F11.6	65.102		
		D	ESMET	- Ballestra					S	ABIZ 8000 kg/h	Size: In Thk	: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Um Pip. class	Component			1	Gen. Bolt	Weight (Kg) As.bl	y Branch
929	1/4	0	In	2,24		mm	,00	0,20	m 203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				0,13	
931	1/2	0	In	2,77		mm	,00	6,00	m 203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				7,59	
1801	1/2	0	In			mm	,00	0 1,00	NR 203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT 2	200 LB F	orged		0,30	
193	1/2	0	In			mm	,00	0 4,00	NR 203	90° Elbow SB-ATI-PR007/0 SW-F 3000)# Forged AST	M A 105			1,00	
849	1/2	0	In			mm	,00	0 1,00	NR 203	Union SB-ATI-PR007/0 SW-F 3000# Fe	orged ASTM A	105			0,38	
2384	1/2	1/4	In			mm	,00	0 1,00	NR 203	Coupling Reducing SB-ATI-PR007/0 SV 105	W-F 3000# For	ged AST	МА		0,03	
									N	I Erection			l	Total Kg:	9,43	
SZ1	SABIZ P	LANT A	ANSI			63140 -	- 0		A A	area A 1 /	1		T	OTAL Kg:	9,43	

	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0	
	Line 63140 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
<u> </u>	Zones			

]	DESME	ET - B	allestra					5	SKETCH	IES MATERIAL LIST		PROJ	2F11		REV: 0 2	23/07/2012
	PUMA	5		23/07/20	12 15.00	.26							DOC:	2F11	.65.102		
		Dl	ESMET	' - Ballestra	1					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,2) m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			0,13	
931	1/2	0	In	2,77		mm	,00	4,0) m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			5,06	
193	1/2	0	In			mm	,00	3,0) NF	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 105	5		0,75	
2576	1/2	0	In			mm	,00	2,0) NF	203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged	ASTM A 10	05			
667	1/2	0	In			mm	,00	2,0) NF	203	Coupling SB-ATI-PR008/0 THRD-F N 105	PT 3000# I	Forged ASTI	M A		0,24	
849	1/2	0	In			mm	,00	1,0) NF	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged AST	M A 105			0,38	
2260	1/2	1/4	In			mm	,00	1,0) NF	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NI	PT 3000# Fo	rged		0,03	
										N	M Erection				Total Kg:	6,59	

A

Area A

1 / 1

63141 - 0

SZ1

SABIZ PLANT ANSI

PI_63.7A PSHL_63.8A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
_	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			

6,59

TOTAL Kg:

]	DESMI	ET - B	allestra					SKETCH	IES MATERIAL LIST	PROJ:	2F11		REV: 0 2	3/07/2012
	PUMA	.5		23/07/20	012 15.00	.26					DOC:	2F11.65	5.102		
		D	ESMET	' - Ballestra	ì				S	ABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Um Pip. class	Component		G	Gen. Bolt	Weight (Kg) As.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,20	m 203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			0,13	
931	1/2	0	In	2,77		mm	,00	7,00	m 203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			8,86	
1801	1/2	0	In			mm	,00	1,00	NR 203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT 200 LB Fo	Forged		0,30	
193	1/2	0	In			mm	,00	4,00	NR 203	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged ASTM A 105	5		1,00	
849	1/2	0	In			mm	,00	1,00	NR 203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM A 105			0,38	
2384	1/2	1/4	In			mm	,00	1,00	NR 203	Coupling Reducing SB-ATI-PR007/0 S	W-F 3000# Forged AST	M A		0,03	
									N	1 Erection		"	Total Kg:	10,7	
SZ1	SABIZ F	PLANT A	ANSI			63142	- 0		A A	Area A 1 /	1	TO	TAL Kg:	10,7	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESME	ET - B	Ballestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.26							DOC:	2F11.65	5.102		•	
		Dl	ESMET	Γ - Ballestra	ı					S.	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C	2	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,20	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.E	}			0,13		
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.E	,			6,33		
2033	1/2	0	In			mm	,00,	1,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-F BRONZE D 51	NPT 200 L	B Forged			0,70		
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 3000	# Forged AS	TM A 105			1,00		
2576	1/2	0	In			mm	,00	2,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 300	00# Forged A	STM A 10)5				
667	1/2	0	In			mm	,00	2,00	NR	203	Coupling SB-ATI-PR008/0 THRD-F N	PT 3000# For	rged ASTM	Л A		0,24		
821	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR008/0 THRD-F NPT	3000# Forge	d ASTM A	105		0,30		
	-	-		-		1	1			N	// Erection			٠,	Total Kg:	8,7		

A

Area A

1 / 1

TOTAL Kg:

8,7

SZ1

SABIZ PLANT ANSI

63143 - 0

PI-63.7B PSHL_63.8B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 63143 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESM	ET - B	allestra					S	KETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	.5		23/07/2	012 15.0	0.26							DOC:	2F11.65.	102			
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: In	Γhk: mm	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Ge	n. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			6,33		
2033	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-I BRONZE D 51	F NPT 200	LB Forged			0,70		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	STM A 105	i		0,75		
2576	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged	ASTM A 10	05				
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTN	1 A 105			0,38		
	'	'								N	M Erection			T	otal Kg:	8,16		
SZ1	SABIZ I	PLANT A	ANSI			63144	- 0			A A	Area A 1	/ 1		ТОТ	TAL Kg:	8,16		

KY_63.8A	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST P			PRO.	J: 2F11		REV:	23	3/07/2012		
	PUMA	5		23/07/20	012 15.00	.26							DOC	: 2F11.	65.102			
		Dl	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	Т2		Len mm	n Qt	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	3,0	0 m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			3,80		
2033	1/2	0	In			mm	,00	1,0	0 NR	203	Valve Globe SB-ATI-VD001/0 THRD-I BRONZE D 51	F NPT 200	LB Forged	l		0,70		
193	1/2	0	In			mm	,00	2,0	0 NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 10)5		0,50		
849	1/2	0	In			mm	,00	1,0	0 NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged AST	M A 105			0,38		
	'			,		•	1			N	M Erection				Total Kg:	5,38	3	
SZ1	SABIZ F	PLANT A	NSI			63145 -	- 0			A A	Area A 1	/ 1		Т	OTAL Kg:	5,38		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	12 15.00	.26							DOC:	2F11.6	65.102		•	
		D	ESMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	С	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,0) m	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr	.B			5,06		
193	1/2	0	In			mm	,00	2,0) NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300)# Forged A	ASTM A 105			0,50		
		•	•	*			*			N	// Erection			•	Total Kg:	5,56		

1 / 1

TOTAL Kg:

5,56

Α

Area A

SZ1

SABIZ PLANT ANSI

63146 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specificatio	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESM	ET - Ba	allestra				S	KETCH	IES MATERIAL LIST		PRO	J: 2F11		REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.00.26							DOC	2F11	.65.102			
		D	ESMET	- Ballestra	a				S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.blv	Branch
929	1/4	0	In	2,24	mm	,00		+	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr	.B			0,13		
931	1/2	0	In	2,77	mm	,00,	2,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	.B			2,53		
193	1/2	0	In		mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 1	05		0,50		
2260	1/2	1/4	In		mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NF	T 3000# F	Forged		0,03		
									N	M Erection				Total Kg:	3,19		
SZ1	SABIZ I	PLANT A	ANSI		63147	- 0			A A	Area A	/ 1		7	ΓΟΤΑL Kg:	3,19		

INSERT REDUCING 1/4"x1/8" THD ANSI B1.20.1 NPT Piping Class 203 Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0 Plant SZ1 SABIZ PLANT ANSI FORGED SB-ATI-PR008/0 3000 LB ASTM A105 Pz. N.1 **Line** 63147 - 0 Fluid System Dang. fluid type Coating De pres Op tem Area Area A Sketch Sht 1/1 Isometric code Page 1 Zones

		DESM	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	23/	/07/2012
	PUMA	15		23/07/2	012 15.0	0.26							DOC:	2F11.65.102				
		D	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °C	P	res: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component			Gen. B	olt W	/eight (Kg)	As.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,20	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				0,13		
931	1/2	0	In	2,77		mm	,00	2,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				2,53		
193	1/2	0	In			mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	ΓM A 105			0,50		
2260	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NPT	3000# Foi	ged		0,03		
										N	M Erection			Total	Kg:	3,19		
SZ1	SABIZ	PLANT A	ANSI			63148	- 0			A A	Area A 1	/ 1		TOTAL	Kg:	3,19		

INSERT REDUCING 1/4"x1/8" THD ANSI B1.20.1 NPT Piping Class 203 Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0 Plant SZ1 SABIZ PLANT ANSI FORGED SB-ATI-PR008/0 3000 LB ASTM A105 Pz. N.1 Line 63148 - 0 Fluid System Dang. fluid type Coating De pres Op tem Area Area A Sketch Sht 1/1 Isometric code Page 1 Zones

		DESM	ET - Ba	llestra				S	KETCH	ES MATERIAL LIST		P	ROJ:	2F11		REV:	23/	/07/2012
	PUMA	.5		23/07/20	012 15.00.26							D	OC:	2F11.65.	102			
		D	ESMET	- Ballestra	a				S	ABIZ 8000 kg/h	Size: In	Thk: m	m	Temp: °C		Pres: Bar(g)	C	orr: mm
	T	1		T		T _	_		1	T				1				
Mark	S1	S2		T1	T2	Len mm	ı Qty	Um	Pip. class	Component				Ge	n. Bolt	Weight (Kg) As.bly	Branch
929	1/4	0	In	2,24	mm	,00	0,20	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B				0,13		
931	1/2	0	In	2,77	mm	,00	2,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B				2,53		
193	1/2	0	In		mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM	A 105			0,50		
2260	1/2	1/4	In		mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T	HRD-F NI	PT 300)# For	ged		0,03		
		·	·							ASTM A 105								
									N	1 Erection				T	otal Kg:	3,19		
SZ1	SABIZ I	PLANT A	ANSI		63149	- 0			A A	area A 1	/ 1			тот	ΓAL Kg:	3,19		

INSERT REDUCING 1/4"x1/8" THD ANSI B1.20.1 NPT Piping Class 203 Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0 Plant SZ1 SABIZ PLANT ANSI FORGED SB-ATI-PR008/0 3000 LB ASTM A105 Pz. N.1 **Line** 63149 - 0 Fluid System Dang. fluid type Coating De pres Op tem Area Area A Sketch Sht 1/1 Isometric code Page 1 Zones

		DESM	ET - B	allestra					S	KETCE	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	.5		23/07/2	012 15.0	0.26							DOC:	2F11.65	5.102			
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: In	Γhk: mm	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	5,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			6,33		
2033	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-I BRONZE D 51	F NPT 200 I	LB Forged			0,70		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	STM A 105	5		0,75		
2576	1/2	0	In			mm	,00	1,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged	ASTM A 10	05				
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM	1 A 105			0,38		
	,									N	M Erection				Total Kg:	8,16		
SZ1	SABIZ I	PLANT A	ANSI			63150	- 0			A A	Area A 1	/ 1		ТО	TAL Kg:	8,16		

KY_63.8B	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line 63150 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESMI	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11	REV: 0	23.	/07/2012
	PUMA	15		23/07/2	012 15.00	0.26							DOC:	2F11.65.102		•	
		D	ESMET	- Ballestr	a					Sz	ABIZ 8000 kg/h	Size: In The	c: mm	Temp: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	3,00	_	203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B			3,80		
2033	1/2	0	In			mm	,00	1,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-F BRONZE D 51	F NPT 200 LB	Forged		0,70		
193	1/2	0	In			mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AST	M A 105		0,50		
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM A	105		0,38		
	'		•		'				,	N	1 Erection			Total Kg:	5,38		
SZ1	SABIZ	PLANT A	ANSI			63151	- 0			A A	Area A 1 /	1		TOTAL Kg:	5,38		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	23	3/07/2012
	PUMA	.5		23/07/20)12 15.0	0.27							DOC:	2F11.0	65.102			
		D	ESMET	- Ballestra	1					S	ABIZ 8000 kg/h	Size: In Thk	: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
M. 1	01	62		TD1	T)		T		T T	D' I	G				C D L	XX . 1.4 (IZ.	\	D 1
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				5,06	i	
193	1/2	0 In mm ,00 2,00 NR 203 90° Elbow SB-ATI-PR007/0 SW-F 3000# Forged ASTM A 105												0,50)			
	•	•			•					N	I Erection				Total Kg:	5,50	5	

1 / 1

TOTAL Kg:

5,56

Α

Area A

SZ1

SABIZ PLANT ANSI

63152 - 0

d System	
g De pres	Op tem
nt 1/1 Isometric code	Page 1
	-

		DESMI	ET - B	allestra					S	KETCH	IES MATERIAL LIST		PRO)J: 2F1	.1	REV: 0	23/	/07/2012
	PUMA	.5		23/07/2	012 15.0	0.27							DO	C: 2F1	1.65.102		•	
		D.	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Ten	ıp: ℃	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,20	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			0,13		
931	1/2	0	In	2,77		mm	,00	2,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L G	r.B			2,53		
193	1/2	0	In			mm	,00,	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM A	105		0,50		
2260	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F N	PT 3000#	Forged		0,03		
										N	M Erection				Total Kg:	3,19		
SZ1	SABIZ	PLANT A	ANSI			63153	- 0			A A	Area A 1	/ 1			TOTAL Kg:	3,19		

INSERT REDUCING 1/4"x1/8" THD ANSI B1.20.1 NPT Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0 Plant SZ1 SABIZ PLANT ANSI Piping Class 203 FORGED SB-ATI-PR008/0 3000 LB ASTM A105 Pz. N.1 **Line** 63153 - 0 Fluid System Coating Dang. fluid type De pres Op tem Area Area A Sketch Sht 1/1 Isometric code Page 1 Zones

		DESM	ET - Ba	llestra				S	KETCH	IES MATERIAL LIST		PRO	J: 2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	012 15.00.27							DOG	2F11	.65.102		-	
		D	ESMET -	- Ballestra	a				S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:℃	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2	Len mm	Otv	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.blv	Branch
929	1/4	0	In	2,24	mm	,00		+	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	.В			0,13		
931	1/2	0	In	2,77	mm	,00	2,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr	.В			2,53		
193	1/2	0	In		mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	STM A 1	05		0,50		
2260	1/2	1/4	In		mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NP	T 3000# 1	Forged		0,03		
									N	M Erection				Total Kg:	3,19		
SZ1	SABIZ I	PLANT A	ANSI		63154	- 0			A A	Area A 1	/ 1		,	TOTAL Kg:	3,19		

INSERT REDUCING 1/4"x1/8" THD ANSI B1.20.1 NPT Piping Class 203 Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0 Plant SZ1 SABIZ PLANT ANSI FORGED SB-ATI-PR008/0 3000 LB ASTM A105 Pz. N.1 **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

		DESMI	E T - B	allestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	0.27							DOC:	2F11.65	5.102	•		
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	nk: mm	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
929	1/4	0	In	2,24		mm	,00	0,20	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				0,13	<u> </u>	
931	1/2	0	In	2,77		mm	,00	2,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				2,53		
193	1/2	0	In			mm	,00	2,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	TM A 105			0,50		
2260	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NPT	3000# For	ged		0,03		
										l	M Erection			7	Total Kg:	3,19		
SZ1	SABIZ	PLANT A	ANSI			63155	- 0			A	Area A 1	/ 1		ТО	TAL Kg:	3,19		

INSERT REDUCING 1/4"x1/8" THD ANSI B1.20.1 NPT Piping Class 203 Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0 Plant SZ1 SABIZ PLANT ANSI FORGED SB-ATI-PR008/0 3000 LB ASTM A105 Pz. N.1 **Line** 63155 - 0 Fluid System Coating Dang. fluid type De pres Op tem Area Area A Sketch Sht 1/1 Isometric code Page 1 Zones

	DESMET - Ballestra							SKETCHES MATERIAL LIST					PROJ:	2F11		REV:	0 2	23/07/2012
	PUMA	.5		23/07/20	12 15.00	.27							DOC:	2F11.6	65.102	-		
		D	ESMET	ր - Ballestra	1					S	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
										,								
Mark	S1	S2		T1	T2		Len mn	n Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (K	g) As.bly	y Branch
931	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				7,5	9	
2025	1/2	0	In			mm	,00	0 1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AS	ΓM A 105	G 61		1,7	0	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	ΓM A 105			0,7	5	
									N	M Erection				Total Kg:	10,0	4		
SZ1	CI SABIZ PLANT ANSI 63156 - 0					- 0			A A	Area A 1	/ 1		T	OTAL Kg:	10,0	4		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63156 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:					2F11		REV:	0 2	23/07/2012	
	PUMA	.5		23/07/20	012 15.00).27							DOC:	2F11.	65.102			
		D	ESMET	Γ - Ballestra	ì					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	Т2		T am	n Ot-	Tim	Pip. class	Component				Gen. Bolt	Waight (Va	A a ble	Duonah
Mark	21	54		11	12		Len mn	ո Չւյ	Un	i Pip. ciass	Component				Gen. Boit	Weight (Kg	() As.Diy	Branch
931	1/2	0	In	2,77		mm	,00	6,0) m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.I	3			7,59)	
2025	1/2	0	In			mm	,00	0 1,0) NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged AS	STM A 105	G 61		1,70)	
193	1/2	0	In			mm	,00	0 3,0) NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	STM A 105	5		0,75	i	
										N	M Erection				Total Kg:	10,04	1	
SZ1	SABIZ PLANT ANSI 63157 - 0					- 0			A A	Area A 1	/ 1		1	TOTAL Kg:	10,04	ı		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63157 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST					PROJ:	2F11		REV: 0	23.	/07/2012	
	PUMA	.5		23/07/2	012 15.0	00.27							DOC:	2F11.6	55.102				
	DESMET - Ballestra									SA	ABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch	
931	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B				7,59			
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800)# Forged AST	M A 105	G 61		3,40			
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AST	M A 105	5		0,75			
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10	05					
		,		'						N	1 Erection				Total Kg:	11,74			
SZ1	SABIZ PLANT ANSI 63158 - 0				- 0			A A	area A 1	1		T	OTAL Kg:	11,74					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63158 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra												PROJ: 2F	F11	REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.0	0.27							DOC: 2F	F11.65.102		
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: In Thk	: mm Te	emp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg) As.bly	y Branch
931	1/2	0	In	2,77		mm	,00	6,00	m	205	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L Gr.B			7,59	
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	00# Forged ASTI	M A 105 G 6	51	1,70	
326	3/4	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB F ASTM A 105	RF (125÷250 AA	ARH) Forged	1 2830	0,70	
193	1/2	0	In			mm	,00	3,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged AST	M A 105		0,75	
618	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	205	Reducing Insert M/F SB-ATI-PR007/0 ASTM A 105 TYPE 11	SW-F x PL 3000	0# Forged		0,11	
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		UNC/2.2		0,44	
2817	3/4	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	5 150 LB RF (12	5÷250 AAR	tH)		
										1	M Erection			Total Kg:	11,29	
SZ1	SABIZ PLANT ANSI 63159 - 0				- 0			A	Area A 1	/ 1		TOTAL Kg:	11,29			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SI	
Line 63159 - 0	Fluid	System System	P007/0
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCH	HES MATERIAL LIST		-	PROJ	2F11		REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.0	0.27								DOC:	2F11	1.65.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk:	mm	Temp): °C	Pres: Bar(g)	С	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	8,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L G	r.B				10,13		
2025	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800)# Forged	ASTN	1 A 10	5 G 61		6,80		
2678	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 300) LB Forge	ed AS	TM A	105 T		0,80		
326	3/4	0	In			mm	,00	1,00	NR	205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AA	RH) Fo	orged	2830	0,70		
193	1/2	0	In			mm	,00	5,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged	ASTN	1 A 10	5		1,25		
2576	1/2	0	In			mm	,00	3,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d AST	M A 1	05				
618	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR	205	Reducing Insert M/F SB-ATI-PR007/0 S ASTM A 105 TYPE 11	SW-F x PL	3000	# Forg	ed		0,11		
2830	1/2	0	In			mm	65,00	4,00	NR	205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	8.2.1	UNC/2	.2		0,44		
2817	3/4	0	In			mm	,00	1,00	NR	205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB R	F (125	5÷250	AARH)				
										N	M Erection					Total Kg:	20,23		
SZ1	SABIZ I	PLANT A	ANSI			63160	- 0			A A	Area A 1 /	1				TOTAL Kg:	20,23		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification S	B-ATI-SP006/0 SB-ATI- P007/0
Line 63160 - 0 Dang. fluid type	Fluid Coating	System De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETC	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.00	.27							DOC:	2F11.65.102	2		•	
	DESMET - Ballestra										SABIZ 8000 kg/h	Size: In Th	ık: mm	Temp: °C		Pres: Bar(g)	Corr: mm	
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. clas	ss Component			Gen. I	Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	7,00	_	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B				8,86		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	ГМ A 105			1,00		
2260	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NPT	3000# For	ged		0,03		
											M Erection			Tota	l Kg:	10,19		
SZ1	SABIZ PLANT ANSI 63161 - 0				- 0			A	Area A 1	/ 1		TOTAL	L Kg:	10,19				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specifica	tion SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63161 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:						2F11		REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.00).27							DOC:	2F11.6	55.102	•		
		D	ESMET	- Ballestra	a						SABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	7,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.E	3			8,86		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	TM A 105			1,00		
2260	1/2	1/4	In			mm	,00	1,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F NPT	3000# For	ged		0,03		
]	M Erection			·	Total Kg:	10,19		
SZ1	SABIZ PLANT ANSI 63162 - 0				0			A	Area A	/ 1		T	OTAL Kg:	10,19				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SB- SP0	
Line 63162 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23/	/07/2012
	PUMA	15		23/07/20	012 15.0	0.27							DOC:	2F11.	65.102			
		D	ESME	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In T	Γhk: mm	Temp:	°C	Pres: Bar(g)	С	orr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	U	m Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,0	0 r	n 202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD	-M NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	0 N	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	0 N	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# I	Forged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,0	0 N	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forge	ed ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ PLANT ANSI 63163 - 0				- 0			A A	Area A 1 /	/ 1		Т	TOTAL Kg:	9,79				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification		
Line 63163 - 0	Fluid	System		
Dang. fluid type	Coating	De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code	Page 1	1
Zones				

	DESMET - Ballestra											PROJ:	2F11	REV: 0	23/	/07/2012	
	PUMA	15		23/07/2	012 15.00	.27							DOC:	2F11.65.102			
		D	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg) A	s.bly	Branch
931	1/2	0	In	2,77		mm	,00	6,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B	3		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB Fo	orged	0,30		
193	1/2	0	In			mm	,00	3,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AS	TM A 105		0,75		
849	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR007/0 SW-F 3000# F	orged ASTM	A 105		0,38		
	'									ı	M Erection			Total Kg:	9,02		
SZ1	SABIZ PLANT ANSI 63164 - 0				- 0	0 A Area A 1				/ 1		TOTAL Kg:	9,02				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63164 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.27							DOC:	2F11.0	65.102		•	
		D	ESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Thi	K: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	ged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			63165	- 0			A A	Area A 1 /	′ 1		Т	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	1
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.27							DOC:	2F11.0	65.102		•	
		D	ESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Thi	K: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	ged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			63166	- 0			A A	Area A 1 /	′ 1		Т	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI Line 63166 - 0	Piping Class 202 Fluid	Welding specification System		
Dang. fluid type	Coating	De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code	Page 1	1
Zones				

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV:) 2	3/07/2012
	PUMA	\ 5		23/07/2	012 15.0	00.28							DOC:	2F11	.65.102	•		
		Ε	DESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h	Size: In T	hk: mm	Temp	: °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-	M NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	Forged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# F	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forge	d ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79)	
SZ1	SABIZ PLANT ANSI 63167 - 0				- 0	0 A Area A 1 / 1				-	TOTAL Kg:	9,79						

Plant SZ1 SABIZ PLANT ANSI Line 63167 - 0 Dang, fluid type	Piping Class 202 Fluid Coating	Welding specification System De pres	Op tem	
Area Area A Zones	Sketch Sht 1/1	Isometric code	ор ил	Page 1

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ:						2F11		REV: 0	23/07/2012	
	PUMA	15		23/07/20	012 15.0	0.28							DOC:	2F11.	65.102		
		D	DESME'	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Thl	K: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.b	ly Branch
980	1/2	0	In	2,77		mm	,00	6,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-M	1 NPT sc	ch.40		7,59	
1801	1/2	0	In			mm	,00	1,00) NF	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	4,00) NF	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	rged AST	M A		1,60	
835	1/2	0	In			mm	,00	1,00) NF	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection			,	Total Kg:	9,79	
SZ1	SABIZ	PLANT.	ANSI			63168	- 0			Α /	Area A 1	/ 1		Т	OTAL Kg:	9.79	

Plant SZ1 SABIZ PLANT ANSI Line 63168 - 0	Piping Class 202 Fluid	Welding specification System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV: 0	23	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.28							DOC:	2F11.0	65.102		•	
		D	ESME	Γ - Ballestra	a					S	SABIZ 8000 kg/h	Size: In The	C: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			63169	- 0			A A	Area A 1 /	′ 1		Т	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI Line 63169 - 0	Piping Class 202 Fluid	Welding specification System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2					2F11	REV:	0 23	3/07/2012	
	PUMA5 23/07/2012 15.00.28 DOC: 21								2F11.65.102								
	DESMET - Ballestra									S	ABIZ 8000 kg/h	Size: In Thk	: mm	Temp: °C	Pres: Bar(g)	ı	Corr: mm
Mark	S1	S2		T1	T2		Len mm	n mm Qty Um Pip. class Component						Gen. Bolt	Weight (Kg	g) As.bly	Branch
931	1/2	0	In	2,77		mm	,00,	6,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B			7,59	9	
193	193 1/2 0 In mm ,00 4,00 NR 203 90° Elbow SB-ATI-PR007/0 SW-F 3000# Forged ASTM A 105									1,00	0						
										N	M Erection			Total Kg:	8,5	9	

1 / 1

A

Area A

SZ1

SABIZ PLANT ANSI

63170 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

8,59

TOTAL Kg:

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F1					: 2F11		REV:	0 2	3/07/2012		
	PUMA	5		23/07/20	012 15.00.28							DOC:	2F11.	65.102				
	DESMET - Ballestra								S	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm	
						1_	1	1	1									
Mark	S1	S2		T1	T2	Len mn	n Qt	<u>/</u> Um	Pip. class	Component				Gen. Bolt	Weight (K	g) As.bly	Branch	
931	1/2	0	In	2,77	mm	,00	6,0	0 m	205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.	В			7,5	9		
2025	1/2	0	In		mm	,00	0,1,0	0 NR	205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged A	STM A 10:	5 G 61		1,7	0		
193	1/2	0	In		mm	,00	0 4,0	0 NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	STM A 10	5		1,0	0		
								N	1 Erection				Total Kg:	10,2	9			
SZ1	SABIZ PLANT ANSI 63171 - 0				- 0			A A	area A 1	/ 1		Т	TOTAL Kg:	10,2	9			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra											PROJ	2F11		REV:	2.	3/07/2012
	PUMA	.5		23/07/20	012 15.00.28							DOC:	2F11.6	5.102			
	DESMET - Ballestra								S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °	С	Pres: Bar(g)		Corr: mm
								1	1								
Mark	S1	S2		T1	T2	Len mn	n Qty	Um	Pip. class	Component			(Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77	mm	,00	6,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.E	3			7,59	1	
2025	1/2	0	In		mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged AS	TM A 105	G 61		1,70)	
193	1/2	0	In		mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	# Forged AS	TM A 105	5		1,00)	
									N	I Erection				Total Kg:	10,29)	_
SZ1	SABIZ PLANT ANSI 63172 - 0				- 0			A A	area A 1 /	1		TO	OTAL Kg:	10,29)		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST					PROJ:	2F11		REV:) 23	/07/2012
	PUMA	5		23/07/20	012 15.0	0.28							DOC:	2F11.6	55.102			
		DE	SMET -	Ballestra	ì					S	ABIZ 8000 kg/h	Size: In Thl	k: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Ofs	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) Ac bly	Branch
931	1/2	0	In	2,77	12	mm	,00		+	205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.B			Gen. Boit	10,13		Dianch
2025	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged AST	M A 105	G 61		6,80		
193	1/2	0	In			mm	,00,	8,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged AST	M A 105			2,00		
2576	1/2	0	In			mm	,00	2,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged AS	STM A 10)5				
										N	I Erection				Total Kg:	18,93	1	
SZ1	1 SABIZ PLANT ANSI 63173 - 0				- 0 A Area A 1 / 1						T	OTAL Kg:	18,93					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205		SB-ATI-SP006/0 SB-ATI- SP007/0
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			

DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F1						2F11		REV:	0	23/07/2012		
PUMA5 23/07/2012 15.00.28													DO	OC:	2F11.65	5.102			
	DESMET - Ballestra							SABIZ 8000 kg/h Size: In Thk; mm Temp: %					Temp: °C	C	Pres: Bar(g)	Corr: mm		
						1-				-									
Mark	S1	S2		T1	T2	Len mn	n Q	ty_t	Jm Pip. clas	ss Compon	ent				G	Gen. Bolt	Weight (l	(g) As.b	ly Branch
931	1/2	0	In	2,77	mm	,00	0 6,	00	m 205	Pipe ASN	ME B36.10 PL sch.40 Seamles	s API 5L G	r.B				7,	59	
2025	1/2	0	In		mm	,00	0 1,	1 00	NR 205	Valve Ga	te SB-ATI-VG001/0 SW-F 80	0# Forged A	ASTM A	A 105	G 61		1,	70	
193	1/2	0	In		mm	,00	0 4,	1 00	NR 205	90° Elbo	w SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A	A 105			1,	00	
	M Erection									1	Total Kg:	10	29						
SZ1	SZ1 SABIZ PLANT ANSI 63174 - 0				4 - 0			A	Area A	1.	/ 1			TO	TAL Kg:	10,	29		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SB-ATI-SP006/0 SB-ATI- SP007/0			
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					

DESMET - Ballestra PUMA5 23/07/2012 15.00.28								SKETCHES MATERIAL LIST PROJ: 2F11								REV: 0 2	23/07/2012
													DOC:	2F11.	65.102		
	DESMET - Ballestra							SABIZ 8000 kg/h Size: In Thk: mm Ter						Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
933	1	0	In	3,38		mm	,00	10,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless	API 5L G	r.B			25,02	
327	1	0	In			mm	,00	4,00	NR	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250) AARH) Fo	orged	2831	3,20	
229	1	0	In	3,38		mm	,00	3,00	NR	212	90° Elbow Long Radius ASME B16.9 B 234 Gr. WPB	BE sch.40 V	Vrought S A	ASTM A		0,41	
2831	1/2	0	In			mm	70,00	12,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2		1,32	
401	1	0	In			mm	,00	4,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AA	ARH) _ B5B	}			
2970	1/2	0	In			mm	30,00	8,00	NR	212	Screws for valves ASME B 18.2.1/UNC	ASTM A	193 B7			0,64	
	'	'	'	<u> </u>	'	1	1			N	1 Erection				Total Kg:	30,59	
SZ1	SABIZ	PLANT A	ANSI			64005	- 0			A A	Area A 1 /	′ 1		T	TOTAL Kg:	30,59	

HV_64.10	Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification SB-ATI-SP006/0 SB-AT SP007/0				
	Line 64005 - 0	Fluid	System				
	Dang. fluid type	Coating	De pres	Op tem			
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1			
	Zones						

DESMET - Ballestra									SKET	CHES MATERIAL LIST	2F11	REV: 0	23/07/2012		
PUMA5 23/07/2012 15.00.28												DOC:	2F11.65.102		
DESMET - Ballestra										SABIZ 8000 kg/h	k: mm	Temp: °C	Pres: Bar(g)	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	n Qty	Um Pip. cl	ass Component			Gen. Bolt	Weight (Kg) As.bl	y Branch
900	3	0	In	3,18		mm	,00	6,00	m 212	Pipe ASME B36.10 PL E.R.W. AI	PI 5L Gr.B			40,33	
332	3	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 ASTM A 105	LB RF (125÷250 A.	ARH) Forg	ged 2840	4,10	
199	3	0	In	3,18		mm	,00	1,00	NR 212	90° Elbow Long Radius ASME B1 WPB	6.9 BE E.R.W. AS	ГМ А 234	Gr.	1,18	
2840	5/8	0	In			mm	95,00	4,00	NR 212	Stud Bolt + 2 Nuts SB-ATI-PV008 Tab.9 ASTM A 193 B7 / A 194 G		UNC/2.2		0,92	
406	3	0	In			mm	,00	1,00	NR 212	Gasket SB-ATI-PV009/5 150 LB I	RF (125÷250 AARE	I) _ B5B			
	I	1					1			M Erection			Total Kg:	46,53	1
SZ1	SABIZ	PLANT .	ANSI			64006	- 0		A	Area A	1 / 1		TOTAL Kg:	46,53	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification SB-ATI-SP006/0 SB-ATI- SP007/0			
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					

	DESMET - Ballestra							SKETCHES MATERIAL LIST PRO							REV: 0 2	3/07/2012	
	PUMA5	5		23/07/20	12 15.00	0.28						DOC:	2F11.6	1.65.102			
		D	ESMET	- Ballestra	l				S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm	
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch	
933	1	0	In	3,38		mm	,00	0,20		Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.I	3			0,50		
935	1+1/2	0	In	3,68		mm	,00,	7,50	m 212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.H	3			30,37		
1838	1+1/2	0	In			mm	,00	1,00	NR 212	Valve Ball Full Port SB-ATI-VS050/0 L AARH) Forged ASTM A 105 S 127	LUG 150 LB	RF (125÷2	50	2971	7,00		
329	1+1/2	0	In			mm	,00	1,00	NR 212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250 A	AARH) For	rged	2832	1,40		
231	1+1/2	0	In	3,68		mm	,00	5,00	NR 212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 Wr	ought S AS	STM A		1,84		
1086	1+1/2	1	In	3,68	3,38	mm	,00	1,00	NR 212	Reducer Concentric ASME B16.9 BE so 234 Gr. WPB	ch.40 Wroug	ht S ASTM	I A		0,26		
403	1+1/2	0	In			mm	,00	2,00	NR 212	Gasket SB-ATI-PV009/5 150 LB RF (1:	25÷250 AAR	H) _ B5B					
2971	1/2	0	In			mm	35,00	8,00	NR 212	Screws for valves ASME B 18.2.1/UNC	C ASTM A 19	93 B7			0,64		
	"	,	,	,	,	,	<u> </u>		N	M Erection			'	Total Kg:	42,01		
SZ1	SABIZ PI	LANT A	ANSI			64007	- 0		A A	Area A 1	/ 1		T	OTAL Kg:	42,01		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification S S	B-ATI-SP006/0 SB-ATI- P007/0
Line 64007 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F11								REV: 0	23/	/07/2012
	PUMA	A 5		23/07/20	012 15.0	0.28							DOC:	2F11.6	5.102	•	•	
		D	ESME'	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp: °	С	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Um	Pip. class	Component			0	Gen. Bolt	Weight (Kg)	As.bly	Branch
900	3	0	In	3,18		mm	,00	0,50	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				3,36		
902	5	0	In	3,18		mm	,00	4,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				43,32		
199	3	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W. AS	TM A 234	4 Gr.		1,18		
201	5	0	In	3,18		mm	,00	1,00	NR	212	90° Elbow Long Radius ASME B16.9 E WPB	E E.R.W. AS	TM A 234	4 Gr.		3,15		
1021	5	3	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		1,40		
	•				*	•		_		N	M Erection			•	Total Kg:	52,41		
SZ1	SABIZ	PLANT A	ANSI			64009	- 0			A A	Area A 1 /	1		TO	TAL Kg:	52,41		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification SB-ATI-SP006/0 SB-ATI- SP007/0				
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						

DESMET	- Ballestra	SKETCHES MATERIAL LIST		PROJ:	2F11	REV:	0	23/07/2012
PUMA5	23/07/2012 15.00.28			DOC:	2F11.65.102			
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)		Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
900	3	0	In	3,18	mm	,00	30,00	m	212	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		201,66	
931	1/2	0	In	2,77	mm	,00	0,20	m	212	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		0,25	
1898	1/2	0	In		mm	,00	1,00	NR	212	Valve Check SB-ATI-VR018/0 SW-F 800# Forged ASTM A 105 R 83		1,90	
2754	3	0	In		mm	,00	1,00	NR	212	Valve Butterfly With Gasket SB-ATI-VB030/0 WAFER 150 LB RF (125÷250 AARH) Cast DUCTILE IRON B 85	2848	5,20	
332	3	0	In		mm	,00	2,00	NR	212	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105	2840	8,20	
333	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	2840	5,60	
86	3	0	In	3,18	mm	,00	3,00	NR	212	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB		1,81	
199	3	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		9,41	
1016	4	3	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	
2840	5/8	0	In		mm	95,00	8,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		1,84	
2848	5/8	0	In		mm	145,00	4,00	NR	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		1,20	
407	4	0	In		mm	,00	1,00	NR	212	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5B			
									N	M Erection	Total Kg:	237,94	
SZ1	SABIZ I	PLANT A	ANSI		64012	- 0			A A	Area A 1 / 1	TOTAL Kg:	237,94	

Plant SZ	ZI SABIZ PLANT ANSI Piping Class 2	12 Welding specificati	ion SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64	012 - 0 Fluid	System	
Dang. flu	uid type Coating	De pres	Op tem
Area Ar	rea A Sketch Sht 1	/ 1 Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 21						2F11		REV: 0	23/	/07/2012
	PUMA	5		23/07/20	012 15.00).29							DOC:	2F11.65.10	02	•	•	
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	ı Pip. class	Component			Gen.	Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	4,00	m	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			5,06		
1834	1/2	0	In			mm	,00	1,00	NF	212	Valve Ball Full Port SB-ATI-VS050/0 I	LUG 150 LI	B RF (125÷25	50 2970)	1,60		
									_		AARH) Forged ASTM A 105 S 127							
325	1/2	0	In			mm	,00	2,00	NF	212	Flange Slip-On ASME B16.5 150 LB R	F (125÷250) AARH) For	ged 2830)	0,80		
											ASTM A 105							
193	1/2	0	In			mm	,00	4,00) NF	212	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 105			1,00		
399	1/2	0	In			mm	,00	2,00	NF	212	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	ARH) _ B5B					
2970	1/2	0	In			mm	30,00	8,00	NF	212	Screws for valves ASME B 18.2.1/UNC	C ASTM A	193 B7			0,64		
			•			•				l	M Erection			Tot	al Kg:	9,1		
SZ1	SABIZ F	PLANT A	ANSI			64020	- 0			A	Area A 1	/ 1		TOTA	L Kg:	9,1		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification S	
Line 64020 - 0	Fluid	System	P007/0
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

DESMET -	- Ballestra	SKETCHES MATERIAL LIST	F	PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.29		I	DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In Thk:	mm	Temp: °C	Pres: Bar(g)	Corr: mm

									I	1		1			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
900	3	0	In	3,18		mm	,00	0,50	m	206	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		3,36		
901	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		
933	1	0	In	3,38		mm	,00	0,20	m	206	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		0,50		
1933	4	0	In			mm	,00	1,00	NR	206	Valve Check SB-ATI-VR022/0 WAFER 150 LB RF (125÷250	2843	2,00		
							_				AARH) Cast ASTM A 36 CADMIUM PLATED R 87				
332	3	0	In			mm	,00	1,00	NR	206	Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged	2840	4,10		
											ASTM A 105				
333	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	2840	11,20		
199	3	0	In	3,18		mm	,00	1,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr.		1,18		
				_							WPB		'		
200	4	0	In	3,18		mm	,00	6,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr.		12,40		
											WPB				
709	1/2	0	In			mm	,00	2,00	NR	206	Coupling Half SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM		0,12		
									-		A 105				
711	1	0	In			mm	,00	1,00	NR	206	Coupling Half SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM		0,15		
									_		A 105				
2840	5/8	0	In			mm	95,00	4,00	NR	206	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		0,92		
							_				Tab.9 ASTM A 193 B7 / A 194 Gr.2H				
2843	5/8	0	In			mm	110,00	8,00	NR	206	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2		2,00		
											Tab.9 ASTM A 193 B7 / A 194 Gr.2H				
378	3	0	In			mm	,00			206	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C				
379	4	0	In			mm	,00	2,00	NR	206	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C				
										1	M Erection	Total Kg:	142,5		
SZ1	SABIZ I	PLANT A	NSI			64025	- 0			A	Area A 1 / 1	TOTAL Kg:	142,5		

PSH_64.6 PI_64.6	Plant SZ1 SABIZ PLANT ANSI	Piping Class 206		SB-ATI-SP006/0 SB-ATI- SP007/0
TI_64.10	Line 64025 - 0	Fluid	System	
PSV_64.6	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra								,	SKETCH	IES MATERIAL LIST		PROJ	: 2F11		REV: 0 2	3/07/2012
	PUMA	A 5		23/07/20	012 15.00	.29							DOC:	2F11	.65.102		
		D	ESMET	- Ballestra	ı					SA	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Un	m Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
901	4	0	In	3,18		mm	,00	7,00	0 m	n 206	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				61,00	
2755	4	0	In			mm	,00	1,00	0 NI	R 206	Valve Butterfly With Gasket SB-ATI-V (125÷250 AARH) Cast DUCTILE IRON		AFER 150 L	B RF	2849	6,70	
333	4	0	In			mm	,00	2,00	0 NI	R 206	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250) AARH) Fo	rged	2840	11,20	
200	4	0	In	3,18		mm	,00	5,00	0 NI	R 206	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W.	ASTM A 23	4 Gr.		10,33	
2849	5/8	0	In			mm	150,00	8,00	0 NI	R 206	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2.	.2		2,48	
										N	1 Erection				Total Kg:	91,71	
SZ1	SABIZ	PLANT A	ANSI			64026	- 0			A A	area A 1 /	/ 1		,	TOTAL Kg:	91,71	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 206	Welding specificatio	n SB-ATI-SP006/0 SB-ATI- SP007/0
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			

DESMET -	- Ballestra	SKETCHES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.29			DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
900	3	0	In	3,18		mm	,00	0,50	m	206	Pipe ASME B36.10 PL E.R.W. API 5L Gr.B		3,36	
901	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	
933	1	0	In	3,38		mm	,00	0,20	m	206	Pipe ASME B36.10 PL sch.40 Seamless API 5L Gr.B		0,50	
1933	4	0	In			mm	,00	1,00	NR	206	Valve Check SB-ATI-VR022/0 WAFER 150 LB RF (125÷250	2843	2,00	
									_		AARH) Cast ASTM A 36 CADMIUM PLATED R 87			
332	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	2840	4,10	
333	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	2840	11,20	
199	3	0	In	3,18		mm	,00	1,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr.		1,18	
200	4	0	In	3,18		mm	,00	6,00	NR	206	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB		12,40	
709	1/2	0	In			mm	,00	2,00	NR	206	Coupling Half SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105		0,12	
711	1	0	In			mm	,00	1,00	NR	206	Coupling Half SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105		0,15	
2840	5/8	0	In			mm	95,00	4,00	NR	206	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		0,92	
2843	5/8	0	In			mm	110,00	8,00	NR	206	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 Gr.2H		2,00	
378	3	0	In			mm	,00	1,00	NR	206	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C			
379	4	0	In			mm	,00	2,00	NR	206	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5C			
		'	'						•	•	M Erection	Total Kg:	142,5	
SZ1	SABIZ I	LANT A	NSI			64028 -	- 0			A	Area A 1 / 1	TOTAL Kg:	142,5	

PSH_64.7 PI_64.7	Plant SZ1 SABIZ PLANT ANSI	Piping Class 206	Welding specification S S	B-ATI-SP006/0 SB-ATI- P007/0
TI_64.11	Line 64028 - 0	Fluid	System	
PSV_64.7	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra								5	SKETCH	ES MATERIAL LIST		PROJ	2F11		REV: 0 2	3/07/2012
	PUMA	A 5		23/07/20	012 15.00	.29							DOC:	2F11	.65.102		
		D	ESMET	- Ballestra	ı					SA	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
901	4	0	In	3,18		mm	,00	7,00) m	206	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				61,00	
2755	4	0	In			mm	,00	1,00) NR	R 206	Valve Butterfly With Gasket SB-ATI-VI (125÷250 AARH) Cast DUCTILE IRON		FER 150 LI	3 RF	2849	6,70	
333	4	0	In			mm	,00	2,00) NR	R 206	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	AARH) Fo	rged	2840	11,20	
200	4	0	In	3,18		mm	,00	5,00) NR	R 206	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W.	ASTM A 23	4 Gr.		10,33	
2849	5/8	0	In			mm	150,00	8,00) NR	R 206	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2.	2		2,48	
										N	1 Erection				Total Kg:	91,71	
SZ1	SABIZ	PLANT A	ANSI			64029	- 0			A A	area A 1 /	/ 1		7	FOTAL Kg:	91,71	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 206		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64029 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F					J: 2F11		REV: 0	23/07/2012		
	PUMA	15		23/07/20)12 15.00	0.29							DOC	: 2F11	.65.102		
		D	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	:°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um F	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	Branch
936	2	0	In	3,91		mm	,00	1,50	m 2	212	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B			8,16	
2989	2	0	In			mm	,00	00 1,00 NR 212 Valve Ball Full Port SB-ATI-VS019/0 THRD-F NPT 800# Forged ASTM A 105 S 98							5,20		
330	2	0	In			mm	,00	1,00	NR 2	212	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷250	0 AARH) F	orged	2838	2,20	
232	2	0	In	3,91		mm	,00	1,00	NR 2	212	90° Elbow Long Radius ASME B16.9 E 234 Gr. WPB	BE sch.40 V	Vrought S	ASTM A		0,66	
2838	5/8	0	In			mm	85,00	4,00	NR 2	212	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UNC/2	2.2		0,84	
404	2	0	In			mm	,00	1,00	NR 2	212	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AA	ARH) _ B51	3			
			<u>'</u>	<u>'</u>				•		N	1 Erection				Total Kg:	17,06	
SZ1	CI SABIZ PLANT ANSI 64038 - 0 A					A A	Area A 1 /	/ 1		,	TOTAL Kg:	17,06					

Plant SZ1 SABIZ PLANT ANSI	Piping Class 212	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64038 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:					2F11		REV: 0	23/0	07/2012	
	PUMA	.5		23/07/20	012 15.00	0.29							DOC:	2F11.6	55.102		•	
		DI	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Co	rr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
931	1/2	0	In	2,77		mm	,00	18,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.I	3			22,78		
2025	1/2	0	In			mm	,00	1,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged AS	TM A 105	G 61		1,70		
193	1/2	0	In			mm	,00	7,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000)# Forged AS	STM A 105			1,75		
667	1/2	0	In			mm	,00	1,00	NR	205	Coupling SB-ATI-PR008/0 THRD-F N 105	PT 3000# Fo	rged ASTN	1 A		0,12		
										N	M Erection				Total Kg:	26,35		
SZ1	1 SABIZ PLANT ANSI 64101 - 0				- 0			A A	Area A 1 /	1		T	OTAL Kg:	26,35				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specificat	tion SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES WATERIAL EIGT					1: 2F11		REV:	0	23/07/2012	
	PUMA	.5		23/07/20	012 15.00	.29							DOC	2F11	.65.102			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	Т2		Len mn	Otv	Um	Pip. class	Component				Gen. Bolt	Weight (K	g) As.bl	v Branch
931	1/2	0	In	2,77		mm	,00		-	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr	.B		Jem Bon	20,2	0,	Julien
80	1/2	0	In			mm	,00	1,00	NR	203	45° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 10)5		0,1	8	
193	1/2	0	In			mm	,00	7,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 10)5		1,7	5	
										N	M Erection				Total Kg:	22,1	.8	
SZ1	Z1 SABIZ PLANT ANSI 64103 - 0				- 0			A A	Area A 1	/ 1		ı	TOTAL Kg:	22,1	8			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST)J: 2F1	1	REV: 0	23/07/2012
	PUMA	5		23/07/20	12 15.00	.29							DO	C: 2F1	1.65.102	•	-
		DI	ESMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Ten	p: °C	Pres: Bar(g)	Corr: mm
Mark	17 17					Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As	s.bly Branch	
931	1/2	0	In	2,77		mm	,00	12,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L G	r.B			15,19	
2025	1/2	0	In			mm	,00	2,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800)# Forged A	ASTM A	105 G 61		3,40	
80	1/2	0	In			mm	,00	1,00	NR	205	45° Elbow SB-ATI-PR007/0 SW-F 3000	O# Forged A	ASTM A	105		0,18	
193	1/2	0	In			mm	,00	6,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	O# Forged A	ASTM A	105		1,50	
2576	1/2	0	In			mm	,00	1,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged	ASTM A	A 105			
									•	N	// Erection				Total Kg:	20,27	
SZ1	SABIZ PLANT ANSI 64104 - 0					0			A A	Area A 1 /	1			TOTAL Kg:	20,27		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SE	3-ATI-SP006/0 SB-ATI- 2007/0
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			

	DESMET - Ballestra								SKETCI	2F11	REV: 0	23/07/2012			
	PUMA	5		23/07/20	12 15.00	.29						DOC:	2F11.65.102	-	
		DI	ESMET	- Ballestra	l				S	SABIZ 8000 kg/h	Size: In Thk	: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Um Pip. class	Component			Gen. Bolt	Weight (Kg) As.bl	ly Branch
931	1/2	0	In	2,77		mm	,00	1,00	m 203	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B			1,27	
325	1/2	0	In			mm	,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	ged 2830	0,40			
193	1/2	0	In			mm	,00	1,00	NR 203	90° Elbow SB-ATI-PR007/0 SW-F 3000)# Forged ASTI	M A 105		0,25	
2830	1/2	0	In			mm	65,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.1	UNC/2.2		0,44	
371	1/2	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AARH)	_ B5C			
								M Erection						2,36	
SZ1	SZ1 SABIZ PLANT ANSI 64105 - 0						5 - 0 A Area A 1 / 1					TOTAL Kg:	2,36		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F.								REV: 0	23/	/07/2012
	PUMA	5		23/07/20)12 15.00).29							DOC:	2F11.	.65.102			
		DI	ESMET	- Ballestra	ì					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
933	1	0	In	3,38		mm	,00			203	Pipe ASME B36.10 PL sch.40 Seamles	ss API 5L Gr.	В			107,59		
1803	1	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB 1	Forged		0,60		
327	1	0	In			mm	,00	00 1,00 NR 203 Flange Slip-On ASME B16.5 150 LB RF (125÷250 AARH) Forged ASTM A 105						orged	2831	0,80		
116	1	0	In	3,38		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 W	rought S A	STM A		0,07		
229	1	0	In	3,38		mm	,00	12,00	NR	203	90° Elbow Long Radius ASME B16.9 I 234 Gr. WPB	BE sch.40 W	rought S A	STM A		1,62		
1079	1	1/2	In	3,38	2,77	mm	,00	1,00	NR	203	Reducer Concentric ASME B16.9 BE s 234 Gr. WPB	sch.40 Wroug	ght S ASTN	ΙА		0,14		
823	1	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR008/0 THRD-F NPT	Γ 3000# Forg	ed ASTM	A 105		0,65		
2831	1/2	0	In			mm	70,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.	2.1 UNC/2	.2		0,44		
373	1	0	In			mm	.00	1.00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	125±250 A A1	RH) B5C					
575		J°	1				,,,,,	, 1,00	1110	1	M Erection	.23 . 230 1111	, _ B 3C		Total Kg:	111,91		

Α

Area A

1 / 1

TOTAL Kg:

111,91

SZ1

SABIZ PLANT ANSI

64106 - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64106 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1 / 1	Isometric code	Page 1
Zones			

	DESMET - Ballestra								S	KETCH	IES MATERIAL LIST	PRO	J: 2F11		REV: 0 23	3/07/2012	
	PUMA	15		23/07/20	012 15.0	0.30							DOC	2F11	1.65.102		
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp): °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	00 7,00 m 202 Pipe ASME B36.10+Coupling ASME 3000# THRD-M 1 Seamless API 5L GR. B Galvanized						sch.40		8,86	
982	1	0	In	3,38		mm	,00	,00 0,20 m 202 Pipe ASME B36.10+Coupling ASME 3000# THRD-M NPT sch.4 Seamless API 5L GR. B Galvanized								0,50	
1801	1/2	0	In			mm	,00							Forged		0,30	
66	1/2	0	In			mm	,00	1,00	NR	202	45° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000‡	Forged A	STM A		0,32	
179	1/2	0	In			mm	,00	5,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000‡	Forged A	STM A		2,00	
544	1	1/2	In			mm	,00	1,00	NR	202	Reducing Insert M/F SB-ATI-PR008/07 3000# Forged ASTM A 105 Galvanized		NPT x TH	RD-F		0,19	
835 1/2 0 In mm ,00						mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# For	rged ASTM	A 105		0,30	
										N	1 Erection				Total Kg:	12,47	

A

Area A

1 / 1

TOTAL Kg:

12,47

SABIZ PLANT ANSI

64107 - 0

Plant SZ1 SABIZ PLANT ANSI Line 64107 - 0 Dang, fluid type Area Area A	Piping Class 202 Fluid Coating Sketch Sht 1/1	Welding specification System De pres Isometric code	Op tem
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:							1	REV: 0 23	3/07/2012
	PUMA	A5		23/07/20	012 15.00	0.30							DOC	: 2F11	1.65.102		
		D	ESMET	Γ - Ballestra	a						SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	p: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
981	3/4	0	In	2,87		mm	,00	0,50	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	RD-M NPT	sch.40		0,84	
982	1	0	In	3,38		mm	,00	8,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	RD-M NPT	sch.40		20,02	
1803	1	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 'BRASS NICKEL PLATED S 87	THRD-F N	NPT 200 LB	Forged		0,60	
181	1	0	In			mm	,00	6,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000	# Forged AS	STM A		6,60	
545	1	3/4	In			mm	,00	1,00	NR	202	Reducing Insert M/F SB-ATI-PR008/0 3000# Forged ASTM A 105 Galvanized		NPT x THI	RD-F		0,19	
837	1	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	Γ 3000# Fo:	rged ASTM	A 105		0,65	
											M Erection				Total Kg:	28,9	
SZ1	SABIZ PLANT ANSI 64110 - 0					- 0	A Area A 1 / 1						TOTAL Kg:	28,9			

Plant SZ1 SABIZ PLANT ANSI Line 64110 - 0 Dang, fluid type	Piping Class 202 Fluid Coating	Welding specification System De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code		Page 1
Zones				

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F1							2F11		REV: 0	23	/07/2012
	PUMA	\ 5		23/07/20	12 15.00	0.30							D	OC:	2F11	.65.102		-	
		D	ESMET	Γ - Ballestra	l						SABIZ 8000 kg/h	Size: In	Thk: m	m	Temp	:℃	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mn	n Q	ty U	m Pip. class	s Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
985	2	0	In	3,91		mm	,00	0 14,	00 r	n 202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THR	RD-M N	IPT sc	ch.40		76,12		
1806	2	0	In			mm	,00	0 1,	00 N	R 202	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	ГHRD-F N	NPT 200	LB F	orged		2,20		
71	2	0	In			mm	,00	0 1,	00 N	R 202	45° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000a	# Forgeo	1 AST	M A		3,00		
184	2	0	In			mm	,00	6,	00 N	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000 1	# Forgeo	l AST	МА		19,80		
840	2	0	In			mm	,00	0 2,	00 N	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# For	rged AS	TM A	105		4,02		
										M Erection					Total Kg:	105,14			
SZ1	SABIZ PLANT ANSI 6411						- 0			A	Area A 1	/ 1				TOTAL Kg:	105,14		

PICV_64.1	Plant SZ1 SABIZ PLANT ANSI	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2							1	REV: 0	23/07/2012
	PUMA	\ 5		23/07/20	012 15.00	0.30							DO	C: 2F1	1.65.102		
		D	ESMET	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Tem	ı p: ℃	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Q	y Uı	n Pip. class	Component				Gen. Bolt	Weight (Kg) As	s.bly Branch
982	1	0	In	3,38		mm	,00	15,0	00 m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	8000# THR	RD-M NP	Γ sch.40		37,53	
1803	1	0	In			mm	,00) 1,	00 NI	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	ГHRD-F N	IPT 200 LI	3 Forged		0,60	
181	1	0	In			mm	,00	6,	00 NI	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000a	# Forged A	STM A		6,60	
545	1	3/4	In			mm	,00) 1,	00 NI	R 202	Reducing Insert M/F SB-ATI-PR008/0 3000# Forged ASTM A 105 Galvanized		NPT x TH	RD-F		0,19	
837	1	0	In			mm	,00	1,	00 NI	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# For	rged ASTN	1 A 105		0,65	
										1	M Erection				Total Kg:	45,57	
SZ1	SABIZ	PLANT A	ANSI			64112	- 0			A	Area A 1	/ 1			TOTAL Kg:	45,57	

PICV_64.2	Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
	Line 64112 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

]	DESME	allestra					SKETC	CHES M.	ATERIAL LIST		PF	ROJ:	2F11		REV	0	23/0	07/2012	
	PUMA	5		23/07/20	012 15.00.30								DO	OC:	2F11.6	5.102	-			
		DE	ESMET	- Ballestra	a					SABIZ 8000	kg/h	Size: In	Thk: mr	n	Temp: °	С	Pres: Bar(g)	Co	rr: mm
							_													
Mark	S1	S2		T1	T2	Len mn	n mm Qty Um Pip. class Component							G	Gen. Bolt	Weight (Kg) As	.bly	Branch	
931	1/2	0	In	2,77	mm	,00	0 8,	00	m 205	Pipe AS	ME B36.10 PL sch.40 Seamles	s API 5L G	r.B				10	,13		
2025	1/2	0	In		mm	,00	0 1,	1 00	NR 205	Valve G	Sate SB-ATI-VG001/0 SW-F 80	0# Forged A	ASTM A	A 105	G 61		1	,70		
193	1/2	0	In		mm	,00	0 6,	1 00	NR 205	90° Elbe	ow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A	A 105			1	,50		
							M Erection									Total Kg:	13	,33		
SZ1	SABIZ PLANT ANSI 64113 - 0								A	Area A	1.	/ 1			TC	OTAL Kg:	13	,33		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:						2F11		REV: 0	23/07	7/2012
	PUMA	.5		23/07/20	012 15.00	0.30							DOC:	2F11	.65.102			
		D	ESMET	- Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp	: °C	Pres: Bar(g)	Cori	r: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly B	Branch
900	3	0	In	3,18		mm	,00	75,00	m	203	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				504,15		
1912	3	0	In			mm	,00	1,00	NR	203	Valve Check SB-ATI-VR071/0 WAFEF	R 150 LB RI	7 (125÷250		2843	1,60		
						1	_				AARH) Cast ASTM A 36 CADMIUM I	PLATED R	124					
332	3	0	In			mm	,00	5,00	NR	203	Flange Slip-On ASME B16.5 150 LB R	F (125÷250	AARH) For	rged	2840	20,50		
											ASTM A 105							
86	3	0	In	3,18		mm	,00	1,00	NR	203	45° Elbow Long Radius ASME B16.9 E	BE E.R.W. A	STM A 234	4 Gr.		0,60		
			-						_		WPB							
199	3	0	In	3,18		mm	,00	12,00	NR	203	90° Elbow Long Radius ASME B16.9 E	BE E.R.W. A	STM A 234	4 Gr.		14,12		
							-		_		WPB							
709	1/2	0	In			mm	,00	1,00	NR	203	Coupling Half SB-ATI-PR008/0 THRD	-F NPT 300	0# Forged A	ASTM		0,06		
					_	_					A 105							
2840	5/8	0	In			mm	95,00	12,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A	ASME B18.	2.1 UNC/2.	2		2,76		
											Tab.9 ASTM A 193 B7 / A 194 Gr.2H							
2843	5/8	0	In			mm	110,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A	ASME B18.	2.1 UNC/2.	2		1,00		
	,	,				•					Tab.9 ASTM A 193 B7 / A 194 Gr.2H						<u> </u>	
378	3	0	In			mm	,00	5,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (12	25÷250 AA	RH) _ B5C					
										N	1 Erection				Total Kg:	544,8		

1 / 1

TOTAL Kg:

544,8

KV_64.9 PI_64.8	Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
_	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			

A

Area A

SABIZ PLANT ANSI

SZ1

64115 - 0

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23/	07/2012
	PUMA	\ 5		23/07/2	012 15.0	00.30							DOC:	2F11.0	65.102		•	
		Γ	DESMET	Γ - Ballestr	a					S	SABIZ 8000 kg/h	Size: In The	: mm	Temp:	°C	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
980	1/2	0	In	2,77		mm	,00	7,0	0 m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	h.40		8,86		
1801	1/2	0	In			mm	,00	1,0	0 NF	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,0	0 NF	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	МА		1,60		
835	1/2	0	In			mm	,00	1,0	0 NF	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	11,06		
SZ1	SABIZ	PLANT .	ANSI			64118	- 0			A A	Area A 1 /	1		Т	OTAL Kg:	11,06		

KV_64.10	Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
	Line 64118 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23	/07/2012
	PUMA	15		23/07/2	012 15.0	00.30							DOC:	2F11.	65.102			
		D	ESME	Γ - Ballestra	a					S	SABIZ 8000 kg/h	Size: In The	C: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	7,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		8,86		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	11,06		
SZ1	SABIZ	PLANT A	ANSI			64119	- 0			A A	Area A 1 /	/ 1		1	TOTAL Kg:	11,06		

KY_64.2	Plant SZ1 SABIZ PLANT ANSI	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23/07/2012
	PUM	A5		23/07/2	012 15.0	0.30							DOC:	2F11.0	65.102		
		D	DESME'	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In The	K: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	ly Branch
982	1	0	In	3,38		mm	,00	0 12,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		30,03	
1803	1	0	In			mm	,00	0 1,00	NR	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,60	
181	1	0	In			mm	,00	5,00	NR	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	M A		5,50	
837	1	0	In			mm	,00	0 1,00	NR	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,65	
										N	M Erection				Total Kg:	36,78	
SZ1	SABIZ	PLANT.	ANSI			64120) - ()			Α /	Area A 1/	′ 1		Т	OTAL Kg:	36.78	

PCV_64.3	Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
	Line 64120 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ:								REV: 0	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.30							DOC:	2F11.6	55.102		
		D	DESME'	T - Ballestr	a					S	ABIZ 8000 kg/h	Size: In The	K: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
980	1/2	0	In	2,77		mm	,00	6,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		7,59	
1801	1/2	0	In			mm	,00	1,00) NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	4,00	NR	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	M A		1,60	
835	1/2	0	In			mm	,00	1,00) NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	9,79	
SZ1	SABIZ	PLANT .	ANSI			64121	- 0			Α /	Area A 1/	′ 1		Т	OTAL Kg:	9.79	

KC_64.4A	Plant SZ1 SABIZ PLANT ANSI	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			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.0	00.30							DOC:	2F11.6	55.102		
		D	DESME'	T - Ballestr	a					S	ABIZ 8000 kg/h	Size: In The	K: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
980	1/2	0	In	2,77		mm	,00	6,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	I NPT sc	ch.40		7,59	
1801	1/2	0	In			mm	,00	1,00) NR	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	4,00	NR	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Foi	ged AST	M A		1,60	
835	1/2	0	In			mm	,00	1,00) NR	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	9,79	
SZ1	SABIZ	PLANT.	ANSI			64122	- 0			Α /	Area A 1/	′ 1		Т	OTAL Kg:	9.79	

KC_64.4B	Plant SZ1 SABIZ PLANT ANSI	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				

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV:	0 2	23/07/2012
	PUMA	A 5		23/07/2	012 15.0	00.31							DOC:	2F11	.65.102		•	
		Ε	DESMET	Γ - Ballestr	a					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp	: °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bly	y Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-	M NPT sc	ch.40		7,59)	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30)	
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# F	orged AST	ΜA		1,60)	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forge	d ASTM A	105		0,30)	
										N	M Erection				Total Kg:	9,79	9	
SZ1	SABIZ	PLANT	ANSI			64124	- 0			A A	Area A 1 /	1		7	TOTAL Kg:	9,79	•	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 64124 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F									REV: 0	23	/07/2012
	PUMA	15		23/07/20	012 15.0	0.31							DOC:	2F11.	.65.102	•	•	
		D	ESME'	T - Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	n Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRI	D-M NPT s	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 TBRASS NICKEL PLATED S 87	ΓHRD-F NI	PT 200 LB I	Forged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000#	Forged AS7	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forg	ged ASTM A	A 105		0,30		
										ı	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT.	ANSI			64125	- 0			Α ,	Area A 1	/ 1		7	TOTAL Kg:	9.79		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 64125 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV: 0	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	0.31							DOC:	2F11.	65.102		
		D	ESME	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
980	1/2	0	In	2,77		mm	,00	6,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-N	A NPT so	ch.40		7,59	
1801	1/2	0	In			mm	,00	1,00) NF	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	5,00) NF	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	rged AST	M A		2,00	
835	1/2	0	In			mm	,00	1,00) NF	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	10,19	
SZ1	SABIZ	PLANT.	ANSI			64128	- 0			Α ,	Area A 1	/ 1		Т	OTAL Kg:	10.19	

Plant SZ1 SABIZ PLANT ANSI Line 64128 - 0	Piping Class 202 Fluid	Welding specification System		
Dang. fluid type	Coating	De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code		Page 1
Zones				

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ. 2F1								REV:) 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.31							DOC:	2F11.6	55.102	•		
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	ık: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	0 6,0) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	0 1,0) NI	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	0 4,0) NI	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	0 1,0) NI	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	I ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ	PLANT A	ANSI			64129	- 0			A A	Area A 1	/ 1		T	OTAL Kg:	9,79		

Plant SZ1 SABIZ PLANT ANSI	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			

		DESM	ET - B	allestra					SKETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	.5		23/07/2	012 15.0	00.31	1					DOC:	2F11.	65.102		
		D	ESMET	- Ballestr	a		·		S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm		Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
947	1/2	0	In	2,77		mm	,00	11,00	m 216	Pipe ASME B36.19 PL sch.40S Seam	less ASTM A	312 TP316			14,21	
1809	1/2	0	In			mm	,00	2,00	NR 216	Valve Ball Full Port SB-ATI-VS020/0 ASTM A 182 Gr. F316 S 99	THRD-F NP	Γ 800# Forg	ged		1,43	
306	1/2	0	In			mm	,00	4,00	NR 216	Flange Lap-Joint ASME B16.5 150 L ASTM A 105 Galvanized	B Flat Face Sm	ooth Forge	d	2909	1,60	
308	1	0	In			mm	,00	6,00	NR 216	Flange Lap-Joint ASME B16.5 150 L ASTM A 105 Galvanized	B Flat Face Sm	ooth Forge	d	2910	4,80	
84	1/2	0	In			mm	,00	1,00	NR 216	45° Elbow SB-ATI-PR007/0 SW-F 30 F316	000# Forged AS	STM A 182	Gr.		0,18	
197	1/2	0	In			mm	,00	5,00	NR 216	90° Elbow SB-ATI-PR007/0 SW-F 30 F316	000# Forged AS	STM A 182	Gr.		1,28	
1109	1	1/2	In	3,38	2,77	mm	,00	2,00	NR 216	Reducer Concentric ASME B16.9 BE 403 Gr. WP316	sch.40S Wrou	ght S ASTI	M A		0,28	
2580	1/2	0	In			mm	,00	2,00	NR 216	Tee Straight SB-ATI-PR007/0 SW-F 3	3000# Forged A	ASTM A 18	32 Gr.			
675	1/2	0	In			mm	,00	1,00	NR 216	Coupling SB-ATI-PR008/0 THRD-F 182 Gr. F316	NPT 3000# Fo	orged ASTM	1 A		0,12	
780	1/2	0	In	2,77		mm	,00	4,00	NR 216	Stub-End MSS SP-43 BE sch.40S Wr WP316 Type A	ought S ASTM	I A 403 Gr.			0,34	
782	1	0	In	3,38		mm	,00	6,00	NR 216	Stub-End MSS SP-43 BE sch.40S Wr WP316 Type A	ought S ASTM	I A 403 Gr.			0,97	
852	1/2	0	In			mm	,00	3,00	NR 216	Union SB-ATI-PR007/0 SW-F 3000#	Forged ASTM	A 182 Gr.	F316		1,16	
2909	1/2	0	In			mm	75,00	8,00	NR 216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H G	O ASME B18.2				0,96	
2910	1/2	0	In			mm	80,00	16,00	NR 216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 2H G		.1 UNC/2.2	2		1,92	
418	1/2	0	In			mm	.00	2,00	NR 216	Gasket SB-ATI-PV009/5 150 LB RF		H) B5F				
420	1	0	In			mm	,00		NR 216	Gasket SB-ATI-PV009/5 150 LB RF	`	· –				
PSV_65 PSH_65							Plant SZ1	SABIZ PL	ANT ANSI	Piping Class 216			Wel	ding specifica	tion SB-ATI-SP006/0 SE SP008/0	B-ATI-
KY_65.2							Line 6502	0 - 0		Fluid			Syst	em		
							Dang. fluid	type		Coating			De p	res	Op tem	

Area Area A

Zones

Sketch Sht 1/1

Isometric code

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		DESME'	T - Ba	allestra	ı				SKE	ЕТСН	ES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
	PUMA	.5		23/07/2	2012 15	.00.31							DOC:	2F11.65.102		
		DE	SMET	- Ballest	ra					Sz	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Otv U	m Pip	. class	Component			Gen. Bolt	Weight (Kg) A	s.bly Branch
								C-3 -			1 Erection			Total Kg:	29,25	
SZ1	SABIZ I	PLANT A	NSI			65020	- 0		A	. A	area A 1	/ 1		TOTAL Kg:	29,25	

PSV_65.2 PSH_65.2	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	9 1	SB-ATI-SP006/0 SB-ATI- SP008/0
KY_65.27B	Line 65020 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 2
	Zones			

		DESM	ET - B	allestra					SKETCH	IES MATERIAL LIST		PROJ	2F11		REV: 0	23/07/201
	PUMA	.5		23/07/2	012 15.0	00.31	1					DOC:	2F11	.65.102		
		D	ESMET	- Ballestr	a				S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bl	y Branch
947	1/2	0	In	2,77		mm	,00	11,00		Pipe ASME B36.19 PL sch.40S Seam	iless ASTM	A 312 TP316	5		14,21	,
1809	1/2	0	In			mm	,00	1,00	NR 216	Valve Ball Full Port SB-ATI-VS020/0 ASTM A 182 Gr. F316 S 99) THRD-F 1	NPT 800# Fo	rged		0,71	
306	1/2	0	In			mm	,00	4,00	NR 216	Flange Lap-Joint ASME B16.5 150 L ASTM A 105 Galvanized	B Flat Face	Smooth Forg	ed	2909	1,60	
307	3/4	0	In			mm	,00	3,00	NR 216	Flange Lap-Joint ASME B16.5 150 L ASTM A 105 Galvanized	B Flat Face	Smooth Forg	ed	2909	2,10	
34	1/2	0	In			mm	,00	2,00	NR 216	45° Elbow SB-ATI-PR007/0 SW-F 30 F316	000# Forged	ASTM A 18	2 Gr.		0,37	
197	1/2	0	In			mm	,00	5,00	NR 216	90° Elbow SB-ATI-PR007/0 SW-F 30 F316	000# Forged	ASTM A 18	2 Gr.		1,28	
1108	3/4	1/2	In	2,87	2,77	mm	,00	1,00	NR 216	Reducer Concentric ASME B16.9 BE 403 Gr. WP316	E sch.40S Wi	rought S AST	TM A		0,06	
2580	1/2	0	In			mm	,00	1,00	NR 216	Tee Straight SB-ATI-PR007/0 SW-F F316	3000# Forge	ed ASTM A 1	82 Gr.			
599	1/2	0	In			mm	,00	1,00	NR 216	Coupling SB-ATI-PR007/0 SW-F 300 F316	00# Forged A	ASTM A 182	Gr.		0,14	
780	1/2	0	In	2,77		mm	,00	4,00	NR 216	Stub-End MSS SP-43 BE sch.40S Wi WP316 Type A	ought S AS	ГМ A 403 G	r.		0,34	
781	3/4	0	In	2,87		mm	,00	3,00	NR 216	Stub-End MSS SP-43 BE sch.40S Wi WP316 Type A	ought S AS	ГМ A 403 G	r.		0,31	
352	1/2	0	In			mm	,00	2,00	NR 216	Union SB-ATI-PR007/0 SW-F 3000#	Forged AS	ΓM A 182 Gr	F316		0,78	
2909	1/2	0	In			mm	75,00	24,00	NR 216	Stud Bolt + 2 Nuts SB-ATI-PV008B/ Tab.9 ASTM A 193 B7 / A 194 2H G		8.2.1 UNC/2	.2		2,88	
418	1/2	0	In			mm	,00	4,00	NR 216	Gasket SB-ATI-PV009/5 150 LB RF	(125÷250 A	ARH) _ B5F				
419	3/4	0	In			mm	,00	2,00	NR 216	Gasket SB-ATI-PV009/5 150 LB RF	(125÷250 A	ARH) _ B5F				
									N	1 Erection				Total Kg:	24,77	
PSV_65 PSH_65							Plant SZ1	SABIZ PI	ANT ANSI	Piping Class 216			We	elding specifica	tion SB-ATI-SP006/0 SE SP008/0	B-ATI-
KY_65.2							Line 6502	1 - 0		Fluid			Sys	stem		
							Dang. fluid	type		Coating			De	pres	Op tem	

Sketch Sht 1/1

Isometric code

Area Area A

Zones

Page 1

		DESME	ET - B	allestra					SK	ETCH	HES MATE	RIAL LIST		PROJ:	2F11	REV: 0	23	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.31								DOC:	2F11.65.102			
		DE	ESMET	- Ballestra	ı					S	SABIZ 8000 kg/h		Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pi	ip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
SZ1	SABIZ I	PLANT A	NSI			65021 -	0			A A	Area A		1 / 1		TOTAL Kg:	24,77		

PSV_65.1 PSH_65.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 216		SB-ATI-SP006/0 SB-ATI- SP008/0
KY_65.27A	Line 65021 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 2
	Zones			

DESMET	- Ballestra	SKETCHES MATERIAL LIST		PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.31			DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In T	Γhk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
947	1/2	0	In	2,77	mm	,00	0,20	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		0,26	
948	3/4	0	In	2,87	mm	,00	2,00	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		3,44	
1809	1/2	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS020/0 THRD-F NPT 800# Forged ASTM A 182 Gr. F316 S 99		0,71	
1810	3/4	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS020/0 THRD-F NPT 800# Forged ASTM A 182 Gr. F316 S 99		0,92	
1854	3/4	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS047/0 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 Gr. CF8M S 125	2981	1,94	
2100	3/4	0	In		mm	,00	1,00	NR	216	Strainer Y-Type SB-ATI-VF023/0 FLG 150 LB RF (125÷250 AARH) Cast ASTM A 351 Gr. CF8M F 72	2909	2,86	
307	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	2909	2,80	
125	3/4	0	In	2,87	mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE sch.40S Wrought S ASTM A 403 Gr. WP316		0,03	
238	3/4	0	In	2,87	mm	,00	2,00	NR	216	90° Elbow Long Radius ASME B16.9 BE sch.40S Wrought S ASTM A 403 Gr. WP316		0,18	
781	3/4	0	In	2,87	mm	,00	4,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrought S ASTM A 403 Gr. WP316 Type A		0,41	
2909	1/2	0	In		mm	75,00	10,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 2H Galvanized		1,20	
419	3/4	0	In		mm	,00	5,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F			
2981	1/2	0	In		mm	30,00	8,00	NR	216	Screws for valves ASME B 18.2.1/UNC ASTM A 193 B7 Galvanized		0,64	
	1	1	1						N	M Erection	Total Kg:	15,38	
SZ1	SABIZ	PLANT A	ANSI		65022	- 0			A A	Area A 1 / 1 T	OTAL Kg:	15,38	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP008/0
Line 65022 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

DESMET -	- Ballestra	SKETCHES MATERIAL LIST	PROJ	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.32		DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
947	1/2	0	In	2,77	mm	,00	0,20	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		0,26	
949	1	0	In	3,38	mm	,00	3,00	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		7,66	
1809	1/2	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS020/0 THRD-F NPT 800# Forged ASTM A 182 Gr. F316 S 99		0,71	
1811	1	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS020/0 THRD-F NPT 800# Forged ASTM A 182 Gr. F316 S 99		1,43	
1855	1	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS047/0 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 Gr. CF8M S 125	2981	2,86	
2101	1	0	In		mm	,00	1,00	NR	216	Strainer Y-Type SB-ATI-VF023/0 FLG 150 LB RF (125÷250 AARH) Cast ASTM A 351 Gr. CF8M F 72	2910	3,37	
308	1	0	In		mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	2910	3,20	
126	1	0	In	3,38	mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE sch.40S Wrought S ASTM A 403 Gr. WP316		0,07	
239	1	0	In	3,38	mm	,00	3,00	NR	216	90° Elbow Long Radius ASME B16.9 BE sch.40S Wrought S ASTM A 403 Gr. WP316		0,41	
782	1	0	In	3,38	mm	,00	4,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrought S ASTM A 403 Gr. WP316 Type A		0,65	
2910	1/2	0	In		mm	80,00	12,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 2H Galvanized		1,44	
420	1	0	In		mm	,00	5,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F			
2981	1/2	0	In		mm	30,00	8,00	NR	216	Screws for valves ASME B 18.2.1/UNC ASTM A 193 B7 Galvanized		0,64	
	1	1	1	1					N	M Erection	Total Kg:	22,7	
SZ1	SABIZ	PLANT A	ANSI		65023	- 0			A A	Area A 1 / 1 7	TOTAL Kg:	22,7	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	Welding specification	Welding specification SB-ATI-SP006/0 SB-ATI-SP008/0		
Line 65023 - 0	Fluid	System			
Dang. fluid type	Coating	De pres	Op tem		
Area Area A	Sketch Sht 1/1	Isometric code	Page 1		
Zones					

DESMET	- Ballestra	SKETCHES MATERIAL LIST			2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 15.00.32			DOC:	2F11.65.102		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
947	1/2	0	In	2,77	mm	,00	0,50	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		0,65	
949	1	0	In	3,38	mm	,00	4,00	m	216	Pipe ASME B36.19 PL sch.40S Seamless ASTM A 312 TP316		10,21	
1809	1/2	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS020/0 THRD-F NPT 800# Forged ASTM A 182 Gr. F316 S 99		0,71	
1811	1	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS020/0 THRD-F NPT 800# Forged ASTM A 182 Gr. F316 S 99		1,43	
1855	1	0	In		mm	,00	1,00	NR	216	Valve Ball Full Port SB-ATI-VS047/0 LUG 150 LB RF (125÷250 AARH) Cast ASTM A 351 Gr. CF8M S 125	2981	2,86	
2101	1	0	In		mm	,00	1,00	NR	216	Strainer Y-Type SB-ATI-VF023/0 FLG 150 LB RF (125÷250 AARH) Cast ASTM A 351 Gr. CF8M F 72	2910	3,37	
308	1	0	In		mm	,00	4,00	NR	216	Flange Lap-Joint ASME B16.5 150 LB Flat Face Smooth Forged ASTM A 105 Galvanized	2910	3,20	
126	1	0	In	3,38	mm	,00	1,00	NR	216	45° Elbow Long Radius ASME B16.9 BE sch.40S Wrought S ASTM A 403 Gr. WP316		0,07	
239	1	0	In	3,38	mm	,00	3,00	NR	216	90° Elbow Long Radius ASME B16.9 BE sch.40S Wrought S ASTM A 403 Gr. WP316		0,41	
782	1	0	In	3,38	mm	,00	4,00	NR	216	Stub-End MSS SP-43 BE sch.40S Wrought S ASTM A 403 Gr. WP316 Type A		0,65	
2910	1/2	0	In		mm	80,00	12,00	NR	216	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 ASME B18.2.1 UNC/2.2 Tab.9 ASTM A 193 B7 / A 194 2H Galvanized		1,44	
420	1	0	In		mm	,00	5,00	NR	216	Gasket SB-ATI-PV009/5 150 LB RF (125÷250 AARH) _ B5F			
2981	1/2	0	In		mm	30,00	8,00	NR	216	Screws for valves ASME B 18.2.1/UNC ASTM A 193 B7 Galvanized		0,64	
	•		'	'					N	M Erection	Total Kg:	25,64	
SZ1	SABIZ	PLANT A	ANSI		65024	- 0			Α Α	Area A 1 / 1 7	TOTAL Kg:	25,64	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 216	Welding specification SB-ATI-SP006/0 SB-ATI- SP008/0			
Line 65024 - 0	Fluid	System			
Dang. fluid type	Coating	De pres	Op tem		
Area Area A	Sketch Sht 1/1	Isometric code	Page 1		
Zones					

		DESM	ET - 1	Ballestra					S	SKETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	00.32							DOC:	2F11	.65.102		
		D	DESME	T - Ballestr	a					S	ABIZ 8000 kg/h	Size: In Thi	C: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.b	ly Branch
980	1/2	0	In	2,77		mm	,00	5,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-M	1 NPT so	ch.40		6,33	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	
179	1/2	0	In			mm	,00	3,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# For	rged AST	ΜA		1,20	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30	
										N	M Erection				Total Kg:	8,13	
SZ1	SABIZ	PLANT .	ANSI			65101	- 0			A A	Area A 1	/ 1		7	ΓΟΤΑL Kg:	8,13	

PICV_65.4	Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
	Line 65101 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESMI	ET - B	allestra					5	SKETCH	HES MATERIAL LIST		PROJ	2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20)12 15.00	0.32							DOC:	2F11.	.65.102			
		D	ESMET	- Ballestra	ì					S	SABIZ 8000 kg/h	Size: In	Thk: mm	Temp:	°C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	n Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00		_	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRE	D-M NPT s	ch.40		12,66		
179	1/2	0	In			mm	,00	6,0) NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000#	Forged AS7	ГМ А		2,40		
2562	1/2	0	In			mm	,00	2,00) NR	202	Tee Straight SB-ATI-PR008/0 THRD-F 105 Galvanized	NPT 3000	# Forged AS	STM A		0,56		
681	1/2	0	In			mm	,00	2,00) NR	202	Coupling SB-ATI-PR008/0 THRD-F N 105 Galvanized	PT 3000# F	orged ASTI	M A		0,24		
835	1/2	0	In			mm	,00	2,00) NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forg	ged ASTM A	A 105		0,60		
										N	M Erection				Total Kg:	16,46		
SZ1	SABIZ I	PLANT A	NSI			65102	- 0			A	Area A 1	/ 1		7	TOTAL Kg:	16,46		

PSL_65.1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
PICV_65.1	Line 65102 - 0	Fluid	System	
KY_65.2B	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

]	DESME	ET - Ba	ıllestra					SKETC	HES MATERIAL LIST		PR	OJ:	2F11		REV: 0	23	/07/2012
	PUMA	5		23/07/2	012 15.00.32							DC	OC:	2F11.	65.102		•	
		DF	ESMET -	- Ballestr	a					SABIZ 8000 kg/h	Size: In	Thk: mm	1	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2	Len mn	ı Qt	y U	m Pip. class	Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77	mm	,00	8,0	00 n	n 205	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	r.B				10,13		
2025	1/2	0	In		mm	,00) 1,0	00 N	R 205	Valve Gate SB-ATI-VG001/0 SW-F 800	0# Forged A	ASTM A	105	G 61		1,70		
325	1/2	0	In		mm	,00) 1,(00 N	R 205	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	0 AARH) For	ged	2830	0,40		
193	1/2	0	In		mm	,00	6,0	00 N	IR 205	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM A	105			1,50		
2830	1/2	0	In		mm	65,00	4,0	00 N	IR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	3.2.1 UN	C/2.2	2		0,44		
2816	1/2	0	In		mm	,00	1,0	00 N	IR 205	Gasket Spiral Wound SB-ATI-PV009/5 _ G5N INNER OUTER RING	150 LB RI	F (125÷2	250 A.	ARH)				
										M Erection					Total Kg:	14,17		
SZ1	SABIZ F	LANT A	NSI		65103	- 0			A	Area A 1	/ 1			Т	OTAL Kg:	14,17		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification SB-	
Line 65103 - 0 Dang, fluid type	Fluid Coating	System De pres	007/0 Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

]	DESMI	ET - Ba	llestra					SKETCH	PROJ: 2F	11	REV: 0 23	3/07/2012	
	PUMA	5		23/07/20	12 15.00	0.32					DOC: 2F	11.65.102		
		D	ESMET	- Ballestra	1				S	SABIZ 8000 kg/h	Size: In Thk: mm Ter	mp: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um Pip. class	Component		Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	9,00	m 205	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B		11,39	
2025	1/2	0	In			mm	,00	4,00	NR 205	Valve Gate SB-ATI-VG001/0 SW-F 80	0# Forged ASTM A 105 G 6	1	6,80	
2678	1/2	0	In			mm	,00	1,00	NR 205	Steam Trap SB-ATI-VT005/0 SW-F 30	0 LB Forged ASTM A 105 T	7	0,80	
			<u>'</u>							66				
325	1/2	0	In			mm	,00	1,00	NR 205	Flange Slip-On ASME B16.5 150 LB R	RF (125÷250 AARH) Forged	2830	0,40	
										ASTM A 105				
193	1/2	0	In			mm	,00	4,00	NR 205	90° Elbow SB-ATI-PR007/0 SW-F 300	00# Forged ASTM A 105		1,00	
2576	1/2	0	In			mm	,00	3,00	NR 205	Tee Straight SB-ATI-PR007/0 SW-F 30	000# Forged ASTM A 105			
2830	1/2	0	In			mm	65,00	4,00	NR 205	Stud Bolt + 2 Nuts SB-ATI-PV008B/0	ASME B18.2.1 UNC/2.2		0,44	
										Tab.9 ASTM A 193 B7 / A 194 Gr.2H				
2816	1/2	0	In			mm	,00	1,00	NR 205	Gasket Spiral Wound SB-ATI-PV009/5	5 150 LB RF (125÷250 AAR)	H)		
										_ G5N INNER OUTER RING				
									N	M Erection	<u> </u>	Total Kg:	20,83	
SZ1	SABIZ F	PLANT A	ANSI			65104	- 0		A	Area A 1	/ 1	TOTAL Kg:	20,83	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 65104 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - B	allestra					S	SKETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA	15		23/07/2	012 15.0	0.32							DOC:	2F11.6	55.102	<u> </u>	
		D	ESMET	Γ - Ballestr	a					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp: °	°C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	y Branch
931	1/2	0	In	2,77		mm	,00	3,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L Gr.	В			3,80	
165	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR008/0 THRD-F 1 105	NPT 3000# I	Forged AST	M A		1,60	
613	1/2	1/4	In	2,77	2,24	mm	,00	1,00	NR	203	Reducing Insert M/F SB-ATI-PR007/0 S ASTM A 105 TYPE 11	SW-F x PL 3	000# Forge	ed		0,06	
										N	1 Erection			,	Total Kg:	5,46	
SZ1	SABIZ	PLANT A	ANSI			65105	- 0			A A	Area A 1	/ 1		TO	OTAL Kg:	5.46	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
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			

		DESMI	ET - Ba	allestra			SKETCHES MATERIAL LIST PROJ: 2F							11	REV: 0	23	/07/2012	
	PUMA	15		23/07/2	012 15.0	0.32							DO	C : 2F	11.65.102	•	•	
		D	ESMET	- Ballestr	a					5	SABIZ 8000 kg/h	Size: In	Thk: mm	Tei	mp: °C	Pres: Bar(g)	C	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Ur	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	8,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	8000# THR	D-M NF	T sch.40)	10,13		
1801	1/2	0	In			mm	,00	1,00) NI	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F N	IPT 200 I	B Forge	ed .	0,30		
179	1/2	0	In			mm	,00	6,00) NI	R 202	90° Elbow SB-ATI-PR008/0 THRD-F	NPT 3000‡	# Forged	ASTM A	Δ	2,40		
2562	1/2	0	In			mm	,00	1,00) NI	R 202	Tee Straight SB-ATI-PR008/0 THRD-F	NPT 300	0# Forge	l ASTM	A	0,28		
538	1/2	3/8	In			mm	,00	1,00) NI	R 202	Reducing Insert M/F SB-ATI-PR008/0 3000# Forged ASTM A 105 Galvanized		NPT x T	HRD-F		0,06		
681	1/2	0	In			mm	,00	2,00) NI	R 202	Coupling SB-ATI-PR008/0 THRD-F N	IPT 3000#	Forged A	STM A		0,24		
835	1/2	0	In			mm	,00	2,00) NI	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# For	rged AST	M A 105	5	0,60		
]	M Erection				Total Kg:	14,01		

A

Area A

1 / 1

TOTAL Kg:

14,01

SABIZ PLANT ANSI

65106 - 0

PSL_65.2	Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
PICV_65.2	Line 65106 - 0	Fluid	System	
KY_65.2A	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESME	ET - B	Ballestra						SKI	ETCH	IES MATERIAL LIST		PF	ROJ:	2F11		REV: 0	23	/07/2012
	PUMA	15		23/07/20)12 15.00).33								DO	OC:	2F11.	65.102			
		Dl	ESMET	Γ - Ballestra	l						S	ABIZ 8000 kg/h	Size: In	Thk: mr	n	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mn	n Q	ty U	m Pip	p. class	Component					Gen. Bolt	Weight (Kg)	As.bly	Branch
982	1	0	In	3,38		mm	,00	5,	00 1	m 202	2	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THR	D-M N	PT sc	h.40		12,51		
1803	1	0	In			mm	,00	0 1,	00 N	IR 202	2	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F N	IPT 200	LB Fo	orged		0,60		
68	1	0	In			mm	,00	0 1,	00 N	IR 202	2	45° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000‡	# Forged	AST	МА		0,85		
181	1	0	In			mm	,00	3,	00 N	IR 202	2	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000‡	# Forged	AST	МА		3,30		
837	1	0	In			mm	,00	0 1,	00 N	IR 202	2	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# For	rged AS	ГМ А	105		0,65		
											N	1 Erection					Total Kg:	17,91		
SZ1	SABIZ	SABIZ PLANT ANSI 65107								A	A A	Area A 1 /	/ 1			Т	TOTAL Kg:	17,91		

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

		DESM	ET - B	Ballestra					S	KETCH	IES MATERIAL LIST		PRO	J: 2F11	1	REV: 0	23.	/07/2012
	PUMA	.5		23/07/20	012 15.00	0.33							DOC	: 2F11	1.65.102			
		D	ESMET	Γ - Ballestra	ì					S.	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	p: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	6,00	m	203	Pipe ASME B36.10 PL sch.40 Seamless	s API 5L G	ir.B			7,59		
1801	1/2	0	In			mm	,00	1,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	ΓHRD-F N	NPT 200 LB	Forged		0,30		
325	1/2	0	In			mm	,00	1,00	NR	203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	F (125÷25	60 AARH) F	orged	2830	0,40		
193	1/2	0	In			mm	,00	4,00	NR	203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged	ASTM A 1)5		1,00		
821	1/2	0	In			mm	,00	1,00	NR	203	Union SB-ATI-PR008/0 THRD-F NPT	3000# For	rged ASTM	A 105		0,30		
2830	1/2	0	In			mm	65,00	4,00	NR	203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 A Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	8.2.1 UNC/	2.2		0,44		
371	1/2	0	In			mm	,00	1,00	NR	203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 A	ARH) _ B50	C				
						•	-		N	1 Erection				Total Kg:	10,03			
SZ1	SABIZ PLANT ANSI 65108 - 0				- 0			A A	Area A 1	/ 1			TOTAL Kg:	10,03				

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203		SB-ATI-SP006/0 SB-ATI- SP007/0
Line 65108 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESM	ET - B	allestra					SKETCI	HES MATERIAL LIST		PROJ	2F11		REV: 0 2	3/07/2012
	PUMA	.5		23/07/20	012 15.00	.33						DOC:	2F11	.65.102		
		D	ESMET	- Ballestra	a					SABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)	Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip. class	Component				Gen. Bolt	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	T T T T T T T T T T T T T T T T T T T							7,59	
2033	1/2	0	In			mm	,00	,00 1,00 NR 203 Valve Globe SB-ATI-VD001/0 THRD-F NPT 200 LB Forged BRONZE D 51							0,70	
325	1/2 0 In mm				,00	1,00	NR 203	Flange Slip-On ASME B16.5 150 LB R ASTM A 105	RF (125÷250) AARH) Fo	orged	2830	0,40			
193	1/2	0	In			mm	,00	6,00	NR 203	90° Elbow SB-ATI-PR007/0 SW-F 300	0# Forged A	ASTM A 10	5		1,50	
2830	1/2	0	In			mm	65,00	4,00	NR 203	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18	.2.1 UNC/2	.2		0,44	
371	1/2	0	In			mm	,00	1,00	NR 203	Gasket SB-ATI-PV009/5 150 LB RF (1	25÷250 AA	RH) _ B5C	;			
	I	1			1	1	1			M Erection				Total Kg:	10,63	
SZ1	SABIZ PLANT ANSI 65109 - 0					65109	- 0		A	Area A 1	/ 1		7	TOTAL Kg:	10,63	

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification SB-A	ATI-SP006/0 SB-ATI-
		SP00)7/0
Line 65109 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

		DESME	T - B	allestra					\$	SKETO	CHES MAT	TERIAL LIST			P	ROJ:	2F11		REV:	23	3/07/2012
	PUMA	.5		23/07/20	012 15.00	0.33									D	OC:	2F11.0	65.102		•	
		DI	ESMET	- Ballestra	ı						SABIZ 8000 kg	g/h		Size: In	Thk: n	nm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2	Т2	<u> </u>	I on man	04	. II.	n Din ala	G Compone							Gen. Bolt	Woight (Va	A a bler	Dwamah		
Mark	21	32		T1	12		Len mm	ı Qı	_	n Pip. cla	iss Componer	nt						Gen. Bon	Weight (Kg) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	8,0	0 m	205	Pipe ASM	E B36.10 PL sch.40 S	eamless	API 5L C	3r.B				10,13		
2025	1/2	0	In			mm	,00	1,0	0 NI	R 205	Valve Gate	e SB-ATI-VG001/0 SV	W-F 800	# Forged	ASTM	A 105	G 61		1,70)	
193	1/2					,00	4,0	0 NI	R 205	90° Elbow	SB-ATI-PR007/0 SW	7-F 3000)# Forged	ASTM	A 105			1,00)		
	15.5										M Erection							Total Kg	12,83	3	
SZ1	SABIZ PLANT ANSI 65110 - 0				- 0			A	Area A		1 /	1			Т	OTAL Kg	12,83	,			

RED. COUPL. SB-ATI-PR008/0 THRD-F 3000# FORGED ASTM A 105 1/2"x1/8" O.TY 1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 65110 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESM	ET - B	Ballestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	\ 5		23/07/20	012 15.00	.33							DOC:	2F11.65	5.102		-	
		D	ESMET	Γ - Ballestra	ı					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp: °C	2	Pres: Bar(g)	C	orr: mm
					_	_				1								
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			G	en. Bolt	Weight (Kg)	As.bly	Branch
931	1/2	0	In	2,77		mm	,00	8,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	S API 5L Gr.E	}			10,13		
2025	1/2	0	In			mm	,00	4,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800)# Forged AS	TM A 105	G 61		6,80		
2678	1/2	0	In			mm	,00	1,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 300	LB Forged	ASTM A 1	05 T		0,80		
				<u> </u>							66					'		
193	1/2	0	In			mm	,00	4,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	0# Forged AS	TM A 105			1,00		
2576	1/2	0	In			mm	,00	2,00	NR	205	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forged A	STM A 10)5				
	'									N	M Erection			,	Total Kg:	18,73		
SZ1	SABIZ PLANT ANSI 65111 - 0					- 0			A A	Area A 1 /	['] 1		ТО	TAL Kg:	18,73			

RED. COUPL. SB-ATI-PR008/0 THRD-F 3000# FORGED ASTM A 105 1/2"x1/8" O.TY 1	Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
1.61.11.11.100 1/2 11.1/0 Q.1.1.1	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			

	DESMET - Ballestra									SKETCH	HES MATERIAL LIST		PROJ:	2F11		REV:	0 2:	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.33							DOC:	2F11.6	55.102			
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	ık: mm	Temp: °	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Uı	n Pip. class	Component			(Gen. Bolt	Weight (Kg) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	0 6,0	0 n	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-N	M NPT sc	ch.40		7,59	_	
1801	1/2	0	In			mm	,00	0 1,0	0 N	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	HRD-F NPT	200 LB F	orged		0,30)	
179	1/2	0	In			mm	,00	0 4,0	0 N	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60)	
835	1/2	0	In			mm	,00	0 1,0	0 N	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	I ASTM A	105		0,30)	
										1	M Erection				Total Kg:	9,79)	
SZ1	SABIZ	PLANT A	ANSI			65112	- 0			A	Area A 1	1		TO	OTAL Kg:	9,79)	

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

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F								REV:	0 2	3/07/2012
	PUMA	15		23/07/2	012 15.0	00.33							DOC:	2F11.6	55.102		•	
		D	ESME	T - Ballestr	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	T2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bly	Branch
980	1/2	0	In	2,77		mm	,00	0 6,00) m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	0 1,00) NF	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30	0	
179	1/2	0	In			mm	,00	0 4,00) NF	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60	C	
835	1/2	0	In			mm	,00	0 1,00) NF	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	I ASTM A	105		0,30	0	
										N	M Erection			'	Total Kg:	9,79	9	
SZ1	SABIZ PLANT ANSI 65113 -					- 0	A Area A 1/1						T	OTAL Kg:	9,79	9		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification		
Line 65113 - 0	Fluid	System		
Dang. fluid type	Coating	De pres	Op tem	
Area Area A	Sketch Sht 1/1	Isometric code	I	Page 1
Zones				

	DESMET - Ballestra									SKETCH	IES MATERIAL LIST	PROJ:	2F11		REV: 0	23	/07/2012	
	PUMA	A 5		23/07/20	012 15.0	0.34							DOC:	2F11.	.65.102		•	
		D	ESME'	Γ - Ballestra	a					S	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp:	°C	Pres: Bar(g)	(Corr: mm
Mark	S1	S2		T1	T2		Len mn	ı Qty	Uı	m Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00) n	n 202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	000# THRD	O-M NPT so	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00) N	R 202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NP	T 200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	5,00) N	R 202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# I	Forged AST	M A		2,00		
835	1/2	0	In			mm	,00	1,00) N	R 202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forgo	ed ASTM A	105		0,30		
										N	M Erection				Total Kg:	10,19		
SZ1	SABIZ PLANT ANSI 65114 -						- 0			A A	Area A 1 /	/ 1		7	TOTAL Kg:	10.19		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	1
Line 65114 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2F									REV: 0) 23	3/07/2012
	PUMA	15		23/07/20	012 15.0	0.34							DOC:	2F11.6	55.102			
		D	ESME	T - Ballestra	a					S	SABIZ 8000 kg/h	Size: In Th	k: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-N	M NPT sc	ch.40		7,59		
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30		
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# Fo	orged AST	M A		1,60		
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forged	ASTM A	105		0,30		
										N	M Erection				Total Kg:	9,79		
SZ1	SABIZ PLANT ANSI 65117 - 0					- 0	A Area A 1/1						T	OTAL Kg:	9,79			

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	
Line 65117 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2								REV:	0 2	23/07/2012
	PUMA	\ 5		23/07/2	012 15.0	00.34							DOC:	2F11.	.65.102		•	
		Ε	DESMET	Γ - Ballestr	a					S	ABIZ 8000 kg/h	Size: In T	hk: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2		Len mm	Qty	Un	Pip. class	Component				Gen. Bolt	Weight (Kg	g) As.bly	y Branch
980	1/2	0	In	2,77		mm	,00	6,00	m	202	Pipe ASME B36.10+Coupling ASME 3 Seamless API 5L GR. B Galvanized	3000# THRD-	M NPT sc	h.40		7,59)	
1801	1/2	0	In			mm	,00	1,00	NR	202	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F NPT	200 LB F	orged		0,30)	
179	1/2	0	In			mm	,00	4,00	NR	202	90° Elbow SB-ATI-PR008/0 THRD-F 1 105 Galvanized	NPT 3000# F	orged AST	МА		1,60)	
835	1/2	0	In			mm	,00	1,00	NR	202	Union SB-ATI-PR008/0 THRD-F NPT Galvanized	3000# Forge	d ASTM A	105		0,30)	
										N	M Erection				Total Kg:	9,79	9	
SZ1	SABIZ PLANT ANSI 65118 - 0					- 0	A Area A 1 / 1						1	TOTAL Kg:	9,79	•		

Plant SZ1 SABIZ PLANT ANSI	Piping Class 202	Welding specification	n
Line 65118 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST PROJ: 2							J: 2F11		REV: 0	23/	/07/2012
	PUMA	.5		23/07/20	12 15.00).34							DOC	2F11	.65.102			
		DE	SMET	- Ballestra	ı					S	ABIZ 8000 kg/h	Size: In	Thk: mm	Temp	: °C	Pres: Bar(g)		orr: mm
Mark	S1	S2	<u> </u>	T1	Т2		Len mm	Otv	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.blv	Branch
931	1/2	0	In	2,77		mm	,00	220,00	_	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L C	ir.B			278,47		
932	3/4	0	In	2,87		mm	,00	135,00	m	203	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L C	ir.B			227,68		
1801	1/2	0	In			mm	,00	23,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0 T BRASS NICKEL PLATED S 87	THRD-F N	VPT 200 LB	Forged		6,90		
1802	3/4	0	In			mm	,00	14,00	NR	203	Valve Ball Full Port SB-ATI-VS014/0	THRD-F N	IPT 200 LB	Forged		5,60		
2033	1/2	0	In			mm	,00	23,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-BRONZE D 51	F NPT 20) LB Forge	d		16,10		
2034	3/4	0	In			mm	,00	14,00	NR	203	Valve Globe SB-ATI-VD001/0 THRD-BRONZE D 51	F NPT 20) LB Forge	d		11,20		
2576	1/2	0	In			mm	,00	32,00	NR	203	Tee Straight SB-ATI-PR007/0 SW-F 30	00# Forge	d ASTM A	105				
2260	1/2	1/4	In			mm	,00	74,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F N	PT 3000# F	Forged		2,22		
2265	3/4	1/2	In			mm	,00	32,00	NR	203	Coupling Reducing SB-ATI-PR008/0 T ASTM A 105	HRD-F N	PT 3000# F	Forged		0,96		
										N	/I Erection				Total Kg:	549,13		

A

Area A

1 / 1

TOTAL Kg:

549,13

SZ1

SABIZ PLANT ANSI

TRACC. WH - 0

Plant SZ1 SABIZ PLANT ANSI	Piping Class 203	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line TRACC. WH - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	DESMET - Ballestra						SKETCHES MATERIAL LIST							2F11	REV:	0 2	23/07/2012
	PUMA	5		23/07/20	12 15.00	.34							DOC:	2F11.65.102			
		DE	SMET -	Ballestra						SA	ABIZ 8000 kg/h	Size: In	Γhk: mm	Temp: °C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	T2	I	en mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg	g) As.bly	Branch
931	1/2	0	In	2,77		mm	,00	169,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.	В		213,9	1	
932	3/4	0	In	2,87		mm	,00	40,00	m	205	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.	В		67,40	5	
2025	1/2	0	In			mm	,00	22,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged A	STM A 105	G 61	37,40	C	
2026	3/4	0	In			mm	,00	4,00	NR	205	Valve Gate SB-ATI-VG001/0 SW-F 800	# Forged A	STM A 105	G 61	8,40	C	
2678	1/2	0	In			mm	,00	8,00	NR	205	Steam Trap SB-ATI-VT005/0 SW-F 300	LB Forged	ASTM A 1	05 T	6,40	C	
											66						
193	1/2	0	In			mm	,00	8,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	# Forged A	STM A 105		2,00	C	
194	3/4	0	In			mm	,00	16,00	NR	205	90° Elbow SB-ATI-PR007/0 SW-F 3000	# Forged A	STM A 105		5,12	2	
1772	3/4	1/2	In			mm	,00	16,00	NR	205	Tee Reducing SB-ATI-PR007/0 SW-F 30	000# Forgeo	ASTM A	105			

Tee Straight SB-ATI-PR007/0 SW-F 3000# Forged ASTM A 105

Cap SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105

Cap SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105

Coupling SB-ATI-PR007/0 SW-F 3000# Forged ASTM A 105

 M Erection
 Total Kg:
 342,53

 SZ1 SABIZ PLANT ANSI
 TRACC.VB - 0
 A Area A
 1 / 1
 TOTAL Kg:
 342,53

,00

,00

,00

.00

mm

mm

mm

mm

2,00 NR 205

6,00 NR 205

2,00 NR 205

4,00 NR 205

2576

695

2480

2481

1/2

1/2

1/2

3/4

In

In

In

Plant SZ1 SABIZ PLANT ANSI	Piping Class 205	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line TRACC.VB - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

0,84

0,24

0,76