]	DESME	T - Ba	allestra					S	KETCH	IES MATERIAL LIST	P	ROJ:	2F11	REV: 0	23/	/07/2012
	PUMA	5		23/07/20	12 14.42.	.48						D	OC:	2F11-65-104			
		DE	SMET	- Ballestra						S	ABIZ 8000 kg/h	Size: mm Thk: n	nm	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
586	200	0	mm	3,0		mm	,00,	0 0,50 m 124 Pipe SB-ATI-PT002/0 PL Welded Fe				60 B - UNI 7070			7,99		

Mark	S1	S2		T1	T2	Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
586	200	0	mm	3,0	mm	,00	0,50	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		7,99		
1199	200	0	mm	3,0	mm	,00	1,00	NR	124	90° Miter SB-ATI-PC003/0 BE Welded Fe 360 B - UNI 7070 R=1.5 D		7,50		
	·		•		·				N	M Erection	Total Kg:	15,49		
SZ1	SABIZ P	LANT EN	1		62005 -	0			A A	Area A 1 / 1	TOTAL Kg:	15,49		

62Y12	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62005 - 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: 21					2F11		REV: 0	23/0	07/2012		
	PUMA	5		23/07/2	012 14.42	2.48							DOC:	2F11-	-65-104			
		D	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: mm Thl	K: mm	Temp:	°C	Pres: Bar(g)	Co	rr: mm
															1			
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) A	s.bly	Branch
586	200	0	mm	3,0		mm	,00	0,50) m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 707	0			7,99		
1199	200	0	mm	3,0		mm	,00	1,00) NR	124	90° Miter SB-ATI-PC003/0 BE Welded	Fe 360 B - UN	NI 7070 R	=1.5 D		7,50		
							•			N	1 Erection				Total Kg:	15,49		

TOTAL Kg:

15,49

A

Area A

SZ1

SABIZ PLANT EN

62Y13	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specificatio	n SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62006 - 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 - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	0 2	3/07/2012
	PUMA		23/07/2	012 14.42	.48							DOC:	2F11-0	65-104				
		DI	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: mm Thk	: mm	Temp:	°C	Pres: Bar(g)		Corr: mm
Mark	S1	S2		Т1	T2	1	Len mm	Otr	I Im	Pip. class	Component				Gen. Bolt	Weight (K	g) Ag bly	Branch
586	200	0	mm	3,0	12	mm	,00		-	-	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 7070)		Gen. Boit	7,9		Diancii
1199	1199 200 0 mm 3,0 mm ,00 1,00 NR 124 90° Miter SB-ATI-PC003/0 BE Welded Fe 360 B - UNI 7070 R=1.5									=1.5 D		7,5	0					
	M Erection											Total Kg:	15,4	9				

TOTAL Kg:

15,49

Α

Area A

SZ1

SABIZ PLANT EN

62Y14	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62007 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
L	Zones			

	DI	ESMET	- Bal	lestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/2012
	PUMA5		2	23/07/20	12 14.42.	48							DOC:	2F11-6	65-104		
	DESMET - Ballestra									S	ABIZ 8000 kg/h	Size: mm Th	k: mm	Temp:	°C	Pres: Bar(g)	Corr: mm
Mark	1ark S1 S2 T1 T2							Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg) As.b	y Branch

Mark	S1	S2		T1	T2		Len mm	Qty	Um Pip.	class	Component	Gen. Bolt	Weight (Kg) As.bly	Branch
586	200	0	mm	3,0		mm	,00	1,00	m 124		Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		15,99	
1199	200	0	mm	3,0		mm	,00	1,00	NR 124		90° Miter SB-ATI-PC003/0 BE Welded Fe 360 B - UNI 7070 R=1.5 D		7,50	
	·		•			•				N	1 Erection	Total Kg:	23,49	
SZ1	SABIZ PLANT EN 62008 - 0 A			Α	area A 1 / 1	TOTAL Kg:	23,49							

62Y15	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62008 - 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 14.42.48		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
587	250	0	mm	3,0		mm	,00	2,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		39,95	
		M Erection									Total Kg:	39,95		
SZ1	SABIZ PI	SABIZ PLANT EN 62011 - 0 A					A A	rea A 1 / 1	TOTAL Kg:	39,95				

62Y1	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62011 - 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 14.42.48		DOC:	2F11-65-104		
DESM	1ET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
587	250	0	mm	3,0		mm	,00	2,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		39,95	
			·		·					N	M Erection	Total Kg:	39,95	
SZ1	SABIZ F	LANT E	N			62012 -	0			A A	Area A 1 / 1	TOTAL Kg:	39,95	

62Y2	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line 62012 - 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 14.42.48		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bol	lt	Weight (Kg) As.bly	Branch
587	250	0	mm	3,0		mm	,00	2,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070			39,95	
	·	•	•							M	I Erection	Total K	Kg:	39,95	
SZ1	SABIZ P	LANT E	N			62013	- 0			A A	rea A 1 / 1	TOTAL K	Kg:	39,95	

62Y3	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62013 - 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 14.42.48		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
587	250	0	mm	3,0		mm	,00	2,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		39,95	
										M	Erection	Total Kg:	39,95	
SZ1	SABIZ PI	LANT EN	1			62014 -	- 0			A A	rea A 1 / 1	TOTAL Kg:	39,95	

62Y4	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62014 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	J	DESMI	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		SKETCHES MATERIAL LIST PROJ: 2F11						
	PUMA	5		23/07/2	012 14.4	2.48							DOC:	2F11-6	55-104				
		D	ESMET	- Ballestra	a			SABIZ 8000 kg/h Size: mm 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	
588	300	0	mm	3,0		mm	,00	6,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 7070)			142,40			
589	350	0	mm	3,0		mm	,00	11,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 7070)			286,94			
89	300	0	mm			mm	,00	1,00	NR	124	Flange Blind SB-ATI-PF008/0 * SB-AT From Plate Fe 360 B - UNI 7070	ΓΙ-PF008(125÷2	50AARH	I) 2	2031	12,20			
165	300	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB- From Plate Fe 360 B - UNI 7070	ATI-PF001(125-	÷250AAR	RH)	2031				
762	350	300	mm	3,0	3,0	mm	,00	1,00	NR	124	Reducer Concentric SB-ATI-PR005/0 E 7070	BE Welded Fe 36	50 B - UN	NI					
1315	350	0	mm	3,0		mm	,00	2,00	NR	124	45° Miter SB-ATI-PC003/0 BE Welded	1 Fe 360 B - UN	I 7070 R=	=1.5 D		21,42			
2031	M10	0	mm			mm	30,00	8,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	√0 - UNI 5727 +	- UNI 559	92 4.6		0,32			
273	300	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF0 FLAT-RING	001(125÷250AA	RH) _ A	9C					
										N	1 Erection				Total Kg:	463,28			

TOTAL Kg:

463,28

Α

Area A

SZ1

SABIZ PLANT EN

WIRE NET 2.74x1mm >400 mq. 0,1	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 62020 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

]	DESME	ET - Ba	llestra					S	KETCH	IES MATERIAL LIST		PROJ	2F11		REV: 0	23/	/07/2012
	PUMA	5		23/07/2	012 14.4	2.48							DOC:	2F11	-65-104			
		DI	ESMET -	Ballestr	a					S	ABIZ 8000 kg/h	Size: mm The	k: 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
551	80	0	mm	3,18		mm	,00	24,00	m	124	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				161,33		
1436	80	0	mm			mm	,00	1,00	NR	124	Valve Butterfly With Gasket SB-ATI-VI 2223 (125÷250 AARH) Cast DUCTILE		R PN 6 U	JNI	2050	5,20		
159	80	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB-A From Plate Fe 360 B - UNI 7070	ATI-PF001(125	5÷250AA	RH)	2026			
24	80	0	mm	3,18		mm	,00	1,00	NR	124	45° Elbow Long Radius ASME B16.9 E	BE E.R.W. AST	ΓM A 23	4 Gr.		0,60		
58	80	0	mm	3,18		mm	,00	5,00	NR	124	90° Elbow Long Radius ASME B16.9 E WPB	BE E.R.W. AST	ΓM A 23	4 Gr.		5,88		
2026	M8	0	mm			mm	30,00	4,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	√0 - UNI 5727	+ UNI 55	592 4.6		0,08		
2046	M16	0	mm			mm	55,00	-4,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	√0 - UNI 5727	+ UNI 55	592 4.6		-0,72		
2050	M16	0	mm			mm	100,00	4,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	√0 - UNI 5727	+ UNI 55	592 4.6		1,00		
267	80	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF0 FLAT-RING	001(125÷250A	ARH) _ /	A9C				
321	80	0	mm			mm	,00	-1,00	NR	124	Gasket SB-ATI-PV009/5 PN 6 EN1092-	2-1 B1-Ra _ B2	C FLAT					
	,	1	-							N	M Erection				Total Kg:	173,38		

Plan	t SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification SB-ATI-SP00 SP007/0	06/0 SB-ATI-
Line	e 62028 - 0	Fluid	System	
Dang	s. fluid type	Coating	De pres Op	tem
Area	Area A	Sketch Sht 1/1 Iso	metric code	Page 1
Zones				

Area A

1 / 1

SZ1

SABIZ PLANT EN

62028 - 0

173,38

TOTAL Kg:

]	DESME	ET - Ba	llestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11	REV	0	23/07/2012
	PUMA	5		23/07/20	012 14.42	2.49							DOC:	2F11-65-104			
		DE	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: mm Tl	hk: mm	Temp: °C	Pres: Bar(;)	Corr: mm
						_				7							
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. B	olt Weight (Kg) As.b	ly Branch
552	100	0	mm	3,18		mm	,00	10,00	m	124	Pipe ASME B36.10 PL E.R.W. API 51	∠ Gr.B			87	14	
59	100	0	mm	3,18		mm	,00	3,00	NR	124	90° Elbow Long Radius ASME B16.9	BE E.R.W. AS	TM A 234	Gr.	6	20	
						'	'	•			WPB				•		<u> </u>
										N	M Erection			Total	Kg: 93	,34	
SZ1	I SABIZ PLANT EN 6301						- 0			A A	Area A	/ 1		TOTAL	Kg: 93	,34	

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 63012 - 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	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/07/201
	PUMA	.5		23/07/2	2012 14.42	2.49							DOC:	2F11-	-65-104		
		D	ESMET	- Ballestı	'a					S	ABIZ 8000 kg/h	Size: mm Thl	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.bl	y Branc
541	25	0	mm	3,38		mm	,00	1,50	m	126	Pipe ASME B36.10 PL Seamless ASTI	M A 106 Gr. B				3,75	
543	40	0	mm	3,68		mm	,00	1,00	m	126	Pipe ASME B36.10 PL Seamless ASTI	M A 106 Gr. B				4,05	
544	50	0	mm	3,91		mm	,00	0,50	m	126	Pipe ASME B36.10 PL Seamless ASTI	M A 106 Gr. B				2,72	
546	80	0	mm	5,49		mm	,00	48,00	m	126	Pipe ASME B36.10 PL Seamless ASTI	M A 106 Gr. B				542,03	
1116	25	0	mm			mm	,00	1,00	NR	126	Valve Ball Full Port SB-ATI-VS070/0 AARH) Forged CARBON STEEL S 14		F (125÷25	50	2065	6,20	
1119	50	0	mm			mm	,00	1,00	NR	126	Valve Ball Full Port SB-ATI-VS070/0 AARH) Forged CARBON STEEL S 14		F (125÷25	50	2066	15,50	
136	25	0	mm			mm	,00	3,00	NR	126	Flange Slip-On ASME B16.5 600 LB I ASTM A 105	LM (125÷250 A	ARH) Fo	rged	1992	4,80	
138	40	0	mm			mm	,00	1,00	NR	126	Flange Slip-On ASME B16.5 600 LB I ASTM A 105	LM (125÷250 A	ARH) Fo	rged	1995	3,10	
139	50	0	mm			mm	,00	2,00	NR	126	Flange Slip-On ASME B16.5 600 LB I ASTM A 105	M (125÷250 A	ARH) Fo	rged	1994	7,40	
141	80	0	mm			mm	,00	2,00	NR	126	Flange Slip-On ASME B16.5 600 LB I ASTM A 105	LM (125÷250 A	ARH) Fo	rged	1997	14,60	
37	80	0	mm	5,49		mm	,00	2,00	NR	126	45° Elbow Long Radius ASME B16.9 Gr. WPB	BE Wrought S	ASTM A	234		2,09	
71	80	0	mm	5,49		mm	,00	13,00	NR	126	90° Elbow Long Radius ASME B16.9 Gr. WPB	BE Wrought S	ASTM A	234		26,41	
875	80	40	mm	5,49	3,68	mm	,00	2,00	NR	126	Reducer Eccentric ASME B16.9 BE W	rought S ASTM	1 A 234 C	Gr.		1,98	
1992	5/8	0	mm			mm	80,00	4,00	NR	126	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	
1995	20	0	mm			mm	100,00	4,00	NR	126	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		3,36	
1997	20	0	mm			mm	130,00	16,00	NR	126	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		15,36	
FT_64.1 PT_63.1	Т_64.1 Г 63.10				Plant SZ1	SABIZ PL	ANT	EN	Piping Class 126			Wel	lding specificat	ion SB-ATI-SP006/0 SE SP007/0	B-ATI-		
HV_63.1							Line 6303	1 - 0			Fluid			Syst	tem		
PSV_63	.1						Dang. fluid	type			Coating			De p	res	Op tem	
							Amon Aron				Cleatab Cht 1 / 1						D 1

Sketch Sht 1/1

Isometric code

Area Area A

Zones

Page 1

		DESMI	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11	REV: 0	23/	07/2012
	PUMA	\ 5		23/07/2	012 14.42	.49							DOC:	2F11-65-104			
		D	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: mm 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
236	25	0	mm			mm	,00	3,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C	2					
238	40	0	mm			mm	,00	1,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B40	C					
239	50	0	mm			mm	,00	2,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B40	C					
241	80	0	mm			mm	,00	2,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B40	2					
2065	5/8	0	mm			mm	50,00	8,00	NR	126	Screws for valves ASME B 18.2.1/UNC	ASTM A 193	В7		1,28		
2066	5/8	0	mm			mm	55,00	16,00	NR	126	Screws for valves ASME B 18.2.1/UNC	ASTM A 193	В7		2,72		
										N	1 Erection			Total Kg:	658,18		
SZ1	SABIZ PLANT EN 63031 - 0					- 0			A A	Area A 1 /	/ 1		TOTAL Kg:	658,18			

FT_64.1 PT_63.10	Plant SZ1 SABIZ PLANT EN	Piping Class 126	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
HV_63.3A	Line 63031 - 0	Fluid	System	
PSV_63.1	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 2
	Zones			

		DESME	ET - Ba	llestra					S	KETCH	IES MATERIAL LIST		PROJ: 2F1	.1	REV: 0	23/	/07/2012
	PUMA	15		23/07/20	12 14.42	2.49							DOC: 2F1	1-65-104		•	
		Dl	ESMET -	Ballestra	ı					SA	ABIZ 8000 kg/h	Size: mm Th	k: mm Ten	np: °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
541	25	0	mm	3,38		mm	,00	1,50	m	126	Pipe ASME B36.10 PL Seamless ASTM	M A 106 Gr. B			3,75		
546	80	0	mm	5,49		mm	,00	12,00	m	126	Pipe ASME B36.10 PL Seamless ASTM	M A 106 Gr. B			135,51		
1116	25	0	mm			mm	,00	1,00	NR	126	Valve Ball Full Port SB-ATI-VS070/0 I AARH) Forged CARBON STEEL S 14		F (125÷250	2065	6,20		
136	25	0	mm			mm	,00	3,00	NR	126	Flange Slip-On ASME B16.5 600 LB L ASTM A 105	M (125÷250 A	ARH) Forged	1992	4,80		
141	80	0	mm			mm	,00	2,00	NR	126	Flange Slip-On ASME B16.5 600 LB L ASTM A 105	M (125÷250 A	ARH) Forged	1997	14,60		
71	80	0	mm	5,49		mm	,00	3,00	NR	126	90° Elbow Long Radius ASME B16.9 I Gr. WPB	BE Wrought S	ASTM A 234		6,09		
1992	5/8	0	mm			mm	80,00	4,00	NR	126	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.	UNC/2.2		0,84		
1997	20	0	mm			mm	130,00	16,00	NR	126	Stud Bolt + 2 Nuts SB-ATI-PV008B/0 Tab.9 ASTM A 193 B7 / A 194 Gr.2H	ASME B18.2.	UNC/2.2		15,36		
236	25	0	mm			mm	.00	3,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B40						
241	80	0	mm			mm	,00		-	126	Gasket SB-ATI-PV009/5 600 LB _ B40						
2065	5/8	0	mm			mm	50,00		-	126	Screws for valves ASME B 18.2.1/UNC	C ASTM A 193	B7		1,28		

M Erection

Area A

1 / 1

A

SZ1

SABIZ PLANT EN

63035 - 0

HV_63.3B PSV_63.2	Plant SZ1 SABIZ PLANT EN	Piping Class 126	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
_	Line 63035 - 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:

188,44

188,44

	Ι	DESME	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA5	5		23/07/20	12 14.42	2.49							DOC:	2F11-	65-104		•	
		DI	ESMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: mm The	K: mm	Temp:	°C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	Т2		Len mn	n Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	As.bly	Branch
562	25	0	mm	3,38		mm	,00	0,50	m	109	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				1,25		
569	500	0	mm	5,0		mm	,00	0,50	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 41	0-1 KW - UNI	5869			31,01		
585	1500	0	mm	6,0		mm	,00	6,40	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 41	0-1 KW - UNI	5869			1.437,46		
203	1500	0	mm			mm	,00	2,00	NR	109	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-P	ATI-PF001(125	5÷250AAI	RH)	2010			
393	25	0	mm			mm	,00	1,00	NR	109	Coupling SB-ATI-PR008/0 THRD-F N 105	PT 3000# Forg	ged ASTM	I A		0,30		
2010	M16	0	mm			mm	65,00	80,00	NR	109	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	!		15,20		
263	1500	0	mm			mm	,00	2,00	NR	109	Gasket SB-ATI-PV009/5 * SB-ATI-PF0 FLAT-RING	01(125÷250A	ARH) _ A	.9D				
										M	1 Erection				Total Kg:	1485,22		

Area A

1 / 1

SZ1

SABIZ PLANT EN

64001 - 0

TET_64.1 HV_64.1	Plant SZ1 SABIZ PLANT EN	Piping Class 109	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
TET_64.3	Line 64001 - 0	Fluid	System	
64Y27	Dang. fluid type	Coating	De pres	Op tem
MANHOLE ST46144 Ø 500 N.1	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

1485,22

TOTAL Kg:

	Ι	DESME	ET - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA5	5		23/07/20)12 14.42	2.49							DOC:	2F11-	65-104		•	
		DI	ESMET	- Ballestra	l					S	ABIZ 8000 kg/h	Size: mm Thl	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
562	25	0	mm	3,38		mm	,00	1,00	m	109	Pipe ASME B36.10 PL sch.40 Seamless	API 5L Gr.B				2,50		
569	500	0	mm	5,0		mm	,00	0,50	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 41	0-1 KW - UNI	I 5869			31,01		
585	1500	0	mm	6,0		mm	,00	4,00	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 41	0-1 KW - UNI	I 5869			898,41		
203	1500	0	mm			mm	,00	3,00	NR	109	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-P	ATI-PF001(125	5÷250AAI	RH)	2010			
393	25	0	mm			mm	,00	2,00	NR	109	Coupling SB-ATI-PR008/0 THRD-F N 105	PT 3000# Forg	ged ASTM	I A		0,60		
2010	M16	0	mm			mm	65,00	120,00	NR	109	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			22,80		
263	1500	0	mm			mm	,00	3,00	NR	109	Gasket SB-ATI-PV009/5 * SB-ATI-PF0 FLAT-RING	01(125÷250A	ARH) _ A	9D				
										N	1 Erection				Total Kg:	955,33		

Area A

1 / 1

SZ1

SABIZ PLANT EN

64002 - 0

TI_64.9 TET_64.2	Plant SZ1 SABIZ PLANT EN	Piping Class 109	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
HV_64.2	Line 64002 - 0	Fluid	System	
64EJ01	Dang. fluid type	Coating	De pres	Op tem
MANHOLE ST 46144 Ø 500 N. 1	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

TOTAL Kg:

955,33

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F11							REV: 0	23/	07/2012
	PUMA5	5		23/07/20	12 14.42	2.49						DOC	2F11-	-65-104	•		
		Dl	ESMET	- Ballestra	l					(SABIZ 8000 kg/h	Size: mm 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
560	15	0	mm	2,77		mm	,00	0,20	m	124	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B			0,25		
562	25	0	mm	3,38		mm	,00	0,50	m	124	Pipe ASME B36.10 PL sch.40 Seamles	s API 5L Gr.B			1,25		
604	1200	0	mm	4,0		mm	,00	10,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 3	60 B - UNI 7070			1.198,48		
181	1200	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB-	ATI-PF001(125÷250A	ARH)	2044			
	'										From Plate Fe 360 B - UNI 7070						
1217	1200	0	mm	4,0		mm	,00	2,00	NR	124	90° Miter SB-ATI-PC003/0 BE Welded	l Fe 360 B - UNI 7070	R=1.5 D		744,00		
391	15	0	mm			mm	,00	1,00	NR	124	Coupling SB-ATI-PR008/0 THRD-F N	NPT 3000# Forged AST	M A		0,12		
202	25	0				T	00	1.00) ID	104	105	IDT 2000 F 1 4 GT	7		0.20		
393	25	0	mm			mm	,00	1,00	NK	124	Coupling SB-ATI-PR008/0 THRD-F N 105	NPT 3000# Forged AST	МА		0,30		
2044	M16	0	mm			mm	40,00	32,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A	V0 - UNI 5727 + UNI 5	5592 4.6		5,12		
			-								UNI 3740 + 4A UNI 3740			'	1		
289	1200	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF	001(125÷250AARH) _	A9C				
											FLAT-RING						
											M Erection			Total Kg:	1949,52		

Area A

1 / 1

TOTAL Kg:

1949,52

SZ1

SABIZ PLANT EN

TI_64.5 PI_64.9	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
TET_64.6	Line 64003 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	DESMET - Ballestra							SKETCHES MATERIAL LIST PROJ: 2F11							REV: 1	18	/09/2012	
	PUMA	5		18/09/2	2012 10.2	7.45							DOC:	2F11	-65-104	•		
		Dl	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h	Size: mm 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
597	800	0	mm	4,0		mm	,00	39,00		124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 70	70			3.108,34		
599	900	0	mm	4,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 70	70			26,93		
174	800	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB- From Plate Fe 360 B - UNI 7070	ATI-PF001(12	25÷250AA	ARH)	2039			
176	900	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB- From Plate Fe 360 B - UNI 7070	ATI-PF001(12	25÷250AA	ARH)	2039			
793	900	700	mm	4,0	3,0	mm	,00	1,00	NR	124	Reducer Concentric SB-ATI-PR005/0 E	BE Welded Fe	360 B - U	INI				
2039	M12	0	mm			mm	35,00	48,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	/0 - UNI 5727	7 + UNI 55	592 4.6		3,36		
282	800	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF0 FLAT-RING	001(125÷250A	AARH) _ A	A9C				
284	900	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF0 FLAT-RING	001(125÷250A	AARH) _ A	A9C				
										I	M Erection				Total Kg:	3138,63		
SZ1	SABIZ P	LANT E	EN			64004	- 0			A	Area A 1	/ 1			TOTAL Kg:	3138,63		

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64004 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

]	DESMI	ET - Ba	llestra			SKETCHES MATERIAL LIST PROJ: 2							REV: 0	23	/07/2012
	PUMA	5		23/07/2	012 14.42.49							DOC:	2F11-65-104		•	
		D	ESMET	- Ballestr	a				S	ABIZ 8000 kg/h	Size: mm Thl	K: mm	Temp: °C	Pres: Bar(g)	(orr: mm
Mark	S1	S2		T1	T2	Len mm	Otv	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.blv	Branch
569	500	0	mm	5,0	mm	,00		-	•	Pipe SB-ATI-PT003/0 PL Welded Fe 41	0-1 KW - UNI	5869		279,09		
1182	500	0	mm	5,0	mm	,00	1,00	NR	109	90° Miter SB-ATI-PC003/0 BE Welded R=1.5 D	Fe 410-1 KW	- UNI 586	59	75,00		
									N	M Erection			Total Kg:	354,09		
SZ1	SABIZ F	LANT E	EN		64010	- 0			A A	Area A 1	1		TOTAL Kg:	354,09		

Plant SZ1 SABIZ PLANT EN	Piping Class 109	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64010 - 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
PUMA5	23/07/2012 14.42.49		DOC:	2F11-65-104	
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
579	1000	0	mm	6,0		mm	,00	2,50	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 410-1 KW - UNI 5869		373,60	
										N	M Erection	Total Kg:	373,6	
SZ1	SABIZ P	LANT EN	1			64011 -	0			A A	Area A 1 / 1	TOTAL Kg:	373,6	

WIRE NET MESH 2.74x1 mq. 1,4 c.s. galvanized 64Y10	Plant SZ1 SABIZ PLANT EN	Piping Class 109	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64011 - 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 14.42.49			DOC:	2F11-65-104		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
595	700	0	mm	3,0	mm	,00	15,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		785,67		
1208	700	0	mm	3,0	mm	,00	2,00	NR	124	90° Miter SB-ATI-PC003/0 BE Welded Fe 360 B - UNI 7070 R=1.5 D		189,00		
			•	•					N	M Erection	Total Kg:	974,67		
SZ1	SABIZ P	LANT EN	1		64013	- 0			A A	Area A 1 / 1 T	OTAL Kg:	974,67		

64Y11 64Y12	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64013 - 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 14.42.49		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
588	300	0	mm	3,0		mm	,00	5,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		118,66	
	·									M	Erection	Total Kg:	118,66	
SZ1	SABIZ P	LANT EN	1			64014 -	- 0			A A	rea A 1 / 1	TOTAL Kg:	118,66	

64Y32 64Y29	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification Si	B-ATI-SP006/0 SB-ATI- P007/0
	Line 64014 - 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	J: 2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 14.42.49		DO	2F11-65-10)4	
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
588	300	0	mm	3,0		mm	,00	4,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		94,93		
										N	M Erection	Total Kg:	94,93		
SZ1	SABIZ P	LANT EN	1			64017 -	0			A A	Area A 1 / 1	TOTAL Kg:	94,93		

64Y16	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI-SP007/0
	Line 64017 - 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 - Ba	allestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11		REV: 0	23	/07/2012
	PUMA	5		23/07/20	12 14.42	.49							DOC:	2F11-65	-104			
		DI	ESMET	- Ballestra	ì					S	SABIZ 8000 kg/h	Size: mm Thk	: mm	Temp: °C		Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	Otv	Um	Pip. class	Component			Ge	en. Bolt	Weight (Kg)	As.blv	Branch
586	200	0	mm	3,0		mm	,00		_	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	0 B - UNI 7070)			55,95		
229	200	0	mm			mm	,00	1,00	NR	124	Flange Slip-On EN 1092-1 Type 01 PN ASTM A 105	2.5 EN1092-1	B1-Ra Fo	orged 20	45			
2045	M16	0	mm			mm	50,00	8,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	/0 - UNI 5727 -	+ UNI 55	92 4.6		1,36		
330	200	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 PN 2.5 EN109	2-1 B1-Ra _ B	2C FLAT	Γ				
		*	*	*	*	•		-		N	M Erection			T	Total Kg:	57,31		
SZ1	SABIZ P	LANT E	N			64019	- 0			A A	Area A 1 /	1		TO	TAL Kg:	57,31		

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification SI	B-ATI-SP006/0 SB-ATI- P007/0
Line 64019 - 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: 2F1					2F11	REV: 0	23	/07/2012	
	PUMA	\ 5		23/07/2	012 14.42	2.49		ро								•	
		D	ESMET	- Ballestra	a					S	SABIZ 8000 kg/h	Size: mm Thl	: mm	Temp: °C	Pres: Bar(g)	C	Corr: mm
						1				1							
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Gen. Bolt	Weight (Kg)	As.bly	Branch
530	80	0	mm	3,18		mm	,00	4,00	m	129	Pipe ASME B36.10 BE E.R.W. API 5L	Gr.B			26,89		
1537	80	0	mm	3,18		mm	,00	3,00	NR	129	Elbow a=90° SB-ATI-PC005/0 BW Sea	mless API 5L 0	Gr.B		2,77		
	1			-	1						R=1500mm						
										l	M Erection			Total K	g: 29,65		
SZ1	SABIZ	PLANT E	EN			64027	- 0			A	Area A 1	/ 1		TOTAL K	g: 29,65		

Plant SZ1 SABIZ PLANT EN	Piping Class 129	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64027 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	I	DESM	ET - Ba	allestra					,	SKETCH	ES MATERIAL LIST		PROJ:	2F11		REV: 0	23/0	7/2012
	PUMA:	5		23/07/20	012 14.42	2.49							DOC:	2F11-0	65-104			
		D	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: mm The	: mm	Temp:	°C	Pres: Bar(g)	Cor	r: mm
Mark	S1	S2		T1	T2		Len mm	ı Qty	Un	n Pip. class	Component				Gen. Bolt	Weight (Kg) As	.bly I	Branch
530	80	0	mm	3,18		mm	,00	4,00	m	129	Pipe ASME B36.10 BE E.R.W. API 5L	Gr.B				26,89		
206	80	0	mm			mm	,00	1,00	NI	R 129	Flange Slip-On SB-ATI-PF002/0 * SB-A	ATI-PF002(125	5÷250AA	RH)	2032	1,72		
									,		Forged Fe 360 B - UNI 7070							
1537	80	0	mm	3,18		mm	,00	5,00	Ni	R 129	Elbow a=90° SB-ATI-PC005/0 BW Sea	mless API 5L 0	Gr.B			4,61		
		-					1	_	_		R=1500mm							
2032	M10	0	mm			mm	35,00	4,00	NE	R 129	Machine Bolt + 1 Nut SB-ATI-PV008A	/0 - UNI 5727	+ UNI 55	592 4.6		0,16		
	·					·					UNI 3740 + 4A UNI 3740			Ī				,
295	80	0	mm			mm	,00	1,00	Ni	R 129	Gasket SB-ATI-PV009/5 * SB-ATI-PF0	02(125÷250A	ARH) _ E	318C				
										N	1 Erection			•	Total Kg:	33,38		
SZ1	SABIZ P	LANT	EN			64030	- 0			A A	area A 1 /	1		T	OTAL Kg:	33,38		

64Y23	Plant SZ1 SABIZ PLANT EN	Piping Class 129	Welding specificatio	n SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64030 - 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 14.42.50		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm 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.b	y Branch
586	200	0	mm	3,0		mm	,00	2,50	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		39,97	
	·									N	A Erection	Total Kg:	39,97	
SZ1	SABIZ P	LANT E	N			64033 -	0			A A	Area A 1 / 1	TOTAL Kg:	39,97	

64Y26	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64033 - 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 14.42.50		DOC:	2F11-65-10	4	
DESMET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
586	200	0	mm	3,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		4,80		
	M Erection							Total Kg:	4,8						
SZ1	SABIZ P	LANT EN	١			64034	- 0			A A	rea A 1 / 1	TOTAL Kg:	4,8		

64Y20	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64034 - 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 14.42.50		DOC:	2F11-65-10	4	
DESMET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
586	200	0	mm	3,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		4,80	
					•					N	M Erection	Total Kg:	4,8	
SZ1	SABIZ P	LANT EN	1			64035 -	0			A A	Area A 1 / 1	TOTAL Kg:	4,8	

64Y14	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64035 - 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 14.42.50		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm

Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bo	t Weight (Kg	As.bly	Branch
589	350	0	mm	3,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		7,83		
	M Erection							Total I	kg: 7,83						
SZ1	SABIZ P	LANT EN	1			64036	- 0			A A	rea A 1 / 1	TOTAL I	Kg: 7,83		

64Y17	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 64036 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

		DESME	ET - Ba	allestra					S	KETCH	HES MATERIA	AL LIST		PROJ:	2F11	REV:	0 2	23/07/2012
	PUMA	.5		23/07/2	012 14.4	2.50								DOC:	2F11-65-104			
		DI	ESMET	- Ballestr	a					S	SABIZ 8000 kg/h		Size: mm Thk	: mm	Temp: °C	Pres: Bar(g)		Corr: mm
										1								
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (K	g) As.bl	y Branch
586	200	0	mm	3,0		mm	,00	1,70	m	124	Pipe SB-ATI-PT00	2/0 PL Welded Fe 36	60 B - UNI 7070)		27,1	8	
587	250	0	mm	3,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT00	2/0 PL Welded Fe 36	0 B - UNI 7070)		5,9	9	
			•							1	M Erection				Total Kg:	33,1	7	
SZ1	SABIZ I	PLANT E	N			64037	- 0			A	Area A	1 /	1		TOTAL Kg:	33,1	7	

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
Line 64037 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

]	DESME	ET - Ba	allestra					S	KETCH	HES MATERIAL LIST			PROJ:	2F11		REV:) 2	3/07/2012
	PUMA	5		23/07/20	012 14.42	2.50								DOC:	2F11-	65-104			
		DF	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size	: mm 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
554	150	0	mm	3,96		mm	,00	22,00	m	124	Pipe ASME B36.10 PL E.R.W. API	5L Gr.B					353,06	i	
27	150	0	mm	3,96		mm	,00	4,00	NR	124	45° Elbow Long Radius ASME B16	.9 BE E.F	.W. AS	TM A 234	4 Gr.		11,40)	
	,	,	·	•			'			•	WPB							_	
										N	M Erection					Total Kg:	364,47	1	
SZ1	SABIZ P	LANT E	N			65002	- 0			A A	Area A	1 / 1			Т	OTAL Kg:	364,47	,	

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	n SB-ATI-SP006/0 SB-ATI- SP007/0
Line 65002 - 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 14.42.50			DOC:	2F11-65-104		
DESM	IET - Ballestra	SABIZ 8000 kg/h	Size: mm 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 Bra	anch
2184	100	0	mm	3,0		mm	,00	5,00	m	125	Pipe SB-ATI-PT007/0 PL From Plate ASTM A 240 Gr. TP304		42,01		
				•			•			N	M Erection	Total Kg:	42,01		
SZ1	SABIZ P	LANT E	N			65003 -	- 0			A A	Area A 1 / 1	TOTAL Kg:	42,01		

	Plant SZ1 SABIZ PLANT EN	Piping Class 125	Welding specification	on SB-ATI-SP006/0 SB-ATI- SP008/0
	Line 65003 - 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 - Ba	allestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	23	3/07/2012
	PUMA	5		23/07/20	012 14.42	2.50							DOC:	2F11-65	-104			
		DF	ESMET	- Ballestra	a					S	ABIZ 8000 kg/h	Size: mm Th	ık: mm	Temp: °C		Pres: Bar(g)	(Corr: mm
						1											1	
Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component			Ge	en. Bolt	Weight (Kg)	As.bly	Branch
554	150	0	mm	3,96		mm	,00	4,50	m	124	Pipe ASME B36.10 PL E.R.W. API 5L	Gr.B				72,22		
27	150	0	mm	3,96		mm	,00	2,00	NR	124	45° Elbow Long Radius ASME B16.9 I	BE E.R.W. AS	TM A 234	Gr.		5,70		
		'					'				WPB							
										N	1 Erection			T	otal Kg:	77,92		
SZ1	SABIZ P	LANT E	N			65004	- 0			A A	Area A	/ 1		TOT	ΓAL Kg:	77,92		

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
Line 65004 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

]	DESME	ET - Ba	llestra					\mathbf{S}	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV:	23	/07/2012
	PUMA	5		23/07/2	012 14.42	.50							DOC:	2F11-65	5-104			
		Dl	ESMET	- Ballestr	a					S	ABIZ 8000 kg/h	Size: mm 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.bly	Branch
586	200	0	mm	3,0		mm	,00	5,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	60 B - UNI 7070)			79,94		
1199	200	0	mm	3,0		mm	,00	2,00	NR	124	90° Miter SB-ATI-PC003/0 BE Welded	Fe 360 B - UN	I 7070 R	=1.5 D		15,00		
										N	I Erection			T	Fotal Kg:	94,94		

TOTAL Kg:

94,94

A

Area A

SZ1

SABIZ PLANT EN

65Y25 65Y3	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
65Y3 65Y8	Line 65014 - 0	Fluid	System	
65Y21	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

	J	DESME	ET - Ba	llestra					S	KETCH	HES MATERIAL LIST		PROJ:	2F11	REV: 0	23/	/07/2012
	PUMA5 23/07/2012 14.42.50												DOC:	2F11-65-104			
	DESMET - Ballestra							SABIZ 8000 kg/h Si					: mm	Temp: °C	Pres: Bar(g)	C	orr: mm
Mark	S1	S2		T1	T2		Len mm	ı Qty	Um	Pip. class	Component			Gen. Bo	t Weight (Kg)	As.bly	Branch
589	350	0	mm	3,0		mm	,00	2,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	0 B - UNI 7070)		52,17		
1174	8	0	mm			mm	,00	1,00	NR	124	Valve Plug SB-ATI-VM001/0 THRD-F 182 Gr. F316 M 53	NPT PN 16 Fo	orged AS	ГМ А	0,20		
1202	350	0	mm	3,0		mm	,00	1,00	NR	124	90° Miter SB-ATI-PC003/0 BE Welded	Fe 360 B - UN	I 7070 R:	=1.5 D	21,42		
408	8	0	mm			mm	,00	1,00	NR	124	Coupling Half SB-ATI-PR007/0 SW-F 3	8000# Forged A	STM A	105	0,06		
							1		_	N	M Erection			Total I	Kg: 73,85		
SZ1	SABIZ P	LANT E	N			65015	- 0			A A	Area A 1 /	1		TOTAL I	kg: 73,85		

Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
Line 65015 - 0	Fluid	System	
Dang. fluid type	Coating	De pres	Op tem
Area Area A	Sketch Sht 1/1	Isometric code	Page 1
Zones			

	I	DESMI	ET - Ba	llestra					S	KETCH	IES MATERIAL LIST		PROJ:	2F11		REV: 0	23/	07/2012
	PUMA5 23/07/2012 14.42.50												DOC:	2F11-	-65-104			
	DESMET - Ballestra									SA	ABIZ 8000 kg/h	Size: mm Thk	: mm	Temp:	°C	Pres: Bar(g)	Co	orr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	Component				Gen. Bolt	Weight (Kg)	s.bly	Branch
586	200	0	mm	3,0		mm	,00	1,50	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	0 B - UNI 707	0			23,98		
229	200	0	mm			mm	,00	1,00	NR	124	Flange Slip-On EN 1092-1 Type 01 PN ASTM A 105	2.5 EN1092-1	B1-Ra Fo	orged	2045			
2045	M16	0	mm			mm	50,00	8,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/ UNI 3740 + 4A UNI 3740	0 - UNI 5727	+ UNI 55	92 4.6		1,36		
330	200	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 PN 2.5 EN109	2-1 B1-Ra _ B	2C FLAT					
	1		'	'	'	1	1			N.	1 Erection				Total Kg:	25,34		
SZ1	SZ1 SABIZ PLANT EN 65016 - 0						- 0			A A	Area A 1 /	1		1	TOTAL Kg:	25,34		

65Y13	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 65016 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

DESMET -	Ballestra	SKETCHES MATERIAL LIST	PROJ:	2F11	REV: 0	23/07/2012
PUMA5	23/07/2012 14.42.50		DOC:	2F11-65-104		
DESM	ET - Ballestra	SABIZ 8000 kg/h	Size: mm 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
589	350	0	mm	3,0		mm	,00	1,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		26,09	
										N	M Erection	Total Kg:	26,09	
SZ1	SABIZ P	LANT EN	1			65018 -	0			A A	Area A 1 / 1	TOTAL Kg:	26,09	

65Y7 65Y14	Plant SZ1 SABIZ PLANT EN	Piping Class 124	Welding specification	SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 65018 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			

]	DESME	ET - Ba	llestra					S	KETCI	HES MATERIAL LIST		PROJ:	PROJ: 2F11		REV:	23	/07/2012
	PUMA5 23/07/2012 14.42.50												DOC:	2F11-65-104	ļ.		•	
	DESMET - Ballestra							SABIZ 8000 kg/h Size: mm Thk: mm Tem						Temp: °C	P	Pres: Bar(g)		Corr: mm
Mark	S1	S2		T1	Т2		Len mm	Qty	Um	Pip. class	s Component			Gen. B	olt V	Veight (Kg)	As.bly	Branch
589	350	0	mm	3,0		mm	,00	8,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 36	0 B - UNI 7070)			208,68		
232	350	0	mm			mm	,00	2,00	NR	124	Flange Slip-On EN 1092-1 Type 01 PN ASTM A 105	2.5 EN1092-1	B1-Ra Fo	orged 2056				
2056	M20	0	mm			mm	70,00	24,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A UNI 3740 + 4A UNI 3740	/0 - UNI 5727 -	+ UNI 55	92 4.6		8,64		
333	350	0	mm			mm	,00	2,00	NR	124	Gasket SB-ATI-PV009/5 PN 2.5 EN109	2-1 B1-Ra _ B	2C FLAT	7				
	•	•	•	•	•			-			M Erection			Total	Kg:	217,32	j	
SZ1	SABIZ P	LANT E	EN			65032	- 0			A	Area A 1 /	1		TOTAL	Kg:	217,32]	

65Y18	Plant SZ1 SABIZ PLANT EN	Piping Class 124		SB-ATI-SP006/0 SB-ATI- SP007/0
	Line 65032 - 0	Fluid	System	
	Dang. fluid type	Coating	De pres	Op tem
	Area Area A	Sketch Sht 1/1	Isometric code	Page 1
	Zones			