

DESMET - Ballestra								SKETCHES MATERIAL LIST					PROJ: 2F11		REV: 0		23/07/2012			
PUMA5			23/07/2012 14.42.48										DOC: 2F11-65-104							
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	0,50	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							
M Erection													Total Kg:		15,49					
SZ1	SABIZ PLANT EN					62005 - 0			A	Area A		1 / 1		TOTAL Kg:		15,49				

62Y12	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	62005 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST								PROJ: 2F11		REV: 0		23/07/2012					
PUMA5				23/07/2012 14.42.48												DOC: 2F11-65-104									
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	0,50	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			
M Erection																	Total Kg:		15,49						
SZ1	SABIZ PLANT EN				62006 - 0				A		Area A				1 / 1				TOTAL Kg:		15,49				

62Y13	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	62006 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST								PROJ: 2F11		REV: 0		23/07/2012			
PUMA5				23/07/2012 14.42.48												DOC: 2F11-65-104							
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	0,50	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										
M Erection													Total Kg:		15,49								
SZ1	SABIZ PLANT EN						62007 - 0				A	Area A	1 / 1		TOTAL Kg:		15,49						

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

DESMET - Ballestra								SKETCHES MATERIAL LIST							PROJ: 2F11		REV: 0		23/07/2012					
PUMA5				23/07/2012 14.42.48											DOC: 2F11-65-104									
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	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						
M Erection																	Total Kg:		23,49					
SZ1	SABIZ PLANT EN				62008 - 0				A		Area A		1 / 1				TOTAL Kg:		23,49					

62Y15	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	62008 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST							PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.48											DOC:		2F11-65-104							
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		
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 PLANT EN				62011 - 0				A		Area A				1 / 1		TOTAL Kg:		39,95					

62Y1	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	62011 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST					PROJ: 2F11		REV: 0		23/07/2012			
PUMA5			23/07/2012 14.42.48										DOC: 2F11-65-104							
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					
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 PLANT EN			62012 - 0			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	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST						PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.48										DOC:		2F11-65-104							
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		
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 PLANT EN				62013 - 0				A		Area A		1 / 1		TOTAL 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	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST						PROJ: 2F11		REV: 0		23/07/2012						
PUMA5				23/07/2012 14.42.48										DOC: 2F11-65-104										
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
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 PLANT EN				62014 - 0				A		Area A				1 / 1				TOTAL Kg:		39,95			

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



DESMET - Ballestra								SKETCHES MATERIAL LIST								PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.48												DOC:		2F11-65-104							
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										
588	300	0	mm	3,0		mm	,00	6,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 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 360 B - UNI 7070		286,94												
89	300	0	mm			mm	,00	1,00	NR	124	Flange Blind SB-ATI-PF008/0 * SB-ATI-PF008(125÷250AARH) From Plate Fe 360 B - UNI 7070	2031	12,20												
165	300	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-PF001(125÷250AARH) From Plate Fe 360 B - UNI 7070	2031													
762	350	300	mm	3,0	3,0	mm	,00	1,00	NR	124	Reducer Concentric SB-ATI-PR005/0 BE Welded Fe 360 B - UNI 7070														
1315	350	0	mm	3,0		mm	,00	2,00	NR	124	45° Miter SB-ATI-PC003/0 BE Welded Fe 360 B - UNI 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/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740		0,32												
273	300	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF001(125÷250AARH) _ A9C FLAT-RING														
M Erection												Total Kg:		463,28											
SZ1	SABIZ PLANT EN				62020 - 0				A	Area A		1 / 1		TOTAL Kg:		463,28									

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
	Area Area A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem

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DESMET - Ballestra								SKETCHES MATERIAL LIST								PROJ:		2F11		REV:		0	23/07/2012		
PUMA5				23/07/2012 14.42.48												DOC:		2F11-65-104							
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										
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-VB013/0 WAFER PN 6 UNI 2223 (125÷250 AARH) Cast DUCTILE IRON B 72	2050	5,20												
159	80	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-PF001(125÷250AARH) From Plate Fe 360 B - UNI 7070	2026													
24	80	0	mm	3,18		mm	,00	1,00	NR	124	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB		0,60												
58	80	0	mm	3,18		mm	,00	5,00	NR	124	90° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB		5,88												
2026	M8	0	mm			mm	30,00	4,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740		0,08												
2046	M16	0	mm			mm	55,00	-4,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740		-0,72												
2050	M16	0	mm			mm	100,00	4,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740		1,00												
267	80	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF001(125÷250AARH) _ A9C FLAT-RING														
321	80	0	mm			mm	,00	-1,00	NR	124	Gasket SB-ATI-PV009/5 PN 6 EN1092-1 B1-Ra _ B2C FLAT														
M Erection												Total Kg:		173,38											
SZ1	SABIZ PLANT EN				62028 - 0				A		Area A		1 / 1		TOTAL Kg:		173,38								

	Plant SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	62028 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	
	Area	Area A	Sketch Sht	1 / 1	Isometric code	
	Zones				Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST					PROJ: 2F11		REV: 0		23/07/2012			
PUMA5			23/07/2012 14.42.49										DOC: 2F11-65-104							
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					
552	100	0	mm	3,18		mm	,00	10,00	m	124	Pipe ASME B36.10 PL E.R.W. API 5L 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. ASTM A 234 Gr. WPB		6,20							
M Erection													Total Kg:		93,34					
SZ1	SABIZ PLANT EN					63012 - 0					A	Area A	1 / 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					

DESMET - Ballestra		SKETCHES MATERIAL LIST	PROJ:	2F11	REV:	0	23/07/2012
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DESMET - Ballestra				SABIZ 8000 kg/h				Size: mm	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
541	25	0	mm	3,38		mm	,00	1,50	m	126	Pipe ASME B36.10 PL Seamless ASTM A 106 Gr. B		3,75		
543	40	0	mm	3,68		mm	,00	1,00	m	126	Pipe ASME B36.10 PL Seamless ASTM A 106 Gr. B		4,05		
544	50	0	mm	3,91		mm	,00	0,50	m	126	Pipe ASME B36.10 PL Seamless ASTM A 106 Gr. B		2,72		
546	80	0	mm	5,49		mm	,00	48,00	m	126	Pipe ASME B36.10 PL Seamless ASTM A 106 Gr. B		542,03		
1116	25	0	mm			mm	,00	1,00	NR	126	Valve Ball Full Port SB-ATI-VS070/0 LUG 600 LB LF (125÷250 AARH) Forged CARBON STEEL S 148	2065	6,20		
1119	50	0	mm			mm	,00	1,00	NR	126	Valve Ball Full Port SB-ATI-VS070/0 LUG 600 LB LF (125÷250 AARH) Forged CARBON STEEL S 148	2066	15,50		
136	25	0	mm			mm	,00	3,00	NR	126	Flange Slip-On ASME B16.5 600 LB LM (125÷250 AARH) Forged ASTM A 105	1992	4,80		
138	40	0	mm			mm	,00	1,00	NR	126	Flange Slip-On ASME B16.5 600 LB LM (125÷250 AARH) Forged ASTM A 105	1995	3,10		
139	50	0	mm			mm	,00	2,00	NR	126	Flange Slip-On ASME B16.5 600 LB LM (125÷250 AARH) Forged ASTM A 105	1994	7,40		
141	80	0	mm			mm	,00	2,00	NR	126	Flange Slip-On ASME B16.5 600 LB LM (125÷250 AARH) Forged ASTM A 105	1997	14,60		
37	80	0	mm	5,49		mm	,00	2,00	NR	126	45° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 Gr. WPB		2,09		
71	80	0	mm	5,49		mm	,00	13,00	NR	126	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 Gr. WPB		26,41		
875	80	40	mm	5,49	3,68	mm	,00	2,00	NR	126	Reducer Eccentric ASME B16.9 BE Wrought S ASTM A 234 Gr. WPB		1,98		
1992	5/8	0	mm			mm	80,00	4,00	NR	126	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		0,84		
1995	20	0	mm			mm	100,00	4,00	NR	126	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		3,36		
1997	20	0	mm			mm	130,00	16,00	NR	126	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		15,36		

FT_64.1 PT_63.10 HV_63.3A PSV_63.1	Plant SZ1	SABIZ PLANT EN	Piping Class	126	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	63031 - 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							
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								
236	25	0	mm			mm	,00	3,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C												
238	40	0	mm			mm	,00	1,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C												
239	50	0	mm			mm	,00	2,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C												
241	80	0	mm			mm	,00	2,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C												
2065	5/8	0	mm			mm	50,00	8,00	NR	126	Screws for valves ASME B 18.2.1/UNC ASTM A 193 B7		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 B7		2,72										
M Erection												Total Kg:		658,18									
SZ1	SABIZ PLANT EN				63031 - 0				A	Area A		1 / 1		TOTAL Kg:		658,18							

FT\_64.1  
PT\_63.10  
HV\_63.3A  
PSV\_63.1

Plant SZ1 SABIZ PLANT EN  
  
Line 63031 - 0  
Dang. fluid type  
Area Area A  
Zones

Piping Class 126  
  
Fluid  
Coating  
Sketch Sht 1 / 1

Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0  
  
System  
De pres  
Isometric code

Op tem

DESMET - Ballestra							SKETCHES MATERIAL LIST							PROJ:		2F11		REV:		0	23/07/2012		
PUMA5			23/07/2012 14.42.49											DOC:		2F11-65-104							
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								
541	25	0	mm	3,38		mm	,00	1,50	m	126	Pipe ASME B36.10 PL Seamless ASTM 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 A 106 Gr. B		135,51										
1116	25	0	mm			mm	,00	1,00	NR	126	Valve Ball Full Port SB-ATI-VS070/0 LUG 600 LB LF (125÷250 AARH) Forged CARBON STEEL S 148	2065	6,20										
136	25	0	mm			mm	,00	3,00	NR	126	Flange Slip-On ASME B16.5 600 LB LM (125÷250 AARH) Forged ASTM A 105	1992	4,80										
141	80	0	mm			mm	,00	2,00	NR	126	Flange Slip-On ASME B16.5 600 LB LM (125÷250 AARH) Forged ASTM A 105	1997	14,60										
71	80	0	mm	5,49		mm	,00	3,00	NR	126	90° Elbow Long Radius ASME B16.9 BE Wrought S ASTM A 234 Gr. WPB		6,09										
1992	5/8	0	mm			mm	80,00	4,00	NR	126	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		0,84										
1997	20	0	mm			mm	130,00	16,00	NR	126	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		15,36										
236	25	0	mm			mm	,00	3,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C												
241	80	0	mm			mm	,00	2,00	NR	126	Gasket SB-ATI-PV009/5 600 LB _ B4C												
2065	5/8	0	mm			mm	50,00	8,00	NR	126	Screws for valves ASME B 18.2.1/UNC ASTM A 193 B7		1,28										
M Erection												Total Kg:		188,44									
SZ1	SABIZ PLANT EN				63035 - 0				A		Area A		1 / 1		TOTAL Kg:		188,44						

HV\_63.3B  
PSV\_63.2

Plant SZ1 SABIZ PLANT EN  
  
Line 63035 - 0  
Dang. fluid type  
Area Area A  
Zones

Piping Class 126  
  
Fluid  
Coating  
Sketch Sht 1 / 1

Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0  
  
System  
De pres  
Isometric code  
  
Op tem  
  
Page 1

DESMET - Ballestra								SKETCHES MATERIAL LIST							PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.49											DOC:		2F11-65-104							
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									
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 410-1 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 410-1 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-PF001(125÷250AARH) From Plate Fe 510-C UNI 7070	2010												
393	25	0	mm			mm	,00	1,00	NR	109	Coupling SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105		0,30											
2010	M16	0	mm			mm	65,00	80,00	NR	109	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		15,20											
263	1500	0	mm			mm	,00	2,00	NR	109	Gasket SB-ATI-PV009/5 * SB-ATI-PF001(125÷250AARH) _ A9D FLAT-RING													
M Erection													Total Kg:		1485,22									
SZ1	SABIZ PLANT EN				64001 - 0				A		Area A		1 / 1		TOTAL Kg:		1485,22							

TET_64.1 HV_64.1 TET_64.3 64Y27 MANHOLE ST46144 Ø 500 N.1	Plant SZ1 SABIZ PLANT EN  Line 64001 - 0 Dang. fluid type Area Area A Zones	Piping Class 109  Fluid Coating Sketch Sht 1 / 1	Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0  System De pres Isometric code	Op tem   Page 1
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DESMET - Ballestra								SKETCHES MATERIAL LIST							PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.49											DOC:		2F11-65-104							
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									
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 410-1 KW - UNI 5869		31,01											
585	1500	0	mm	6,0		mm	,00	4,00	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 410-1 KW - UNI 5869		898,41											
203	1500	0	mm			mm	,00	3,00	NR	109	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-PF001(125÷250AARH) From Plate Fe 510-C UNI 7070	2010												
393	25	0	mm			mm	,00	2,00	NR	109	Coupling SB-ATI-PR008/0 THRD-F NPT 3000# Forged ASTM A 105		0,60											
2010	M16	0	mm			mm	65,00	120,00	NR	109	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		22,80											
263	1500	0	mm			mm	,00	3,00	NR	109	Gasket SB-ATI-PV009/5 * SB-ATI-PF001(125÷250AARH) _ A9D FLAT-RING													
M Erection													Total Kg:	955,33										
SZ1	SABIZ PLANT EN				64002 - 0				A	Area A		1 / 1		TOTAL Kg:	955,33									

TL\_64.9  
TET\_64.2  
HV\_64.2  
64EJ01  
MANHOLE ST 46144 Ø 500 N. 1

Plant SZ1 SABIZ PLANT EN  
  
Line 64002 - 0  
Dang. fluid type  
Area Area A  
Zones

Piping Class 109  
  
Fluid  
Coating  
Sketch Sht 1 / 1

Welding specification SB-ATI-SP006/0 SB-ATI-SP007/0  
  
System  
De pres  
Isometric code  
  
Op tem  
  
Page 1





DESMET - Ballestra								SKETCHES MATERIAL LIST						PROJ:	2F11	REV:	1	18/09/2012
PUMA5				18/09/2012 10.27.45										DOC:	2F11-65-104			
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			
597	800	0	mm	4,0		mm	,00	39,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		3.108,34					
599	900	0	mm	4,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		26,93					
174	800	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-PF001(125÷250AARH) From Plate Fe 360 B - UNI 7070	2039						
176	900	0	mm			mm	,00	1,00	NR	124	Flange Slip-On SB-ATI-PF001/0 * SB-ATI-PF001(125÷250AARH) From Plate Fe 360 B - UNI 7070	2039						
793	900	700	mm	4,0	3,0	mm	,00	1,00	NR	124	Reducer Concentric SB-ATI-PR005/0 BE Welded Fe 360 B - UNI 7070							
2039	M12	0	mm			mm	35,00	48,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740		3,36					
282	800	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF001(125÷250AARH) _ A9C FLAT-RING							
284	900	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 * SB-ATI-PF001(125÷250AARH) _ A9C FLAT-RING							
M Erection													Total Kg:	3138,63				
SZ1	SABIZ PLANT 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
	Area Area A	Sketch Sht 1 / 1	Isometric code
	Zones		Op tem
			Page 1

DESMET - Ballestra		SKETCHES MATERIAL LIST	PROJ:	2F11	REV:	0	23/07/2012
PUMA5	23/07/2012 14.42.49		DOC:	2F11-65-104			

DESMET - Ballestra				SABIZ 8000 kg/h				Size: mm	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
569	500	0	mm	5,0		mm	,00	4,50	m	109	Pipe SB-ATI-PT003/0 PL Welded Fe 410-1 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 Fe 410-1 KW - UNI 5869		75,00		
											R=1.5 D				

M Erection												Total Kg:	354,09
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SZ1	SABIZ PLANT EN			64010 - 0			A			Area A	1 / 1	TOTAL Kg:	354,09
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	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	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST						PROJ: 2F11		REV: 0		23/07/2012					
PUMA5				23/07/2012 14.42.49										DOC: 2F11-65-104									
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			
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					
M Erection																	Total Kg:		373,6				
SZ1	SABIZ PLANT EN				64011 - 0				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	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64011 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST							PROJ: 2F11		REV: 0		23/07/2012					
PUMA5			23/07/2012 14.42.49												DOC: 2F11-65-104									
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				
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						
M Erection																	Total Kg:		974,67					
SZ1	SABIZ PLANT EN					64013 - 0					A	Area A					1 / 1		TOTAL Kg:		974,67			

64Y11 64Y12	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64013 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST							PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.49											DOC:		2F11-65-104							
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		
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 PLANT EN				64014 - 0				A		Area A				1 / 1		TOTAL Kg:		118,66					

<div>64Y32</div> <div>64Y29</div>	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64014 - 0			Fluid	System	
	Dang. fluid type				Coating	De pres	Op tem
	Area	Area A			Sketch Sht	1 / 1	Isometric code
	Zones						Page 1

DESMET - Ballestra								SKETCHES MATERIAL LIST					PROJ: 2F11		REV: 0		23/07/2012			
PUMA5			23/07/2012 14.42.49										DOC: 2F11-65-104							
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					
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							
M Erection													Total Kg:		94,93					
SZ1	SABIZ PLANT EN			64017 - 0			A			Area A		1 / 1		TOTAL Kg:		94,93				

64Y16	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64017 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES MATERIAL LIST								PROJ:		2F11		REV:		0		23/07/2012	
PUMA5				23/07/2012 14.42.49												DOC:		2F11-65-104							
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	3,50	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070							55,95							
229	200	0	mm			mm	,00	1,00	NR	124	Flange Slip-On EN 1092-1 Type 01 PN 2.5 EN1092-1 B1-Ra Forged ASTM A 105						2045								
2045	M16	0	mm			mm	50,00	8,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740							1,36							
330	200	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 PN 2.5 EN1092-1 B1-Ra _ B2C FLAT														
M Erection																Total Kg:		57,31							
SZ1	SABIZ PLANT EN					64019 - 0					A	Area A					1 / 1		TOTAL Kg:		57,31				

	Plant	SZ1 SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	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					



DESMET - Ballestra								SKETCHES MATERIAL LIST					PROJ: 2F11		REV: 0		23/07/2012			
PUMA5			23/07/2012 14.42.49										DOC: 2F11-65-104							
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					
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 Seamless API 5L Gr.B R=1500mm		2,77							
M Erection													Total Kg:		29,65					
SZ1	SABIZ PLANT EN					64027 - 0					A	Area A	1 / 1		TOTAL Kg:		29,65			

	Plant	SZ1 SABIZ PLANT EN	Piping Class	129	Welding specification	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					

DESMET - Ballestra		SKETCHES MATERIAL LIST	PROJ:	2F11	REV:	0	23/07/2012
PUMA5	23/07/2012 14.42.49		DOC:	2F11-65-104			

DESMET - Ballestra				SABIZ 8000 kg/h				Size: mm	Thk: mm	Temp: °C	Pres: Bar(g)	Corr: mm
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Mark	S1	S2		T1	T2		Len mm	Qty	Um	Pip. class	Component	Gen. Bolt	Weight (Kg)	As.bly	Branch
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	NR	129	Flange Slip-On SB-ATI-PF002/0 * SB-ATI-PF002(125÷250AARH)	2032	1,72		
											Forged Fe 360 B - UNI 7070				
1537	80	0	mm	3,18		mm	,00	5,00	NR	129	Elbow a=90° SB-ATI-PC005/0 BW Seamless API 5L Gr.B		4,61		
											R=1500mm				
2032	M10	0	mm			mm	35,00	4,00	NR	129	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6		0,16		
											UNI 3740 + 4A UNI 3740				
295	80	0	mm			mm	,00	1,00	NR	129	Gasket SB-ATI-PV009/5 * SB-ATI-PF002(125÷250AARH) _ B18C				
M Erection												Total Kg:	33,38		

SZ1	SABIZ PLANT EN	64030 - 0	A	Area A	1 / 1	TOTAL Kg:	33,38
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64Y23	Plant	SZ1 SABIZ PLANT EN	Piping Class	129	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64030 - 0	Fluid		System	
	Dang. fluid type		Coating		De pres	
	Area	Area A	Sketch Sht	1 / 1	Isometric code	
	Zones				Op tem	

DESMET - Ballestra								SKETCHES 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						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	2,50	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070							39,97					
M Erection																Total Kg:		39,97					
SZ1	SABIZ PLANT EN				64033 - 0				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	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES 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							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											
M Erection													Total Kg:		4,8									
SZ1	SABIZ PLANT EN				64034 - 0				A		Area A		1 / 1		TOTAL Kg:		4,8							

64Y20	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64034 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES 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					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			
M Erection															Total Kg:		4,8			
SZ1	SABIZ PLANT EN				64035 - 0				A		Area A		1 / 1		TOTAL Kg:		4,8			

64Y14	Plant	SZ1	SABIZ PLANT EN	Piping Class	124	Welding specification	SB-ATI-SP006/0 SB-ATI-SP007/0
	Line	64035 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES 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					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	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		7,83							
M Erection													Total Kg:		7,83					
SZ1	SABIZ PLANT EN			64036 - 0			A			Area A		1 / 1		TOTAL Kg:		7,83				

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

DESMET - Ballestra								SKETCHES 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								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	1,70	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070												27,18		
587	250	0	mm	3,0		mm	,00	0,30	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070												5,99		
M Erection																	Total Kg:		33,17						
SZ1	SABIZ PLANT EN				64037 - 0				A		Area A				1 / 1				TOTAL Kg:		33,17				

	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	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	

DESMET - Ballestra								SKETCHES 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					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					
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							
27	150	0	mm	3,96		mm	,00	4,00	NR	124	45° Elbow Long Radius ASME B16.9 BE E.R.W. ASTM A 234 Gr. WPB		11,40							
M Erection												Total Kg:		364,47						
SZ1	SABIZ PLANT EN				65002 - 0				A	Area A		1 / 1		TOTAL Kg:		364,47				

	Plant	SZ1 SABIZ PLANT EN	Piping Class	124	Welding specification	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							
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					
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							
M Erection													Total Kg:		42,01					
SZ1	SABIZ PLANT EN			65003 - 0			A			Area A		1 / 1		TOTAL Kg:		42,01				

	Plant	SZ1	SABIZ PLANT EN	Piping Class	125	Welding specification	SB-ATI-SP006/0 SB-ATI-SP008/0
	Line	65003 - 0		Fluid		System	
	Dang. fluid type			Coating		De pres	
	Area	Area A		Sketch Sht	1 / 1	Isometric code	
	Zones					Op tem	
						Page	1

DESMET - Ballestra								SKETCHES 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					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							
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 BE E.R.W. ASTM A 234 Gr. WPB		5,70									
M Erection												Total Kg:		77,92								
SZ1	SABIZ PLANT EN					65004 - 0					A	Area A	1 / 1		TOTAL 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						

DESMET - Ballestra								SKETCHES 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					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	5,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 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 - UNI 7070 R=1.5 D		15,00							
M Erection													Total Kg:		94,94					
SZ1	SABIZ PLANT EN						65014 - 0		A		Area A		1 / 1		TOTAL Kg:		94,94			

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

DESMET - Ballestra								SKETCHES 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						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	2,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		52,17										
1174	8	0	mm			mm	,00	1,00	NR	124	Valve Plug SB-ATI-VM001/0 THRD-F NPT PN 16 Forged ASTM A 182 Gr. F316 M 53		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 - UNI 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 3000# Forged ASTM A 105		0,06										
M Erection													Total Kg:		73,85								
SZ1	SABIZ PLANT EN				65015 - 0				A	Area A		1 / 1		TOTAL 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	
	Area	Area A	Sketch Sht	1 / 1	Isometric code	
	Zones				Op tem	
					Page	1

DESMET - Ballestra								SKETCHES 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								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	1,50	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070									23,98					
229	200	0	mm			mm	,00	1,00	NR	124	Flange Slip-On EN 1092-1 Type 01 PN 2.5 EN1092-1 B1-Ra Forged ASTM A 105								2045						
2045	M16	0	mm			mm	50,00	8,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740									1,36					
330	200	0	mm			mm	,00	1,00	NR	124	Gasket SB-ATI-PV009/5 PN 2.5 EN1092-1 B1-Ra _ B2C FLAT														
M Erection																Total Kg:		25,34							
SZ1	SABIZ PLANT EN					65016 - 0					A	Area A					1 / 1		TOTAL Kg:		25,34				

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

DESMET - Ballestra								SKETCHES 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							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					
M Erection																	Total Kg:		26,09					
SZ1	SABIZ PLANT EN				65018 - 0				A		Area A				1 / 1		TOTAL Kg:		26,09					

<div>65Y7</div> <div>65Y14</div>	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
	Zones						Page 1

DESMET - Ballestra								SKETCHES 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						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	8,00	m	124	Pipe SB-ATI-PT002/0 PL Welded Fe 360 B - UNI 7070		208,68										
232	350	0	mm			mm	,00	2,00	NR	124	Flange Slip-On EN 1092-1 Type 01 PN 2.5 EN1092-1 B1-Ra Forged ASTM A 105	2056											
2056	M20	0	mm			mm	70,00	24,00	NR	124	Machine Bolt + 1 Nut SB-ATI-PV008A/0 - UNI 5727 + UNI 5592 4.6 UNI 3740 + 4A UNI 3740		8,64										
333	350	0	mm			mm	,00	2,00	NR	124	Gasket SB-ATI-PV009/5 PN 2.5 EN1092-1 B1-Ra _ B2C FLAT												
M Erection													Total Kg:		217,32								
SZ1	SABIZ PLANT EN					65032 - 0					A	Area A	1 / 1		TOTAL Kg:		217,32						

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