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نیازمندی‌های قطعات ساخت داخل شرکت فجر انرژی خلیج فارس

نمایشگاه پتروکم ۱۴۰۴



فجر انرژی خلیج فارس
شرکت
Persian Gulf Fajr Energy Co.

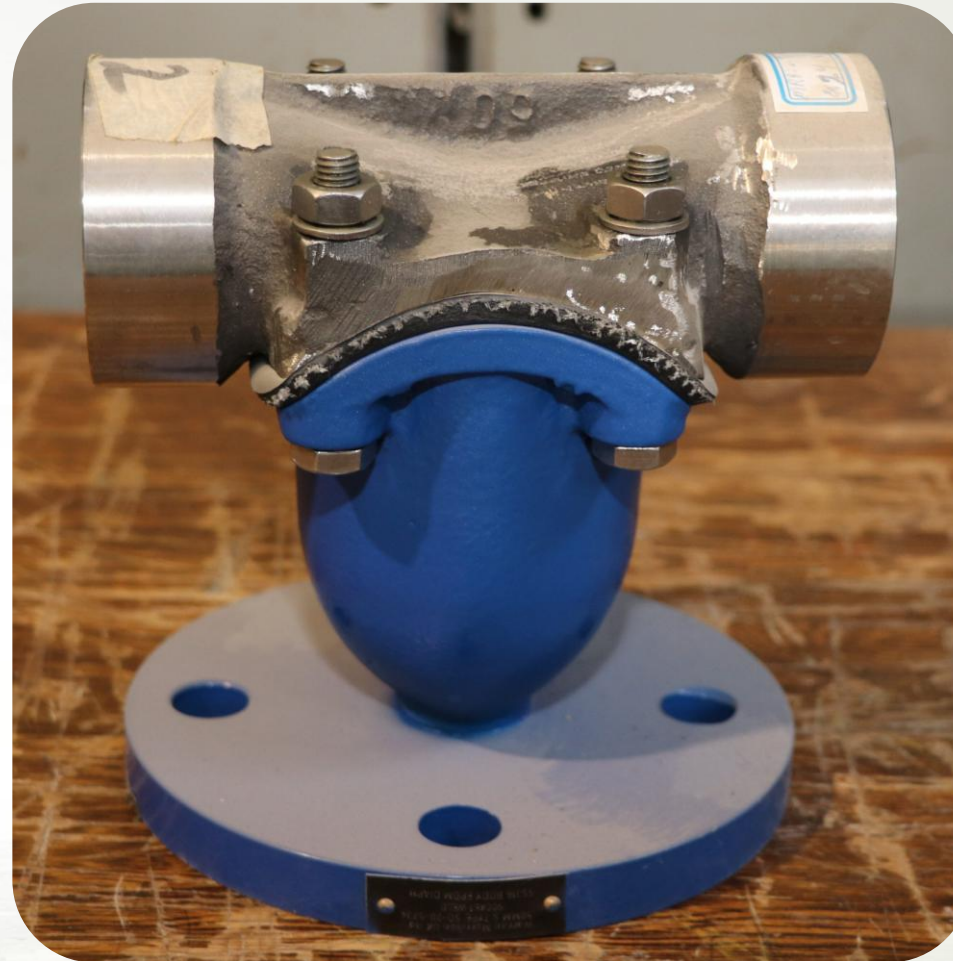
دی ماه ۱۴۰۴

Diaphragm Control Valve (Warren-Morrison)

Item Description

- Size: 2 in
- DRWG. No.: S SKT SS FC-AFR
- Type: S Socket
- Body: SS CF8M 316
- Schedule: 40
- Diaphragm Mat.: EPDM
- Without Actuator

Stock Code: 6083098963



Diaphragm (Warren-Morrison)

Item Description

- For Actuator
- Type: UA12
- Size: 30 , 35 , 40 , 45



Globe Control Valve Complete Assy (Warren-Morrison)

Item Description

- Size: 1-1/2 in
- CL.: 150
- Body: A351 Gr. CF8M (SS316)
- Model: UC-91322 , UC-91123
UC-94312 , UC-91123
- CV: 14 , 25 , 36 , 130
- W/ Actuator
- Actuator Type: UA-12
- Actuator Size: 30
- Nom. Stroke: 0.75 in

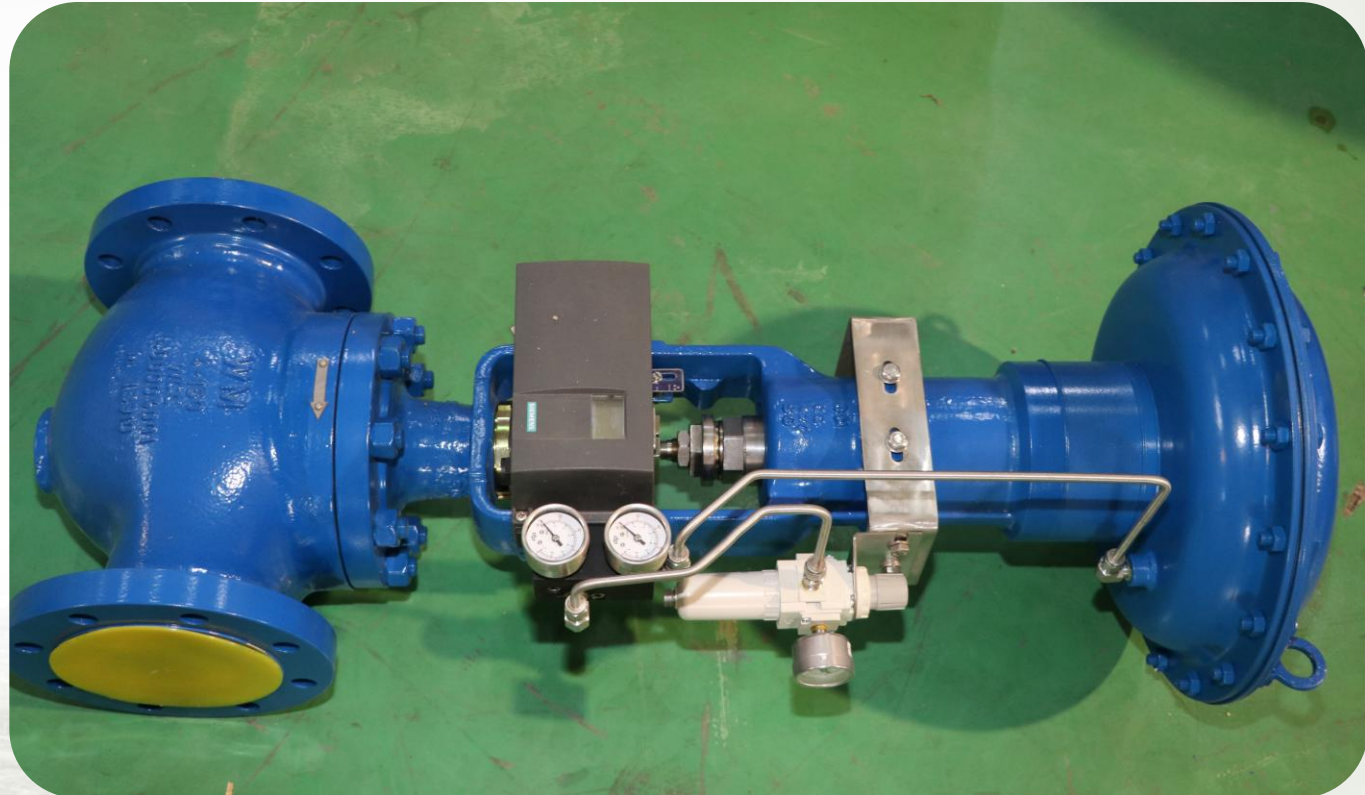


Globe Control Valve Complete Assy (Warren-Morrison)

Item Description

- Size: 4 in
- CL.: 150
- Body: C.S-A216 Gr. WCC
- Model: UC-91422
- CV: 53
- W/ Actuator
- Actuator Type: UA-12
- Actuator Size: 35
- Nom. Stroke: 1.5 in

Stock Code: 6071208083

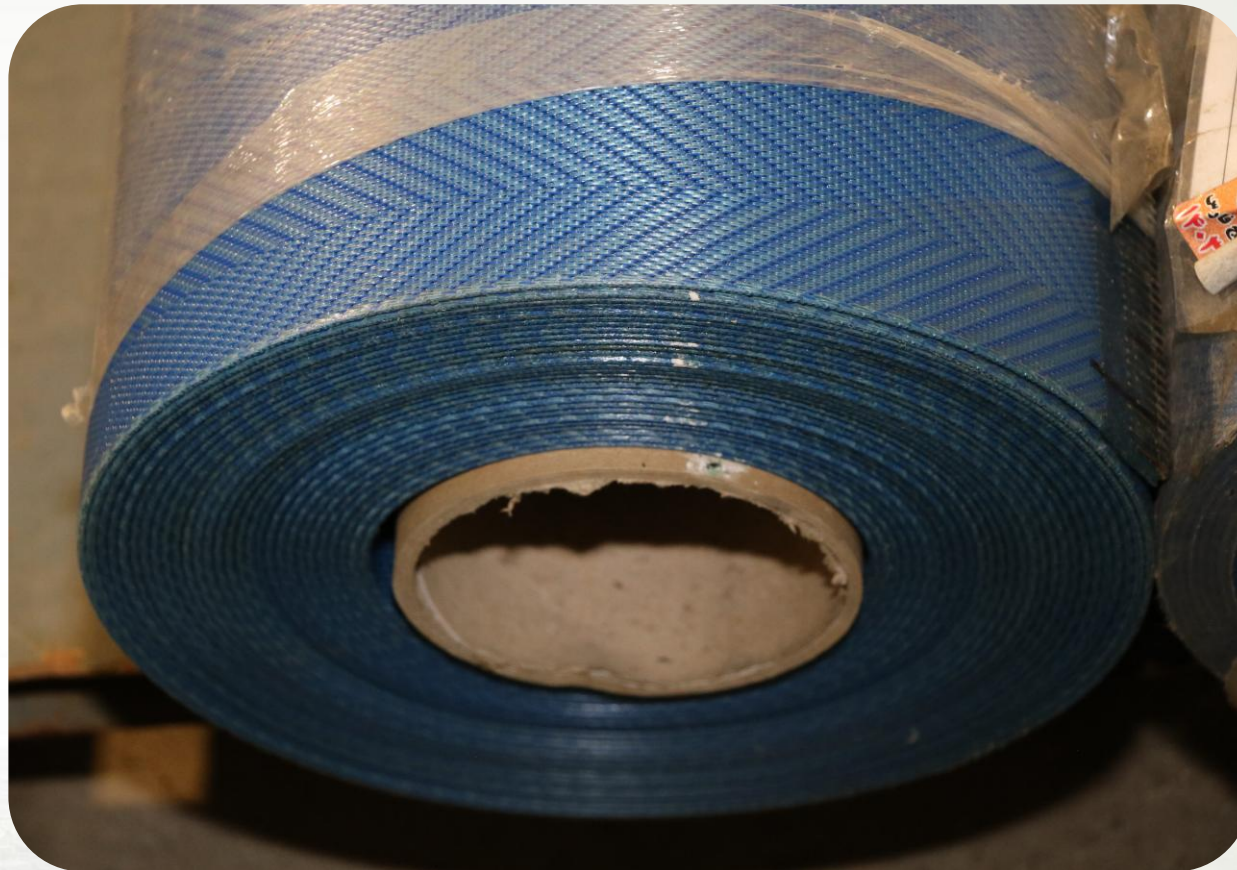


Upper Filter Belt

Item Description

- Size: 2700 x 11350
- Type: 5080-GKD-XL

Stock Code: 4298980553

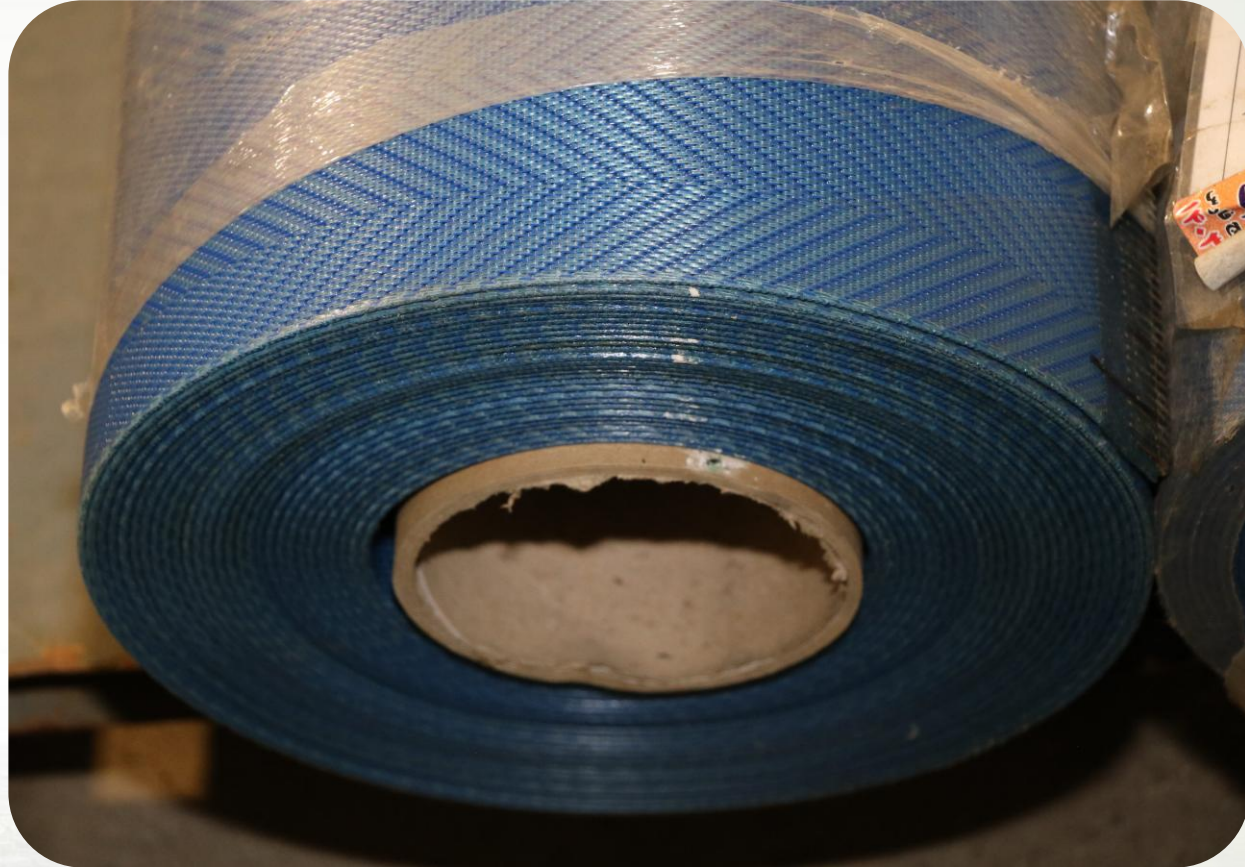


Lower Filter Belt

Item Description

- Size: 2700 x 16800
- Type: 5080-GKD-XL
- (2YSP -1907)

Stock Code: 4240782593

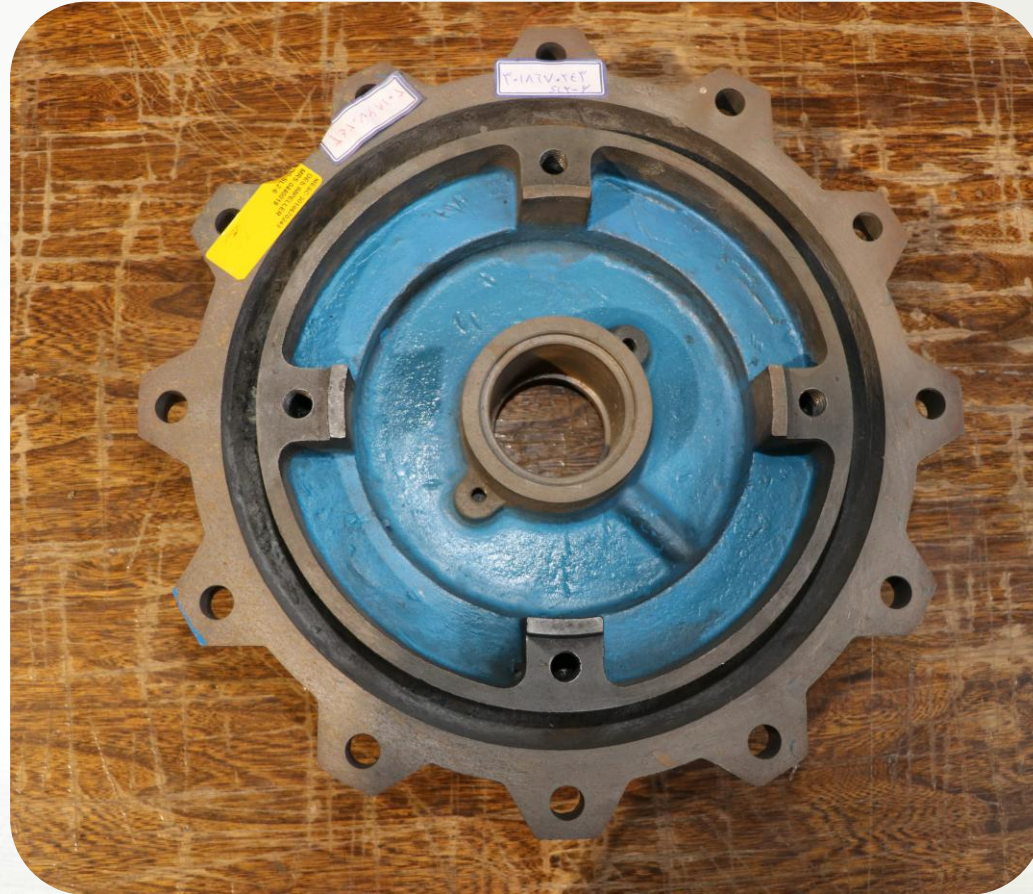


Back Cover

Item Description

- POS.: 6
- MFG.: AHAR PARSKO

Stock Code: 3018670243



Drip Tray

Item Description

- POS.: 10

Stock Code: 3018670273



Mechanical Seal

Item Description

- Type: 196MS
- Size: 43 mm
- Materials: SIC/SIC/VITON
- Brand: TURBO SEAL
- DWG No.: 0444/-/1/IR52169

Stock Code: 5818738022

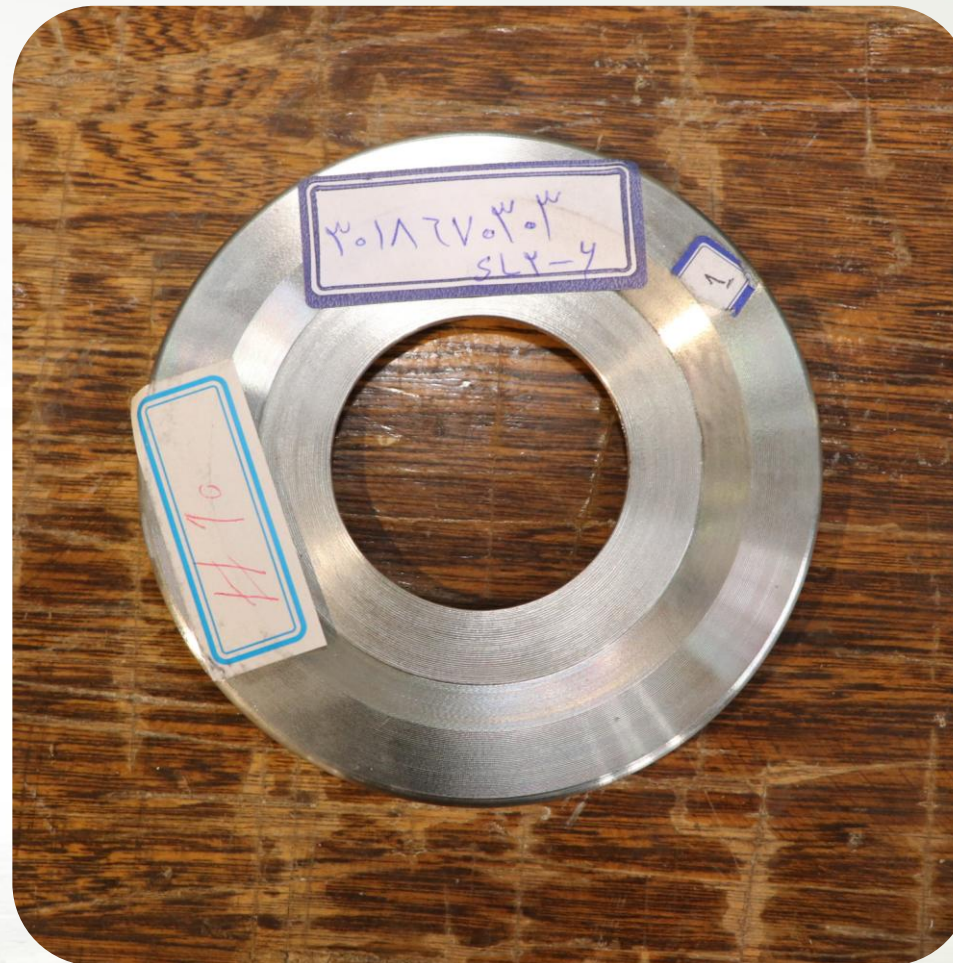


Small Support Cover

Item Description

- POS.: 14

Stock Code: 3018670303



Valve Pinch (MILTON ROY)

Item Description

- Body Mat.: Ductile Cast Iron GGG40
- Connection: Flanged
- Class: 150
- Diameter: 3 in
- Sleeve Material: Natural Rubber
- Type: PIC
- Part Number: PV 02

Stock Code: 7586571021



Globe Control Valve Complete Assy (Warren-Morrison)

Item Description

- Size: 3 in
- CL.: 150
- Body: C.S-A216 Gr. WCC
- Model: UC-91322
- CV: 70
- W/ Actuator
- Actuator Type: UA-12
- Actuator Size: 35
- Nom. Stroke: 1.5 in
- DWG No.: VSO131600313
- PISHRO SANAT AMAL

Stock Code: 6071208063



Rotor Complete

Item Description

- CD

Stock Code: 2246140023



Butterfly Valve (OHL-GUTERMUTH)

Item Description

- Type: Wafer
- Type Code: VSS/PN50
- Dia: 10 in
- CL: 300
- Body Mat.: A351 CF8M (SS316)
- Double Eccentric Body

Stock Code: 6082107523



Valve Diaphragmed

Item Description

- Pneumatic Actuator
- Material: PVDF Grade ...
- Connection: Flanged
- Class: 150
- Diameter: 1 1/2 in
- Flange Standard: ASME/ANSI B16.5
- Brand: null
- Part Number: 185687736

Stock Code: 7574039071



Diaphragm Valve

Item Description

- Pneumatic Actuator
- Material: PVDF Grade ...
- Connection: Flanged
- Class: 150
- Diameter: 1 in
- Flange Standard: ASME/ANSI B16.5
- Brand: null
- Part Number: 185687734

Stock Code: 7574039051



Diaphragm Valve

Item Description

- Size: 3/4 in
- CL: 150 (PN16)
- Connection: Flanged
- Facing: RF
- Mat. Body & Bonnet: JS1025 GJS_400-18-LT (GGG40.3)
- Stem: 1.4104 (AISI 430F)
- Diaphragm: PTFE
- Backing Diaphragm: EPDM

Stock Code: 7574030011



Globe Valve (BONNEY FORGE)

Item Description

- Size: 1-1/2 in
- CL: 800
- Connection: SW
- Body Mat.: A182F11
- Full Bore
- W.B
- B.G
- Stem/Disc: A479-410

Stock Code: 7577403621



DC/DC Converter (BENNING)

Item Description

- Model: G220G48/30WR-PCE
- Input: 220 VDC
- Input Current: 7.3 A
- Output: 48 VDC
- Output Current: 30 A
- IP: 20
- Code: KWZ6018938P0004

Stock Code: 6005041013

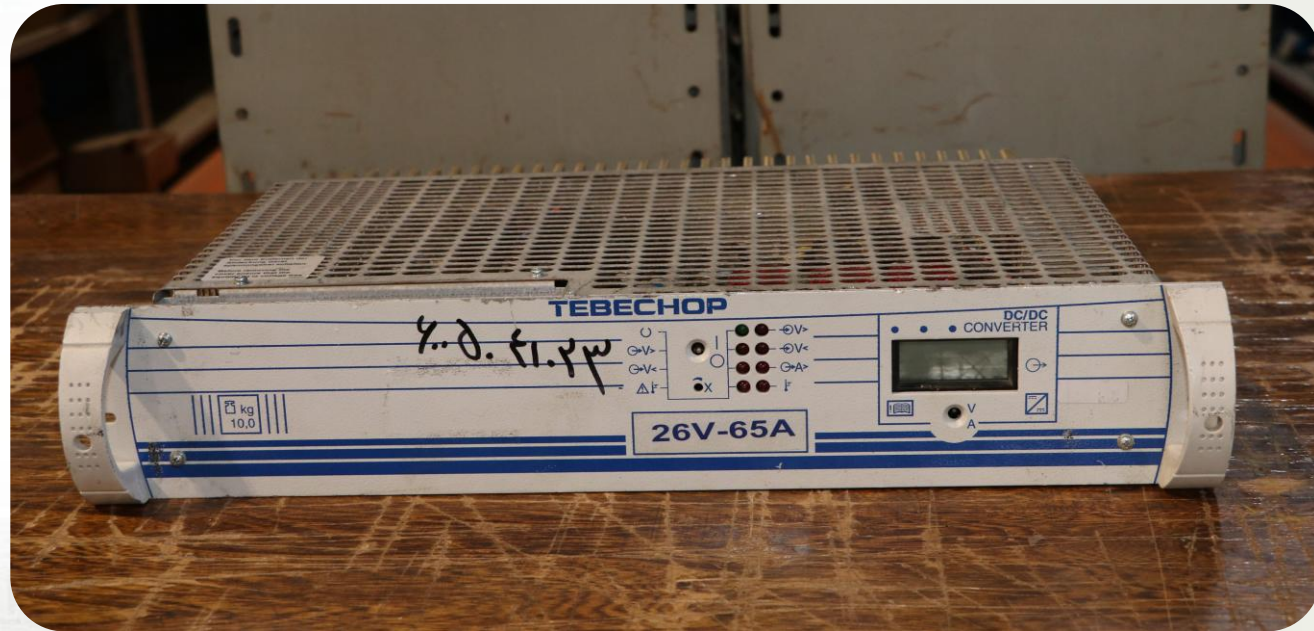


DC/DC Converter (BENNING)

Item Description

- Model: G220G26/65WR-PCE
- Input: 220 VDC
- Output: 26 VDC
- Output Current: 65 A
- Old P/No.: G220G 24/65WR-PCE

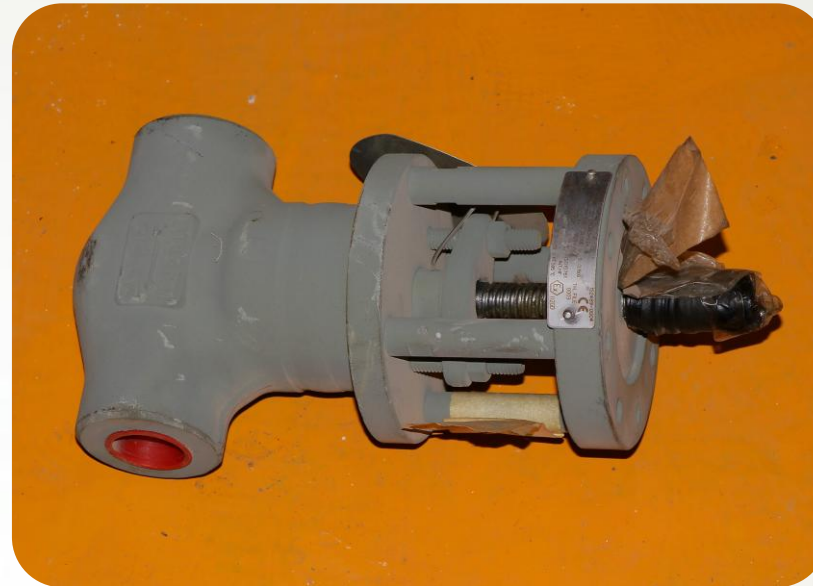
Stock Code: 6005041023



Globe Valve (BONNEY FORGE)

Item Description

- Size: 1 in
- CL: 1500
- Connection: SW
- Bolted Gland
- Body Mat.: A182F11
- Connection: SW
- Full Bore
- Without Handwheel
- Mat. Body: A182 F11
- Stem: 13% CR
- Disc: 13% CR HF.
- Seat: INT HF.
- FIG: 9W305
- Stem/Disc: A479-410



Diaphragm Valve (KSB)

Item Description

- Size: 1 , 1-1/2 in
- CL: 150 (PN16)
- Connection: FLG
- RF
- Type: SISTO 20
- Mat. Body: GGG 40.3
- Diaphragm: EPDM
- Lining: PTFE
- W/ Actuator Type: LAD-SF

Stock Code: 7574030041



Valve Diaphragm (KSB)

Item Description

- For Size: 1 , 1-1/2 in
- POS: 443



Bearing (TURBOLINK)

Item Description

- Stage 1
- Item: 122

Stock Code: 2565682633



Backing Diaphragm

Item Description

- Material: EPDM
- For: 2 in
- CL: 150

Stock Code: 7574025723



Rotor

Item Description

- POS: 1999
- MFG: RAYBAD ENERGY MONO PUMP
- Mat.: CRNIMO 17-12-2
- DRW No.: REP13124-DE1999-DWG01-00-C
- شرکت رایبد انرژی

Stock Code: 3481500065



Pillow Block (SKF)

Item Description

- Type: SONL 224-524
- With Bearing: 22224EK+H3124
- Contained: 2xFRB12-215
- TSO: 524
- POS: 5,6

Stock Code: 4209134603



Dual Plate Check Valve

Item Description

- Type: Wafer Type
- Size: 3 in
- CL: 150
- Body Mat.: ASTM A182-F316
- Disc Mat.: ASTM A182-F316
- Spring: INCONEL600
- Seat: Metal to Metal
- F to F: 73 mm
- (AMRI-KSB)
- Model: 2000
- Old MESC: 7574176581

Stock Code: 7574131114



Diaphragm Valve (GEMU)

Item Description

- Full Bore
- Size: 3 in
- Class: 150
- RF
- Type: 655-80D-5313-14-0
- Body: GG25
- Diaphragm Mat.: EPDM
- W/ Handwheel Actuator

Stock Code: 7574055061



Soupap Valve(Relief Valve) (MILTON ROY)

Item Description

- Series: 1100
- Size: 2 , 3/8 , 1/2 in
- Type: 11T0002M16(S) ,
11T03/8M71(S) ,
11T03/8M16(S) ,
11T01/2M71(S)
- 6 , 10 bar
- Conn.: Threaded
- Body Mat.: SS316
- Diaphragm Mat.: PTFE

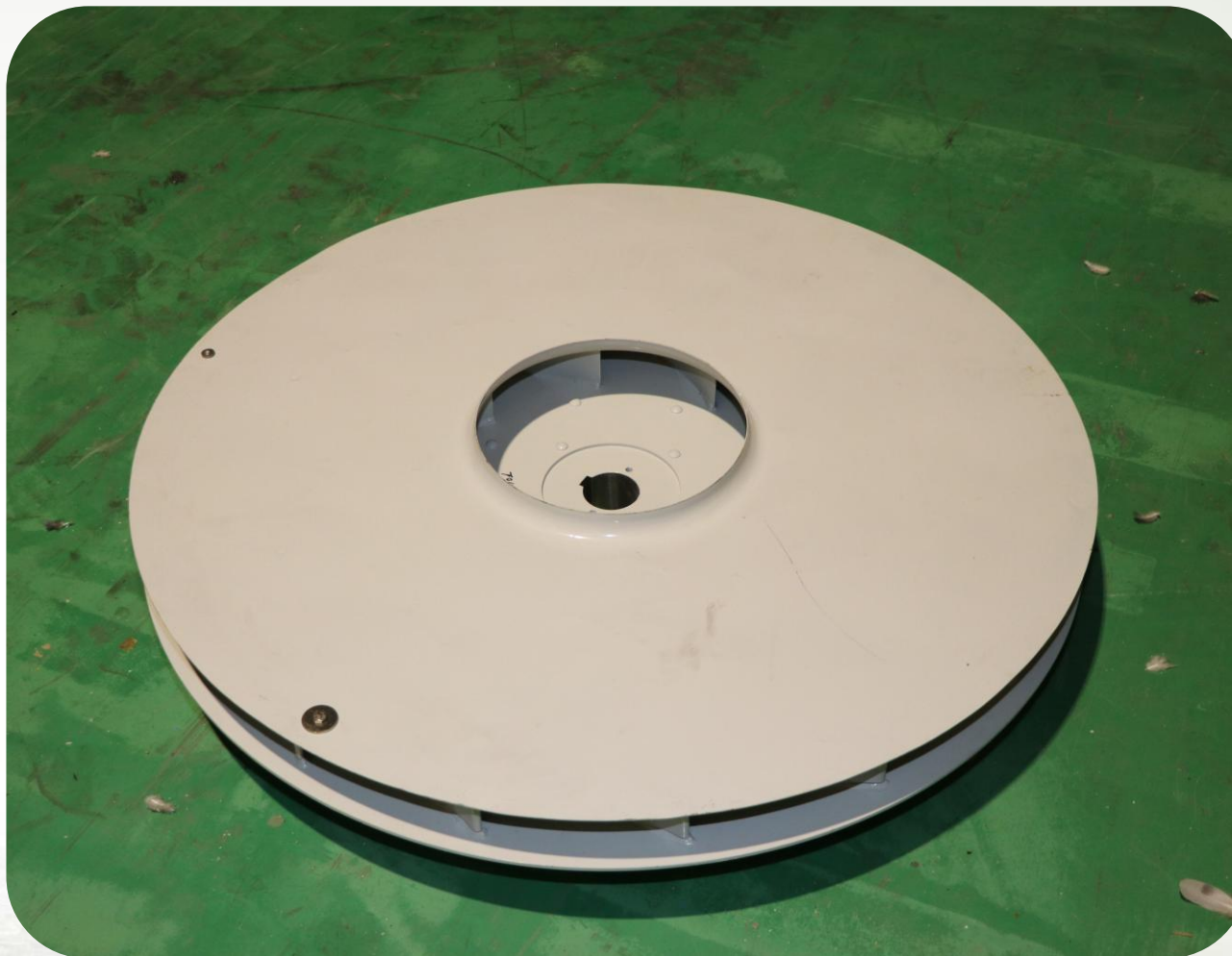


Impeller

Item Description

- For Fan HN104A

Stock Code: 2025569613



Steam Trap Ball Float

Item Description

- Material: Carbon Steel A216 Gr.WCB
- Connection Type: SW
- Diameter: 2 in
- Class: 150
- Pressure P1: 5.5 bar
- P2: Atm
- Operating Temperature: 110 °C
- Gasket Material: GRAPHIT/SS
- Producer Company: Inside EYVAZ
- Model: FT44
- Brand: ARI-AWH
- Part Number: CNU- 2 IN.

Stock Code: 7589790051



Actuator Complete

Item Description

- Type: PC/LAD-OF
- For: 1 in Valve
- Pneumatic
- Open at Signal Failure

Stock Code: 7574025561



Diaphragm Valve (KSB)

Item Description

- Size: 2 in
- Class: 150
- Connection: Flanged
- Type: SISTO 10
- Mat. Body: GGG 40.3
- W/ Pneumatic Actuator
- Actuator Mat: PC/LAD-OF

Stock Code: 7574025611



Belt Seal Segment

Item Description

- Item No.: 10360

Stock Code: 2065348013



Globe Valve Y-Type (BONNEY FORGE)

Item Description

- Size: 1-1/2 in
- CL: 800
- Body Mat.: A105N
- Connection: SW
- Full Bore
- W.B
- B.G
- Stem/Disc: A479-410
- DRWG No: W390XF10R/012

Stock Code: 7577403611

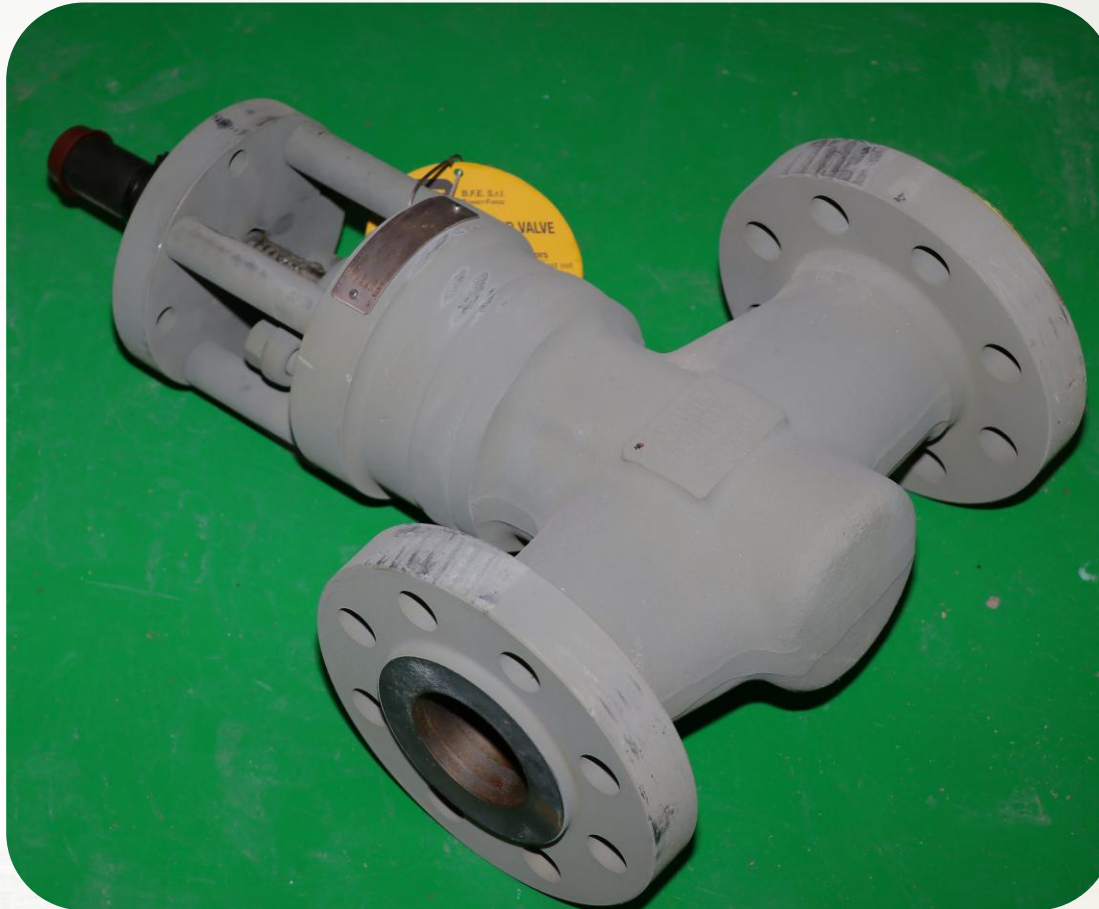


Globe Valve (BONNEY FORGE)

Item Description

- Size: 2 in
- CL: 600
- Body Mat.: A105N
- Connection: FLG Ends
- RF
- Full Bore
- W.B
- B.G
- Stem/Disc: A479-410

Stock Code: 7577403601



Diaphragm Valve (KSB)

Item Description

- Size: 1
- Class: 150
- Connection: Flanged
- Type: SISTO 10
- Mat. Body: GGG 40.3
- Diaphragm: EPDM
- Lining: Hard Rubber (NR-HR)
- Diaphragm Lining: HYPLON (CSM)
- Length: EN 558-1R1
- Actuator: VMC 502B
- Type: MAT-PC/LAD-SF

Stock Code: 7574025571



Diaphragm Valve

Item Description

- Size: 2 in
- Class: 150
- Connection: Flanged
- Type: SISTO 10
- Mat. Body: GGG 40.3
- Diaphragm: EPDM
- Lining: Hard Rubber
- Handwheel OPR.

Stock Code: 7574025631



Diaphragm Valve (SED FLOW CONTROL)

Item Description

- Size: 2 in
- CL: 300
- Connection: FLGD.
- Bolted Bonnet
- Mat. Body: GGG-40
- Fully PTFE Lined
- Handwheel OPE.
- F T F: 227 mm

Stock Code: 7574030243



Diaphragm Valve

Item Description

- Size: 1 in
- Class: 150
- Connection: Flanged
- Type: SISTO 10
- Mat. Body: GGG 40.3
- W/ Pneumatic Actuator
- With 3/2 Way Solenoid Valve

Stock Code: 7574025581



Lens

Item Description

- POS: 281

Stock Code: 2065345053



Lens

Item Description

- POS: 276

Stock Code: 2065345033

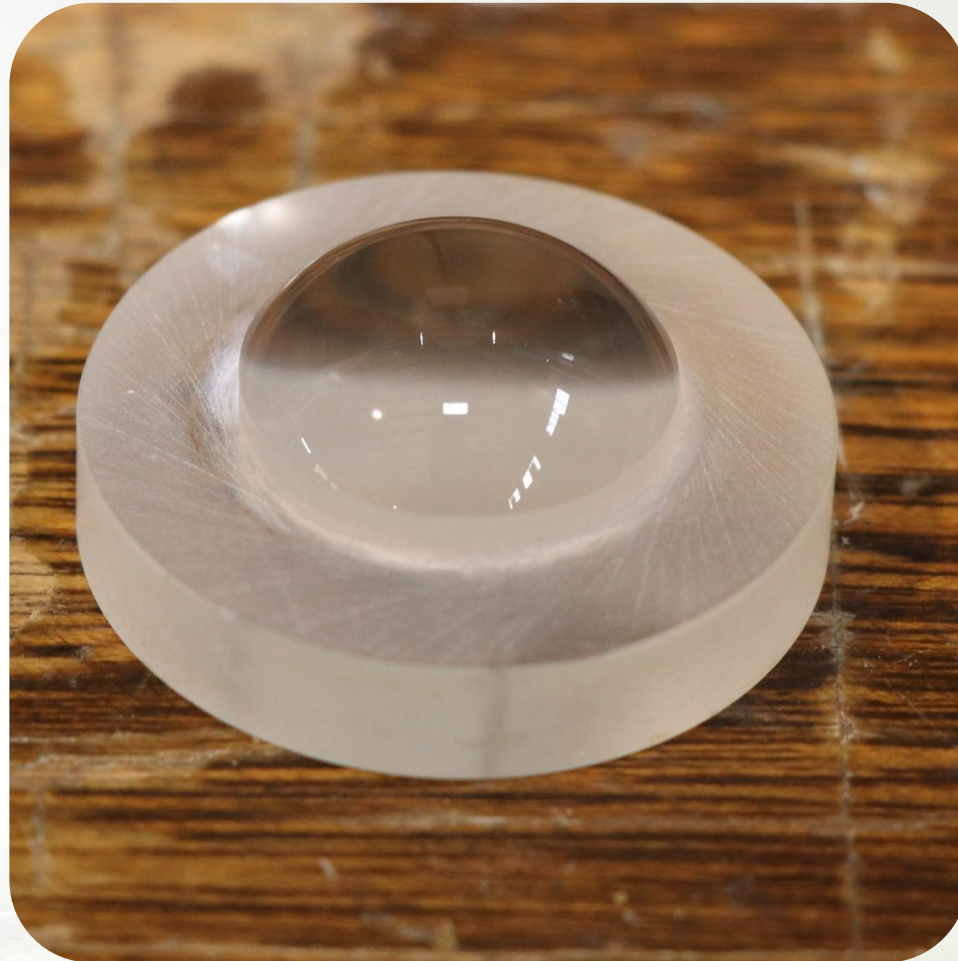


Lens

Item Description

- POS: 298

Stock Code: 2065345093



Diaphragm

Item Description

- EPDM/PTFE

Stock Code: 7574030253



Battery (HOPPECKE)

Item Description

- Type: Lead Acid
- Voltage: 2 Volt
- Capacity: 600 Ah
- Model: 6 GROE 600
- Power: VX2-600

Stock Code: 6524603353



Fan Blade FRP

Item Description

- (28 FT)
- REF: FARABARD IRAN
- DRWG No: 11471-007
- شرکت فرابرد

Stock Code: 4209362024



Front Segment C

Item Description

- POS. No.: 52

Stock Code: 9910108603



Diaphragm PTFE/EPDM

Item Description

- For: Diaphragm Valve 1 in
- (DV01 , SP968)

Stock Code: 7574034973



Diaphragm Valve (KSB)

Item Description

- Size: 1 in
- Class: 150
- Connection: Flanged
- Type: SISTO 10
- Mat. Body: GGG 40.3
- W/ Pneumatic Actuator
- Actuator Mat: PC/LAD-OF

Stock Code: 7574025551



Bushing

Item Description

- MFG: AHAR PARSKO

Stock Code: 3018670253



Zone 1 Segment

Item Description

سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11 N2	HASTLOY X	NiCoCrAly+TBC	در محفظه احتراق ناحیه داغ توربین در معرض شعله	ابعاد تقریبی: ۳۰۵×۱۹۵×۲۷ میلیمتر می باشد وزن کالا: ۵.۳۹۷ کیلوگرم



Inlet Segment 1 (ILS1)

Item Description

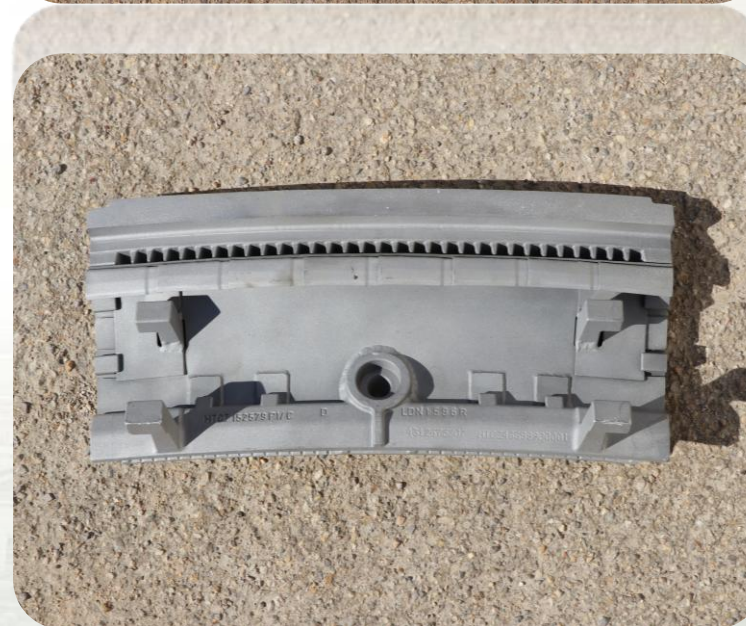
سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X	NiCoCrAly+TBC	در مسیر ورودی به پره های توربین در ناحیه داغ توربین	ابعاد تقریبی: دوزنقه به ابعاد قاعده ۳۰۳×۲۶۰ میلیمتر و ارتفاع ۱۷۹ میلیمتر و ضخامت با در نظر گرفتن قوس ۷۰ میلیمتر می باشد. وزن کالا: ۴.۱۶۲ کیلوگرم



Inlet Segment 2 (ILS2)

Item Description

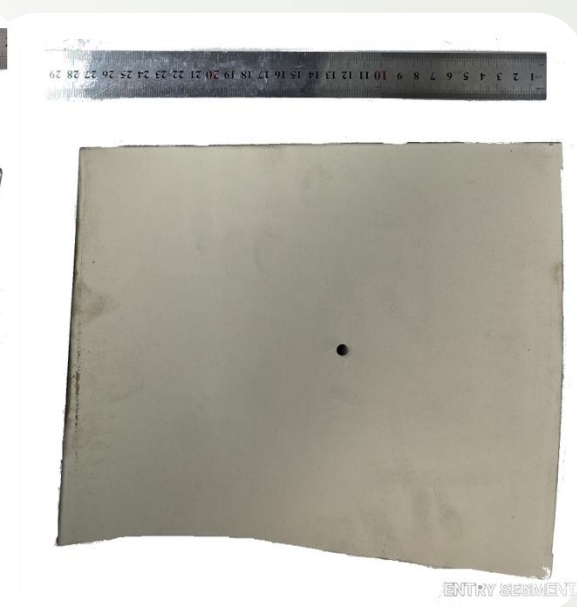
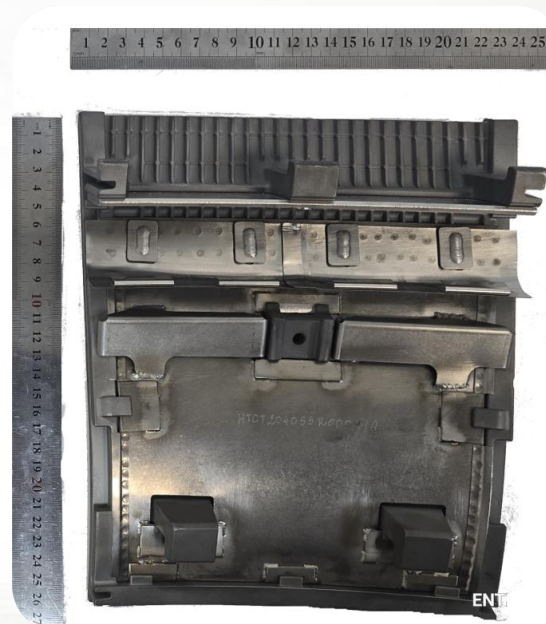
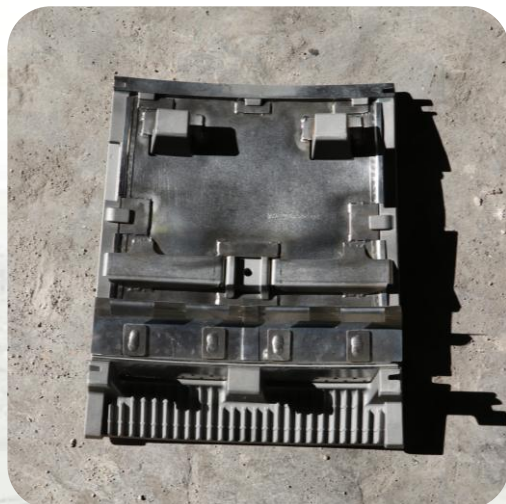
سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X	NiCoCrAl _y +TBC	در مسیر ورودی به پره های توربین در ناحیه داغ توربین	ابعاد تقریبی: ابعاد دوزنقه به ابعاد قاعده ۲۵۵×۲۷۰ میلیمتر و ارتفاع ۱۱۶ میلیمتر و ضخامت ۴۹ میلیمتر می باشد وزن کالا: ۲.۴۷۲ کیلوگرم



Entry Segment A

Item Description

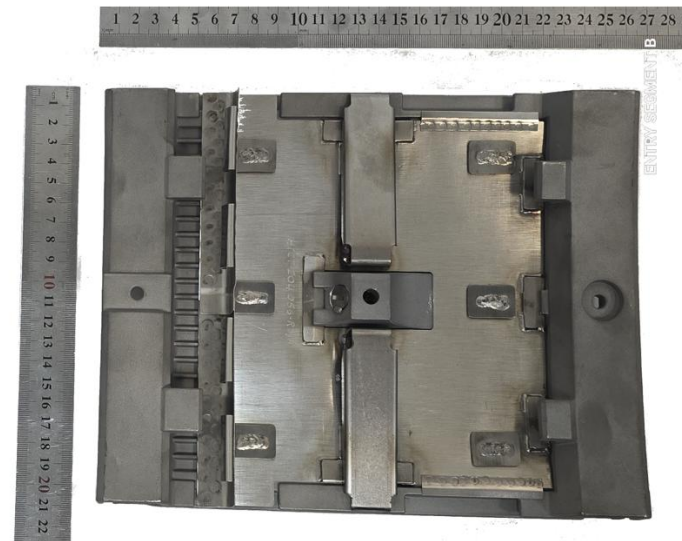
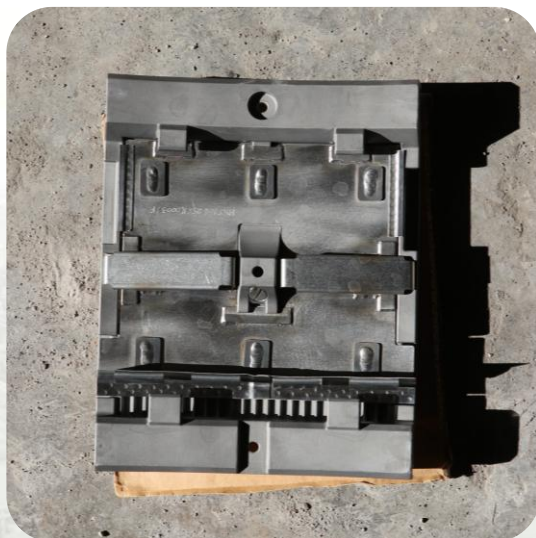
سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X	NiCoCrAlY+TBC	دور تا دور پوسته محصور کننده روتور توربین در مسیر بین محفظه احتراق به ورودی توربین ، در ناحیه داغ توربین قرار دارد	ابعاد تقریبی : دوزنقه به ابعاد قاعده ۲۰۴×۲۲۷ میلیمتر و ارتفاع ۲۵۹ میلیمتر و ضخامت ۵۳ میلیمتر می باشد وزن کالا: ۵.۴۸۵ کیلوگرم



Entry Segment B

Item Description

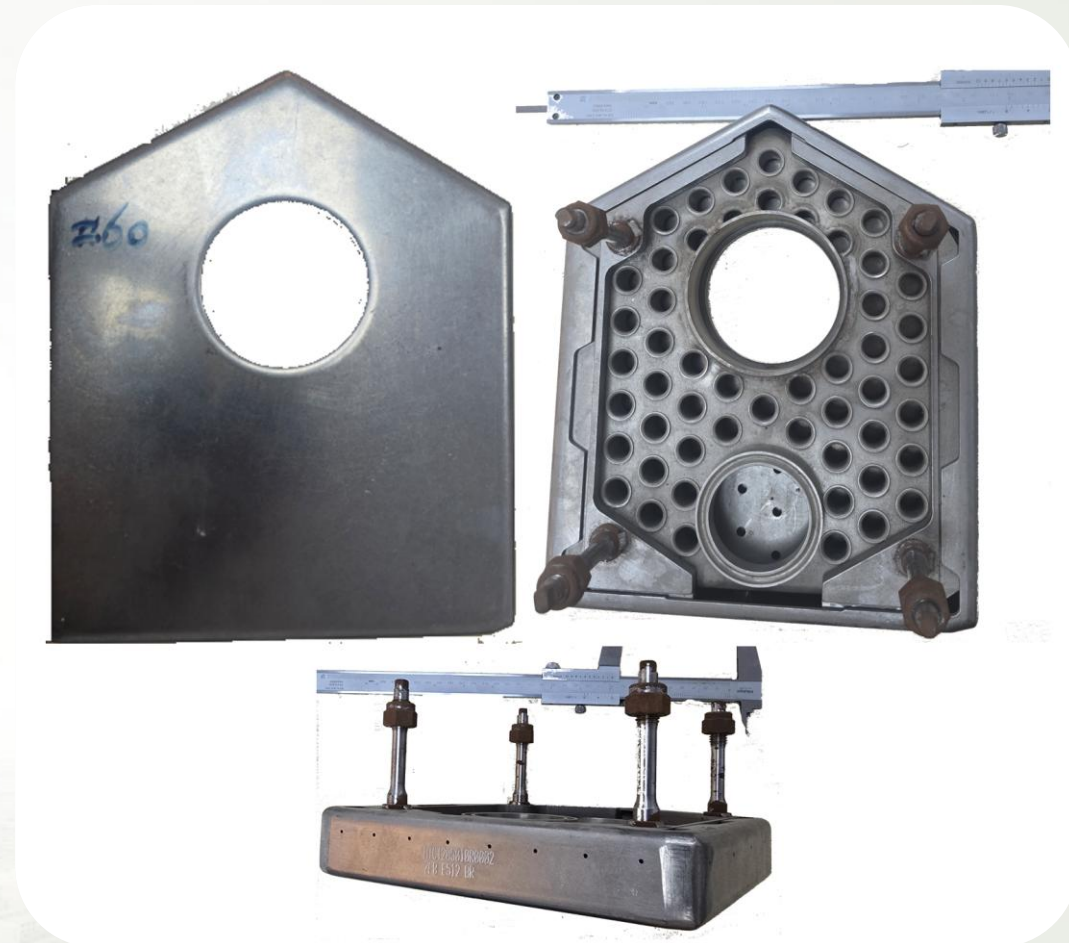
سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X	NiCoCrAl _y +TBC	دور تا دور پوسته محصور کننده روتور توربین در مسیر بین محفظه احتراق به ورودی توربین ، در ناحیه داغ توربین قرار دارد	ابعاد تقریبی : ۲۵۵×۲۵۰×۳۳ میلیتر می باشد. وزن کالا: ۵.۲۱۶ کیلوگرم



Front Segment A

Item Description

سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X		دور تا دور مشعل های توربین	ابعاد تقریبی : ۲۶۹×۲۲۴×۴۲ میلی متر می باشد وزن کالا: ۵.۳۳۳ کیلوگرم



Front Segment B

Item Description

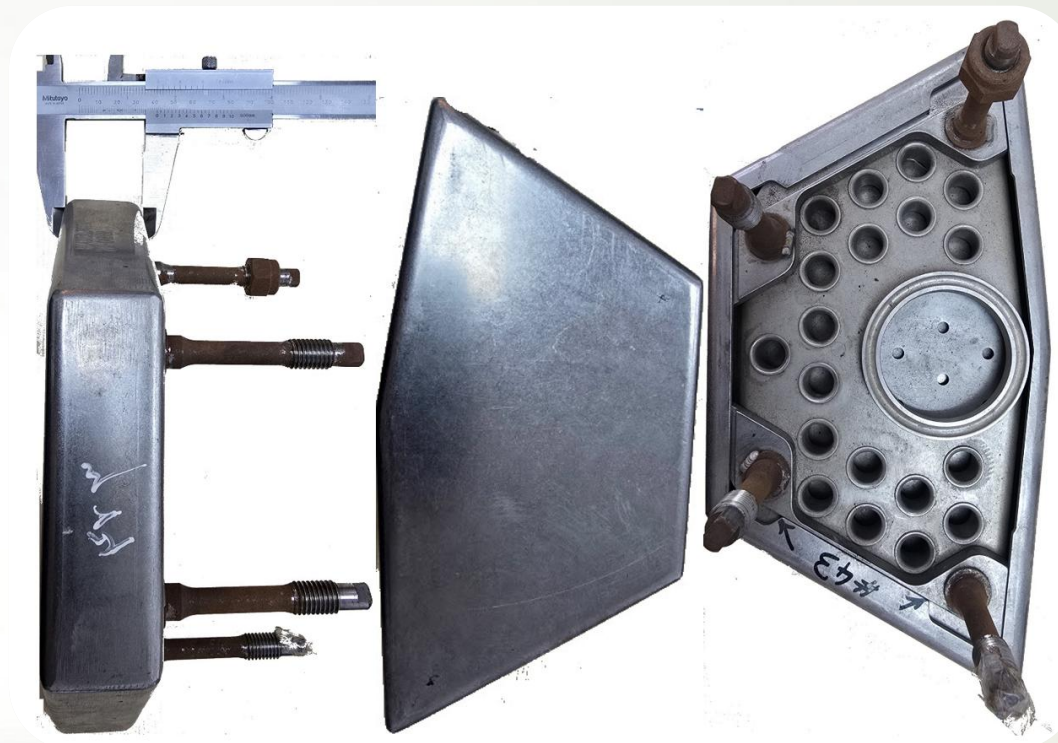
توربین سازنده	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X		دور تا دور مشعل های توربین	ابعاد تقریبی : ۲۲۴×۲۷۰×۴۲ میلیمتر می باشد وزن کالا: ۴.۷۵۹ کیلوگرم



Front Segment C

Item Description

سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X		دور تا دور مشعل های توربین	ابعاد تقریبی : ۲۶۴×۱۳۷×۴۲ میلیمتر می باشد وزن کالا: ۲.۹۹۰ کیلوگرم



Front Segment D

Item Description

سازنده توربین	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11N2	HASTLOY X		دور تا دور مشعل های توربین	ابعاد تقریبی: ۲۲۴×۲۶۵×۴۲ میلیمتر می باشد وزن کال: ۴.۸۱۷ کیلوگرم



Brush Seal

Item Description

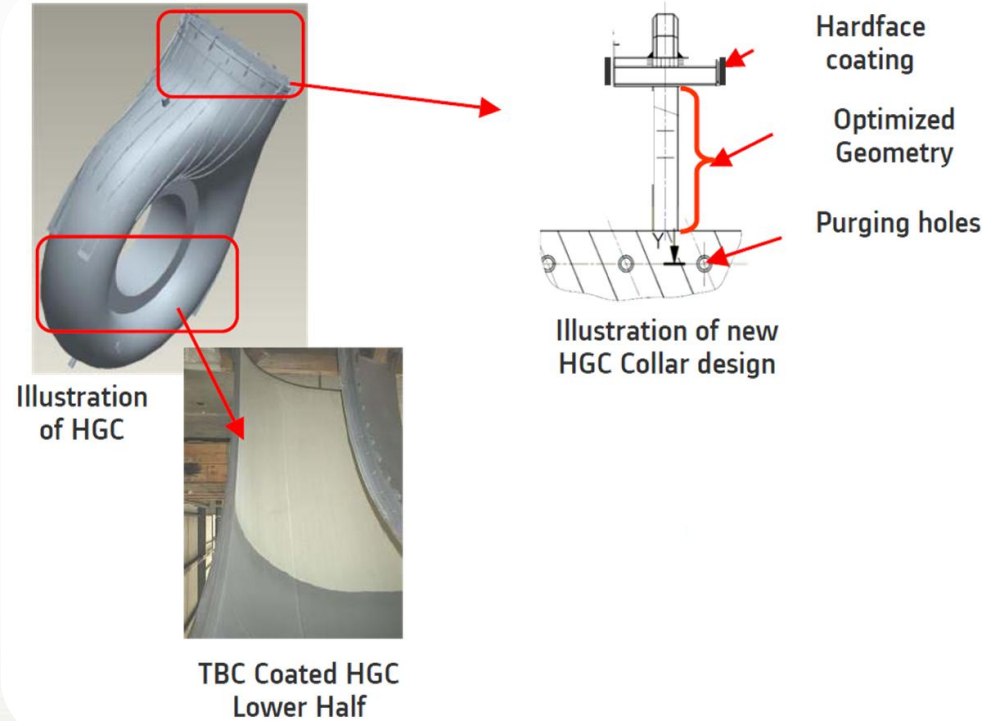
توضیحات	محل نصب قطعه در توربین	جنس وایر	جنس فلز نگهدارنده	مدل توربین	سازنده توربین
	در خروجی هوای کمپرسور بین روتور و پوسته سگمنت کریر	HAYNES 25	410	GT11 N2	ALSTOM



Inner Housing Assembly

Item Description

توربین سازنده	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11 N2 MXL	ALLOY 617	TBC	پوسته هدایت کننده گاز داغ توربین به پره های توربین	دو نیمه بالا و پایین می باشد هر دو نیمه پوشش دارند



Combustor Inner Liner

Item Description

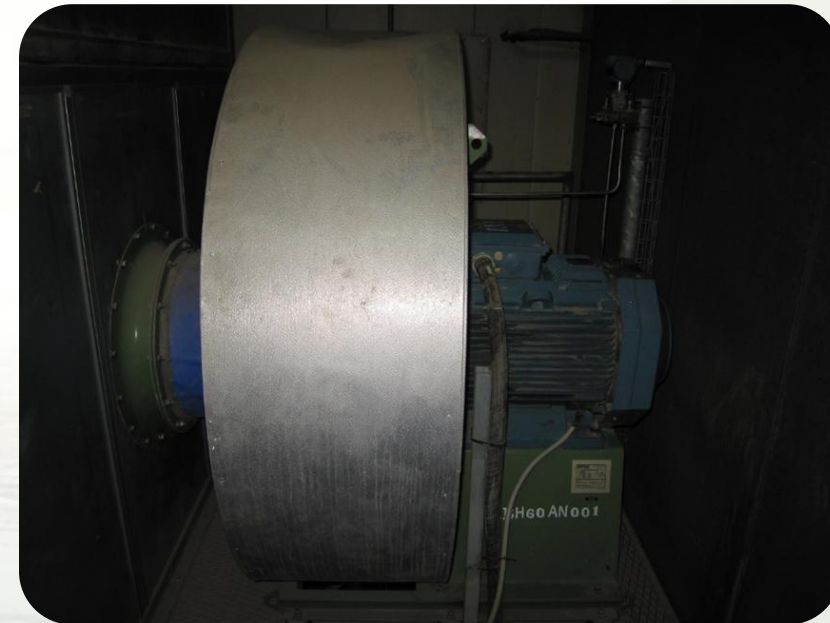
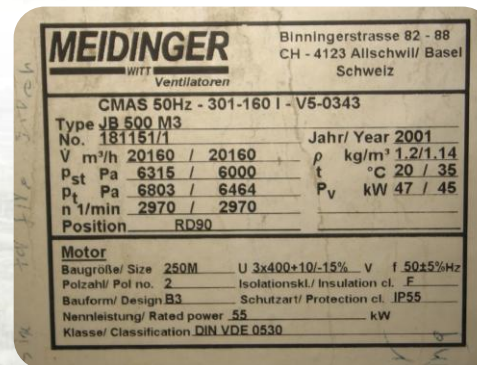
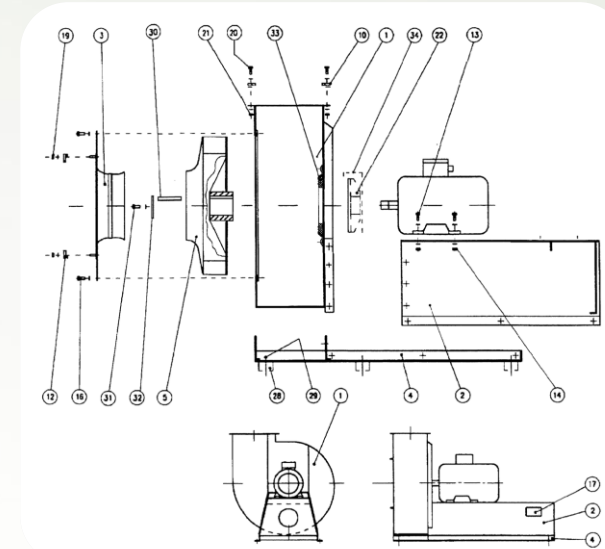
توربین سازنده	مدل توربین	جنس فلز پایه	جنس پوشش	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11 N2 MXL	ALLOY 617	TBC	پوسته داخلی محفظه احتراق و هدایت کننده گاز داغ	داخل آن پوشش TBC شده و بیرون هاردفیس شده است ابعاد تقریبی بیشترین قطر ۲ ارتفاع ۱ متر



CMAS Fan Complete

Item Description

سازنده	مدل فن	FLOW M3/H	SPEED	POSTITION	MOTOR	توضیحات
MEIDINGER	JB 500M3	20160	2970	RD90	250M-55KW	RADIAL HOT AIR FAN



EBV Fan Complete

Item Description

سازنده	مدل فن	FLOW M3/H	SPEED	POSTITIO N	MOTOR	توضیحات
MEIDINGER	HA 160- M3/950	2200	2920	RD270	160L-18.5KW	RADIAL FAN



Oil Vapour Exhaust Fan Complete

Item Description

سازنده	مدل فن	FLOW M3/H	SPEED	POSTITION	MOTOR	توضیحات
Umwelttechnik	AS-700				1.5KW	فن مکند بخارات که پروانه آن بصورت درام می باشد و بر روی آن دو عدد فیلتر پتویی نصب شده است



Fan Complete

Item Description

سازنده	مدل فن	FLOW M3/H	SPEED	POSTITION	MOTOR	توضیحات
COMEFRI GBMH	BCE17/1120 CL2 RD90 S4 BCE17/1120 CL2 LG90 S4		1535	RD90 LG90	103 KW	دو عدد فن کامل چپگرد و راستگرد



Phosphate Dosing Complete Pump

Item Description

سازنده	مدل	FLOW	MOTOR	توضیحات
MILTONROY	m.ROY XA XA.112(75).F.2.H.50/E.L.C5.Z	13.49L/H	LEROY SOMER LS71 0.25KW	پمپ کامل دوزینگ فسفات



Ca.S.T.Im. s.r.l. CARPENTERIA SCARABEATI TECNOLOGICA IMPIANTI		DATA SHEET METERING PUMP			
CUSTOMER PLANT SERVICE		N.P.C. FAJR PETROL COMPANY BIOC DOSING SYSTEM		D.S. N. 00-042-DS-020	
115810.000.00.000.PEE.121		CLIENT'S N. W001-MVD-000-920		Sh. 1 of 5	Rev. 1
1	SERVICE	PHOSPHATE	ITEM No.	P-6513-A/B/C/D/E/F/G P-6514-A/B	
2	OPERATION	☒ continuous ☐ disc.	No. OF UNITS	main / stand-by	
3	PUMP MANUFACTURER	DOSAPRO MILTON ROY	MODEL	m ROY XA	
4	TYPE	☒ diaphragm ☐ double diap. ☐ plunger	PURCHASE ORDER No 153/00		
5	DRIVE TYPE	SPECIFICATION			
6	LIQUID HANDLED PHOSPHATE				
7	CAPACITY l / hr.-gpm	13,49 L/h	design	14,6 MAX	
8	CORROSIVE COMPOUNDS	SOLIDS %	mm-in	TOXIC	☐ YES ☐ NO
9	SUCTION TEMPERATURE min / oper / design. °C - °F	/ /			
10	SPECIFIC GRAVITY at min / oper. temperature	/			
11	VISCOSITY at min / oper. temperature	/			
12	SUCTION PRESSURE ata - psia	min.	norm.	max.	
13	DISCHARGE PRESSURE ata - psia	50bar norm.			
14	VAPOR PRESSURE at oper. temperature ata - psia	NPSH avail. m - ft			
15	DIFFERENTIAL PRESSURE kg / cm² - psi				
16	SYSTEM DESIGN PRESSURE / TEMPER. kg / cm² / °C 80°C				
17	FLOW CONTROL	☐ manual ☒ servoactuated	SIGNAL	☒ electric ☐ pneumatic	
	control system	100%			
	during operation	☒ yes ☐ no	min. flow accuracy		
18	SEAL TYPE				
	contamination of liquid handled: allowed	☐ yes ☐ no			
	air entrainment: allowed	☐ yes ☐ no			
	leaks: allowed	☐ yes ☐ no			
19	HEATING FLUID type	press. kg / cm² - psi	temp. °C - °F		
20	ANTIFREEZING PROTECTION	☐ yes ☐ no			
21	COOLING FLUID type	press. kg / cm² - psi	temp. °C - °F		
22	FLUSHING FLUID type	press. kg / cm² - psi	temp. °C - °F		
23	INLET LINE / OUTLET LINE	size / rating			
24	PUMP HEAD TYPE	XA.112(75).F.2.H.50/E.L.C5.Z	No. OF PUMPING HEADS		
25	PUMP SPEED	strokes / min. 860 t/min	RPM RETURN:	☐ by spring ☐ by mechanism	
26	STROKE / BORE	mm	PISTON SPEED m / sec. - ft / sec.		
27	SUCTION NOZZLE size	3/8" GAS F.	location		
28	DISCHARGE NOZ size	3/8" GAS F.	location		
29	DESIGN PRESS./TEMP. kg / cm² - psi	80°C °C - °F	VALVE TYPE		
30	COUPLING: type	GEAR: type			
31	INTEGRAL RELIEF VALVE	☒ yes ☐ no	VALVE SETTING kg / cm² - psi		
32	ABSORBED POWER cv - hp	0,75 A	NPSH REQ.: m.		
33	MATERIAL IN CONTACT WITH LIQUID PUMPED				
34	CONTROL AIR PRESSURE kg / cm² - psi	DIAPHRAGM: ☐ yes ☐ no			
35	LUBRICATION TYPE	MECANEP 150 COFRAN			
36	ELECTRIC MOTOR: Mfr	LEROY SOMER	type	LS 71	rated power kW 0,25KW No. of poles
	POWER FEED:	☐ NORM. ☐ PREF. ☐ d.c.	VOLT / PHASES / CYCLES	frame 230/415V	execution

Optic Attachment (Flame Detector)

Item Description

سازنده توربین	مدل توربین	محل نصب قطعه در توربین	توضیحات
ALSTOM	GT11 N2	جهت دیدن شعله محفظه احتراق	هر توربین سه عدد نصب شده است . فلم دتکتور کامل (بدون قسمت سایت گلس)

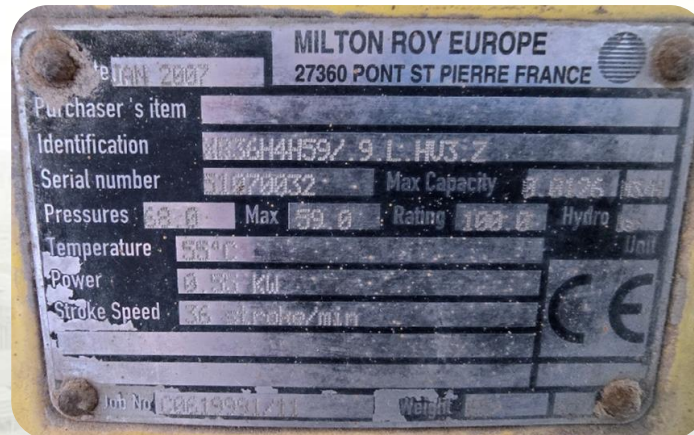


DOSING COMPLETE PUMP

Boiler C-1

Item Description

سازنده	مدل	FLOW	MOTOR	توضیحات
MILTONROY	XB36H4H59/.9.L.HV3.Z	0.0126 M3/H	0.55 KW	پمپ کامل دوزینگ بویلر C



Seal Air Fan Complete

Item Description

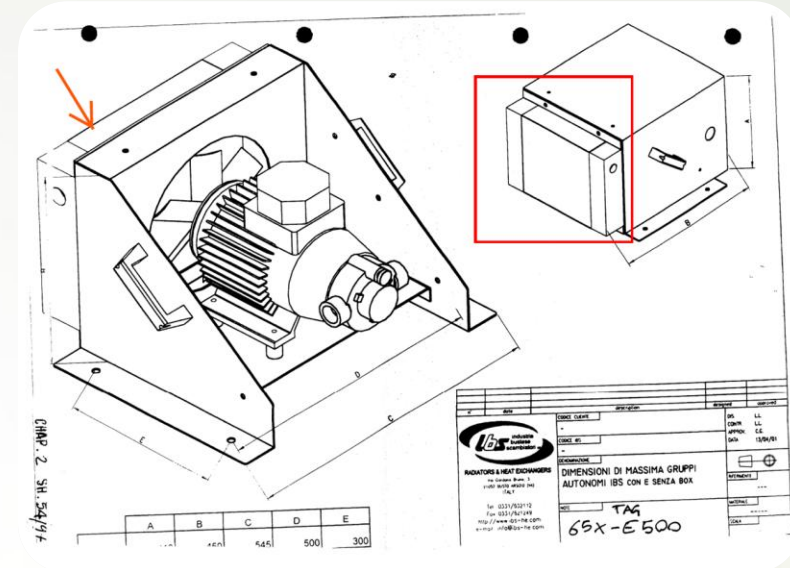
سازنده	مدل فن	توضیحات
	CENTRIFUGAL	ساخت مطابق نمونه نو . مدارک فنی و اطلاعات ناموجود است . فن در قسمت آگزاست دایورتور دمپر توربین های آلستوم نصب می باشد



Radiator Complete

Item Description

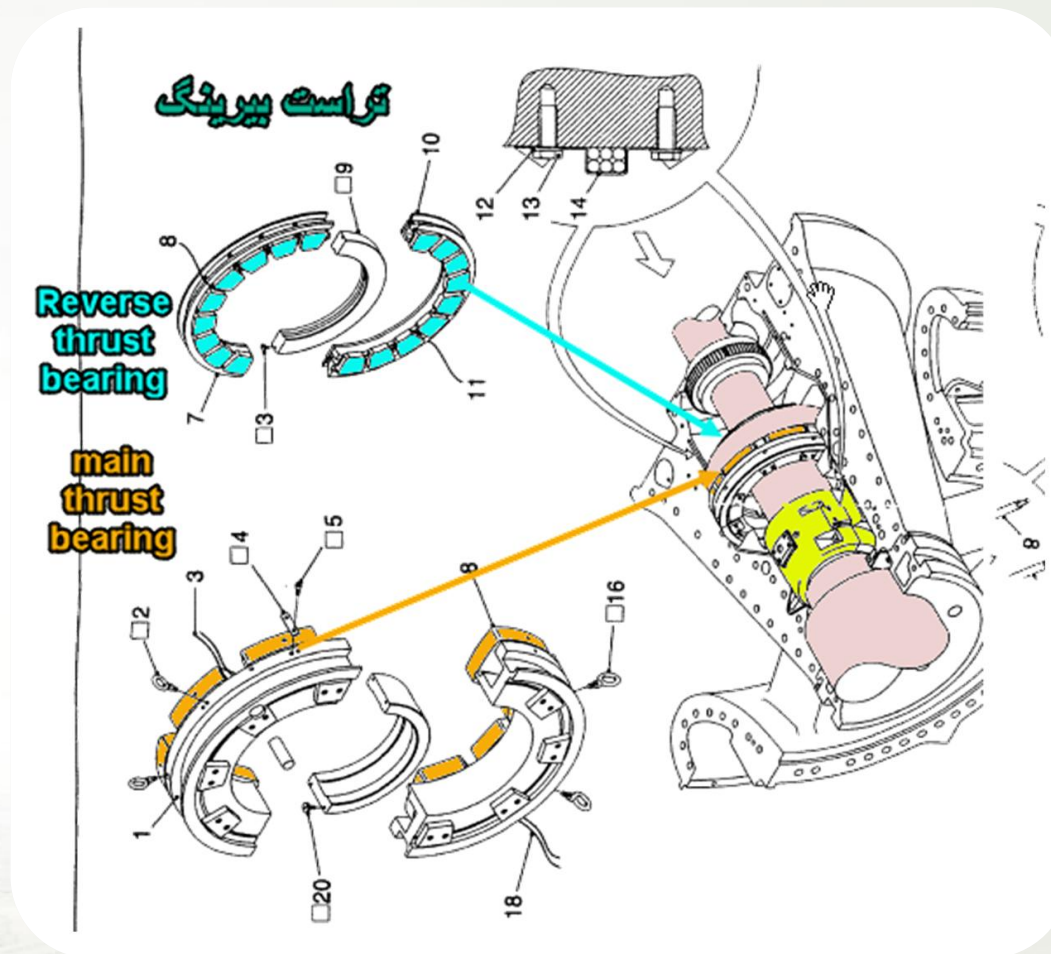
توضیحات	مدل	سازنده
قسمت رادیاتور کولر مخزن هیدرولیک دایورتور دمپر توربین های آلستوم	IBS-A-030	IBS



Double Thrust Bearing

Item Description

سازنده توربین	مدل توربین	تعداد پدهای بزرگ	تعداد پدهای کوچک	توضیحات
ALSTOM	GT11 N2 MXL	۸ عدد (۴ عدد سنسور دارند)	۱۸ عدد (دو عدد سنسور دما دارد)	قطعه کامل تراست بیرینگ با پدهای تراست بزرگ و کوچک آن. (MAIN+ THRUST)



گیربکس هوازن های MA-6801,02,05,06,07,08,09,10 واحد ET1

Item Description

نوع گیربکس	سازنده	Type	I	GEAR KW DIN	GEAR Output RPM	MOTOR KW	MOTOR RPM
Helical Gear	FLENDER	ZF-88K	28.93	9	49.6	4	1435
		ZF-108	22.86	21	63.9	11	1460
		ZF-128	25.05	32	58.5	22	1465
		ZF-148	30.28	41	48.1	18.5	1455



گیربکس دستگاه سانتریفیوژ CE-9801 A,B واحد ET2

Item Description

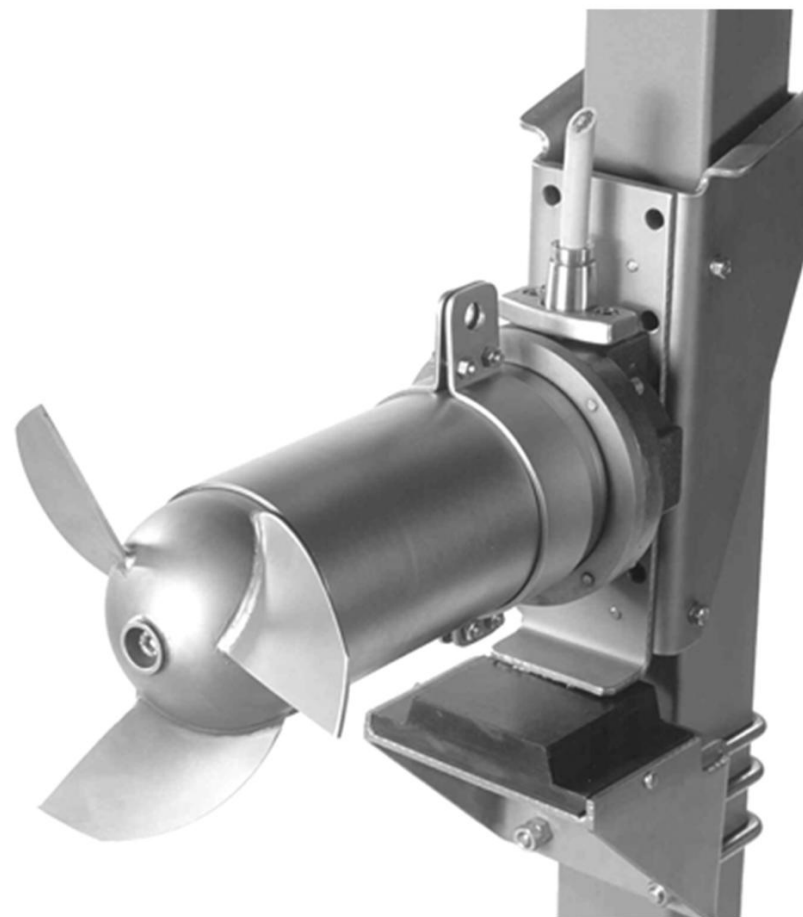
نوع گیربکس	سازنده	Type	Ratio (i)	COD	Serial No.
Helical Gear	REDEX ANDANTEX	SR-20.3	2	RX-121542-00	839795



میکسرهای موشکی MX-9801 A,B واحد ET2

Item Description

نوع میکسر	سازنده	Type	Motor Power KW	Serial No.
Submersible	KSB	AMAMIX C 635 / 812 YMC	10	2913724572-041583



مکانیکال سیل Type 196 MS 43 mm

Item Description

عنوان	سازنده	Type	فشار کاری	دمای کاری
مکانیکال سیل	Turbo seal	Type 196 MS 40 mm	۶ bar	۲۰ - تا ۲۰۰



مکانیکال سیل Type SB040M0-4C 43 mm

Item Description

عنوان	سازنده	Type	فشار کاری	دمای کاری
مکانیکال سیل	Turbo seal	Type SB040M0-4C 43 mm	۶ bar	۲۰ - تا ۲۰۰



Volute Casing

Item Description

عنوان	سازنده	فشار کاری	دمای کاری
Volute casing	VOGEL	۶ bar	۲۰ - تا ۲۰۰



Parts for (W AND A) Sludge Dewatering Belt Press

Item Description

- Item: PARTS FOR ((W AND A)) SLUDGE DEWATERING BELT PRESS
- Type: VDB7-270
- Drawing No.: DC-VDB-0274
- Reference: WASSER - ABFALLTECHNIK (W/A), AUSTRIA
- Tag No.: X-6201

Technical Data:

- Item: UPPER FILTER BELT

Size: 2700 × 11350
Type: 5080-GKD-XL
Manufacturer: GKD, USA INC.
MESC: 4298980553

- Item: LOWER FILTER BELT

Size: 2700 × 16800
Type: 5080-GKD-XL
MESC: 4240782593



COOLING TOWER PUMP

Item Description

P-6371 A-C

- Manufacturer: WEIR
- Type: SDB 450/500
- Serial No.: AC00506-001-3

Pump Type

- Centrifugal Pump, Single Stage

Technical Data:

- Manufacturer: WEIR
- Power: 670 kW
- Discharge Pressure: 5.5 bar
- Rotational Speed: 994 rpm
- Number of Stages: 1
- Operating Temperature (TMP): 35 °C



Rotor compressor MAC

Item Description

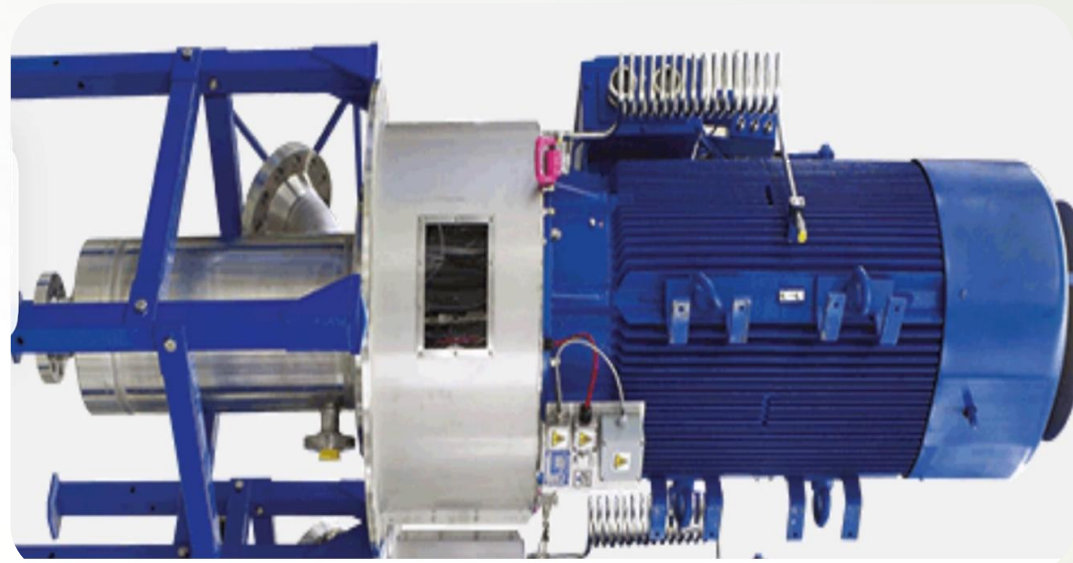
نوع کمپرسور	سازنده	فشار ورودی	فشار خروجی	سرعت دوران	تعداد مراحل	توان
Integrally Gear compressor	DEMAG DELAVAR(Simense)	Ambient	7bar	Pinion 1: 19000 rpm Pinion 2: 27000 rpm	3	2.8mw



LOX PUMP TRAIN 3

Item Description

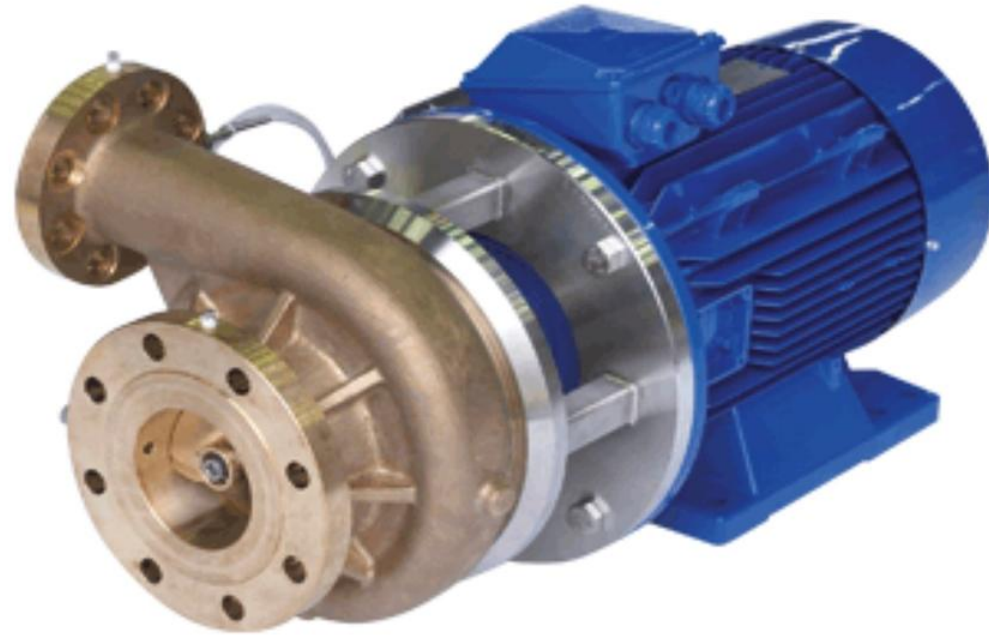
Pump type	سازنده	POWER	فشار خروجی	سرعت دوران	تعداد مراحل	TMP(C)
Centrifugal pump V5/240	CRYO STAR	62Kwa	30 bar	4500rpm	5	-196



LIN PUMP

Item Description

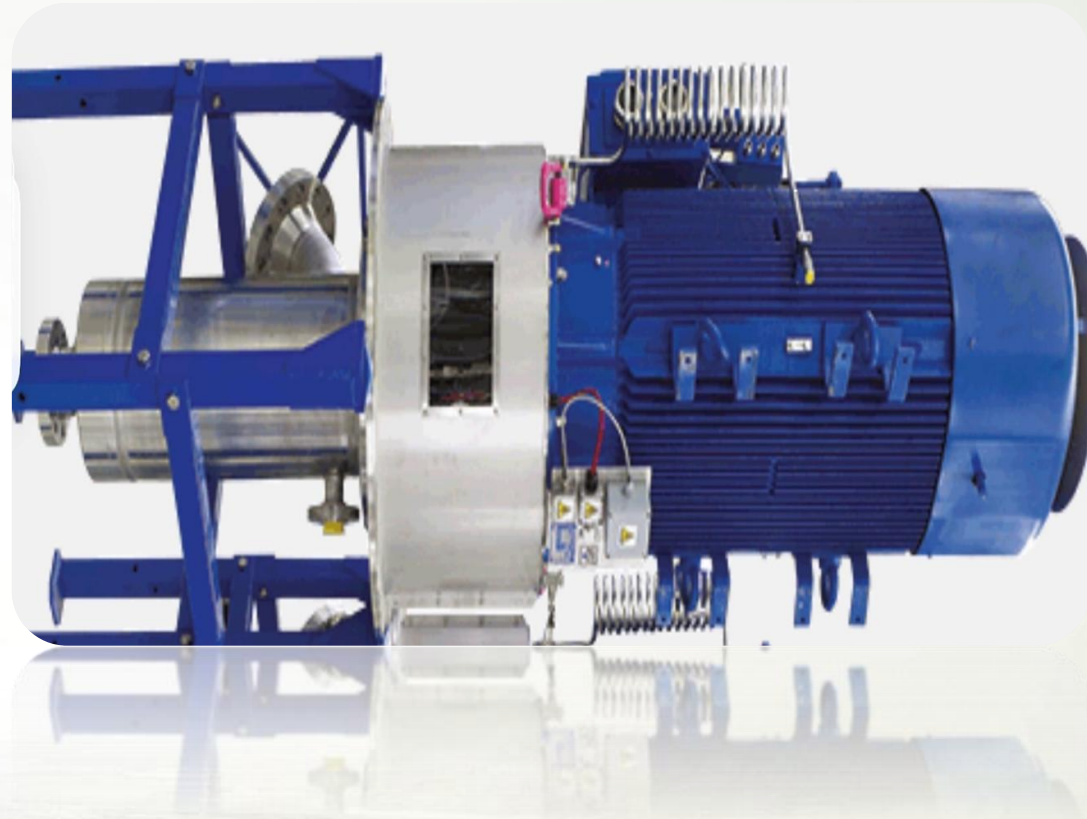
Pump type	سازنده	POWER	فشار خروجی	سرعت دوران	تعداد مراحل	TMP(C)
Centrifugal pump single Stage	CRYO STAR	55Kwa	7 bar	4500rpm	۱	-198



PUMP LOX TRAIN 1,2

Item Description

type	سازنده	POWER	فشار خروجی	سرعت دوران	تعداد مراحل	TMP(C)
Centrifugal pump	CRYO STAR	62 Kw	32 Bar	3000 RPM	4	-183



ARGON PUMP

Item Description

type	سازنده	POWER	فشار خروجی	سرعت دوران	تعداد مراحل	TMP(C)
Mcp 155/4.5	CRYO STAR	5.5	4 Bar	3000 Rpm	۱	-183



ساخت مبدل LOX VAPORIZSE

Item Description

ظرفیت	سازنده	فشار طراحی	فشار خروجی	تست فشار	دمای کاری
۱۴۵۰۰ nm ³ /h	CRYO NORM	۴۰ BAR	30 bar	۵۲.۵ bar	-196

این مبدل در وان آب گرم غوطه ور می‌باشد.

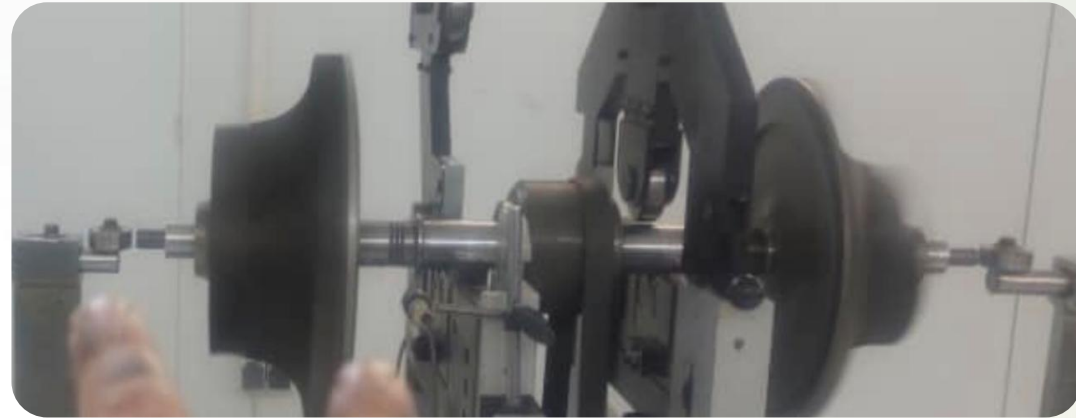
سیال مایع با فشار 30 بار وارد مبدل شده و بعد از تبخیر در مبدل مذکور به مجتمع های منطقه ارسال می‌گردد.



روتور کمپرسور مرحله 1 و 2 و 3

Item Description

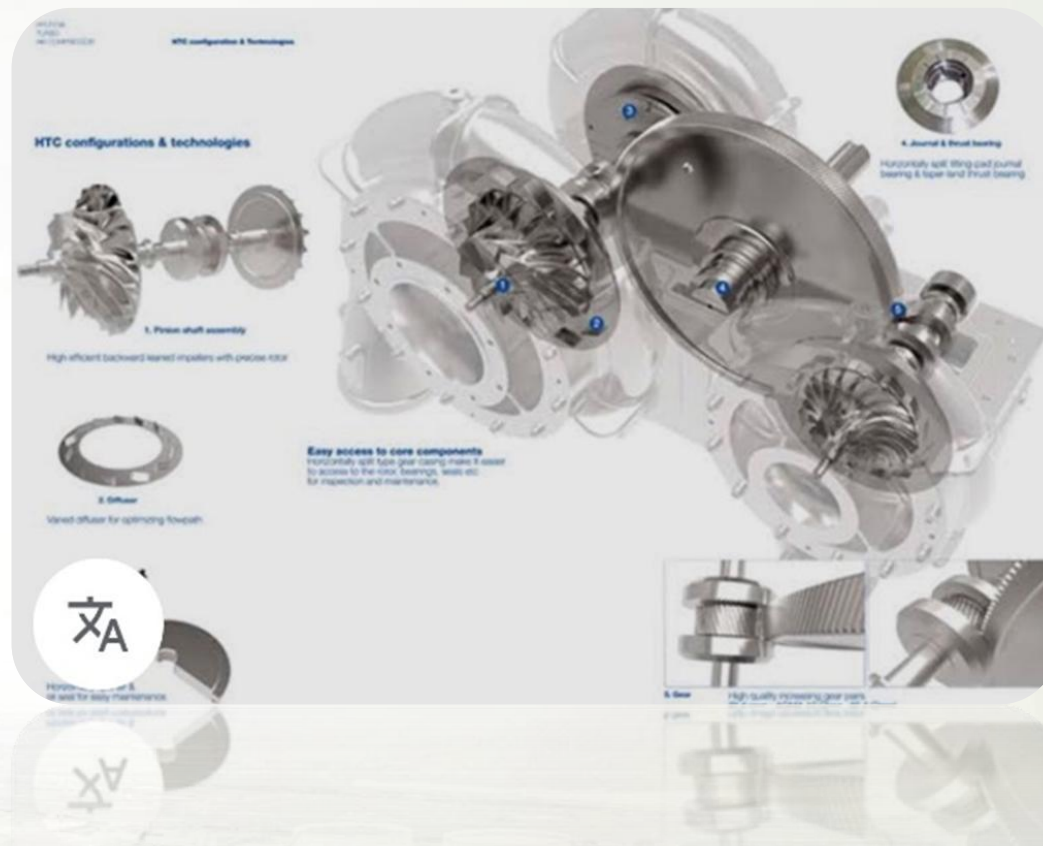
نوع کمپرسور	سازنده	فشار ورودی	فشار خروجی	سرعت دوران	تعداد مراحل	توان
Integrally Gear compressor	samsung	Ambient	6 bar	Pinion 1: 19000 rpm Pinion 2: 26000 rpm	3	2.1mw



روتور مرحله 2 کمپرسور نیتروژن

Item Description

نوع کمپرسور	سازنده	فشار ورودی	فشار خروجی	سرعت دوران	تعداد مراحل	توان
Integrally Gear compressor	samsung	۰.۵ bar	7 bar	31503 rpm	3	1.4 MW



Pump

Item Description

نام تجهیز	تایپ پمپ	مدل	سازنده	POWER kw	فشار خروجی m³/h	سرعت دوران rpm	تعداد مراحل	TMP(C)
P-9511A-C	Centrifuges	ETANORM RM 150-500	ksb	4	8	2905	تک مرحله ای	40



OWNER: FAJR PETROCHEMICAL CO.	MCC: ENERCHIM ENGINEERING CO.	PROJECT: FAJR PETROCHEMICAL COMPANY FAJR NO.2 WATER PRETREATMENT PLANT ENGINEERING, PROCUREMENT, CONSTRUCTION & COMMISSIONING	CONTRACTOR: ZOLAL IRAN CO. ANDISHEH ZOLAL CO. axiom
DOCUMENT TITLE CENTRIFUGAL PUMP FINAL DATA SHEET (CAUSTIC SODA STORAGE TANKS AND PUMP STATIONS)		DOCUMENT NUMBER 95-DSH-ME-2701	REV. PAGE 3 2 OF 7
TAG NO.: P-9511 A-C		JOB NO.: ZIP-138	DESCRIPTION: CAUSTIC SODA INJECTION PUMPS
PUMP MFR.: KSB SIZE AND MODEL: CENTRIFUGAL (HORIZONTAL) CPKN-C1 025-160 STAGES: SINGLE NO. OF PUMPS: 3(2+1)			
OPERATING CONDITIONS, EACH PUMP:			
LIQUID: NaOH(20%) m³/h at P.T. MIN: NOFR 3.7 RTD: 5			
DISCH PRESS. (bar g): 3.95 RTD: NOFR			
P.T. °C: 20 WX: 40 SUCT PRESS. (bar g) MAX: 0.92 NORMA: -0.05			
SP GR at P.T.: 1.22 @ 20 °C DIFF. PRESS. (bar): 4.0			
VAP PRESS at P.T. bar: 0.018 @ 20 °C TOTAL DIFF. HEAD (m): 33.4			
VIS at P.T. (cP): 4.43 @ 20 °C NPSH AVAIL (m): 7.7			
CORR./EROS. caused by: NaOH(20%) HYD. KW: 0.544			
LOCATION: ☒ INDOOR ☐ OUTDOOR ☐ UNDER SHELTER ☐ SUBMERSIBLE			
CONSTRUCTION			
NOZZLES: SIZE: 1 1/2" RATING: 150# FACING: RF LOCATION: HORIZONTAL			
SUCTION: 1 1/2" RATING: 150# FACING: RF LOCATION: VERTICAL			
DISCHARGE: 1 1/2" RATING: 150# FACING: RF LOCATION: VERTICAL			
CASE MOUNT: ☐ CENTERLINE ☒ FOOT ☐ BRACKET ☐ IN LINE ☐ VERTICAL			
-SPLIT: ☐ AXIAL ☒ RADIAL			
-VOLUTE: ☒ SINGLE ☐ DOUBLE ☐ DIFFUSER			
-AUX. CONNECTS: ☒ VENTS ☒ DRAINS ☐ GAGES ☐ VALVED DRAIN & VENT			
IMPELLER DIA.: RATED: 162 MAX: 168 MIN: 132 SUCT. SPEC. SPEED: NOFR			
TYPE: ☐ CLOSED ☐ OPEN ☐ SINGLE SUCTION ☐ DOUBLE SUCTION ☐			
MOUNTING: ☐ BETWEEN BEARINGS ☐ OVERHUNG ☐			
WEAR RINGS: ☐ INLET ☐ BACK ☐ BOTH SIDE ☐ CASE ONLY ☐ CASE & IMPELL			
BEARINGS - TYPE: ☒ RADIAL ☐ THRU-ROTOR			
-LUBE: ☐ OIL ☐ FLOOD ☐ FLUIDER ☐ MIST ☐ PRESSURE ☐ GREASE			
COUPLING MFR.: FLENDER MODEL: RUPX NH GUARD TYPE: TREAD PROOF(ZN3230)			
DRIVER 1/2 MTD BY: PUMP MANUFACTURER MACHINED BY: NA			
☐ PACKING: MFR & TYPE: BURGEMANN-MC16 SIZE: NA NO RINGS: NA			
☒ MECH. SEAL MFR & MODEL: SINGLE ACTING SEALING PRESSURE: INTERNAL bar g			
SHAFT SEAL: INTERNAL bar g			
AUXILIARY PIPING:			
C.W. PIPE PLAN: NA ☐ C.S. ☐ S.S. ☐ COPPER ☐ TUBING ☐ PIPE			
INCLUDING: ☐ FLOW INDICATORS ☐ INLET VALVE ☐ DISCH. VALVE ☐			
-PIPE & FITTING SIZE: TOTAL C.W. REQD: NA m³/h			
-TYPE: DES. TEMP. NA °C DES. PRESS. NA bar g			
IN: NA bar g OUT: NA bar g			
PACKING INJECTION: FLUID: FLANS 01+02 at NA °C REQD m³/h: NA at NA bar g			
SEAL FLUSHING PLAN: FLANS 01+02 at NA °C REQD m³/h: NA at NA bar g			
EXT. FLUSHING FLUID: CLEAN WATER at 20-40 °C REQD m³/h: 0.12 at 2.5 bar g			
AUX. SEAL PLAN: NA ☐ C.S. ☐ S.S. ☐ TUBING ☐ PIPE			
QUENCH FLUID: NA ☐ C.S. ☐ S.S. ☐ TUBING ☐ PIPE			
STEAM-JACKETS: ☐ SUCTION ☐ STUFFING BOX ☐ COMPLETE PUMP			
STEAM CONDITIONS: °C: NA bar g			
MOTOR DRIVERS BY:			
ITEM NO: 4 MTD BY: PUMP MANUFACTURER			
KW: 4 RPM: 2905 SHAPE: FOOT MOUNTED			
MFR: SIEMENS (64 for Motors-55 for Terminal box)			
TYPE: 400/3/50 ENCL: TEFC			
VOLT/PHASES: V/B			
INSULATION: ☐ VSS ☐ VHS			
THRUST UNITS: ☐ UP ☐ DOWN			
THRUST GAP: kg			
SITE CONDITION:			
AMB. TEMP. (°C): MAX. 52 MIN. -3.6 ALTITUDE(M): 2.8			
REL. HUM. 45% @ 48 °C			
AMBIENT AIR QUALITY: NA			
WEIGHTS (kg NET EACH)			
PUMP ONLY: 41 MOTOR: 35			
BASE: 39 TOTAL WEIGHT: 122			
DESIGN DATA			
MAWP: 16BARG@20°C bar g			
PLANT DESIGN TEMPERATURE: NA °C			
MAWP at PLANT DES. TEMP.: NA bar g			
WEAR RINGS CLEARANCES: NA bar g			
FINAL DATA			
ACTUAL IMPELLER DIAM.: 162			
OUTLINE DWG. NO.: NA			
PUMP SECT. DWG. NO.: NA			
AUX. PIPING DWG. NO.: NA			
MECH. SEAL DWG. NO.: NA			
NOTES:			
1-ACCORDING TO IPS NO. M-EL-132 ANTI CONDENSATION HEATERS & RESISTANCE TEMPERATURE DETECTOR) SHALL BE PROVIDED FOR ALL MEDIUM AND HIGH VOLTAGE MOTORS.			
2-VENDOR TO VERIFY SUITABILITY OF MATERIALS FOR INTENDED SERVICE.			
3-VENDOR TO PROVIDE COMPLETED DATA SHEET FOR MOTOR.			
4-ALL UN-COMPLETED & APPLICABLE FILLS WILL BE FILLED AFTER FINALIZING WITH MANUFACTURER, IN THE FINAL DATA SHEET.			
5-MATERIAL TEST CERTIFICATE SHALL BE SUBMITTED BY THE MFC.			
6-ANY DEVIATION FROM PROJECT SPEC, DATA SHEETS (EXCLUDING VENDOR DATA FOR COMPONENTS FOR WHICH DETAIL INFORMATION OR CATALOGUES ARE NOT AVAILABLE), CONTRACT ATTACHMENTS, MUST BE BROUGHT TO THE CLIENT FOR APPROVAL.			
7-PUMP VENDOR HAS UNIT RESPONSIBILITY.			
8-PUMPS TESTS & INSPECTION SHALL BE IN ACCORDANCE WITH RELATED QCP DOC NO. 95-PCJ-QC-2001.			
9-ALLOWABLE PIPING FORCES & MOMENTS STANDARD IS API-610, TABLE 1.			
10-OUTDOOR STORAGE FOR MORE THAN 12 MONTHS.			

Pump

Item Description

نام تجهیز	تایپ پمپ	مدل	سازنده	POWER kw	فشار خروجی m ³ /h	سرعت دوران rpm	تعداد مراحل	TMP(C)
P-9548A-C	Centrifuges	CPKN-C1 250-500	ksb	123	700.25	1488	تک مرحله ای	40



OWNER: FAJR PETROCHEMICAL CO.	MC: ENERCHEM ENGINEERING CO.	PROJECT: FAJR PETROCHEMICAL COMPANY FAJR NO.2 WATER TREATMENT PLANT ENGINEERING, PROCUREMENT, CONSTRUCTION & COMMISSIONING	CONTRACTOR: ZOLAL IRAN CO. AND SHIRAZ ZOLAL CO. axiom
DOCUMENT TITLE: CENTRIFUGAL PUMP FINAL DATA SHEET (DEMN WATER STORAGE TANK & PUMP STATION UNIT)		DOCUMENT NUMBER: 95-DSH-ME-00501	REV. / PAGE: 3 / 2 OF 3
TAG NO.: P-9548 A-C		JOB NO.: ZP-144	DESCRIPTION: DEMN WATER TRANSFER PUMPS

PUMP MFR.: KSB	SIZE AND MODEL: CENTRIFUGAL (HORIZONTAL) CPKN-C1 250-500	STAGES: SINGLE	NO. OF PUMPS: 3(2+1)
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OPERATING CONDITIONS, EACH PUMP: LIQUID: DEMN WATER NORM. DISCH. PRESS. (bar/g): 6.97 RTD: 700 P.T. °C: 15 MAX: 40 SUCTION PRESS. (bar/g): 1.12 RTD: -0.13 SP. GR. @ P.T.: 1 @ 15 °C DRY PRESS. (bar/g): 6.5 WP PRESS. @ RT. bar: 0.017 @ 15 °C TOTAL DRY HEAD (m): 66.3 VS. @ RT. (m³/s): 1.14 @ 15 °C NPSH AVAILABLE (m): 8.6 CORR. SPEC. GRAVITY: - HYD. KW: 123.8 LOCATION: ☐ ROOFR ☐ OUTDOOR ☒ SHELTER ☐ SUBMERSIBLE		PERFORMANCE: PROPOSAL CURVE NO.: K2721.454/577 RPM: 1488 NPSH-REQUIRE (m): 4.35 MIN. CONT. FLOW (m³/h): 190.89 @ P.T.: - ROTATION VIEWING FROM COUPLING: CW EFFICIENCY AT RATED POINT, %: 78.8 IF EFF. IS VISCOSUS WATER EFF. %: - AGS. KW. RATED: 158.93 NORM.: - MAX.: 197.91 MAX. TOTAL HEAD (m): 66.35 MAX. POSSIBLE DISCH. PRESS. (RATED IMP.): - bar/g WITH RATED SUCT. PRESS.: - bar/g WITH MAX. SUCT. PRESS.: - bar/g CAPACITY @ BEP: 900 m³/h MAX. ALLOWABLE FLOW: 1180 m³/h MAWP @ 15V.P.T.: 16 bar/g DESIGN PRESSURE: 16 bar/g MCF: STABLE & THERMAL	
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CONSTRUCTION NOZZLES: 12" SIZES: 150# RATING: RF STD: ASME B16.5 HORIZONTAL LOCATION: ASME B16.6 VERTICAL DISCHARGE: 10" SIZES: 150# RATING: RF STD: ASME B16.5 HORIZONTAL LOCATION: ASME B16.6 VERTICAL CASE MOUNT: ☐ CENTERLINE ☒ FOOT ☐ BRACKET ☐ IN LINE ☐ VERTICAL -SPLIT: ☐ AXIAL ☒ RADIAL -VOLUTE: ☒ SINGLE ☐ DOUBLE ☐ DIFFUSER -AUX. CONNECTS: ☐ VENTS ☐ DRAINS ☐ VALVED DRAIN & VENT IMPELLER DIA.: 445 RATED: 445 MAX: 500 MIN: 400 SUCT. SPEC. SPEED: - TYPE: ☒ CLOSED ☐ OPEN ☐ SHOE SUCTION ☐ DOUBLE SUCTION ☐ OVERFLOWING MOUNTING: ☐ BETWEEN BEARINGS ☒ OVERFLOWING ☐ CASE ONLY ☐ CASE & IMPELL. WEAR RINGS: ☐ MET ☐ NON-MET ☒ ANTI-FRICTION BEARING BEARINGS - TYPE RADIAL: ☐ OIL ☐ FLOOD ☐ FLINGER ☐ MIST ☐ PRESSURE ☐ GREASE COUPLING - MFR.: FLUKE MODEL: FLUKE NO. WITH SPACER MFR.: FLUKE MODEL: FLUKE NO. WITH SPACER -DRIVER 1/2 MTD BY: PUMP MANUFACTURER MACHINED BY: PUMP MANUFACTURER ☒ PACKING: MFR. & TYPE: NA SIZES: NA NO. RINGS: NA ☒ MECH. SEAL: MFR. & TYPE: BURGMAN-M7N API CODE: NA SHAFT SEAL: SINGLE ACTING SEALING PRESSURE: NA bar/g		MATERIALS: ☐ ARI CLASS NA CORROSION ALLOWANCE: NA ☒ CASE/IMPELLER: DIN 1.4408 ☒ IMPELLER: DIN 1.4408 FASTENER: - SHAFT SLEEVE: DIN 1.4571 ☒ SHAFT: TEMPERED ST C45+N ☒ WEAR RING IMPELLER: NA ☒ BASEPLATE: STEEL	
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AUXILIARY PIPING: C.W. PIPE PLAN: NA C.S.: ☐ S.S.: ☐ COPPER ☐ TUBING ☐ PIPE INCLUDING: ☐ FLOW INDICATORS ☐ INLET VALVE ☐ DISCH. VALVE ☐ -PIPE & FITTING SIZES: NA TOTAL C.W. REQ'D: - m³/h -TYPE: NA DES. TEMP.: - °C DES. PRESS.: - bar/g IN: - bar/g OUT: - bar/g IN: - °C OUT: - °C (MAX) PACKING INJECTION FLUID: NA at - °C REQ'D (m³/h) at - bar/g SEAL FLUSHING PLAN: PLAN 01 C.S.: ☐ S.S.: ☐ TUBING ☐ PIPE EXT. FLUSHING FLUID: NA at - °C REQ'D (m³/h) at - bar/g AUX. SEAL PLAN: NA C.S.: ☐ S.S.: ☐ TUBING ☐ PIPE COUPLER/FLUID: NA C.S.: ☐ S.S.: ☐ TUBING ☐ PIPE STEAM JOISTS: NA SUCTION: ☐ SHUTTING BOX: ☐ COMPLETE PUMP STEAM CONDITIONS: °C: NA bar/g: NA		DESIGN DATA MAINT: - °C MAWP: 16 bar/g PUMP DESIGN TEMPERATURE: - °C MAWP/PLANT DES. TEMP.: - bar/g WEAR RINGS CLEARANCES: - bar/g FINAL DATA ACTUAL IMPELLER DIAM.: 445 OUTLINE DWG. NO.: SEE ATTACHED PUMP SECT. DWG. NO.: - AUX. PIPING DWG. NO.: NA MECH. SEAL DWG. NO.: -	
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MOTOR DRIVERS BY: ITEM NO.: 220052C MFR.: SIEMENS MODEL: 54 FOR MOTOR: 55 TERMINAL BOX: TRFC TYPE: B3 VOLT/PHASE: 6000/3/50 INSULATION: F/R VERT. UNITS: ☐ VSS ☐ VHS THRUST CAP. kg: - UP: - DOWN: -		SITE CONDITION: AIR TEMP. (°C): 52 MAX: -3.6 ALTITUDE (m): 2.8 REL. HUM.: 45% @ 48 °C AMBIENT AIR QUALITY: - - 1 - ACCORDING TO IEC 60034-1 (2) ANTI-CONDENSATION HEATERS & RESISTANCE TEMPERATURE DETECTOR (RTD) SHALL BE PROVIDED FOR ALL MEDIUM AND HIGH VOLTAGE MOTORS. - 2 - VENDOR TO VERIFY SUITABILITY OF MATERIALS FOR INTENDED SERVICE. - 3 - VENDOR TO PROVIDE COMPLETED DATA SHEET FOR MOTOR. - 4 - ALL UN-COMPLETED & APPLICABLE ITEMS WILL BE FILLED AFTER FINALIZING WITH MANUFACTURER, IN THE FINAL DATA SHEET. - 5 - MATERIAL TEST CERTIFICATES SHALL BE SUBMITTED BY THE VENDOR. - 6 - ANY DEVIATION FROM PROJECT SPEC. DATA SHEETS (EXCLUDING VENDOR DATA FOR COMPONENTS FOR WHICH DETAILED INFORMATION OR CATALOGUES ARE NOT AVAILABLE) CONTRACT ATTACHMENTS, MUST BE BROUGHT TO THE CLIENT FOR APPROVAL. - 7 - INSPECTION & TESTS SHALL BE ACCORDING TO IEC 60034-1, IEC 60034-2, IEC 60034-3, IEC 60034-4, IEC 60034-5, IEC 60034-6, IEC 60034-7, IEC 60034-8, IEC 60034-9, IEC 60034-10, IEC 60034-11, IEC 60034-12, IEC 60034-13, IEC 60034-14, IEC 60034-15, IEC 60034-16, IEC 60034-17, IEC 60034-18, IEC 60034-19, IEC 60034-20, IEC 60034-21, IEC 60034-22, IEC 60034-23, IEC 60034-24, IEC 60034-25, IEC 60034-26, IEC 60034-27, IEC 60034-28, IEC 60034-29, IEC 60034-30, IEC 60034-31, IEC 60034-32, IEC 60034-33, IEC 60034-34, IEC 60034-35, IEC 60034-36, IEC 60034-37, IEC 60034-38, IEC 60034-39, IEC 60034-40, IEC 60034-41, IEC 60034-42, IEC 60034-43, IEC 60034-44, IEC 60034-45, IEC 60034-46, IEC 60034-47, IEC 60034-48, IEC 60034-49, IEC 60034-50, IEC 60034-51, IEC 60034-52, IEC 60034-53, IEC 60034-54, IEC 60034-55, IEC 60034-56, IEC 60034-57, IEC 60034-58, IEC 60034-59, IEC 60034-60, IEC 60034-61, IEC 60034-62, IEC 60034-63, IEC 60034-64, IEC 60034-65, IEC 60034-66, IEC 60034-67, IEC 60034-68, IEC 60034-69, IEC 60034-70, IEC 60034-71, IEC 60034-72, IEC 60034-73, IEC 60034-74, IEC 60034-75, IEC 60034-76, IEC 60034-77, IEC 60034-78, IEC 60034-79, IEC 60034-80, IEC 60034-81, IEC 60034-82, IEC 60034-83, IEC 60034-84, IEC 60034-85, IEC 60034-86, IEC 60034-87, IEC 60034-88, IEC 60034-89, IEC 60034-90, IEC 60034-91, IEC 60034-92, IEC 60034-93, IEC 60034-94, IEC 60034-95, IEC 60034-96, IEC 60034-97, IEC 60034-98, IEC 60034-99, IEC 60034-100. - 8 - PUMP VENDOR HAS FULL RESPONSIBILITY. - 9 - OUTDOOR STORAGE FOR MORE THAN 12 MONTHS. - 10 - ALLOWABLE PIPELINE FORCES & MOMENTS STANDARD IS ACCORDING TO API-510, PART-1. - 11 - Document reference: P&ID: 95-1-PR-50005, SHEET 14/24, P&ID: 95-1-PR-50001, SHEET 5/9	
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Gearbox

Item Description

نام تجهیز	تایپ	مدل	سازنده	POWER kw	سرعت دوران موتور	سرعت دوران GEAR	قدرت الکتروموتور	TMP(C)
MX-9513A-D	GEAR BOX COMPLETewith ELECTORMOTOR	X3FA180/F, I= 86,98, SHAFT MOUNTED HELICAL GEAR -	SEW	22.5	1450	17 Rpm	37KW	40



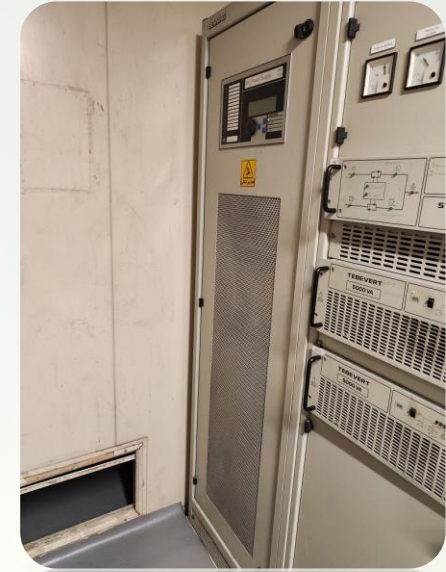
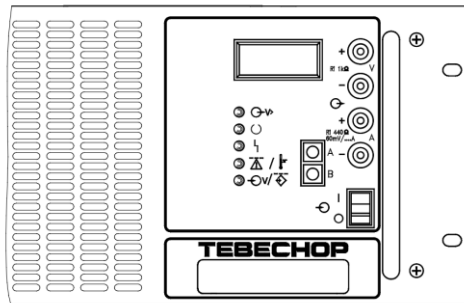
OWNER:	MC:	PROJECT:	CONTRACTOR:	
		FAJR PETROCHEMICAL COMPANY FAJR NO.2 WATER PRETREATMENT PLANT ENGINEERING, PROCUREMENT, CONSTRUCTION & COMMISSIONING		
DOCUMENT TITLE		DOCUMENT NUMBER	REV.	PAGE
MIXER FINAL DATA SHEET (FLOCCULATION & SEDIMENTATION UNIT)		95-DSH-ME-2206	3	3 OF 3
PROJECT : FAJR NO.2 WATER PRETREATMENT PLANT TAG NO. : MX-9513 A-D		OWNER : NATIONAL PETROCHEMICAL COMPANY DESCRIPTION : REACTION MIXERS		
1 Mixer Specification : 2 Mixer vendor : 3 Mixer type : 4 Number of mixer : 5 Type of liquid : 6 Density of liquid : 7 Viscosity of liquid : 8 Temperature : 9 Pressure : 10 Number of Impeller : 11 Impeller height from bottom of tank (Hi) : 12 Diameter of propeller (Di) : 13 Coating : 14 Number of blade : 15 Size of Blade : 16 Mixer position on vessel : 17 Mixer efficiency : 18 G-value : 19 Reynolds No. : 20 Tip speed : 21 Power No. : 22 Speed : 23 Propeller Flow Rate : 24 Axial Load : (N) 25 Radial Load : 26 Torque : (Nm) 27 Bending Moment : (Nm) 28 Absorbed power : 29 Approximate Weight : 30 Motor / Gearbox specifications : 31 Motor power : 32 Speed : 33 Voltage/phase/Hz : 34 Protection-insulation class/Heating increase : 35 Manufacturer : 36 Gear unit type : 37 Accessories : 38 Gear output speed : 39 Drive sound level : 40 Gear unit service factor : 41 Gear unit bearing life time : 42 Gear unit shaft seal : 43 Mixer shaft coupling : 44 Electrical Area Class : 45 Material : 46 Impeller : 47 Shaft : 48 Coupling : 49 Immersed bolts and nuts : 50 Tank Material : 51 Tank Dimensions : 52 LxWxH : 53 Maximum Liquid Level : 54 Water Volume Total : 55 Mixing Direction : 56 Duty : 57 Location : 58 Site Condition : 59 Altitude : 60 Amb Temp. : 61 Humidity :		EKATO GERMANY FDE 160 Four (4x25%) Flash mixed water 1000 kg/m3 1.14 cP @ 15 °C Operation : 15-35° C Design : 85°C Operation : ATM Design : ATM 3 (Three), each stage has 2 removable impeller at 90° offset 800 mm 3000 mm Epoxy polyamide 4 blades, Viscoprop 53", 2x2-bladed (on block) Tip to Tip equal to 3000mm Vertical - Central - 187 1/s 2535402 <2.6 m/s 4.22 17 (rpm) 42477 approx. - 20785 17850 22.5 (KW) 4330 (Kg) 37.0 (KW) 1450 (rpm) 400/3/50 IP54 for motors, IP55 for terminal box- F/B SEW Germany Shaft mounted helical gear with IEC adaptor. motor canopy 17 rpm, C.W. (looking from drive to shaft end) <85 dB (A) 2.9 30,000 hr (LH10) safety labyrinth seal Ø365 mm, rigid type Safe Area Carbon Steel+Epoxy polyamide 180 mic. Carbon Steel+Epoxy polyamide 180 mic. Carbon Steel+Epoxy polyamide 180 mic. ISO 3506 , A4-70 Concrete 10000 mmx10000 mmx 8800 mm 7540 mm ~ 750 m3 Downward Continuous Outdoor (Udershelter) +2.8 m Min. : -3.5°C , Max. : 52°C 45% AT. 48°C		NOTES: 1-Vendor to verify suitability of materials and coating for intended service. 2-Vendor to complete & finalize data sheet. 3-Max. noise level: <85 dB @ 1m. 4-Specification no.: 95-ESS-ME-2005. 5-Gear unit sealing: Safety Labyrinth for gear unit leakage. 6-Gear unit bearing life time 30,000 (Lh10). 7- Weather unusual conditions: Specific condition of atmosphere at site which may cause corrosion and contamination, such as saline air, dust,sandstorm or others : -Sea breeze for electrical and instrument equipment and painting. - Sandstorm - Thunder and Lightning. 8-Required spare parts list for commissioning / start up / 2-years to be recommended by the mixer vendor. 9-Life time for the equipment shall be 25 years. 10-INSPECTION & TESTS SHALL BE IN ACCORDANCE WITH: QCP DOCUMENT NO. 95-PCJ-QC-2001 3

TC-9513 A-.../D

Benning Charger & Monitoring

Item Description

- Brand: BENNING
- Input Voltage: 400 VAC
- Input Current: 23 A
- Output Voltage: 216 VDC
- Output Current: 55 A

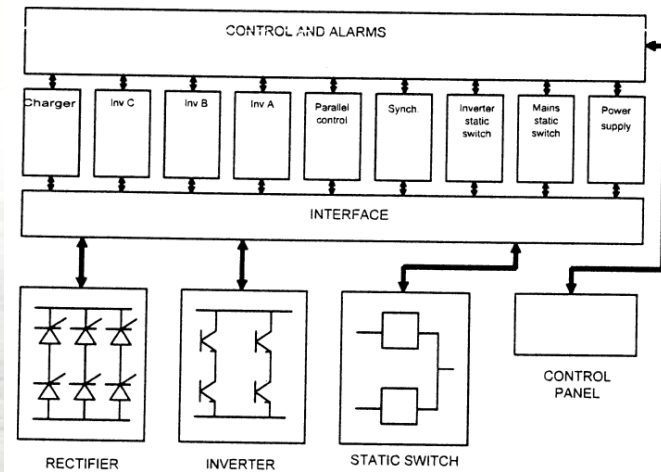


	Date	Name		No. 3086 en
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Revision:	13.01.10	Gö/Obs		
Checked:	13.01.10	Gröing		

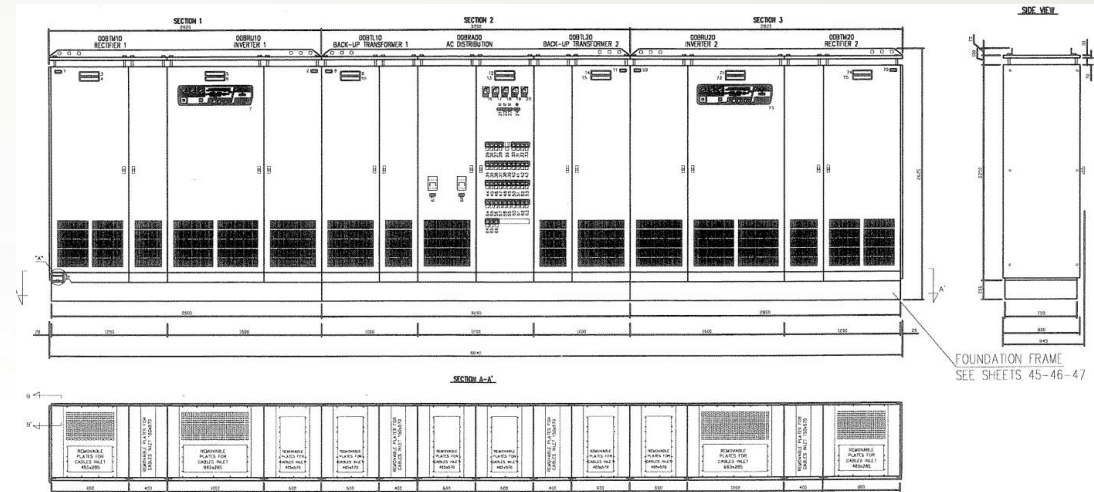
UPS Saft

Item Description

- Function: Charger control, alarm management, and static switch control
- Application: Power supply / UPS system
- Board Type: Main control board (Mother Board)



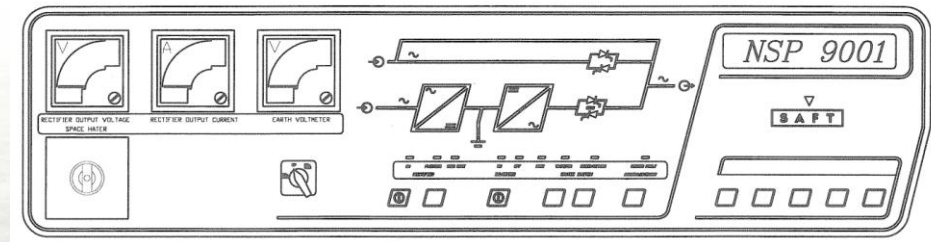
- Block diagram of control unit -



NOTES:

- WEIGHT : SECTION 1 ~ 2.650 Kg
- SECTION 2 ~ 2.650 Kg
- SECTION 3 ~ 2.650 Kg
- TOTAL ~ 7.950 Kg

- PROTECTION DEGREE : IP41 (IP20 WITH OPEN DOOR)
- PAINTING : INTERNAL/EXTERNAL RAL6021 GREEN SEMI-GLOSS
- SAFT PAINTING CYCLE : SP004PAAVE
- COMPONENTS ACCESSIBLE FROM CABINET FRONT AND REAR
- REAR AND SIDE PANELS ARE SCREW REMOVABLE



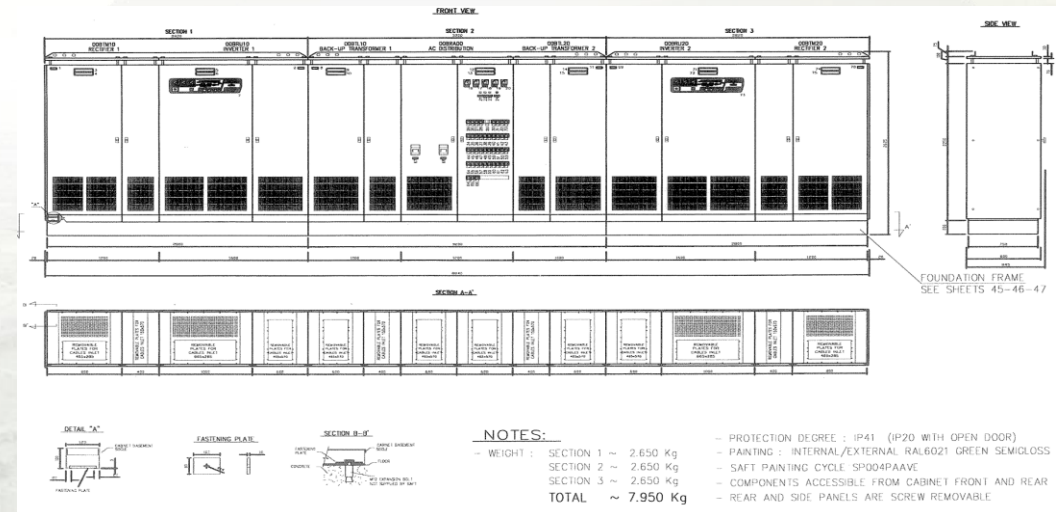
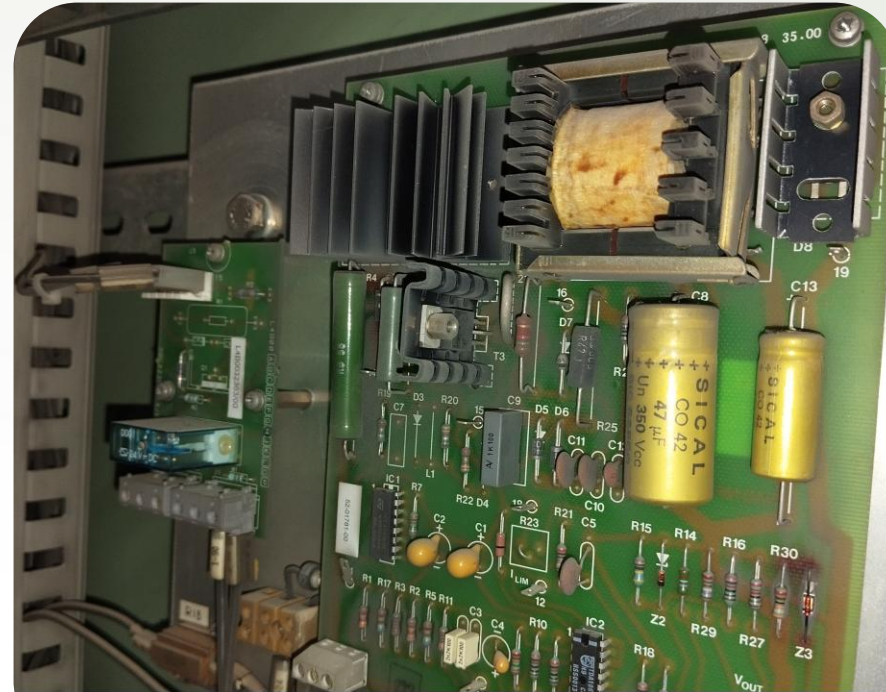
UPS Card

Item Description

- Item: P.S.U, CARD SABNIFE
- Input Voltage: 110–12 V
- Output Voltage: 24 V
- Output Current: 1 A
- Main Part No.: NIS520178100

Technical Data:

- System: UPS 9001/220/80 Single Phase
- System Code: 110TPR370Z132
- Drawing No.: DM509Q
- Reference: 115610-000B00-EDV230
- Serial No.: 5447 / 5450
- Job No.: AC0663
- Manufacturer Reference: SAFT NIFE, Sweden



MNS ABB Motor Feeder (Iran Tablo)

Item Description

MNS Switchgear System

- Item: MNS SYSTEM (SWITCHGEAR)
- Manufacturer: ABB
- Type: TFINIT 152,7E
- Rated Voltage: 230 V
- Frequency: 50 Hz
- Circuit Diagram No.: 1TCH10555/152.01

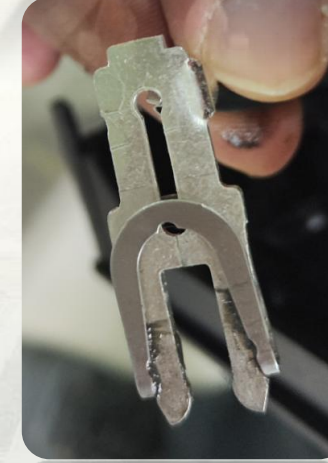
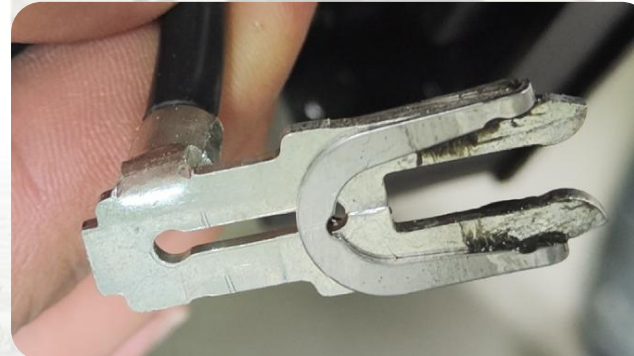
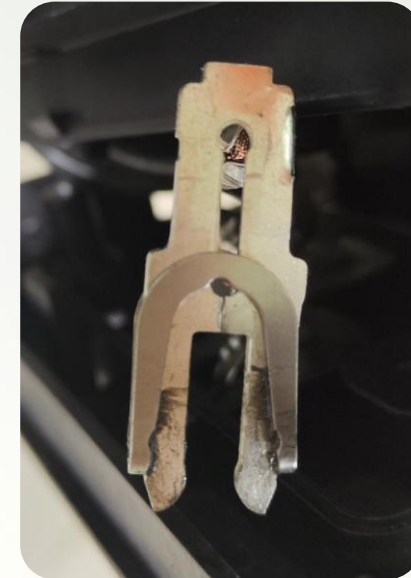
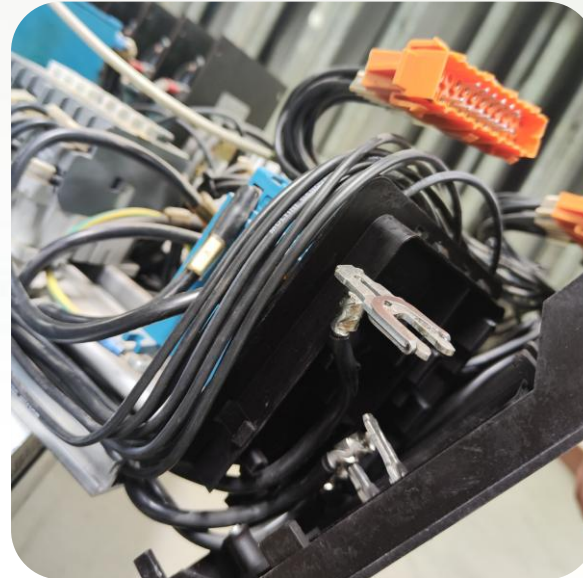


MNS ABB Power Finger (Iran Tablo)

Item Description

Power Contact Unit

- Item: POWER CONTACT UNIT
- Manufacturer: ABB
- Cable Length: 500 MM
- Rated Current: 160 A



Boiler C-Ignition

Item Description

Gas Fired Igniter

- Item: GAS FIRED IGNITER
- Manufacturer: HEGWEIN
- Type: ZAVEX/OS -130M50/L000M
- Voltage: 110–115 V
- Frequency: 50–60 Hz
- Protection Class: IP65
- QA No.: 261675-04
- Explosion Protection: EX II 2G EEx de II B T4
- Assembly: Complete Assembly

Gaszündbrenner Gas Ignitors



Ausführungen ohne oder mit elektrischen Anbauteilen: siehe Tabelle Seite 3
see table page 3

Zündbrenner mit Rohr Ø 135 mm

Beispiel für Zündbrenner ZA3

Flammenleistung max. 1000 kW
Flammenlänge max. 2000 mm
Zündrohrlänge L 240 – 10000 mm
Gasanschluss 2" oben oder unten
Gasdruck 50 – 150 mbar
Luftanschluss DN 80 PN 6, um jeweils
90° versetzbar
Luftdruck ≤ 5 mbar
langenabhängig

TrafoTeil: 2x 5 kV
Zündung gegeneinander
Umgebungstemp. 0°C bis +60°C
Schutzart IP 54

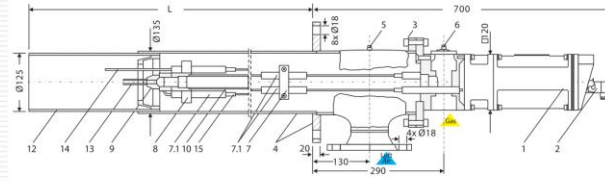
Hegwein

Ignitors with tube Ø 135 mm

Example for ignitor ZA3

heat release max. 1000 kW
flame length max. 2000 mm
ignitor tube length L 240 – 10000 mm
gas inlet 2" above or below
gas pressure 50 – 150 mbar
air inlet DN 80 PN 6, may be
rotated in steps of 90°
air pressure ≤ 5 mbar, depending
on tube length

Transformer part:
ignition 2x 5 kV electrode to
electrode
ambient temperature 0°C up to +60°C
protection IP 54



1 Trafo- u. Flammenwächterteil
ignitor head
2 Winkelanker
electrical female plug
3 Befestigungsschrauben
screws
4 Zündrohr mit Befestigungsflansch
ignitor tube with mounting flange
5 Luftprüfzutzen
air pressure test nipple
6 Gasprüfzutzen
gas pressure test nipple

7 Keramikhalter
holder for ceramic insulators
7.1 Isolator
ceramic insulator
8 Elektrodensteg zur Aufnahme von
2 keramischen Isolatoren mit Zündelektroden und
Ionisationselektrode
rod electrode supporting ring for 2 ceramic insulators with
ignitor electrodes and flame rod
9 Gasdüse
gas nozzle
10 Gasrohr
gas tube

11 Verbindungsstange
connecting rod
12 Mischkammer
mixing chamber
13 Zündelektroden
ignitor electrodes
14 Ionisationselektrode
flame rod
15 Buchsen
sockets

Zündbrenner Größe 4 und 5 mit Rohr
Ø 160 bzw. 220 mm mit ähnlichem Auf-
bau, jedoch größeren Abmessungen.

Ignitors size 4 and 5 with tube Ø 160 or
220 mm are of a similar design but have
larger dimensions.



Gaszündbrenner Gas Ignitors



Ausführungen: siehe Tabelle Seite 3
Versions: see table page 3

Zündbrenner (Ex)-geschützt

Beispiel für Zündbrenner ZAVEX

Flammenleistung max. 250 kW
Flammenlänge max. 1200 mm
Zündrohrlänge L 240 – 10000 mm
Gasanschluss 3/4" oben oder unten
Gasdruck 50 – 150 mbar
Luftanschluss 1 1/2" um 4 x 90° ver-
setzbar
Luftdruck ≥ 10 mbar
langenabhängig

TrafoTeil: druckfest gekapselt
EEx de IIB T4 oder
EEx de IIC T4
gemäß EN 50018/19,
CENELEC geprüft

Zündung 5 kV
Umgebungstemp. 0°C bis +60°C
Schutzart IP 65

*) auch für Dauerbetrieb lieferbar

Hegwein

Explosion proof ignitors

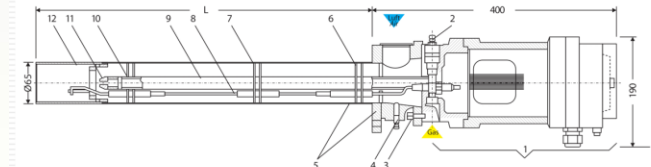
Example for ignitor ZAVEX

heat release max. 250 kW
flame length max. 1200 mm
ignitor tube length L 240 – 10000 mm
gas inlet 3/4" above or below
gas pressure 50 – 150 mbar
air inlet 1 1/2" may be rotated
in steps of 90°
air pressure ≥ 10 mbar, depending
on tube length

Transformer part: flame proof housing
EEx de IIB T4 or
EEx de IIC T4
acc. to EN 50018/19,
CENELEC approved

ignition 5 kV
ambient temperature 0°C up to +60°C
protection IP 65

*) also available for continuous operation



1 Trafo- und Flammenwächterteil explosion proof head
2 Gasprüfzutzen gas pressure test nipple
3 Inwendigschraubenschrauben Allen screws
4 Luftprüfzutzen air pressure test nipple
5 Zündrohr mit eingewerbter Mischkammer und
Befestigungsflansch
ignitor tube with rolled in mixing chamber and mounting
flange

6 Verbindungsstange mit 2 keramischen Isolatoren
connecting ring with 2 ceramic insulators
7 Zwischensteg mit 2 keramischen Isolatoren
intermediate supporting ring with 2 ceramic insulators
8 Verbindungsstange connecting rod
9 Gasrohr gas tube
10 Elektrodenstegring final electrodes supporting ring
11 Gasdüse gas nozzle

12 Mischkammer mit Mischring
mixing chamber with mixing ring

Sonderausführungen für verschiedene Zünd- brennerbaureihen

- Gegendruckfest in Stufen von
6/16/64 bar
- Zündbrenner mit teilbarem Rohrsatz
für Größen P/0/1
- Namur-Beschaltung des
Flammenwächters

Special versions for several ignitor series

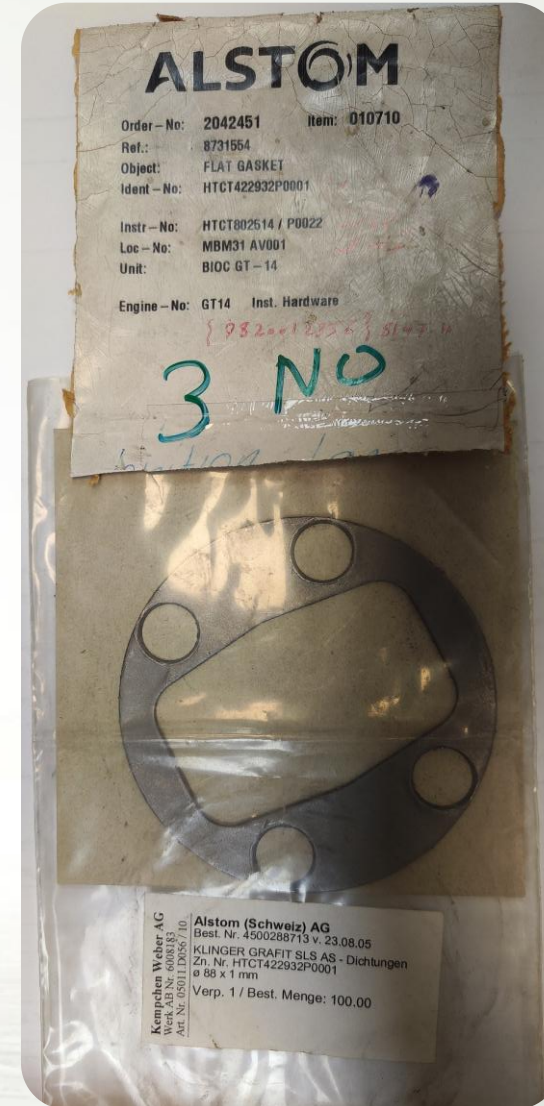
- Suitable for back pressures of up to
6/16/64 barg
- Ignitors size P/0/1 with divisible tubes
- Flame monitor with NAMUR circuitry

Ignition Gasket

Item Description

Flat Gasket

- Item: FLAT GASKET
- Size: D88 × 1 MM
- Position: POS.22
- Main Part No.: HTCT422932P0001
- Related Assembly: Burner, Left & Right
- Tag No.: MBM31 AV001-037
- Turbine Type: ALSTOM GT11N2-EV
- Document No.: HTCT 676 166
- Reference: ALSTOM POWER LTD., ENGLAND

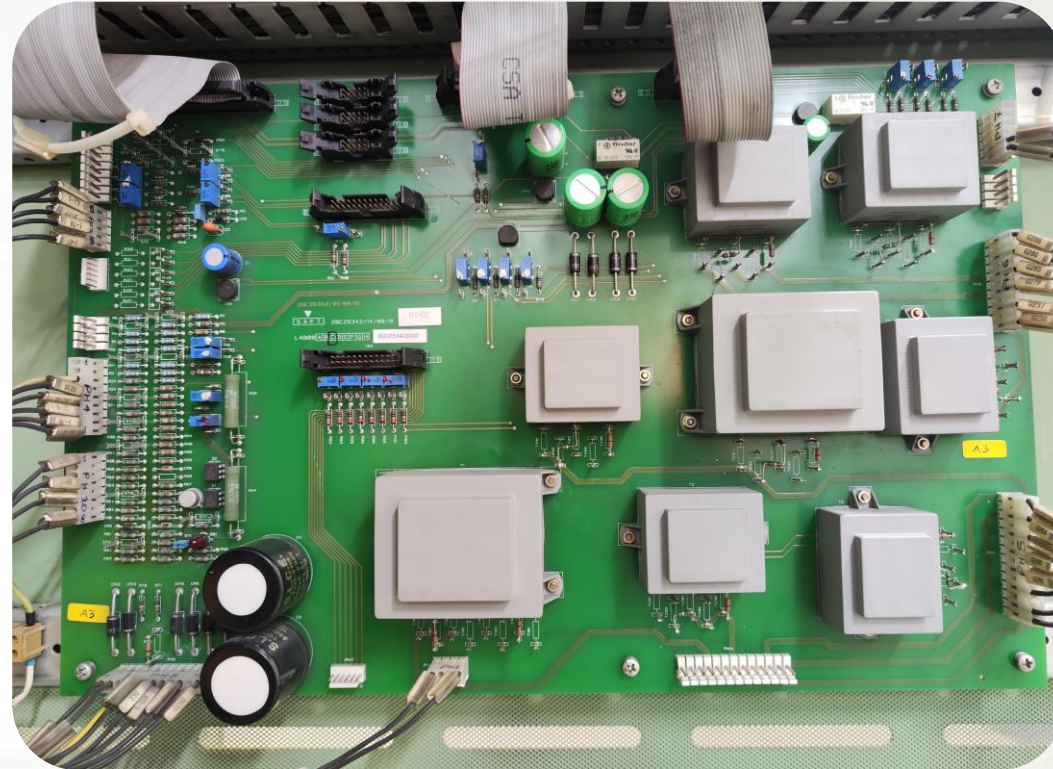


UPS Card

Item Description

Parts for ((SAFT)) UPS 9001/220/80 Single Phase System

- System: UPS 9001/220/80
- Phase: Single Phase
- System Code: 110TPR370Z132
- Drawing No.: DM509Q
- Additional Doc No.: 115610-000B00-EDV230
- Serial No.: 5447 / 5450
- Job No.: AC0663
- Reference: SAFT NIFE, SWEDEN



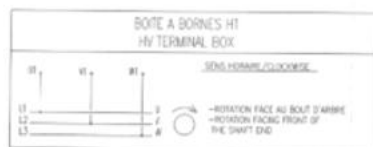
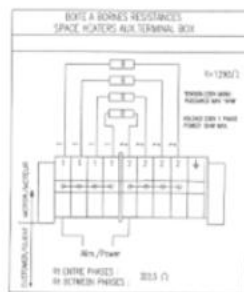
Crank Motor GE

Item Description

- Item: ELECTRIC MOTOR
- Manufacturer: CONVERTEAM
- Power: 1000 KW
- Type: F3PXCN450L/2
- Voltage: 6000 V
- Current: 111.3 A
- Phase: 3 PH
- Frequency: 50 HZ
- Speed: 2973 RPM
- Mounting: IM 1002
- Insulation Class: CL. F
- Protection Class: IP23
- Power Factor (COS PHI): 0.93
- Reference: CONVERTEAM, FRANCE



Item Description



ALSTOM		(SQUIRREL CAGE INDUCTION)		D.S.N. DS-V-6501-M	
ALSTOM Power Italia S.p.A.		DATA SHEET		M.R.N. W001-MSS-RE-001	
CUSTOMER FAJR		PLANT BIOC Power & Steam Generation Package		Sh. 2 of 2 Rev. UNIT 6501	
INSPECTION, TESTING, & RELEASE					
REQUIRED		WITNESS			
☒ Shop Inspection (*) [1]	☒ [1]	☐	☐	☐	☐
☒ Routine Tests (*) [1]	☐	☐	☐	☐	☐
☐ Complete Tests	☐	☐	☐	☐	☐
☐ Immersion Test	☐	☐	☐	☐	☐
☐ Special Tests (List Below):	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐
(*) According to Attach.4 of M.R. and Spec. n° MSS-EL-503 rev.1 [1]					
MANUFACTURERS DATA - FURNISH WITH PROPOSALS					
Manufacturer ALSTOM [2]		Certifying Authority _____			
Side:	☒ IEC ☐ BS ☐	Certificate No. _____			
Frame Size	450 [2] Pull Load RPM 2975 [3]	Weight of Motor 4,100 kg [3]			
Locked Rotor Amps	@ Rated Voltage 341.3 [3] @ 80% Voltage 273 [3]	Bearing Type: ☐ Ball ☐ Roller ☒ Oil Mount			
		Lubrication: ☐ Grease ☒ Oil ☐ Sleeve			
Locked Rotor Power Factor	0.13 [2]	Full Load Torque 2,022 Nm [3]			
		Locked Rotor Torque 55 % [3]			
		Break Up Torque 55 % & 0 RPM [3]			
		Pull Down Torque 220 % [3]			
		Min. Accelerating Torque 18 % at 0.8 RV [2]			
		No Load Current 10.5 Amps [3]			
		Noise Level 80 dBA @ 1 M (NO-LOAD) [3]			
MANUFACTURERS DATA - FURNISH AFTER RECEIPT OF ORDER					
Rotor Wt ² _____ 20 kg. m² @ Motor RPM[M]	Starts Per Hour: Hot 2 Cold 3		Heating Time Constant: 285 min [2]		
Inertia Constant _____ mW sec/mVA	Hearing Time Constant: 42 min [2]		Cooling Time Constant: _____ [2]		
Bearings:	Coupling End - _____ Outboard End - _____ Thrust - Top - _____ Bottom - _____	Manufacturer _____ Rerk _____	Part No. _____		
Curves Required Based On Motor Saturation @ Rated Voltage					
☒ Speed vs. Torque (Also @ 80 % Rated Voltage)					
☐ Speed vs. Power Factor					
☐ Acceleration (Motor & Load @ Specified Voltage)					
☐ Thermal Withstanding Curves, Hot & Cold					
☐ Safe Stall Time Curve					
☒ Speed vs. Current					
☐ Rotor End Fluct					
☐ Rotor Air Gap					
☐ Starting Current Vs. Time @ 100% & 30%V					
☒ Locked Rotor Withstand Time: 100%V 80% V [3]					
Hot 19 36					
Cold 27 56					
Run up Time 5 11					
Max. Allowable Run Up Time 10 18					
☐ Locked Rotor Impedance @ 20 °C, Zb _____ Ohms					
☐ Locked Rotor Reactance @ 20 °C, Xb _____ Ohms					
☐ Locked Rotor Resistance @ 20 °C, Rb _____ Ohms					
☐ Stator Resistance @ 20 °C _____ Ohms					
☐ Rotor Resistance @ 20 °C _____ Ohms					
☐ Steady State Reactance _____ Ohms					
☐ Transient Reactance _____ Ohms					
☐ Sub Transient Reactance _____ Ohms					
X/R Ratio: _____					
☐ Open Circuit Transient Time Constant, Tdo _____					

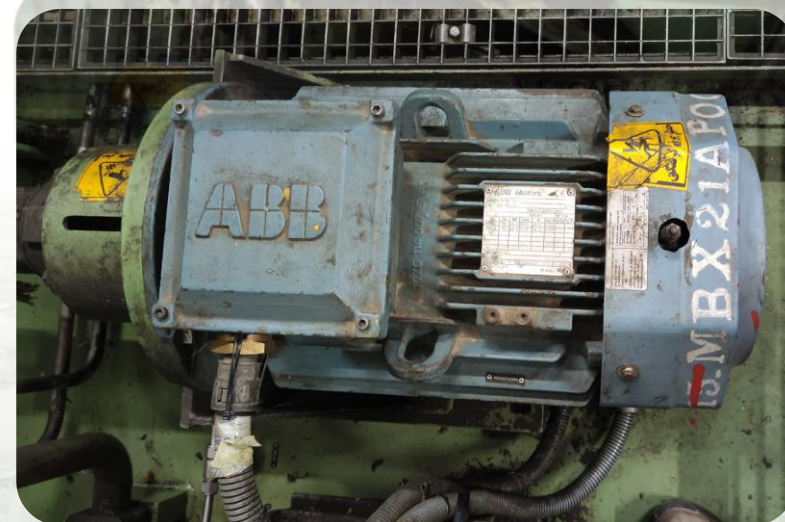
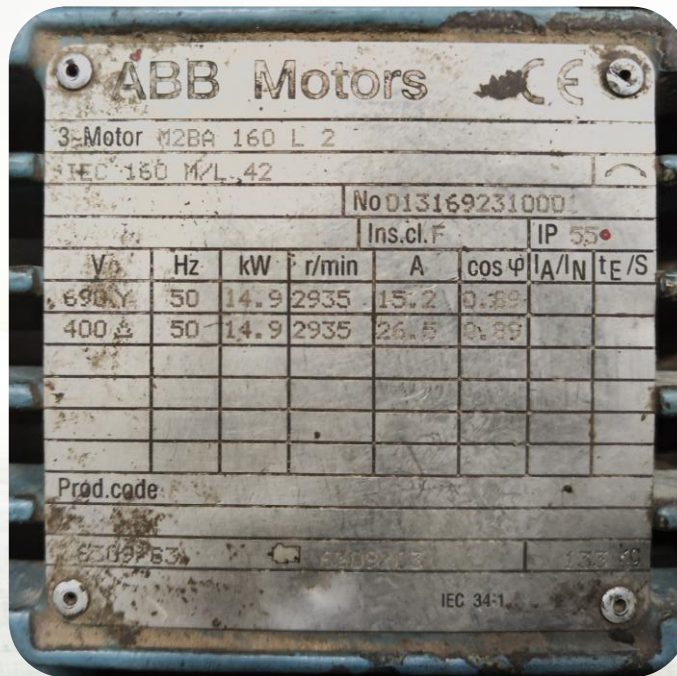
ALSTOM (SQUIRREL CAGE INDUCTION)		D.S.N. DS-9501-M51	
ALSTOM Power Italia S.p.A.		M.R. N. W001-M55-RE-001	
DATA SHEET		Sh. 1 of 2 Rev. 3	
CUSTOMER FAJR		PLANT BIOC Power & Steam Generation Package	
Sh. 1 of 2 UNIT 6501		Rev. 3	
Applicable To: Proposal ☒ Purchase ☒ As Built ☐			
Drive Equipment Centrifugal pump No. Required Five (1)			
Manufacturer ALSTOM MOTORS ☒ Motor Tag No. F332K450K26 ☒			
NOTE: Indicate Information To Be Completed ☐ By User ☒ By Manufacturer			
MOTOR DESIGN DATA			
Basic Data:			
● 6,000 Volts 3 Phase 50 Hertz			
● Nameplate kW 630 U.R.P.M. 3000 F.L. 2975 ☒			
● System Neutral ☐ Lined ☐ Reinforced ☐ Solidly			
● System Fault Level 3 kA			
● Insulation Class F Type			
● Temp. Rise: B / 66 °C Above 54 °C AMBIENT			
● Winding Connection ☐ Star ☐ Delta			
Site Data:			
● Area Safe ☐ Unclassified ☐ Gas Group _____ Zone _____			
● Temperature Class _____			
Starting:			
● Loaded ☐ Unloaded ☐			
● D.O.L. ☐ Star ☐			
● Auto TRF ☐ Unit TRF ☐ Soft Start ☐			
Rotation when Facing Motor Opposite Drive End:			
☐ Clockwise ☐ Counterclockwise ☐ Bi-directional			
ACCESSORY EQUIPMENT			
Winding Temperature Detectors:			
● RTD Type: No./Phase 2 Resistance Material PT100 ● 100 Ohms 0° C			
● Wire System: ● 3 Type ☐ or ☐			
● Thermocouple: No./Phase _____ Type: _____			
● Thermistors: No./Phase _____ Type: ☐ Pos. Temp. Coeff. ☐ Neg. Temp. Coeff.			
● Max. Motor Winding Temp: _____ °C For Alarm, _____ °C For Shutdown			
● Bearing Temp. Devices ☐ Provision Only ☐ Material ☐ RTDP ☐ Ohms _____			
● 2 Dial Type Thermometer ☐ Alarm Contacts ☐ Thermocouple, Type _____			
● Location 1 DE + 1 NDE			
● Description ☐ Set @ 90 °C Alarm, 100 °C Shutdown			
● Space Heaters ☐ 230 Volts 1 Phase 50 Hertz			
● Max. Sheath Temp. _____ °C			
Current Transformers for Diff. Protection:			
☐ C.T. Ratio _____ C.T. Acc. Class _____			
● Partial Discharge Coupler _____			
● Vibration Devices:			
☐ Probe Drilling Only _____			
☐ Probes Installed: Type _____			
☐ Switch _____			
☐ Manual Reset ☐ Electric Reset			
● C.T.'s for R.T.D. Protection (Mounted in Neutral Terminal Box)			
Main Terminal Box Size For:			
☐ Main Motor Leads ☐ Type _____			
☐ Space For Stress Cords ☐ Size _____			
Cable Type & Size			
☐ Space Heater _____			
● RTD _____			
Neutral C.T. 0000641			
● Drain Plug _____			
REMARKS:			
3 Issued for Order ☒			
0 Issued for Invitation to Bid			
REV. DESCRIPTION			
G.N. A.S. M.L. 5 Feb 20			
G.N. A.S. S.C. 30 Jul 99			



Power Oil Electromotor

Item Description

-



تسمه ارت بافته شده

Item Description

-

Flat Braid

Description

Our most economical standard flat copper braids are made from 0.20 dia wire and are braided into a tube followed by a rolling process to flatten them. We also supply this format of braid constructed from 0.1mm and 0.05mm wire diameters for increased flexibility to match your applications needs.



Application

Flat braid is highly suited to applications where vibration absorption and flexibility are fundamental to the operating characteristics of the component.

Specification

This braid is produced from Cu-ETP copper wire according to EN 13602 giving it superb electrical characteristics. Standard finishes are both plain/red copper and electro tinned. Silver and Nickel plating options are available but may be subject to minimum order quantities.

The Range

The table on the right shows our standard range from 2mm² through to 150mm² however we can supply from 0.5mm² to 500mm². The standard wire diameter sizes available are 0.1mm, 0.15mm and 0.2mm - all design proposals are welcome.

How to Order

To order Round braid please specify 'RB' + 'Cross Sectional Area' + wire type and then specify the finish you require an example would be 'RB16-0.2 Tinned'. This enquiry can be completed either through our sales team on 0151 548 7040 or through our dedicated website www.copperbraid.co.uk

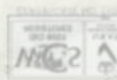
Standard Flat Copper Braid					
Part Code	Nominal area (mm ²)	Width (approx. mm)	Thickness (approx. mm)	Wire Diameter	Amp Rating as per POS-02
FB2-0.15	2	3	1	0.15	27
FB3-0.15	3	5	1.2	0.15	36
FB4-0.15	4	6	1	0.15	45
FB5-0.15	5	8	1	0.15	59
FB6-0.15	6	10	1	0.15	65
FB8-0.15	8	8	1.5	0.15	72
FB10-0.2	10	10	1.5	0.15	86
FB16-0.2	16	16	2	0.2	128
FB20-0.2	20	25	1.6	0.2	166
FB25-0.2	25	16	3	0.2	179
FB30-0.2	30	25	2.4	0.2	206
FB35-0.2	35	25	3	0.2	224
FB50-0.2	50	30	3.3	0.2	287
FB70-0.2	70	30	4.7	0.2	345
FB75-0.2	75	30	5	0.2	371
FB100-0.2	100	40	5	0.2	456
FB120-0.2	120	40	6	0.2	504
FB150-0.2	150	50	6	0.2	627

PRODUCT GUIDE: Flat Braid

CAT
PAGE:
05-04



Email: sales@tranect.co.uk
0151 548 7040 Web: www.tranect.co.uk
VAT No: 768195383 Company No: 04142556



VAT No: 768195383 Company No: 04142556
0151 548 7040 Web: www.tranect.co.uk
Email: sales@tranect.co.uk



Persian Gulf Fajr Energy Co.

AC Servo Motor

Item Description

- Manufacturer: PARKER (SSD DRIVES)
- Type: AC R 2000-3/4-6-BKH
- Rated Torque (MN): 20 Nm
- Rated Current (IN): 13.2 A
- Speed (N): 3000 /min
- Insulation System (IS): KI.F
- Protection Class: IP65
- Mounting: IM B5
- Cooling Method: IC 004



		AC	R	RL
Degree of protection:	IP44 (with separate fan)	☐	☐	☐
With mounted mating connectors and built-on motor	IP65	☐	☐	☐
Magnetic material:	NdFeB	☐	☐	☐
Electrical connections:	Straight flanged sockets	☐	☐	☐
Thermal protection of motor:	Thermal detector PTC	☐	☐	☐
Power:	In accordance with DIN VDE 0530 installation site: 1000 ASL T = 100K, Tu 40°C measured with attached cooling surface	☐	☐	☐
Voltage:	325 V DC	☐	☐	☐
	565 V DC	☐	☐	☐
Cooling:	Self cooling	☐	☐	☐
	Separate cooling	☐	☐	☐
Operating mode:	Continuous operation S1	☐	☐	☐
Bearings:	Ball bearings, service life approx. 15.000 h	☐	☐	☐
Motor shaft: (Standard)	With key, in accordance with DIN 6885	☐	☐	☐
Rotational accuracy:	N, in acc. with DIN ISO 2373	☐	☐	☐
Number of pole pairs:	2 (motor size 1 - 2)	☐	☐	☐
	3 (motor size 3 - 4)	☐	☐	☐
Resolver type:	2 pole standard resolver transmitter	☐	☐	☐
Insulation class:	F (VDE 0530) 155° C, heating 100° K	☐	☐	☐
Varnish: (standard)	Similar RAL 9005 (black)	☐	☐	☐

☐ standard design
☐ not possible
☐ dependent on size

3.4 AC R: Motor size 4

AC-Servo motor Type:	Size	power	torque	Rated speed	current at 325V DC	torque	Static max. torque	current	Moment of inertia with resolver
	(-)	P _N (kW)	M _N (Nm)	n _N (min ⁻¹)	I _N (A)	M _N (Nm)	M _{max} (Nm)	I _N (A)	J _R (kg·cm ²)
AC R 1750-114-6	4.1	1.80	17.50	1000	-	4.00	25.00	5.70	100.00
AC R 1500-214-6	4.1	3.10	15.00	2000	-	6.90	25.00	10.00	11.50
AC R 1250-314-6	4.1	3.90	12.50	3000	-	8.70	25.00	17.40	100.00
AC R 2800-114-6	4.2	2.90	28.00	1000	-	6.50	40.00	9.20	150.00
AC R 2400-214-6	4.2	5.00	24.00	2000	-	11.10	40.00	18.40	150.00
AC R 2000-314-3	4.2	6.30	20.00	3000	24.90	-	40.00	16.00	49.85
AC R 2000-314-6	4.2	6.30	20.00	3000	13.90	40.00	160.00	27.80	150.00
AC R 3800-214-6	4.3	8.00	37.80	2000	-	16.50	63.00	29.00	230.00
AC R 3150-314-6	4.3	10.00	31.50	3000	-	21.90	63.00	43.80	230.00

AC-Servo motor Type:	Size	Mass	Motor resistance	Motor inductance	Thermal time constant	Torque constant	E.M.F. constant
	(-)	m (kg)	R _m (Ω)	L _m (mH)	T _{th} (min)	K _T (Nm/A)	K _E (V/1000 min ⁻¹)
AC R 1750-114-6	4.1	26.00	6.26	56.12	-	4.38	265
AC R 1500-214-6	4.1	26.00	1.56	14.04	-	2.17	133
AC R 1250-314-6	4.1	26.00	0.7	6.38	-	1.44	88
AC R 2800-114-6	4.2	32.00	3.32	35.72	-	4.30	265
AC R 2400-214-6	4.2	32.00	0.84	8.52	-	2.16	133
AC R 2000-314-3	4.2	32.00	0.12	1.24	-	0.80	50
AC R 2000-314-6	4.2	32.00	0.38	3.96	-	1.44	88
AC R 3800-214-6	4.3	43.50	0.44	6.40	-	2.17	141
AC R 3150-314-6	4.3	43.50	0.20	2.56	-	1.44	88

* values on request

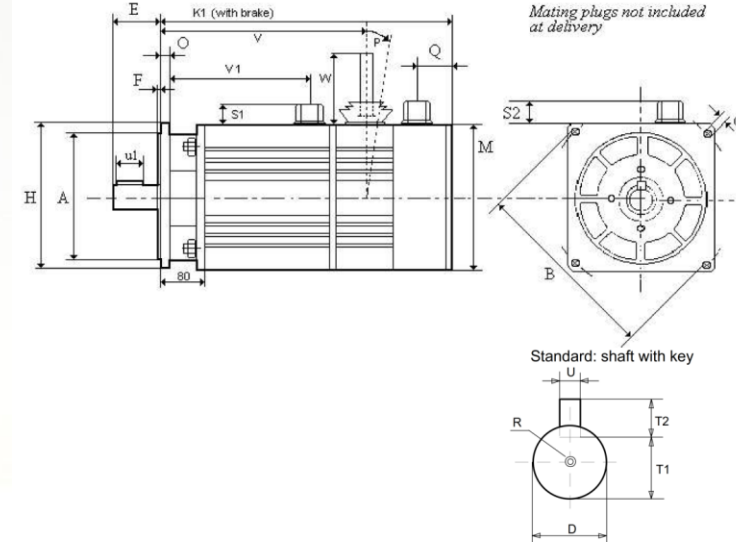
11.1 Special motor

AC R 1250-3/4-6-BKH (Special brake with additional hand operation)
AC R 2000-3/4-6-BKH (Special brake with additional hand operation)

Note:

Hand lever operation only hand-held toward motor end → (approx. 5°).

Dimensions:



AC R .. size	A (j6)	B	C	D (k6)	E	F	H	K1 ca.	M	O	P ca. (°)	Q	R	S1	S2	T1	T2	u	u1	V ca.	V1 ca.	W ca.
4.1	180	215	14	32	58	4	185	508	187	13	5	26	M10-25	25	21	27,3	8h11	10h11	50	400	295	80
4.2	180	215	14	32	58	4	185	554	187	13	5	42	M10-25	25	21	27,3	8h11	10h11	50	450	342	80

All dimensions in "mm", except "P"

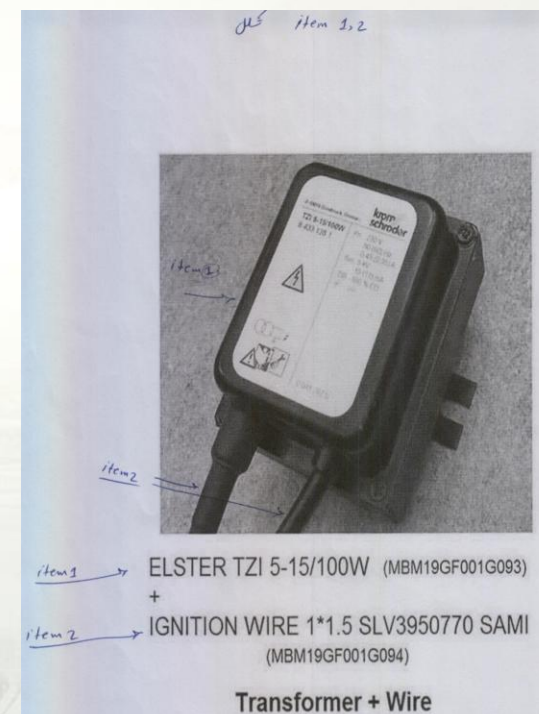
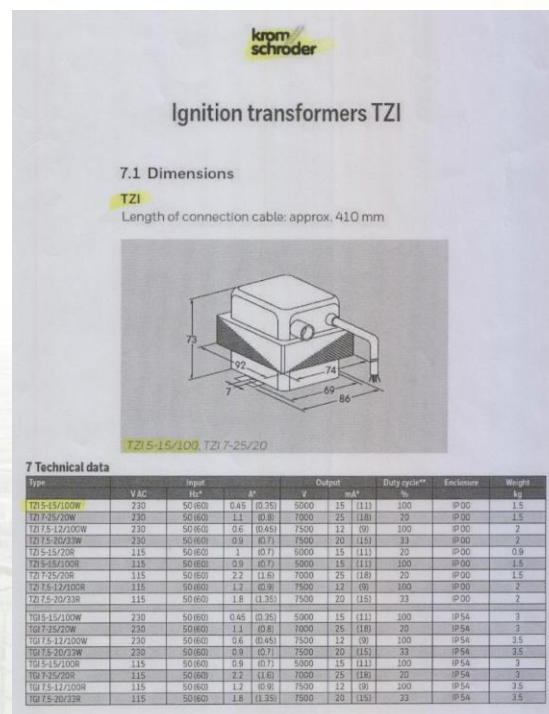
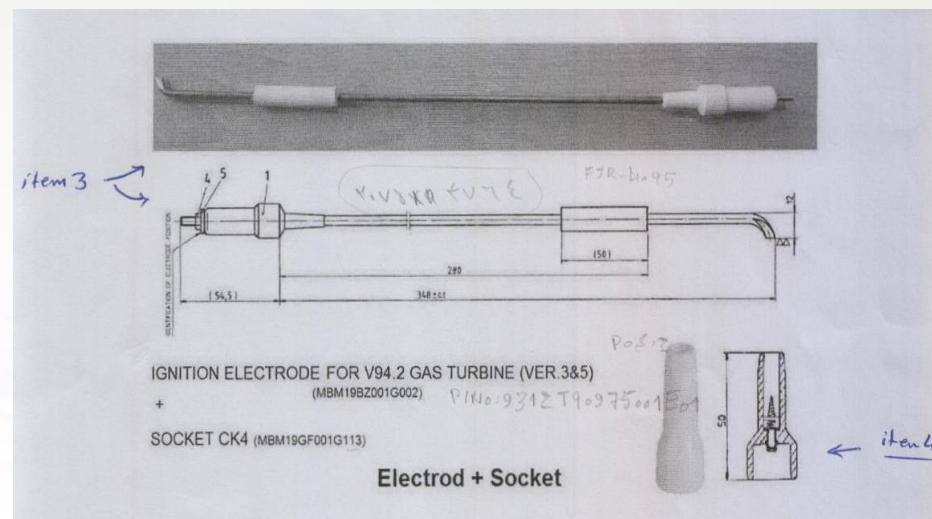
Remark:

With flanged on gearbox the output shaft (due to the gear reduction) is hardly rotatable also with released brake.

IGNITION SYSTEM PACK (PWR2)

Item Description

- Ignition Electrode
 - Position: POS.002
 - Manufacturer: ANSALDO
 - Part No.: 9312T90975001E01
 - Stock Code: 2075804764
 - Discipline: Electrical
- Impeller
 - Position: POS.4
 - Quantity: 2 PCS
 - Stock Code: 3018670223
 - Discipline: Mechanical
- Socket CK4
 - Position: POS.113
 - Stock Code: 2075788764
 - Discipline: Electrical



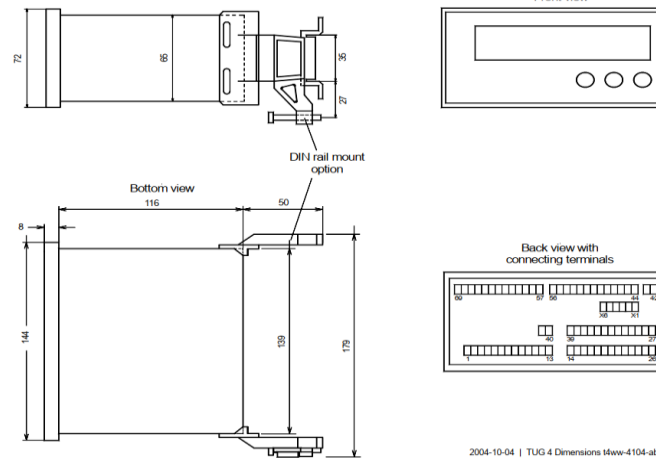
Monitoring Unit

Item Description

- Manufacturer: WOODWARD
- Item: MONITORING UNIT
- Type: TUG408B
- Input Voltage: 18–250 V
- Output: 24 VDC
- Current: 1 ADC



Dimensions



2004-10-04 | TUG 4 Dimensions 14ww-4104-ab skf

Figure 3-1: Dimensions TUG 4

I/O Expansion Board

Item Description

- Manufacturer: WOODWARD
- Item: I/O EXPANSION BOARD
- Type: IKD1

Interface Connection

	A	B	C	D	E
Termination					
Interface					
CAN bus					

Figure 3-5: Interface - Terminals

Terminal	A (18)	B (17)	C (16)	D (15)	E (14)	Description
[1]	[1]	[1]	GND	CAN-H	CAN-L	CAN bus

[1]...could be used to loop CAN bus and/or to connect termination resistance.

Loop Of CAN Bus

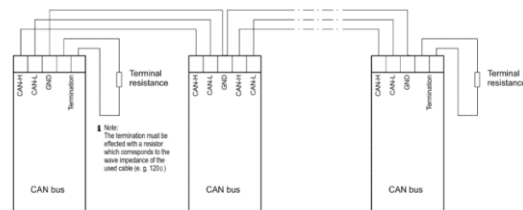


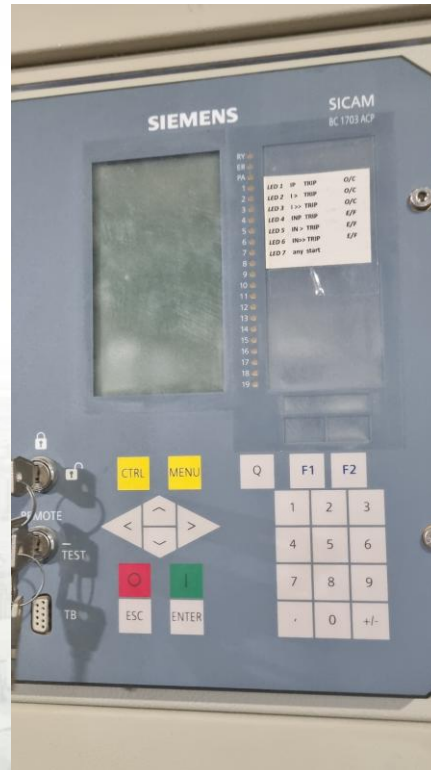
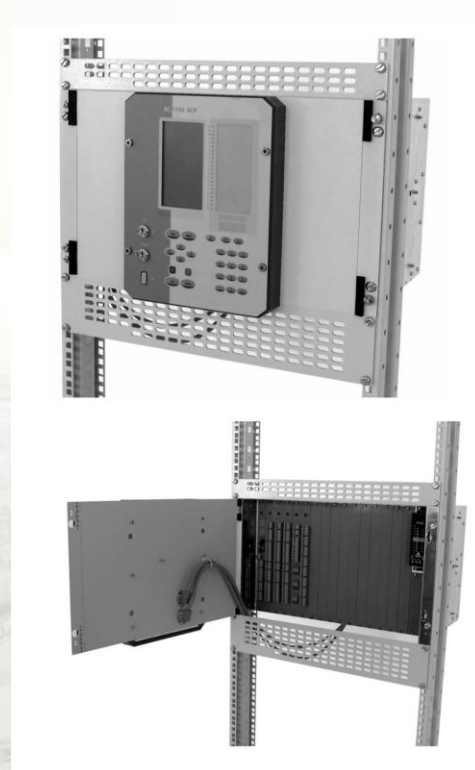
Figure 3-6: Interface - loop of CAN bus



Bay Controller Unit

Item Description

- Manufacturer: SIEMENS
- Item: BAY CONTROLLER UNIT



Model SICAM BC/C



- Compact
- Medium voltage and high voltage
- Up to 10 switchgears
- Up to 73 I/O signals

Model SICAM BC/M

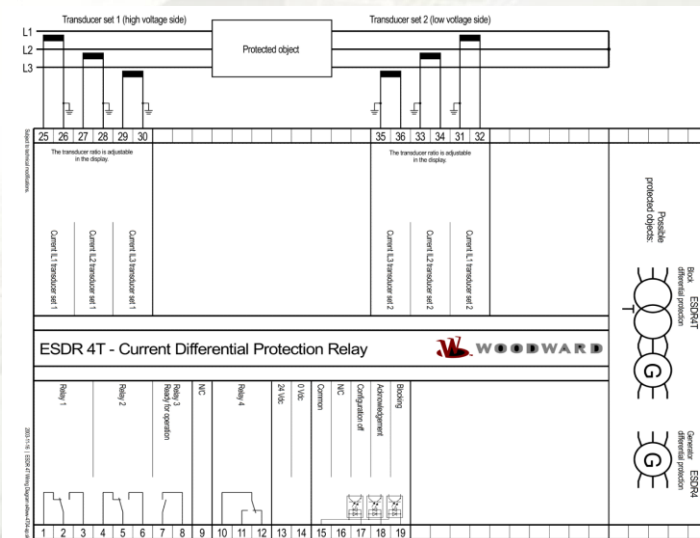
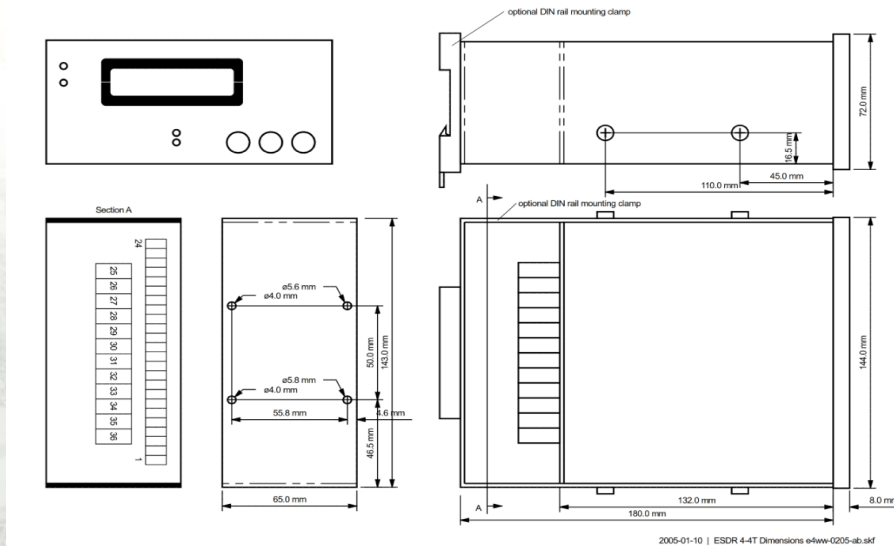


- Modular
- High voltage and extra high voltage
- 10 switchgears and more
- Up to 500 I/O signals

Current Differential Protection Relay

Item Description

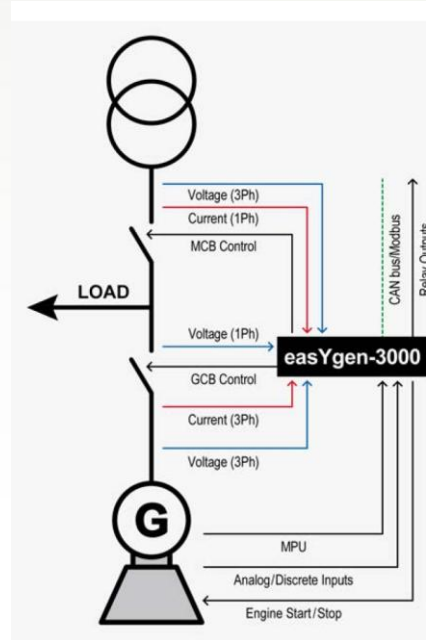
- Manufacturer: WOODWARD
- Item: CURRENT DIFFERENTIAL PROTECTION RELAY
- Rated Current: 5 A
- Auxiliary Supply: 24 VDC (19 to 40 VDC)
- Old Type: 5448-897C



EasyGen Control Relay

Item Description

- Manufacturer: WOODWARD
- Item: EASYGEN CONTROL RELAY
- Model: EASYGEN-3500-5/P2
- Old Part No.: 8440-1576H



Housing Variants and Hardware Interfaces

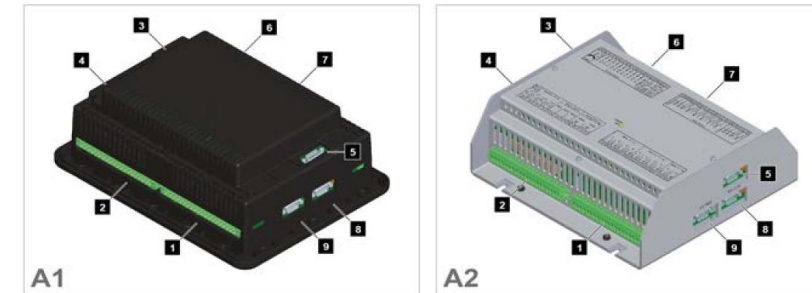


Fig. 3: P1 easYgen-3400/3500 P1 Series (housing variants)

- | | |
|---|----------------------------------|
| A1 easYgen-3500 P1 (plastic housing with display) | 5 CAN bus interface connector #3 |
| A2 easYgen-3400 P1 (sheet metal housing) | 6 Discret inputs terminal |
| 1 Mains/generator/busbar PT terminal | 7 Relay outputs terminal |
| 2 Analog inputs/outputs and generator CT terminal | 8 RS-232 interface connector |
| 3 CAN bus interface connector #1 | 9 RS-485 interface connector |
| 4 CAN bus interface connector #2 | |

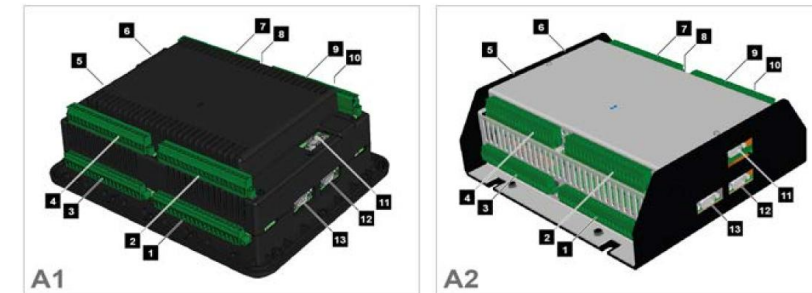


Fig. 4: P2 easYgen-3400-3500 P2 Series (housing variants)

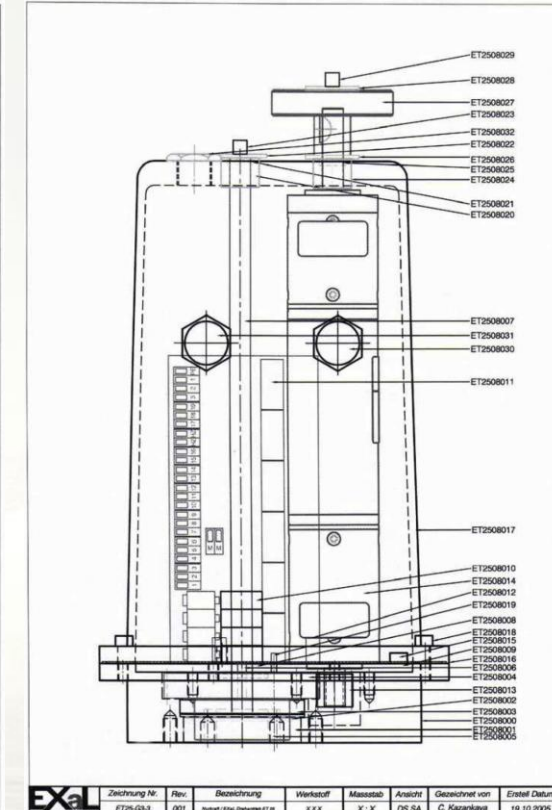
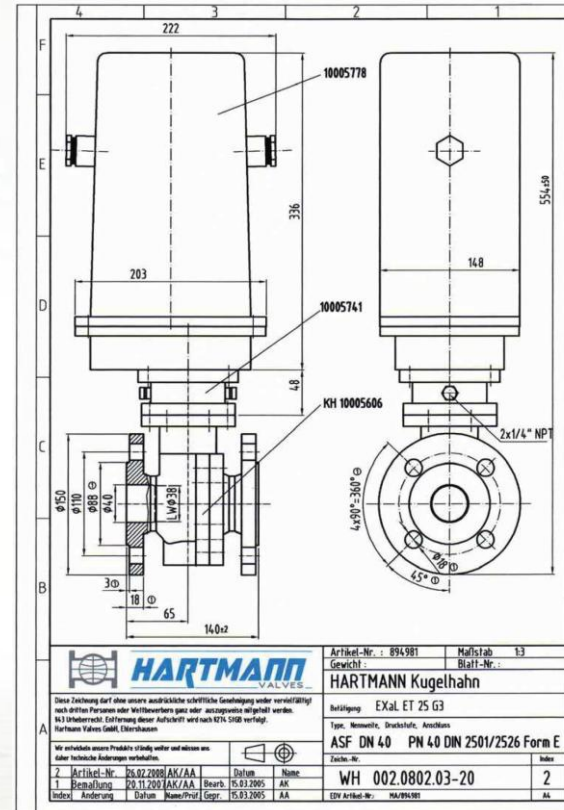
- | | |
|---|--|
| A1 easYgen-3500 P2 (plastic housing with display) | 7 Discrete inputs and sinking output terminal |
| A2 easYgen-3400 P2 (sheet metal housing) | 8 Discret inputs, power supply, and MPU terminal |
| 1 Mains/generator/busbar PT terminal | 9 Relay outputs terminal |
| 2 Analog inputs/outputs | 10 Relay outputs terminal |
| 3 Analog inputs/outputs and generator CT terminal | 11 CAN bus interface connector #3 |
| 4 Analog inputs/outputs | 12 RS-232 interface connector |
| 5 CAN bus interface connector #2 | 13 RS-485 interface connector |
| 6 CAN bus interface connector #1 | |



Ball Valve with Electric Actuator

Item Description

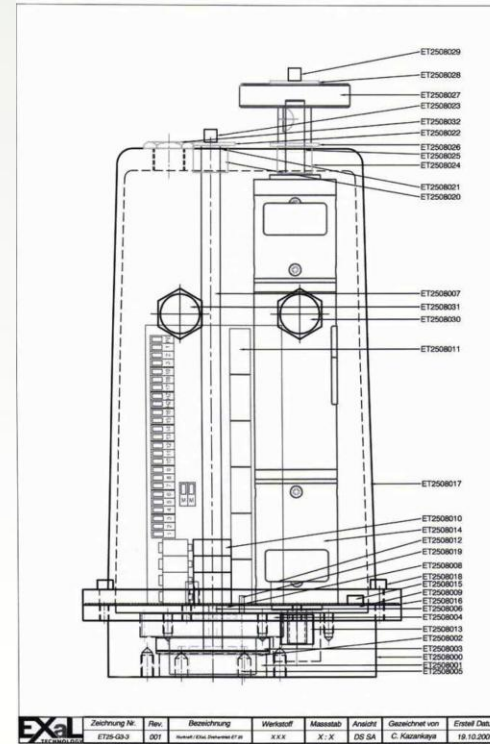
- Manufacturer: HARTMANN
- Item: BALL VALVE WITH ELECTRIC ACTUATOR
- Valve Type: AST
- Size: DN 40
- Pressure Rating: PN 40
- End Connection: Flanged RF
- Flange Standard: EN 1092-1 B2
- Face to Face: 140 MM
- Body Material: 1.4408
- Valve Drawing No.: WS001572
- Actuator Type: ET25
- Actuator Drawing No.: ET25-G3-3
- Assembly: Complete Assembly



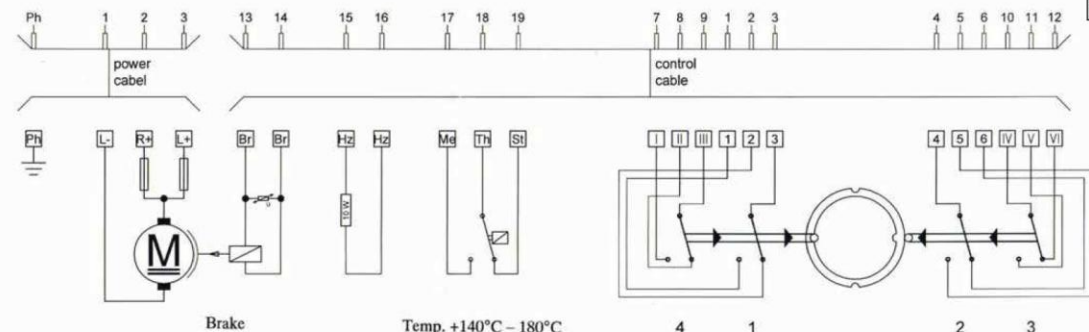
Ball Valve with Electric Actuator

Item Description

- Manufacturer: HARTMANN
- Item: BALL VALVE WITH ELECTRIC ACTUATOR
- Valve Type: AST
- Size: DN 100
- Pressure Rating: PN 40
- End Connection: Flanged RF
- Flange Standard: EN 1092-1 B2
- Face to Face: 190 MM
- Body Material: 1.4571
- Ball Material: 1.4571
- Stem Material: DUPLEX 1.4462
- Valve Drawing No.: WS001571
- Actuator Type: ET25
- Actuator Drawing No.: ET25-G3-3
- Assembly: Complete Assembly



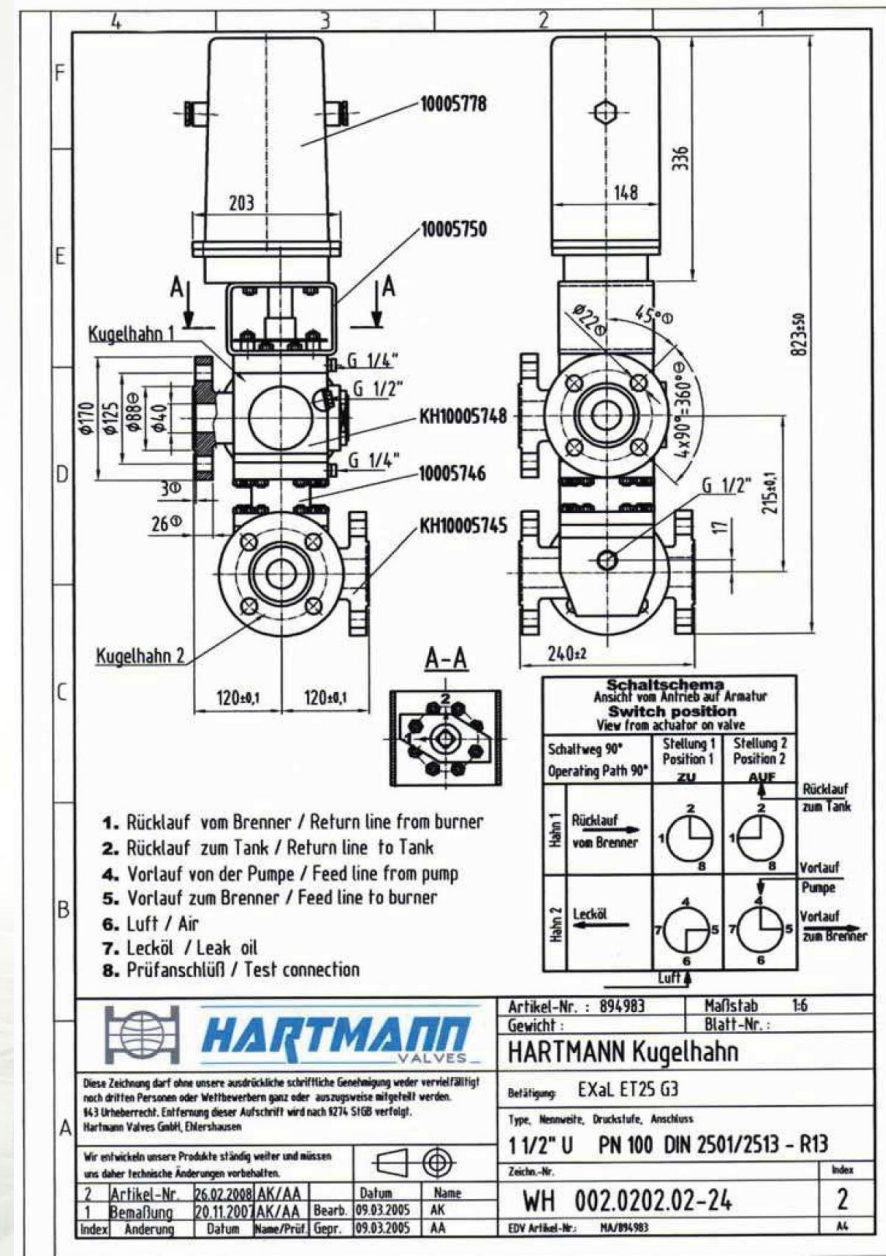
Connection Diagram
ET-220VDC-G82GTH-EX-STME-151610-V94



Elbow Valve + Three-Way Ball Valve with Electric Actuator

Item Description

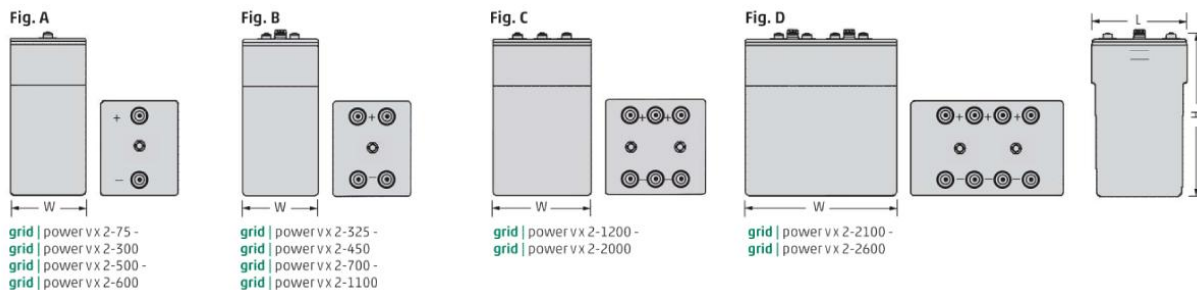
- Manufacturer: HARTMANN
- Item: ELBOW VALVE + THREE-WAY BALL VALVE
- Valve Type: U
- Size: DN 40 (1-1/2)
- Pressure Rating: PN 100
- End Standard: DIN 2513 R13
- Face to Face: 240 MM
- Body Material: 1.4581
- Actuator: EXAL ELECTRICAL ACTUATOR
- Actuator Type: ET25-G3-3
- Assembly: Complete Assembly



Battery

Item Description

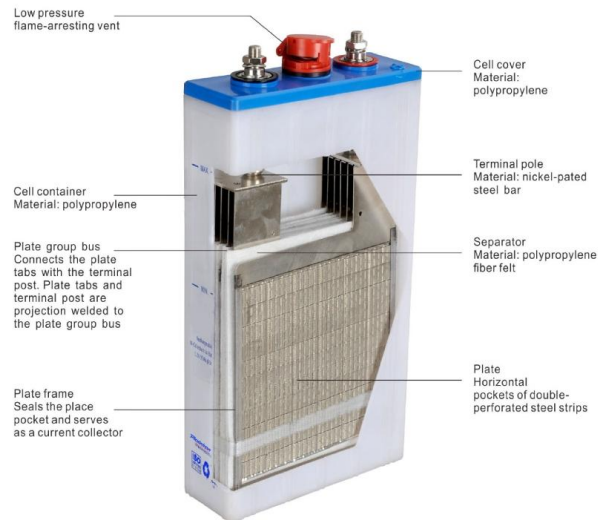
- Manufacturer: HOPPECKE
- Item: LEAD ACID BATTERY
- Battery Type: Lead Acid
- Nominal Voltage: 2 V
- Capacity: 600 AH
- Type: 6 GROE 600
- Series / Power: VX2-600



Battery

Item Description

- Manufacturer: HOPPECKE
- Item: NICKEL CADMIUM BATTERY
- Battery Type: Nickel Cadmium (Ni-Cd)
- Nominal Voltage: 2 V
- Capacity: 600 AH
- Type: 6 GROE 600
- Series / Power: VX2-600



Protective cover

- To prevent external short-circuits
- In line with EN 50272-2 (safety) with ip2 level

Plate group bus

- Connects the plate tabs with the terminal post.
- Plate tabs and terminal post are projection-welded to the plate group bus.

Plate

Horizontal pockets of double-perforated steel strips.

Cell container

Material: translucent/transparent polypropylene

Flame-arresting vents
Material: polypropylene.

Plate tab
Spot-welded both to the plate side-frames and to the upper edge of the pocket plate.

Separating grids

- These separate the plates and insulate the plate frames from each other.
- The grids allow free circulation of electrolyte between the plates.

Plate frame
Seals the plate pockets and serves as a current collector.

The NILE Single Cell ranges fully comply and exceed the IEC 60623 standard requirements.

Fix Connection Chamber (Spout)

Item Description

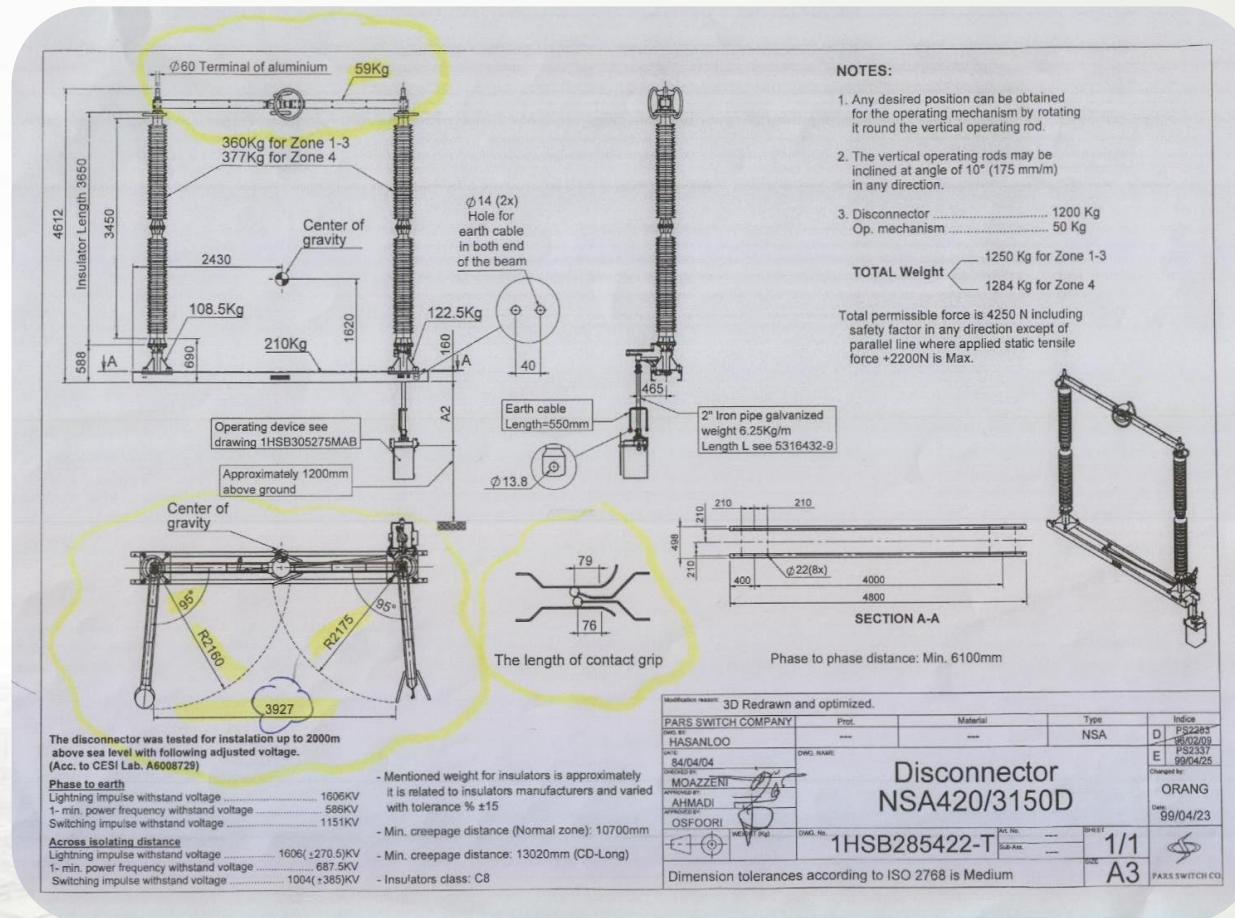
- Item: FIX CONNECTION CHAMBER
- Description: Spout



تیغه و بازوی سکسیونر ارت‌دار با کنتاکت Male & Female

Item Description

- Item: سکسیونر ارت‌دار به همراه بازو و نصب
- Type: CBD-E
- Application: CBD COELME-elig
- Contacts: Male & Female
- Serial No.: C45758/2



Control Cable (SSD Drives)

Item Description

- Item: Control Cable
- Specification: SSD DRIVES K MB BG 4 - BK - U2
- Core Design: (4×6 + (2×1) + S) + S
- Minimum Bending Radius: 199 mm
- Temperature Range: -50 °C to +90 °C
- Manufacturer: PARKER
- Notes: عکس و نمونه قابل ارائه می باشد



11.1 Special motor

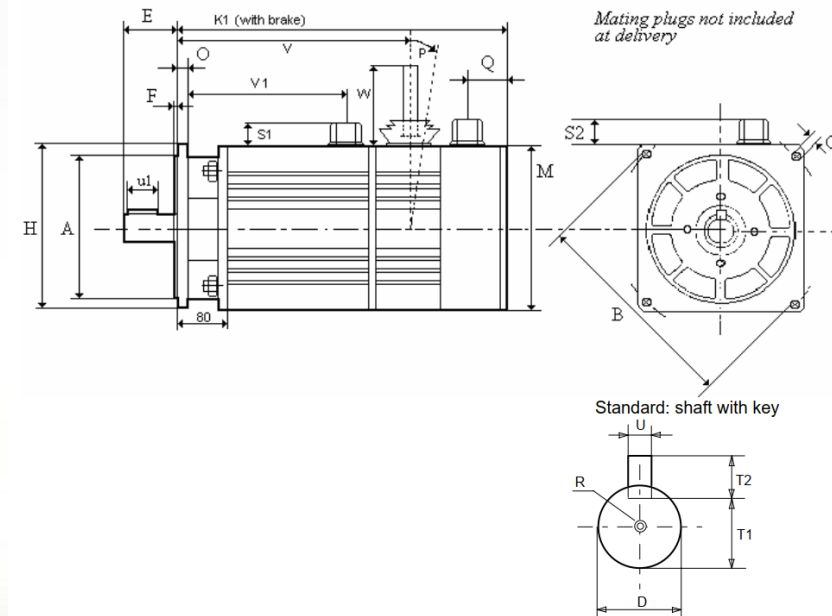
AC R 1250-3/4-6-BKH (Special brake with additional hand operation)

AC R 2000-3/4-6-BKH (Special brake with additional hand operation)

Note:

Hand lever operation only hand-held toward motor end → (approx. 5°).

Dimensions:



AC R .. size	A (j6)	B	C	D (k6)	E	F	H	K1 ca.	M	O	P ca. (°)	Q	R	S1	S2	T1	T2	u	u1	V ca.	V1 ca.	W ca.
4.1	180	215	14	32	58	4	185	508	187	13	5	26	M10-25	25	21	27,3	8h11	10h11	50	400	295	80
4.2	180	215	14	32	58	4	185	554	187	13	5	42	M10-25	25	21	27,3	8h11	10h11	50	450	342	80

All dimensions in "mm", except "P"

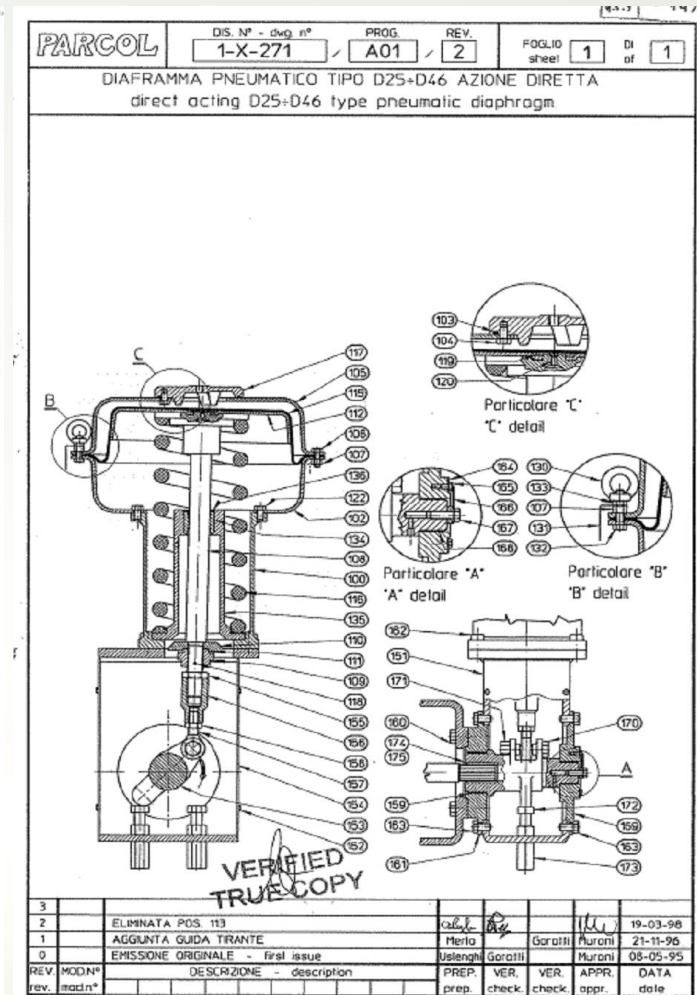
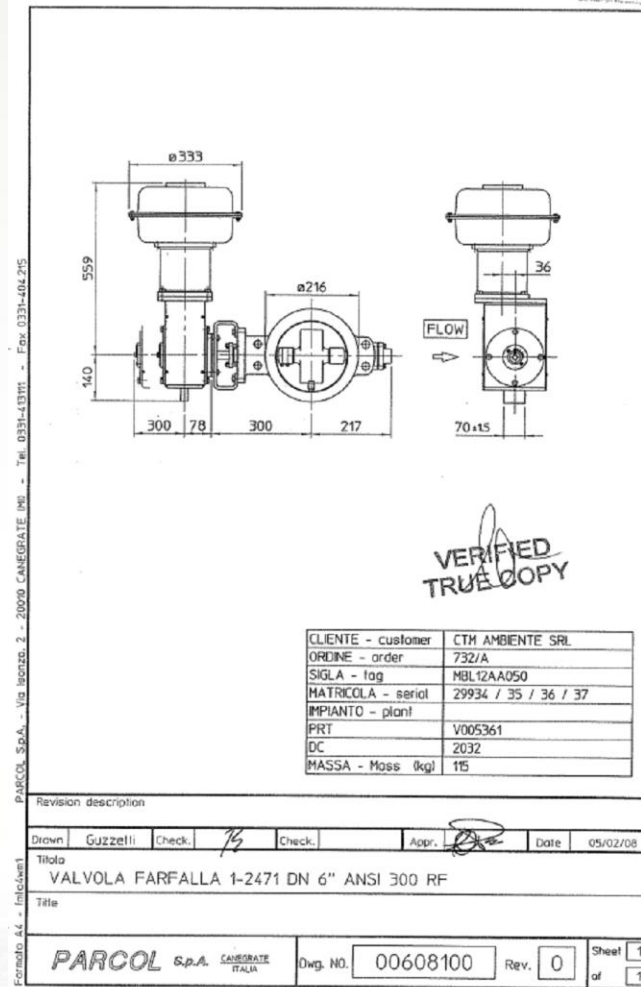
Remark:

With flanged on gearbox the output shaft (due to the gear reduction) is hardly rotatable also with released brake.

Anti Icing Control Valve

Item Description

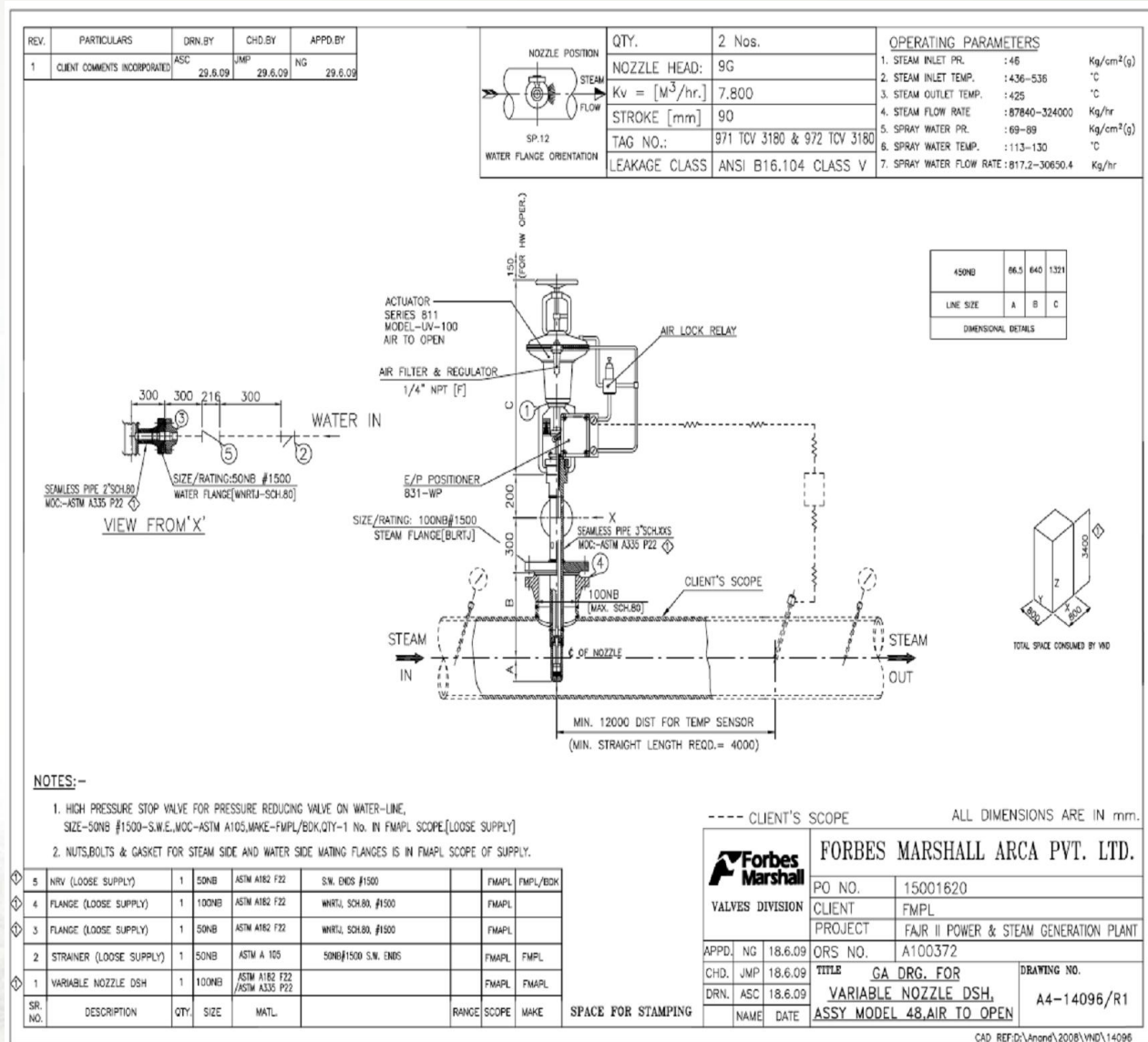
- Item: ANTI ICING CONTROL VALVE
- Tag / Code: MBL12AA050
- Manufacturer: PARCOL



Dynamic Temperature Control Valve

Item Description

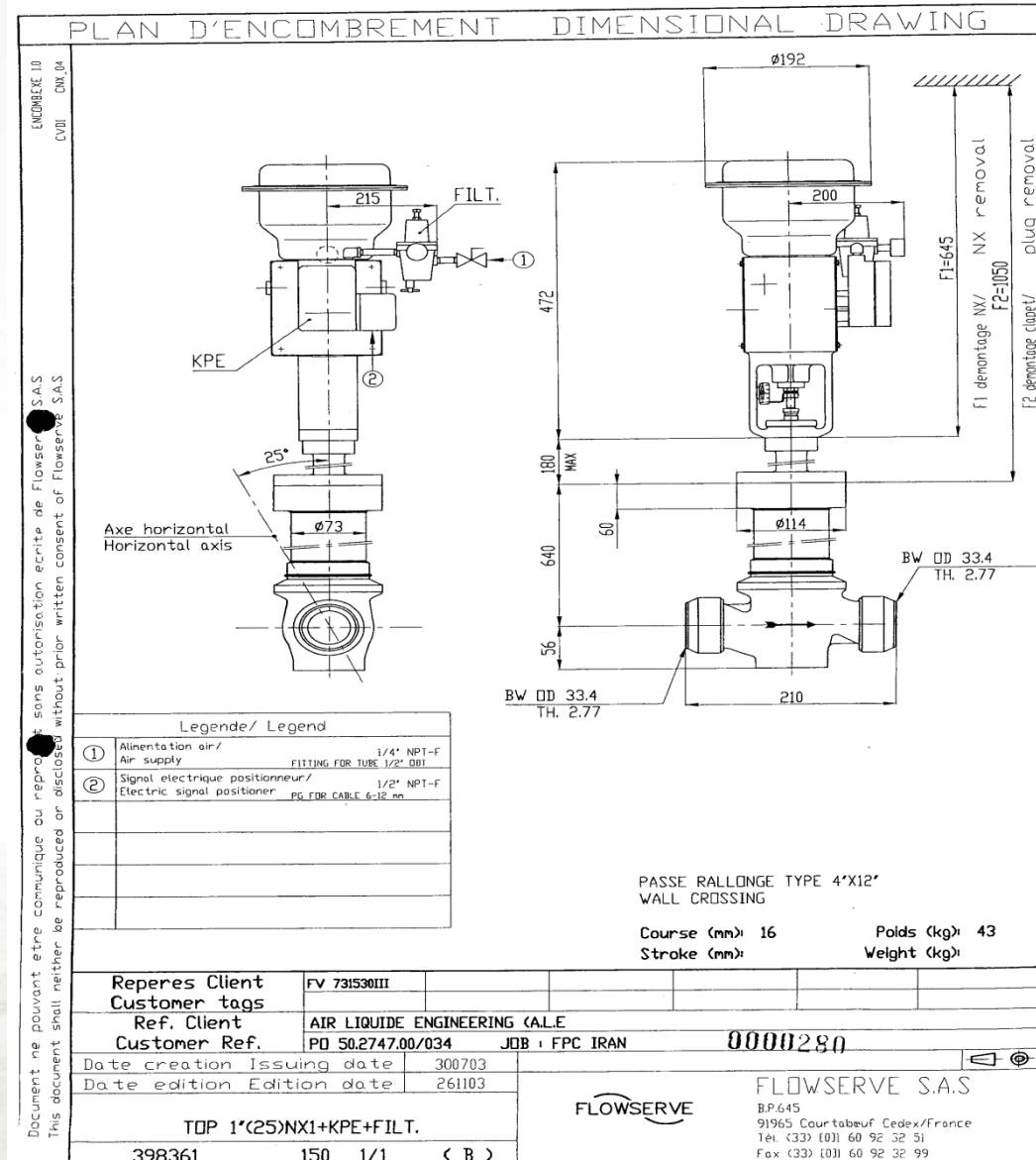
- Item: DYNAMIC TEMP. CONTROL VALVE
- Tag / Code: 971&2 TCV 3180
- Manufacturer: FORBES MARSHALL



Globe Control Valve

Item Description

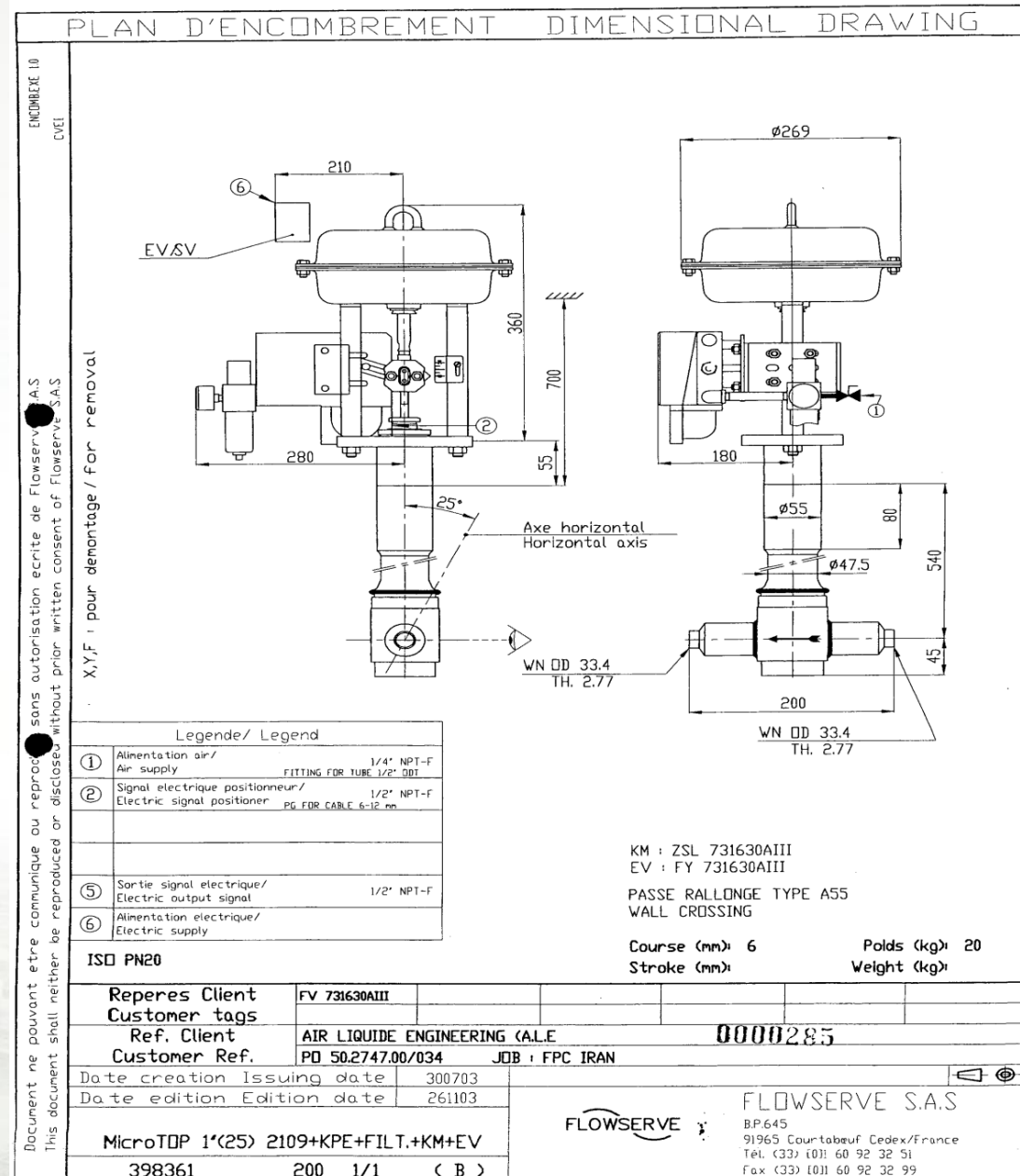
- Item: GLOBE CONTROL VALVE
- Manufacturer: FLOWSERVE
- Valve Type: Globe Control Valve
- End Connection: BW (Butt Weld)
- Size: 1 IN
- Pressure Class: CL.300
- Service / Location: HP COLUMN / T-7302
- Tag No.: FV-731530



Globe Control Valve

Item Description

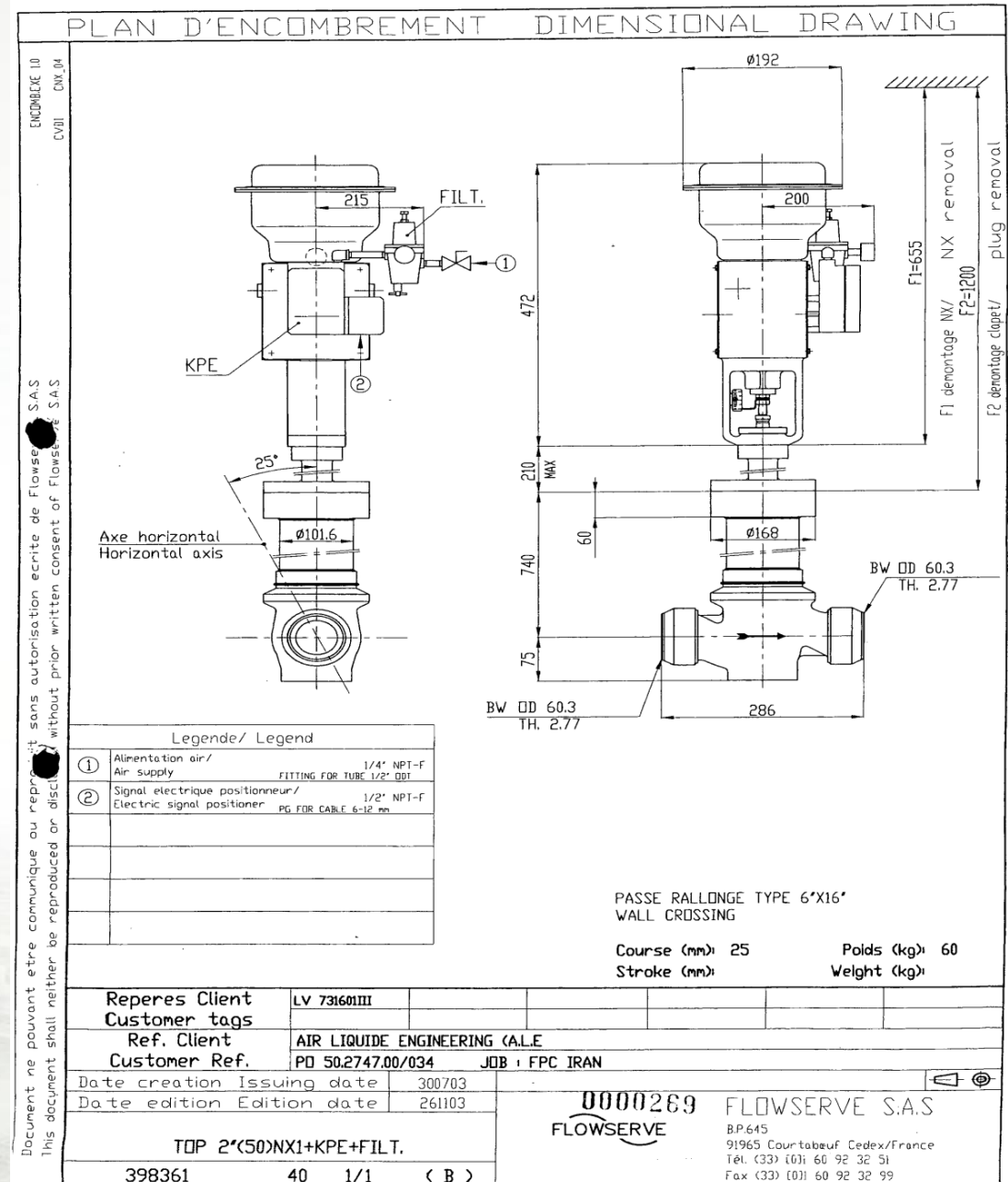
- Item: GLOBE CONTROL VALVE
- Manufacturer: FLOWSERVE
- Valve Type: Globe Control Valve
- End Connection: WN (Weld Neck)
- Size: 1 IN
- Pressure Class: CL.150
- Standard: ISO PN20
- Service / Location: LP COLUMN / T-7303
- Tag No.: FV-731630 A & B



Globe Control Valve

Item Description

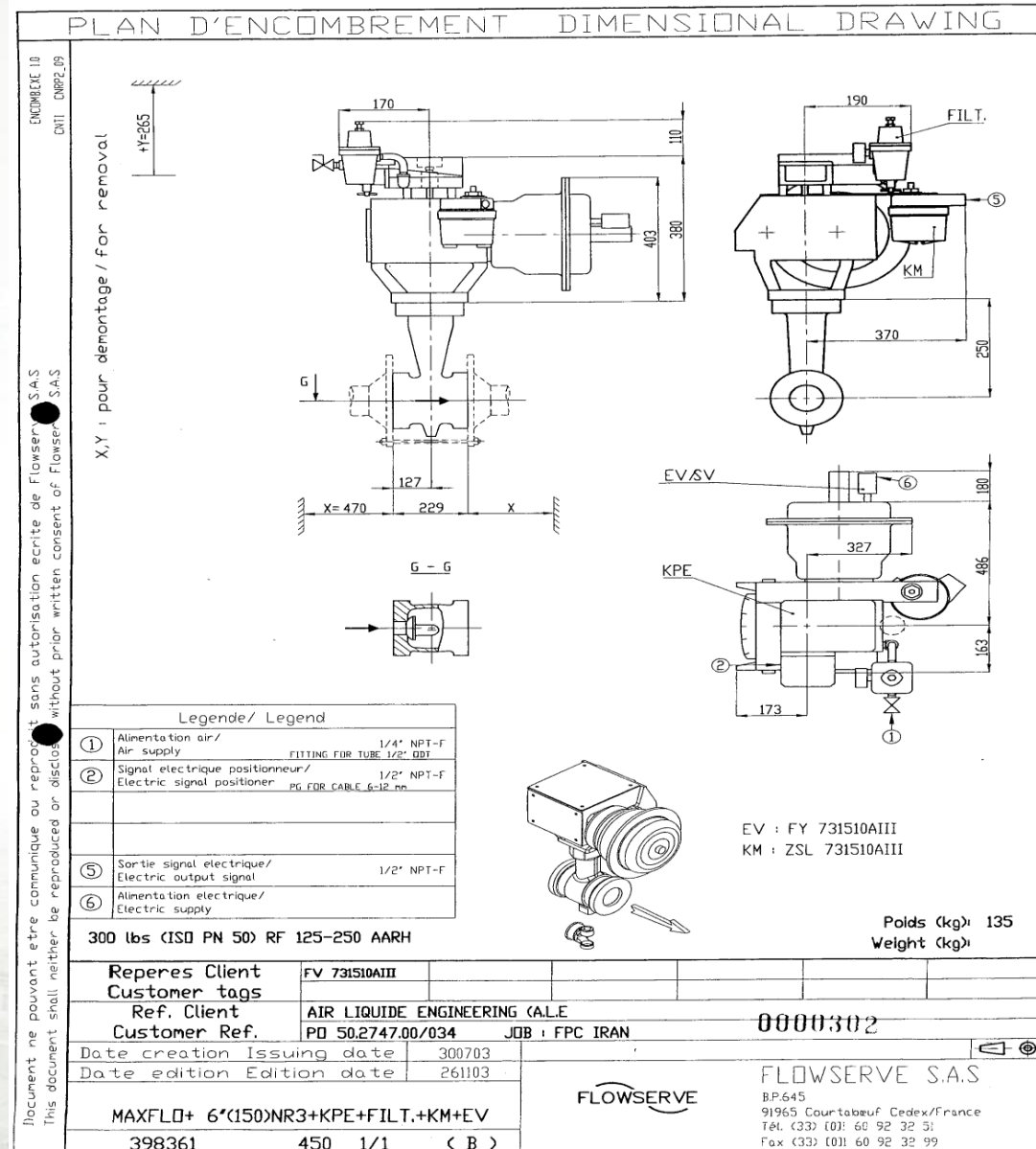
- Item: GLOBE CONTROL VALVE
- Manufacturer: FLOWSERVE
- Valve Type: Globe Control Valve
- End Connection: BW (Butt Weld)
- Size: 2 IN
- Pressure Class: CL.150
- Service / Location: LP COLUMN / T-7303
- Tag No.: LV-731601



Globe Control Valve

Item Description

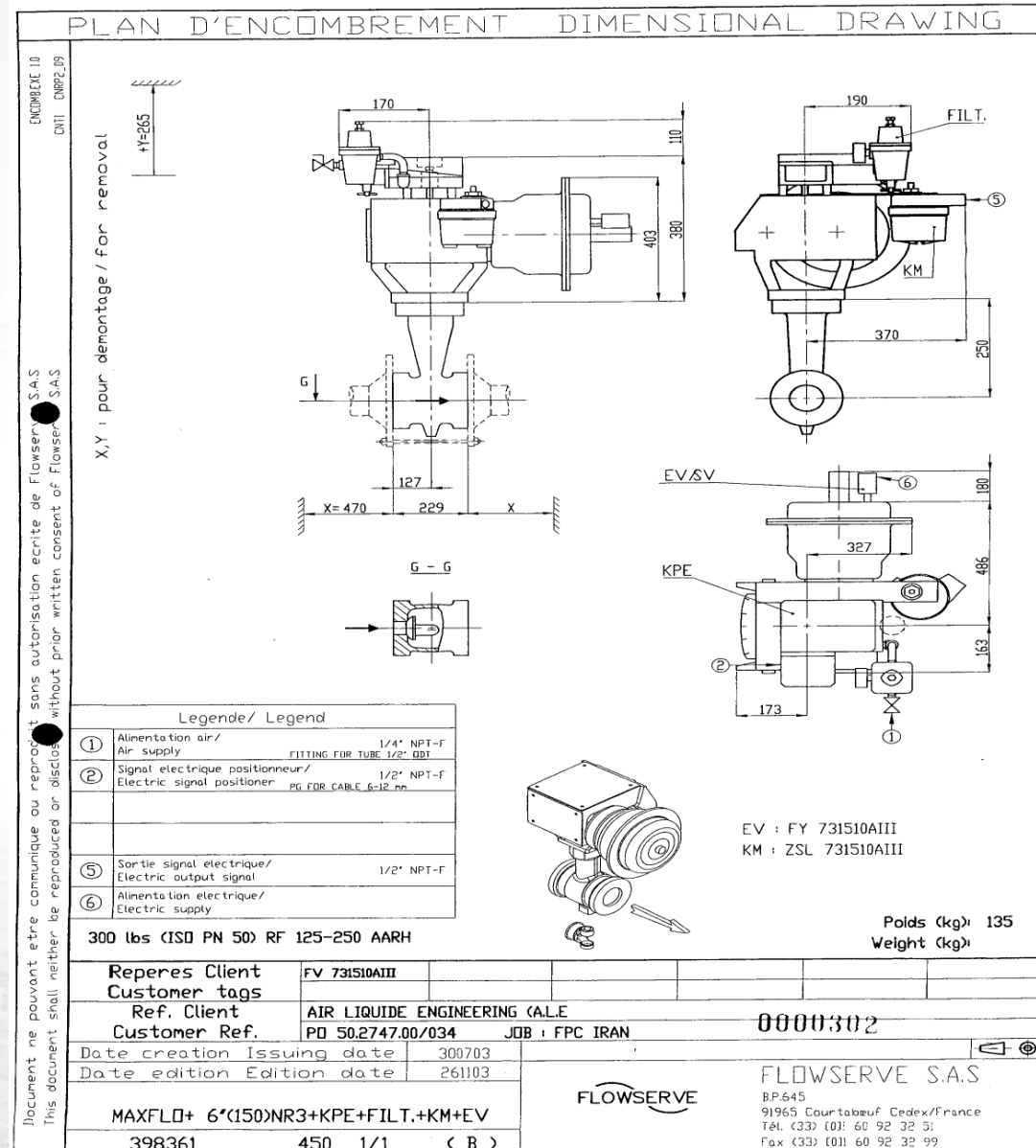
- Item: GLOBE CONTROL VALVE
- Manufacturer: FLOWSERVE MAXFLO
- Valve Type: Eccentric Rotary Plug Control Valve
- Size: 6 IN
- Pressure Class: CL.300
- End Connection: FLG RF
- Body Material: SS 316L
- Plug / Stem / Seat Material: MONEL
- Actuator: Pneumatic Actuator
- Service / Location: GOX PRODUCTION
- Tag No.: FV-731510 A



Globe Control Valve

Item Description

- Item: GLOBE CONTROL VALVE
- Manufacturer: FLOWSERVE MAXFLO
- Valve Type: Low Noise Cage Control Valve
- Size: 3 IN
- Pressure Class: CL.300
- End Connection: FLG RF
- Body Material: MONEL
- Plug / Stem / Seat Material: MONEL
- Actuator: Pneumatic Actuator
- Service / Location: GOX PRODUCTION
- Tag No.: FV-731510 B



Globe Control Valve

Item Description

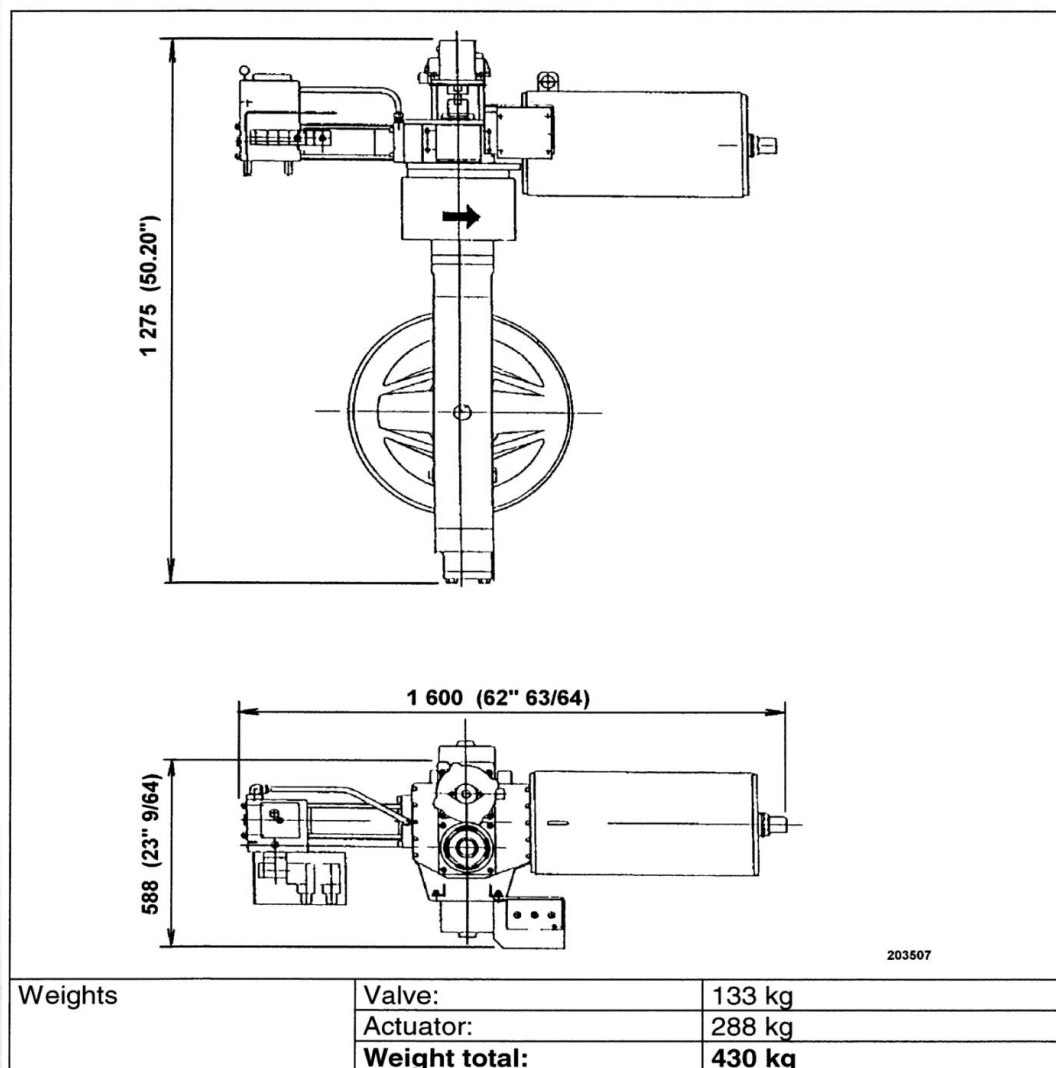
- Item: GLOBE CONTROL VALVE
- Manufacturer: ARCA
- Size: 8 IN
- Pressure Class: PN 16
- Approval No.: 309 695
- Series: 812.107-L1
- Kv: 460
- Lining: LIN-L1
- Body Type: SS LIN-L1
- Material: GG-25 / 1.4021 / 1.4122 NITR
- Actuator: Servo Motor
- Servo Motor Type: MF3-60-B3
- Unit / Area: MAC F&G
- Tag No.: FV / PDV-737038 & 8038
- Service: BLOW OFF

Kunde Customer, Purchaser		Air Liquide Engineering	Kapitel Chapter
Bestell Nr. P. Order No.		50-2748 F.P.C	18
Projekt Project		BANDAR IMAN - FAJR PETROCHEMICAL COMPANY	
Bezeichnung Equipment			
Kennzeichnung Item No.		C01-1	
PG I Auftrag Nr. Order No.		3510 1500	
PG I Kennwort Code Word		Bandar Im 5	
PG I Masch. Nr. Machine No.		10070	Type: CVK 32-3
Bauteil Component			
PUMPGRENZREGELVENTIL / ANTI-SURGE CONTROL VALVE			
ZUSAMMENSTELLUNG DER BESCHEINIGUNGEN ÜBER DURCHGEFÜHRTE PRÜFUNGEN			
LIST OF INSPECTION REPORTS AND CERTIFICATES			
Bezeichnung der Unterlage / Art der Prüfung Document description / Kind of test			Seite Page No.
Inhaltsverzeichnis	/	List of contents	1
Ventil komplett	/	Valve complete	
Endprüfung	/	Final inspection	2
Funktionsprüfung	/	Function test	2
Sitzdichtheitsprüfung	/	Seat leakage test	2
Gehäuse	/	Body	
Wasserdruckprobe	/	Hydrostatic pressure test	2
Materialatteste	/	Material certificates	3 - 4
Innenteile	/	Internals	
Werksbescheinigung für Material	/	Certificate of conformity for materials	2

Butterfly Valve

Item Description

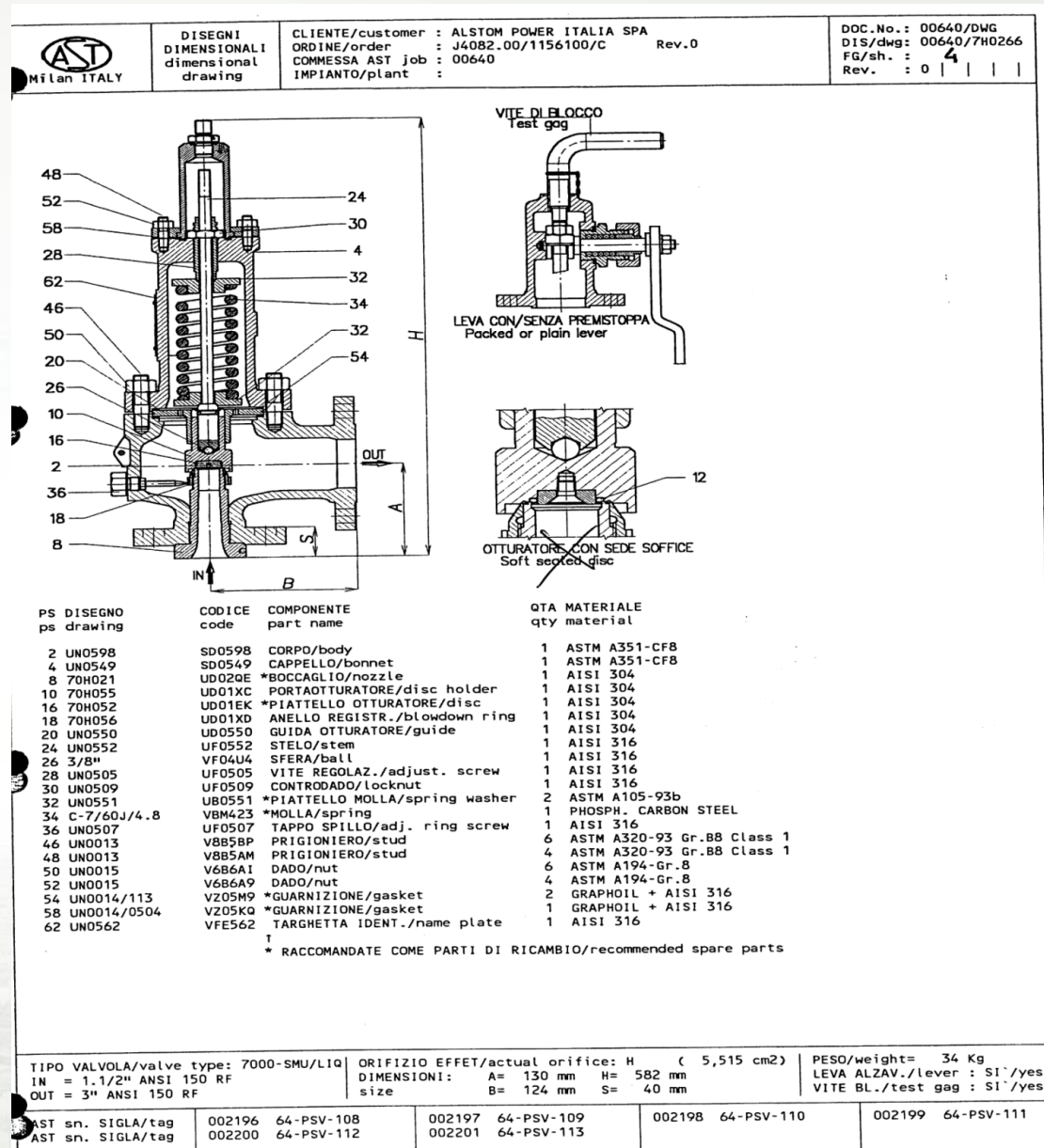
- Item: BUTTERFLY VALVE
- Manufacturer: VANESSA
- Valve Type: Butterfly Valve
- Size: 16 IN
- Pressure Class: CL.150
- Series: 30000
- Body / Disc Material: A216 / WCB
- Seat Material: HF
- Shaft Material: A182 / F6A (UNS S41000)
- Actuator: With Actuator
- Actuator Type: OLGAS 0.9C-0350-100-OP
- Unit / Area: GT11~15
- Tag No.: MBA81AA011 / 012
- Service: BLOW OFF



Safety Relief Valve

Item Description

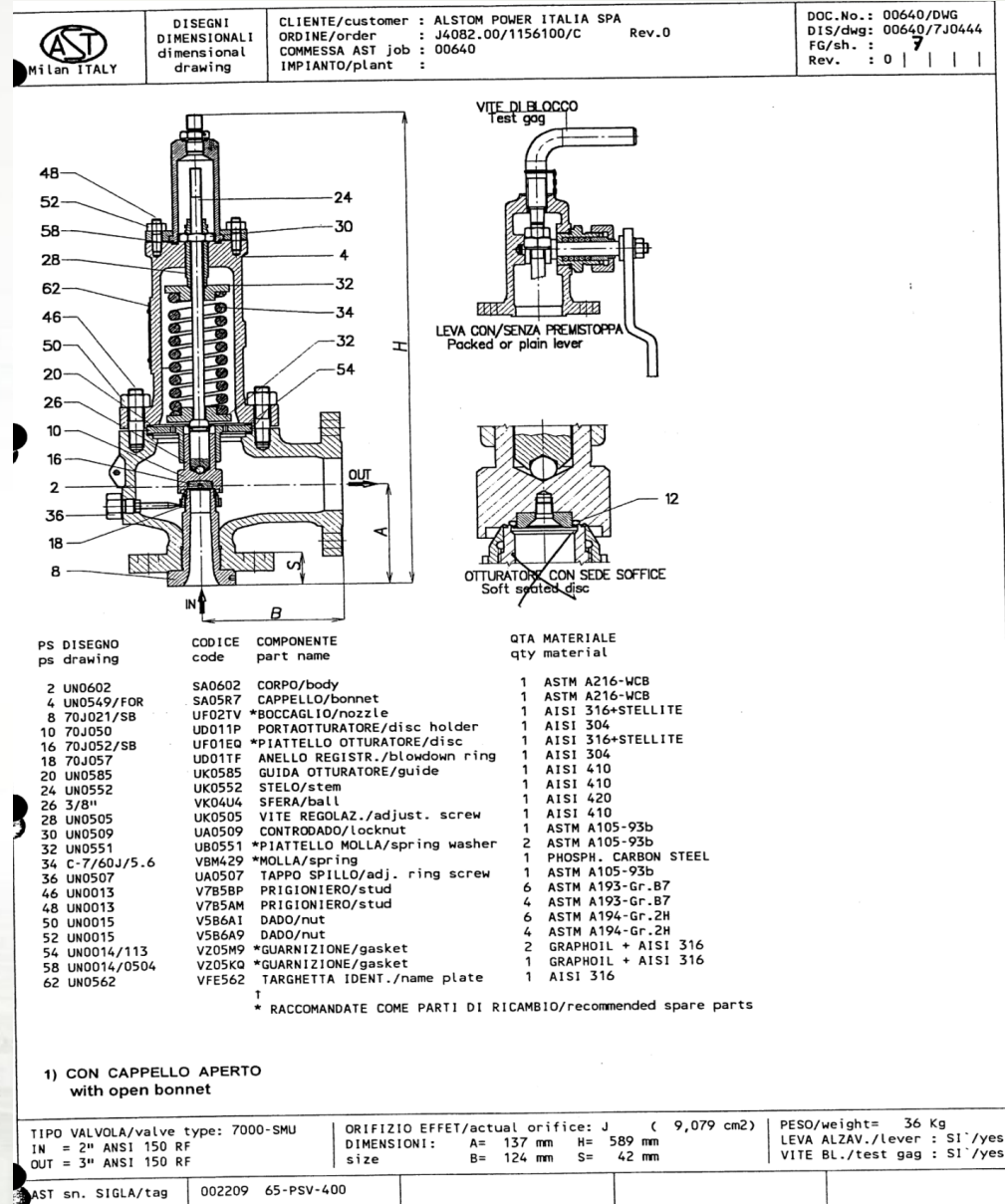
- Item: SAFETY RELIEF VALVE
- Manufacturer: AST
- End Connection: FLGD RF
- Valve Type: SMU-7000
- Size: 1-1/2 IN × 3 IN
- Pressure Class: 150 RF
- Set Pressure: 8 BAR
- Orifice: H (5.515 CM²)
- Serial No.: 002196 – 002201
- Unit / Area: GT11-15, BOILER A & B
- Tag No.:
 - 64-PSV-108
 - 64-PSV-109
 - 64-PSV-110
 - 64-PSV-111
 - 64-PSV-112
 - 64-PSV-113



Safety Relief Valve

Item Description

- Item: SAFETY RELIEF VALVE
- Manufacturer: AST
- Valve Type: SU 7000
- End Connection: FLANGED RF
- Size: 2 IN × 3 IN
- Pressure Class: 150 RF
- Orifice: J (9.079 CM²)
- Set Pressure: 6 BAR
- Service: BLOW DOWN
- Tag No.: PSV-400

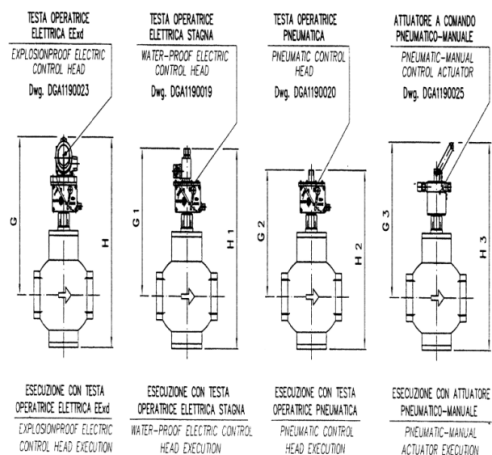
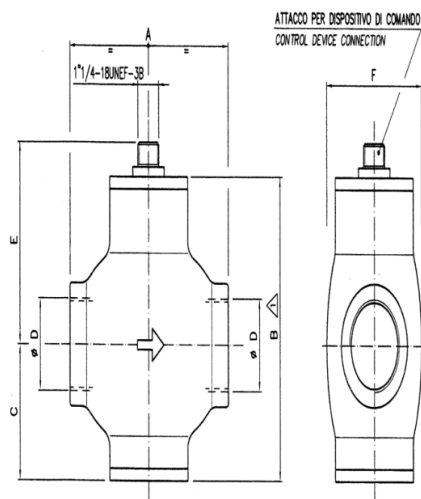


Directional Valve

Item Description

- Item: DIRECTIONAL VALVE
- Manufacturer: SILVANI
- Valve Size: 1 IN
- Model: VSCT
- Body Material: GUNMETAL
- Material Standard: ASTM A145-4A
- Design Pressure: 160 BAR
- Unit / Location: GT11-15 (CO2 کاندنس)
- Purchase Order (P/O): 2019903042

MODELLO MODEL	A	B	C	ØD	E	F	G	H	G1	H1	G2	H2	G3	H3	PESO WEIGHT
VSCT/1"	170	202	94	1"	137	88	289	383	263	357	221	315	264	338	11
VSCT/1-1/2"	197	215	85	1-1/2"	149	108	306	303	270	367	231	325	274	368	15
VSCT/2"	230	238	107	2"	160	113	323	330	287	394	255	352	298	395	19,5
VSCT/2-1/2"	240	246	110	2-1/2"	165	118	328	438	292	402	260	370	303	403	22



DATI TECNICI

PRESSIONE DI PROGETTO : 160 bar
 PRESSIONE DI COLLAUDO : Vedere Tabella
 TEMPERATURA DI PROGETTO : -10°C + 50°C

TECHNICAL DATA

DESIGN PRESSURE : 160 bar
 TEST PRESSURE : See Table
 DESIGN TEMPERATURE : -10°C + 50°C

MATERIALI

CORPO : BRONZO UNI7013 Parte B
 PISTONE E TAPPI : OTTONE 0758 UNI5705
 PARTI INTERNE : ACCIAIO INOX AISI303
 TENUTA : PTFE

MATERIALS

BODY : GUNMETAL ASTM A145-4A
 PISTON & PLUGS : BRASS 0758 UNI5705
 INSIDE PARTS : STAINLESS STEEL A167 Gr.303
 SEAL : PTFE

FINITURA : VERNICIATURA SECONDO SPECIFICA
 FINISH : PAINTING TO SPECIFICATION

Attacchi Connections	ØD	CODICE - CODE				COLLAUDO TESTED	PRESS. COLLAUDO TEST PRESSURE
		VSCT/1"	VSCT/1-1/2"	VSCT/2"	VSCT/2-1/2"		
NPT Femm.		2019903042	2019903052	2019903073	2019903083	----	240 bar

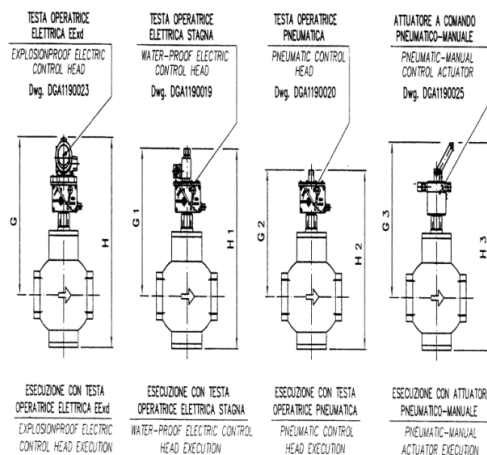
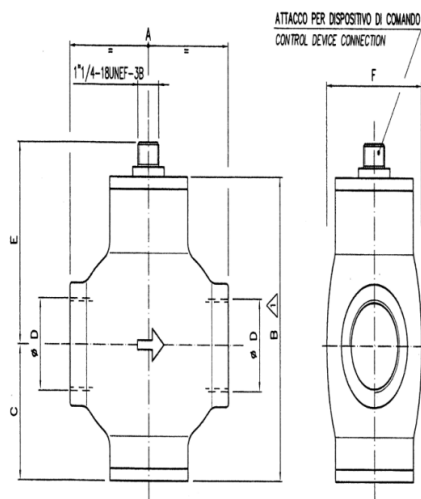
CONTRACTOR :		JOB N°		INTERNAL DOCUMENT NAME			
ALSTOM ALSTOM Power India S.p.A.		AREA	UNIT	SISTEM	NUMERO	SHEET N°	REV.
		1.1.5.6.1.0	0.0	0.0.0	MVD 6.3.2	0.2.3 NEXT SHEET	2
DIRECTIONAL VALVES							
VALVOLE DI SMISTAMENTO							
SILVANI SILVANI	SILVANI ANTINCENDI S.p.A. Via REDIPUGLIA, 8 - 20010 BAREGGIO (MI) - ITALY						CONTA JOB
							DIS/DWG DGA5100001
							FOL./SH. 31 2/09 32

Directional Valve

Item Description

- Item: DIRECTIONAL VALVE
- Manufacturer: SILVANI
- Valve Size: 1-1/2 IN
- Model: VSCT
- Body Material: GUNMETAL
- Material Standard: ASTM A145-4A
- Design Pressure: 160 BAR
- Unit / Location: GT11-15 (CO2 کاندنس)
- Purchase Order (P/O): 2019903062

MODELLO MODEL	A	B	C	ØD	E	F	G	H	G1	H1	G2	H2	G3	H3	PESO WEIGHT
VSCT/1"	170	202	94	1"	137	88	299	393	263	357	221	315	264	338	11
VSCT/1-1/2"	197	215	95	1-1/2"	149	108	306	303	270	367	231	325	274	368	15
VSCT/2"	230	238	107	2"	160	113	323	330	287	394	255	352	298	395	19,5
VSCT/2-1/2"	240	246	110	2-1/2"	165	118	328	438	292	402	260	370	303	403	22



DATI TECNICI

PRESSIONE DI PROGETTO : 160 bar
 PRESSIONE DI COLLAUDO : Vedere Tabella
 TEMPERATURA DI PROGETTO : -10°C + 50°C

TECHNICAL DATA

DESIGN PRESSURE : 160 bar
 TEST PRESSURE : See Table
 DESIGN TEMPERATURE : -10°C : +50°C

MATERIALI

CORPO : BRONZO UNI7013 Parte B
 PISTONE E TAPPI : OTTONE 0758 UN5705
 PARTI INTERNE : ACCIAIO INOX AISI303
 TENUTA : PTFE

MATERIALS

BODY : GUNMETAL ASTM A145-4A
 PISTON & PLUGS : BRASS 0758 UN5705
 INSIDE PARTS : STAINLESS STEEL A167 Gr.303
 SEAL : PTFE

FINITURA : VERNICIATURA SECONDO SPECIFICA
 FINISH : PAINTING TO SPECIFICATION

Attacchi Connections	ØD	CODICE - CODE				COLLAUDO TESTED	PRESS. COLLAUDO TEST PRESSURE
		VSCT/1"	VSCT/1-1/2"	VSCT/2"	VSCT/2-1/2"		
NPT Femm.		2019903042	2019903062	2019903073	2019903083	----	240 bar

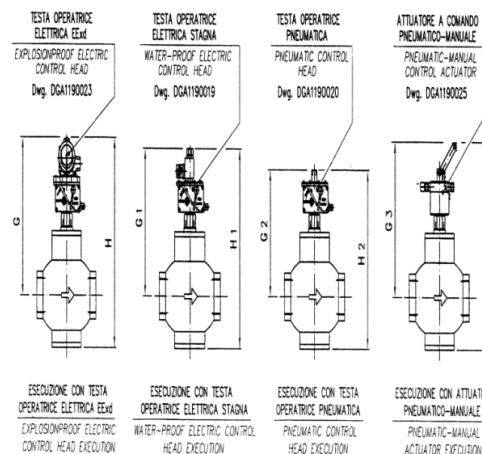
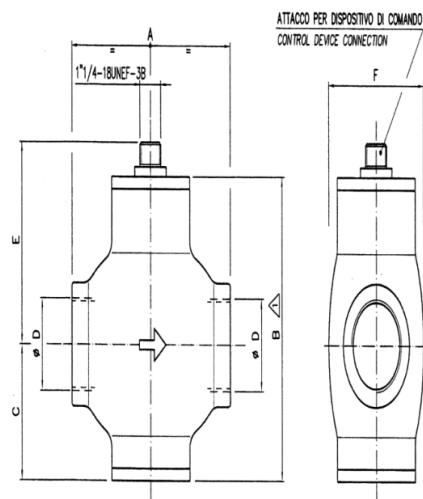
CONTRACTOR : ALSTOM ALSTOM Power India S.p.A.	JOB N°		INTERNAL DOCUMENT NAME			
	AREA	UNIT	SISTEM	NUMERO	SHEET N°	REV.
	1.1.5.6.1.0	0.0	0.0.0	MVD 6.3.2	0.2.3	2
DIRECTIONAL VALVES						
VALVOLE DI SMISTAMENTO						
SILVANI SILVANI	SILVANI ANTINCENDI S.p.A.					CONTA
	Via REDIPUGLIA, 8 - 20010 BAREGGIO (MI) - ITALY					DIS/DWG
					DGA5100001	
						FGI/54 31 2/09 32

Directional Valve

Item Description

- Item: DIRECTIONAL VALVE
- Manufacturer: SILVANI
- Valve Size: 2 IN
- Model: VSCT
- Body Material: GUNMETAL
- Material Standard: ASTM A145-4A
- Design Pressure: 160 BAR
- Unit / Location: GT11-15 (CO2 کاندنس)
- Purchase Order (P/O): 2019903073

MODELLO MODEL	A	B	C	ØD	E	F	G	H	G1	H1	G2	H2	G3	H3	PESO WEIGHT
VSCT/1"	170	202	94	1"	137	88	289	383	263	357	221	315	264	338	11
VSCT/1-1/2"	197	215	85	1-1/2"	149	108	306	303	270	367	231	325	274	368	15
VSCT/2"	230	238	107	2"	160	113	323	330	287	394	255	352	298	395	19,5
VSCT/2-1/2"	240	246	110	2-1/2"	165	118	328	438	292	402	260	370	303	403	22



DATI TECNICI

PRESSIONE DI PROGETTO : 160 bar
PRESSIONE DI COLLAUDO : Vedere Tabella
TEMPERATURA DI PROGETTO : -10°C + 50°C

TECHNICAL DATA

DESIGN PRESSURE : 160 bar
TEST PRESSURE : See Table
DESIGN TEMPERATURE : -10°C + 50°C

MATERIALI

CORPO : BRONZO UNI7013 Parte B
PISTONE E TAPPI : OTTONE 0758 UN5705
PARTI INTERNE : ACCIAIO INOX AISI303
TENUTA : PTFE

MATERIALS

BODY : GUNMETAL ASTM A145-4A
PISTON & PLUGS : BRASS 0758 UN5705
INSIDE PARTS : STAINLESS STEEL A167 Gr.303
SEAL : PTFE

FINITURA : VERNICIATURA SECONDO SPECIFICA
FINISH : PAINTING TO SPECIFICATION

Attacchi Connections	ØD	CODICE - CODE				COLLAUDO TESTED	PRESS. COLLAUDO TEST PRESSURE
		VSCT/1"	VSCT/1-1/2"	VSCT/2"	VSCT/2-1/2"		
NPT Femm.		2019903042	2019903052	2019903073	2019903083	----	240 bar

CONTRACTOR : ALSTOM ALSTOM Power India S.p.A.	JOB N°		INTERNAL DOCUMENT NAME			
	AREA	UNIT	SISTEM	NUMERO	SHEET N°	REV.
	1.1.5.6.1.0	0.0	0.0.0	MVD 6.3.2	0.2.3	2
DIRECTIONAL VALVES						
VALVOLE DI SMISTAMENTO						
SILVANI ANTINCENDI S.p.A. Via REDIPUGLIA, 8 - 20010 BAREGGIO (MI) - ITALY					CONTA JOB	---
					DIS/DWG	DGA5100001
					FOI/SH	31 2/09 32



شرکت انرژی خلیج فارس

Persian Gulf Fajr Energy Co.

