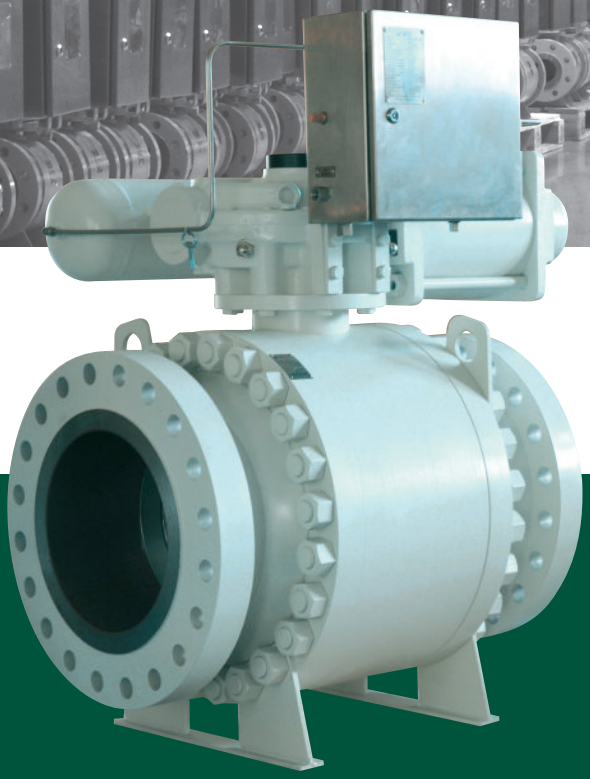


VASTAS

GS

Safety Shut-Off Valves for pressure protection

ISSUE: 2011 | CAT.GS.0R1

Safety Shut-Off Valves for Pressure Protection

Table of Contents

6D-0449
600-0043

0036

TÜVRheinland® CERT
ISO 9001
ISO 14001
BS OHSAS 18001

General Properties

1. Designed to be used in Natural Gas Pressure Reduction Stations for safety purpose.
2. Works with pressure of line.
3. Upon request, it can be used for different fluids by operating with an external gas pressure source.
4. Valve is a complete package with actuator and control system.
5. It can work within temperature range of -29 °C to +80°C. (Even at -49 °C upon request)
6. It can be adjusted to the requested values for 150-300-600 pressure classes.
7. It can be modified for different climate and site conditions.
8. Vastaş safety shut-off valves consist of 2 different models depending on actuator type.
   a. High Pressure Safety Shut-Off Valve (GSLH)
   b. High & Low Pressure Safety Shut-Off Valve (GSLK)

Vastaş 4"Shut-Off Valve

CE Marking

Compliance certificate to 97/23/CE directives, Vastaş valves have approved CE marking as per pressure vessel directives.

Pressure Protection System

High pressure Safety Shut-Off Valves (GSLH)

Application

It is used for protection of the system against undesired pressure occurred in the outlet of Pressure Reduction stations in the gas distribution system.
As soon as the outlet pressure arrives above allowable max. level, it (GSLH) closes the gas entry of station.
Purpose is to protect the equipment of the station in case of an undesired pressure increase.
GSLH Shut-Off Valves are protective and complete systems manufactured for this purpose.
It works on self-action basis. It will not open again even if the pressure reduces to normal level without intervention of operators to determine and repair the failure that causes pressure increase which might damage the system.
After being sure for the safe operation, operator can release the gas flow by openning the GSLH.

Features

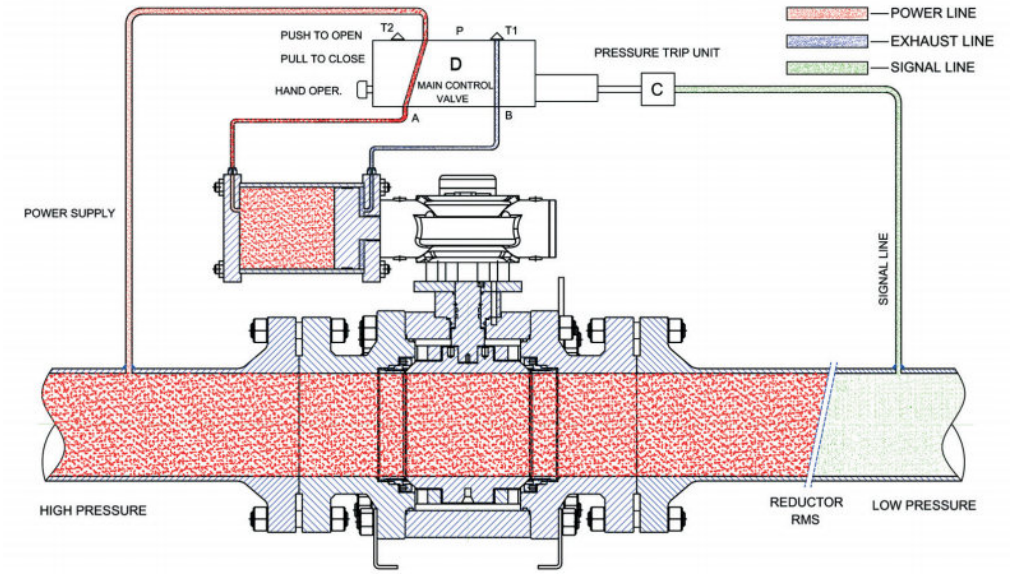
H-SOV consists of following units as being a complete package,

- Trunnion Ball Valves (See Ball Valve Cat. Section E610, E620, E630)
- Scotch-Yoke Operator (See Operators Cat. Quarter Turn Scotch Yoke)
- Control Unit (See Control Units Cat.)

Other Options

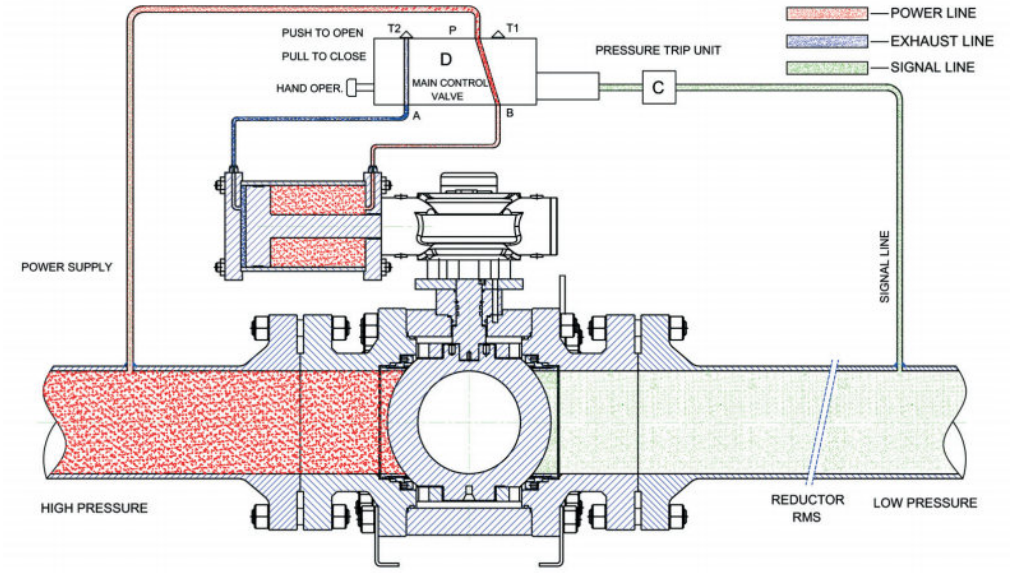
- Sizes NPS 2-24
- According to API Design Standards (API6D, API607, API6FA, API598)
- For Class 150; max. 230Psig (16 Bar) and min. 120 Psig (8 Bar)
- For Class 300; max. 450Psig (31 Bar) and min. 250 Psig (17 Bar)
- For Class 600; max. 1000Psig (69 Bar) and min. 400 Psig (27 Bar)
- Set Pressures 5/50, 15/150, 50/450, 50/1500 Psig
- System Sensitivity 2% ± set point
- Shut-off speed (closing time)
- Normal 4 secs, max. 10 secs for NPS 2- NPS 10
- Normal 6 secs, max. 20 secs for NPS 12 – NPS24
- Comply to Iran Gas Standards IGS-MS-IN-301(1) & IGS-MS-PL-010(1,2,3)
- Optional Features
- Precaution for polluted gas and Power Deficiency
- Remote signal
- Pressure ranges according to customer request
- Special material according to customer request
- Application with different valve type
- Failsafe options
- RC remote control option

A-Normal Mode (GSLH)



» Power supply unit takes the gas directly from pipeline after filtering and regulating.
» If no error signal is received from High pressure control equipment (c), gas in control cabinet pressurizes the actuator cylinder through Main Control Valve (D) P-A ports.
» In this case, B port is connected to T1 port and it is vent.
» Scotch Yoke actuator brings the pipeline valve to open position.
» Gas will be supplied to the system.

B-Shut Down Mode (GSLH)



» Gas coming from High Pressure Signal Line is connected to High Pressure Trip Unit (C).
» If there is a higher pressure than the set value, High pressure trip unit will change the main control valve (D) position.
» Actuator cylinder A-T2 port relieves and other cylinder will be pressurized P-B port.
» As a result pipeline will be closed down.
» Closing time can be adjusted.
» Closed valve will not open without operator intervention.
» Gas flow through the system will not be initiated until operator opens the valve.

Pressure Protection System

High & Low pressure Safety Shut-Off Valves (GSLK)

Application

It is used for protection of the system against undesired pressure fluctuations at the outlet of Pressure Reduction stations in the gas distribution system.
As soon as outlet pressure reduces under allowable min. level or increases above allowable max. level, it closes the gas entry of station.
Purpose is to protect the line equipments from undesired pressure fluctuations.
GSLK High and Low pressure Safety Shut-Off Valves are protective and complete systems manufactured for this purpose. It works on self-action basis.
It will not open again even if the pressure becomes to normal level while it is obliged for operators to determine and repair the failure that causes pressure fluctuation which can damage the systems. After being sure for the safe operation, operator can release the gas flow by opening the GSLK.

Features

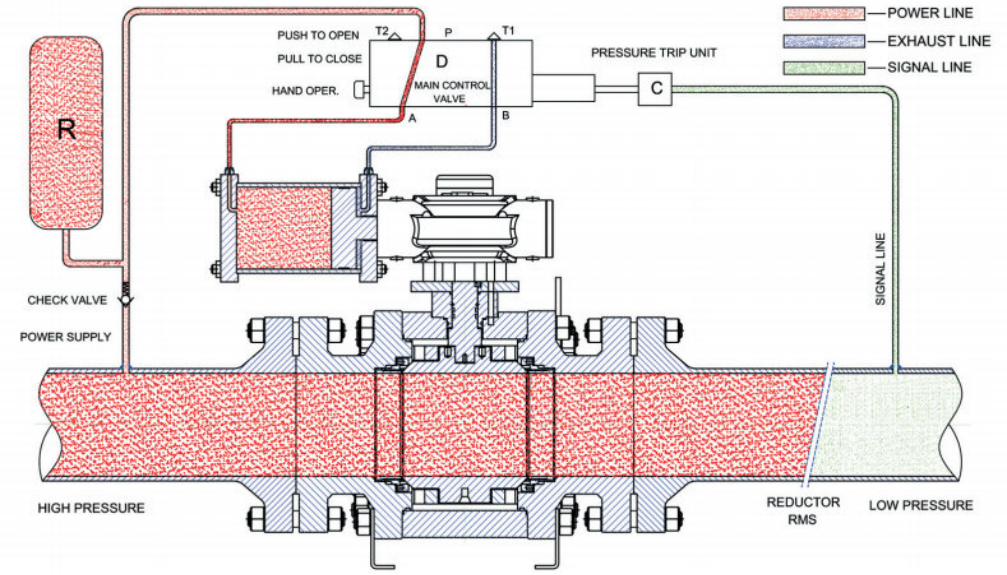
GSLK consists of following units as being a complete product,

» Trunnion Ball Valves (See Ball V. Cat. Section E610, E620,E630)
» Scotch-Yoke Operator (See Operators Cat. Quarter Turn Scotch Yoke)
» Control Unit (See Control Units Cat.)

Other Options

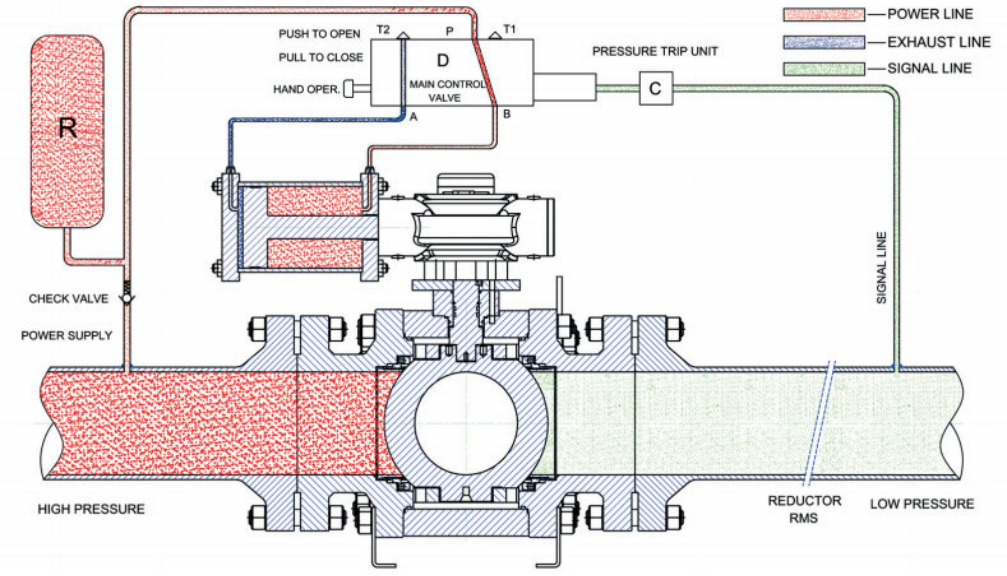
» Sizes NPS 2-24
» According to API Design Standards (API6D, API607, API6FA, API598)
» For Class 150; max. 230Psig (16 Bar) and min. 120 Psig (8 Bar)
» For Class 300; max. 450Psig (31 Bar) and min. 250 Psig (17 Bar)
» For Class 600; max. 1000Psig (69 Bar) and min. 400 Psig (27 Bar)
» Set Pressures 5/50, 15/150, 50/450, 50/1500 Psig
» System Sensitivity 2% ± set point
» Shut-off speed (closing time)
» Normal 4 secs, max.10 secs for NPS 2- NPS 10
» Normal 6 secs., max. 20 secs for NPS 12 – NPS24
» Comply to Iran Gas Standards IGS-MS-IN-301(1) & IGS-MS-PL-010(1,2,3)
» Optional Features
» Precaution for polluted gas and power breaks
» Remote signal
» Pressure ranges according to customer request
» Special material according to customer request
» Application with different valve type
» Failsafe options
» RC remote control option

A-Normal Mode (GSLK)



» Power supply unit takes the gas directly from pipeline and store it in reservoir (R) after filtering and regulating.
» If no error signal is received from High and Low pressure control equipment (C), gas in control cabinet pressurizes the actuator cylinder through Main Control Valve (D) P-A ports.
» In this case, B port is connected to T1 port to relieve.
» Scotch Yoke actuator brings the pipeline valve to open position.
» Gas will be supplied to the system.

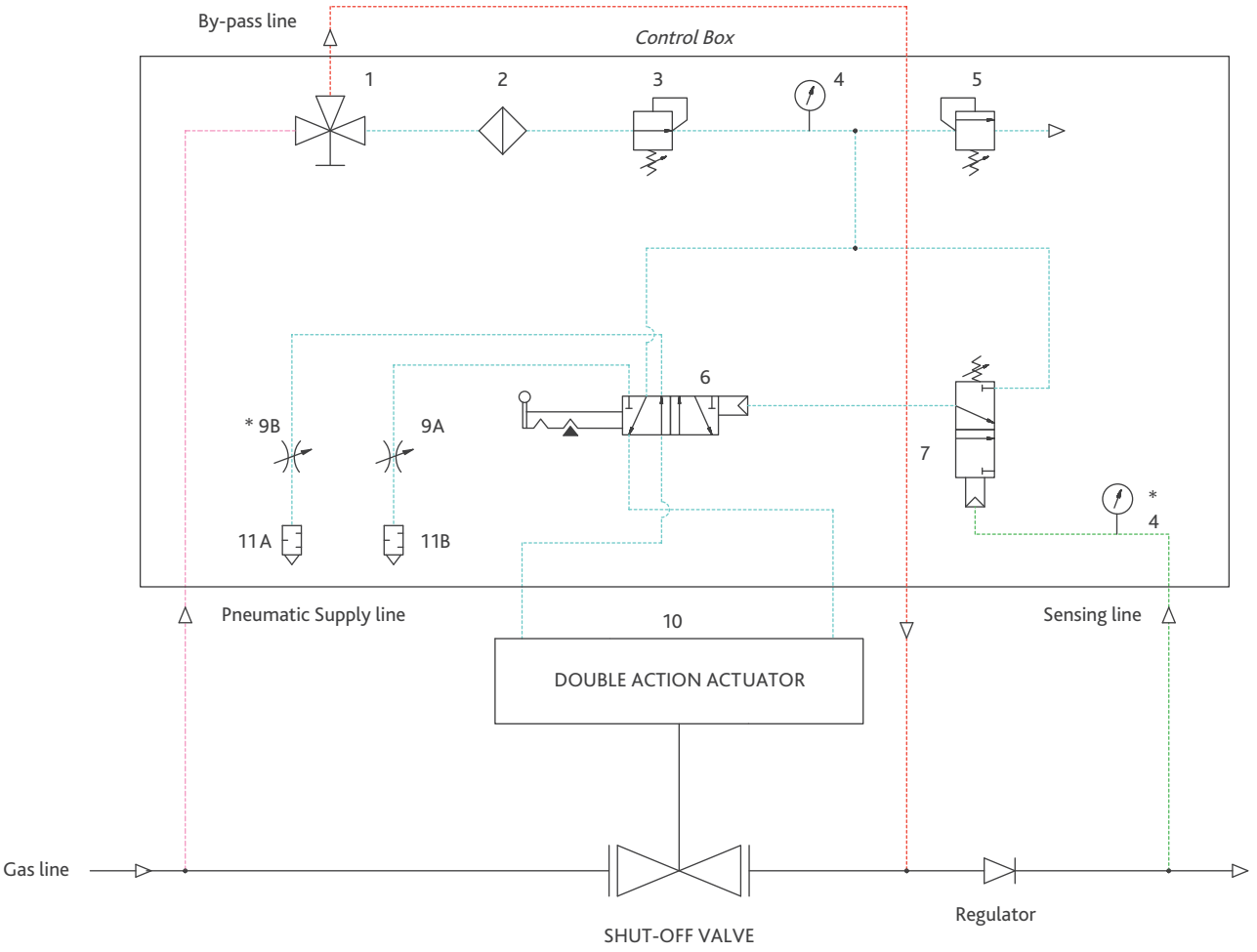
B-Shut Down Mode (GSLK)



» Gas coming from Low and High Pressure Signal Line is connected to High and Low Pressure Trip Unit (C).
» If there is a higher or lower pressure than the set values, pressure trip unit will change the main control valve (D) position.
» Actuator cylinder A-T2 relieves and other cylinder port will be pressurized through.
» As a result pipeline will be closed down.
» In case of a failure in gas pump pressure to actuator or its component, check valve will be closed and cylinder will be pressurized by using the gas in reservoir (R).
» Closing time can be adjusted.
» Closed valve will not open without operator intervention.
» System will not be fed with gas until operator opens the valve.

P&ID
GSLH-0R0

High Pressure Safety Shut-Off Valve Control Diagram

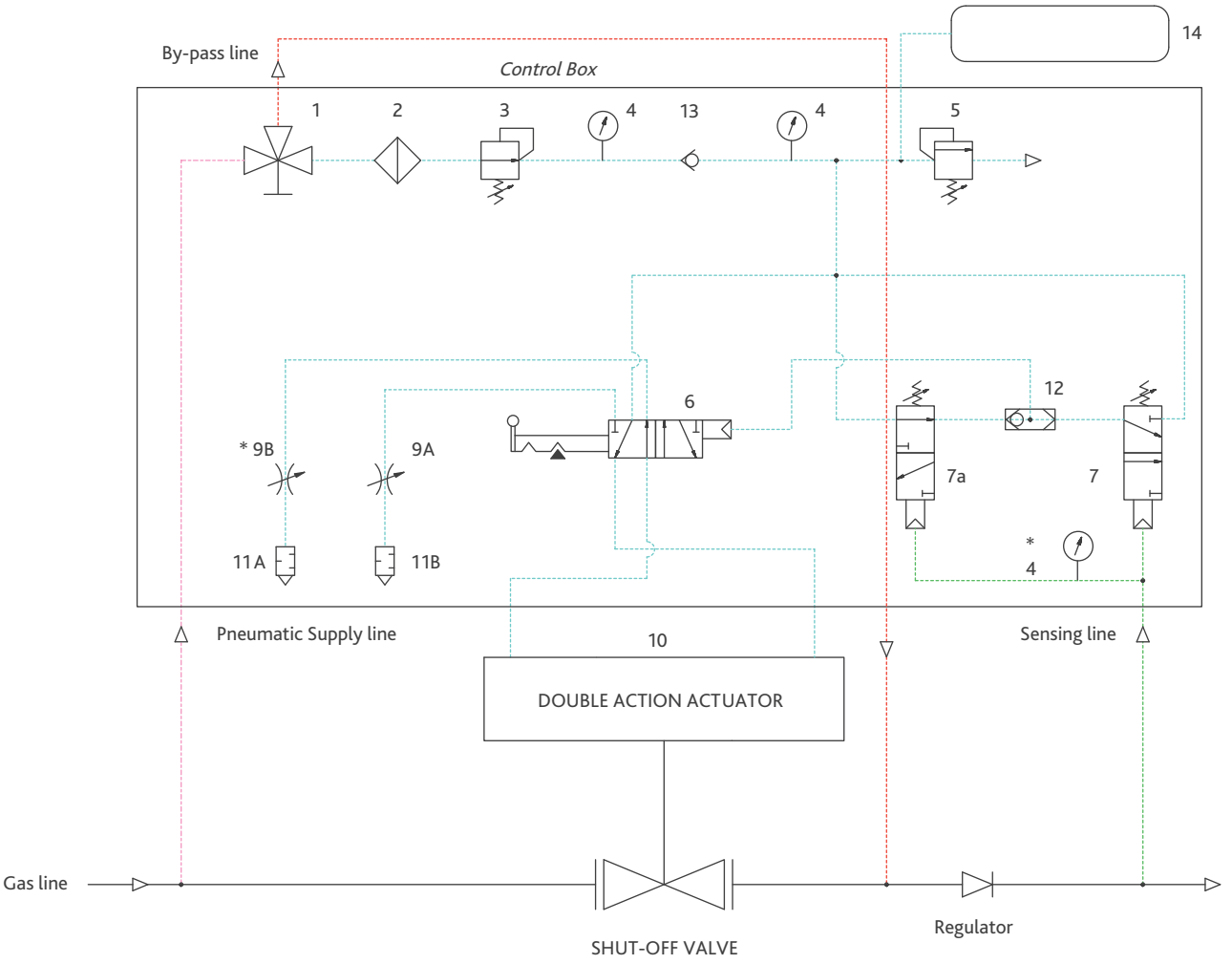


1 Pneumatic Supply Line
2 Sensing Line
3 Pneumatic Line
4 By-Pass Line
5 High Pressure Gas Line

1- 3 way Valve
2- Filter
3- Pressure regulator
4- Pressure guage
5- Relief Valve
6- 5/2 Pneumatic Valve
7- Pressure Switch
9A- Dumping throttle (Open)
9B- Dumping throttle (Close)
10- Double Action Actuator
11A- Silencer
11B- Silencer
(*) Optional

High & Low Pressure Safety Shut-Off Valve Control Diagram

P&ID
GSLK-0R0



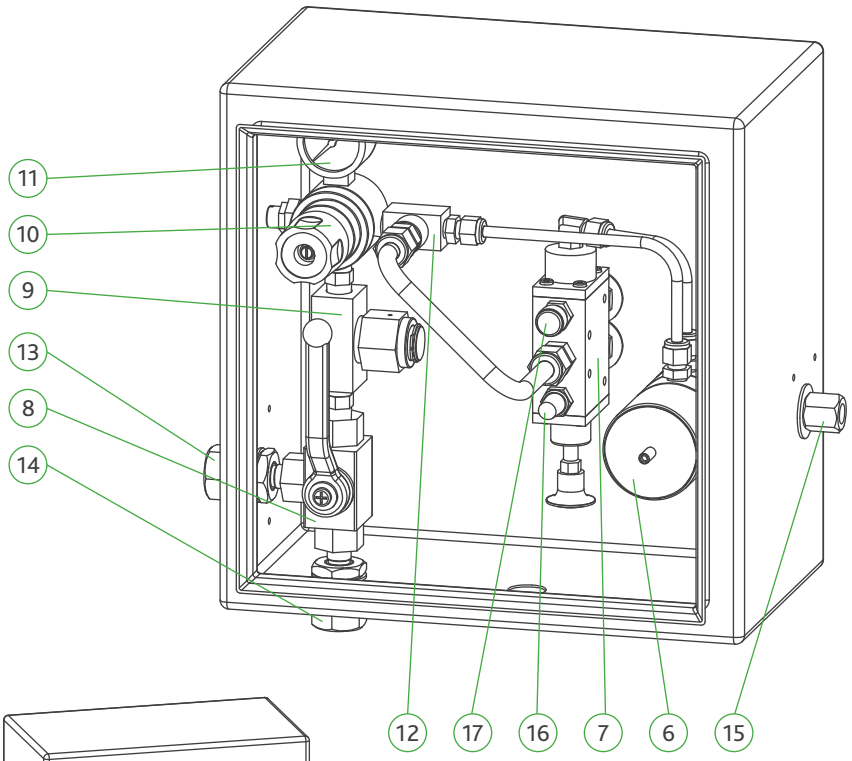
1 Pneumatic Supply Line
2 Sensing Line
3 Pneumatic Line
4 By-Pass Line
5 High Pressure Gas Line

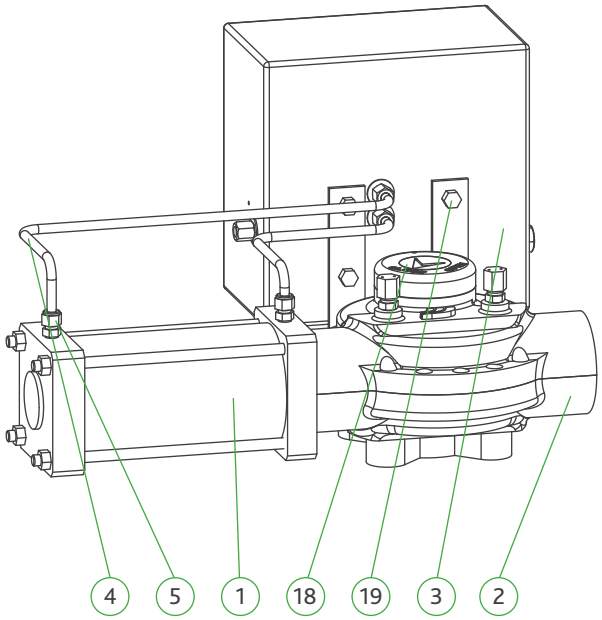
1- 3 way Valve
2- Filter
3- Pressure regulator
4- Pressure guage
5- Relief Valve
6- 5/2 Pneumatic Valve
7a- High Pressure Switch
7b- Low Pressure Switch
9A- Dumping throttle (Open)
9B- Dumping throttle (Close)
10- Double Action Actuator
11A- Silencer
12- Or Valve
13- Check Valve
14- Emergency Tank
(*) Optional

PSC 01

Type 1

HP-High Pressure
Safety Shut-Off Actuators
Quarter Turn Scotch Yoke Operator





Part List

Item	Part Name	Symbol	Material
1	Cylinder	CS	Carbon Steel
2	Scotch Yoke	DI+A105	Body: DI - Yoke: A105
3	Control Box	304	AISI 304
4	Tubings	316	AISI 316
5	Fittings	316	AISI 316
6	Pressure Switch	Al	Aluminium (Anodizing)
7	5/2 Pneumatic Valve	MS58	CuZn39Pb3 + Ni Plating
8	3 Way Ball Valve	Steel	11SMnPb37 + Zn Plating
9	Gas Filter	316L	AISI 316L
10	Regulator	MS58	CuZn39Pb3 + Cr Plating
11	Pressure Gauge	Plastic	Pakkens
12	TEE Regulator Outlet	MS58	CuZn39Pb3
13	1/2" NPT (Gas Supply Inlet)	316L	AISI 316L
14	1/2" NPT (By-Pass)	316L	AISI 316L
15	1/4" NPT (Sense Line Inlet)	316L	AISI 316L
16	Silencer	Bronze	Bronze Sintered
17	Regulated Silencer	Bronze	Bronze Sintered
18	Position Indicator	Nylon	Nylon
19	Bolt	A2	Stainless Steel

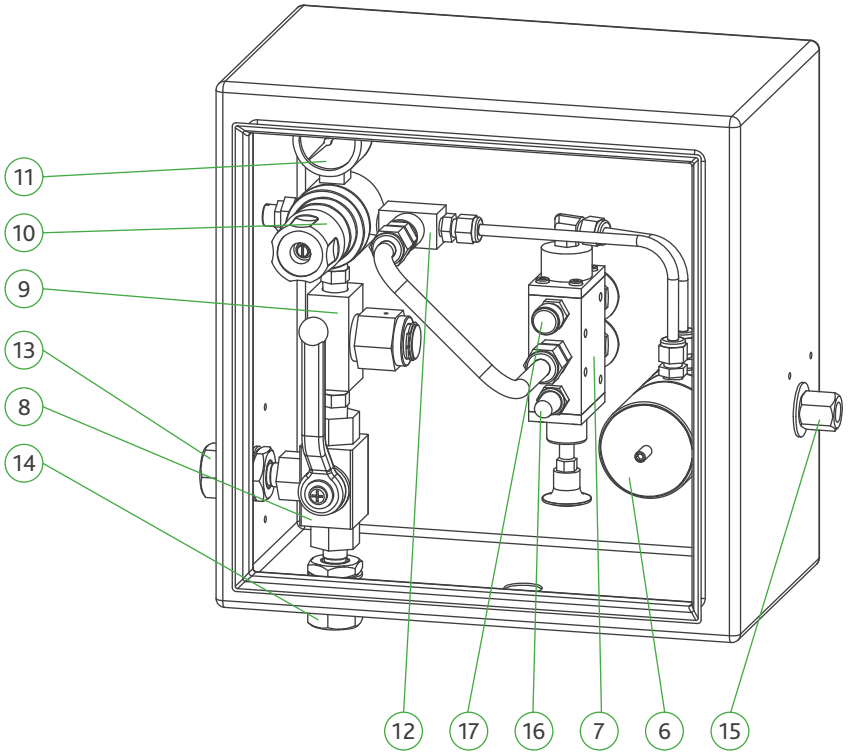
PSC 01

Type 2

HP-High Pressure

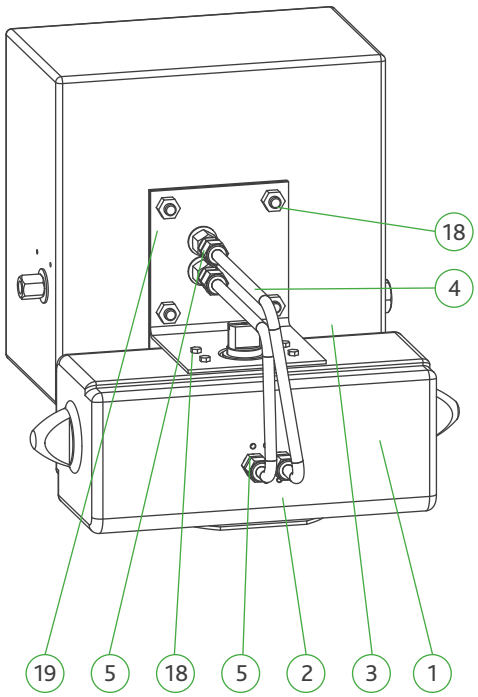
Safety Shut-Off Actuators

Quarter Turn Scotch Yoke Operator



Part List

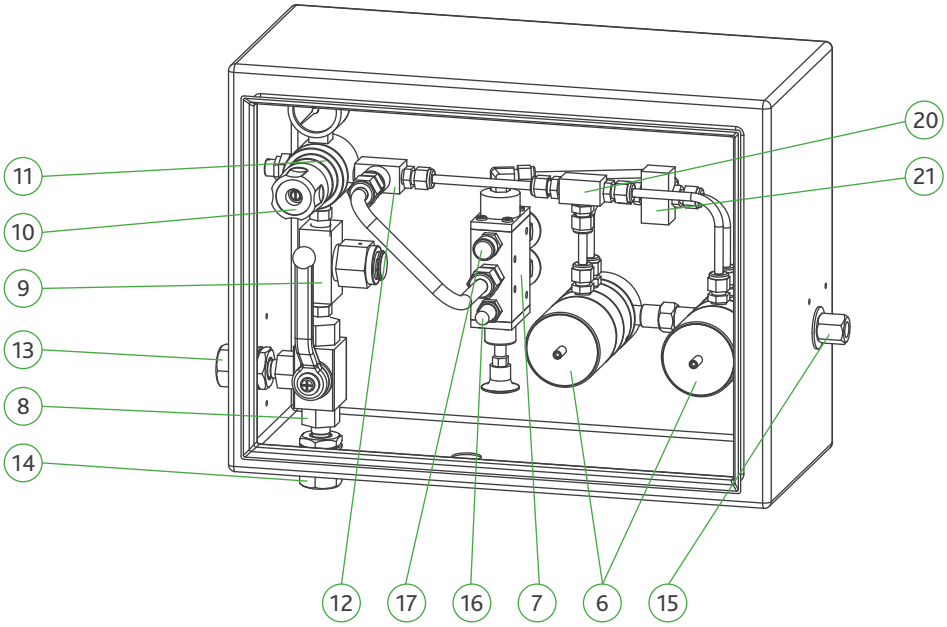
Item	Part Name	Symbol	Material
1-2	Scotch Yoke	DAPS	Festo / Germany
3	Control Box	304	AISI 304
4	Tubings	316	AISI 316
5	Fittings	316	AISI 316
6	Pressure Switch	Al	Aluminium (Anodizing)
7	5/2 Pneumatic Valve	MS58	CuZn39Pb3 + Ni Plating
8	3 Way Ball Valve	Steel	11SMnPb37 + Zn Plating
9	Gas Filter	316L	AISI 316L
10	Regulator	MS58	CuZn39Pb3 + Cr Plating
11	Pressure Gauge	Plastic	Pakkens
12	TEE Regulator Outlet	MS58	CuZn39Pb3
13	1/2" NPT (Gas Supply Inlet)	316L	AISI 316L
14	1/2" NPT (By-Pass)	316L	AISI 316L
15	1/4" NPT (Sense Line Inlet)	316L	AISI 316L
16	Silencer	Bronze	Bronze Sintered
17	Regulated Silencer	Bronze	Bronze Sintered
18	Bolt	A2	Stainless Steel
19	Support	304	AISI 304

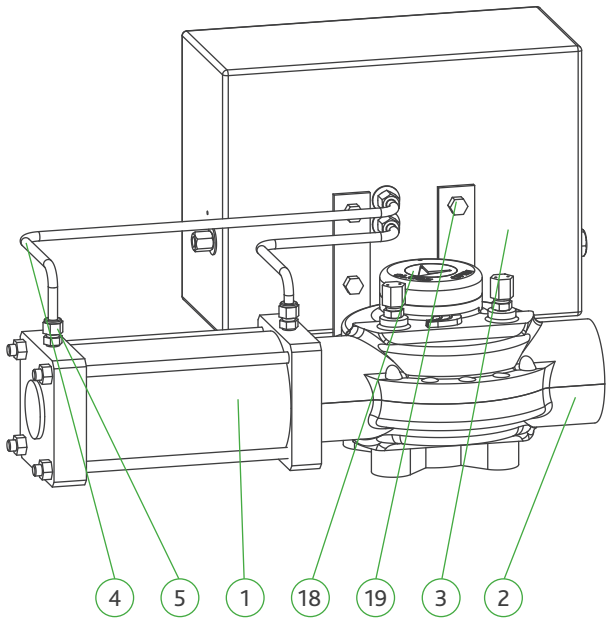


PSC 02

Type 1

HLP-High & Low Pressure
Safety Shut-Off Actuators
Quarter Turn Scotch Yoke Operator





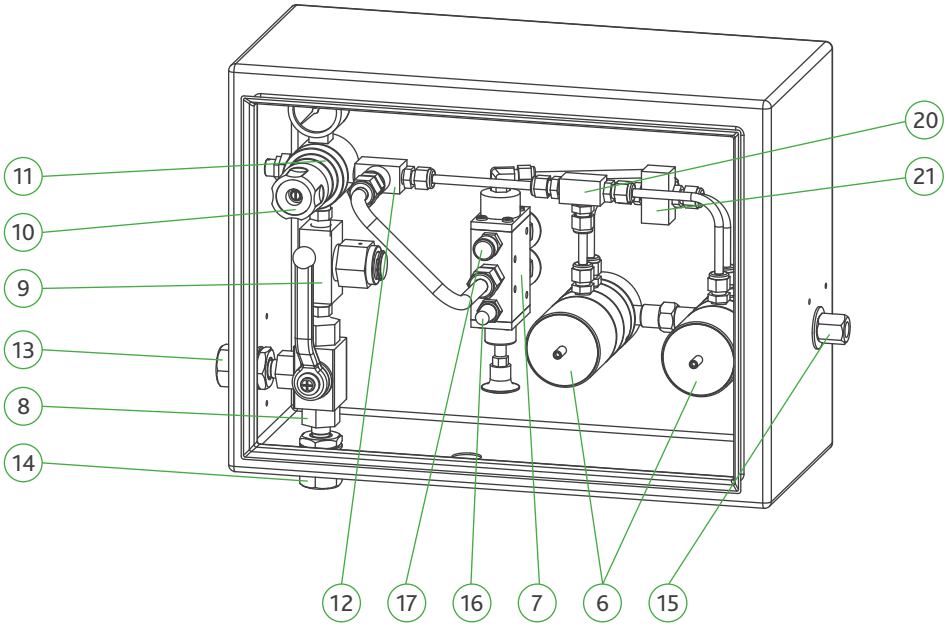
Part List

Item	Part Name	Symbol	Material
1	Cylinder	CS	Carbon Steel
2	Scotch Yoke	DI+A105	Body: DI - Yoke: A105
3	Control Box	304	AISI 304
4	Tubings	316	AISI 316
5	Fittings	316	AISI 316
6	Pressure Switch	Al	Aluminium (Anodizing)
7	5/2 Pneumatic Valve	MS58	CuZn39Pb3 + Ni Plating
8	3 Way Ball Valve	Steel	11SMnPb37 + Zn Plating
9	Gas Filter	316L	AISI 316L
10	Regulator	MS58	CuZn39Pb3 + Cr Plating
11	Pressure Gauge	Plastic	Pakkens
12	TEE Regulator Outlet	MS58	CuZn39Pb3
13	1/2" NPT (Gas Supply Inlet)	316L	AISI 316L
14	1/2" NPT (By-Pass)	316L	AISI 316L
15	1/4" NPT (Sense Line Inlet)	316L	AISI 316L
16	Silencer	Bronze	Bronze Sintered
17	Regulated Silencer	Bronze	Bronze Sintered
18	Position Indicator	Nylon	Nylon
19	Bolt	A2	Stainless Steel
20	TE	MS58	CuZn39Pb3
21	Or Valve	Al	Aluminium (Anodized)

PSC 02

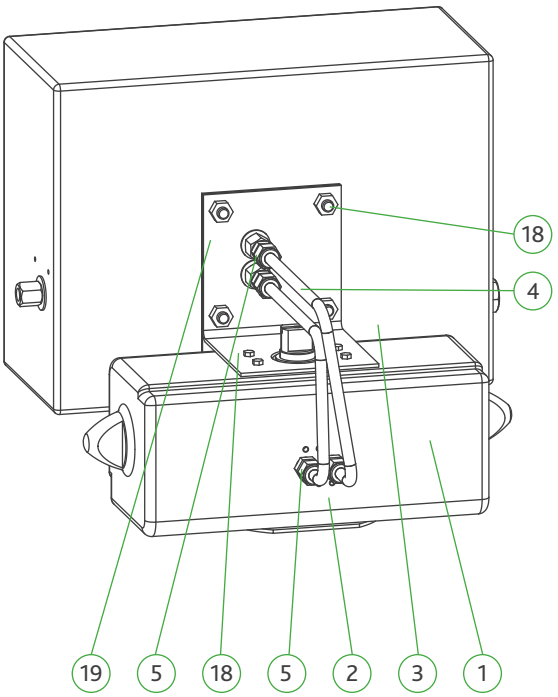
Type 2

HLP-High & Low Pressure
Safety Shut-Off Actuators
Quarter Turn Scotch Yoke Operator



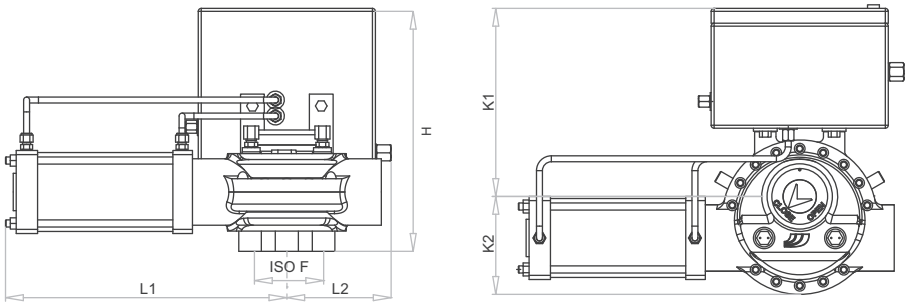
Part List

Item	Part Name	Symbol	Material
1-2	Scotch Yoke	DAPS	Festo / Germany
3	Control Box	304	AISI 304
4	Tubings	316	AISI 316
5	Fittings	316	AISI 316
6	Pressure Switch	Al	Aluminium (Anodizing)
7	5/2 Pneumatic Valve	MS58	CuZn39Pb3 + Ni Plating
8	3 Way Ball Valve	Steel	11SMnPb37 + Zn Plating
9	Gas Filter	316L	AISI 316L
10	Regulator	MS58	CuZn39Pb3 + Cr Plating
11	Pressure Gauge	Plastic	Pakkens
12	TEE Regulator Outlet	MS58	CuZn39Pb3
13	1/2" NPT (Gas Supply Inlet)	316L	AISI 316L
14	1/2" NPT (By-Pass)	316L	AISI 316L
15	1/4" NPT (Sense Line Inlet)	316L	AISI 316L
16	Silencer	Bronze	Bronze Sintered
17	Regulated Silencer	Bronze	Bronze Sintered
18	Bolt	A2	Stainless Steel
19	Support	304	AISI 304
20	TE	MS58	CuZn39Pb3
21	Or Valve	Al	Aluminium (Anodized)



PSC 03 (Special Order)

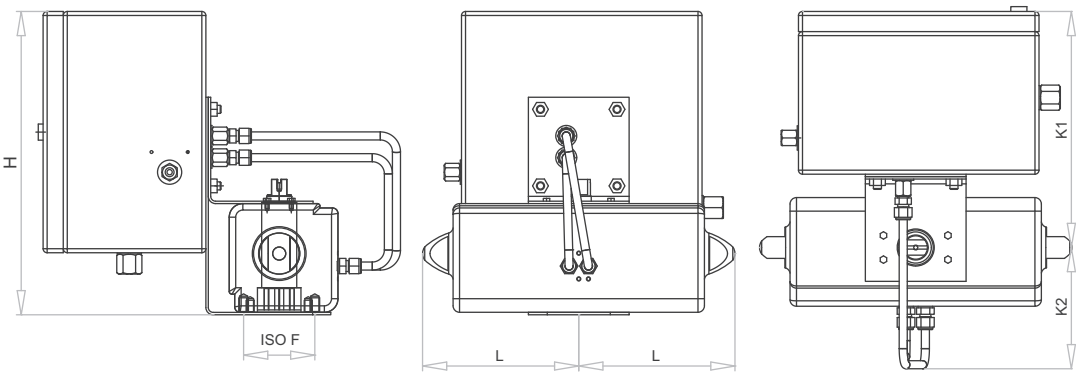
Dimensions & Weight of GS Type 1



Type	Mounting Flange ISO F	Nominal Torque at 6 Bar (Nm)	Max. Stem Dia.	H mm	L1 mm	L2 mm	K1 mm	K2 mm	Weight Kg	E600 150#	E600 300#	E600 600#
G012S	F12/F14/F16	1145	Ø50	410	475	176	320	165	65	8	-	-
G014S	F12/F14/F16	1876	Ø50	410	485	176	320	165	87	10	8	6
G018S	F12/F14/F16	2932	Ø50	410	510	176	320	165	100	-	10	8
G116S	F16/F20/F25	2412	Ø70	470	540	200	345	260	130	12	-	-
G120S	F16/F20/F25	3769	Ø70	470	580	200	345	260	150	14 - 16	12	10
G125S	F16/F20/F25	5890	Ø70	470	600	200	345	260	175	-	14	12
G128S	F16/F20/F25	7380	Ø70	470	620	200	345	260	195	-	16	-
G225S	F20/F25/F30	7329	Ø90	520	690	235	380	300	242	18-20	-	14
G228S	F20/F25/F30	9100	Ø90	520	700	235	380	300	260	-	18	-
G232S	F20/F25/F30	12008	Ø90	520	710	235	380	300	282	-	20	16
G236S	F20/F25/F30	15200	Ø90	520	730	235	380	300	310	24	-	18
G338S	F25/F30/F35	21000	Ø120	530	820	270	400	345	405	-	24	20
G348S	F25/F30/F35	33770	Ø120	530	900	270	400	345	445	-	-	24

* Operation pressure : 1 bar to 8.4 bar

Dimensions & Weight of GS Type 2



Type	Mounting Flange ISO F	Nominal Torque at 6 Bar (Nm)	Square Dia.	H mm	L mm	K1 mm	K2 mm	Weight Kg	E600 150#	E600 300#	E600 600#
GS18	F07/F10	17 x 17	180	355	175	256	66	4.1	2	2	2
GS24	F07/F10	17 x 17	240	355	175	258	70	5.2	3	3	-
GS36	F07/F10	17 x 17	360	360	175	260	72	6.2	4	4	3
GS48	F10/F12	22 x 22	480	385	194	268	83	8.2	-	-	-
GS72	F10/F12	22 x 22	720	395	217	270	94	12.2	-	-	4
GS96	F12 F14	36 x 36	960	420	240	300	104	17.4	6	6	-

* Operation pressure : 1 bar to 8.4 bar


VASTAS

Instruction & Maintenance Specification

» See IMS-SOV-9R0 manual for valve.

» See RCS-Instruction Manual or Vastaş IMS-G-9R0 manual for actuator power unit.

» See IMS-CPL-9R0 for control unit.

Points that should be considered during installation

» Equipment Group is “II Category 1, Zone 0”.

» Any electrical equipment is not used.

» Statical electrification is prevented. (ASD)

» Warning for safety. (Spark and fire)

In case of valve’s operation in the field, gas will be exhausted to the enviroment. Eliminate the objects which may cause fire and spark. During operation 1 meter surroundings of valve should be considered as “Zone 0”.

Operation

Confirm the validity of certificate and calibration before commissioning. It is obliged to make test with site conditions before start-up. Service can be offered by Vastaş for this operation.

Maintenance and Calibration

SOV should be calibration tested once a year, latest 14 months without exceeding. According to pressurized vessel directive, importance should be given in order not to exceed this period.

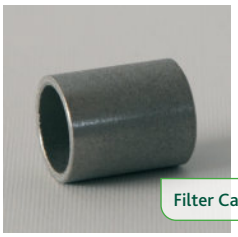
Spare Parts

You can order the spare parts for SOV by describing the information from Datasheet and IMS manual with in 5 years guarantee.

» Filter Cartridge

It should be changed frequently enough in order to inhibit creation of pressure difference, depending on operation frequency and foreign materials carried by the gas.


Filter


Filter Cartridge

» Regulator

It provides adjustment of operational power and should be changed if it is not be adjusted to requested pressure.

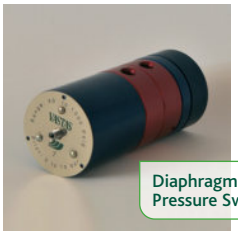

Regulator

» 5/2 valve, 3/2 role, 3w Ball Valves, Gauge

No need for spare unless any failure in its performance is determined during latest annual maintenance and calibration. Should be changed in case of a defect caused by fluid and/or external effects.


5/2 Valve


3w Ball Valve


Diaphragm Type Pressure Switch


Piston Type Pressure Switch

Valves for Safety Shut-Off

Ball Valves for SOV

» Trunnion Ball Valves

» Design API 6D pipeline valves for petroleum & natural gas industries.

» Tight shut-off isolating

» Flanged ends or butt-weld ends

» Metal to metal seating & soft seat closure with emergency lubricant sealent

» Antiblow out, antistatic devices, fire test certificated

» NPS 2 & 56 size range

» 150 class, 300 class and 600 class

» Operating temperature -29 °C to +80 °C (-49 °C optional)

Features

» Through conduit; suitable for pigging or hot tapping

» Bubble tight shut-off for low pressure & high pressure

» DBB - Double Block and Bleed

» DIB - Double Isolating and Bleed (optional only)

» Split body, 3 pieces for easy dismantling

» Bi-directional

» Stem seal replacement possible under pipeline pressure

» Emergency stem sealing with lubricant

» Self relief of body cavity

» Low operating torque, easy operation

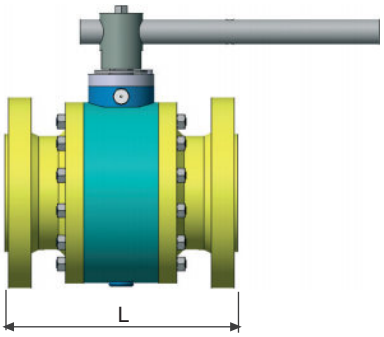
» Seal flushing and lubricating devices (ball and seatring)

» Body material acc. to Nace MR0175 & CE max. 0,43% & C max. 0,25%

Approvals

Vastaş Shut-Off Valves are API monogrammed. Type approvals are issued by independent and accredited organizations. (Fire Test, Performance Test, Fugitive Test, Torque Test.)

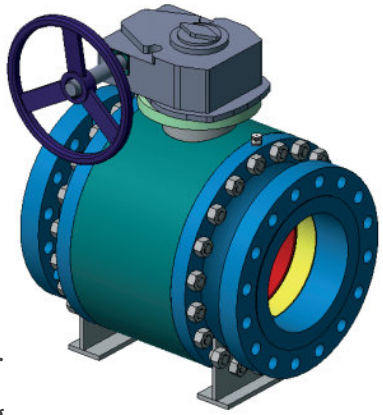
Face to Face (FTF) & End to End (ETE) Dimensions



» Comply with ASME B16.10 "L" dimension in this catalog complies to API standard. (Page 18-28)

» Welding end valves might be purchased with PUPS, which offer better welding conditions with same welding dimension as the pipe itself.

Split Body Ball V. Design (SB) up to 48"



» It is possible to dismantle the valve on-line and to renew the trim material at field through its distinguished split body design.

» Connection & tightness of split body parts are calculated as per ASME.B16.34 design criteria.

» It is important to take precautions against axial and angular deviations when mounting thd split body valves.

» Split body Ball Valves are generally manufactured as non-lubricated type.

» Some of Vastaş Split body Valves, however, are indicated in this catalog as being lubricated type which certainly brings solutions to serious problems by allowing maintenance at live line.

Double Block & Bleed Valves (DBB)

» Valve with two seating surfaces, which, in the closed position, blocks flow from both ends when the cavity between the seating surfaces is vented through a bleed connection on the body.

» It is possible to test the valve up & down stream seperately or together at the same time.

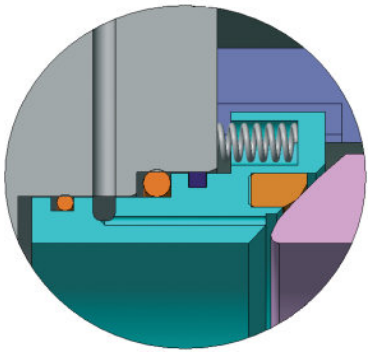
» Seat leakage can be detected on live line by closing the valve and draining the cavity through bleed connection.

» This feature also facilitates take-off process at live pipeline by closing the valve draining the cavity.

» Inspections of N^2, CO^2 gases through the bleed connection offer a safer environment for welding.

» Detection of inner leakages as mentioned above makes it available to repair the pipe leakage by some means such as special purpose lubrication.

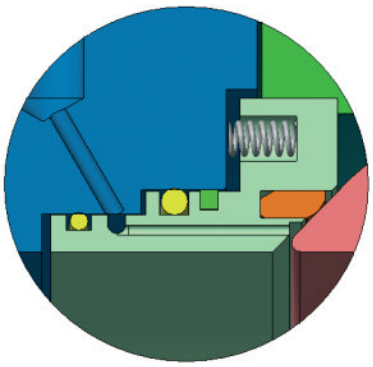
Double Piston Effect Seating (DPE)



» Valve within two seats, each sealing in both directions, which allow blocking under pressure or venting the valve cavity.

» Stress Relieve Valve (SRV) might be connected upon request.

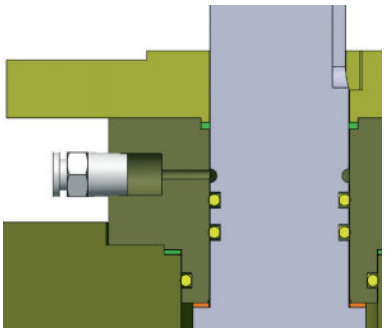
Self-Relief Effect (SRE - Optional)



» Valve with two seats, one sealing in one direction and the other in either direction.

» One directional seat allows back flow and eliminates draining out.

Emergency Stem Sealing (SL)



» Designed to prevent stem leakage under live pipeline pressure.

» Suitable lubricant (VALTEX) to line pressure and flowing fluid is selected and injected by means of lubricating gun to prevent leakage.

» The lubricant prevents also corrosion, facilities operation of valve and lubricates stem, gland and O-ring interfaces.

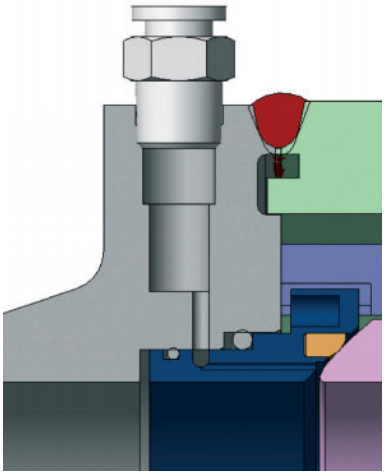
» This feature is not available for Vastaş types E671 & E672, hence packing should be renewed by taking the gland out.

Emergency Sealing Design (SLS)

» Designed as secondary sealing precaution for the Trunnion type valves. Some additional functions are as follows;

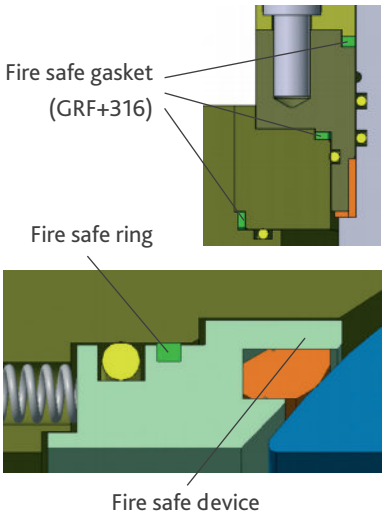
1. Provides maintenance of valve on live line by seat-flush / valve flush.
2. O-rings on the metallic ring or TFE rings on body housings of DBB valves are lubricated and prevented against corrosion.
3. Provides easy functioning of DPE or SRE rings.
4. Prevents erosion or corrosion of ball surface.
5. Prevents and repairs seat leakages, hence eliminates valve failures.
6. Acts as secondary sealing of the valve at emergency cases.

» All above features result the valve to be called as lubricated type, which is a must for underground applications and for valves welded to the line.



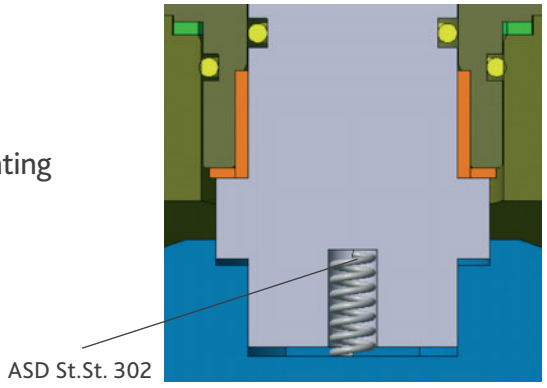
Fire Safe Design (FSD)

» Ball valve design considers fire safety as per a requirement of API 6D standard, which tested and approved by third party authorities.

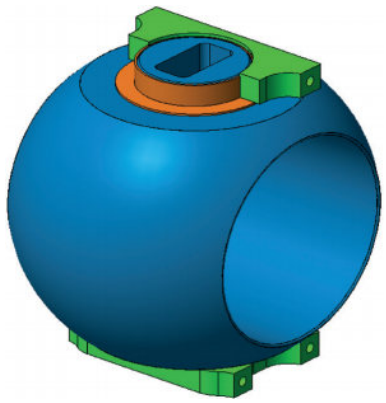


Anti Static Design (ASD)

» Design of valves allows conductivity of static electric eliminating any spark hazard in the plant.



Trunnion Ball (TB)



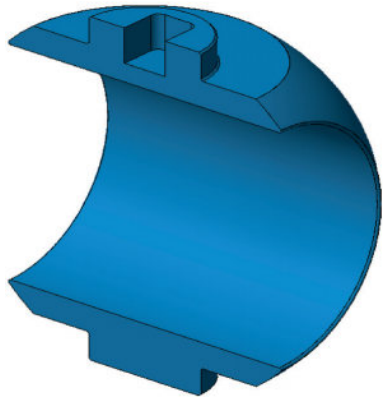
» The Ball is supported at bottom and top of the body through sliding housings.

» With minimum friction resistance which have no pressure effect under line pressure on the sealing parts.

» This feature provides a longer operational life for valve by maintaining the tightness.

» The most important requirement of API 6D, the DBB feature is applicable only to Trunnion Ball types except special designs.
(All Vastaş ball valves are Trunnion Ball type, except Floating Ball valves.)

Solid Ball



» All Trunnion Ball type Vastaş valves are manufactured with solid ball shaped by forging.

» Small sizes might be shaped from bar-stock.

» Material options are indicated on part lists.

» FLB type valves of E671 and E672 are manufactured with emptied ball shaped by forging.

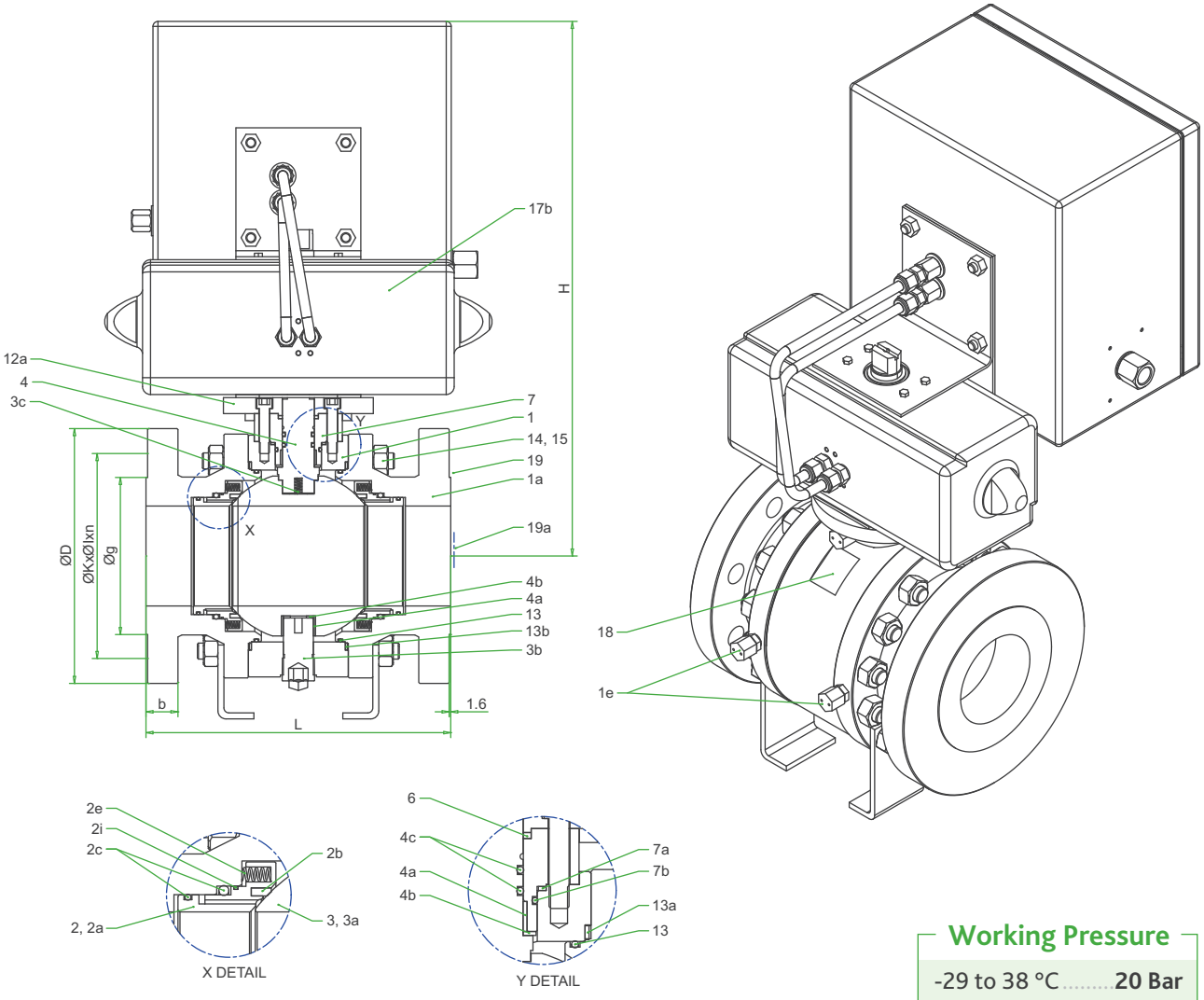
Datasheet | **E610GS.118**

Shut-Off Valve
Carbon Steel Ball Valve

SB | TB | FB | DBB | ASD | FSD | AG

Design Standard : **API 6D & ISO 14313**
End Type : **ANSI B16.5 & ISO 7005 RF**

PN **20** | Class **150**
NPS **2-6** | DN **50-150**



Working Pressure

-29 to 38 °C	**20 Bar**
Max. 100 °C	**18 Bar**

Test Pressure

Shell	**30 Bar**
Closure	**22 Bar**
Air	**6 Bar**

Part List of Material No 118

Item	Part Name	Symbol	Material
1	Body	A105	ASTM A105
1a	Body Part	A105	ASTM A105
1e	Lubricant Fitting	DC	Steel + Galvenized
1g	Drain Plug	ST	Steel + Galvenized
2	Seat Ring	A105	ASTM A105
2a	Seat Face	ENP	Nickel Plated
2b	Seat Seal	PTFE	PolyTetraFluoroEthylene
2c	Ring Seal	NBR	Nitrile Butadiene Rubber
2e	Spring	ST.ST.	AISI 302
2i	Fire Safe Ring	GRF	Graphite
3	Ball	A105	ASTM A105
3a	Ball Face	ENP	Nickel Plated
3b	Trunnion Guide	13Cr	AISI 410
3c	Anti Static Device	ST.ST.	AISI 302
4	Stem	13Cr	AISI 410
4a	Bearing	DB	Bz+Fiber+PTFE mix.
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	Stem Seal	NBR	Nitrile Butadiene Rubber
6	Fire Safe Ring	GRF	Graphite
7	Gland	ST	Carbon Steel
7a	Fire Safe Ring	GRF	Graphite
7b	Gland Seal	NBR	Nitrile Butadiene Rubber
12a	Mounting Flange	ST	Carbon Steel
13	Gasket	NBR	Nitrile Butadiene Rubber
13a	Safety Ring	GRF	Graphite
14	Stud Bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17b	Shut-off Actuator	GS	Festo
18	Name Plate	SP	Stainless Plate
19	Coating	EP	Epoxy RAL 7040 (Grey)
19a	End Cover	PVC	Plastic

Dimensions & Weight

NPS	DN	ID	ØD	b	Øg	ØK	n	Øl	L	H	Wt
inc.	mm	mm	mm	mm	mm	mm	no	mm	mm	mm	kg
2	50	49	153	16	92	121	4	19	178	470	25
3	80	74	191	19	127	152	4	19	203	490	25
4	100	100	229	24	157	191	8	19	229	520	60
6	150	150	280	26	216	241	8	22	394	645	160

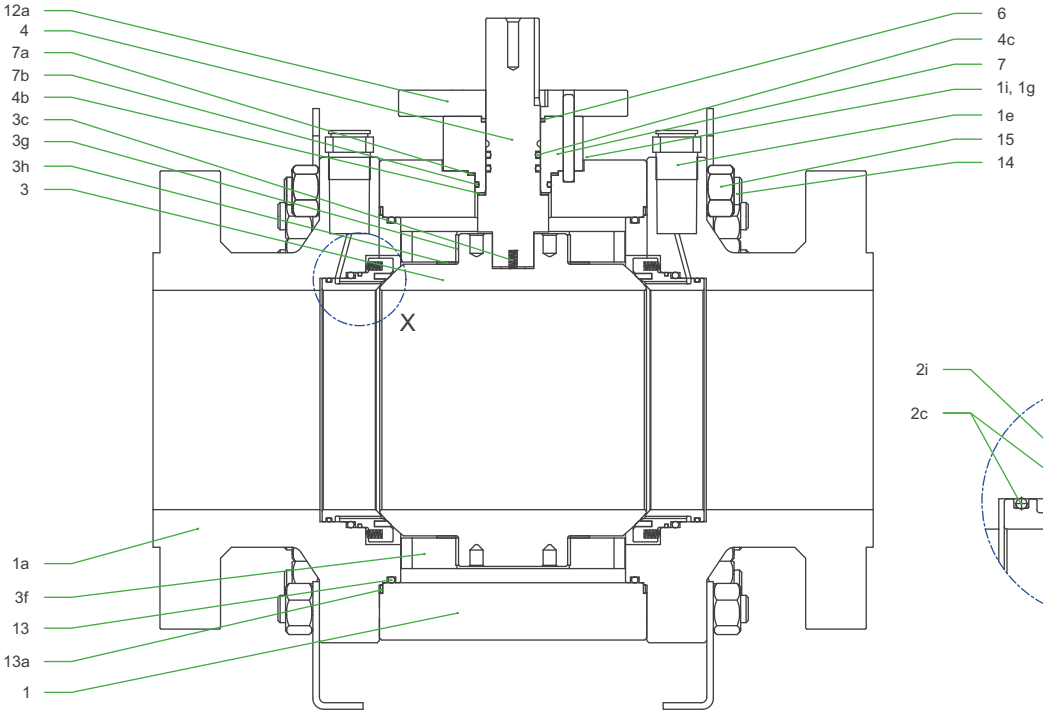
Datasheet | E610GS.118

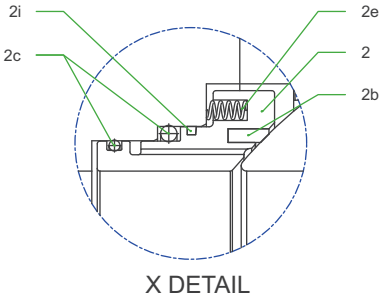
Shut-Off Valve
Carbon Steel Ball Valve

SB | TB | FB | DBB | ASD | FSD | AG

Design Standard : **API 6D & ISO 14313**
End Type : **ANSI B16.5 & ISO 7005 RF**

PN **20** | Class **150**
NPS **8-24** | DN **150-600**





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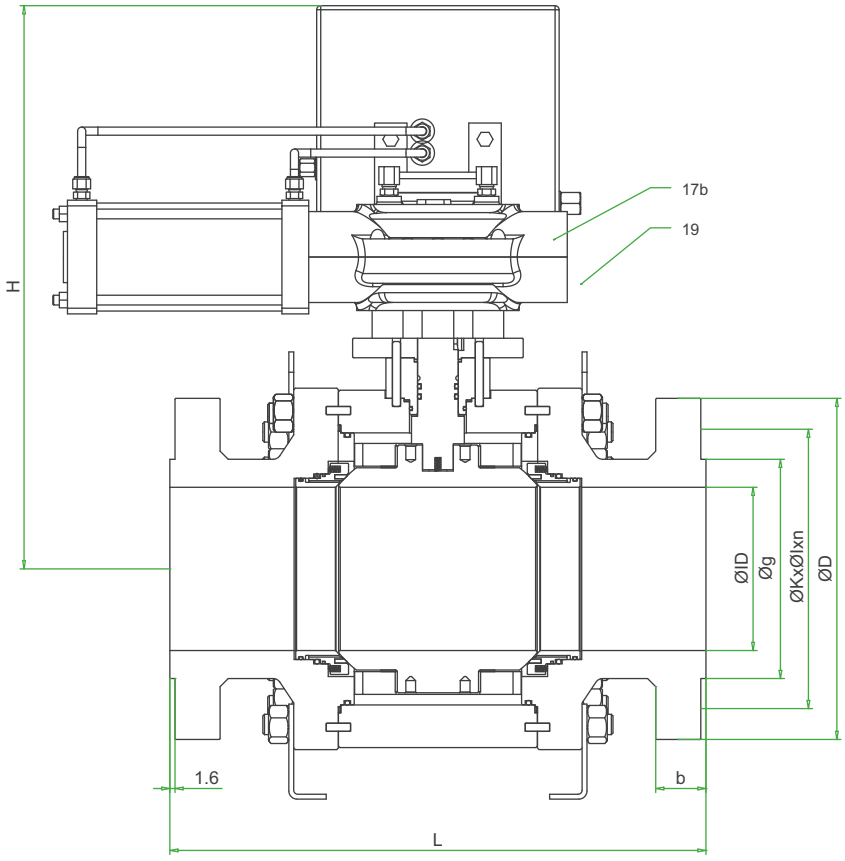


Working Pressure

-29 to 38 °C	**20 Bar**
Max. 100 °C	**16 Bar**

Test Pressure

Shell	**30 Bar**
Closure	**22 Bar**
Air	**6 Bar**

Part List of Material No 118

Item	Part Name	Symbol	Material
1	Body	A105	ASTM A105
1a	Body part	A105	ASTM A105
1e	Lubricant fitting	DC	Steel + Galvanized
1g	Drain plug	ST	Steel + Galvanized
1i	Vent plug	ST	Steel + Galvanized
2	Seat ring	A105+ENP	ASTM A105+ENP
2b	Seal Ring	PTFE	PolyTetraFluoroEthylene
2c	O-Ring	NBR	Nitrile Butadiene Rubber
2d	Lubring	A105+ENP	ASTM A105+ENP
2e	Spring	302	AISI 302
2g	Secondary Ring	PTFE	PolyTetraFluoroEthylene
2i	Fire safe ring	GRF	GRAPHITE
3	Ball	A105+ENP	ASTM A105+ENP
3c	Anti Static Device	St.St.	AISI 302
3f	Retainer	ST	Steel
3g	Bearing	DB	Bz+Fiber+Ptfe Mix.
3h	Washer	PTFE	PolyTetraFluoroEthylene
4	Stem	Cr13	AISI 410
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	O-Ring	NBR	Nitrile Butadiene Rubber
6	Packing	GRF	GRAPHITE
7	Gland	A105	ASTM A105
7a	Gasket	Swg	316+Grf
7b	O-Ring	NBR	Nitrile Butadiene Rubber
12a	Mounting Flange	ST	Carbon Steel
13	Gasket (O-ring)	NBR	Nitrile Butadiene Rubber
13a	Safety Ring	GRF	GRAPHITE
14	Stud bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17b	Shut-Off Actuator	G0	Vastaş
18	Name Plate	S	Stainless plate
19	Paint	EP	Epoxy RAL 7040 (Grey)
19a	End Cover	PVC	Plastic

Dimensions & Weight

NPS	ØID	ØD	b	Øg	ØK	n	Øl	L	H	Wt
inc.	mm	mm	mm	mm	mm	no	mm	mm	mm	kg
8	201	345	29	270	299	8	22	457	685	360
10	252	405	30	324	362	12	26	533	725	510
12	303	485	32	381	432	12	26	610	835	825
14	334	535	35	413	476	12	29	686	860	1000
16	385	600	37	470	540	16	29	762	900	1350
18	436	635	40	533	578	16	33	864	980	1820
20	487	700	43	584	635	20	33	914	1020	2200
24	589	815	48	692	749	20	36	1067	1130	3535

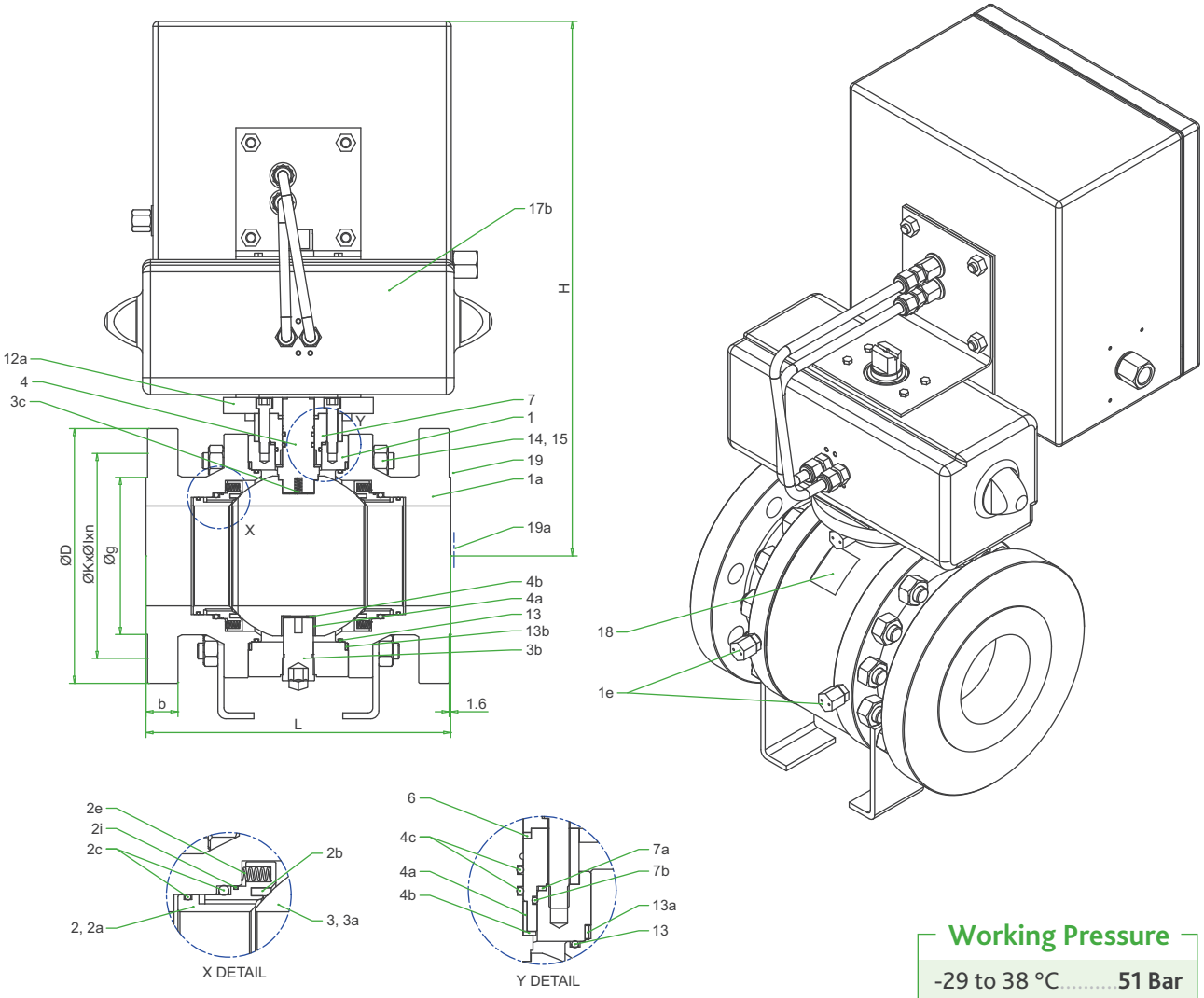
Datasheet | **E620GS.118**

Shut-Off Valve
Carbon Steel Ball Valve

SB | TB | FB | DBB | ASD | FSD | AG

Design Standard : **API 6D & ISO 14313**
End Type : **ANSI B16.5 & ISO 7005 RF**

PN **50** | Class **300**
NPS **2-6** | DN **50-150**



Working Pressure

-29 to 38 °C	**51 Bar**
Max. 100 °C	**40 Bar**

Test Pressure

Shell	**77 Bar**
Closure	**56 Bar**
Air	**6 Bar**

Part List of Material No 118

Item	Part Name	Symbol	Material
1	Body	A105	ASTM A105
1a	Body Part	A105	ASTM A105
1e	Lubricant Fitting	DC	Steel + Galvenized
1g	Drain Plug	ST	Steel + Galvenized
2	Seat Ring	A105	ASTM A105
2a	Seat Face	ENP	Nickel Plated
2b	Seat Seal	PTFE	PolyTetraFluoroEthylene
2c	Ring Seal	NBR	Nitrile Butadiene Rubber
2e	Spring	ST.ST.	AISI 302
2i	Fire Safe Ring	GRF	Graphite
3	Ball	A105	ASTM A105
3a	Ball Face	ENP	Nickel Plated
3b	Trunnion Guide	13Cr	AISI 410
3c	Anti Static Device	ST.ST.	AISI 302
4	Stem	13Cr	AISI 410
4a	Bearing	DB	Bz+Fiber+PTFE mix.
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	Stem Seal	NBR	Nitrile Butadiene Rubber
6	Fire Safe Ring	GRF	Graphite
7	Gland	ST	Carbon Steel
7a	Fire Safe Ring	GRF	Graphite
7b	Gland Seal	NBR	Nitrile Butadiene Rubber
12a	Mounting Flange	ST	Carbon Steel
13	Gasket	NBR	Nitrile Butadiene Rubber
13a	Safety Ring	GRF	Graphite
14	Stud Bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17b	Shut-off Actuator	GS	Festo
18	Name Plate	SP	Stainless Plate
19	Coating	EP	Epoxy RAL 7040 (Grey)
19a	End Cover	PVC	Plastic

Dimensions & Weight

NPS	DN	ID	ØD	b	Øg	ØK	n	Øl	L	H	Wt
inc.	mm	mm	mm	mm	mm	mm	no	mm	mm	mm	kg
2	50	49	165	23	92	127	8	19	216	475	30
3	80	74	210	29	127	168	8	22	283	500	60
4	100	100	254	32	157	200	8	22	305	520	80
6	150	150	320	37	216	270	12	22	403	645	175

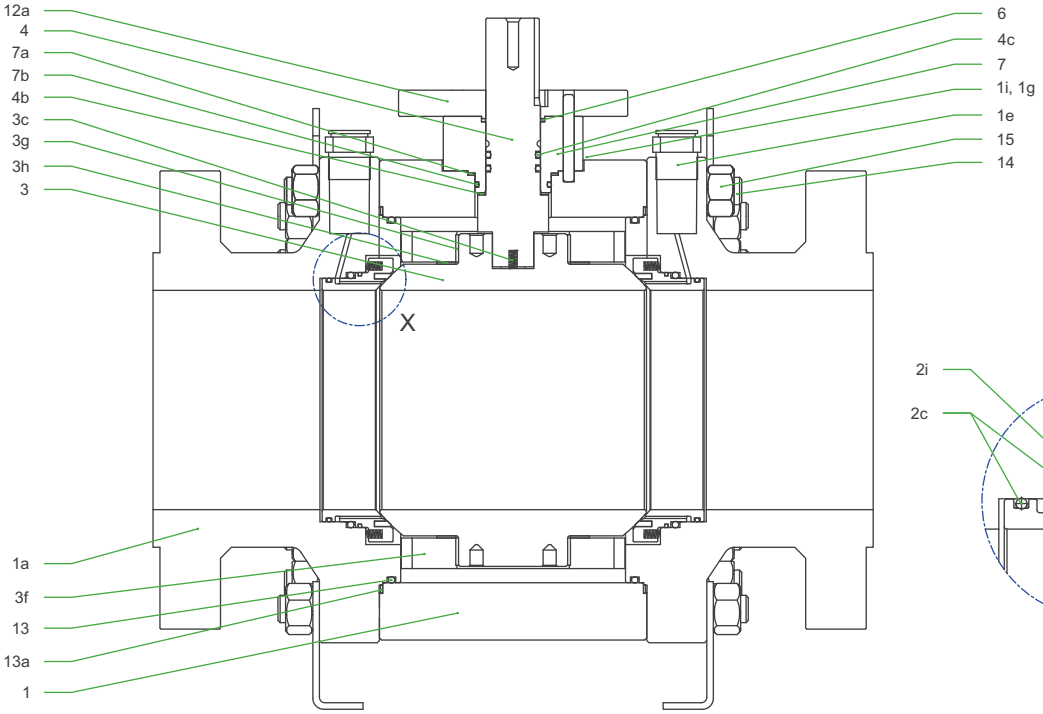
Datasheet | E620GS.118

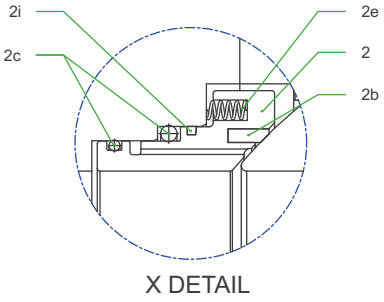
Shut-Off Valve
Carbon Steel Ball Valve

SB | TB | FB | DBB | ASD | FSD | AG

Design Standard : **API 6D & ISO 14313**
End Type : **ANSI B16.5 & ISO 7005 RF**

PN **50** | Class **300**
NPS **8-24** | DN **150-600**





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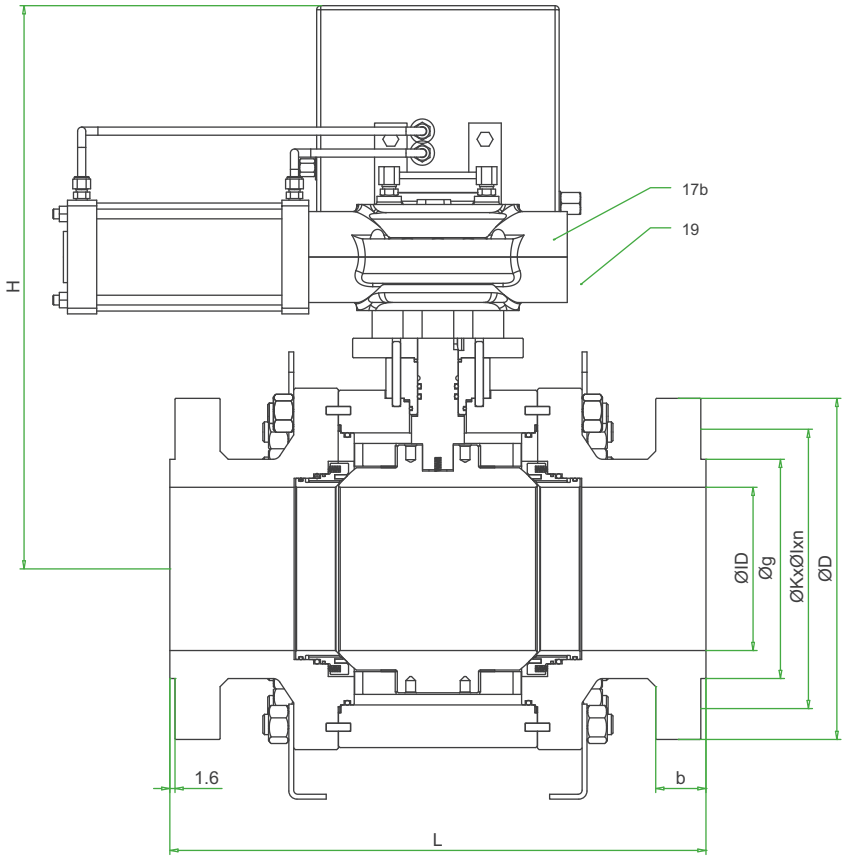


Working Pressure

-29 to 38 °C	**51 Bar**
Max. 100 °C	**40 Bar**

Test Pressure

Shell	**77 Bar**
Closure	**56 Bar**
Air	**6 Bar**

Part List of Material No 118

Item	Part Name	Symbol	Material
1	Body	A105	ASTM A105
1a	Body part	A105	ASTM A105
1e	Lubricant fitting	DC	Steel + Galvanized
1g	Drain plug	ST	Steel + Galvanized
1i	Vent plug	ST	Steel + Galvanized
2	Seat ring	A105+ENP	ASTM A105+ENP
2b	Seal Ring	PTFE	PolyTetraFluoroEthylene
2c	O-Ring	NBR	Nitrile Butadiene Rubber
2d	Lubring	A105+ENP	ASTM A105+ENP
2e	Spring	302	AISI 302
2g	Secondary Ring	PTFE	PolyTetraFluoroEthylene
2i	Fire safe ring	GRF	GRAPHITE
3	Ball	A105+ENP	ASTM A105+ENP
3c	Anti Static Device	St.St.	AISI 302
3f	Retainer	ST	Steel
3g	Bearing	DB	Bz+Fiber+Ptfe Mix.
3h	Washer	PTFE	PolyTetraFluoroEthylene
4	Stem	Cr13	AISI 410
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	O-Ring	NBR	Nitrile Butadiene Rubber
6	Packing	GRF	GRAPHITE
7	Gland	A105	ASTM A105
7a	Gasket	Swg	316+Grf
7b	O-Ring	NBR	Nitrile Butadiene Rubber
12a	Mounting Flange	ST	Carbon Steel
13	Gasket (O-ring)	NBR	Nitrile Butadiene Rubber
13a	Safety Ring	GRF	GRAPHITE
14	Stud bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17b	Shut-Off Actuator	G0	Vastaş
18	Name Plate	S	Stainless plate
19	Paint	EP	Epoxy RAL 7040 (Grey)
19a	End Cover	PVC	Plastic

Dimensions & Weight

NPS	ØID	ØD	b	Øg	ØK	n	Øl	L	H	Wt
inc.	mm	mm	mm	mm	mm	no	mm	mm	mm	kg
8	201	380	41	270	330	12	26	502	685	410
10	252	445	48	324	387	16	29	568	725	570
12	303	520	51	381	451	16	32	648	835	955
14	334	585	54	413	514	20	32	762	870	1190
16	385	650	57	470	572	20	35	838	905	1415
18	436	710	61	533	629	24	35	914	995	2080
20	487	775	64	584	686	24	35	991	1035	2700
24	589	915	70	692	813	24	42	1143	1140	3885

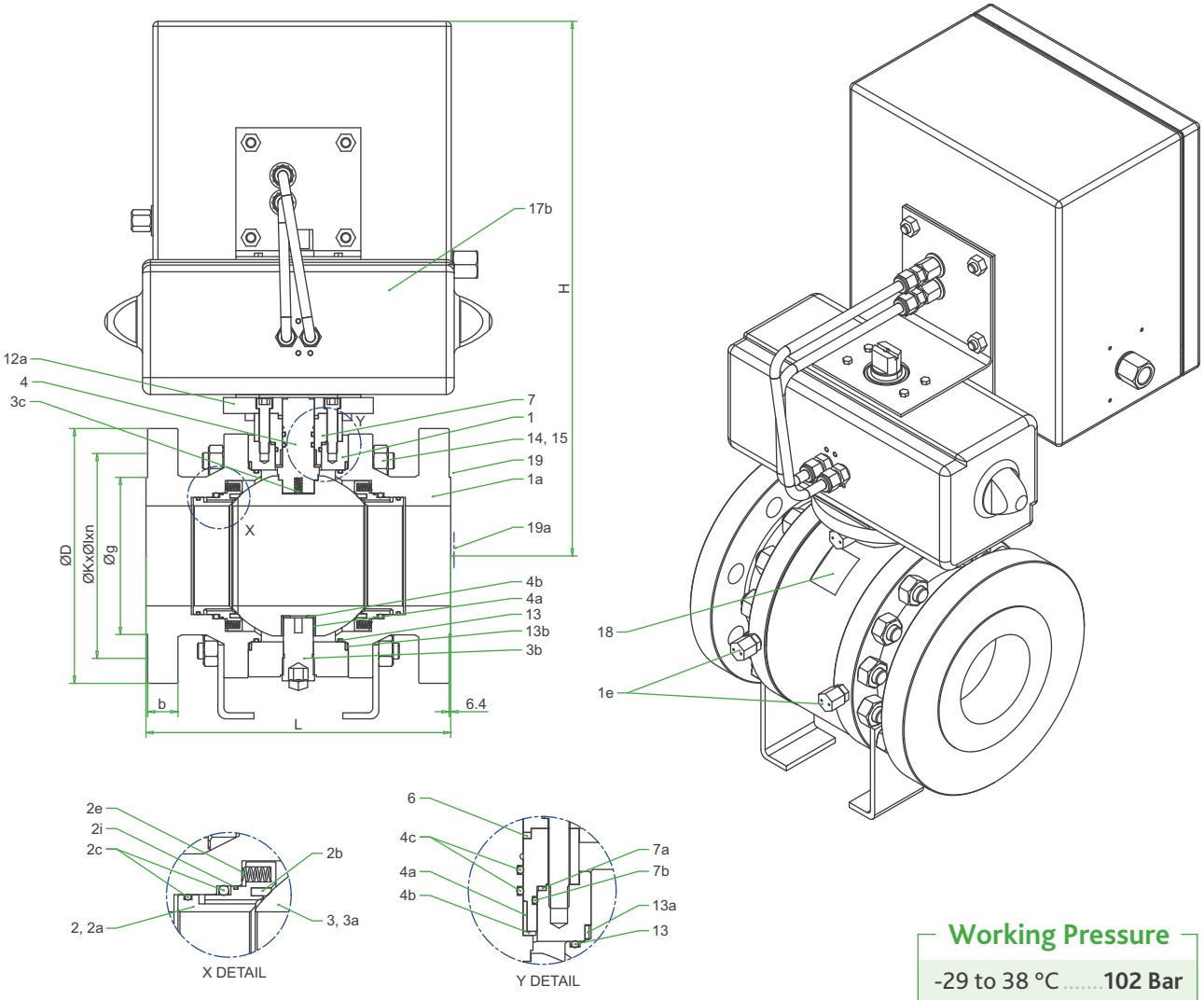
Datasheet | **E630GS.118**

Shut-Off Valve
Carbon Steel Ball Valve

SB | TB | FB | DBB | ASD | FSD | AG

Design Standard : **API 6D & ISO 14313**
End Type : **ANSI B16.5 & ISO 7005 RF**

PN **110** | Class **600**
NPS **2-4** | DN **50-150**



Working Pressure

-29 to 38 °C	**102 Bar**
Max. 100 °C	**80 Bar**

Test Pressure

Shell	**153 Bar**
Closure	**112 Bar**
Air	**6 Bar**

Part List of Material No 118

Item	Part Name	Symbol	Material
1	Body	A105	ASTM A105
1a	Body Part	A105	ASTM A105
1e	Lubricant Fitting	DC	Steel + Galvenized
1g	Drain Plug	ST	Steel + Galvenized
2	Seat Ring	A105	ASTM A105
2a	Seat Face	ENP	Nickel Plated
2b	Seat Seal	PTFE	PolyTetraFluoroEthylene
2c	Ring Seal	NBR	Nitrile Butadiene Rubber
2e	Spring	ST.ST.	AISI 302
2i	Fire Safe Ring	GRF	Graphite
3	Ball	A105	ASTM A105
3a	Ball Face	ENP	Nickel Plated
3b	Trunnion Guide	13Cr	AISI 410
3c	Anti Static Device	ST.ST.	AISI 302
4	Stem	13Cr	AISI 410
4a	Bearing	DB	Bz+Fiber+PTFE mix.
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	Stem Seal	NBR	Nitrile Butadiene Rubber
6	Fire Safe Ring	GRF	Graphite
7	Gland	ST	Carbon Steel
7a	Fire Safe Ring	GRF	Graphite
7b	Gland Seal	NBR	Nitrile Butadiene Rubber
12a	Mounting Flange	ST	Carbon Steel
13	Gasket	NBR	Nitrile Butadiene Rubber
13a	Safety Ring	GRF	Graphite
14	Stud Bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17b	Shut-off Actuator	GS	Festo
18	Name Plate	SP	Stainless Plate
19	Coating	EP	Epoxy RAL 7040 (Grey)
19a	End Cover	PVC	Plastic

Dimensions & Weight

NPS	DN	ID	ØD	b	Øg	ØK	n	Øl	L	H	Wt
inc.	mm	mm	mm	mm	mm	mm	no	mm	mm	mm	kg
2	50	49	165	26	92	127	8	19	292	475	35
3	80	74	210	32	127	168	8	22	356	500	70
4	100	100	273	38	157	216	8	26	432	555	110

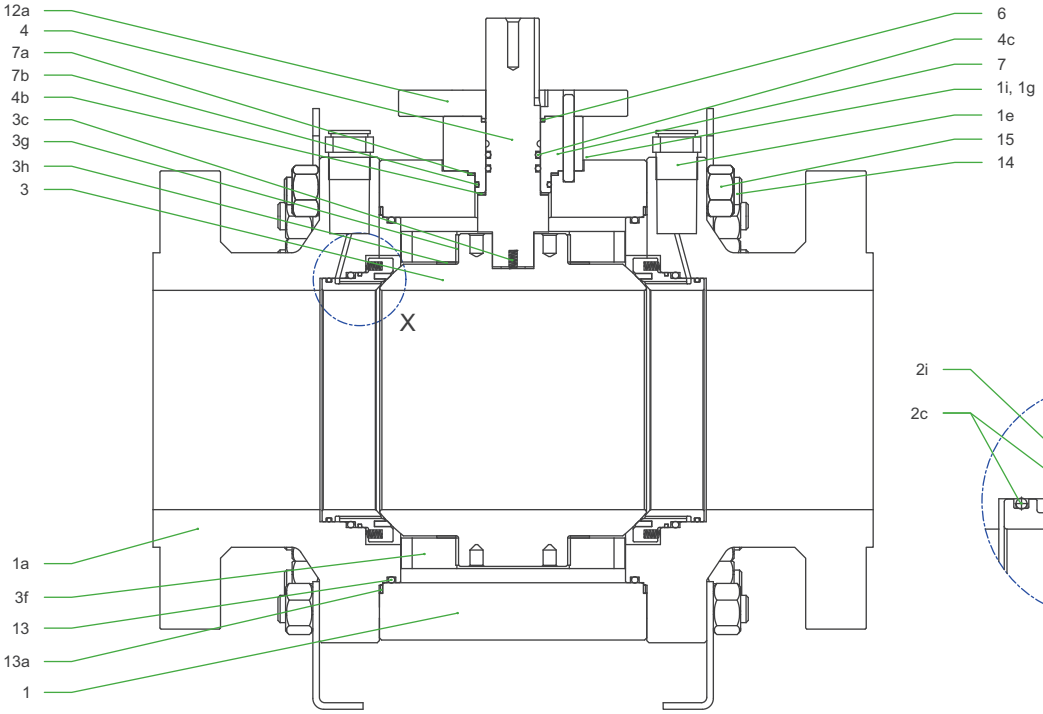
Datasheet | E630GS.118

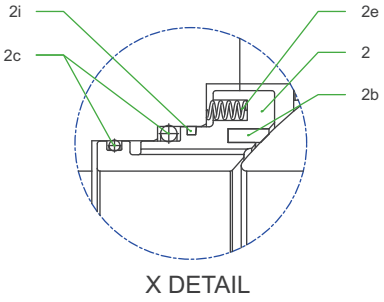
Shut-Off Valve
Carbon Steel Ball Valve

SB | TB | FB | DBB | ASD | FSD | AG

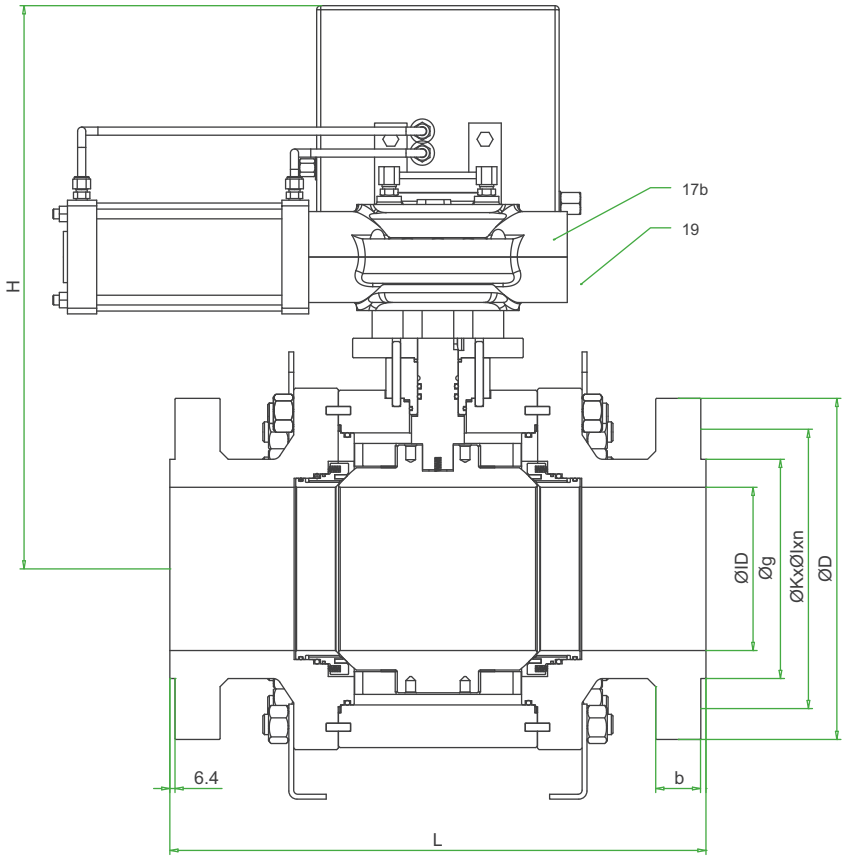
Design Standard : **API 6D & ISO 14313**
End Type : **ANSI B16.5 & ISO 7005 RF**

PN **110** | Class **600**
NPS **6-24** | DN **150-600**





X DETAIL



Working Pressure

-29 to 38 °C	**102 Bar**
Max. 100 °C	**80 Bar**

Test Pressure

Shell	**153 Bar**
Closure	**112 Bar**
Air	**6 Bar**

Part List of Material No 118

Item	Part Name	Symbol	Material
1	Body	A105	ASTM A105
1a	Body part	A105	ASTM A105
1e	Lubricant fitting	DC	Steel + Galvanized
1g	Drain plug	ST	Steel + Galvanized
1i	Vent plug	ST	Steel + Galvanized
2	Seat ring	A105+ENP	ASTM A105+ENP
2b	Seal Ring	PTFE	PolyTetraFluoroEthylene
2c	O-Ring	NBR	Nitrile Butadiene Rubber
2d	Lubring	A105+ENP	ASTM A105+ENP
2e	Spring	302	AISI 302
2g	Secondary Ring	PTFE	PolyTetraFluoroEthylene
2i	Fire safe ring	GRF	GRAPHITE
3	Ball	A105+ENP	ASTM A105+ENP
3c	Anti Static Device	St.St.	AISI 302
3f	Retainer	ST	Steel
3g	Bearing	DB	Bz+Fiber+Ptfe Mix.
3h	Washer	PTFE	PolyTetraFluoroEthylene
4	Stem	Cr13	AISI 410
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	O-Ring	NBR	Nitrile Butadiene Rubber
6	Packing	GRF	GRAPHITE
7	Gland	A105	ASTM A105
7a	Gasket	Swg	316+Grf
7b	O-Ring	NBR	Nitrile Butadiene Rubber
12a	Mounting Flange	ST	Carbon Steel
13	Gasket (O-ring)	NBR	Nitrile Butadiene Rubber
13a	Safety Ring	GRF	GRAPHITE
14	Stud bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17b	Shut-Off Actuator	G0	Vastaş
18	Name Plate	S	Stainless plate
19	Paint	EP	Epoxy RAL 7040 (Grey)
19a	End Cover	PVC	Plastic

Dimensions & Weight

NPS	ØID	ØD	b	Øg	ØK	n	Øl	L	H	Wt
inc.	mm	mm	mm	mm	mm	no	mm	mm	mm	kg
6	150	356	48	216	292	12	30	559	645	315
8	201	419	56	270	349	12	32	660	695	560
10	252	508	64	324	432	16	35	787	800	885
12	303	559	67	381	489	20	35	838	840	1210
14	334	603	70	413	527	20	38	889	925	1460
16	385	686	76	470	603	20	41	991	965	1960
18	436	743	83	533	654	20	45	1092	1010	2505
20	487	813	89	584	724	24	45	1194	1065	3120
24	589	940	102	692	838	24	51	1397	1150	4940

Certificates of Actuators

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Mitglied von TÜV CERT

TÜV SÜD Industrie Service

Conformance Certificate

Uygunluk Sertifikası

User " Kullanıcı"	:	GENEL
Project No. " Proje No"	:	04-3711
Manufacturer İmalatçı	:	VASTAŞ Valf Armatür Sanayi Ticaret A.Ş. Çerkezköy - Tekirdağ - TURKEY
Product "Ürün"	:	SHUT-OFF ACTUATOR
Type / Figure Tip / Figür	:	GS0-160, GS1-200, GS2-320
Manufacturer year İmalat Yılı	:	2009
Qualification Range Kalifikasyon Aralığı	:	All sizes, GS0 to GS10, in accordance with VA-QIP-TP-GS-9R1 procedure. VA-QIP-TP-GS-9R1 prosedürüne göre GS0 dan GS10'a kadar tüm ölçüler.
Related test procedure Test Prosedürü	:	VA-QIP-TP-GS-9R1
Serial Number of Actuators Aktuatör Seri Numaraları	:	869699763104-00125, 869699763106-00049, 869699763109-00126

GS0-160, GS1-200, GS2-320 kodlu ürünler Vastaş A.Ş.'nin VA-QIP-TP-GS-9R1 prosedürüne göre, TÜV SUD inspektörü nezaretinde fonksiyon performans testlerine tabi tutulmuştur. Bahsi geçen ürünlerin Vastaş'ın imalat spektlerine, basınç taşıyan ekipmanlar 97/23/EC direktiflerine, kaynaklı birleştirmeler ASME BOILER & PRESSURE VESSEL CODE Section VIII Div.1'e, tahribatsız muayeneler ASME B16.34 Annex-B, Annex-C, Annex-D ve Vastaş A.Ş.'nin VA-QIP-TP-06, TP-07, TP-08, VA-QIP-WP prosedürlerine, SNT-TC-1A gereklerine uygunluğu görülmüştür.
Bu uygunluk, Vastaş Kalite Kontrol departmanının kontrol ve test raporlarıyla dış kaynaklı test raporları ve sertifikalar TÜV SÜD tarafından incelenerek tesbit edilmiştir.

Functional performance tests of the actuators with the code number GS0-160, GS1-200, GS2-320 was performed by the witness of TUV SUD inspector in accordance with Vastaş procedure, VA-QIP-TP-GS-9R1. It was observed that the products are produced in accordance with Vastaş production specifications, the pressure containing parts comply with the requirements of 97/23/EC directive, all related joints are welded in accordance with ASME Boiler & Pressure Vessel Code Section VIII Div.1, non-destructive tests are performed in accordance with ASME B16.34 Annex-B, Annex-C, Annex-D and Vastaş procedures VA-QIP-TP-06, VA-QIP-TP-07, VA-QIP-TP-08, VA-QIP-WP and the ndt personnel are certified in accordance with SNT-TC-1A.
This conformance is observed by reviewing the control and test reports of Vastaş Quality Department and outsourced test reports and certificates.
This certificate is given upon the request of Vastaş.

Test Date	"Test Tarihi"	: 10.08.2009
Test Place	"Test Yeri"	: Çerkezköy / Tekirdag TURKEY
Test Result Test Sonucu		: Satisfactory : Uygun bulunmuştur.

SERKAN KAYACIK
TÜV SÜD /TURKEY

Mitglied der CONFÉDERATION EUROPÉEN CEOC D'ORGANISMES DE CONTROLE

TÜV SÜD / Türkiye
Yıldız Posta Cad. No.17 Kat:5
TR-34394 Esentepe / İstanbul / TÜRKİYE
Tel.: (+90) 212 347 98 10
Fax: (+90) 212 347 98 11
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Conformance Certificate

Uygunluk Sertifikası

User *Kullanıcı*	:	GENERAL *Genel*
Project No. *Proje No*	:	04-3712
Manufacturer *İmalatçı*	:	VASTAŞ Valf Armatür Sanayi Ticaret A.Ş. Çerkezköy / Tekirdağ / TÜRKİYE (TURKEY)
Product *Ürün*	:	Control box for Safety Shut-Off
Type / Figure *Tip / Figür*	:	PSC01, PSC02, PSC03
Manufacturing Year *İmalat Yılı*	:	2010
Set Pressure Range *Basınç ayar aralığı*	:	5/50, 15/150, 50/450, 50/1500 Psig
Class *Basınç sınıfı*	:	150#, 300#, 600#
Serial Number *Seri No*	:	MP-GS-10-09.01, MP-GS-10-09.02, MP-GS-10-09.03
Related test Procedure *Test Prosedürü*	:	VA-QIP-TP-GS-9R1

PSC01, PSC02, PSC03 kodlu ürünler Vastaş A.Ş'nin VA-QIP-TP-GS-9R1 prosedürü, VA-NIGC-SOV-10R dokümanı ve NIGC'nin IGS-IN-301(1) şartnamesine gore, TÜV SÜD inspektörü nezaretinde fonksiyon performans testlerine tabi tutulmuştur. Bahsi geçen ürünlerin Vastaş'ın imalat spektlerine, basınç taşıyan ekipmanlar 97/23/EC direktiflerine, tahribatsız muayeneler ASME B16.34 Annex-B, Annex-C, Annex-D ve Vastaş A.Ş.'nin VA-QIP-TP-06, VA-QIP-TP-07, VA-QIP-TP-08, VA-QIP-WP prosedürlerine, SNT-TC-1A gereklerine uygunluğu görülmüştür.
Bu uygunluk, Vastaş Kalite Kontrol departmanının hazırladığı SE 921 No'lu teknik dosya TÜV SÜD tarafından incelenerek tespit edilmiştir.

Functional performance tests of the control box with the code number PCS01, PCS02, PCS03 was performed by the witness of TÜV SÜD inspector in accordance with Vastaş procedure VA-QIP-TP-GS-9R1. It was absorved that the products are produced in accordance with Vastaş production specifications, the pressure containing parts comform with PED 97/23/EC, and non-destructive examinations conform with ASME B16.34 Annex-B, Annex-C, Annex-D, Vastaş A.Ş procedures VA-QIP-TP-06, VA-QIP-TP-07, VA-QIP-TP-08, VA-QIP-WP, and SNT-TC-1A requirements.
This conformance was observed by reviewing the control and test reports of Vastaş Quality Department and outsourced test reports and certificates.
This certificates is given upon the request of Vastaş

Test Result : Satisfactory / *Uygun bulunmuştur*
Test sonucu

Test Date 20.10.2010 *Test Tarihi*

Test Place: Cerkezkoy / Tekirdag / TURKEY *Test Yeri*

TÜV SÜD Türkiye
Hakim ÖZLÜK

Mitglied der CONFÉDÉRATION EUROPÉEN CEOC D'ORGANISMES DE CONTROLE

TÜV SÜD / Türkiye
Yıldız Posta Cad. No.17 Kat:5
TR-34394 Esentepe / İstanbul / TÜRKİYE
Tel.: (+90) 212 347 98 10
Fax: (+90) 212 347 98 11
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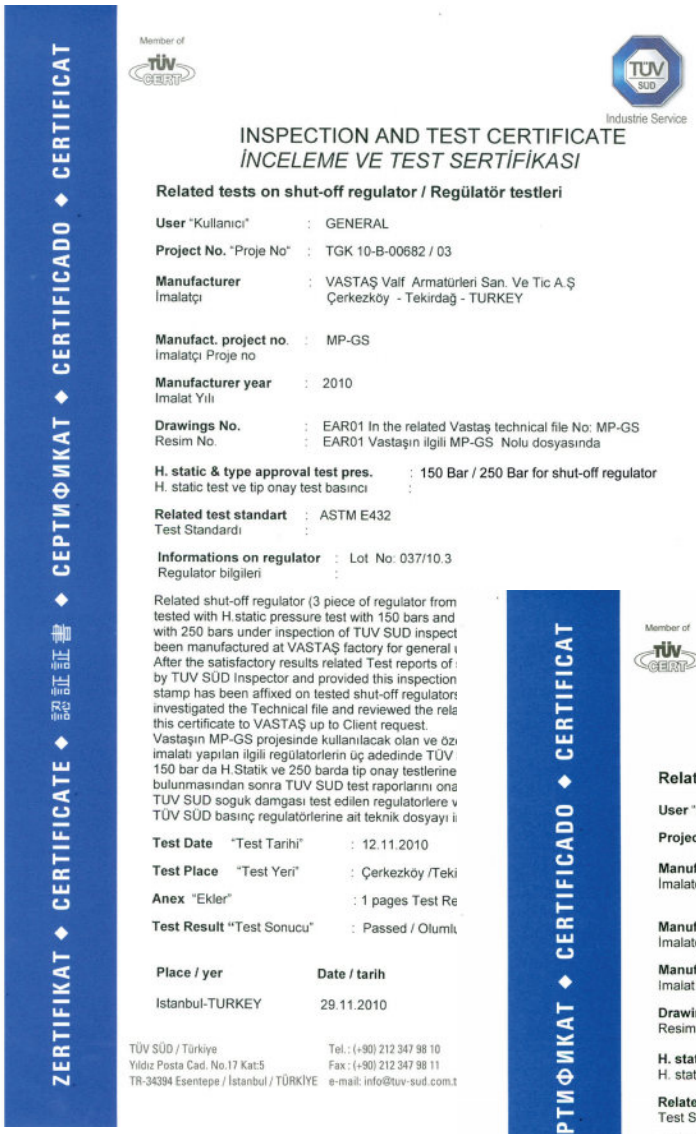
Certificates of Regulator & 5/2 Way Valve



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TÜV SÜD Industrie Service

INSPECTION AND TEST CERTIFICATE
İNCELEME VE TEST SERTİFİKASI

Related tests on shut-off regulator / Regülatör testleri

User "Kullanıcı" : GENERAL

Project No. "Proje No" : TGK 10-B-00682 / 03

Manufacturer : VASTAŞ Valf Armatürleri San. Ve Tic A.Ş
İmalatçı Çerkezköy - Tekirdağ - TURKEY

Manufact. project no. : MP-GS
İmalatçı Proje no

Manufacturer year : 2010
Imalat Yılı

Drawings No. : EAR01 In the related Vastaş technical file No: MP-GS
Resim No. : EAR01 Vastaşın ilgili MP-GS Nolu dosyasında

H. static & type approval test pres. : 150 Bar / 250 Bar for shut-off regulator
H. static test ve tip onay test basıncı :

Related test standart : ASTM E432
Test Standardı :

Informations on regulator : Lot No: 037/10.3
Regulator bilgileri :

Related shut-off regulator (3 piece of regulator from
tested with H.static pressure test with 150 bars and
with 250 bars under inspection of TUV SUD inspect
been manufactured at VASTAŞ factory for general
After the satisfactory results related Test reports of
by TUV SÜD Inspector and provided this inspection
stamp has been affixed on tested shut-off regulator
investigated the Technical file and reviewed the rela
this certificate to VASTAŞ up to Client request.
Vastaşın MP-GS projesinde kullanılacak olan ve öz
imalatı yapılan ilgili regülatorlerin üç adedinde TÜV
150 bar da H.Statik ve 250 barda tip onay testlerine
bulunmasından sonra TUV SUD test raporlarını ona
TUV SUD soguk damgası test edilen regulatorlere
TÜV SÜD basınç regulatörlerine ait teknik dosyayı i

Test Date "Test Tarihi" : 12.11.2010

Test Place "Test Yeri" : Çerkezköy /Teki

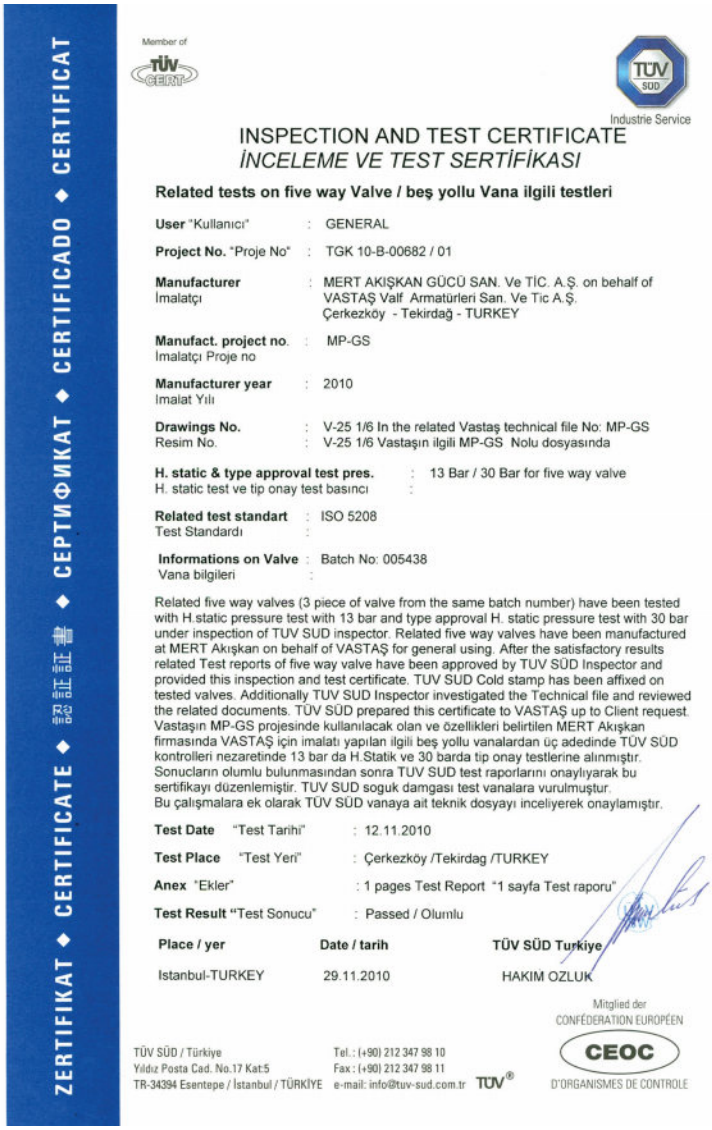
Anex "Ekler" : 1 pages Test Re

Test Result "Test Sonucu" : Passed / Olumlu

Place / yer	Date / tarih
Istanbul-TURKEY	29.11.2010

TÜV SÜD / Türkiye
Yıldız Posta Cad. No.17 Kat:5
TR-34394 Esentepe / İstanbul / TÜRKİYE

Tel.: (+90) 212 347 98 10
Fax: (+90) 212 347 98 11
e-mail: info@tuv-sud.com.t



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INSPECTION AND TEST CERTIFICATE
İNCELEME VE TEST SERTİFİKASI

Related tests on five way Valve / beş yollu Vana ilgili testleri

User "Kullanıcı" : GENERAL

Project No. "Proje No" : TGK 10-B-00682 / 01

Manufacturer : MERT AKIŞKAN GÜCÜ SAN. Ve TİC. A.Ş. on behalf of
İmalatçı VASTAŞ Valf Armatürleri San. Ve Tic A.Ş.
Çerkezköy - Tekirdağ - TURKEY

Manufact. project no. : MP-GS
İmalatçı Proje no

Manufacturer year : 2010
Imalat Yılı

Drawings No. : V-25 1/6 In the related Vastaş technical file No: MP-GS
Resim No. : V-25 1/6 Vastaşın ilgili MP-GS Nolu dosyasında

H. static & type approval test pres. : 13 Bar / 30 Bar for five way valve
H. static test ve tip onay test basıncı :

Related test standart : ISO 5208
Test Standardı :

Informations on Valve : Batch No: 005438
Vana bilgileri :

Related five way valves (3 piece of valve from the same batch number) have been tested with H.static pressure test with 13 bar and type approval H. static pressure test with 30 bar under inspection of TUV SUD inspector. Related five way valves have been manufactured at MERT Akışkan on behalf of VASTAŞ for general using. After the satisfactory results related Test reports of five way valve have been approved by TUV SÜD Inspector and provided this inspection and test certificate. TUV SUD Cold stamp has been affixed on tested valves. Additionally TUV SUD Inspector investigated the Technical file and reviewed the related documents. TÜV SÜD prepared this certificate to VASTAŞ up to Client request.
Vastaşın MP-GS projesinde kullanılacak olan ve özellikleri belirtilen MERT Akışkan firmasında VASTAŞ için imalatı yapılan ilgili beş yollu vanalardan üç adedinde TÜV SÜD kontrolleri nezaretinde 13 bar da H.Statik ve 30 barda tip onay testlerine alınmıştır. Sonuçların olumlu bulunmasından sonra TUV SUD test raporlarını onaylıyarak bu sertifikayı düzenlemiştir. TUV SUD soguk damgası test vanalara vurulmuştur.
Bu çalışmalara ek olarak TÜV SÜD vanaya ait teknik dosyayı inceliyerek onaylamıştır.

Test Date "Test Tarihi" : 12.11.2010

Test Place "Test Yeri" : Çerkezköy /Tekirdag /TURKEY

Anex "Ekler" : 1 pages Test Report "1 sayfa Test raporu"

Test Result "Test Sonucu" : Passed / Olumlu

Place / yer	Date / tarih	TÜV SÜD Turkiye
Istanbul-TURKEY	29.11.2010	HAKIM OZLUK

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Certificates of Filter & Pressure Switch

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INSPECTION AND TEST CERTIFICATE
İNCELEME VE TEST SERTİFİKASI

Related tests on shut-off line filter / Filitre testleri

User "Kullanıcı" : GENERAL

Project No. "Proje No" : TGK 10-B-00682 / 04

Manufacturer : VASTAŞ Valf Armatürleri San. Ve Tic A.Ş
İmalatçı Çerkezköy - Tekirdağ - TURKEY

Manufact. project no. : MP-GS
İmalatçı Proje no

Manufacturer year : 2010
Imalat Yılı

Drawings No. : EAF01 In the related Vastaş technical file No: MP-GS
Resim No. : EAF01 Vastaşın ilgili MP-GS Nolu dosyasında

H. static test pres. : 450 Bar for shut-off filter
H. static test basınc :

Related test standart : ASTM E432
Test Standardı :

Informations on filter : Lot No: 037/10.2
Filitre bilgileri :

Related shut-off filters (3 piece of filter from the sar
H.static pressure test with 450 bars under inspectic
off filters have been manufactured at VASTAŞ fact
After the satisfactory results related Test reports of
TUV SÜD Inspector and provided this inspection a
has been affixed on tested shut-off filters. Additiona
Technical file and reviewed the related documents.
TÜV SÜD prepared this certificate to VASTAŞ up t
Vastaşın MP-GS projesinde kullanılacak olan ve öz
imalatı yapılan ilgili filitrelerden üç adedinde TÜV S
450 bar da H.Statik testlerine alınmıştır. Sonucları
SUD test raporlarını onaylıyarak bu sertifikayı düze
edilen filitrelere vurulmuştur. Bu çalışmalara ek ola
teknik dosyayı inceliyerek onaylamıştır.

Test Date "Test Tarihi" : 12.11.2010

Test Place "Test Yeri" : Çerkezköy /Tek

Anex "Ekler" : 1 pages Test R

Test Result "Test Sonucu" : Passed / Olumlu

Place / yer	Date / tarih
Istanbul-TURKEY	29.11.2010

TÜV SÜD / Türkiye
Yıldız Posta Cad. No.17 Kat:5
TR-34394 Esentepe / İstanbul / TÜRKİYE
Tel.: (+90) 212 347 98 10
Fax: (+90) 212 347 98 11
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TÜV SÜD Industrie Service

INSPECTION AND TEST CERTIFICATE
İNCELEME VE TEST SERTİFİKASI

Related tests on shut-off pressure switch/Basınç svici testleri

User "Kullanıcı" : GENERAL

Project No. "Proje No" : TGK 10-B-00682 / 02

Manufacturer : VASTAŞ Valf Armatürleri San. Ve Tic A.Ş
İmalatçı Çerkezköy - Tekirdağ - TURKEY

Manufact. project no. : MP-GS
İmalatçı Proje no

Manufacturer year : 2010
Imalat Yılı

Drawings No. : EAS01 In the related Vastaş technical file No: MP-GS
Resim No. : EAS01 Vastaşın ilgili MP-GS Nolu dosyasında

H. static & type approval test pres. : 146 Bar / 250 Bar for shut-off pressure switch
H. static test ve tip onay test basıncı :

Related test standart : ASTM E432
Test Standardı :

Informations on Pressure switch : Lot No: 037/10.1
Basınç sivici bilgileri :

Related shut-off pressure switch (3 piece of pressure switch from the same lot number) have been tested with H.static pressure test with 146 bars and type approval H. static pressure test with 250 bars under inspection of TUV SUD inspector. Related shut-off pressure switches have been manufactured at VASTAŞ factory for general using.
After the satisfactory results related Test reports of shut-off pressure switches have been approved by TUV SÜD Inspector and provided this inspection and test certificate. TUV SUD Cold stamp has been affixed on tested shut-off pressure switch. Additionally TUV SUD Inspector investigated the Technical file and reviewed the related documents. TÜV SÜD prepared this certificate to VASTAŞ up to Client request.
Vastaşın MP-GS projesinde kullanılacak olan ve özellikleri belirtilen VASTAŞ firmasında imalatı yapılan ilgili basınç sviclerinin üç adedinde TÜV SÜD kontrolleri nezaretinde 146 bar da H.Statik ve 250 barda tip onay testlerine alınmıştır. Sonuçların olumlu bulunmasından sonra TUV SUD test raporlarını onaylıyarak bu sertifikayı düzenlemiştir. TUV SUD soguk damgası test basınç sviç lerine vurulmuştur. Bu çalışmalara ek olarak TÜV SÜD basınç sviçi ne ait teknik dosyayı inceliyerek onaylamıştır.

Test Date "Test Tarihi" : 12.11.2010

Test Place "Test Yeri" : Çerkezköy /Tekirdag /TURKEY

Anex "Ekler" : 1 pages Test Report "1 sayfa Test raporu"

Test Result "Test Sonucu" : Passed / Olumlu

Place / yer	Date / tarih	TÜV SÜD Turkiye
Istanbul-TURKEY	29.11.2010	HAKIM OZLUK

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TÜV SÜD / Türkiye
Yıldız Posta Cad. No.17 Kat:5
TR-34394 Esentepe / İstanbul / TÜRKİYE
Tel.: (+90) 212 347 98 10
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Vastaş Valf Armatür Sanayi Ticaret A.Ş.

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Organize Sanayi Bolgesi Sabanci Cad. No:22 Cerkezkoy 59500 TEKIRDAG / TURKEY
Tel: (+90 282) 758 36 50 | Fax: (+90 282) 758 36 59

ISTANBUL OFFICE
Perpa Ticaret Merkezi B/Blok Kat 13 No:2365 Okmeydani 34384 ISTANBUL / TURKEY
Tel: (+90 212) 222 42 71 - 221 59 97 - 221 39 81 | Faks: (+90 212) 222 63 59

Web
http://www.vastas.com

Email
vastas@vastas.com