




VASTAS

# E100 Plug Valves

For Throttling
Regulating
Blow-Out

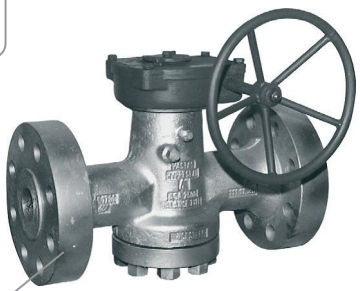
ISSUE: 2016 | CAT.E100.R0

# History of Vastaş Plug Valves

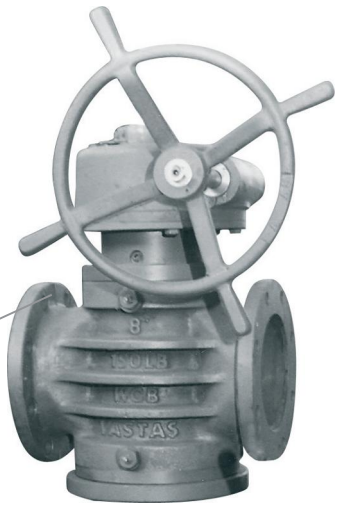
Plug Valve was first produced in 1966, for a vegetable oil factory. Since 1971, plug valve is put into service of oil, fuel oil and petrochemical industry. Until 1983, Vastaş produced Plug valves from 1'' to 24'' and 125 Class to 2500 Class. Since 2003, API license is provided and production has continued with appropriate revisions as per technologic innovations.




4" 600 Class
2009

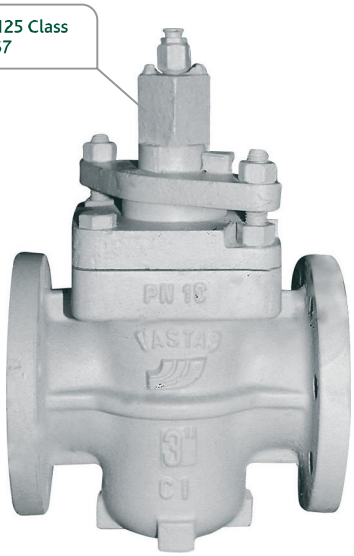


4" 2500 Class
1985




8" 150 Class
1980

3" 125 Class
1967




# Plug Valve References

Unilever A.Ş. (1967-1992)
Vegetable Oil Plant Plug Valves 2"-6" 125#

Yarımca Petrochemical Plant (1972-1980)
Latex Plant Plug Valves 24" 150#-600#

Blacksea Copper Plant (1976-1986)
Plant Plug & Ball Valves 2"-6" 150#–300#

Murgul Cuprite Mineral Plant (1976-1986)
Plant Plug Valves 2"-6" 150#–2500#

Botaş Iğdır NG Pipeline (2008-2009)
NG Pipeline Plug Valves 2"-4" 600#

Botaş Isparta Burdur NG Pipeline (2008-2009)
NG Pipeline Plug Valves 3" - 600#

Botaş Zonguldak NG Pipeline (2008-2009)
NG Pipeline Plug Valve 2"-6" 300#

Botaş Gerede Bolu Düzce NG Pipeline (2008-2009)
NG Pipeline Plug Valves 2"-8" 600#

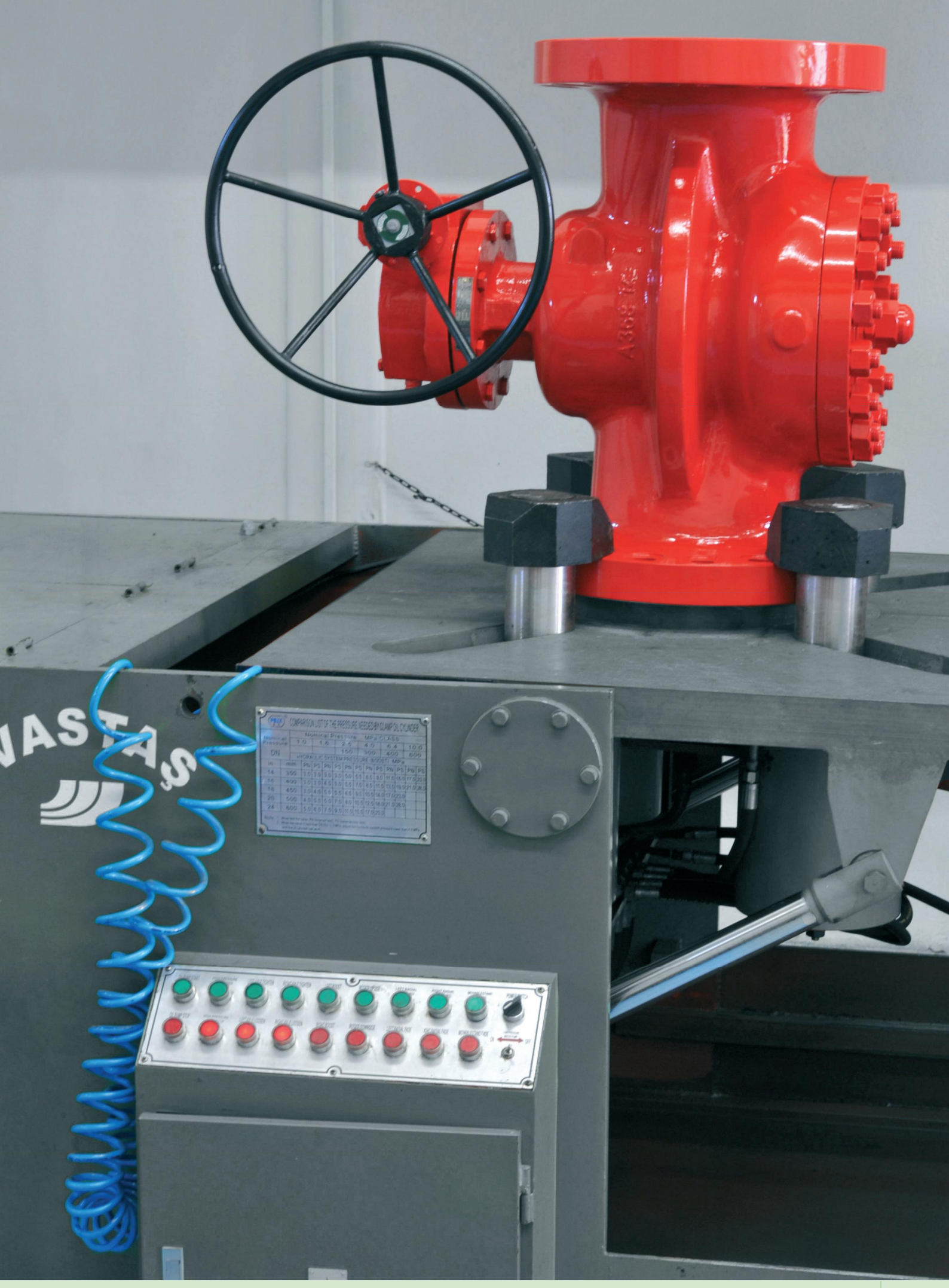
Gemsat Gas Equipment (2008-2009)
Rms-A, Plug Valves 2"-10" 150#-600#

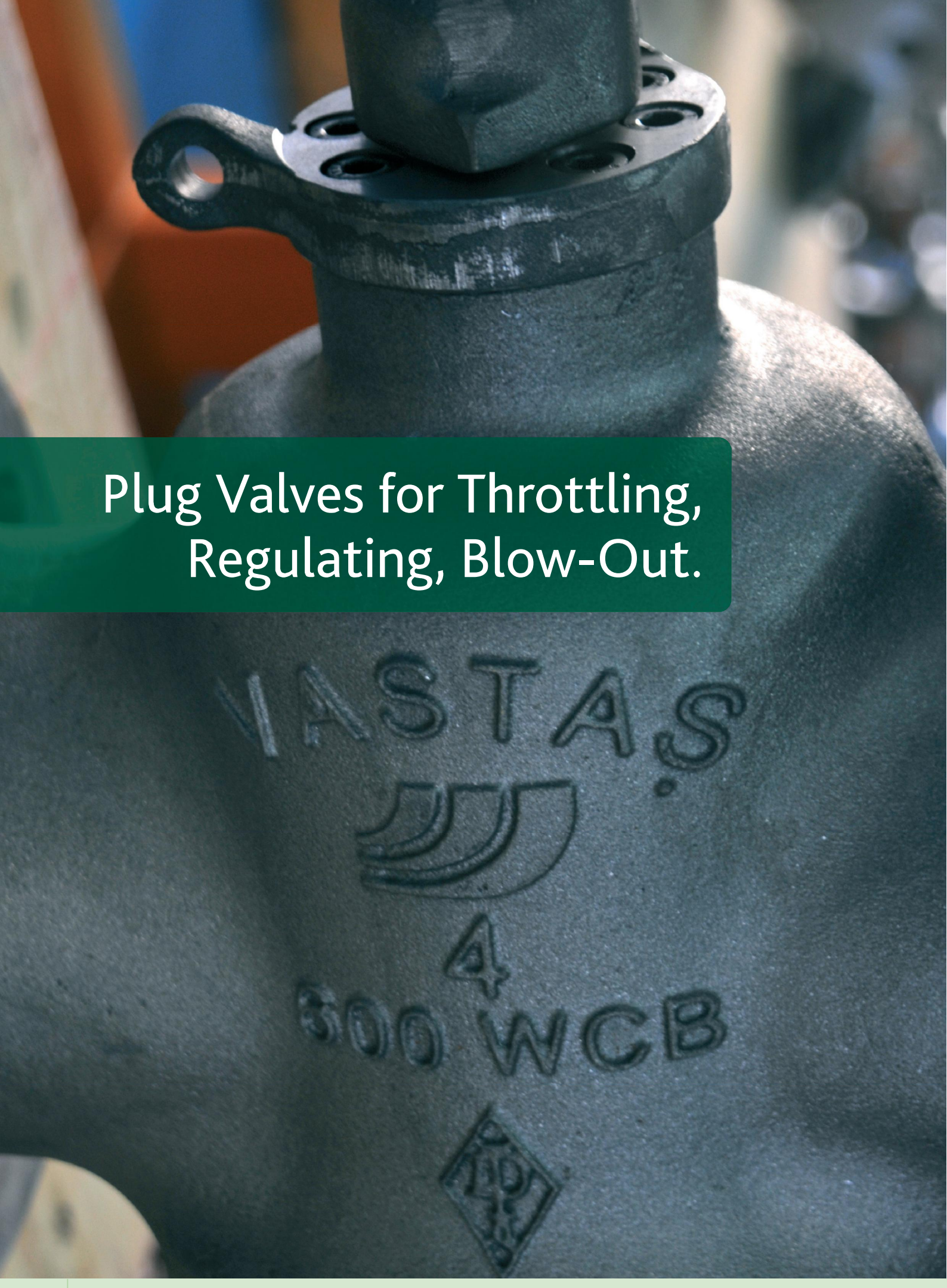
Enerjisa Bandırma Rms-A Station (2009)
Plug Valves 4"-6" 300#-600#

İgdaş Çanakkale Rms-A Station (2009)
Plug Valves 4" 600#

Takestan Industrial Systems Co. (2009)
Rms-A, Plug Valves 2"-8" 150#-600#

Petrogas Parsa (2009)
Rms-A, Plug Valves 2"-8" 150#-600#






# Plug Valves for Throttling, Regulating, Blow-Out.

## Features

» Operational easiness by quarter turn motion,

» Laminar flow through conduit design which eliminates body cavities,

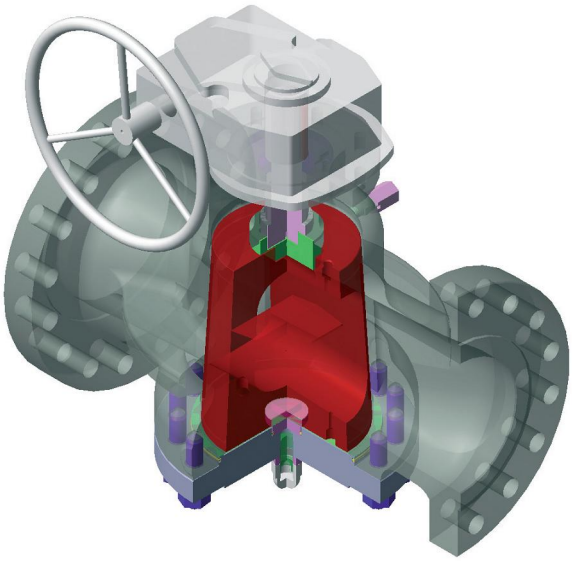
» Compact design when compared with gate valves,

» Applicable maintenance on line even for welded types,

» Suitable for underground services,

» Remote control and/or automatic emergency operation upon request.

(Electric, Gas, Air, Hydraulic, etc.)



## Standards

» Designed and approved as per API 6D, ISO 14313,

» Design criteria to ASME B16.34,

» Welding end dimensions to ASME B16.25,

» Threaded ends to ASME B1.20.1,

» WPS-PQR & WPQ certification complying to American Welding Standards.

## Approvals

Vastaş Plug Valves are API monogrammed. Type approvals are certified by independent accredited.

organizations. (Fire Test, Performance Test, Fugitive Test, Torque Test.)

## CE Marking

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

## Pipeline Valves

» Preferred where bi directional closure is required,

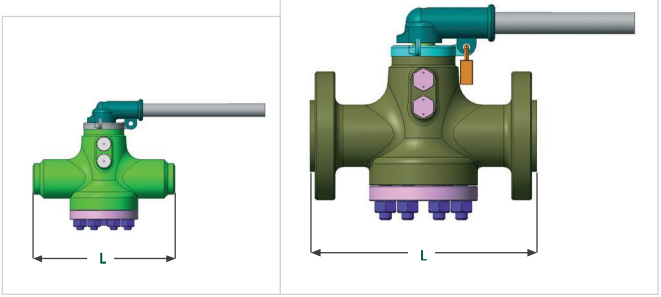
» Suitable machining of welding ends according to pipe schedule or to customer request.

SCH40 is standard when otherwise not indicated.

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

» Comply with ASME B16.10 "L" dimension in this catalog complies to API standard. (Page 12-16)

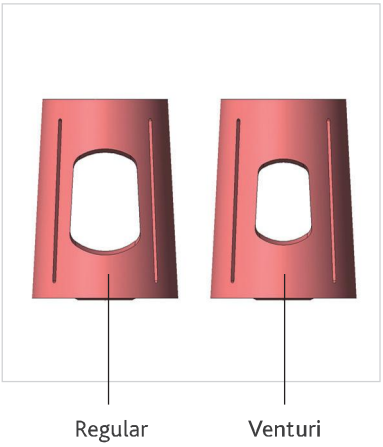
» Manufactured as regular or venturi pattern with Face to Face dimension being short.



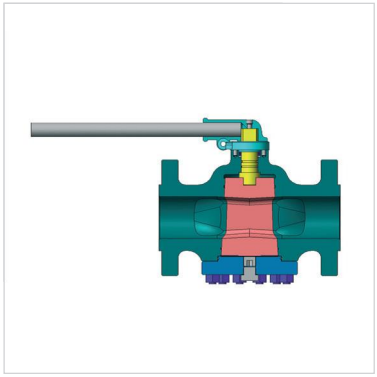

## Port Area

» Port area is regular for 3" and larger, round port for 2" and smaller.

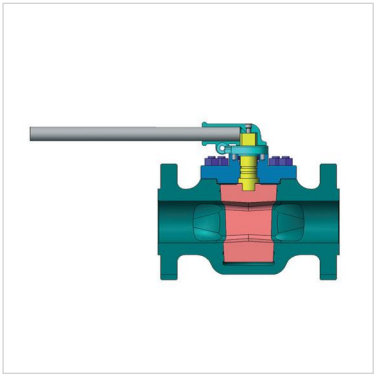
» Port area is reduced to 44% of nominal pipe area for short & venturi pattern and 66% for regular pattern valves.




Inverted Type

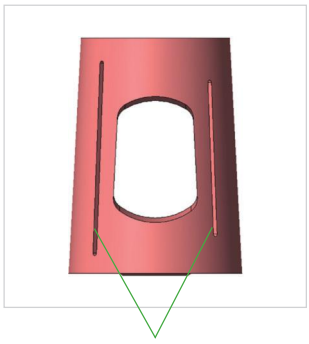


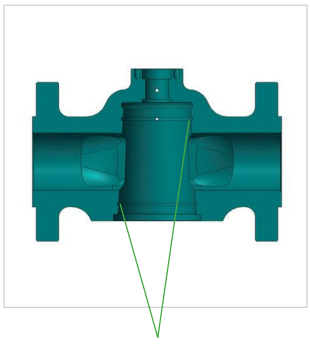
Normal Type

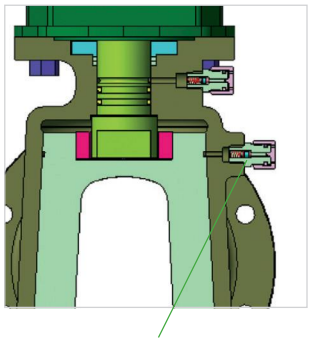


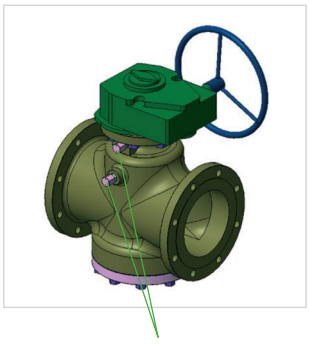
## Lubricated Type Plug Valve

All seat faces will be lubricated via groove on surfaces of plug and body cave.



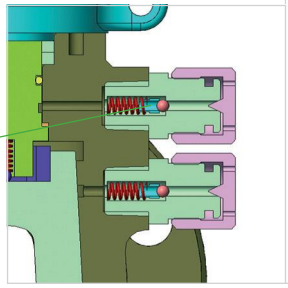



## Stem Lubrication

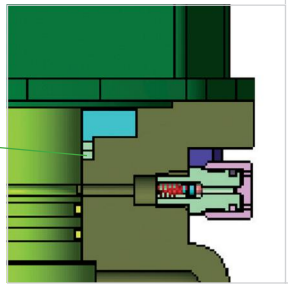
Stem tightening is achieved with lubricant as being secondary sealant,in addition to the packing rings of primary sealant.

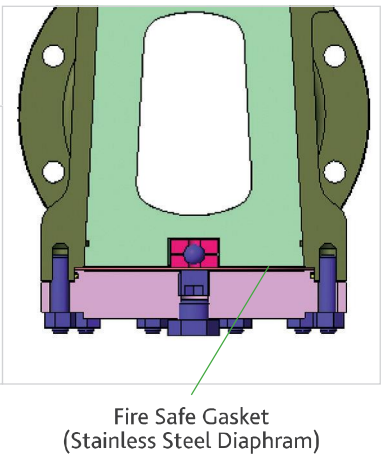





## Fire Safety Design

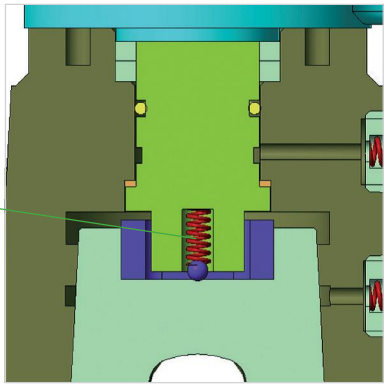
All outer leak points are secured against leakage during fire, using metal or graphite gaskets.



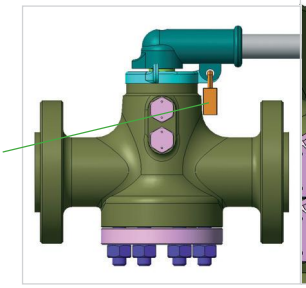

## Anti Static Design (ASD)

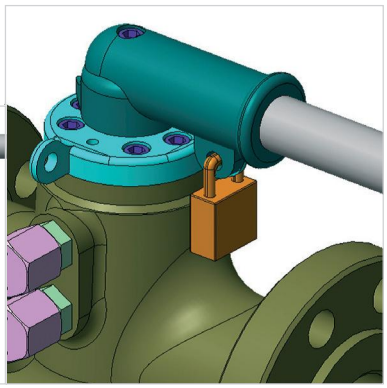
Design of valves allows conductivity of static electric eliminating any spark hazard in the plant.




## Locking Device

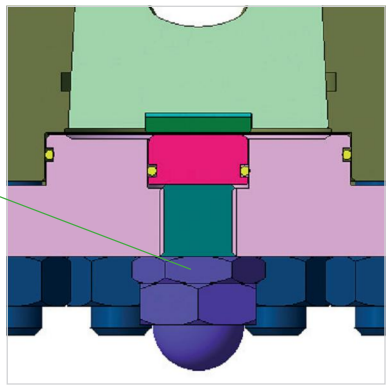
Valves are designed so as to be equipped with locks in order to prevent unauthorized and incorrect usage.



## Adjustable Device

It is used to adjust torque values providing seat tightness in emergency cases.




## LO Lever operated valves of 2" to 4" sizes

» Larger sizes might be delivered with lever only upon request.

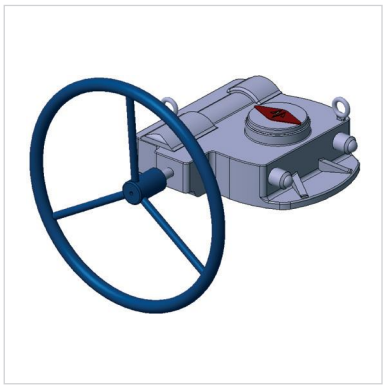
» Necessary torque for operation at high differential pressures is to be considered.



## G Gear Operated Valves

» Selection is to be made considering line pressure. Gearboxes listed in this catalog, are selected as proper type for maximum operating pressure.

» Gearboxes may be equipped with electric actuators upon request.



## GE Electric Actuators for Valves

» Technical information is accessible in manufacturer's catalogs.

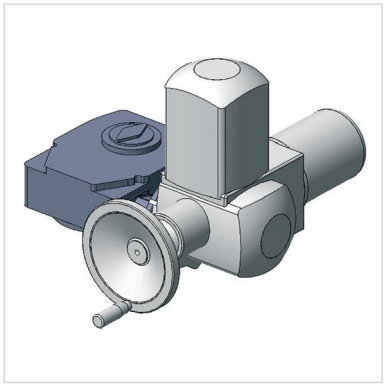
» Remote & local control, lockable manual control options are available.

» Ex-proof types are used at plants of Natural Gas, Crude Oil or Fuel.

» All actuators are protected as per IP 67 or higher class.

» Operational voltage is 400V – 3PH unless otherwise is indicated.

» Control voltage is optional upon request.



## GS Gas or Air Actuators

» Limit switches, Solenoid Valve and regulating filter accessories are delivered when required.

» Remote/ Local controls, lockable and manual control options are available.

## GO Gas Over Hydraulic Actuators



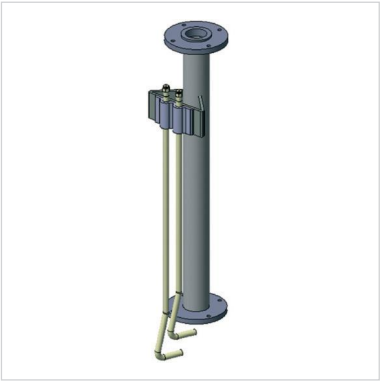
» Gas Over Hydraulic Actuators are operated by process gas pressure.

» If no flowing gas is available, pressurized N2 or air shall operate the actuator.

» Protection class IP 68, and ex-proof types are optional.

» Remote/ automatic (ESD, LB, SPS, SO)controls and lockable manual control are available.

## U Underground Application Valves



» Underground Application Valves are equipped with extended stem & operator, which are manufactured according to the customer's information.

» They are produced in the size of the pipe axis and control axis. (CTC).

## Coating

» Protective coatings and/ or paintings are selected considering the environmental conditions.

» All valves are painted by Zinc – Chromate primer with 15-30 micron thickness.

» Coating options over primer paint;

1. Epoxy primer 150mic. + 30mic. Top coat RAL 9006 (metallic)
2. Epoxy primer 150mic. + 30mic.Epoxy top coat RAL 9002 (white)
3. Epoxy primer 150mic. + 30mic.Epoxy top coat RAL 9007 (grey)
4. Epoxy primer 150mic. + 30mic.Epoxy top coat RAL 3020 (red)
5. Coal – Tar Epoxy primer 400mic.- 600mic. RAL 9004 (black, for underground application)
6. Polyurethane Coating 2000 – 3000mic. RAL 9011 (black, for underground application)

## Packing

» Small valves are packed in cardboard boxes.

» Plywood boxes or cardboard boxes over pallet are available depending on weight and amount of order.

» Other packing types are available upon request.

## Instruction Manual Specification (IMS)

» Valve operation instruction and technical data sheet (DS) plus detailed drawing (DRWG) for special dimensional and accessory equipped valves are submitted by delivery.

» Assembly and usage of the valve without reading IMS and other documentation is not recommended.

## Spare Part

Following spares are available when required;

1. Seat Flush for valve cleaning. (Valve flush can be used for removal of the greases.)
2. Valve sealant lubricants. Selection should be done according to fluid type from VAL – TEX catalogue.
3. Stem Sealing set consists of packing and o-rings.
4. Body Gasket sealing gaskets.



## Alternative Body & Trim Materials

Please See Materials Tables. Other materials also upon request.

## Abbreviations for Valve Dimensions & Weight Tables

| | |
|---|---|
| NPS | Nominal Pipe Size |
| DN | Diameter Nominal |
| ID | Internal Diameter |
| CL | Class |
| PN | Pressure Nominal |
| Area | Inside flow area |
| Kv | Flow coefficient |
| Nm | Newton Meter (Torque) |
| D | Flanges diameter |
| b | Flange thickness |
| g | Raised face diameter |
| f | Raised face thickness |
| K | Bolt circle |
| l | Bolt hole |
| n | Nos of hole |
| H | Height |
| W | Handwheel Dia. / Lever |
| Hmax | Height max |
| F | Force |
| Wt | Weight |



# Datasheet | E11

## Steel Plug Valve

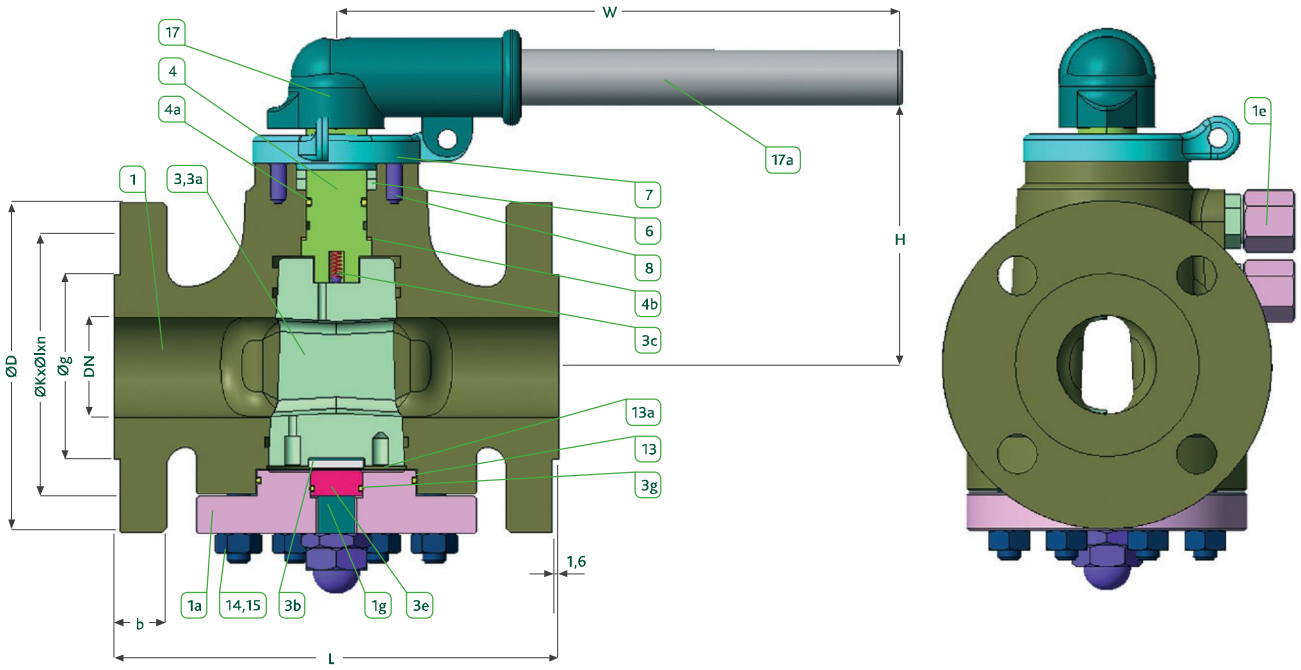
Pressure Balance, Inverted Type, Lubricated, Flanged

Design Standard : **API 6D & ISO 14313**

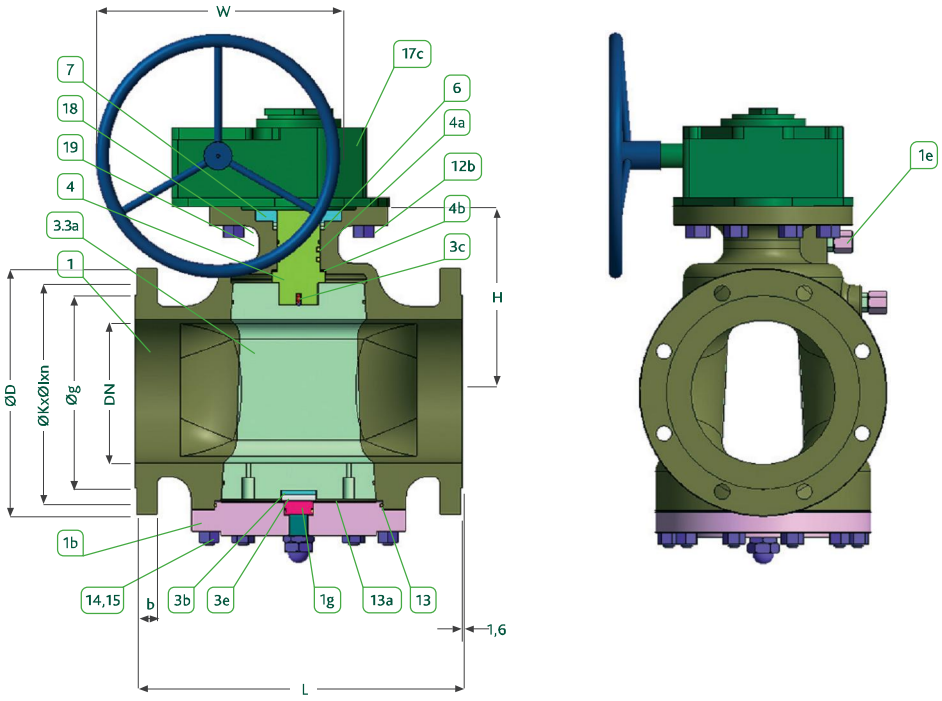
PN **20** | Class **150**

NPS **2-12** | DN **50-300**

### > E11 - Lever Operated




### > E11G - Gear Operated




### Working Pressure

| | |
|---|---|
| -29+38 °C | **19,6 Bar** |
| +100 °C | **17,7 Bar** |

### Test Pressure

| | |
|---|---|
| Shell & Backseat | **30 Bar** |
| Closure | **22 Bar** |
| Air | **6 Bar** |

## E1 PART LIST for Trim No:18

| Item | Part Name | Symbol | Material |
|---|---|---|---|
| 1 | Body | WCB | ASTM A216 Gr.WCB or A105 |
| 1a | Cover | WCB | ASTM A216 Gr.WCB or A105 or A515 |
| 1e | Lubricant Fitting | St | Steel + Galvanized |
| 1g | Adjustable Device | St | Steel |
| 3 | Plug | WCB<br>Cr13*<br>Special | ASTM A216 Gr.WCB<br>CA15 or AISI 410 - HF40<br>Special Alloy HF45 |
| 3a | Plug Face | ENP<br>PTFE*<br>TCC* | Electroless Nickel Plated 750 V-50 mic.<br>PTFE Plated 40 mic.<br>Tungsten Carbide Chromium |
| 3b | Washer | PTFE | Polytetrafluoroethylene |
| 3c | Anti Static Device | St.St. | Stainless Steel |
| 3e | Adjustable Guide | A105 | ASTM A105 |
| 3g | O-Ring | NBR | Nitrile Butadiene Rubber |
| 4 | Stem | Cr13 | AISI 410 |
| 4a | O-Ring | NBR | Nitrile Butadiene Rubber |
| 4b | Washer | PTFE | Polytetrafluoroethylene |
| 6 | Packing | GRF | Graphite |
| 7 | Gland & Stopper | WCB | ASTM A216 Gr.WCB |
| 8 | Gland Bolt | B | ASTM A307 Gr.B |
| 12b | Bolting | B | ASTM A307 Gr.B |
| 13 | Gasket (O-Ring) | NBR | Nitrile Butadiene Rubber |
| 13a | Diaphragm | St.St. | AISI 304 |
| 14 | Bolt | B7 | ASTM A193 Gr.B7 |
| 15 | Nut | 2H | ASTM A194 Gr.2H |
| 17 | Wrench | CI | Cast Iron |
| 17a | Lever | A106 | ASTM A106 |
| 17b | Gear Box | G | Mastergear / Vastaş |
| 18 | Name plate | SP | Stainless Plate |
| 19 | Paint | EP | Epoxy RAL 3020 |
| 19a | End Cover | PVC | Plastic |

(*) Optional

## Dimensions & Weight

| NPS | ØD | b | Øg | ØK | n | Øl | L | H | W | Kv | Torque | Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inc. | mm | mm | mm | mm | no | mm | mm | mm | mm | m3/h | Nm | kg |
| E11 (Lever Operated) Short Pattern & Regular Port | | | | | | | | | | | | |
| 2" | 153 | 16 | 92 | 121 | 4 | 19 | 178 | 150 | 400 | 140 | 120 | 18 |
| 3" | 191 | 19 | 127 | 152 | 4 | 19 | 203 | 305 | 500 | 280 | 230 | 36 |
| 4" | 229 | 24 | 157 | 191 | 8 | 19 | 229 | 320 | 600 | 490 | 340 | 65 |
| E11G* (Gear Operated) Venturi Pattern | | | | | | | | | | | | |
| *6" | 280 | 26 | 216 | 241 | 8 | 23 | 267 | 345 | 600 | 860 | 420 | 112 |
| *8" | 345 | 29 | 270 | 299 | 8 | 23 | 292 | 370 | 600 | 1.600 | 1.400 | 170 |
| *10" | 406 | 30 | 324 | 362 | 12 | 26 | 330 | 390 | 600 | 2.150 | 1.980 | 290 |
| *12" | 485 | 32 | 381 | 432 | 12 | 26 | 356 | 410 | 600 | 3.000 | 2.700 | 395 |

# Datasheet | E12

## Steel Plug Valve

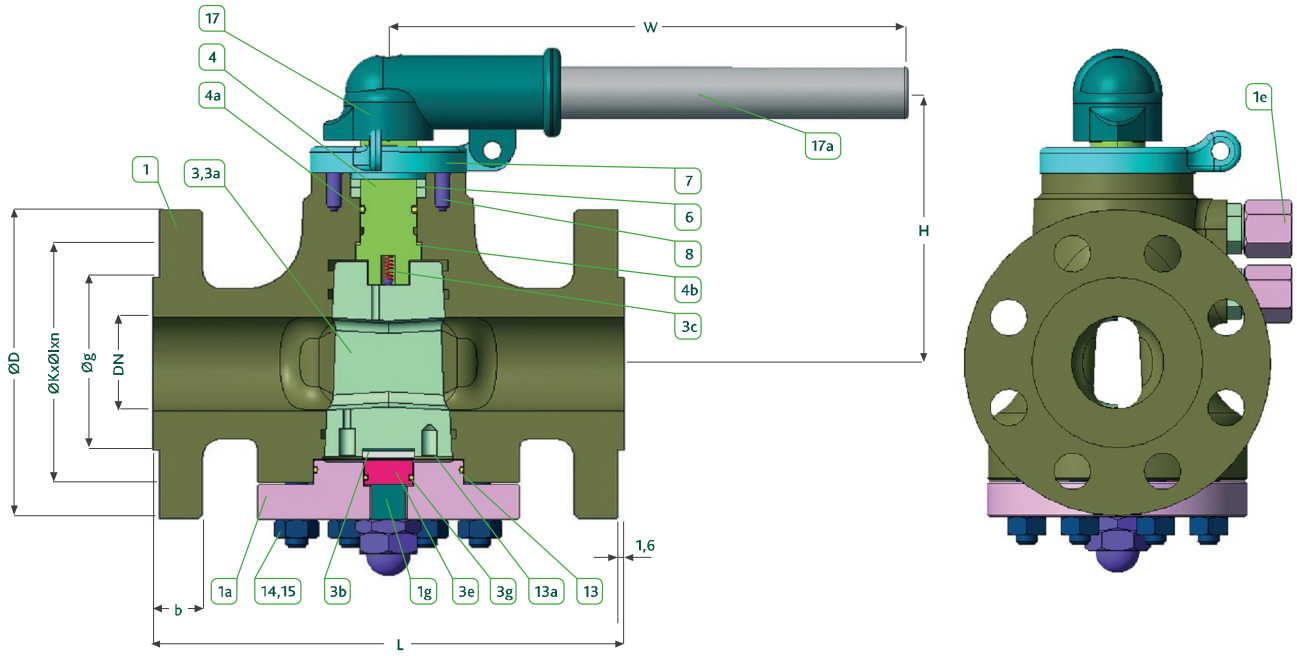
Pressure Balance, Inverted Type, Lubricated, Flanged

Design Standard : **API 6D & ISO 14313**

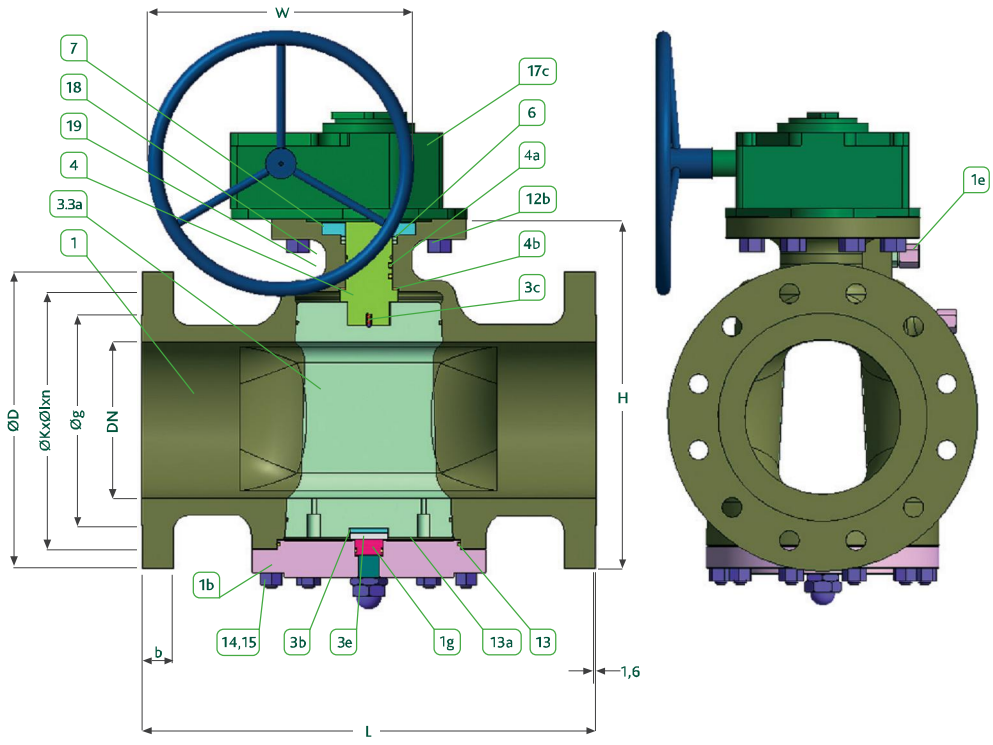
PN **50** | Class **300**

NPS **2-12** | DN **50-300**

### > E12- Lever Operated




### > E12G - Gear Operated




### Working Pressure

| | |
|---|---|
| -29+38 °C | 51,1 Bar |
| +100 °C | 46,6 Bar |

### Test Pressure

| | |
|---|---|
| Shell & Backseat | 77 Bar |
| Closure | 56 Bar |
| Air | 6 Bar |

## E1 PART LIST for Trim No:18

| Item | Part Name | Symbol | Material |
|---|---|---|---|
| 1 | Body | WCB | ASTM A216 Gr.WCB or A105 |
| 1a | Cover | WCB | ASTM A216 Gr.WCB or A105 or A515 |
| 1e | Lubricant Fitting | St | Steel + Galvanized |
| 1g | Adjustable Device | St | Steel |
| 3 | Plug | WCB<br>Cr13*<br>Special | ASTM A216 Gr.WCB<br>CA15 or AISI 410 - HF40<br>Special Alloy HF45 |
| 3a | Plug Face | ENP<br>PTFE*<br>TCC* | Electroless Nickel Plated 750 V-50 mic.<br>PTFE Plated 40 mic.<br>Tungsten Carbide Chromium |
| 3b | Washer | PTFE | Polytetrafluoroethylene |
| 3c | Anti Static Device | St.St. | Stainless Steel |
| 3e | Adjustable Guide | A105 | ASTM A105 |
| 3g | O-Ring | NBR | Nitrile Butadiene Rubber |
| 4 | Stem | Cr13 | AISI 410 |
| 4a | O-Ring | NBR | Nitrile Butadiene Rubber |
| 4b | Washer | PTFE | Polytetrafluoroethylene |
| 6 | Packing | GRF | Graphite |
| 7 | Gland & Stopper | WCB | ASTM A216 Gr.WCB |
| 8 | Gland Bolt | B | ASTM A307 Gr.B |
| 12b | Bolting | B | ASTM A307 Gr.B |
| 13 | Gasket (O-Ring) | NBR | Nitrile Butadiene Rubber |
| 13a | Diaphragm | St.St. | AISI 304 |
| 14 | Bolt | B7 | ASTM A193 Gr.B7 |
| 15 | Nut | 2H | ASTM A194 Gr.2H |
| 17 | Wrench | CI | Cast Iron |
| 17a | Lever | A106 | ASTM A106 |
| 17b | Gear Box | G | Mastergear / Vastaş |
| 18 | Name plate | SP | Stainless Plate |
| 19 | Paint | EP | Epoxy RAL 3020 |
| 19a | End Cover | PVC | Plastic |

(*) Optional

## Dimensions & Weight

| NPS | ØD | b | Øg | ØK | n | Øl | L | H | W | Kv | Torque | Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inc. | mm | mm | mm | mm | no | mm | mm | mm | mm | m3/h | Nm | kg |
| E12 (Lever Operated) Short Pattern & Regular Port | | | | | | | | | | | | |
| 2" | 165 | 23 | 92 | 127 | 8 | 19 | 216 | 165 | 500 | 140 | 140 | 24 |
| 3" | 210 | 29 | 127 | 168 | 8 | 22 | 283 | 325 | 600 | 280 | 340 | 48 |
| 4" | 254 | 32 | 157 | 200 | 8 | 22 | 305 | 343 | 700 | 490 | 500 | 76 |
| E12G* (Gear Operated) Venturi Pattern | | | | | | | | | | | | |
| *6" | 318 | 37 | 216 | 270 | 12 | 22 | 403 | 365 | 700 | 860 | 900 | 150 |
| *8" | 381 | 41 | 270 | 330 | 12 | 26 | 419 | 390 | 700 | 1600 | 1800 | 226 |
| *10" | 445 | 48 | 324 | 387 | 16 | 29 | 457 | 415 | 700 | 2150 | 2800 | 425 |
| *12" | 521 | 51 | 381 | 451 | 16 | 33 | 502 | 440 | 700 | 3.000 | 3.200 | 512 |

# Datasheet | E13

## Steel Plug Valve

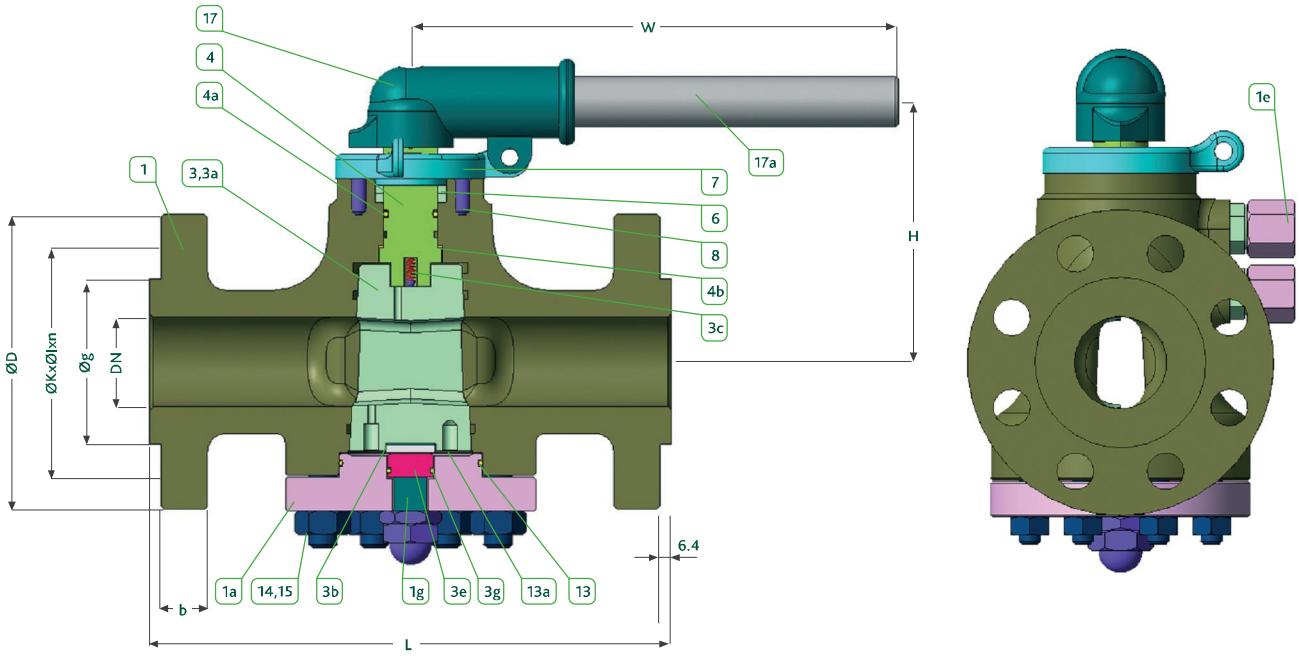
Pressure Balance, Inverted Type, Lubricated, Flanged

Design Standard : **API 6D & ISO 14313**

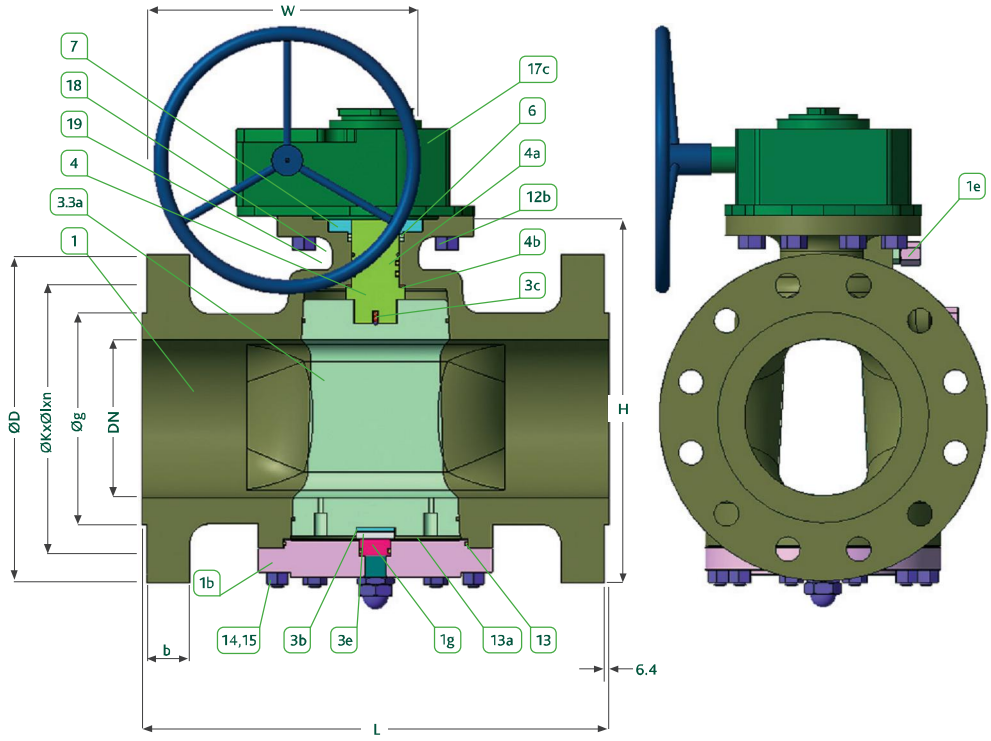
PN **110** | Class **600**

NPS **2-14** | DN **50-350**

### > E13- Lever Operated




### > E13G - Gear Operated




### Working Pressure

| | |
|---|---|
| -29+38 °C | 102,1 Bar |
| +100 °C | 93,2 Bar |

### Test Pressure

| | |
|---|---|
| Shell & Backseat | 153 Bar |
| Closure | 112 Bar |
| Air | 6 Bar |

## E1 PART LIST for Trim No:18

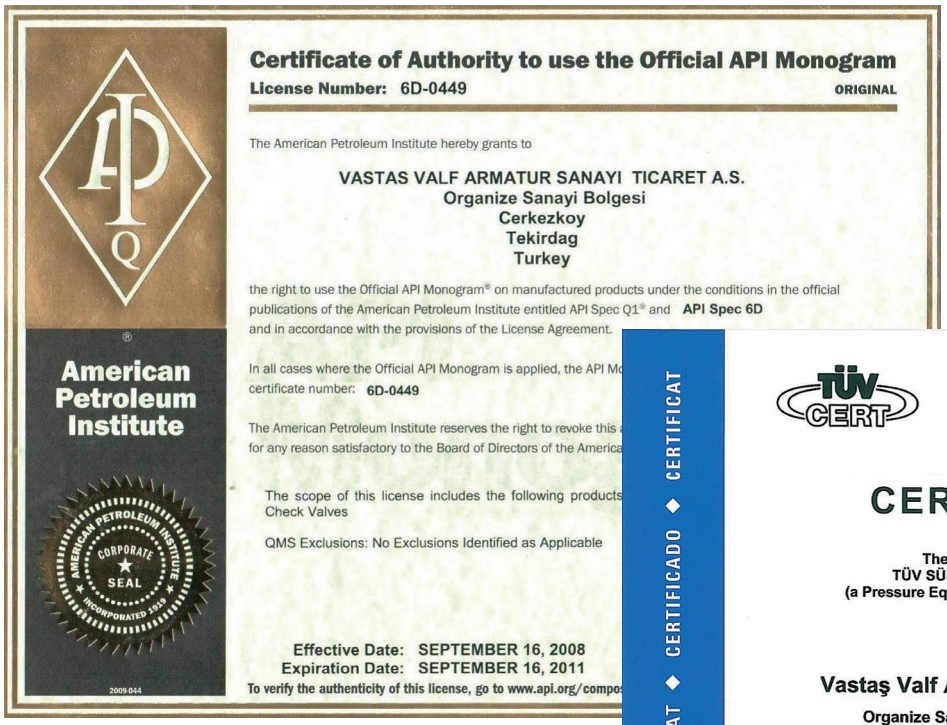
| Item | Part Name | Symbol | Material |
|---|---|---|---|
| 1 | Body | WCB | ASTM A216 Gr.WCB or A105 |
| 1a | Cover | WCB | ASTM A216 Gr.WCB or A105 or A515 |
| 1e | Lubricant Fitting | St | Steel + Galvanized |
| 1g | Adjustable Device | St | Steel |
| 3 | Plug | WCB<br>Cr13*<br>Special | ASTM A216 Gr.WCB<br>CA15 or AISI 410 - HF40<br>Special Alloy HF45 |
| 3a | Plug Face | ENP<br>PTFE*<br>TCC* | Electroless Nickel Plated 750 V-50 mic.<br>PTFE Plated 40 mic.<br>Tungsten Carbide Chromium |
| 3b | Washer | PTFE | Polytetrafluoroethylene |
| 3c | Anti Static Device | St.St. | Stainless Steel |
| 3e | Adjustable Guide | A105 | ASTM A105 |
| 3g | O-Ring | NBR | Nitrile Butadiene Rubber |
| 4 | Stem | Cr13 | AISI 410 |
| 4a | O-Ring | NBR | Nitrile Butadiene Rubber |
| 4b | Washer | PTFE | Polytetrafluoroethylene |
| 6 | Packing | GRF | Graphite |
| 7 | Gland & Stopper | WCB | ASTM A216 Gr.WCB |
| 8 | Gland Bolt | B | ASTM A307 Gr.B |
| 12b | Bolting | B | ASTM A307 Gr.B |
| 13 | Gasket (O-Ring) | NBR | Nitrile Butadiene Rubber |
| 13a | Diaphragm | St.St. | AISI 304 |
| 14 | Bolt | B7 | ASTM A193 Gr.B7 |
| 15 | Nut | 2H | ASTM A194 Gr.2H |
| 17 | Wrench | CI | Cast Iron |
| 17a | Lever | A106 | ASTM A106 |
| 17b | Gear Box | G | Mastergear / Vastaş |
| 18 | Name plate | SP | Stainless Plate |
| 19 | Paint | EP | Epoxy RAL 3020 |
| 19a | End Cover | PVC | Plastic |

(*) Optional

## Dimensions & Weight

| NPS | ØD | b | Øg | ØK | n | Øl | L | H | W | Kv | Torque | Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inc. | mm | mm | mm | mm | no | mm | mm | mm | mm | m3/h | Nm | kg |
| E13 (Lever Operated) Regular Pattern | | | | | | | | | | | | |
| 2" | 165 | 26 | 92 | 127 | 8 | 19 | 292 | 185 | 550 | 140 | 280 | 26 |
| 3" | 210 | 32 | 127 | 168 | 8 | 22 | 356 | 219 | 650 | 280 | 550 | 56 |
| 4" | 273 | 38 | 157 | 216 | 8 | 26 | 432 | 406 | 750 | 490 | 1000 | 109 |
| E13G* (Gear Operated) Venturi Pattern | | | | | | | | | | | | |
| *6" | 356 | 48 | 216 | 292 | 12 | 29 | 559 | 495 | 350 | 860 | 1800 | 210 |
| *8" | 419 | 56 | 270 | 349 | 12 | 32 | 660 | 597 | 430 | 1600 | 3200 | 298 |
| *10" | 508 | 64 | 324 | 432 | 16 | 35 | 787 | 673 | 540 | 2150 | 4400 | 575 |
| *12" | 559 | 67 | 381 | 489 | 20 | 35 | 838 | 762 | 655 | 3.000 | 6.600 | 635 |
| *14" | 603 | 70 | 413 | 527 | 20 | 38 | 889 | 826 | 800 | 5.000 | 8.000 | 875 |

# Certificates



**Certificate of Authority to use the Official API Monogram**

**License Number: 6D-0449** ORIGINAL

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VASTAS VALF ARMATUR SANAYI TICARET A.S.
Organize Sanayi Bolgesi
Cerkezkoy
Tekirdag
Turkey

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Check Valves

QMS Exclusions: No Exclusions Identified as Applicable

American Petroleum Institute

CORPORATE SEAL

2009-044

**Effective Date: SEPTEMBER 16, 2008**
**Expiration Date: SEPTEMBER 16, 2011**
**To verify the authenticity of this license, go to www.api.org/compos**



CERTIFICATE / SERTİFİKA

**Fire test on PN 20 (150 #) and DN 100 ( 4") PLUG Valve**
**PN 20 (150 #) ve DN 100 ( 4") PLUG Vana Yangın Testi**

| | | |
|---|---|---|
| **User** " Kullanıcı" | : | General / Genel |
| **Project No.** " Proje No" | : | TGK 04-3711R ( 009 ) |
| **Manufacturer** İmalatçı | : | VASTAŞ Valf Armatürleri San. Ve Tic A.Ş. Çerkezköy - Tekirdağ - TURKEY |
| **Manufact. project no.** İmalatçı Proje no | : | Fire Test for PN 20 (150 #) and DN 100 (4") PLUG Valve PN 20 (150 # ) ve DN 100 (4" ) PLUG vana yangın testi |
| **Manufacturer year** İmalat Yılı | : | 2005 |
| **Drawings No.** Resim No. | | |
| **Max working pres.** Max. Çalışma Basıncı | | |
| **Related test standart** Test Standardı | | |
| Valve which has prope tested According to rel SUD. Inspector in the results related Fire Tes TUV SUD. Inspector p | | |
| PN 20 (150 # ) ve DN API 6FA ve ISO 10497 ederek Test sonucu olu testi Raporu onaylanm sunulmuştur. | | |
| **Test Date** "Test Ta | | |
| **Test Place** "Test Ye | | |
| **Qualification Range** Kalifikasyon oranı | | |
| **Anex** "Ekler" | | |
| **Test Result** Test Sonucu | | |
| **Place / yer** | | |
| Istanbul-TURKEY | | |

TÜV Süddeutchland TGK Y
TR-80300 Esentepe – Istanb

CERTIFICATE / SERTİFİKA

**Fire test on PN 20 (150 #) and DN 50 ( 2") PLUG Valve**
**PN 20 (150 #) ve DN 50 ( 2") PLUG Vana Yangın Testi**

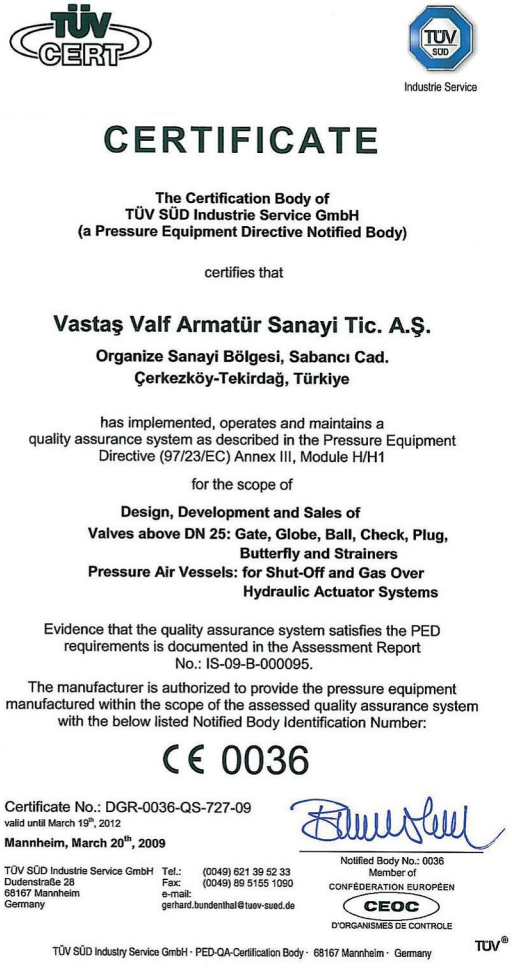
| | | |
|---|---|---|
| **User** " Kullanıcı" | : | General / Genel |
| **Project No.** " Proje No" | : | TGK 04-3711R ( 013 ) |
| **Manufacturer** İmalatçı | : | VASTAŞ Valf Armatürleri Sanayi Tic A.Ş. Çerkezköy - Tekirdağ - TURKEY |
| **Manufact. project no.** İmalatçı Proje no | : | Fire Test for PN 20 (150 #) and DN 50 (2") PLUG Valve PN 20 (150 # ) ve DN 50 ( 2" ) PLUG vana yangın testi |
| **Manufacturer year** İmalat Yılı | : | 2007 |
| **Drawings No.** Resim No. | : | In the related Vastaş drawing No: P 105 Vastaşın ilgili Resim No : P 105 |
| **Max working pres.** Max. Çalışma Basıncı | : | 20 Bar ( PN 20 (150 #) ) |
| **Related test standart** Test Standardı | : | API 6FA and ISO 10497/ 2004 |
| Valve which has properties PN 20 (150 # ) and DN 50 ( 2" ) PLUG Valve has been Fire tested According to related standarts API 6FA and ISO 10497/2004 under observation of TUV SUD. Inspector in the VASTAŞ Factory for general using purpose. After the satisfactory results related Fire Test report of valve has been approved by TUV Inspector. TUV SUD. Inspector prepared and approved this certificate Due to Client request. | | |
| PN 20 (150 # ) ve DN 50 ( 2 ") özelliklerine Sahip PLUG Vananın ilgili standartlar API 6FA ve ISO 10497/2004 taleplerine göre Yangın Testlerine TÜV SÜD elemanı nezaret ederek Test sonucu olumlu bulunan ilgili vanaya ait firma tarafından düzenlenen Yangın testi Raporu onaylanmış ve firma talebi doğrultusunda bu sertifika firmaya sunulmuştur. | | |
| **Test Date** "Test Tarihi" | : | 07.08.2007 |
| **Test Place** "Test Yeri" | : | Çerkezköy / Tekirdag TURKEY |
| **Qualification Range** Kalifikasyon oranı | : | Below DN 50 & DN 50 (2"), DN 65 (2 1/2"), DN 80 (3"), DN 100 (4"), PN 20 (Class 150), PN 25, PN 40, PN 50 (Class 300) |
| **Anex** "Ekler" | : | One page Test Report "1 sayfa Test raporu" |
| **Test Result** Test Sonucu | : | Satisfactory<br>Uygun bulunmuştur. |
| **Place / yer** | **Date / tarih** | **TÜV SÜD Turkey** |
| Istanbul-TURKEY | 07.08.2007 | HAKIM OZLUK |

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Mitglied der CONFÉDERATION EUROPÉEN CEOC D'ORGANISMES DE CONTROLE

CERTIFICAT ◆ CERTIFICADO ◆ СЕРТИФИКАТ ◆ 認証証書



TÜV CERT

Industrie Service

# CERTIFICATE

**The Certification Body of**
**TÜV SÜD Industrie Service GmbH**
**(a Pressure Equipment Directive Notified Body)**

certifies that

## Vastaş Valf Armatür Sanayi Tic. A.Ş.

**Organize Sanayi Bölgesi, Sabancı Cad.**
**Çerkezköy-Tekirdağ, Türkiye**

has implemented, operates and maintains a quality assurance system as described in the Pressure Equipment Directive (97/23/EC) Annex III, Module H/H1

for the scope of

**Design, Development and Sales of**
**Valves above DN 25: Gate, Globe, Ball, Check, Plug, Butterfly and Strainers**
**Pressure Air Vessels: for Shut-Off and Gas Over Hydraulic Actuator Systems**

Evidence that the quality assurance system satisfies the PED requirements is documented in the Assessment Report No.: IS-09-B-000095.

The manufacturer is authorized to provide the pressure equipment manufactured within the scope of the assessed quality assurance system with the below listed Notified Body Identification Number:

CE 0036

Certificate No.: DGR-0036-QS-727-09
valid until March 19th, 2012

**Mannheim, March 20th, 2009**

Notified Body No.: 0036
Member of
CONFÉDÉRATION EUROPÉEN
CEOC
D'ORGANISMES DE CONTROLE

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68167 Mannheim
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TÜV SÜD Industry Service GmbH · PED-QA-Certification Body · 68167 Mannheim · Germany

TÜV®

# Certificate

Standard **ISO 14001:2004**

Certificate Registr. No. 01 104 031931

TÜV Rheinland Cert GmbH certifies:

Certificate Holder: **VASTAŞ Valf Armatur Sanayi Ticaret A.Ş.**
O.S.B Sabancı Cad. No:22
Çerkezköy / Tekirdağ
Turkey

Scope: Design, Manufacturing and Servicing of In
Actuators and Gear Boxes

An audit was performed, Report No. 0319
furnished that the requirements according
are fulfilled.
The due date for all future audits is 07-11

Validity: The certificate is valid from 2009-12-28 un
First certification 2003

Cologne, 2009-12-29

TGA-ZM-58-95-60

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# Certificate

Standard **ISO 9001:2008**

Certificate Registr. No. 01 100 032841

TÜV Rheinland Cert GmbH certifies:

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O.S.B Sabancı Cad. No:22
Çerkezköy / Tekirdağ
Turkey

Scope: Design, Manufacturing and Servicing of Industrial Valves, Actuators and Gear Boxes

An audit was performed, Report No. 032841. Proof has been furnished that the requirements according to ISO 9001:2008 are fulfilled.
The due date for all future audits is 07-11 (dd.mm).

Validity: The certificate is valid from 2009-12-28 until 2012-12-27.
First certification 2003

Cologne, 2009-12-29

TÜV Rheinland Cert GmbH *)
Am Grauen Stein · 51105 Köln

TGA-ZM-58-95-00

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# Certificate

Standard **BS OHSAS 18001:2007**

Certificate Registr. No. 01 113 030063

TÜV Rheinland Cert GmbH certifies:

Certificate Holder: **VASTAŞ Valf Armatur Sanayi Ticaret A.**
O.S.B Sabancı Cad. No:22
Çerkezköy / Tekirdağ
Turkey

Scope: Design, Manufacturing and Servicing of
Industrial Valves, Actuators and Gear Box

An audit was performed, Report No. 0300
Proof has been furnished that the requiren
to BS OHSAS 18001:2007 are fulfilled.

The due date for all future audits is 07-11

Validity: The certificate is valid from 2010-01-04 un

Cologne, 2010-01-06

TGA-ZM-58-95-64

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# API Valve Datasheet

| REQUIREMENTS | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Specifications req. | | | | | | | | | | | | | | |
| API Monogram req. | | API 6D 2008 (Licence No 0449) | | | | | | | | | | | | |
| Valve location | | | | | | | | | | | | | | |
| Valve function | | PIPE-LINE VALVES, ON-OFF SERVICE. | | | | | | | | | | | | |
| Max. Service temp. | | +80 °C | | | | | | | | | | | | |
| Min. Service temp. | | -29 °C | | | | | | | | | | | | |
| Liquid or Gas service | | | | | | | | | | | | | | |
| Flow medium comp. | | | | | | | | | | | | | | |
| Special flow req. | | THROTTLING & REGULATING | | | | | | | | | | | | |
| Optional req. | | EXTENDED STEM, EXTENDED LUB FITTING | | | | | | | | | | | | |
| Number of valves | qty | | | | | | | | | | | | | |
| **CONDITIONS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Max.op.pressure | bar | 102 | | | | | | | | | | | | |
| Max. Field test press. | bar | 112 | | | | | | | | | | | | |
| Valve diff. pressure | bar | 102 | | | | | | | | | | | | |
| **VALVE DESIGN REQ.** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Type | | INVERTED-BALANCE TYPE PLUG VALVES FLGD, FSD, MTM & LUBRICATED | | | | | | | | | | | | |
| Design Pressure | | Class 600 PN110 | | | | | | | | | | | | |
| Design Standard | | ASME B16.34 & API 6D ISO 14313 | | | | | | | | | | | | |
| Full-round req. | y/n | Yes | | | | | | | | | | | | |
| Min bore AREA | % | | | | | | | | | | | | | |
| **END CONNECTIONS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Pipe flg OD (D) | mm | 165 | 210 | 273 | 356 | 419 | 508 | 559 | 603 | 686 | 743 | 813 | 870 | 940 |
| Flange mating dim.Std. | | | | | | | | | | | | | | |
| Size and class std. | | | | | | | | | | | | | | |
| Diameter of Bolt circle (K) | mm | 127 | 168 | 216 | 292 | 349 | 432 | 489 | 527 | 603 | 654 | 724 | 778 | 838 |
| Number of bolt ( n ) | no. | 8 | 8 | 8 | 12 | 12 | 16 | 20 | 20 | 20 | 20 | 24 | 24 | 24 |
| Size of Bolt to be used(l) | mm | 5/8" | 3/4" | 7/8" | 1"-8NC | 1 1/8"-8NC | 1 1/4"-8NC | 1 1/4"-8NC | 1 3/8"8NC | 1 1/2"-8NC | 1 5/8"-8NC | 1 5/8"-8NC | 1 7/8"-8NC | 1 7/8"-8NC |
| Dia.of contact face RF(g) | mm | 92 | 127 | 157 | 216 | 270 | 324 | 381 | 413 | 470 | 533 | 584 | 641 | 692 |
| **OVERALL LENGTH** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Face To Face (L) | mm | 292 | 356 | 432 | 559 | 660 | 787 | 838 | 889 | 991 | 1092 | 1194 | 1295 | 1397 |
| **OPERATORS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Operator type | | Lever | | | Gear Box & Handwheel | | | | | | | | | |
| Extended Stem | mm | | | | | | | | | | | | | |
| Lug if require. | y/n | No | | | Yes | | | | | | | | | |
| **OTHER REQUIREMENTS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Paint or coating req. | | | | | | | | | | | | | | |
| TP wit.or proc./test | y/n | | | | | | | | | | | | | |
| Doc. Req. | y/n | | | | | | | | | | | | | |
| **TEST REQUIREMENTS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Hydrostatic Shell test | Bar | 153 | | | | | | | | | | | | |
| Hydrostatic Seat test | Bar | 112 | | | | | | | | | | | | |
| Air test | Bar | 6 | | | | | | | | | | | | |

# API Valve Datasheet

| VALVE DATA | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Unit | | PIPE-LINE VALVES , ON-OFF or BY-PASS SERVICE for NG | | | | | | | | | | | | |
| Data Sheet No | | DS-E130.18 | | | DS-E13G.18 | | | | | | | | | |
| Drawing No | | | | | | | | | | | | | | |
| LINE ( ID or Schdl) | mm | Should be mentioned at the time of order | | | | | | | | | | | | |
| **VALVE DESIGN** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Class | | 600 Class / PN110 | | | | | | | | | | | | |
| Ends | | FLGD | | | | | | | | | | | | |
| End Standard | | ASME B16.5 600 RF RMS125 | | | | | | | | | | | | |
| Type | | INVERTED TYPE, PRESSURE BALANCE | | | | | | | | | | | | |
| Spec. Standard | | API 6D | | | | | | | | | | | | |
| Ref. Standard | | ANSI.B16.34 | | | | | | | | | | | | |
| Figure No | | E13.18 | | | E13G.18 | | | | | | | | | |
| Action | | ON-OFF | | | | | | | | | | | | |
| **MATERIAL OF VALVES** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Body (1) | | ASTM A216 gr WCB (CE 0,42%) | | | | | | | | | | | | |
| Cover (1a) | | ASTM A216 gr WCB (CE 0,42%) | | | | | | | | | | | | |
| Plug (3) | | ASTM A216-WCB + ENP25V1000 + TEFLON Coated (TC) | | | | | | | | | | | | |
| Stem (4) | | int. | | | Stainless Steel 13Cr (AISI 410) | | | | | | | | | |
| Packing (6) | | GRAPHITE + V-cup Lubseal self energized | | | | | | | | | | | | |
| Gasket (13) | | SWG (316+GRAPHITE) | | | | | | | | | | | | |
| Lining (External) | | Epoxy Paint (RAL 9002 150 mic. Zinc.Rich Primer + Top coat polyurethane RAL 9006 50 mic.) | | | | | | | | | | | | |
| **VALVE WEIGHTS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Valve | Kg | 26 | 56 | 109 | 201 | 273 | 547 | 593 | 830 | 1200 | 2100 | 3050 | 3500 | 4530 |
| Gearbox | Kg | | | | 9 | 15 | 28 | 42 | 45 | 85 | 85 | 180 | 180 | 250 |
| Acces. Extend. Stem | Kg | | | | | | | | | | | | | |
| COMPLETE | Kg | 26 | 56 | 109 | 210 | 298 | 575 | 635 | 875 | 1285 | 2185 | 3230 | 3680 | 4780 |
| Total Weight | Kg<br>Kg | | | | | | | | | | | | | |
| **HEIGHT & LEVEL** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Pipe-Line / Top approx. | mm | | | | | | | | | | | | | |
| Pipe-Line / Handwheel appr. | mm | 185 | 219 | 406 | 495 | 597 | 673 | 762 | 826 | 899 | 1050 | 1125 | 1250 | 1410 |
| **EXTRAS** | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Drain Plug /valves | | N.A. | | | | | | | | | | | | |
| Vent Plug / Valves | | N.A. | | | | | | | | | | | | |
| Safety Relief V. (SS) | | N.A. | | | | | | | | | | | | |

# API Valve Datasheet

| VALVE | nps | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Max.Diff. Pressure | bar | 110 | 100 | 80 | 80 | 80 | 75 | 75 | 75 | 70 | 70 | 70 | 70 | 70 |
| Flow Coefficient | Kv | 140 | 280 | 490 | 860 | 1600 | 2150 | 3000 | 5000 | 6800 | 12000 | 16000 | 22000 | 28000 |
| Torque | Nm | 280 | 550 | 1000 | 1800 | 3200 | 4400 | 6600 | 8000 | 10000 | 15000 | 19000 | 24000 | 32000 |
| GEAR BOX DATA | QTY | | | | | | | | | | | | | |
| Manufacturer | | CML or Vastaş (IP67 Optional) | | | | | | | | | | | | |
| Gear Box Type | | - | - | - | M12 | M14 | M15 | M16 | M20 | M30 | M30 | GS200 | GS200 | GS250 |
| Max. Output Torque | Nm | | | | 1000 | 1800 | 3400 | 4500 | 6000 | 10800 | 10800 | 22500 | 22500 | |
| Max. Input Torque | Nm | | | | 88.5 | 111 | 166 | 170 | 105 | 109 | 109 | 276 | 276 | |
| Ratio | no. | | | | 42:1 | 60:1 | 68:1 | 88 | 183:1 | 309:1 | 309:1 | 212:1 | 212:1 | |
| Output Flange | | | | | F14 | F16 | F20 | F25 | F30 | F30 | F30 | F35 | F35 | |
| Handwheel / Input flange | mm /no | | | | 400 / F10 | | | 500 / F14 | | | 500 / F16 | | | |
| Turn (for open-close) | no. | | | | 10,5 | 15 | 17 | 22 | 45,75 | 77,3 | 77,3 | 53 | 53 | |
| ELECTRIC ACTUATOR | QTY | | | | | | | | | | | | | |
| Manufacturer | | | | | | | | | | | | | | |
| Type | | | | | | | | | | | | | | |
| Switching Design | Nm | | | | | | | | | | | | | |
| Torque Min. | Nm | | | | | | | | | | | | | |
| Torque Max. | RPM | | | | | | | | | | | | | |
| Output Speed | | | | | | | | | | | | | | |
| Elct. Supply | | | | | | | | | | | | | | |
| Connection | kN | | | | | | | | | | | | | |
| Thrust | n.o. | | | | | | | | | | | | | |
| On/Off Turn Norm. | no. | | | | | | | | | | | | | |
| Turn Max. | min. | | | | | | | | | | | | | |
| Operation Time | mm | | | | | | | | | | | | | |
| Handwheel Dia. | | | | | | | | | | | | | | |
| Handwheel Ratio | Kg | | | | | | | | | | | | | |
| Weights | Kw | | | | | | | | | | | | | |
| E.M. Power | RPM | | | | | | | | | | | | | |
| E.M. Speed | | | | | | | | | | | | | | |
| E.M. Size | A | | | | | | | | | | | | | |
| Nom. Current | A | | | | | | | | | | | | | |
| Max. Current | A | | | | | | | | | | | | | |
| Start Current | | | | | | | | | | | | | | |
| Enclosure | | | | | | | | | | | | | | |
| Corrosion Protection | | | | | | | | | | | | | | |
| Temp. Range | | | | | | | | | | | | | | |
| Extra Switch | | | | | | | | | | | | | | |
| Extra Protection | | | | | | | | | | | | | | |









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