VASTAS

VALVES & ACTUATORS

# THROUGH CONDUIT GATE VALVES

**Anti-Static Device, Fire Safe Design, Bolted Bonnet, Outside Screwed & Yoke, Rising Stem, API 6D Design**

## E50B/D




**NPS**
**2-72**

**DN**
**50-1800**

**Class**
**150- 1500**

CAT-E50B/D-20R0

# E5 SERIES – GATE VALVES
# THROUGH CONDUIT GATE VALVE

API 6D

Bolted Bonnet

Outside Screwed & Yoke Rising Stem

Full Bore

Anti-Static Device (ASD)

Fire Safe Design (FSD)

Double Block & Bleed (DBB)

## Features

This type is designed and produced for pipelines. It should be preferred for On-Off services. Emergency Shutdown, Line Break and Remote Control types provide sound operation of the line.

They are manufactured with a full bore section equals to pipeline cross section. Opening without decreasing the differential pressure is not recommended.

For the Slab (B) type Gate Valves are designed as pipeline valves and have piggable feature. Disc is designed as one-piece slab and the rings are floating type.

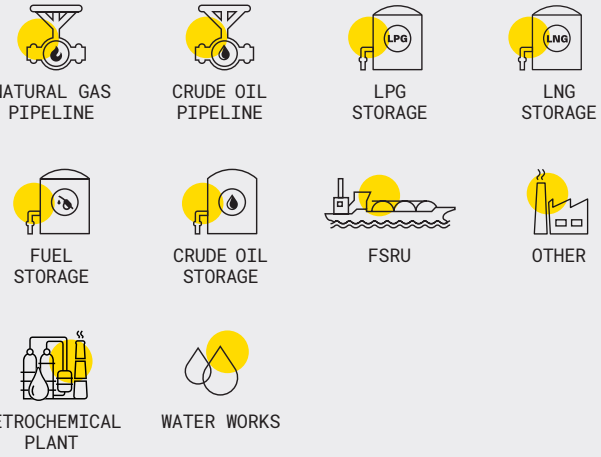
For the Double Expanding Gate Valves are designed as pipeline valves and have piggable feature. Disc is designed as one-piece slab and the rings are floating type.

| | STANDARDS |
|---|---|
| **Design** | API 6D |
| **End Connection** | ASME B16.47 Series A and B & ASME B16.5 or ASME B16.25 |
| **FTF & ETE** | ASME B16.10 |
| **Test** | API 598 |



Manuel Operated Through Conduit Gate Valve with Gearbox

## Project Types




## Applications

Vastas Conduit Gate Valves are designed and produced for pipelines. They are preferred for On-Off services. Emergency Shutdown, Line Break and Remote Control types can be provided. Manually operated unless otherwise indicated. Varieties are available for underground and above ground services.

It is used as an isolating valve, pig loading-unloading platforms, pump or compressor & RMS stations, storage and distribution terminals. They are manufactured with a flow cross section equals to pipeline cross section.

These valves are safely used in regions of high earthquake risk, at river & road crossings and in residence areas. They are reliable and resistant to stroke shock and vibration. They have high resistance to cracking under high frost risk.

Operation without decreasing the differential pressure is not recommended.

All valves have Antistatic Design (ASD) and Fire Safe Design (FSD) features. They may be equipped with different operators depending on the structure of project or may be delivered with bare-stem including connection flange as per ISO-MSS standard.

## Pressure Rating

The figures at this table are Vastas figures and they indicate pressure class among other specifications.

See page 7 for figure description.

| | | | PRESSURE | | |
|---|---|---|---|---|---|
| Figure | Size | Class | MPa | Bar | Psig |
| E51B-E51D | 6" - 72" | 150 | 2.0 | 20 | 285 |
| E52B-E52D | 6" - 60" | 300 | 5.1 | 51 | 740 |
| E53B-E53D | 6" - 48" | 600 | 10.2 | 102 | 1480 |
| E54B-E54D | 6" - 36" | 900 | 15.3 | 153 | 2220 |
| E55B-E55D | 6" - 24" | 1500 | 25.5 | 255 | 3705 |

For ASME B16.34 Group 1.1 Material, -29 +38°C

## Double Block and Bleed (DBB)

Valves with two seating surfaces in the closed position, block flow from both valve ends and allow the cavity between the seating surface to be vented through a bleed connection provided on the body cavity. In case of both seats are tight, DBB provides draining of the body cavity and reduction of pressure. Hence, it will be possible to monitor the performance of valve seats and to provide safe environment to work at the other side of the line.

## Double Isolating Bleed (DIB)

This will also provide draining the valve cavity and reduction of pressure. If, however, the pressure at upstream side is released and the fluid entrapped in body cavity enlarged due to thermal changes, draining occurs to upstream side. This is an important design for the block valves of pipeline. Correct selection has to be made depending on type of application.

## Sealing of Flanged Connections

When required Vastas offers gaskets for sealing of flanged connections. These are made of non-asbestos materials and fireproof including class. Spiral wounded SS316 & Grafoil or RJ type are used for high classes.

## Coating

Vastas applies epoxy paint system for valves to be located above ground / onshore with the RAL7037 aluminum color as standard.

Special coating and/or paint options according to customer's request, our applications include:

- ISO 12944 C5M certified paint system for offshore corrosive atmosphere.
- Heat resistant paint system up to 538°C.
- NORSOK 7B certified paint system for submerged Valves.
- PUR coating for valves to be used underground.

## Important Notice

If you receive this catalog as attachment of Vastas offer, please note that, this catalog includes standard product with standard options. The special requirements will be indicated at the offer and the proforma invoice, together with other supporting documents. Offered options are supported with additional technical documents.

## Licence & Approvals

- Vastas Conduit Gate Valves are licenced for application of API Monogram(API6D-0449)
- Fire Safe Design as per API 607, ISO10497, BS 6755
- Corrosion Resistance Test Cert. as per NACE 0175 & 0103
- Commitee Europe 2014/68/EU-CE 0408 approval



Manual Operated Through Counduit Slab Gate Valves with Gearbox

## Certificates

| CERTIFICATE NAME | INSTITUTION | CERTIFICATE NUMBER |
|---|---|---|
| ATEX-Certificate Conformity to Ex | Energy Petroleum Institute | IEP 17 EX 10013 |
| ATEX-Internal Production Control Certificate | Energy Petroleum Institute | IEP 17 ATEX 0512X |
| NACE Certificate | TUV SUD Turkey | 15-B-00828 |
| SIL 2&3 Certificate | TUV Rheinland | V 532.01/16 |
| ISO 9001 : 2015 | TUV Rheinland | 01 100 032841 |
| ISO 14001 : 2015 | TUV Rheinland | 01 104 031931 |
| ISO 45001 : 2018 | TUV Rheinland | 01 133 030066 |
| Fire Test on Throught Conduit Gate Valve | TUV SUD Turkey | 16-IS-0014a-34-B/01 |
| Fugitive Emission Type Test | TUV SUD Turkey | 15-B-00588 |
| CE-0408 | TUV Austria Services GMBH | ZSTS/SWZE/2190 |
| Type Conformance Certificate | TUV SUD Turkey | 10-B-00456 |
| Certificate of Conformity to Turkish Standards | Turkish Standards Institution | 001041-TSE-01/01 |

## Vastas Figure Description

# XXX E5XX. XX

**Size (NPS)**

002:2"
003:3"
.
.
.
072:72"

**Valve Type**

E5: Gate Valve

**Valve Class**

1: 150 Class
2: 300 Class
3: 600 Class
4: 900 Class
5: 1500 Class

**Type**

B: Slab Gate
D: Expanding Gate

**Body Material No**

1: WCB/LCB
2: CF8/CF3
4: CF8M/CF8C
5: C5
6: WC6
7: C12
9: WC9

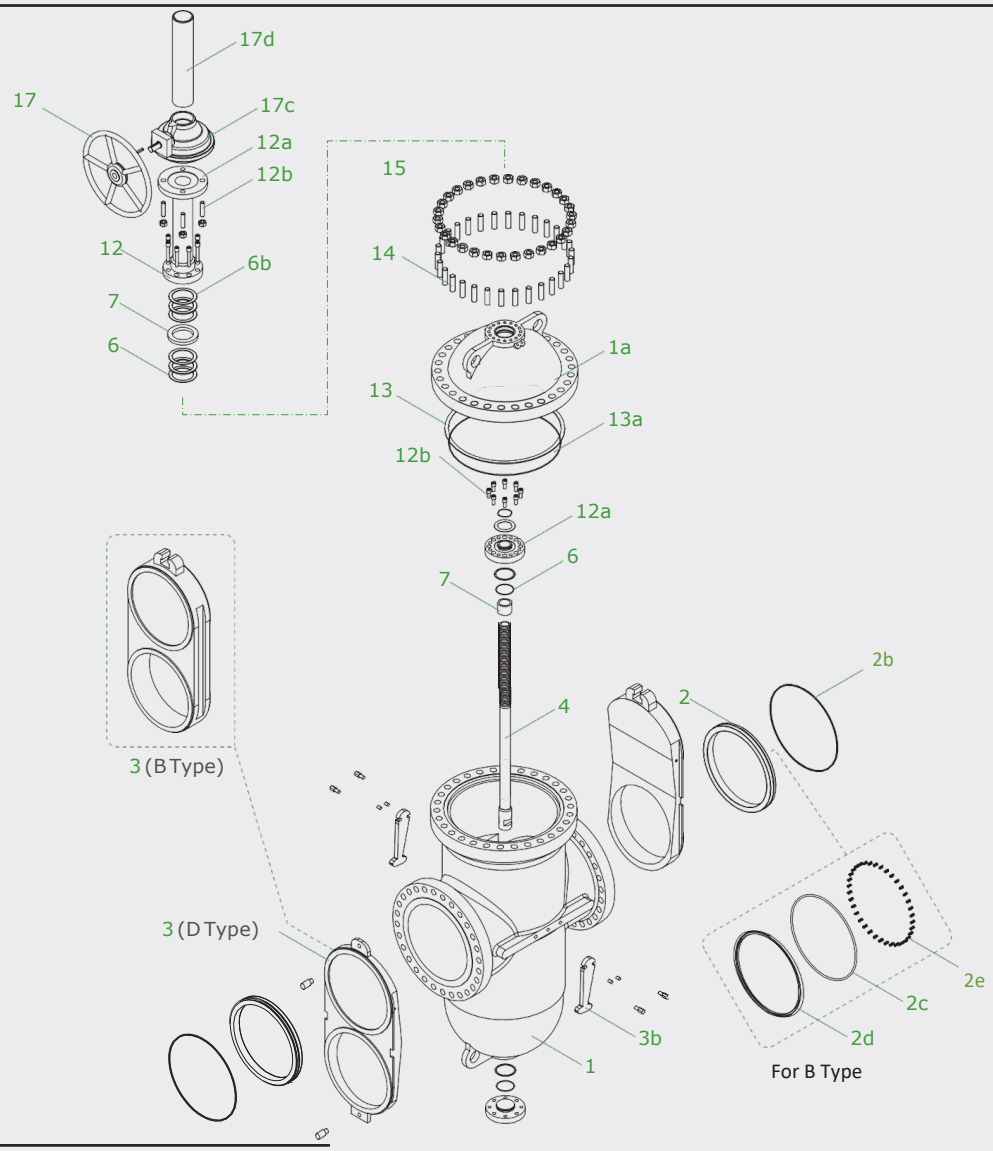
**Trim Material No**

2: 316 / 316
3(1): 13Cr / HF*
4: 316 / STL
5: HF / HF
6: 316+HF / 316+HF
7: Alloy 20 / Alloy 20 - ASTM A351
8: C276 / C276 - ASTM A494
9: Monel
TCC: Tungsten Carbide Coating Face

(1): Standard offer

*HF: Hard facing is weld deposited Cobalt base alloy (STL)

Note: For seating surfaces, coatings carried out using HVOF (High Velocity Oxygen Fuel) process, such as TCC or CCC is optional.




## Part List For E50B/D

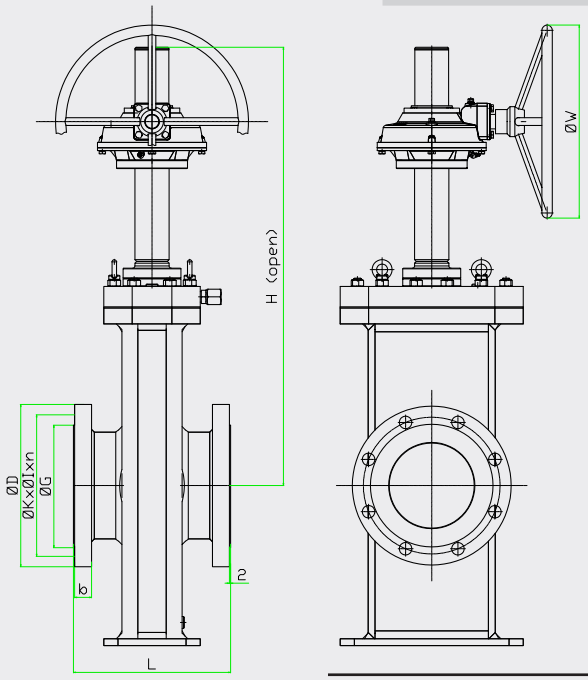
| Item | Part Name | Symbol | Material |
|---|---|---|---|
| 1 | Body | WCB | ASTM A216 Gr.WCB |
| 1a | Bonnet | WCB | ASTM A216 Gr.WCB |
| 1b | Vent Plug | S.S. | AISI 420 |
| 1d | Needle Valve | ST+GLV | ASTM A105+GLV |
| 1e | Lubricant Fitting | S.S. | AISI 420 |
| 1g | Drain Plug | S.S. | AISI 420 |
| 2 | Body Seat ring | A105 | ASTM A105 |
| 2a | Body Seat Face | STL | Hard Face AWS A5.13 |
| 2b | Firesafe Ring | GRF | GRAPHITE |
| 2c | O-Ring | NBR | NITRILE BUTADIENE RUBBER |
| 2d | Soft Seat | PTFE | POLYTETRAFLUOROETHYLENE |
| 2e | Spring | S.S. | AISI 302 |
| 3 | Disc | A515 | ASTM A515 Gr.70 |
| 3a | Disc Face | Cr13 | AWS ER 420 |
| 3b | Guide Lever | ST | STEEL |
| 4 | Stem | Cr13 | ASTM A276 T410 or T420 |
| 5 | Backring | Cr13 | ASTM A276 T410 or T420 |

| Item | Part Name | Symbol | Material |
|---|---|---|---|
| 5a | Backring Face | Cr13 | INTEGRAL |
| 6 | Packing | GRF | GRAPHITE |
| 7 | Lantern | Cr13 | ASTM A276 T410 or T420 |
| 12 | Yoke | ST | STEEL |
| 12a | Flange | ST | STEEL |
| 12b | Bolting | B | ASTM A307.B |
| 13 | Gasket | SWG | 304 + GRAPHITE |
| 13* | Gasket | RTJ | Ring Type Joint |
| 13a | Seal O-Ring | NBR | NITRILE BUTADIENE RUBBER |
| 14 | Studbolt | B7 | ASTM A193 Gr.B7 |
| 15 | Nut | 2H | ASTM A194 Gr.2H |
| 17 | Handwheel | DI | ASTM A536 |
| 17c | Gear Box | G | Rotork or Mastergear |
| 17d | Stem Protection | PVC | PLASTIC |
| 18 | Name Plate | SP | AISI 430 |
| 19 | Coating | EP | EPOXY RAL 9003 |
| 19a | End Cover | PVC | PLASTIC |

**Figure:** E51BG.13 / E51DG.13

**Class:** 150

| STANDARDS | |
|---|---|
| **Design** | API 6D & ASME B16.34 |
| **Face to Face** | API 6D & ASME B16.10 |
| **Flange** | ASME B16.47 (Serie A) & ASME B16.5 |




## Test Pressure

| PN | Class | Shell | Closure | Air |
|---|---|---|---|---|
| 20 | 150 | 30 Bar | 22 Bar | 6 Bar |

## Working Pressure (for group 1.1 materials)

| -29 +38°C | +100°C Max |
|---|---|
| 19.6 Bar | 17.7 Bar |

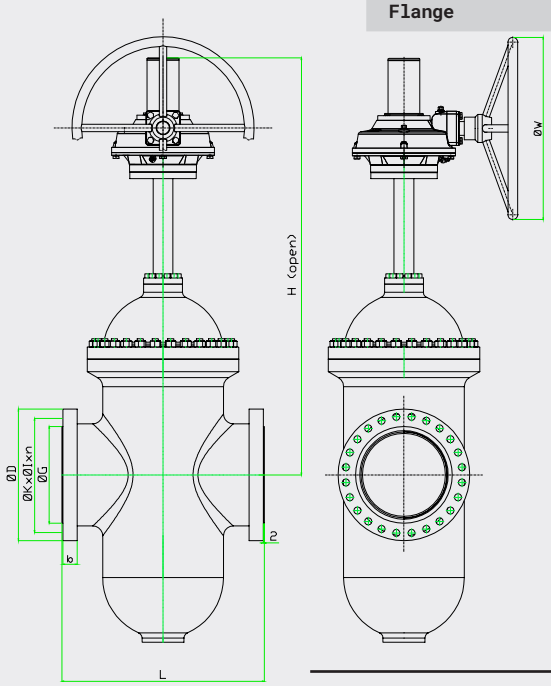
## Dimensions & Weight

| NPS | ØID | Kv | Torque | Thrust | Turn | ØD | b | Øg | Øk | n | ØI | L | H | W | ~ Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inch | mm | $m^3/h$ | Nm | kN | No | mm | mm | mm | mm | no | mm | mm | mm | mm | kg |
| 6 | 150 | 3720 | 56 | 20 | 34 | 280 | 23.9 | 216 | 241 | 8 | 22 | 267 | 780 | 310 | 111 |
| 8 | 201 | 6800 | 87 | 29 | 44 | 345 | 27 | 270 | 299 | 8 | 22 | 292 | 975 | 360 | 199 |
| 10 | 252 | 11950 | 131 | 39 | 47 | 405 | 28.6 | 324 | 362 | 12 | 25 | 330 | 1275 | 410 | 293 |
| 12 | 303 | 18600 | 189 | 52 | 54 | 485 | 30.2 | 381 | 432 | 12 | 25 | 356 | 1425 | 460 | 388 |
| 14 | 334 | 23500 | 249 | 63 | 60 | 535 | 33.4 | 413 | 476 | 12 | 29 | 381 | 1620 | 460 | 565 |
| 16 | 385 | 30900 | 306 | 77 | 70 | 595 | 35 | 470 | 540 | 16 | 29 | 406 | 1800 | 610 | 807 |
| 18 | 436 | 40900 | 442 | 97 | 78 | 635 | 38.1 | 533 | 578 | 16 | 32 | 432 | 2100 | 610 | 1025 |
| 20 | 487 | 49300 | 526 | 115 | 86 | 700 | 41.3 | 584 | 635 | 20 | 32 | 457 | 2230 | 730 | 1100 |
| 24 | 589 | 78000 | 836 | 161 | 80 | 815 | 46.1 | 692 | 749 | 20 | 35 | 508 | 2600 | 730 | 1846 |
| 30 | 735 | 122000 | 1229 | 237 | 95 | 985 | 73.1 | 857 | 914 | 28 | 35 | 660 | 3200 | 730 | 4220 |
| 32 | 779 | 141000 | 1547 | 267 | 102 | 1060 | 79.4 | 914 | 978 | 28 | 41 | 711 | 3350 | 730 | 4597 |
| 36 | 874 | 178500 | 1904 | 329 | 115 | 1170 | 88.9 | 1022 | 1086 | 32 | 41 | 813 | 3700 | 730 | 5425 |
| 40 | 976 | 225500 | 2322 | 401 | 129 | 1290 | 88.9 | 1124 | 1200 | 36 | 41 | 762 | 4000 | 730 | 5684 |
| 42 | 1020 | 252000 | 2532 | 437 | 135 | 1345 | 85.3 | 1194 | 1257 | 36 | 41 | 762 | 4250 | 730 | 6329 |
| 46 | 1120 | 301500 | 3500 | 525 | 146 | 1455 | 101.6 | 1295 | 1365 | 40 | 41 | 762 | 4550 | 730 | 6892 |
| 48 | 1166 | 326000 | 3818 | 569 | 150 | 1510 | 106.4 | 1359 | 1422 | 44 | 41 | 762 | 5100 | 730 | 6932 |
| 60 | 1458 | 444300 | 6686 | 878 | 190 | 1855 | 130.2 | 1676 | 1759 | 52 | 48 | 762 | 6200 | 730 | 9460 |
| 72 | 1755 | 599000 | 9554 | 1187 | 230 | 2200 | 130.2 | 2020 | 2095 | 60 | 51 | 914 | 7400 | 730 | 11550 |

**Figure:** E52BG.13 / E52DG.13

**Class:** 300

| STANDARDS | |
|---|---|
| **Design** | API 6D & ASME B16.34 |
| **Face to Face** | API 6D & ASME B16.10 |
| **Flange** | ASME B16.47 (Serie A) & ASME B16.5 |




## Test Pressure

| PN | Class | Shell | Closure | Air |
|---|---|---|---|---|
| 50 | 300 | 77 Bar | 56 Bar | 6 Bar |

## Working Pressure (for group 1.1 materials)

| -29 +38°C | +100°C Max |
|---|---|
| 51 Bar | 46.6 Bar |

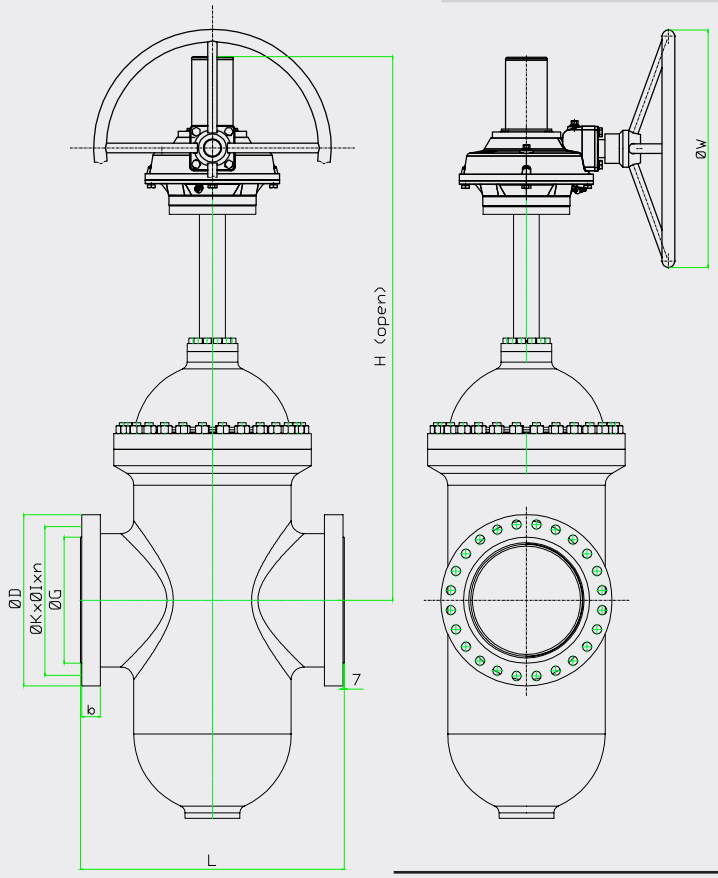
## Dimensions & Weight

| NPS | ØID | Kv | Torque | Thrust | Turn | ØD | b | Øg | Øk | n | ØI | L | H | W | ~ Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inch | mm | $m^3/h$ | Nm | kN | No | mm | mm | mm | mm | no | mm | mm | mm | mm | kg |
| 6 | 150 | 3720 | 114 | 37 | 36 | 320 | 35 | 216 | 270 | 12 | 22 | 403 | 840 | 265 | 260 |
| 8 | 201 | 6800 | 190 | 57 | 37 | 380 | 39.7 | 270 | 330 | 12 | 25 | 419 | 1140 | 360 | 341 |
| 10 | 252 | 11950 | 297 | 81 | 49 | 445 | 46.1 | 324 | 387 | 16 | 29 | 457 | 1240 | 410 | 633 |
| 12 | 303 | 18600 | 451 | 114 | 57 | 520 | 49.3 | 381 | 451 | 16 | 32 | 502 | 1540 | 460 | 867 |
| 14 | 334 | 23500 | 582 | 133 | 65 | 585 | 52.4 | 413 | 514 | 20 | 32 | 762 | 1665 | 610 | 1112 |
| 16 | 385 | 30900 | 793 | 174 | 72 | 650 | 55.6 | 470 | 572 | 20 | 35 | 838 | 1860 | 610 | 1447 |
| 18 | 436 | 40900 | 981 | 215 | 81 | 710 | 58.8 | 533 | 629 | 24 | 35 | 914 | 2145 | 730 | 2035 |
| 20 | 487 | 49300 | 1376 | 266 | 68 | 775 | 62 | 584 | 686 | 24 | 35 | 991 | 2405 | 730 | 2517 |
| 24 | 589 | 78000 | 2195 | 279 | 80 | 915 | 68.3 | 692 | 813 | 24 | 41 | 1143 | 2785 | 730 | 3075 |
| 30 | 735 | 122000 | 3293 | 569 | 98 | 1090 | 90.5 | 857 | 997 | 28 | 48 | 1397 | 3400 | 730 | 6782 |
| 32 | 779 | 141000 | 4324 | 645 | 104 | 1150 | 96.9 | 914 | 1054 | 28 | 51 | 1524 | 3550 | 730 | 8439 |
| 36 | 874 | 178500 | 5357 | 799 | 116 | 1270 | 103.2 | 1022 | 1168 | 32 | 54 | 1727 | 3900 | 730 | 9796 |
| 40 | 976 | 225500 | 7300 | 990 | 121 | 1240 | 112.8 | 1086 | 1156 | 32 | 44 | 1850 | 4200 | 730 | 10041 |
| 42 | 1020 | 252000 | 8246 | 1082 | 135 | 1290 | 117.5 | 1137 | 1206 | 32 | 44 | 1911 | 4400 | 730 | 11604 |
| 46 | 1020 | 301500 | 9840 | 1290 | 141 | 1415 | 127 | 1245 | 1321 | 28 | 51 | 2050 | 4700 | 730 | 10905 |
| 48 | 1166 | 326000 | 10632 | 1395 | 153 | 1465 | 131.8 | 1302 | 1372 | 32 | 51 | 2050 | 5300 | 730 | 12357 |
| 60 | 1458 | 508000 | 16361 | 2147 | 194 | 1810 | 162 | 1626 | 1702 | 32 | 60 | - | 6500 | 730 | 16779 |

**Figure:** E53BG.13/ E53DG.13

**Class:** 600

| STANDARDS | |
|---|---|
| **Design** | API 6D & ASME B16.34 |
| **Face to Face** | API 6D & ASME B16.10 |
| **Flange** | ASME B16.47 (Serie A) & ASME B16.5 |




## Test Pressure

| PN | Class | Shell | Closure | Air |
|---|---|---|---|---|
| 100 | 600 | 153 Bar | 113 Bar | 6 Bar |

## Working Pressure (for group 1.1 materials)

| -29 +38°C | +100°C Max |
|---|---|
| 102 Bar | 93 Bar |

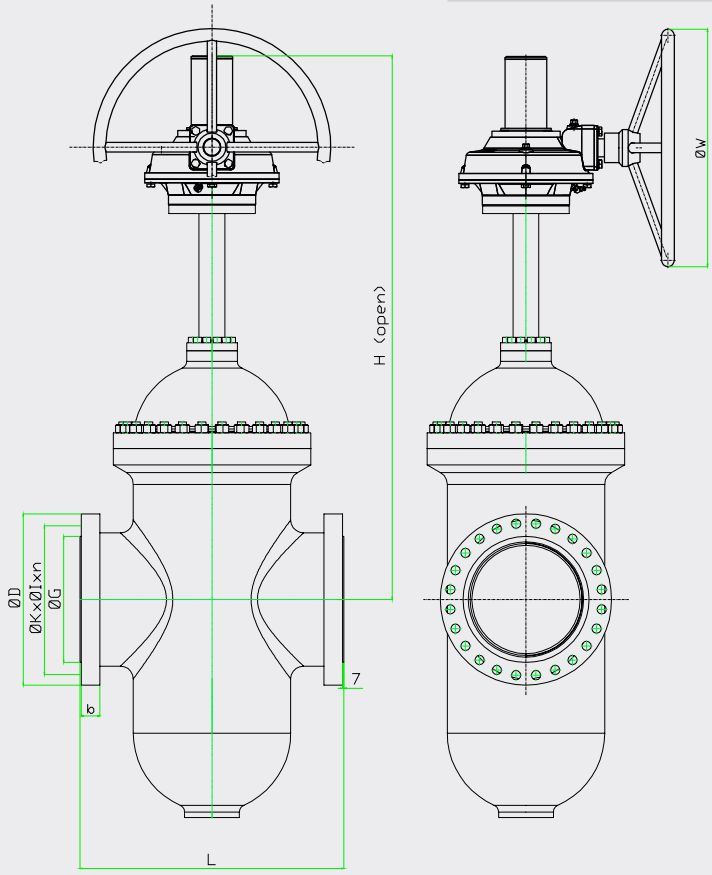
## Dimensions & Weight

| NPS | ØID | Kv | Torque | Thrust | Turn | ØD | b | Øg | Øk | n | ØI | L | H | W | ~ Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inch | mm | $m^3/h$ | Nm | kN | No | mm | mm | mm | mm | no | mm | mm | mm | mm | kg |
| 6 | 150 | 3720 | 252 | 69 | 31 | 355 | 48 | 216 | 292 | 12 | 29 | 559 | 745 | 460 | 275 |
| 8 | 201 | 6800 | 440 | 111 | 40 | 420 | 56 | 270 | 349 | 12 | 32 | 660 | 994 | 610 | 396 |
| 10 | 252 | 11950 | 745 | 163 | 50 | 510 | 64 | 324 | 432 | 16 | 35 | 787 | 1255 | 730 | 680 |
| 12 | 303 | 18600 | 999 | 219 | 58 | 560 | 67 | 381 | 489 | 20 | 35 | 838 | 1615 | 730 | 1273 |
| 14 | 334 | 23500 | 1370 | 265 | 50 | 605 | 70 | 413 | 527 | 20 | 38 | 889 | 1750 | 730 | 1734 |
| 16 | 385 | 30900 | 2001 | 346 | 56 | 685 | 76 | 470 | 603 | 20 | 41 | 991 | 1915 | 730 | 1998 |
| 18 | 436 | 40900 | 2477 | 428 | 60 | 745 | 83 | 533 | 654 | 20 | 44 | 1092 | 2250 | 730 | 3165 |
| 20 | 487 | 49300 | 3604 | 538 | 68 | 815 | 89 | 584 | 724 | 24 | 44 | 1194 | 2400 | 730 | 3677 |
| 24 | 589 | 78000 | 5048 | 753 | 85 | 940 | 102 | 692 | 838 | 24 | 51 | 1397 | 2925 | 730 | 6270 |
| 30 | 735 | 122000 | 7592 | 1133 | 107 | 1130 | 114 | 857 | 1022 | 28 | 54 | 1651 | 3650 | 730 | 10503 |
| 36 | 874 | 178500 | 12441 | 1633 | 127 | 1315 | 124 | 1022 | 1194 | 28 | 67 | 2083 | 4325 | 730 | 18150 |
| 42 | 1020 | 252000 | 16257 | 2134 | 138 | 1405 | 168 | 1168 | 1283 | 28 | 67 | 2438 | 5200 | 730 | 24200 |
| 48 | 1166 | 326000 | 21030 | 2760 | 158 | 1595 | 189 | 1334 | 1461 | 32 | 73 | 2540 | 5700 | 730 | 31900 |

**Figure:** E54BG.13 / E54DG.13

**Class:** 900

| STANDARDS | |
|---|---|
| **Design** | API 6D & ASME B16.34 |
| **Face to Face** | API 6D & ASME B16.10 |
| **Flange** | ASME B16.47 (Serie A) & ASME B16.5 |




## Test Pressure

| PN | Class | Shell | Closure | Air |
|---|---|---|---|---|
| 160 | 900 | 230 Bar | 168 Bar | 6 Bar |

## Working Pressure (for group 1.1 materials)

| -29 +38 °C Max | +100 °C Max |
|---|---|
| 153 Bar | 140 Bar |

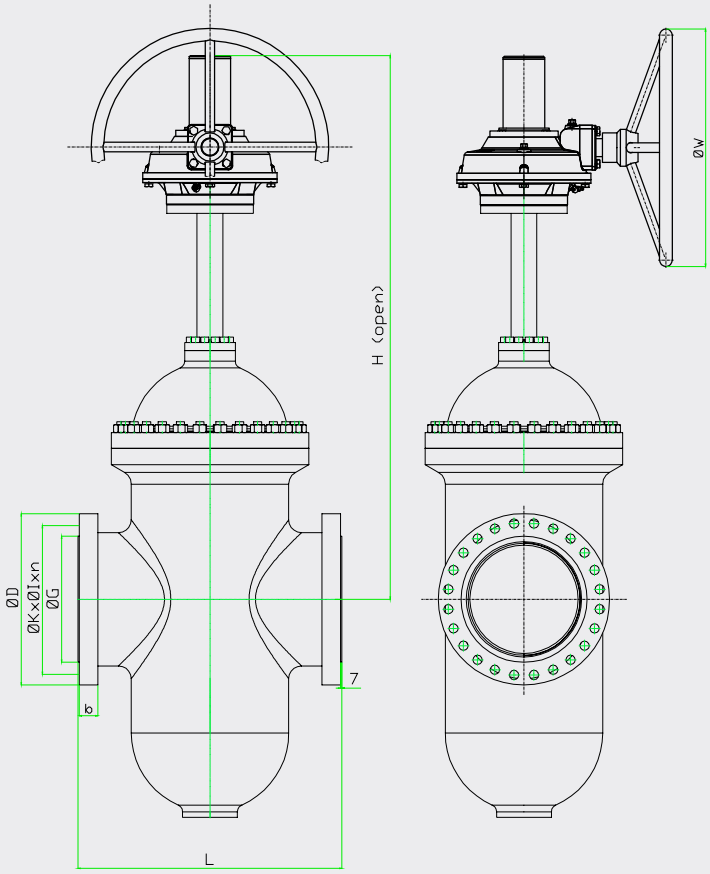
## Dimensions & Weight

| NPS | ID | Kv | Torque | Thrust | Turn | D | b | g | k | n | I | L | H | W | Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inch | mm | $m^3/h$ | Nm | kN | No | mm | mm | mm | mm | no | mm | mm | mm | mm | kg |
| 6 | 150 | 3720 | 419 | 106 | 28 | 380 | 56 | 216 | 318 | 12 | 32 | 610 | 1175 | 610 | 402 |
| 8 | 201 | 6800 | 766 | 168 | 37 | 470 | 64 | 270 | 394 | 12 | 38 | 737 | 1429 | 730 | 663 |
| 10 | 252 | 11950 | 1279 | 247 | 38 | 545 | 70 | 324 | 470 | 16 | 38 | 838 | 1680 | 730 | 1155 |
| 12 | 303 | 18600 | 1711 | 330 | 44 | 610 | 80 | 381 | 533 | 20 | 38 | 965 | 1873 | 730 | 1796 |
| 14 | 322 | 23500 | 2177 | 376 | 48 | 640 | 86 | 413 | 559 | 20 | 41 | 1029 | 2022 | 730 | 2595 |
| 16 | 373 | 30900 | 2781 | 480 | 54 | 705 | 89 | 470 | 616 | 20 | 44 | 1130 | 2121 | 730 | 3665 |
| 18 | 423 | 40900 | 3911 | 611 | 62 | 785 | 101.6 | 533 | 686 | 20 | 51 | 1219 | 2446 | 730 | 5895 |
| 20 | 471 | 49300 | 5014 | 748 | 70 | 855 | 108 | 584 | 749 | 20 | 54 | 1321 | 2626 | 730 | 7774 |
| 24 | 570 | 78000 | 8668 | 1138 | 84 | 1040 | 140 | 692 | 902 | 20 | 67 | 1549 | 3127 | 730 | 10212 |
| 30 | 712 | 114668 | 11299 | 1685 | 112 | 1230 | 149 | 857 | 1086 | 20 | 79 | 1727 | 3920 | 730 | 13089 |
| 36 | 855 | 159000 | 18514 | 2430 | 131 | 1460 | 172 | 1022 | 1289 | 20 | 92 | 2324 | 4750 | 730 | 16666 |

**Figure:** E55BJG.13 / E55DJG.13

**Class:** 1500

| | STANDARDS |
|---|---|
| **Design** | API 6D & ASME B16.34 |
| **Face to Face** | API 6D & ASME B16.10 |
| **Flange** | ASME B16.47 & ASME B16.5 |




## Test Pressure

| PN | Class | Shell | Closure | Air |
|---|---|---|---|---|
| 250 | 1500 | 383 Bar | 281 Bar | 6 Bar |

## Working Pressure (for group 1.1 materials)

| -29 +38°C | +100°C Max |
|---|---|
| 256 Bar | 233 Bar |

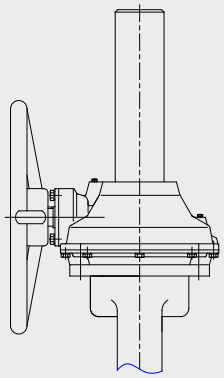
## Dimensions & Weight

| NPS | ØID | Kv | Torque | Thrust | Turn | ØD | b | Øg | Øk | n | ØI | L | H | W | e | RTJ | ~ Wt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| inch | mm | $m^3/h$ | Nm | kN | No | mm | mm | mm | mm | no | mm | mm | mm | mm | mm | no | kg |
| 6 | 144 | 3720 | 623 | 157 | 28 | 395 | 83 | 248 | 318 | 12 | 38 | 711 | 1230 | 610 | 10 | R46 | 605 |
| 8 | 192 | 6800 | 1385 | 267 | 30 | 485 | 92 | 318 | 394 | 12 | 45 | 841 | 1530 | 730 | 11 | R50 | 924 |
| 10 | 239 | 10053 | 2218 | 383 | 38 | 585 | 108 | 371 | 483 | 12 | 51 | 1000 | 1760 | 730 | 11 | R54 | 1617 |
| 14 | 315 | 23500 | 4203 | 627 | 48 | 750 | 133.4 | 489 | 635 | 16 | 60 | 1276 | 2300 | 730 | 16 | R63 | 3003 |
| 16 | 360 | 30900 | 5203 | 776 | 54 | 825 | 146.1 | 546 | 705 | 16 | 67 | 1407 | 2600 | 730 | 18 | R67 | 4664 |
| 18 | 406 | 34410 | 7556 | 992 | 65 | 915 | 162 | 613 | 775 | 16 | 73 | 1559 | 2800 | 730 | 18 | R71 | 6292 |
| 20 | 454 | 45813 | 9099 | 1194 | 76 | 985 | 178 | 673 | 832 | 16 | 79 | 1686 | 3000 | 730 | 18 | R75 | 7611 |
| 24 | 546 | 70710 | 14250 | 1870 | 96 | 1170 | 203.2 | 794 | 991 | 16 | 92 | 1972 | 3600 | 730 | 21 | R79 | 12016 |

## Optional Requirements

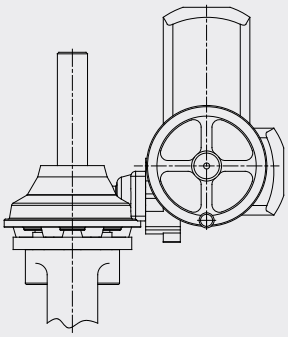
Operation options are as follows.

**G:** Gearbox should be preferred when torque values are beyond 150 Nm for the differential pressure indicated on tables. Reduction devices are added when available gear box is not sufficient.

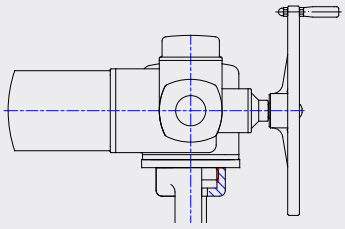


G (Gearbox)

**GE/E:** Electric actuators are recommended for quick & easy operation of valves, together with remote control circuits when required.

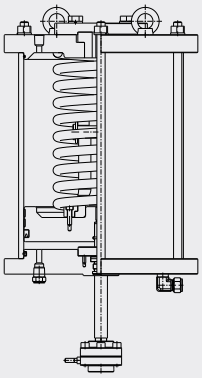


GE (Electric Actuator with Gearbox)

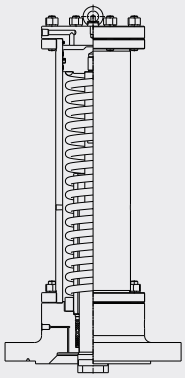


E (Electric Actuator)

**P/H:** Pneumatic or hydraulic actuators are equipped if pressurised air or hydraulic power is available.



P (Pneumatic Linear Spring Return Actuator)

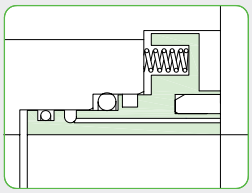


H (Hydraulic Linear Spring Return Actuator)

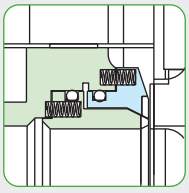
## Technical Properties

## Type “B” Slab Gate

**Slab Gate:** API 6D defines this type as “Slab-Gate”, but it may be called as “Parallel Disc”. Seat faces are protected at open/close positions. Bleeding of body cavity is available which allows monitoring of tight shut off. Over pressure on rings is prevented through body guides. Sort of seat faces are ENP25V750, 13Cr, 316, CoCr-A (Stellite), Monel or TCC.



**Seat Ring:** Positive intersection of seat faces is provided through floating feature. Body seat guide is resistant to corrosion by means of its complete ENP coating and facilitates the movement of o-rings inside without any deformation. DBB or DIB for open /close optional self- relief system. (Relief valve should be preferred instead of self-relief)



**“TRIPLESEAT®” Seat ring (Optional for 20” & larger sizes):**

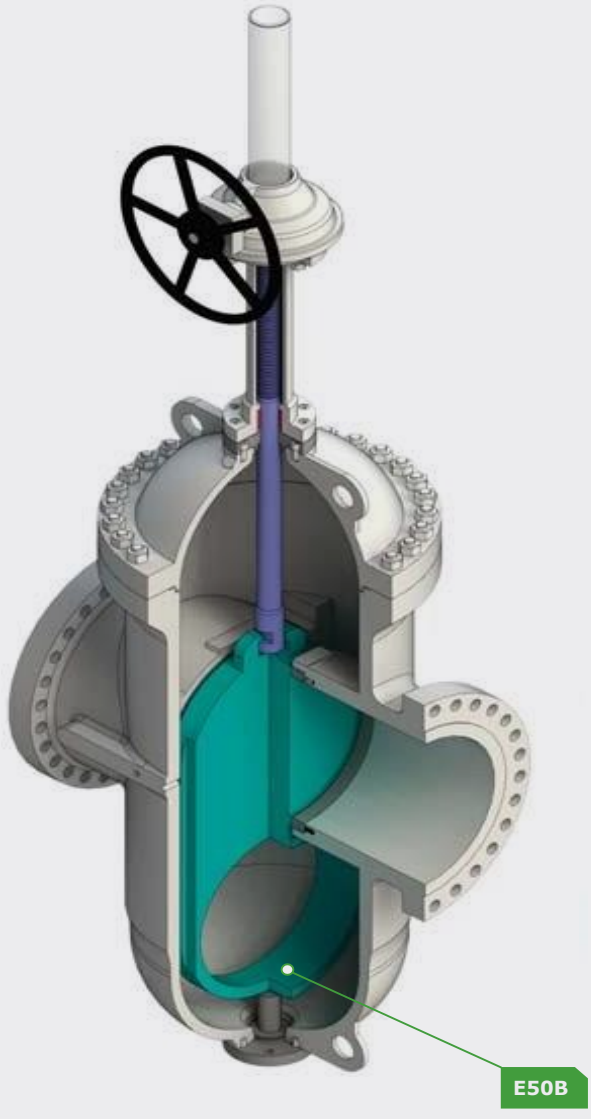
1.Internal Ring “Lubrication “. (Adequate itself for tightness on its own)

2.“Seat ring“. (Pressure sealed individually)

3.Double ring cavity full of sealant.

(A sealing interface is established with lubricant between the rings as in the lubricated plug valves)

4.Maintenance is achieved by function of “Seat flushing®“. During periodic maintenance on live pipeline, slightly overpressure on seat o-rings than the line pressure a flow in to the line is created by which foreign materials placed in seat cavities are moved in to the line. This is the unique solution of periodic maintenance on live pipeline. Its design is convenient for quick renewal after draining the fluid and pressure without taking the valve from the line. (Rings that are without o-rings can not be renewed unless the valve is taken out of the line.)



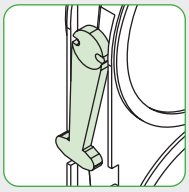
## Type ''D'' Expanding Gate

### Double Wedge & Parallel Expansion Gate

The expanding gate is equipped with a two piece plate therefore this design is allow to expansion for sealing.

When the valve is closed, it acts as a double barrier.

The thrust which is applied by the stem causes the gate to expand and ensure a tight sealing across the seats.



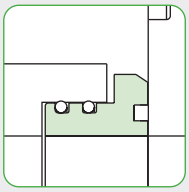
### Stopper & Guide Arm

Device prevents expansion of double gates during running,

the heads of stoppers are free when achieved open or close positions, allowing the expansion;

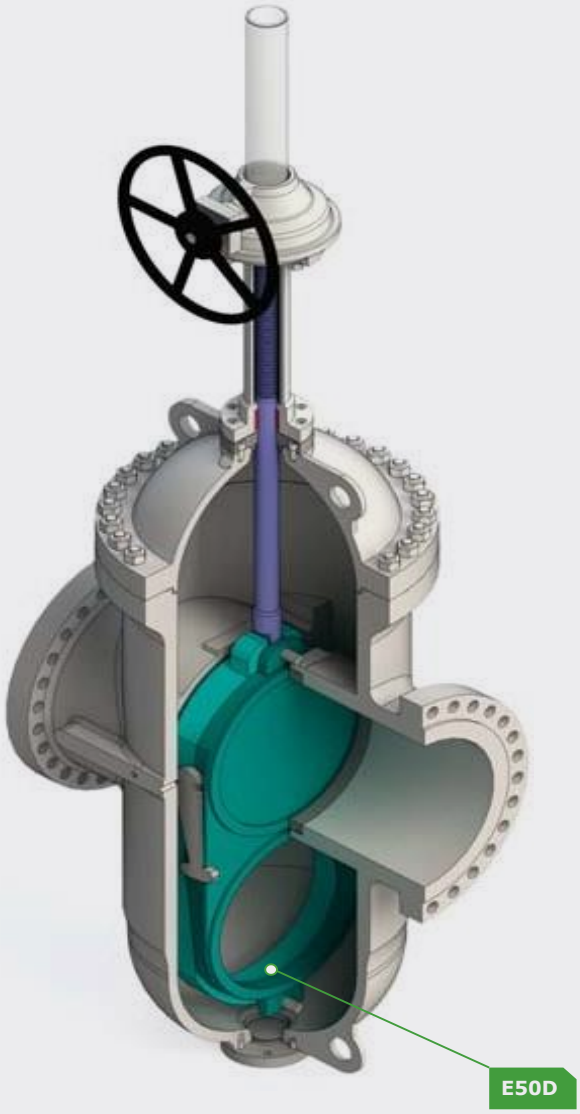
1 is stop being at the end of it's stroke,

2 is continuing to secure tight interface.



### Seat Ring

Both seat rings are placed with pressure in housings. Ring materials are according to trim or request.




VASTAS
36
600
WCB






VASTAS

# REFERENCE PROJECTS, E50B/D

| | | | | | |
|---|---|---|---|---|---|
| Tuzla Organized Industrial Zone | Natural Gas Distribution | Turkey | BOTAS | 12" | 2008 |
| Erdemir Production Facility, Coke Oven Plant Project | Economizing System | Turkey | Erdemir | 24" | 2012 |
| Ceyhan Oil Terminal | Crude Oil Transportation | Turkey | BOTAS International | 16"-36" | 2013 |
| Erdemir Production Facility, Coke Oven Plant Project | Other / Economizing System | Turkey | Erdemir | 10"-12" | 2014 |
| EPCL Chemical Complex, Quench Circulation Pump Filter Project (GF 300/313-AB) | Petrochemical Plant | Pakistan | Engro Polymer & Chemicals LTD. | 14" | 2014 |
| The Nawara Development Project | Natural Gas Transportation | Tunisia | OMV Tunisia | 6" | 2015 |

# E50B/D REFERENCE, CLIENT LIST

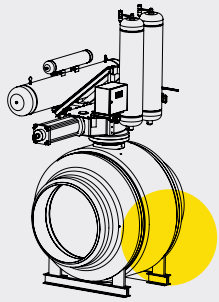
- ADCO, Abu Dhabi
- Afghan National Petroleum,Afghanistan
- Afyon Geothermal, Turkey
- Aksa, Turkey
- Aladdin Middle East Ltd., Turkey
- ALBA, Bahrain
- Atlas Oil Company, Turkey
- Axion Energy, Argentina
- Aygaz A.S., Turkey
- Azmeco, Azerbaijan
- Baskentgaz, Turkey
- Batumi Oil Terminal, Georgia
- Bestepeler Energy, Turkey
- Biosun, Turkey
- Blantyre Water Authority, Malawi
- BOTAS, Turkey
- BP, Azerbaijan
- BP, Algeria
- BP, Turkey
- BTC Company, Turkey
- Bulgarian Water Authority, Bulgaria
- Calik Enerji, Turkey
- Calik Enerji, Turkmenistan
- Celikler Geothermal, Turkey
- Channel Energy (POTI) Ltd., Georgia
- Dioki Petrokimya Sanayi A.S., Turkey
- Dowaksa, Turkey
- Dragon Oil, Turkmenistan
- Efeler Geothermal, Turkey
- Egypt Gas, Egypt
- Enerjeo Kemaliye Enerji Uretim A.S., Turkey
- Entek, Turkey
- Erdemir, Turkey
- Etimaden, Turkey
- Fet-Gaz, Turkey
- Gama Holding, Turkey
- GASCO, Abu Dhabi
- Gazprom
- Gazprom, Iraq
- Greeneco, Turkey
- Gurmat, Turkey
- Hyundai
- Hyundai, Morocco
- ICDAS, Turkey
- IGA, Turkey
- Ministry of Energy, Iraq
- IRESEN, Morocco

| | | | | | |
|---|---|---|---|---|---|
| **Conrad LNG Bunker** | Bunker Barge | USA | Conrad Petroleum & GTTNA Joint Venture | 6" | 2015 |
| **OPET Marmara Terminal** | Fuel Oil Storage | Turkey | OPET | 14" | 2016 |
| **Istanbul Grand Airport (IGA) Project** | Fuel Tank Farm | Turkey | IGA | 4"-30" | 2017 |
| **Istanbul Grand Airport (IGA) Project** | Fuel Tank Farm | Turkey | IGA | 14"-36" | 2017 - 2018 |
| **TANAP Polatli Constrution Yard** | Natural Gas Transportation | Turkey | TANAP | 24" | 2018 |

- Isdemir, Turkey
- ISKI, Turkey
- Jordan Industrial Ports Company, Jordan
- Ministry of Energy and Mineral Resources, Jordan
- Jordan Petroleum Refinery Company, Jordan
- Kar Group, Turkey
- Kar Group, Iraq
- KPO, Kazakhstan
- Karadeniz Holding, Turkey
- Kipas Holding, Turkey
- KOC, Kuwait
- Kolin, Turkey
- Marsa, Turkey
- Maspo Energy, Turkey
- N.V. Turkse Perenco, Turkey
- OPET, Turkey
- Petrofac, UAE
- Petrofac, Iraq
- Petrol Ofisi A.S., Turkey
- PT Perusahaan Gas Negara, Indonesia
- Polisan Holding, Turkey
- Pozitif Energy, Turkey
- Shell, Qatar
- OMV, Romania
- Saray Aluminium, Turkey
- Sasa Polyester San. A.S., Turkey
- SOCAR, Turkey
- SOCAR, Azerbaijan
- SOCAR, Georgia
- SOCAR Star Refinery, Turkey
- TANAP Project Company, Turkey
- Temsan, Turkey
- Thy-Opet, Turkey
- Toros Agri-Industry and Trade Co., Turkey
- Turkish Petroleum, Turkey
- Transgaz, Romania
- Tumad Mining Industry and Trade Co.,Turkey
- TUPRAS, Turkey
- Ministry of Energy, Turkmenistan
- Turkmengaz, Turkmenistan
- Tuzla Geothermal Energy Co., Turkey
- Ustay Construction-Contracting and Trading Company, Turkey
- Vega, Turkey
- YPF, Argentina
- Zadco, UAE
- Zorlu Energy, Turkey

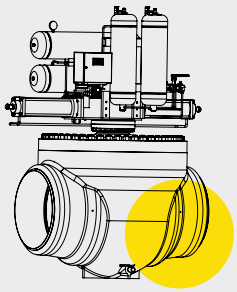
# PRODUCT RANGE

Main Product Range are Ball Valves, Gate Valves, Check Valves, Globe Valves, Plug Valves, Hydraulic Actuators & Pneumatic Actuators.



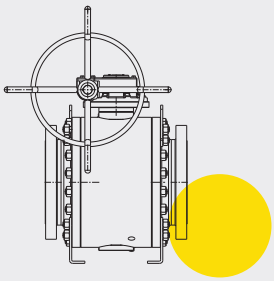
### FULL WELDED BALL VALVES

API 6D monogrammed
Safety Integrity Level
(SIL) 2 & 3, ATEX, PED



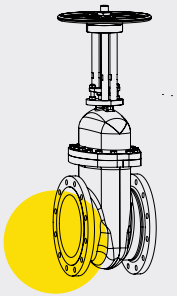
### TOP ENTRY BALL VALVE

API 6D monogrammed
Safety Integrity Level (SIL)
2 & 3, ATEX, PED



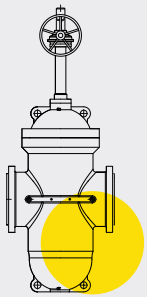
### SPLIT BODY BALL VALVES

API 6D monogrammed
Safety Integrity Level (SIL)
2 & 3, ATEX, PED



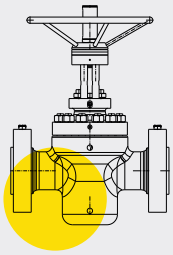
### WEDGE GATE VALVES

API 600 monogrammed
Safety Integrity Level (SIL) 2 & 3,
ATEX, PED



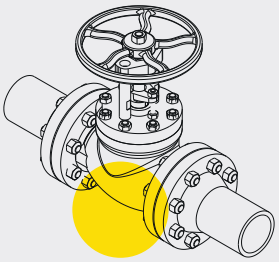
### CONDUIT GATE VALVES

API 6D monogrammed
Safety Integrity Level (SIL) 2 & 3,
ATEX, PED



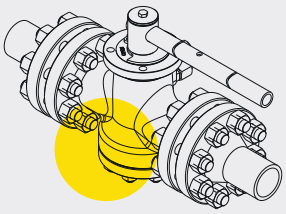
### API 6A GATE VALVES

API 6A monogrammed
Safety Integrity Level (SIL)
2 & 3, ATEX, PED



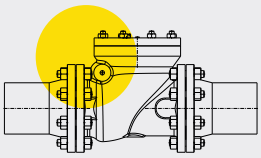
### GLOBE VALVES

BS 1873 / API 623
Safety Integrity Level (SIL)
2 & 3, ATEX, PED



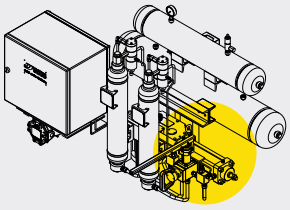
### PLUG VALVES

API 6D monogrammed
ATEX, PED



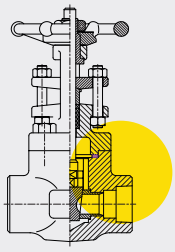
### CHECK VALVES

API 6D monogrammed
ATEX, PED



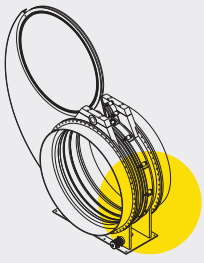
### HYDRAULIC & PNEUMATIC ACTUATORS

ASME U-Stamp, Safety Integrity
Level (SIL) 2 & 3, ATEX, PED



### COMPACT FORGED VALVES

API 6D / API 602 / API 608/ BS 5352
/ISO 17292
Safety Integrity Level (SIL)
2 & 3, (E604 & E60T)



### TAILOR MADE

As a designing and manufacturing company we are not limited with the product range, we offer tailor made valve and actuator solutions as well.

VALVES & ACTUATORS

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