



FLUID CONTROL

Product catalogue



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OUR COMPANY



HISTORY

The group of Independent KLINGER Companies has its origins in 1886, founded by Austrian engineer Richard Klinger who pioneered compressed asbestos gasket materials. Product innovation and a problem solving philosophy have been the cornerstones of KLINGER operating policy since its inception. The constant development of new products and technical services to meet the demand of the Fluid Sealing and Fluid Control industries has resulted in KLINGER becoming a global player and market leader in almost every industry sector, with Global Group sales exceeding €420 million. Today KLINGER has production plants and service organisations in almost every industrialised country in the world with extensive research and development facilities in Switzerland and Austria.

The Richard KLINGER SA (Pty) Limited operation was commissioned in May 1968 to produce sheet jointing for the fast-developing Southern African industrial and mining markets. From humble beginnings, and with National Trading Company (Pty) Limited as their partners, KLINGER products soon became synonymous with quality and innovation in the petrochemical, mining, pulp and paper, pharmaceutical, and metal melting industries in the Southern African region. With South Africa becoming part of the global economy after the first democratic elections in 1994, the Directors of both companies saw a need to further develop the product range and capacity of KLINGER and so established a joint venture aptly named KLINGER NTC (Pty) Limited. At the same time, KLINGER's largest competitor, T&N Industrial Products, was acquired and the entire operation relocated to the 14000m² premises currently occupied in Wadeville, Gauteng.

In January 1999, KLINGER exercised its option to repurchase the 50% share owned by National Trading Company in KLINGER NTC, thus resulting in KLINGER (Pty) Limited becoming a wholly owned subsidiary of the Group of Independent KLINGER Companies. This development held a number of lucrative opportunities for the South African subsidiary, not least of which was the opportunity to supply large format sheet jointing to Group companies on a global basis. Today, South Africa also provides gland packings to KLINGER group companies internationally and as a result of its export drive, is a substantial generator of foreign exchange and has witnessed volumes increasing almost two-fold through its Wadeville plant.

KLINGER Mzansi was formed in 2003 in support of Government's empowerment drive, and is now a level 5 BBBEE accredited company. In 2006, Wright-Seal and Plastics, based in Cape Town, were acquired in order to secure a national footprint. A further development resulted from a need to differentiate KLINGER and KLINGER Mzansi from their competition and to add value to the sales and marketing of their range of products. Customers were demanding a service which inevitably led to the training of end-user staff on gasket installation, best practices and eventually to the supervised fitment of gaskets within bolted connections. Allied to this concept, was the move towards joint integrity management. Through the Group acquisition of Australian based ATMECO, KLINGER Mzansi has been able to expand their service offering with the addition of a leak detection and repair capability.

To further develop and support the International KLINGER Fluid Control product ranges, in 2013, KLINGER SA acquired local valve company GC Baars. In a move to further improve customer experience and create easier access to its products and services, the group was restructured in 2016. The Group was reduced from the four organisations, namely, KLINGER Mzansi, GC Baars, KLINGER SA and Wright-Seal and Plastics, into two divisions - comprising Fluid Control and Fluid Sealing. The new arrangement reduces product overlap and will result in a higher level of service, less confusion and easier access for our customers.

QUALITY

KLINGER Mzansi has implemented a documented Quality Management System throughout all of its operations that complies with the requirements of ISO 9001 : 2008. Accreditation of the Quality Management System is provided by Lloyds Register and is subjected to audits on a regular basis.

HEALTH AND SAFETY

Written policies and procedures are followed to ensure the continued wellbeing of all of our personnel. As a minimum, the standards required by the Occupational Health and Safety Act and associated Regulations are complied within our manufacturing facilities and office environments. A formal Health and Safety Committee, comprising representatives from all our divisions, facilities and branches, meets on a regular basis to assess the effectiveness of the management systems that are utilised.

APPLICATIONS AND INDUSTRIES

With a head office situated in Wadeville (Fluid Sealing) and offices in Sunnyrock (Fluid Control), and distribution networks throughout Southern Africa, KLINGER is well positioned to supply Fluid Sealing and Fluid Control products as well as Field Services to our clients throughout South Africa and Africa.

KLINGER supplies products and services from the following divisions:

Fluid Control

- » Wedge Gate Valves
- » Knife Gate Valves
- » Globe Valves
- » Needle Valves
- » Bottom Outlet Valves
- » Check Valves
- » Wafer Check Valves
- » Foot Valves
- » Ball Valves
- » Butterfly Valves
- » Pressure Reducing Valves
- » Boiler Controls
- » Level Gauges
- » Safety Relief Valves
- » Y-Strainers
- » Pneumatic Actuators & Accessories
- » Resilient Seal Gate Valves
- » Piston Valves
- » Rupture Discs

Fluid Sealing

- » Soft Cut Gaskets/ Sheetting
- » Semi-Metallic/ Metallic Gaskets
- » Mechanical Packing
- » Engineering Plastics
- » Related Products

Field Services

- » Leak Risk Management
- » Joint Integrity Services
- » Training

INDUSTRIAL APPLICATIONS

KLINGER products are used in industrial applications within the following sectors:

- » Petrochemical
- » Sugar
- » Refining
- » Farming & Irrigation
- » Steel Industry
- » Metal & Mineral Extraction & Processing
- » Transportation
- » Power Generation
- » Shipping
- » Chemical
- » Food & Beverage
- » Pulp and Paper
- » Original Equipment Manufacturers
- » Pharmaceutical
- » Vehicle Manufacturing
- » Bulk Storage & Handling

OUR CUSTOMERS

Some of the major companies that currently make use of KLINGER Mzansi's products and services are:

- | | |
|-------------------|--------------------------|
| » Alusaf | » Goldfields |
| » Impala Platinum | » Tongaat Hulett |
| » Anglo Gold | » Illovo |
| » Arcelor Mittal | » Xstrata |
| » Anglo Platinum | » Mpact |
| » Mondi | » SAPREF |
| » BHP Billiton | » Omnia |
| » Natref | » Karbochem |
| » Chevron | » Exxaro |
| » Petro SA | » Continental |
| » Columbus | » Bridgestone/ Firestone |
| » AB InBev | » Transnet |
| » Engen | » First Quantum Minerals |
| » Sappi | » Glencore |
| » Eskom | » Vedanta Resources |
| » Sasol | » Freeport McMoRan |

FLUID CONTROL PRODUCTS

WEDGE GATE VALVES

BRASS GATE VALVES



- 156** **Brass gate valve**, suitable for 16 bar at 100°C.
Non-rising stem, screwed bonnet, screwed BSP.
15mm to 100mm
- 151A** **DZR Brass gate valve**, PN 20/Class 125, suitable for 20 bar at 100°C/9 bar at 180°C.
NRS, screwed bonnet, DZR brass wedge disc, screwed BSP.
8mm to 80mm

BRONZE GATE VALVES



- D151X** **Bronze gate valve**, PN 25/Class 150, suitable for 25 bar at 100°C/10,5 bar at 186°C.
NRS, screwed bonnet, bronze wedge disk, screwed BSP.
8mm to 80mm
- D159** **Bronze gate valve**, PN 32/Class 200, suitable for 32 bar at 100°C/14 bar at 198°C.
NRS, screwed bonnet, bronze wedge disk, screwed BSP.
15mm to 50mm
- D166** **Bronze gate valve**, PN 32/Class 200, suitable for 32 bar at 100°C/14 bar at 198°C.
Rising stem, screwed bonnet, bronze wedge disk, screwed BSP.
15mm to 50mm
- D180** **Bronze gate valve**, PN 32/Class 200, suitable for 32 bar at 120°C/14 bar at 260°C.
Rising stem, union bonnet, bronze wedge disc, screwed BSP.
15mm to 50mm

CAST IRON GATE VALVES



- F52** **Cast iron gate valve**, Class 100, suitable for 14 bar at 38°C/7 bar at 170°C.
Non-rising stem, inside screw, bronze trim, flanged BST10 Table 'D or E'.
50mm to 200mm
- VT68** **Cast iron gate valve**, Class 125, suitable for 13,8 bar at 65°C/8,6 bar at 230°C.
Non-rising stem, inside screw, 13Cr trim, flanged ANSI 125.
50mm to 600mm
- VT84** **Cast iron gate valve**, Class 125, suitable for 13,8 bar at 65°C/8,6 bar at 230°C.
Rising stem, OS&Y, 13Cr trim, flanged ANSI 125.
50mm to 600mm

CAST STEEL GATE VALVES



- 5.150** **Cast steel 150LB gate valve**, suitable for 19,6 bar at 38°C/5,6 bar at 425°C.
Flexi wedge disc, OS&Y, WCB/Trim 8, flanged ANSI 150RF. Enclosed bevel gearbox operated 300mm and above.
50mm to 600mm
- 5.300** **Cast steel 300LB gate valve**, suitable for 51,1 bar at 38°C/27,2 bar at 425°C.
Flexi wedge disc, OS&Y, WCB/Trim 8, flanged ANSI 300RF. Enclosed bevel gearbox operated 200mm and above.
50mm to 300mm
- 5.600** **Cast steel 600LB gate valve**, suitable for 102,1 bar at 38°C/54,5 bar at 425°C.
Flexi wedge disc, OS&Y, WCB/Trim 8, flanged ANSI 600RF. Enclosed bevel gearbox operated 150mm and above.
50mm to 200mm

FLUID CONTROL PRODUCTS

WEDGE GATE VALVES

FORGED STEEL GATE VALVES



- | | |
|-----------------|--|
| HL-100 | Forged steel 800LB gate valve , suitable for 136 bar at 38°C/76 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 8, screwed NPT or SW.
15mm to 50mm |
| WL-100 | Forged steel 800LB gate valve , suitable for 136 bar at 38°C/76 bar at 427°C. Welded bonnet, OS&Y, A105N/Trim 5, screwed NPT or SW or BW.
15mm to 50mm |
| 9HL-100 | Forged steel 1500LB gate valve , suitable for 255 bar at 38°C/142 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 8, screwed NPT or SW or BW.
15mm to 50mm |
| L1-100 | Forged steel 150LB gate valve , suitable for 19,6 bar at 38°C/5,5 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 150RF.
15mm to 50mm |
| L3-100 | Forged steel 300LB gate valve , suitable for 51,0 bar at 38°C/28,2 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 300RF.
15mm to 50mm |
| L6-100 | Forged steel 600LB gate valve , suitable for 102 bar at 38°C/56,9 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 600RF.
15mm to 50mm |
| 6HWL-100 | Forged steel 600LB gate valve , suitable for 102 bar at 38°C/56,9 bar at 427°C. Welded bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 600RF.
15mm to 50mm |

Details of valves with different material combinations available on request, i.e. A105N/Trim 9, LF2N/Trim 2, F11/Trim 5, F304L/Trim 2, F316L/Trim 10, F316L/Trim 16, etc.

CAST STAINLESS STEEL GATE VALVES



- | | |
|---------------|---|
| KG-200 | Stainless steel 200lb/in² gate valve , suitable for 13,8 bar up to 177°C. Solid wedge disc, non-rising stem, screwed bonnet, in CF8M/316SS, screwed BSP.
15mm to 50mm |
| KG-150 | Stainless steel 150LB gate valve , suitable for 19,0 bar at 38°C/12 bar at 250°C. Flexi wedge disc, OS&Y, CF8M/316SS, flanged ANSI 150RF.
25mm to 200mm |

FLUID CONTROL PRODUCTS

KNIFE GATE VALVES

KNIFE GATE VALVES



- EX-IM** Knife gate valve with metal seat, suitable for up to 10 bar (size determined). Max temperature 120°C. Cast iron body, 304SS gate, type ST packing. Semi-lugged wafer body drilled & tapped to suit PN 10RF flanges. **50mm to 600mm**
- EX-IR** Knife gate valve with EPDM seat, suitable for up to 10 bar (size determined). Max temperature 120°C. Cast iron body, 304SS gate, type ST packing. Semi-lugged wafer body drilled & tapped to suit PN 10RF flanges. **50mm to 600mm**
- EX-SM** Knife gate valve with metal seat, suitable for up to 10 bar (size determined). Max temperature 120°C. CF8M body, 316SS gate, type ST packing. Semi-lugged wafer body drilled & tapped to suit PN 10RF flanges. **50mm to 600mm**
- EX-SR** Knife gate valve with EPDM seat, suitable for up to 10 bar (size determined). Max temperature 120°C. CF8M body, 316SS gate, type ST packing. Semi-lugged wafer body drilled & tapped to suit PN 10RF flanges. **50mm to 600mm**
- VG** Slurry Knife gate valve with natural rubber sleeves, suitable for 10 bar (size determined) max temperature 75°C. Ductile iron body, 304SS gate, EPDM packing. Semi-lugged wafer body drilled & tapped to suit PN 10RF flanges, gearbox operated from 250mm. **50mm to 600mm**

Optional sleeves in EPDM and polyurethane, blacking plates and splash guards.

GLOBE VALVES

BRONZE GLOBE VALVES



- D4** Bronze globe valve, PN 20/Class 125, suitable for 20 bar at 100°C/9 bar at 180°C. Screwed bonnet, bronze spherical disc, screwed BSP. **15mm to 50mm**
- D7** Bronze globe valve, PN 32/Class 200, suitable for 32 bar at 100°C/14 bar at 198°C. Union bonnet, renewable R-PTFE disc, screwed BSP. **15mm to 50mm**
- D15** Bronze globe valve, PN 32/Class 200, suitable for 32 bar at 100°C/14 bar at 198°C. Screwed bonnet, renewable R-PTFE disc, screwed BSP. **15mm to 50mm**
- D16** Bronze globe valve, PN 32/Class 200, suitable for 32 bar at 120°C/14 bar at 260°C. Screwed bonnet, renewable 13Cr disc and seat, screwed BSP. **8mm to 80mm**

CAST IRON GLOBE VALVES



- VT372** Cast iron globe valve, Class 125, suitable for 13,8 bar at 65°C/8,6 bar at 230°C. Angle disc, rising stem, OS&Y, 13Cr trim, flanged ANSI 125. **50mm to 300mm**

FLUID CONTROL PRODUCTS

GLOBE VALVES

CAST STEEL GLOBE VALVES



- 6.150 Carbon steel 150LB globe valve**, suitable for 19,6 bar at 38°C/5,6 bar at 425°C. Swivel plug disc, OS&Y, WCB/Trim 8, flanged ANSI 150RF.
50mm to 200mm
- 6.300 Carbon steel 300LB globe valve**, suitable for 51,1 bar at 38°C/27,2 bar at 425°C. Swivel plug disc, OS&Y, WCB/Trim 8, flanged ANSI 300RF.
50mm to 150mm
- 6.600 Carbon steel 600LB globe valve**, suitable for 102,1 bar at 38°C/54,5 bar at 425°C. Swivel plug disc, OS&Y, WCB/Trim 8, flanged ANSI 600RF.
50mm to 100mm

FORGED STEEL GLOBE VALVES



- HL-300 Carbon steel 800LB globe valve**, suitable for 136 bar at 38°C/76 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 8, screwed NPT or SW.
15mm to 50mm
- WL-300 Carbon steel 800LB globe valve**, suitable for 136 bar at 38°C/76 bar at 427°C. Welded bonnet, OS&Y, A105N/Trim 5, screwed NPT or SW or BW.
15mm to 50mm
- 9HL-300 Carbon steel 1500LB globe valve**, suitable for 255 bar at 38°C/142 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 8, screwed NPT or SW or BW.
15mm to 50mm
- L1-300 Carbon steel 150LB globe valve**, suitable for 19,6 bar at 38°C/5,5 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 150RF.
15mm to 50mm
- L3-300 Carbon steel 300LB globe valve**, suitable for 51,0 bar at 38°C/28,2 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 300RF.
15mm to 50mm
- L6-300 Carbon steel 600LB globe valve**, suitable for 102 bar at 38°C/56,9 bar at 427°C. Bolted bonnet, OS&Y, A105N/Trim 5, integral flanged ANSI 600RF.
15mm to 50mm

Details of valves with different material combinations available on request, i.e. A105N/Trim 9, LF2N/Trim 2, F11/Trim 5, F304L/Trim 2, F316L/Trim 10, F316L/Trim 16, etc.

CAST STAINLESS STEEL GLOBE VALVES



- KL-200 Stainless steel 200lb/in² globe valve**, suitable for 13,8 bar up to 177°C. Swivel plug disc, screwed bonnet, in CF8M/316SS, screwed BSP.
15mm to 50mm
- KL-150 Stainless steel 150LB globe valve**, suitable for 19,0 bar at 38°C/12 bar at 250°C. Swivel plug disc, OS&Y, in CF8M/316SS, flanged ANSI 150RF.
25mm to 100mm

FLUID CONTROL PRODUCTS

NEEDLE VALVES

NEEDLE VALVES



- D71** **Bronze needle valve**, PN 32/Class 200, suitable for 32 bar at 100°C/14 bar at 198°C. Screwed bonnet, bronze needle point disc, screwed BSP.
8mm to 20mm
- 147C** **Carbon steel needle valve**, suitable for 250 bar at 120°C/165 bar at 400°C. 316SS internals, graphite packing, metal seat, screwed BSP.
8mm to 25mm
- 147S** **Stainless steel needle valve**, suitable for 250 bar at 120°C/165 bar at 400°C. 316SS internals, graphite packing, metal seat, screwed BSP.
8mm to 25mm

BOTTOM OUTLET VALVES

BOTTOM OUTLET VALVES



- BOVR** **Bottom outlet valve**, rising spherical disc, fabricated in CF8M/316SS, 16 bar WOG. 60° outlet, flanged PN 16RF. Also available with 45° or 90° outlets, conical disc profile and other flange connections. Optional materials include stellited surfaces, various elastomeric seats such as PTFE, Viton, etc.
50mm to 200mm

CHECK VALVES

BRASS CHECK VALVES



- 100** **EUROPA brass check valve**, suitable for 25 to 12 bar (size determined) at 100°C maximum. Piston type, spring loaded 304SS disc, NBR seat, screwed BSP.
10mm to 100mm
- 101** **BLOCK brass check valve**, suitable for 12 to 10 bar (size determined) at 100°C maximum. Piston type, spring loaded Polymer disc, NBR seat, screwed BSP.
15mm to 50mm
- 103** **YORK brass check valve**, suitable for 12 to 8 (size determined) bar at 100°C maximum. Piston type, spring loaded Polymer disc, NBR seat, screwed BSP.
15mm to 100mm
- 104** **ROMA brass check valve**, suitable for 25 to 18 bar (size determined) at 150°C maximum. Piston type, spring loaded 304SS disc, Viton seat, ¼" gas gauge connections, screwed BSP.
10mm to 50mm



- 130** **Brass check valve**, suitable for 16 to 8 bar (size determined) at 90°C maximum. Swing type, screwed BSP. NBR seat, (sizes 10mm to 50mm), metal seat (sizes 65mm to 100mm).
10mm to 100mm

FLUID CONTROL PRODUCTS

CHECK VALVES

BRONZE CHECK VALVES



- D104** **Bronze check valve**, PN 20/Class 125, suitable for 20 bar at 100°C/9 bar at 180°C. Straight pattern, lift type, screwed cap, brass/ bronze disc, screwed BSP.
15mm to 50mm
- D116** **Bronze check valve**, PN 32/Class 200, suitable for 32 bar at 100°C/14 bar at 198°C. Straight pattern, lift type, union cap, renewable R-PTFE disc, screwed BSP.
8mm to 50mm
- D138** **Bronze check valve**, PN 25/Class 150, suitable for 25 bar at 100°C/10,5 bar at 186°C. Straight pattern, swing type, screwed cap, bronze disc, screwed BSP.
10mm to 50mm
- D142** **Bronze check valve**, PN 32/Class 200, suitable for 32 bar at 120°C/14 bar at 260°C. Y-pattern, swing type, screwed cap, regrindable bronze disc, screwed BSP.
15mm to 50mm

CAST IRON CHECK VALVES



- VT493** **Cast iron check valve**, Class 125, suitable for 13,8 bar at 65°C/8,6 bar at 230°C. Swing type, 13Cr trim, flanged ANSI 125.
50mm to 300mm

CAST STEEL CHECK VALVES



- 7.150** **Carbon steel 150LB check valve**, suitable for 19,6 bar at 38°C/5,6 bar at 425°C. Swing type, internal hinge pin, bolted cap, WCB/Trim 8, flanged ANSI 150RF.
50mm to 250mm
- 7.300** **Carbon steel 300LB check valve**, suitable for 51,1 bar at 38°C/27,2 bar at 425°C. Swing type, internal hinge pin, bolted cap, WCB/Trim 8, flanged ANSI 300RF.
50mm to 200mm
- 7.600** **Carbon steel 600LB check valve**, suitable for 102,1 bar at 38°C/54,5 bar at 425°C. Swing type, internal hinge pin bolted cap, WCB/Trim 8, flanged ANSI 600RF.
50mm to 150mm

FORGED STEEL CHECK VALVES



- HL-400** **Carbon steel 800LB check valve**, suitable for 136 bar at 38°C/76 bar at 427°C. Piston type disc, bolted cap, A105N/Trim 5, screwed NPT or SW or BW.
15mm to 50mm
- HL-500** **Carbon steel 800LB check valve**, suitable for 136 bar at 38°C/76 bar at 427°C. Ball type disc, bolted cap, A105N/Trim 8, screwed NPT or SW or BW.
15mm to 50mm
- HL-600** **Carbon steel 800LB check valve**, suitable for 136 bar at 38°C/76 bar at 427°C. Swing type disc, bolted cap, A105N/Trim 8 or 5, screwed NPT or SW or BW.
15mm to 50mm
- 9HL-400** **Carbon steel 1500LB check valve**, suitable for 255 bar at 38°C/142 bar at 427°C. Piston type disc, bolted cap, A105N/Trim 8, screwed NPT or SW or BW.
15mm to 50mm

Details of valves with different material combinations available on request, i.e. A105N/Trim 9, LF2N/Trim 2, F11/Trim 5, F304L/Trim 2, F316L/Trim 10, F316L/Trim 16, etc.

FLUID CONTROL PRODUCTS

CHECK VALVES

CAST STAINLESS STEEL CHECK VALVES



- KC-200** **Stainless steel 200lb/in² check valve**, suitable for 13,8 bar up to 177°C. Swing type, screwed cap, in CF8M/316SS, screwed BSP.
15mm to 50mm
- KC-150** **Stainless steel 150LB check valve**, suitable for 19,0 bar at 38°C/12 bar at 250°C. Swing type, bolted cap, CF8M/316SS, flanged ANSI 150RF.
25mm to 200mm

WAFER CHECK VALVES

DUAL PLATE CHECK



- 200EN** **Cast iron dual plate check valve**, PN 16, suitable for 16 bar up to 100°C. Nickel plated ductile iron plates, vulcanised EPDM seat, 316SS pins and springs.
50mm to 600mm
- 200ES** **Cast iron dual plate check valve**, PN 16, suitable for 16 bar up to 100°C. CF8M stainless steel plates, vulcanised EPDM seat, 316SS pins and springs.
50mm to 600mm
- 200NS** **Cast iron dual plate check valve**, PN 16, suitable for 16 bar up to 100°C. CF8M stainless steel plates, vulcanised NBR seat, 316SS pins and springs.
50mm to 600mm
- 200SES** **Cast CF8M dual plate check valve**, PN 16, suitable for 16 bar up to 100°C. CF8M stainless steel plates, vulcanised EPDM seat, 316SS pins and springs.
50mm to 600mm
- 200LES** **Cast iron dual plate check valve**, PN 16, suitable for 16 bar up to 100°C. CF8M stainless steel plates, EPDM cartridge liner, 316SS pin and springs.
50mm to 600mm

DISCO CHECK



- 170B** **Bronze check valve**, PN 16, suitable for 16 bar at 120°C/13 bar at 250°C. 316SS disc & spring, metal to metal seat.
15mm to 100mm
- 170C** **Carbon steel check valve**, PN 40, suitable for 40 bar at 120°C/21 bar at 400°C. 316SS disc & spring, metal to metal seat.
15mm to 200mm
- 170S** **Stainless steel check valve**, PN 40, suitable for 40 bar at 120°C/29 bar at 400°C. 316SS disc & spring, metal to metal seat.
15mm to 150mm

FLUID CONTROL PRODUCTS

FOOT VALVES

FOOT VALVES



- 105 **EUROPA brass foot valve**, suitable for 25 to 12 bar (size determined) at 100°C maximum. Piston type, stem and disc 304SS, NBR seat, 304SS strainer, screwed BSP. **10mm to 100mm**
- 106 **BLOCK brass foot valve**, suitable for 12 to 10 bar (size determined) at 100°C maximum. Piston type, Polymer disc, NBR seat, Polymer strainer, screwed BSP. **15mm to 50mm**
- 108 **YORK brass foot valve**, suitable for 12 to 8 (size determined) bar at 100°C maximum. Piston type, spring loaded Polymer disc, NBR seat, 304SS strainer screwed BSP. **15mm to 100mm**
- 140 **Brass foot valve**, suitable for 10 to 6 bar (size determined) at 90°C maximum. Piston type, NBR seat, brass strainer, screwed BSP. **15mm to 100mm**

BALL VALVES

BRASS BALL VALVES

London 066/067/068/069 are EN 331 & SAGA Approved



- 066 **LONDON 'GAS' nickel plated brass ball valve**, suitable for up to 5 bar at 60°C. Full bore, chrome plated brass ball, PTFE seats, standard lever, screwed BSP (FxF). **8mm to 50mm**
- 067 **LONDON 'GAS' nickel plated brass ball valve**, suitable for up to 5 bar at 60°C. Full bore, chrome plated brass ball, PTFE seats, standard lever, screwed BSP (MxF). **8mm to 50mm**
- 068 **LONDON 'GAS' nickel plated brass ball valve**, suitable for up to 5 bar at 60°C. Full bore, chrome plated brass ball, PTFE seats, T-handle, screwed BSP (FxF). **8mm to 25mm**
- 069 **LONDON 'GAS' nickel plated brass ball valve**, suitable for up to 5 bar at 60°C. Full bore, chrome plated brass ball, PTFE seats, T-handle, screwed BSP (MxF). **8mm to 25mm**
- 090 **IDEAL nickel plated brass ball valve**, suitable for up to 18 bar at 20°C. Full bore, chrome plated brass ball, PTFE seats, standard lever, screwed BSP (FxF). **65mm to 100mm**
- 116 **VIENNA nickel plated brass ball valve**, suitable for up to 50 bar at 20°C/12 bar at 150°C. Standard bore, chrome plated brass ball, PTFE seats, standard lever, screwed BSP (FxF). **8mm to 50mm**
- 117 **VIENNA nickel plated brass ball valve**, suitable for up to 50 bar at 20°C/12 bar at 150°C. Standard bore, chrome plated brass ball, PTFE seats, standard lever, screwed BSP (MxF). **8mm to 50mm**
- 118 **VIENNA nickel plated brass ball valve**, suitable for up to 50 bar at 20°C/12 bar at 150°C. Standard bore, chrome plated brass ball, PTFE seats, T-handle, screwed BSP (FxF). **8mm to 25mm**

FLUID CONTROL PRODUCTS

BALL VALVES

BRASS BALL VALVES



- 119** **VIENNA nickel plated brass ball valve**, suitable for up to 50 bar at 20°C/12 bar at 150°C. Standard bore, chrome plated brass ball, PTFE seats, T-handle, screwed BSP (MxF).
8mm to 25mm



- 125** **MINI chrome plated brass ball valve**, suitable for up to 15 bar at 20°C. Reduced bore, chrome plated ball, PTFE seats, Nylon handle, screwed BSP (FxF).
8mm to 20mm

- 126** **MINI chrome plated brass ball valve**, suitable for up to 15 bar at 20°C. Reduced bore, chrome plated ball, PTFE seats, Nylon handle, screwed BSP (MxF).
8mm to 20mm

- 128** **THREEWAY nickel plated brass ball valve**, suitable for up to 55 bar at 20°C. Standard bore, chrome plated ball, PTFE seats, standard lever, screwed BSP (FxF) available in L-Port: 128L & T-Port: 128T.
8mm to 50mm

- 132** **Nickel plated brass ball bibcock**, suitable for 15 to 12 bar at 20°C. Full bore, chrome plated ball, PTFE seats, standard lever, screwed BSP x hose end.
15mm to 25mm

CAST IRON BALL VALVES



- CBF-13** **Cast iron ball valve**, suitable for up to 16 bar and up to 100°C. Full bore, 304SS hollow ball & stem, PTFE seats, lever operated, flanged PN 16FF.
15mm to 250mm

STEEL BALL VALVES



- 300S** **Stainless steel ball valve**, suitable for 69 bar at 38°C/5 bar at 200°C. Reduced bore, 1-piece CF8M body, PTFE seats, lockable lever, screwed BSP.
8mm to 50mm

- BV3PS** **Stainless steel ball valve**, suitable for 69 bar at 38°C/5 bar at 200°C. Full bore, 3-piece CF8M body, non ISO, PTFE seats, lockable lever, screwed BSP, SW or BW.
8mm to 80mm

- BV3PS-DM** **Stainless steel ball valve**, suitable for 69 bar at 38°C/5 bar at 200°C. Full bore, 3-piece CF8M body, ISO direct mount, PTFE seats, lockable lever, screwed BSP or BW.
8mm to 100mm



- 90-100** **Cast ball valve**, Class 150, suitable for 19 bar at 38°C/10 bar at 200°C. Full bore, 2-piece body, PTFE seats, lockable lever, flanged ANSI 150RF.
Available in carbon steel: WCB and stainless steel: CF8M.
150mm to 200mm

- KV-L50** **Stainless steel 3-way ball valve**, suitable for 69 bar at 38°C/5 bar at 200°C. Reduced bore, PTFE seats, lockable lever, L port, screwed BSP.
15mm to 50mm

- KV-T50** **Stainless steel 3-way ball valve**, suitable for 69 bar at 38°C/5 bar at 200°C. Reduced bore, PTFE seats, lockable lever, T port, screwed BSP.
15mm to 50mm

FLUID CONTROL PRODUCTS

BALL VALVES

STEEL BALL VALVES



225SGS **Carbon steel 800LB ball valve**, suitable for 136 bar at 38°C/10 bar at 200°C. Reduced bore, 3-piece LF2 body, 316SS ball and stem, R-PTFE seats, screwed BSP or SW.
15mm to 50mm



226SGS **Stainless steel 800LB ball valve**, suitable for 136 bar at 38°C/10 bar at 200°C. Reduced bore, 3-piece 316 body, 316SS ball and stem, R-PTFE seats, screwed BSP or SW.
8mm to 80mm

BAC FB & PQRi are SAGA Approved



PQRi-150 **Cast ball valve**, Class 150, fire safe, suitable for 19 bar at 38°C/10 bar at 200°C. Reduced bore, 1-piece body, PTFE MOD seats, lockable lever, flanged ANSI 150RF. Available in carbon steel: **WCC** and stainless steel: **CF8M**.
15mm to 300mm

FB-150 **Cast ball valve**, Class 150, fire safe, suitable for 19 bar at 38°C/10 bar at 200°C. Full bore, 2-piece body, PTFE MOD seats, lockable lever, flanged ANSI 150RF. Available in carbon steel: **WCC** and stainless steel: **CF8M**.
15mm to 300mm

PQRi-300 **Cast ball valve**, Class 300, fire safe, suitable for 50 bar at 38°C/10 bar at 200°C. Reduced bore, 1-piece body, PTFE MOD seats, lockable lever, flanged ANSI 300RF. Available in carbon steel: **WCC** and stainless steel: **CF8M**.
15mm to 300mm

FB-300 **Cast ball valve**, Class 300, fire safe, suitable for 50 bar at 38°C/10 bar at 200°C. Full bore, 2-piece body, PTFE MOD seats, lockable lever, flanged ANSI 300RF. Available in carbon steel: **WCC** and stainless steel: **CF8M**.
15mm to 300mm

KLINGER BALL VALVES



KHA **KLINGER 3-piece floating ball valves**, PN 16 to PN 100, -196°C to +400°C. Full or reduced bore bodies in carbon or stainless steel. End connections available in flanged (long/ short), threaded or welded ends (long/ short).
15mm to 150mm

KHE **KLINGER 2-piece floating ball valves**, PN 16/40 ANSI 150/300, -60°C to +300°C. Full bore bodies in carbon or stainless steel. End connections flanged (long/ short).
15mm to 200mm

KHI **KLINGER 2-piece trunnion mounted ball valves**, PN 16/40, -45°C to 260°C. Full or reduced bore bodies in carbon or stainless steel. End connections available in flanged or welded ends.
150mm to 1000mm

FLUID CONTROL PRODUCTS

BUTTERFLY VALVES



- 310** **Stainless or cast iron butterfly valve**, PN 16, suitable for up to 16 bar.
Max temperature 80°C-100°C dependant on replaceable EPDM/ NBR/ PTFE liner.
Wafer type body, pinless disc lockable trigger lever operated.
50mm to 300mm
- 320** **Stainless or cast iron butterfly valve**, PN 16, suitable for up to 16 bar.
Max temperature 80°C-100°C dependant on replaceable EPDM/ NBR/ PTFE liner.
Wafer type body, pinless disc lockable gearbox operated.
50mm to 600mm

PRESSURE REDUCING VALVES

BRASS PRESSURE REDUCING VALVES



- 361** **MINIPRESS nickel plated brass pressure reducing valve**, suitable for 15 bar max inlet & adjustable between 1-4 bar outlet, min/max temperature of 0°C/+80°C.
8mm outlet pressure gauge connection, ends screwed BSP.
15mm to 20mm
- 143** **EUROPRESS nickel plated brass pressure reducing valve**, suitable for 25 bar max inlet & adjustable between 1-6 bar outlet, min/max temperature of 0°C/+80°C.
8mm outlet pressure gauge connection on both sides, ends screwed BSP.
15mm to 100mm

CAST IRON PRESSURE REDUCING VALVES



- P3-A** **Cast iron pressure reducing valve**, suitable for 10 bar max inlet & adjustable between 1-4 bar outlet, min/max temperature of 0°C/+200°C.
Ends screwed BSP.
15mm to 20mm

FLUID CONTROL PRODUCTS

BOILER CONTROLS

STEAM TRAPS



041/042 **Stainless steel**, PN 63, thermodynamic steam trap, suitable for up to 42 bar, max temperature 400°C (version determined), stainless steel trim with optional integral strainer, available with screwed, SW or flanged ends.
043/044

15mm to 25mm

143/144 **Carbon steel**, PN 40/100, bimetallic steam trap, suitable for up to 80 bar, max temperature 450°C (version determined), stainless steel trim, available with screwed, SW or flanged ends.

15mm to 25mm

343 **Cast iron**, PN 16, inverted bucket steam trap, suitable for up to 16 bar, max temperature 220°C (version determined), stainless steel trim, available with screwed ends.

15mm to 25mm



241/243 **Carbon steel/ iron**, PN 16, float & thermostatic steam trap, suitable for up to 14 bar, max temperature 220°C (version determined), stainless steel trim, available with screwed, SW or flanged ends.
244

15mm to 25mm

443/444 **Stainless steel**, PN 40, thermostatic steam trap, suitable for up to 22 bar, max temperature 250°C (version determined), stainless steel trim, available with screwed, SW or flanged ends.
543

8mm to 25mm

BLOWDOWN VALVES



460 **Carbon steel**, PN 40, blowdown valve for desludging, suitable for up to 40 bar, max temperature 250°C (version determined), stainless steel trim, lever operated, available with flanged ends.

20mm to 50mm

260 **Cast steel**, PN 40, blowdown valve for desludging, suitable for up to 40 bar, max temperature 250°C (version determined), stainless steel trim, pedal and handwheel operated, available with flanged ends.

20mm to 50mm

SIGHT GLASSES



265/365/6 **Stainless/ carbon steel**, PN 16/40, window sight glasses, suitable for up to 40 bar, max temperature -60 to 250°C (version determined), borosilicate glass, available with screwed, SW or flanged ends.

15mm to 200mm

FLUID CONTROL PRODUCTS

LEVEL GAUGES



Transparent The medium is contained within two glasses whose surfaces are both smooth.
Pressure rating: Up to 250 bar process or up to 120 bar steam.
Materials: Forged steel or stainless steel.
Tank connections: Screwed, flanged or butt-weld.
Sizes: Up to 3000mm centre to centre

Reflex The medium is viewed through a reflex glass and the side of the glass which is exposed to the medium has a prismatic surface.
Pressure rating: Up to 250 bar process or up to 32 bar steam.
Materials: Forged steel or stainless steel.
Tank connections: Screwed, flanged or butt-weld.
Sizes: Up to 3000mm centre to centre

Bi-colour A variation of transparent level gauges and are mainly used to measure very high-pressure steam.
Pressure rating: Up to 225 bar steam.
Materials: Forged steel or stainless steel.
Tank connections: Screwed or flanged.
Sizes: Up to 1500mm centre to centre

Magnetic Suitable for duties involving dangerous and toxic liquids or gases.
Pressure rating: Up to 400 bar process or up to 180 bar steam.
Materials:
» Stainless steel (chamber, float, indicator)
» Aluminium (indicator)
» Titanium (float)
» Exotic plastics (chamber, float)
» Special materials on request (chamber)

Tank connections: Flanged.

Sizes: Up to 6000mm centre to centre

Shut Off Various shut off cock valves are available, medium, pressure, temperature dependent.
Pressure rating: Up to 250 bar
Materials: Forged steel or stainless steel
Tank connections: Screwed, flanged or butt-weld.
Sizes: 15mm to 40mm

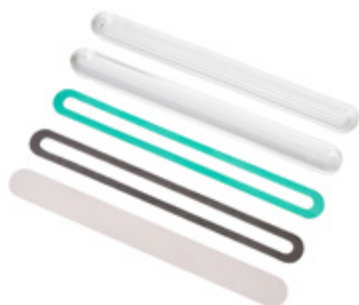
Glass KLINGER gauge glasses are made of high quality, extra-hard borosilicate glass which is subsequently heat-treated.
In accordance with MIL16356-D specification.

Sizes:

Round: 40mm to 250mm

Transparent: I to X, A, B, H, TA28

Reflex: I to X, A, B, H



SAFETY RELIEF VALVES



095/096

Bronze/ stainless steel, PN 16/25, proportional lift safety valve, suitable for up to 25 bar, max temperature 250°C (version determined), PTFE, Silicone or Viton seal, construction **AP**: open cap with lever or **ES**: closed cap without lever available with male inlet x female screwed outlet or flanged inlet x screwed outlet.
8x8mm to 25x25mm

FLUID CONTROL PRODUCTS

SAFETY RELIEF VALVES



- 295/296** **Bronze, carbon or stainless steel**, PN 25, normal lift safety valve, suitable for up to 25 bar, max temperature 250°C (version determined), PTFE, Silicone or Viton seal, construction **AP**: open cap with lever or **ES**: closed cap without lever available with male inlet x female screwed outlet or flanged inlet x flanged outlet.
15x25mm to 32x50mm
- 495/496** **Cast & nodular iron or stainless & carbon steel**, PN 16/40, full lift safety valve, suitable for up to 40 bar, max temperature 450°C (version determined), stainless trim, construction **AP**: open cap with lever or **ES**: closed cap without lever or construction **EP**: closed cap with lever or **CP**: **enclosed spring with lever** available with male inlet x female screwed outlet or flanged inlet x flanged outlet.
20x32mm to 25x40mm - screwed
20x25mm to 200x300mm - flanged
- 596/696** **Stainless or carbon steel**, PN 25/160, full lift safety valve, suitable for up to 95 bar, max temperature 450°C (version determined), stainless steel trim, construction **AP**: open cap with lever or **ES**: closed cap without lever or construction **EP**: closed cap with lever or **CP**: **enclosed spring with lever** available with flanged inlet x flanged outlet.
25x32mm to 400x500mm - 596 model
25x40mm to 300x400mm - 696 model

A = open cap E = closed cap P = with lever S = without lever C = enclosed spring

STRAINERS

BRASS Y-TYPE STRAINERS



- 192** **Brass Y-type strainer**, suitable for 16 to 20 bar (size determined) at 100°C. 304 Stainless steel screen with 500-800µm holes, screwed BSP.
8mm to 100mm

BRONZE Y-TYPE STRAINERS



- D297** **Bronze Y-type strainer**, PN 32, suitable for 32 bar at 100°C/14 bar at 260°C. 304 Stainless steel screen with 0,75mm holes, screwed BSP.
15mm to 50mm

CAST IRON Y-TYPE STRAINERS



- 400** **Cast iron Y-type strainer**, PN 16, suitable for up to 16 bar and up to 100°C. 304 Stainless steel screen with 0.6 to 2mm holes, screwed BSP.
15mm to 80mm
- 401** **Cast iron Y-type strainer**, PN 16, suitable for up to 16 bar and up to 100°C. 304 Stainless steel screen with 1-3mm holes, flanged PN 10/16 FF.
50mm to 250mm

STAINLESS STEEL Y-TYPE STRAINERS



- KY-800** **Stainless steel 800lb/in² Y-type strainer**, suitable for 20 bar up to 230°C. 316 Stainless steel screen with 1.7 mm holes, screwed BSP.
15mm to 50mm

FLUID CONTROL PRODUCTS

PNEUMATIC ACTUATORS & ACCESSORIES

Specialist service is available for the sizing, fitting and bench testing of pneumatic actuators and accessories to all types of valves.

Air Torque 4th Generation Upgrade series 90° rack and pinion pneumatic actuators for quarter turn valves with PTFE coated Alodur anodized body and anodized + Polyester coated end caps, suitable for 15 to 10,000Nm output torque requirements. External travel stops and Namur air supply connections on all models (VDI/VDE 3845). ISO 5211 base mounting permits an easy installation of the actuator directly on to a compatible valve or it can interface through an ISO bracket and coupling.

DOUBLE ACTING ACTUATORS



MODEL	Torque output (Nm) at operating air pressure (bar)						
	4 bar	4,2 bar	4,5 bar	5 bar	5,5 bar	6 bar	7 bar
AT 051U DA	13.3	14	15	16.6	18.3	19.9	23.3
AT 101U DA	23.5	24.6	26.4	29.3	32.2	35.2	41
AT 201U DA	46.5	48.9	52.4	58.2	64	69.8	81.4
AT 251U DA	73.2	76.9	82.4	91.5	100.7	109.8	128.1
AT 301U DA	106	112	120	133	146	156.0	186
AT 351U DA	172	181	193	215	236	258	301
AT 401U DA	222	233	249	277	305	332	388
AT 451U DA	348	365	391	435	478	522	609
AT 501U DA	454	477	511	567	624	681	794
AT 551U DA	613	643	689	766	842	919	1072
AT 601U DA	851	893	957	1064	1170	1276	1489
AT 651U DA	1430	1501	1608	1787	1966	2144	2502
AT 701U DA	2075	2179	2334	2594	2853	3112	3631
AT 751U DA	2872	3015	3231	3590	3949	4308	5026
AT 801U DA	3604	3784	4054	4504	4955	5405	6306
AT 1001U DA	6671	7005	7505	8339	9173	1007	11674

SPRING RETURN FAILSAFE ACTUATORS



	Torque (Nm)				Torque (Nm) from springs	
MODEL	from air @ 5,0 bar		from air @ 6,0 bar			
	Start	End	Start	End	Start	End
AT 051U SR08	-	-	12.0	7.2	12.8	7.9
AT 101U SR10	18.2	12.4	24.1	18.3	16.9	11.1
AT 201U SR10	36.1	23.6	47.7	35.2	34.6	22.1
AT 251U SR10	54.8	33.8	73.1	52.1	57.8	36.7
AT 301U SR10	82.3	54.2	109	80.8	78.8	50.7
AT 351U SR10	133	83.9	176	127	131	82
AT 401U SR10	172	112	227	168	165	105
AT 451U SR10	270	177	357	264	258	165
AT 501U SR10	343	235	456	349	332	224
AT 551U SR10	450	292	603	445	474	316
AT 601U SR10	638	434	851	646	630	425
AT 651U SR10	1066	745	1423	1102	1042	721
AT 701U SR10	1503	992	2021	1510	1602	1091
AT 751U SR10	2128	1407	2846	2135	2183	1462
AT 801U SR10	2665	2028	3566	2929	2476	1839
AT 1001U SR10	4949	3389	6616	5057	4949	3390

Please contact us for any other requirements (fast acting, 120°, 135°, 180°, low & high temp constructions, Scotch & Yoke design).

FLUID CONTROL PRODUCTS

PNEUMATIC ACTUATORS & ACCESSORIES

POSITION INDICATORS AND SWITCHBOXES



ATTFV3

IP68 position indicator/switchbox, adjustable S.P.D.T (single pole double throw) switches, VDI/VDE 3845 Namur interface for direct mounting.

ATTFPS

IP68 position indicator/switchbox, 3-wire P+F inductive proximity sensors 24V DC, VDI/VDE 3845 Namur interface for direct mounting.

SOLENOID VALVES AND ACCESSORIES



WP4

Solenoid valve, for Double Acting or Spring Return pneumatic actuators, anodised aluminium housing, IP65/NEMA 4 enclosure, NAMUR mounting, 1,5 to 8 bar (22 to 118 psi) pressure range, 0 to 50°C service temperature range. Standard coil voltage 24V AC, 24V DC, 110V AC and 220V AC.

AISPEEDREG

Brass, air adjustable Speed Regulator to control the opening/closing stroke of the actuator.

AISILEX

Brass, air exhaust silencer.

POSITIONERS



SR/CCK

Pneumatic positioner, suitable for 90° maximum operation, 2 to 6,9 bar air supply. Standard cam with 3 pressure ranges (linear characteristics), direct and reverse actions. 0,2 - 1 bar : 0° to 90°/ 0,2 - 1 bar : 0° to 65°/ 0,2 - 0,6 or 0,6 - 1 bar : 0° to 65°.

CRP3M-EP

Electro-pneumatic rotary positioner, double acting, Namur shaft and holes, counter clockwise rotation, 4-20mA input.

RSV GATE VALVES



665RS

Ductile iron, PN 16, RSV gate valve, suitable for up to 16 bar. Max temperature -20°C to 100°C, bolted bonnet, rising spindle, EPDM encapsulated gate, hand wheel operated, flanged PN 16.
50mm to 400mm

665NRS

Ductile iron, PN 16, RSV gate valve, suitable for up to 16 bar. Max temperature -20°C to 100°C, bolted bonnet, non-rising spindle, EPDM encapsulated gate, hand wheel operated, flanged PN 16.
50mm to 400mm

FLUID CONTROL PRODUCTS

PISTON VALVES



- KVN** **PN 16/PN 40 piston valve**, suitable for -10°C to 400°C.
Bolted bonnet, OS&Y, KX-GT graphite rings, handwheel operated, flanged RF.
Materials: Cast iron, spheroidal cast iron, cast steel, stainless steel (PN 40 only).
Above valves available in ANSI ratings Class 150 & 300.
15mm to 200mm
- KVMN** **PN 16/PN 63 piston valve**, suitable for -10°C to 400°C.
Bolted bonnet, OS&Y, KX-GT graphite rings, handwheel operated, screwed BSP/ NPT.
Materials: Cast iron (PN 16 only), cast steel (PN 63), stainless steel (PN 63).
15mm to 50mm
- KVSN** **PN 63 piston valve**, suitable for -10°C to 400°C.
Bolted bonnet, OS&Y, KX-GT graphite rings, handwheel operated, butt-weld & socket weld ends.
Material: Cast steel.
15mm to 50mm

FLUID CONTROL PRODUCTS

RUPTURE DISCS



DIF

Forward-acting rupture disc – Static conditions

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Standard membrane material PTFE, PFA, Aluminium. Designed to fit directly between flanges. Burst pressure from 0.05 bar to 5 bar for low pressure liquid or gas service. 265°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

50mm to 1000mm

LPD

Forward-acting rupture disc – Processing and storage tanks

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Standard membrane material PTFE, PFA. Designed to fit directly between flanges. Burst pressure from 5 millibar to 500 millibar for low pressure liquid or gas service. 265°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

50mm to 500mm

DCD

Forward-acting rupture disc – Valve protection

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Standard membrane material PTFE, PFA, Aluminium. Designed to fit in a holder. Burst pressure from 0.05 bar to 110 bar for liquid or gas service. 265°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

15mm to 1000mm

TCD

Forward-acting rupture disc – Static, cycling and pulsating conditions

Standard material of construction 316SS, Alloy. Standard membrane material PTFE, PFA. Designed to fit directly between flanges. Burst pressure from 3 bar to 5 bar for liquid or gas service. 265°C. Tolerance $\pm 5\%$.

50mm to 80mm

STD

Forward-acting rupture disc – Concave solid disc for cycling and pulsating conditions

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Designed to fit in a holder. Burst pressure from 5 bar to 1150 bar for liquid or gas service. 480°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

15mm to 600mm

Y90

Reverse-acting rupture disc – Large temperature variations

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Designed to fit in a holder. Burst pressure from 0.2 bar to 70 bar for liquid or gas service. - 196°C to 480°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

25mm to 200mm

ASME Certified (UD Stamp)

KRD

Reverse-acting micro-scored rupture disc – Liquids only

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Designed to fit in a holder. Burst pressure from 0.41 bar to 137 bar for liquid service. - 196°C to 480°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

15mm to 900mm

SCR

Reverse-acting micro-scored rupture disc – Gas only – Absolute vacuum without support

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Designed to fit in a holder. Burst pressure from 0.41 bar to 137 bar for gas service. - 196°C to 480°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

15mm to 900mm

SCD

Forward-acting micro-scored rupture disc – Absolute vacuum without support

Standard material of construction 316SS, Alloy 201, Alloy 400, Alloy 600, Alloy 625, Alloy C276, Titanium, Tantalum. Designed to fit in a holder. Burst pressure from 2 bar to 413 bar for liquid and gas service. - 196°C to 480°C. Tolerance from $\pm 5\%$ to $\pm 20\%$.

15mm to 900mm



FLANGE DRILLING TABLE

Valve size in inches and mm	BS 10 Table 'D'					BS 10 Table 'E'					BS 10 Table 'F'					BS 10 Table 'H'					
	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	
1/2"	15	4	14	67	95	–	4	14	67	95	–	4	14	67	95	–	4	17	83	114	57
3/4"	20	4	14	73	102	–	4	14	73	102	–	4	14	73	102	–	4	17	83	114	57
1"	25	4	14	83	114	–	4	14	83	114	–	4	17	87	121	–	4	17	87	121	64
1 1/4"	32	4	14	87	121	–	4	14	87	121	–	4	17	98	133	–	4	17	98	133	76
1 1/2"	40	4	14	98	133	–	4	14	98	133	–	4	17	105	140	–	4	17	105	140	83
2"	50	4	17	114	152	–	4	17	114	152	–	4	17	127	165	–	4	17	127	165	102
2 1/2"	65	4	17	127	165	–	4	17	127	165	–	8	17	146	184	–	8	17	146	184	114
3"	80	4	17	146	184	–	4	17	146	184	–	8	17	165	203	–	8	17	165	203	127
4"	100	4	17	178	216	–	8	17	178	216	–	8	17	191	229	–	8	17	191	229	152
5"	125	8	17	210	254	–	8	17	210	254	–	8	22	235	279	–	8	22	235	279	178
6"	150	8	17	235	279	–	8	22	235	279	–	12	22	260	305	–	12	22	260	305	210
8"	200	8	17	292	337	–	8	22	292	337	–	12	22	324	368	–	12	22	324	368	260
10"	250	8	22	356	406	–	12	22	356	406	–	12	25	381	432	–	12	25	381	432	311
12"	300	12	22	406	457	–	12	25	406	457	–	16	25	438	489	–	16	25	438	489	362
14"	350	12	25	470	527	–	12	25	470	527	–	16	29	495	552	–	16	29	495	552	419
16"	400	12	25	521	578	–	12	25	521	578	–	20	29	552	610	–	20	29	552	610	483
18"	450	12	25	584	641	–	16	25	584	641	–	20	32	610	673	–	20	32	610	673	533
20"	500	16	25	642	705	–	16	25	642	705	–	24	32	673	737	–	24	32	673	737	597
24"	600	16	29	756	826	–	16	32	756	826	–	24	35	781	851	–	24	35	781	851	699

Valve size in inches and mm	BS 4504 Table 10					BS 4504 Table 16					BS 4504 Table 25					BS 4504 Table 40					
	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	
1/2"	15	4	14	65	95	45	4	14	65	95	45	4	14	65	95	45	4	14	65	95	45
3/4"	20	4	14	75	105	58	4	14	75	105	58	4	14	75	105	58	4	14	75	105	58
1"	25	4	14	85	115	68	4	14	85	115	68	4	14	85	115	68	4	14	85	115	68
1 1/4"	32	4	18	100	140	78	4	18	100	140	78	4	18	100	140	78	4	18	100	140	78
1 1/2"	40	4	18	110	150	88	4	18	110	150	88	4	18	110	150	88	4	18	110	150	88
2"	50	4	18	125	165	102	4	18	125	165	102	4	18	125	165	102	4	18	125	165	102
2 1/2"	65	4	18	145	185	122	4	18	145	185	122	8	18	145	185	122	8	18	145	185	122
3"	80	8	18	160	200	138	8	18	160	200	138	8	18	160	200	138	8	18	160	200	138
4"	100	8	18	180	220	158	8	18	180	220	158	8	22	190	235	162	8	22	190	235	162
5"	125	8	18	210	250	188	8	18	210	250	188	8	26	220	270	188	8	26	220	270	188
6"	150	8	22	240	285	212	8	22	240	285	212	8	26	250	300	218	8	26	250	300	218
8"	200	8	22	295	340	268	12	22	295	340	268	12	26	310	360	278	12	30	320	375	285
10"	250	12	22	350	395	320	12	26	355	405	320	12	30	370	425	335	12	33	385	450	345
12"	300	12	22	400	445	370	12	26	410	460	378	16	30	430	485	395	16	33	450	515	410
14"	350	16	22	460	505	430	16	26	470	520	438	16	33	490	555	450	16	36	510	580	465
16"	400	16	26	515	565	482	16	30	525	580	490	16	36	550	620	505	16	39	585	660	535
18"	450	20	26	565	615	532	20	30	585	640	550	20	36	600	670	555	20	39	610	685	560
20"	500	20	26	620	670	585	20	33	650	715	610	20	36	660	730	615	20	42	670	755	615
24"	600	20	30	725	780	685	20	36	770	840	725	20	39	770	845	720	20	48	795	890	735

Valve size in inches and mm	ANSI 150						ANSI 300					ANSI 600					ANSI 900/1500				
	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	No. of Holes	Hole Dia.	P.C.D.	Flange O.D.	RF Dia.	
1/2"	15	4	16	60	89	35	4	16	67	95	35	4	16	67	95	35	4	22	83	121	35
3/4"	20	4	16	70	98	43	4	19	83	117	43	4	19	83	117	43	4	22	89	130	43
1"	25	4	16	79	108	51	4	19	89	124	51	4	19	89	124	51	4	25	102	149	51
1 1/4"	32	4	16	89	117	64	4	19	98	133	64	4	19	98	133	64	4	25	111	159	64
1 1/2"	40	4	16	98	127	73	4	22	114	156	73	4	22	114	156	73	4	29	124	178	73
2"	50	4	19	121	152	92	8	19	127	165	92	8	19	127	165	92	8	25	165	216	92
2 1/2"	65	4	19	140	178	105	8	22	149	191	105	8	22	149	191	105	8	29	191	244	105
3"	80	4	19	152	191	127	8	22	168	210	127	8	22	168	210	127	Adjacent "TABLES" with colour shading in the same row indicates identical dimensions.				
4"	100	8	19	191	229	157	8	22	200	254	157	8	25	216	273	157					
5"	125	8	22	216	254	186	8	22	235	279	186	8	29	267	330	186					
6"	150	8	22	241	279	216	12	22	270	318	216	12	29	292	356	216					
8"	200	8	22	298	343	270	12	25	330	381	270	12	32	349	419	270					
10"	250	12	25	362	406	324	16	29	387	445	324	16	35	432	508	324					
12"	300	12	25	432	483	381	16	32	451	521	381	20	35	489	559	381					
14"	350	12	29	476	533	413	20	32	514	584	413	20	38	527	603	413					
16"	400	16	29	540	597	470	20	35	571	648	470	20	41	603	686	470					
18"	450	16	32	578	635	533	24	35	629	711	533	20	44	654	743	533					
20"	500	20	32	635	699	584	24	35	686	775	584	24	44	724	813	584					
24"	600	20	35	749	813	692	24	41	812	914	692	24	51	838	940	692					

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