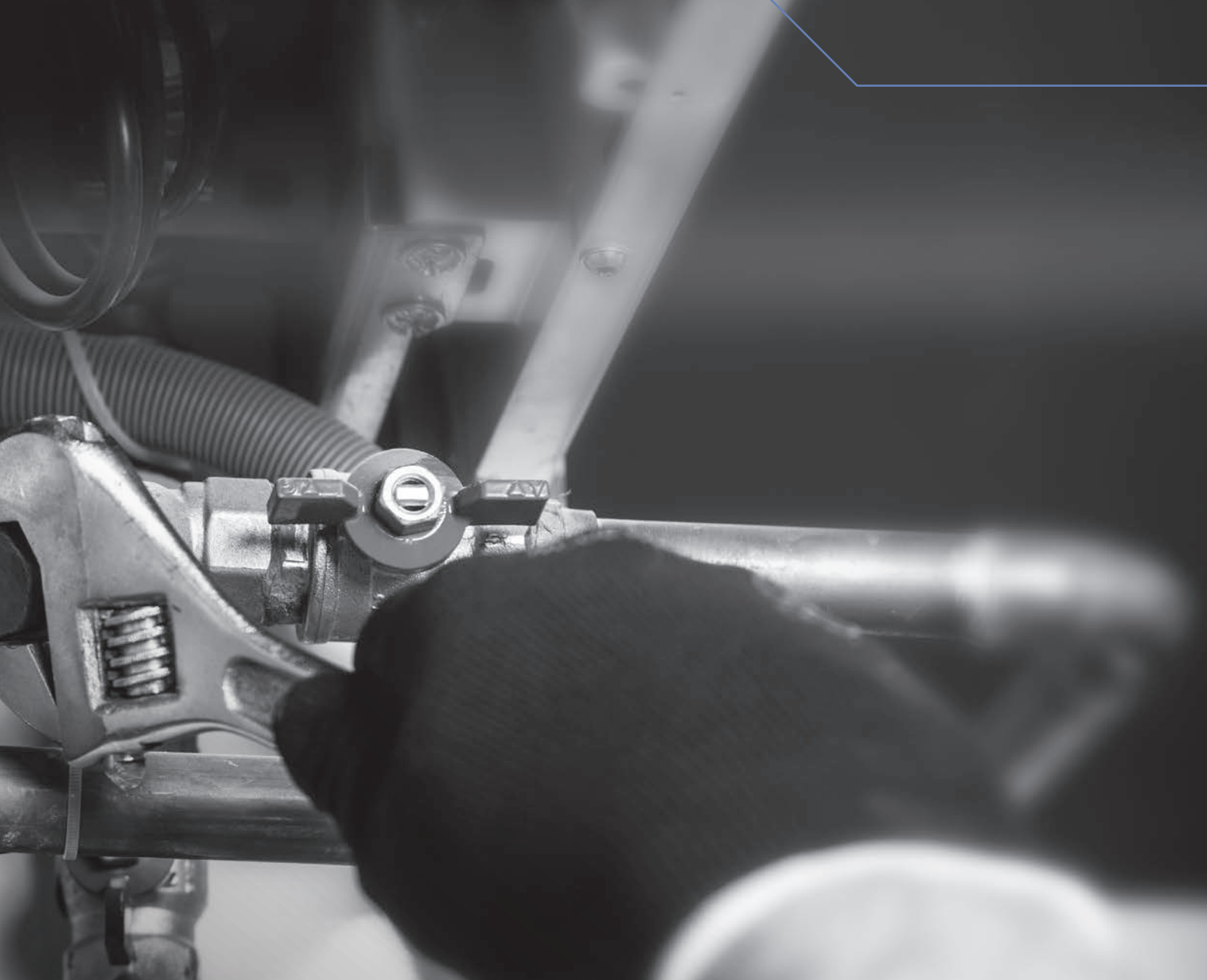


35.

**VALVES
& FLOW
CONTROL**



BALL VALVES	
Brass	35-01
PVC	35-04
Stainless Steel	35-02
CHECK VALVES	35-07
FILTERS, REGULATORS & LUBRICATORS	35-19
GATE VALVES	35-04
GAUGES – PRESSURE	35-23
GAUGES & GLASSES – SIGHT	35-18
GLOBE VALVES	35-06
JOINTS – FLEXIBLE PIPE	35-21
STEAM TRAPS	35-20

STRAINERS – Y TYPE	35-17
THERMOMETERS	35-24
VALVES	
Butterfly – Industrial	35-09
Diaphragm	35-12
Lift Check	35-08
Needle	35-15
Pressure Reducing	35-13
Safety Relief	35-14
Solenoid – General Purpose	35-16
Solenoid – Hot Water & Steam	35-16

▶ BALL VALVES – BRASS

Ball Valves – Brass S90 Lever Handle

Applications: Full flow quarter turn ball valve with lever handle for maximum flow with 2 FPM o-rings at the stem for maximum safety. Used for all general water applications within industrial and rural areas

Body Materials: Hot forged sand blasted brass body

Ends: Female/Female BSP (P) (ISO 228)

Seat Materials: Pure PTFE self lubricating seats

Temperature Range: -40°C to +170°C

(Warning: Freezing the fluid in the installation may severely damage the valve)



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 8	¼	40	05579356
■ 10	⅜	40	05578115
■ 15	½	40	05578217
■ 20	¾	40	05578336
■ 25	1	40	05578455
■ 32	1¼	40	05578591
■ 40	1½	40	05578710
■ 50	2	40	05578761
▶ 65	2½	30	05578897
■ 80	3	30	05578965
▶ 100	4	30	05578047

Ball Valves – Brass S90 T-handle

Applications: Full flow quarter turn ball valve with T-handle for maximum flow with 2 FPM o-rings at the stem for maximum safety. Used for all general water applications within industrial and rural areas

Body Materials: Hot forged sand blasted brass body

Ends: Female/Female BSP (P) (ISO 228)

Seat Materials: Pure PTFE self lubricating seats

Temperature Range: -40°C to +170°C

(Warning: Freezing the fluid in the installation may severely damage the valve)



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
■ 8	¼	40	05579577
■ 10	⅜	40	05579424
■ 15	½	40	05579458
▶ 20	¾	40	05579509
▶ 25	1	40	05579560

Ball Valves – Brass S90 T-handle M x F

Applications: Full flow quarter turn ball valve with T-handle for maximum flow with 2 FPM o-rings at the stem for maximum safety. Used for all general water applications within industrial and rural areas

Body Materials: Hot forged sand blasted brass body

Ends: Male/Female BSP (P) (ISO 228)

Seat Materials: Pure PTFE self lubricating seats

Temperature Range: -40°C to +170°C

(Warning: Freezing the fluid in the installation may severely damage the valve)



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
■ 15	½	40	05579492
■ 20	¾	40	05579543

Ball Valves – Brass S84 Gas Lever Handle

Applications: Full flow quarter turn ball valve with lever handle for maximum flow with 2 FPM o-rings at the stem for maximum safety. Approved by the Australian Gas Association

Body Materials: Hot forged sand blasted brass body

Ends: Female BSPT x Female BSPT

Handle: Geomet® carbon steel handle with thick yellow PVC dip coating

Seat Materials: Pure PTFE self lubricating seats

Temperature Range: -40°C to +170°C

(Warning: Freezing the fluid in the installation may severely damage the valve). For use with dangerous fluids temperature rating is -20°C to +60°C and pressure rating is 5Bar

Specifications: Brass materials according to EN 12165 and EN 12164, full port to DIN 3357



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 8	¼	40 (21Bar MWP for gas)	05579033
▶ 10	⅜	40 (21Bar MWP for gas)	05578132
■ 15	½	40 (21Bar MWP for gas)	05578234
■ 20	¾	40 (21Bar MWP for gas)	05578353
■ 25	1	40 (21Bar MWP for gas)	05578472
■ 32	1¼	40 (21Bar MWP for gas)	05578608
■ 40	1½	40 (21Bar MWP for gas)	05578727
■ 50	2	40 (21Bar MWP for gas)	05578778

Ball Valves – Brass S84 Gas Lever Handle M x F

Applications: Full flow quarter turn ball valve with lever handle for maximum flow with 2 FPM O-rings at the stem for maximum safety. Approved by the Australian Gas Association

Body Materials: Hot forged sand blasted brass body

Ends: Male x Female BSPT

Handle: Geomet® carbon steel handle with thick yellow PVC dip coating

Seat Materials: Pure PTFE self lubricating seats

Temperature Range: -40°C to +170°C

(Warning: Freezing the fluid in the installation may severely damage the valve). For use with dangerous fluids temperature rating is -20°C to +60°C and pressure rating is 5Bar

Specifications: Brass materials according to EN 12165 and EN 12164, full port to DIN 3357



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 8	¼	40 (21Bar MWP for gas)	05568527
▶ 15	½	40 (21Bar MWP for gas)	05578251
▶ 20	¾	40 (21Bar MWP for gas)	05578370
▶ 25	1	40 (21Bar MWP for gas)	05578489
▶ 40	1½	40 (21Bar MWP for gas)	05578744
▶ 50	2	40 (21Bar MWP for gas)	05568578

RELATED PRODUCT

Milwaukee Cut 1 Gloves

- High dexterity design when handling small objects
- Ideal to use for material handling and general purpose remodeling applications



▶ **SEE HAND PROTECTION: CHAPTER 10**

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Ball Valves – Brass S84 Gas T-handle



Applications: Full flow quarter turn ball valve with T-handle for maximum flow with 2 FPM O-rings at the stem for maximum safety. Approved by the Australian Gas Association

Body Materials: Hot forged sand blasted brass body

Ends: Female BSPT x Female BSPT

Handle: Geomet[®] carbon steel handle with thick yellow PVC dip coating

Seat Materials: Pure PTFE self lubricating seats

Temperature Range: -40°C to +170°C

(Warning: Freezing the fluid in the installation may severely damage the valve). For use with dangerous fluids temperature rating is -20°C to +60°C and pressure rating is 5Bar

Specifications: Brass materials according to EN 12165 and EN 12164, full port to DIN 3357



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 8	¼	40 (21Bar MWP for gas)	05579594
▶ 10	¾	40 (21Bar MWP for gas)	05579441
▶ 15	½	40 (21Bar MWP for gas)	05579475

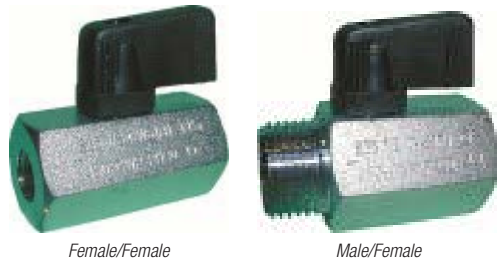
Ball Valves – Mini S35



One piece drawn sand blasted chrome plated brass body with extremely compact design. Pure PTFE self lubricating seats with flexible lip design. Black nylon wedge handle 30Bar non-shock cold working pressure

Temperature Range: -20°C to +90°C

Specifications: Brass materials according to EN 12164



Nominal Size mm	Nominal Size Inch	Non-shock CWP Bar	Female/Female	Male/Female
6	1/8	30	▶ 01274922	▶ 05578948
8	¼	30	▶ 04687766	▶ 05579016
10	3/8	30	▶ 05578081	▶ 05578098
15	½	30	▶ 02294610	▶ 05578200

Ball Valves – Brass Vented – S93 Lockable Handle



Applications: Full flow quarter turn ball valve with lockable lever handle for maximum safety

Body Materials: Hot forged sand blasted brass body

Ends: Female/Female BSP (P) ISO 228

Handle: Geomet[®] carbon steel lockable handle with thick PVC dip coating

Seat Materials: Glass filled PTFE self lubricating seats with flexible lip design

Temperature Range: -10°C to +100°C

Working Pressure: 14Bar Non-shock cold working pressure

Specifications: Brass materials according to EN 12165 and EN 12164, full port to DIN 3357



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 15	½	14	05578268
▶ 20	¾	14	05578387
▶ 25	1	14	05578506

Ball Valves – Brass S142 Bibcock



Applications: Quarter turn ball valve complete with lever handle and hose end ready to use. Chrome plated brass ball provides excellent reliability

Body Materials: Hot forged sand blasted brass body

Ends: Male UNI ISO228 x Hose end

Handle: Enamelled red steel handle

Seat Materials: Pure PTFE seats

Temperature Range: -15°C to +150°C



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 15	½	15	05561047
▶ 20	¾	15	05561064

Ball Valves – Brass 3 Way



Applications: 3 Way T or L port design allows complete range of flow handling applications

Body Materials: Hot forged sand blasted brass body

Ends: Female BSP (P) (ISO 228)

Seat Materials: PTFE seats

Temperature Range: -10°C to +120°C

Working Pressure: 25Bar Non-shock cold working pressure



Nominal Size mm	Nominal Size Inch	Non-shock CWP Bar	T Port	L Port
8	¼	25	▶ 05579050	▶ 05578982
10	¾	25	▶ 05578149	▶ 05578064
15	½	25	▶ 05578285	▶ 05578166
20	¾	25	▶ 05578404	▶ 05578319
25	1	25	▶ 05578523	▶ 05578438
32	1¼	25	▶ 05578574	▶ 05578574
40	1½	25	▶ 05578693	▶ 05578693

BALL VALVES – STAINLESS STEEL

V355FSA Stainless Steel TFM Seat Ball Valve

- 3 Piece stainless steel reduced bore ball valve
- API 607 firesafe design
- Seat TFM4215
- Seal and stem packing graphite
- ISO 5211 direct mounting pad
- Ends BSPT
- Lever with locking device
- Cold working pressure ½ – 1" 2000psi
1¼" – 2" 1500psi



Nominal Size mm	Nominal Size inch	Non-shock CWP Bar	Part Number
▶ 15	½	138	05585085
▶ 20	¾	138	05585170
▶ 25	1	138	05585187
▶ 32	1½	103	05585204
▶ 40	1¾	103	05585272
▶ 50	2	103	05588349

Ball Valves – 1 Piece – Stainless Steel **JBS** Grade 316 – JBS041

- Engineered to meet safety demands by industry whilst providing an isolation facility for gases, vapours and liquids in pipe work exposed to corrosive conditions
- Stainless steel ball valves can maintain greater pressure resistance at higher temperatures than brass ball valves
- Rated 1000psi water, oil and gas up to and including 1"
- 1½ – 2" rated at 800psi
- Lockable device standard
- Blow out proof stainless steel grade 316 stem
- Adjustable stem packing
- Pure Teflon® seats and seals
- Temperature rating -45°C to +160°C
- Stainless handle
- Ends BSPT



Size mm	Size inch	Mass kg	Part Number
■ 8	¼	0.069	00429500
■ 10	⅜	0.404	00429607
■ 15	½	0.182	00337702
■ 20	¾	0.269	00337809
■ 25	1	0.423	00337906
▶ 32	1¼	0.698	00338002
▶ 40	1½	0.847	00338109
▶ 50	2	1.354	00338206

Ball Valves – 2 Piece – Stainless Steel **JBS** Grade 316 – JBS042

- Engineered to meet safety demands by industry whilst providing an isolation facility for gases, vapours and liquids in pipe work exposed to corrosive conditions
- Stainless steel ball valves can maintain greater pressure resistance at higher temperatures than brass ball valves
- Rated 1000psi water, oil and gas
- 1½ to 2½" rated 800psi
- Lockable device standard
- Blow out proof stainless steel Grade 316 stem
- Adjustable stem packing
- Pure Teflon® seats and seals
- Temperature rating -45°C to +160°C
- Stainless handle
- Ends BSPT



Size mm	Size inch	Mass kg	Part Number
■ 8	¼	–	02436328
■ 10	⅜	0.30	01484617
■ 15	½	0.35	01484651
■ 20	¾	0.58	01484685
■ 25	1	1.04	01484736
■ 32	1¼	1.54	01484753
■ 40	1½	2.26	01484787
■ 50	2	3.80	01484804
▶ 65	2½	6.80	01484821

Ball Valves – 3 Piece – Stainless Steel **JBS** Grade 316 – JBS043

- Engineered to meet safety demands by industry whilst providing an isolation facility for gases, vapours and liquids in pipe work exposed to corrosive conditions
- Stainless steel ball valves can maintain greater pressure resistance at higher temperatures than brass ball valves
- Rated 1000psi water, oil and gas
- 2½ – 4" rated 800psi
- Lockable device standard
- Blow out proof stainless steel grade 316 stem
- Adjustable stem packing
- Pure Teflon® seats and seals
- Temperature rating -45°C to +160°C
- Stainless handle
- Ends BSPT



Size mm	Size inch	Mass kg	Part Number
■ 8	¼	0.26	09862715
■ 10	⅜	0.40	09862812
■ 15	½	0.65	09836712
■ 25	¾	1.20	09836916
■ 32	1¼	2.05	02633563
■ 40	1½	2.80	09837119
■ 50	2	4.35	09837216
▶ 65	2½	8.40	03788304
▶ 80	3	14.5	02633665
▶ 100	4	26.5	05279969

Ball Valves – Screwed 3 Way – Stainless Steel Grade 316 – JV-9203

Body Materials: Stainless steel grade 316

Ends: Screwed BSPP

Seat Materials: TFE

Temperature Range: -45°C to +160°C

Max Working Pressure: Up to 68Bar 15mm – 40mm, up to 55Bar for 50mm size (non-shock cold)

Specifications/Standards:
Standard bore, 15% reinforced glass fibre PTFE seal. Blowout proof stem



Nominal Size mm	Non-shock CWP Bar	3 Way L Port	3 Way T Port
15	68	▶ 05575752	▶ 05575786
20	68	▶ 05575888	▶ 05575922
25	68	▶ 05576024	▶ 05576058
32	68	▶ 05576143	
40	68	▶ 05576262	▶ 05576313
50	68	▶ 05576398	▶ 05576466



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COME IN AND TALK TO OUR TEAM OF SPECIALISTS

For all your Gas Detection, Hose and Fittings, Instrumentation and Flow Control needs.

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Ball Valves – Stainless Steel CTFE Seat – V158

- ISO 5211 Direct Mounting of Actuators of Valves Design
- Investment cast components
- Blow-out proof stem design
- Two position locking device, four point bolt circle
- In line repairable, screwed BSP (P) ISO-228
- Carbon TFE seat enables higher temperature capacity

Working pressure: ½" – 2" 68Bar
CWP WOG; above 2" 55Bar CWP WOG
(non-shock cold)

Maximum temperature:
-40°C up to +218°C
(Saturated steam
at maximum 150psi)



Nominal Size mm	Non-shock CWP Bar	Valve	Kit
15	68	▶ 05575684	▶ 483757
20	68	▶ 05575820	▶ 483758
25	68	▶ 05575956	▶ 483759
32	68	▶ 05576092	▶ 483760
40	68	▶ 05576211	▶ 483761
50	68	▶ 05576347	▶ 483762
65	55	▶ 05576483	▶ 483763
80	55	▶ 05576534	▶ 483764
100	55	▶ 05576160	▶ 483765

▶ BALL VALVES – PVC

Double Union PVC Ball Valve

- Double union full bore PVC ball valves
- BSP ends
- 7Bar working pressure



Nominal Size mm	Pressure Rating Bar @20°C	Part Number
▶ 15	7	03451874
▶ 20	7	03451891
▶ 25	7	03451908
▶ 32	7	03451925
▶ 40	7	03451942
▶ 50	7	03451959
▶ 65	7	03451976
▶ 80	7	03451993
▶ 100	7	03452010

Compact PVC 7 Ball Valve

- Compact full bore PVC ball valves
- BSP ends
- 7Bar working pressure



Nominal Size mm	Pressure Rating Bar @20°C	Part Number
▶ 15	7	05577605
▶ 20	7	05577622
▶ 25	7	05577639
▶ 32	7	05577656
▶ 40	7	05577673
▶ 50	7	05577690
▶ 80	7	05577707

Ball Valves – PVC-C

Body Materials: C-PVC body and ABS handle
Ends: Screwed BSP or solvent cement socket
Seat: PTFE
Seal: EPDM or FPM
Temperature Range: 0°C to 90°C
Max Working Pressure: 16Bar



Size inch	Maximum Pressure Bar	Part Number
▶ ½	16	05579067
▶ ¾	16	05579084
▶ 1	16	05579101
▶ 1.25	16	05579118
▶ 1.5	16	05579135
▶ 2	16	05579169

Asahi C-PVC Type 21 ball valves allow simple installation on to pipework. The stem uses a double o-ring sealing arrangement which improves performance. These valves provide excellent corrosion resistance. For critical applications and for further details of the benefits of these valves please contact our Technical Solutions team.

▶ GATE VALVES

Gate Valve – Flanged Cast Steel

Body Materials: Cast steel
Ends: Flanged ANSI class 150
Handle: Malleable iron
Seat Materials: Trim hardfaced 13% chrome exelloy
Temperature Range: Up to 425°C
Max Working Pressure: 19.7Bar up to 38°C cold water
Specifications/Standards: ANSI Class 150 outside screw and yoke – Flexible wedge disc – Trim
Applications: Used for steam, water, hot water, oil and fuels



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 50	19.7	05573712
▶ 65	19.7	05573729
▶ 80	19.7	05573746
▶ 100	19.7	05573763
▶ 150	19.7	05573780
▶ 200	19.7	05573797

Gate Valves – Cast Iron – Flanged

Body Materials: Cast iron
Ends: Flanged BST E
Seat Materials: Bronze BC6
Temperature Range: 0°C to 120°C
Max Working Pressure: 10Bar
Applications: Water, oil, inert gas and steam



Nominal Size mm	Pressure Rating Bar @120°C	Part Number
▶ 50	13	05574562
▶ 65	13	05574579
▶ 100	13	05574358
▶ 150	13	05574409
▶ 200	13	05574460

Gate Valve Screwed – Bronze – JV-201

Body and Seat Material: Bronze
Ends: Screwed BSPT
Max Temperature: 185°C
Max Working Pressure: 20Bar (cold)
Applications: Water, oil and gas



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	20	05575089
▶ 20	20	05575123
▶ 25	20	05575157
▶ 32	20	05575191
▶ 40	20	05575225
▶ 50	20	05575259

Gate Valve Screwed – Bronze – JV-101

Body and Seat Material: Bronze
Ends: Screwed BSPT
Max Temperature: 178°C
Max Working Pressure: 13.8Bar (cold)
Applications: Water, oil and gas



Nominal Size mm	Non-shock CWP Bar	Part Number
■ 15	13.8	09360806
■ 20	13.8	09360903
■ 25	13.8	09361009
▶ 32	13.8	09361106
▶ 40	13.8	09361203
▶ 50	13.8	09361300

Gate Valves Screwed – Stainless Steel Grade 316 – JV-600

Body and Seat Material: 316SS
Ends: Screwed BSPT
Max Temperature: -50°C to +177°C
Max Working Pressure: 13.8Bar (cold)



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	13.8	05595982
▶ 20	13.8	05595999
● 25	13.8	05596016
▶ 32	13.8	05596033
▶ 40	13.8	05596050
▶ 50	13.8	05596067

Knife Gate Valve – Cast Iron

Knife Gate Valves are designed to cover a wide range of applications such as pulp stock, dry powder, fly ashes, sludge and other slurries with clogging and corrosion problems. This valve allows a full area flow without clogging. The stainless steel knife shaped gate cuts fibroid substance and wipes off the product left on the seating area when it closes. Valves have been designed to fit between flanges and their small size and weight simplifies installation.



Body: Wafer style body (semi lug) cast Iron, handwheel operated
Ends: Suit Table E
Gate: Stainless steel
Seat: EPDM

Size mm	Non-shock CWP Bar	Valve	Actuator
80	10	● 05573967	
100	10	● 05573984	▶ 09376308
150	10		● 09354605
200	10	● 05574018	
250	10	● 05574035	
300	10	● 05574052	

Many other options including actuation packages are available, for further details please contact our Technical Solutions team

Knife Gate Valve – SS316

Body: Wafer style body (fully lugged) 316SS, handwheel operated
Ends: Suit Table E
Gate: Stainless steel
Seat: EPDM

Size mm	Non-shock CWP Bar	Valve	Actuator
100	10	● 05574137	▶ 09376308
150	10	● 05574188	● 09354605

RELATED PRODUCT

Aluminium Pipe Wrench



- Overbite jaw – largest gripping surface
- Dual coil springs – for maximum durability and tool life
- Ergonomic handle form – designed for maximum comfort, won't dig into the palm
- Ergonomic hook jaw design – for easy detachment from the work piece
- Through hardened jaws – increased durability and grip
- Tether ready handle loop



▶ SEE TOOLS – HAND, MEASURING & PRECISION: CHAPTER 22

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

▸ GLOBE VALVES

Globe Valve Screwed – Bronze – JV-301F

Body Material: Bronze
Seat Material: PTFE
Ends: Screwed BSPT
Max Temperature: 185°C
Max Working Pressure: 20Bar (cold)
Applications: Water, oil and gas



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	20	05574443
▶ 20	20	05574477
▶ 25	20	05574494
▶ 32	20	05574511
▶ 40	20	05574528
▶ 50	20	05574545

Globe Valves – Ductile Iron – Flanged

Body Materials: Ductile cast iron
Ends: Flanged ANSI 150
Temperature Range: -10°C to +343°C
Max. Working Pressure: 17.3Bar
Seat Materials: Stainless steel
Specifications/Standards: Hitachi Model M150FGO

 Hitachi Valve, Ltd.



Nominal Size mm	Non-shock CWP Bar	Part Number
● 50	17.3	05592089
● 65	17.3	05592378
● 80	17.3	05592769
● 100	17.3	05589896
● 150	17.3	05590134

Globe Valves – Malleable Iron – Screwed

Body Materials: Ductile cast iron
Ends: Screwed BSP (T)
Seat Materials: Stainless steel
Temperature Range: -10°C to +300°C
Max. Working Pressure: 14.0Bar
Specifications/Standards: Hitachi Model M10KSG to JIS10K specification requirements, conforms to Japan Valve Manufacturers Association Standard JV4-4

 Hitachi Valve, Ltd.



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	14.0	05590440
▶ 20	14.0	05590797
▶ 25	14.0	05591154
▶ 32	14.0	05591426
▶ 40	14.0	05591766
▶ 50	14.0	05592157

Globe Valve Screwed – Stainless Steel Grade 316 – JV-601

Body and Seat Material: 316SS
Ends: Screwed BSPT
Max Temperature: -50°C to +177°C
Max Working Pressure: 13.8Bar (cold)



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	13.8	05590491
▶ 20	13.8	05590848
▶ 25	13.8	05591205
● 32	13.8	05591477
▶ 40	13.8	05591817
▶ 50	13.8	05592208

Valves – Actuation

Our valve/actuator packages are delivered fully assembled and stroke tested. This makes it easy for the end user to install the valve/actuator package.

Our pneumatic actuators feature a scotch yoke design which is well known to all valve users as the most suitable for valve actuation as it produces high end torques at both end positions.

Our pneumatic actuators follow international standards for mounting interfaces to allow easier mounting of valve and accessories like solenoid valves and position switches. We also offer a range of compact electric actuators to suit common sizes of valves in 240V AV and 24V DC.

We carry ex stock a range of sizes of electric and pneumatic actuators for customer convenience. These can be assembled to valves available from stock and delivered to customer ready for installation.



Pneumatic

I-Tork model	Mounting	Break Torque Nm	Part Number
▶ PS50-SR	F03/F05/ F07	37	05592990
▶ PS70-SR	F05/F07	98	09373301
▶ PS85-SR	F05/F07	188	05595285
▶ PD50-DA	F03/F05/ F07	59	09373408
▶ PD70-DA	F05/F07	163	09353208
▶ PD85-DA	F05/F07	302	09352801

Electric

I-Tork Model	Voltage	Mounting	Torque Nm	Part Number
▶ ITQ0020	240V AC	F03	25	04941006
▶ ITQ0020	24V DC	F03	25	04940921
▶ ITQ0040	240V AC	F03/F05	40	05593585
▶ ITQ0040	24V DC	F03/F05	40	04940853
▶ ITQ0080	240V AC	F05/F07	80	04940972
▶ ITQ0080	24V DC	F05/F07	80	06616356

CHECK VALVES

Uni-Chek™ II Wafer Check Valve

Uni-Chek™ II wafer check valves are used to stop backflow and protect rotating equipment or other mechanical devices from the sudden backflow surges that may occur. Wafer check valves are preferred because of their compactness, ease of installation and lower initial costs than traditional flanged swing checks. Unobstructed flow paths, spring assisted, with good dynamic response to reduce damaging water hammer. Uni-Chek™ II valves held in our product range are listed below. There is an extensive range available which includes but is not limited to:

- Sizes from 2 up to 36"
- Pressure classes to meet ASME, BS, DIN, AS, JIS and ISO standards
- Configurations available include models with counterweights, open/shut indicators, backflush levers and microswitches
- Body materials which include cast iron to ASTM A126 Class B, carbon steel to ASTM A216 Gr.WCB, stainless steel grade 316, low temperature steel
- Seal materials Viton®, nitrile, EPDM, neoprene, PTFE; integral and overlaid metal seats also available
- End connections: Flat-smooth 125 AARH, serrated per ASME B16.5

CRANE



Mfr No.	Style	Pressure Class	Body	Disc	Seal	End	Nominal Size mm	Part Number
▶ 2" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	50	05572403
▶ 2 1/2" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	65	05572420
▶ 3" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	80	05572437
■ 4" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	100	05572454
▶ 5" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	125	05572471
■ 6" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	150	05572488
▶ 8" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	200	05572505
● 10" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	250	05572522
● 12" 12E-1330-0	Std wafer	BSTE Class 125	Cast iron	SS 316	Viton®	Flat-smooth	300	05572539

Uni-Chek™ – Extended Spindle Check Valve – Cast Iron

Mfr No.	Style	Pressure Class	Body	Disc	Seal	End	Nominal Size mm	Part Number
▶ 3" 12E-1320-1	Extended spindle	BSTE Class 125	Cast iron	SS 316	Nitrile	Flat-smooth	80	05572590
▶ 4" 12E-1320-1	Extended spindle	BSTE Class 125	Cast iron	SS 316	Nitrile	Flat-smooth	100	05572607
▶ 6" 12E-1320-1	Extended spindle	BSTE Class 125	Cast iron	SS 316	Nitrile	Flat-smooth	150	05572624

Uni-Chek™ II – Std Wafer Check Valve – SS

Mfr No.	Style	Pressure Class	Body	Disc	Seal	End	Nominal Size mm	Part Number
▶ 2" 15E-2300-0	Std wafer	BSTE Class 150	SS 316	SS 316	SS 316	Flat-smooth	50	05572692
▶ 2 1/2" 15E-2300-0	Std wafer	BSTE Class 150	SS 316	SS 316	SS 316	Flat-smooth	65	05572709
▶ 3" 15E-2300-0	Std wafer	BSTE Class 150	SS 316	SS 316	SS 316	Flat-smooth	80	05572726
▶ 4" 15E-2300-0	Std wafer	BSTE Class 150	SS 316	SS 316	SS 316	Flat-smooth	100	05572743
▶ 6" 15E-2300-0	Std wafer	BSTE Class 150	SS 316	SS 316	SS 316	Flat-smooth	150	05572760
● 8" 15E-2300-0	Std wafer	BSTE Class 150	SS 316	SS 316	SS 316	Flat-smooth	200	05572777

Swing Check Valve Swing – Bronze – JV-401

Body and Seat Material: Bronze
Ends: Screwed BSPT
Max Temperature: 185°C
Max Working Pressure: 20Bar (cold)
Applications: Water, oil and gas



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	20	05573151
▶ 20	20	05573168
▶ 25	20	05573185
▶ 32	20	05573219
▶ 40	20	05573236
▶ 50	20	05573253

Swing Check Valve Screwed – Stainless Steel Grade 316

Body Materials: Stainless Steel Grade 316
Ends: Screwed BSP
Seat Materials: Stainless Steel Grade 316
Temperature Range: -50°C to +177°C
Max Working Pressure: 13.7Bar CWP
Specifications/Standards: Full bore, swing type disc, integral seat



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	13.7	05590474
▶ 20	13.7	05590831
▶ 25	13.7	05591188
● 32	13.7	05591460
▶ 40	13.7	05591800
▶ 50	13.7	05592191

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Check Valves – Lift – Malleable Iron – Screwed



Body Materials: Malleable cast iron
Ends: Screwed BSP
Seat Materials: Stainless steel
Max Temperature: -10°C to +220°C
Max Working Pressure: 14.0Bar
Specifications/Standards: Hitachi Model HM10KSC – Meets JIS10K specification requirements



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	14.0	05590423
▶ 20	14.0	05590763
▶ 25	14.0	05591137
▶ 40	14.0	05591749
▶ 50	14.0	05592140

Valves – Check – Steam Service

Compact disc type wafer check valve for steam, air, water and other inert liquids and gasses

- Flangeless design suited for fitting between most ANSI, DIN, AS, BS and JIS flange standards
- Available 15 – 100mm in lapped metal seat CKF3M or CKF3MG and 15 – 50mm in resilient seat CKF3R or CKF3RG, sizes 50mm and over are guided disc with suffix G
- All stainless steel body and internals
- Low pressure drop and large flow rates
- Suitable for either vertical or horizontal installations



Nominal Bore mm	Model	Body Material	Max. Pressure kPa	Face to Face Length mm	Part Number
● 15	CKF3M	Stainless Steel	3000	16.0	05590304
▶ 20	CKF3M	Stainless Steel	3000	19.0	07847037
▶ 25	CKF3M	Stainless Steel	3000	22.0	05591001
▶ 40	CKF3M	Stainless Steel	3000	31.5	05591664
▶ 50	CKF3MG	Stainless Steel	3000	40.0	07847054

Valves – Check – Steam Service

Compact disc type check valve for steam, air, water, and other inert liquids and gasses.

- Available in lapped metal seat CK3M, PTFE Seat CK3T, FPM (Viton®) Seat CK3R
- All stainless steel body and internals
- Low pressure drop and large flow rates
- Screwed connections to BSPT
- Suitable for either vertical or horizontal installations



Nominal Bore mm	Model	Body Material	Max. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	CK3M	Stainless steel	2100	55	05590270
▶ 20	CK3M	Stainless steel	2100	60	05590644
▶ 25	CK3M	Stainless steel	2100	70	05590984
▶ 40	CK3M	Stainless steel	2100	85	06254613
● 50	CK3M	Stainless steel	2100	100	06254630
▶ 15	CK3R	Stainless steel	2100	55	05774754
▶ 20	CK3R	Stainless steel	2100	60	05774788

Check Valves – Brass – S122



Suitable for domestic, industrial, pneumatic and hydraulic installations. Performs well in any orientation. Hot forged CW617N brass body, ISO228 parallel threads. Use the separate 304LSS filter screen listed here to turn the check valve into a foot valve.

Temperature Range: -20°C to +100°C.
Max Working Pressure: 16Bar up to ¾", 12Bar 1".
 10Bar from 1¼ up to 2" and 8Bar over 2".



Size mm	S122 Check Valve SS	Screen to suit S122 Valve
15	■ 05575327	▶ 05590406
20	■ 05575361	▶ 05590746
25	■ 05575395	▶ 05591120
32	▶ 05575429	▶ 05591375
40	▶ 05575463	▶ 05591732
50	▶ 05575497	▶ 05592106
65	▶ 05575514	▶ 05592395
80	▶ 05575531	▶ 05592786
100	▶ 05575293	▶ 05589930

VALVES – LIFT CHECK

Lift Check Valve – Bronze

Vertical lift type. Bronze metal disc with spring
Ends: Female BSPT

Max Temperature: 85°C
Max Working Pressure: 20Bar water,
 oil gas – Cold 10Bar-Steam



Size mm	Non-shock CWP Bar	Part Number
▶ 15	20	06026150
▶ 20	20	06026269
▶ 25	20	06026184
● 40	20	06026201
▶ 50	20	06252250

Valves – Swing Check – Brass – S126



RuB S126 brass swing check valve is used in civil, industrial and agricultural applications. Fitted with NBR rubber seal.

Temperature Range: 0°C to 90°C.
Max Working Pressure:
 16Bar up to ¾", 12Bar 1".
 10Bar from 1¼ up to 2" and 8Bar over 2".



Nominal Size mm	Nominal Size inch	Part Number
■ 15	½	05575310
■ 20	¾	05575344
■ 25	1	05575378
▶ 32	1¼	05575412
▶ 40	1½	05575446
▶ 50	2	05575480

TECHNICAL TIP

BUTTERFLY VALVES RUBBER SEATS

Common butterfly valve rubber seating includes the following materials:

EPDM

- Common general purpose application; hot and cold water, animal fats and oxidising chemicals
- Application temperature range -50°C to +150°C
- Good ozone resistance
- Not suitable for oils and solvents

NBR (Buna N)

- Good resistance to oils, petrochemicals, solvents and aromatic/aliphatic hydrocarbons
- Application temperature range -50°C to +120°C
- Not recommended for oxidising agents or chlorinated hydrocarbons

Viton®

- Excellent resistance to heat, gas permeability, fuels, chemicals, acids and caustics
- Application temperature range -30°C to +200°C
- Broad application in industry
- Can be tailor made to meet specific requirements

It is strongly recommended that this information is provided as a guide only. Refer to the manufacturer's chemical compatibility data to ensure the correct product selection for a specific application.

RELATED PRODUCT

Gasket Eliminators – 510

LOCTITE

- Adds structural rigidity to flanges and eliminates gasket compression set problems



SEE ADHESIVES, SEALANTS & FILLERS: CHAPTER 31

VALVES – BUTTERFLY – INDUSTRIAL

Butterfly Valve – Z011-A – Wafer Type



A universally applicable wafer type valve acc. to EN 593. The large variety of basic materials allows applications in different industries.

- Absolutely tight sealing with flow in either direction
- The valve body and disc are accurately machined which results in low operating torque and long service life and reliability
- Triple shaft bearings prevents shaft deflection
- Four flange mounting holes ensure correct valve location when installing
- Can be installed in any desired position
- Fully epoxy resin coated inside and outside
- Maintenance free, fully repairable
- On/off and modulating service
- Top flange mount to ISO 5211

General Application:

- Chemical and petrochemical industries
- Water and wastewater technology
- Pneumatic materials handling technology
- Shipbuilding
- Power generation industry, civil engineering
- Food industry
- For paint and lacquers, a silicone free version is available

Body: Cast iron **Shaft (2S):** 430SS

Disc: 316SS **Seat:** EPDM

Please note that all sizes are available from 20 – 1,200mm

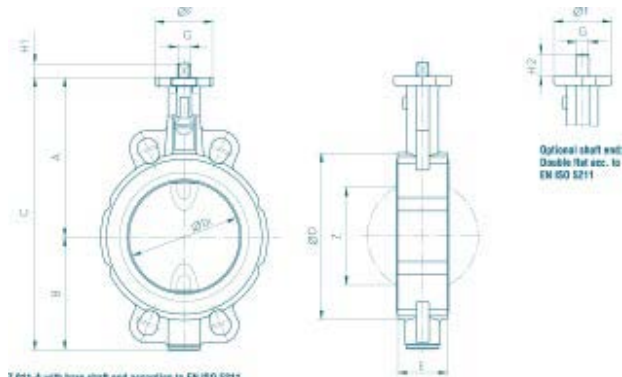
Pressure Rating: Available up to 16Bar

Maximum Temperature Rating:

- EPDM (General service and light acid), Continuous 110°C, Intermittent 120°C
- Buna-N/NBR (General service and oil), Continuous 90°C, Intermittent 100°C
- Viton® (Hi-temp/chemical), Continuous 150°C, Intermittent 180°C



Z011-A



Nominal Size mm	Suit Flanges	Rating Bar	Face/Face mm	Operator	Part Number
▶ 50	E, PN16, ANSI	16	43	Lever	04939034
▶ 65	E, PN16, ANSI	16	46	Lever	04939051
▶ 80	E, PN16, ANSI	16	46	Lever	04939068
▶ 100	E, PN16, ANSI	16	52	Lever	04939085
▶ 125	E, PN16, ANSI	16	56	Lever	04939102
▶ 150	E, PN16, ANSI	16	56	Lever	04939119
▶ 200	E, PN16, ANSI	10	60	Lever	483656
● 250	E, PN16, ANSI	10	68	Bare shaft	04939153
● 300	E, PN16, ANSI	10	78	Bare shaft	04939170

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Butterfly Valve – Z011-GMX – Wafer Type /Z014-A – Lug Type /Chemical – Wafer Type



Fully PTFE lined wafer type valve for corrosive and aggressive media. The patented shaft seal design ensures reliability even with high-corrosive applications.

- PTFE lined butterfly valve for chemically corrosive media
- Environmental protection via EBRO safety seal
- Split body design ISO wafer or LUG pattern
- Insulation height as per plant regulations
- Can be installed in any desired position
- Maintenance free
- Fully repairable
- On/off or modulating service
- Sizes 50 to 300mm

General Applications:

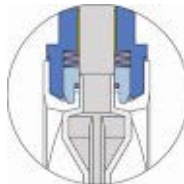
- Chemically corrosive media
- Purification plants
- Pharmaceutical industry
- Adhesives, paper industry and fuel transport
- Paint manufacture and processing
- Food

Safety seal in accordance with the EBRO Twin Seal principle:

1. Primary sealing by means of a Belleville spring washer, transmitting prestress on the spherical segment area.
2. Secondary sealing of the shaft by means of PTFE gaskets and Viton® o-rings.



T-211



Ebro Twin Seal

Butterfly Valve – Z011-GMX – Wafer Type – Ebro

- Wafer type butterfly valve with special lining and disc for abrasive material.
- Shut off and controlling of strong abrasive media, e.g. sand, cement, flue ash
- High abrasion strength of valve disc and seal
- Two part body
- Triple shaft bearings prevent shaft deflection and guarantee optimum guidance even after many years of operational service
- Absolutely tight sealing with flow in either direction
- Can be installed in any desired position
- Maintenance free and fully repairable
- Can be disassembled, material-specific recycling possible
- Sizes 50 to 300mm

General Applications:

- Bulk handling technology
- Weight technology
- Pneumatic conveying systems
- Cement handling
- Foundry sand handling



Z011-GMX

Butterfly Valve – Z014-A – Lug Type – Ebro

- Lug type butterfly valve with threaded holes.
- Absolutely tight sealing with flow in either direction
- The valve body and disc are accurately machined which results in low operating torque and long service life and reliability
- Triple shaft bearings prevents shaft deflection and guarantees optimum guidance even after many years of operating service
- Can be disassembled, material specific recycling possible
- Single flange mounting is possible
- Can be installed in any desired position
- Maintenance free and fully repairable
- Full epoxy resin coated inside and outside
- Top flange mount to ISO 5211

General Applications:

- Chemical and petrochemical industries
- Water and waste water technology
- Pneumatic materials handling technology
- Shipbuilding
- Power generation industry, civil engineering
- Food Industry

Body: Ductile Iron

Shaft (2S): 430SS

Disc: 316SS

Seat: EPDM

Please note that all sizes are available from 20mm to 1200mm.

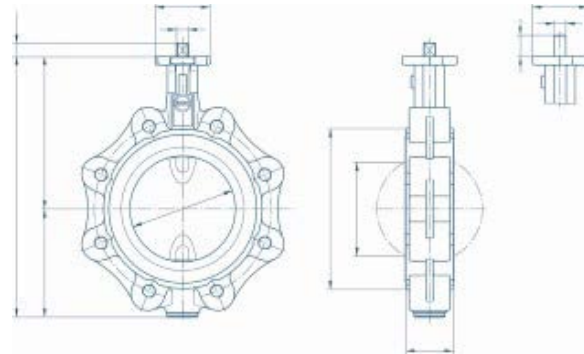
Max Pressure Rating: 16Bar

Maximum Temperature Rating:

- EDPM (General service and acid), Continuous 110°C Intermittent 120°C
- Buna-N/NBR (General Service and Oil), Continuous 90°C Intermittent 100°C
- Viton® (Hi-temp/chemical), Continuous 150°C Intermittent 180°C



Z014A



Nominal Size mm	Suit Flanges	Rating Bar	Face/Face mm	Operator	Part Number
▶ 50	AS 2129 E	16	43	Lever	04939187
▶ 60	AS 2129 E	16	46	Lever	04939204
▶ 80	AS 2129 E	16	46	Lever	04939221
▶ 100	AS 2129 E	16	52	Lever	04939238
▶ 125	AS 2129 E	16	56	Lever	04939255
▶ 150	AS 2129 E	16	56	Lever	04939272
▶ 200	AS 2129 E	10	60	Lever	04939289
● 250	AS 2129 E	10	68	Bare shaft	04939306
● 300	AS 2129 E	10	78	Bare shaft	04939323

TECHNICAL TIP

TIPS FOR INSTALLATION OF BUTTERFLY VALVES

The seat in a resilient seated butterfly valve usually extends around to both faces of the valve. As a result, no gaskets are required as these seats serve the function of a gasket. The seat material which extends past the face is compressed during installation and flows toward the centre of the valve seat. Any change in this configuration due to improper installation directly affects the pressure rating and seating/unseating torques.

Unlike most valve types, the butterfly valve's disc actually extends beyond the face of the valve body at given angles of opening (e.g. 30% or more) when installed between flanges. Therefore, it is very important before installation to ensure that the disc is able to freely turn and enter the flanges and pipe work.

Epoxy Coated Cast Iron Butterfly Valves



- Soft seal valve with low operation torque requirements to provide a tight seal
- Minimal operational wear and extended service life can provide long term benefits to end users
- The epoxy coated body and the hot dipped galvanised lever make this valve a stand out for general applications including those in harsh corrosive environments
- EPDM is the standard seat provided with the JBS051 and JBS052
- In all cases please refer to compatibility of components with the medium, or when the intended application approaches the maximum pressures and temperatures of the EPDM
- Temperature limitations are -20°C to +120°C
- Stainless steel grade 316 disc and stem
- 16Bar rating (including dead end service)
- General use including hot and cold water, animal oils, salts and oxidising chemicals



Wafer JBS051

Lugged JBS052

Size	Wafer	Lugged
50	▶ 01558254	▶ 01557953
65	▶ 01558356	▶ 01558055
80	▶ 01558464	▶ 01558157
100	▶ 01559156	▶ 01558568
125	▶ 01559253	▶ 01558658
150	▶ 01559355	▶ 01558754
200	▶ 01559457	▶ 03439889
250	▶ 01559554	▶ 03439906

Other seats available on request

TECHNICAL TIP

ALLOY VALVE METALS

The following metals are used extensively in valve manufacture and each has its own advantages in application.

Brass

An alloy of copper and zinc. Primarily used in valves, particularly for small valve bodies, bonnets and stems. When nickel-plated, the finished valve has excellent corrosion resistance. Dezincification Resistant (DZR) alloy is brass with tin added and is required by law for potable water applications.

Bronze

A metal alloy consisting of copper with tin. Widely used and accepted as the standard for pressure rated valves to 50mm. Bronze is easy to machine and is popular for valve bodies, bonnets and in special alloys for stems and valve discs. It is used extensively in steam and marine environments due to its high resistance to pitting.

Stainless Steel

Many variations of this metal, but the 316 type have excellent corrosion resistance in a wide range of environments. It is an alloy of iron, carbon, nickel and chromium which is not susceptible to stress, corrosion cracking or any heat treatment. The most common uses are for body castings or forging, stems and balls.

TECHNICAL TIP

BUTTERFLY VALVE DESIGN DETAILS

Item	Material	Symbol	Features	Benefits
Body design standard Body-flange drilling	Cast Iron BS5155 AS2129	ASTM-A126 Class B;GG25 Table D/E	Epoxy Coated	Anti-Corrosive Australian Standard
Body Types 50 – 300mm	Wafer> Lugged>	Figure JBS051 Figure JBS052	Face to face ISO5752 [ISO5211-top]	Replacement convenience
Nominal Pressure	PN16 Body	16 Bar AP1598 C.W.P.	Factory test reference on metal tag	Proof of individual test ex-factory
Disc	Stainless Steel	ASTM A351 CF8M 316SS	Pin-less	Eliminates pin hole leakage
Stem	Stainless Steel	ASTM A276 Grade 416SS	High physical properties	High temperature oxidation resistant
Seat [Replaceable]	Ethylene Propylene Diene Monomer 'Std Issue'	EPDM Refer Seat Properties	General purpose -20 to +120°C Phenolic backed	Non-collapsible, Stretch resistant Blowout proof
Bushing	PTFE	PTFE	Supports turning shaft	Assists valve torque operation
Handle	Cast Iron	N/A	Hot dipped galvanised	Longer life

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

VALVES – DIAPHRAGM

A Type Diaphragm Valves

Saunders A type diaphragm valves have been developed to handle a wider range of fluids and gases than any other valve type. A wide choice is available for materials, methods of operation and body end connections to satisfy the needs of most corrosive and abrasive applications.

Valve flow:

Pocketless design for contamination free performance and smooth flow characteristics. Linear operation ensures valve does not induce damaging pressure surges or static charges.

Ease of maintenance:

Three part design allows maintenance and actuator retrofitting without removing the valve from the pipeline. Overall this results in lower cost of ownership compared to other valve types.



Grade	15mm	20mm	25mm	32mm	40mm	50mm	65mm	80mm	100mm	150mm
C	▶ 05580410		▶ 05581430		▶ 05581923	▶ 05582246		▶ 05582773		
CV			● 05581447			▶ 05582263				
HT		▶ 05581039								
Q	▶ 05580580	▶ 05581090	▶ 05581549	▶ 05581702	▶ 05582042	▶ 05582382	▶ 05582671	▶ 05582909	▶ 05579951	● 05580223
226	● 05580325									
300	● 05580342	● 05580903	▶ 05581379	▶ 05581668	▶ 05581855	▶ 05582212	▶ 05582603	▶ 05582756	● 05579866	▶ 05580189
214/300	● 05580291	● 05580869	● 05581294		● 05581787	▶ 05582178				

KB Type Diaphragm Valves

Straight Through Bores:

Saunders full bore KB type diaphragm valves, with their smooth non-turbulent body design have proved to be outstanding in resisting the erosive effects of corrosive/abrasive line media. In addition, the full bore concept is designed for minimum flow resistance whilst allowing rodding out and easy cleaning. Low pressure drop and high flow characterise the efficiency of operation of these valves. The flexible diaphragm ensures constant leak tightness even when solids, powders and dry media are present. Valve blockage and wear due to slurry build up on the valve internals are significantly reduced by the straight through design. In addition to the range of unlined screwed and flanged bodies, rubber linings and glass coatings are available for the more exacting corrosive and abrasive applications to a maximum working pressure of 10Bar.

Valve Flow:

Smooth bore straight through body gives high flow performance with minimum turbulence, while giving 100% leak tight closure.

Lubrication:

Bonnet assembly lubricated for long life – needs no further grease. The indicator lip seal stops the ingress of dust, dirt and atmospheric contaminants.

Ease of Maintenance:

Three part design allows maintenance and actuator retrofitting without removing the valve body from the pipeline. Extended life, reliability and safety, combined with essentially simple design result in low maintenance and low cost of ownership.

Valve Usable in Any Position:

The KB valve can be installed in any position without affecting its operation.

We recommend six times pipe diameter from pump or bend.



Grade	24-40mm	50mm	65mm	80mm	100mm
AA	▶ 05581243	▶ 05582467	● 05582722	● 05582926	▶ 05579985
300	▶ 05581226		▶ 05582705		

Pneumatic Valve Actuation

Saunders Pneumatic Actuators facilitate remote operation of the valve as an integral part of a control system. The versatile and robust design derived from the use of high technology materials of construction results in an actuator suitable for a wide range of process industry applications.



EC Actuator Mounted on A Type PFA Lined Valve

ES Actuator

Diaphragm No.	Part Number
● 151	05583538
● 155	05583436
▶ 156	05583453
▶ 158	05583470
● 159	05583487
▶ 161	05583504
▶ 306	05583555
● 309	05583589
● 310	05583606

Diaphragm Valves



The Saunders range of diaphragm valves is immense and for the most common applications we carry stocks of the following valves. There is full access to the complete range of supply options featuring alternative body materials, lining, diaphragm and actuation options from within the entire Saunders range. A range of spares are held to enable quick changes and maintenance to be undertaken. Please contact any of our Technical Solutions team for more extensive technical support and advice.

Size mm	Valve Type	Valve Body Material	Diaphragm Material Nat.Rubber	End Connections	Part Number
15	A	Cast iron	Grade Q	BSP	05580665
20	A	Cast iron	Grade Q	BSP	05581141
25	A	Cast iron	Grade Q	BSP	05581600
32	A	Cast iron	Grade Q	BSP	05581736
40	A	Cast iron	Grade Q	BSP	05582093
50	A	Cast iron	Grade Q	BSP	05582416
40	A	Cast iron	Grade Q	BST D	05581957
50	A	Cast iron	Grade Q	BST D	05582297
65	A	Cast iron	Grade Q	BST D	05582637
80	A	Cast iron	Grade Q	BST D	05582807
100	A	Cast iron	Grade Q	BST D	05579917

Valves – Diaphragm Valves PVDF

Asahi Type 14 PVDF Diaphragm Valves provide excellent resistance to aggressive and corrosive working environments. With built-in travel stop mechanism to protect the diaphragm. Visual indicator on top of the handle clearly shows the operator whether the valve is fully open, half open, half closed or fully closed.

Body Materials: PVDF body (polyvinylidene fluoride)

Ends: Flanged ANSI150

Diaphragm: PTFE diaphragm with PVDF gas barrier and titanium studs

Temperature Range: -40°C to +120°C

Max Working Pressure: 10Bar

Warranty: 3 Year warranty



Size mm	Part Number
15	05584116
25	05584150
40	05584167
50	05584184
80	05584201

VALVES – PRESSURE REDUCING

Pressure Reducing Valves – itap Art 143

- Compensated piston operation
- Female/female threads
- Body in nickel-plated brass

Minimum and maximum working temperatures: 0°C, 80°C

Maximum inlet pressure: 25Bar

- Outlet pressure can be adjusted between 1Bar and 6Bar
- Factory preadjustment 3Bar
- Outlet pressure gauge connection 1/4" on both sides
- Threads ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228)



Size mm	Part Number
15	08286249
20	08286198
25	08286215
40	08286232
50	05584218

PRODUCT INSIGHT

DIAPHRAGM VALVE SELECTION

Weir Type

A weir type provides tight shut-off with comparatively low operating force. The weir valve also produces only a short diaphragm movement which, in the long run will have an effect on the length of the diaphragm's life and reduces the need for maintenance. This type of valve is better at throttling flow and the straight-through configuration, however a disadvantage of the weir type valve is that flow control is poor at very low flow rates.

Straight-Through

A straight-through valve is a better configuration when handling viscous fluids, thick slurries, and fluids containing solids and also facilitates line clearing. A negative in the straight-through type valve is it has long diaphragm movements, this decreases the diaphragm's life and increases the need for maintenance. Since a more flexible diaphragm is needed, the diaphragm material choice is limited to elastomers.

Pressure Reducing Valves

– Direct Acting DR20

- Compact all stainless steel direct acting pressure reducing valve.
- Spring ranges available 14 – 200kPa, 180 – 600kPa, 540 – 1000kPa
- Suitable for steam, air or inert gases
- Bellows sealed
- Capable of 30:1 pressure reduction
- Built-in strainer screen
- Fully rebuildable in-line



Nominal Bore mm	Model	Max. Pressure	Face to Face Length mm	Set Pressure Range kPa	Part Number
20	DR20-2	1600	95	14 – 200	06006057
15	DR20-6	1600	95	180 – 600	05590372
20	DR20-6	1600	95	180 – 600	05591086
25	DR20-6	1600	95	180 – 600	05590729
20	DR20-10	1600	95	540 – 1000	05590712
25	DR20-10	1600	95	540 – 1000	05591069

Valves – Pressure Reducing – Direct Acting DR20

Nominal Bore mm	Spares	Part Number
15 – 25	2Bar spring 14 – 200kPa set pressure	05595914
15 – 25	Rebuild kit – Includes main valve and seat assembly	06213490
15 – 25	Bellows seal	06213473

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Pressure Reducing Valves – High Performance Reducing Valve COSR-16

- High performance seam pressure reducing
- Provides steam at accurately controlled set pressure
- Built-in pilot valve strainer screen
- Stainless steel internals for long service life
- Fully rebuildable
- Other end connections available on indent contact Technical Solutions team for details
- Low set pressure version also available Model COSR-3



Nominal Bore mm	End Connections	Max.Inlet Pressure kPa	Face to Face Length mm	Set Pressure Range kPa	Part Number
▶ 15	BSPT	1570.0	175	30 – 1320	05590338
▶ 20	BSPT	1570.0	175	30 – 1320	05590678
▶ 25	BSPT	1570.0	190	30 – 1320	05591035
▶ 32	DIN PN25/40RF	1570.0	180	30 – 1320	07846867
▶ 40	DIN PN25/40RF	1570.0	200	30 – 1320	07846884
▶ 50	DIN PN25/40RF	1570.0	230	30 – 1320	07846901
● 65	DIN PN25/40RF	1570.0	290	30 – 1320	07846918
▶ 80	DIN PN25/40RF	1570.0	310	30 – 1320	07846935
▶ 32	AS 2129 BS10 Table H	1570.0	215	30 – 1320	05591341
▶ 40	AS 2129 BS10 Table H	1570.0	215	30 – 1320	05591698
▶ 50	AS 2129 BS10 Table H	1570.0	254	30 – 1320	05592038
● 65	AS 2129 BS10 Table H	1570.0	365	30 – 1320	05592344
● 80	AS 2129 BS10 Table H	1570.0	371	30 – 1320	05592735

Anti-Vacuum 568 Safety Relief Valve

Body Materials: Gunmetal

Ends: Screwed BSPT

Seat Materials: PTFE

Temperature Range: Up to 195°C

Max Working Pressure: 13.5Bar

Applications: Nabic® Model Fig 568 anti-vacuum valve is approved by the UK Water Research Centre for use on potable water. The valve head, normally held against its seat by system pressure, is set to open at a vacuum pressure of 50m bar. A dust cap prevents the direct entry of foreign matter. The strengthened body complete with taper thread ensures a tight seal between the vessel and valve whilst maintaining the integrity of the seat seal. The capacity of an anti-vacuum valve should be equal to or greater than the rate of vacuum formation in the vessel being protected.

Installation: Fig 568 anti-vacuum valves are used to protect drying cylinders, storage cylinders, calorifiers and tankers from collapse due to internal vacuum. They are also used on steam systems, to assist condensate drainage and to prevent suction of contents from vats. They are normally fitted vertically, at the top of the vessel or pipeline being protected. The operation of the valves in service should be checked every twelve months.



Nominal Size mm	Part Number
▶ 15	05585238
● 25	05585408
● 40	05587771
▶ 50	05588111

VALVES – SAFETY RELIEF

High Lift 500 Safety Relief Valve

Body Materials: Gunmetal

Ends: Screwed BSP

Seat Materials: PTFE

Temperature Range: Up to 195°C.

Max Working Pressure: Set 12.5Bar

Specifications/Standards: Nabic® Model Fig 500 – all wetted parts are manufactured from dezincification resistant materials approved by the UK Water Research Centre for use on potable water. UKWFB listed. Designed and tested to BS 6759.

Applications: The Fig 500 Nabic® High Lift Safety valve has been designed primarily for use on unvented hot water heating systems, where a high capacity, emergency steam relief capacity is required. High capacity and resilient PTFE seating makes these valves ideal for steam, air and inert gas applications.



Nominal Size mm	Set Pressure Range psi	Part Number
▶ 15	90 – 119	05585221
▶ 20	40 – 59	05585340
▶ 20	90 – 119	05585323
▶ 25	90 – 119	05585391
▶ 32	90 – 119	05585799
▶ 40	90 – 119	05587754
▶ 50	90 – 119	05588094

High Lift 500 Valve Seal & Spring Adjusting Kit

Description	Nominal Size mm	Part Number
▶ Seal kit	15	05585255
▶ Seal kit	20	05585357
▶ Seal kit	25	05585425
▶ Seal kit	32	05585816
▶ Seal kit	40	05587788
▶ Seal kit	50	05588128
▶ Spring adjusting kit	All	05584490

PRODUCT INSIGHT

VALVE ASSEMBLY & ACTUATION ACCESSORIES

We carry in stock a range of quarter turn electric and pneumatic actuators which can be assembled with ball or butterfly valves.

Accessories like solenoid valves and position switches can also be provided and assembled to actuators if required.

Actuated valves are supplied fully assembled and tested ready for installation.

Larger electric or pneumatic actuators can be sourced directly from manufacturers and supplied assembled with valves.

For more information contact our Technical Solutions team on 0800 660 660



High Lift 500 Valve Spring

Nabic® Fig 500 Valve Spring



Valve Size mm	Spring Inside Dia. mm	Colour Code and Pressure Range (psi)							
		White 5-9	Red 10-19	Yellow 20-39	Green 40-59	Brown 60-89	Blue 90-119	Purple 120-149	Black 150-180
15	12	● 05585442	▶ 05585459	▶ 05585476	▶ 05585493	▶ 05585510	● 05585527	▶ 05585544	▶ 05585561
20	17	▶ 05585578	▶ 05585595	▶ 05585612	▶ 05585629	▶ 05585646	▶ 05585663	▶ 05585680	▶ 05585697
25	20	● 05585714	● 05585731	▶ 05585748	▶ 05585765	▶ 05585782	▶ 05585799	▶ 05585935	▶ 05585952
32	25	▶ 05585969	● 05585986	▶ 05586003	▶ 05586020	▶ 05586037	● 05586054	▶ 05586071	▶ 05586088
40	32	● 05586139	▶ 05586377	▶ 05586802	▶ 05586819	▶ 05586836	● 05586853	▶ 05586870	▶ 05586887
50	40			● 05587040	▶ 05587091	▶ 05587159		▶ 05587193	▶ 05587227

VALVES - NEEDLE

Needle Valve Screwed – Stainless Steel Grade 316 – JV-9003F

Body Materials: Stainless steel grade 316
Ends: Screwed BSPP (ISO 228)
Seat Materials: PTFE
Temperature Range: -50°C to +232°C
Max Working Pressure: Up to 410Bar cold
Specifications/Standards: Adjustable packing nut, screwed-in bonnet



Nominal Size mm	Part Number
▶ 8	05588995
▶ 10	05589012
▶ 15	05589029

Needle Valves – Brass – 90° Compression Tube x Threaded



Body Materials: DZR brass alloy
Ends: Tube x Screwed BSP
Seat Materials: Viton® o-rings
Temperature Range: Up to 100°C
Max Working Pressure: Up to 34Bar cold
Specifications/Standards: Titon Model NV41 compression angle tube x BSPT



Mfr No.	Size	Part Number
▶ 041005-0402	1/4" Tube x 1/8" BSPT	02978006

Needle Valves – Brass – Threaded



Body Materials: DZR Brass Alloy
Ends: Screwed BSP, F x F
Seat Materials: Viton® o-rings
Temperature Range: Up to 90°C
Max Working Pressure: Up to 34Bar cold
Specifications/Standards: Titon Model NV104 female needle valve is approved for use with gas (AGA approval: 4104)



Mfr No.	Size	Part Number
■ 041026-02	1/8" BSPP x 1/4" BSPP	01141953
■ 041026-04	1/4" BSPP x 1/4" BSPP	08097316
▶ 041026-06	3/8" BSPP x 3/8" BSPP	05568306

Needle Valves – Brass – Threaded



Body Materials: DZR brass alloy
Ends: Screwed BSP, M x M
Seat Materials: Viton® o-rings
Temperature Range: Up to 90°C
Max Working Pressure: Up to 34Bar cold
Specifications/Standards: Titon Model NV105 male needle valve is approved for use with gas (AGA approval: 4104)



Mfr No.	Size	Part Number
● 041027-04	1/4" BSPT x 1/4" BSPT	00215458

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

VALVES – SOLENOID – GENERAL PURPOSE

GP Solenoid Valves – 2 Way – Brass Body

Pilot Operated – A minimum of 0.35 for valves up to 25mm and 0.5Bar for valves from 32 – 50mm is required for these valves to operate. 10 – 50mm Normally closed brass solenoid valves, pilot operated. Suitable for air, water and inert gas up to 10Bar. Maximum media temperature is 85°C. All voltages available on request.

ASCO
NUMATICS



Pipe Size mm	Pipe Size inch	Orifice Size	(m³/h)	(l/min)	Product Code ~/=	min.	max. (PS) air / water (*) ~	max. (PS) air / water (*) =	Media Temp(degrees)	Operating pressure differential (bar)		
										240V AC	24V DC	24V AC
10	3/8	12	2.4	40	SCE238A001	0.3	10	10	85	07849298	05530260	05530243
15	1/2	12	2.4	40	SCE238A002	0.3	10	10	85	05530277	05530311	05530294
20	3/4	20	6.6	110	SCE238A004	0.3	10	10	85	05530328	05530362	05530345
25	1	25	9.9	165	SCE238A005	0.3	10	10	85	05530464	05530498	05530481

VALVES – SOLENOID – HOT WATER & STEAM

Hot Water Solenoid Valves – 2 Way – Normally Closed – Diaphragm Type

Mfr No. shown is with standard epoxy encapsulated coil.
Explosion proof solenoid options and other common voltages are available.

ASCO
NUMATICS



Pipe Size mm	Pipe Size inch	Orifice Size	Cv	kPa min	kPa AC max	kPa DC max	Rebuild Kit No. AC	Rebuild Kit No. DC	Coil No. AC	Coil No. DC	Mfr. No.	Operating Pressure Differential		
												240/50	24/50	24VDC
10	3/8	16.0	3	35	900	700	K302-305	K302-401			SCD210D1HW	03757402		
15	1/2	16.0	4	35	900	700	K302-305	K302-401	400325-FT	400425-FT	SCD210D2HW	03757606	05311623	05311640
20	3/4	19.0	5	0	700	300	K302-308	K302-404	400425-FT	400425-FT	SCD210D95HW	03757907		05311725
20	3/4	19.0	5	35	900	700	K302-307	K302-403	400325-FT	400425-FT	SCD210D9HW	03757800		05311674
25	1	25.4	13	35	900	900	K302-280HW	K302-379HW	400325-FT	400425-FT	SCD210D4HW	02781656		

Solenoid 2-Way Normally Closed Valves – Piston Type – Steam

Mfr No. shown is standard epoxy encapsulated coil.
Other voltages are available on request.

ASCO
NUMATICS



Pipe Size mm	in.	Orifice Size	Cv	kPa min	kPa DC max	Rebuild Kit No.	Coil No.	Mfr. No.	Operating Pressure Differential	
									Part Number 240V AC	Part Number 24/50
08	3/8	9.5	1.2	7	1400	K304-030	400326-HT	SUD222A70	02781855	
10	3/8	9.5	2.5	7	1400	K304-030	400326-HT	SUD222A74	05530447	
13	1/2	13	3.6	14	900	K304-032	400426-HT	SUD222A47	05530413	035311487
20	3/4	13	4.6	14	900	K304-032	400426-HT	SUD222A49	05530430	
25	1	25	13.5	35	900	K304-392	400426-HT	D22025	05530600	05311555

STRAINERS – Y TYPE

Y Type Strainer, Screwed BSP Bronze – JV-001

Body Material: Bronze
Ends: Screwed BSPT
Max Temperature: 185°C
Max Working Pressure: 20Bar (cold)
Applications: Water, oil and gas



Nominal Size mm	Part Number
▶ 15	05577248
▶ 20	05577316
▶ 25	05577350
▶ 32	05577401
▶ 40	05577435
▶ 50	05577452

Y Type Stainless Steel Strainers

Model YST-800
Body Material: Stainless steel
Ends: Screwed BSPT
Max Temperature: 230°C
Max Working Pressure: 40Bar (cold)
Applications: Water, oil and gas



Nominal Size mm	Part Number
■ 15	05597308
■ 20	05597648
■ 25	05598056
▶ 32	05598107
▶ 40	05598532
▶ 50	05598600

Y Type Strainers – Malleable Iron – Screwed

Hitachi Valve, Ltd.

Body Materials: Malleable cast iron
Ends: Screwed BSP
Temperature Range: -10°C to +220°C
Max Working Pressure: 14.0Bar
Screen Materials: Stainless steel
Mesh Size: 20
Specifications/Standards: Hitachi
 Model HM10KST meets JIS10K specification requirements.



Nominal Size mm	Part Number
▶ 15	05590457
▶ 20	05590814
▶ 25	05591171
▶ 32	05591443
▶ 40	05591783
▶ 50	05592174

Y Type Strainers – Brass



• Brass body, stainless steel filter
 • Easy maintenance and cleaning
Max Working Pressure: 20Bar (cold)



Nominal Size mm	Part Number
■ 20	09231401
■ 25	09231508
▶ 32	09231605
▶ 40	09231702
▶ 50	09231809

SAFETY TIP

CONNECT WITH US

NZ Safety Blackwoods knows the industry and environment in which you operate – We have it covered when it comes to safety, no matter what the application. We will help you make the best purchasing and process decisions and provide support every step of the way to help you keep your people safe.

We are available to provide you the best advice to select the correct personal protective equipment and workwear for your business.

Our team is available to help explain terminology and regulations, looking at facilities or job sites, and helping establish exactly what equipment is required, why it is needed, how to safely use and wear the equipment, and implement any changes.

Working with us is simple and straight forward

- We will answer all your questions
- We will figure out what you need
- We will show you how to use it
- We will set-up an easy way to order your equipment
- We will help you to keep it serviced and compliant

**Call us on 0800 660 660 or
 visit www.nzsafetyblackwoods.co.nz**

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

PRODUCT INSIGHT

VALVES – WATER CONTROL



INBAL Valves embody a breakthrough in the conceptual design of automatic water control valves. The major concept that led to the development of the INBAL Valve is the N.M.M.P (No moving mechanical parts). This is a significant feature in fire protection systems where long life of reliable operation is considered the first criterion in selecting equipment. Particularly control valves.

All INBAL valves are rated to 300psi (21Bar) and are available from sizes 1½" to 12" (40mm to 300mm) with threaded, flanged, wafer or grooved ends.

The standard INBAL valves are made of ductile iron ends and steel housing both epoxy coated. A large variety of optional materials including cast steel, stainless steel, bronze, nickel aluminium bronze and titanium are available from stock. Optional coatings can be supplied on request. The control trim as standard is made of stainless steel and brass nickel-chrome plated. It is supplied unless required otherwise pre assembled in sections. The trim package is compact, incorporates innovative components and is designed for quick mounting, dependable operation and easy re-setting.

The small physical dimension and low weight enable the INBAL valve and trim assembly to occupy much less space and reduce significantly the time and labour needed for installation.

INBAL Deluge Systems

Deluge systems as the name implies are intended to deliver large quantities of water over a large area in a relatively short period of time. Deluge systems are suitable for facilities that contain combustible and flammable materials. In addition these systems are used for situations in which thermal damage is likely to occur in a relatively short period of time.

The INBAL Deluge valve is compact lightweight and is provided with preassembled trim-all of which minimizes the installation time and makes it simple and easy. The INBAL Deluge valve opens fast yet smoothly, preventing water hammer. The INBAL deluge valve is available for:

Local Resetting:

Once the deluge valve operates, it is latched in the open position and will not close even if the releasing device closes. The deluge valve will close only if the local re-setting procedure, applicable to the specific INBAL Deluge valve is exercised.

Remote Resetting:

The INBAL Deluge valves can be remotely reset. The remote resetting enables the quick resetting from the control room.

GAUGES & GLASSES – SIGHT

Sight Glasses and Gauges – Level Gauges

Richard Klinger originally invented the Reflex Level Gauge and today Klinger manufactures the most comprehensive range of Liquid Level Gauges suitable for the varied needs of the modern process plant. Used by most major process operators, engineering contractors and OEM's through out the world, we can truly claim world leadership in this field. The Klinger range of Liquid Level Gauges comprises of four main types:

1. Glass Tube (17Bar)
2. Reflex – Steam (up to 32Bar) Process Applications (up to ANSI Class 2500)
3. Transparent – Steam (up to 120Bar) Process Applications (up to ANSI Class 1500)
4. Bi-Colour – Steam (up to 225Bar) Plus a range of shut off fittings and accessories.

Klinger also manufactures the well proven Magnetic Level Gauge which is particularly suitable for duties where dangerous and toxic liquids or gases are involved and where some of the following features, benefits and options are required:

- Immediate and accurate response to level changes, giving clear and sharp legibility
- Continuous control of liquid level
- Local and remote display
- Alarm switching facilities
- Robust, shockproof and completely sealed for safety
- No leakage to atmosphere
- Particularly suitable for dangerous or toxic fluids
- Powerful omnidirectional magnet system
 - Guide – Free float
- Display can be rotated through 360° irrespective of float position
- Automatic float warning
- High pressure capability – Up to 200Bar unvented
- Unlimited length
- Top mounted options
- PTFE/PFA lined, PP, PVDF and PVC versions



Simple to engineer and easy to install, eliminates preventative maintenance.

An economical alternative to conventional level gauges and other level measuring systems. Some of the more common parts are listed here, for those not listed and for technical advice please contact our Flow Control Specialists.

Mfr No.	Description	Part Number
528201	WGM set RH flanged c/w AB12 Drain cock	05665240
528202	WGM set LH flanged c/w AB12 Drain cock	05665257
528094N	WGM set ¾" RH screwed c/w AB12 Drain cock	05665206
528095N	WGM set ¾" LH screwed c/w AB12 Drain cock	05665223
454020	AB12 graphite packing sleeve	05669133
5230111	Full set AB18D cocks c/w ABL12 Drain cocks	05665036
454021	AB18 Graphite packing sleeve	03710291
684002	Klingerlastic NE cone AB18 1/2" Bore large	05665750
684003	Klingerlastic NE cone AB12 ¾" Bore	01465237
684008	Klingerlastic NE cone AB12 ¾" Bore	05556916
587109L	Borosilicate glass tube nominal OD 1/2" (actual OD 12.4mm)	05671139
587110L	Borosilicate glass tube nominal OD ¾" (actual OD 15.4mm)	05671173
587111L	Borosilicate glass tube nominal OD ¾" (actual OD 18.4mm)	05671190
581005	Reflex glass and joints size B 4	05671649
581007	Reflex glass and joints size B 6	05671683
581008	Reflex glass and joints size B 7	05671700
581009	Reflex glass and joints size B 8	05671717
581010	Reflex glass and joints size B 9	05671734
581011	Reflex glass and joints size B 10	05671632
585164	Transparent plate glass and joints size B 5	05669031
585166	Transparent plate glass and joints size B 7	05669065
585167	Transparent plate glass and joints size B 8	05669082
585168	Transparent plate glass and joints size B 9	05669099

Sight Glass – Steam – Condensate – Water

Compact sight glass for mounting after steam traps to monitor flow conditions and performance.

Model T8N/T10N

- Cast iron body
- Heat resistant glass
- PTFE gaskets for easy resealing
- PTFE ball for visual indication of flow
- Fully rebuildable inline
- 15 – 25mm Available in Model T8N
- 32 – 50mm Available in High Flow Model T10N with bypass
- Screwed connections to BSPT, also available flanged on Indent



Nominal Bore	Model	Max. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	T8N	1570	68	05596339
● 20	T8N	1570	75	05596373
▶ 25	T8N	1570	79	05596424
▶ 40	T10N	1570	120	05596492
● 50	T10N	1570	126	05596577

Sight Glass – Steam – Condensate – Water

Nominal Bore mm	Spares	Part Number
▶ 15 – 50	Rebuild kit – T8N and T10N	05596781

▶ FILTERS, REGULATORS & LUBRICATORS

Filter – Semi Auto Drain

Semi-auto drain filter.

Max. Inlet Pressure: 12Bar at 23°C or 10Bar at 50°C

Operating Range: 1.2Bar – 12Bar

Ambient Temperature: 0°C to 50°C

Body: Zamak (zinc and aluminium), element – Polyethylene



Port Size BSP mm	Port Size BSP in.	Max. Flow Rate L/min @ 6.3bar	Mfr No.	Part Number
● 8	1/4	1050	342 05 002BP	05533949

Larger sizes available on request.

Regulator Plus Gauge

Max. Inlet Pressure: 12Bar

Regulating Range: 0.5Bar – 8Bar

Ambient Temperature: 0°C to 50°C

Body: Zamak (zinc and aluminium), element – Polyethylene with pressure gauge



Port Size BSP mm	Port Size BSP in.	Max. Flow Rate L/min @ 6.3bar	Mfr No.	Part Number
● 8	1/4	650	342 05 006BP	05533983

Larger sizes available on request.

Filter Regulators – Semi Auto Drain

Semi-auto drain filter/regulator with mounting ring.

Max. Inlet Pressure: 12Bar at 23°C or 10Bar at 50°C

Regulating Range: 0.5 – 8Bar

Ambient Temperature: 0°C to 50°C

Body: Zamak (zinc and aluminium), element – Polyethylene with pressure gauge



Port Size BSP mm	Port Size BSP in.	Max. Flow Rate L/min @ 6.3bar	Mfr No.	Part Number
● 8	1/4	650	342 05 010BP	05534000

Larger sizes available on request.

Lubricator

Max. Inlet Pressure: 10Bar at 23°C or 10Bar at 50°C

Ambient Temperature: 0°C to 50°C

Body: Zamak (zinc and aluminium), element – Polyethylene



Port Size BSP mm	Port Size BSP in.	Max. Flow Rate L/min @ 6.3bar	Mfr No.	Part Number
● 8	1/4	1400	342 05 004BP	05533966

Larger sizes available on request.

Filter Regulator Lubricator – Semi Auto Drain

Semi-auto drain filter/regulator/lubricator with mounting bracket.

Max. Inlet Pressure: 12Bar at 23°C or 10Bar at 50°C

Regulating Range: 0.5Bar – 8Bar

Ambient Temperature: 0°C to 50°C

Body: Zamak (zinc and aluminium), element – Polyethylene with pressure gauge



Port Size BSP mm	Port Size BSP in.	Max. Flow Rate L/min @ 6.3bar	Mfr No.	Part Number
● 8	1/4	650	342 05 012BP	05534017

Larger sizes available on request.

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

STEAM TRAPS

Steam Traps – Free Float

- Reliable and durable all stainless steel free float steam trap
- Model J3SX for mains drainage and process equipment
- Built-in high surface area strainer screen for longer life
- Self modulating free float provides continuous discharge as process loads vary
- Thermostatic air vent capsule with fail open design
- Rapid air venting for faster start-up
- Precision float eliminates concentrated valve wear
- Long maintenance free service life
- Easy inline access to internal components simplifies cleaning and reduces maintenance costs
- Externally replaceable orifice for speedy change of operating range if required



Nominal Bore mm	Model	Connections	Max. Diff. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	J3SX-5	BSPT	500	120	06608111
▶ 20	J3SX-5	BSPT	500	120	06608145
▶ 25	J3SX-5	BSPT	500	120	06608196
▶ 15	J3SX-10	BSPT	1000	120	06608230
▶ 20	J3SX-10	BSPT	1000	120	06608264
▶ 25	J3SX-10	BSPT	1000	120	06608281
▶ 15	J3SX-21	BSPT	2100	120	06608315
● 20	J3SX-21	BSPT	2100	120	06608349
● 25	J3SX-21	BSPT	2100	120	06608383

TLV – Spare Parts

Nominal Bore mm	Spares	Part Number
● 15 – 20	Rebuild kit – J3SX-2	06655405
▶ 15 – 20	Rebuild kit – J3SX-5	06655439
▶ 15 – 20	Rebuild kit – J3SX-10	06655507
● 15 – 20	Rebuild kit – J3SX-21	06655575
● 25	Rebuild kit – J3SX-2	06655422
● 25	Rebuild kit – J3SX-5	06655473
▶ 25	Rebuild kit – J3SX-10	06655541
● 25	Rebuild kit – J3SX-21	06655592

TLV – Spare Parts

Spares	Part Number
▶ Rebuild kit – JS7X-10, J7X-10	05599246
● Rebuild kit – J7.2X-10	05596815
▶ Rebuild kit – J7.5X-10	05596849

Steam Traps – Thermodyne

Weldable Stainless Steel 304 Steel Disc Trap Model P46SRN

- Inline replaceable complete valve module to minimise repair time and cost
- Air jacketing to reduce no load cycling, and extend service life
- Lapped disc for steam tight shut-off without air binding
- Built-in high surface area strainer screen for longer life
- Bi-metallic air vent for rapid air venting and faster start-up
- Suitable for mains drainage, tracer lines, and coil drainage



Nominal Bore mm	Model	Connections	Max. Diff. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	P46SRN	BSPT	4600	80	05597206
▶ 20	P46SRN	BSPT	4600	80	05597597
▶ 25	P46SRN	BSPT	4600	88	05598022
▶ 15	P46SRN	Socket weld	4600	80	05597206
▶ 20	P46SRN	Socket weld	4600	80	05597597
▶ 25	P46SRN	Socket weld	4600	88	06006007

TLV – Spares & Accessories

Nominal Bore mm	Spares and Accessories	Part Number
▶ 15 – 25	Rebuild kit – P46SRN	06565084
▶ 15 – 25	Rebuild kit – P46SR (Previous model)	05599654

TLV – Spare Parts – 2

Nominal Bore mm	Spares and Accessories	Part Number
▶ 8 – 15	Thermostatic capsule and valve seat assembly	05599263

Steam Traps – Thermostatic

- Stainless steel balanced pressure thermostatic trap Model LV21
- Fail open design will not hold back condensate
- Rugged yet lightweight design withstands waterhammer and superheat
- Fixed level of subcooling through the whole pressure range
- Outstanding air venting capability
- Compact but with high load capacity
- Hardened stainless valve seat
- Built-in high surface area strainer screen for longer life
- Suitable for tracer lines, dryers, heaters, and coil drainage



Nominal Bore mm	Model	Connections	Max. Diff. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	LV21	BSPT	2100	55	05597172

TLV – Spare Parts – 3

Nominal Bore mm	Spares and Accessories	Part Number
▶ 8 – 15	Thermostatic capsule and valve seat assembly	05599263

TECHNICAL TIP

TIPS FOR STEAM VALVES

For steam valves to function properly, not only must the correct valve be selected and the size be right, but it must be installed and maintenance be kept up to achieve optimum performance. These are a few of the more common and practical measures that should be considered:

- Ensure there is sufficient pipe support to eliminate the force to fall onto the valve
- Flange seals are fitted centrally to avoid constriction of the media flow path
- Imperative to have valve installed to the direction of flow as indicated
- Installation should be rinsed when used for the first time
- Strainer must be checked and cleaned regularly
- Safety valves must be vented periodically to test if they are in working condition
- Use manufacturer's recommendations when venting safety valves as too frequent venting can cause damage to sensitive items
- Ensure the blow-off valve for safety valves are connected
- Ensure that test tags fitted on safety valves ARE NOT REMOVED

Contact our Technical Solutions team on 0800 660 660 for more information.

Steam Airvent – Thermostatic

- Thermostatic air vent for steam Model LA13L (brass body) and LA21 (stainless body).
- Vents air automatically until close to steam temperature
- Compact but with high air venting capacity
- Hardened stainless valve seat
- Built-in high surface area strainer screen for longer life



Nominal Bore mm	Model	Connections	Max. Diff. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	LA13L	BSPT	1300	Angle body	05596220
▶ 20	LA13L	BSPT	1300	Angle body	05596288
▶ 15	LA21	BSPT	1300	76	05596237

TLV – Spare Parts – 4

Nominal Bore mm	Spares and Accessories	Part Number
▶ 8 – 15	Thermostatic capsule and valve seat assembly	05599263

Condensate Pumps – Pressure Driven Traps

- Pressure powered combination pump and trap for a wide range of applications
- Model GT5C, GT10L, GT10, GT14
- Automatically switches between pumping and trapping according to pressure available
- Handles high temperature condensate without flashing or cavitation
- No electric power or level controls required
- Suitable for intrinsically safe areas
- Operates with low filling head
- Easy access to internal parts simplifies maintenance
- Supplied complete with high performance pintle guided check valves
- Stainless steel internal components
- Also available with stainless steel body
- Ideal for heat exchangers, flash recovery, low pressure turbines, adsorption chillers, or vacuum vessels



Port Size Inlet/Outlet mm	Model	Max. Inlet Pressure kPa	Max. Capacity kg/hr	Max. Trapping Capacity kg/hr	Part Number
● 40/25	GT10L	1000	1450	11000	06006022

JOINTS – FLEXIBLE PIPE

Single Sphere FSF Rubber Bellows

Single Sphere Flexible Pipe Joints are also known as rubber bellows with floating flanges. EPDM Rubber is the standard rubber membrane material and these are fitted with drilled Table E mild steel flanges as standard. Absorbs vibration, corrects misalignment and allows for pipeline expansion and contraction. All types can handle a maximum temperature of 105°C.

Note: max temperature and pressure cannot be read in conjunction with each other.



Single Sphere Flanged EPDM

Mfr No.	Size mm	Installed Length Natural Length mm	Min – Max Installed mm	Travel Total Compressed Extended mm	Allowable Movement from Neutral Axial Compression mm	Allowable Movement from Neutral Axial Extension	Allowable Movement from Neutral Lateral Deflection mm	Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number
▶ FSF32	32	95	89 – 97	87 – 99	8	4	8	15	225	660	01144141
▶ FSF40	40	95	89 – 97	87 – 99	8	4	8	15	225	660	01144158
■ FSF50	50	105	99 – 107	99 – 110	8	5	8	15	225	660	01144175
▶ FSF65	65	115	107 – 118	103 – 121	12	6	10	15	225	660	01144192
▶ FSF80	80	130	122 – 133	118 – 113	12	6	10	15	225	660	01144209
▶ FSF100	100	135	122 – 140	117 – 145	18	10	12	15	225	660	01144226
▶ FSF125	125	170	156 – 175	152 – 180	18	10	12	15	225	660	01144243
▶ FSF150	150	180	167 – 185	162 – 190	18	10	12	15	225	660	01144260
▶ FSF200	200	205	186 – 212	180 – 220	25	14	22	15	225	660	01144277
▶ FSF250	250	240	221 – 247	215 – 254	25	14	22	15	225	660	01144294
▶ FSF300	300	260	241 – 267	235 – 274	25	14	22	15	225	660	01144311

Joints – Flexible Pipe – E-FlexSingle Sphere Flanged Nitrile (NBR/NEO)

Mfr No.	Size mm	Installed Length Natural Length mm	Min – Max Installed mm	Travel Total Compressed Extended mm	Allowable Movement from Neutral Axial Compression mm	Allowable Movement from Neutral Axial Extension	Allowable Movement from Neutral Lateral Deflection mm	Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number
▶ FSF50	50	105	99 – 107	99 – 110	8	5	8	15	225	660	07847411
▶ FSF65	65	115	107 – 118	103 – 121	12	6	10	15	225	660	07847428
▶ FSF80	80	130	122 – 133	118 – 113	12	6	10	15	225	660	07847445
▶ FSF100	100	135	122 – 140	117 – 145	18	10	12	15	225	660	07847462
● FSF125	125	170	156 – 175	152 – 180	18	10	12	15	225	660	07847479
▶ FSF250	250	240	221 – 247	215 – 254	25	14	22	15	225	660	07847530

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Twin Sphere FTF Rubber Bellows

Twin Sphere Flexible Pipe Joints are also known as Rubber Bellows with floating flanges. EPDM Rubber is the standard rubber membrane material and these are fitted with drilled Table E mild steel flanges as standard. Twin Sphere Flexible Pipe Joints with EPDM Rubber rubber membrane material are also available with screw on female BSP unions as the connection ends. Absorbs vibration, corrects misalignment and allows for pipeline expansion and contraction. All types can handle a maximum temperature of 105°C.

Note: max temperature and pressure cannot be read in conjunction with each other.



Twin Sphere Flanged EPDM

Mfr No.	Size mm	Installed Length Natural Length mm	Min – Max Installed mm	Travel Total Compressed Extended mm	Allowable Movement from Neutral Axial Compression mm	Allowable Movement from Neutral Axial Extension	Allowable Movement from Neutral Lateral Deflection mm	Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number
▶ FTF50	50	175	137 – 190	125 – 205	53	27	45	40	225	660	05569292
▶ FTF65	65	175	137 – 190	125 – 205	53	27	45	40	225	660	05569309
▶ FTF80	80	175	137 – 190	125 – 205	53	27	45	40	225	660	05569326
▶ FTF100	100	225	187 – 242	175 – 260	53	31	40	35	225	660	05569343
▶ FTF125	125	225	187 – 242	175 – 260	53	31	40	35	225	660	05569377
▶ FTF150	150	225	187 – 242	175 – 260	53	31	40	35	225	660	05569394
▶ FTF200	200	325	280 – 342	265 – 360	65	30	35	30	225	660	05569411
▶ FTF250	250	325	280 – 342	265 – 360	65	30	35	30	225	660	05569428
▶ FTF300	300	325	280 – 342	265 – 360	65	30	35	30	225	660	05569445

Joints – Flexible Pipe – E-FlexTwin Sphere Union EPDM

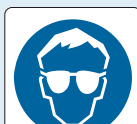
Mfr No.	Size mm	Installed Length Natural Length mm	Min – Max Installed mm	Travel Total Compressed Extended mm	Allowable Movement from Neutral Axial Compression mm	Allowable Movement from Neutral Axial Extension	Allowable Movement from Neutral Lateral Deflection mm	Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number
▶ FTU020	20	166	150 – 169	144 – 172	22	6	22	32	150	660	05569479
▶ FTU025	25	172	155 – 175	150 – 178	22	6	22	25	150	660	05569496
▶ FTU032	32	176	160 – 179	154 – 182	22	6	22	25	150	660	05569513
▶ FTU040	40	182	165 – 185	160 – 188	22	6	22	20	150	660	05569547
▶ FTU050	50	212	196 – 215	190 – 218	22	6	22	15	150	660	05569564

RELATED PRODUCT

For Our Safety Sign Range



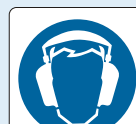
HAND PROTECTION
MUST BE WORN
IN THIS AREA



EYE PROTECTION
MUST BE WORN
IN THIS AREA



HEAD PROTECTION
MUST BE WORN
IN THIS AREA



HEARING
PROTECTION
MUST BE WORN
IN THIS AREA



FOOT PROTECTION
MUST BE WORN
IN THIS AREA

▶ SEE SIGNAGE: CHAPTER 05

SAFETY TIP

SAFETY & RELIEF VALVES

These valves come with various spring settings and are for all pressure relieving requirements.

This information is provided as a guide only. Refer to the manufacturer's chemical compatibility data to ensure the correct product selection for a specific application.

Pressure and Safety Valves Terminology Relief Valve (RV)

An automatic system that relieves by static pressure from a liquid – it opens proportionally with an increase in pressure.

Safety Valves (SV)

An automatic system that relieves by static pressure from a gas – It opens almost immediately to full lift.

Safety Relief Valve (SRV)

An automatic system that relieves by static pressure from both gases and liquids. In the petrochemical, petroleum refining, chemical manufacturing, natural gas processing and power generation industries, the term safety valve is interchangeable with the following terms: pressure relief valve (PRV), pressure safety valve (PSV) and relief valve.



GAUGES - PRESSURE

Stainless Steel Case 63mm Pressure Gauges

63mm stainless steel case pressure gauges are robust industrial quality enclosed within a stainless steel grade 304 case and bezel. Copper alloy bourdon and socket. Plexi glass window and neoprene seal. Designed for heavy duty service where vibration or pulsation of medium would cause excessive wear on a dry gauge or where corrosive ambient conditions prevail. Specific application examples are hydraulic plant, mining and irrigation equipment. Accuracy $\pm 1.6\%$

Ambient Temperature: -25°C to +65°C



Pressure Min	Pressure Max	Scale	Scale Type	Glycerine	Case Dia (mm)	Stem Mount Entry	Connection	Part Number
▶ -100	0	kPa	Dual	Unfilled	63	Bottom	1/4" BSP	05532317
▶ 0	100	kPa	Dual	Unfilled	63	Bottom	1/4" BSP	05532436
▶ 0	160	kPa	Dual	Unfilled	63	Bottom	1/4" BSP	05532453
▶ 0	250	kPa	Dual	Unfilled	63	Bottom	1/4" BSP	05532470
▶ 0	400	kPa	Dual	Unfilled	63	Bottom	1/4" BSP	05532487
■ 0	600	kPa	Dual	Unfilled	63	Bottom	1/4" BSP	05532504
■ 0	1000	kPa	Dual	Filled	63	Bottom	1/4" BSP	05532555
■ 0	1600	kPa	Dual	Filled	63	Bottom	1/4" BSP	05532606
■ 0	2500	kPa	Dual	Filled	63	Bottom	1/4" BSP	05532640
■ 0	4000	kPa	Dual	Filled	63	Bottom	1/4" BSP	05532691
▶ 0	6000	kPa	Dual	Filled	63	Bottom	1/4" BSP	05532708
▶ 0	10	MPa	Dual	Filled	63	Bottom	1/4" BSP	05532725
▶ 0	20	MPa	Dual	Filled	63	Bottom	1/4" BSP	05532759
▶ 0	25	MPa	Dual	Filled	63	Bottom	1/4" BSP	05532776
▶ 0	35	MPa	Dual	Filled	63	Bottom	1/4" BSP	05532793
▶ 0	40	MPa	Dual	Filled	63	Bottom	1/4" BSP	05532810
▶ -100	150	kPa	Dual	Unfilled	63	Rear	1/4" BSP	05532334
▶ -100	500	kPa	Dual	Unfilled	63	Rear	1/4" BSP	05532351
▶ 0	600	kPa	Dual	Unfilled	63	Rear	1/4" BSP	05532521
■ 0	1000	kPa	Dual	Filled	63	Rear	1/4" BSP	05532572
■ 0	1600	kPa	Dual	Filled	63	Rear	1/4" BSP	05532623
▶ 0	2500	kPa	Dual	Filled	63	Rear	1/4" BSP	05532657

Stainless Steel Case 100mm Pressure Gauges

100mm stainless steel case pressure gauges are ideally suited to most industrial applications where high accuracy and durability are required. These gauges feature a 304SS case, 316L SS bourdon and socket (welded to case). Safety glass window, neoprene blow off disc, gasket and filling plug.

These gauges are stored dry but can be glycerine filled on request. Accuracy $\pm 1\%$

Ambient Temperature: -25°C to +65°C



Pressure Range Min	Pressure Range Max	Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number
▶ -1	5	Bar	Single	100	Bottom/Stem mount	3/8" BSPT	05531331
▶ -100	150	kPa	Single	100	Bottom/Stem mount	3/8" BSPT	05531314
▶ -100	0	kPa	Single	100	Bottom/Stem mount	3/8" BSPT	05531586
▶ 0	160	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531348
▶ 0	250	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531433
■ 0	400	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531484
▶ 0	600	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531535
■ 0	1000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531365
■ 0	1600	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531416
▶ 0	2500	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531450
▶ 0	4000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531501
▶ 0	6000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531552
▶ 0	10000	Bar	Dual	100	Bottom/Stem mount	3/8" BSPT	05531382
▶ 0	25000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531467
▶ 0	40000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531518
▶ 0	60000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531569
▶ 0	100000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05531399

KEY: ■ Available in-store ▶ Available in stock (ex DC) ● Available on order

Pressure Gauges – Economical 40mm, 50mm and 63mm

Economical pressure gauges are designed for general purpose use for non-corrosive liquids and gases on light duty service. Case and bezel, steel powder coated. Socket and bourdon copper alloy. Accuracy $\pm 1.6\%$ of FS for 63mm and $\pm 2.5\%$ of FS for 40 and 50mm.

Ambient Temperature: -20°C to +65°C



Pressure Range Min	Pressure Range Max	Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number
▶ 0	400	kPa	Dual	50	Bottom/Stem mount	1/8" BSPT	05531841
▶ 0	100	kPa	Dual	50	Rear/Stem mount	1/8" BSPT	05531807
▶ 0	250	kPa	Dual	50	Rear/Stem mount	1/8" BSPT	05531824
▶ 0	600	kPa	Dual	50	Rear/Stem mount	1/8" BSPT	05531875
▶ 0	1000	kPa	Dual	50	Rear/Stem mount	1/8" BSPT	05531892
▶ 0	1600	kPa	Dual	50	Rear/Stem mount	1/8" BSPT	05531960
▶ 0	100	kPa	Dual	50	Bottom/Stem mount	1/4" BSPT	05531790
▶ 0	400	kPa	Dual	50	Bottom/Stem mount	1/4" BSPT	05531858
▶ 0	1000	kPa	Dual	50	Bottom/Stem mount	1/4" BSPT	05531926
▶ 0	1600	kPa	Dual	50	Bottom/Stem mount	1/4" BSPT	05531977
▶ 0	100	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532011
▶ 0	160	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532028
▶ 0	250	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532062
▶ 0	400	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532079
▶ 0	600	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532096
▶ 0	1000	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532113
▶ 0	1600	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532130
▶ 0	2500	kPa	Dual	63	Bottom/Stem mount	1/4" BSPT	05532147
▶ 0	1000	kPa	Dual	50	Rear/Stem mount	1/4" BSPT	05531909
▶ -100	0	kPa	Dual	63	Rear/Stem zero reset	1/4" BSPT	05531994

Economical 100mm Pressure Gauges

Economical pressure gauges are designed for general purpose use for non-corrosive liquids and gases on light duty service. Case and bezel, steel powder coated. Socket and bourdon copper alloy. Accuracy $\pm 1.6\%$ of FS.

Ambient Temperature: -20°C to +65°C



Pressure Range Min	Pressure Range Max	Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number
▶ 0	100	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532198
▶ 0	400	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532215
▶ 0	600	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532232
▶ 0	1000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532249
▶ 0	1600	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532266
▶ 0	2500	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532283
▶ 0	4000	kPa	Dual	100	Bottom/Stem mount	3/8" BSPT	05532300

► THERMOMETERS

Thermometers – Bi-metal

Teltherm 63mm general purpose bi-metal temperature gauges complete with pocket are direct mounting, co-axial sensor thermometer designed for temperature measurement of liquid and gas within pipelines, tanks, plant machinery etc. Copper alloy sensor provides good thermal conductivity to the bi-metal element. Conductive effectiveness between the sensor and the clip-on pocket is maximised due to a close tolerance fit.

Case and Bezel: Stainless steel grade 304

Sensor: Copper alloy, nickel plated



Mfr No.	Temperature Range	Part Number
▶ 3CC11	0 – 120°C	05556882
▶ 3CC13	0 – 200°C	05556899