





# 31. VALVES & FLOW CONTROL

EXPANSION JOINTS	893	VALVES - BALL - PVC	867
FILTERS, REGULATORS & LUBRICATORS	885	VALVES - BALL - STAINLESS STEEL	866
FLOW METERS	896	VALVES - BUTTERFLY - INDUSTRIAL	872
GAUGES - PRESSURE	894	VALVES - CHECK	870
GAUGES & GLASSES - SIGHT	885	VALVES - DIAPHRAGM	875
JOINTS - FLEXIBLE PIPE	892	VALVES - GATE	868
PIPELINE ACCESSORIES - WATER	893	VALVES - GLOBE	869
PUMPS - CONDENSATE	891	VALVES - LIFT CHECK	872
SEPARATORS - STEAM & AIR	890	VALVES - NEEDLE	881
STRAINERS	883	VALVES - PRESSURE REDUCING	877
THERMOMETRY	897	VALVES - SAFETY RELIEF	879
TRAPS	886	VALVES - SLUICE	869
VALVES - ACTUATION	883	VALVES - SOLENOID	882
VALVES - BALL - BRASS	864		

# BALL VALVES

## VALVES – BALL – BRASS

### Valves – Ball – Brass S90 Lever Handle – RuB



**Applications:** Full flow quarter turn ball valve with lever handle for maximum flow with 2 Viton 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 Teflon® 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 in.	Non-shock CWP Bar	Part Number
▶ 8	1/4	40	05579356
■ 10	3/8	40	05578115
■ 15	1/2	40	05578217
■ 20	3/4	40	05578336
■ 25	1	40	05578455
■ 32	1 1/4	40	05578591
■ 40	1 1/2	40	05578710
■ 50	2	40	05578761
▶ 65	2 1/2	30	05578897
■ 80	3	30	05578965
▶ 100	4	30	05578047

### Valves – Ball – Brass S90 T Handle M x F – RuB



**Applications:** Full flow quarter turn ball valve with T handle for maximum flow with 2 Viton 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 Teflon® 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 in.	Non-shock CWP Bar	Part Number
▶ 15	1/2	40	05579492
■ 20	3/4	40	05579543

### Valves – Ball – Brass S90 T Handle – RuB



**Applications:** Full flow quarter turn ball valve with T handle for maximum flow with 2 Viton 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 Teflon® 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 in.	Non-shock CWP Bar	Part Number
■ 8	1/4	40	05579577
■ 10	3/8	40	05579424
■ 15	1/2	40	05579458
▶ 20	3/4	40	05579509
▶ 25	1	40	05579560

### Valves – Ball – Brass S84 Gas Lever Handle – RuB



**Applications:** Full flow quarter turn ball valve with lever handle for maximum flow with 2 Viton 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:** Dacrotized carbon steel handle with thick yellow PVC dip coating.

**Seat Materials:** Pure Teflon® 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 5 bar).

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



Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	Part Number
▶ 8	1/4	40 (21 bar MWP for gas)	05579033
▶ 10	3/8	40 (21 bar MWP for gas)	05578132
■ 15	1/2	40 (21 bar MWP for gas)	05578234
■ 20	3/4	40 (21 bar MWP for gas)	05578353
■ 25	1	40 (21 bar MWP for gas)	05578472
■ 32	1 1/4	40 (21 bar MWP for gas)	05578608
■ 40	1 1/2	40 (21 bar MWP for gas)	05578727
■ 50	2	40 (21 bar MWP for gas)	05578778

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

## Valves – Ball – Brass S84 Gas Lever Handle M x F – RuB



**Applications:** Full flow quarter turn ball valve with lever handle for maximum flow with 2 Viton 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:** Dacrotized carbon steel handle with thick yellow PVC dip coating.

**Seat Materials:** Pure Teflon® 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 5 bar.

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



Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	Part Number
▶ 8	1/4	40 (21 bar MWP for gas)	<b>05568527</b>
▶ 15	1/2	40 (21 bar MWP for gas)	<b>05578251</b>
▶ 20	3/4	40 (21 bar MWP for gas)	<b>05578370</b>
▶ 25	1	40 (21 bar MWP for gas)	<b>05578489</b>
▶ 40	1 1/2	40 (21 bar MWP for gas)	<b>05578744</b>
▶ 50	2	40 (21 bar MWP for gas)	<b>05568578</b>

## Valves – Ball – Brass S84 Gas T Handle – RuB



**Applications:** Full flow quarter turn ball valve with T handle for maximum flow with 2 Viton 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:** Dacrotized carbon steel handle with thick yellow PVC dip coating.

**Seat Materials:** Pure Teflon® 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 5 bar).

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



Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	Part Number
▶ 8	1/4	40 (21 bar MWP for gas)	<b>05579594</b>
▶ 10	3/8	40 (21 bar MWP for gas)	<b>05579441</b>
▶ 15	1/2	40 (21 bar MWP for gas)	<b>05579475</b>
▶ 15	1/2	30	<b>03079765</b>
▶ 20	3/4	30	<b>03080267</b>
▶ 25	1	30	<b>03080466</b>
▶ 32	1 1/2	30	<b>03080762</b>
▶ 40	1 3/4	30	<b>03081567</b>
▶ 50	2	30	<b>03081766</b>

## Valves – Ball – Mini S35 – RuB



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

**Temperature Range:** -20°C to 90°C.

**Specifications:** Brass materials according to EN 12164.



Female/Female



Male/Female

End: Female/Female

Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	Part Number
▶ 6	1/8	30	<b>01274922</b>
▶ 8	1/4	30	<b>04687766</b>
▶ 10	3/8	30	<b>05578081</b>
▶ 15	1/2	30	<b>02294610</b>

End: Male/Female

Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	Part Number
▶ 6	1/8	30	<b>05578948</b>
▶ 8	1/4	30	<b>05579016</b>
▶ 10	3/8	30	<b>05578098</b>
▶ 15	1/2	30	<b>05578200</b>

## Valves – Ball – Brass Vented – S93 Lockable Handle – RuB



**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:** Dacrotized carbon steel lockable handle with thick PVC dip coating.

**Seat Materials:** Glass filled Teflon® self lubricating seats with flexible lip design.

**Temperature Range:** -10°C to 100°C.

**Working Pressure:** 14 Bar 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 in.	Non-shock CWP Bar	Part Number
▶ 15	1/2	14	<b>05578268</b>
▶ 20	3/4	14	<b>05578387</b>
▶ 25	1	14	<b>05578506</b>

## Valves – Ball – Brass S142 Bibcock – RuB



**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 in.	Non-shock CWP Bar	Part Number
▶ 15	1/2	15	<b>05561047</b>
▶ 20	3/4	15	<b>05561064</b>

# BALL VALVES

## Valves – Ball – Brass 3 Way – RuB

**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 (F) (ISO 228).

**Seat Materials:** Teflon seats.

**Temperature Range:** -10°C to 120°C.

**Working Pressure:** 25 Bar non-shock cold working pressure.



Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	T Port Part Number	L Port Part Number
8	¼	25	▶ 05579050	▶ 05578982
10	⅜	25	▶ 05578149	▶ 05578064
15	½	25	▶ 05578285	▶ 05578166
20	¾	25	▶ 05578404	▶ 05578319
25	1	25	▶ 05578523	▶ 05578438
32	1¼	25	▶	▶ 05578574
40	1½	25	▶	▶ 05578693

## VALVES – BALL – STAINLESS STEEL

### Modentic V-355FSA

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" 2000 Psi. 1 ¼" – 2" 1500 Psi.



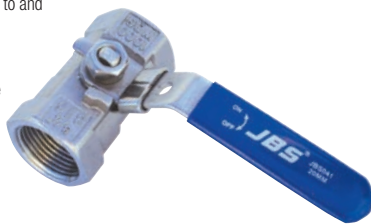
Nominal Size mm	Nominal Size in.	Non-shock CWP Bar	Part Number
▶ 15	½	138	05585085
▶ 20	¾	138	05585170
▶ 25	1	138	05585187
▶ 32	1½	103	05585204
▶ 40	1¾	103	05585272
▶ 50	2	103	05588349

### Ball Valves – 1 Piece – Stainless Steel Grade 316 – J.B.S.



#### JBS041

- J.B.S. Stainless Steel ball valve range has been 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 in.	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 Grade 316 – J.B.S.



#### JBS042

- J.B.S. Stainless Steel ball valve range has been 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 Range -45°C to 160°C
- Stainless handle
- Ends BSPT



Size mm	Size in.	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 Grade 316 – J.B.S.



#### JBS043

- J.B.S. Stainless Steel ball valve range has been 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 in.	Mass kg	Part Number
▶ 8	¼		09862715
▶ 10	⅜	0.4	09862812
▶ 15	½	0.65	09836712
▶ 20	¾	0.8	09836819
▶ 25	1	1.2	09836916
▶ 32	1¼	2.05	02633563
▶ 40	1½	2.8	09837119
▶ 50	2	4.35	09837216
▶ 65	2½	8.4	03788304
▶ 80	3	14.5	02633665
▶ 100	4	26.5	05279969

## RELATED PRODUCT

### PTFE Thread Seal Tape

▶ Part Number 02949932

Go to page  
761



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

## Valves – Ball – 3 Way – Stainless Steel – John Valve



**Body Materials:** 316 Stainless Steel.

**Ends:** Screwed BSPP.

**Seat Materials:** PTFE.

**Temperature Range:** -45°C to 160°C.

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

**Specifications/Standards:** John Valve Model Number JV-9203, standard bore, 15% reinforced glass fibre PTFE seal. Blowout proof stem.



### 3 Way L Port

Style	Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 3 Way L Port	15	68	05575752
▶ 3 Way L Port	20	68	05575888
▶ 3 Way L Port	25	68	05576024
▶ 3 Way L Port	32	68	05576143
▶ 3 Way L Port	40	68	05576262
▶ 3 Way L Port	50	68	05576398

### 3 Way T Port

Style	Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 3 Way T Port	15	68	05575786
▶ 3 Way T Port	20	68	05575922
▶ 3 Way T Port	25	68	05576058
▶ 3 Way T Port	40	68	05576313
▶ 3 Way T Port	50	68	05576466

## Valves – Ball – Stainless Steel – CTFE Seat – Modentic



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:** 1/2" – 2" 68 Bar CWP WOG; above 2" 55 bar 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	Part Number Valve	Part Number Kit
▶ 15	68	▶ 05575684	▶ 05590355
▶ 20	68	▶ 05575820	▶ 05590695
▶ 25	68	▶ 05575956	▶ 05591052
▶ 32	68	▶ 05576092	▶ 05591358
▶ 40	68	▶ 05576211	▶ 05591715
▶ 50	68	▶ 05576347	▶ 05592072
▶ 65	55	▶ 05576483	▶ 05592361
▶ 80	55	▶ 05576534	▶ 05592752

## VALVES – BALL – PVC

### Valves – Ball – PVC – Double Union

Double Union full bore PVC ball valves. BSP ends. 7 bar working pressure.



Nominal Size mm	Pressure Rating Bar @20C	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

### Valves – Ball – PVC – Compact

Compact full bore PVC ball valves BSP ends. 7 bar working pressure.



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

### Valves – Ball Valves – PVC – Asahi

**Body Materials:** C-PVC body and ABS handle.

**Ends:** Screwed BSP.

**Seat:** PTFE ; Seal: EPDM.

**Temperature Range:** 0°C to 90°C.

**Max Working Pressure:** 10 Bar.

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 Flow Control Division.



Nominal Size mm	Maximum Pressure Bar	Part Number
▶ 15	10	05579067
▶ 20	10	05579084
▶ 25	10	05579101
▶ 32	10	05579118
▶ 40	10	05579135
▶ 50	10	05579169
▶ 65	10	05579203

## VALVES – GATE

### Valves – Gate – Cast Steel – Flanged

**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:** 19.7 bar 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
● 250	19.7	05573814

### Valves – Gate – Brass Screwed

**Model JV-101**  
**Body and Seat Material:** Bronze.  
**Ends:** Screwed BSPT.  
**Max Temperature:** 178°C.  
**Max Working Pressure:** 13.8 Bar (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

### Valves – Gate – Cast Iron – Flanged

**Body Materials:** Cast Iron.  
**Ends:** Flanged BST \*E".  
**Seat Materials:** Bronze BC6.  
**Temperature Range:** 0 – 120°C.  
**Max Working Pressure:** 10 Bar.  
**Applications:** water, oil, inert gas, steam.



Nominal Size mm	Pressure Rating Bar@120 Deg.C	Part Number
● 50	13	05574562
▶ 65	13	05574579
▶ 80	13	05574596
● 100	13	05574358
● 125	13	05574392
▶ 150	13	05574409
● 200	13	05574460

### Valves – Gate – Stainless Steel – John Valve

**Model JV-600**  
**Body and Seat Material:** 316SS.  
**Ends:** Screwed BSPT.  
**Max Temperature:** -50°C to 177°C.  
**Max Working Pressure:** 13.8 Bar (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

### Valves – Gate – Bronze – Screwed

**Model JV-201**  
**Body and Seat Material:** Bronze.  
**Ends:** Screwed BSPT.  
**Max Temperature:** 185°C.  
**Max Working Pressure:** 20 Bar (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

### Valves – Knife Gate

**Body:** Wafer Style body (semi lug). Cast Iron, Handwheel operated.  
**Ends:** Suit Table E.  
**Gate:** Stainless Steel.  
**Seat:** EPDM.

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.

Many other options including actuation packages are available, for further details please contact our Flow Control Specialists.



Size mm	Non-shock CWP Bar	Valve Part Number	Actuator Part Number
80	10	● 05573967	●
100	10	● 05573984	● 09376308
150	10	● 05574001	● 09354605
200	10	● 05574018	● 05574936
250	10	● 05574035	● 05574987
300	10	● 05574052	● 09348501

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

## Valves – Knife Gate

**Body:** Wafer Style Body (fully lugged) 316 SS, Handwheel operated.  
**Ends:** Suit Table E.  
**Gate:** Stainless Steel.  
**Seat:** EPDM.

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

## VALVES – SLUICE

### Sluice Valves

**Type:** Flanged Body style, Ductile Iron, FBE Coated.  
**Ends:** Suit Table E.

**Plug:** EPDM coated (vulcanised).

A full range of resilient seated sluice gate valves are available.

For water, wastewater and neutral fluid applications. Fully compliant with AS2638.2 the latest in approval requirements.

Valves are complete with fusion bonded epoxy finish.

Included in the sluice valve programme are the following options

- Anti Clockwise Closing
- Clockwise Closing
- All Common Flange Drillings available
- Sizes from 50mm to 400mm
- Handwheel operated
- Spindle Cap Operated

**For more details please contact our Flow Control team on 09 265 6000**



## VALVES – GLOBE

### Valves – Globe – Bronze – Screwed

**Model JV-301F**

**Body Material:** Bronze.

**Seat Material:** PTFE.

**Ends:** Screwed BSPT.

**Max Temperature:** 185°C.

**Max Working Pressure:** 20 Bar (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

### Valves – Globe – Malleable Iron – Flanged – Hitachi



**Body Materials:** Malleable Cast Iron.

**Ends:** Flanged ANSI 150.

**Temperature Range:** Up to 300°C.

**Max. Operating Pressure:** 13.7 Bar water, oil, gas – Cold 10 Bar Steam.

**Seat Materials:** Stainless Steel.

**Specifications / Standards:** Hitachi Model M150FGO.



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 50	13.7	05592089
▶ 65	13.7	05592378
▶ 80	13.7	05592769
▶ 100	13.7	05589896
▶ 150	13.7	05590134

### Valves – Globe – Malleable Iron – Screwed – Hitachi



**Body Materials:** Malleable Cast Iron.

**Ends:** Screwed BSP (T).

**Handle:** Blackheart Malleable Iron.

**Seat Materials:** Stainless Steel.

**Temperature Range:** Up to 300°C.

**Max. Operating Pressure:** 13.7 Bar water, oil, gas – Cold 10 Bar Steam.

**Specifications / Standards:** Hitachi Model M10KSG to JIS10K specification requirements, conforms to Japan Valve Manufacturers Association Standard JV4-4.



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	13.7	05590440
▶ 20	13.7	05590797
▶ 25	13.7	05591154
▶ 32	13.7	05591426
▶ 40	13.7	05591766
▶ 50	13.7	05592157

### Valves – Globe – Stainless Steel – John Valve



**Model JV-601**

**Body and Seat Material:** 316SS.

**Ends:** Screwed BSPT.

**Max Temperature:** -50°C to 177°C.

**Max Working Pressure:** 13.8 Bar (cold).



Nominal Size mm	Non-stock 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 – CHECK

### Valves – Check – Wafer – Uni-Chek™ II – Crane

CRANE

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, 316 Stainless Steel, 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



Style	Pressure Class	Body	Disc	Seal	End	Mfr No.	Nominal Size mm	Part Number
▶ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	2" 12E-1330-0	50	05572403
▶ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	2½" 12E-1330-0	65	05572420
▶ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	3" 12E-1330-0	80	05572437
■ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	4" 12E-1330-0	100	05572454
▶ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	5" 12E-1330-0	125	05572471
■ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	6" 12E-1330-0	150	05572488
▶ Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	8" 12E-1330-0	200	05572505
● Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	10" 12E-1330-0	250	05572522
● Std Wafer	BSTE Class 125	Cast Iron	316 S/Steel	Viton	Flat-Smooth	12" 12E-1330-0	300	05572539

Style	Pressure Class	Body	Disc	Seal	End	Mfr No.	Nominal Size mm	Part Number
▶ Extended Spindle	BSTE Class 125	Cast Iron	316 S/Steel	Nitrile	Flat-Smooth	3" 12E-1320-1	80	05572590
▶ Extended Spindle	BSTE Class 125	Cast Iron	316 S/Steel	Nitrile	Flat-Smooth	4" 12E-1320-1	100	05572607
▶ Extended Spindle	BSTE Class 125	Cast Iron	316 S/Steel	Nitrile	Flat-Smooth	6" 12E-1320-1	150	05572624

Style	Pressure Class	Body	Disc	Seal	End	Mfr No.	Nominal Size mm	Part Number
▶ Std Wafer	BSTE Class 150	316 S/Steel	316 S/Steel	316 S/Steel	Flat-Smooth	2" 15E-2300-0	50	05572692
▶ Std Wafer	BSTE Class 150	316 S/Steel	316 S/Steel	316 S/Steel	Flat-Smooth	2½" 15E-2300-0	65	05572709
▶ Std Wafer	BSTE Class 150	316 S/Steel	316 S/Steel	316 S/Steel	Flat-Smooth	3" 15E-2300-0	80	05572726
▶ Std Wafer	BSTE Class 150	316 S/Steel	316 S/Steel	316 S/Steel	Flat-Smooth	4" 15E-2300-0	100	05572743
▶ Std Wafer	BSTE Class 150	316 S/Steel	316 S/Steel	316 S/Steel	Flat-Smooth	6" 15E-2300-0	150	05572760
● Std Wafer	BSTE Class 150	316 S/Steel	316 S/Steel	316 S/Steel	Flat-Smooth	8" 15E-2300-0	200	05572777

### Valves – Check – Wafer – Duo-Chek® II Crane

CRANE

#### Specifications/Standards:

Duo-Chek® II Meets or exceeds these industry standards:

- API 594 – Valve Design
- API 598 – Valve Pressure Testing and Inspection
- ASME B16.5 and B16.47 – Flanges
- ASME B16.34 – Pressure/Temperature Ratings
- API 6D – Pipeline Valves
- API 6A – Production Valve

Duo-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: 2" up to 88"
- ASME Pressure Class 125 through 2500
- API 6A and 6D pressure classes
- DIN, JIS, BS, AS and ISO standards are also available
- Wafer, Lug, double flanged and extended body styles
- Configurations available in retainerless style
- Body Materials which include Cast Iron, Ductile Iron, WCB Cast Steel, 316 Stainless Steel. All alloys
- Resilient Seat Materials EPDM, Buna-N, Neoprene, refrigeration grade elastomer, Viton
- Integral and overlaid metal seats also available
- End connections: Raised face, plain face, ring joint, weld end, hub-end



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

## Valves – Check – Swing – Bronze – Screwed



**Model JV-401**  
**Body and Seat Material:** Bronze.  
**Ends:** Screwed BSPT.  
**Max Temperature:** 185°C.  
**Max Working Pressure:** 20 Bar (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

## Valves – Check – Swing – Stainless Steel



**Body Materials:** 316 Stainless Steel.  
**Ends:** Screwed BSP.  
**Seat Materials:** 316 SS.  
**Temperature Range:** -50°C to +177°C.  
**Max Working Pressure:** 13.7 Bar 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

## Valves – Check – Lift – Malleable Iron – Screwed – Hitachi



**Body Materials:** Malleable Cast Iron.  
**Ends:** Screwed BSP.  
**Seat Materials:** Stainless Steel.  
**Max Temperature:** 220°C.  
**Max Working Pressure:** 13.7 Bar water, oil, gas – Cold 10 bar steam.  
**Specifications/Standards:** Hitachi Model HM10KSC – meets JIS10K specification requirements.



Nominal Size mm	Non-shock CWP Bar	Part Number
▶ 15	13.7	05590423
▶ 20	13.7	05590763
▶ 25	13.7	05591137
▶ 32	13.7	05591392
▶ 40	13.7	05591749
▶ 50	13.7	05592140

## Valves – Check – Steam Service – TLV



Compact Disc Type Wafer Check Valve for Steam, Air, Water and other Inert Liquids and Gasses.

- Model CKF3.**
- 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
  - Suitable for either Vertical or Horizontal Installations
  - Low Pressure Drop and Large Flow rates



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 – TLV



Compact Disc Type Check Valve for Steam, Air, Water, and other Inert Liquids and Gasses.

- Model CK3**
- Available in Lapped Metal Seat CK3M, PTFE Seat CK3T, FPM (Viton) Seat CK3R
  - All Stainless Steel Body and Internals
  - Suitable for either Vertical or Horizontal Installations
  - Low Pressure Drop and Large Flow rates
  - Screwed Connections to BSPT



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
▶ 32	CK3M	Stainless Steel	2100	80	06254596
▶ 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

### WHAT IS A FOOT VALVE?

A foot valve is essentially a check valve that can be located at the bottom end of the suction pipe on a pump. It opens when the pump operates to allow water to enter the suction pipe but closes when the pump stops to prevent water from flowing out. Installation must be in a vertical position.

Available in plastic, brass and for heavier duty, in galvanised or stainless steel.

# CHECK & BUTTERFLY VALVES

## Valves – Check – Brass – S122 – RuB

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:** 5°C to 110°C.  
**Max Working Pressure:** 25 Bar up to 1", 1¼", 1½" and 2" 18 Bar. 2½" 3" and 4" 12 Bar.



### S122 Check Valve SS

Size mm	Part Number
▶ 15	05575327
▶ 20	05575361
▶ 25	05575395
▶ 32	05575429
▶ 40	05575463
▶ 50	05575497
▶ 65	05575514
▶ 80	05575531
▶ 100	05575293

### Screen to suit S122 Valve

Size mm	Part Number
▶ 15	05590406
▶ 20	05590746
▶ 25	05591120
▶ 32	05591375
▶ 40	05591732
▶ 50	05592106
▶ 65	05592395
▶ 80	05592786
▶ 100	05589930

## VALVES – LIFT CHECK

### Bronze Lift Check Valve

Vertical Lift type. Bronze metal disc with spring. Ends female BSPT.  
**Max Temperature:** 85°C.  
**Max Working Pressure:** 20 Bar water, oil, gas – Cold 10 Bar-Steam.



Size mm	Non-stock 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

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:** 10 Bar.



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

## VALVES – BUTTERFLY – INDUSTRIAL

### Butterfly Valve – Z011-A – Wafer Type – Ebro



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

- Features:**
- 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 silicon-free version is available

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

**Disc:** 316SS **Seat:** EPDM

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

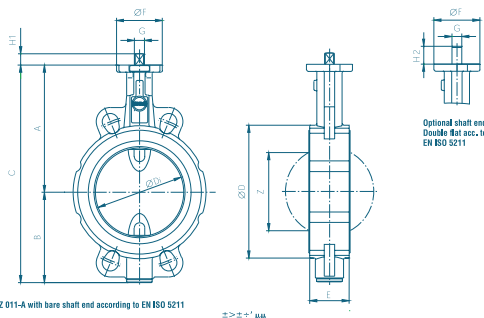
**Pressure Rating:** Available up to 16 Bar

#### Maximum Temperature Rating:

- EDPM (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	04939136
● 250	E, PN16, ANSI	10	68	Bare Shaft	04939153
● 300	E, PN16, ANSI	10	78	Bare Shaft	04939170

## RELATED PRODUCT

### Master Pipe Sealants – Loctite 567

▶ Part Number 03463825



Go to page  
752

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

## 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.

## Butterfly Valves – Chemical – Wafer Type – Ebro

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

### Features:

- 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 50mm to 300mm

### General applications:

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

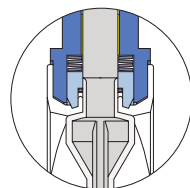
### Safety seal in accordance with the EBRO

#### 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.

### Features:

- Shut off and controlling of strong abrasive media, eg. 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 50mm 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.

### Features:

- 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 wastewater 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.

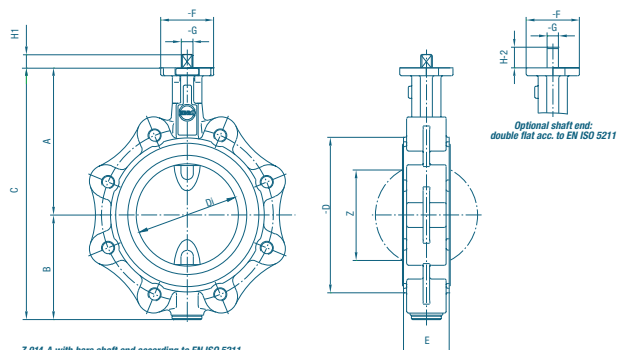
Pressure rating Max 16 Bar

### Maximum Temperature Rating

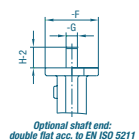
- EPDM (General Service and Acid), Continuous 110°C Intermittent 120°C
- Buna-N/NBR (General Service and Oil), Continuous 90°C Intermittent 100°C
- Viton (Hi-Temp/Chemical), Continuous 150°C Intermittent 180°C



Z014A



Z014-A with bare shaft end according to EN ISO 5211



Optional shaft end: double flat acc. to EN ISO 5211

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

# BUTTERFLY VALVES

## Butterfly Valves – Epoxy Coated – Cast Iron – J.B.S.



- 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
- Other seats available on request
- Temperature limitations are -20°C to +120°C
  - Stainless Steel Grade 316 disc and stem
  - 16 Bar rating (including dead end service)
  - General use including hot and cold water, animal oils, salts and oxidising chemicals



Wafer JBS051



Lugged JBS052

Size	Wafer Part Number	Lugged Part Number
50	▶ 01558254	▶ 01557953
65	▶ 01558356	▶ 01558055
80	▶ 01558464	▶ 01558157
100	▶ 01559156	▶ 01558568
125	▶ 01559253	▶ 01558658
150	▶ 01559355	▶ 01558754
200	▶ 01559457	▶ 03439889
250	▶ 01559554	▶ 03439906
300	▶ 01559656	▶ 01559054

Other seats available on request

## 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.

## BUTTERFLY VALVE DESIGN DETAILS

Item	Material	Symbol	Features	Benefits
Body design standard	Cast Iron	ASTM-A126	Epoxy Coated	Anti-Corrosive
Body-flange drilling	BS5155 AS2129	Class B:GG25 Table D/E		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

## VALVES – DIAPHRAGM

### A Type Diaphragm Valves – Saunders



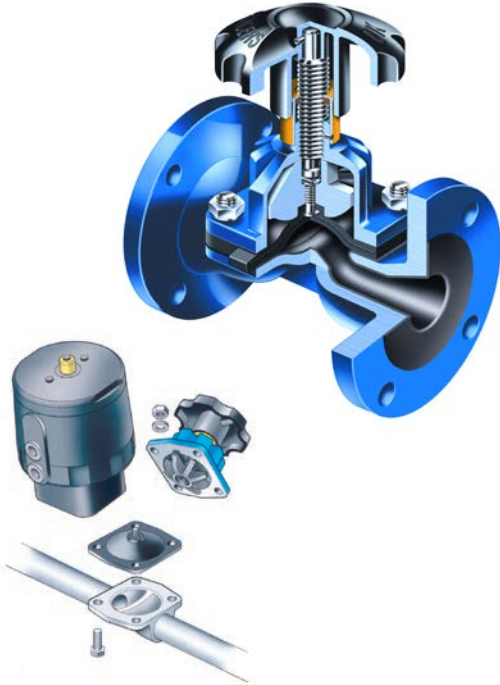
Saunders A type diaphragm valves have been developed to handle a wider range of fluids and gases than any other valve type. A wide choice is available for materials, methods of operation and body end connections to satisfy the needs of most corrosive and abrasive applications.

**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.



### Diaphragm Materials of Construction



**Standard:**

- Rubber diaphragms have a brass stud
- Diaphragms suitable for vacuum duties (e.g. CV) have a steel stud
- PTFE diaphragms are fitted with a stainless steel bayonet

**Saunders Diaphragms Are Provided With:**

- Full traceability of manufacture
- Coding tag for both material and batch number for easy identification
- Saunders name to confirm genuine manufacture and maximum reliability

### Saunders A Type Diaphragm Valves

**Diaphragm Materials of Construction**

Grade	Elastomer type	General service and approvals
C	Butadiene Acrylonitrile, sulphur cured, black reinforced	Lubricating oil, cutting oils, paraffin, animal and vegetable oils, aviation kerosene
CV	Butadiene Acrylonitrile, sulphur cured, black reinforced	Vacuum where oils are present, compressed air, liquid petroleum gas (LPG)
HT	Polychloroprene, sulphur cured, black reinforced	Abrasive slurries containing hydrocarbons
Q	Natural rubber polyisoprene/SBR, sulphur cured, black reinforced	Salts in water, dilute acids and alkalis, abrasives
226	Fluoroelaster, amine cured, black reinforced	Concentrated acids, aromatic solvents, chlorine, ozone, chlorinated solvents, unleaded petroleum
237	Chlorosulphonated polyethylene metal oxide cured, black reinforced	Strong acids, sodium hydrochlorite, chlorine gas
286	Chlorosulphonated polyethylene metal oxide cured, black reinforced Kevlar fabric reinforced	Fire mains isolation in WFB valve
300	Isobutylene Isoprene, resin cured black reinforced	Salts in water, dilute acids and alkalis, drinking water, Food and Drug Administration (FDA), United States Pharmacopeia (USO), Water Regulations Advisory Scheme (WRAS)
425	Ethylene propylene (EPM) organic peroxide cured, black reinforced	Salts in water, acids and alkalis, ozone, intermittent steam, drinking water, FDA, USP, WRAS
425V	Ethylene propylene (EPM) organic peroxide cured, black reinforced	Vacuum where acid, alkali, water vapours are present, FDA, USP, WRAS
214/226	Virgin PTFE/Fluoroelastomer – two piece	Strong acids, solvents, chlorine, bromine at higher temperatures
214/300	Virgin PTFE/Isobutylene isoprene – two piece	Strong acids, alkalis and salts in water at high temperature. Constant steam, water for injection (WFI), biopharmaceuticals, FDA, USP, WRAS
214/425	Virgin PTFE/Ethylene propylene – two piece	Strong acids, alkalis and salts in water at high temperature. Constant and intermittent steam, WFI, biopharmaceuticals, FDA, USP, WRAS
214S/425	Virgin PTFE/PPVE/Ethylene propylene – two piece	Strong acids, alkalis and salts in water at high temperature. Constant and intermittent steam, WFI, biopharmaceuticals, FDA, USP, WRAS
14K/425	Virgin PTFE/PVDF/Ethylene propylene – three piece	Chlorine, bromine gas and chlorinated solvents

### KB Type Diaphragm Valves – Saunders



**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 10 bar.

**Valve Flow:**

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



# DIAPHRAGM VALVES

## SAUNDERS type A valve diaphragms

Grade	15mm	20mm	25mm	32mm	40mm	50mm	65mm	80mm	100mm	150mm
C	▶ 05580410		▶ 05581430		▶ 05581923	▶ 05582246		▶ 05582773		
CV			● 05581447			▶ 05582263				
HT		▶ 05581039				● 05582348				
Q	▶ 05580580	▶ 05581090	▶ 05581549	▶ 05581702	▶ 05582042	▶ 05582382	▶ 05582671	▶ 05582909	▶ 05579951	● 05580223
226	● 05580325									
237										
286										
300	● 05580342	● 05580903	● 05581379	▶ 05581668	▶ 05581855	▶ 05582212	▶ 05582603	▶ 05582756	● 05579866	▶ 05580189
425										
425V										
214/226										
214/300	● 05580291	● 05580869	● 05581294		● 05581787	▶ 05582178				
214/425										
214S/425										
214K/425										

## SAUNDERS type KB valve diaphragms

Grade	15mm	20mm	25mm	32mm	40mm	50mm	65mm	80mm	100mm	150mm
AA			▶ 05581243	▶ 05581243	▶ 05581243	▶ 05582467	● 05582722	● 05582926	▶ 05579985	
425									▶ 05976833	
300			▶ 05581226	▶ 05581226	▶ 05581226		▶ 05582705			

## Pneumatic Valve Actuation – Saunders

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**

### Saunders Actuator Operating Diaphragms

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

## Valves – Diaphragm Valves – Saunders

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 Flow Control Division staff for further 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

**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:** 10 Bar.

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 or fully closed. For critical applications and for further specific technical details regarding these valves please contact our Flow Control Division.



Size mm	Part Number
▶ 15	05584116
▶ 20	05584133
▶ 25	05584150
▶ 40	05584167
▶ 50	05584184
▶ 80	05584201
● 100	05584218

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

## VALVES – PRESSURE REDUCING

### itap Art 143 Water Pressure Reducing Valve

- Compensated piston operation
- Female/female threads
- Body in nickel-plated brass
- Minimum and maximum working temperatures: 0C, 80C
- Maximum inlet pressure: 25bar
- Outlet pressure can be adjusted between 1 and 6 bar
- Factory preadjustment 3 bar
- Outlet pressure gauge connection 1/4" on both sides
- Threads ISO228 (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

### Valves – Pressure Reducing – Direct Acting DR20

Compact all Stainless Steel Direct Acting Pressure Reducing Valve. Model DR20

- Spring Ranges Available 14-200kPa, 180-600 kPa, 540-1000 kPa
- 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

Nominal Bore mm	Spares	Part Number
▶ 15-25	2 Bar Spring 14-200kPa Set Pressure	05595914
▶ 15-25	Rebuild Kit – Includes Main Valve and Seat Assembly	06213490
▶ 15-25	Bellows Seal	06213473

## 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.

### Valves – Pressure Reducing – High Performance Reducing Valve including Separator COS-16

High Performance Steam Pressure Reducing Valve with Integral Cyclonic Separator and Steam Trap Model COS-16.

- Provides high quality clean dry steam at accurately controlled set pressure
- Space Saving Design Minimises Pipework
- Integral Patented Cyclonic Separator giving 98% dryness and includes built in Free Float Steam Trap
- Built in Strainer Screens for both Pilot and Main Valve
- Stainless Steel internals for long service life
- Fully Rebuildable
- Other end connections available on Indent, Contact Valve Division for details
- Low set pressure version also available Model COS-3

TLV



Nom. Bore mm	End Connections	Max. Inlet Pressure kPa	Face to Face Length mm		Set Pressure Range kPa
			DIN	ASME	
15	BSPT	1570.0	175	175	30 – 1320
20	BSPT	1570.0	175	175	30 – 1320
25	BSPT	1570.0	190	190	30 – 1320
15	DIN PN40RF or ASME 300RF	1570.0	150	170	30 – 1320
20	DIN PN40RF or ASME 300RF	1570.0	150	182	30 – 1320
25	DIN PN40RF or ASME 300RF	1570.0	160	192	30 – 1320
40	DIN PN40RF or ASME 300RF	1570.0	200	224	30 – 1320
50	DIN PN40RF or ASME 300RF	1570.0	230	261	30 – 1320
65	DIN PN40RF or ASME 300RF	1570.0	370	378	30 – 1320
80	DIN PN40RF or ASME 300RF	1570.0	374	384	30 – 1320
100	DIN PN40RF or ASME 300RF	1570.0	434	450	30 – 1320

### Valves – Pressure Reducing – High Performance Reducing Valve COSR-16

High Performance Steam Pressure Reducing Valve Model COSR-16

- 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 Valve Division for details
- Low set pressure version also available Model COSR-3

TLV



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
▶ 50	BSPT	1570.0	260	30 – 1320	05592055

Nominal Bore mm	End Connections	Max. Inlet Pressure kPa	Face to Face Length mm	Set Pressure Range kPa	Part Number
▶ 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



# PRESSURE REDUCING VALVES

## Valves – Pressure Reducing – High Performance Reducing Valve including Separator ACOS-10

High Performance Air Pressure Reducing Valve with Integral Cyclonic Separator and Trap.

- Provides high quality clean dry air at accurately controlled set pressure
- Space Saving Design Minimises Pipework
- Integral Patented Cyclonic Separator giving 98% dryness and includes built in Free Float Trap
- Built in Strainer Screens for both Pilot and Main Valve
- Stainless Steel internals for long service life
- Fully Rebuildable
- Other end connections available on Indent, Contact Valve Division for details



Nom. Bore mm	End Connections	Max. Inlet Pressure kPa	Face to Face Length mm		Set Pressure Range kPa
			DIN	ASME	
15	BSPT	900.0	175	175	50 – 700
20	BSPT	900.0	175	175	50 – 700
25	BSPT	900.0	190	190	50 – 700
15	DIN PN40RF or ASME 300RF	900.0	130	170	50 – 700
20	DIN PN40RF or ASME 300RF	900.0	150	182	50 – 700
25	DIN PN40RF or ASME 250RF*	900.0	160	188	50 – 700
32	DIN PN40RF or ASME 250RF*	900.0	180	220	50 – 700
40	DIN PN40RF or ASME 250RF*	900.0	200	222	50 – 700
50	DIN PN40RF or ASME 250RF*	900.0	230	260	50 – 700

\* (Fits #300 Flanges)



## Trapman TM5N

Computerized steam trap management system for productive maintenance.

**Measurement and analysis system consisting of:**

- TM5N Hardware-A precision ultrasonic and temperature testing instrument in which TLV diagnostic technology is stored
- Trapmanager Software-A comprehensive windows based program used for input of data and analysis of results

## Valves – Pressure Reducing – High Performance Reducing Valve ACOSR-10

High Performance Air Pressure Reducing Valve  
**Model ACOSR-10**

- Provides air 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 Valve Division for details



Nom. Bore mm	End Connections	Max. Inlet Pressure kPa	Face to Face Length mm		Set Pressure Range kPa
			DIN	ASME	
15	BSPT	900.0	175	175	50 – 700
20	BSPT	900.0	175	175	50 – 700
25	BSPT	900.0	190	190	50 – 700
15	DIN PN40RF or ASME 300RF	900.0	130	170	50 – 700
20	DIN PN40RF or ASME 300RF	900.0	150	182	50 – 700
25	DIN PN40RF or ASME 250RF*	900.0	160	188	50 – 700
32	DIN PN40RF or ASME 250RF*	900.0	180	220	50 – 700
40	DIN PN40RF or ASME 250RF*	900.0	200	222	50 – 700
50	DIN PN40RF or ASME 250RF*	900.0	230	260	50 – 700

\* (Fits #300 Flanges)

## Valves – Safety Relief – Anti-Vacuum – Nabic®

**Body Materials:** Gunmetal

**Ends:** Screwed BSPT

**Seat Materials:** PTFE

**Temperature Range:** up to 195°C

**Max Working Pressure:** 13.5 Bar

**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

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

## VALVES – SAFETY RELIEF

### Valves – Safety Relief – Bronze – Nabic®

**Body Materials:** Gunmetal.

**Ends:** Screwed BSP.

**Seat Materials:** PTFE.

**Temperature Range:** up to 195°C.

**Max Working Pressure:** Set 12.5 Bar.

**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. UKWFBS 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.



Fig 500 Valve and Seal Kits

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

Fig 500 Valve Seal Kit and Adjusting Kit

Description	Nominal Size mm	Part Number
▶ Seal Kit	15	<b>05585255</b>
▶ Seal Kit	20	<b>05585357</b>
▶ Seal Kit	25	<b>05585425</b>
▶ Seal Kit	32	<b>05585816</b>
▶ Seal Kit	40	<b>05587788</b>
▶ Seal Kit	50	<b>05588128</b>
▶ Spring Adjusting Kit	All	<b>05584490</b>

Nabic® Fig 500 Valve Spring

Colour Code and Pressure Range (Psi)										
Valve Size mm	Spring Inside Dia. mm		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	Mfr No.	NP3090	NP3100	NP3110	NP3120	NP3130	NP3140	NP3150	NP3160
15	12	<b>Part Number</b>	▶ <b>05585442</b>	▶ <b>05585459</b>	▶ <b>05585476</b>	▶ <b>05585493</b>	▶ <b>05585510</b>	▶ <b>05585527</b>	▶ <b>05585544</b>	▶ <b>05585561</b>
20	17	Mfr No.	NP3170	NP3180	NP3190	NP3200	NP3210	NP3220	NP3230	NP3240
20	17	<b>Part Number</b>	▶ <b>05585578</b>	▶ <b>05585595</b>	▶ <b>05585612</b>	▶ <b>05585629</b>	▶ <b>05585646</b>	▶ <b>05585663</b>	▶ <b>05585680</b>	▶ <b>05585697</b>
25	20	Mfr No.	NP3250	NP3260	NP3270	NP3280	NP3290	NP3300	NP3310	NP3320
25	20	<b>Part Number</b>	▶ <b>05585714</b>	▶ <b>05585731</b>	▶ <b>05585748</b>	▶ <b>05585765</b>	▶ <b>05585782</b>	▶ <b>05585833</b>	▶ <b>05585935</b>	▶ <b>05585952</b>
32	25	Mfr No.	NP3330	NP3340	NP3350	NP3360	NP3370	NP3380	NP3390	NP3400
32	25	<b>Part Number</b>	▶ <b>05585969</b>	▶ <b>05585986</b>	▶ <b>05586003</b>	▶ <b>05586020</b>	▶ <b>05584422</b>	▶ <b>05586037</b>	▶ <b>05586054</b>	▶ <b>05586071</b>
40	32	Mfr No.	NP3410	NP3420	NP3430	NP3440	NP3450	NP3460	NP3470	NP3480
40	32	<b>Part Number</b>	▶ <b>05586139</b>	▶ <b>05586377</b>	▶ <b>05586802</b>	▶ <b>05586819</b>	▶ <b>05586836</b>	▶ <b>05586853</b>	▶ <b>05586870</b>	▶ <b>05584439</b>
50	40	Mfr No.	NP3490	NP3500	NP3510	NP3520	NP3530	NP3540	NP3550	NP3560
50	40	<b>Part Number</b>	▶ <b>05586887</b>	▶ <b>05586938</b>	▶ <b>05587040</b>	▶ <b>05587091</b>	▶ <b>05587159</b>	▶ <b>05587176</b>	▶ <b>05587193</b>	▶ <b>05587227</b>

### Valves – Air Eliminator – Galloppini

Galloppini Fig 580 Air Eliminator for liquid service suitable for maximum working pressure of 6 bar, test pressure 14 bar and a maximum temperature of 60°C. Used in heating plants to discharge the air bubbles.



Size mm	Part Number
▶ 15	<b>05804113</b>

### RELATED PRODUCT

#### PTFE joint sealant tape style 3535

▶ Part Number 00890239



Go to page  
**759**

## LESER – API – Series 526

- Great variety of options and flanged connections available
  - Standard metal sealing
  - Single trim for steam, gas and liquid
- Applications:** Refineries, Chemical Industries, Petrochemical industries, Oil and Gas – Onshore and Offshore.
- Valves sizes:** 25NB through to 200NB.
- Materials:** WCB, CF8M, WC6, LCB, specials.
- Design:** According to API 526.



## LESER – Clean Service – Series 48x

- Great variety of aseptic connections (e.g. clamps, flanges) to fit any application
  - Minimum deadleg design and flush mounting capability
  - Soft seat (FDA compliant elastomers) for superior tightness
  - Gap and crevice free design of internals
  - Elastomer bellows for protection of the hard to clean parts
  - Surface grade according to ASME BPE-2002 and DIN 11866
  - Single trim for Steam, gas and liquids
- Applications:** Pharmaceutical Industry, Breweries, Food and beverage, Cosmetic industry.
- Valves sizes:** 25NB through to 100NB.
- Materials:** Stainless Steel 316L, 1.4404, 1.4435 and specials.



## LESER – High Performance – Series 441, XXL, 444, 441 Full Nozzle, 458

- Great variety of types, materials and options to fit any application
  - Flange connections according to DIN EN, ASME and other
  - High capacity compared to API requirements
  - Standard metal sealing
  - Single trim for steam, gas and liquid
- Applications:** Heat Exchanger, Chemical equipment and piping, general steam applications, All industrial applications independent from medium, air/gas compressors and pumps.
- Valves sizes:** 20NB through to 400NB.



## LESER – Pilot Operated Safety Valve – Series 800

- Pop and modulating pilot for customisation to the desired functionality
  - Of installed pilot operated safety devices
  - Full bore for higher capacity based on nominal size
  - Separate pressure tapping line for safe blow-off independent of inlet pressure drop
- Applications:** Oil and Gas production, onshore/offshore, Refinery (Oil and gas processing), LNG / LPG carrier and terminals, Gas distributions.
- Product range acc:** To API 526 for easy replaceability.



## HEROSE Safety Valves

**TYPE: 06205**  
HEROSE Standard Brass Safety Valve, free vent to atmosphere with FPM (VITON) valve seal, open bonnet and twist lifting device. Suitable for protection against excessive pressure in stationary or moveable pressure vessels. Approved for air and similar gases.

**Male Connection Thread:** G (BSPP).

**Set Pressures:** 40kPa to 3000kPa.

**Working Temperature:** -10°C to 160°C.

**Capacities:** 20m<sup>3</sup>/hr to 2509m<sup>3</sup>/hr.

**Sizes:** 1/4" to 1-1/4".



## HEROSE Safety Valves

**TYPE: 06217**  
HEROSE Standard Brass Safety Valve, free vent to atmosphere with FPM (VITON) valve seal, open bonnet and twist lifting device. Suitable for protection against excessive pressure in stationary or moveable pressure vessels. Approved for air and similar gases.

**Male Connection Thread:** G (BSPP).

**Set Pressures:** 20kPa to 2500kPa.

**Working Temperature:** -40°C to 200°C.

**Capacities:** 62m<sup>3</sup>/hr to 8027m<sup>3</sup>/hr.

**Sizes:** 1/2" to 2".



For more information contact our specialist Hose & Flow team at [hoseandflow@nzsafetyblackwoods.co.nz](mailto:hoseandflow@nzsafetyblackwoods.co.nz)

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

VALVES – NEEDLE

**Valves – Needle – Stainless Steel – John Valve**

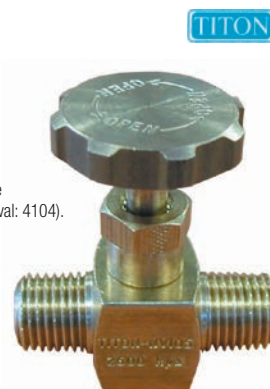
**Body Materials:** 316 Stainless Steel.  
**Ends:** Screwed BSPP (ISO 228).  
**Seat Materials:** PTFE.  
**Temperature Range:** -50°C to +232°C.  
**Max Working Pressure:** Up to 410 bar cold.  
**Specifications/Standards:** John Valve.  
 Model Number JV-9003F; adjustable packing nut, screwed-in bonnet.



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

**Valves – Needle – Brass – Threaded – Titon**

**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 34 bar 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

**Valves – Needle – Brass – Threaded – Titon**

**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 34 bar 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 1/8" BSPP	01141953
■ 041026-04	1/4" BSPP x 1/4" BSPP	08097316
▶ 041026-06	3/8" BSPP x 3/8" BSPP	05568306

**Valves – Needle – Brass – 90° Compression Tube x Threaded – Titon**

**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 34 bar 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

**Valve Assembly and 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.

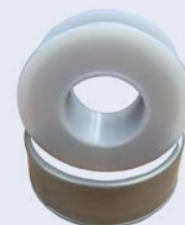
Larger electric or pneumatic actuators can be sourced directly from manufacturers and supplied assembled with valves.



RELATED PRODUCTS

**Threadseal Tape Nickel Filled**

■ Part Number 05665801



Go to page **761**

# SOLENOID VALVES

## VALVES – SOLENOID – GENERAL PURPOSE

### General Purpose Solenoid Valve – 2 Way – Brass Body

Pilot Operated – A minimum of .35 for valves up to 25mm and .5 bar for valves from 32mm to 50mm is required for these valves to operate. 10mm to 50mm Normally Closed Brass Solenoid valves, pilot operated. Suitable for Air, Water and Inert Gas up to 10 bar. Maximum Media temperature is 85 degrees. All Voltages available on request.



Pipe Size mm	in.	Orifice Size	Flow coefficient Kv		Product Code ~/=	Operating pressure differential (bar)			Media Temp. (degrees)	Product Code 240V AC	Product Code 24V DC	Product Code 24V AC
			(m <sup>3</sup> /h)	(l/min)		min.	max. (PS)	air / water (*)				
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
32	1 1/4	30	15	250	SCE238C016	0.5	10	10	85			
40	1 1/2	45	27	450	SCE238C017	0.5	10	10	85			
50	2	45	34	566	SCE238C018	0.5	10	10	85			

## VALVES – SOLENOID – HOT WATER AND STEAM

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

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



Pipe Size mm	in.	Orifice Size	Cv	Operating Pressure Differential		Rebuild Kit No.	Coil No.	Mfr. No.	Part Number 24/50	Part Number 24/50
				kPa min	kPa DC max					
8	1/4	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	● 00999302	▶ 05311453
10	3/8	16	3	35	350	K310-635	400425-HT	SCD220A1		
15	1/2	13	3.6	14	900	K304-032	400426-HT	SUD222A47	● 03758401	▶ 05311487
15	1/2	16	4	35	351	K310-635	400425-FT	SCD220A3	● 00690387	
20	3/4	13	4.6	14	900	K304-032	400426-HT	SUD222A49	● 00999205	▶ 05311521
20	3/4	19	5	35	350	K310-716	400425-FT	SCD220A5	● 00690438	
25	1	25	13.5	35	900	K304-392	400426-HT	SUD22025	● 00999506	● 05311555

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

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



Pipe Size mm	in.	Orifice Size	Cv	Operating Pressure Differential			Rebuild Kit No.		Coil No.		Mfr. No.	Part Number 240/50	Part Number 24/50	Part Number 24VDC
				kPa min	kPa AC max	kPa DC max	AC	DC	AC	DC				
10	3/8	16	3	35	900	700	K302-305	K302-401			SCD210D1HW	▶ 03757402	▶ 05311572	
15	1/2	16	4	35	900	700	K302-305	K302-401	400325-FT	400425-FT	SCD210D2HW	● 03757606	▶ 05311623	▶ 05311640
20	3/4	19	5	35	900	700	K302-308	K302-404	400425-FT	400425-FT	SCD210D9HW	● 03757800	▶ 05311657	● 05311674
20	3/4	19	5	0	700	300	K302-307	K302-403	400325-FT	400425-FT	SCD210D95HW	● 03757907		● 05311725
25	1	25.4	13	35	900	900	K302-379HW	K302-379HW	400325-FT	400425-FT	SCD210D4HW	● 02781656	▶ 05311742	

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

## VALVES – ACTUATION

### 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 AC 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
▶ PS70-SR	F05/F07	98	09373301
● PS85-SR	F05/F07	188	05595285
PS100-SR	F07/F10	311	
PS125-SR	F10/F12	601	
● PD50-DA	F03/F05/ F07	59	09373408
● PD70-DA	F05/F07	163	09353208
● PD70-DA	F05/F07	163	09353208
● PD85-DA	F05/F07	302	09352801
PD100-DA	F07/F10	490	
PD125-DA	F10/F12	938	

#### 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



## STRAINERS – Y TYPE

### Strainers – Y Type – Bronze – Screwed BSP

**Model JV-001**

**Body Material:** Bronze.

**Ends:** Screwed BSPT.

**Max Temperature:** 185°C.

**Max Working Pressure:** 20 Bar (cold).

**Applications:** Water, oil and gas.

 John-Valve



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

### Strainers – Y Type – Malleable Iron – Screwed – Hitachi

**Body Materials:** Malleable Cast Iron.

**Ends:** Screwed BSP.

**Temperature Range:** 0 – 220°C.

**Max Working Pressure:** 13.7 Bar.

**Screen Materials:** Stainless Steel.

**Mesh Size:** 0.84mm (840 micron).

**Specifications/Standards:**

Hitachi Model HM10KST meets JIS10K specification requirements.

 Hitachi Valve, Ltd.



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

## Strainers – Y Type – Stainless Steel

**Model YST-800**

**Body Material:** Stainless Steel.

**Ends:** Screwed BSPT.

**Max Temperature:** 230°C.

**Max Working Pressure:** 40 Bar (cold.)

**Applications:** Water, oil and gas.



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

## Strainers – Y Type – Brass – RuB

Brass Body, stainless steel filter. Easy maintenance and cleaning.

**Max Working Pressure:** 20 Bar (cold).



Nominal Size mm	Part Number
■ 15	09231304
■ 20	09231401
■ 25	09231508
▶ 32	09231605
▶ 40	09231702
▶ 50	09231809

## STRAINERS – Y TYPE – STEAM

### Strainers – Y Type – Stainless Steel Pipeline Accessories – Steam – Line Strainers



Stainless Steel Y Type Strainer.

**Model Y3:**

- All Stainless Steel Construction
- Double Layer Stainless Screen 60 mesh (250 micron)
- Large Screen Surface Area for trouble free operation
- PTFE Gasket for easy cleaning and resealing
- Screwed ends to BSPT, Flanged versions available on Indent

**Pressure/Temperature Rating:** 21 Bar saturated steam @ 220°C.



Nominal Bore	Model	Max. Pressure kPa	Face to Face Length mm	Part Number
▶ 15	Y3	2100	78	05596356
▶ 20	Y3	2100	93	05596390
▶ 25	Y3	2100	108	05596441
▶ 32	Y3	2100	128	05596475
▶ 40	Y3	2100	143	05596526
▶ 50	Y3	2100	173	05596611

## VALVES – WATER CONTROL

### 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.

The INBAL valves have the following approvals/listings:

- Factory mutual (FM)
- Lloyds Register, American Bureau of shipping (ABS)
- Det Norske Veritas (DNV)
- Bureau Veritas (BV)
- Underwriters Laboratories (UL)

All INBAL valves are rated to 300Psi (21 Bar) 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.



Model 799DG-04C01

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

## GAUGES AND GLASSES - SIGHT

### Sight Glasses and Gauges – Level Gauges – Klinger



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 (17 bar).
2. Reflex – Steam (up to 32 bar).  
Process Applications (up to ANSI Class 2500).
3. Transparent – Steam (up to 120 bar).  
Process Applications (up to ANSI Class 1500).

4. Bi Colour – Steam (up to 225 bar).

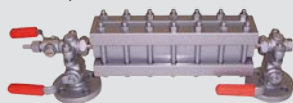
Plus a range of shut off fittings and accessories.

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 omni-direction magnet system – guide – free float
- Display can be rotated through 360° irrespective of float position
- Automatic float warning
- High pressure capability – up to 200 bar unvented
- Unlimited length
- Top mounted options
- PTFE/PFA lined, PP, PVDF and uPVC 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 3/4" RH Screwed c/w AB12 Drain Cock	05665206
528095N	WGM Set 3/4" 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
684000	Klingerlastic NE Cone AB18 1/2" Bore Small	05665716
684002	Klingerlastic NE Cone AB18 1/2" Bore Large	05665750
684003	Klingerlastic NE Cone AB12 5/8" Bore	01465237
684008	Klingerlastic NE Cone AB12 3/4" Bore	05556916
587109L	Borosilicate Glass Tube Nominal OD 1/2" (actual OD 12.4mm)	05671139
587110L	Borosilicate Glass Tube Nominal OD 5/8" (actual OD 15.4mm)	05671173
587111L	Borosilicate Glass Tube Nominal OD 3/4" (actual OD 18.4mm)	05671190
581002	Reflex Glass and Joints Size B 1	05796939
581003	Reflex Glass and Joints Size B 2	05796956
581005	Reflex Glass and Joints Size B 4	05671649
581006	Reflex Glass and Joints Size B 5	05671666
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
585163	Transparent Plate Glass and Joints Size B 4	05669014
585164	Transparent Plate Glass and Joints Size B 5	05669031
585165	Transparent Plate Glass and Joints Size B 6	05669048
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 – TLV



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 mm	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
▶ 32	T10N	1570	120	06254664
▶ 40	T10N	1570	120	05596492
● 50	T10N	1570	126	05596577

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

## FILTERS, REGULATORS AND LUBRICATORS

### Filters, Regulators and Lubricators – Campbell Hausfeld



Model	Inlet/Outlet NPT	Rated Flow SCFM l/min	Filter Element	Max. Pressure PSIG Bar	°F	°C	Part Number
<b>General Purpose Filter</b>							
▶ PA2100	3/8"	50	1416 5 micron	250	17	140° 60°	02836305
<b>Regulator</b>							
▶ PA2101	3/8"	48	1359 NA	250	17	140° 60°	02836339
<b>In-Line Lubricator</b>							
▶ PA2102	3/8"	60	1700 NA	250	17	140° 60°	02836356
<b>Filter/Regulator</b>							
▶ PA2103	3/8"	42	1189 5 micron	250	17	140° 60°	02836373
▶ PA2113	1/2"	75	2124 5 micron	250	17	140° 60°	02836390
<b>Filter/Regulator/Lubricator</b>							
▶ PA2104	3/8"	42	1189 5 micron	250	17	140° 60°	02836407
▶ PA2114	1/2"	75	2124 5 micron	250	17	140° 60°	02836424

Description	Max. Pressure	Rated Flow SCFM @90psi	Ports NPTF	Mfr. No.	Part Number
▶ Filter	10	21	1/4"	MP5138	05768515
▶ Pressure Regulator	10	26	1/4"	MP5148	05768583
▶ Lubricator	17	12	1/4"	MP5158	05768617
▶ Filter / Regulator Combo	9	15	1/4"	MP5168	05768634



## Filter – Semi Auto Drain – ASCO

Semi-auto drain filter.

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

**Operating Range:** 1.2-12 bar.

**Ambient Temperature:** 0 to +50°C.

**Body:** Zamak (zinc and aluminium), element – polyethylene.



Port Size BSP

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

Larger sizes available on request

## Regulator Plus Gauge – ASCO Numatics

**Max. Inlet Pressure:** 12 bar.

**Regulating Range:** 0.5 – 8 bar.

**Ambient Temperature:** 0°C to 50°C.

**Body:** Zamak (zinc and aluminium), element – polyethylene with pressure gauge.



Port Size BSP

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

Larger sizes available on request

## Filter Regulators – Semi Auto Drain – ASCO Numatics

Semi-auto drain filter/regulator with mounting ring.

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

**Regulating Range:** 0.5 – 8 bar

**Ambient Temperature:** 0°C to 50°C

**Body:** Zamak (zinc and aluminium), element – polyethylene with pressure gauge.



Port Size BSP

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

Larger sizes available on request

## Lubricator – ASCO Numatics

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

**Ambient Temperature:** 0°C to +50°C.

**Body:** Zamak (zinc and aluminium), element – polyethylene.



Port Size BSP

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

Larger sizes available on request

## Filter Regulator Lubricator – Semi Auto Drain – ASCO Numatics

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

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

**Regulating Range:** 0.5 – 8 bar.

**Ambient Temperature:** 0°C to +50°C.

**Body:** Zamak (zinc and aluminium), element – polyethylene with pressure gauge.



Port Size BSP

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

\*Larger sizes available on request

## Test Instruments – Steam Traps – TLV

Compact Diagnostic Instrument for testing Steam Traps, Valves and Bearing.

**Model PT1**

- Utilises Ultrasonic and Temperature Measurements for Accurate Diagnosis
- Analogue and Digital Display plus Scaled Audio assist operator Assessment
- Internal Memory stores 100 Trap or Valve Tests, and 100 Bearing Inspections



▶ Part Number 06624975

## TRAPS – STEAM

### Traps – Steam – Free Float – TLV

Reliable and durable ductile Iron body free float steam trap **Model J5X** for mains drainage and process equipment.

- All Stainless Steel internals
- 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. Differential Pressure kPa	Face to Face Length mm	Part Number
● 25	J5X-2	BSPT	200	155	05597869
● 25	J5X-5	BSPT	500	155	05597920
▶ 25	J5X-10	BSPT	1000	155	05597835
▶ 25	J5X-16	BSPT	1600	155	05597852
▶ 25	J5X-21	BSPT	2100	155	05597886

Nominal Bore mm	Spares and Accessories	Part Number
● 20 – 25	Rebuild Kit – J5X-5	05599195
▶ 20 – 25	Rebuild Kit – J5X-10	05599127
● 20 – 25	Rebuild Kit – J5X-16	05599144
● 20 – 25	Rebuild Kit – J5X-21	05599178
● 20 – 25	Lock Release Valve – J5X All Sizes	05598804
▶ 20 – 25	Non-freeze Valve – J5X All Sizes	05598821

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

## Traps – Steam – Free Float – TLV



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. Differential 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

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

## Traps – Steam – Free Float – TLV



Reliable and durable all Stainless Steel Sealed Free Float Steam Trap **Model SS3** for mains drainage, tracer lines, and light process equipment.

**Model SS5N** for higher capacity and pressures

- Built in High Surface Area Strainer Screen for longer life
- Self modulating free float provides continuous discharge as process loads vary
- Bi-metallic air vent for Rapid Air Venting and faster start-up
- Precision float with 3 point seating eliminates concentrated valve wear
- Fully welded maintenance free construction
- Vertical and horizontal models available



SS3N for Horizontal Lines, SS3V for Vertical

Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
▶ 20	SS3N-10	BSPT	1000	154	06022410
▶ 20	SS3N-16	BSPT	1600	154	06847471
▶ 15	SS3N-21	BSPT	2100	127	05597257
▶ 15	SS3V-21	BSPT	2100	127	05597274
● 20	SS3V-21	BSPT	2100	154	05597614
● 20	SS5N-32	BSPT	3200	182	06671504

## Traps – Steam – Free Float – TLV



Quicktrap all Stainless Steel Sealed Free Float Steam Trap **Model FS3**.

Quicktrap all Stainless Steel Thermodynamic Steam Trap **Model FP32**.

Quicktrap Cast Steel Balanced Pressure Thermostatic Steam Trap **Model FL21**.

- Suitable for Mains Drainage, Tracer Lines, and Light Process Equipment
- 2 Bolt connection allows fast and easy trap replacement
- Universal Flange allows connector to be mounted on any attitude while maintaining trap alignment
- All traps have built in High Surface Area Strainer Screen for longer life
- All traps use common F32 Connectors
- Trap plus connector is required for complete unit



Nominal Bore mm	Model	Connections	Max. Diff. Pressure kPa	Face to Face Length mm	Part Number
● 15	F32 Connector	BSPT		80	06171194
● 20	F32 Connector	BSPT		80	06171160
● 25	F32 Connector	BSPT		96	06171177
● 15	F32 Connector	SW		80	06153616
● 20	F32 Connector	SW		80	06153582
▶	S3-23 Trap	2 Bolt Flange	2300		06171211
▶	L21 Trap	2 Bolt Flange	2100		06171245

## Traps – Steam – Free Float – TLV



Reliable and Durable High capacity Free Float Steam Traps for larger process equipment.

Stainless Body **Model J6SX** or Cast Iron Body **Models JS7X, J7X, J7.2X, J7.5X, J8X**.

- All Stainless Steel Internals
- 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
- Other Sizes, orifices and flange standards available on indent



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
▶ 25	J6SX-10	BSPT	1000	220	06006029
▶ 25	JS7X-5	BSPT	500	280	05598005
▶ 40	JS7X-5	BSPT	500	280	05598515
▶ 25	JS7X-10	BSPT	1000	280	05597988
● 40	J7.2X-5	ASME 250RF*	500	365	07846799
● 40	J7.2X-10	ASME 250RF*	1000	365	07846816
● 50	J7.5X-5	ASME 250RF*	500	399	07846833
● 50	J7.5X-10	ASME 250RF*	1000	399	07846850

\*(Fits #300 Flanges)

Spares	Part Number
▶ Rebuild Kit – JS7X-10, J7X-10	05599246
▶ Rebuild Kit – JS7X-16, J7X-16	05599569
● Rebuild Kit – J7.2X-10	05596815
▶ Rebuild Kit – J7.5X-10	05596849

# STEAM TRAPS

## Traps – Steam – Thermodyne – TLV

### Weldable Carbon Steel Disc Trap Model P46SRN

for mains drainage, tracer lines, and coil drainage.

- In-line 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



Nominal Bore mm	Model	Connections	Max. Differential 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	05552411
▶ 20	P46SRN	Socket Weld	4600	80	05577333
▶ 25	P46SRN	Socket Weld	4600	88	05577384

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



## Traps – Steam – Thermodyne – TLV

### Compact Stainless Steel Disc Trap Model P46S

for Mains Drainage, Tracer and Instrumentation Lines

- Hardened Working Services for Long Life
- Air Jacketing to Reduce no Load cycling, and extend service life
- Lapped Disc for steam tight shut-off
- Built in High Surface Area Strainer Screen for longer life



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
▶ 15	P46S	BSPT	2100	50	05597189



## RELATED PRODUCTS

### Valves – Self Acting Temperature Control

For self acting temperature control of Steam or Hot water to processes or tanks.

**Maximum Temperature:** 200 C

**Maximum Pressure:** PN25 Brass Body, Pressure Balanced Bellows Plug, Copper Sensor and Capillary Tube.



Nominal Bore mm	Model	Connections	Part Number
▶ 15	43-5	40-100°C	07220094
▶ 20	43-5	40-100°C	07220111
● 25	43-5	40-100°C	07220128

## STEAM TRAP SURVEYS

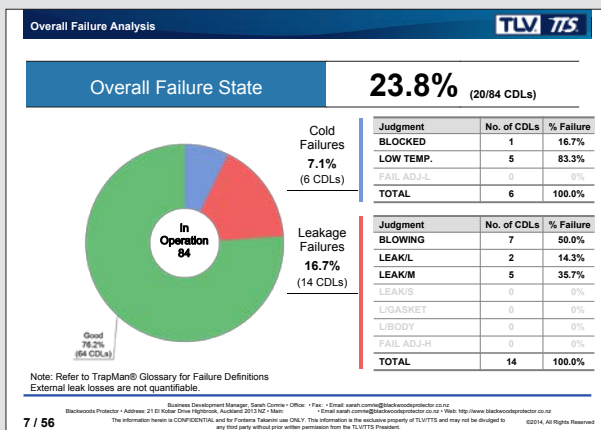
### Minimise costs with Steam Trap Surveys

NZ Safety Blackwoods works with specialist supplier TLV to provide a Condensate Discharge Location (CDL) survey. Our technicians will inspect your CDLs and test your steam traps using the TLV TrapMan precision diagnostic hardware (TM5N-P) and software (TrapManager-DC).

#### About TrapMan and TMS Steam Trap Surveys

TrapMan is a computerised system, consisting of a precision automatic analyser, using ultrasound and surface temperature measurement to diagnose steam trap conditions.

Automatic analysis takes only 15 seconds and works by comparing the test with stored data of that specific model and analysing its comparative performance. TrapMan instantly determines steam leakage and monetary losses, allows for customised reports and stores trap logs, historical data and result analysis for comparison against subsequent surveys, so that the financial impact can be monitored, repeat failures can be identified and root causes investigated and rectified.



For more information contact our specialist Hose & Flow team at [hoseandflow@nzsafetyblackwoods.co.nz](mailto:hoseandflow@nzsafetyblackwoods.co.nz)

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

## Traps – Steam – Thermodyne – TLV



Weldable Alloy Steel Disc Trap **Model HR80A, HR150A, and HR260A** for High Pressure and Temperature Mains and Turbine Drainage.

- 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
- Built in High Surface Area Strainer Screen for longer life
- Hardened Working Surfaces for maximum service life



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
15	HR80A	Socket Weld	8000	110	06175002
20	HR80A	Socket Weld	8000	110	05788728

## Traps – Steam – Thermostatic – TLV



Forged Steel Balanced Pressure Thermostatic Trap **Model L21S and L32S** for Tracer Lines, Dryers, Heaters, and Coil Drainage

- 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



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
15	L21S	BSPT	2100	80	05597104
20	L21S	BSPT	2100	80	05597563

Nominal Bore mm	Spares	Part Number
15-25	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

For correct selection and sizing contact us on 0800 660 660.

## Traps – Steam – Thermostatic – TLV



Brass Body Balanced Pressure Thermostatic Trap **Model LV13L (Angle Pattern)** and **LV13N (Straight Pattern)** for Tracer Lines, Dryers, Heaters, and Coil Drainage.

- 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



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
15	LV13L	BSPT	1300		05597138
20	LV13L	BSPT	1300		05597580
15	LV13N	BSPT	1300	76	05597155

Nominal Bore mm	Spares	Part Number
15 – 20	Thermostatic Capsule and Valve Seat Assembly	05599263

## Traps – Steam – Thermostatic – TLV



Stainless Steel Balanced Pressure Thermostatic Trap **Model LV21** for Tracer Lines, Dryers, Heaters, and Coil Drainage

- 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



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

Nominal Bore mm	Spares	Part Number
8 – 15	Thermostatic Capsule and Valve Seat Assembly	05599263

## Airvent – Steam – Thermostatic – TLV



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. Differential 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

Nominal Bore mm	Spares	Part Number
15 – 20	Thermostatic Capsule and Valve Seat Assembly	05599263

# STEAM & AIR TRAPS & SEPARATORS

## TRAPS – AIR AND GAS

### Traps – Air and Gas



Ductile Iron Free Float Air Trap **Model JA3** and **JA5** for Drip Leg and Receiver Drainage.

- Built in High Surface Area Strainer Screen for longer life
- Self Modulating Free Float Provides Continuous Discharge as process loads vary
- Manual Blow Down Valve for easy cleaning of the valve seat during operation
- Easy Inline access to internal components simplifies cleaning and reduces maintenance costs



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
● 15	JA3-16	BSPT	1600	120	<b>05597070</b>
▶ 20	JA3-16	BSPT	1600	120	<b>05597546</b>

Nominal Bore mm	Spares and Accessories	Part Number
▶ 15 – 25	Rebuild Kit – JA3-16	<b>05598770</b>

### Traps – Air and Gas



Stainless Steel Free Float Air and Gas Trap **Model SS1VGM** for Drip Leg Drainage.

- Built in High Surface Area Strainer Screen for longer life
- Self Modulating Free Float Provides Continuous Discharge as process loads vary



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
● 15	SS1VGM-5	BSPT	500	127	<b>05597240</b>
▶ 15	SS1VGM-21	BSPT	2100	127	<b>05597223</b>

Nominal Bore mm	Spares and Accessories	Part Number
● 15 – 25	Seat and Seals Kit – SS1VGM-5	<b>05596934</b>

## SEPARATORS – STEAM AND AIR

### Steam Separators – TLV



Cyclone Separator and Free Float Steam Trap in one Unit **Model DC3S-21**.

- Cyclone Separator achieves condensate separation efficiency of 98%
- Built in Self Modulating Free Float Trap discharges condensate as it is separated
- Precision Float and seating gives steam tight seal in all conditions
- Built in High Surface Area Strainer Screen ensures trouble free operation



Nominal Bore mm	Model	Connections	Max. Diff. Pressure kPa	Face to Face Length mm	Part Number
● 15	DC3S-21	BSPT	2100	150	<b>05597002</b>
● 20	DC3S-21	BSPT	2100	150	<b>05597444</b>
▶ 25	DC3S-21	BSPT	2100	176	<b>05597784</b>
▶ 40	DC3S-21	ASME 300RF	2100	263	<b>07846952</b>
▶ 50	DC3S-21	ASME 300RF	2100	381	<b>07846969</b>
▶ 65	DC3S-21	ASME 300RF	2100	384	<b>07846986</b>
▶ 80	DC3S-21	ASME 300RF	2100	450	<b>07847003</b>
▶ 100	DC3S-21	ASME 300RF	2100	164	<b>07847020</b>
▶ 40	DC3S-21	AS 2129 BS10 Table H	2100	254	<b>05598430</b>
▶ 50	DC3S-21	AS 2129 BS10 Table H	2100	365	<b>05598549</b>
▶ 65	DC3S-21	AS 2129 BS10 Table H	2100	371	<b>05598651</b>
▶ 80	DC3S-21	AS 2129 BS10 Table H	2100	437	<b>05598702</b>
▶ 100	DC3S-21	AS 2129 BS10 Table H	2100	160	<b>05596866</b>

### Separators – Air – TLV



Cyclone Separator and Free Float Air Trap in one unit **Model DC3A-10**.

- Cyclone Separator achieves condensate separation efficiency of 98%
- Built in Self Modulating Free Float Trap discharges condensate as it is separated
- Precision Float and seating gives air tight seal in all conditions
- Built in High Surface Area Strainer Screen ensures trouble free operation



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm
■ 15	DC3A-10	BSPT	1000	170
■ 20	DC3A-10	BSPT	1000	170
■ 25	DC3A-10	BSPT	1000	170
■ 15	DC3A-10	ASME 300RF	1000	191
■ 20	DC3A-10	ASME 300RF	1000	194
■ 25	DC3A-10	ASME 300RF	1000	197
■ 40	DC3A-10	ASME 300RF	1000	225
■ 50	DC3A-10	ASME 300RF	1000	263
■ 65	DC3A-10	ASME 300RF	1000	381
■ 80	DC3A-10	ASME 300RF	1000	384
■ 100	DC3A-10	ASME 300RF	1000	450

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

## Separators – Steam Air and Inert Gases – TLV

Sealed Stainless Steel Cyclone Separator for Steam, Air and Inert Gases.

### Model DC7

- Cyclone Separator achieves condensate separation efficiency of 98%
- 15mm BSPT Drainage Port for mounting a suitable Trap
- Available Screwed, Socket Welded, or with Various Flanged Ends

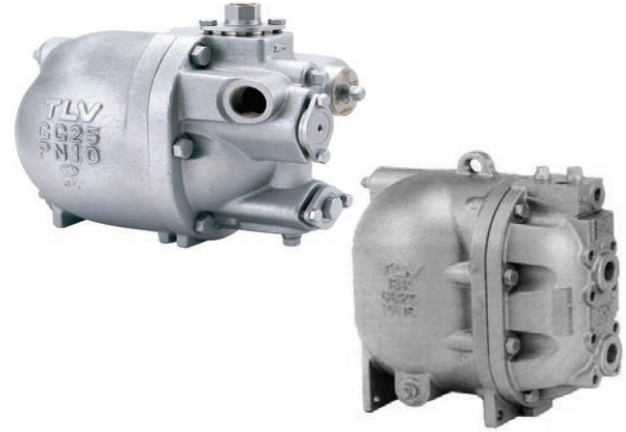


Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm
15	DC7	BSPT	2500	130
20	DC7	BSPT	2500	130
25	DC7	BSPT	2500	150
40	DC7	BSPT	2500	170
50	DC7	BSPT	2500	220
15	DC7	ASME 300RF	2500	178
20	DC7	ASME 300RF	2500	191
25	DC7	ASME 300RF	2500	227
40	DC7	ASME 300RF	2500	258
50	DC7	ASME 300RF	2500	337

## Pumps – Condensate – Pressure Driven Pumping Traps – TLV

Pressure powered combination pump and trap for a wide range of applications. **Model GT5C, GT10L, GT10, GT14** ideal for heat exchangers, flash recovery, low pressure turbines, adsorption chillers, or vacuum vessels

- 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



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

\*Varies with Conditions

## PUMPS – CONDENSATE

### Condensate Pumps – Pressure Driven – TLV

Pressure powered pump for a wide range of applications. **Model GP10L, GP10, GP14** ideal for low level receiver drainage, condensate return tanks, and drainage of low pressure or vacuum applications.

- 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



Port Size Inlet / Outlet mm	Model	Max. Inlet Pressure kPa	Max. Capacity kg/hr*	Part Number
80 / 50	GP10	1000	9000	05598736

\*Varies with Conditions

## Pumps – Condensate Pump Accessories – TLV

### Pump Trap Check Valves.

High performance pintle guided check valve **Model CK3MG.**

- All stainless steel body, disc and lapped seat
- Suitable for either vertical or horizontal installations
- Low pressure drop and large flow rates



Nominal Bore mm	Model	Connections	Max. Differential Pressure kPa	Face to Face Length mm	Part Number
25	CK3MG	BSPT	2100	84	06254647
40	CK3MG	BSPT	2100	122	06171262
50	CK3MG	BSPT	2100	127	06153956
80	CK3MG	BSPT	2100	171	06153990

## SAFETY AND RELIEF VALVES

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

### 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.



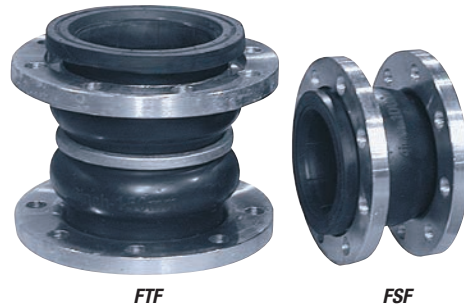
# FLEXIBLE PIPE JOINTS

## JOINTS - FLEXIBLE PIPE

### Joints – Flexible Pipe – E-Flex

Single Sphere and 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.



#### Single Sphere Flanged EPDM

Mfr No.	Size mm	Installed Length		Travel Total Compressed Extended mm	Allowable Movement from Neutral			Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number EPDM
		Natural Length mm	Min – Max Installed mm		Axial Compression mm	Axial Extension mm	Lateral Deflection mm				
▶ 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
▶ FSF350	350	265	246 – 273	240 – 281	25	14	22	15°	150	660	01180657
▶ FSF400	400	265	246 – 273	240 – 281	25	14	22	15°	125	660	05569190

#### Single Sphere Flanged Nitrile (NBR/NEO)

Mfr No.	Size mm	Installed Length		Travel Total Compressed Extended mm	Allowable Movement from Neutral			Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number Nitrile (NBR/NEO)
		Natural Length mm	Min – Max Installed mm		Axial Compression mm	Axial Extension mm	Lateral Deflection mm				
▶ 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
● FSF150	150	180	167 – 185	162 – 190	18	10	12	15°	225	660	07847496
● FSF200	200	205	186 – 212	180 – 220	25	14	22	15°	225	660	07847513
▶ FSF250	250	240	221 – 247	215 – 254	25	14	22	15°	225	660	07847530
▶ FSF300	300	260	241 – 267	235 – 274	25	14	22	15°	225	660	07847547

#### Twin Sphere Flanged EPDM

Mfr No.	Size mm	Installed Length		Travel Total Compressed Extended mm	Allowable Movement from Neutral			Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number EPDM
		Natural Length mm	Min – Max Installed mm		Axial Compression mm	Axial Extension mm	Lateral Deflection mm				
▶ 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

#### Twin Sphere Union EPDM

Mfr No.	Size mm	Installed Length		Travel Total Compressed Extended mm	Allowable Movement from Neutral			Angular degrees	Max work Pressure @ 80°C	Vacuum Rating	Part Number EPDM
		Natural Length mm	Min – Max Installed mm		Axial Compression mm	Axial Extension mm	Lateral Deflection mm				
▶ 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

#### Operating Temperatures

Pressure/Temperature Correction Factor	80°C	85°	90°C	95°C	100°C	105°C
Maximum Working Pressure (x factor)		x 1.0	x 0.92	x 0.83	x 0.75	x 0.67
						x 0.60



FTU

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

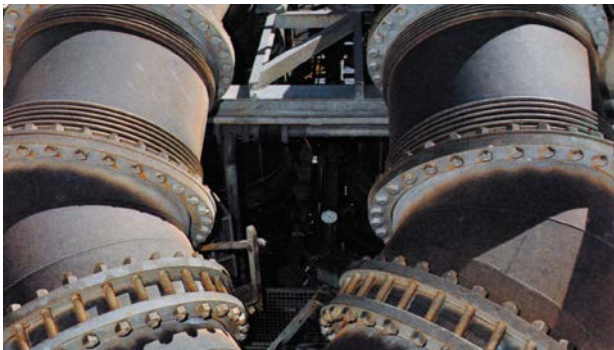
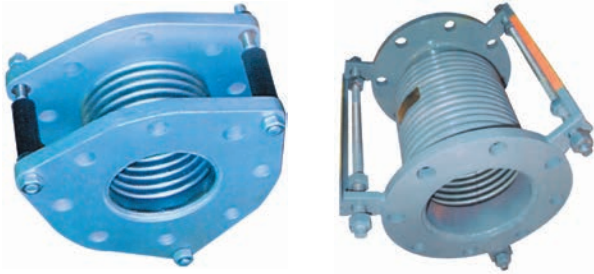
## EXPANSION JOINTS

### Expansion Joints – Indent

A comprehensive selection of expansion joints are available through our manufacturing partners which cover all possible materials and applications. Essentially these are designed and specified according to customer requirements and a very quick turn around is possible. For further details and advice please contact any of our Flow Control Specialist team.

Essentially these are designed and specified according to customer requirements and a very quick turn around is possible. Our partners have invested considerable resources into ensuring their design and testing facilities are world class and can provide full certification for the finished products.

For further details and advice please contact any of our Flow Control Specialist team.



## PIPELINE ACCESSORIES – WATER

### Pipeline Accessories – Water – Air Vents and Vacuum Breakers – VA – TLV

rapid initial air vent and vacuum breaker for water systems.

#### Model VA

- Large orifice for quick system start-up
- Precision ground float with resilient seat



Inlet Size mm	Outlet Size mm	Connection	Model	Max. Pressure/ Temperature	Part Number
● 50	20	ASME 125FF	VA1	1000kPa / 100°C	05596322

### Pipeline Accessories – Water – Air Vents and Vacuum Breakers – TLV

Automatic air vent and vacuum breaker for high temperature liquids

#### Model VS1C

- Precision ground float
- 3 Point seating for tight closure
- Optional high temperature stainless seat available
- Suitable for liquids with 0.8 or higher SG



Inlet Size mm	Connection	Model	Max. Pressure/ Temperature	Part Number
▶ 15	BSPT	VS1C-21	2100kPa / 150°C	05596271

### Pipeline Accessories – Water – Air Vents and Vacuum Breakers – TLV

Float type air vent and vacuum breaker for water systems

- Precision ground float with resilient seat provides automatic discharge and tight sealing



Inlet Size mm	Outlet Size mm	Connection	Model	Max. Pressure/ Temperature	Part Number
▶ 15	10	BSPT	VC2	500kPa / 90°C	05596254
● 25	10	BSPT	VC4	1000kPa / 90°C	05596305

## HANDY HINT

### Purchasing a Pressure Gauge

The first thing to consider when purchasing a pressure gauge is what range you need. Since the accuracy of most pressure gauges is between the 10 and 2 o'clock position you should always select a gauge with a range that is about twice your normal operating pressure. For example if your normal working pressure is 50kPa you want to select a gauge with 0-100kPa range.

If you cannot find a gauge that is exactly twice your working pressure go to the next step up.

For example if you want a 0-200kPa gauge as this is not a standard range a 0-250kPa range can be substituted. If the range is too low and the gauge is over pressurized, it will distort the bourdon tube which is not repairable.





### Pressure Gauges – Stainless Steel Case 63mm

Our 63mm stainless steel case pressure gauges are robust industrial quality enclosed within a 304 stainless steel case and bezel. Copper alloy bourdon and socket. Plexi glass window, neoprene seal and glycerine filled. 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 ± 1.6%.

**Ambient Temperature:** -25°C to 65°C.



Pressure range		Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number	
Min	Max							
■	-100	0	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532317
■	0	100	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532436
■	0	160	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532453
■	0	250	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532470
■	0	400	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532487
■	0	600	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532504
■	0	1000	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532555
■	0	1600	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532606
■	0	2500	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532640
■	0	4000	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532691
▶	0	6000	kPa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532708
■	0	10	Mpa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532725
▶	0	16	Mpa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532742
▶	0	20	Mpa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532759
▶	0	25	Mpa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532776
▶	0	35	Mpa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532793
▶	0	40	Mpa	Dual	63	Bottom / Stem Mount	¼" BSPT	05532810
▶	-100	150	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532334
▶	-100	500	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532351
▶	-100	900	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532385
■	0	600	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532521
■	0	1000	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532572
■	0	1600	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532623
▶	0	2500	kPa	Dual	63	Rear / Stem Mount	¼" BSPT	05532657

### Pressure Gauges – Stainless Steel Case 100mm

Our 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 ± 1%

**Ambient Temperature:** -25°C to 65°C.



Pressure range		Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number	
Min	Max							
▶	-1	5	Bar	Single	100	Bottom / Stem Mount	¾" BSPT	05531331
▶	-100	150	kPa	Single	100	Bottom / Stem Mount	¾" BSPT	05531314
▶	-100	0	kPa	Single	100	Bottom / Stem Mount	¾" BSPT	05531586
▶	0	160	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531348
▶	0	250	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531433
■	0	400	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531484
▶	0	600	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531535
■	0	1000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531365
■	0	1600	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531416
▶	0	2500	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531450
▶	0	4000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531501
▶	0	6000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531552
▶	0	10000	Bar	Dual	100	Bottom / Stem Mount	¾" BSPT	05531382
▶	0	25000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531467
▶	0	40000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531518
▶	0	60000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531569
▶	0	100000	kPa	Dual	100	Bottom / Stem Mount	¾" BSPT	05531399

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

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

Our 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 40mm and 50mm.

**Ambient Temperature:** -20 to 65°C.



Pressure range		Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number
Min	Max						
▶ 0	400	kPa	Dual	40	Bottom / Stem Mount	1/4" BSPT	05531705
▶ 0	1000	kPa	Dual	40	Bottom / Stem Mount	1/8" BSPT	05531739
▶ 0	400	kPa	Dual	50	Bottom / Stem Mount	1/8" BSPT	05531841
▶ 0	250	kPa	Dual	40	Rear / Stem Mount	1/8" BSPT	05531688
▶ 0	600	kPa	Dual	40	Rear / Stem Mount	1/8" BSPT	05531722
▶ 0	1000	kPa	Dual	40	Rear / Stem Mount	1/8" BSPT	05531756
▶ -100	0	kPa	Dual	50	Rear / Stem Mount	1/8" BSPT	05531773
▶ 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	160	kPa	Dual	63	Rear / Stem Mount	1/8" BSPT	05532045
▶ 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	600	kPa	Dual	50	Bottom / Stem Mount	1/4" BSPT	05778103
▶ 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	4000	kPa	Dual	63	Bottom / Stem Mount	1/4" BSPT	05532164
▶ 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

## Pressure Gauges – Economical 100mm

Our 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 to 65°C.



Pressure range		Scale	Scale Type	Case Diameter mm	Entry	Connection	Part Number
Min	Max						
▶ 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

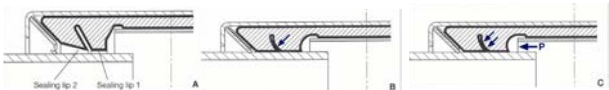
## COUPLINGS – PIPE

### Pipe Couplings – FGR – Normaconnect



The NORMACONNECT® pipe coupling is a reliable connection for thick and thin walled pipes conforming to the latest DIN standard 86128. Feed and return lines for liquids, gases and solids – for industrial application, shipbuilding, construction, fresh water supply, waste water treatment – are joined quickly, easily and safely. The NORMACONNECT® pipe coupling is an economical alternative to conventional pipe joining techniques for nearly all kinds of pipe materials. All plain ended pipes can be joined quickly without welding. The ready-to-fit coupling is pushed over the pipe ends, aligned and rotated to any radial fitting position. Tightening the two bolts alternately with a torque wrench is all it takes for a safe fitting.

The patented double lip sealing system (Fig.A) of the NORMACONNECT® pipe coupling offers double safety and provides maximum sealability at both low and high operating pressures. During tightening, sealing lip 1 is pressed onto sealing lip 2 in such a way that also at low line pressures (gas), at vacuum or at high loads on the joint, an excellent sealing effect is obtained (Fig.B). Due to the special sealing lip design, the sealing effect is even stronger when the internal pressure rises, as the sealing lips are pressed more firmly onto the pipe surface with increasing system pressure (P) (Fig.C).



The NORMACONNECT® product range features the correct coupling for all conceivable applications which subdivides into three basic types:

- **NORMACONNECT® FLEX** – Pipe couplings for connecting restrained metal and plastic pipes.
- **NORMACONNECT® GRIP** – Axial restraint pipe couplings for connecting unrestrained metal pipes.
- **Type CG** – Axial restraint pipe couplings for connecting an unrestrained metal pipe with a plastic pipe.
- **Type PG** – Axial restraint pipe couplings for connecting unrestrained plastic pipes.
- **NORMACONNECT® REP** – Repair couplings for connecting restrained metal and plastic pipes. A basic range to cover the more popular requirements is carried in stock and these are listed below. As there are many different and quite specific requirements and options for material grades and seals, we can provide technical advice to suit all applications with our Flow Control Specialist team

#### Coupling Types and Applications

PIPES TO BE JOINED	Size mm	Flex	Flex E
<b>Metal + Metal</b>	26.9 to 168.3	70 to 32 bar	70 to 32 bar
	18.0 to 1219.2	70 to 7 bar	30 to 4 bar
	326.0 to 2032.0	-	-
<b>Plastic + Plastic</b>	26.9 to 168.3	16 bar	16 bar
	180.0 to 1219.2	16 to 4 bar	16 to 4 bar
<b>Metal + Plastic</b>	26.9 to 168.3	16 bar	16 bar
	180.0 to 1219.2	16 to 4 bar	16 to 4 bar

PIPES TO BE JOINED	Size mm	Flex	Flex E
<b>Metal + Metal</b>	26.9 to 168.3	70 to 32 bar	70 to 32 bar
	18.0 to 419.0	-	-
<b>Plastic + Plastic</b>	40.0 to 168.3	32 to 2.5 bar	-
	200.0 to 406.4	-	-
<b>Metal + Plastic</b>	38/40 to /160/168.3	16 bar	16 bar
	200.0/204.0 to 406.0/406.4	-	-

#### Sealing Sleeves

Material of seal	EPDM	NBR
<b>Temperature Range</b>	-30°C up to +125°C OD 26.9 up to 168.3mm	-20°C up to +80°C OD > 180mm
<b>Media</b>	Drinking Water Alcohols Compressed Air Solids	Water Oils Gases (combustible) Fuels Hydrocarbon solutions

## FLOW METERS

### Mechanical Fuel/Oil Meters



- Aluminium body
- Ryton® rotors
- Viton® O-ring
- 4 digit reset register with heavy duty aluminium casing
- BSPP (G) female threads
- 80°C temperature rating
- Suitable for the distribution and dispensing of fuels, fuel oils and lubricants
- Ideal for fuel consumption monitoring for boilers, generators and vehicles



Model	Pressure Rating	Inlet/Outlet	Flow Range	Part Number
AM-015	40 bar (580psi)	½	1-40 L/min	02000007
AM-025	40 bar (580psi)	1	10-150 L/min	02000024
AM-040	30 bar (435psi)	1½	15-250 L/min	02000041
AM-050	20 bar (290psi)	2	30-450 L/min	02000058

### Mechanical Fuel/Oil Meters



- Aluminium body
- Ryton® rotors
- Viton® O-ring
- Pulse output with integral mount large digit display
- BSPP (G) female threads
- 80°C temperature rating
- Suitable for the distribution and dispensing of fuels, fuel oils and lubricants
- Ideal for fuel consumption monitoring for boilers, generators and vehicles



Model	Pressure Rating	Inlet/Outlet	Flow Range	Part Number
A-025-RL	68 bar (990psi)	½	10-150 L/min	02000228
A-040-RL	30 bar (435psi)	1½	15-250 L/min	02000245
A-050-RL	20 bar (290psi)	2	30-450 L/min	02000262
A-080-RL	12 bar (175psi)	3	35-750 L/min	02000279
A-080E-RL	12 bar (175psi)	3	50-1000 L/min	02000296

Require a valve/flow control item not on these pages?  
Do you have a technical query?

Please contact our specialist team on  
[hoseandflow@nzsafetyblackwoods.co.nz](mailto:hoseandflow@nzsafetyblackwoods.co.nz)

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

## Pulse AdBlue® and Chemical Flow Meter

- Ryton® body
- Ryton® rotors
- Teflon® encapsulated O-ring
- Pulse output
- BSPP (G) female threads
- 80°C temperature rating
- Suitable for the distribution and dispensing of AdBlue®
- Ideal for blending and batching of chemicals



Model	Pulse Output	Pressure Rating	Inlet/Outlet	Flow Range	Part Number
● P-025	Reed/Hall	5 bar (72psi)	1	10-150 L/min	<b>02000466</b>

## THERMOMETRY

### Thermometers – Bimetal – Teltherm

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:** 304 Stainless Steel.

**Sensor:** Copper Alloy, Nickel Plated.



Mfr No.	Temperature Range	Part Number
▶ 3CC11	0-120° Celsius	<b>05556882</b>
▶ 3CC13	0-200° Celsius	<b>05556899</b>

## RELATED PRODUCTS

### Hex Nipple

■ Part Number 03306206



Go to page  
**809**

## VALVES – SPECIALISED

NZ Safety Blackwoods through our Flow Control team has a commitment to NZ industry to secure access to the best engineered valves available globally.

Our Flow Control specialist team has many years of industry experience and are able to accurately specify the right flow control solution for the application and are trained in the latest technologies and innovations provided by these industry leaders.

Included in the engineered valve indent programme are a variety of valves which can be offered in a wide range of sizes, materials, pressure ratings and end connection configurations to suit your application. We can source valves manufactured to virtually any international industry code from a number of manufacturers and valve stockists world wide.

- Gate and Globe Valves
- Check Valves
- Butterfly Valves (including High Performance Butterfly Valves)
- Ball Valves (including Trunnion and Floating Ball design)
- Diaphragm Valves
- Knife Gate Valves, Penstocks and Dampers
- Plug Valves
- Control Valves
- Safety Relief Valves
- Solenoid Valves
- Valve Actuators (Electric and Pneumatic) and Accessories
- Valves for Special Applications

### WE CAN ALSO SUPPLY:

- Steam Traps, Air and Gas Traps, Steam Separators and Steam Trap Management Systems
- Bursting Discs, Monitors and Indicators
- Pipe Couplings
- Pressure and Temperature Gauges and Instruments
- Flow Meters
- Expansion Joints (Rubber, Fabric and Metallic)
- Steam and Waters Mixers
- Pressure Switches

Please contact our specialist team on [hoseandflow@nzsafetyblackwoods.co.nz](mailto:hoseandflow@nzsafetyblackwoods.co.nz)

