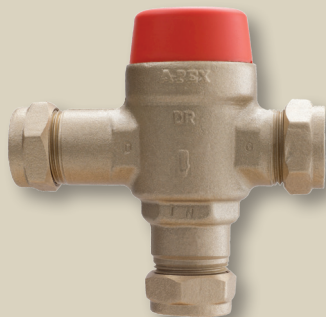
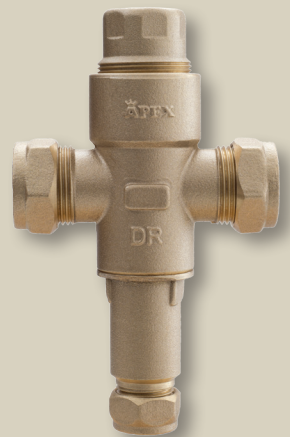
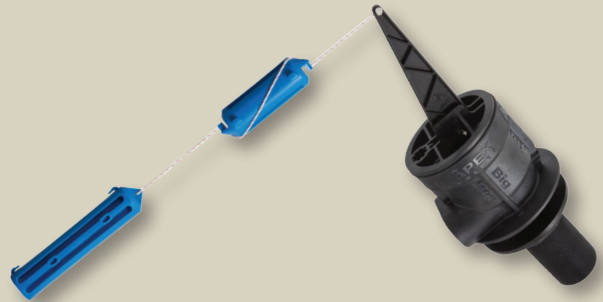




APEX[®]

V A L V E S

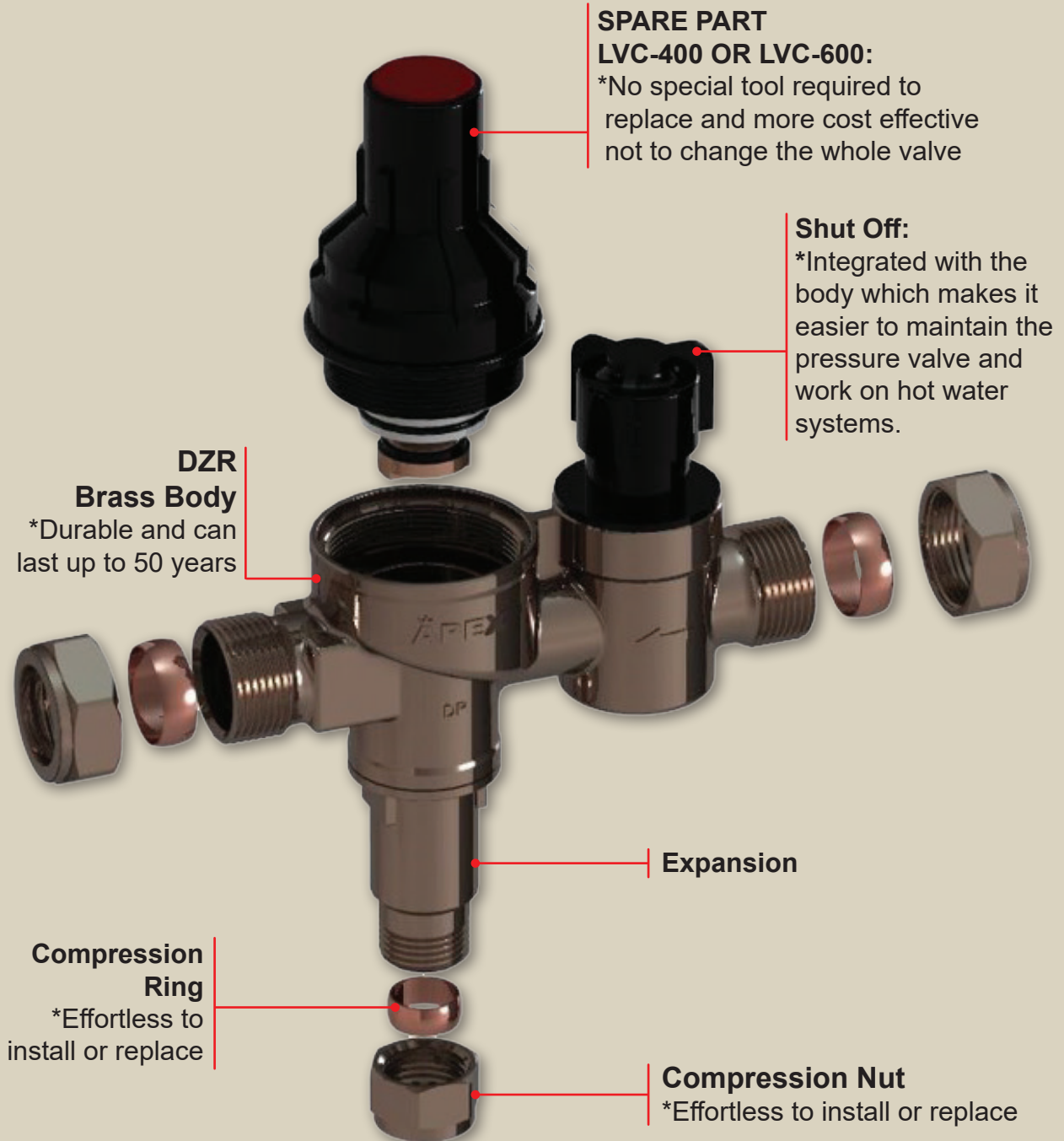
SOUTH AFRICA



PLUMBING

PART OF LIXIL

MULTI-SMART PRESSURE VALVE - EXPLODED DRAWING



INTRODUCTION



Apex Valves has been serving the plumbing industry for over 20 years with its quality products and reliable after sales service support.

Established in 1997, Apex Valves South Africa is a local manufacturer of a complete range of Pressure Control Valves for domestic hot water installations.

Regardless of whether you are in the hot water solar system, electrically heated or agricultural valves' market the enclosed catalog is worth exploring. The valves are uniquely designed to simplify service and maintenance.

Since its inception we have steadily increased in market share and continue to strive for excellent product and service delivery.

As Apex Valve South Africa Team would like to take this opportunity to thank all our customers, who have played an integral role in building our brand and look forward to continuing our success story with you.

Yours sincerely

Apex Valves South Africa Team

WHY APEX

- Eco-friendly manufacturing plant
- National after-sales service support by qualified plumbers (on-site repair and/ or replacement within 48 hours)
- Local call centre 0861 21 21 21
- Recipients of the 2016 Customer Service Award of the Year from SEIFSA (Steel & Engineering Industries Federation of South Africa)
- Locally manufactured & developed for African conditions, ensuring product longevity against the presence of lead & nickel (DZR/ DR brass)
- Spares (Cartridge) widely available
- Backing of two global giants (APEX VALVES NEW ZEALAND & LIXIL Africa)
- Local marketing support & investment to drive sell-through (promoters, activations etc.)
- Local training support for your teams
- Tried & quality-proven local exclusive ranges on offer
- Our products have a global footprint
- We hold permits to apply the SABS mark to products covered by the following South African National Standards:

SANS 198	Functional control and safety valves
SANS 752	Float valves
SANS 1808-53	Draincocks

Customer Service and Spares

At Apex Valves South Africa we are renowned for our after-sales service and availability of spares, affording our customers peace of mind. Our National Service Team was the recipient of the 2016 Customer Service Award of the Year from the Steel & Engineering Industries Federation of South Africa (SEIFSA).

Our dedicated National after-sales service number (0861 21 21 21) enables customers to speak directly to a service consultant for over-the-phone advice or to book a service call for a technician to personally visit the site in question. We are committed to attending to our customers' calls within 48 hours.

Quality/Certifications

Quality remains one of the key pillars of continuous improvement. At Apex Valves South Africa, our people are continually trained to ensure they adhere to our quality principles and observe correct procedures.

Our technical products are produced and tested to meet the highest standards. Where there is a South African standard in place, such as the South African National Standards (SANS) by the South African Bureau of Standards (SABS), our products are tested and certified to ensure they conform to these standards and criteria.

Selected Apex South Africa (LIXIL Africa) products are also Joint Acceptance Scheme for Water Installation Components (Jaswic) approved and listed, which means they are accepted for use by municipal bodies.

STATE OF THE ART FACILITIES

Our Factories

With ongoing investment into our factories, we will continue to produce world-class products using the latest plant and manufacturing equipment and technologies.

This improved efficiency allows Apex Valves South Africa to consistently stay abreast of international trends.

Water saving/Energy saving

Apex Valves South Africa offers an extensive range of water saving and energy/ electricity saving products that are sophisticated in both design and function.

This includes high water volume float valves, which will result in reduced electricity consumption and unnecessary or excessive wear-and-tear on pumps (due to the high flow rates/ volumes, thus filling water reservoirs/ water tanks much quicker), pressure reducing valves, expansion valves, pressure control valves and so much more.

Our research teams constantly investigate ways in which to improve the water efficiency of our products and we often develop specific technologies to complement the existing systems or water reticulation designs where critical consumption management is required.

GLOSSARY & GUIDELINE TABLE



Products bearing this mark have met all requirements of the relevant South African National Standards (SANS) and have been certified by the South African Bureau of Standards (SABS).

Product Finish: DZR Brass / Acetyl

GENERIC PRODUCT FEATURES AND BENEFITS

Apex Valves South Africa products are produced to offer maximum added value to customers.

** The legend-icons below show the various features and benefits of our product portfolio.



1. Dezincification Resistant Brass (DZR/ DR brass)

Dezincification relates to the corrosive effect of water on brass.

The minimization of this is a critical aspect of the quality (“fit for purpose”) of plumbing fittings that come into contact with water.

The risk and rate of dezincification increases with water hardness and the acidity or alkalinity of water (away from a pH of 7).

Dezincification-resistant brass, or DZR/ DR brass, is brass that is characterized by exceptional resistance to this type of corrosion.

The resistance is achieved by adherence to exacting specifications for chemical composition and careful process controls. All DZR/ DR brass must pass an ISO 6509 dezincification resistance laboratory test.

In South Africa, the use of DZR/ DR brass for components of brass for plumber’s fittings which come into contact with water is national law. Building inspectors are being trained and made aware to demand the removal of plumber’s brassware that does not conform to statutory law.



2. Team Assist

Trained and dedicated National service teams are in place to provide support pre and post installation.



3. Apex Valves South Africa Genuine

Genuine spare parts are locally made and readily available.



4. Low Water Pressure

Suitable for use in environments where low water pressure is present or a header tank is used.

Product Care and Maintenance

The “WARRANTY” is valid for:

- All Apex Valves South Africa products and valves extend a two (2) year warranty, except;
- The Multi-Smart Pressure Valve extends a five (5) year warranty
- Geyser Pack 400 & 600kPa extends a five (5) year warranty

Product Care and Maintenance

PRODUCT WARRANTY AND CONSEQUENTIAL DAMAGE PROCEDURES

Warranty

1. The Apex Valves South Africa products are backed by a warranty as stipulated above, from date of purchase, against faulty materials and/ or defective workmanship.
2. The warranty shall not apply to damages caused by faulty operation/ installation due to foreign matter in the water supply or system, the connection of the “Product” to impure or deleterious water supplies containing excessive dissolved salts or chemicals; the connection of the “Product” in a manner which does not comply with the manufacturer’s recommendations, the relevant SANS requirements/criteria, JASWIC and local plumbing code requirements/ criteria; or the abuse/ mutilation/conversion of the “Product”; or installed by a non-licensed/ non-qualified plumber* *Plumber details & license number will be required.
3. Apex Valves South Africa undertakes to replace and/ or repair, at its discretion and in adherence to the Consumer Protection Act (CPA), any defective “Product”, provided that Apex Valves South Africa will incur no consequential liability whatsoever.

Product “Failure”

If a valve is perceived to be malfunctioning:

1. Follow the instructions on the installation leaflet supplied with the valve.
2. If the problem cannot be resolved, contact Apex Valves South Africa*/ Lixil Africa Service Call Centre* and follow their advice and recommendations.
3. If the problem persists, please get in contact with Apex Valves South Africa*/ Lixil Africa Service Call Centre*

***Apex Valves South Africa/LIXIL Africa reserves the right to review any specific case in order to assess the validity of this warranty/ claim.**

***Apex Valves South Africa/LIXIL Africa may charge a discretionary service fee when called out to inspect products which are not Apex Valves South Africa/LIXIL Africa products or where there is an illegitimate claim.**

Maintenance

The frequency and extent of maintenance required for these products vary according to prevailing site and operational conditions.

No regular/ specific maintenance is required (by default). Spare parts are available for key components.

CONTENTS

CONTROL VALVES	12-17
SPECIAL PRODUCTS IN-LINE PRESSURE REDUCING VALVES (PRV)	18
FMP INSTALLATION SCHEMATIC	19
SOLAR / HEAT PUMP CONTROL VALVES	20-21
SOLAR/HEAT PUMP INSTALLATION SCHEMATIC	22
GEYSER VALVES	22-29
AGRICULTURAL / RURAL	30-31
TROUGH VALVES/ RESERVOIR TANK SELECTION GUIDE	32-33
TROUGH VALVES/ RESEVOIR WATER TANK FILLER OF FLOAT VALVES (APT)	34-36
PUMP FED WATER TANKS or RESERVOIR TANKS - BIGBOY (BB)	37-39
PUMP FED WATER TANKS or RESERVOIR TANKS - PUMP BUDDY (PB)	40-41
RESERVOIR TANKS - RAIN AID VALVES (RA)	42
RESERVOIR VALVE (RES)	42-43
FULL FLOW FLOAT VALVE (XF) - WATER TROUGHS	44
WATER LEVEL INDICATOR (VSBALL) - RESERVOIR TANKS	45
FLOAT VALVE - SPARES	46

CONTROL VALVES

PRESSURE CONTROL VALVE CARTRIDGE (ONLY); 400kPa

CODE: LVC-400

FEATURES & BENEFITS:

No specialized tools required; Hand tighten; Pressure control valve cartridge factory set and ready to be installed

APPLICATION: Spares for LVEV & LSEV

MATERIAL: Acetyl

CATEGORY: Spares



Team Assist



Apex Valves
Genuine



PRESSURE CONTROL VALVE CARTRIDGE (ONLY); 600kPa

CODE: LVC-600

FEATURES & BENEFITS:

No specialized tools required; Hand tighten; Pressure control valve cartridge factory set and ready to be installed

APPLICATION: Spares for LVEV & LSEV

MATERIAL: Acetyl

CATEGORY: Spares



Team Assist



Apex Valves
Genuine



CONTROL VALVES

PRESSURE CONTROL VALVE; 400kPa - 22CxC

CODE: LVEV-400; 22CxC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Spares readily available

APPLICATION: Balanced water pressure

MATERIAL: DZR Brass

CATEGORY: PCV

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



PRESSURE CONTROL VALVE; 600kPa - 22CxC

CODE: LVEV-600; 22CxC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Spares readily available

APPLICATION: Balanced water pressure

MATERIAL: DZR Brass

CATEGORY: PCV

22mm Compression CxC connection ends; 15mm Compression CxC expansion outlet



PRESSURE CONTROL VALVE; 400kPa 15mm CxC

CODE: LVEV-400; 15CxC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Spares readily available

APPLICATION: Balanced water pressure

MATERIAL: DZR Brass

CATEGORY: PCV

15mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



CONTROL VALVES

PRESSURE CONTROL VALVE WITH 2 X VRV & SHUT-OFF; 400kPa - 22Cx C

CODE: MB-400; 22Cx C

FEATURES & BENEFITS:

PCV + 1 x S/Off + 2 x VRV;

Convenient pack for geyser installation and balanced water pressure

APPLICATION: Balanced water pressure & Geyser

MATERIAL: DZR Brass

CATEGORY: PCV Valve pack + S/Off

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet;
VRV 22mm Compression CxC connection ends; S/ Off 22mm Compression CxC connection ends



PRESSURE CONTROL VALVE WITH 2 X VRV & SHUT-OFF; 400kPa - 15Cx C

CODE: MB-400; 15Cx C

FEATURES & BENEFITS:

PCV + 1 x S/Off + 2 x VRV;

Convenient pack for geyser installation and balanced water pressure

APPLICATION: Balanced water pressure & Geyser

MATERIAL: DZR Brass

CATEGORY: PCV Valve pack + S/Off

15mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet;
VRV 15mm Compression CxC connection ends; S/ Off 15mm Compression CxC connection ends



CONTROL VALVES

PRESSURE CONTROL VALVE WITH 2 X VRV; 400kPa - 15CxC

CODE: LVEV-400P; 15CxC

FEATURES & BENEFITS:

PCV + 2 x VRV;

APPLICATION: Balanced water pressure & Geyser

MATERIAL: DZR Brass

CATEGORY: PCV Valve pack

15mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet; VRV 15mm Compression CxC connection end



PRESSURE CONTROL VALVE WITH 2 X VRV; 400kPa - 22CXC

CODE: LVEV-400P; 22CxC

FEATURES & BENEFITS:

PCV + 2 x VRV;

APPLICATION: Balanced water pressure & Geyser

MATERIAL: DZR Brass

CATEGORY: PCV Valve pack

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet; VRV 22mm Compression CxC connection end



PRESSURE CONTROL VALVE WITH 2 X VRV & SHUT OFF; 600kPa - 22CxC

CODE: MB-600; 22CxC

FEATURES & BENEFITS:

PCV + 1 x S/Off + 2 x VRV;

Complete pack for geyser installation

APPLICATION: Balanced water pressure & Geyser

MATERIAL: DZR Brass

CATEGORY: PCV Valve pack + S/Off

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet; VRV 22mm Compression CxC connection end



CONTROL VALVES

PRESSURE CONTROL VALVE; 600kPa - 15CxC

CODE: LVEV-600; 15CxC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Spares readily available

APPLICATION: Balanced water pressure

MATERIAL: DZR Brass

CATEGORY: PCV

15mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



ISOTEC TEMPERATURE RELIEF VALVE; 400kPa

CODE: ISOTEC-400

FEATURES & BENEFITS:

Dumping/ Release function for water; Used in solar installations; Dumps/ Releases water when the temperature reaches 83°C in a solar system; Factory set at 83°C

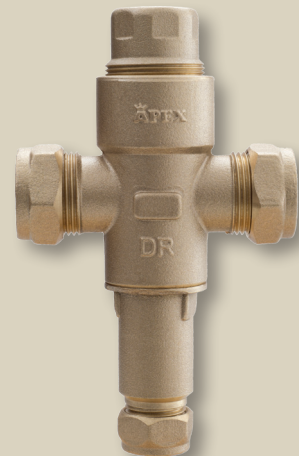
Used to protect the complete solar system against overheating

APPLICATION: Geyser; Solar

MATERIAL: DZR Brass

CATEGORY: Temperature relief valve

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



PRESSURE CONTROL VALVE; 200KPA - 22CXC

CODE: LVEV-200; 22CXC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Spares readily available

APPLICATION: Balanced water pressure

MATERIAL: DZR Brass

CATEGORY: PCV

15mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



CONTROL VALVES

PRESSURE CONTROL VALVE; 200KPA - 15CXC

CODE: LVEV-200; 15CXC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Spares readily available

APPLICATION: Balanced water pressure

MATERIAL: DZR Brass

CATEGORY: PCV

15mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



DZR Brass



Team Assist

MULTI-SMART PRESSURE VALVE 400KPA 22 CXC 22MM

CODE: LSEV-400;22CxC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Integrated in-line shut-off valve; Spares readily available. Ideal for insurance claims/replacements.

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: PCV & Shut-off

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



DZR Brass



Team Assist



MULTI-SMART PRESSURE VALVE 600KPA 22 CXC

CODE: LSEV-600;22CxC

FEATURES & BENEFITS:

One valve including pressure reducing valve (factory set operating pressure) and expansion relief valve; Integrated in-line shut-off valve; Spares readily available. Ideal for insurance claims/replacements.

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: PCV & Shut-off

22mm Compression CxC connection ends; 15mm Compression CxC expansion relief outlet



DZR Brass



Team Assist



SPECIAL PRODUCTS; IN-LINE PRESSURE REDUCING VALVES (PRV)

IN-LINE PRESURE REDUCING VALVE; 350kPa

CODE: FMP-350

FEATURES & BENEFITS:

Maximum inlet pressure: 1,600 kPa;
Outlet pressures: 350 - 600kPa +/- 10% @ 1,000kPa inlet pressure.
Maximum temperature: 40°C;
Minimum temperature: 1°C;
FMP supplied with fixing clip and screw;
Flow rate: 14ltr/ min at 700kPa inlet pressure;
Dual check valves/ non-return valves



APPLICATION: In-line pressure reducing valve ideal for use with appliances

MATERIAL: Acetyl

CATEGORY: FMP

1/4" John Guest connectors for inlet and outlet



Team Assist

IN-LINE PRESURE REDUCING VALVE; 600kPa

CODE: FMP-600

FEATURES & BENEFITS:

Maximum inlet pressure: 1,600 kPa;
Outlet pressures: 350 - 600kPa +/- 10% @ 1,000kPa inlet pressure.
Maximum temperature: 40°C;
Minimum temperature: 1°C;
FMP supplied with fixing clip and screw;
Flow rate: 14ltr/ min at 700kPa inlet pressure;
Dual check valves/ non-return valves



APPLICATION: In-line pressure reducing valve ideal for use with appliances

MATERIAL: Acetyl

CATEGORY: FMP

1/4" John Guest connectors for inlet and outlet



Team Assist

FMP INSTALLATION SCHEMATIC

TYPICAL INSTALLATION EXAMPLE:



- Dual check valves prevents back flow, making the FMP ideal for reverse osmosis units
- The FMP protects water filters by limiting water pressure to the filter
- The FMP valve is manufactured from acetyl and features John Guest fittings for quick installation

SOLAR / HEAT PUMP CONTROL VALVES

DIVERTER VALVE; 22CxC

CODE: TV-DIV; 22CxC

FEATURES & BENEFITS:

Tempering valve function with diverting capabilities in terms of the application/ installation

Balanced water pressure

APPLICATION: Geyser; Heat pump

MATERIAL: DZR Brass

CATEGORY: Diverter valve

22mm Compression CxC connection ends; 22mm Compression CxC diverting connection end



LOW PRESSURE TEMPERING VALVE; 22CxC

CODE: TV-22CxC; LP

FEATURES & BENEFITS:

Able to withstand 110°C (constant), ideal for solar and wetback installations; Extremely high flow rates make it suitable for both high and low pressure systems - 20ltr /m @ 2mtr head

Inlet water pressures: 20kPa (2m head) to 1,000kPa

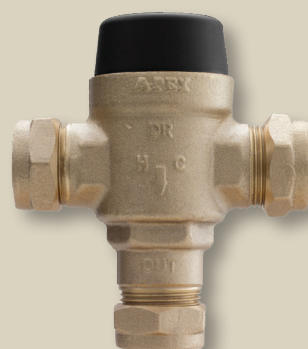
Balanced water pressure

MATERIAL: DZR Brass

APPLICATION: Geyser; Solar

CATEGORY: Tempering valve

22mm Compression CxC connection ends; 22mm Compression CxC diverting connection end



LOW PRESSURE TEMPERING VALVE; 15CxC

CODE: TV-15CxC; LP

FEATURES & BENEFITS:

Able to withstand 110°C (constant), ideal for solar and wetback installations; Extremely high flow rates make it suitable for both high and low pressure systems - 20ltr /m @ 2mtr head

Inlet water pressures: 20kPa (2m head) to 1,000kPa

Balanced water pressure

MATERIAL: DZR Brass

APPLICATION: Geyser; Solar

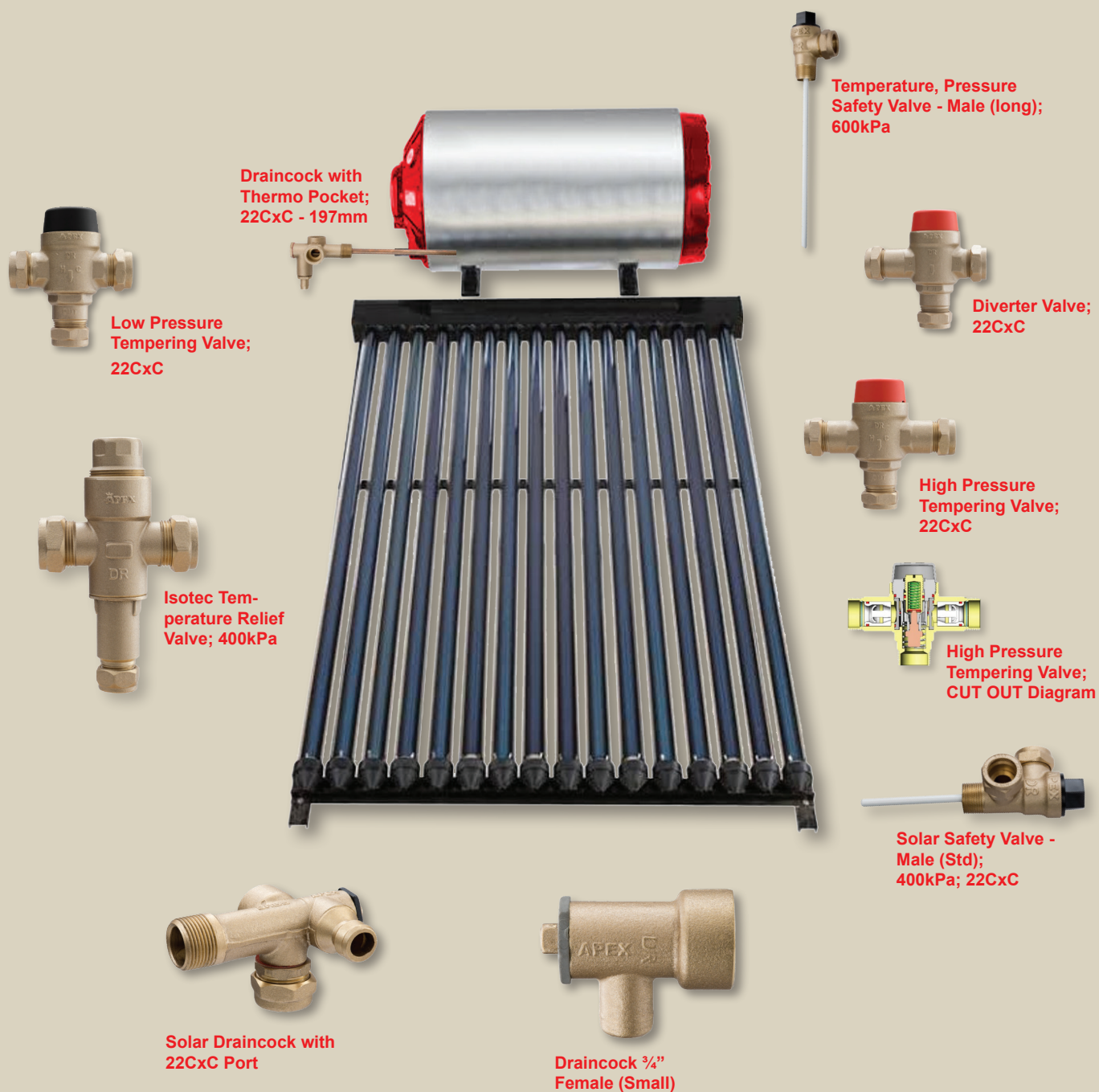
CATEGORY: Tempering valve

15mm Compression CxC connection ends; 15mm Compression CxC diverting connection end



SOLAR / HEAT PUMP INSTALLATION SCHEMATIC

ELECTRICAL HOT WATER GEYSER INSTALLATION SCHEMATIC



GEYSER VALVES

GEYSER PACK; TP&S VALVE 400kPa

CODE: GEYSERP-400

FEATURES & BENEFITS:

Geyser installations

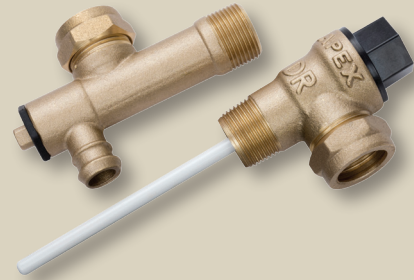
GEYSERP-400 consisting of 1 x DC-3/4STD and 1 x TP-400

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Geyser valve pack

DC-3/4STD = 3/4" BSP male connection end; TP-400 = 3/4" BSP Male tapered thread



VACUUM CONTROL VALVE; 3/4" BSP

CODE: VRV-3-4BSP

FEATURES & BENEFITS:

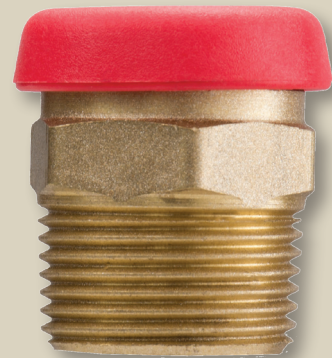
Geyser installations; Vacuum relief valve

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Vacuum relief valve

3/4" BSP male connection end



VACUUM CONTROL VALVE; 1/2" BSP

CODE: VRV-1/2BSP

FEATURES & BENEFITS:

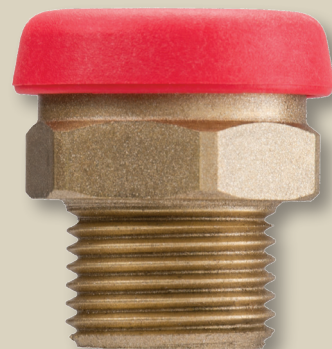
Geyser installations; Vacuum relief valve

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Vacuum relief valve

1/2" BSP male connection end



GEYSER VALVES

VACUUM CONTROL VALVE; 15CxC

CODE: VRV-15CxC

FEATURES & BENEFITS:

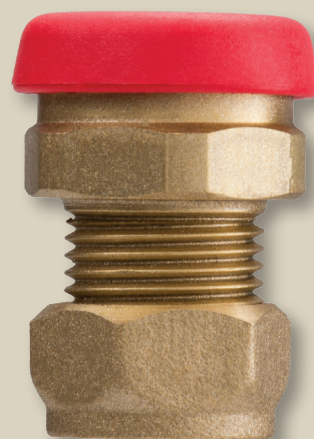
Geyser installations; Vacuum relief valve

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Vacuum relief valve

15mm Compression CxC connection end



VACUUM CONTROL VALVE WITH TAKEOFF; 22CxC

CODE: VRV-22CxC

FEATURES & BENEFITS:

Geyser installations; Vacuum relief valve

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Vacuum relief valve

22mm Compression CxC connection end



SHUT-OFF VALVE; S/OFF-22CxC

CODE: S/OFF-22CxC

FEATURES & BENEFITS:

In-line isolating valve;
DZR brass body with acetyl cap

APPLICATION: In-line isolating valve to isolate/ shut off the supply of water to a point

MATERIAL: DZR brass; Acetyl

CATEGORY: Isolating valves

22mm Compression CxC connection ends



GEYSER VALVES

DRAINCOCK 3/4" FEMALE (Small)

CODE: DC-3/4F

FEATURES & BENEFITS:

Geyser installations; Draincock with Ø20mm hose tail

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Draincock

3/4" Female connection end to geyser; Ø20mm hose tail outlet



DRAINCOCK 3/4" MALE (Small)

CODE: DC-3/4MALE

FEATURES & BENEFITS:

Geyser installations; Draincock with Ø20mm hose tail

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Draincock

3/4" Male thread connection end to geyser; Ø20mm hose tail outlet



SOLAR DRAINCOCK with 22CxC Port

CODE: DC-S; 22CxC

FEATURES & BENEFITS:

Hot water cylinder/ Solar installations; Draincock with Ø20mm hose tail

APPLICATION: Geyser; Solar

MATERIAL: DZR Brass

CATEGORY: Draincock

3/4" Male connection end; 22mm Compression CxC port; 3/4" Female connection end; Ø20mm hose tail outlet



GEYSER VALVES

DRAINCOCK 3/4" BSP INLET & OUTLET; Standard

CODE: DC-3/4STD

FEATURES & BENEFITS:

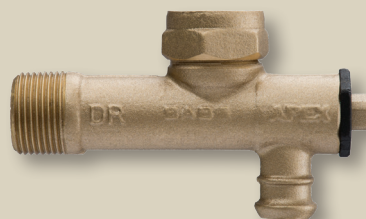
Geyser installations; Draincock with Ø20mm hose tail

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Draincock

3/4" BSP Male connection end; 22mm Compression CxC outlet; Ø20mm hose tail outlet



DRAINCOCK WITH THERMO POCKET; 22CxC - 197mm

CODE: DC-THER-197; 22CxC

FEATURES & BENEFITS:

197mm long Thermo-pocket

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: Draincock with thermo-pocket

3/4" BSP Male connection end to geyser; 3/4" BSP female connection end inlet; 22mm Compression CxC port to connect to solar; Ø20mm hose tail outlet



Team Assist

TEMPERATURE, PRESSURE SAFETY VALVE - MALE (STD); 400kPa

CODE: TP-400; M

FEATURES & BENEFITS:

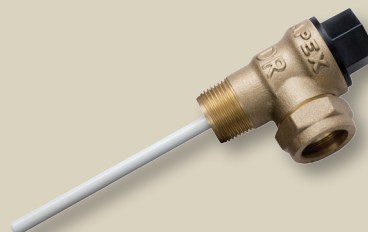
Combined Temperature, Pressure and Safety valve feature in one body;
5" Wax temperature probe

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: TP&S valve

3/4" BSP Male tapered thread connection end to geyser;
22mm Compression CxC outlet connection end



Team Assist



GEYSER VALVES

SOLAR SAFETY VALVE - MALE (STD); 400kPa; 22CxC

CODE: TP-400; S-S;22CxC

FEATURES & BENEFITS:

Combined Temperature, Pressure and Safety valve feature in one body;
5" Wax temperature probe

APPLICATION: Geyser; Solar

MATERIAL: DZR Brass

CATEGORY: TP&S valve; Solar

3/4" BSP Male tapered thread connection end to geyser; 22mm Compression CxC connection end inlet; 22mm Compression CxC connection end for solar



DZR Brass



Team Assist



SOLAR SAFETY VALVE - MALE (LONG); 400kPa; 22CxC

CODE: TP-400; S-L;22CxC

FEATURES & BENEFITS:

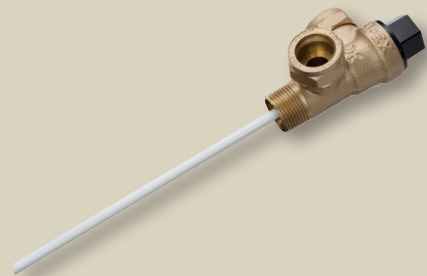
Combined Temperature, Pressure and Safety valve feature in one body;
9" Wax temperature probe

APPLICATION: Geyser; Solar

MATERIAL: DZR Brass

CATEGORY: TP&S valve

3/4" BSP Male tapered thread connection end to geyser; 22mm Compression CxC connection end inlet; 22mm Compression CxC connection end for solar



DZR Brass



Team Assist



SOLAR SAFETY VALVE - MALE (LONG); 600kPa; 22CxC

CODE: TP-600; S-L;22CxC

FEATURES & BENEFITS:

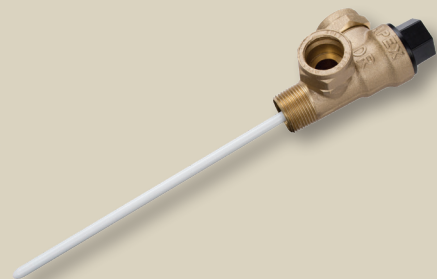
Combined Temperature, Pressure and Safety valve feature in one body;
9" Wax temperature probe

APPLICATION: Geyser; Solar

MATERIAL: DZR Brass

CATEGORY: TP&S valve; Solar

3/4" BSP Male tapered thread connection end to geyser; 22mm Compression CxC connection end inlet; 22mm Compression CxC connection end for solar



DZR Brass



Team Assist



GEYSER VALVES

TEMPERATURE, PRESSURE SAFETY VALVE - MALE (STD); 600kPa

CODE: TP-600; M

FEATURES & BENEFITS:

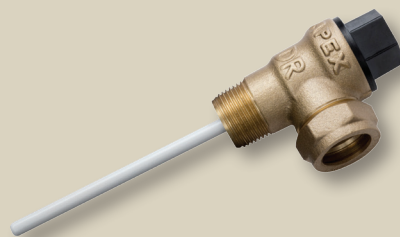
Combined Temperature, Pressure and Safety valve feature in one body;
5" Wax temperature probe

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: TP&S valve

3/4" BSP Male tapered thread connection end; 22mm Compression CxC outlet connection end



TEMPERATURE, PRESSURE SAFETY VALVE - MALE (LONG); 600kPa

CODE: TP-600; M-LONG

FEATURES & BENEFITS:

Combined Temperature, Pressure and Safety valve feature in one body;
9" Wax temperature probe

APPLICATION: Geyser

MATERIAL: DZR Brass

CATEGORY: TP&S valve

3/4" BSP Male tapered thread connection end; 22mm Compression CxC outlet connection end



SOLAR SAFETY VALVE - MALE (STD); 600kPa; 22CxC

CODE: TP-600; S-S;22CxC

FEATURES & BENEFITS:

Combined Temperature, Pressure and Safety valve feature in one body;
5" Wax temperature probe

APPLICATION: Geyser; Solar

MATERIAL: DZR Brass

CATEGORY: TP&S valve; Solar

3/4" BSP Male tapered thread connection end to geyser; 22mm Compression CxC connection end inlet; 22mm Compression CxC connection end for solar



GEYSER VALVES

BRASS BUSH; 3/4" FxF

CODE: BUSH-3/4FxF

APPLICATION: To convert a 3/4" male connection end to be used to connect to a 3/4" male connection end

MATERIAL: DZR Brass

CATEGORY: Adaptor

3/4" BSP FxF



BRASS BUSH; 1/2" FxF

CODE: BUSH-1/2FxF

APPLICATION: To convert a 1/2" male connection end to be used to connect to a 1/2" male connection end

MATERIAL: DZR Brass

CATEGORY: Adaptor

1/2" BSP FxF



APEX[®] Rural Water Solutions.

Tank and Reservoir Valves,
Trough Valves and Water Indicator



APEX[®]
VALVES
SOUTH AFRICA



AGRICULTURAL / RURAL

TROUGH VALVES/ RESERVOIR TANK SELECTION GUIDE

STOCK	LTRS/ HEAD/ DAY	TROUGH SIZE	VALVE	FLOW RATE (Ltr/ Min)
Dairy	70	Large-High demand	XF-20/ XF-25/ XF-32; XS25/20	>300ltr/ min
Cattle	45	Large-High demand	XF-20/ XF-25/ XF-32; XS25/20	>300ltr/ min
Dairy	70	Medium – Large	AP20/25,	Up to 300ltr/ min
Cattle	45	Medium – Large	AP20/25	Up to 200ltr/ min
Horse (grazing)	36	Medium	AP20/25	Up to 200ltr/ min

CATTLE CHART (indicative):

Table 1. Water Consumption by Dairy Cattle

Dairy Cattle Type	Level of Milk Production (kg milk/day)	Water Requirement Range (L/day)	Average Typical Water Use (L/day)
Dairy calves (1-4 months)	-	4.9-13.2	9
Dairy heifers (5-24 months)	-	14.4-36.3	25
Milking cows	13.6	68-83	115
	22.7	87-102	115
	36.3	114-136	115
	45.5	132-155	115
Dry cows	-	34-49	41

Source: <http://www.omafra.gov.on.ca/english/engineer/facts/07-023.htm>

Table 2. Water Consumption Beef Cattle

Beef Cattle Type	Weight Range (kg)	Water Requirement Range (L/day)	Average Typical Water Use (L/day)
Feedlot cattle: Backgrounder	181-364 (400-800 lb)	15-40	25
Feedlot cattle: Short keep	364-636 (800-1,400lb)	27-55	41
Lactating cows with calves	-	43-67	55
Dry cows, bred heifers & bulls	-	22-54	38

TROUGH VALVES / RESERVOIR TANK SELECTION GUIDE

HORSES CHART (indicative):

Table 4. Water Consumption Horses

Frame size (weight)	Water Requirement Range (L/day)	Average Water Use (L/day)
Small (500 lb)	13-20	16.5
Medium (1,000 lb)	26-39	32.5
Large (1,500 lb)	39-59	49

SHEEP CHART (indicative):

Table 5. Water Consumption by Sheep

Animal Type	Weight Range (kg)	Water Requirement Range (L/day)	Average Typical Water Use (L/day)
Feeder lamb	27-50	3.6-5.2	4.4
Gestating meat ewe/ram	80	4.0-6.5	5.25
Lactating meat ewe plus unwanted offspring	80+	9.0-10.5	10
Gestating dairy ewe/ram	90	4.4-7.1	5.75
Lactating dairy ewe	90	9.4-11.4	10.4

BROILER CHICKEN CHART (indicative):

Table 6. Water Consumption of Broiler Chickens by Age

Chicken Broiler Age (weeks)	Chicken Broiler Age (weeks)	
	21°C	32°C
1-4	50-260	50-415
5-8	345-470	550-770

TROUGH VALVES/ RESERVOIR WATER TANK FILLER OR FLOAT VALVES (APT)

CODE: APT-15

DESCRIPTION:

Trough Float Valve;
15mm

CONNECTION SIZES:

1/2" BSP Male connection end

APPLICATION: Water trough

MATERIAL: Acetyl

FEATURES & BENEFITS:

Full-flow float valve

CATEGORY: Valve

SPECIFICATIONS & OPTIONS:

Connection ends: 1/2" BSP Male connection end (inlet)

Operating pressure: 15 – 1,200kPa

Minimum temperature: 1°C

Maximum temperature: 60°C

Total length: 405mm long (body and arm)

Uses 150mm float ball

Special feature: Glass filled Acetyl bush for 20mm or 25mm connections

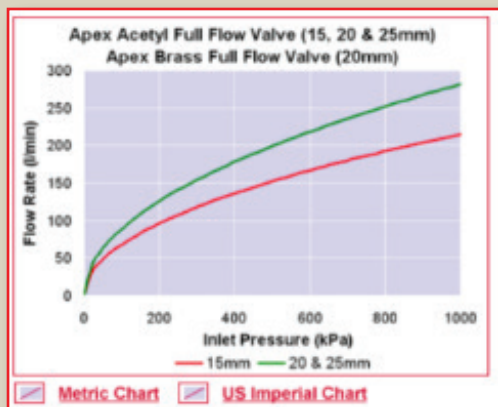
Flow rate: @600kPa (87psi) 218ltr/ min

SPARES:

P16AP Float valve brass arm

RKAP Trough valve repair kit

FLOW CHART:



Team Assist

TROUGH VALVES/ RESERVOIR WATER TANK FILLER OR FLOAT VALVES (APT)

CODE: APT-20

DESCRIPTION:

Trough Float Valve;
20/ 25mm Bush included

CONNECTION SIZES:

3/4" BSP Male connection end

APPLICATION: Water trough

MATERIAL: Acetyl

FEATURES & BENEFITS:

Full-flow float valve;
20/ 25mm bush included

CATEGORY: Valve

SPECIFICATIONS & OPTIONS:

Connection ends: 3/4" BSP Male connection end (inlet)

Operating pressure: 15 – 1,200kPa

Minimum temperature: 1°C

Maximum temperature: 60°C

Uses 150mm float ball

Total length: 405mm long (body and arm)

Special feature: Glass filled Acetyl bush for 20mm or 25mm connections

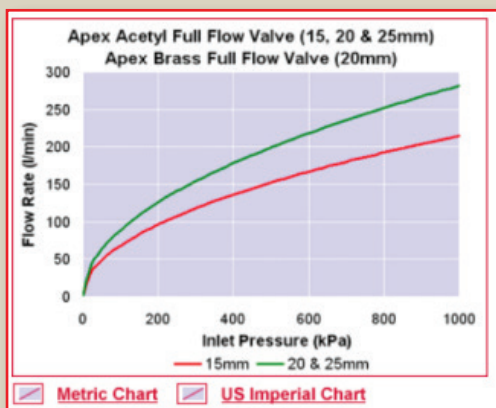
Flow rate: @ 600kPa (87psi) 218ltr/min

SPARES:

P16AP Float valve brass arm

RKAP Trough valve repair kit

FLOW CHART:



Team Assist

TROUGH VALVES/ RESERVOIR WATER TANK FILLER OR FLOAT VALVES (APT)

CODE: APT-25

DESCRIPTION:

Trough Float Valve;
20/ 25mm Bush included

CONNECTION SIZES:

1" BSP Tapered thread male connection end

APPLICATION: Water trough

MATERIAL: Acetyl

FEATURES & BENEFITS:

Full-flow float valve;
20/ 25mm bush included

CATEGORY: Valve

SPECIFICATIONS & OPTIONS:

Connection ends: 1" BSP Tapered thread male connection end (inlet)

Operating pressure: 15 – 1,200kPa

Minimum temperature: 1°C

Maximum temperature: 60°C

Uses 150mm float ball

Total length: 405mm long (body and arm)

Special feature: Glass filled Acetyl bush for 20mm or 25mm connections

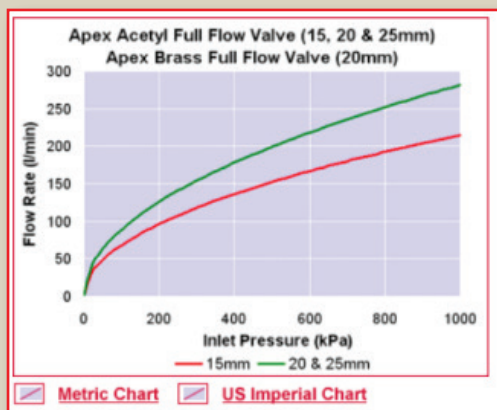
Flow rate: @ 600kPa (87psi) 218ltr/min

SPARES:

P16AP Float valve brass arm

RKAP Trough valve repair kit

FLOW CHART:



PUMP FED WATER TANKS or RESERVOIR TANKS - BIGBOY (BB)

CODE: BB-32

DESCRIPTION:

Big Boy;
32mm Float valve

CONNECTION SIZES:

1 1/4" (32mm) BSP Male
connection end

APPLICATION: Float valve

CATEGORY: Valve

**PRESSURE RATING/
WORKING PRESSURE:**

15kPa - 1,200kPa

FLOW RATES:

800ltr/ min @ 400kPa;
1,000ltr/ min @ 600kPa

FEATURES & BENEFITS:

Full on, full off;
Enormous flow rate 1,500ltr/ min at 1,200kPa;
Soft closing, no water hammer;
Adjustable water levels saves electricity & increases pump life;
Can be adjusted for use as a top up Rain Harvesting valve (by clipping weights together)
Diaphragm activated - Full Flow Valve;
No float switches, no power required (pump requires pressure switch);
Temperature Range: 1 - 60°C Tank valves must be insulated to protect the valve where the temperature can get below 1°C (minimum service temperature);
Long tail for thin walled tanks

SPECIAL APPLICATION NOTES:

Pump fed large tanks: Single level or variable minimum/ maximum levels within the reservoir/ tank;

MAINS/ GRAVITY FED:

Single level or variable minimum/ maximum levels within the reservoir/ tank;

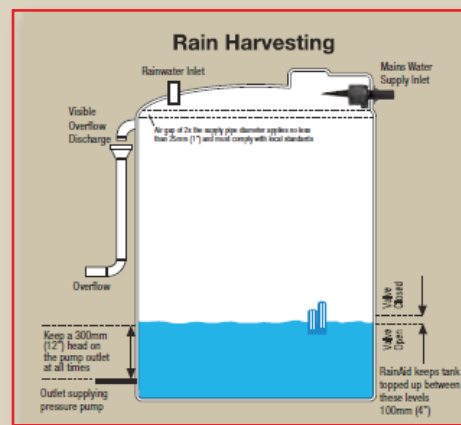
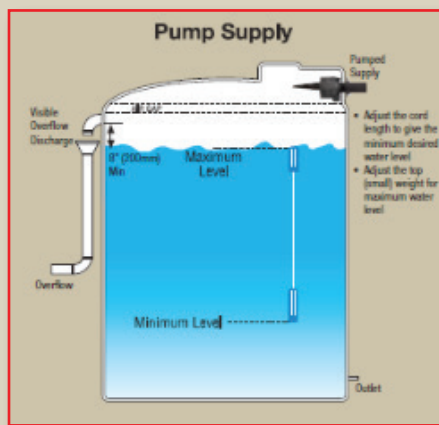
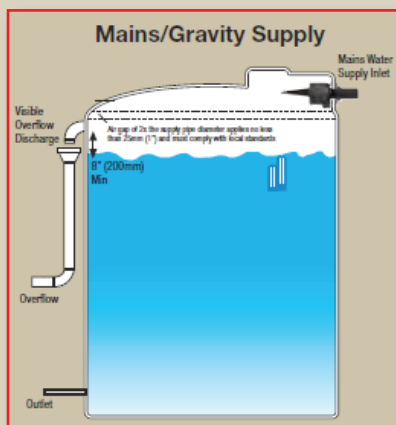
RAIN HARVESTING:

Serves as back-up water supply control valve, back-up supply of water in the event of demand exceeding rainfall



Team Assist

INSTALLATION SCHEMATIC:



PUMP FED WATER TANKS or RESERVOIR TANKS - BIGBOY (BB)

CODE: BB-40

DESCRIPTION:

Big Boy;
40mm Float valve

CONNECTION SIZES:

1 1/2" (40mm) BSP Male
connection end

APPLICATION: Float valve

CATEGORY: Valve

**PRESSURE RATING/
WORKING PRESSURE:**

15kPa - 1,200kPa

FLOW RATES:

800ltr/ min @ 400kPa;

1,000ltr/ min @ 600kPa

FEATURES & BENEFITS:

Full on, full off;
Enormous flow rate 1,500ltr/ min at 1,200kPa;
Soft closing, no water hammer;
Adjustable water levels saves electricity & increases pump life;
Can be adjusted for use as a top up Rain Harvesting valve (by clipping weights together)
Diaphragm activated - Full Flow Valve;
No float switches, no power required (pump requires pressure switch);
Temperature Range: 1 - 60°C Tank valves must be insulated to protect the valve where the temperature can get below 1°C (minimum service temperature);
Long tail for thin walled tanks

SPECIAL APPLICATION NOTES:

Pump fed large tanks: Single level or variable minimum/ maximum levels within the reservoir/ tank;

MAINS/ GRAVITY FED:

Single level or variable minimum/ maximum levels within the reservoir/ tank;

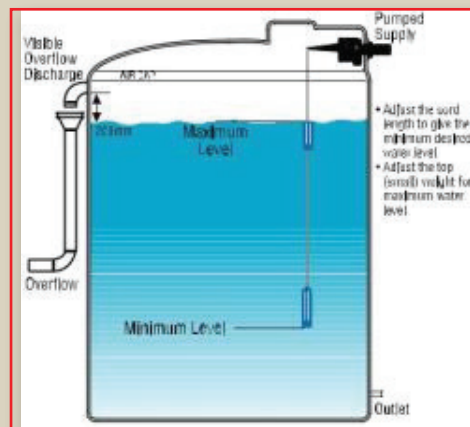
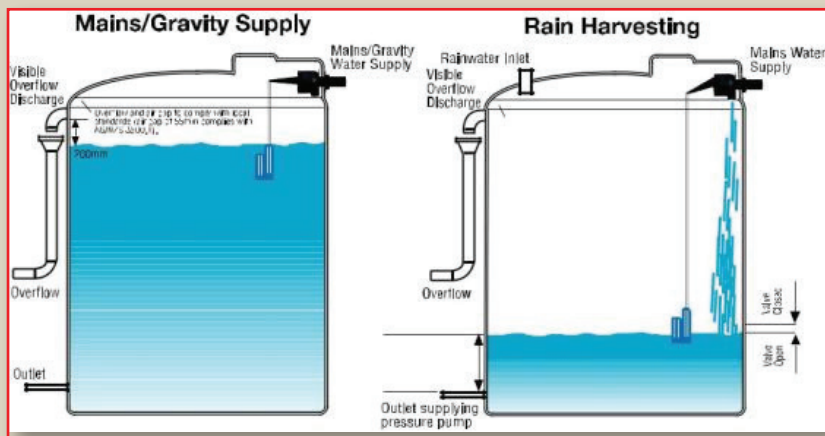
RAIN HARVESTING:

Serves as back-up water supply control valve, back-up supply of water in the event of demand exceeding rainfall



Team Assist

INSTALLATION SCHEMATIC:



PUMP FED WATER TANKS or RESERVOIR TANKS - BIGBOY (BB)

CODE: BB-50

DESCRIPTION:

Big Boy;
50mm Float Valve

CONNECTION SIZES:

2" (50mm) BSP Male
connection end

APPLICATION: Float valve

CATEGORY: Valve

**PRESSURE RATING/
WORKING PRESSURE:**

15kPa - 1,200kPa

FLOW RATES:

800ltr/ min @ 400kPa;
1,000ltr/ min @ 600kPa

FEATURES & BENEFITS:

Full on, full off;
Enormous flow rate 1,500ltr/ min at 1,200kPa;
Soft closing, no water hammer;
Adjustable water levels saves electricity & increases pump life;
Can be adjusted for use as a top up Rain Harvesting valve (by clipping weights together)
Diaphragm activated - Full Flow Valve;
No float switches, no power required (pump requires pressure switch);
Temperature Range: 1 - 60°C Tank valves must be insulated to protect the valve where the temperature can get below 1°C (minimum service temperature);
Long tail for thin walled tanks

SPECIAL APPLICATION NOTES:

Pump fed large tanks: Single level or variable minimum/ maximum levels within the reservoir/ tank;

MAINS/ GRAVITY FED:

Single level or variable minimum/ maximum levels within the reservoir/ tank;

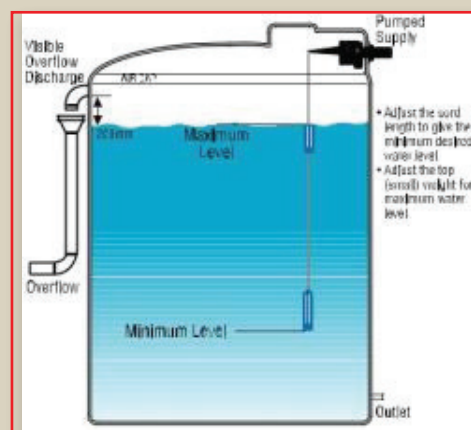
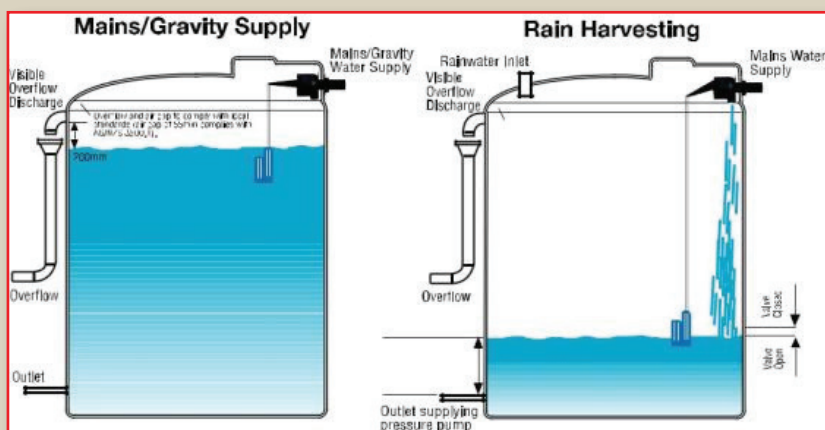
RAIN HARVESTING:

Serves as back-up water supply control valve, back-up supply of water in the event of demand exceeding rainfall



Team Assist

INSTALLATION SCHEMATIC:



PUMP FED WATER TANKS or RESERVOIR TANKS - PUMP BUDDY (PB)

CODE: PB-25

DESCRIPTION:

Pump Buddy;
20mm Float Valve

CONNECTION SIZES:

1" BSP (25mm) Male
connection end

APPLICATION: Float valve

CATEGORY: Valve

**PRESSURE RATING/
WORKING PRESSURE:**

55kPa - 1,200kPa

FLOW RATES:

280ltr/ min @ 400kPa;
320ltr/ min @ 600kPa

FEATURES & BENEFITS:

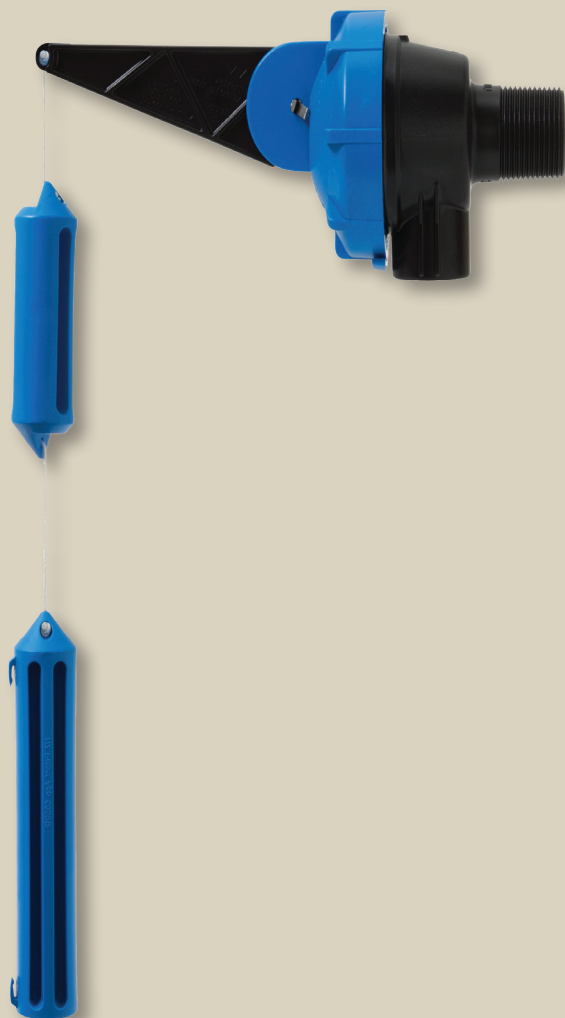
High volume water inlet control device;
Adjustable water levels saves electricity & increases pump life;
Full on, full off;
No float switches, no power required (Pump requires pressure switch);
Long tail available, no tank fittings;
Minimum temperature: 1°C;
Maximum temperature: 60°C;
Minimum inlet pressure: 55kPa;
Maximum inlet pressure: 1,200kPa

SPECIAL APPLICATION NOTES:

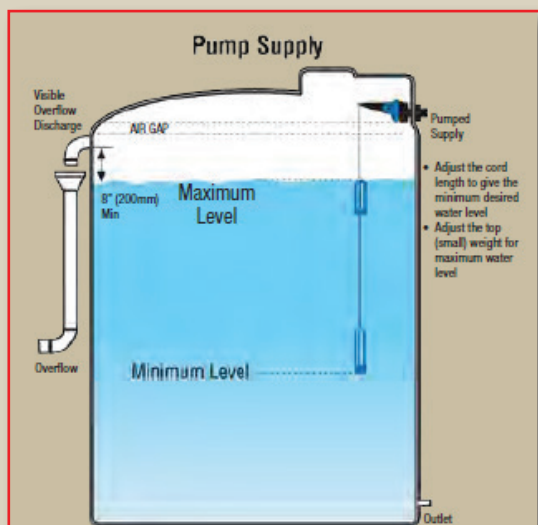
PUMP FED LARGE TANKS: Single level or variable minimum/
maximum levels within the reservoir/ tank;

RAIN HARVESTING:

Serves as back-up water supply control valve, back-up supply of water in
the event of demand exceeding rainfall



INSTALLATION SCHEMATIC:



Team Assist

RESERVOIR TANKS - RAIN AID VALVES (RA)

CODE: RA-20

DESCRIPTION:

RainAid Valve;
20mm

CONNECTION SIZES:

3/4" BSP (20mm) Male
connection end

APPLICATION: Float valve

CATEGORY: Valve

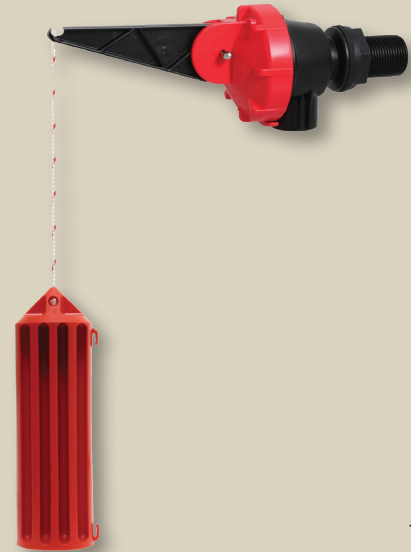
FEATURES & BENEFITS:

Under normal conditions, rain water will fill the tank. If the rainwater level drops below a pre-set level, the RainAid® will open to maintain the water level using mains water;

The rainwater tank is used to supply water to non potable outlets such as toilets, laundry and garden. There is a 100mm differential between the open and closed positions of the RainAid® valve;

Max inlet pressure 1,200kPa;

Min inlet pressure 55kPa



Team Assist

RESERVOIR VALVE (RES)

APPLICATION: A high flow rate valve for controlling water flow into large tanks

FEATURES AND BENEFITS:

Huge flow rate 680ltr/min at 700kPa

Equilibrium valve

CODE: RES-32

CATEGORY: Valve

APPLICATION: Float valve

DESCRIPTION:

Reservoir Valve;
32mm

CONNECTION SIZES:

1 1/4" BSP (32mm) Tapered
thread male connection end

SPECIAL APPLICATION NOTES:

Twin float ball connector available

SPARES:

RES-LKA Reservoir valve brass arm only

RKRES Reservoir valve repair kit

FEATURES & BENEFITS:

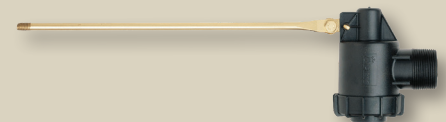
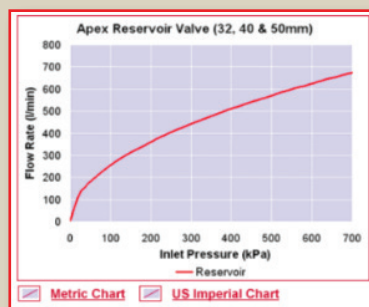
Minimum temperature: 1°C;

Tank valves must be insulated to protect the valve where the temperature can get below 1°C (minimum service temperature);

Maximum temperature: 60°C;

Equilibrium valve

FLOW CHART:



PRESSURE RATING / WORKING PRESSURE:

10kPa - 850kPa

FLOW RATES:

500ltr/ min @ 400kPa

SPECIAL NOTES:

High flow volume for reservoir/ water tanks using header/ gravity pressure



Team Assist

RESERVOIR VALVE (RES)

APPLICATION: A high flow rate valve for controlling water flow into large tanks

FEATURES AND BENEFITS:

Huge flow rate 680ltr/min at 700kPa
Equilibrium valve

CODE: RES-40

CATEGORY: Valve

APPLICATION: Float valve

DESCRIPTION:

Reservoir Valve;
40mm

CONNECTION SIZES:

1 1/2" BSP (40mm) Tapered
thread male connection end

SPECIAL APPLICATION NOTES:

Twin float ball connector available

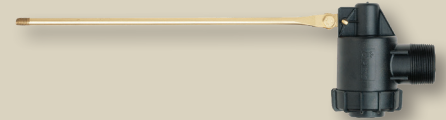
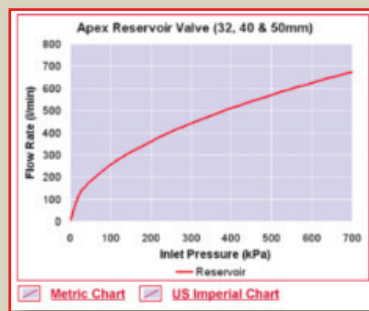
SPARES:

RES-LKA Reservoir valve brass arm only
RKRES Reservoir valve repair kit

FEATURES & BENEFITS:

Minimum temperature: 1°C;
Tank valves must be insulated to
protect the valve where the temperature
can get below 1°C (minimum service
temperature);
Maximum temperature: 60°C;
Equilibrium valve

FLOW CHART:



PRESSURE RATING / WORKING PRESSURE:

10kPa - 850kPa

FLOW RATES:

500ltr/ min @ 400kPa

SPECIAL NOTES:

High flow volume for reservoir/ water tanks
using header/ gravity pressure



Team Assist

CODE: RES-50

CATEGORY: Valve

APPLICATION: Float valve

DESCRIPTION:

Reservoir Valve;
50mm

CONNECTION SIZES:

2" BSP (50mm) Tapered
thread male connection end

SPECIAL APPLICATION NOTES:

Twin float ball connector available

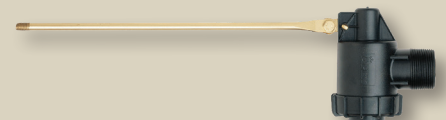
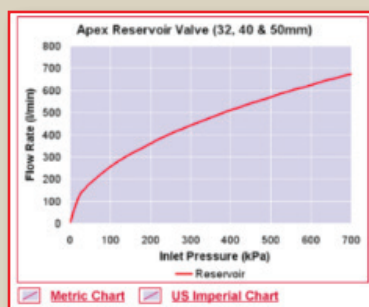
SPARES:

RES-LKA Reservoir valve brass arm only
RKRES Reservoir valve repair kit

FEATURES & BENEFITS:

Minimum temperature: 1°C;
Tank valves must be insulated to
protect the valve where the temperature
can get below 1°C (minimum service
temperature);
Maximum temperature: 60°C;
Equilibrium valve

FLOW CHART:



PRESSURE RATING / WORKING PRESSURE:

10kPa - 850kPa

FLOW RATES:

500ltr/ min @ 400kPa

SPECIAL NOTES:

High flow volume for reservoir/ water tanks
using header/ gravity pressure



Team Assist

WATER LEVEL INDICATOR (VSBALL) - RESERVOIR TANKS

CODE: VSBALL

CATEGORY: Valve

MATERIAL: Acetyl

APPLICATION: Water tank

DESCRIPTION:
Visi-ball Water Level Indicator

CONNECTION SIZES:
One size fits all

FEATURES & BENEFITS:
Easily adjusted using the patented Uni-Ball Joint;
Uni-Ball adjusts to any water tank roof angle;
Suitable for all tanks;
Manufactured from UV resistant premium quality material

INSTALLATION SCHEMATIC:



Team Assist

FULL FLOW FLOAT VALVE (XS) - WATER TROUGHS | RESERVOIR TANKS

CODE: XS25/20

CATEGORY: Valve

MATERIAL: Acetyl

APPLICATION: Water tank

DESCRIPTION:

Xcess Full-flow Float Valve;
25/ 20mm Bush

CONNECTION SIZES:

1" BSP (25mm) Male thread connection end;
25mm/ 20mm Adaptor included

PRESSURE RATING / WORKING PRESSURE:

10kPa - 1,200kPa

FLOW RATES:

280ltr/ min @ 400kPa;
350ltr/ min @ 600kPa



FEATURES & BENEFITS:

Highest flow rate of any 25mm sleeve valve on the market for fast filling of high demand troughs (500ltr/ min at 1,200kPa;
Camlock compatible outlet enables convenient water supply for numerous jobs around the farm including break feeding/strip grazing;
Arm can be locked shut to stop flow allowing for fitting of Camlock or cleaning of trough;
Included 25mm/20mm inlet adaptor means no need to carry two valve size;
Includes cord and nipple to protect valve from stock damage;
Pressure Range 0 - 1,200kPa;
Maximum temperature: 60°C;
Minimum temperature: 1°C.



Team Assist

INSTALLATION SCHEMATIC:



FLOAT VALVE - SPARES

CODE: FLT-150B

DESCRIPTION:

Float Valve Ball;
150mm

CONNECTION SIZES:

150mm (6") Float ball

APPLICATION: Float valve

CATEGORY: Valve

FEATURES & BENEFITS:

All UV Stabilised;
Acetyl thread insert;
Maximum temperature 60°C



CODE: SP-82

DESCRIPTION:

Cord & Nipple

APPLICATION: Float valve

CATEGORY: Spares



CODE: BB-REPAIR KIT

DESCRIPTION:

Repair Kit to suit Apex 'Big Boy' Valve with 32mm, 40mm or 50mm Parallel Thread (1¼", 1½" or 2" BSP) inlet
Includes Diaphragm, Jet Assembly and Split Pin

APPLICATION: Float valve

CATEGORY: Float valve



NOTES

[illegible]

Lixil Africa (PTY) LTD
20 Wright Street,
Factoria,
Krugersdorp, 1739
South Africa

Lixil Africa Aftersales Service:
0861 21 21 21
info.apexvalves@lixil.com
service.africa@lixil.com

Apex Valves South Africa:
+27 (0)12 664 0588

Website:
www.lixil.co.za

PART OF **LIXIL**


APEX[®]
V A L V E S
SOUTH AFRICA