Commercial Plumbing

Plumbing control valves for non-residential applications
About Us

Apex Valves (founded in 1982) is a New Zealand based company that specialises in the design and manufacture of plumbing control valves as well as tank and trough valves for the agricultural industry and rainwater harvesting.

Anka® is a division of Apex Valves. Anka was founded in 1996, designing and establishing a unique range of polythene pipe fittings. The Anka range also extends to Washdown Hose Nozzles, Quick Lock Couplings, Pipe Unions, Pipe Fittings, Hose Swivels, Check Valves and Foot Valves.

Apex Valves provide 100% backup and support for all our products and are committed to being a progressive, responsible manufacturer, producing high quality, innovative products that are internationally accepted.

Watts Water Technologies, Inc. now hold a 90% share in Apex Valves.

Watts Water Technologies, Inc. through its subsidiaries, is a world leader in the manufacture of innovative products to control the efficiency, safety and quality of water within residential, commercial and institutional applications. Its expertise in a wide variety of water technologies enables it to be a comprehensive supplier to the water industry.

Visit the Watts Water Technologies, Inc. website www.watts.com

Our Culture

The Apex culture is anchored on innovation and quality in our product design and manufacture. We aspire to add excellence in our customer focus, to build our three-pronged platform for sustainable, profitable growth.

But we also take a long-term view. We’re not driven by short-term market issues or expediency. We look ahead and we are prepared to invest in our business now, to make sure we’re well positioned for the future.

Although we’re action-oriented, we are also professional. Our reputation is very important to us and we aim to be fair and honest in all we do – with customers, our people, suppliers and the public.
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10 in 1
Commercial Combi-Valve

APPLICATION
High (mains) pressure commercial ring mains.

FEATURES/BENEFITS
• Pressure limiting stop valve cold (Tee)
• Pressure limiting stop valve hot (Elbow)
• Tempering valve (TV20C)
• Pressure limited cold feed
• Free-rotating Limiting Valve body
• Filters
• Non-returns on both hot and cold

SPECIFICATIONS
20mm Pressure limiting stop valve cold
• Isolating valve
• Stainless steel filter 250 micron
• Integrated Non-return
• DR brass body
• Pressure setting 500 kPa
• Max temperature: 40°C
• Max Inlet pressure: 2000 kPa

20mm Pressure limiting stop valve hot
• Isolating valve
• Stainless steel filter 250 micron
• Integrated non-return
• DR brass body
• Pressure setting 500 kPa
• Max temperature: 80°C
• Max Inlet pressure: 2000 kPa

20mm Tempering Valve (TV20C)
• Thermostatically controlled safety valve to reduce the risk of scalding
• Maximum static supply pressure 1400 kPa
• Maximum dynamic supply pressure 500 kPa
• Factory set at 53°C, can be adjusted between 35°C and 60°C
• Connections 20mm male, ¾ “ BSP
• Hot and cold check valves for ring main installations

TEMPERATURE ADJUSTMENT
Remove cap, use a screwdriver to adjust to the desired temperature. To increase, turn anti-clockwise (H). To decrease, turn clockwise (C). Check outlet temperature required by local authorities with a calibrated thermometer.

STANDARDS
Complies with NZBC Clause G12 (2014)
Complies with NZS 4617: 1989

INSTALLATION INSTRUCTIONS
• Valve must be fitted by a qualified plumber
• Installation must comply with local authority regulations
• Flush lines before installation
• Valve may be fitted in any orientation
• Do not apply heat near valve during installation - this may damage the mechanism

PRODUCT CODES
10IN1  500 kPa Combi-Valve
**CP 20C Combi Pack**

**High Pressure 20mm Contract**

**APPLICATION**
- High (mains) pressure hot water systems.

**SPECIFICATION**
- **CP20C includes:**
  - Pressure Limiting Stop Valve (LSV)
    - Isolating Valve
    - Stainless Steel Filter 250 micron
    - DR Brass Body
    - Integral non-return
    - Pressure Setting: 500kPa
    - High Flow rate up to 74 litres/minute
  - Cold Water Expansion Valve with Optional Cap (EVT)
    - Pressure Setting: 700 kPa
    - Flushing handle to clear away debris and foreign matter from the valve seat
    - Corrosion-free valve seat
    - Fail-safe against over pressure
    - Max Temp: 99°C
    - CYLINDER DRAIN: Can be used as a cylinder drain when flushing handle is activated
    - Inlet branch incorporates a non-return and is labelled
  - 20mm Tempering Valve (TV)
    - Thermostatically controlled safety valve to reduce the risk of scalding
    - Maximum static supply pressure 1400 kPa
    - Maximum dynamic supply pressure 500 kPa
    - Factory set at 53°C, can be adjusted between 35°C and 60°C
    - Connections 20mm male, ¾ “ BSP
    - Hot and cold check valves
  - PLUS 1 x MF Ball Valve 20mm (BV)

**STANDARDS**
- Complies with NZBC Clause G12 (2014)
- Complies with NZS 4617: 1989

**PRODUCT CODES**
- CP20C 20mm 500 kPa Contract Combi-Pack

* Refer to installation guide for more detailed regulatory information

**NOTE:** All installations must comply with NZBC Clause G12
Limiting Stop Valve  
- Commercial

APPLICATION
Protection for High (mains) pressure water systems. Retrofit solution for existing hot or cold systems.

FEATURES/BENEFITS
• Non-return and Filter all in one
• Designed to protect systems running hot water up to 80°C
• Pressure compensated to give constant outlet pressure regardless of inlet pressure
• Factory set at 500 kPa outlet pressure (Fully compensated)
• Machined, assembled, and 100% tested in NZ
• DR Brass

SPECIFICATIONS
LSV20H500C  
- Inlet: 20mm, 3/4" BSP (male)  
- Outlet: 20mm, 3/4" BSP (male)  
- Length: 140mm
• Maximum inlet pressure 2000 kPa  
• Outlet Pressure 500 kPa  
• Maximum Temperature 80°C  
• Flow Rate 75 litres/minute  
• Integral 60 mesh (250 micron) filter  
• Integral Non-return

LSV 20H350C  
- Inlet: 20mm, 3/4" BSP (male)  
- Outlet: 20mm, 3/4" BSP (male)  
- Length: 140mm
• Maximum inlet pressure 2000 kPa  
• Outlet Pressure 350 kPa  
• Maximum Temperature 80°C  
• Flow Rate 75 litres/minute  
• Integral 60 mesh (250 micron) filter  
• Integral Non-return

STANDARDS
Complies with NZBC Clause G12 (2014)
Complies with NZS 4617: 1989

PRODUCT CODES
LSV 20H350C  350kPa limiting stop valve hot
LSV 20H500C  500kPa limiting stop valve hot

NOTE: All installations must comply with NZBC Clause G12

FLOW GRAPH

Outlet Pressure (kPa)

Flow (L/min)

LSV 20H500C

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Limiting Valve
25/32mm

APPLICATION
• For extremely high flow, high demand mains pressure systems e.g. large homes, multi story apartments and commercial applications

FEATURES/BENEFITS
• Extremely high flow rates - 250 litres a minute
• Pressure compensated to give constant outlet pressure regardless of inlet pressure
• Twin adjustable (200 - 600 kPa), replaceable cartridges for easy servicing
• All valve seats are contained in the cartridges - no need to remove valve body from system
• Can be installed in any orientation, for external application a cap is provided to protect cartridge
• Forged, high quality, corrosion resistant DR brass body
• Machined, assembled and 100% tested in NZ

SPECIFICATIONS
LV25
Inlet 25mm, 1" BSP (male)
Outlet 25mm, 1" BSP (male)
Length 110mm
Height 190mm

LV32
Inlet 32mm, 1 1/4" BSP (male)
Outlet 32mm, 1 1/4" BSP (male)
Length 110mm
Height 190mm

• Maximum inlet pressure 2000 kPa
• Maximum inlet temperature 65°C
• Twin, integral 60 mesh (250 micron) strainers

FLOW GRAPH

OUTLET PRESSURE (KPA)

FLOW (L/min)

0 50 100 150 200 250 300

0 100 200 300 400 500 600

LV 25-500

INSTALLATION
• Do NOT install Limiting Valve in the ground
• Do NOT apply heat near valve during installation
• Install so that both hot and cold supplies are balanced
• Can be installed in any orientation. For outdoor application, fit dust cap to top cartridge
• Must be installed with correct Expansion Valve
• To adjust outlet pressure remove blue cap at end of cartridge, insert large Phillips screw driver, turn adjusting screw clockwise to increase (1 turn = 60 kPa)

STANDARDS
• Complies with NZ building code G12 (2014)
• Complies with NZS 4608

PRODUCT CODES
LV25 (1" BSP) 500 kPa
LV32 (1 1/4" BSP) 500 kPa

NOTE: All installations must comply with NZBC Clause G12
Honeywell Braukman Pressure Limiting Valve 40/50mm

APPLICATION
- High pressure systems

FEATURES/BENEFITS
- Pressures easily adjusted by simply loosening screw and turning knob
- Corrosion resistant DR (dezincification resistant) Brass with spring located outside the flow
- Integral filter and optimized flow path around the valve seat - valve is not sensitive to debris
- High quality synthetic valve seat - not sensitive to scaling
- Filter can be replaced and cleaned without removing valve from pipe work
- Constructed and noise resistance tested to German DVGW and UK WRc guidelines
- Can be used for water, other non-aggressive liquids, compressed air and for Nitrogen
- Complete with test ports for pressure gauge
- Hot water conversion available to maximum 70°C (with brass filter bowl fitted)

SPECIFICATIONS

SIZES : 40mm:
- Inlet 40mm male, 1/2" BSP unions
- Outlet 40mm male, 1/2" BSP unions
- Length 225mm
- Height 300mm

50mm:
- Inlet 50mm male, 2" BSP unions
- Outlet 50mm male, 2" BSP unions
- Length 255mm
- Height 300mm

- Outlet pressure factory set to: 400 kPa
- Adjustable outlet pressure: 150 - 600 kPa
- Maximum inlet pressure: 2500 kPa
- Maximum temperature: 40°C
- Sizes to 200mm available on request.

STANDARDS
- WRc - UK
- DVGW - Germany
- Complies with NZ Building Code G12 (2014)

PRODUCT CODES
- LV40 D06F-11/2 A 40mm
- LV50 D06F-2A 50mm
- GPHH Gauge 0-1600 kPa (refer page 21)

NOTE: All installations must comply with NZBC Clause G12
Honeywell Braukman
Cold Water Expansion Valve 25/35mm

APPLICATION
• High pressure systems.

FEATURES/BENEFITS
• Energy saving valve – relieves cold water rather than hot, saving electricity.
• Forged, high quality, corrosion resistant DR brass body.

SPECIFICATIONS
• EV25  
  Inlet: 25mm, 1” BSP (female)  
  Outlet: 32mm, 1 1/4” BSP (female)
• EV32  
  Inlet: 32mm, 1 1/4” BSP (female)  
  Outlet: 40mm, 1 1/2” BSP (female)
• Outlet pressure factory set to 800 kPa
• Kilowatt rating  
  EV25 - 250kW  
  EV32 - 2200kW
• Maximum temperature: 90°C
• DR (Dezincification Resistant) brass
• Made in Germany

STANDARDS
• TRD 721
• Complies with NZ Building Code G12 (2014)

PRODUCT CODES
APEX CODES  
EV25-800 800 kPa  
EV32-800 800 kPa
HONEYWELL CODES  
SM 152-1AB  
SM 152-1 1/4 AB

NOTE: All installations must comply with NZBC Clause G12
Commercial Tempering Valve 20mm

APPLICATION
- Used in hot water supply systems to mix hot and cold water to a controlled outlet temperature, reducing the risk of exposure to excessively hot water.

FEATURES/BENEFITS
- Used on high pressure hot water systems
- Valve can be installed in any orientation
- Dual check valves, suitable for ring main applications
- Failsafe shutdown in the event of failure of hot and cold supplies
- High quality DR brass body
- 100% tested
- Complies with NZ building code (G12)

SPECIFICATIONS
- Nominal size 20mm
- Maximum static supply pressure 1400 kPa
- Maximum dynamic supply pressure 500 kPa
- Factory set at 53°C, can be adjusted between 35°C and 60°C
- Connections 20mm male, ¾ " BSP
- Hot and cold check valves for ring main installations

INSTALLATION
- Valve must be fitted by a qualified plumber
- Flush lines before installation
- Valve may be fitted in any orientation
- Valve must be protected by a line strainer
- Connections are H (hot inlet), C (cold inlet) and OUT (tempered water delivery)
- Do not apply heat near valve during installation
- Do not install valve directly into outlet of cylinder
- 1m MINIMUM copper pipe from cylinder to tempering valve is a requirement of G12

TEMPERATURE ADJUSTMENTS
- Remove cap, use a screwdriver to adjust to the desired temperature. To increase, turn anti-clockwise.
- To decrease, turn clockwise. Check outlet temperature required by local authorities with a calibrated thermometer.

STANDARDS
- Complies with NZBC Clause G12 (2014)
- Complies with NZS 4617: 1989

PRODUCT CODES
TV20C 20mm Commercial Tempering Valve (Non-return on both inlets)

FLOW GRAPH

FLOW (L/min)

INLET PRESSURE (kPa)
Tempering Valve
25mm

APPLICATION
Extremely high flow rate makes the TV25 suitable for low pressure systems e.g. header tanks, open vented and low head systems. Also suitable for high demand mains pressure systems.

FEATURES/BENEFITS
- Forged, high quality, corrosion resistant, DR brass body
- Machined, assembled and 100% tested in NZ
- Extremely high flow rates - Up to 90 litres a minute
- Integral non-returns mean valve is ideal in ring main installations
- No pipe unions, no leaks

SPECIFICATION
- Inlet 25mm, 1" BSP (male)
- Outlet 25mm, 1" BSP (male)
- Length 135mm
- Height 105mm
- Inlet water pressures 20 to 1600 kPa
- Flow rates: TV25 25 L/min at 20kPa inlet pressure
- Outlet temperature adjustable from 35°C to 60°C
- Maximum inlet temperature 99°C
- Stored water temperature must be at least 10°C above the Tempering valve setting and over 60°C (G12)
- Integral hot and cold non return valves
- Operates with unequal water pressure up to 5:1 ratio (cold:hot)

INSTALLATION
- Valve must be fitted by a qualified plumber
- Installation must comply with local authority requirements
- Valve may be installed in any orientation
- Flush pipes prior to fitting
- Valve must be protected by a line strainer
- Connections are H (hot inlet), C (cold inlet) and OUT (mixed temperature outlet)
- Do not apply heat near valve during installation - this may damage the mechanism
- Do NOT install valve directly into outlet of cylinder
- 1m MIN copper pipe length from cylinder to tempering valve, THIS IS A MANDATORY REQUIREMENT OF G12

TEMPERATURE ADJUSTMENT
Remove cap. Use screwdriver to adjust to desired temperature. To increase, turn anti-clockwise (H). To decrease, turn clockwise (C). Replace cap. Maximum delivered hot water temperature at any sanitary fixture used for personal hygiene shall not exceed 55°C. For childhood centres, schools, old peoples homes, hospitals and institutions for people with psychiatric or physical disabilities, outlet must be set to max 45°C.

STANDARDS
- Complies with NZ Building Code G12 (2014)
- Complies with NZS 4617

NOTE: All installations must comply with NZBC Clause G12

PRODUCT CODES
TV25 25mm Tempering Valve (Non-return on both inlets)
Thermostatic Mixing Valve

APPLICATION
Where water temperature control must be precise or water is required to be at safe skin contact temperature e.g. childhood centre, schools, old peoples homes, hospitals and institutions for people with psychiatric or physical disabilities.

FEATURES/BENEFITS
- Fail safe shutdown, controls temperature, factory set to 45°C
- Outlet temperature adjustable 35°C to 60°C
- High Flow rate, 40 L/min at 500 kPa
- Forged, high quality, corrosion resistant, DR brass body nickel plated
- Integral non-returns means valve is ideal in ring main installations
- TMV 20 has internal chamfer to suit compression fittings
  - no union required
- TMV 20BV comes with right angle ball valves for easy testing, maintenance or replacement
- TMV 20 & TMV 20BV both have integral, 250 micron/60 mesh filters to ensure no debris enters the valve

SPECIFICATIONS
- TMV 20 strainers (60 mesh, 250 micron).
- TMV 20BV strainers (60 mesh, 250 micron) & isolating valves
- Factory set to 45°C
- Min. setting 35°C
- Inlet water pressures 50 to 1600 kPa
- Outlet temperature adjustable from 35°C to 60°C
- Maximum inlet temperature 99°C
- Stored water temperature must be at least 10°C above the thermostatic valve setting and above 60°C (G12)
- Min. differential between hot supply and set temperature 10°C
- Max. supply pressure 1600 kPa static, 500 kPa dynamic
- Flow rate 40 L/min at 500 kPa
- Max. pressure imbalance between the hot & cold supplies 5:1

STANDARDS
- Complies with NZBC Clause G12 (2014)
- Complies with NZS 4617: 1989
- Complies with BS7942

NOTE: All installations must comply with NZBC Clause G12
**Watts Minimix Thermostatic Mixing Valve**

**APPLICATION**
Specific thermostatic mixing valve for point of use control requiring an aesthetic environment. Designed to supply sinks, hand washbasins or electronic faucets with immediate tempered water not exceeding a temperature set (factory preset: 38°C). MINIMIXing provides high security level against scalding and Legionella bacteria. Applications in communities or in bathrooms: hospitals, nursing homes, hotels, schools, restaurants, laboratories, motorway services ... anywhere needing an excellent temperature management, particularly on startup of flow.

**FEATURES/BENEFITS**
- Extra compact size
- Aesthetic design with brass body chrome polished
- Temperature set secured by hexagonal socket screw (Allen key)
- Easy to replace modular adjustment mechanism (cartridge)
- Graduated ring inside the body for temperature control by the installer or user
- Incorporated stainless steel filters, integrated in the thermostatic cartridge
- Remarkable rapidity of reaction of the mechanism

**SPECIFICATIONS**
- Maximum working pressure – 1000 kPa
- Minimum working pressure – 100 kPa
- Recommended working pressure from 200 to 400 kPa
- Max. pressure difference between hot and cold water 150 kPa
- Minimum difference between input temperatures 10°C
- Maximum hot water temperature 85°C
- Setting range from 30 to 70°C
- Factory preset temperature 38°C
- Flow under 300 kPa 28 l/min
- Minimum flow 5 l/min

**TEMPERATURE ADJUSTMENTS STANDARDS**
- Cartridge can be removed and replaced (for easier scale removal and disinfecting)
- Integral approved check-valves avoid connection risk between cold and hot water (withstanding temperatures above 90°C)
- Thermal shock : simply remove the protective cover and set the temperature with the Allen key to maximum hot position to allow hot water to circulate (kills bacteria above 60°C)
- The valve is delivered with a rinsing cover kit: after removed the cartridge and place the rinsing cover kit, you can flush the valves with a disinfectant solution or with a water temperature up to 90°C without danger of damaging the thermostatic mechanism

**PRODUCT CODES**
- **TMV-MINI-KIT** 1/2” (15x21) Male flat sealings

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Warranty (NZ Only)

Apex Valves Product Warranty

Apex Valves warranty is limited to any fault found in a new valve due to poor workmanship or materials that is returned to Apex Valves Ltd within five (5) years from the date of manufacture unless otherwise stated. This warranty meets the durability requirements as specified in NZ Building Code Clause B2, Table 1.

The warranty does NOT apply if faults arise due to the following causes:

1. Faulty operation due to foreign matter in the water supply.
2. Installation of valves to impure or deleterious water supplies that contain excessive dissolved salts or chemicals.
3. Installation that does not comply with NZ Building Code G12, NZS 4607:1989, any other relevant approved Standard, or Manufacturer's instructions and recommendations.
4. Abuse or mutilation of a valve during installation or in an attempt to repair or replace the valve.
5. Installation of a valve in an application where its intended use is not that for which the valve was designed without the prior written consent of Apex Valves Limited.
6. Failure due to a lack of maintenance.

Apex Valves Limited shall in no way be liable for any loss, damage (direct, indirect or consequential), cost or expense incurred other than those rights a consumer has under the Consumer Guarantees Act 1993.

Note: Apex Valves Limited reserve the right at any time to modify any valve specifications.

Watts Product Warranty

Watts’ voluntary manufacturer’s warranty applies only to any fault found in a new valve due to poor workmanship or materials that are returned to Watts within two and a half years from date of manufacture (30 months) unless otherwise stated. The date of manufacture can be found on the valve body. The voluntary manufacturer’s warranty does NOT apply if faults arise due to the following causes:

1. Faulty operation due to foreign matter in the water supply.
2. Installation of valves to impure or deleterious water supplies that contain excessive dissolved salts or chemicals.
3. Installation that does not comply with AS 3500, any other relevant approved standard, or manufacturers’ instructions and recommendations.
4. Abuse or mutilation of a valve during installation or in an attempt to repair or replace the valve.
5. Installation of a valve in an application where its intended use is not that for which the valve was designed without the prior written consent of Watts.
6. Failure due to a lack of maintenance.

This voluntary manufacturer’s warranty is provided by Watts Water Equipment Manufacturing (Ningbo) Co., Ltd., with its registered address at No. 536, West Mingzhou Road, Beilun District, Ningbo, Zhejiang, 315824, P. R. China, Tel: +86-574-26892222.

Watts’ voluntary manufacturer’s warranty is in addition to, and does limit or restrict, any rights and remedies under the Consumer Guarantees Act 1993.

Our goods come with guarantees that cannot be excluded under the New Zealand Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage.

You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

All claims must be filed in a timely manner by sending the valves, a description of the defect and your contact details to the address of our New Zealand distributor detailed on the package. All claims are subject to laboratory appraisal. For claims under the voluntary manufacturer’s warranty we will repair or replace your valve/refund you the cost of purchase in our absolute discretion. We may also reimburse reasonable and direct costs associated with the return of your valves under this warranty. To apply for reimbursement, please provide details of costs incurred (including a receipt) for our consideration.

Watts will not otherwise be liable for any loss, damage (direct, indirect or consequential), cost or expense incurred.

Note: Valve specifications change from time to time so please check these before purchase.