Security Plumbing Solutions

MacDonald Industries range of security plumbing fixtures offer a high level of vandal resistance and have been designed with anti-ligature features to improve the safety and comfort of any secure facility.

- Stainless Steel Toilets and Washbasins
- Solid Surface Toilets and Washbasins
- Miranit Washbasins
- Shower Tapware
- Basin Tapware
- Electronic Plumbing Controls
- Combination Toilet and Washbasin
- Toilet Flushing
- Thermostatic Mixing Valves

MACDONALD
INDUSTRIES LIMITED

Security Plumbing

The design of commercial buildings that require vandal resistant plumbing fixtures can place demands on available space, pipe sizing, hot water reticulation and choice of materials. MacDonald Industries Ltd have been closely involved in the supply of secure plumbing fixtures for more than 25 years and have a portfolio of products to meet every need, ranging from simple mechanical valves through to the world leading Warden electronic control system.

DESIGN OVERVIEW

When you're designing a building that demands vandal resistant fixtures, you need a supplier with experience. MacDonald Industries have provided basins, electronic controls, valves, shower heads, toilets and more importantly good advice, to virtually every prison, police station, high court building, mental health and youth justice facility in New Zealand over the last 25 years.

MacDonald Industries Ltd have quality partners that provide security products that meet the clients requirements.

The choice of fixtures in secure applications varies as much as the building designs.

Type of facility

Need for security fixtures is not limited to prisons and police stations. Vandal resistant fixtures are required in public toilets, schools, stadiums, swimming complexes and mental health facilities. The level of vandal resistance may change but many items used are common to all these buildings.

Most secure facilities are designed with plumbing ducts directly behind the fixtures they serve. This is not always the case and sometimes the fixture itself must house the valve that serves it.

Remote control of fixtures

Warden electronic control system allows ultimate control over plumbing fixtures and can even control lights and power sockets to cells. Remote control of fixtures removes potential confrontations & safety for staff.

Level of vandal resistance

A school toilet block will not need remotely controlled electronic fixtures, but vandal resistance and water saving can be just as important to a school maintenance team. Choosing the correct concealed cistern with a vandal resistant button set can save them hours of needless work in years to come. Products shown on the following pages may be referred to as HD (heavy duty) or MD (medium duty).

Good product design

Good product design limits the potential of drug concealment or ligature points.

Budget

Budgets will often dictate the final choice and simple mechanical valves, serving lower cost ceramic pans may be preferred in some cases. However, where security, anti-ligature, drug concealment prevention and a high degree of vandal resistance is demanded, higher costs are inevitable.

Water consumption

Low flow shower heads, toilets designed for 4.5 or 6L flushing, basin bubbler's using only 2L/min are offered to provide real economy. Where Warden controls are used, limits on use (run times), frequency of use (delays between use) and daily quantity of use, all result in added water saving for prison cells. In addition these limits provide security for building management over cell flooding.

TECHNICAL INFORMATION

Products shown in this catalogue show dimensions and details that are correct at time of printing. It cannot be guaranteed for its accuracy and therefore should not be used for set out purposes. Any changes in detail will be updated on Technical Data Sheets available on our website: www.macdonaldindustries.co.nz

Products may be replaced/updated from time to time, therefore refer to website for latest information on available products.

WARRANTY

Our products are manufactured to the highest level possible with the latest and most sophisticated technology, which gives MacDonald Industries confidence as the leading commercial bathroom specialists to offer an extended warranty from material and manufacturing defects for 10 years on all stainless steel and for 1 year on parts. In addition to this we offer specification support in the selection of the most suitable products as well as after sales technical support for any issue that may arise.

MACDONALD INDUSTRIES LIMITED

FRANKE

STAINLESS STEEL TOILETS 4

STAINLESS STEEL WASHBASINS 6

SOLID SURFACE WASHBASINS AND TOILETS 8

MIRANIT WASHBASINS 10

SECURITY SHOWER TAPWARE 12

SECURITY BASIN TAPWARE 14

WARDEN ELECTRONIC CONTROLS 16

COMBINATION TOILET AND WASHBASIN 17

TOILET FLUSHING 18

THERMOSTATIC MIXING VALVES 20

GRAB RAIL AND ACCESSORIES 22

Stainless Steel Toilets

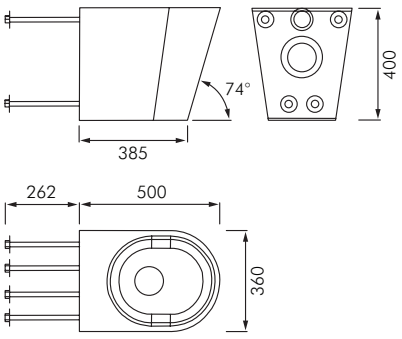
Concealed flushing rim with minimum 4 litre flushing capacity. Available for floor mounting, wall mounting, and in bariatric and accessible formats. Franke accessible toilets meet the NZS4121 requirements and can be front-of-wall fixed. Seats with lids or seat pads are available, but our recommendation when installing a back rest is to use seat pads to create a comfortable unobstructed seating position for the user. Refer to technical data sheets for fixing details.

Franke P-Trap Toilet Pan, Floor Mounted

FRFM1 - For through wall fixing

FRSP - Plastic seat pads, grey
FRSB - Plastic seat, black
FRSG - Plastic seat, grey
FRSW - Plastic seat, white

For flushing options see separate toilet flushing brochure.

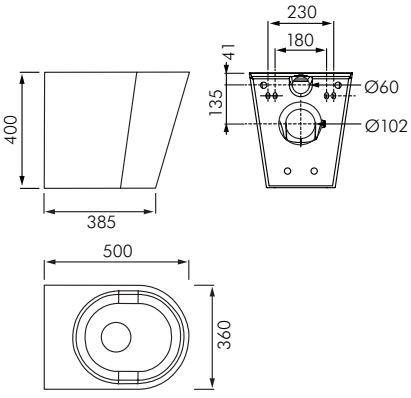


Franke P-Trap Toilet Pan, Floor Mounted

FRFM2 - For front of wall fixing

FRSP - Plastic seat pads, grey
FRSB - Plastic seat, black
FRSG - Plastic seat, grey
FRSW - Plastic seat, white

For flushing options see separate toilet flushing brochure.

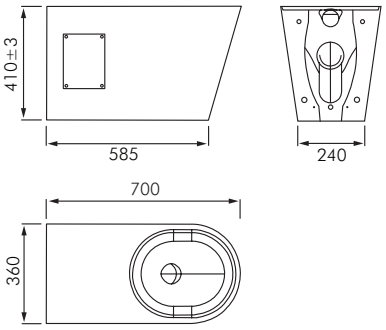


Franke P or S-Trap Toilet Pan, Floor Mounted

FRFM4 - For front of wall fixing

FRSP - Plastic seat pads, grey
FRSB - Plastic seat, black
FRSG - Plastic seat, grey
FRSW - Plastic seat, white

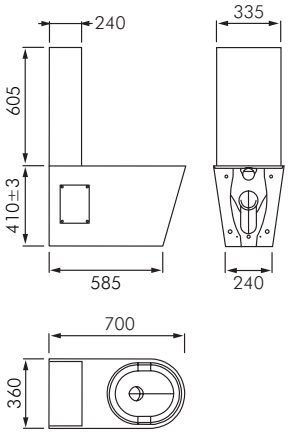
For flushing options see separate toilet flushing brochure.



Franke P or S-Trap Toilet Suite

FRFM4-300VP - Toilet suite with concealed cistern
FRFM4-ZHVP - Toilet suite with concealed Zurn flush valve

FRSP - Plastic seat pads, grey
FRSB - Plastic seat, black
FRSG - Plastic seat, grey
FRSW - Plastic seat, white

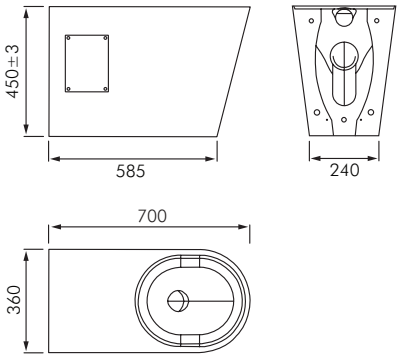


Franke P or S-Trap Accessible Toilet Pan, Floor Mounted

FRFM5 - For front of wall fixing

FRSP - Plastic seat pads, grey
FRSB - Plastic seat, black
FRSG - Plastic seat, grey
FRSW - Plastic seat, white

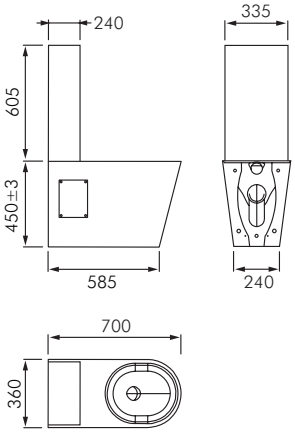
For flushing options see separate toilet flushing brochure.



Franke P or S-Trap Accessible Toilet Suite

FRFM5-300VP - Accessible toilet suite with concealed cistern
FRFM5-ZHVP - Accessible toilet suite with concealed flush valve

FRSP - Plastic seat pads, grey
FRSB - Plastic seat, black
FRSG - Plastic seat, grey
FRSW - Plastic seat, white



Stainless Steel Washbasins

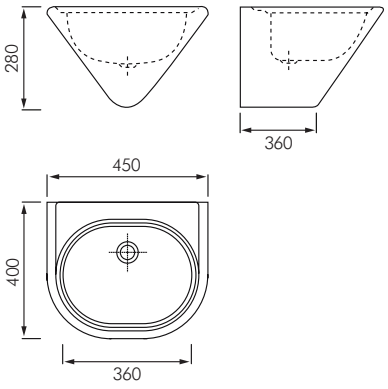
Franke stainless steel washbasins come in a variety of sizes to suit every application and our heavy duty washbasins are designed for the hardest areas. Designed for maximum wear and demanding specifications in high security bathrooms.

Franke Guardian Washbasin

HDTX450

- Heavy duty basin for through wall fixing
- 40mm tap ledge
- Supplied with bolts and fixings
- Supplied with 32mm flat perforated waste
- Also available with 5mm waste holes for anti-ligature rooms

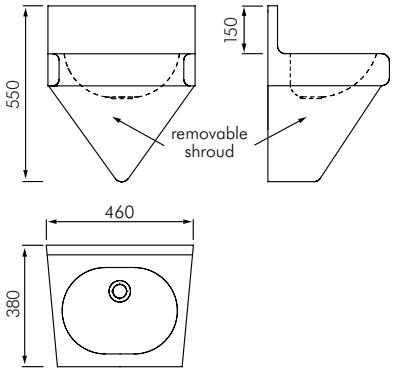
Note: This washbasin is only suitable for duct wall mounting



Franke Security Washbasin

FR-ANMX452

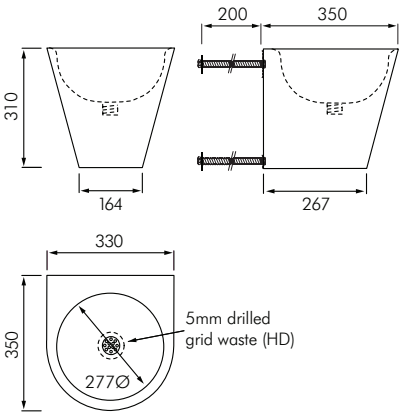
- Heavy duty basin for front wall fixing
- Removable undershield with concealed wall brackets
- Tap ledge on left or right hand side or punched for bubbler on upstand (as shown)
- Supplied with 32mm flat perforated waste
- NZS4121 compliant



Franke Centinel Heavy Duty Washbasin

FR-ANMX205-HD

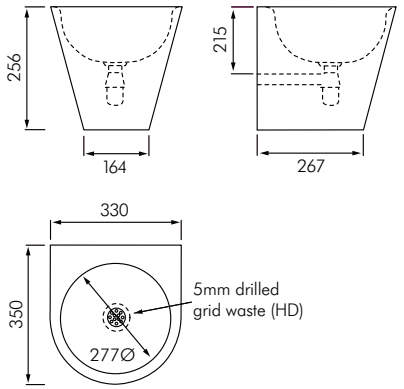
- Heavy duty basin for through wall fixing and with drilled grid waste
- Fixed base for rear access only
- Waste trap mounted inside wall



Franke Centinel Medium Duty Washbasin

FR-ANMX205-MD

- Medium duty basin for front of wall fixing
- Removable access plate on the base for installation and maintenance
- Supplied with waste and trap

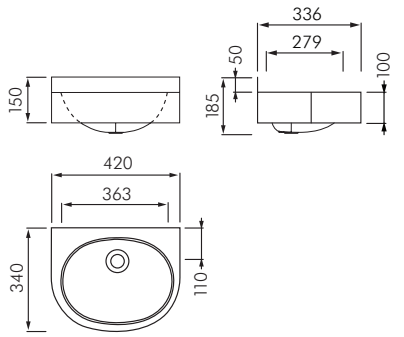


Franke Oval-A Washbasin

FROVALA

- Standard basin for front of wall fixing
- For use with an exposed trap (supplied by others)
- Tap hole can be punched left or right or left bare for wall mounted tap

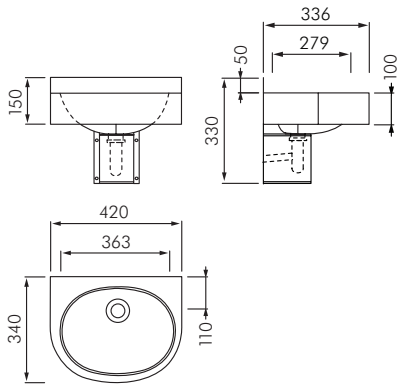
For shroud around the trap see the ACC version below.



Franke Oval-A Washbasin for Accessible Bathroom

FROVALA-ACC

- Accessible basin has shroud for user safety and comfort
- Tap ledge in each corner for mounting basin tap/mixer
- NZS4121 compliant



Franke Solid Surface

Franke solid surface range has been designed for the toughest environments, and manufactured using advanced technologies. This range of washbasins and toilets is designed and tested to be vandal-proof and avoid ligature points wherever possible. A high-grade non-porous polyester gel coat surface in all white comes as standard. The gel coat has been specially formulated to resist chemicals and ultraviolet rays.

Franke Solid Surface Washbasin

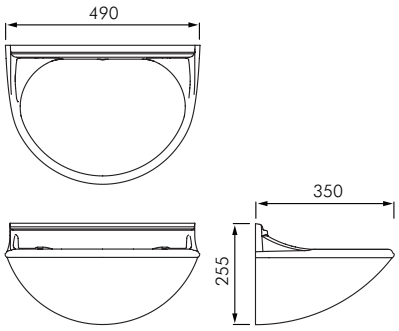
DV-VR01-001

- Standard washbasin
- Suitable for through wall taps mounted on wall above basin

DV-VR01-UBB

- Inwall fixing frame to suit Franke solid surface washbasin for where there is no rear/induct access

See separate basin control information on pages 14-15



Franke Solid Surface Washbasin with Upstand

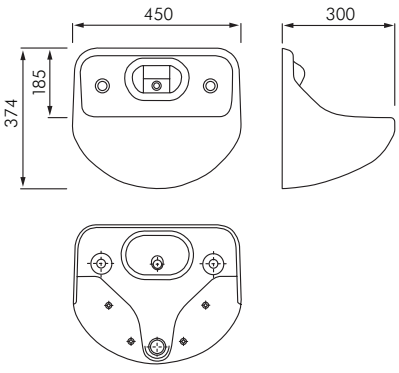
DV-VR01-031

- Washbasin with upstand
- Suitable for through wall taps mounted on basin or with Warden electronic control (as shown)

DV-VR01-UBB

- Inwall fixing frame to suit Franke solid surface washbasin for where there is no rear/induct access

See basin control information pg 14-15



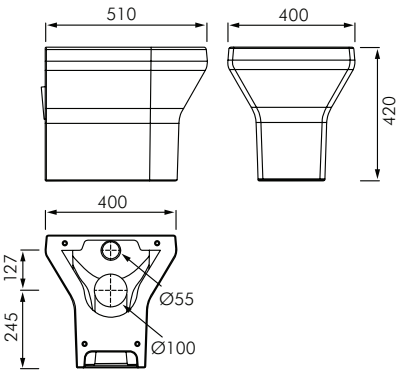
Franke Solid Surface Toilet

DV-VR01-010

- Standard toilet pan with moulded grey seat rim

DV-VR01-UWB

- Inwall fixing frame to suit Franke solid surface toilet pans for where there is no rear/induct access



Franke Solid Surface Accessible Toilet

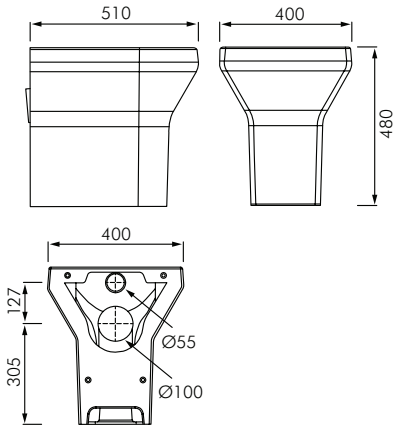
DV-VR01-011

- Accessible height toilet pan with moulded grey seat rim

DV-VR01-UWB

- Inwall fixing frame to suit Franke solid surface toilet pans for where there is no rear/induct access

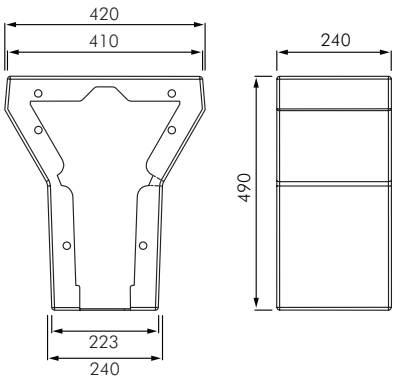
NOTE: Requires DV-VR01-012 spacer to meet NZS4121 requirements

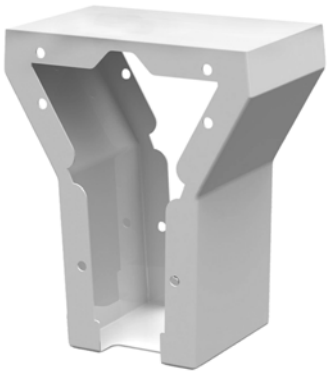


Franke Toilet Extension Box

DV-VR01-012

- Extension box for use with the DV-VR01-011 toilet pan
- When used for accessible toilets this allows toilet to then be used in accordance with the NZS4121
- Made from stainless steel and finished in white enamel





Miranit Washbasins

Resin-bonded mineral granite basins give a modern and pleasing appearance offering a warm domestic look. Created from one piece single cast, Quadro basins are resistant up to 80°C giving a smooth, pore-free, hygienic and easy care surface.

Sanitary fixture products made of shatter-proof synthetic resin-bonded mineral granite. Created from a single cast, Miranit products are made without bond seams or joints. Smooth, pore-free, hygienic and easy-care gel coat surface.

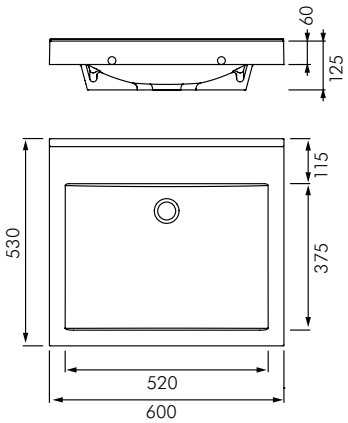
Miranit consists of approximately 80% natural minerals such as marble powder, sandstone and quartz sand, and approximately 20% high-quality unsaturated polyester resin. Miranit is ideal for where a ceramic appearance is required but with stainless-steel-like performance of impact resistance. Surface damage can be mended with special repair kits.

Franke Quadro Single Washbasin

FR-ANMW410 - Without tap hole

FR-ANMW411 - With tap hole

- 600 x 530mm washbasin
- Smooth pore-free surface
- Seamless rectangular bowl
- Integrated brackets and holes for fixing
- Mounting hanger bolts and dowels included

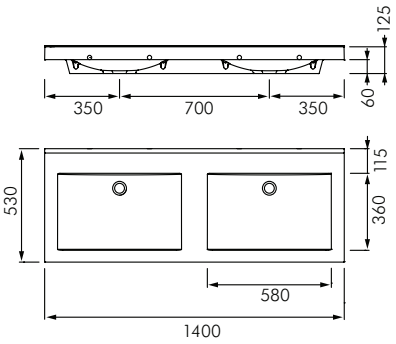


Franke Quadro Double Washbasin

FR-ANMW420 - Without tap hole

FR-ANMW421 - With tap hole

- 1400 x 530mm washbasin
- Smooth pore-free surface
- Seamless rectangular bowl
- Integrated brackets and holes for fixing
- Mounting hanger bolts and dowels included

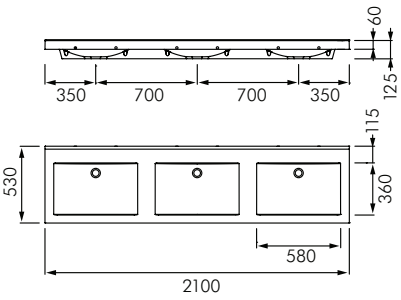


Franke Quadro Triple Washbasin

FR-ANMW430 - Without tap hole

FR-ANMW431 - With tap hole

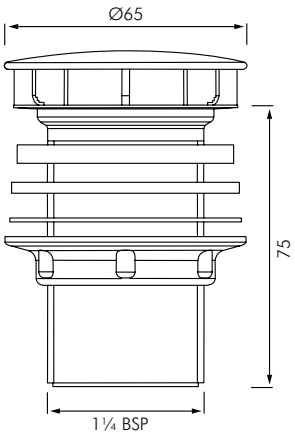
- 2100 x 530mm washbasin
- Smooth pore-free surface
- Seamless rectangular bowl
- Integrated brackets and holes for fixing
- Mounting hanger bolts and dowels included



MacDonald Chrome Domed Basin Waste

SA-BWD

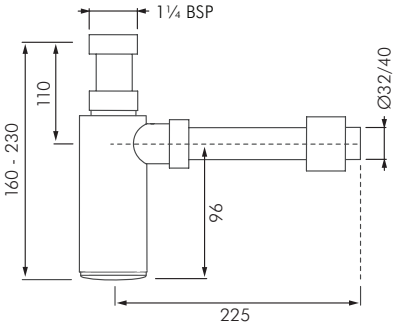
- Removable chrome dome for hygiene
- Suitable for basins without overflow
- 32mm BSP threaded connection



MacDonald Chrome Bottle Trap

SA-BT32C

- Removable chrome dome for hygiene
- Suitable for basins without overflow
- 32/40mm chrome plated bottle trap



Security Shower Tapware

MacDonald security tapware is the result of over 25 years involvement with secure facilities where each location and application have unique requirements. We have a solution to suit every project.

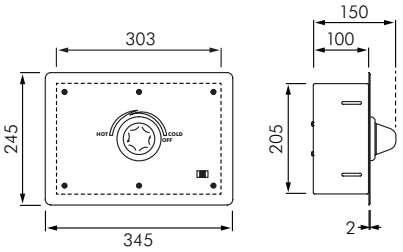
MacDonald Pressure Balancing Shower Mixer

MS-Z73M

- Includes stainless steel face plate and installation box

MS-Z73MES

- As above but includes piezo switch for connection to Warden or Solo electronic control



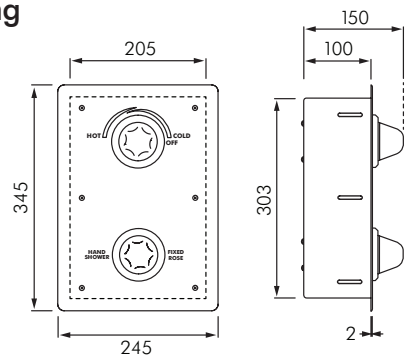
MacDonald Pressure Balancing Shower Mixer and Diverter

MS-Z73DM

- Allows diversion from fixed shower head to flexible shower
- Includes stainless steel face plate and installation box

MS-Z73DMES

- As above but includes piezo switch for connection to Warden or Solo electronic control



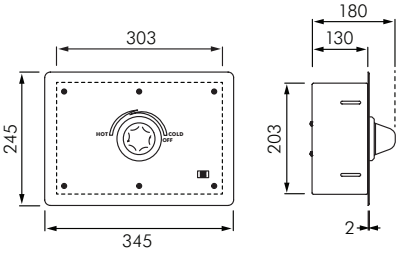
MacDonald Thermostatic Shower Mixer

MS-H96M

- Includes stainless steel face plate and installation box

MS-H96MES

- As above but includes piezo switch for connection to Warden or Solo electronic control



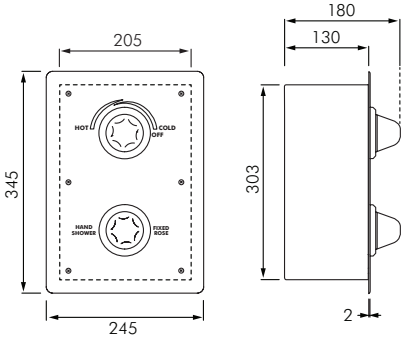
MacDonald Thermostatic Shower Mixer and Diverter

MS-H96DM

- Includes stainless steel face plate and installation box

MS-H96DMES

- As above but includes piezo switch for connection to Warden or Solo electronic control

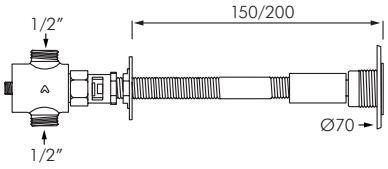


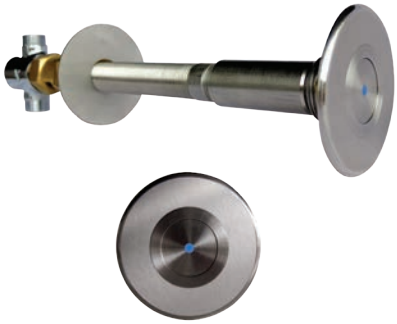
Delabie Through Wall Timed Flow Shower Control Valve

MS-749-115 - To suit ≤150mm wall

MS-749-120 - To suit ≤200mm wall

- Through wall mounting where there is a duct behind the shower
- ~25 second run time
- Supplied with 70mm dia. escutcheon
- Only controls the flow of water not the temperature. Pre-mix water to ~40°C





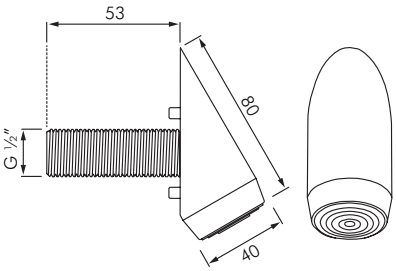
Franke Wall Mounted Shower Head

DV-SH07-040

- Shower head for secure mounting to wall connection
- Projects 40mm into shower cubicle

DV-SH07-040-15 - to suit through wall installation ≤ 150mm

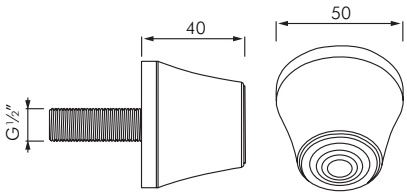
DV-SH07-040-20 - to suit through wall installation ≤ 200mm



Franke Ceiling Mounted Shower Head

DV-SH07-046

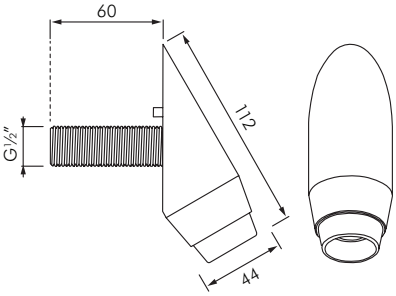
- Shower head for secure mounting to ceiling connection
- Projects 40mm into shower cubicle



Franke Shower Head with Detachable Hose and Handset

DV-SH07-084

- Suitable for where ligature resistance is required
- Supplied with removable hose and hand shower



MacDonald Security Basin Tapware

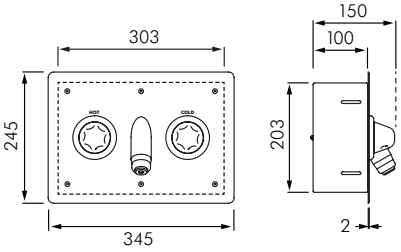
MacDonald security tapware is the result of over 25 years involvement with secure facilities where each location and application has unique requirements. We have a solution to suit every project.

MacDonald Hot and Cold Basin Control

MS-DV042M - Hot and cold water basin control with spout on stainless steel face plate

MS-DV030M - Hot and cold water basin control without spout on stainless steel face plate

MS-DVBATM - Hot and cold water bath control on stainless steel face plate (no spout)



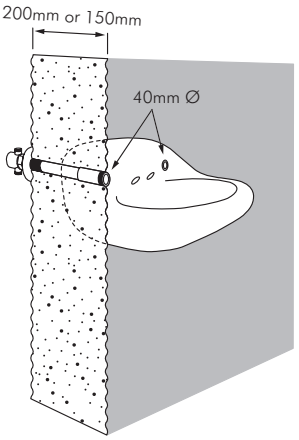
MS-DV042M

Delabie Through Wall Timed Flow Control Valve

MS-747-DV5 - For front of wall installation suitable for walls ≤150mm, ~15sec. run time

MS-747-DV20 - For front of wall installation suitable for walls ≤ 200mm, ~15sec. run time

Add suffix -ACC for accessible button



Accessible button

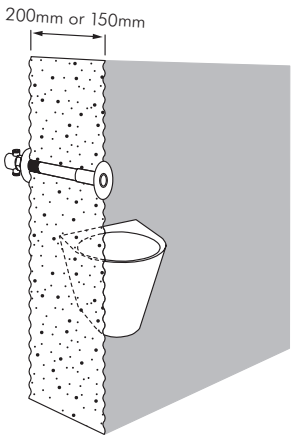
Delabie Through Wall Timed Flow Control Valve

MS-747-115 - For duct mounted installation, suitable for walls ≤ 150mm, ~15sec. run time

MS-747-120 - For duct mounted installation, suitable for walls ≤ 200mm, ~15sec. run time

MS-747-03 - For duct mounted installation, suitable for through stainless steel panel, ~15sec. run time

Add suffix -ACC for accessible button



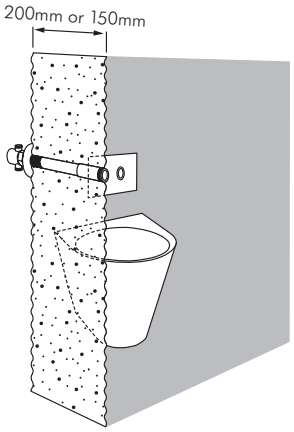
Accessible button

Delabie Through Wall Timed Flow Dual Control Valve

MS-747-215 - Hot and cold water valve set for duct mounted installation, suitable for walls ≥ 150mm, ~15sec. run time

MS-747-220 - Hot and cold water valve set for duct mounted installation, suitable for walls ≥ 200mm, ~15sec. run time

Add suffix -ACC for accessible button



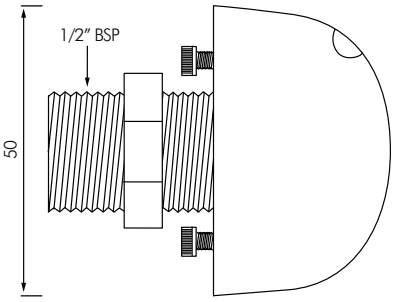
MacDonald Stainless Steel Basin Bubbler

WA-B-20 - For panel mounting over basin with 2L/min flow regulator

WA-B-100 - For 30-130mm walls

WA-B-150 - For 130-180mm walls

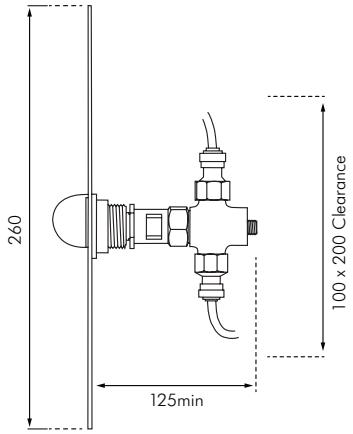
WA-B-200 - For 180-230mm walls

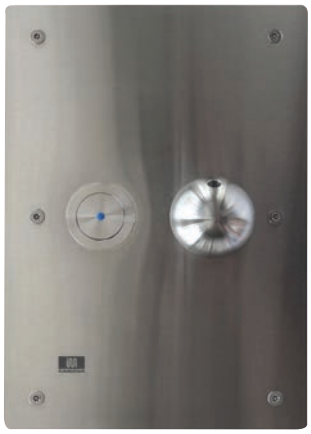


MacDonald Drinking Fountain

MS-DF180 - Drinking fountain designed for face wall fixing

MS-DF340 - Drinking fountain designed for front access installation with removable access panel





Warden Electronic Control

Warden electronic controls use a combination of robust piezo switches to activate solenoid valves in projects that require a high degree of vandal resistance. Warden is a generic name for a range of electronic controls developed by MacDonald Industries which are normally sold as a set to suit the project.

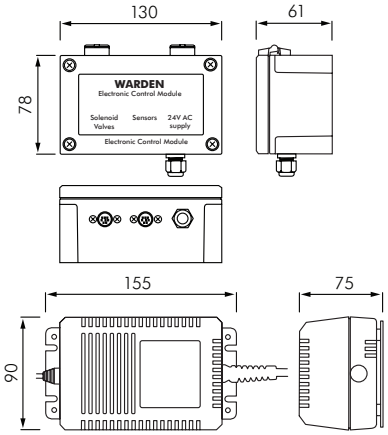
Contact your local sales staff for assistance in product selection and for more information.

Warden 2 Plumbing Control

WA2

- Warden 2 plumbing control system is a multi use system that can be used to control showers, basins and urinals.

Please refer to your local sales staff to help design your suitable system.

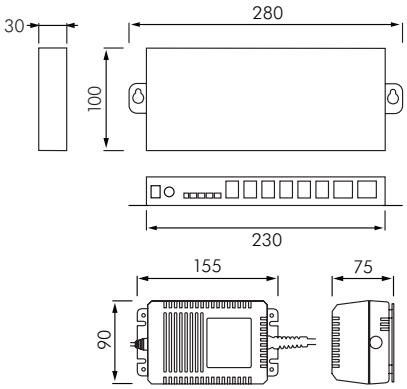


Warden 4 Plumbing Control

WA4

- Warden 4 plumbing control system is a multi-use system that can be used to control showers, basins and urinals, and can connect into Warden Central Control System.

Please refer to your local sales staff to help design your suitable system.

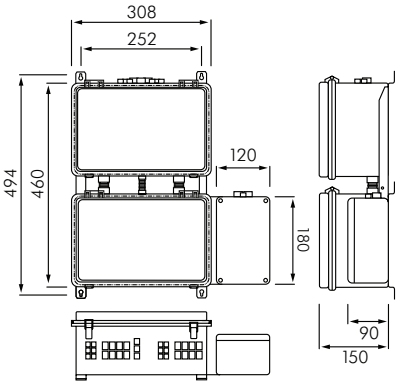


Warden 5 Power, Lighting and Water Control

WA5-PLW

- Warden 5 control system is a multi use system that can be used to control power, lighting and water in a cell, and can connect into a Warden Central Control System.

Please refer to your local sales staff to help design your suitable system.



Combination Toilet and Washbasins

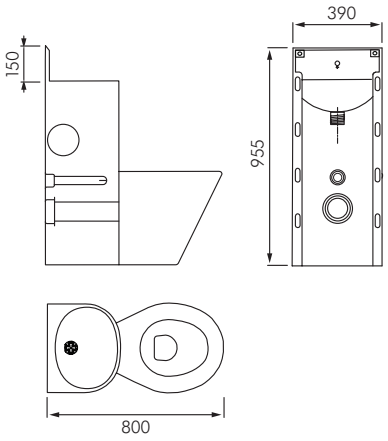
Franke combination toilet and basin for security facilities made from 1.2 and 1.6mm thick, type 304 stainless steel in satin finish. Available options include straight, left, and right hand angled toilet pan, with or without toilet roll holder, and can be used with our mechanical or electronic plumbing system.

Franke Straight Combination Toilet Pan & Washbasin

FRCM1A - Without toilet roll holder

FRCM1L - With left-hand toilet roll holder

FRCM1R - With right-hand toilet roll holder



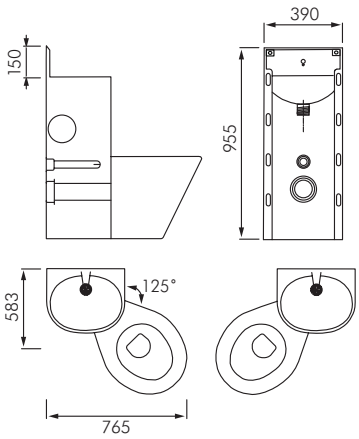
Franke Angled Combination Toilet Pan & Washbasin

FRCM2R - Right-hand angled unit, with centre toilet roll holder (as shown)

FRCM2RA - Right-hand angled unit, no toilet roll holder

FRCM2L - Left-hand angled unit, with centre toilet roll holder

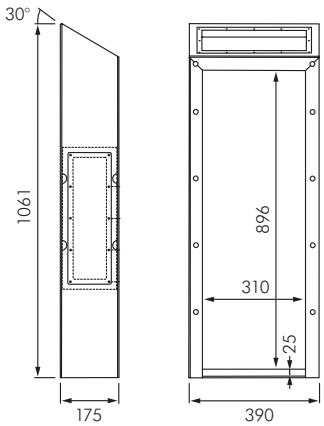
FRCM2LA - Left-hand angled unit, no toilet roll holder



Franke Combination Toilet & Washbasin Extension Box

FRCM-EXT (Extension box only)

- Suited to where there is no access/ service duct behind for plumbing
- Angled top panel for security
- Can contain all valves (mechanical or electrical) for front of wall installation
- Secure fixed access panels on both sides and on top for servicing



Toilet Flushing

Mains pressure flushing valves require adequately sized supply pipes and ideally 300 – 400kPa dynamic pressure to operate correctly; hydraulic design is therefore critical. Where mains supply is not possible, a non potable supply from a header tank is possible. Failing that, a suitably robust cistern can be used. The products offered below are just some examples of what is offered.

Contact your local sales staff for assistance in product selection and for more information.

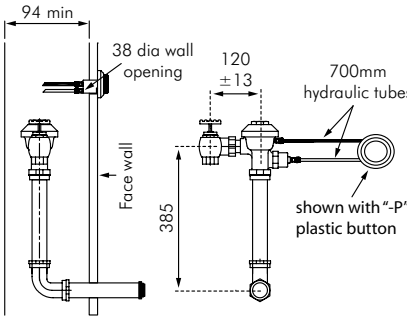
Zurn Single Flush Valve

ZH-6152XL-M

- Suitable for recess mounting into 94mm wall cavity or duct with robust metal push button
- Mains pressure supply only 150-500kPa, 300kPa is ideal

ZH-6152XL-VP - As above but with VP through wall control valve

ZA-H - Access panel and frame

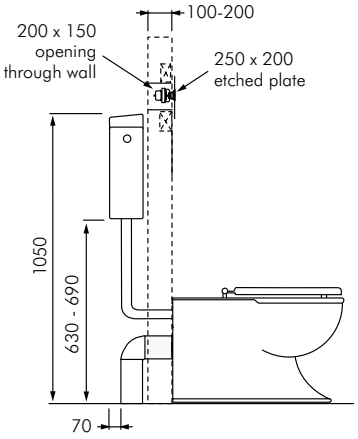


Wisa Duct Mounted Cistern

WS300VP

- Designed to be installed in a duct directly behind the toilet it serves
- Pneumatically activated 6L flush using robust stainless steel button assembly
- Access to the cistern is only available via the duct in which it is mounted

WS-300VP-ACC - As above but with raised button for accessible users

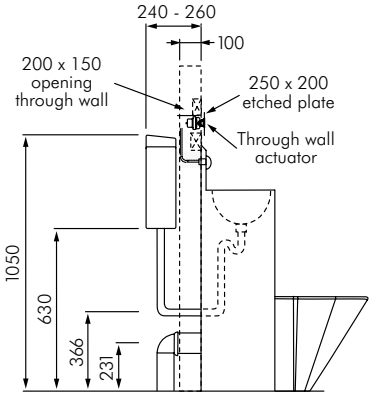


Wisa Inwall Cistern & Delabie Basin Valve Set

WS7790PO

- Designed to be installed in wall directly behind Franke Combi it serves
- Pneumatically activated 6L flush & time delay flow using robust stainless steel button assemblies
- Access to the cistern & valve is available via faceplate

WS7790PO-SP - As above but with through wall controls to suit solid masonry walls



Electronic Toilet Flushing

Electronically activated flush valves and cistern tanks are used with Warden electronic controls to provide limitations on how often a toilet can be flushed. Delays after flushing ensure repetitive flushing will not result in flooding of cells when the toilet has been blocked.

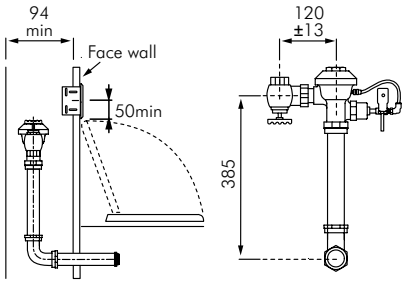
Where water to toilet is supplied from mains supply, using Zurn valves ensures compliance with water supply protection requirements (backflow protection). Where available pipe sizing does not suit flush valves, use the electronic cistern tank.

Contact your local sales staff for assistance in product selection and for more information.

Zurn ES Flush Valve

ZES-6152XL - 6L full flush

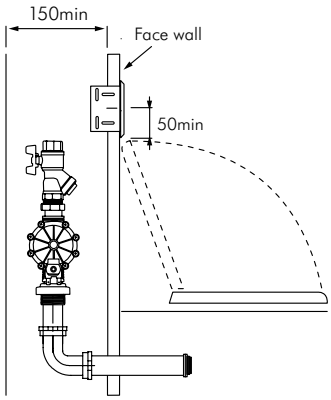
- Mains pressure rated brass flush valve c/w solenoid actuator
- Requires min. 90L/min flow rate at 300kPa nominal dynamic pressure
- Also available in dual flush if required



SOLO Flush Valve

SL-DFXL - 6L full flush

- Mains pressure rated valve set, including 25mm Filterball valve, vacuum breaker assembly and plastic flush pipe.
- Flush volume adjustable through Warden controller. Requires 70L/min flow rate at 300kPa nominal dynamic pressure.
- Can be single or dual flush when installed with either Warden or SOLO electronic controls.

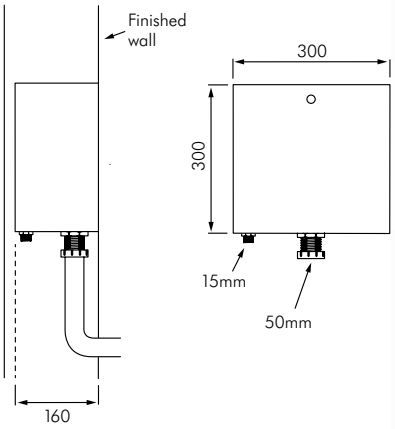


MacDonald Electronic Cistern

CM-CIST6 - 6L full flush cistern

- Suitable for duct mounting only or inside Franke extension box when using combination unit.
- Can be operated by Solo or Warden control system.

CM-CIST9 - As above but with 9L flush volume.



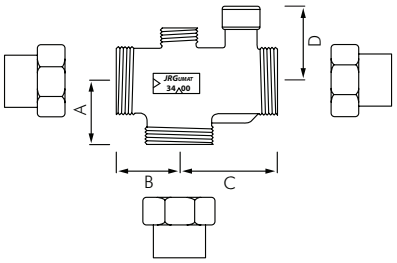
Thermostatic Mixing Valves

To deliver tempered water safely requires high quality thermostatic mixing valves. Whether you require tempered water for one tap or an entire facility, we have a valve to suit every situation.

JRGUMAT Mixing Valve

JRG3400

- The threaded Jrgumat valve is available in sizes 15 - 50mm and comes in 3 different temperature range settings
- Designed to deliver mixed water to a hot water system
- Refer to separate literature or our website for more information

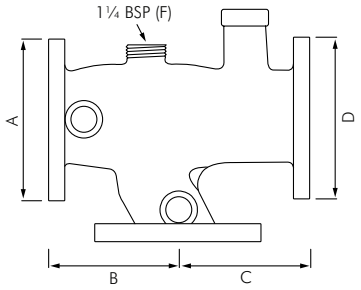


Product Code	Size	A	B	C	D
JRG340019X-55	¾"	40	40	60	49
JRG340025X-55	1"	43	43	67	51
JRG340032X-55	1 ¼"	52	52	78	75
JRG340040X-55	1 ½"	58	58	92	77
JRG340050X-55	2"	70	70	110	85

JRGUMAT Mixing Valve

JRG3410

- The flanged Jrgumat valve is available in sizes 65 to 80mm and comes in 3 different temperature range settings
- Designed to deliver mixed water to a hot water system
- Refer to separate literature or our website for more information

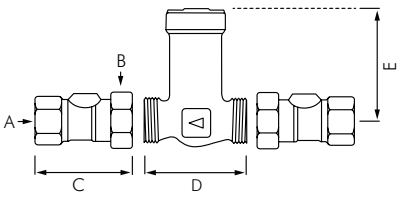


Product Code	Size	A	B	C	D
JRG341065X-55	65mm	145	145	145	121
JRG341080X-55	80mm	155	155	155	127

JRGUTHERM Flow Regulating Valve

JRG6320

- The Jrgutherm valve is available in 15 to 20mm.
- Designed for circulation systems that require balancing in order to ensure even temperature throughout.
- Refer to separate literature or our website for more information



Product Code	A	B	C	D	E
JRG632012X	1/2"	3/4"	55	60	64
JRG632019X	3/4"	1"	55	60	64

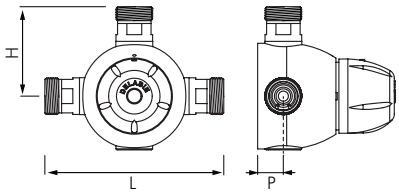
Delabie Premix Comfort Thermostatic Mixing Valve

DE731002 - 20mm valve, to supply up to 55L/min

DE731003 - 25mm valve, to supply up to 90L/min

DE731004 - 32mm valve, to supply up to 140L/min

DE731005 - 40mm valve, to supply up to 190L/min

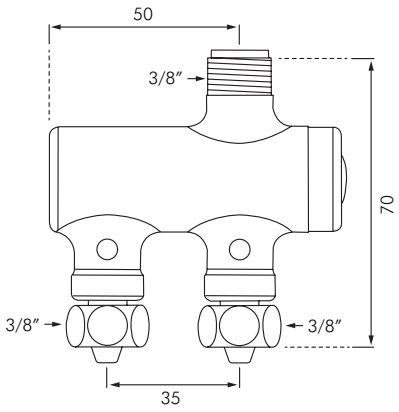


Product Code	Size	Flow Rate L/min(max)	L	H	P
DE731002	¾"	55	118	60	18
DE731003	1"	90	160	80	23
DE731004	1 ¼"	140	178	88	26
DE731005	1 ½"	190	196	98	26

Delabie Premix Nano Thermostatic Mixing Valve

DE732016 - Very small thermostatic mixing valve with 3/8" connections for single tap supply from 3L/min up to 7L/min

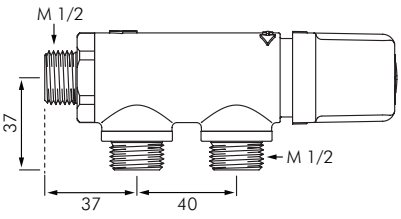
DE732116 - Very small thermostatic mixing valve with 1/2" connections for single tap supply from 3L/min up to 7L/min



Delabie Premix Compact Thermostatic Mixing Valve

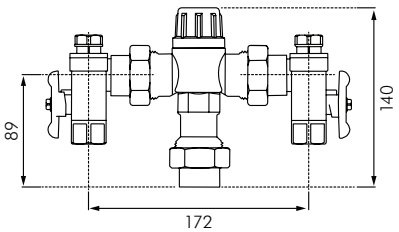
DE733015 - Small thermostatic mixing valve with 1/2" connections for single tap supply up to 19L/min

DE733020 - Small thermostatic mixing valve with 3/4" connections for single tap supply up to 23L/min



Zurn T-shaped Thermostatic Mixing Valve

W191070 - Thermostatic mixing valve with 3/4" connections, supply up to 38L/min



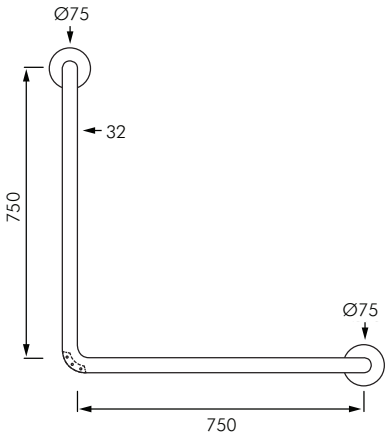
Grab Rails and Accessories

Robust, secure and safe stainless steel accessories that have been specifically designed for high security applications.

MacDonald Anti-ligature Grab Rail

BE-AL5/90

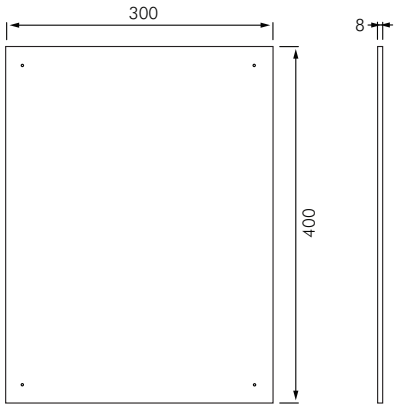
- 750 x 750mm stainless steel grab rail fully welded with box section allowing unobstructed 270° grip surface
- Suitable for toilet assist or shower



ASI Frameless Mirror

AS8026

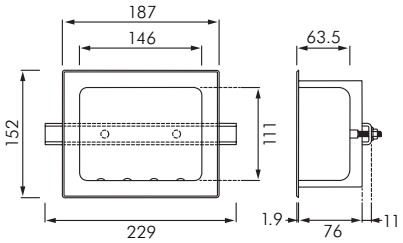
- 300 x 400mm stainless steel with no.8 mirror finish for front mounting



ASI Recessed Soap Holder

AS140

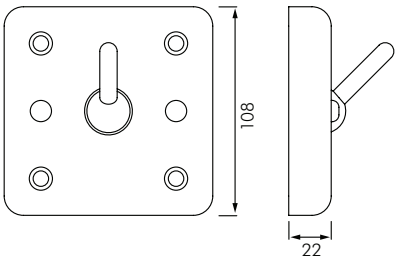
- Recessed stainless steel soap holder for rear mounting
- Suitable for shower or over basin



Franke Heavy Duty Clothes Hook

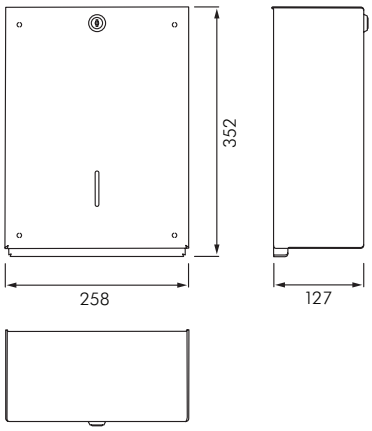
FR-HDTX692
- Clothes hook with snap-down safety when overloaded for front of wall mounting

FR-HDTX693
- As above but for mounting from behind wall



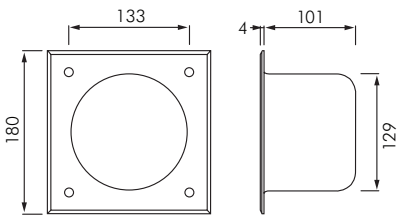
Franke Heavy Duty Paper Towel Dispenser

FR-TD350
- Wall mounted, 2mm thick stainless steel with satin finish
- Complete closed casing and security lock
- Capacity 400-600 paper towels



Franke Heavy Duty Recessed Toilet Roll Holder

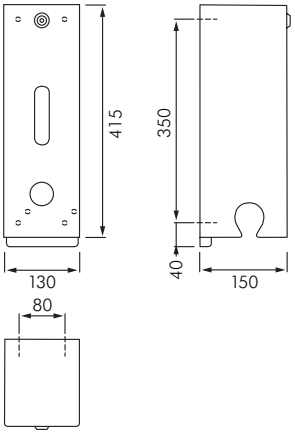
FR-HDTX673E
- Recessed toilet roll holder, 2mm thick stainless steel with satin finish
- Mounting from behind the wall



Franke Heavy Duty Toilet Roll Dispenser

FR-HDTX674
- Wall mounted, 2mm thick stainless steel with satin finish
- Complete closed casing and security lock
- For 3 rolls without spindles, reserve rolls visible

FR-HDTX0001 - As above but only single roll holder 150 x 110 x 110mm



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