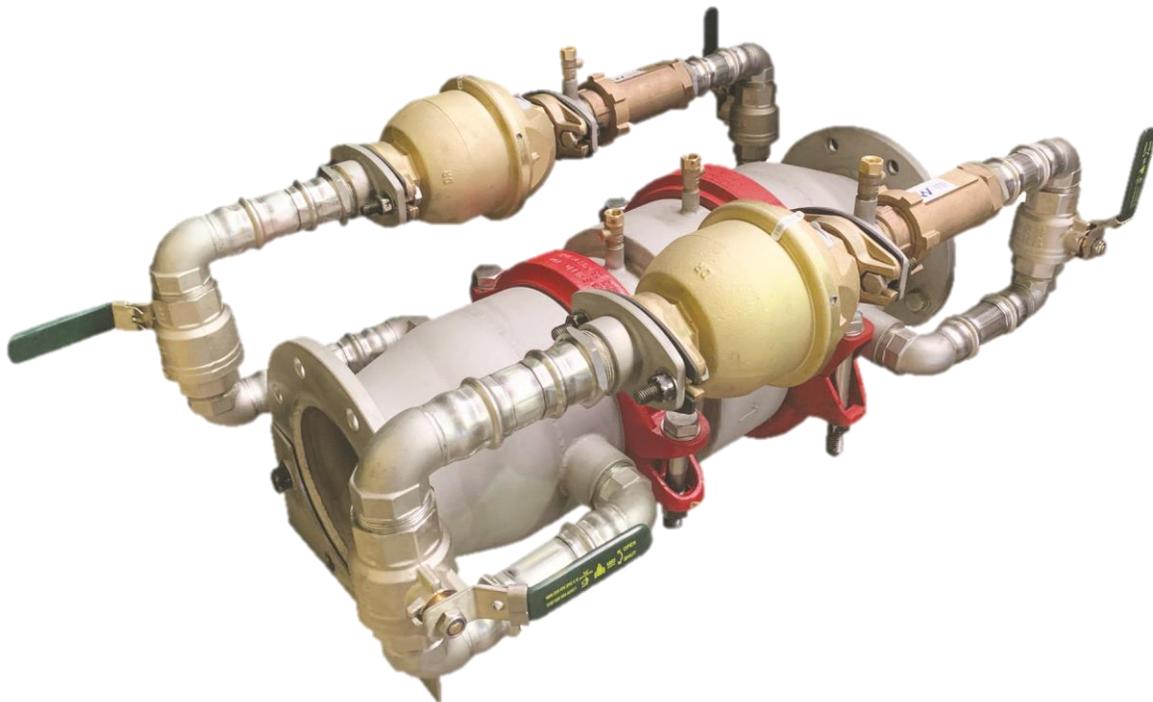




Email: sales@hydromet.net.au

Website: www.hydromet.net.au

MetCheck 100 & 150mm Single Check Valves



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We are pleased to advise Hydromet in recent times commissioned AWQC to carry out an updated and significant testing programme of sampled components supplied into the marketplace on behalf of Hydromet, with the result of this testing programme conforming with the requirements of AS/NZS 4020.

WaterMark Certification – NATA approved test reports form part of the conditions of WaterMark certification which is maintained for over 40 models of backflow prevention valves under the MiniMet and MetCheck ranges. These valves are certified on the Hydromet WM license WM-022473 and Hydromet are subject to annual surveillance by IAPMO Oceania for continued compliance with the WaterMark Certification Scheme.

AS/NZS 2845.1 – All MiniMet and MetCheck valves have been tested to, and conform with, the requirements of AS/NZS 2845.1. All MiniMet and MetCheck valves have a classification of either a low or medium hazard rating, as defined in Volume 3 of the NCC, the Plumbing Code of Australia.

Flanged stainless steel pipework – The AS/NZS 4020 test reports also extend to cover the various SS316 flanged pipes manufactured by Hydromet, with these components being available to suit the installation of any backflow prevention valve or water meter assemblies.

Why Choose a MetCheck Valve

- Body is made from 316 Sch10 Stainless Steel which has a very long-life expectancy with no rusting internal debris or blistering paint passing through checks damaging seal and causing severe damage to the internal componentry.
- Valves can be returned to the Hydromet Factory for a 10-year service and replacement meters on detector model valves. New Serial numbers are used to record the valves history as part of the WaterMark accreditation.
- Stainless Steel Inox-Press by-pass assemblies are used to prevent dissimilar metal reactions.
- Earth support tags can be supplied if current is suspected to be within the valve assembly of the pipe line. Earth leakage can reduce the life span of any valve assembly due to osmosis which will attack the valves close to weld lines.
- Full back up technical support from the Manufacturer.
- Made in Queensland with quick access to all spare parts and accessories for every application.
- Quick release couplings at the body of the valve to allow the by-pass meter assembly to be easily removed during servicing.
- All Hydromet Valves are highly rated to PN16 in all models.
- Models can be modified to suit any application required.
- Valves come with optional strainer boxes, valve support stands, Met-Coated Nuts and Bolts anti-galling treated specific for high tension applications, and numerous J & S -Pipes rises all in 316 Stainless Steel to accommodate a full assembly to AS/NZS 4020 Standards.
- Ribbed seal anti-slip gaskets purposely designed by Hydromet.
- 5 Year Warranty on the main body and a 12 Month Warranty on all moving parts. We are unable to cover components that are shown to be damaged by debris, or incorrect installation. E.g. installation for an electric cut off switch downstream causing corrosion.

Valve Offerings

The Single Check Metchecks come in several different offerings ensuring you have the ability to choose an assembly best suited to your application. What this means is that the trusted Stainless steel body remains the same across the board in both the 100 or 150 models, however the bypass assembly/s can be altered to suit.

We provide both single and dual by pass assemblies, of which can be made in either Copper tubing or 316 Stainless Steel tubing.

The assemblies include WaterMark Certified lockable ball valves, a dual-checkvalve and AS3565.1 certified Elster water Meter.

The by-pass assemblies come in a range of sizes being;

20mm

25mm

32mm

40mm



Optional Copper Arrangement

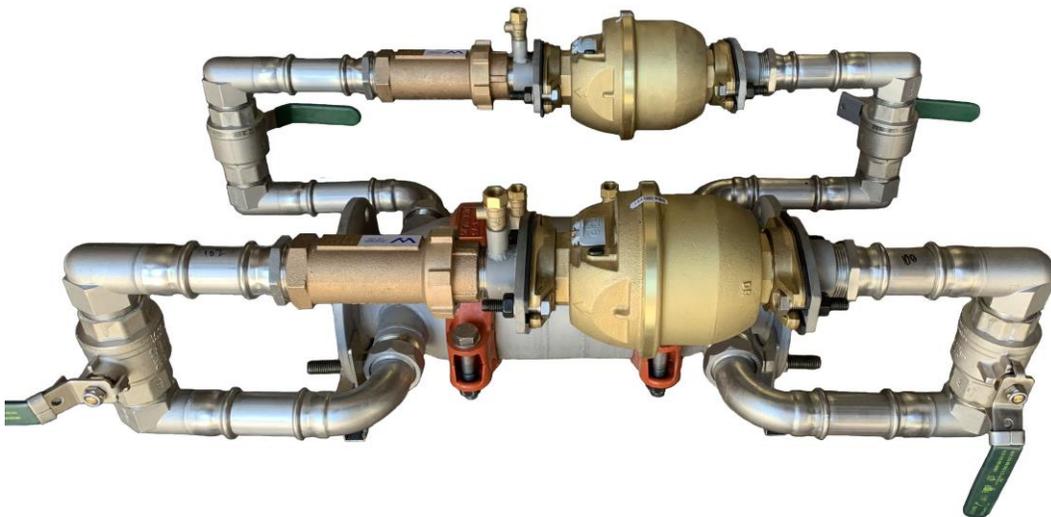


Technical Drawings & Specifications

MetCheck I00AT

Designed and manufactured in our Queensland workshops. Using 316 stainless steel components, the MetCheck detector valves combine a check valve and a water meter.

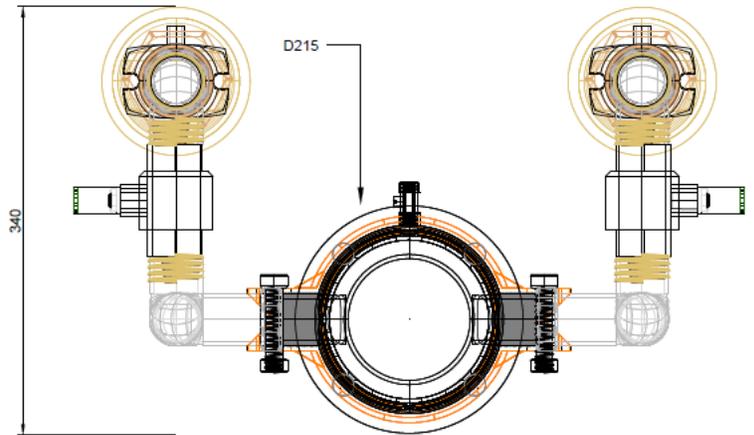
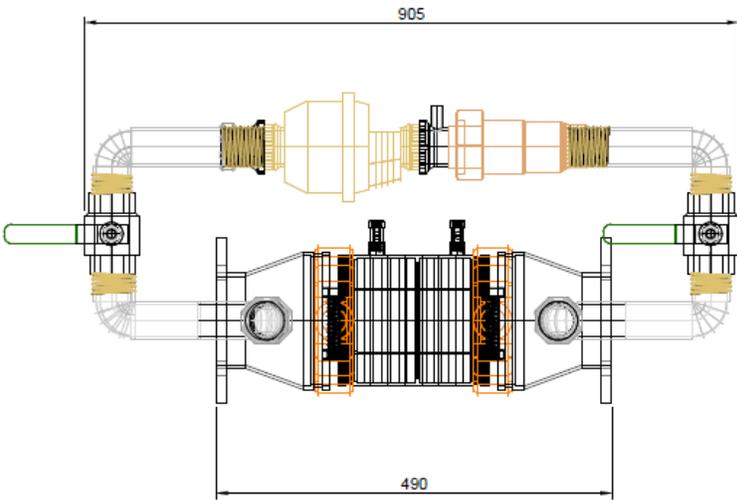
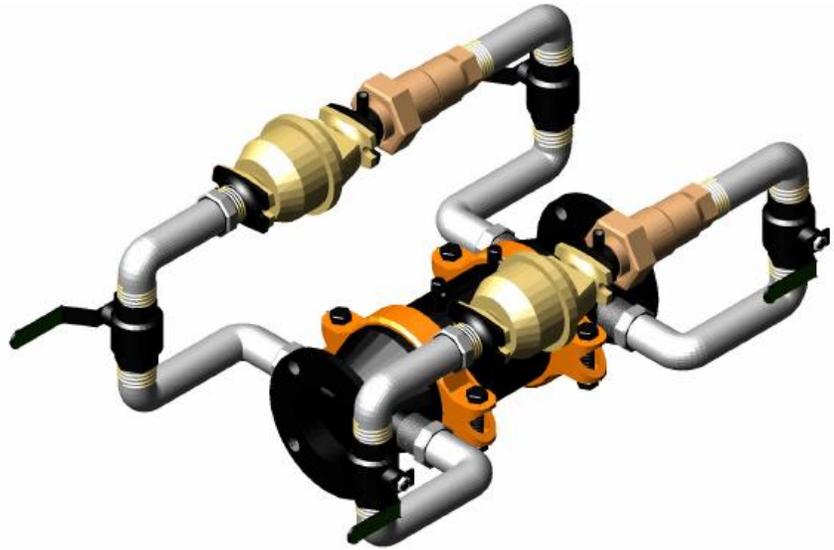
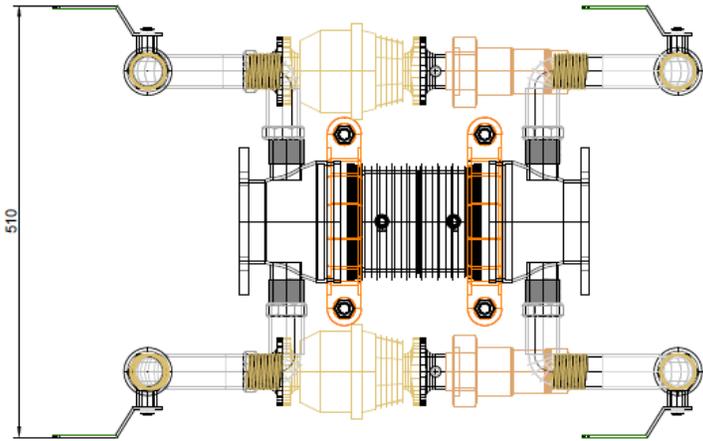
Used mostly in commercial, industrial and group title premises, the MetCheck measures everyday potable water flows to the premises. Should excessively high-water flow be required the main valve will open, allowing unrestricted water flow to fight the fire.



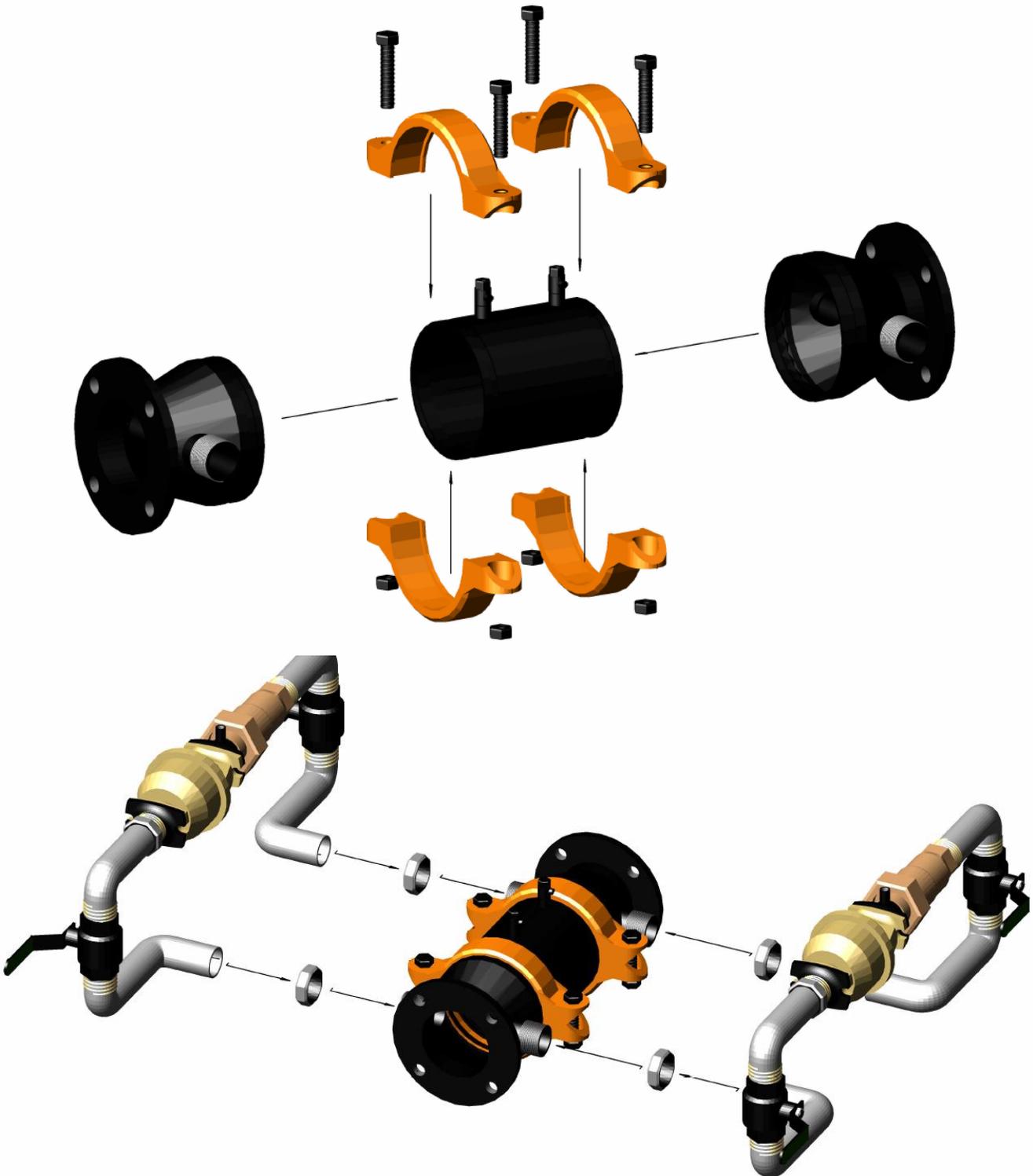
With various configurations of internal springs and water meters the MetCheck can be used in dedicated fire services for counting illegal use of water and water leaks, while preventing the backflow of stagnant water into the main potable system.

Alternatively the MetCheck can be used as a combined fire & potable water measuring system to schools, retirement villages, industrial and commercial sites allowing larger volumes of water to be delivered to more plumbing fixtures or outlets.

Technical Drawings & Specifications



Technical Drawings & Specifications

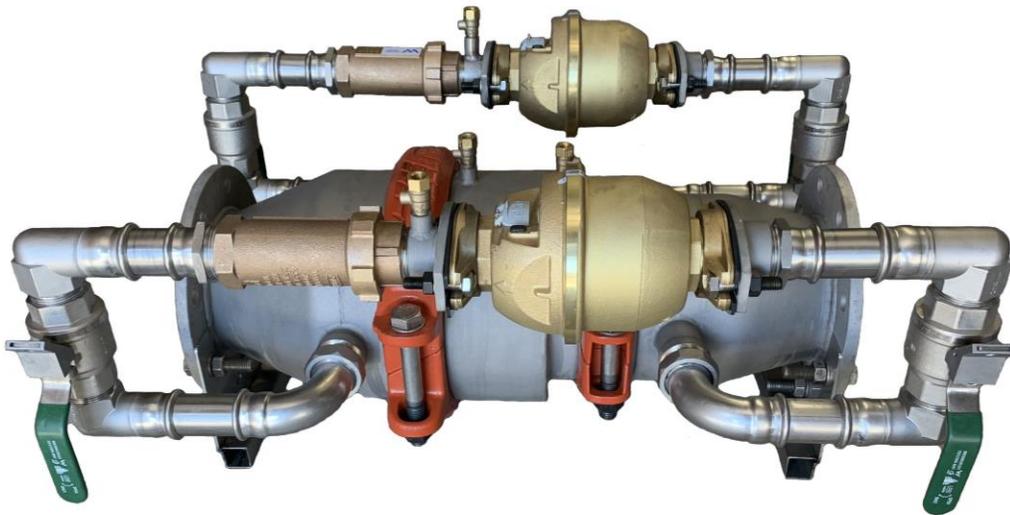


Technical Drawings & Specifications

MetCheck I50AT

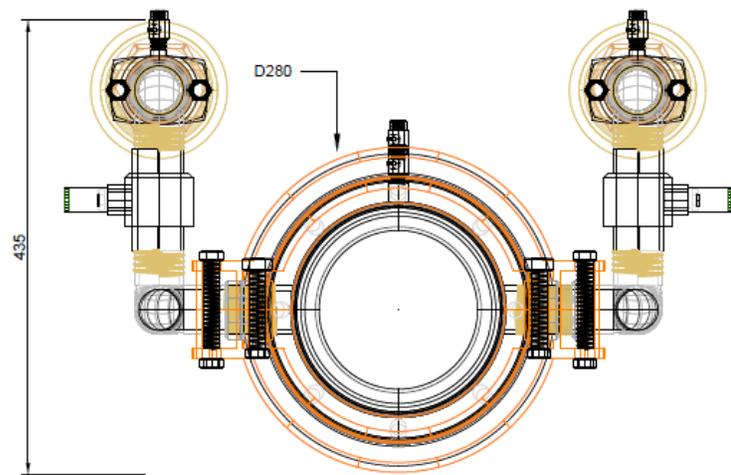
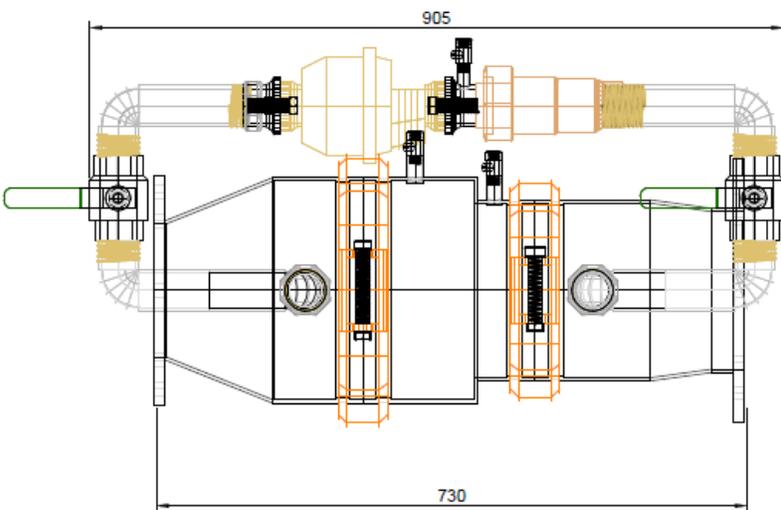
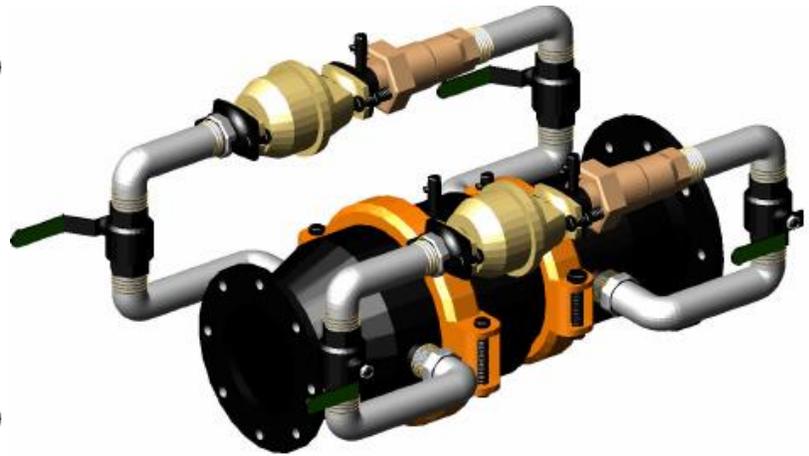
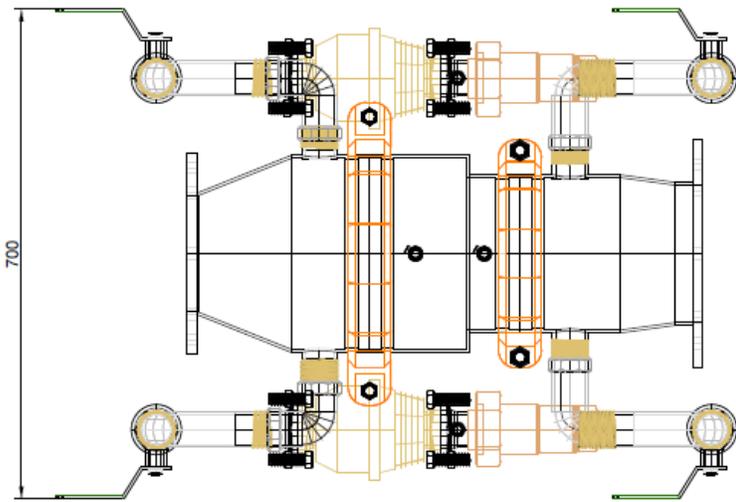
Designed and manufactured in our Queensland workshops. Using 316 stainless steel components, the MetCheck detector valves combine a double check valve and a water meter.

Used mostly in commercial, industrial and group title premises, the MetCheck measures everyday potable water flows to the premises. Should excessively high-water flow be required the main valve will open, allowing unrestricted water flow to fight the fire.

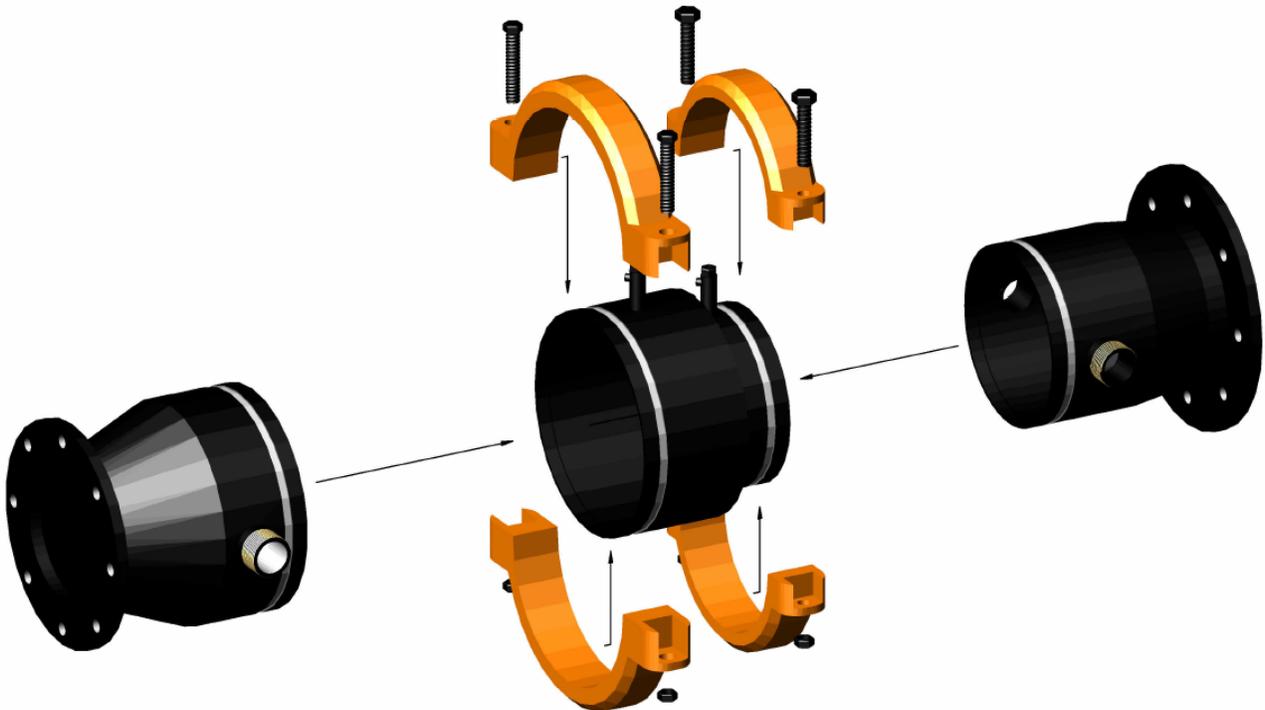
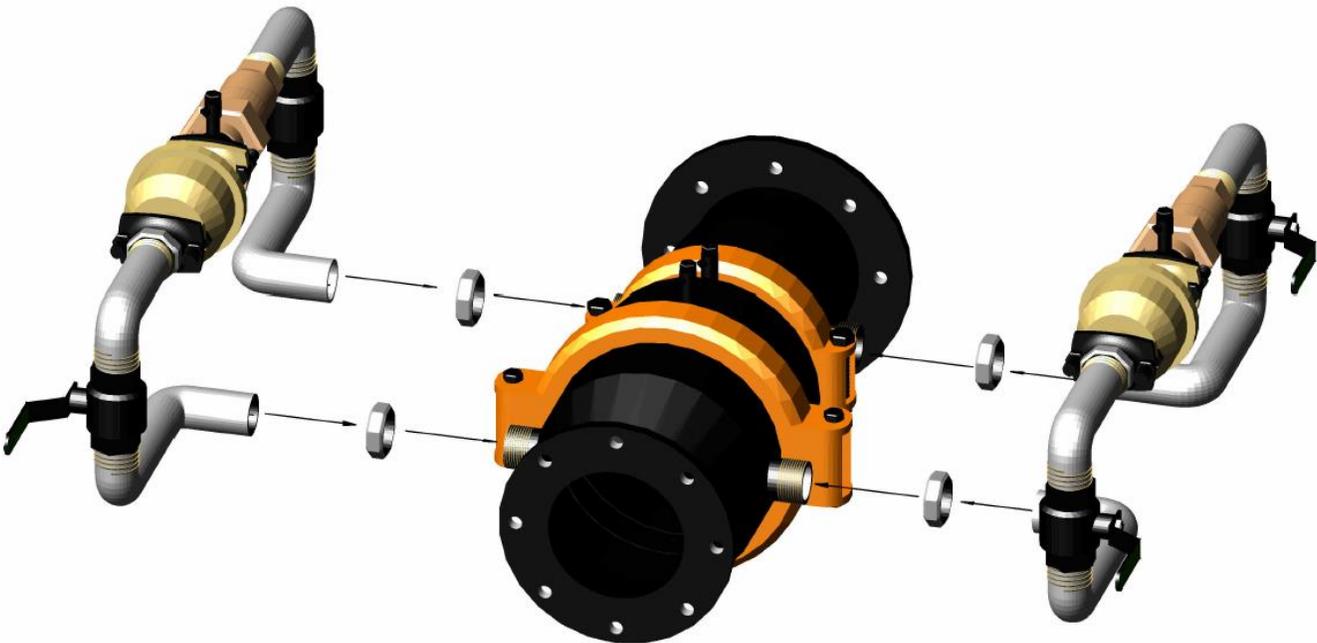


With various configurations of internal springs and water meters the MetCheck can be used in dedicated fire services for counting illegal use of water and water leaks, while preventing the backflow of stagnant water into the main potable system.

Alternatively the MetCheck can be used as a combined fire & potable water measuring system to schools, retirement villages, industrial and commercial sites allowing larger volumes of water to be delivered to more plumbing fixtures or outlets.



Technical Drawings & Specifications



MetCheck & MiniMet valves are designed to the following parameters:

- Manufactured to AS2845.1 2010
- Size Range: 80mm to 150mm. Other sizes by negotiation.
- Temperature Range: +1°C to +60°C.
- End Connections: Flanged to AS4087 **PN16** rated minimum.
- Max Working Pressure: 1600kpa
- Flange options
 - Flanged T/D to AS4087 PN16
 - Flanged T/E to AS4087 PN16
- Above, with bypass pipe-work and meter: 1600kpa, or as per flange table, whichever lower.
- Other pressures by negotiation.
- Max Shell Pressure, and Back Pressure: 1.5 times Max Working Pressure above.

Installation Instructions:

- MetCheck & MiniMet Valves should be installed by a licensed plumber. Appropriate PPE (Personal Protection Equipment), should be worn by those installing.
- All site risk assessment should be carried out before attempting to install. Installation should be carried out in accordance with AS/NZS3500.1:2021 the plumbing drainage water code.
- The MetCheck & MiniMet should be installed in accordance with the direction of flow arrow, relative to the direction of flow of the water. All end connection bolts should be tightened appropriately, to overcome leaks.
- Minimum clearance: - sufficient space around the valve
- Isolation valves should be installed immediately upstream and downstream of MetCheck's and MiniMet's.
- Strainers are not normally used in main pipelines, in SCV fire install situations.

Commissioning Instruction:

- Metcheck & MiniMet Valves should be installed by a licensed plumber, with a license endorsed for backflow prevention.
- Commissioning and testing should be conducted in accordance with AS2845.3 2010 Backflow Prevention Devices Field Test.
- Commissioning should be carried out after installation and prior to allowing normal water flow through the valve.

Maintenance Instructions:

Metcheck & MiniMet Valves should be maintained by a licensed plumber, with a license endorsed for backflow prevention.

Any commissioning and testing after maintenance, should be conducted in accordance with AS2845.3- 2010, by a licensed plumber

Maintenance is based upon the need for maintenance determined by the annual testing standards as per AS2845.3 -2010.

If the main check valve does not meet the minimum test requirements as per AS2845.3- 2010, then the fault should be found and rectified.

Fault Finding:

If the differential pressure is holding, but below the differential pressure pass rate, typically the check module spring has become weak. If the differential pressure drops to zero, typically the check module rubber seals are leaking.

Identifying which check valve need maintenance, the individual check module should be removed, and parts cleaned or replaced as necessary.

Often a good flush at high flow will clear any lingering debris, and may fix the problem. Retest after flushing.

Maintaining the Main Check Modules:

For the main check module, remove the Victaulic roll grove fittings. In the Metcheck detector this valve has four bolts and two couplings.

Once the couplings are removed, slide to one side the sealing ring. In the Metcheck detector, the vessel containing the check module should be supported during this process so that it does not drop to the ground and cause any damage. This will expose the back end of the check module.

Locate the circlip and spacer at the back end of the module, and remove both.

Pull out the check module. This should come out by hand but may require a slight tap from the front of the check body.

If the check module needs to be maintained, remove the four nuts at the back of the check module, and disassemble the module. Maintenance can now proceed on the module.

Reassembly is the opposite of disassembly.

Maintaining the By-passes:

For bypasses with 20mm and 25mm meters the double checks are incorporated into the meter body. By removing the meter access to the DC's can be located in the outlet of the meter body.

For bypasses with 32mm and 40mm, remove the dual check valve bodies from the bypass pipe-work.

1. Unscrew the nut on the dual check valve.
2. Push out the check modules. These should come out by hand.
3. Disassemble the check modules
4. Maintenance can now proceed on the modules.
5. Reassemble is the opposite of disassembly.
6. Keep all items spotlessly clean, and use ample lube on "O" rings.
7. After maintenance and assembly, perform testing as per AS/NZS 2845.3-2010.

Spare Parts:

Main valve: -

- Check module rubber seal.
- Module to body "O" ring
- Complete module, 50kpa nominal
- Circlip
- Spacer

Roll groove coupling: -

- Rubber seals.
- Bolts, nuts, and washers.

MetCheck 100AT x 40SS

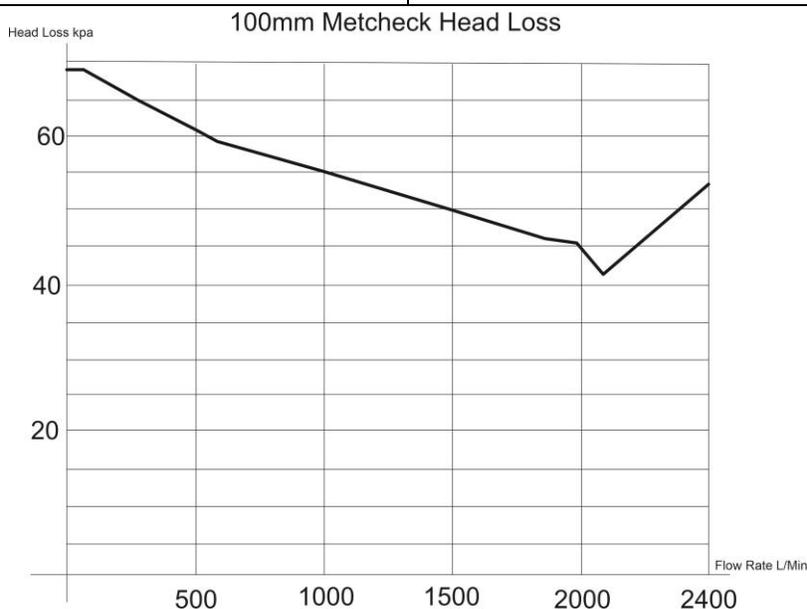
Pressure Drop:

Tested in accordance with AS/NZS 2845.1 Clause 18.4.2

Test Method: Appendix U as per Australian Standards

COMPLIES

Test Requirements	Observations
<p>When the assembly is tested in accordance with Appendix U, the sum of the pressure drop across the non-return valve of the main single check valve shall be not less than 10kPa higher than the sum of pressure drop across the non-return valves of the secondary dual check device.</p>	<p><u>Main single non-return valve (P1)</u> Initial head of pressure (kPa) = 88.0 Duration (min) = 30 Final head of pressure (kPa) = 51.6</p> <p><u>Secondary dual check device (P2)</u> Initial head of pressure (kPa) = 88 Duration (min) = 30 Final head of pressure (kPa) = 35</p> <p><u>Pressure difference (P1 – P2)</u> Pressure drop difference (kPa) = 16.6</p>



MetCheck I50AT x 40SS

Description: DN150 Flange to Flange Single Check Detector Assembly (Testable) (SCDAT) Pressure rating PN16

Component Description – Water Bypass meters identification codes as stamped

For example the Elster water meter used in the below test is labeled as follows DN40 – 20E002090 the codes are specific to each individual meter.

Rated Flow and Pressure Loss:

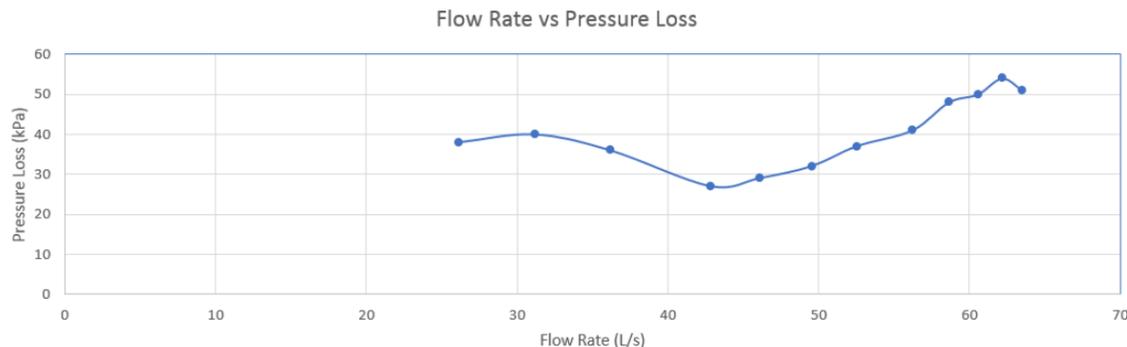
DN150 Single Check Detector Assembly (Testable) (SCDAT) – Pressure loss curve applicable standard: AS/NZS2845.1 Clause 18.1 General Requirements.

General: Test specified in 17, other than 17.5.3

Scope: The testing below is out is outside of the applicable requirements for a SCDAT.

Application: Client requested data

Test Method: Appendices K & Z



Requirement (SCVT)	Observation
AS/NZS 2845.1 Table 17.1 Rated flow (L/s) of DN150 Valve = 63	Rated Flow (L/s) = 63 Pressure Loss (kPa) = 52

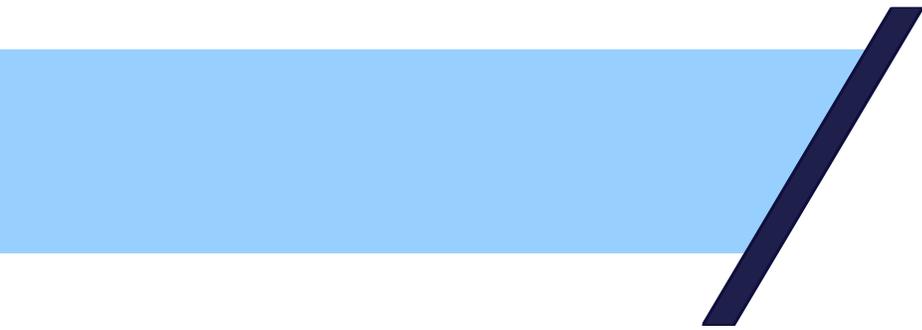
Pressure Drop – DN40 Secondary dual check valve

Tested in accordance with AS/NZS 2845.1 Clause 18.4.2

Test Method: Appendix U

COMPLIES

Test Requirement	Observation
<p>When the assembly is tested in accordance with Appendix U, the sum of the pressure drop across the non-return valve of the main single check valve shall be not less than 10kPa higher than the sum of pressure drop across the non-return valves of the secondary dual check device.</p> <p>Note: The secondary dual check valve is not fouled for this test.</p>	<p><u>Main single non-return valve (P1)</u> Closing Pressure (kPa) = 55</p> <p><u>Secondary dual check device (P2)</u> Closing pressure (kPa) = 34</p> <p><u>Pressure drop (P1 – P2)</u> Pressure drop difference (kPa) = 21</p>



IAPMO R&T OCEANA

7-11 Fullard Road, Narre Warren, Victoria 3805, Australia



IAPMO R&T Oceana is a product certification body which inspects and arranges for the independent laboratory testing of samples taken from the manufacturer's stock or from the market or a combination of both, to verify compliance of the requirements of applicable Standards and Specifications. This activity is coupled with periodic surveillance of the manufacturer's factory and any major subcontractor's site/s as well as the assessment of the manufacturer's Quality Assurance System. This certification is subject to the conditions set forth in the characteristics below and is not to be construed as any recommendation, assurance or guarantee by IAPMO R&T Oceana of the product acceptance by Authorities Having Jurisdiction.

CERTIFICATE OF CONFORMITY

IAPMO R&T Oceana hereby grants to:

S&J Property Trust discretionary Trading trust for SBH Enterprises Pty Ltd T/A Hydromet

A.B.N.: 83 185 316 113

Unit 3, 34 Cessna Drive, Caboolture,, QLD 4510 Australia

the right to use the WaterMark in accordance with the ABCB Manual for the WaterMark Certification Scheme; Australian Standards; WaterMark Technical Specifications; and the Plumbing Code of Australia; only in respect of the certified product as described in the WaterMark Certificate of Conformity – Schedule of Certified Product (Refer also IAPMO Product Listing Directory). The Certificate is granted subject to the rules governing the WaterMark Certification Scheme and the Terms and Conditions of the Approved User Agreement and IAPMO Oceana's WaterMark Governance Rules.

Evaluated to:

AS/NZS 2845.1-2010 (Inc. Amdt 1)

Water supply - Backflow prevention devices - Materials, design and performance requirements

Manufacturer:

Refer to Licence Holder

Licence No.: WM-022473

First Certified: 14 October 2015

Certification Date: 11 January 2022

Expiry Date: 13 October 2025


CEO, The IAPMO Group

This WaterMark certification is for the period indicated herein and is void after the date shown above. Any change in material, manufacturing process, marking or design without having first obtained the approval of IAPMO R&T Oceana, or any evidence of non-compliance with applicable Standards, Specifications or of inferior workmanship, may be deemed sufficient cause for revocation of this certification. Reproduction of or reference to this certificate for advertising purposes may be made only by specific written permission of IAPMO R&T Oceana. Any alteration of this certificate could be grounds for revocation of this certification.

"This certificate is issued by a JAS-ANZ accredited Conformity Assessment Body. The ABCB and JAS-ANZ do not in any way warrant, guarantee or represent that the product the subject of this Certificate conforms to the WaterMark Certification Scheme Rules, nor accepts any liability arising out of the use of the product. The ABCB disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this Certificate."



Certificate of Conformity

This certificate confirms that the company below complies with the following standard(s):

Company Name / Approved User	Elster Metering Pty Ltd	WaterMark WM number:	GM-WM-040243-I01-R05
Company Other Name	Honeywell	Approved User Tel:	0417 287 851
Approved User ABN (if any)	98 004 088 680	Approved User web site	www.elstermetering.com.au
JAS-ANZ Scheme	WaterMark Certification Scheme 2016		
Certification Standard (s)	AS 3565.1:2010 : Meters for cold and heated drinking and non-drinking water supplies - Technical requirements		
Client ID	101680		

CERTIFICATE DATES:

Initial Certification / Re Certification	19/01/2019	Certification Expiry	19/01/2024
Last Certification Decision (current certification)	11/03/2022		

APPROVED COMPANY/SITE ADDRESS(ES):

55 Northcorp Boulevard Broadmeadows VIC 3047 Australia

Subject to the following conditions and limitations:

- The Approved Certifier grants the right to use or arrange the use of the WaterMark as shown in the top left corner only in respect of the Products described and detailed on the Product Schedule following which are produced by the Approved User and which comply with the appropriate Applicable Specification referenced below and as amended from time to time. The Licence is granted subject to the rules governing the use of the WaterMark and the terms and conditions for certification. The WaterMark Licensee covenants to comply with all the Rules, technical reference documents and terms and conditions of the WaterMark Certification Scheme.
- This Certificate is issued by a JAS-ANZ accredited certification body. The Scheme Owner, Administering Body and Accreditation Body do not in any way warrant, guarantee or represent that the product the subject of this Certificate conforms to the WaterMark Certification Scheme Rules, nor accepts any liability arising out of the use of the product. The Scheme Owner disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this Certificate.
- The WaterMark is a registered certification trademark of the Scheme Owner (ABN 74 599 608 295). The rules of the WaterMark Certification Scheme are available from the ABCB website www.abcb.gov.au
- This certification remains valid until the above mentioned expiry date and subject to the organization's continued compliance with the certification standard, and Global-Mark's Terms and Conditions. This Certificate remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654. The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification. The certificate may only be reproduced in its entirety.



Certification Manager

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