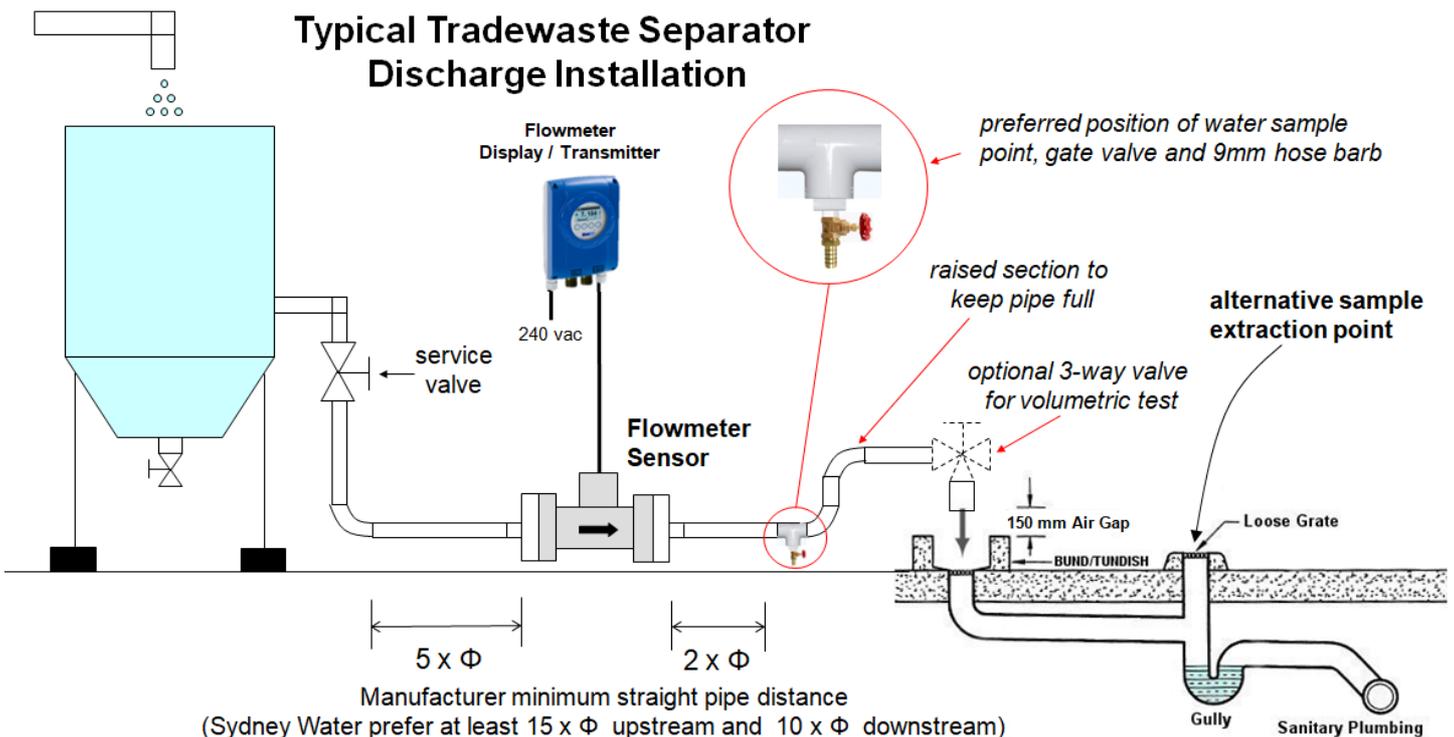


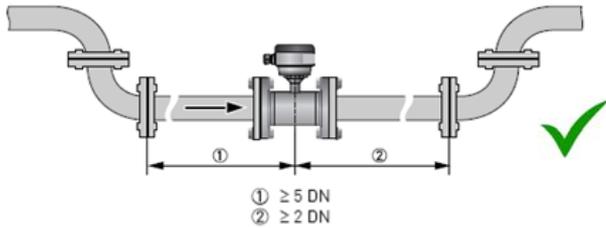
Electromagnetic Tradewaste Flowmeter Installation Guide and Checklist

LOCATION	
Locate the flowmeter downstream (after) the final treatment plant and prior to sewer discharge point.	<input type="checkbox"/>
To ensure correct flow readings, avoid installing the flowmeter sensor near strong electromagnetic fields (e.g. substations, high voltage cables) , and avoid areas where there is excessive vibration .	<input type="checkbox"/>
Ensure that the chosen location will allow the flowmeter to operate within its environmental rating . If the Sensor is located in a pit and or could be flooded, then the sensor junction box must be potted to IP68. (Use the supplied potting pack – remote sensor wired units only)	<input type="checkbox"/>
Mount the flowmeter's display box in an area that allows easy and safe access for readings for totals, and for connection of sampler collection units.	<input type="checkbox"/>
If mounted outdoors: • Install a sunshade , to protect the display box from direct sunlight.	<input type="checkbox"/>
ELECTRICAL	
Have 240 vac supply available. (NOTE: 24VDC power options available for areas where AC power is not in vicinity)	<input type="checkbox"/>
Hardwire the flowmeter display box to power supply (i.e. have permanent connection that can't be unplugged at GPO, or if connected to GPO have a suitable lockable enclosure).	<input type="checkbox"/>
PLUMBING	
Install the flowmeter sensor in a section of pipe that is full at all times , to ensure correct readings [Fig. 3].	<input type="checkbox"/>
To prevent flow turbulence that may hinder correct flow readings, ensure that there is uninterrupted straight pipe (i.e. no bends, no valves, no diameter change) before and after the flow-sensor of length at least 5x sensor pipe diameters before sensor; and at least 3x pipe diameters after sensor [Fig 4] e.g. for 50mm diameter pipe, the minimum straight pipe required is 5 x 50mm = 250 mm before (upstream of) sensor, and 3 x 50 mm = 150 mm after (downstream of) sensor.	<input type="checkbox"/>
If plumbing in water sample point install after flowmeter in low section to ensure a full pipe, use a minimum of 9mm diameter hose barb & valve.	<input type="checkbox"/>
NOTE: SYDNEY WATER requirement is 10x before and 5x after, where possible this must be done.	<input type="checkbox"/>
For PVC/Poly pipes if without optionally ManuFlo supplied connection kit, install gaskets, flanges and earth cable connected to S/S earth-ring according to the pipe type [Fig. 5]. For Steel pipes loop earth wires to pipes.	<input type="checkbox"/>
To avoid vibration that may hinder correct flow readings, support the weight of the sensor [Fig 6].	<input type="checkbox"/>
Provide an extraction point so that samples of the discharge liquid can be extracted [Fig. 8 below]	<input type="checkbox"/>
Do not seal the pipe to the sewer, to avoid syphoning occurring.	<input type="checkbox"/>
Install a service valve upstream of the flowmeter to allow for flowmeter maintenance [Fig. 8 below].	<input type="checkbox"/>



INSTALLATION

Electromagnetic Flowmeter



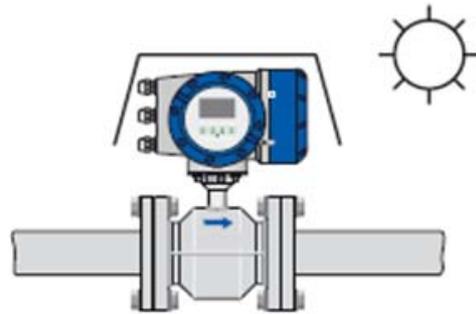
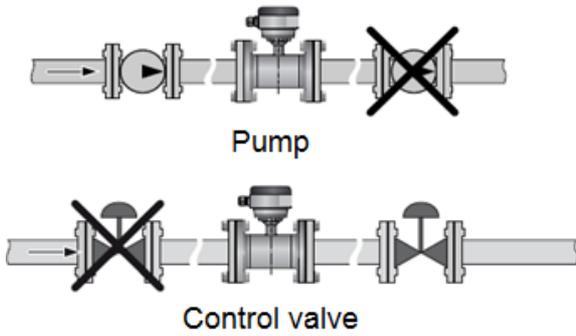
Pipe must be full at all times with good flow profile

* Straight Pipe Requirements

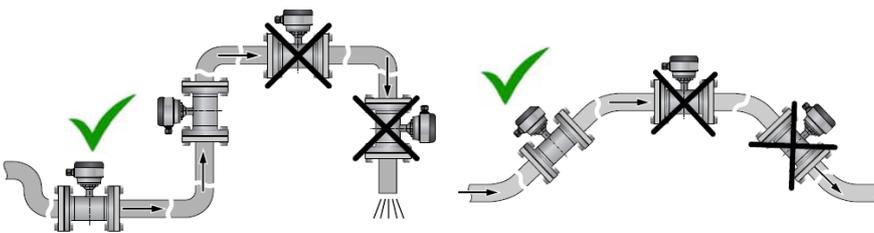
Manufacturer's specification for minimum straight pipe lengths before/after sensor is 5x/2x pipe diameter,

but Sydney Water requirements are 10x/5x pipe diameter

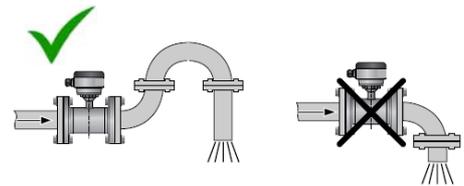
e.g. a 50mm flowmeter requires at least 10x50mm= 500mm of straight 50mm Ø pipe upstream, and at least 5x50mm=250mm of straight 50mm Ø pipe downstream.



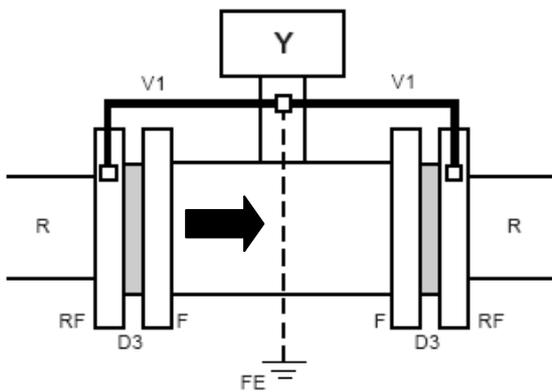
Install a sun shade over display if outdoors.



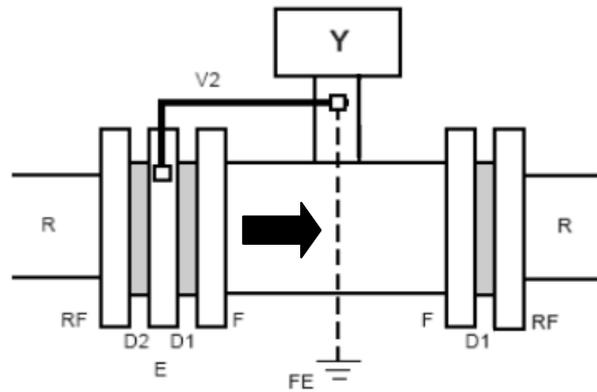
Installation on bending pipes



Installation before an open discharge



Grounding - metal pipe.



Grounding - plastic pipe with grounding ring.

D1, D2, D3 Gaskets not included with supplied flowmeter unless optional Flange mounting kit is purchased.

E Grounding ring. (1 RING IS SUFFICIENT CONNECTED TO UPSTREAM OF FLOWMETER)

F Flowmeter flanges (not applicable if 'Wafer' connection version is supplied).

FE Functional ground, wire > 4mm² Cu (10 AWG), not included with flowmeter, to be provided by customer.

R Pipeline

RF Pipe flanges

V1, V2 Interconnecting wires, included with flowmeter

Y Terminal box (remote version) or signal converter (integral version)

➤ VERIFICATION AND CALIBRATION OF TRADEWASTE MEASUREMENT SYSTEMS

ManuFlo provides the following services for Tradewaste Electromagnetic Flowmeters and Paddlewheel Systems either electronically or volumetrically where possible: -

On-site installation commissioning verification and calibration;
Testing;
Annual verification and compliance calibration;
Maintaining; and Repairs:- either in-house or on-site.

ManuFlo are a manufacturer and supplier of liquid measurements Tradewaste Flowmeters, setup for Sydney Water Tradewaste requirements. We are proud to be one of the founding local companies involved with Sydney Water, when design and implementation of Tradewaste Measurement systems were first enforced back in 1984. Sydney's waterways are cleaner, due to programs like tradewaste monitoring implemented by Sydney Water.

Sydney Water (or your local authority) requires Tradewaste flowmeters be verification checked annually by an authorized provider.

Visit our website for further details and useful information:-

www.manuelectronics.com.au/tradewaste.html

➤ THE VERIFICATION PROCESS

Once you're on the ManuFlo Verification Database, leave the rest to us. We take the worry out of annual verification and compliance calibration process as specified by Sydney Water.

We call or email you, when your annual verification is due.

We arrange a time for the onsite inspection/verification/calibration/test of your system.

We also check and maintain the flowmeter as required.

You supply a purchase order or payment for the verification.

A Sydney Water compliant calibration certificate is issued by Manu Electronics and emailed to you.

We can also liaise with your local inspector.

A copy of the certificate is stored on our database.

Simple, Easy and Effective

Sydney Area \$ POA (all inclusive service)

If you're a first timer; to organize your next Annual Tradewaste Verification/Calibration Check:-

Please Email accounts@manuelectronics.com.au ; or

Phone Vicki 02 9905 4324



Call ManuFlo for all your liquid flow measurement requirements

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Flow Measurement Products

Celebrating over 40 years business.....

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