

As part of the Fluid Dynamics International group, Evolve Water offers unrivalled expertise in Fluid Dynamics conditioners and the most competitively priced sales and installation packages on the market. Launched in 2008 following years of research and development, the Magcat is Fluid Dynamics' most powerful and versatile conditioner. Magcat is a two stage **residential and commercial water conditioning system**, combining Fluid Dynamics' **magnetic and catalytic treatment** systems into a single compact stainless steel housing. We believe it to be the most effective in-line conditioner on the market, globally. **It also enables compliance with Part L Building Regulations in the UK.**



THE DUAL TREATMENT SYSTEM

The Catalytic treatment is suitable for around 90% of the world's potable water, however it is not suitable for water where the alloy can become fouled with iron or where water is already supersaturated with high levels of minerals. This led FDI to the development of **dual technology** - combining magnetic and catalytic technology to create their most **innovative, versatile and powerful** conditioning products to date.

Benefits

- ✓ Up to 20 years service
- ✓ 10 year pro-rata warranty
- ✓ Water stays treated for up to 3 months
- ✓ Prolongs the life of water using applications and heating systems
- ✓ Reduces limescale build-up in pipes, valves, pumps and heating elements
- ✓ Reduces energy consumption generating cost savings
- ✓ Reduces carbon emissions - green technology for the future
- ✓ Easy to install - horizontally or vertically
- ✓ Cost effective, proven and sustainable
- ✓ Strong and corrosion resistant: stainless steel
- ✓ Enables compliance with Part L Building Regulations in the UK

Materials of construction

- ✓ Stainless steel housing - WRAS approved
- ✓ Non-sacrificial catalytic semi precious alloy (lead free) - WRAS approved
- ✓ Magnets - stainless steel coated magnets - WRAS approved

Regulatory

- ✓ WRAS Approval No: 240102713

Applications

- ✓ Whole house protection
 - ✓ Apartment blocks
 - ✓ Commercial offices
 - ✓ Schools
 - ✓ Universities & colleges
 - ✓ Leisure centres
 - ✓ Cruise ships
 - ✓ Maritime transport
 - ✓ Cinemas
 - ✓ Retail parks / shopping centres
 - ✓ Restaurants
 - ✓ Farming / irrigation
 - ✓ Marine applications
- [Much more!](#)

CLIENTS



Green technology

- No power
- No electrical connections
- No chemicals
- No consumables
- No waste water



Peace of mind

- No maintenance
- No servicing
- No earthing or bonding required
- No control box to mount
- Up to 20 years service

INSTALLATION GUIDE

Sizing

- ✓ Size matters - selecting the right conditioner is critical
- ✓ Selecting the wrong size conditioner - including using a larger diameter than needed - can compromise water delivery and affect treatment quality
- ✓ Conditioner size should be selected based on **flow rate**
- ✓ In general applications where the flow rate is known to be low or there is relatively heavy scale build-up inside the pipe already. In this instance, a conditioner 1 size smaller than the pipe diameter is recommended.

Fitting options

Fluid Dynamics has a wide range of connection options available - please contact Evolve Water for more details.

COMMON THREADS

UK: BSPT THREADS

½" to 2" BSPT (British Standard Parallel Tapered) threads
These conform to BSP (British Standard Tapered)

USA: NPT CONNECTIONS

½" to 2" NPT (National Pipe Taper) Male & Female Threads
These conform to ANSI / ASME Standard B1.20.1

FLANGES - DN65 UPWARDS (2.5" +)

A wide range of flanges can be specified as the fitting option required

UK

Standard fitting in the UK is the BS4504 PN16 stainless steel flanges
Higher pressure ratings are available upon request
Maximum operating temperature = 120 degree celsius

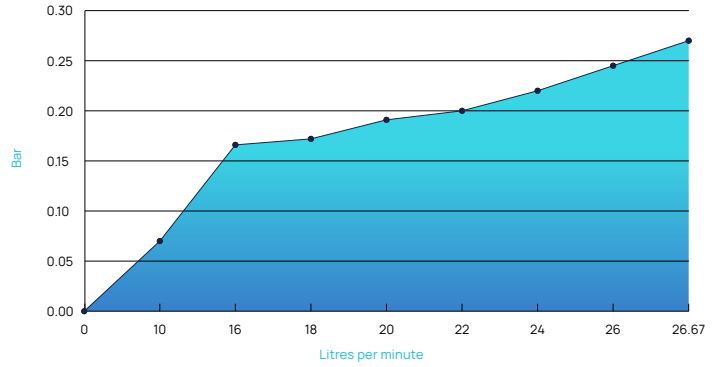
USA

The standard flange fitting in the USA is ASA 150 stainless steel flanges
Higher pressure ratings are available upon request
Maximum operating temperature = 120 degree celsius

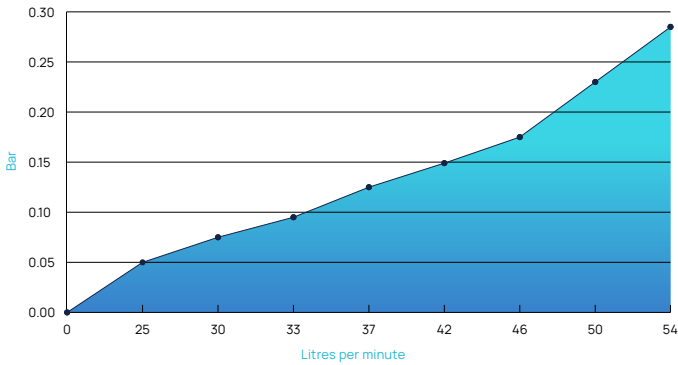
PRESSURE LOSSES

- Both the catalytic and combination (dual) systems have internal components designed specifically to minimise resistance as water passes through
- Correctly installed conditioners will have a negligible impact on pressure drop - to a maximum of 2%

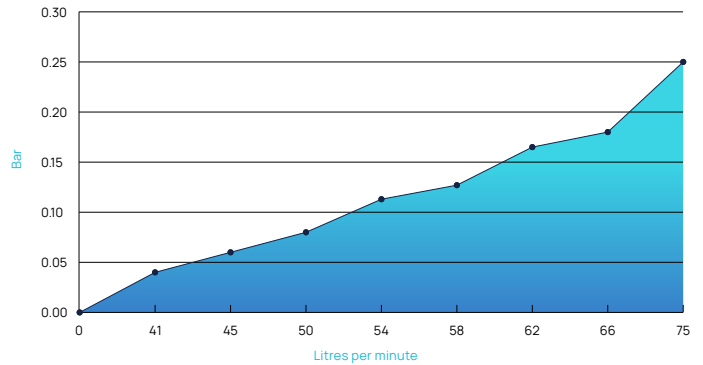
DN15 (½") PRESSURE DROP GRAPH



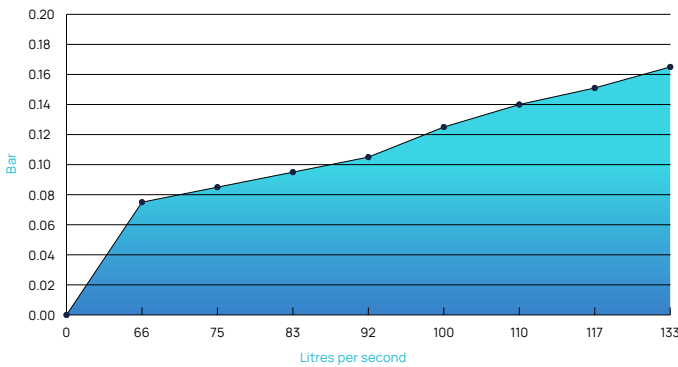
DN20 (¾") PRESSURE DROP GRAPH



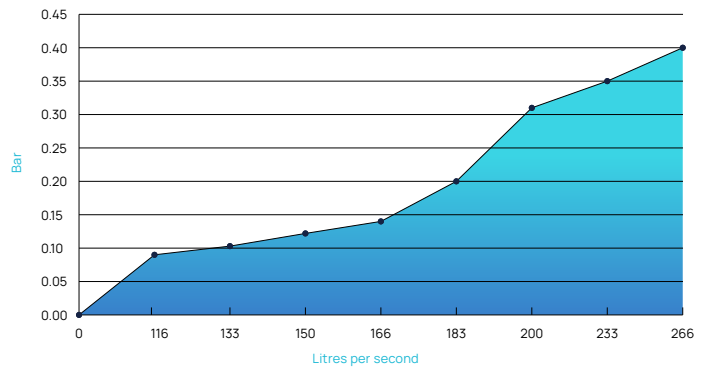
DN25 (1") PRESSURE DROP GRAPH



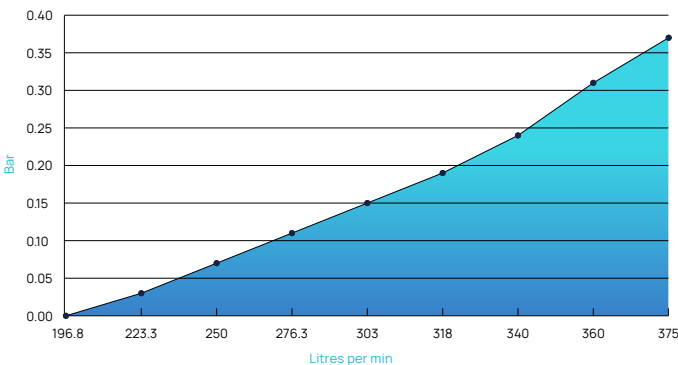
DN32 (1¼") PRESSURE DROP GRAPH



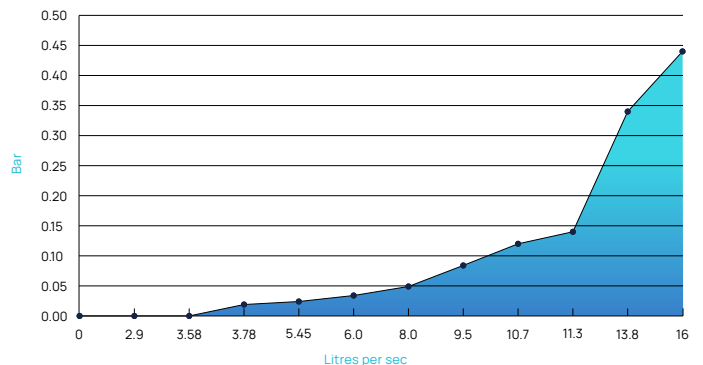
DN40 (1½") PRESSURE DROP GRAPH



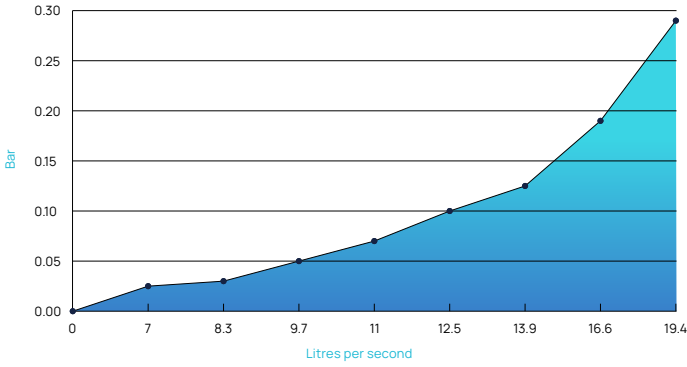
DN50 PRESSURE DROP GRAPH



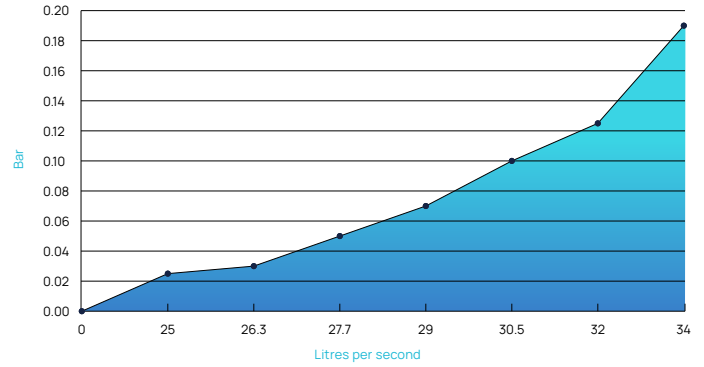
DN65 PRESSURE DROP GRAPH



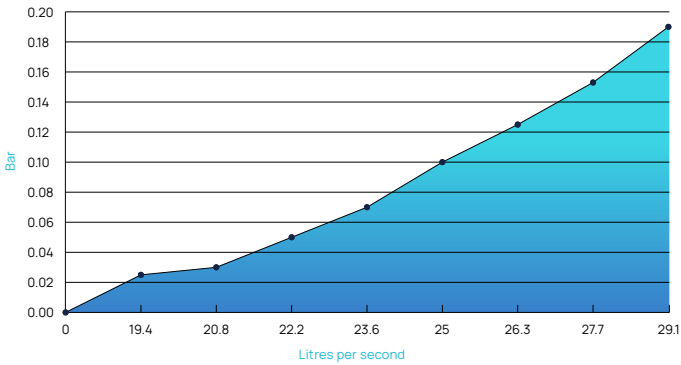
DN80 (3") PRESSURE DROP GRAPH



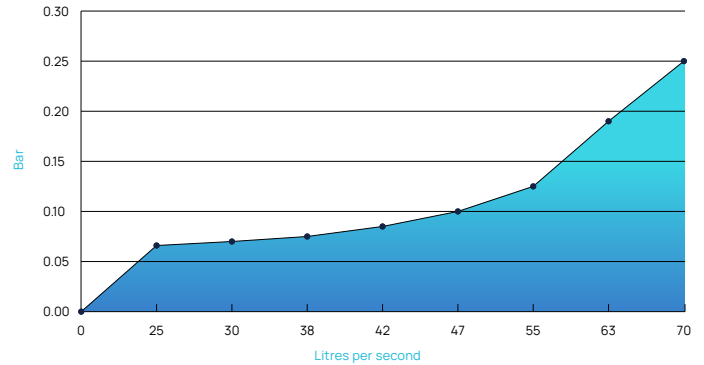
DN100 (4") PRESSURE DROP GRAPH



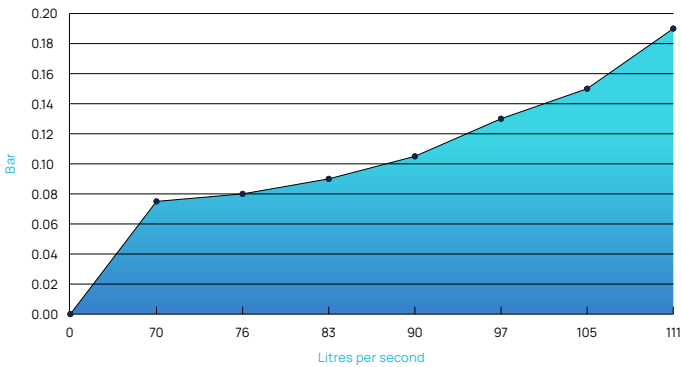
DN125 (5") PRESSURE DROP GRAPH



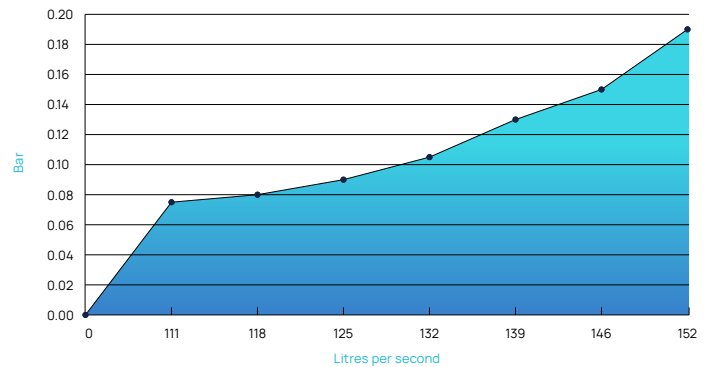
DN150 (6") PRESSURE DROP GRAPH



DN200 (8") PRESSURE DROP GRAPH



DN250 (10") PRESSURE DROP GRAPH



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DATA TABLE

Product code	Description	Connection type	Suitable for pipe diameter	Max temp (°C)	Max pressure* (bar)	Optimal flow range (lpm)	Length (mm)	Weight (kg)	Housing materials
MAT15BS	MagCAT 15	½" BSPT	½"(DN15) ¾"(DN20)	-10 to 100	16	3-25	400	2.1	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT20BS	MagCAT 20	¾" BSPT	¾"(DN20) 1"(DN25)	-10 to 100	16	24-54	400	2.4	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT25BS	MagCAT 25	1" BSPT	1"(DN25) 1¼"(DN32)	-10 to 100	16	45-90	550	5.5	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT32BS	MagCAT 32	1¼" BSPT	1¼"(DN32) 1½"(DN40)	-10 to 100	16	85-120	550	6.5	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT40BS	MagCAT 40	1½" BSPT	1½"(DN40) 2"(DN50)	-10 to 100	16	110-210	550	8.0	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT50BS	MagCAT 50	2" BSPT	2"(DN50) 2½"(DN65)	-10 to 100	16	170-330	550	10	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT65PN	MagCAT 65	2½" PN16 Flange	2½"(DN65) 3"(DN80)	-10 to 100	16	310-675	800	18	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT80PN	MagCAT 80	3" PN16 Flange	3"(DN80) 4"(DN100)	-10 to 100	16	600-1175	850	30	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT100PN	MagCAT 100	4" PN16 Flange	4"(DN100) 5"(DN125)	-10 to 100	16	950-1750	850	46	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT125PN	MagCAT 125	5" PN16 Flange	5"(DN125) 6"(DN150)	-10 to 100	16	1500-2150	1000	65	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT150PN	MagCAT 150	6" PN16 Flange	6"(DN150) 8"(DN200)	-10 to 100	16	2000-4150	1000	80	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
MAT200PN	MagCAT 200	8" PN16 Flange	8"(DN200) 10"(DN250)	-10 to 100	16	4000-6660	1000	132	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy

*higher pressure units available upon request