

Launched in 2008 following years of research and development, the Magcat is our 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.**



OUR DUAL TREATMENT SYSTEM

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 us to the development of **dual technology** - combining magnetic and catalytic technology to create our 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

Life expectancy

- ✓ Dependant on use, a minimum of 10 years service can be expected, however it is not uncommon for our conditioners to last between 15-25 years +

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!](#)

Regulatory

- ✓ WRAS Approval No: 240102713

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 ask.

COMMON THREADS

UK: BSPT CONNECTIONS (DN15 TO DN50)

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

USA: NPT CONNECTIONS (DN15 TO DN50)

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

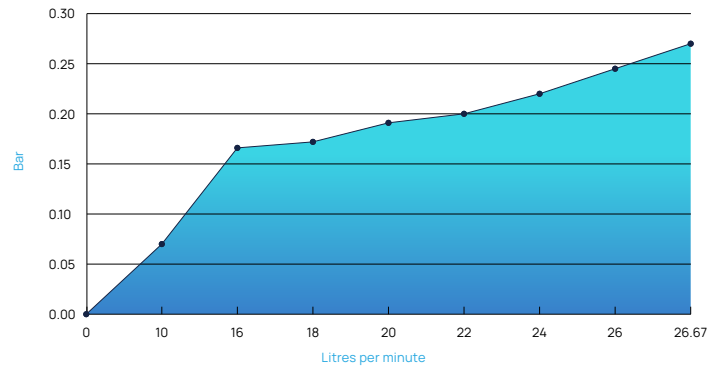
USA

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

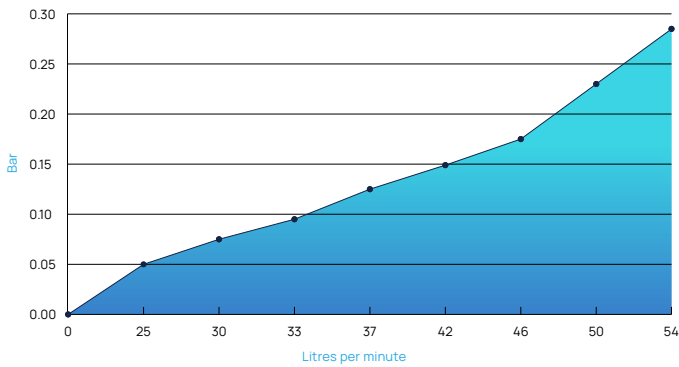
PRESSURE LOSSES

- Both our 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%

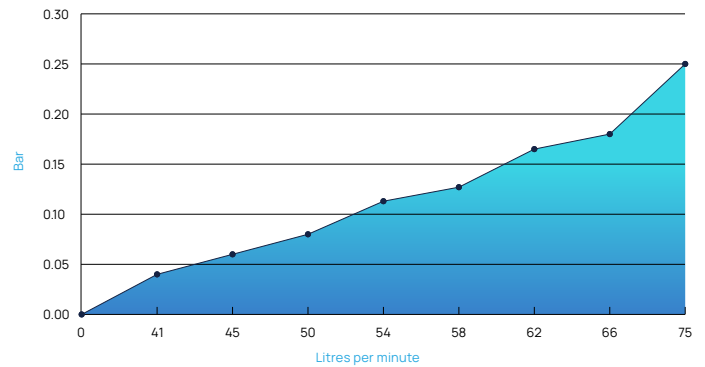
DN15 (½") PRESSURE DROP GRAPH



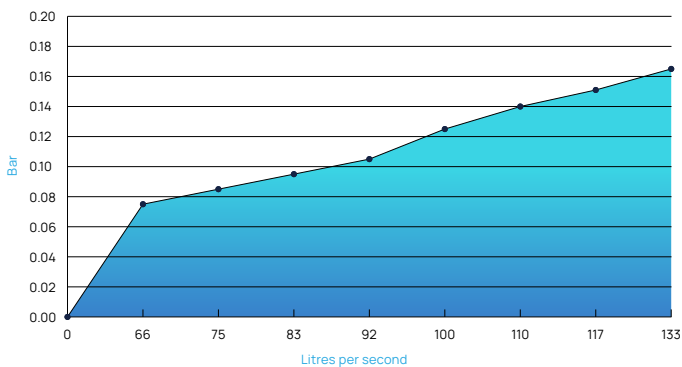
DN20 (¾") PRESSURE DROP GRAPH



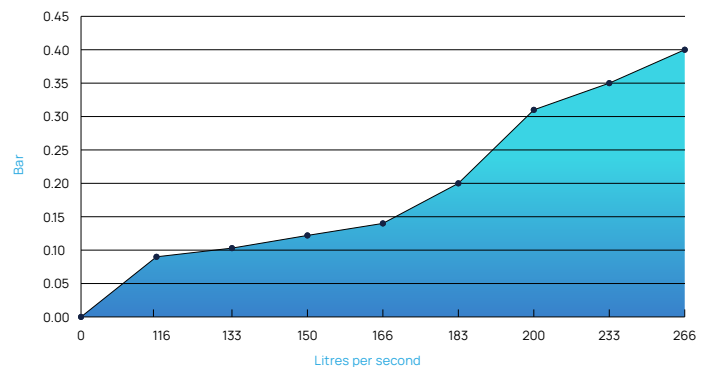
DN25 (1") PRESSURE DROP GRAPH



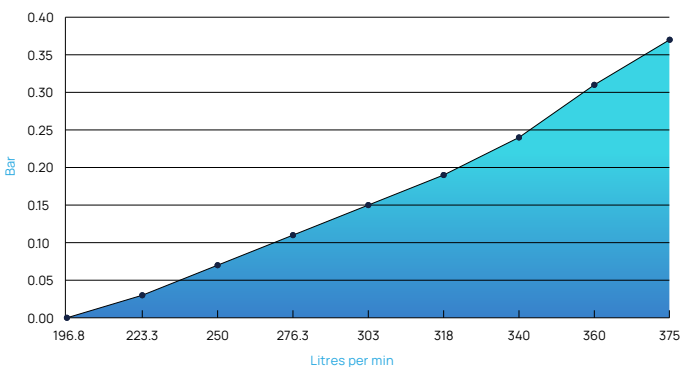
DN32 (1¼") PRESSURE DROP GRAPH



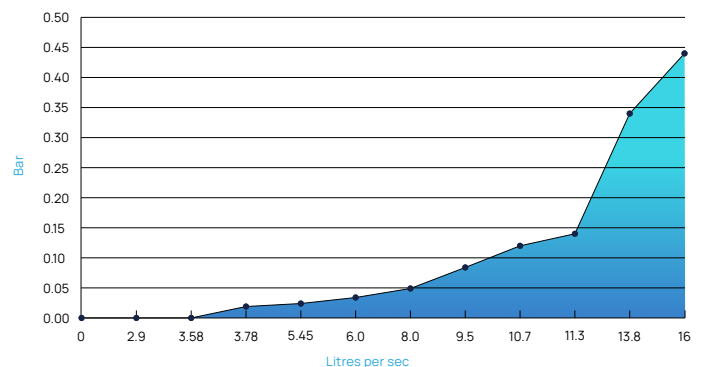
DN40 (1½") PRESSURE DROP GRAPH



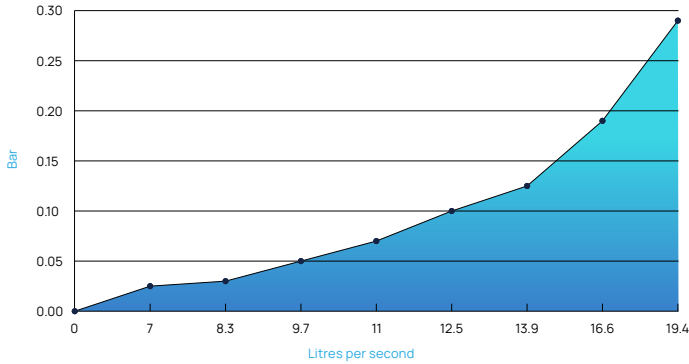
DN50 PRESSURE DROP GRAPH



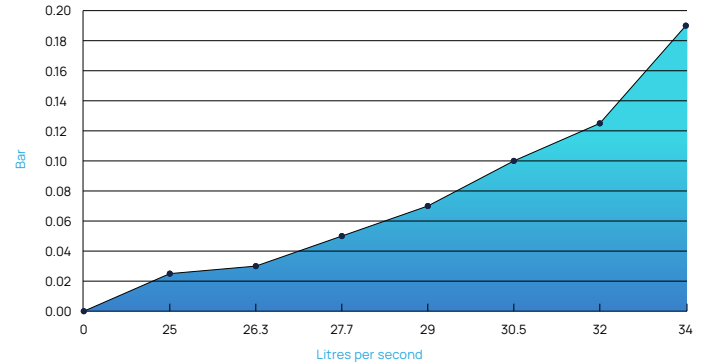
DN65 PRESSURE DROP GRAPH



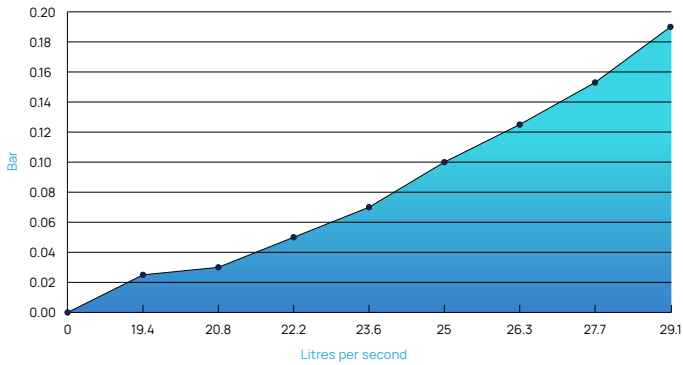
DN80 (3") PRESSURE DROP GRAPH



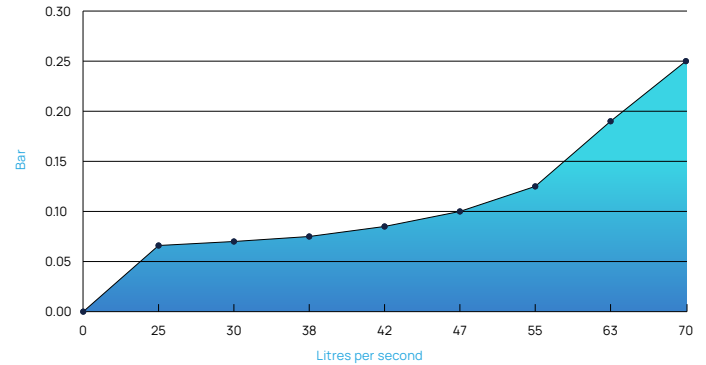
DN100 (4") PRESSURE DROP GRAPH



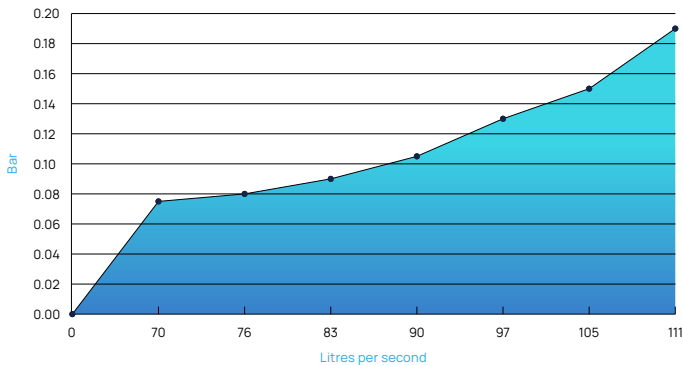
DN125 (5") PRESSURE DROP GRAPH



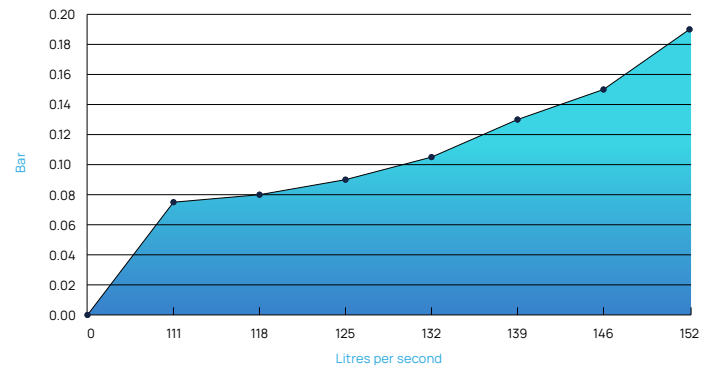
DN150 (6") PRESSURE DROP GRAPH



DN200 (8") PRESSURE DROP GRAPH



DN250 (10") PRESSURE DROP GRAPH



CERTIFIED BY



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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) 1 ¼" (DN32) | -10 to 100 | 16 | 45-90 | 550 | 5.5 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT32BS | MagCAT 32 | 1 ¼" BSPT | 1 ¼" (DN32) 1 ½" (DN40) | -10 to 100 | 16 | 85-120 | 550 | 6.5 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT40BS | MagCAT 40 | 1 ½" BSPT | 1 ½" (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) 2 ½" (DN65) | -10 to 100 | 16 | 170-330 | 550 | 10 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT65PN | MagCAT 65 | 2 ½" PN16 Flange | 2 ½" (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 |

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| MAT250PN | MagCAT 250 | 10" PN16 Flange | 10" (DN250) 12" (DN300) | -10 to 100 | 16 | 6500-9960 | 1000 | 187 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT300PN | MagCAT 300 | 12" PN16 Flange | 12" (DN300) 14" (DN350) | -10 to 100 | 16 | 9500-11700 | 1000 | 297 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT350PN | MagCAT 350 | 14" PN16 Flange | 14" (DN350) 16" (DN400) | -10 to 100 | 16 | 11500-13200 | 1000 | 375 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT15US | MagCAT 15 | ½" NPT | ½" (DN15) ¾" (DN20) | -10 to 100 | 16 | 3-25 | 400 | 2.1 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT20US | MagCAT 20 | ¾" NPT | ¾" (DN20) 1" (DN25) | -10 to 100 | 16 | 24-54 | 400 | 2.4 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT25US | MagCAT 25 | 1" NPT | 1" (DN25) 1 ¼" (DN32) | -10 to 100 | 16 | 45-90 | 550 | 2.5 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT32US | MagCAT 32 | 1 ¼" NPT | 1 ¼" (DN32) 1 ½" (DN40) | -10 to 100 | 16 | 85-120 | 550 | 5 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT40US | MagCAT 40 | 1 ½" NPT | 1 ½" (DN40) 2" (DN50) | -10 to 100 | 16 | 110-210 | 550 | 6 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT50US | MagCAT 50 | 2" NPT | 2" (DN50) 2 ½" (DN65) | -10 to 100 | 16 | 170-330 | 550 | 9 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT65US | MagCAT 65 | 2 ½" ASA 150 Flange | 2 ½" (DN65) 3" (DN80) | -10 to 100 | 16 | 310-675 | 800 | 11 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT80US | MagCAT 80 | 3" ASA 150 Flange | 3" (DN80) 4" (DN100) | -10 to 100 | 16 | 600-1175 | 850 | 30 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT100US | MagCAT 100 | 4" ASA 150 Flange | 4" (DN100) 5" (DN125) | -10 to 100 | 16 | 950-1750 | 850 | 46 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |

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| MAT125US | MagCAT 125 | 5" ASA 150 Flange | 5" (DN125) 6" (DN150) | -10 to 100 | 16 | 1500-2150 | 1000 | 65 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT150US | MagCAT 150 | 6" ASA 150 Flange | 6" (DN150) 8" (DN200) | -10 to 100 | 16 | 2000-4150 | 1000 | 80 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT200US | MagCAT 200 | 8" ASA 150 Flange | 8" (DN200) 10" (DN250) | -10 to 100 | 16 | 4000-6660 | 1000 | 132 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT250US | MagCAT 250 | 10" ASA 150 Flange | 10" (DN250) 12" (DN300) | -10 to 100 | 16 | 6500-9960 | 1000 | 187 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT300US | MagCAT 300 | 12" ASA 150 Flange | 12" (DN300) 14" (DN350) | -10 to 100 | 16 | 9500-11700 | 1000 | 297 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |
| MAT350US | MagCAT 350 | 14" ASA 150 Flange | 14" (DN350) 16" (DN400) | -10 to 100 | 16 | 11500-13200 | 1000 | 375 | External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy |

*higher pressure units available upon request

