



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 1982, the Scaleton is one of the flagship models designed **exclusively for the commercial and industrial sectors**. It's designed to **reduce and prevent limescale build-up** across a variety of commercial and industrial applications and settings - **improving efficiency and extending the lifespan of heating equipment**. Its versatility and effectiveness make it a favourite for our commercial customers, and having won an industry award, it provides complete peace of mind.

Benefits

- ✓ Prolongs the life of water using applications and heating systems
- ✓ Reduces limescale build-up in pipes, valves, pumps and heating elements
- ✓ 10 year pro-rata warranty
- ✓ Environmentally friendly - reduces energy consumption, carbon emissions & footprints
- ✓ Lower energy consumption = lower energy bills
- ✓ Stainless steel - corrosion resistant
- ✓ Easy to install - horizontally or vertically
- ✓ Cost effective, proven and sustainable

Materials of construction

- ✓ Stainless steel housing
- ✓ Non-sacrificial catalytic semi precious alloy (lead free) - WRAS approved
- ✓ Brass compression coupling fittings EN1254-2 or BSP Male Threads
- ✓ Blue plastic sleeve - approved to UL 224 VW-1 & ROHS Compliant

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
 - ✓ Maritime transport
 - ✓ Cinemas
 - ✓ Retail parks / shopping centres
 - ✓ Restaurants
 - ✓ Farming / irrigation
 - ✓ Marine applications
- [Much more!](#)

Regulatory

- ✓ WRAS Approval No: 2209048



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

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 (DN15 TO DN50)

½" to 2" BSPT (British Standard Parallel 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

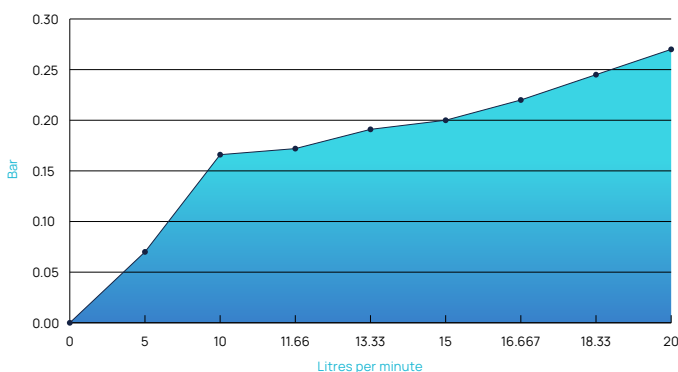
USA

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

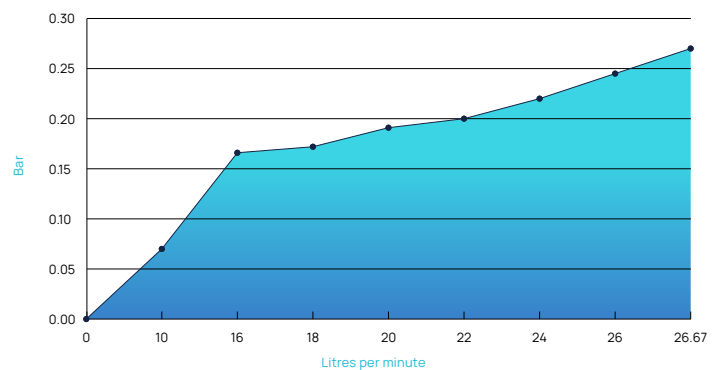
INSTALLATION: Fluid Dynamics conditioners can be installed both vertically and/or horizontally

PRESSURE LOSSES

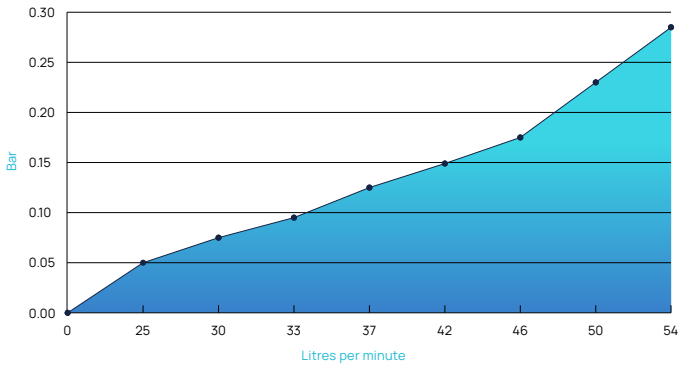
DN10 (¾") PRESSURE DROP GRAPH



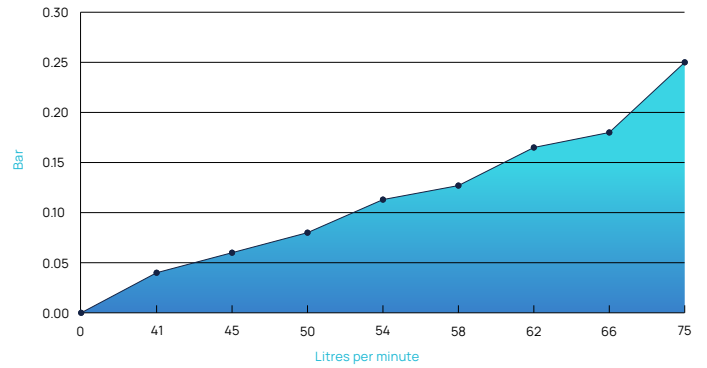
DN15 (½") PRESSURE DROP GRAPH



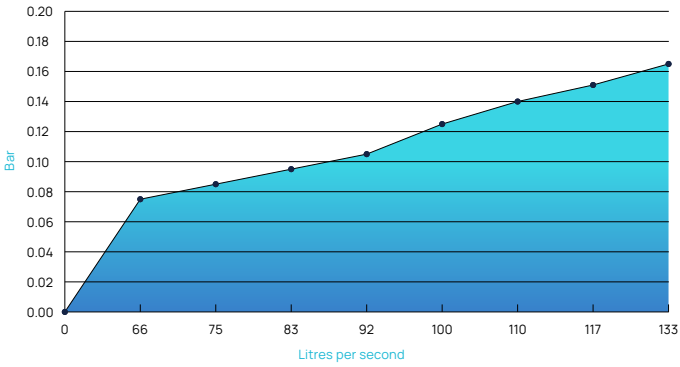
DN20 (3/4") PRESSURE DROP GRAPH



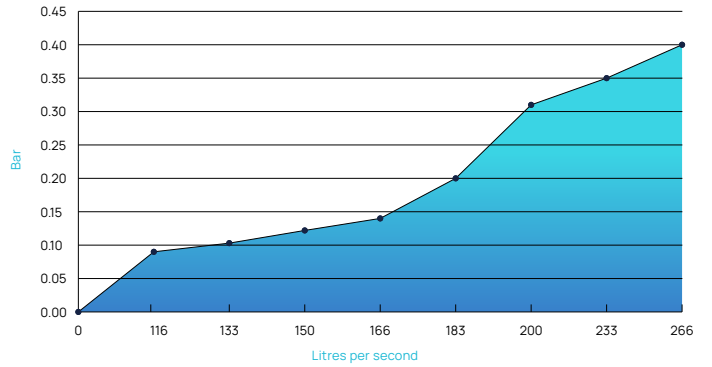
DN25 (1") PRESSURE DROP GRAPH



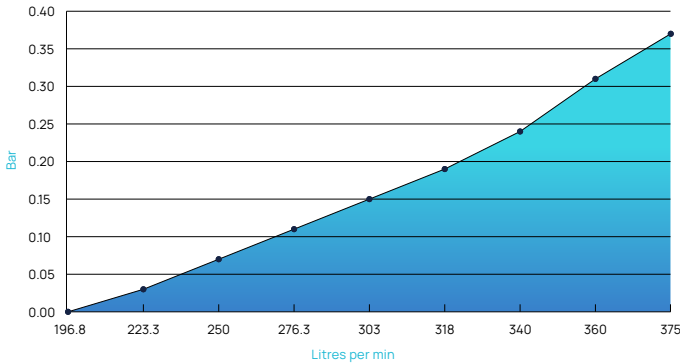
DN32 (1 1/4") PRESSURE DROP GRAPH



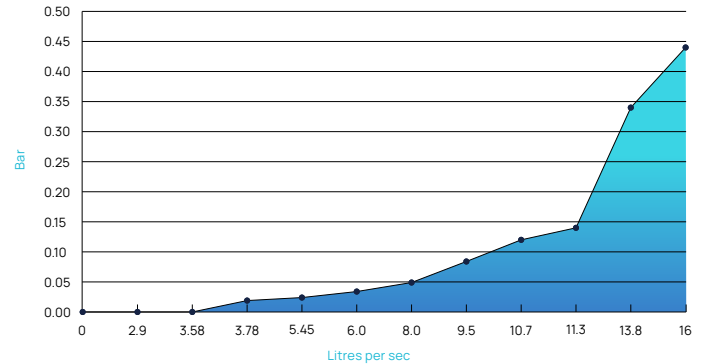
DN40 (1 1/2") PRESSURE DROP GRAPH



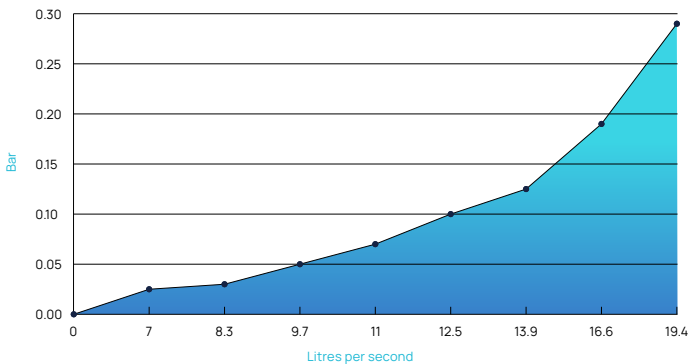
DN50 PRESSURE DROP GRAPH



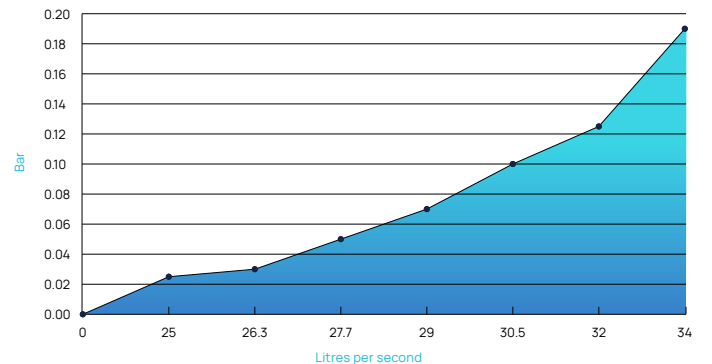
DN65 PRESSURE DROP GRAPH



DN80 (3") PRESSURE DROP GRAPH



DN100 (4") PRESSURE DROP GRAPH



- 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 - up to a maximum of 2%



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
SCA10CC	Scaleton 10	10mm compression fitting	10mm	100	10	1-12	254	0.15	External: stainless steel housing & connections. (Compression Fittings available) Internal: FD catalytic galvanic alloy
SCA15CC	Scaleton 15	15mm compression fittings	15mm	100	10	8-25	254	0.2	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA22CC	Scaleton 22	22mm compression fittings	22mm	100	10	24-54	305	0.5	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA28CC	Scaleton 28	28mm compression fittings	28mm	100	10	45-90	305	0.6	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA35CC	Scaleton 35	35mm compression fittings	35mm	100	10	85 -120	609	1.9	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA42CC	Scaleton 42	42mm compression fittings	42mm	100	10	110-210	609	2.2	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA54CC	Scaleton 54	54mm compression fittings	54mm	100	10	170-330	609	2.5	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA10BS	Scaleton 10	3/8" BSPT	3/8" (DN10) 1/2" (DN15)	100	16	1-12	215	0.15	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA15BS	Scaleton 15	1/2" BSPT	1/2" (DN15) 3/4" (DN20)	100	16	8-25	215	0.2	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy

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
SCA20BS	Scaleton 20	¾" BSPT	¾" (DN20) 1" (DN25)	100	16	24-54	245	0.5	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA25BC	Scaleton 25	1" BSPT	1" (DN25) 1¼" (DN32)	100	16	45-90	260	0.6	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA32BS	Scaleton 32	1¼" BSPT	1¼" (DN32) 1½" (DN40)	100	16	85-120	550	1.9	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA40BS	Scaleton 40	1½" BSPT	1½" (DN40) 2" (DN50)	100	16	110-210	550	2.2	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA50BS	Scaleton 50	2" BSPT	2" (DN50) 2½" (DN65)	100	16	170-330	550	3.0	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA65BS	Scaleton 65	2½" BSPT	2½" (DN65) 3" (DN80)	100	16	310-675	762	7	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA80BS	Scaleton 80	3" BSPT	3" (DN80) 4" (DN100)	100	16	600-1175	813	9.5	External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA10US	Scaleton 10	¾" NPT	¾" (DN10) ½" (DN15)	100	16	1-12	254		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA15US	Scaleton 15	½" NPT	½" (DN15) ¾" (DN20)	100	16	8-25	254		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA20US	Scaleton 20	¾" NPT	¾" (DN20) 1" (DN25)	100	16	24-54	300		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA25US	Scaleton 25	1" NPT	1" (DN25) 1¼" (DN32)	100	16	45-90	300		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA32US	Scaleton 32	1¼" NPT	1¼" (DN32) 1½" (DN40)	100	16	85-120	609		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy

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
SCA40US	Scaleton 40	1½" NPT	1½" (DN40) 2" (DN50)	100	16	110-210	609		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA50US	Scaleton 50	2" NPT	2" (DN50) 2½" (DN65)	100	16	170-330	609		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA65US	Scaleton 65	2½" NPT	2½" (DN65) 3" (DN80)	100	16	310-675	913		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy
SCA80US	Scaleton with 3" NPT connections	3" NPT	3" (DN80) 4" (DN100)	100	16	600-1175	913		External: stainless steel housing & connections. Internal: FD catalytic galvanic alloy

*higher pressure units available upon request



CERTIFIED BY



PROVEN BY

