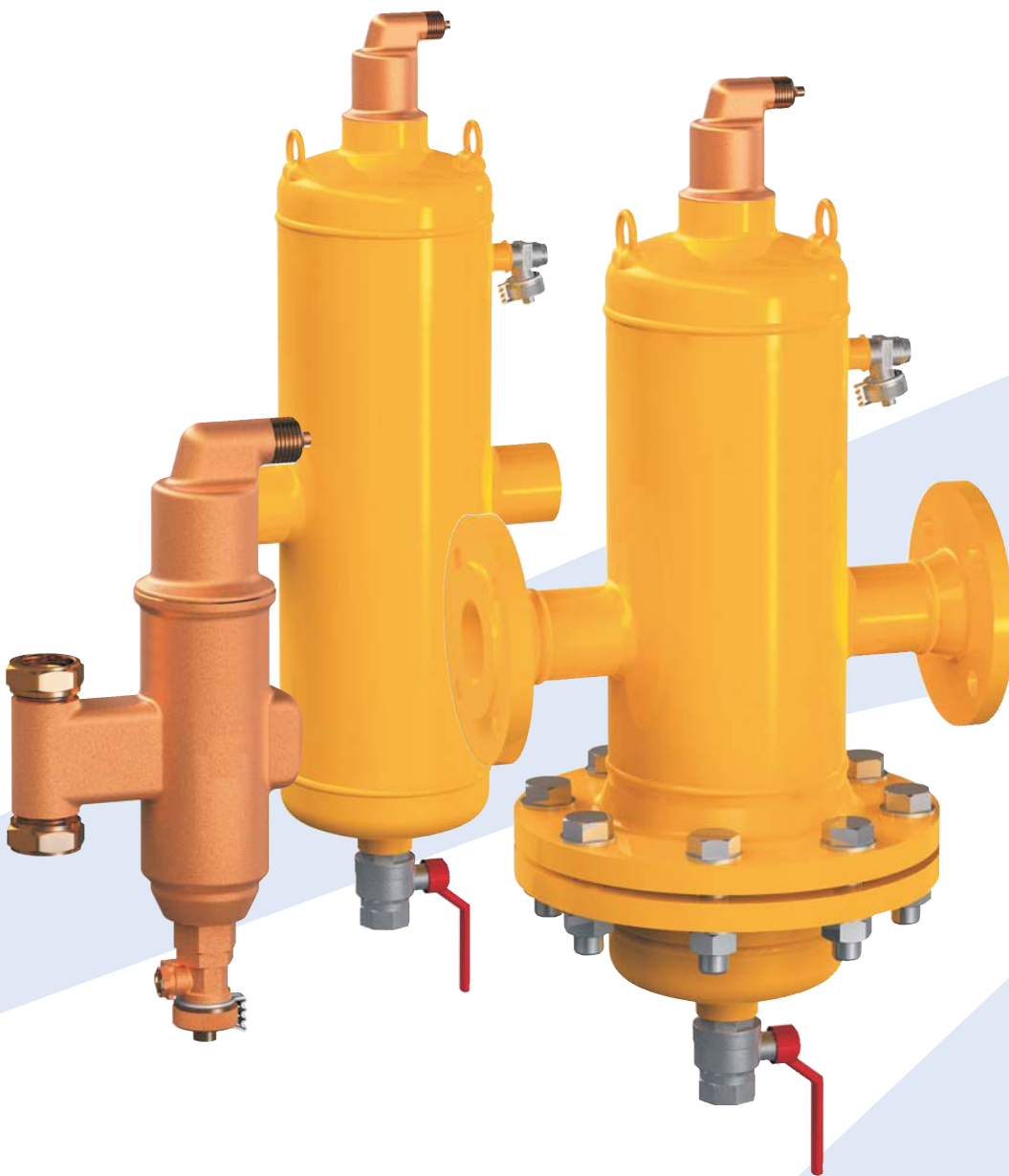




Duraflex

Extwin combined microbubble and
sludge separator for continuous air and
contaminant separation of water systems



AutomaticHeating
efficiency □ performance □ solutions



Microbubbles & Dirt Separators

duraflex **extwin**: combined microbubble and sludge separator for continuous contaminant separation of heating, chilled and condenser water systems

'extwin'

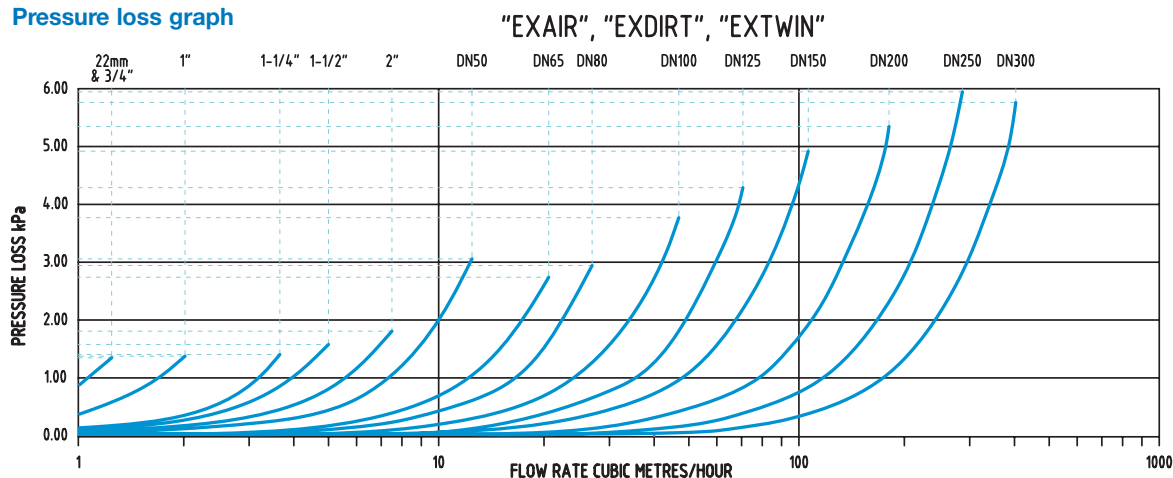
Extwin combined microbubble separator for free gas bubbles, dirt and sludge particles.

- Sludge removal is possible while the system is in operation
- Much faster hydraulic equalization after filling operations
- No closing valves or bypass lines required
- Minimal, constant pressure drop
- Complete range of products in terms of operating pressures and materials
- Removes circulating free air bubbles
- Also removes very small sludge particles above 5 μm (= 0.005 mm)
- Fully automatic continuous operation
- Maintenance takes just 5 seconds
- Connection diameter Rp $\frac{3}{4}$ to DN 300

Information in brief

The systematic design of air and sludge separators also makes sizing very easy. The size depends on the speed of the liquid flow, regardless of the variant you choose. See the graph or table for the maximum volumetric flow rate possible for a size.

Pressure loss graph



Size	V* max m3/h
Rp $\frac{3}{4}$	1.25
Rp 1	2.00
Rp 1 $\frac{1}{4}$	3.70
Rp 1 $\frac{1}{2}$	5.00
Rp 2	7.50
DN 50	12.50
DN 65	20.00

Size	V* max m3/h
DN 80	27.00
DN 100	47.00
DN 125	72.00
DN 150	108.00
DN 200	180.00
DN 250	288.00
DN 300	405.00
DN 350	500.00
DN 400	650.00
DN 450	850.00
DN 500	1,060.00
DN 600	1,530.00

Conclusion

By using properly installed and maintained air and dirt separators the problems arising from air and system sludge can be virtually eradicated. Hence the wear on equipment will be reduced and so maintenance costs will be smaller. Apart from operational benefits commissioning and setting up of the systems is likely to be far more consistent. Oxygen corrosion inhibitors have been widely used to control corrosion, but by deaeration the root cause of corrosion, oxygen, is virtually eliminated.



duraflex **extwin**: combined microbubble and sludge separator specifications

Type	Connection	Vmax m3/hr	L mm	Ø mm	H mm
Duraflex "extwin" BRASS ~ 110°C ~ 10 BAR					
TW 22	*22 mm	1.3	106	65	257
TW 1	Rp 1	2	88	65	257

* Compression coupling

Duraflex "extwin" STEEL WITH FLANGED CONNECTION ~ 110°C ~ 10 BAR					
TW 50	DN50/PN16	12.5	350	159	630
TW 65	DN65/PN16	20	350	159	630
TW 80	DN80/PN16	27	470	219	785
TW 100	DN100/PN16	47	470	219	785
TW 125	DN125/PN16	72	635	324	1,045
TW 150	DN150/PN16	108	635	324	1,045
TW 200	DN200/PN16	180	775	406	1,315
TW 250	DN250/PN16	288	890	508	1,715
TW 300	DN300/PN16	405	1,005	610	2,025
TW 350	DN350/PN16	500	1,100	-	2,560
TW 400	DN400/PN16	650	1,200	-	2,860
TW 450	DN450/PN16	850	1,300	-	3,150
TW 500	DN500/PN16	1,060	1,400	-	3,460
TW 600	DN600/PN16	1,530	1,600	-	4,070

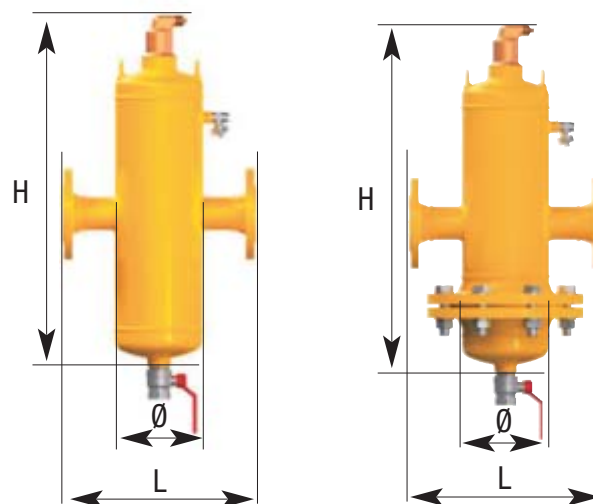
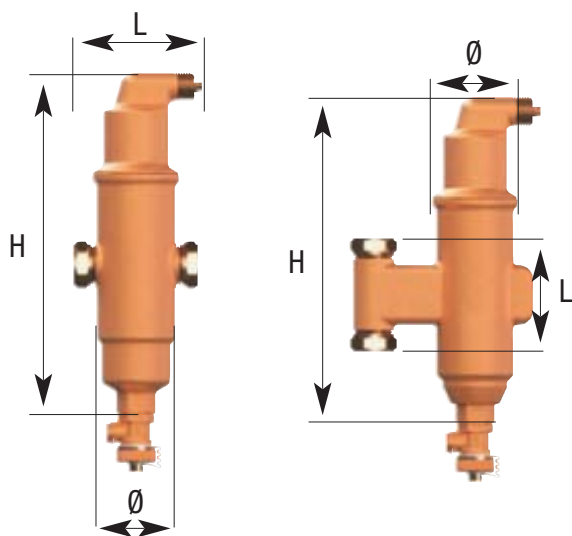
Duraflex "extwin" HI-FLOW STEEL WITH FLANGED CONNECTION ~ 110°C ~ 10 BAR					
TW 50 HF	DN50/PN16	25	350	159	910
TW 65 HF	DN65/PN16	40	350	159	910
TW 80 HF	DN80/PN16	54	470	219	1,145
TW 100 HF	DN100/PN16	94	470	219	1,145
TW 125 HF	DN125/PN16	144	635	324	1,570
TW 150 HF	DN150/PN16	215	635	324	1,570
TW 200 HF	DN200/PN16	360	775	406	1,995
TW 250 HF	DN250/PN16	575	890	508	2,680
TW 300 HF	DN300/PN16	810	1,005	610	3,190
TW 350 HF	DN350/PN16	1,000	1,100	-	3,530
TW 400 HF	DN400/PN16	1,300	1,200	-	3,970
TW 450 HF	DN450/PN16	1,700	1,300	-	4,410
TW 500 HF	DN500/PN16	2,120	1,400	-	4,860
TW 600 HF	DN600/PN16	3,000	1,600	-	5,760

Type	Connection	Vmax m3/hr	L mm	Ø mm	H mm
Duraflex "extwin" VERTICAL ~ BRASS ~ 180°C ~ 10 BAR					
TW 22 V	*22 mm	1.3	97	65	246

* Compression coupling

Duraflex "extwin" STEEL, FLANGED CONNECTION ~ 110°C ~ 10 BAR ~ INSPECTION FLANGE					
TW 50 R	DN50/PN16	12.5	350	159	630
TW 65 R	DN65/PN16	20	350	159	630
TW 80 R	DN80/PN16	27	470	219	785
TW 100 R	DN100/PN16	47	470	219	785
TW 125 R	DN125/PN16	72	635	324	1,045
TW 150 R	DN150/PN16	108	635	324	1,045
TW 200 R	DN200/PN16	180	775	406	1,315
TW 250 R	DN250/PN16	288	890	508	1,715
TW 300 R	DN300/PN16	405	1,005	610	2,025
TW 350 R	DN350/PN16	500	1,100	-	2,560
TW 400 R	DN400/PN16	650	1,200	-	2,860
TW 450 R	DN450/PN16	850	1,300	-	3,150
TW 500 R	DN500/PN16	1,060	1,400	-	3,460
TW 600 R	DN600/PN16	1,530	1,600	-	4,070

Duraflex "extwin" HI-FLOW STEEL, FLANGED CONN. ~ 110°C ~ 10 BAR ~ INSP FLANGE					
TW 50 R-HF	DN50/PN16	25	350	159	910
TW 65 R-HF	DN65/PN16	40	350	159	910
TW 80 R-HF	DN80/PN16	54	470	219	1,145
TW 100 R-HF	DN100/PN16	94	470	219	1,145
TW 125 R-HF	DN125/PN16	144	635	324	1,570
TW 150 R-HF	DN150/PN16	215	635	324	1,570
TW 200 R-HF	DN200/PN16	360	775	406	1,995
TW 250 R-HF	DN250/PN16	575	890	508	2,680
TW 300 R-HF	DN300/PN16	810	1,005	610	3,190
TW 350 R-HF	DN350/PN16	1,000	1,100	-	3,530
TW 400 R-HF	DN400/PN16	1,300	1,200	-	3,970
TW 450 R-HF	DN450/PN16	1,700	1,300	-	4,410
TW 500 R-HF	DN500/PN16	2,120	1,400	-	4,860
TW 600 R-HF	DN600/PN16	3,000	1,600	-	5,760



Other sizes, materials, pressures and temperatures are available on request.



More in the Duraflex range

Duraflex Calibre

Duraflex Calibre series:

- Expansion control of potable water applications
- Butyl diaphragm



Duraflex Cobalt

Duraflex Cobalt series:

- For potable water, water heating and hydro-pneumatic well applications
- Replaceable diaphragm



Duraflex OEM

Duraflex OEM series:

- flat vessels for wall hung boiler applications



Autoheet refill unit

- Automatic water make-up
- Backflow prevention according to AS3500 National Plumbing and Drainage Code
- 100 kPa – 500 kPa
- Including break tank, pump and pressure switch



Duraflex Air and Dirt Separation

Duraflex 'Exair'

- Automatic air removal



Duraflex 'Exdirt'

- Dirt and Sludge Separation



Duraflex 'Extwin'

- Combined microbubble and sludge separation



Duraflex Variomat

Pump-controlled 'variomat' opens a total new dimension to pressure maintenance.

Duraflex 'Variomat':

- Pressure control within the narrowest limits
- Central deaeration of system water content
- Automatic water make-up



Duraflex Gigamat

The duraflex 'gigamat' pressure-maintaining program is tailored to the specific requirements of industrial and district heating.



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