

Climate
Control

IMI Pneumatex

Zeparo ZIO



Automatic air vents and separators

Microbubble, dirt and magnetite separator,
Industrial type

Zeparo ZIO

For applications of all sizes, the Zeparo range offers a complete, reliable solution for problems with air and sludge in heating, solar and chilled water systems – from initial venting to the separation of the tiniest and finest magnetite particles. The helistill separator makes these products incredibly efficient. The Zeparo Industrial have been specially developed to meet the high demands of large installations, and they have one objective: to achieve an air-free, sludgefree installation without the use of filters, which become clogged or require regular maintenance.



Key features

Cleans and protects the installation

Protects critical investments from malfunction and even failure due to dirt, such as boilers, pumps, valves, chillers, and calorimetric meters. No clogging risk. Reduces maintenance of equipment needed over system lifetime and associated costs.

Magnet Accessory

Optimizes separation efficiency even further for sludge and magnetite (black iron oxide) deposits which consist of finer magnetic particles. Easy handling and cleaning.

Technical description

Application:

Heating, solar and chilled water systems.

Media:

Non-aggressive and non-toxic system media. Addition of antifreeze agent up to 50%.

Pressure:

Max. admissible pressure, PS: 10 bar
Min. admissible pressure, PS_{min}: 0 bar

Temperature:

Max. admissible temperature, TS: 110°C
Min. admissible temperature, TS_{min}: -10°C

Material:

Steel. Color beryllium.

Connection:

Flanges PN 16 according to EN 1092-1.

Standard:

Constructed according to PED 2014/68/EU.

Transportation and storage:

In frostless, dry places.

Volumes and Flows

DN	VN [l]	qN [m³/h]	qN _{max} [m³/h]
	ZIO...F		
50	7	11	25
65	7	19	42
80	16	26	65
100	17	44	100
125	27	67	155
150	51	95	222
200	110	170	395
250	210	306	618
300	370	435	890

VN = Nominal volume

qN = Nominal flow/flow rate

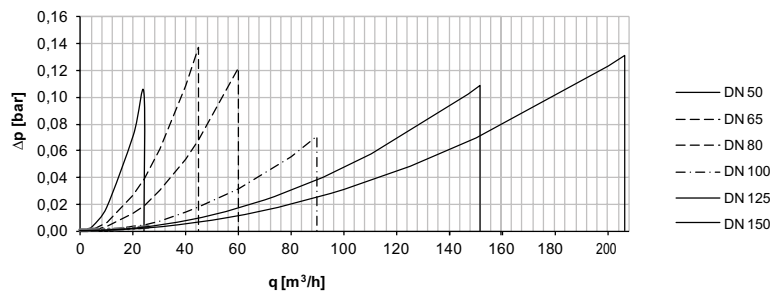
qN_{max} = Maximum flow

Diagrams

Approx. pressure loss (Δp) – Separator

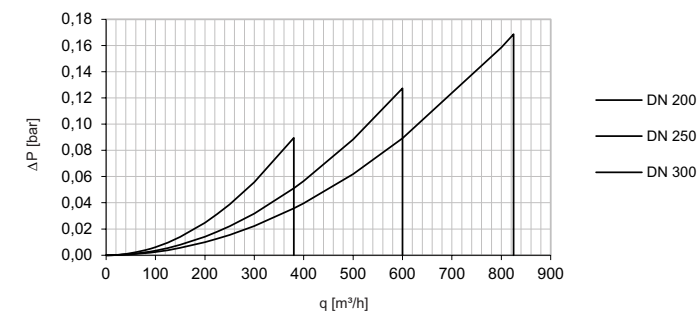
Zeparo ZIO

DN 50 – DN 150



Zeparo ZIO

DN 200 – DN 300



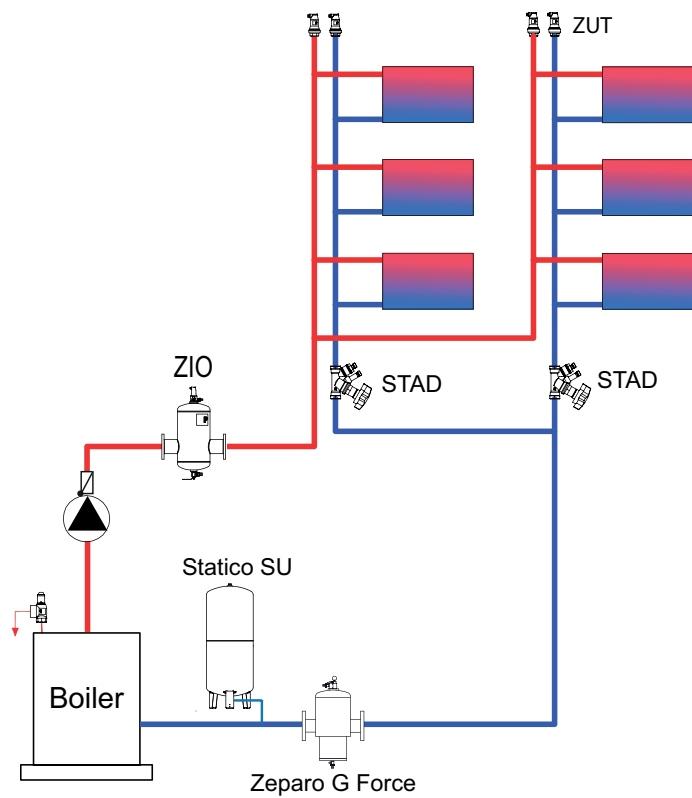
Zeparo DN 200 – DN 300 operation is limited to:

Continuous flow $\leq qN$

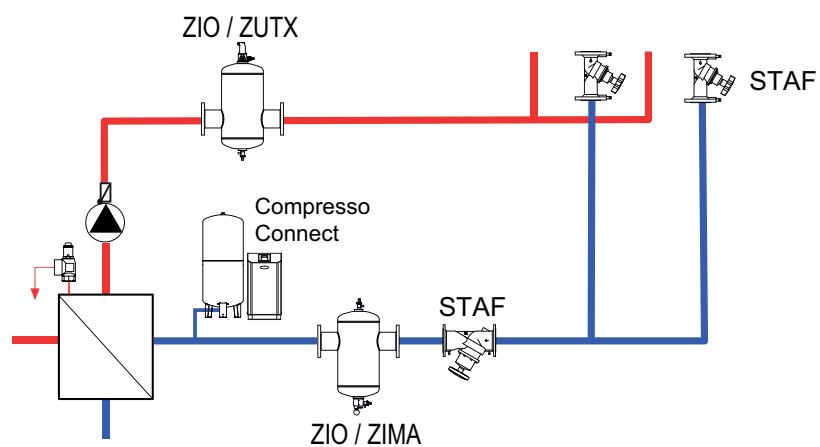
Intermittent flow $\leq qN_{max}$

Application examples

System with boiler



System with heat exchanger



Zeparo ZIO

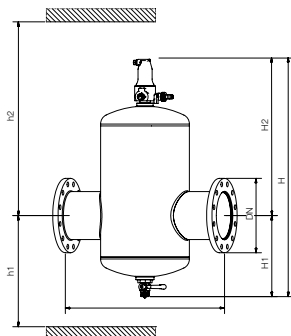
Zeparo ZIO DN 50-150

Industrial type.

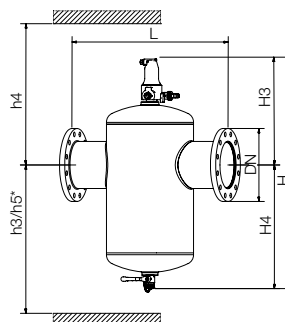
Flanged connection. Horizontal installation.

Dirt or microbubble separator.

Zeparo ZIO from DN 50 to DN 150 are equipped with one air separator ZUTX and one drain ball valve.



Separator for micro bubbles



Separator for dirt

Valve body PN 10. Flanges PN 16.

Type	DN	H	h1	h2	h3	h4	h5*	H1	H2	H3	H4	L	q _{nom} [m³/h]	q _{max} [m³/h]	m [kg]	EAN	Article No
ZIO 50F	50	645	264	452	426	290	596	210	435	280	365	350	11	25	16	7640148633062	788 2050
ZIO 65F	65	645	264	452	426	290	596	210	435	280	365	350	19	42	18	7640148633079	788 2065
ZIO 80F	80	750	295	534	508	321	663	235	515	305	445	470	26	65	26	7640148633086	788 2080
ZIO 100F	100	750	295	534	508	321	663	235	515	305	445	475	44	100	29	7640148633093	788 2100
ZIO 125F	125	952	410	621	595	436	765	352	600	422	530	635	67	155	52	7640148633109	788 2125
ZIO 150F	150	952	410	621	595	436	765	352	600	422	530	635	95	222	56	7640148633116	788 2150

*) Length for mounting the magnetic bar

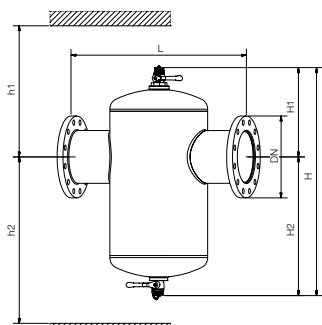
Zeparo ZIO DN 200-300

Industrial type.

Flanged connection. Horizontal installation.

Dirt and microbubble separator. Equipped with two ball valves for draining and air vent.

Air separator ZUTX DN25 is not included.

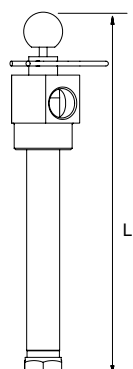


Valve body PN 10. Flanges PN 16.

Type	DN	H	H1	H2	h1	h2	L	q _{nom} [m³/h]	q _{max} [m³/h]	m [kg]	EAN	Article No
ZIO 200F	200	1010	390	620	805	910	775	170	395	95	7640161636637	303020-51500
ZIO 250F	250	1210	415	795	830	1085	890	306	618	139	7640161636644	303020-51600
ZIO 300F	300	1210	455	755	870	1045	1005	435	890	157	7640161636651	303020-51700

Versions PN 16 and PN 25, applications TS > 160 °C and dimensions DN 350 - DN 600 available upon request.

Accessories for separators



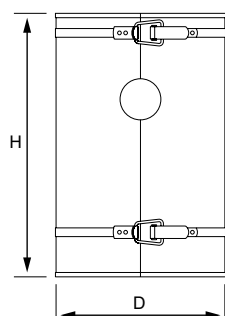
Zeparo ZIMA

Magnet Attachment. For retrofitting to mounting on site in the Zeparo ZIO range.
T-branch with magnetic rod and pocket. To increase the magnetite capture.

Type	m [kg]	L	EAN	Article No
ZIMA 50-100	3,0	380	7640161645028	303051-10000
ZIMA 125-150	4,3	497	7640161645035	303051-10001
ZIMA 200	5,4	720	7640161645042	303051-10002
ZIMA 250-300	6,3	940	7640161645059	303051-10003

Thermal insulation

Rockwool 2 part galvanized steel cladding, easy to fit with toggle clamps.
Insulation value approx. 0.040 W/mK.
Fire rating A2 to DIN 4102.



Zeparo ZHI

Thermal insulation for Zeparo ZIO.
Heating water systems.

Type	DN	D	H	SD*	m [kg]	EAN	Article No
ZHI 50/65 ZIO	50/60	278	405	50	3,7	7640148633642	787 2065
ZHI 80/100 ZIO	80/100	349	515	60	7,3	7640148633659	787 2100
ZHI 125/150 ZIO	125/150	453	716	60	14,4	7640148633666	787 2150
ZHI 200 ZIO	200	536	840	60	20,9	7640148633673	787 2200

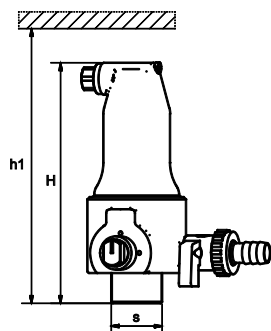
*) Insulation thickness

Additional dimensions available upon request.

Automatic air vent, version Top

Zeparo ZUTX eXtra-lockable

External thread. Vertical installation.
For automatic air vent of Zeparo ZIO DN 200 - DN 300



Type	H	h1	m [kg]	S	dpu [bar]	EAN	Article No
ZUTX 25	159	184	1,3	R1	10	7640148632485	789 1325

dpu = Working pressure range

Pressure class reduced to PN 10 when ZUT is mounted