

Climate
Control

IMI Pneumatex

Zeparo Aero Stainless Steel



Automatic air vents and separators

Industrial microbubble separator in Stainless Steel
DN50 - DN150

Zeparo Aero

For applications of all sizes, the Zeparo range offers a reliable solution to issues with microbubbles in heating, solar, and chilled water systems. The Helistill separator makes these products incredibly efficient. The Zeparo Industrial have been specially developed to meet the high demands of large installations with the single objective of ensuring air-free operation.



Key features

Helicoidal microbubble separation

The helicoidal microbubble separation combines and expands the main known separation principles into an unrivalled overall concept. By reducing the flow, large bubbles are channelled directly upwards into the quiet zone to the deaerator. Microbubbles, on the other hand, adhere to the spirally arranged vanes, combine there to form larger bubbles and, after detaching from the vanes, can rise upwards to the deaerator in a central column with little turbulence.

Stainless steel

Stainless steel is highly resistant against micro bacteria attacks, and ensures lower rates of bacterial buildup. The smooth surfaces are more hygienic and easier to clean both internally and externally, while also reducing the adhesion of internal deposits. Sludge and magnetite are washed and removed from the collection chamber far easier than in the case of the inferior iron/carbon steel version.

Safe, durable and reliable venting

The automatic air vent ensures safe and dry discharge of the separated gas bubbles into the environment. The special arrangement and design of the air vent allows the float to work stably in a large, flow-calmed chamber. This keeps dirt and water away from the precision vent valve, even at high pressures.

Technical description

Application:

Heating-, chilled- and groundwater systems.

Temperature:

Max. admissible temperature, $t_{S_{max}}$: 110°C
Min. admissible temperature, $t_{S_{min}}$: -10°C

Standard:

Constructed according to PED 2014/68/EU.

Media:

Demineralised water.
Ethylene or propylene glycol-based antifreeze up to 50%.

Material:

Stainless steel AISI 316(L) - 1.4404.
Helistil separator:
Plastic PP - 30% fibreglass

Transportation and storage:

In frostless, dry places.

Pressure:

Max. admissible pressure, PS: 16 bar
Min. admissible pressure, PS_{min} : 0 bar

Connection:

Flanges PN16 according to EN 1092-1.

Volumes and Flows

DN	VN [l]	qN [m³/h]	q _{max} [m³/h]
50	11	6	24
65	11	11	40
80	23	18	56
100	24	33	95
125	70	58	148
150	73	93	216

VN = Nominal volume
 qN = Nominal flow/flow rate
 q_{max} = Maximum flow

Operating Limits

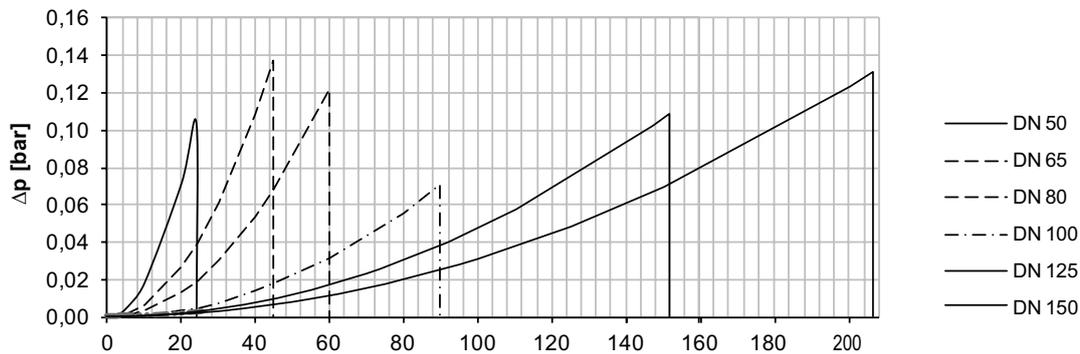
Hstm = static height required for microbubble separation at maximum system temperature upstream of the separator.

tmax °C	90	80	70	60	50	40	30	20	10
Hstm mWs	15,0	13,4	11,7	10,0	8,4	6,7	5,0	3,3	1,7

Diagrams

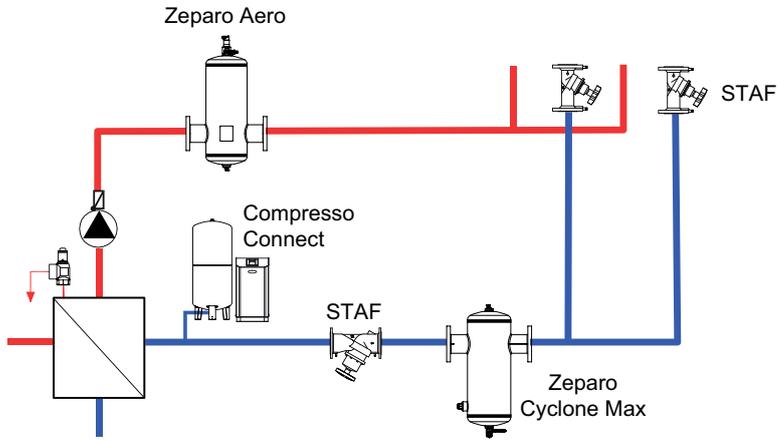
Approx. pressure loss (Δp) – Separator

Zeparo Aero
 DN 50 – DN 150

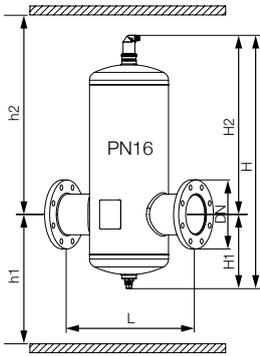


Application examples

System with heat exchanger



Articles



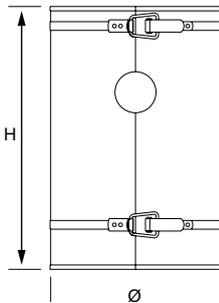
Flanged connection

Separator for microbubbles. Industrial type.
Horizontal installation.

PN 16

Type	DN	H	h1	h2	H1	H2	L	q _N [m ³ /h]	q _{max} [m ³ /h]	Weight [kg]	EAN	Article No
ZAIX 50	50	685	465	720	215	470	350	6	24	19	7640161646582	303041-40901
ZAIX 65	65	685	465	720	215	470	350	11	40	21	7640161646599	303041-41002
ZAIX 80	80	820	495	825	245	575	470	18	56	29	7640161646476	303041-41102
ZAIX 100	100	820	495	825	245	575	470	33	95	33	7640161646483	303041-41202
ZAIX 125	125	1045	555	990	305	740	635	58	148	59	7640161646490	303041-41302
ZAIX 150	150	1045	555	990	305	740	635	93	216	63	7640161646506	303041-41402

Accessories for separators



Zeparo ZCXAI

Thermal insulation for Zeparo ZCX and Zeparo Aero.
Heating water systems.

Type	DN	Ø	H	S*	Weight [kg]	EAN	Article No
ZCXAI 50/65	50/60	250	540	40	3,7	7640161646131	303040-70000
ZCXAI 80/100	80/100	300	680	40	7,3	7640161646148	303040-70001
ZCXAI 125/150	125/150	400	900	40	14,4	7640161646155	303040-70002

*) Insulation thickness
Additional dimensions available upon request.



The products, texts, photographs, graphics and diagrams in this document may be subject to alteration by IMI without prior notice or reasons being given. For the most up to date information about our products and specifications, please visit climatecontrol.imiplc.com