

Microboxer



CE



- Product designed and constructed in Italy
- Patented stall protection pneumatic circuit
- Operation with non-lubricated air
- Self priming
- Supports dry running
- ATEX certification for ZONE 1 - ZONE 2
- IECEx certification
- Possibility of adjusting the operating speed
- Versatility of use
- Suitable for pumping fluids with high viscosity and for demanding applications
- Possibility of pumping fluids containing suspended solids
- Possibility of suspended installation
- Manifolds can be supplied with stainless steel reinforcement rings for pumps in PP – PP+CF – PVDF
- Nozzles available with clamp connections and DIN 11851 (only pumps in AISI 316)
- Long Life profile diaphragms (available in different elastomers) for greater resistance and longer life
- Suitable for continuous use

Specifications and types



Zone 2 – Zone 22

Zone 1 – Zone 21

Zone M2

Ex h IIB T4 Gb e Ex h IIIB T135°C Db

II 3G Ex h IIB T4 Gc e II 3D Ex h IIIB T135°C Dc X

II 2G Ex h IIB T4 Gb e II 2D Ex h IIIB T135°C Db X

I M2 Ex h I Mb X*

* The string relating to mining applications is not applicable to aluminium BOXER range pumps

Suction / delivery connections Microboxer	1/2" f BSPP(*)
Suction / delivery connections Foodboxer 30	3/4" - 1" Clamp
Air fitting	1/4" f BSPP
Max. flow rate*	35 l/min
Max. supply air pressure	8 bar
Max. head*	80 m
Max negative suction head - dry-running**	4 m
Max negative suction head - with pump primed	9,5 m
Max. diameter suspended solids	2 mm
Noise	65 dB
Volume per stroke	30 cc

(*) NPT fittings only on request

* The curves and the performances refer to pumps with immersed suction and open delivery outlet, with water at 20°C and vary depending on material composition.

** The value depends on the pump configuration.



PLASTIC MATERIAL PP (GF/CF) - PVDF

Microboxer



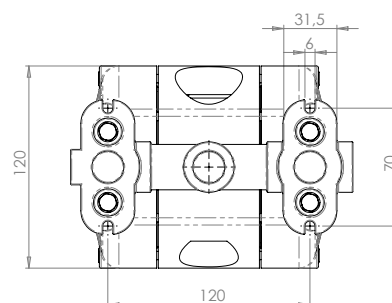
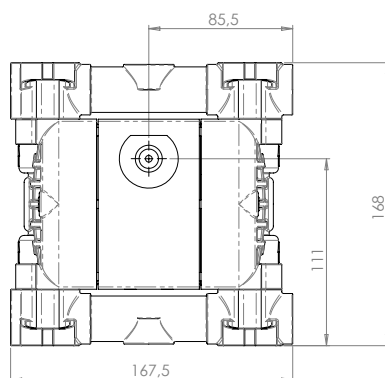
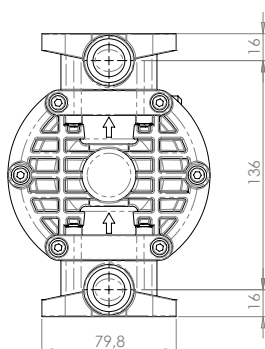
Maximum dimensions

Height	168 mm
Width	167 mm
Depth	120 mm



Construction mat. (casing and manifolds) and net weight

POLYPROPYLENE (with glass additive)	1,6 Kg Temp. 3°C min. 65°C max
CONDUCTIVE POLYPROPYLENE (with carbon additive)	1,6 Kg Temp. 3°C min. 65°C max
PVDF (with carbon additive)	1,98 Kg Temp. 3°C min. 95°C max



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I M2 Ex h I Mb X*

Ex h IIB T4 Gb e Ex h IIIB T135°C Db

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METAL MATERIAL - ALU

Microboxer



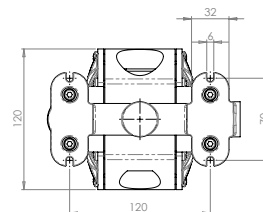
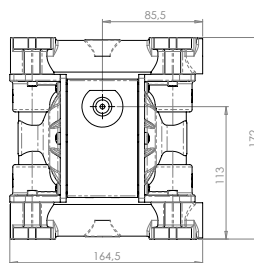
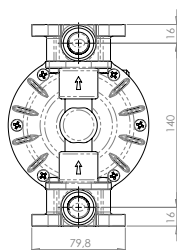
Maximum dimensions

Hauteur	172 mm
Largeur	164 mm
Profondeur	120 mm



Construction mat. (casing and manifolds) and net weight

ALU	2,1 Kg
	Temp. 3°C min.
	95°C max



METAL MATERIAL - AISI 316 L

Microboxer



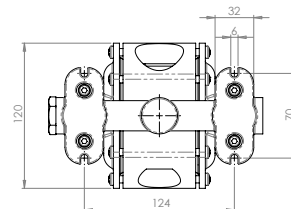
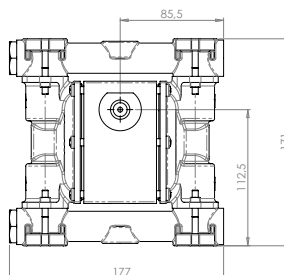
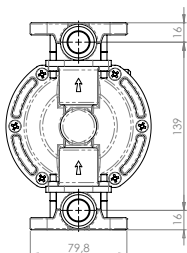
Maximum dimensions

Hauteur	171 mm
Largeur	177 mm
Profondeur	120 mm



Construction mat. (casing and manifolds) and net weight

AISI 316 L	3,75 Kg
	Temp. 3°C min.
	95°C max



FOODBOXER 30



METAL MATERIAL - AISI 316 L ELECTROPOLISHED

Foodboxer 30



Maximum dimensions

Hauteur	171 mm
Largeur	177 mm
Profondeur	120 mm



Construction mat. (casing and manifolds) and net weight

AISI 316 L (electropolished)	3,75 Kg
	Temp. 3°C min.
	95°C max

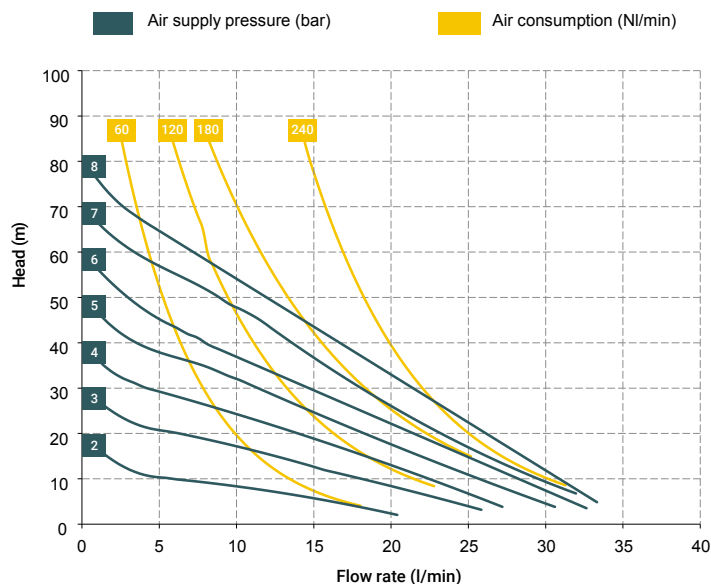
Specifications and types



Zone 2 – Zone 22
Zone 1 – Zone 21
Zone M2
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II 2G Ex h IIB T4 Gb e II 2D Ex h IIIB T135°C Db X
I M2 Ex h I Mb X*

* The string relating to mining applications is not applicable to aluminium BOXER range pumps



* The curves and performances refer to pumps with immersed suction and open delivery outlet with water at 20 °C and vary according to the composition materials.

MINIBOXER (PP):

A1 - A2 - A4 - M1 - M2 - M4

MINIBOXER (PVDF):

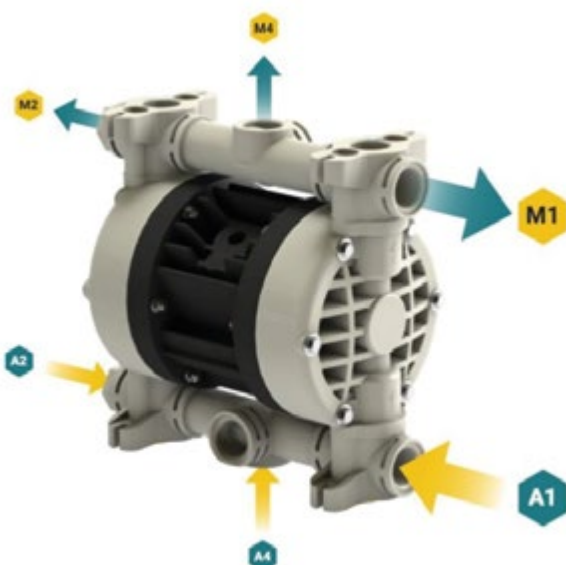
A1 - A2 - A4 - M1 - M2 - M4

MINIBOXER (INOX):

A1 - A2 - A4 - M1 - M2 - M4

MINIBOXER (ALU):

A1 - A2 - A4 - M1 - M2 - M4



Standard fittings:

- Suction: A1
- Delivery: M1

MONOSTABLE distributor material (Distributor + spool) - (compressed air circuit)

- POM

Core material

- Polypropylene
- Aluminium
- AISI 316

Diaphragm materials

- PTFE
- HYTREL®
- SANTOPRENE
- NBR

Cap materials

- Polypropylene (with glass filler)
- Conductive polypropylene (with carbon filler)
- PVDF
- PPS
- AISI 316 L

Ball materials

- PTFE
- AISI 316 L
- EPDM
- NBR

O-ring materials

- EPDM
- NBR
- VITON®
- PTFE

Packaging

Cardboard box - cm 14 x 20 x 20 cm - weight 0,4 Kg
(the weight refers only to the packaging without the pump inside)

Accessories

- Equaflux 51 (For damper materials, please refer to the technical data sheet)
- Foot valve
- Air regulation kit W1000-8-G
- Batch controller
- Stroke counter
- Reinforcement rings
- Flange kit (DIN flanges - ANSI on request)

Any colour variations in our polypropylene and PVDF products are due to the special blends of the raw materials used. The use of high levels of glass and long-fiber carbon filler result in a unique colour that does not in any way affect the quality of the product; on the contrary, it points to the high level of content used to ensure outstanding performance.

BOXER

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 Zone 1 – Zone 21 II 2G Ex h IIB T4 Gb e II 2D Ex h IIB T135°C Db X
 Zone M2 I M2 Ex h I Mb X*
 Ex h IIB T4 Gb e Ex h IIB T135°C Db

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BOXER PUMPS CODES ENCODING

ex. IMICR-P-HTTPV-

Internal distributor, Microboxer, body PP, air-side diaph. Hytrel®, product-side diaph. PTFE, AISI 316 L balls, PP ball seats, EPDM O-Ring.

IB07-	P	H	T	T	P	V	-	-
PUMP MODEL	PUMP BODY	AIR-SIDE DIAPHRAGM	FLUID-SIDE DIAPHRAGM	BALLS	BALL SEATS	O-RING	MANIFOLD	VERSION
IB07 - Boxer 07 IB15 - Boxer 15 IMICR - Microboxer IB35 - Boxer 35 IB50 - Boxer 50 IMIN - Miniboxer IB81 - Boxer 81 IB90 - Boxer 90 IB100 - Boxer 100 IB150 - Boxer 150 IB251 - Boxer 251 IB252 - Boxer 252 IB522 - Boxer 522 IB502 - Boxer 502 IB503 - Boxer 503	P - PP PC - PP+CF FC - PVDF+CF A - AISI 316 (L) AL - ALU	N - NBR D - EPDM H - Hytrel® M - Santoprene®	T - PTFE	T - PTFE A - AISI 316 L D - EPDM N - NBR	P - Polypropylene F - PVDF A - AISI 316 L I - PE-UHMW R - PPS L - Aluminium	D - EPDM V - Viton® N - NBR T - PTFE	X* 3* Y* W* K*	C* Z*

Example table, for the table with the complete codes please contact the Debem sales department.

*X = split manifold

*3 = 3rd hole on the manifold

*Y = manifold with NPT fitting

*W = clamp manifold

*K = manifold with reinforcement rings
(all on request only)

C = CONDUCT version for ATEX ZONE 1
Z = Version for IECEx Standard



Self priming



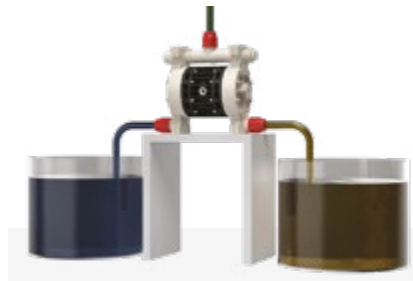
Under head



Drum Transfer



Split Suction



Split Suction and Delivery

MAIN APPLICATION SECTORS



GRAPHIC
INDUSTRY



PAINT
INDUSTRY



CHEMICAL
INDUSTRY



GOLD PROCESSING
INDUSTRY



PRODUCTION AND STORAGE
OF BIODIESEL



GALVANIC AND ELECTRONIC
INDUSTRY



FOODBOXER 30