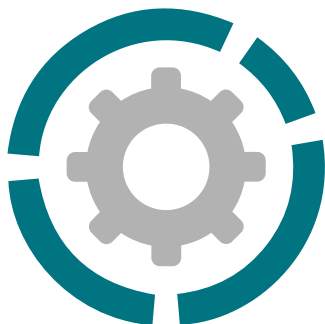


MICROBOXER

AIR-OPERATED DOUBLE DIAPHRAGM PUMPS



DEBEM
MADE IN ITALY



Suction / delivery connections	1/2" f BSPP(*)
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 - pump primed	9,5 m
Max diameter suspended solids	2 mm
Noise level	65 dB
Volume per stroke	30 cc

(*) NPT fittings only on request

* 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.

** Value depends on pump configuration.

CE



Product designed and constructed in Italy

PATENTED stall-prevention pneumatic circuit

Operates with **NON-lubricated** air

SELF-PRIMING

Supports dry running

ATEX certification for ZONE 1 - ZONE 2

IECEx certification

Adjustable operating speed

Versatile

Suitable for pumping fluids with high viscosity and for demanding applications

Usable with fluids containing suspended solids

Option of suspended installation

Manifolds available with stainless steel reinforcement rings for PP – PP + CF – PVDF pumps

Suitable for continuous use

Specifications and types



STANDARD: II 3G Ex h IIB T4 Gc - II 3D Ex h IIIB T135°C Dc X - I M2 Ex h I Mb X
CONDUCT: II 2G Ex h IIB T4 Gb - II 2D Ex h IIIB T135°C Db X - Ex h IIB T4 Gb - Ex h IIIB T135°C Db



PP

Microboxer



Maximum Dimensions

Height	168 mm
Width	167,5 mm
Depth	120 mm



Construction materials (body and manifolds) and net weight

Polypropylene (with glass filler)	1,6 Kg
	Temp. 3°C min. 65°C max

Conductive polypropylene (with carbon filler)	1,6 Kg
	Temp. 3°C min. 65°C max



PVDF

Microboxer



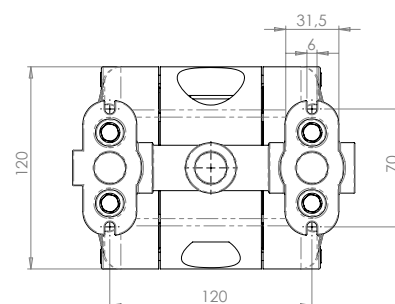
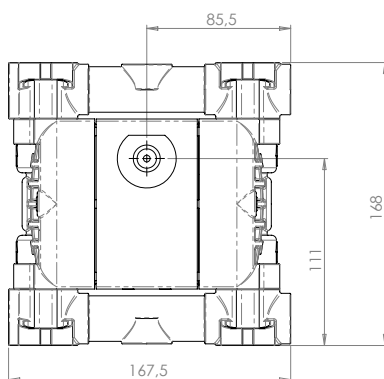
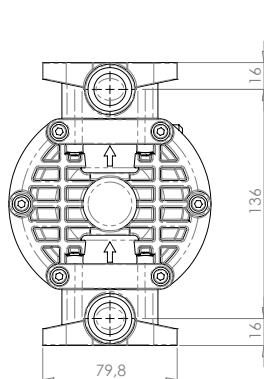
Maximum Dimensions

Height	168 mm
Width	167,5 mm
Depth	120 mm



Construction materials (body and manifolds) and net weight

PVDF (with carbon filler)	1,98 Kg
	Temp. 3°C min. 95°C max



Specifications and types



STANDARD: II 3G Ex h IIB T4 Gc - II 3D Ex h IIIB T135°C Dc X - I M2 Ex h I Mb X
CONDUCT: II 2G Ex h IIB T4 Gb - II 2D Ex h IIIB T135°C Db X - Ex h IIB T4 Gb - Ex h IIIB T135°C Db



ALU

Microboxer



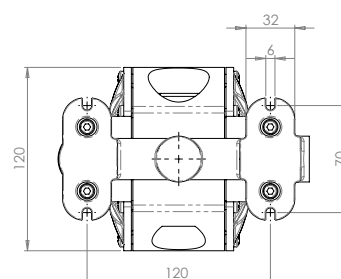
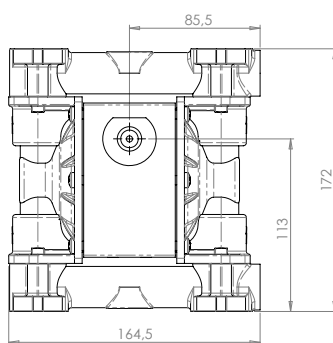
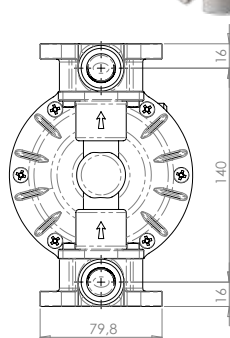
Maximum Dimensions

Height	172 mm
Width	164,5 mm
Depth	120 mm



Construction materials (body and manifolds) and net weight

ALU	2,1 Kg
	Temp. 3°C min. 95°C max



AISI 316 L

Microboxer



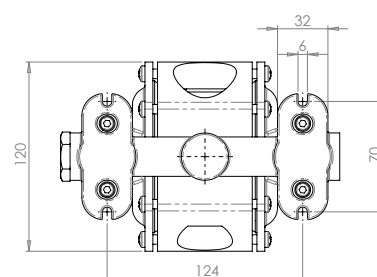
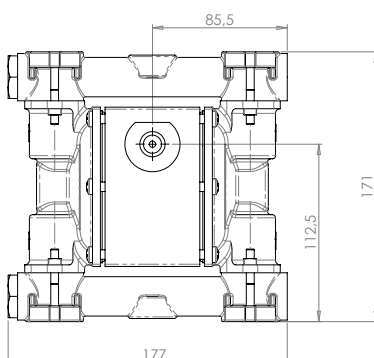
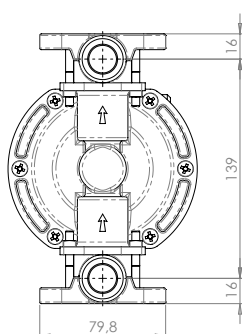
Maximum Dimensions

Height	171 mm
Width	177 mm
Depth	120 mm



Construction materials (body and manifolds) and net weight

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



MICROBOXER

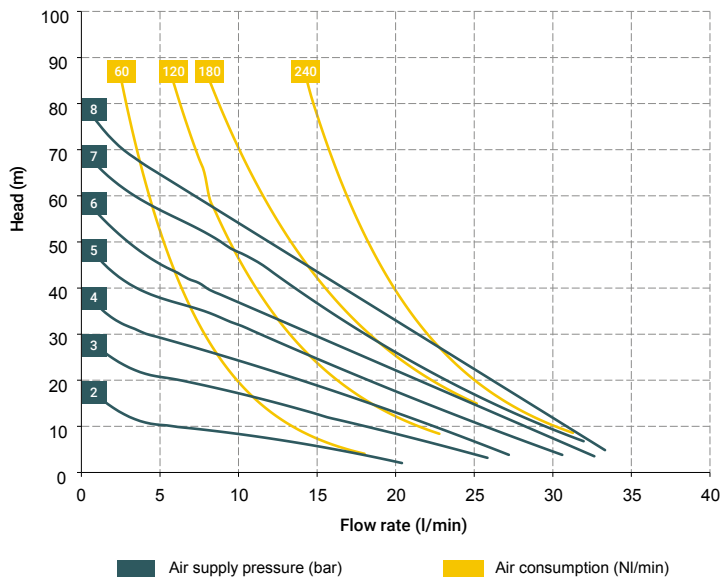
AIR-OPERATED DOUBLE DIAPHRAGM PUMPS



Specifications and types



STANDARD: II 3G Ex h IIB T4 Gc - II 3D Ex h IIIB T135°C Dc X - I M2 Ex h I Mb X
CONDUCT: II 2G Ex h IIB T4 Gb - II 2D Ex h IIIB T135°C Db X - Ex h IIB T4 Gb - Ex h IIIB T135°C Db



* 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.

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)

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)

MINIBOXER (PP):

A1 - A2 - A4 - M1 - M2 - M4

MINIBOXER (PVDF):

A1 - A2 - A4 - M1 - M2 - M4

MINIBOXER (INOX):

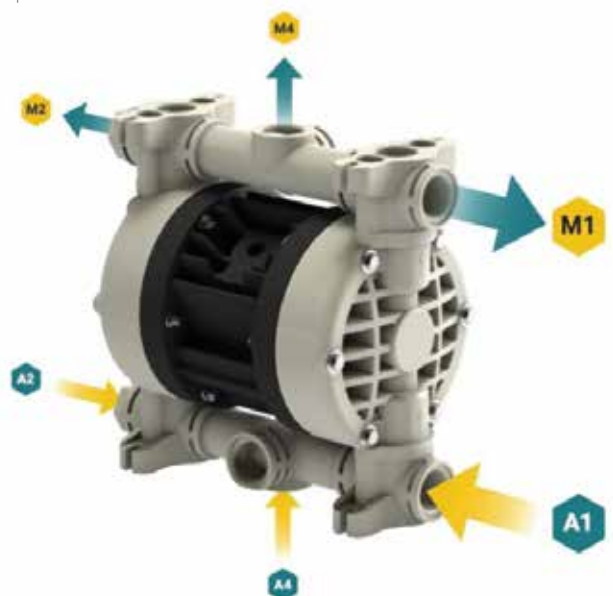
A1 - A2 - A4 - M1 - M2 - M4

MINIBOXER (ALU):

A1 - A2 - A4 - M1 - M2 - M4

Standard fittings:

- Suction:
A1
- Delivery:
M1



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.

Specifications and types



STANDARD: II 3G Ex h IIB T4 Gc - II 3D Ex h IIIB T135°C Dc X - I M2 Ex h I Mb X
CONDUCT: II 2G Ex h IIB T4 Gb - II 2D Ex h IIIB T135°C Db X - Ex h IIB T4 Gb - Ex h IIIB T135°C Db

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 USE



UNDER HEAD USE



DRUM TRANSFER



SPLIT SUCTION and DELIVERY



MAIN APPLICATION SECTORS



MAIN APPLICATION SECTORS



CHEMICAL INDUSTRY



GRAPHIC INDUSTRY



PRODUCTION AND STORAGE OF BIODIESEL



GOLD PROCESSING INDUSTRY



GALVANIC AND ELECTRONIC INDUSTRY



PAINT INDUSTRY