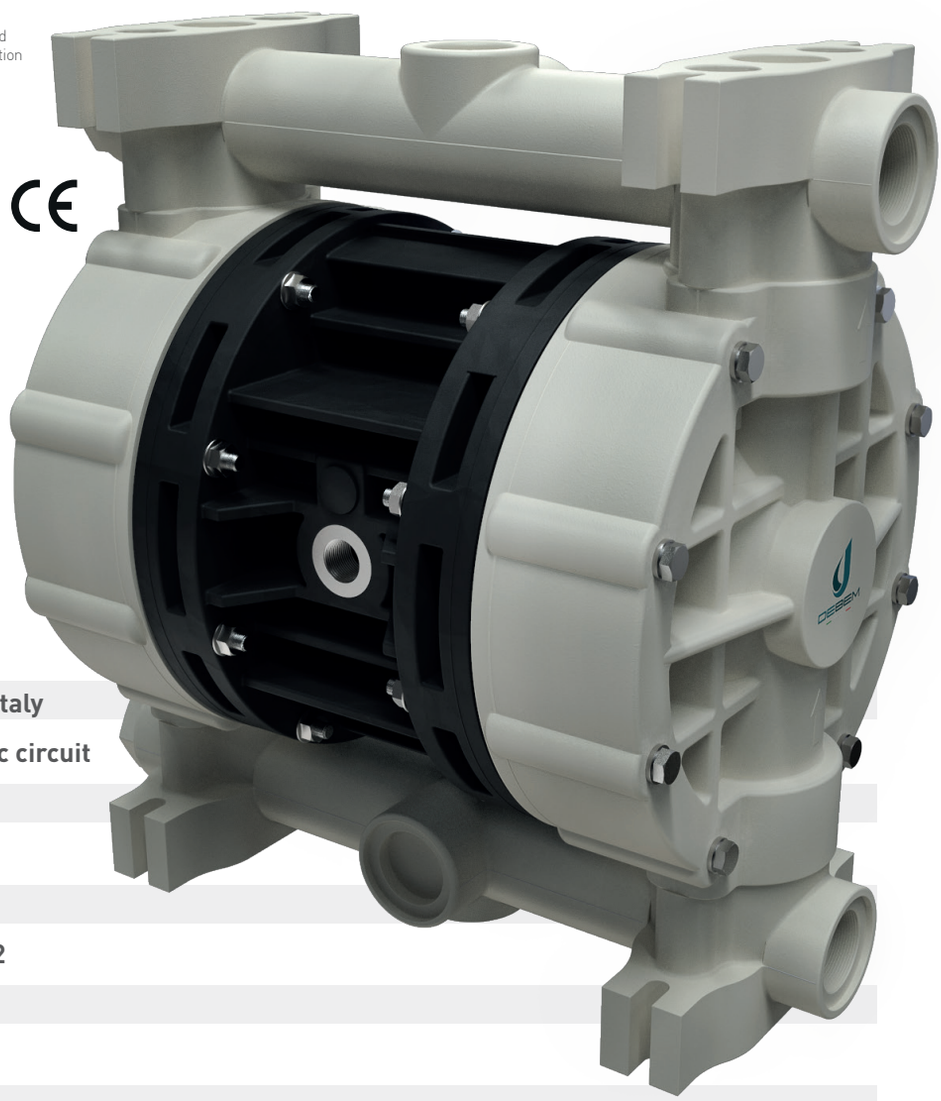
BOXER 100

AIR-OPERATED DOUBLE DIAPHRAGM PUMPS

DEBEM
MADE IN ITALY

Suction / delivery connections	1" f BSPP (*)
Air fitting	3/8" f BSPP
Max flow rate*	160 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	4 mm
Noise level	75 dB
Volume per stroke	222 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.



- 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

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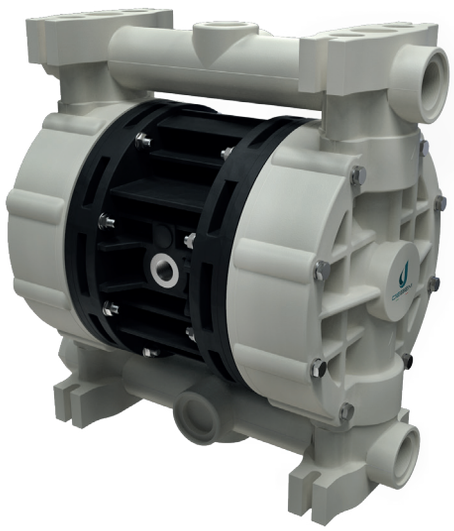
BOXER 100

AIR-OPERATED DOUBLE DIAPHRAGM PUMPS

Specifications and types

ATEX Zona 1 (CONDUCT): II2GExhIIBT4Gb – II2DExhIIIBT135°CDbX
ATEX Zona 2 (STANDARD): II3GExhIIBT4Gc – II3DExhIIIBT135°CDcX – IM2ExhIMbX *
IECEx: ExhIIBT4Gb – ExhIIBT135°CDb

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



PP — Boxer 100

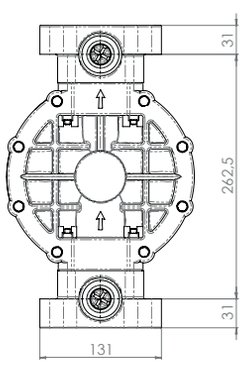
Maximum Dimensions	
Height	325 mm
Width	329 mm
Depth	202 mm

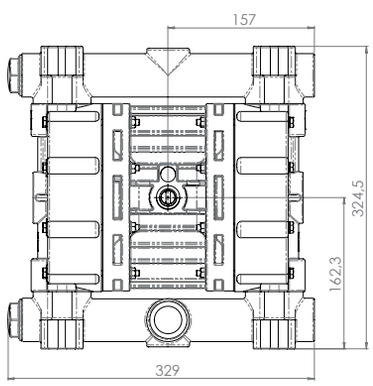
Construction materials (body and manifolds) and net weight	
Polypropylene (with glass filler)	7,6 Kg
	Temp. 3°C min. 65°C max
Conductive polypropylene (with carbon filler)	7,6 Kg
	Temp. 3°C min. 65°C max

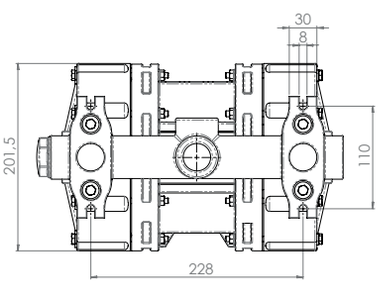
PVDF — Boxer 100

Maximum Dimensions	
Height	325 mm
Width	329 mm
Depth	202 mm

Construction materials (body and manifolds) and net weight	
PVDF (with carbon filler)	9,6 Kg
	Temp. 3°C min. 95°C max







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Specifications and types

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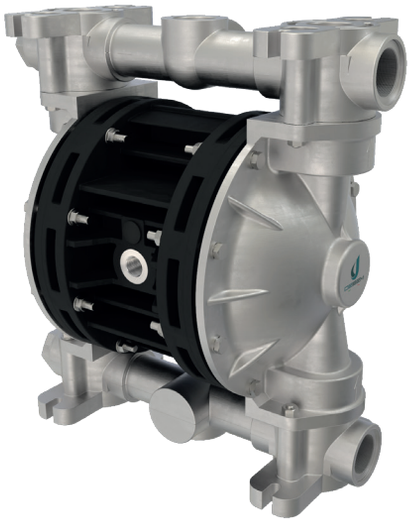
ATEX Zona 2 (STANDARD): II3GExhIIBT4Gc – II3DExhIIIBT135°CDcX – IM2ExhIMbX *
IECEx: ExhIIBT4Gb – ExhIIBT135°CDb

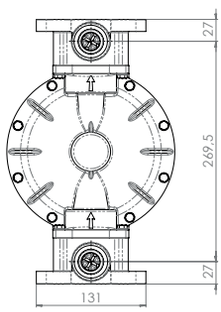
* The string relating to mining applications is not applicable to aluminium BOXER range pumps

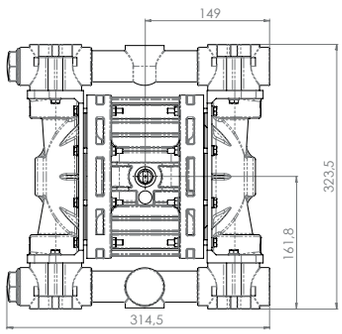


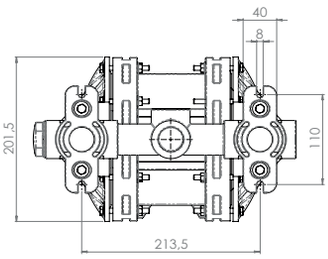
ALU — Boxer 100

Maximum Dimensions	
Height	324 mm
Width	315 mm
Depth	202 mm

Construction materials (body and manifolds) and net weight	
ALU	8,5 Kg
	Temp. 3°C min. 95°C max



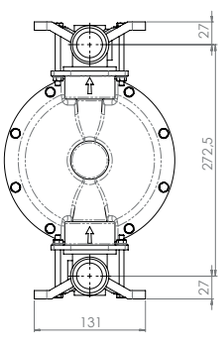


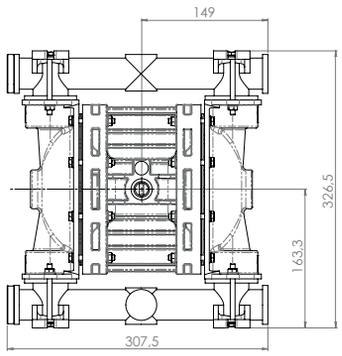


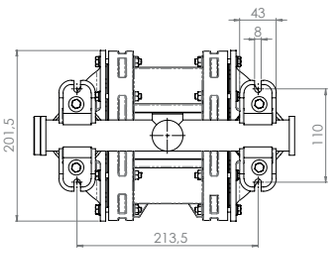
AISI 316 — Boxer 100

Maximum Dimensions	
Height	327 mm
Width	308 mm
Depth	202 mm

Construction materials (body and manifolds) and net weight	
AISI 316	11,7 Kg
	Temp. 3°C min. 95°C max







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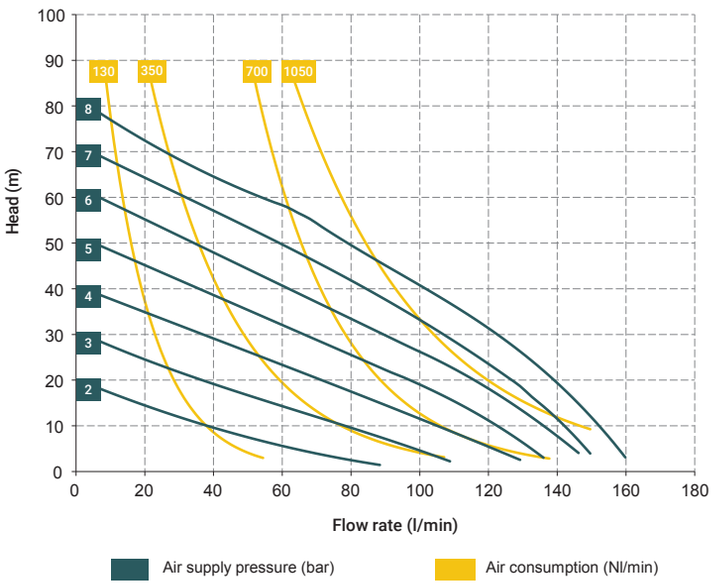
IECEx: ExhIIBT4Gb – ExhIIBT135°CDb

* 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.

Accessori correlati:
- **Equaflux 200**
(For damper materials, please refer to the technical data sheet)
- **Truck model 01**
- **Foot valve**
- **Air regulation kit W3000-10-G**
- **Batch controller**
- **Stroke counter**
- **Reinforcement rings**
- **Flange kit (DIN flanges - ANSI on request)**

Distributor material T20 (compressed air circuit)
- **POM**

Core material:
- **Polypropylene** (with glass filler)
- **Conductive polypropylene** (with carbon filler)
- **Aluminium**
- **Aisi 316**

Diaphragm materials:
- **PTFE**
- **HYTREL®**
- **SANTOPRENE**
- **NBR**
- **EPDM**

Cap materials:
- **Polypropylene** (with glass filler)
- **Conductive polypropylene** (with carbon filler)
- **PVDF**
- **Aluminium**
- **Natural ECTFE**
- **AISI 316 L**

Ball materials:
- **PTFE**
- **AISI 316 L**
- **EPDM**
- **NBR**

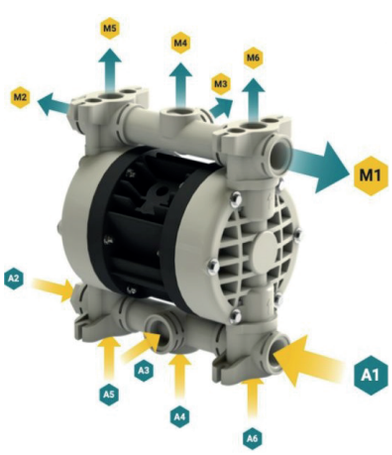
O-ring materials:
- **EPDM**
- **NBR**
- **VITON®**
- **PTFE**

Packaging:
cardboard box - 27 x 39 x 41 cm - weight 1,4 kg
(the weight refers only to the packaging without the pump inside)

BOXER 100 (PP):
A1 - A2 - A3 - A4 - A5 - A6
M1 - M2 - M3 - M4 - M5 - M6

BOXER 100 (PVDF):
A1 - A2 - A3 - A4 - A5 - A6
M1 - M2 - M3 - M4 - M5 - M6

BOXER 100 (ALU):
A1 - A2 - A3 - A4 - A5 - A6
M1 - M2 - M3 - M4 - M5 - M6

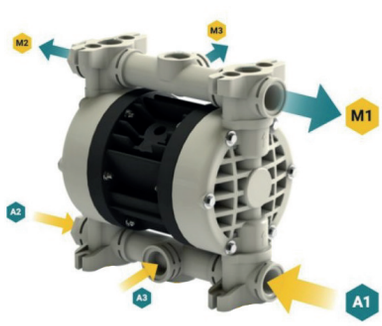


Standard fittings:
- Suction:
A1
- Delivery:
M1

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.

BOXER 100 (INOX):
A1 - A2 - A3
M1 - M2 - M3

Standard fittings:
- Suction:
A1
- Delivery:
M1



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BOXER PUMPS CODES ENCODING

ex. IB100-P-HTTPV--
Internal distributor, Boxer 100, body PP, air-side diaph. Hytrel®, product-side diaph. PTFE, AISI 316 L balls, PP ball seats, EPDM O-Ring.

IB100-	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.

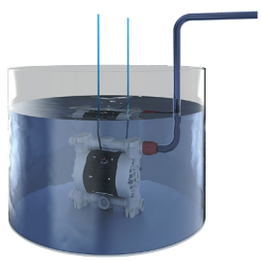
*X = split manifold
*3 = 3rd hole on the manifold
*Y = manifold with NPT fitting
*W = clamp manifold
*K = manifold with reinforcement rings
(all on request only)

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

SELF-PRIMING USE

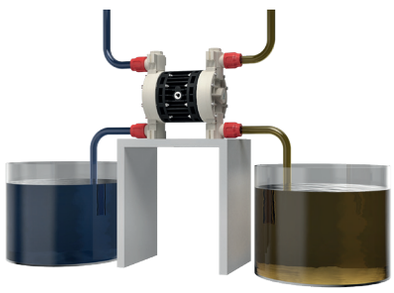
UNDER HEAD USE

IMMERSED

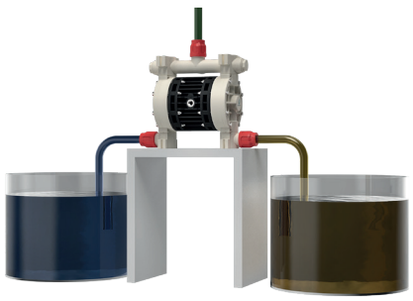


DRUM TRANSFER

SPLIT SUCTION and DELIVERY



SPLIT SUCTION



MAIN APPLICATION SECTORS

AUTOMOTIVE
PRODUCTION AND STORAGE OF BIODIESEL
WATER AND SLUDGE TREATMENT
CHEMICAL INDUSTRY
OIL & GAS
GRAPHIC INDUSTRY
CERAMIC, STONE, MARBLE GLASS AND MINING INDUSTRY
PAINT INDUSTRY
GOLD PROCESSING INDUSTRY
PACKING, GLUE, PAPER AND PAPER MILLS
TEXTILE AND LEATHER INDUSTRY
MECHANICAL AND METALLURGIC INDUSTRY
GALVANIC AND ELECTRONIC INDUSTRY

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