

## Specifications and types


 Zone 2 – Zone 22  
 Zone 1 – Zone 21  
 Zone M2

 II 3G Ex h IIB T4 Gc e II 3D Ex h IIB T135°C Dc X  
 II 2G Ex h IIB T4 Gb e II 2D Ex h IIB T135°C Db X  
 I M2 Ex h I Mb X\*

Ex h IIB T4 Gb e Ex h IIB T135°C Db

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

Suction / delivery connections	1/4" f BSPP(*)
Air fitting	1/8" f BSPP
Max. flow rate*	9 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	0,5 mm
Noise	65 dB

(\*) 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)

## Boxer 7



## Maximum dimensions

Height	120 mm
Width	137 mm
Depth	69 mm



## Construction mat. (casing and manifolds) and net weight

<b>POLYPROPYLENE</b> (with glass additive)	0,7 Kg Temp. 3°C min. 65°C max
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<b>CONDUCTIVE POLYPROPYLENE</b> (with carbon additive)	0,7 Kg Temp. 3°C min. 65°C max
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## PLASTIC MATERIAL - PVDF

## Boxer 7



## Maximum dimensions

Height	120 mm
Width	137 mm
Depth	70 mm



## Construction mat. (casing and manifolds) and net weight

<b>PVDF</b> (with carbon additive)	0,7 Kg Temp. 3°C min. 95°C max
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## Specifications and types

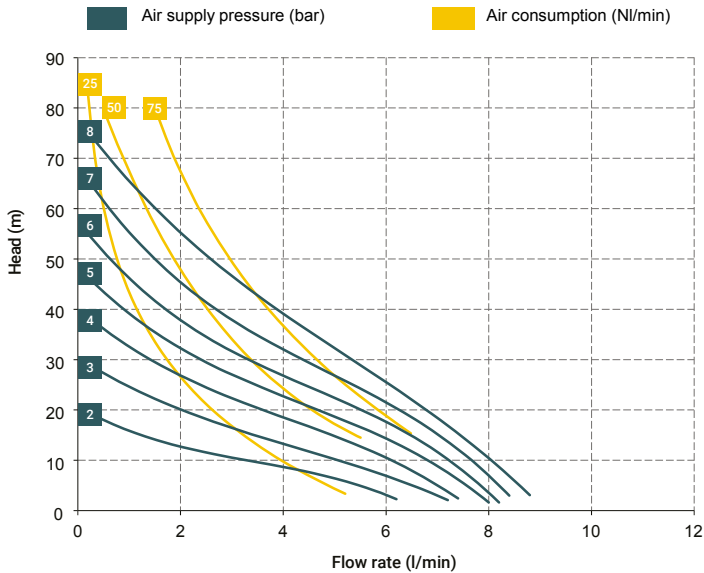


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Ex h IIB T4 Gb e Ex h IIB T135°C Db

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### T10 distributor material (compressed air circuit)

- POM

### Core material

- Polypropylene (with glass filler)
- Conductive polypropylene (with carbon filler)

### Diaphragm materials

- PTFE
- NBR

### Cap materials

- Polypropylene (with glass filler)
- Conductive polypropylene (with carbon filler)
- PVDF

### Ball materials

- PTFE
- AISI 316 L
- EPDM

### O-ring materials

- EPDM
- NBR
- VITON®
- PTFE

### Packaging

Cardboard box - 14 x 19 x 14 cm - weight 0.17 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)
- Air regulation kit W1000-8-G

The curves and performance of the pumps have been determined in accordance with the ANSI/HI 10.6/2016 standard and may vary depending on the composition materials.

### Debem procedure

1. The suction manifold positioned with a positive head of 50 cm.
2. The maximum length of the suction pipe is 50 cm without bends, elbows, filters, or other accessories.
3. The diameter of the suction pipe must be the same diameter as the manifold or larger.
4. The discharge pipe, including the flow meter, must not exceed 1 meter and must be the same diameter as the manifold.
5. If testing with longer pipes is necessary, pipes of larger diameter must be used, otherwise the data may be distorted.

Any colour variations in our plastic products are due to the special mixtures of the raw materials used. The use of high fillers, glass and long-fibre carbon, provides a distinctive aesthetic that in no way detracts from the quality of the product, but rather emphasises its high technical content, to the benefit of performance.

### BOXER 07 (PP):

A1 - A2 - A4 - M1 - M2- M4

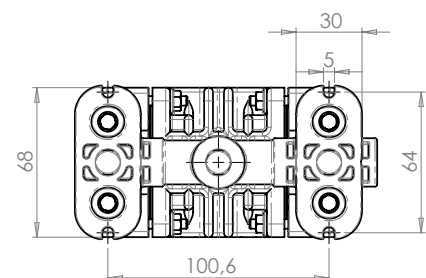
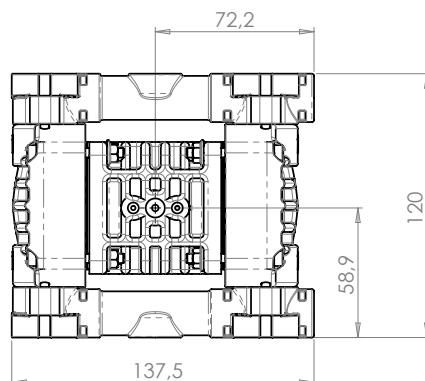
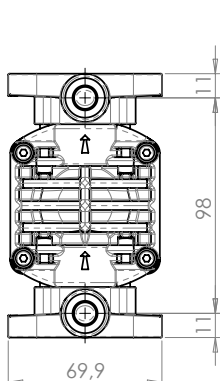
### BOXER 07 (PVDF):

A1 - A2 - A4 - M1 - M2- M4



### Standard fittings:

- Suction: A1
- Delivery: M1



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Zone 2 – Zone 22 II 3G Ex h IIB T4 Gc e II 3D Ex h IIIB T135°C Dc X  
 Zone 1 – Zone 21 II 2G Ex h IIB T4 Gb e II 2D Ex h IIIB T135°C Db X  
 Zone M2 I M2 Ex h I Mb X\*  
 Ex h IIB T4 Gb e Ex h IIIB T135°C Db

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## BOXER PUMPS CODES ENCODING

ex. IB07-P-HTTPV-  
 Internal distributor, Boxer 07, 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	P - PP	N - NBR	T - PTFE	T - PTFE	P - Polypropylene	D - EPDM	X*	C*
IB15 - Boxer 15	PC - PP+CF	D - EPDM		A - AISI 316 L	F - PVDF	V - Viton®	3*	Z*
IMICR - Microboxer	FC - PVDF+CF	H - Hytrel®		D - EPDM	A - AISI 316 L	N - NBR	Y*	
IB35 - Boxer 35	A - AISI 316 (L)	M - Santoprene®		N - NBR	I - PE-UHMW	T - PTFE	W*	
IB50 - Boxer 50	AL - ALU				R - PPS		K*	
IMIN - Miniboxer					L - Aluminium			
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								

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



Immersed



Drum Transfer



Split Suction



Split Suction and Delivery