BOXER 50 / MINIBOXER

AIR-OPERATED DOUBLE DIAPHRAGM PUMPS

DEBEM
MADE IN EU

Suction / delivery connections	G 1/2" or DN 15(*)
Air fitting	G 3/8" f
Max flow rate*	60 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 of suspended solids	4 mm
Noise level	70 dB
Volume per stroke	67 cc

(*) NPT fittings on request
** The value depends on the pump configuration.

CE

- Product designed and constructed in Italy
- PATENTED stall-prevention pneumatic circuit
- Operates with non-lubricated air
- SELF-PRIMING
- Dry operation
- ATEX certification for ZONE 1 - ZONE 2
- IECEx certification
- Adjustable operating speed
- Extremely versatile
- Suitable for pumping liquids with high viscosity and 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
- Suitable for continuous use

FMT-Pro s.r.o. - Areál Technoparku Pardubice, U Panasonicu 376, 530 06 Pardubice - Tel.: +420 466 734 141 - Email: fmt-pro@fmt-pro.cz - Web: www.fmt-pro.cz

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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 — Boxer 50

Maximum Dimensions	
Height	241 mm
Width	247 mm
Depth	153 mm

Construction materials (casing and manifolds) and net weight	
Polypropylene (with glass additive)	3.75 kg
	Max 3°C min.
	65°C max
Conductive polypropylene (with carbon additive)	3.75 kg
	Max 3°C min.
	65°C max

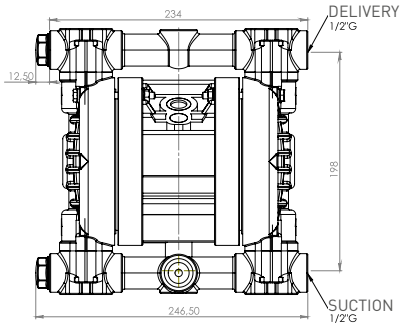
Construction materials (casing and manifolds) available on request
POMc
UHMWPE

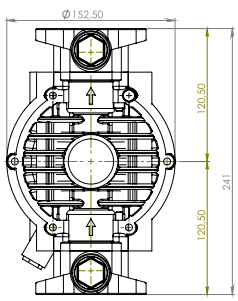
PVDF — Boxer 50

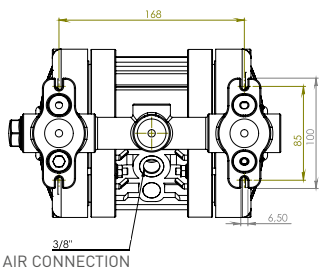
Maximum Dimensions	
Height	241 mm
Width	247 mm
Depth	153 mm

Construction materials (casing and manifolds) and net weight	
PVDF	4.25 kg
	Max 3°C min.
	95°C max

Construction materials (casing and manifolds) available on request
POMc
UHMWPE







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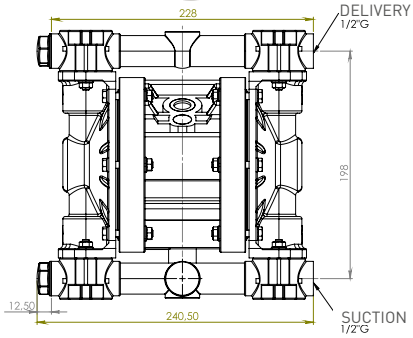
ALU — Boxer 50

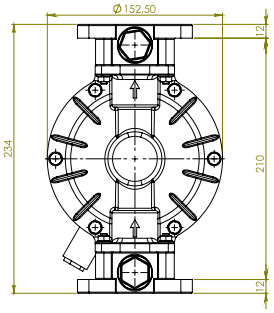
Maximum Dimensions

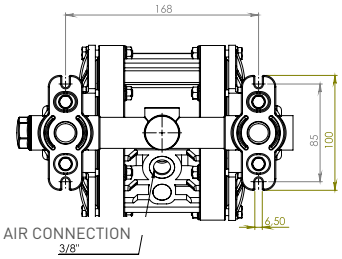
Height	234 mm
Width	241 mm
Depth	153 mm

Construction materials (casing and manifolds) and net weight

ALU	4.07 kg
	Max 3°C min.
	95°C max







MINIBOXER

AISI 316 L

Maximum Dimensions

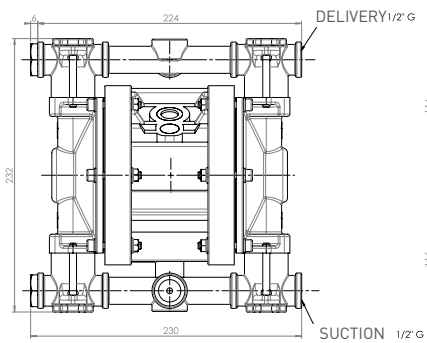
Height	232 mm
Width	230 mm
Depth	153 mm

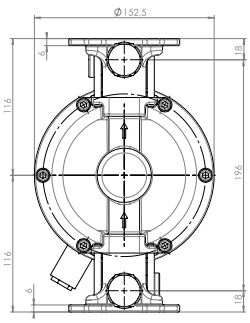
Construction materials (casing and manifolds) and net weight

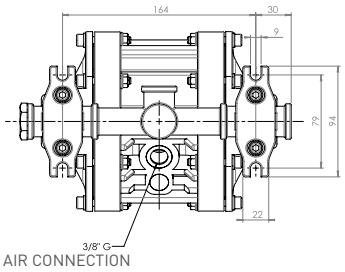
AISI 316 L	6.3 kg
	Max 3°C min.
	95°C max

Construction materials (casing and manifolds) available on request

DUPLEX/W.DUPLEX







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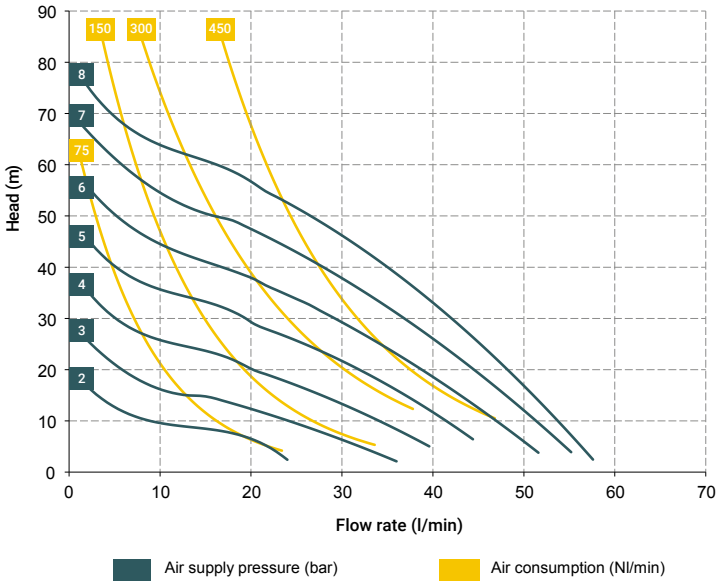


*The curves and the performances refer to pumps with immersed suction and open delivery outlet, with water at 20°C and vary based on the composition materials.

Accessories:
- **Equaflux 100**

(For the dampener materials refer to the relative technical sheet)

Foot valve:
VALVFN000012APP (POLYPROPYLENE)
VALVFN000012AFV (PVDF)

- **Air regulation kit W1000-8-G**
- **Batch controller**
- **Cycle counter**
- **Reinforcement rings**

Flange kit (DIN flange - ANSI available on request):
KITFLANG-MINIP (POLYPROPYLENE)
KITFLANG-MINIF (PVDF)
KITFLANG-MINIA (AISI316)
KITFLANG-B050AL (ALUMINIUM)

T20 distributor material (pneumatic circuit):
- **POM**

Central material:
- **Polypropylene (with glass additive)**
- **Conductive polypropylene (with carbon additive)**
- **Aluminium**
- **DUPLEX/S.DUPLEX**

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

Caps materials:
- **Polypropylene (with glass additive)**
- **Conductive polypropylene (with carbon additive)**
- **PVDF**
- **PPS**
- **Natural ECTFE**
- **AISI 316**

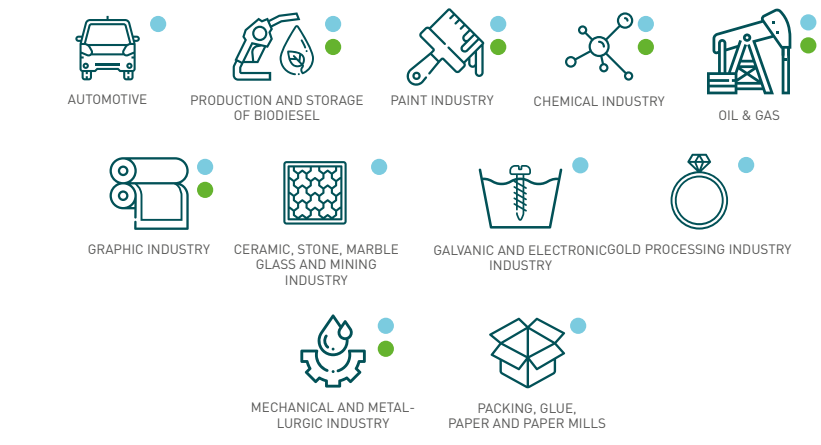
Balls materials:
- **PTFE**
- **AISI 316**
- **EPDM**
- **NBR**

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

Package:
cardboard box – cm 23 x 31 x 33 – weight 0.8 kg
(the weight refers to the package only, without the pump)

Any chromatic variations in our polypropylene and PVDF products are due to the special mixtures of the raw materials used. The use of high quantities of, respectively, glass and carbon additives, results in a unique aesthetic that does not affect the quality of the product in any way. Quite the opposite, it highlights its highly technological nature, to the benefit of its performance.

MAIN APPLICATION SECTORS



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BOXER PUMPS CODES ENCODING

ex. IB50-P-HTTPV--
Internal distributor, Boxer 50, PP casing, Hytrel® air side diaphragm, PTFE product side diaphragm, PTFE balls, PP ball seats, Viton® o-ring.

I	IB50-	P	H	T	T	P	V	-	-
INTERNAL DISTRIBUTOR	**PUMP MODEL**	**DAMPER PUMP**	**AIR-SIDE DIAPHRAGM**	**PRODUCT-SIDE DIAPHRAGM**	**BALLS**	**BALL SEATS**	**O-RING**	**SPLIT MANIFOLD**	**CONDUCT VERSION**
I	**B7** Boxer 7 **B15** Boxer 15 **MICR** Microboxer **MIN** Miniboxer **B50** Boxer 50 **B81** Boxer 81 **B90** Boxer 90 **B100** Boxer 100 **B150** Boxer 150 **B251** Boxer 251 **B252** Boxer 252 **B502** Boxer 502 **B522** Boxer 522 **B503** Boxer 503	**P** - Polypropylene **FC** - PVDF+CF **PC** - PP+CF **AL** - Aluminium **A** - AISI 316	**N** - NBR **D** - EPDM **H** - Hytrel **M** - Santo-prene	**T** - PTFE	**T** - PTFE **A** - AISI 316 **D** - EPDM **N** - NBR	**P** - Polypro-pylene **F** - PVDF **A** - AISI 316 **I** - PE-UHMW **R** - PPS-V **L** - Aluminium	**D** - EPDM **V** - Viton® **N** - NBR **T** - PTFE **S** - Silicone	**X*** **3*** **Y*** **J*** **W***	**C*** **Z***

*X = split manifold
*3 = 3° central hole on manifold
*Y = "NPT" thread
*J = spacer on shaft
*W = clamp manifold
(all only on request)

C = version CONDUCT for standard ATEX ZONE 1 Ex II 2/2GD c IIB T135°C
Z = version for standard IECEx
(both only on request)

SELF-PRIMING USE

UNDER HEAD USE

IMMERSED

DRUM TRANSFER

SPLIT SUCTION and DELIVERY

SPLIT SUCTION