



PRODUCT CATALOG

PUMPS & ACCESORIES

CATALOG
EDITION

2024-V2-B
01

PUMPS & ACCESORIES

FOR RENTAL AND FOR SALE

PUMPING EQUIPMENT

SV60V Portable Solids Pump - Vertical

FEATURES

- ATEX Zone 2/CE conformity
- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- Versatile
- No internal moving components
- Minimal maintenance
- High vacuum and high airflow
- Recovers material from up to 50 metres (164ft)
- Delivers up to 500 metres (1640ft)

TECHNICAL DATA

- Height 110 cm (44")
- Width 73 cm (29")
- Length 93 cm (37")
- Weight 198 kg (437 lb) (119USGM) @ SG1.0
- Air consumption 150cfm (71 L/sec) at minimum 85psi (6bar) to 100psi (7bar) at the pump
- Air supply connection 25mm (1")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 75 mm (3") BSP/Type B camlock
- Discharge 75 mm (3") BSP/Type A camlock
- Handles solids to 50 mm (2")
- Carbon steel vessel
- Also available in 316 stainless materials of construction
- Skid mounted/roll frame weights/dimensions on request



APPLICATION

- Spillage recovery and transfer
- Sump cleaning and desilting
- Tank bottoms and sludge extraction
- Pneumatic excavation and dewatering
- OBM transfer and pit cleaning
- Bentonite, sand, and cement powders transfer

PUMPING EQUIPMENT

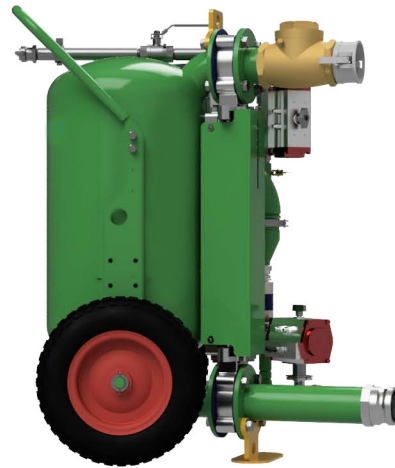
SV60-V2 Next Generation Portable Solids Pump

FEATURES

- ATEX Zone 1/CE conformity
- Next Generation Pneumatics
- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- Versatile
- No internal moving components
- Minimal maintenance
- High vacuum and high airflow
- Recovers material from up to 50 metres (164ft)
- Delivers up to 500 metres (1640ft)

TECHNICAL DATA

- Height 110 cm (44")
- Width 73 cm (29")
- Length 93 cm (37")
- Weight 198 kg (437 lb)
- Throughput capacity up to 15m/3hr (119USGM) @ SG1.0
- Air consumption 150cfm (71L/sec) at minimum 85psi (6bar) to 100psi (7bar) at the pump
- Air supply connection 25mm (1")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 75 mm (3") BSP/Type B camlock
- Discharge 75 mm (3") BSP/Type A camlock
- Handles solids to 50 mm (2")
- Carbon steel vessel
- Also available in 316 stainless materials of construction
- Skid mounted/roll frame weights dimensions on request



APPLICATION

- Spillage recovery and transfer
- Sump cleaning and desilting
- Tank bottoms and sludge extraction
- Pneumatic excavation and dewatering
- WBM / OBM / Drill Cuttings transfer

NEW OPTIONS

- Next Generation Pneumatics Control box retro fit kits to upgrade existing pumps
- Low (adjustable) discharge pressure
- Reduced air consumption
- Spare parts kit includes quick change control box, reducing down time.

PUMPING EQUIPMENT

SV110V-SKRF Solids and Sludge Pump - Skid Mount

FEATURES

- ATEX Zone 2/CE conformity
- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- No internal moving parts
- Minimal maintenance
- Robust construction
- High vacuum and high airflow
- Recovers material from up to 50 metres (164ft)
- Delivers over 500 metres (1640ft)
- Skid mounted with roll frame

TECHNICAL DATA

- Height 140 cm (55" skid mount)
- Width 66 cm (26" skid mount)
- Length 133 cm (53" skid mount)
- Weight 315 kg (695 lb)
- (140USGPM) @SG1.0
- Air consumption minimum 280 cfm
- (132 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump
- Air supply connection 25 mm (1")
- Up to 25" Hg (85kPa)+ vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") BSP/Type A camlock
- Handles solids to 70 mm (3")
- Carbon steel vessel
- Also available in Class 3 carbon, 316 stainless steel or polyurethane coated tanks
- Skid mounted/roll frame weights dimensions on request



APPLICATION

- Thickener de-sludge
- Tunnelling and TBM applications
- Sump and shaft cleaning
- Tailings and ash pond cleaning
- Digester and pond cleaning
- Oil spill capture and transfer
- Hazardous waste recovery
- Drilling mud and cungs transfer
- Transfer of mining slurries
- Agricultural product and waste transfer

PUMPING EQUIPMENT

SV110V2 Mobile Solids and Sludge Pump - Vertical

FEATURES

- ATEX Zone 1/CE conformity
- 100% compressed air operation
- Multipurpose vacuum pump
- Intrinsically safe
- Fully automatic
- Versatile
- No internal moving parts
- Minimal maintenance
- Robust construction
- Next Generation Pneumatic control IP66 SST box provides a more user friendly system with new countdown timers, indicators showing pump cycle, increased safety, usability & service ability. Standardized. Quick connectivity minimizing down time

TECHNICAL DATA

- Height 136 cm (54" wheel mount)
- Width 83 cm (33" wheel mount)
- Length 140 cm (55" wheel mount)
- Weight 234 kg (516 lb)
- Throughput capacity up to 20m³ (140USGPM) @ SG1.0
- Air consumption minimum 280 cfm (132 L/sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump
- Air supply connection 25mm (1")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") BSP/Type A camlock
- Handles solids to 70 mm (3")
- Carbon steel vessel
- Also available in Class 3 carbon, 316 stainless steel or polyurethane coated tanks
- Skid mount/roll frame weights dimensions on request



APPLICATION

- Thickener de-sludge
- Tunnelling and TBM applications
- Sump and shaft cleaning
- Tailings and ash pond cleaning
- Digester and pond cleaning
- Oil spill capture and transfer
- Hazardous waste recovery
- Drilling mud and cuttings transfer
- Transfer of mining slurries
- Agricultural product and waste transfer

NEW OPTIONS

- Next Generation Pneumatics Control box retro fit kits to upgrade existing pumps
- Low (adjustable) discharge pressure
- Reduced air consumption
- Spare parts kit includes quick change control box, reducing down time.

PUMPING EQUIPMENT

SV250V Solids/ Mining Slime Pump

FEATURES

- ATEX Zone 2/CE conformity
- Intrinsically safe
- Manual or fully automatic operation
- High vacuum and high airflow
- Throughout capacity up to and in excess of 45m³/hr (264USGPM) @SG1.0
- Variable air consumption 150-750 cfm (75-354 L/sec)
- Robust and compact
- Gravity feed capability
- Next Generation Pneumatic control IP66 SST box provides a more user friendly system with new countdown timers, indicators showing pump cycle, increased safety, usability & serviceability. Standardized. Quick connectivity minimizing down time.

TECHNICAL DATA

- Height 165 cm (65")
- Width 129 cm (51")
- Length 120 cm (48")
- Weight 550 kg (1213 lb) with RF
- Air consumption minimum
- 150 /270 /400 /600 /750 cfm (75/ 128/ 189/ 284/ 354 L/ sec) at minimum 85psi (6 bar) to 100psi (7 bar) at the pump
- Air supply connection 50mm (2")
- Up to 25"Hg+ (85kPa) vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 100 mm (4") BSP/Type A camlock
- Handles solids to 70 mm (3")
- Carbon steel vessel
- Also available in Class 3 carbon, 316 stainless steel or polyurethane coated tanks
- Roll cage and weather cover



APPLICATION

- Thickener de-sludge
- Petrochemical tank cleaning
- Heavy crude transfer
- Barge and hull cleaning
- Sump and shaft de-mucking
- Tailings and ash pond cleaning
- Raw effluent pond de-sludging
- Hazardous waste recovery
- Transfer of mining slurries

APPLICATION

- Next Generation Pneumatics Control box retro fit kits to upgrade existing pumps
- Low (adjustable) discharge pressure
- Reduced air consumption
- Dual pump operation for synchronised pumping with 2 units using common suction & discharge hoses
- Manual control box or @ suction point.
- Spare parts kit includes quick change control box, reducing down time.

PUMPING EQUIPMENT

SV250V Solids/ Mining Slime Pump

FEATURES

- ATEX Zone 2/CE conformity
- 100% compressed air operation, intrinsically safe
- Dual Pump option for two pumps
- Control box, Quick connect / disconnect with indicators for easy diagnostic / visual of operation
- No internal workings, minimal maintenance
- Manual or automatic operation
- Throughput capacity up to and in excess of 60 m³/hr (198USGPM) @ SG1.0 depending on the materials and distances involved
- Generates 25"Hg+ (85kPa) vacuum using 600cfm (284 L/sec) jet pack and requires 750 cfm (354 L/sec) using air assisted discharge option at minimum 95psi (6.5 bar to 115psi (7.9 bar) at the pump
- 100 (4') Vacuum Load
- 250mm (10") top load / gravity feed with 100mm
- Added vent to increase material throughput during gravity mode

APPLICATION

- Capture and transfer of drill cuttings
- Slurry transfer
- Thickener de-sludging
- Mud and tailing transfer
- Pit and sump cleaning
- Hazardous waste recovery
- Oil sludge and tank bottoms residue transfer
- Tank cleaning and sludge extraction
- Vacuum cleaning of barge and vessel bottoms
- Heavy crude transfer
- Bulk transfer, load and unload
- HS2 Slurry



TECHNICAL DATA

- Height 174 cm (69")
- Width 110 cm (44")
- Length 209 cm (83")
- Weight 860 kg (1896 lb)
- Air consumption 600 cfm (284 L/sec using air assisted discharge option minimum 95psi (6.5 bar) to 115psi (7.9 bar) at the pump
- Air supply connection 1.5"
- Up to 25"Hg+ (85kPa) vacuum
- Suction 100 mm (4") BSP/Type B camlock
- Discharge 125 mm (5") Victaulic
- Top load gravity feed 250 mm (10") flange connection AS2129 Table E
- 100 mm (4") top load / gravity vent
- 100 mm (4") Vacuum Load
- Handles solids to 70 mm (2")
- Carbon steel vessel

Boxer 522 / Boxer 502

Specifications and types



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

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
II 2G Ex h IIC T4 Gb
I M2 Ex h I Mb X *
Ex h IIB T4 Gb e Ex h IIIB T135°C Db

** The Group IIC gas application string is applicable on Boxer series pumps in Conduct version with Conductive TFM diaphragms.
* The mining application string does not apply to aluminium pumps in the Boxer range.

Suction / delivery connections Boxer 522 / Boxer 502	2" f BSPP (*)
Suction / delivery connections FDA Boxer 502	2"1/2 Clamp BS 4825
Air fitting	1/2" f BSPP
Max. flow rate*	600 l/min
Max. supply air pressure	8 bar
Max. head*	80 m
Max negative suction head - dry-running**	5 m
Max negative suction head - with pump primed	9,5 m
Max. diameter suspended solids	8 mm
Noise	80 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) - PVDF

Boxer 522



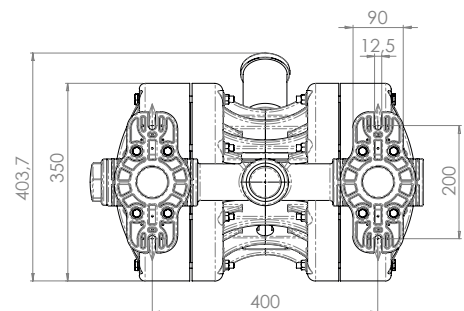
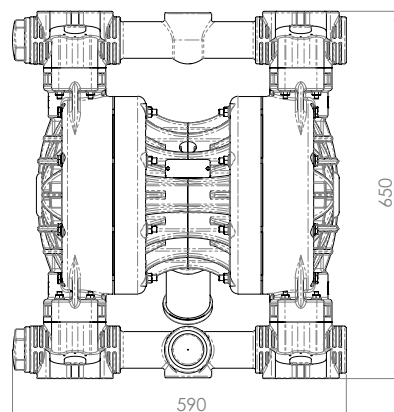
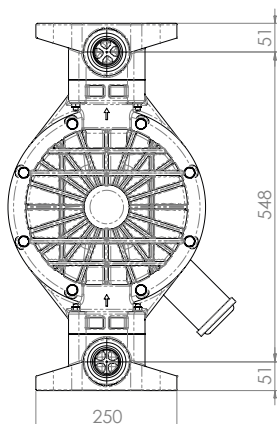
Maximum dimensions

Height	650 mm
Width	590 mm
Depth	404 mm



Construction mat. (casing and manifolds) and net weight

POLYPROPYLENE (with glass additive)	38 Kg Temp. 3°C min. 65°C max
CONDUCTIVE POLYPROPYLENE (with carbon additive)	38 Kg Temp. 3°C min. 65°C max
PVDF (with carbon additive)	45 Kg Temp. 3°C min. 95°C max



Boxer 522 / Boxer 502

Specifications and types



Zone 2 - Zone 22
Zone 1 - Zone 21
Zone 1 - Zone 21
Zone M2
IECEX

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
II 2G Ex h IIC T4 Gb
I M2 Ex h I Mb X *
Ex h IIB T4 Gb e Ex h IIIB T135°C Db

** The Group IIC gas application string is applicable on Boxer series pumps in Conduct version with Conductive TFM diaphragms.
* The mining application string does not apply to aluminium pumps in the Boxer range.

Suction / delivery connections Boxer 522 / Boxer 502	2" f BSPP (*)
Suction / delivery connections FDA Boxer 502	2"1/2 Clamp BS 4825
Air fitting	1/2" f BSPP
Max. flow rate*	600 l/min
Max. supply air pressure	8 bar
Max. head*	80 m
Max negative suction head - dry-running**	5 m
Max negative suction head - with pump primed	9,5 m
Max. diameter suspended solids	8 mm
Noise	80 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) - PVDF

Boxer 522



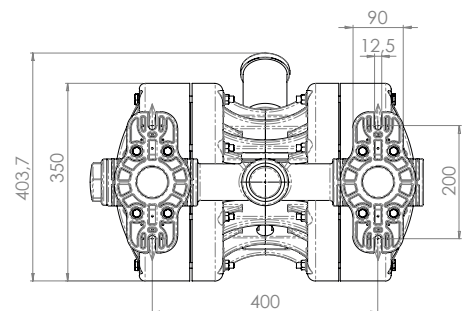
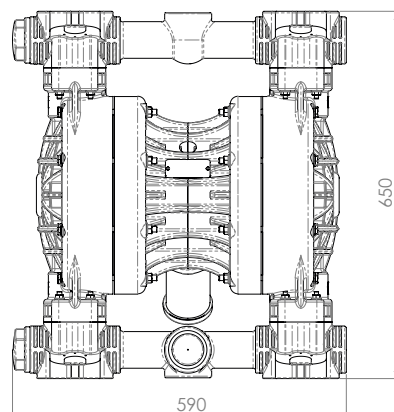
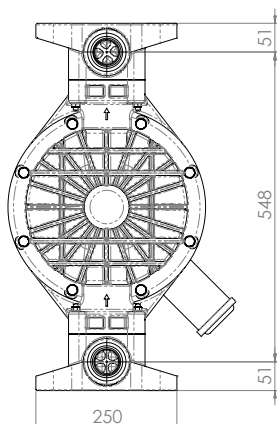
Maximum dimensions

Height	650 mm
Width	590 mm
Depth	404 mm



Construction mat. (casing and manifolds) and net weight

POLYPROPYLENE (with glass additive)	38 Kg Temp. 3°C min. 65°C max
CONDUCTIVE POLYPROPYLENE (with carbon additive)	38 Kg Temp. 3°C min. 65°C max
PVDF (with carbon additive)	45 Kg Temp. 3°C min. 95°C max



Boxer 522 / Boxer 502

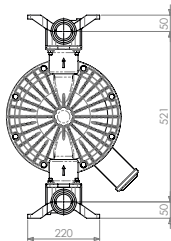
Specifications and types



Zone 2 - Zone 22
Zone 1 - Zone 21
Zone 1 - Zone 21
Zone M2
IECEX

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
II 2G Ex h IIC T4 Gb
I M2 Ex h I Mb X *
Ex h IIB T4 Gb e Ex h IIIB T135°C Db

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* The mining application string does not apply to aluminium pumps in the Boxer range.



METAL MATERIAL - ALU

Boxer 502



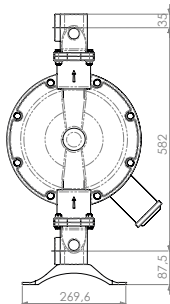
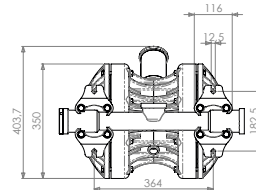
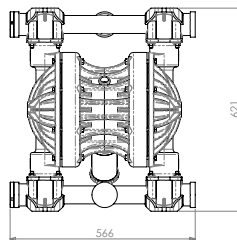
Maximum dimensions

Height	621 mm
Width	566 mm
Depth	404 mm



Construction mat. (casing and manifolds) and net weight

ALU	49 Kg
	Temp. 3°C min.
	95°C max



METAL MATERIAL - AISI 316

Boxer 502



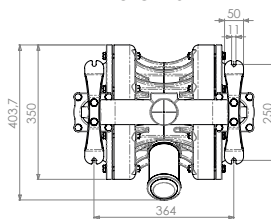
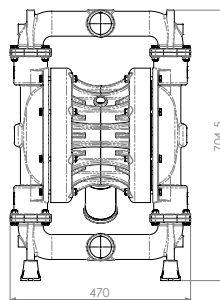
Maximum dimensions

Height	705 mm
Width	470 mm
Depth	403 mm



Construction mat. (casing and manifolds) and net weight

AISI 316	54 Kg
	Temp. 3°C min.
	95°C max



FDA BOXER 502



METAL MATERIAL - AISI 316 L

FDA Boxer 502



Maximum dimensions

Height	705 mm
Width	725 mm
Depth	403 mm



Construction mat. (casing and manifolds) and net weight

AISI 316	54 Kg
	Temp. 3°C min.
	95°C max

PRODUCTS SHOWN IN THIS CATALOG MAY VARY IN SHAPE AND SIZES AS ACTUAL SHOWN

Boxer 522 / Boxer 502

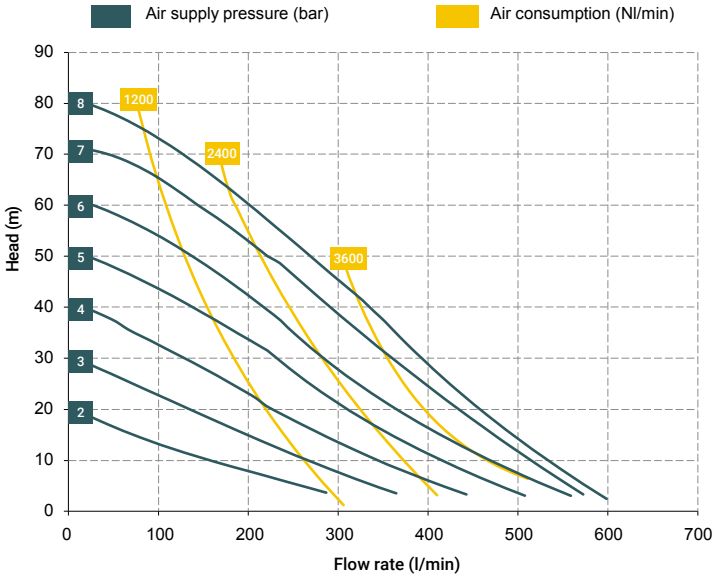
Specifications and types



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

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
II 2G Ex h IIC T4 Gb
I M2 Ex h I Mb X *
Ex h IIB T4 Gb e Ex h IIIB T135°C Db

** The Group IIC gas application string is applicable on Boxer series pumps in Conduct version with Conductive TFM diaphragms.
* The mining application string does not apply to aluminium pumps in the Boxer range.



* 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.

BOXER 502 (ALU):

A1 - A2 - A3 - M1 - M2 - M3

Standard fittings:

- Suction: A1
- Delivery: M1



BOXER 502 (INOX):

A3 - M3

Standard fittings:

- Suction: A3
- Delivery: M3



BOXER 522 (PP):

A1 - A2 - A3 - A4 - A5 - A6 - M1 - M2 - M3 - M4 - M5 - M6

BOXER 522 (PVDF):

A1 - A2 - A3 - A4 - A5 - A6 - M1 - M2 - M3 - M4 - M5 - M6

Standard fittings:

- Suction: A1
- Delivery: M1



T40 distributor material (compressed air circuit)

- POM

Core material

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

Diaphragm materials

- PTFE
- HYTREL®
- SANTOPRENE
- NBR
- EPDM

Cap materials

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

Ball materials

- PTFE
- AISI 316 L
- EPDM
- NBR

O-ring materials

- EPDM
- NBR
- VITON®
- PTFE

Packaging

Wooden crate - 74 x 70 x 53 cm - weight 22 Kg (PP, PP+CF, PVDF, ALU)
(the weight refers only to the packaging without the pump inside)

Wooden crate - 79 x 55 x 52 cm - weight 25 Kg (AISI316)
(the weight refers only to the packaging without the pump inside)

Accessories

- Equافلux 302 (For damper materials, please refer to the technical data sheet)
- Basket filter in Polypropylene or PVDF with G 2" f/f fittings
- Foot valve
- Air regulation W8000-20-G
- 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.

PRODUCTS SHOWN IN THIS CATALOG MAY VARY IN SHAPE AND SIZES AS ACTUAL SHOWN

Boxer 522 / Boxer 502

Specifications and types



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

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
 II 2G Ex h IIC T4 Gb
 I M2 Ex h I Mb X *
 Ex h IIB T4 Gb e Ex h IIIB T135°C Db

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 * The mining application string does not apply to aluminium pumps in the Boxer range.

BOXER PUMPS CODES ENCODING

ex. IB522-P-HTTPV-
 Internal distributor, Boxer 522, 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



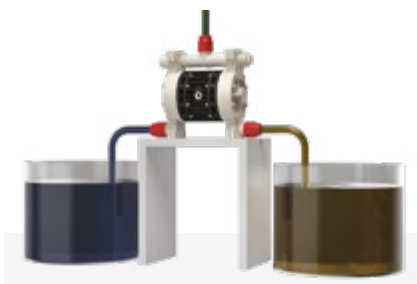
Self priming



Under head



Split Suction



Split Suction and Delivery

PRODUCTS SHOWN IN THIS CATALOG MAY VARY IN SHAPE AND SIZES AS ACTUAL SHOWN

Boxer 503

Specifications and types



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

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
II 2G Ex h IIC T4 Gb
I M2 Ex h I Mb X *
Ex h IIB T4 Gb e Ex h IIIB T135°C Db

** The Group IIC gas application string is applicable on Boxer series pumps in Conduct version with Conductive TFM diaphragms.
* The mining application string does not apply to aluminium pumps in the Boxer range.

Suction / delivery connections Boxer 503	3" f BSPP (*)
Suction / delivery connections FDA Boxer 503	4" Clamp BS 4825
Air fitting	3/4" f BSPP
Max. flow rate*	800 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	10 mm
Noise	80 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) - PVDF

Boxer 503



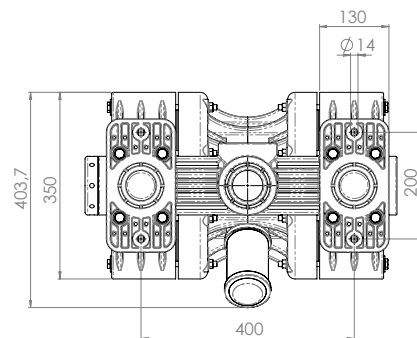
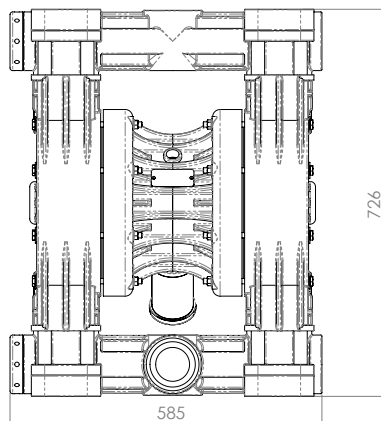
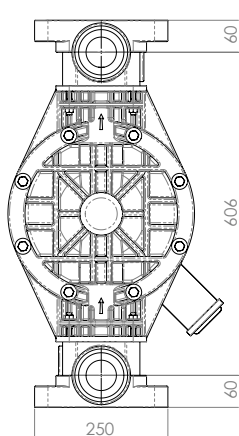
Maximum dimensions

Height	726 mm
Width	585 mm
Depth	404 mm



Construction mat. (casing and manifolds) and net weight

POLYPROPYLENE (with glass additive)	50 Kg Temp. 3°C min. 65°C max
CONDUCTIVE POLYPROPYLENE (with carbon additive)	50 Kg Temp. 3°C min. 65°C max
PVDF (with carbon additive)	67 Kg Temp. 3°C min. 95°C max



Boxer 503

Specifications and types



Zone 2 - Zone 22
Zone 1 - Zone 21
Zone 1 - Zone 21
Zone M2
IECEX

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
II 2G Ex h IIC T4 Gb
I M2 Ex h I Mb X *
Ex h IIB T4 Gb e Ex h IIIB T135°C Db

** The Group IIC gas application string is applicable on Boxer series pumps in Conduct version with Conductive TFM diaphragms.
* The mining application string does not apply to aluminium pumps in the Boxer range.



METAL MATERIAL - ALU

Boxer 503



Maximum dimensions

Height	806 mm
Width	580 mm
Depth	404 mm



Construction mat. (casing and manifolds) and net weight

ALU	66 Kg
	Temp. 3°C min.
	95°C max



METAL MATERIAL - AISI 316

Boxer 503



Maximum dimensions

Height	826 mm
Width	546 mm
Depth	404 mm



Construction mat. (casing and manifolds) and net weight

AISI 316	71 Kg
	Temp. 3°C min.
	95°C max

FDA BOXER 503



METAL MATERIAL - AISI 316 L

FDA Boxer 503



Maximum dimensions

Height	840 mm
Width	546 mm
Depth	403 mm



Construction mat. (casing and manifolds) and net weight

AISI 316 (electropolished)	71 Kg
	Temp. 3°C min.
	95°C max

PRODUCTS SHOWN IN THIS CATALOG MAY VARY IN SHAPE AND SIZES AS ACTUAL SHOWN

Boxer 503

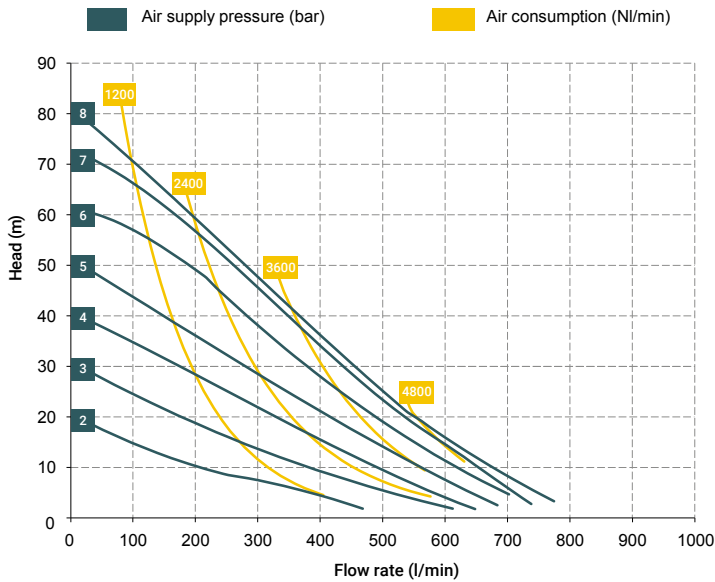
Specifications and types



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

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
 II 2G Ex h IIC T4 Gb
 I M2 Ex h I Mb X *
 Ex h IIB T4 Gb e Ex h IIB T135°C Db

** The Group IIC gas application string is applicable on Boxer series pumps in Conduct version with Conductive TFM diaphragms.
 * The mining application string does not apply to aluminium pumps in the Boxer range.



* 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.

BOXER 503 (PP):

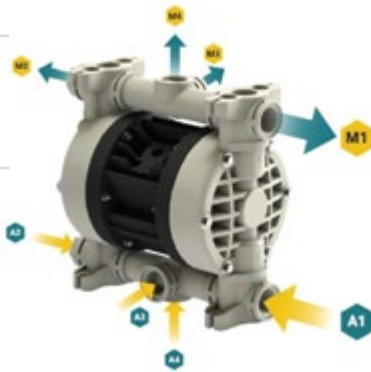
A1 - A2 - A3 - M1 - M2 - M3

BOXER 503 (PVDF):

A1 - A2 - A3 - M1 - M2 - M3

Standard fittings:

- Suction: A1
- Delivery: M1



BOXER 503 (INOX):

A3 - M3

BOXER 503 (ALU):

A3 - M3

Standard fittings:

- Suction: A3
- Delivery: M3



T40 distributor material (compressed air circuit)

- POM

Core material

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

Diaphragm materials

- PTFE
- HYTREL®
- SANTOPRENE
- NBR
- EPDM

Cap materials

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

Ball materials

- PTFE
- AISI 316 L
- EPDM
- NBR

O-ring materials

- EPDM
- NBR
- VITON®
- PTFE

Packaging

- Wooden crate - 83 x 70 x 52 cm - weight 25 Kg (PP, PP+CF, PP+PVDF) (the weight refers only to the packaging without the pump inside)
- Wooden crate - 93 x 68 x 51 cm - weight 25 Kg (ALU) (the weight refers only to the packaging without the pump inside)
- Wooden crate - 94 x 63 x 51 cm - weight 24 Kg (AISI316) (the weight refers only to the packaging without the pump inside)

Accessories

- Equaflux 303 (For damper materials, please refer to the technical data sheet)
- Basket filter in Polypropylene or PVDF with G 3" f/f fittings
- Foot valve
- Air regulation W8000-20-G
- 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 503

Specifications and types



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

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
 II 2G Ex h IIC T4 Gb
 I M2 Ex h I Mb X *
 Ex h IIB T4 Gb e Ex h IIIB T135°C Db

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 * The mining application string does not apply to aluminium pumps in the Boxer range.

BOXER PUMPS CODES ENCODING

ex. IB503-P-HTTPV-
 Internal distributor, Boxer 503, 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

PRODUCTS SHOWN IN THIS CATALOG MAY VARY IN SHAPE AND SIZES AS ACTUAL SHOWN

PRODUCT	PU-DHDA33/4-N*-L1**/options
SERIES	DHDA Double Airhead Double Acting Air operated, high flow, double headed-double acting hydraulic pumps for pressure testing, chemical injection and hydraulic power.



FEATURES

- Infinitely variable output pressure and flow
- Holds static pressure without generating heat or consuming power
- Standard models are suitable for oil or water applications
- Well proven and trouble-free operation
- Designed for ease of maintenance
- Low cost servicing
- Robust construction

PERFORMANCE DATA

Max Rated Output Pressure	6,728psi (464bar)
Output Per Cycle	15.6 in ³ (256cc)
Max Flow	1,934 in ³ /min (31 litre/min)
Max Air Supply Pressure	100psi (7bar)
Ratio	66 : 1
Air Consumption	200 scfm (5,664 NI/min)

SEAL OPTIONS (N*)

N* (standard)	Nitrile (Buna-N) Main Seal and Check Valve Seals
V	Viton (FKM) Main Seal and Check Valve Seals
C	Chemraz (FFKM) Main Seal and Check Valve Seals

CONSTRUCTION

Air Motor	Anodised Aluminium / Nitrile (Buna-N) Seals
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Hydraulic Cylinder	Aluminium Bronze
Piston	Stainless Steel + Corrosion Resistant Chrome Finish
Check Valves	Stainless Steel (Seals as per Selected Seal Option)
Pilot Air Valves	Brass / Stainless Steel Internals / Nitrile (Buna-N) Seals / Stainless Steel Pipework
L1** (standard)	Plated Steel Silencer
L2** (optional)	Stainless Steel Silencer

CONNECTIONS

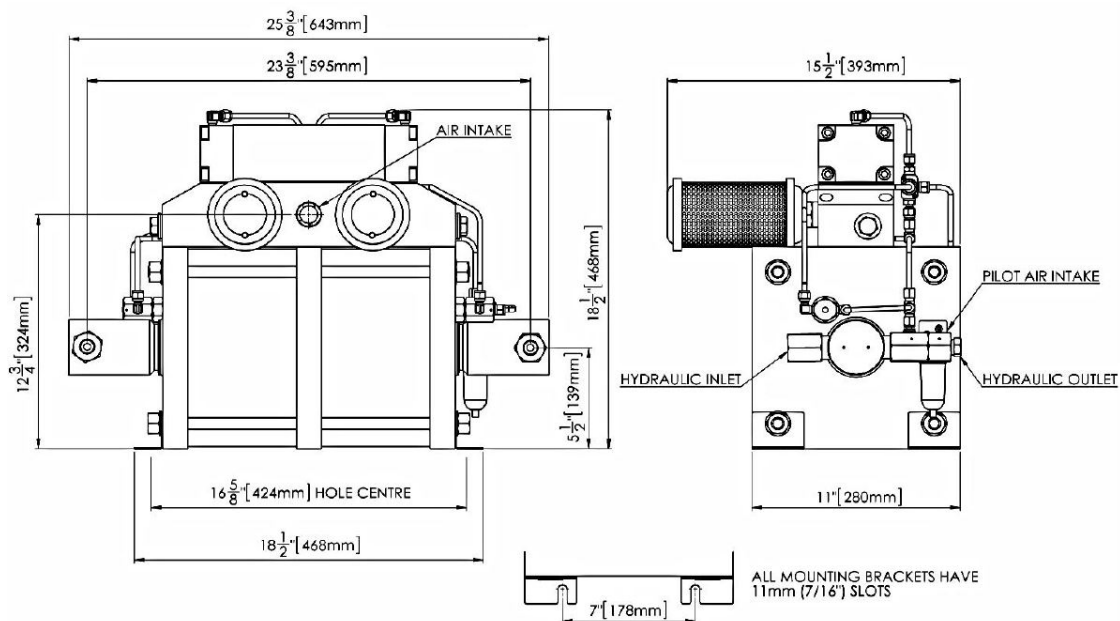
Hydraulic Inlet	1" NPT(F)
Hydraulic Outlet	1/2" NPT(F)
Air Inlet	1" NPT(F)
Pilot Air Supply	1/8" BSPP(F)
Net Weight	69kg (152lb)

COMMON OPTIONS (BUT NOT LIMITED TO)

/ A	ATEX (94/9/EC) II 2GD c T5
/ F	Panel mount digital stroke counter (non ATEX)
/ G	Panel mount pneumatic stroke counter

GENERAL LAYOUT DRAWING

Model: **PU-DHDA33/4**

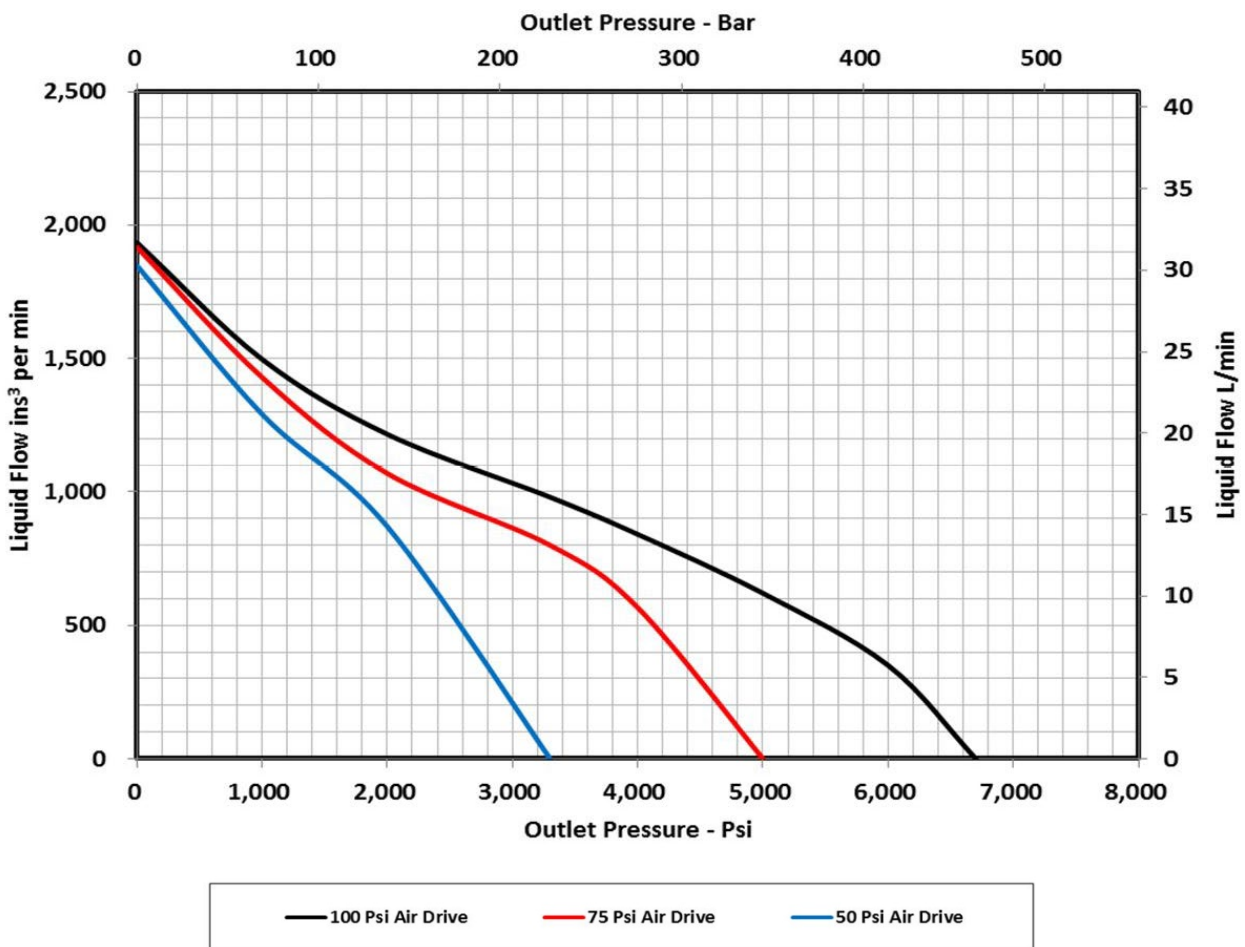


HYDRAULIC PRESSURE STATIC / STALL CONDITIONS

AIR PRESSURE	HYDRAULIC PRESSURE
20psi (1.4bar)	1,346psi (46bar)
40psi (2.8bar)	2,692psi (186bar)
60psi (4bar)	4,036psi (278bar)
80psi (5.5bar)	5,382psi (371bar)
100psi (7bar)	6,728psi (464bar)

FLOW CURVE

DHDA66 – Ratio 66:1





THANK YOU!

**GET IN
TOUCH
WITH US
NOW**

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