

## FEATURES

- > Oil-less
- > Long life
- > Low power consumption
- > Worldwide service network
- > Low noise/vibration
- > Protection class IP54 (AP/LP/LW-Series)
- > CE approved (230V models with housing and cord with plug)
- > Integrated intake filter (AP/LP/LW-Series)

## TYPICAL APPLICATIONS

- > Sewage aeration
- > Aquarium aeration
- > Gas/particle analysis
- > Air mattress
- > Compression therapy
- > Battery aeration
- > Grey water treatment
- > Process water recycling

## BASE MODEL









AP  
LP  
LW  
YP



Linear

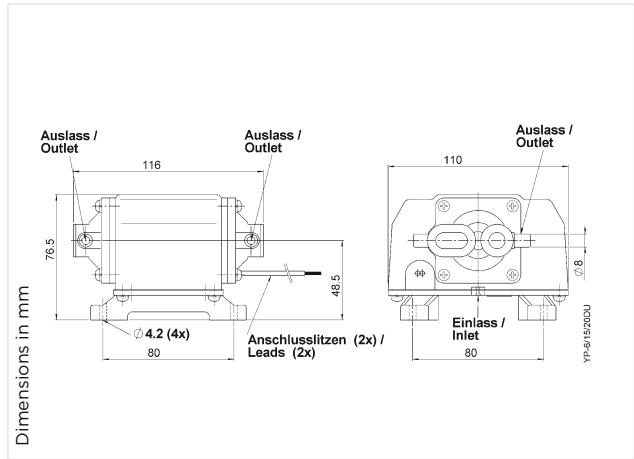
# Linear Diaphragm Pumps

## PRODUCT OVERVIEW

Model	Pressure	Vacuum	without housing	with housing	Flow at rated pressure						Page	
					0	50	100	150	200	250 (l/min)		
 YP-6DU YP-15DU YP-20DU	●			●							6 l/min @ 100 mbar 15 l/min @ 100 mbar 20 l/min @ 100 mbar	3
 YP-6A YP-15A YP-20A	●			●							6 l/min @ 100 mbar 15 l/min @ 100 mbar 20 l/min @ 100 mbar	4
 YP-6V YP-15V YP-20V	●	●		●							6 (5) l/min @ 100 (-100) mbar 15 (13) l/min @ 100 (-100) mbar 20 (18) l/min @ 100 (-100) mbar	5
 YP-30DU YP-40DU YP-50DU	●			●							32 l/min @ 120 mbar 43 l/min @ 120 mbar 50 l/min @ 120 mbar	6
 YP-30VC YP-40VC YP-50VC YP-60VC YP-70VC	●	●		●							33 (30) l/min @ 120 (-120) mbar 43 (39) l/min @ 120 (-120) mbar 58 (52) l/min @ 120 (-120) mbar 66 (61) l/min @ 120 (-120) mbar 73 (64) l/min @ 120 (-180) mbar	7
 AP-30 AP-40 AP-60N AP-60/80 AP-80H AP-100 AP-120	●			●							40 l/min @ 120 mbar 46 l/min @ 120 mbar 47 l/min @ 200 mbar 60 l/min @ 200 mbar 82 l/min @ 200 mbar 108 l/min @ 200 mbar 125 l/min @ 200 mbar	8,9
 LP-150HN LP-200HN	●			●							150 l/min @ 200 mbar 200 l/min @ 200 mbar	10
 LW-240	●			●							245 l/min @ 200 mbar	11

# Linear Diaphragm Pumps YP-6DU, YP-15DU, YP-20DU

Flow at rated pressure | 6 to 20 l/min



## PNEUMATIC DATA

Description	YP-6DU	YP-15DU	YP-20DU
Part number	<b>52500007</b>	<b>52500016</b>	<b>52500023</b>
Flow at rated pressure	6 l/min	15 l/min	20 l/min
Rated pressure	100 mbar	100 mbar	100 mbar
Operating range	20 to 150 mbar	20 to 200 mbar	20 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive
Voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Power consumption at rated pressure	7 W	13 W	18 W

## GENERAL DATA

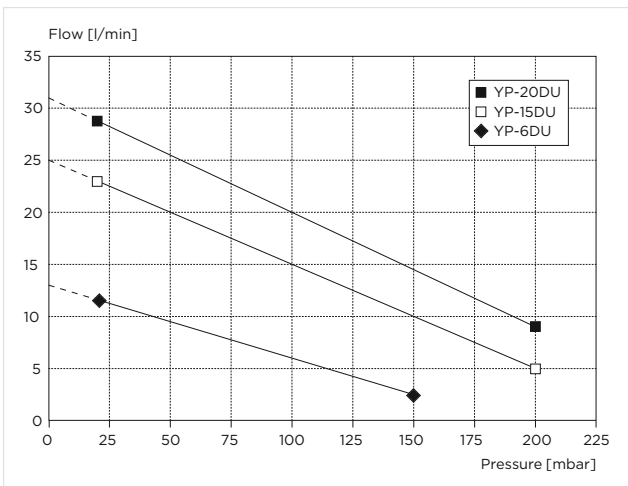
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	1.1 kg	1.2 kg	1.2 kg
Outlet diameter	2 x 8 mm	2 x 8 mm	2 x 8 mm
Average sound level	36 dB (A)	38 dB (A)	40 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	700017	700017	700017
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All listed values are measured at standard atmospheric conditions and at 50 Hz.  
 1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SUPPLIED AS STANDARD

5250... Stock programme

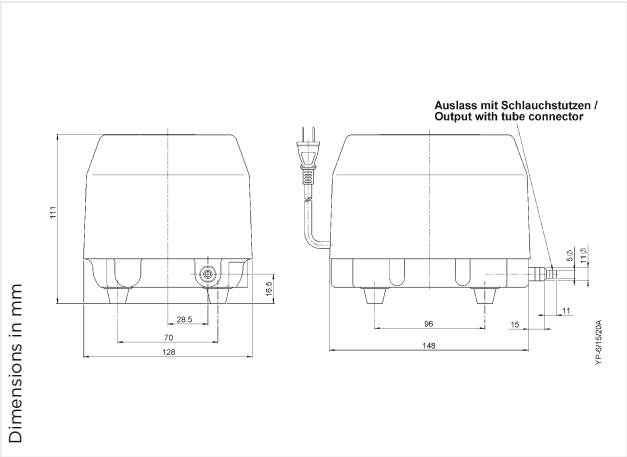
- 2 x Leads (30 cm) for power supply
- 1 x Lead (10 cm) for earth/ground

## SERVICE PARTS

- Chamber block set<sup>1)</sup> consists of:
- 2 x Pump head with valves
  - 2 x Diaphragm
  - 2 x Diaphragm ring
  - 2 x Diaphragm nut
  - 2 x Diaphragm washer

# Linear Diaphragm Pumps YP-6A, YP-15A, YP-20A

Flow at rated pressure | 6 to 20 l/min



## PNEUMATIC DATA

Description	YP-6A	YP-15A	YP-20A
Part number	<b>52500006</b>	<b>52500015</b>	<b>52500020</b>
Flow at rated pressure	6 l/min	15 l/min	20 l/min
Rated pressure	100 mbar	100 mbar	100 mbar
Operating range	20 to 150 mbar	20 to 200 mbar	20 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive
Voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Power consumption at rated pressure	7 W	13 W	18 W

## GENERAL DATA

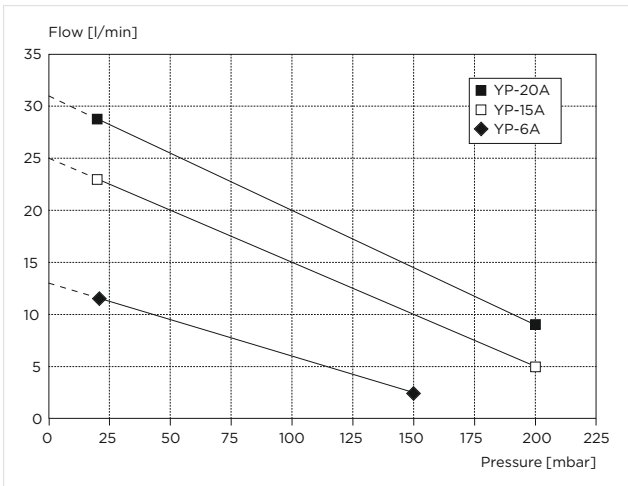
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	2.1 kg	2.4 kg	2.4 kg
Outlet diameter	5 or 11 mm	5 or 11 mm	5 or 11 mm
Average sound level	31 dB (A)	33 dB (A)	35 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	700017	700017	700017
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All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SUPPLIED AS STANDARD

Cable/Euro-plug  
1 x Tube connector I.D. 5 - 11 mm

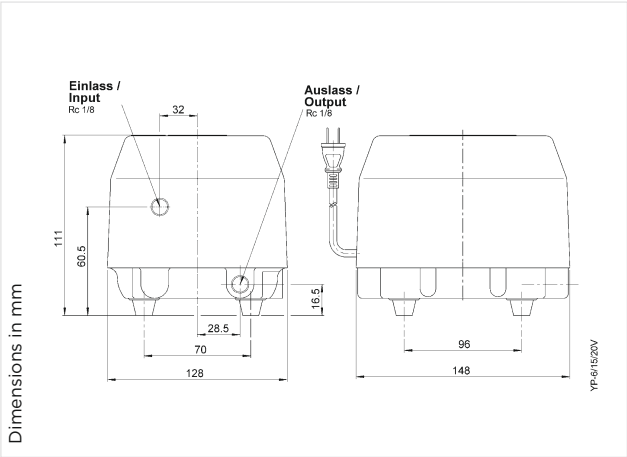
5250... Stock programme

## SERVICE PARTS

Chamber block set<sup>1)</sup> consists of:  
2 x Pump head with valves  
2 x Diaphragm  
2 x Diaphragm ring  
2 x Diaphragm nut  
2 x Diaphragm washer

# Linear Diaphragm Pumps YP-6V, YP-15V, YP-20V

Flow at rated pressure 6 to 20 l/min



## PNEUMATIC DATA

Description	YP-6V	YP-15V	YP-20V
Part number	<b>52500009</b>	<b>52500014</b>	<b>52500021</b>
Flow at rated pressure	6 l/min	15 l/min	20 l/min
Rated pressure	±100 mbar	±100 mbar	±100 mbar
Operating range	-150 to 150 mbar	-200 to 200 mbar	-200 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive
Voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Power consumption at rated pressure	7 W	13 W	18 W

## GENERAL DATA

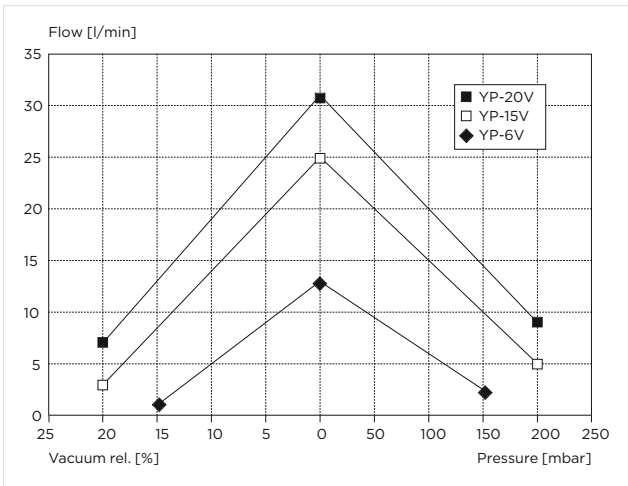
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	2.1 kg	2.4 kg	2.4 kg
Inlet /Outlet diameter	Rc 1/8	Rc 1/8	Rc 1/8
Average sound level	32 dB (A)	34 dB (A)	34 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	700017	700017	700017
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All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SUPPLIED AS STANDARD

Cable/Euro-plug

**5250...** Stock programme

## SERVICE PARTS

Chamber block set<sup>1)</sup> consists of:  
 2 x Pump head with valves  
 2 x Diaphragm  
 2 x Diaphragm ring  
 2 x Diaphragm nut  
 2 x Diaphragm washer

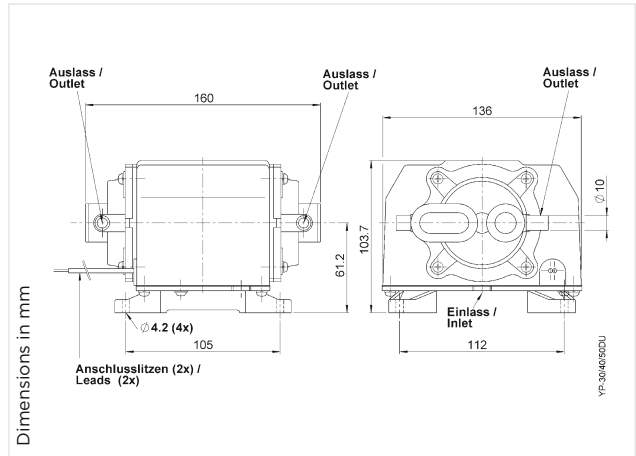
## ACCESSORIES

Tube connector I.D. 8 mm  
(part number 61206)

# Linear Diaphragm Pumps YP-30DU, YP-40DU, YP-50DU

Flow at rated pressure

32 to 50 l/min



## PNEUMATIC DATA

Description	YP-30DU	YP-40DU	YP-50DU
Part number	<b>52500036</b>	<b>52500043</b>	<b>52500052</b>
Flow at rated pressure	32 l/min	43 l/min	50 l/min
Rated pressure	120 mbar	120 mbar	120 mbar
Operating range	50 to 200 mbar	50 to 200 mbar	50 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive
Voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Power consumption at rated pressure	32 W	42 W	45 W

## GENERAL DATA

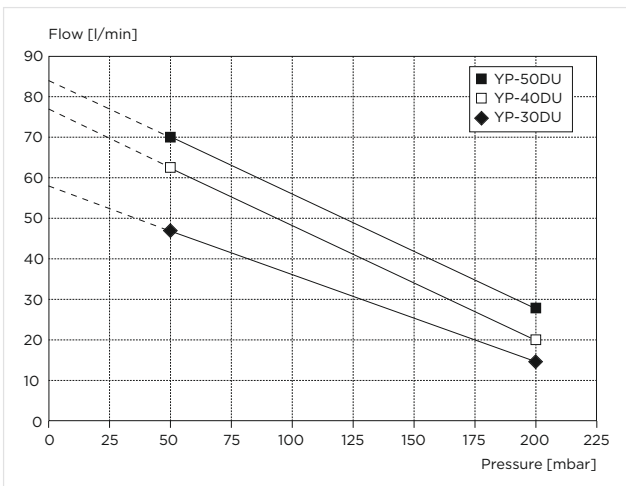
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	2.3 kg	2.5 kg	2.8 kg
Outlet diameter	2 x 10 mm	2 x 10 mm	2 x 10 mm
Average sound level	48 dB (A)	49 dB (A)	50 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700020</b>	<b>700020</b>	<b>700020</b>
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All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SUPPLIED AS STANDARD

**5250...** Stock programme

- 2 x Leads (30 cm) for power supply
- 1 x Lead (10 cm) for earth/ground

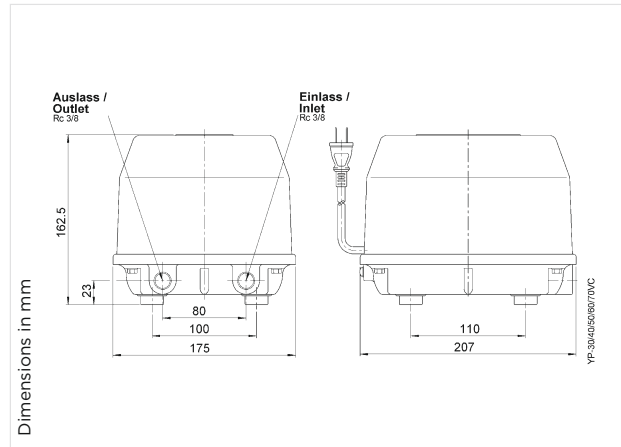
## SERVICE PARTS

- Chamber block set<sup>1)</sup> consists of:
- 2 x Pump head with valves
  - 2 x Diaphragm
  - 2 x Diaphragm ring
  - 2 x Diaphragm nut
  - 2 x Diaphragm washer

# Linear Diaphragm Pumps YP-30VC, YP-40VC, YP-50VC, YP-60VC, YP-70VC

Flow at rated pressure

33 to 73 l/min



## PNEUMATIC DATA

Description	YP-30VC	YP-40VC	YP-50VC	YP-60VC	YP-70VC
Part number	<b>52500401</b>	<b>52500402</b>	<b>52500054</b>	<b>52500067</b>	<b>52500073</b>
Flow at rated pressure	33 l/min	43 l/min	58 l/min	66 l/min	73 l/min
Rated pressure	±120 mbar	±120 mbar	±120 mbar	±120 mbar	±180 mbar
Operating range	-200 to 200 mbar	-200 to 200 mbar	-200 to 200 mbar	-200 to 200 mbar	-200 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive	Linear drive	Linear drive
Voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Power consumption at rated pressure	37 W	40 W	46 W	59 W	85 W

## GENERAL DATA

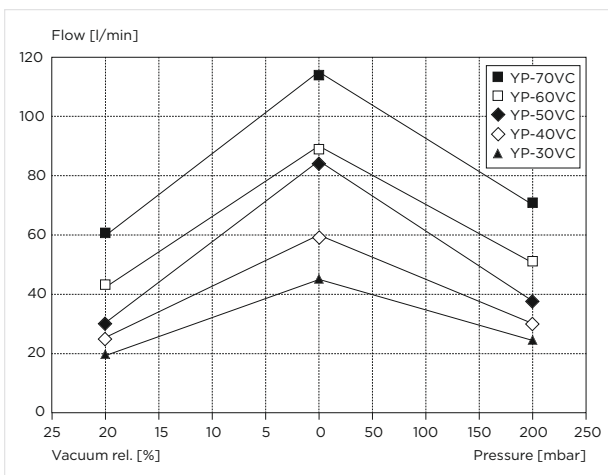
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	4.8 kg	5.1 kg	5.5 kg	5.9 kg	6.2 kg
Inlet / Outlet diameter	Rc 3/8	Rc 3/8	Rc 3/8	Rc 3/8	Rc 3/8
Average sound level	37 dB (A)	39 dB (A)	41 dB (A)	46 dB (A)	48 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700020</b>	<b>700020</b>	<b>700020</b>	<b>700038</b>	<b>700038</b>
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All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SUPPLIED AS STANDARD

**5250...** Stock programme

Cable/Euro-plug

## SERVICE PARTS

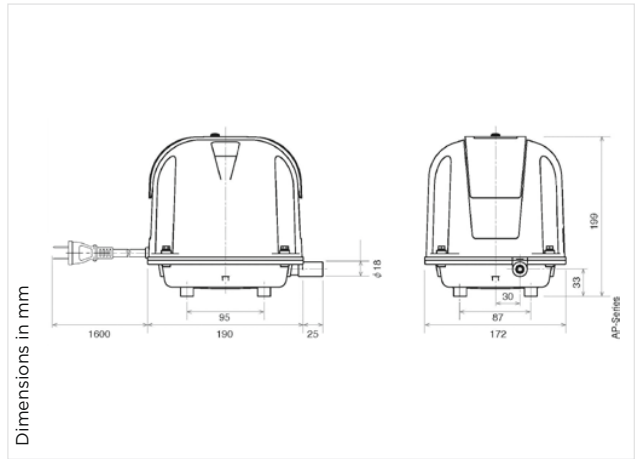
Chamber block set<sup>1)</sup> consists of:  
 2 x Pump head with valves  
 2 x Diaphragm  
 2 x Diaphragm ring  
 2 x Diaphragm nut  
 2 x Diaphragm washer

## ACCESSORIES

Tube connector I.D. 14 mm  
(part number 31644)

# Linear Diaphragm Pumps AP-30, AP-40

Flow at rated pressure 40 to 46 l/min



## PNEUMATIC DATA

Description	AP-30	AP-40
Part number	<b>52500452</b>	<b>52500453</b>
Flow at rated pressure	40 l/min	46 l/min
Rated pressure	120 mbar	120 mbar
Operating range	100 to 230 mbar	100 to 230 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive
Nominal Voltage	230 V 50/60 Hz	230 V 50/60 Hz
Consumption at rated pressure	0.28 A / 25 W	0.37 A / 29 W
Efficiency at rated pressure	0.63 W/l	0.63 W/l

## GENERAL DATA

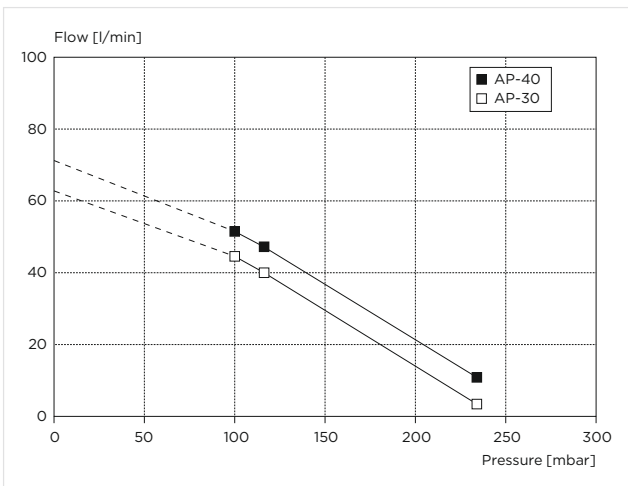
Ambient temperature	-10 to 40 °C	-10 to 40 °C
Weight	4.6 kg	4.6 kg
Outlet diameter	18 mm	18 mm
Average sound level	32 dB (A)	34 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700580</b>	<b>700580</b>
Air filter and gasket kit	<b>700582</b>	<b>700582</b>
Air filter kit	<b>700583</b>	<b>700583</b>

Please refer to the operation and service manual for additional information.  
All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SERVICE PARTS

Chamber block set<sup>1)</sup> consists of:  
2 x Pump head with valves  
2 x Diaphragm  
2 x Diaphragm ring  
2 x Diaphragm gasket  
2 x Nut  
2 x Washer

Air filter and gasket kit consists of:  
1 x Air cleaner element  
1 x Air cleaner gasket  
1 x Cover plate gasket  
1 x Noise absorbing net  
1 x Tank gasket

Air filter kit consists of:  
5 x Air cleaner element  
5 x Air cleaner gasket

## SUPPLIED AS STANDARD

Cable/Euro-plug  
Air connector (part number 700073) consists of:  
1 x Outlet hose, angled, 170/50 mm  
2 x Hose clamp

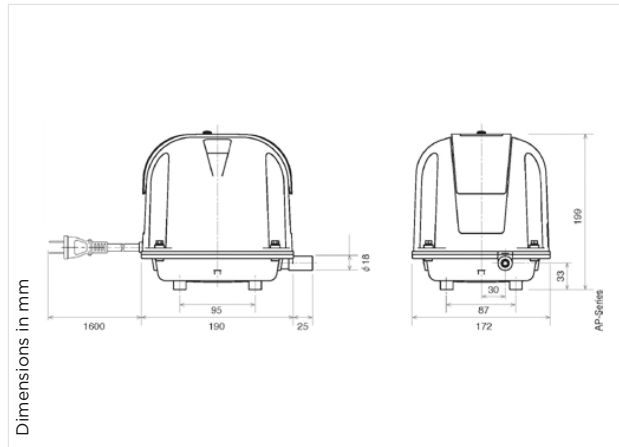
**5250...** Stock programme



# Linear Diaphragm Pumps AP-60N, AP-60/80, AP-80H, AP-100, AP-120

Flow at rated pressure

47 to 125 l/min



## PNEUMATIC DATA

Description	AP-60N	AP-60/80	AP-80H	AP-100	AP-120
Part number <sup>1)</sup>	<b>52500478</b>	<b>52500485</b>	<b>52500480</b>	<b>52500472</b>	<b>52500473</b>
Flow at rated pressure	47 l/min	60 l/min	82 l/min	108 l/min	125 l/min
Rated pressure	200 mbar	200 mbar	200 mbar	200 mbar	200 mbar
Operating range	100 to 300 mbar	100 to 300 mbar	100 to 300 mbar	140 to 300 mbar	160 to 300 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive	Linear drive	Linear drive
Nominal Voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Consumption at rated pressure	0.26 A / 31 W	0.34 A / 41 W	0.8 A / 73 W	1.06 A / 99 W	1.45 A / 128 W
Efficiency at rated pressure	0.66 W/l	0.68 W/l	0.89 W/l	0.92 W/l	1.02 W/l

## GENERAL DATA

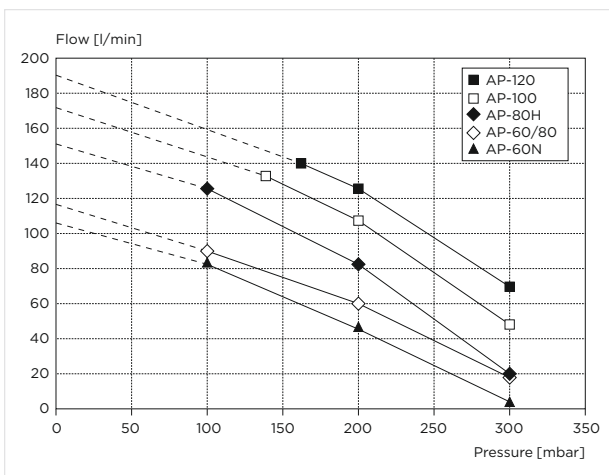
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	5.8 kg	5.8 kg	6.1 kg	6.1 kg	6.1 kg
Outlet diameter	18 mm	18 mm	18 mm	18 mm	18 mm
Average sound level	34 dB (A)	34 dB (A)	35 dB (A)	37 dB (A)	38 dB (A)

## SERVICE PARTS

Chamber block set <sup>2)</sup>	<b>700581</b>	<b>700581</b>	<b>700585</b>	<b>700585</b>	<b>700585</b>
Air filter and gasket kit	<b>700582</b>	<b>700582</b>	<b>700582</b>	<b>700582</b>	<b>700582</b>
Air filter kit	<b>700583</b>	<b>700583</b>	<b>700583</b>	<b>700583</b>	<b>700583</b>
Protective switch <sup>2)</sup>	<b>700586</b>	<b>700586</b>	<b>700586</b>	<b>700586</b>	<b>700586</b>

1) Standard version with cable and Schuko plug; if signal cable for connection of e.g. light/buzzer is needed please contact us  
Please refer to the operation and service manual for additional information.  
All listed values are measured at standard atmospheric conditions and at 50 Hz.  
2) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SERVICE PARTS

Chamber block set<sup>2)</sup> consists of:  
2 x Pump head with valves  
2 x Diaphragm  
2 x Diaphragm ring  
2 x Diaphragm gasket  
2 x Nut  
2 x Washer

Air filter and gasket kit consists of:  
1 x Air cleaner element  
1 x Air cleaner gasket  
1 x Cover plate gasket  
1 x Noise absorbing net  
1 x Tank gasket

Air filter kit consists of:  
5 x Air cleaner element  
5 x Air cleaner gasket

Protective switch<sup>2)</sup> consists of:  
1 x Microswitch  
2 x Nut  
2 x Washer  
1 x Cover plate gasket

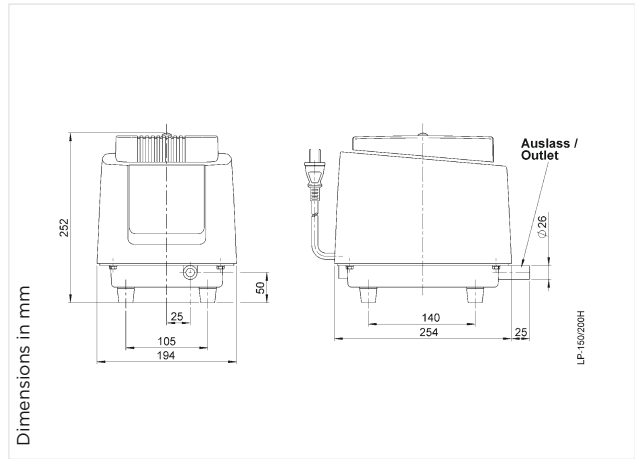
## SUPPLIED AS STANDARD

Cable/Euro-plug  
Air connector (part number 700073) consists of:  
1 x Outlet hose, angled, 170/50 mm  
2 x Hose clamp

**5250...** Stock programme

# Linear Diaphragm Pumps LP-150HN, LP-200HN

Flow at rated pressure | 150 to 200 l/min



## PNEUMATIC DATA

Description	LP-150HN	LP-200HN
Part number	<b>52500151</b>	<b>52500202</b>
Flow at rated pressure	150 l/min	200 l/min
Rated pressure	200 mbar	200 mbar
Operating range	100 to 300 mbar	100 to 300 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive
Nominal Voltage	230 V 50/60 Hz	230 V 50/60 Hz
Consumption at rated pressure	0.85 A/130 W	1.15 A/200 W

## GENERAL DATA

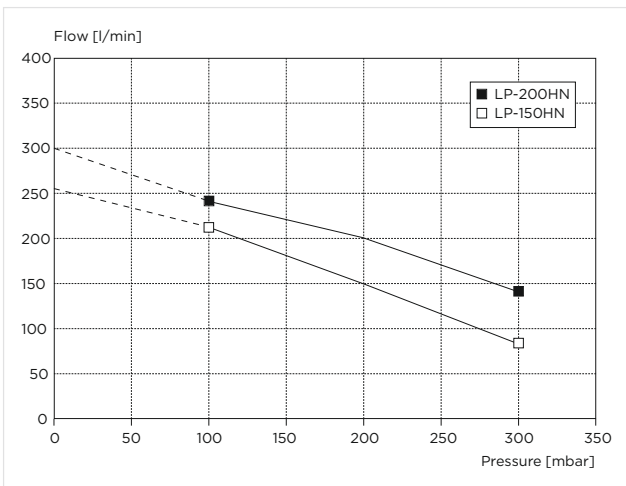
Ambient temperature	-10 to 40 °C	-10 to 40 °C
Weight	8.6 kg	8.6 kg
Outlet diameter	18 mm	18 mm
Average sound level	43 dB (A)	44 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700549</b>	<b>700549</b>
Air filter and gasket kit	<b>700550</b>	<b>700550</b>
Air filter kit	<b>700551</b>	<b>700551</b>
Protective switch <sup>1)</sup>	<b>700552</b>	<b>700552</b>

Please refer to the operation and service manual for additional information.  
All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SERVICE PARTS

Chamber block set<sup>1)</sup> consists of:  
2 x Pump head with valves  
2 x Diaphragm  
2 x Diaphragm ring  
2 x Diaphragm nut  
2 x Diaphragm washer  
2 x Diaphragm gasket

Air filter and gasket kit consists of:  
1 x Air cleaner element  
1 x Air cleaner gasket  
1 x Cover plate gasket  
1 x Noise absorbing net  
1 x Tank gasket  
2 x L-Hose  
2 x L-Clamp

Air filter kit consists of:  
5 x Air cleaner element  
5 x Air cleaner gasket

Protective switch<sup>1)</sup> consists of:  
1 x Microswitch complete with cover plate  
1 x Cover plate gasket

## SUPPLIED AS STANDARD

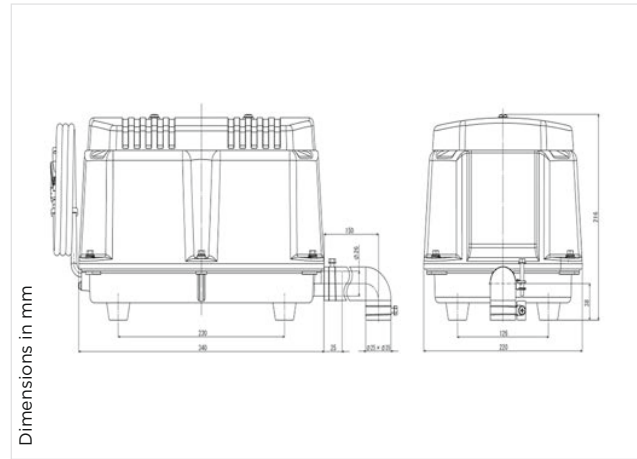
Cable/Euro-plug  
Air connector (part number 700073) consists of:  
1 x Outlet hose, angled, 170/50 mm  
2 x Hose clamp

**5250...** Stock programme

# Linear Diaphragm Pumps LW-240

Flow at rated pressure

245 l/min



## PNEUMATIC DATA

Description	LW-240
Part number	<b>52500410</b>
Flow at rated pressure	245 l/min
Rated pressure	200 mbar
Operating range	100 to 300 mbar

## ELECTRICAL DATA

Motor type	Linear drive
Nominal Voltage	230 V 50/60 Hz
Consumption at rated pressure	1.8 A/250 W

## GENERAL DATA

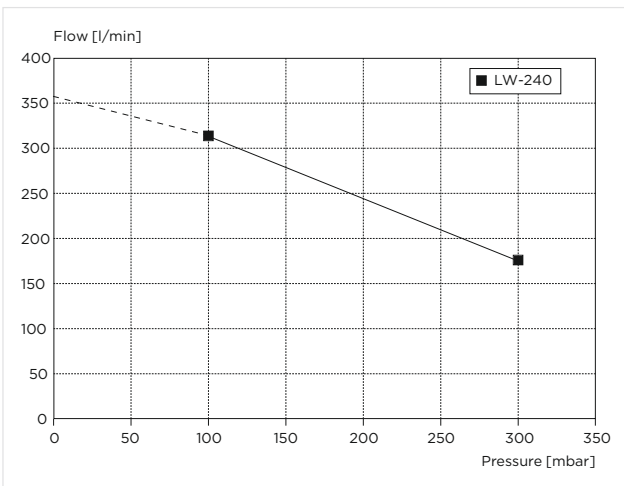
Ambient temperature	-10 to 40 °C
Weight	14.1 kg
Outlet diameter	26 mm
Average sound level	48 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700500</b>
Air filter and gasket kit	<b>700502</b>
Air filter kit	<b>700510</b>
Protective switch <sup>1)</sup>	<b>700512</b>

Please refer to the operation and service manual for additional information.  
All listed values are measured at standard atmospheric conditions and at 50 Hz.  
1) Only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.

## SERVICE PARTS

Chamber block set<sup>1)</sup> consists of:  
4 x Pump head with valves  
4 x Diaphragm  
4 x Diaphragm ring  
4 x Diaphragm nut  
4 x Diaphragm washer

Air filter and gasket kit consists of:  
1 x Air cleaner element  
1 x Air cleaner gasket  
1 x Noise absorbing net  
1 x Tank gasket  
1 x Cover gasket  
4 x L-Hose  
4 x L-Clamp

Air filter kit consists of:  
5 x Air cleaner element  
5 x Air cleaner gasket

Protective switch<sup>1)</sup> consists of:  
1 x Microswitch complete with cover plate

Please note: one pump is equipped with 2 protective switches

## SUPPLIED AS STANDARD

Cable/Euro-plug  
Air connector (part number 700513) consists of:  
1 x Outlet hose, angled, 170/50 mm  
2 x Hose clamp

Accessory:  
Air connector, straight type (part number 700514) consists of:  
1 x Outlet hose, straight, 150 mm  
2 x Hose clamp

**5250...** Stock programme

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE



The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable and is offered as an aid to help in the selection of Thomas products. It is the responsibility of the user to determine the suitability of the product for the intended use and the user assumes all risk and liability in connection therewith. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information.

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