

## FEATURES

- > Oil-less
- > Long life
- > Low power consumption
- > Worldwide service network
- > Low sound level/vibration
- > Protection class IP54 (AP/LP/LW-Series)
- > CE approved (230V 50Hz models with housing and cord with plug)
- > Integrated intake filter (AP/LP/LW-Series)
- > RoHS compliant

## 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  
YP-DU



Linear

# Linear Diaphragm Pumps

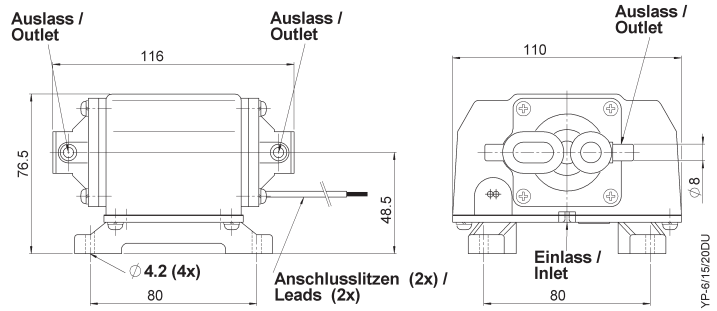
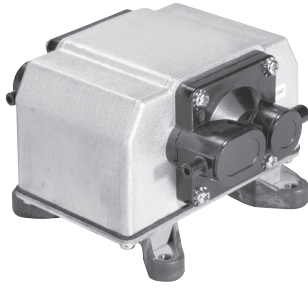
## PRODUCT OVERVIEW

Model	Pressure	Vacuum	without housing		Flow at rated pressure									Page			
			without housing	with housing	0	50	100	150	200	250	300	400(l/min)					
 <p>YP-15DU YP-20DU</p>	• •		•	•												15 l/min @ 100 mbar 20 l/min @ 100 mbar	3
 <p>YP-15A YP-20A</p>	• •			•	•											15 l/min @ 100 mbar 20 l/min @ 100 mbar	4
 <p>YP-20V</p>	•	•		•												20 (18) l/min @ 100 (-100) mbar	5
 <p>YP-40DU YP-50DU</p>	• •			•	•											43 l/min @ 120 mbar 50 l/min @ 120 mbar	6
 <p>YP-40VC YP-70VC</p>	• •	• •		•	•											43 (39) l/min @ 120 (-120) mbar 73 (64) l/min @ 120 (-180) mbar	7
 <p>AP-40 AP-60N AP-60/80 AP-80H AP-100 AP-120</p>	• • • • • •			•	•	•	•	•	•	•	•	•	•	•	•	45 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
 <p>LP-150HN LP-200HN</p>	• •			•	•											150 l/min @ 200 mbar 200 l/min @ 200 mbar	10
 <p>LW-240 LW-300 LW-400</p>	• • •			•	•	•	•	•	•	•	•	•	•	•	•	240 l/min @ 200 mbar 350 l/min @ 200 mbar 425 l/min @ 200 mbar	11

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

Flow at rated pressure

6 to 20 l/min at 100 mbar



YP-6/15/20DU

## PNEUMATIC DATA

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

## ELECTRICAL DATA

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

## GENERAL DATA

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

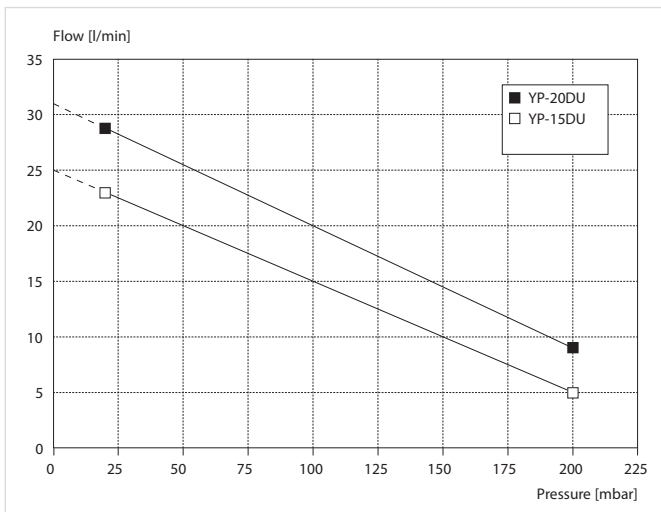
## SERVICE PARTS

Chamber block set <sup>1)</sup>	700017	700017	
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All listed values are measured at standard atmospheric conditions.  
If 230V 60Hz is required, please consult factory.

1) Denotes that service part is only available for trained service personnel.

## FLOW CURVES



## SUPPLIED AS STANDARD

- 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 assembly
  - 2 x Diaphragm nut
  - 2 x Diaphragm washer

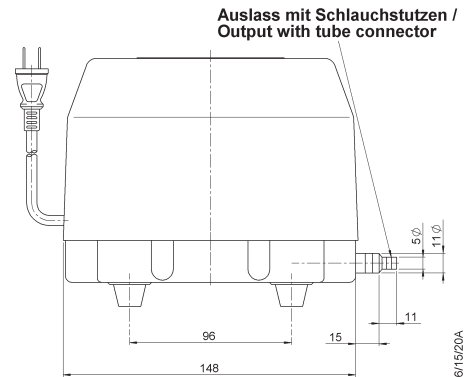
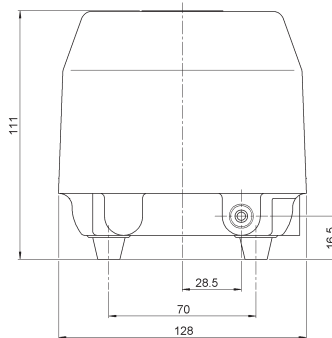
**5250...** Stock programme

Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions.

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

Flow at rated pressure

15 to 20 l/min at 100 mbar



YP-6/15/20A

## PNEUMATIC DATA

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

## ELECTRICAL DATA

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

## GENERAL DATA

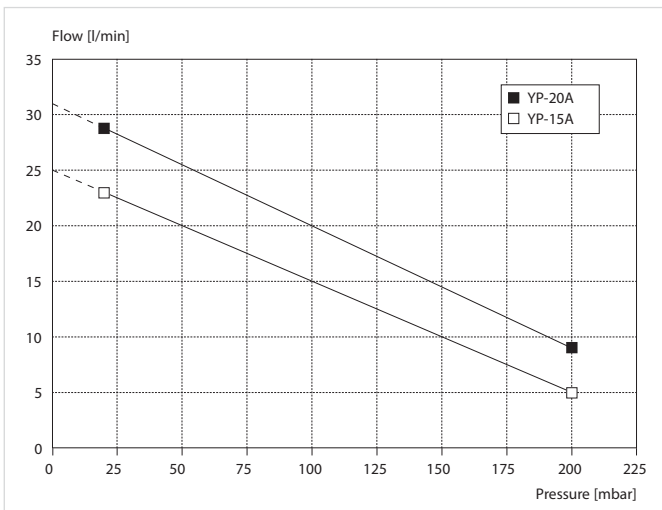
Ambient temperature	-10 to 40 °C	-10 to 40 °C
Weight	2.4 kg	2.4 kg
Outlet diameter	5 or 11 mm	5 or 11 mm
Average sound level	33 dB (A)	35 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	700017	700017
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All listed values are measured at standard atmospheric conditions.  
 If 230V 60Hz is required, please consult factory.  
 1) Denotes that service part is only available for trained service personnel.  
 Please refer to the operation manual for additional information.

## FLOW CURVES



## SUPPLIED AS STANDARD

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

## SERVICE PARTS

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

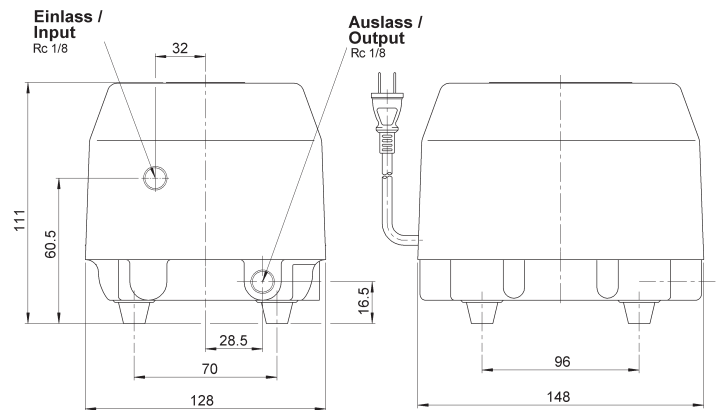
**5250...** Stock programme

Note: Operation outside specified operating range is not recommended.  
 All listed values are measured at standard atmospheric conditions.

# Linear Diaphragm Pump YP-20V

Flow at rated pressure

20 l/min at 100 mbar



YP-6/15/20V

## PNEUMATIC DATA

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

## ELECTRICAL DATA

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

## GENERAL DATA

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

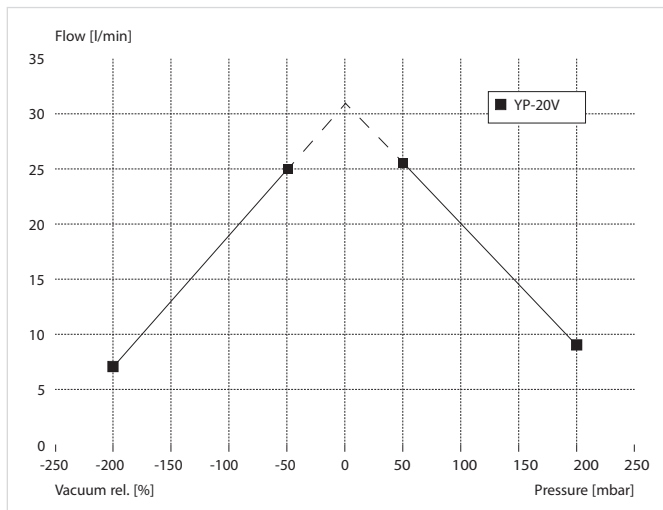
## SERVICE PARTS

Chamber block set <sup>1)</sup>	700017
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All listed values are measured at standard atmospheric conditions.  
If 230V 60Hz is required, please consult factory.

1) Denotes that service part is only available for trained service personnel.  
Please refer to the operation manual for additional information.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions.

## SUPPLIED AS STANDARD

Cable/Euro-plug

## SERVICE PARTS

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

## ACCESSORIES

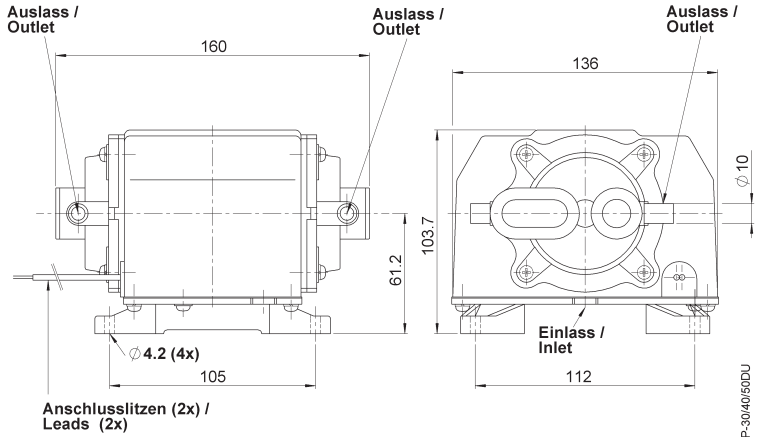
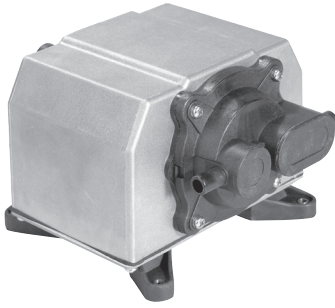
Tube connector I.D. 8 mm  
(part number 61206)

**5250...** Stock programme

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

Flow at rated pressure

43 to 50 l/min at 120 mbar



## PNEUMATIC DATA

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

## ELECTRICAL DATA

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

## GENERAL DATA

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

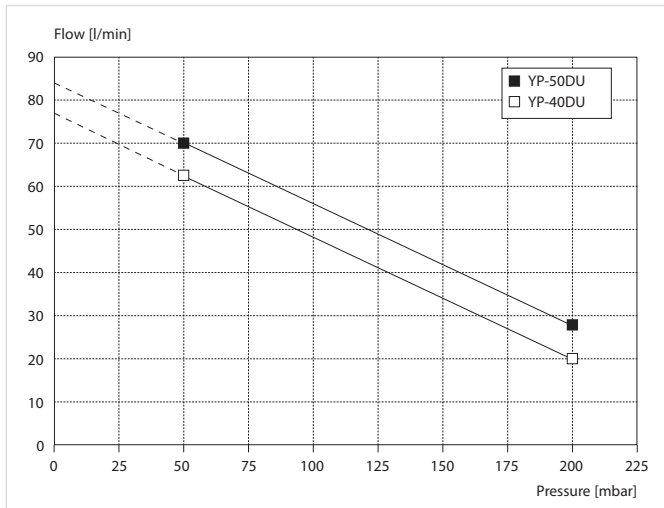
## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700020</b>	<b>700020</b>
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All listed values are measured at standard atmospheric conditions.  
If 230v 60Hz is required, please consult factory.

1) Denotes that service part is only available for trained service personnel.

## FLOW CURVES



## SUPPLIED AS STANDARD

- 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 assembly
  - 2 x Diaphragm nut
  - 2 x Diaphragm washer

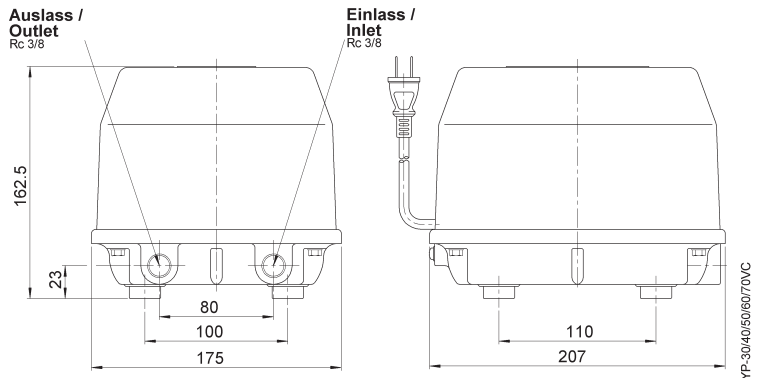
**5250...** Stock programme

Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions.

# Linear Diaphragm Pumps YP-40VC, YP-70VC

Flow at rated pressure

43 to 73 l/min at 120 to 200 mbar



## PNEUMATIC DATA

Description	YP-40VC	YP-70VC
Part number	<b>52500402</b>	<b>52500073</b>
Flow at rated pressure	43 l/min	73 l/min
Rated pressure	±120 mbar	±120 mbar
Operating range	-200 to 200 mbar	-200 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive
Voltage	230V 50Hz	230V 50Hz
Power consumption at rated pressure	40 W	85 W

## GENERAL DATA

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

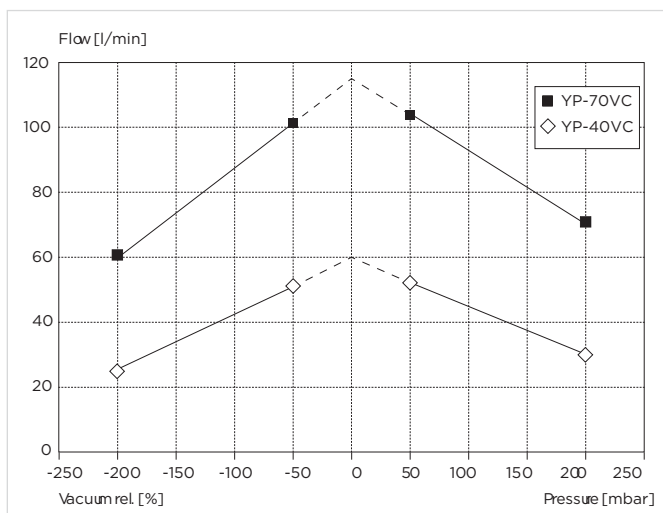
## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700020</b>	<b>700038</b>
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All listed values are measured at standard atmospheric conditions.  
If 230V 60Hz is required, please consult factory.

1) Denotes that service part is only available for trained service personnel.  
Please refer to the operation manual for additional information.

## FLOW CURVES



## SUPPLIED AS STANDARD

Cable/Euro-plug

## SERVICE PARTS

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

## ACCESSORIES

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

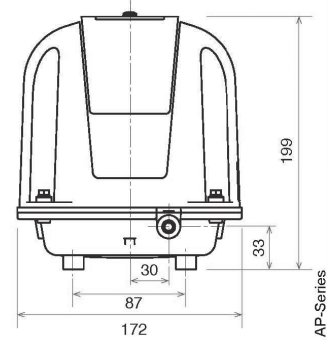
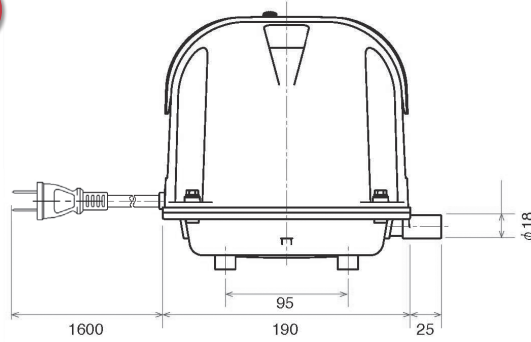
**5250...** Stock programme

Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions.

# Linear Diaphragm Pump **AP-40**

Flow at rated pressure

45 l/min at 120 mbar



## PNEUMATIC DATA

Description	AP-40
Part number	<b>52500453</b>
Flow at rated pressure	45 l/min
Rated pressure	120 mbar
Operating range	50 to 200 mbar

## ELECTRICAL DATA

Motor type	Linear drive
Nominal Voltage	230V 50Hz
Consumption at rated pressure	0.34 A / 29 W
Efficiency at rated pressure	0.64 W/l

## GENERAL DATA

Ambient temperature	-10 to 40 °C
Weight	4.3 kg
Outlet diameter	18 mm
Average sound level	34 dB (A)

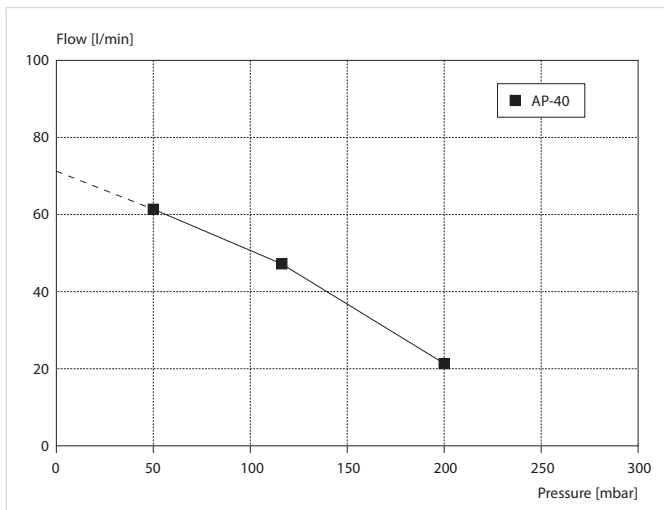
## SERVICE PARTS

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

All listed values are measured at standard atmospheric conditions.  
If 230V 60Hz is required, please consult factory.

1) Denotes that service part is only available for trained service personnel.  
Please refer to the operation manual for additional information.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions

## SERVICE PARTS

Chamber block set<sup>1)</sup> consists of:  
 2 x Pump head with valves  
 2 x Diaphragm assembly  
 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 consists of (part number 700073)  
 1 x Outlet hose, angled, 170/50 mm  
 2 x Hose clamp

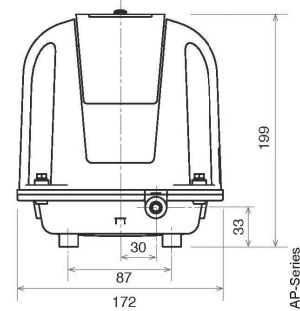
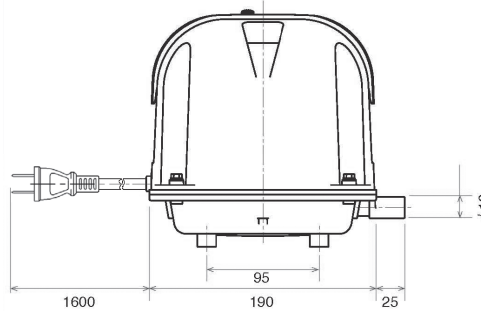
**5250...** Stock programme



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

Flow at rated pressure

47 to 125 l/min at 200 mbar



AP-Series

## PNEUMATIC DATA

Description	AP-60N	AP-60/80	AP-80H	AP-100	AP-120
Part number	<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	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz
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>1)</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>1)</sup>	<b>700586</b>	<b>700586</b>	<b>700586</b>	<b>700586</b>	<b>700586</b>

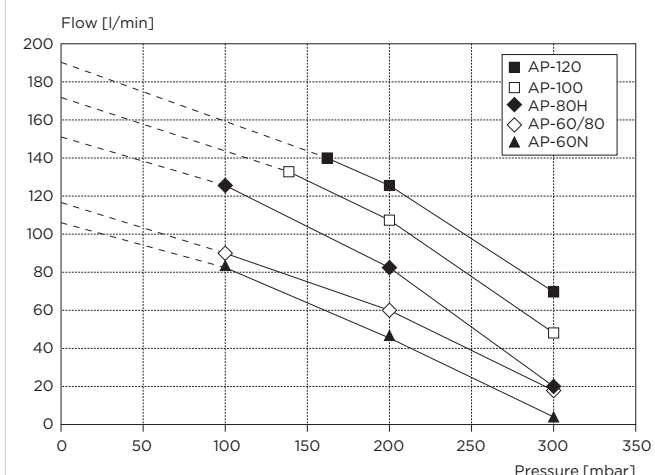
All listed values are measured at standard atmospheric conditions.

If 230V 60Hz is required, please consult factory

1) Denotes that service part is only available for trained service personnel.

Please refer to the operation manual for additional information.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions

## SERVICE PARTS

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

## SUPPLIED AS STANDARD

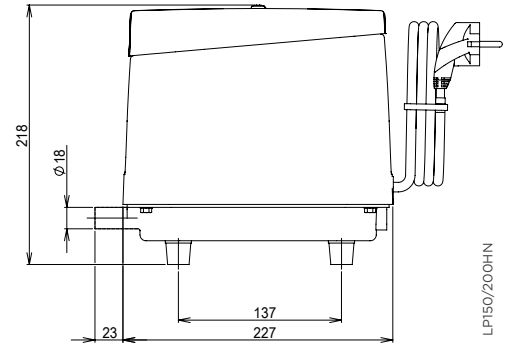
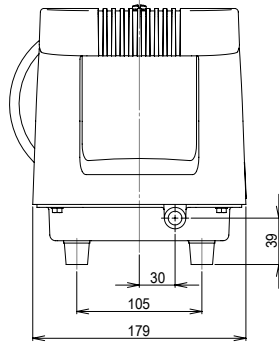
Cable/Euro-plug  
 Air connector consists of (part number 700073)  
 1 x Outlet hose, angled, 170/50 mm  
 2 x Hose clamp

**5250...** Stock programme

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

Flow at rated pressure

150 to 200 l/min at 200 mbar



LP150/200HN

## 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	230V 50Hz	230V 50Hz
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>

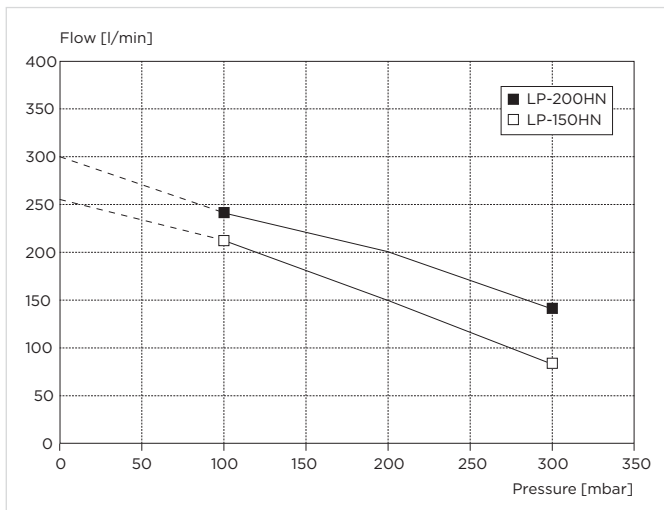
All listed values are measured at standard atmospheric conditions.

If 230v 60Hz is required, consult factory

1) Denotes that service part is only available for trained service personnel.

Please refer to the operation manual for additional information.

## FLOW CURVES



## SERVICE PARTS

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

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

## 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

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

**5250...** Stock programme

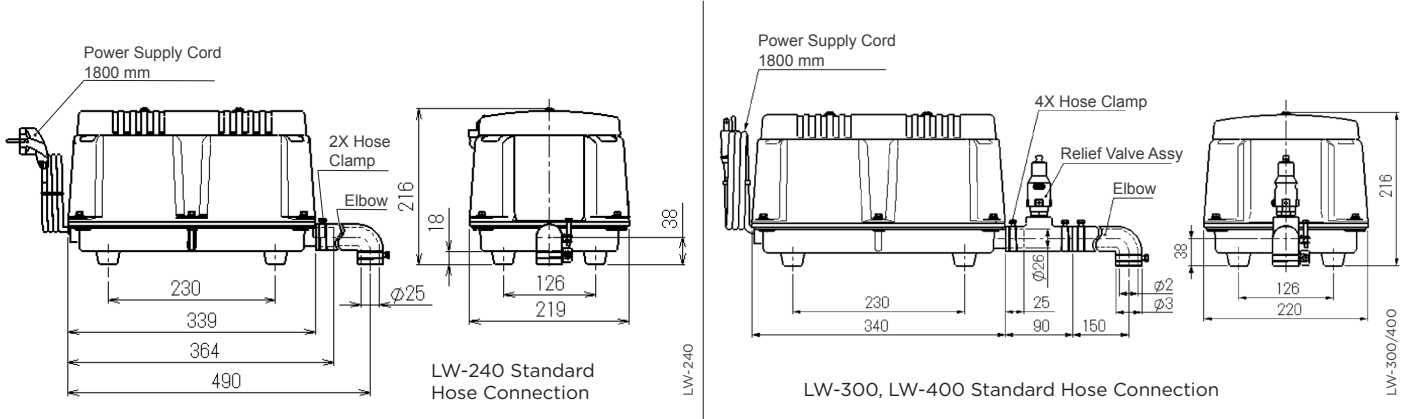
Note: Operation outside specified operating range is not recommended.  
 All listed values are measured at standard atmospheric conditions



# Linear Diaphragm Pumps LW-240, LW-300, LW-400

Flow at rated pressure

425 l/min at 200 mbar



## PNEUMATIC DATA

Description	LW-240	LW-300	LW-400
Part number	<b>52500410</b>	<b>52500411</b>	<b>52500414</b>
Flow at rated pressure	240 l/min	350 l/min	425 l/min
Rated pressure	200 mbar	200 mbar	200 mbar
Operating range	100 to 250 mbar	100 to 250 mbar	100 to 250 mbar

## ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive
Nominal Voltage	230V 50Hz	230V 50Hz	230V 50Hz
Consumption at rated pressure	1.8 A/250 W	1.6 A/280 W	2.4 A/400 W

## GENERAL DATA

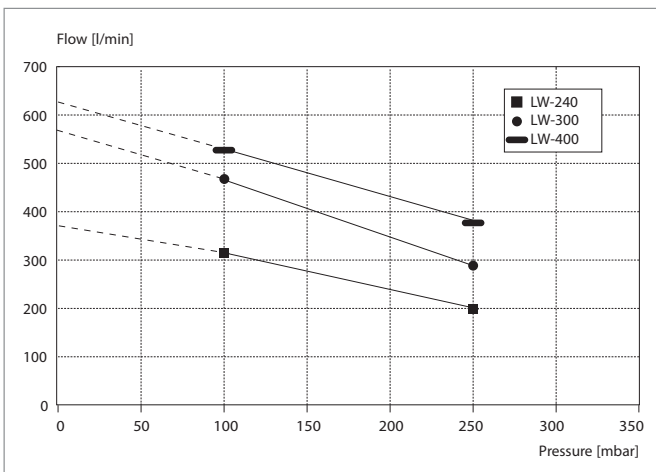
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	14.4 kg	16.0 kg	16.0 kg
Outlet diameter	26 mm	26 mm	26 mm
Average sound level	49 db (A)	50 db (A)	51 dB (A)

## SERVICE PARTS

Chamber block set <sup>1)</sup>	<b>700500</b>	<b>700597</b>	<b>700597</b>
Air filter and gasket kit	<b>700502</b>	<b>700598</b>	<b>700598</b>
Air filter kit	<b>700510</b>	<b>700510</b>	<b>700510</b>
Protective switch <sup>1)</sup>	<b>700512</b>	<b>700599</b>	<b>700599</b>

All listed values are measured at standard atmospheric conditions.  
Please consult factory if 230V 60Hz is needed.  
Please refer to the operation manual for additional information.  
1) Denotes that part is only available for trained service personnel.

## FLOW CURVES



Note: Operation outside specified operating range is not recommended.  
All listed values are measured at standard atmospheric conditions

## SERVICE PARTS

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

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 w/cover plate  
Please note: One unit is equipped with two protective switches

## SUPPLIED AS STANDARD

Cable/Euro with plug  
Air connector consisting of LW-240 (700513)  
1 x Outlet hose, angled, 170/50 mm  
2 x Hose clamp  
LW-300 & LW-400 (P/N 700600)  
1 x Outlet hose, angled, 170/50 mm  
4 x Hose clamp  
1 x Relief valve assembly  
1 x Hose connector

Accessory Available:  
Air connector, straight type (P/N 700514) consists of  
1 x Outlet hose, straight, 150 mm  
2 x Hose clamp

**5250...** Stock programme

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE

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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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