LINEAR

Linear Diaphragm Pumps

MODELS

YP LP LW



LP Series



YP Series



FEATURES

- Oil-less
- Long life
- Low power consumption
- Worldwide service network
- Low noise/vibration
- Protection class IP54 (LP-Series)

TYPICAL APPLICATIONS

- Sewage aeration
- Aquarium aeration
- Gas/particle analysis
- Air mattress
- Compression therapy
- Battery aeration





Linear Diaphragm Pumps

Product overview

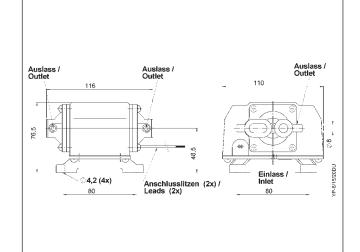
Model		Pressure	Vacuum	without housing	with housing	Flow at rated pressure	Page
P	YP-6DU YP-15DU YP-20DU	•		•		6 l/min @ 100 mbar 15 l/min @ 100 mbar 20 l/min @ 100 mbar	4
	YP-6A YP-15A YP-20A	•			•	6 l/min @ 100 mbar 15 l/min @ 100 mbar 20 l/min @ 100 mbar	5
0	YP-6V YP-15V YP-20V	•	•		•	6 (5) I/min @ 100 (-100) mbar 15 (13) I/min @ 100 (-100) mbar 20 (18) I/min @ 100 (-100) mbar	6
	YP-30DU YP-40DU YP-50DU	•		•		32 l/min @ 120 mbar 43 l/min @ 120 mbar 50 l/min @ 120 mbar	7
The state of the s	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 @ 180 (-180) mbar	8
	LP-60EN LP-80E	•			•	60 l/min @ 150 mbar 80 l/min @ 150 mbar	9
	LP-30A LP-40A LP-60HN	•			•	36 l/min @ 120 mbar 45 l/min @ 120 mbar 70 l/min @ 150 mbar	10
	LP-80HN LP-100H LP-120H	•			•	90 l/min @ 160 mbar 110 l/min @ 180 mbar 120 l/min @ 200 mbar	11
	LP-150HN LP-200HN	•			•	150 l/min @ 200 mbar 200 l/min @ 200 mbar	12
	LW-200 LW-240	•			•	200 I/min @ 200 mbar 245 I/min @ 200 mbar	13



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

Flow at rated pressure 6 to 20 I/min

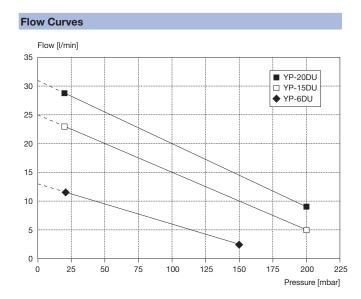




Pneumatic Data				
Description	YP-6DU	YP-15DU	YP-20DU	
Part number	52500007	52500016	52500023	
Flow at rated pressure	6 l/min	15 l/min	20 l/min	
Rated pressure	100 mbar	100 mbar	100 mbar	
Operating range	20 to 150 mbar	20 to 200 mbar	20 to 200 mbar	
Electrical Data				
Motor type	Linear drive	Linear 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 noise level	36 dB (A)	38 dB (A)	40 dB (A)	

Service Parts Part Numbers Chamber block set 700017 700017 700017

All listed values are measured at standard atmospheric conditions and at 50 Hz.



Supplied as standard:

5250... Stock programme

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

Service parts:

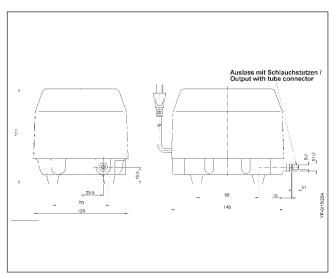
Chamber block consists of:

- 2 x Pump head with valves
- 2 x Diaphragm
- 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer



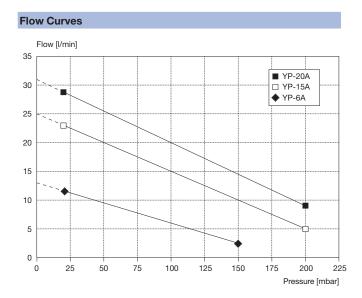
Linear Diaphragm Pumps YP-6A, YP-15A, YP-20A





Pneumatic Data			
Description	YP-6A	YP-15A	YP-20A
Part number	52500006	52500015	52500020
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 noise level	31 dB (A)	33 dB (A)	35 dB (A)
Service Parts	Part Numbers		
Chamber block set	700017	700017	700017

All listed values are measured at standard atmospheric conditions and at 50 Hz.



Supplied as standard:

5250... Stock programme

Cable/Euro-plug

1 x Tube connector I.D. 5 - 11 mm

Service parts:

Chamber block consists of:

- 2 x Pump head with valves
- 2 x Diaphragm
- 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer

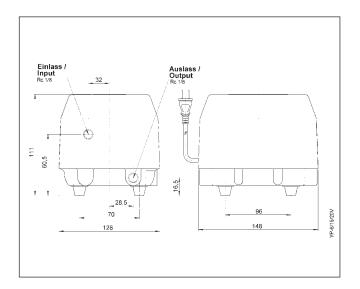


Linear Diaphragm Pumps YP-6V, YP-15V, YP-20V

Flow at rated pressure 6 to 20 l/min







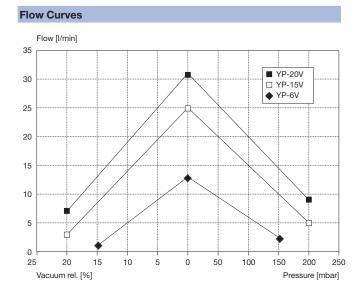
Pneumatic Data				
Description	YP-6V	YP-15V	YP-20V	
Part number	52500009	52500014	52500021	
Flow at rated pressure	6 l/min	15 l/min	20 l/min	
Rated pressure	±100 mbar	±100 mbar	±100 mbar	
Operating range	-150 to 150 mbar	-200 to 200 mbar	-200 to 200 mbar	

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	Rc 1/8	Rc 1/8	Rc 1/8
Average noise level	32 dB (A)	34 dB (A)	34 dB (A)

Service Parts	Part Numbers		
Chamber block set	700017	700017	700017

All listed values are measured at standard atmospheric conditions and at 50 Hz.



Supplied as standard:

Cable/Euro-plug

Service parts:
Chamber block 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)

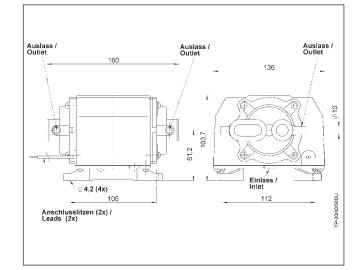
5250... Stock programme



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

Flow at rated pressure 32 to 50 l/min





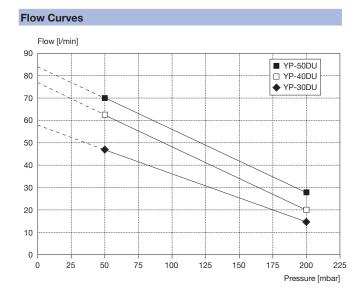
Pneumatic Data			
Description	YP-30DU	YP-40DU	YP-50DU
Part Number	52500036	52500043	52500052
Flow at rated pressure	32 l/min	43 l/min	50 l/min
Rated pressure	120 mbar	120 mbar	120 mbar
Operating range	50 to 200 mbar	50 to 200 mbar	50 to 200 mbar
Electrical Data			

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 noise level	48 dB (A)	49 dB (A)	50 dB (A)	

Service Parts	Part Numbers			
Chamber block set	700018	700018	700020	

All listed values are measured at standard atmospheric conditions and at 50 Hz.



Supplied as standard:

y

5250... Stock programme

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

Service parts:

Chamber block consists of:

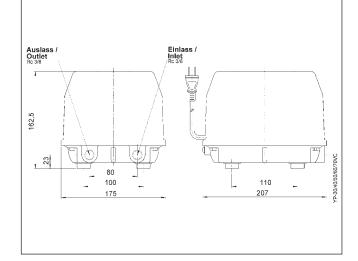
- 2 x Pump head with valves
- 2 x Diaphragm
- 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer



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



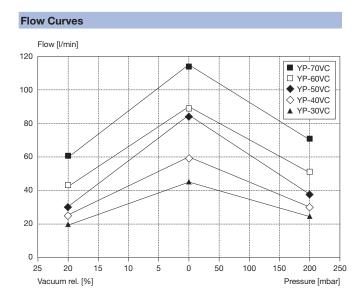






Pneumatic Data					
Description	YP-30VC	YP-40VC	YP-50VC	YP-60VC	YP-70VC
Part number	52500401	52500402	52500054	52500067	52500073
Flow at rated pressure	33 l/min	43 l/min	58 l/min	66 l/min	73 l/min
Rated pressure	±120 mbar	±120 mbar	±120 mbar	±120 mbar	±180 mbar
Operating range	-200 to 200 mbar				
Electrical Data					
Motor type	Linear drive				
Voltage	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				
Weight	4,8 kg	5,1 kg	5,5 kg	5,9 kg	6,2 kg
Inlet/outlet	Rc 3/8				
Average noise level	37 dB (A)	39 dB (A)	41 dB (A)	46 dB (A)	48 dB (A)
Service Parts	Part Numbers				
Chamber block set	700019	700019	700020	700021	700022

All listed values are measured at standard atmospheric conditions and at 50 Hz.



Supplied as standard:

Cable/Euro-plug

Accessories:

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

Service parts:

Chamber block consists of:

- 2 x Pump head with valves
- 2 x Diaphragm
- 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer

5250... Stock programme

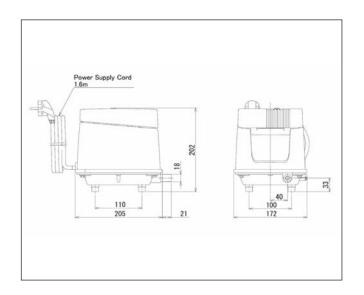


Linear Diaphragm Pumps LP-60EN, LP-80E

Flow at rated pressure 60 to 80 l/min







Pneumatic Data		
Description	LP-60EN	LP-80E
Part number	52500451	52500450
Flow at rated pressure	60 l/min	80 l/min
Rated pressure	150 mbar	150 mbar
Operating range	50 to 250 mbar	50 to 250 mbar

Electrical Data		
Motor type	Linear drive	Linear drive
Nominal voltage	230 V 50/60 Hz	230 V 50/60 Hz
Power consumption at free flow	0,3 A/55 W	0,3 A/60 W
Power consumption at rated pressure	0,3 A/39 W	0,3 A/52 W

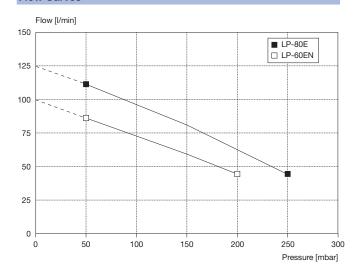
General Data			
Ambient temperature	-10 to 40 °C	-10 to 40 °C	
Weight	5,7 kg	6,3 kg	
Outlet diameter	18 mm	18 mm	
Average noise level	37 dB (A)	37 dB (A)	

Service Parts	Part Numbers	
Chamber block set	700542	700546
Air filter and gaskets kit	700543	700547
Air filter kit	700544	700544
Protective switch	700545	700548

Please refer to operation and service manual for additional information.

All listed values are measured at standard atmospheric conditions and at $50\mathrm{Hz}$.

Flow Curves



Service parts:

Chamber block set consists of:

- 2 x Pump head with valves
- 2 x Diaphragm 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer

Air filter and gaskets 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
- 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 consists of:

1 x Microswitch complete with bracket (LP-60EN) / cover plate (LP-80E)

Supplied as standard:

Cable/Euro-plug

Air connector (part number 700073) consists of:

- 1 x Outlet hose, angled, 125/55 mm
- 2 x Hose clamp

5250... Stock programme

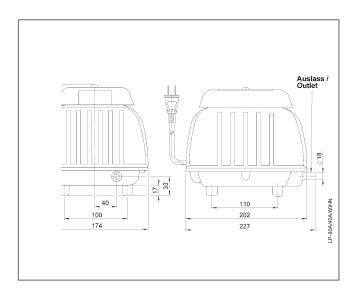


Linear Diaphragm Pumps LP-30A, LP-40A, LP-60HN

Flow at rated pressure 36 to 70 I/min







Pneumatic Data			
Description	LP-30A	LP-40A	LP-60HN
Part number	52500030	52500040	52500407
Flow at rated pressure	36 l/min	45 l/min	70 l/min
Rated pressure	120 mbar	120 mbar	150 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	
Consumption at free flow	0,4 A/34 W	0,5 A/45 W	0,7 A/70 W	
Consumption at rated pressure	0,3 A/26 W	0,3 A/36 W	0,7 A/59 W	

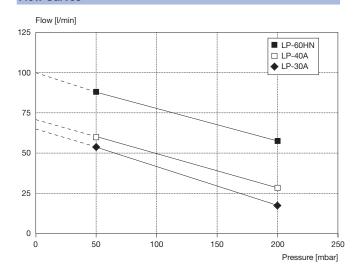
General Data				
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	
Weight	5,0 kg	5,5 kg	6,0 kg	
Outlet diameter	18 mm	18 mm	18 mm	
Average noise level	32 dB (A)	34 dB (A)	38 dB (A)	

Service Parts	Part Numbers		
Chamber block set	700037	700037	700038
Air filter and gaskets kit	700043	700043	700044
Air filter kit	700168	700168	700168
Protective switch	-	-	700115

Please refer to operation and service manual for additional information.

All listed values are measured at standard atmospheric conditions and at 50Hz.

Flow Curves



Service parts:

Chamber block consists of:

- 2 x Pump head with valves 2 x Diaphragm
- 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer

Air filter and gaskets kit consists of:

- 1 x Air cleaner element
- 1 x Air cleaner gasket
- 1 x Noise absorbing net
- 1 x Tank gasket old 1 x Tang gasket new
- 1 x Cover gasket new
- 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 consists of:

1 x Microswitch with bracket

Supplied as standard:

Cable/Euro-plug

Air connector (part number 700049) consists of:

1 x Outlet hose, straight, 90 mm

2 x Hose clamp

5250... Stock programme

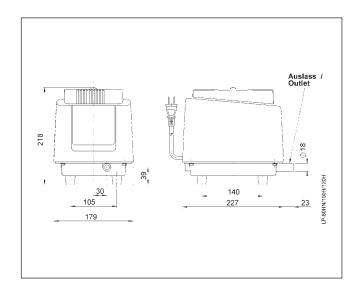


Linear Diaphragm Pumps LP-80HN, LP-100H, LP-120H

Flow at rated pressure 90 to 120 l/min







Pneumatic Data			
Description	LP-80HN	LP-100H	LP-120H
Part number	52500403	52500101	52500121
Flow at rated pressure	90 l/min	110 l/min	120 l/min
Rated pressure	160 mbar	180 mbar	200 mbar
Operating range	50 to 250 mbar	50 to 250 mbar	50 to 250 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	
Consumption at free flow	1,0 A/115 W	0,9 A/130 W	1,5 A/155 W	
Consumption at rated pressure	0,9 A/80 W	0,75 A/103 W	1,3 A/120 W	

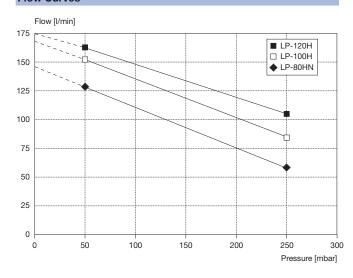
General Data				
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	
Weight	8,3 kg	8,3 kg	8,3 kg	
Outlet diameter	18 mm	18 mm	18 mm	
Average noise level	35 dB (A)	40 dB (A)	41 dB (A)	

Service Parts	Part Numbers		
Chamber block set	700039	700039	700039
Air filter and gaskets kit	700045	700045	700045
Air filter kit	700170	700170	700170
Protective switch	700143	700143	700143

Please refer to operation and service manual for additional information.

All listed values are measured at standard atmospheric conditions and at $50\mathrm{Hz}$.

Flow Curves



Service parts:

Chamber block consists of:

- 2 x Pump head with valves
- 2 x Diaphragm 2 x Diaphragm ring
- 2 x Diaphragm nut
- 2 x Diaphragm washer

Air filter and gaskets kit consists of:

- 1 x Air cleaner element
- 1 x Air cleaner 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 consists of:

1 x Microswitch complete with cover plate

Supplied as standard:

Cable/Euro-plug

Air connector (part number 700073) consists of:

1 x Outlet hose, angled, 125/50 mm 2 x Hose clamp

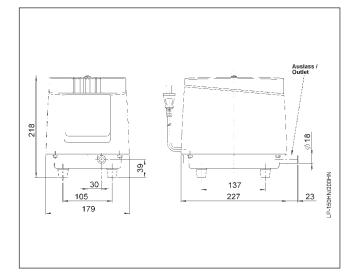
5250... Stock programme



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

Flow at rated pressure 150 to 200 I/min





Pneumatic Data		
Description	LP-150HN	LP-200HN
Part number	52500151	52500202
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 free flow	1,1 A/190 W	1,45 A/260 W
Consumption at rated pressure	0,85 A/130 W	1,15 A/200 W

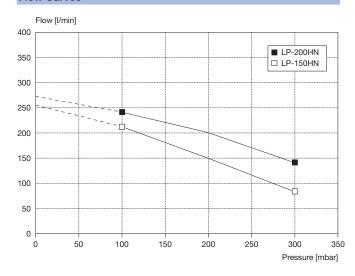
General Data			
Ambient temperature	-10 to 40 °C	-10 to 40 °C	
Weight	8,6 kg	8,6 kg	
Outlet diameter	18 mm	18 mm	
Average noise level	43 dB (A)	44 dB (A)	

Service Parts	Part Numbers	
Chamber block set	700549	700549
Air filter and gaskets kit	700550	700550
Air filter kit	700551	700551
Protective switch	700552	700552

Please refer to operation and service manual for additional information.

All listed values are measured at standard atmospheric conditions and at 50Hz.

Flow Curves



Service parts:

Chamber block set consists of:

- 2 x Pump head with valves
- 2 x Diaphragm 2 x Diaphragm ring
- 2 x Diaphragm nut 2 x Diaphragm washer
- 1 x Cover plate gasket
- Air filter and gaskets 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 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)

1 x Outlet hose, angled, 170/50 mm

2 x Hose clamp

5250... Stock programme

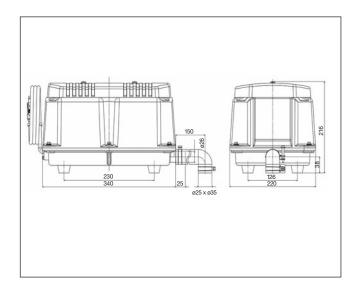


Linear Diaphragm Pumps LW-200, LW-240

Flow at rated pressure 200 / 245 l/min







Pneumatic Data		
Description	LW-200	LW-240
Part number	52500409	52500410
Flow at rated pressure	200 l/min	245 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
Voltage	230 V 50/60 Hz	230 V 50/60 Hz
Consumption at free flow	1,75 A/265 W	2,2 A/320 W
Consumption at rated pressure	1,4 A/190 W	1,8 A/250 W

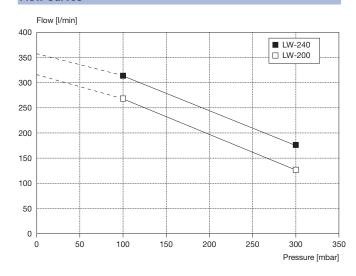
General Data		
Ambient temperature	-10 to 40 °C	-10 to 40 °C
Weight	14,1 kg	14,1 kg
Outlet diameter	26 mm	26 mm
Average noise level	45 dB (A)	48 dB (A)

Service Parts	Part Numbers	
Chamber block set	700500	700500
Air filter and gaskets kit	700502	700502
Air filter kit	700510	700510
Protective switch	700511	700512

Please refer to operation and service manual for additional information.

All listed values are measured at standard atmospheric conditions and at $50\mathrm{Hz}$.

Flow Curves



Service parts:

Chamber block set 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 gaskets kit consists of:

- 1 x Air cleaner element
- 1 x Air cleaner gasket 1 x Noise absorbing net
- 1 x Tank gasket
- 1 x Tank gasket 1 x Caver gasket
- 4 x L-Hose
- 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 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, 170/55 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

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 whatsoever in connection therewith. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information.



Stock programme

