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## Product Range



Compressors | Purification | Storage | Filling Panels | Nitrox/Trimix



**High Pressure Solutions from L&W!**

## Solid Growth

Lenhardt & Wagner is one of the leading and renowned companies in the market of high-pressure applications. A worldwide network of L&W agencies and service centers ensures a steady growth of the company. The flat and manageable corporate structure allows us to identify any weaknesses directly and act immediately. Our personal approach and a direct line to the customers here are essential.

During the last three decades the range of L&W products could be advanced consistently and new markets are created. This is mainly due to our investment in the development and optimization of the product range and a partnership with our importers. In addition to Breathing Air Compressors and related peripheral equipment we offer also compressors, storage and filter for the necessary high-pressure which is

required for natural gas filling stations. High-pressure inert gases such as argon, helium or nitrogen for industrial applications including welding and laser cutting, and for general laboratory use are also among our skills.

Our balanced growth is based on a long-term and strategic planning that allows us still sufficient freedom of action for rapid reaction in cases of need. Based on continuous expansion of the Asian market, with new agencies in Singapore and China, we could already significantly increase our sales and improve our services.



**Trust the experts, trust to L&W.**

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## High pressure solutions by L&W

### Compressors

High pressure piston compressor up to 420 bar with electric, gasoline or diesel drive.



### Purification

Purification with refrigeration dryers or with filter towers.



### Storage

High pressure storage.



### Storage management

Solutions for controlling storage for optimum efficiency.



### Filling Panels

Ergonomically designed filling panels.



### Nitrox/Trimix

Solutions for mixed gas production and filling for diving applications.



### Air Station

Filling stations for 24 hour / 7 days a week filling services.

## Compressors

[illegible]

## Certified L&W Quality

L&W delivers high-pressure compressors and the complementary modules for purification, storage and filling of breathing air. Highest quality and continuous development and improvement of our products are our most significant target in the implementation of our daily tasks. Therefore, we meet all EU requirements as a standard and are certified to ISO 9001:2000. On requested, our products could also be certified by other authorities such as TÜV, Germanischer Lloyd, DNV, GOST, UDT or ABS.

In the field of air supply, we serve a broad range of users, such as firefighters in action, sports and professional divers. These customers must be able to trust unconditionally in the exercise of their activities on the quality and safety of our products.

Our employees are aware of their responsibilities and they

have the task to reach with expertise and experience the enormous needs of the market. Through continuous in-house quality control we face new challenges every day.

### L & W Network

In all parts of the world our customers appreciate reliability and our full support. Our products offer the maximum in durability and ease of maintenance. Low operating costs and excellent value for money are as a matter of course for L & W. Through our worldwide dealer network, our customers can always count on superb service and excellent support. A special offer from L & W are the personal training sessions that are conducted in specially equipped training facilities in our company. In this training, our customers learn the proper use and independent maintenance with our products.



## LW 100 E ECO / LW 100 E1 ECO / LW 100 B ECO

Lightweight high-pressure compressor for the full air supply on site. Ready for connection with cable and plug. Ideal for mobile use. The LW 100 ECO is made 100% of the proven elements of the successful LW 100 Series. The main components such as: motor, compressor block, filter system and filling device are fully integrated.

### Specifications

- >> Fully wired, ready to start with cable and plug, start/stop switch
- >> Aluminium frame
- >> All pistons with steel piston rings
- >> 2 oil/water separators
- >> Inter-stage and final stage air coolers
- >> Safety valves for each stage
- >> Pressure maintaining and non return valve for extended filter duration
- >> Filling hose with filling valve and pressure gauge
- >> 200/232 bar version with DIN/Yoke connection, 300 bar version with DIN connection
- >> Breathing air purification in accordance with EN 12021

### Options

- >> Auto start
- >> Carrying handles
- >> Additional filling hose
- >> Thermal overload switch
- >> Automatic condensation drain
- >> 200/300 bar switch over device
- >> Automatic stop and hours counter
- >> Special voltages / frequencies on request
- >> Conversion set petrol/electric drive



**LW 100 ECO**



**LW 100 ECO - Rear view**

	LW 100 E ECO	LW 100 E1 ECO	LW 100 B ECO
Type:	Air cooled, reciprocating piston comp.	Air cooled, reciprocating piston comp.	Air cooled, reciprocating piston comp.
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5	100 / 6 / 3.5	100 / 6 / 3.5
Max. Pressure [bar]:	330*	330*	330*
RPM [1/min]:	2300	2300	2300
No of cylinders / No of stages:	3 / 3	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz <sup>1)</sup>	Single phase E-Motor 230V 50Hz <sup>1)</sup>	4 stroke gasoline engine, hand start
Drive power [kW] / [HP]:	2.2 / 3.0	2.2 / 3.0	4.5 / 6.0
Cooling air requirement [Nm <sup>3</sup> /h]:	660	660	660
Lubrication type:	Splash oil	Splash oil	Splash oil
Oil capacity [litre]:	0.5	0.5	0.5
Air outlet temperature [°C]:	6 °C above ambient	6 °C above ambient	6 °C über above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	108	108	108
Dimensions L x W x H [cm]:	65 x 39 x 40	65 x 39 x 40	65 x 39 x 40
Weight [kg]:	39	42	39
Noise level [dB]:	82 measured at 1 m	82 measured at 1 m	93 measured at 1 m

\*set at the final stage safety valve

<sup>1)</sup> Special voltages/frequencies available on request

<sup>2)</sup> In accordance with EN 12021

## LW 100 E / LW 100 E1

The compressors are ready to plug in and come with a cable, plug and start/stop switch.  
Ideal for small applications or occasional filling operations.

### Specifications

- >> Fully wired, ready to start with cable and plug, start/stop switch
- >> 1 Filling hose with filling valve and pressure gauge
- >> 200/232 bar version with DIN/Yoke connection, 300 bar version with DIN connection
- >> Stainless steel frame with carrying handles
- >> Fan belt guard and block cowling for improved cooling air flow
- >> 2 oil/water separators, safety valve for each stage
- >> Inter-stage and final stage air coolers
- >> Pressure maintaining and non return valve for extended filter duration
- >> Breathing air purification in accordance with EN 12021



**LW 100 E1**

### Options

- >> Auto start
- >> Additional filling hose
- >> 200/300 bar switch over device
- >> Automatic stop and hours counter
- >> Special voltages / frequencies on request
- >> Conversion set petrol/electric drive



**LW 100 E**

## Technical Data

	LW 100 E	LW 100 E1
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5	100 / 6 / 3.5
Max. Pressure [bar]:	330 (set at the final stage safety valve)	330 (set at the final stage safety valve)
RPM [1/min]:	2300	2300
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz <sup>1)</sup>	Single phase E-Motor 230V 50Hz <sup>1)</sup>
Drive power [kW] / [HP]:	2.2 / 3.0	2.2 / 3.0
Cooling air requirement [Nm <sup>3</sup> /h]:	660	660
Lubrication type:	Splash oil	Splash oil
Oil capacity [litre]:	0.5	0.5
Air outlet temperature [°C]:	6°C above ambient	6°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	108	108
Dimensions L x W x H [cm]:	65 x 39 x 40	65 x 39 x 40
Weight [kg]:	43	46
Noise level [dB]:	82 dB(A) measured at 1m	82 dB(A) measured at 1m

<sup>1)</sup> Special voltages/frequencies available on request    <sup>2)</sup> In accordance with EN 12021

## LW 100 B

For light and mobile filling applications, independent of power supply. Ideal for expeditions, dive holidays in remote locations or in mobile repair/construction applications. The self contained unit is equipped with a reliable Vanguard 4 stroke motor and extremely easy to operate.

### Specifications

- >> Ready to start unit with 4 stroke motor with pull start
- >> Drive motor with auto cut off for low oil level
- >> Collapsible snorkel for air inlet
- >> 1 Filling hose with filling valve and pressure gauge
- >> 200/232 bar version with DIN/Yoke connection, 300 bar version with DIN connection
- >> Stainless steel frame with carrying handles
- >> Fan belt guard and block cowling for improved cooling air flow
- >> 2 oil/water separators, safety valve for each stage
- >> Inter-stage and final stage air coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non return valve for extended filter duration

### Options

- >> Additional filling hose
- >> Automatic stop at final pressure
- >> 200/300 bar switch over device
- >> Conversion set petrol/electric drive



**LW 100 B**

## Technical Data

	LW 100 B
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5
Max. Pressure [bar]:	330 (set at the final stage safety valve)
RPM [1/min]:	2300
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke gasoline engine, hand start
Drive power [kW] / [HP]:	4.5 / 6.0
Cooling air requirement [Nm <sup>3</sup> /h]:	660
Lubrication type:	Splash oil
Oil capacity [litre]:	0.5
Air outlet temperature [°C]:	6°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	108
Dimensions L x W x H [cm]:	70 x 38 x 45
Weight [kg]:	43
Noise level [dB]:	93 dB[A] measured at 1 m

<sup>2)</sup> In accordance with EN 12021

## LW 160 E / E1

Portable compressors without compromising power and capacity. The L&W 160 compressors are compact and extremely easy to operate, the units have established themselves over the years as reliable compressors. The compressors are ready to run and come with a cable, plug and phase selector switch for easy direction of rotation control. Ideal for small applications or sporadic filling operations.

### Specifications

- >> Fully wired, ready to start with cable, plug and phase selector (E)
- >> 1 Filling hose with filling valve and pressure gauge
- >> Steel frame with carrying handles
- >> GRP fan belt guard
- >> 2 oil/water separators, safety valve for each stage
- >> Stainless steel cooling pipes and inter-coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining valve for extended filter duration

### Options

- >> Auto start
- >> Additional filling hose
- >> Automatic stop at final pressure
- >> Automatic condensation drain
- >> 200/300 bar switch over device
- >> Hours counter
- >> Special voltages / frequencies on request
- >> Conversion set petrol/electric drive



**LW 160 E**

## Technical Data

	LW 160 E	LW 160 E1
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	160 / 9.6 / 5.6	160 / 9.6 / 5.6
Max. Pressure [bar]:	330 (set at the final stage safety valve)	330 (set at the final stage safety valve)
RPM [1/min]:	1450	1450
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz <sup>1)</sup>	Single phase E-Motor 230V 50Hz <sup>1)</sup>
Drive power [kW] / [HP]:	4.0 / 5.5	3.7 / 5.0
Cooling air requirement [Nm <sup>3</sup> /h]:	1200	1200
Lubrication type:	Plunger/Splash oil	Plunger/Splash oil
Oil capacity [litre]:	0.8	0.8
Air outlet temperature [°C]:	8 - 10°C above ambient	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C <sup>2)</sup> ]:	180	180
Dimensions L x W x H [cm]:	78 x 42 x 56	78 x 42 x 56
Weight [kg]:	90	94
Noise level [dB]:	84 dB[A] measured at 1 m	84 dB[A] measured at 1 m

<sup>1)</sup> Special voltages/frequencies available on request    <sup>2)</sup> In accordance with EN 12021

## LW 190 B

Portable compressor with a reliable Honda 4 stroke motor for optimum mobility and reliability independent of power supplies. The easy to operate units have established themselves as ideal compressors for remote expeditions and safaris. Despite the compact form and mobility, the filling times are kept to a minimum with high delivery rates.

### Specifications

- >> Ready to start unit with 4 stroke 6.6 kW Honda motor with pull start
- >> Drive motor with auto cut off for low oil level
- >> 1 Filling hose with filling valve and pressure gauge
- >> GRP fan belt guard
- >> Steel frame with carrying handles
- >> 2 oil/water separators, safety valve for each stage
- >> Stainless steel cooling pipes and inter-coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining valve for extended filter duration
- >> 2.5 m air inlet hose

### Options

- >> Additional filling hose
- >> Automatic stop at final pressure
- >> 200/300 bar switch over device
- >> Conversion set petrol/electric drive



LW 190 B with optional 200/300 bar module

## Technical Data

	LW 190 B
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	190 / 11.4 / 6.7
Max. Pressure [bar]:	330 (set at the final stage safety valve)
RPM [1/min]:	1900
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke gasoline engine, hand start
Drive power [kW] / [HP]:	6.6 / 9.0
Cooling air requirement [Nm <sup>3</sup> /h]:	1800
Lubrication type:	Plunger/Splash oil
Oil capacity [litre]:	0.8
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	180
Dimensions L x W x H [cm]:	92 x 43 x 57
Weight [kg]:	99
Noise level [dB]:	93 dB[A] measured at 1 m

<sup>2)</sup> In accordance with EN 12021

## LW 225 E

A portable compressor without compromising power and capacity. The 225 E is small and light enough for mobility, yet powerful enough for stationary applications. The compressors are ready to run and come with a cable, plug and phase selector switch for easy direction of rotation control.

### Specifications

- >> Fully wired, ready to start with cable, plug and phase selector
- >> 1 Filling hose with filling valve and pressure gauge
- >> Steel frame with carrying handles
- >> GRP fan belt guard
- >> 2 oil/water separators, safety valve for each stage
- >> Stainless steel cooling pipes and inter-coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining valve for extended filter duration

### Options

- >> Auto start
- >> Additional filling hose
- >> 200/300 bar switch over device
- >> Automatic stop at final pressure
- >> Automatic condensation drain
- >> Hours counter
- >> Special voltages / frequencies on request
- >> Conversion set petrol/electric drive



LW 225 E

## Technical Data

	LW 225 E
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	225 / 13.5 / 7.9
Max. Pressure [bar]:	330 (set at the final stage safety valve)
RPM [1/min]:	1850
No of cylinders / No of stages:	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	5.5 / 7.5
Cooling air requirement [Nm <sup>3</sup> /h]:	1650
Lubrication type:	Plunger/Splash oil
Oil capacity [litre]:	0.8
Air outlet temperature [°C]:	8 - 10 C° above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	200
Dimensions L x W x H [cm]:	78 x 45 x 56
Weight [kg]:	92
Noise level [dB]:	87 dB[A] measured at 1 m

<sup>2)</sup> In accordance with EN 12021

## LW 245 B

Portable compressor with a reliable Honda 4 stroke motor for optimum mobility and reliability independent of power supplies. The easy to operate units have established themselves as ideal compressors for remote expeditions and safaris. Despite the compact form and low weight, the filling times are kept to a minimum with a powerful delivery rate.

### Specifications

- >> Ready to start unit with 4 stroke 6.6 kW Honda motor with pull start
- >> Drive motor with auto cut off for low oil level
- >> 1 Filling hose with filling valve and pressure gauge
- >> GRP fan belt guard
- >> Steel frame with carrying handles
- >> 2 oil/water separators, safety valve for each stage
- >> Stainless steel cooling pipes and inter-coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining valve for extended filter duration
- >> 2.5 m air inlet hose

### Options

- >> Additional filling hose
- >> Automatic stop at final pressure
- >> 200/300 bar switch over device
- >> Conversion set petrol/electric drive



LW 245 B

## Technical Data

	LW 245 B
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	245 / 14.7 / 8.7
Max. Pressure [bar]:	330 (set at the final stage safety valve)
RPM [1/min]:	2000
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke gasoline engine, hand start
Drive power [kW] / [HP]:	6.6 / 9.0
Cooling air requirement [Nm <sup>3</sup> /h]:	1800
Lubrication type:	Plunger/Splash oil
Oil capacity [litre]:	0.8
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	200
Dimensions L x W x H [cm]:	92 x 45 x 57
Weight [kg]:	94
Noise level [dB]:	93 dB[A] measured at 1 m

<sup>2)</sup> In accordance with EN 12021

## LW 170 E / LW 200 E

The electrically driven Nautic compressors are ideal for medium sized stationary applications where mobility is also desirable. The compressors are 3 stage blocks mounted in a sturdy powder coated crash frame with foldable carrying handles and sling eyes for crane/helicopter transport. The frames provide excellent protection and are designed to allow easy transportation.

### Specifications

- >> Fully wired, ready to start with cable, plug and phase selector
- >> Operating panel with Start/Stop switch and running lamp
- >> Filling pressure gauge and hours counter
- >> Crash frame with 4 carrying handles and sling eyes, powder coated in RAL 6026
- >> GRP fan belt guard
- >> 2 oil/water separators, safety valve for each stage
- >> Stainless steel cooling pipes and inter-coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining valve for extended filter duration
- >> 2 self-venting, lever operated filling valves with hoses and connections

### Options

- >> Auto start
- >> 2 extra filling hoses
- >> Automatic stop at final pressure
- >> Automatic condensation drain
- >> 200/300 bar parallel filling pressures
- >> Motor protection switches
- >> Special voltages / frequencies on request



**LW 200 E Nautic**

## Technical Data

	LW 170 E	LW 200 E
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	170 / 10.2 / 6.0	200 / 12.0 / 7.0
Max. Pressure [bar]:	330 (set at the final stage safety valve)	330 (set at the final stage safety valve)
RPM [1/min]:	1530	1650
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	4.0 / 5.5	5.5 / 7.5
Cooling air requirement [Nm <sup>3</sup> /h]:	1200	1650
Lubrication type:	Plunger/Splash oil	Plunger/Splash oil
Oil capacity [litre]:	0.8	0.8
Air outlet temperature [°C]:	8 - 10°C above ambient	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>2)</sup> :	180	200
Dimensions L x W x H [cm]:	103 x 50 x 73	103 x 50 x 73
Weight [kg]:	135 / 115 (AI)	137 / 117 (AI)
Noise level [dB]:	85 dB[A] measured at 1 m	86 dB[A] measured at 1 m

<sup>2)</sup> In accordance with EN 12021

## LW 170 D / LW 170 D AL Nautic

Self-contained diesel driven compressors ideal for small or medium sized applications independent of power. The diesel provides the ideal drive for these workhorses that can be located or transported where HP air is needed.

### Specifications

- >> Ready to use unit with Yanmar L70 4.8 kW motor
- >> 12V Electric start and pull start with decompression
- >> Instrument panel with key start and generator warning lamp
- >> Integrated pressure gauge and hours counter
- >> Crash frame with 4 carrying handles and sling eyes, powder coated in RAL 6026
- >> GRP fan belt guard
- >> Stainless steel diesel tank, capacity approx. 7 hours running time
- >> 2 oil/water separators, safety valve for each stage
- >> Stainless steel cooling pipes and inter-coolers
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non return valve for extended filter duration
- >> 2.5 m air inlet hose
- >> 2 self-venting, lever operated filling valves with hoses and connections

Sea water resistant aluminium crash frame (reduces weight by 25 kg)  
powder coated in RAL 9006

### Options

- >> 2 extra filling hoses
- >> Automatic stop at final pressure
- >> Automatic condensation drain
- >> 200/300 bar parallel filling pressures



**LW 170 D AL Nautic**

## Technical Data

	LW 170 D / LW 170 D AL
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	170 / 10.2 / 6.0
Max. Pressure [bar]:	330 (set at the final stage safety valve)
RPM [1/min]:	1530
No of cylinders / No of stages:	3 / 3
Prime mover type:	Air cooled diesel, electric start
Drive power [kW] / [HP]:	4.8 / 6.5
Cooling air requirement [Nm <sup>3</sup> /h]:	1500
Lubrication type:	Plunger/Splash oil
Oil capacity [litre]:	0.8
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	180
Dimensions L x W x H [cm]:	103 x 50 x 73
Weight [kg]:	150 / 125 (AL)
Noise level [dB]:	92 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 320 E AL Nautic

This Compressor combined mobile breathing air applications and stationary performance. The simplicity and the optional extras allow a fully automatic operation and offer the same comfort as our stationary models. The light seawater-resistant aluminum frame is standard for this top model of the Nautic Series.

### Specifications

- >> Fully wired, ready to start
- >> Final pressure gauge
- >> Sturdy sea water resistant aluminium frame with 4 carrying handles and 4 sling points powder coated in RAL 7004 (silver grey)
- >> 3 cylinder, 3 stage compressor block
- >> All pistons with steel piston rings
- >> Low pressure oil pump and filter
- >> Oil/water separators after each stage, safety valve for each stage
- >> Pressure maintaining and non-return valve
- >> 4 filling hoses with filling valves and connections
- >> Breathing air purification in accordance with EN 12021



LW 320 E Nautic

### Options

- >> Auto start
- >> 200/300 bar parallel filling pressures
- >> Automatic stop and automatic condensation drain
- >> Wheel set
- >> Oil pressure gauge
- >> HP outlet



LW 320 E Nautic - Rear view

## Technical Data

	LW 320 E Nautic / AL
Type:	Air cooled, reciprocating piston comp.
Capacity [litre/min] / [Nm³/h] / [cfm]:	320 / 19.2 / 11.3
Max. Pressure [bar]:	350 (set at the final stage safety valve)
RPM [1/min]:	1580
No of cylinders / No of stages:	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	7.5 / 10.2
Cooling air requirement [Nm³/h]:	2460
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	1.8
Oil pressure [bar]:	1.8 (+/- 0,3)
Air outlet temperature [°C]:	8 - 10 °C above ambient
Filter capacity [m³ at +20°C] <sup>1)</sup> :	900
Dimensions L x W x H [cm]:	129 x 74 x 60
Weight [kg]:	175
Noise level [dB]:	95 (measured at 1 m)

<sup>1)</sup> In accordance with EN 12021

## LW 320 B AL Nautic

This Compressor combined mobile breathing air applications and stationary performance. The simplicity and the optional extras allow a fully automatic operation and offer the same comfort as our stationary models. The light seawater-resistant aluminum frame is standard for this top model of the Nautic Series.

### Specifications

- >> Ready to start self contained unit with Vanguard 8.2 kW (11 HP) 4-stroke gasoline engine with electric start
- >> Final pressure gauge
- >> Sturdy sea water resistant aluminium frame with 4 carrying handles and 4 sling points  
powder coated in RAL 7004 (silver grey)
- >> 3 cylinder, 3 stage compressor block
- >> All pistons with steel piston rings
- >> Low pressure oil pump and filter
- >> Oil/water separators after each stage, safety valve for each stage
- >> Pressure maintaining and non-return valve
- >> 4 filling hoses with filling valves and connections
- >> Breathing air purification in accordance with EN 12021

### Options

- >> 200/300 bar parallel filling pressures
- >> Automatic stop and automatic condensation drain
- >> Wheel set
- >> Oil pressure gauge
- >> HP outlet



**LW 320 B Nautic** Options: Automatic stop and automatic condensation drain, wheel set

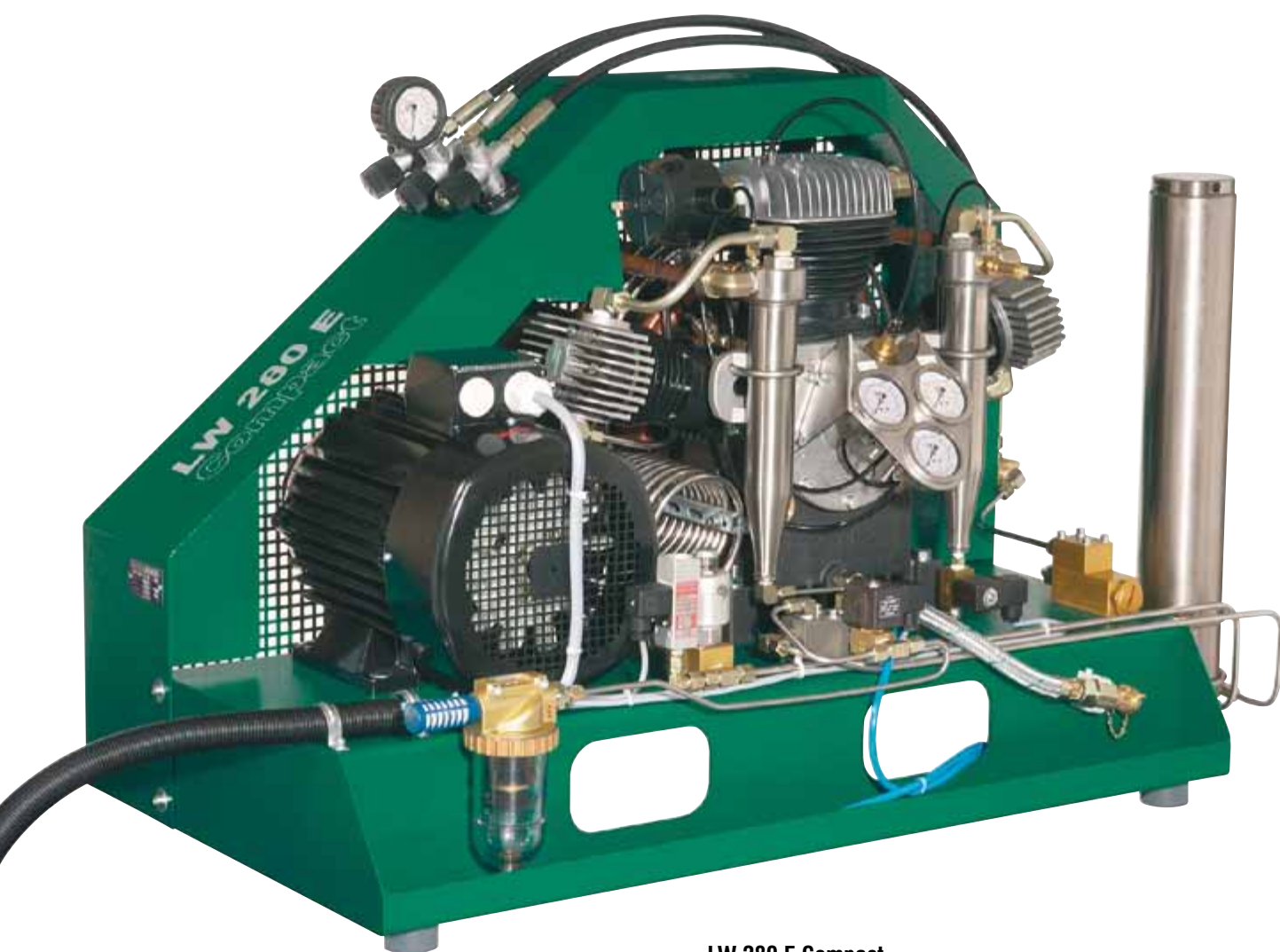
## Technical Data

	LW 320 B Nautic
Type:	Air cooled, reciprocating piston comp.
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	320 / 19.2 / 11.3
Max. Pressure [bar]:	350 (set at the final stage safety valve)
RPM [1/min]:	1580
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke gasoline engine, hand start
Drive power [kW] / [HP]:	8.2 / 11.0
Cooling air requirement [Nm <sup>3</sup> /h]:	2460
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	1.8
Oil pressure [bar]:	1.8 (+/- 0,3)
Air outlet temperature [°C]:	8 - 10 °C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900
Dimensions L x W x H [cm]:	129 x 74 x 60
Weight [kg]:	167
Noise level [dB]:	95 (measured at 1 m)

<sup>1)</sup> In accordance with EN 12021

## LW 280 E Compact / LW 280 E1 Compact / LW 450 E Compact

These compressors are designed for dive centers and boats with limited space. Based on our successful 280 and 450 blocks can be operated these compressors in the basic configuration as pre-wired system or equipped to meet your individual needs with various options.



### LW 280 E Compact

With options auto drain, auto stop, oil pressure and inter-stage pressure gauges and 2 extra filling hoses.

## LW 280 E Compact / LW 280 E1 Compact / LW 450 E Compact

### Specifications

- >> Fully wired compressor ready to connect with star/delta start cycle, hours counter
- >> Steel base and fan belt guard, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> 3 concentric suction/pressure valves
- >> Low pressure oil pump and filter
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 1 Filling hose and filling valve (max. 3 filling hoses and/or HP outlet)
- >> Motor protection switches

### Options

- >> Auto start
- >> Additional filling hose(s)
- >> Automatic stop at final pressure
- >> Automatic condensation drain
- >> 200/300 bar switch over device
- >> Motor protection switches
- >> Special voltages / frequencies on request
- >> Oil pressure monitoring with auto shut down
- >> Oil pressure gauge and inter stage pressure gauges
- >> Puracon filter monitoring see page 47
- >> Cylinder temperature with auto shut down



**LW 450 E Compact** with automatic condensation drain

## Technical Data

	LW 280 E Compact	LW 280 E1 Compact	LW 450 E Compact
Type:	Air cooled, reciprocating piston comp.	Air cooled, reciprocating piston comp.	Air cooled, reciprocating piston comp.
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	280 / 16.8 / 9.9	280 / 16.8 / 9.9	450 / 27.0 / 15.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)	350 (set at the final stage safety valve)	350 (set at the final stage safety valve)
RPM [1/min]:	1300	1300	1100
No of cylinders / No of stages:	3 / 3	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz	Single Phase E-motor 230V / 50Hz	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	7.5 / 10.0	7.5 / 10.0	11.0 / 15.0
Cooling air requirement [Nm <sup>3</sup> /h]:	2250	2250	3300
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	1.8	1.8	2.2
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10 °C above ambient	8 - 10 °C above ambient	8 - 10 °C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900	900	900
Dimensions L x W x H [cm]:	110 x 60 x 98	110 x 60 x 98	110 x 60 x 98
Weight [kg]:	195	205	233
Noise level [dB]:	83 dB[A] measured at 1 m	83 dB[A] measured at 1 m	83 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 230 E / LW 280 E



**LW 280 E**



**LW 280 E**

incl. Inter stage pressure gauges and Oil temperature monitoring

## LW 230 E / LW 280 E

A slow running compressor for medium sized applications. Pneumatic/electric compressor control with final pressure cut off and automatic condensation drain ensure simple and trouble free operation. The 3 stage, 3 cylinder block ensures low maintenance with minimal wear and tear. The components are industrial quality, over dimensioned for ultimate reliability. The compressor is fitted as standard with 4 filling hoses and filling valves to make a complete, compact unit.

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, stop button, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check function and safety valve check test modes
- >> Automatic shut down when final pressure is reached
- >> Safety cut off if the cover is opened, emergency stop switch
- >> Motor protection switches (LW 230 Optional)
- >> Sturdy steel frame, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> 3 concentric suction/pressure valves
- >> Low pressure oil pump and filter
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 2 Filling hoses and filling valves and/or HP outlet

### Options

- >> 200/300 bar parallel filling pressures
- >> Special voltages / frequencies on request
- >> Oil pressure monitoring with auto shut down
- >> Auto start
- >> Oil pressure gauge
- >> Cylinder temperature with auto shut down
- >> Oil temperature with auto shut down
- >> Inter stage pressure gauges
- >> Puracon filter monitoring see page 47

## Technical Data

	LW 230 E	LW 280 E
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	230 / 13.8 / 8.1	280 / 16.8 / 9.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)	350 (set at the final stage safety valve)
RPM [1/min]:	1080	1300
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	5.5 / 7.5	7.5 / 10.0
Cooling air requirement [Nm <sup>3</sup> /h]:	1650	2250
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	1.8	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900	900
Dimensions L x W x H [cm]:	110 x 60 x 98	110 x 60 x 98
Weight [kg]:	240	240
Noise level [dB]:	82 dB[A] measured at 1 m	83 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

**LW 300 E / LW 450 E****LW 450 E****LW 450 E Rear view**

## LW 300 E / LW 450 E

Robust, low RPM units with low maintenance and running costs for the user. Pneumatic/electric compressor control with final pressure cut off and automatic condensation drain ensures easy and trouble free operation. The compressors are ideal for continuous operation and a favourite choice for overseas diving centers with very long service intervals [e.g. replacement of concentric suction/pressure valves (3) every 6000 hours!].

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check and safety valve check test modes
- >> Automatic shut down when final pressure is reached
- >> Safety cut off if the cover is opened, emergency stop switch
- >> Motor protection switches
- >> Sturdy steel frame, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> 3 concentric suction/pressure valves
- >> Low pressure oil pump and filter
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 4 Filling hoses and filling valves and/or HP outlet

### Options

- >> 200/300 bar parallel filling pressures
- >> Special voltages / frequencies on request
- >> ECC controls see page 45
- >> Oil pressure monitoring with auto shut down
- >> Auto start
- >> Oil pressure gauge
- >> Cylinder temperature with auto shut down
- >> Oil temperature with auto shut down
- >> Inter stage pressure gauges
- >> Puracon filter monitoring see page 47

## Technical Data

	LW 300 E	LW 450 E
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	300 / 18.0 / 10.6	450 / 27.0 / 15.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)	350 (set at the final stage safety valve)
RPM [1/min]:	800	1100
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	7.5 / 10.0	11.0 / 15.0
Cooling air requirement [Nm <sup>3</sup> /h]:	2250	3300
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	2.2	2.2
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900	900
Dimensions L x W x H [cm]:	115 x 60 x 98	115 x 60 x 98
Weight [kg]:	280	280
Noise level [dB]:	82 dB[A] measured at 1 m	83 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 450 D Basic



LW 450 D Basic



LW 450 D Basic Rear view

## LW 450 D Basic

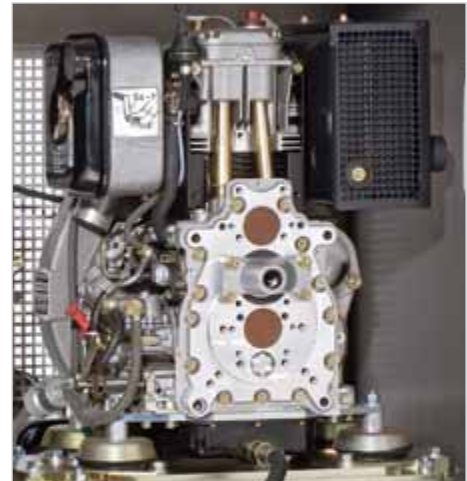
Initially developed for the open dive boats in the Indian Ocean. Large capacity, slow running, stationary compressor which can be used independent of power supply with diesel drive. The compressor has a stainless steel frame and no electrics and is ideal for extreme applications such as open boats or harsh marine environments.

### Specifications

- >> Self contained unit c/w Hatz, 10.0 kW Motor for hand starting
- >> Original Hatz diesel tank
- >> Manual speed lever, manual stop
- >> Manual condensation drain (3 valves)
- >> Sturdy stainless steel frame
- >> All pistons with steel piston rings
- >> Low pressure oil pump
- >> Emergency stop switch
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 4 filling hoses with filling valves and connections and/or HP outlet

### Options

- >> 200/300 bar parallel filling pressures
- >> Oil pressure gauge
- >> Inter stage pressure gauges



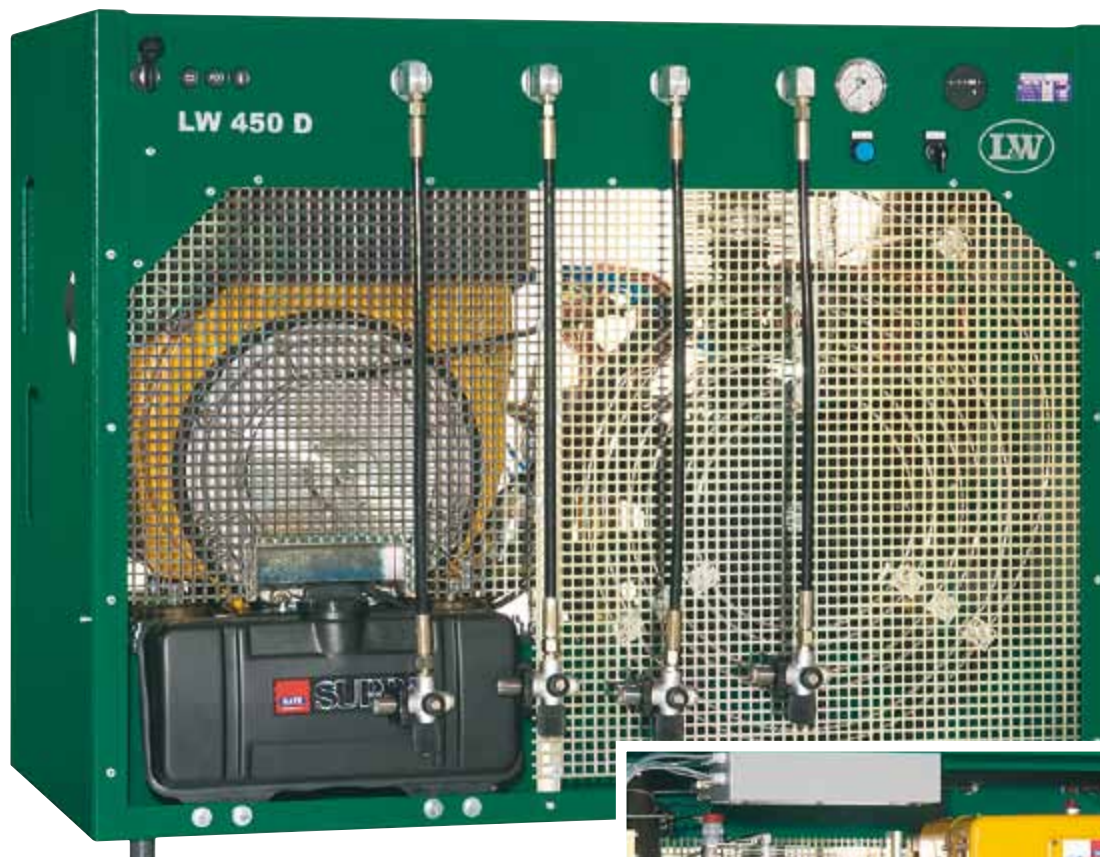
**LW 450 D Basic prime mover**

## Technical Data

	LW 450 D Basic
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm³/h] / [cfm]:	450 / 27.0 / 15.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)
RPM [1/min]:	1100
No of cylinders / No of stages:	3 / 3
Prime mover type:	Air cooled diesel, hand start
Drive power [kW] / [HP]:	10.0 / 14.3
Cooling air requirement [Nm³/h]:	3300
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.2
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m³ at +20°C] <sup>1)</sup> :	900
Dimensions L x W x H [cm]:	127 x 74 x 100
Weight [kg]:	400
Noise level [dB]:	95 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 450 D



LW 450 D



LW 450 D Rear view

## LW 450 D

For applications where large quantities of air are required without sufficient electrical power supply. Whether on a remote island, a large safari boat or a truck mounted filling station, the LW 450 D is ready for the next challenge. The compressor has a self contained 12V DC power supply providing electric start, idle and full speed selector, automatic idle and condensation drain when final pressure is reached and a condensation test function. The integrated filling unit with 4 filling hoses and filling valves completes the unit.

### Specifications

- >> Self contained unit, ready to start with Hatz 10,0 kW Motor in Hatz Silent Pack with 12V electrical/pneumatic compressor control
- >> Original Hatz diesel tank
- >> Operating panel with key start/stop, condensation drain test, pressure gauge, speed selector, hours counter, diesel motor oil pressure and battery warning lamps
- >> Automatic idle speed selector and condensation drain when end pressure is reached (compressor switches to full speed and drain valves close when empty tanks are opened)
- >> Emergency stop switch
- >> Sturdy steel frame, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> 3 concentric suction/pressure valves
- >> Low pressure oil pump
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 4 Filling hoses and filling valves and/or HP outlet

### Options

- >> 200/300 bar parallel filling pressures
- >> Oil pressure gauge
- >> Inter stage pressure gauges



LW 450 D Silent Pack

## Technical Data

	LW 450 D
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm³/h] / [cfm]:	450 / 27.0 / 15.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)
RPM [1/min]:	1100
No of cylinders / No of stages:	3 / 3
Prime mover type:	Air cooled diesel, silent pack, electric start
Drive power [kW] / [HP]:	10.0 / 14.3
Cooling air requirement [Nm³/h]:	3300
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.2
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m³ at +20°C] <sup>1)</sup> :	900
Dimensions L x W x H [cm]:	127 x 74 x 100
Weight [kg]:	430
Noise level [dB]:	89 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 570 E



LW 570 E



LW 570 E Rear view

## LW 570 E

The 570 series compressors are 4 stage piston compressors for large, professional applications. The 15 kW drive delivers an impressive 570 litres/min (20.1 cfm) and the 4 stage construction allows working pressures of up to 420 bar if required. The slow running compressor guarantees long and reliable service. The unit has been designed for the arduous demands of large filling stations such as city fire departments, large diving schools or hyperbaric facilities.

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check and safety valve check test modes
- >> Automatic shut down when the final pressure is reached
- >> Motor protection switches
- >> Safety cut off if the cover is opened, emergency stop switch
- >> Sturdy steel frame, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> Low pressure oil pump
- >> 4 concentric suction/pressure valves
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 4 Filling hoses and filling valves with cylinder connections and/or HP outlet

### Options

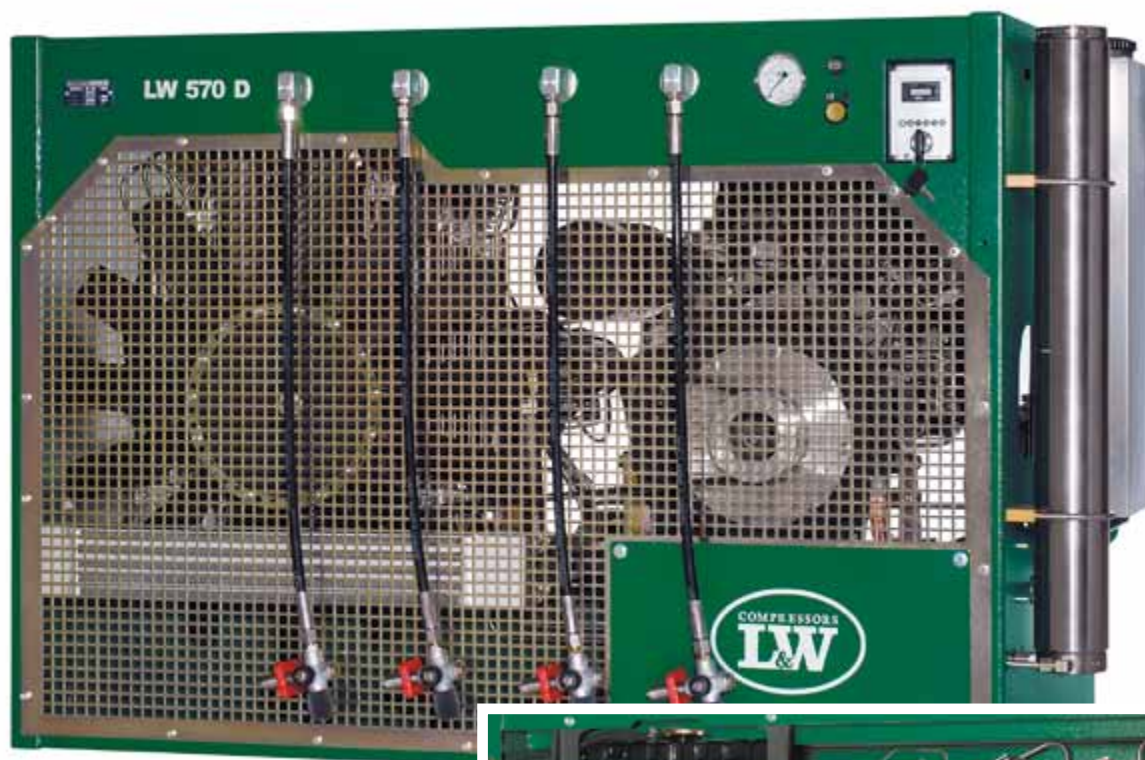
- >> 200/300 bar parallel filling pressures
- >> Motor protection switches
- >> Special voltages / frequencies on request
- >> ECC controls see page 45
- >> Oil pressure monitoring with auto shut down
- >> Oil pressure gauge
- >> Auto start
- >> Cylinder temperature with auto shut down
- >> Oil temperature with auto shut down
- >> Inter stage pressure gauges
- >> Puracon filter monitoring see page 47
- >> 420 bar Version
- >> Compressor block heating for operations < +5°C

## Technical Data

	LW 570 E
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	570 / 34.0 / 20.1
Max. Pressure [bar]:	420 (set at the final stage safety valve)
RPM [1/min]:	1100
No of cylinders / No of stages:	4 / 4
Prime mover type:	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	15.0 / 20.0
Cooling air requirement [Nm <sup>3</sup> /h]:	4500
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.5
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1200
Dimensions L x W x H [cm]:	123 x 68 x 100
Weight [kg]:	365
Noise level [dB]:	83 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 570 D



LW 570 D



LW 570 D Rear view

## LW 570 D

The 570 series compressors are 4 stage piston compressors for large, professional applications. The diesel driven unit is no exception but can be operated completely independent of power supply, or where diesel applications are preferred for safety (petro-chemical plants, ground support equipment for aircraft servicing etc.). The heart of the unit is the LW 570 block driven by a water cooled Yanmar 3 cylinder diesel engine. The engine control monitors the condition of the drive and provides vital information for the operator.

### Specifications

- >> Ready to start with 12V compressor controls and an electric start Yanmar 3TNE68 3 cylinder, water cooled diesel engine
- >> Operating panel key start/stop, condensation button (serves as an off loader for starting/stopping, engine oil pressure monitoring, water temperature monitoring, glow plug protection, starter protection, pressure gauge and hours counter
- >> Stainless steel diesel tank, 15.7 litres capacity (approx. 4.5 hours running at full load)
- >> Automatic condensation drain every 15 minutes for 4 seconds
- >> Automatic shut down when the final pressure is reached
- >> Safety cut off if the cover is opened, emergency stop switch
- >> Sturdy steel frame, powder coated in RAL 6026, tie down/sling slots integrated in side panels
- >> All pistons with steel piston rings
- >> Low pressure oil pump
- >> 4 concentric suction/pressure valves
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 4 filling hoses with filling valves and connections, and/or HP outlet

### Options

- >> 200/300 bar parallel filling pressures
- >> Oil pressure gauge
- >> Inter stage pressure gauges
- >> 420 bar Version

## Technical Data

	LW 570 D
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	570 / 34.0 / 20.1
Max. Pressure [bar]:	420 (set at the final stage safety valve)
RPM [1/min]:	1100
No of cylinders / No of stages:	4 / 4
Prime mover type:	Water cooled 3 cylinder diesel, electric start
Drive power [kW] / [HP]:	12.9 / 17.5
Cooling air requirement [Nm <sup>3</sup> /h]:	3900
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.5
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1200
Dimensions L x W x H [cm]:	145 x 77 x 100
Weight [kg]:	520
Noise level [dB]:	88 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 720 E



**LW 720 E** with optional EEC control

## LW 720 E

Originally designed for heavy duty industrial applications, the LW 720 E 4 stage compressor is built for extreme situations. The compressor block is mounted on sturdy steel frame with easy access to all components. The slow running compressor guarantees long and reliable service. The unit has been designed for the arduous demands of high volume filling stations with an integrated large capacity breathing air purification module included.

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check and safety valve check test modes
- >> Automatic shut down when the final pressure is reached
- >> Emergency stop switch
- >> Sturdy steel frame, powder coated in RAL 6026, steel fan guard in RAL 7004
- >> All pistons with steel piston rings
- >> Low pressure oil pump with large filter
- >> Pressure gauge for each stage
- >> Oil pressure monitoring and automatic shut down for low oil pressure
- >> 4 concentric suction/pressure valves
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> HP outlet

### Options

- >> Special voltages / frequencies on request
- >> ECC controls see page 45
- >> Cylinder temperature with auto shut down
- >> Compressor block heating for operations < +5°C
- >> Auto start
- >> Oil temperature with auto shut down
- >> Puracon filter monitoring see page 47
- >> 420 bar Version

## Technical Data

	LW 720 E
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm³/h] / [cfm]:	720 / 43.2 / 25.4
Max. Pressure [bar]:	420 (Set at the final stage safety valve and pressure switch)
RPM [1/min]:	1100
No of cylinders / No of stages:	4 / 4
Prime mover type:	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	18.5 / 25.0
Cooling air requirement [Nm³/h]:	5550
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	4.0
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m³ at +20°C] <sup>1)</sup> :	2400
Dimensions L x W x H [cm]:	165 x 76 x 125
Weight [kg]:	590
Noise level [dB]:	88 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 1300 E



LW 1300 E

## LW 1300 E

Originally designed for heavy duty industrial applications, the LW 1300 E 4 stage compressor is built for extreme situations. The compressor block is mounted on an extremely sturdy steel frame with easy access to all components. The slow running compressor guarantees long and reliable service. The unit has been designed for the arduous demands of large volume filling stations.

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle, electrical box for wall mounting on site
- >> Operating panel with start/stop and condensation test controls, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check and safety valve check test mode
- >> Automatic shut down when the final pressure is reached
- >> Emergency stop switch
- >> Sturdy steel frame, powder coated in RAL 7004, steel fan guards in RAL 7004
- >> All pistons with steel piston rings
- >> Low pressure oil pump with large filter
- >> Pressure gauge for each stage
- >> Oil pressure monitoring and automatic shut down for low oil pressure
- >> 4 concentric suction/pressure valves
- >> Oil/water separators after each stage, safety valve for each stage
- >> HP outlet
- >> Breathing air version with external filter panel

### Options

- >> Special voltages / frequencies on request
- >> ECC controls see page 45
- >> Cylinder temperature with auto shut down
- >> Compressor block heating for operations < +5°C
- >> Auto start
- >> Oil temperature with auto shut down
- >> Puracon filter monitoring see page 47
- >> 420 bar Version

## Technical Data

	LW 1300 E
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	1300 / 78.0 / 45.9
Max. Pressure [bar]:	420 (Set at the final stage safety valve and pressure switch)
RPM [1/min]:	985
No of cylinders / No of stages:	4 / 4
Prime mover type:	3 Phase E-motor 400V / 50Hz, direct drive
Drive power [kW] / [HP]:	37.0 / 50.0
Cooling air requirement [Nm <sup>3</sup> /h]:	11100
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	4.8
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	3600
Dimensions L x W x H [cm]:	159 x 121 x 126
Weight [kg]:	980
Noise level [dB]:	89 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

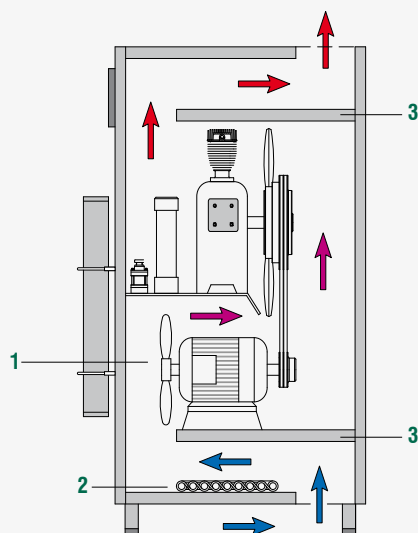
## LW 230 ES / LW 280 ES



LW 280 ES Inner view

**LW 280 ES**  
with optional ECC control

## The ES Silent Concept



Sound insulation is also heat insulation, manufacturing quiet compressors **and** keeping them cool is the ultimate objective. With the ES concept, we have benchmark sound insulation **and** benchmark cooling. The cross sectional view of the ES housing illustrates the key features.

1. A secondary ventilator provides additional thrust for the cooling air flow through the housing.
2. Additional final stage heat exchangers are the first component in the flow of cooling air into the housing.
3. The intermediate panels with sound insulation padding prevent the direct egress of sound waves out of the housing absorbing the majority of the noise.

## LW 230 ES / LW 280 ES

Excellent compressors with benchmark sound insulation and cooling. The unit has been specially developed for modern day demands. A medium capacity compressor ideally suited for a wide range of applications. The sound insulated housing provides excellent noise suppression so the unit can stand in working or sales rooms or in buildings where noise is not tolerated. The control panel provides a convenient location for up to 6 filling hoses and an overview of the essential compressor controls. The compressor can stand in a corner for space economy, at least two sides must be free.

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, stop button, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check function and safety valve check test modes
- >> Automatic shut down when final pressure is reached
- >> Motor protection switches (LW 230 ES Optional)
- >> Emergency stop switch, safety cut off if the front or rear panels are opened
- >> Sound insulated housing with sturdy steel frame, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> 3 concentric suction/pressure valves
- >> Low pressure oil pump and filter
- >> Secondary fan for extra cooling
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> 2 self venting filling valves with filling hoses and connections, and/or HP outlet

### Options

- >> Up to 6 filling hoses
- >> 200/300 bar parallel filling pressures
- >> Special voltages / frequencies on request
- >> ECC controls see page 45
- >> Oil pressure monitoring with auto shut down
- >> Cylinder temperature with auto shut down
- >> Auto start
- >> Oil temperature with auto shut down
- >> Inter stage pressure gauges
- >> Puracon filter monitoring see page 47

## Technical Data

	LW 230 ES	LW 280 ES
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	230 / 13.8 / 8.1	280 / 16.8 / 9.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)	350 (set at the final stage safety valve)
RPM [1/min]:	1080	1300
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	5.5 / 7.5	7.5 / 10.0
Cooling air requirement [Nm <sup>3</sup> /h]:	1650	2250
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	1.8	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Air outlet temperature [°C]:	6°C above ambient	6°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900	900
Dimensions L x W x H [cm]:	76 x 103 x 163	76 x 103 x 163
Weight [kg]:	330	330
Noise level [dB]:	61 dB[A] measured at 1 m	62 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 300 ES / LW 450 ES

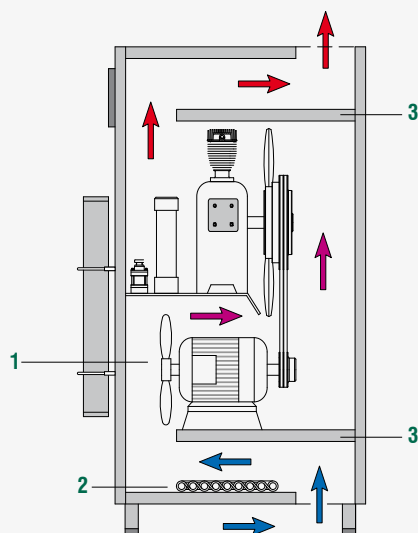


**LW 450 ES**  
with optional ECC control



**LW 450 ES Inner view**

## The ES Silent Concept



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1. A secondary ventilator provides additional thrust for the cooling air flow through the housing.
2. Additional final stage heat exchangers are the first component in the flow of cooling air into the housing.
3. The intermediate panels with sound insulation padding prevent the direct egress of sound waves out of the housing absorbing the majority of the noise.

## LW 300 ES / LW 450 ES

Our time tested 450 block in a vertical sound insulated housing, sound level only 64 dB[A] at 1 m. Ideal for applications in work areas or mixed industrial/ residential areas (Hotels etc.). A secondary ventilator ensures excellent cooling. The robust, slow running compressor with low maintenance and running costs is fully wired with a pneumatic/electrical compressor control with final pressure cut off and automatic condensation drain ensuring easy and trouble free operation. The compressor can stand in a corner for space economy (min. 2 sides free).

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check and safety valve check test modes
- >> Automatic shut down when final pressure is reached
- >> Emergency stop switch, safety cut off if the front or rear panels are opened
- >> Motor protection switches
- >> Sound insulated housing with sturdy steel frame, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> 3 concentric suction/pressure valves
- >> Low pressure oil pump
- >> Secondary fan for extra cooling
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> HP outlet

### Options

- >> Up to 6 filling hoses mounted on the front door panel
- >> Special voltages / frequencies on request
- >> Oil pressure monitoring with auto shut down
- >> Auto start
- >> Oil pressure gauge
- >> Cylinder temperature with auto shut down
- >> Oil temperature with auto shut down
- >> Inter stage pressure gauges
- >> ECC controls see page 45
- >> Puracon filter monitoring see page 47

## Technical Data

	LW 300 ES	LW 450 ES
Type:	Air cooled, reciprocating piston compressor	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	300 / 18.0 / 10.6	450 / 27.0 / 15.9
Max. Pressure [bar]:	350 (set at the final stage safety valve)	350 (set at the final stage safety valve)
RPM [1/min]:	800	1100
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	3 Phase E-motor 400V / 50Hz	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	7.5 / 10.0	11.0 / 15.0
Cooling air requirement [Nm <sup>3</sup> /h]:	2250	3300
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	2.2	2.2
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient	8 - 10°C above ambient
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1200	1200
Dimensions L x W x H [cm]:	81 x 110 x 168	81 x 110 x 168
Weight [kg]:	390	390
Noise level [dB]:	63 dB[A] measured at 1 m	64 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

## LW 570 ES

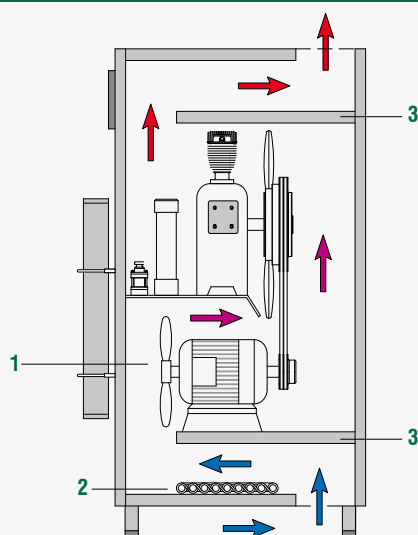


LW 570 ES with optional ECC control



LW 570 ES Inner view

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1. A secondary ventilator provides additional thrust for the cooling air flow through the housing.
2. Additional final stage heat exchangers are the first component in the flow of cooling air into the housing.
3. The intermediate panels with sound insulation padding prevent the direct egress of sound waves out of the housing absorbing the majority of the noise.

## LW 570 ES

The 570 ES is a 4 stage piston compressor for large, professional applications. The unit is housed in a compact sound insulated housing with unprecedented noise emission levels. The 15 kW drive delivers an impressive 570 litres/min (20.1 cfm) and the 4 stage construction allows working pressures of up to 420 bar if required. The slow running compressor guarantees long and reliable service. The unit has been designed for the arduous demands of large volume filling stations in mixed residential/industrial areas, or where people are working and need high performance at low noise levels.

### Specifications

- >> Ready to connect compressor, fully wired with pneumatic/electric compressor control with star/delta start cycle
- >> Operating panel with start/stop and condensation test controls, pressure gauge and hours counter
- >> Automatic condensation drain, pressure free start/stop, leak check and safety valve check test modes
- >> Automatic shut down when the final pressure is reached
- >> Motor protection switches
- >> Switches cut the compressor off if a door is opened, emergency stop switch
- >> Sturdy steel frame and sound isolated housing, powder coated in RAL 6026
- >> All pistons with steel piston rings
- >> Low pressure oil pump
- >> Two inspection panels for service access
- >> 4 concentric suction/pressure valves
- >> Oil/water separators after each stage, safety valve for each stage
- >> Breathing air purification in accordance with EN 12021
- >> Pressure maintaining and non-return valve
- >> HP outlet

### Options

- >> Up to 6 filling hoses mounted on the front door panel
- >> Special voltages / frequencies on request
- >> ECC controls see page 45
- >> Oil pressure monitoring with auto shut down
- >> Auto start
- >> Oil pressure gauge
- >> Cylinder temperature with auto shut down
- >> Oil temperature with auto shut down
- >> Puracon filter monitoring see page 47
- >> Inter stage pressure gauges
- >> 420 bar Version
- >> Compressor block heating for operations < +5°C

## Technical Data

	LW 570 ES
Type:	Air cooled, reciprocating piston compressor
Capacity [litre/min] / [Nm³/h] / [cfm]:	570 / 34.0 / 20.1
Max. Pressure [bar]:	420 (set at the final stage safety valve)
RPM [1/min]:	1100
No of cylinders / No of stages:	4 / 4
Prime mover type:	3 Phase E-motor 400V / 50Hz
Drive power [kW] / [HP]:	15.0 / 20.0
Cooling air requirement [Nm³/h]:	4500
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.5
Oil pressure [bar]:	1.8 (+/- 0.3)
Air outlet temperature [°C]:	8 - 10°C above ambient
Filter capacity [m³ at +20°C] <sup>1)</sup> :	1200
Dimensions L x W x H [cm]:	81 x 110 x 168
Weight [kg]:	505
Noise level [dB]:	64 dB[A] measured at 1 m

<sup>1)</sup> In accordance with EN 12021

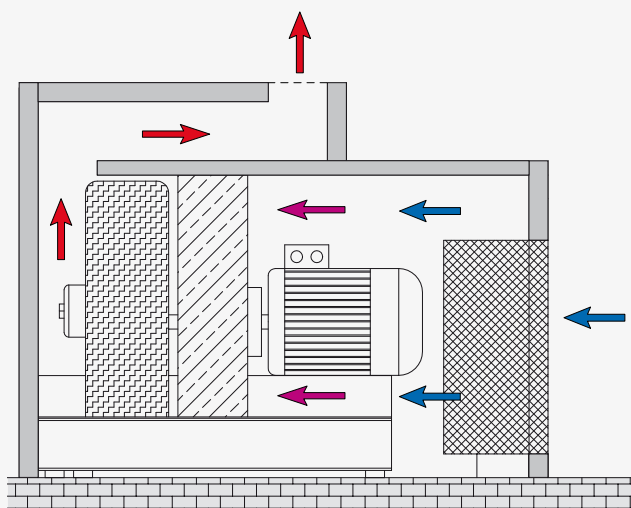
## Sound insulated Housing LW 720 ES / LW 1300 ES

The housing is made of solid steel sheet and powder coated in RAL 7001. Insulated with fireproof acoustic insulating mats in 80 mm thick - the ideal noise protection. The housing is easy to open, so that the compressor can be reached without difficulty. For maintenance work. All functions can be operated from the outside.



Sound insulated Housing LW 1300 ES

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## Sound insulated Housing LW 720 ES / LW 1300 ES

Designed for large applications, ideal for use in industrial facilities, workplaces, hotels and dive centers with a large breathing air requirements.

The Sound insulated Housing LW 720 ES / LW 1300 can be retrofitted to all LW LW 720 and 1300 models!

### Sound insulated Housing LW 720 ES

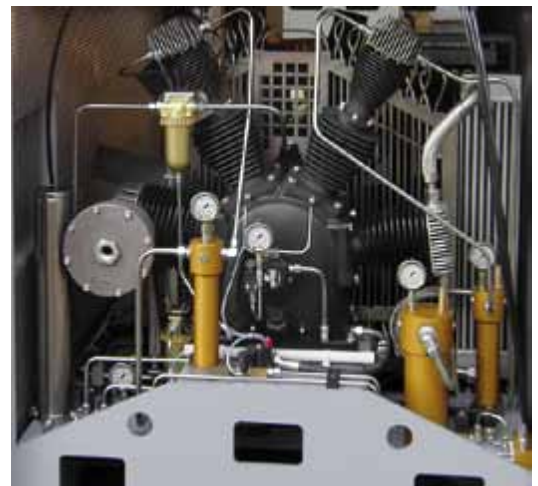
- >> Complete incl. Gauge-Panel and Gauge-Hose (for 1 Pressure Gauge)
- >> Including maintenance side door
- >> 73 dB at 1 m
- >> Color: RAL 7001
- >> Dimensions: 2200 x 1630 x 1550 mm

### Sound insulated Housing LW 1300 ES

- >> Complete incl. Gauge-Panel and Gauge-Hose (for 1 Pressure Gauge)
- >> Including maintenance side door
- >> 75 dB at 1 m
- >> Color: RAL 7001
- >> Dimensions: 2260 x 1720 x 1450 mm



Sound insulated Housing LW 720 ES – Operating Panel



Sound insulated Housing LW 1300 ES - Interior

## Technical Data

Typ	L x W x H [mm]	Noise [dB]
Sound insulated Housing LW 720 ES	2200 x 1630 x 1550	73
Sound insulated Housing LW 1300 ES	2260 x 1720 x 1450	75

## Options Overview

Typ	Automatic condensation drain	Automatic stop and hours counter	Auto Start	200/300 bar switch over device	200/300 bar parallel filling pressures	Conversion set (petrol/electric drive)	2 x filling hose	4 x filling hose	6 x filling hose	Puracon filter monitoring	Air Cooler Connection	Oil temperature monitoring	Oil pressure monitoring	Inter stage pressure gauges	Motor protection switches	Cylinder temperature monitoring	ECC controls	420 bar Version
LW 100 E / E1 ECO	○	○	○	○		○	○											
LW 100 E / E1	○	○	○	○		○	○											
LW 100 B ECO / B	○	○		○		○	○											
LW 160 E / E1	○	○	○	○		○	○											
LW 170 E Nautic	○	●	○		○		●	○		○								
LW 170 D Nautic	○	●			○		●	○		○								
LW 190 B	○	○		○		○	○											
LW 200 E Nautic	○	●	○		○		●	○		○								
LW 225 E	○	○	○	○		○	○											
LW 230 E	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 230 ES	●	●	○		○		○	○	○	○	○	○	○	○	○	●	○	○
LW 245 B	○	○		○		○	○											
LW 280 E	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 280 E / E1 Com-	○	○	○	○	○		○			○	○	○	○	○	○	●	○	○
pact	●	●	○		○		○	○	○	○	○	○	○	○	○	●	○	○
LW 280 ES	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 300 E	●	●	○		○		○	○	○	○	○	○	○	○	○	●	○	○
LW 300 ES	○	●	○		○		●	○		○								
LW 320 E AL Nautic	○	●			○		●	○		○								
LW 320 B AL Nautic	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 450 E	○	○	○	○	○		○			○	○	○	○	○	○	●	○	○
LW 450 E Compact	●	●	○		○		○	○	○	○	○	○	○	○	○	●	○	○
LW 450 ES	●	○	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 450 D Basic	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 450 D	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 570 E	●	●	○		○		○	○	○	○	○	○	○	○	○	●	○	○
LW 570 ES	●	●	○		○			●	○	○	○	○	○	○	○	●	○	○
LW 570 D	●	●	○		○					○	○	○	●	●	●	○	○	○
LW 720 E	●	●	○		○					○	○	○	●	●	●	○	○	○

● Standard

○ Optional

## Electronic Compressor Control - ECC

The L&W ECC (electronic compressor control) is available for all electric motor driven compressors from LW 230 and larger. The ECC replaces the standard electric/pneumatic control and offers the user a range of functions and interfaces only available with digital controls. The unit has an illuminated LCD display which can show various functions and values as selected on the numeric key board. An easy to follow menu accompanies the user through the menu points. The ECC software can be updated using a standard windows computer via the RS232 serial cable. The ECC is available in metric or imperial versions and in German, English, French, Spanish, Dutch and Swedish languages.

### Specifications

- >> Automatic condensation drain
- >> Full automatic mode (auto start and auto stop)
- >> Semi automatic mode (auto stop)
- >> Log book function with hours run, number of starts and max pressure
- >> Elapsed filling time (minutes)
- >> Final pressure
- >> 3 control LEDs for power on, compressor on, compressor off.
- >> Dual filling pressure display (for 200/232 and 300 bar compressors)
- >> Error warnings (e.g. „door is open“)
- >> Maintenance programme with hours countdown and required part numbers in display
- >> Test mode for leak check, safety valve test and solenoid test
- >> Interface for final pressure signal to external siren/light
- >> Interface for error signal to external siren/light



### Options

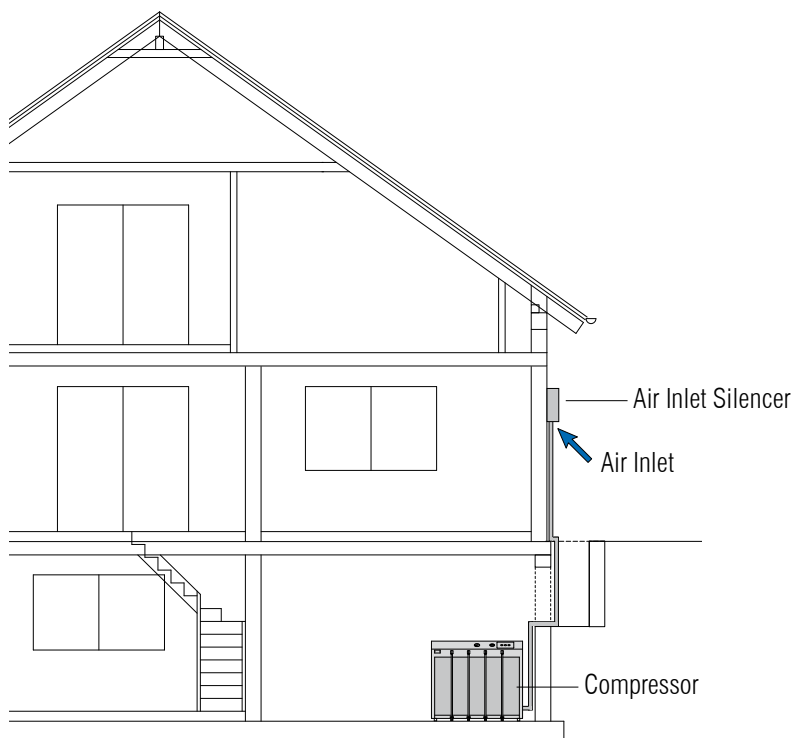
- >> PIN number lock (prevents unauthorised compressor use)
- >> Oil temperature display and auto cut off
- >> Oil pressure monitoring and auto cut off
- >> Oil pressure display
- >> Cylinder head temperature display and auto cut off
- >> Ambient temperature monitoring  $< +5^{\circ}\text{C}$  and/or  $> +50^{\circ}\text{C}$  with auto cut off/start inhibitor
- >> Inter stage pressure monitoring (available for 3 and 4 stage compressors)
- >> Puracon interface with „change filter“ alarm in LCD display
- >> Motor overload protection switch with message in LCD display
- >> Inlet pressure monitoring with auto cut off

## Air Inlet Silencer

If the compressor inlet hose is led outside for clean fresh air to enter the compressor, the noise generated by the inlet valve that resonates within the hose can be reduced to an almost inaudible level by mounting the inlet silencer at the end of the hose.

The silencer comes with a special mount for wall mounting.

40 x 26 x 60 cm, 24 kg



## Condensation Collecting Tank

The 60-liter tank is equipped with an active carbon filter collect odorless and quiet the condensate to of the separate compressor stages.

The perfect solution to collect condensate without odor and to depollute it environmentally friendly.

The flexible connection hoses are fitted with quick-couplings, to allow easy separation from the compressor.

Ø 40 x 80 cm, 20 kg



## Puracon Moisture Controller

Monitors high pressure air after filtration and indicates the water content in  $\text{mg}/\text{m}^3$ . The Puracon can be used to monitor filter cartridge condition and informs the user when the filter needs changing. Serves as quality assurance for product liability for air filling stations avoids filter cartridge life calculations according to hours run and temperature redundant and provides assurance for clean air in oxygen mixing applications (Nitrox/Trimix).

The Puracon can be mounted anywhere in the pipeline after the filter and a non return valve (to prevent pressure surges). Because the Puracon is mounted after the filter housing, no modifications are necessary to an existing filter and standard cartridges are utilised.

### Specifications

- >> Display Unit, 120 x 120 x 60 mm for wall mounting with power supply cable and plug (1.2 m length) and sensor cable (2 m length)
- >> Stainless steel sensor housing ( $\varnothing$  45 x 95 mm) with 2 x G1/4" inlet/outlet and cable socket
- >> Non-wasting sensor
- >> Digital LCD display language can be selected in English, German, Spanish & French, showing water content in  $\text{mg}/\text{m}^3$
- >> 3 programmable quick reference LEDs for Filter status (green, yellow and red) default settings:  
Green:  $< 20 \text{ mg}/\text{m}^3$ , Yellow:  $20\text{--}25 \text{ mg}/\text{m}^3$ , Red:  $> 25 \text{ mg}/\text{m}^3$  (switch for compressor cut off)
- >> Max Working pressure 350 bars
- >> Blank screw for inserting into housing during sensor service
- >> Interface for automatic cut off of the compressor if desired
- >> Instruction manual
- >> Approved up to 420 bar

### Versions available

- >> 230 V AC
- >> 12 V DC
- >> 24 V DC
- >> Eex with ATEX certification



## LW Air Cooler +3°C

Filter capacity and filter life, an important theme with financial implications for professional filling stations where cost control is vital. The life of a filter is strongly influenced by the running temperature of the compressor and ambient temperature.

Example: LW 450 E at +20°C outlet temperature has a filter life of approx. 33 hrs, at +35°C this time is reduced to just 10 hours!

If the air is cooled down to +3°C after the final compression stage before it enters the final separator, the life of the filter cartridge can be extended up to 6 times, in extreme tropical conditions 10 times! The L&W refrigeration dryers, named Air Coolers, can pay for themselves within 1 season in saved filter cartridge costs. To monitor the exact state of the filter and register when the cartridge needs changing, we recommend the L&W Puracon moisture controller.

For some industrial applications, the air cooler can provide suitable drying without the need for filters.

The coolers are available as independent units with water separators, automatic condensation drain with timer and silencer, or as the economical.

LW Air Cooler BASIC for connection to a compressor with final stage oil/water separator and drain.

### Specifications

- >> Ready to connect with oil/water separator automatic condensation drain and silencer (Basic version without separator, drain and silencer)
- >> Digital temperature display in °C
- >> Steel housing, powder coated in RAL 6026
- >> Power supply cable for 230V 50Hz connection and CE plug (60Hz versions available)

LW Air Coolers are available in 2 pressure ratings, max 250 bars and max. 350 bars. The basic units have a max. working pressure of 450 bar. The units up to and including 2850 litres/min capacity are for wall mounting, the larger units are free standing. The units are maintenance free with environment friendly CFC-free refrigeration fluids.



LW AC 450-900

## Technical Data

Model	Max. flow [m³/h] / [l/min]	Working pressure [bar]	Power consumption [kw]	Cooling air requirement [m³/h]	Mount case	Refrigeration fluid	W x D x H [mm]	Weight [kg]
LW AC 450 Basic	27 / 450	420	0.5	390	wall mount	R 134a	330 x 250 x 700	38
LW AC 450	27 / 450	350	0.5	390	wall mount	R 134a	330 x 250 x 700	38
LW AC 900 Basic	54 / 900	420	0.6	570	wall mount	R 404 a	330 x 250 x 700	48
LW AC 900	54 / 900	350	0.6	570	wall mount	R 404 a	330 x 250 x 700	48
LW AC 1350 Basic	81 / 1350	420	0.9	900	wall mount	R 404 a	500 x 430 x 840	72
LW AC 1350	81 / 1350	350	0.9	900	wall mount	R 404 a	500 x 430 x 840	72
LW AC 1950	117 / 1950	350	1.1	1140	wall mount	R 404 a	500 x 430 x 840	84
LW AC 2850	171 / 2850	350	1.4	1800	wall mount	R 404 a	500 x 430 x 840	98
LW AC 3650	219 / 3650	350	2.2	2200	free standing	R 404 a	800 x 670 x 1350	164
LW AC 5400	324 / 5400	350	3.6	3400	free standing	R 404 a	800 x 670 x 1350	196
LW AC 7000	420 / 7000	350	4.3	4200	free standing	R 404 a	800 x 670 x 1350	224

## Filter Panels

These panels, although primarily for breathing air purification, can be used for various gas filtration requirements. The high pressure filter housings are certified and documented in accordance with current pressure vessel regulations to a maximum working pressure of 350 bar (5250 psi) and 420 bar (6200 psi).

The assembly is mounted on a sturdy wall panel and piped ready for connection with a pressure maintaining and non-return valve. If required, the inlet can be secured with a pressure relief valve. These panels are the preferred choice for filtration remote from the compressor and are ideal for multiple compressor installations especially when using a central refrigeration dryer, or for upgrading an outdated filter system.

The filter housings are available in three sizes, 1.7, 2.3, 10 litre volume and in single, double or triple combinations. Cartridges are available for breathing air, breathing air with additional CO/CO<sub>2</sub> removal, drying, active charcoal, natural gas drying, and more.

### Specifications

- >> Nickel plated steel filter housing(s) with 1 drain tap on each panel
- >> Steel frame and housing, powder coated in RAL 6026
- >> Pressure maintaining and non-return valve, Connection G 1/4"
- >> Inlet G 1/4"

### Options

- >> Safety valve
- >> Puracon filter monitoring see page 47
- >> Filter cartridges



**Filter Panel 1 x 10 ltr.**  
without Pressure maintaining valve



**Filter Panel 2 x 2.3 ltr.**  
incl. Pressure maintaining valve

## Technical Data

Filter panel	Capacity breathing air at +20°C [m³]	W x H x D [mm]	Weight [kg]	Max WP [bar]
1 x 1.7 litre	900	270 x 570 x 180	27	350
2 x 1.7 litre	1800	430 x 570 x 180	44	350
3 x 1.7 litre	2700	560 x 570 x 180	61	350
1 x 2.3 litre	1200	270 x 815 x 180	32	350
2 x 2.3 litre	2400	430 x 815 x 180	54	350
3 x 2.3 litre	3600	560 x 815 x 180	76	350
1 x 2.3 litre	1200	270 x 815 x 180	38	420
2 x 2.3 litre	2400	430 x 815 x 180	67	420
3 x 2.3 litre	3600	560 x 815 x 180	95	420
1 x 10 litre	8400	1116 x 320 x 460	165	350
1 x 10 litre + 1 x 2.3 litre	9600	1116 x 320 x 720	180	350
2 x 10 litre	16800	1116 x 320 x 700	265	350
2 x 10 litre + 1 x 2.3 litre	18000	1116 x 320 x 1000	315	350

## Storage Cylinders

Storage tanks are frequently used to provide extra filling capacity during peak periods. The storage cylinders can either be opened „all at once“ in a single stage, or „cascaded“ into the cylinders to be filled, usually in 3 stages. Ideally the storage pressure should be higher than the filling pressure, 300 bar storage systems are the most common. The storage systems can be used with most compressors and are best suited for automatic operation (e.g. ECC or auto start option). L&W has a full range of storage modules each of which can be combined with other modules for individual configuration.

### Specifications

- >> Steel tanks 10 year hydro test, powder coated in accordance with EN 1089/3
- >> Working pressure: 200, 300, 350 or 420 bar
- >> Sturdy steel frame, powder coated in RAL 6026
- >> Standard volume 50 litre
- >> Connected according to customer's specifications
- >> Modular construction to accomodate future expansions



## Technical Data

Cylinders	Capacity [m³]	W x H x D [cm]	Weight [kg]
<b>300 bar storage WP 300 bar / TP 450 bar</b>			
1 x 50 litre	15	25 x 178 x 30	125
2 x 50 litre	30	50 x 178 x 30	210
3 x 50 litre	45	75 x 178 x 30	310
4 x 50 litre	60	100 x 178 x 30	405
6 x 50 litre	90	Ø 80 x 195	570

Cylinders	Capacity [m³]	W x H x D [cm]	Weight [kg]
<b>350 bar storage WP 350 bar / TP 525 bar</b>			
1 x 50 litre	17,5	25 x 178 x 30	140
2 x 50 litre	35	50 x 178 x 30	240
3 x 50 litre	52,5	75 x 178 x 30	355
4 x 50 litre	70	100 x 178 x 30	465
6 x 50 litre	105	Ø 80 x 195	660

## Auto Filling Selector

Auto filling selectors provide the ideal solution for simple and effective storage management. These units co-ordinate the flow of air in the filling station automatically between the compressor, the storage and the filling panel. The user simply connects the empty cylinders to the filling panel and opens the cylinder valves.

The compressor, storage and auto filling selector can be located remotely from the filling panel with only one HP line between the auto filling selector and the filling panel.

In addition to simplified filling operations, the auto filling selectors also save energy and time making the filling operation more economical. Once the compressor is switched on, it will not switch off until all the cylinders that are connected on the filling panel are filled and the storage bank is refilled to maximum working pressure. The compressor runs continuously during the entire filling operation and therefore more efficiently.

### The auto filling selectors are available in 3 versions



#### Pneumatic

For applications where the storage pressure is at least 30 bar above the max filling pressure on the filling panel and a pressure reducing station is already available between the storage and the filling panel.  
30 x 27 x 10 cm, 3 kg

#### Pneumatic with integrated pressure reducing station

For applications where the storage pressure is at least 30 bar above the max filling pressure on the filling panel and a pressure reducing station is also required to safely reduce and secure the pressure from storage to filling pressure.

55 x 35 x 15 cm, 9 kg



#### Pneumatic-electronic

For applications where the storage pressure is the less than 30 bar higher than the max. filling pressure on the filling panel.

43 x 26 x 10 cm, 16 kg

#### Options

>> Auto start signal for the compressor

## Manual Storage Management

Cascade filling panel, connected upstream of the filling panel, a manual Control unit for 2, 3 or 4 stage filling.



### Single stage storage management

High pressure valve and pressure gauge can be installed as a storage controll in every L&W filling panel.

### Cascade panels

Cascade filling panels are efficient for filling operations without using the compressor (i.e. during silent periods). The separate panels can easily be without any difficulty added to an existing filling station.

### Specifications

- >> Steel frame and housing, powder coated in RAL 6026
- >> Available in 1, 2, 3 or 4 stage versions
- >> Ø 63 mm 0-400 bar glycerine filled pressure gauge for each stage
- >> Hand wheel isolation valve for each stage
- >> 8 mm bulkhead fittings (left), 1 for each stage and 1 for the compressor
- >> 8 mm bulkhead fitting (right) outlet to the filling panel
- >> Ready to connect, fully piped with stainless steel piping



**3 stage cascade management panel**

### Operation

The cylinders to be filled are connected to the filling panel and the filling/cylinder valves are opened. The storage is manually opened starting with the storage stage with the lowest pressure (must be above the remaining pressure in the cylinders) until the pressure has equalised or the filling pressure in the filling panel is reached. This is repeated working up the storage stages until the final stage (the highest pressure) is opened. The storage valve is then turned off and the cylinders can be topped up using the compressor. When all the cylinders on the filling panel are full, the storage can be opened manually, either all together or stage by stage starting with the highest pressure, and are refilled using the compressor. The storage stages need to be closed before the next filling cycle starts.

## Technical Data

Order no	No of stages	W x D x H [cm]	Weight [kg]
002957	1	21 x 23 x 33	6.5
002935	2	39 x 23 x 33	10
002329	3	58 x 23 x 33	13
002816	4	78 x 23 x 33	16

## Pressure Reducing Stations

Ideal for safely reducing storage pressure down to the required filling pressure. The pressure reducing stations are available with various inlet and outlet pressures and high flows for large capacity applications.






**Pressure reducing station with non type tested safety valve**



**Pressure reducing station with TÜV/ CE safety valve**

## Pressure Reducers

Various pressure reducers are available for different applications with adjustable outlet pressures and various flow rates to suit most applications.

	Inlet	Outlet	Gas
	100-420 bar 2 x 1/4" NPT female	27 - 300 bar 2 x 1/4" NPT female	Air / inert gas
	100-420 bar 1 x 1/4" NPT female	27 - 300 bar 1 x 1/4" NPT female	Air / inert gas
	100 - 300 bar G5/8" DIN 477 male	0-50 bar G1/4" female	Air / inert gas

## Filling Panels

The wide range of L&W filling panels has established itself as an industry benchmark for optimum design with an extensive list of features. The modular design guarantees that filling stations can be extended to adapt to your future requirements. The panels are available with either 200, 232 or 300 bar filling pressure (3000/4500 psi) or as dual pressure filling panels for simultaneous filling without the need to select the pressure. The self venting lever operated filling valves are available with either filling hoses and connections or direct filling connections for BA cylinders. We have a wide range of filling connections available.

A unique feature of the L&W panels is the facility to swing open the housing for maintenance work, without any disconnections, a leak check can be carried out while the panel is open.



**4 point panel - 2 x 200 bar, 2 x 300 bar with hoses and DIN anti-whip connections**

### Specifications

- >> Sturdy steel frame, removable for easy mounting, powder coated in RAL 6026
- >> Steel plate housing powder coated in RAL 6026
- >> 8 mm bulkhead fitting for air inlet (inter-changeable left/right)
- >> Ready for connection, piped with 8 mm stainless steel piping
- >> Start/Stop remote control with running control lamp (available for various compressor controls)
- >> Large Ø 100 mm pressure gauge for each filling pressure
- >> Self-venting lever filling valves (venting within the housing for noise reduction).  
Valves can be equipped with extra silencers for further noise reduction.
- >> Filling hoses or direct BA connections according to your specifications
- >> Large Ø 100 mm pressure gauge(s)
- >> Self-venting lever filling valves
- >> Panels for dual pressure equipped

### Filling panels with filling hoses

- >> 1000 mm HP hoses with stainless steel fittings (longer hoses available)
- >> Filling connections anti-whip option recommended for DIN or NF connections

### Filling panels with direct BA connections

- >> Direct BA connections for flanging the cylinders on to the panel
- >> Filling connections anti-whip option recommended for DIN or NF connections
- >> Dust caps and holders for DIN connections

## Filling Panels

### Options available

- >> L&W anti-whip safety connections for DIN/NF connections
- >> Silencers for further reducing venting noise
- >> Storage inlet/outlet with hand wheel valve and pressure gauge
- >> Pressure reducer and safety valve in the inlet for 300 bar storage and only 200 bar filling
- >> 8 mm bulkhead outlet for additional filling panels (modular system)



**6 point panel - 2x200, 4x300 bar direct BA connections**

### Stainless Steel Filling Panels

Ideal for installations in marine environments (beach locations, live aboard boats, etc.) where corrosion is a large problem. The stainless steel panels have the same features as the standard filling panels except they are fully equipped with stainless steel housing and fittings.



## Technical Data

1 Filling pressure	L x W x H [cm]	Weight [kg]
1-point	21 x 23 x 33	6.5
2-point	39 x 23 x 33	9.0
3-point	58 x 23 x 33	12
4-point	80 x 23 x 33	15
6-point	115 x 23 x 33	20
8-point	153 x 23 x 33	25
9-point	172 x 23 x 33	28

2 Filling pressures	L x W x H [cm]	Weight [kg]	Configurations
4-point	82 x 23 x 33	18	1+3, 2+2, 3+1
6-point	118 x 23 x 33	23	1+5, 2+4, 3+3, 4+2, 5+1
8-point	156 x 23 x 33	28	1+7, 2+6, 3+5, 4+4, 5+3, 6+2, 7+1
9-point	175 x 23 x 33	31	1+8, 2+7, 3+6, 4+5, 5+4, 6+3, 7+2, 8+1

## Armoured Safety Filling Cabinets



**3 Tank - SAFETY FILLING Cabinet for Dual Pressure**



**2 Tank - SAFETY FILLING Cabinet for Single Pressure**



**3 Tank - SAFETY FILLING Cabinet for Dual Pressure - Back View**

## Armoured Safety Filling Cabinets

### Protect yourself, your employees and customers against the risk of exploding bottles.

With the new L&W safety filling cabinet, the filling process is completely safe and without danger.

The fear of decrepit or defective bottles has already implemented in many countries a provision for the explosion as a result.

The L&W safety filling cabinet is the affordable alternative to an explosion-proof hopper. In the case of an exploding bottle our solid steel armor protects you against the lethal shrapnel.

Our Safety Filling Cabinet are tested and approved by the American Organization UL

### Specifications

- >> Max. Inlet pressure 350 bar
- >> Adjustable flow restrictor
- >> Inlet pressure gauge, 0-400 bar, Ø 63 mm,
- >> Filling pressure gauge(s), 0-400 bar, Ø 63 mm
- >> Self-venting lever filling valves for each outlet
- >> Emergency cut-off switch
- >> High pressure solenoid / 230 V
- >> Safetydoor and locking bar are controlled by position switch
- >> Start / Stop buttons



**3 Tank - SAFETY FILLING Cabinet for Dual Pressure - Inside view**

## Technical Data

Order-Nr.	Size	Numbers of filling connection & Pressure range	L x W x H [mm]
<b>Single Pressure Cabinets - 200 / 300 bar w/o. SV and Pressure Reducer (max. inlet pressure = max. filling pressure)</b>			
004565	2 Tanks	2 x 200 bar or 2 x 300 bar	780 x 535 x 1640
004566	3 Tanks	3 x 200 bar or 3 x 300 bar	1050 x 535 x 1640
<b>Dual Pressure Cabinets - 200 and 300 bar with SV and Pressure Reducer</b>			
004567	2 Tanks	2 x 200 bar or 2 x 300 bar	780 x 535 x 1640
004568	3 Tanks	3 x 200 bar or 3 x 300 bar	1050 x 535 x 1640

420 bar Version und weitere Größen auf Anfrage möglich.

## Air Station

A breathing air filling station specifically designed for outdoor applications allowing air cylinders to be filled outside of shop hours and/or without involving staff. The filling station is housed in a weather proof stainless steel housing for wall mounting, this cabinet has a standard cylinder lock in the door.

Payment is processed using programmable magnetic keys which are issued to customers and a credit “loaded” on to the key. The digital display indicates the remaining credit on the key as the filling process takes place.

The filling station is equipped with an easy to use, self venting lever filling valve which can control up to 4 filling hoses. The filling hoses are equipped with the L&W patented anti-whip DIN safety ends or yoke connections. The venting is inside the housing and suppressed with a silencer reducing noise to a minimum, especially important for “out of hours” use.

The air station is easy to use, the key is placed in the holder and a start/stop switch controls the fill. The unit has an automatic final pressure shut-off and a safety valve for the final pressure. The storage pressure that supplies the air station and the filling pressure are shown on 2 pressure gauges. An emergency switch provides an additional safety feature.

The units comes complete with an interface for crediting and/or analysing the magnetic keys, including a cable to a serial 9-pole PC port. The software (included) will run on a windows PC. The data port is a serial 9 pole RS 232 port.

### Specifications

- >> Lockable, all weather stainless steel housing
- >> Type tested final pressure safety valve (225 bar)
- >> Two pressure gauges (0-400 bar, Ø 63 mm, class 1.6)
- >> Choke for controlling the air flow to 800 litre/min
- >> LCD Display, 2 LED control lights
- >> Automatic final pressure shut off
- >> Stainless steel filling hose holder
- >> High pressure piping, stainless steel
- >> 8 mm bulkhead fitting for air inlet
- >> Central lever filling valve, self venting
- >> Silenced venting inside the housing
- >> 1, 2, 3 or 4 Filling hoses with certificate, length: 1000 mm (other lengths available on request)
- >> DIN 200 bar non-whip safety DIN, or yoke connections
- >> Start, Stop & Reset buttons, emergency off switch
- >> Filling instructions and complete documentation templates

### Option: Removable memory module

- >> Separate lockable cabinet housed inside the stainless steel cabinet contains “plug-in” memory unit that stores the data from the air station.
- >> Data can then be downloaded via RS232 port for storage and analysis.
- >> Ideal for remote air stations where the owner/operator makes regular control visits.



## Technical Data

Filling pressure [bar]	Inlet pressure [bar]	Filling rate [litre/min.]	Power supply	W x H x D [mm]	Weight [kg]
200, 232 or 300	max. 350	800 (+/- 5%)	230V AC, 50 Hz, approx. 15 Watt	600 x 760 x 210	42

## Gas Blending Panels

Using the partial pressure method, Nitrox and/or Trimix can be mixed and filled safely, easily and accurately using our Pro or Classic filling panels. The panels are tested and certified for 100% oxygen and/or helium mixing for all your breathing gas requirements. Practical valve and gauge layout makes operation easy to learn and use.

For pure oxygen compatible air (OCA), we recommend using the Puracon air controller and/or an extra filter mounted on the panel.

Wall mounted panels for safe and easy partial pressure gas blending. All gas inlets are fitted with isolation valves, non return valves and flow restrictors. The oxygen/helium gas pressure can be read on individual pressure gauges without the need to open the valves which makes efficient gas cascading quick and simple. The design of the panels has been approved by the stringent German TÜV authorities as suitable for use in Nitrox, Trimix and Heliox applications.

The Panels have a removable rear cover which makes wall mounting very simple and are powder coated in RAL 6026. All the pipework and the connections are stainless steel providing years of trouble free service and safe gas flow. The valves are industrial quality.

### Nitrox Classic Panel specifications

- >> 2 inlets for oxygen/helium with pressure gauges, 6 mm pipe connections
- >> 1 inlet for OCA, 8 mm pipe connection
- >> 1 outlet for vented gas, 6 mm pipe connection
- >> Main pressure gauge Ø 160 mm class 1.0, 0-250 bar in 2 bar increments
- >> Housing for oxygen analyser/sensor, gas is reduced in pressure and flow
- >> 1 filling hose with cylinder connection of your choice
- >> Up to 3 extra filling hoses can be fitted

### Nitrox Pro Panel specifications

- >> 3 inlets for oxygen/helium with pressure gauges, 6 mm pipe connection
- >> 1 inlet for OCA with pressure gauge, 8 mm pipe connection
- >> 1 outlet for vented gas, 6 mm pipe connection
- >> Main pressure gauge Ø 160 mm class 1.0, 0-250 bar in 2 bar increments
- >> Alpha 1 oxygen analyser (see text opposite) can be used off the panel if required
- >> 1 filling hose with cylinder connection of your choice
- >> Up to 2 extra filling hoses can be fitted

### Options

- >> Inlet purification filter
- >> Additional filling hose(s)
- >> Alpha 1 analyser (classic)
- >> Helium/Oxygen analyser



## Technical Data

	W x H x D [mm]	Weight [kg]	Max. inlet pressure OCA [bar]	Max. inlet pressure Oxygen/Helium [bar]
<b>Nitrox Classic</b>	710 x 480 x 220	29	200	200
<b>Nitrox Pro</b>	810 x 580 x 220	38	200	200

## Nitrox Membrane Systems



## Technical Data

### LWNX 250-38 Technical Data

Max. O <sub>2</sub>	Capacity	Compressor
38 %	300 l/min	9.0 kW
36 %	350 l/min	9.0 kW
32 %	380 l/min	9.0 kW

### LWNX 250-40 Technical Data

Max. O <sub>2</sub>	Capacity	Compressor
40 %	300 l/min	11.0 kW
38 %	370 l/min	11.0 kW
36 %	400 l/min	11.0 kW
32 %	400 l/min	11.0 kW

### LWNX 250 Dimensions

	W x D x H	Weight
Screw compressor 9 kW	600 x 1300 x 900 mm	250 kg
Nitrox panel	450 x 300 x 1000 mm	30 kg

### LWNX 500-38 Technical Data

Max. O <sub>2</sub>	Capacity	Compressor
38 %	470 l/min	11.0 kW
36 %	550 l/min	11.0 kW
38 %	600 l/min	15.0 kW
36 %	750 l/min	15.0 kW

### LWNX 500-40 Technical Data

Max. O <sub>2</sub>	Capacity	Compressor
40 %	500 l/min	18.5 kW
38 %	750 l/min	18.5 kW

### LWNX 500 Dimensions

	W x D x H	Weight
Screw compressor 11/15 kW	670 x 1550 x 1200 mm	500 kg
Screw compressor 18.5 kW	790 x 1875 x 1290 mm	650 kg
Nitrox panel	450 x 300 x 1000 mm	35 kg

For the LWNX 750, LWNX 1000 or for bigger Nitrox Membrane systems please contact us so we can provide you with a comprehensive solution.

Custom made Nitrox Membrane Systems are also available for on-board installations or islands where only limited power is available.

### Stainless steel panel for easy installation

- >> 1 stainless steel buffer tank before the membrane,
- 1 stainless steel buffer tank after the membrane,
- both buffer tanks are tested and approved for 16 bar pressure, incl. CE sign
- >> Parker Membrane with CE sign
- >> 2 stainless steel valves (min./max. pressure) to maintain membrane outlet pressure within a certain range and to avoid damage to the high-pressure compressor



### Stainless steel needle valve for easy adjustment of Nitrox Mixture

- >> Silencer to keep the noise of the venting Nitrogen extremely low

### Pressure relieve valve to adjust and stabilize the membrane inlet pressure

### Online Oxygen Monitoring system with an accuracy of 0.1%

- >> Sensor life time: 1 year
- >> Self calibrating

### Integrated refrigeration dryer (dew point: 5°C) for moisture removal
















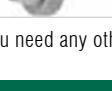
- >> Modular design for flexible installation in space constraint areas
- >> 2 active carbon filters for oil mist removal (oil content less than 0.003 mg/m<sup>3</sup>)
- >> 1 particle filter to protect the membrane from any contamination

All stainless steel parts are made of non corrosive 316 stainless steel




## Filling Connections

Filling connections for SCBA and diving cylinders in accordance with national/international standards.

	Gas	Description	Max WP	M16x1.5 mm for HP hose/lever filling valve	G1/4" for Oxygen hose	G1/4" for lever filling valves (-2005)	M16 x 1.5mm for cross filling valves	8 x 2.5 mm for piping connection
	Air	DIN 477 200 bar	232 bar / 3400 psi	●	●	●	●	●
	Air	DIN 477 200 bar anti whip	232 bar / 3400 psi	●	●			
	Air	DIN 477 300 bar	300 bar / 4500 psi	●		●	●	●
	Air	DIN 477 300 bar anti whip	300 bar / 4500 psi	●				
	Air	DIN 477 300 bar 360° swivel connection	300 bar / 4500 psi	●				
	Air	INT/Yoke for scuba	232 bar / 3400 psi	●	●		●	
	Air	CGA 346	200 bar / 3000 psi	●		●	●	
	Air	CGA 347	300 bar / 4000 psi	●		●	●	
	Air	NF E 29-662	232 bar / 3400 psi	●		●	●	
	Air	NF E 29-662 anti whip	232 bar / 3400 psi	●				
	Air	NF E 29-663	300 bar / 4500 psi	●		●	●	●
	Air	NF E 29-663 anti whip	300 bar / 4500 psi	●				
	Air	Spasciani	200 bar / 3000 psi	●				
	Nitrox	Draeger M24 x 2.0 prEN144	200 bar / 3000 psi		●			
	Nitrox	M26 x 2.0 - 250 bar	250 bar / 3675 psi		●			
	Nitrox	M26 x 2.0 - 350 bar	350 bar / 5000 psi		●			
	O <sub>2</sub>	G3/4" DIN 477	200 bar / 3000 psi		●			

If you need any other connections, please do not hesitate to ask.

## Filling Valves




	Order number	P max Application	Mount	Repair kit/ special tools/silencer
	<b>Cross design filling valve without pressure gauge</b>			
	Yoke: 002022 DIN 200: 002023 DIN 300: 002024	350 bar Filling valve with separate vent screw	Filling valve without pressure gauge for mounting on a filling hose via a 1/4" female connection (supplied as standard with connection M16 x 1,5 mm 10 L). Available with various filling connections.	Repair kit: 002294
	<b>Cross design filling valve with pressure gauge</b>			
	Yoke: 002291 DIN 200: 002292 DIN 300: 002293	350 bar Filling valve with separate vent screw	Filling valve with 0-400 bar pressure gauge for mounting on a filling hose via a 1/4" female connection (supplied as standard with connection M16 x 1,5mm 10L). Available with various filling connections.	Repair kit: 002294
	<b>Hand wheel valve without venting</b>			
	001477	350 bar. Standard 2/1 way valve, G1/4" inlet and outlet for opening closing lines such as storage cylinders	Panel mounting with Ø 33 mm hole	Lower seat: 000571 Upper valve stem and bearing: 000573
	<b>Hand wheel valve self venting</b>			
	001476	350 bar Standard 2/1 way valve, G1/4" inlet and outlet self venting on the outlet line for filling panels	Panel mounting with Ø 33 mm hole	Lower seat: 000572 Upper valve stem and bearing: 000574 Silencer kit: 002896
	<b>Lever filling valve, self venting</b>			
	200 bar: 002449 300 bar: 002450	350 bar Standard 2/1 way valve, G1/4" inlet and M16 x 1.5 mm outlet self venting on the outlet line for filling panels	Panel mounting inside a 90° profile secured by 4 screws, vents inside the panel	Repair kit small: 002451 Repair kit large: 002452 Tool kit: 002453 Silencer: 000580
	<b>Lever filling valve, self venting (by 2005)</b>			
	200 bar: 001382 300 bar: 001383	350 bar Standard 2/1 way valve, G1/4" inlet and outlet self venting on the outlet line for filling panels	Panel mounting inside a 90° profile secured by 4 screws, vents inside the panel. (limited availability)	Repair kit: 000576 Special tool: 000575 Silencer: 000580
	<b>Lever filling valve, self venting</b>			
	200 bar: 000707 300 bar: 000708	350 bar. Standard 2/1 way valve, G1/4" inlet and M16 x 1,5mm male outlet, self venting on the outlet line for filling panels with losses	Panel mounting with Ø 23 mm hole silencer integrated in the vent	Repair kit: 000576 Special tool: 000575
	<b>Lever filling valve, self venting</b>			
	001827	350 bar Standard 2/1 way valve, G1/4" inlet and M16 x 1.5 mm outlet self venting on the outlet line for filling	Vertical panel mounting with U Clamp	U Clamp: 001826 Repair kit small: 001834 Repair kit large: 001836

## Adapters

	Order number	From	To	Material
	000683	DIN 200 bar G5/8" female	G1/4" female	Stainless steel
	001496	DIN 200 bar G5/8" female	G1/4" female with M22 x 1.5mm male	Stainless steel
	000684	DIN 300 bar G5/8" female	G1/4" female	Stainless steel
	001497	DIN 300 bar G5/8" female	G1/4" female with M22 x 1.5mm male	Stainless steel
	000685	DIN 200 bar G5/8" male	G1/4" female	Brass
	000686	DIN 300 bar G5/8" male	G1/4" female	Brass
	000214	DIN 200 bar G5/8" female	INT/Yoke A clamp connection	Chromed brass
	001478	DIN 200 bar G5/8" female (for anti whip connections)	INT/Yoke A clamp connection	Chromed brass
	001479	DIN 200 bar G5/8" female (for anti whip connections, old version with Pin)	INT/Yoke A clamp connection	Chromed brass
	002903	2 x DIN 300 bar G5/8" female	G1/4" female	Stainless steel
	003096	W28.8 x 1/142 tapered thread DIN 477	G1/4" female	Brass



## Safety Valves

Safety valves are available for various pressures, either securing the final pressure on HP compressors and installations or preventing damage to inter stage or low/medium pressure components.

	Pressure setting	Mount	Certification / Order number	
	100 - 350 bar 225 bar 330 bar Base for SV	Special mount Special mount 2 x G 1/4"	TÜV 000553 000556 000233	CE 001814 001816 000233
	100 - 350 bar 225 bar 330 bar Base for SV	G 3/8" G 3/8" 1 x G 3/8" 2 x G 1/4"	Non type tested 000558 000560 000231	
	8 - 110 bar	G3/8"	Non type tested	

## Pressure switches and sensors

A wide range of analogue pressure switches and electronic pressure sensors is available suitable for pressures between 0 and 600 bar.

	Pressure setting available	Order number	Mount	Operation
	0 - 10 bar 0 - 350 bar 0 - 600 bar	000636 000203 001512	G1/4" female	Switch opens at set pressure
	0 - 1,6 bar 0 - 6 bar 0 - 10 bar 0 - 60 bar 0 - 100 bar 0 - 400 bar	000635 004840 002141 002142 003888 002143	G1/4" male	Electronic sensor 14-30V DC input, 0-10 V DC output

## Filter Cartridges

Filter cartridges are available for various applications and various gases. The tables below give an overview of the filter cartridges available.



Order number new (order number old)	Diameter Ø [mm]	Length [mm]	Compressor/ Filter housing	Capacity [m³] at 20°C*   35°C*	
Breathing air in accordance with EN 12021					
000644	45	200	LW 100 E/E1	108	32
001375 (LW160/190154)	48	165	LW 160 E/E1,170 E	180	54
001374 (LW225/245154)	48	210	LW 200 E, 225 E	200	60
000002 (4508005)	62	355	LW 210 E/ES, LW 230 E/ES, LW 260 E/ES, LW 280 E/ES, LW 300 E, LW 450 E, 1.7 liter housing	900	270
000003 (8022)	62	575	LW 300 ES, LW 450 ES, LW 570 E/ES, LW 720 E, 2.3 litre housing	1200	360
Breathing air in accordance with EN 12021 and additional CO/CO <sub>2</sub> filtration					
002309	45	200	LW 100 B	86	26
001463 (LW160/190154K)	48	165	LW 170 D, LW 190 B	150	45
001464 (LW225/154K)	48	210	LW 245 B	166	50
001459 (4508005K)	62	355	LW 300 B, LW 450 D	750	225
001461 (4508022K)	62	575	LW 570 D	1000	300

\* Temperature of the filter housing

## Filter Cartridges

Order number new (order number old)	Diameter Ø [mm]	Length [mm]	Compressor/ Filter housing	Capacity
Oil/odour removal < 0,1mg/m³ (nitrogen / helium /mixmaster applications)				
002310	45	200	LW 100 EN	Capacity depends on the inlet quality of the gas and the operating conditions, refer to instruction manual
001466 (4508005B)	62	355	LW 300 EN, LW 450 EN, 1.7 litre housing	
001467 (3790)	62	575	LW 450 ESN, LW 570 EN/ ESN, 2.3 litre housing	
001469	90	500	Mixmaster	
Air/inertgas drying only < 15 mg/m³				
002311	45	200	LW 100	Capacity depends on the inlet quality of the gas and the operating conditions, refer to instruction manual
001464 (4508005A)	62	355	1.7 litre housing	
001462 (8022A)	62	575	2.3 litre housing	
CNG Filter (drying and oil removal)				
002476	45	200	LW 100 EG	Capacity depends on the inlet quality of the gas and the operating conditions, refer to instruction manual
001468 (8070)	62	575	2.3 litre housing	

## Oil

We have gone to great lengths testing various oil compositions for our compressors. The low carbon build up and the excellent lubrication properties were paramount in the development of our compressor oil.

Oil Type	Order number new (old)	Quantity
Full synthetic for HP breathing air compressors	000001 (4509001)	1 litre
Mineral motor oil for combustion engines	000004 (4509003)	500 ml
Compressor oil for CNG compressors and boosters	002348	20 litre



## Inlet filters

Various inlet filters are available for the different sizes of compressors, the inlet filter cartridge is a low cost component that plays a significant role in protecting the compressors, a clean cartridge also ensures the efficient operation of the compressor.

Inlet Filter Order number new (old)	Compressor
001708	LW 100
000119 (LW160/190123)	LW 160/170/190/200/225/245
000170 (4507017)	LW 210/230/260/280/300/450/570/720
002662 (1820)	LW 1300





## L&W - World Wide

Our worldwide network of dealers and service centers.



Compressors | Purification | Storage | Filling Panels | Nitrox/Trimix



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