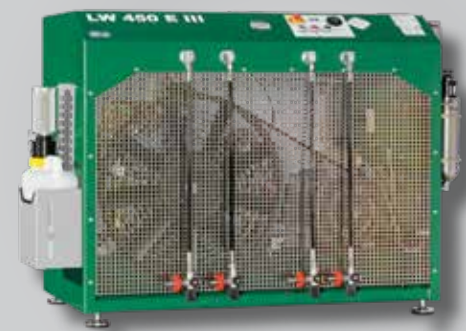




## Product Range



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

High performance and economic high pressure solutions  
Made in Germany

## Lenhardt & Wagner

Back in 1980 the L&W co-founder Bernd Wagner realized the lack of alternative high-pressure solutions within the market. He started to do repair and service work on all types of high pressure devices and furthermore offered rebuilt compressor units for sale. On his next step he managed to incorporate various improvements on existing models and as a consequence founded his own brand. The aim was to create a new range of technically advanced and affordable solutions.

Decades of experience and real quality products made Lenhardt & Wagner GmbH one of the most known and respected brands within the high-pressure industry.

If compressor units, filtration systems, storage banks, filling panels or air quality control systems, we can offer the right solutions at right price.

Mobile, compact, stationary and sound isolated compressor units with plenty of customer orientated and useful options.

Our flexible and fast acting customer service is also one of our main benefits. If you need support in calculating and choosing the right components for your business or servicing and repairing your existing gear, please ask for advice. Our customized solutions will always equally match your requirements and ensure first class investment.

We are pleased to make you an individual offer.



## High pressure solutions made by L&W.

## Table of contents

Compressors	LW 100 E ECO / LW 100 E1 ECO / LW 100 B ECO	8 - 9
	LW 100 E / LW 100 E1 / LW 100 B	10 - 11
	LW 160 E / LW 160 E1 / LW 190 B	12 - 13
	LW 225 E / LW 245 B	14 - 15
	LW 170 E Nautic / LW 200 E Nautic / LW 170 D Nautic	16 - 17
	LW 320 E AL Nautic / LW 320 B AL Nautic	18 - 19
	LW 150 E MC / LW 200 E MC / LW 250 E MC	20 - 21
	LW 200 B MC / LW 250 B MC	22 - 23
	LW 320 E MC / LW 400 E MC	24 - 25
	LW 300 D MC / LW 320 B MC / LW 400 B MC	26 - 27
	LW 230 E II Compact / LW 280 E II Compact / LW 320 E II Compact	28 - 29
	LW 450 E III Compact	30 - 31
	LW 570 E II Compact	32 - 33
	LW 230 E II / LW 280 E II / LW 320 E II	34 - 35
	LW 300 E III / LW 450 E III	36 - 37
	LW 450 D Basic	38 - 39
	LW 450 D	40 - 41
	LW 570 E II	42 - 43
	LW 570 D	44 - 45
	LW 720 E	46 - 47
	LW 1300 E	48 - 49
	W 150 ES / LW 200 ES	50 - 51
	LW 230 ES II / LW 280 ES II / LW 320 ES II	52 - 53
	LW 300 ES III / LW 450 ES III	54 - 55
	LW 570 ES II / LW 700 ES II	56 - 57
	Sound insulated Housing LW 720 E / LW 1300 E	58 - 59
	Remote Pro Control - RPC	60 - 61
	L&W CO <sub>2</sub> Filter / Air Inlet Silencer / Condensation Collecting Tank	62 - 63
	Puracon Breathing Air Monitoring	64 - 69
	Purification	LW Air Cooler +3°C
Filter Panels		71
Storage	Storage Cylinders / Manual Storage Management	72 - 73
	Auto Filling Selector / Pressure Reducing Stations / Pressure Reducers	74 - 75
Filling device	Filling Panels / Stainless Steel Filling Panels	76 - 77
	Armoured Safety Filling Cabinets	78 - 81
Nitrox / Trimix	Nitrox / Trimix / Alpha 1 Oxygen Analyser	82
	Gas Blending Panels	83
	Nitrox Membrane Systems	84 - 85
Accessories	Filling Connections / Filling Valves	86 - 87
	Adapters / Safety Valves / Pressure switches and sensors	88 - 89
Spare parts	Filter Cartridges / Oil / Inlet filters	90 - 91
	Service Kits	92 - 93
Lenhardt & Wagner	References / Seminars and Training courses at L&W	94 - 95

## 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 DIN ISO 9001. 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.



Germanischer Lloyd



## High pressure solutions by L&W



### Purification

Purification with refrigeration dryers or with filter towers.



### Compressors

From 100 - 1300 l / min, in sound insulated versions 230 - 700 l / min. With an operating noise level of only 61 - 65 dB(A) at 1 m distance - we are the market leader.

### Auto filling selector

Ensures the perfect combination of compressor, storage cylinder and filling panel and enables an optimised, economic use of your system.



### Puracon Breathing Air Monitoring

The professional solution for the continuous monitoring of Humidity + CO + CO<sub>2</sub> + O<sub>2</sub> + VOC.



### Nitrox/Trimix

Gas blending panels incl. TÜV approval for low cost Nitrox/Trimix fillings.



### Filling panels

For 200, 232 or 300 bar filling operation with user-friendly lever operated filling valves and noise reduced venting. All filling panels are available in stainless steel.

### Storage and storage management

For fast filling operation during peak hours, we recommend storage cylinders with automatic storage control. Numbers of storage tanks on request.

## Compressors Overview

### Mobile Compressors

Type	Mobility	Capacity			Prime mover	Drive power [kW]	Page
		[l/min]	[Nm <sup>3</sup> /h]	[cfm]			
LW 100 E / E1 ECO	Mobile	100	6.0	3.5	1- / 3 Phase Power	2.2	8
LW 100 B ECO	Mobile	100	6.0	3.5	Gasoline	4.5	9
LW 100 E / E1	Mobile	100	6.0	3.5	1- / 3 Phase Power	2.2	10
LW 100 B	Mobile	100	6.0	3.5	Gasoline	4.5	11
LW 160 E / E1	Mobile	160	9.6	5.6	1- / 3 Phase Power	4.0	12
LW 170 E Nautic	Mobile	170	10.2	6.0	3 Phase Power	4.0	16
LW 170 D Nautic	Mobile	170	10.2	6.0	Diesel	4.8	17
LW 190 B	Mobile	190	11.4	6.7	Gasoline	6.0	13
LW 200 E Nautic	Mobile	200	12.0	7.0	3 Phase Power	5.5	16
LW 225 E	Mobile	225	13.5	7.9	3 Phase Power	5.0	14
LW 245 B	Mobile	245	14.7	8.7	Gasoline	6.0	15
LW 300 D MC	Mobile	300	18.0	10.6	Diesel	7.4	22
LW 320 E Nautic	Mobile	320	19.2	11.3	3 Phase Power	7.5	18
LW 320 B Nautic	Mobile	320	19.2	11.3	Gasoline	8.2	19

### Mobile Compressors - MC series

Type	Mobility	Capacity			Prime mover	Drive power [kW]	Page
		[l/min]	[Nm <sup>3</sup> /h]	[cfm]			
LW 150 E MC	Mobile MC	150	9.0	5.3	3 Phase Power	3.0	20 - 21
LW 200 B MC	Mobile MC	200	12.0	7.1	Gasoline	6.7	22 - 23
LW 200 E MC	Mobile MC	200	12.0	7.1	3 Phase Power	4.0	20 - 21
LW 250 B MC	Mobile MC	250	15.0	8.8	Gasoline	6.7	22 - 23
LW 250 E MC	Mobile MC	250	15.0	8.8	3 Phase Power	5.5	20 - 21
LW 320 B MC	Mobile MC	320	19.2	11.3	Gasoline	8.7	27
LW 320 E MC	Mobile MC	320	19.2	11.3	3 Phase Power	7.5	24 - 25
LW 400 B MC	Mobile MC	400	24.0	14.0	Gasoline	13.4	27
LW 400 E MC	Mobile MC	400	24.0	14.0	3 Phase Power	11.0	24 - 25

### Compact Compressors

Type	Mobility	Capacity			Prime mover	Drive power [kW]	Page
		[l/min]	[Nm <sup>3</sup> /h]	[cfm]			
LW 230 E II Compact	Compact	230	13.8	8.1	3 Phase Power	5.5	28 - 29
LW 280 E II Compact	Compact	280	16.8	9.9	3 Phase Power	7.5	28 - 29
LW 320 E II Compact	Compact	320	19.2	11.3	3 Phase Power	7.5	28 - 29
LW 450 E III Compact	Compact	450	27.0	15.9	3 Phase Power	11.0	30 - 31
LW 570 E II Compact	Compact	570	34.0	20.1	3 Phase Power	15.0	32 - 33

## Compressors Overview

### Stationary Compressors

Type	Mobility	Capacity			Prime mover	Drive power [kW]	Page
		[l/min]	[Nm <sup>3</sup> /h]	[cfm]			
LW 230 E II	Stationary	230	13.8	8.1	3 Phase Power	5.5	34 - 35
LW 280 E II	Stationary	280	16.8	9.9	3 Phase Power	7.5	34 - 35
LW 300 E III	Stationary	300	18.0	10.6	3 Phase Power	7.5	36 - 37
LW 320 E II	Stationary	320	19.2	11.3	3 Phase Power	7.5	34 - 35
LW 450 E III	Stationary	450	27.0	15.9	3 Phase Power	11.0	32 - 33
LW 450 D Basic	Stationary	450	27.0	15.9	Diesel	10.5	38 - 39
LW 450 D	Stationary	450	27.0	15.9	Diesel	10.5	40 - 41
LW 570 E II	Stationary	570	34.0	20.1	3 Phase Power	15.0	42 - 43
LW 570 D	Stationary	570	34.0	20.1	Diesel	12.9	44 - 45
LW 720 E	Stationary	720	43.2	25.4	3 Phase Power	18.5	46 - 47
LW 1300 E	Stationary	1300	78.0	45.9	3 Phase Power	37.0	48 - 49

### Silent Compressors

Type	Mobility	Capacity			Prime mover	Drive power [kW]	Page
		[l/min]	[Nm <sup>3</sup> /h]	[cfm]			
LW 150 ES	Silent	150	9.0	5.3	3 Phase Power	3.5	50 - 51
LW 200 ES	Silent	200	12.0	7.1	3 Phase Power	4.0	50 - 51
LW 230 ES II	Silent	230	13.8	8.1	3 Phase Power	5.5	52 - 53
LW 280 ES II	Silent	280	16.8	9.9	3 Phase Power	7.5	52 - 53
LW 300 ES III	Silent	300	18.0	10.6	3 Phase Power	7.5	54 - 55
LW 320 ES II	Silent	320	19.2	11.3	3 Phase Power	7.5	52 - 53
LW 450 ES III	Silent	450	27.0	15.9	3 Phase Power	11.0	54 - 55
LW 570 ES II	Silent	570	34.0	20.1	3 Phase Power	15.0	56 - 57
LW 700 ES II	Silent	700	42.0	24.7	3 Phase Power	18.5	54 - 55

## LW 100 E ECO / LW 100 E1 ECO

The LW 100 ECO compressors are the entry to the breathing air supply from L&W.

The extremely light, robust and reliable ECO series consists of 100% of the solid components of the LW 100 compressors as engine, compressor block, filter system and filling device. The LW 100 ECO convince our worldwide customers with its high quality „Made in Germany“. The hardened cylinder liners and the steel piston rings in all compressor stages ensure a long lifetime without loss of performance.

### Specifications

- » Electro motor
- » Power cable with plug
- » Start/Stop Switch
- » Aluminium frame
- » Manual condensate drain
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after for each stage
- » Pistons c/w steel piston rings
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Carrying handles
- » Filling valve holder
- » Additional filling hose c/w filling valve
- » Automatic condensate drain
- » Automatic stop at final pressure c/w hour counter
- » Switch over device for 200 or 300 bar
- » Motor protection switch
- » Special voltages / frequencies on request
- » Conversion set: Petrol-/electro version
- » Trolley

### Difference to the Standard-Model

- » Frame in a aluminium (Standard: s/s)
- » No carrying handles
- » Unpainted compressor block
- » No filling valve holder



LW 100 E ECO

## Technical Data

	LW 100 E ECO	LW 100 E1 ECO
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5	100 / 6 / 3.5
Max. Pressure [bar]:	330	330
RPM [1/min]:	2300	2300
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 230V / 1 Phase / 50Hz
Drive power [kW] with 50 Hz / 60 Hz:	2.2 / 2.5	2.2 / 2.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	660 / 780	660 / 660
Lubrication type:	Splash oil	Splash oil
Oil capacity [litre]:	0.5	0.5
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	108 (at +20°C / approx. 18 h)	108 (at +20°C / approx. 18 h)
Dimensions W x D x H [mm]:	650 x 390 x 400	650 x 390 x 400
Weight [kg]:	39	42
Noise level (measured at 1 m) [dB(A)]:	82	82

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



## LW 100 B ECO

The LW 100 ECO compressors are the entry to the breathing air supply from L&W.

The extremely light, robust and reliable ECO series consists of 100% of the solid components of the LW 100 compressors as engine, compressor block, filter system and filling device. The LW 100 ECO convince our worldwide customers with its high quality „Made in Germany“. The hardened cylinder liners and the steel piston rings in all compressor stages ensure a long lifetime without loss of performance.

### Specifications

- » Petrol compressor c/w pull start and auto cut off at low oil level
- » Stainless steel frame
- » Manual condensate drain
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after for each stage
- » Pistons c/w steel piston rings
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Carrying handles
- » Filling valve holder
- » Additional filling hose c/w filling valve
- » Automatic stop at final pressure c/w hour counter
- » Switch over device for 200 or 300 bar
- » Conversion set: Petrol-/electro version
- » Honda Motor (4.1 kW) instead of the Briggs & Stratton Motor
- » Trolley

### Difference to the Standard-Model

- » No carrying handles
- » Unpainted compressor block
- » No filling valve holder



LW 100 B ECO

## Technical Data

	LW 100 B ECO
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5
Max. Pressure [bar]:	330
RPM [1/min]:	2300
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke drive motor
Drive power [kW]:	4.5
Cooling air requirement [m <sup>3</sup> /h]:	1350
Lubrication type:	Splash oil
Oil capacity [litre]:	0.5
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	86 (at +20°C / approx. 16h)
Dimensions W x D x H [mm]:	780 x 380 x 400
Weight [kg]:	39
Noise level (measured at 1 m) [dB(A)]:	96

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

## LW 100 E / LW 100 E1

The LW 100 E/E1 is an extremely light, robust and reliable breathing air compressor.

It is designed for mobile use and impresses with its flexibility and low maintenance and service costs. The compressor is seawater resistant due to the powder coated compressor block and the stainless steel frame. The LW 100 E/E1 convince our worldwide customers with its high quality „Made in Germany“. The hardened cylinder liners and the steel piston rings in all compressor stages ensure a long lifetime without loss of performance.

### Specifications

- » Electro motor
- » Power cable with plug
- » Start/Stop Switch
- » Stainless steel frame
- » Manual condensate drain
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after for each stage
- » Pistons c/w steel piston rings
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021

### Options

- » Additional filling hose c/w filling valve
- » Automatic condensate drain
- » Automatic stop at final pressure c/w hour counter
- » Switch over device for 200 or 300 bar
- » Motor protection switch
- » Special voltages / frequencies on request
- » Conversion set: Petrol-/electro version
- » Trolley



LW 100 E1



LW 100 E

## Technical Data

	LW 100 E	LW 100 E1
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5	100 / 6 / 3.5
Max. Pressure [bar]:	330	330
RPM [1/min]:	2300	2300
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 230V / 1 Phase / 50Hz
Drive power [kW] with 50 Hz / 60 Hz:	2.2 / 2.5	2.2 / 2.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	660 / 780	660 / 660
Lubrication type:	Splash oil	Splash oil
Oil capacity [litre]:	0.5	0.5
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	108 (at +20°C / approx. 18 h)	108 (at +20°C / approx. 18 h)
Dimensions W x D x H [mm]:	650 x 390 x 400	650 x 390 x 400
Weight [kg]:	43	43
Noise level (measured at 1 m) [dB(A)]:	82	82

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

## LW 100 B

The LW 100 B is an extremely light, robust and reliable breathing air compressor.

It is designed for mobile use and impresses with its flexibility and low maintenance and service costs. The compressor is seawater resistant due to the powder coated compressor block and the stainless steel frame. The LW 100 B convinces our worldwide customers with its high quality „Made in Germany“. The hardened cylinder liners and the steel piston rings in all compressor stages ensure a long lifetime without loss of performance.

### Specifications

- » Petrol compressor c/w pull start and auto cut off at low oil level
- » Stainless steel frame
- » Manual condensate drain
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after for each stage
- » Pistons c/w steel piston rings
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021

### Options

- » Additional filling hose c/w filling valve
- » Automatic stop at final pressure c/w hour counter
- » Switch over device for 200 or 300 bar
- » Conversion set: Petrol-/electro version
- » Honda Motor (4.1 kW) instead of the Briggs & Stratton Motor
- » Trolley



LW 100 B

## Technical Data

	LW 100 B
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	100 / 6 / 3.5
Max. Pressure [bar]:	330
RPM [1/min]:	2300
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke drive motor
Drive power [kW]:	4.5
Cooling air requirement [m <sup>3</sup> /h]:	1350
Lubrication type:	Splash oil
Oil capacity [litre]:	0.5
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	86 (at +20°C / approx. 16 h)
Dimensions W x D x H [mm]:	780 x 380 x 400
Weight [kg]:	43
Noise level (measured at 1 m) [dB(A)]:	96

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

## LW 160 E / E1

The user-friendly LW 160 E / E1 with electric drive is ideal for mobile applications or occasional filling operations. It comes wired with power cable, plug and phase selector. The model differs in E and E1 (E - 3 Phase version / E1 - 1 Phase version).

### Specifications

- » Electro Motor
- » Power cable with plug and phase selector (not at E1-Version)
- » Start/Stop Switch
- » Steel frame c/w carrying handles
- » Manual condensate drain
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Additional filling hose c/w filling valve
- » Automatic condensate drain
- » Automatic stop at final pressure c/w hour counter
- » Switch over device for 200 or 300 bar
- » Motor protection switch
- » Special voltages / frequencies on request
- » Conversion set: Petrol-/electro version



LW 160 E

## Technical Data

	LW 160 E	LW 160 E1
Type:	Air cooled piston compressor	Air cooled 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	330
RPM [1/min]:	1450	1450
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 230V / 1 Phase / 50Hz
Drive power [kW] with 50 Hz / 60 Hz:	4.0 / 4.8	4.0 / 4.8
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1200 / 1440	1200 / 1440
Lubrication type:	Splash oil	Splash oil
Oil capacity [litre]:	0.8	0.8
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	180 (at +20°C / approx. 19 h)	180 (at +20°C / approx. 19 h)
Dimensions W x D x H [mm]:	780 x 420 x 560	780 x 420 x 560
Weight [kg]:	90	90
Noise level (measured at 1 m) [dB(A)]:	84	84

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

## LW 190 B

The user-friendly compressor with 4-stroke power in a compact design is a popular alternative for expeditions and safaris. The LW 190 B is portable and therefore ideal for mobile applications or occasional filling operations.

### Specifications

- » 4 stroke drive motor c/w pull start and auto cut off at low oil level
- » Steel frame c/w carrying handles
- » Manual condensate drain
- » 2.5 m air intake hose
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Stainless steel pipes
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Additional filling hose c/w filling valve
- » Automatic stop at final pressure
- » Switch over device for 200 and 300 bar
- » Hour counter
- » Conversion set: Petrol-/electro version



LW 190 B with optional 200/300 bar module

## Technical Data

	LW 190 B
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	190 / 11.4 / 6.7
Max. Pressure [bar]:	330
RPM [1/min]:	1800
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke drive motor (pull start)
Drive power [kW]:	6.0
Cooling air requirement [m <sup>3</sup> /h]:	1800
Lubrication type:	Splash oil
Oil capacity [litre]:	0.8
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	150 (at +20°C / approx. 13 h)
Dimensions W x D x H [cm]:	92 x 43 x 57
Weight [kg]:	94
Noise level (measured at 1 m) [dB(A)]:	93

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

## LW 225 E

User-friendly compressor with electric motor and in a compact design. The portable LW 225 E is ideal for mobile applications or occasional filling operations.

### Specifications

- » Electro motor
- » Power cable with plug and phase selector
- » Start/Stop Switch
- » Steel frame c/w carrying handles
- » Manual condensate drain
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Stainless steel pipes
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Additional filling hose c/w filling valve
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Switch over device for 200 and 300 bar
- » Hour counter
- » Special voltages / frequencies on request
- » Conversion set: Petrol-/electro version



LW 225 E

## Technical Data

	LW 225 E
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	225 / 13.5 / 7.9
Max. Pressure [bar]:	330
RPM [1/min]:	1850
No of cylinders / No of stages:	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	5.5 / 6.6
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1650 / 1980
Lubrication type:	Splash oil
Oil capacity [litre]:	0.8
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	200 (at +20°C / approx. 15 h)
Dimensions W x D x H [mm]:	780 x 450 x 560
Weight [kg]:	92
Noise level (measured at 1 m) [dB(A)]:	87

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

## LW 245 B

User-friendly compressor with 4-stroke power and in a compact design. The portable LW 245 B is ideal for mobile applications or occasional filling operations. He is a popular compressor for expeditions and safaris.

### Specifications

- » 4 stroke drive motor c/w pull start and auto cut off at low oil level
- » Steel frame c/w carrying handles
- » Manual condensate drain
- » Inclusive air intake pipe
- » Pressure maintaining and non return valve
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Intermediate coolers
- » Stainless steel pipes
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Additional filling hose c/w filling valve
- » Automatic stop at final pressure
- » Switch over device for 200 and 300 bar
- » Hour counter
- » Conversion set: Petrol-/electro version



LW 245 B

## Technical Data

	LW 245 B
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	245 / 14.7 / 8.7
Max. Pressure [bar]:	330
RPM [1/min]:	2000
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke drive motor (pull start)
Drive power [kW]:	6.3
Cooling air requirement [m <sup>3</sup> /h]:	1800
Lubrication type:	Splash oil
Oil capacity [litre]:	0.8
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	166 (at +20°C / approx. 11.3 h)
Dimensions W x D x H [mm]:	920 x 430 x 570
Weight [kg]:	99
Noise level (measured at 1 m) [dB(A)]:	93

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

## LW 170 E Nautic / LW 200 E Nautic

The user-friendly electric-powered compressor in a compact design makes this compressor ideal for stationary filling operations. Due to crash frame, carrying handles and lifting, the LW 170 E Nautic is also easy to use as a mobile system. Optional it is available with seawater-resistant lightweight aluminum frame.

### Specifications

- » Electro motor
- » Power cable with plug and phase selector
- » Control panel c/w running indicator light, emergency stop and start/stop switch
- » Hour counter and integrated pressure gauge
- » Crash frame c/w 4 carrying handles and sling eyes (Colour: RAL 6026)
- » Manual condensate drain
- » 2 self-venting lever operated filling valves c/w hoses and connections
- » Pressure maintaining and non return valve
- » Stainless steel intermediate coolers
- » Stainless steel pipes
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Two additional filling hoses c/w filling valves
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Auto start system
- » 200 and 300 bar parallel filling pressures
- » Motor protection switch
- » Additional high pressure outlet
- » Special voltages / frequencies on request
- » Aluminium frame (AL-Version)



LW 200 E Nautic

## Technical Data

	LW 170 E Nautic	LW 200 E Nautic
Type:	Air cooled piston compressor	Air cooled 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	330
RPM [1/min]:	1530	1650
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	4.0 / 4.8	5.5 / 6.6
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1200 / 1440	1650 / 1980
Lubrication type:	Splash oil	Splash oil
Oil capacity [litre]:	0.8	0.8
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	180 (at +20°C / approx. 16 h)	200 (at +20°C / approx. 17 h)
Dimensions W x D x H [mm]:	1030 x 500 x 730	1030 x 500 x 730
Weight [kg]:	135 / 115 (Al)	137 / 117 (Al)
Noise level (measured at 1 m) [dB(A)]:	85	86

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



## LW 170 D Nautic

The user-friendly compressor Nautic LW 170 D with Yanmar diesel engine in a compact design, is used by marine biologists and dive boats, as well as military, police, rescue and disaster relief groups. It is very robust and due to carrying handles perfectly suited for mobile applications. Optional it is available with seawater-resistant lightweight aluminum frames.

### Specifications

- » Yanmar L70 4.8 kW diesel motor c/w 12 V electric start (additional pull start)
- » Instrument panel c/w key start and generator warning lamp
- » Hour counter and integrated pressure gauge
- » Crash frame c/w 4 carrying handles and sling eyes (Colour: RAL 6026)
- » Manual condensate drain
- » 2 self-venting lever operated filling valves c/w hoses and connections
- » Stainless steel diesel tank (Capacity: 7 hours running time)
- » Inclusive intake pipe
- » Pressure maintaining and non return valve
- » Stainless steel intermediate coolers
- » Stainless steel pipes
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Two additional filling hoses c/w filling valves
- » Automatic condensate drain
- » Automatic stop at final pressure
- » 200 and 300 bar parallel filling pressures
- » Additional high pressure outlet
- » Aluminium frame (AL-Version)



LW 170 D AL Nautic

## Technical Data

	LW 170 D Nautic
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	170 / 10.2 / 6.0
Max. Pressure [bar]:	330
RPM [1/min]:	1530
No of cylinders / No of stages:	3 / 3
Prime mover type:	Air cooled diesel engine (electric start)
Drive power [kW]:	4.8
Cooling air requirement [m <sup>3</sup> /h]:	1650
Lubrication type:	Splash oil
Oil capacity [litre]:	0.8
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	150 (at +20°C / approx. 14.7 h)
Dimensions W x D x H [cm]:	1030 x 500 x 730
Weight [kg]:	150 / 125 (AL)
Noise level (measured at 1 m) [dB(A)]:	92

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

## LW 320 E AL Nautic

The LW 320 E AL Nautic is designed for mobile use but also suitable for stationary applications. It can optionally be used as a fully automatic stationary system by adding the available extras. It comes fully wired with star/delta system and with a light-weight and seawater resistant aluminum frame.

### Specifications

- » Electro motor
- » Seawater resistant aluminum-frame (Colour: RAL 9006)
- » Crash frame c/w 4 carrying handles and sling eyes
- » Hour counter and integrated pressure gauge
- » Manual condensate drain
- » 4 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system with adjustable oil pump
- » Low pressure oil pump with oil sieve
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Automatic condensate drain
- » Automatic stop at final pressure
- » Auto start system
- » 200 and 300 bar parallel filling pressures
- » Additional high pressure outlet
- » Oil pressure gauge
- » Wheel set
- » Special voltages / frequencies on request



LW 320 E Nautic



LW 320 E Nautic - Rear view

## Technical Data

	LW 320 E AL Nautic
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	320 / 19.2 / 11.3
Max. Pressure [bar]:	350
RPM [1/min]:	1580
No of cylinders / No of stages:	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	7.5 / 9.0
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	2250 / 2700
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 46 h)
Dimensions W x D x H [mm]:	1290 x 640 x 740
Weight [kg]:	175
Noise level (measured at 1 m) [dB(A)]:	83

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

## LW 320 B AL Nautic

The LW 320 B AL Nautic is designed for mobile use but also suitable for stationary applications. It can optionally be used as a fully automatic stationary system by adding the available extras. It comes ready to start with 4 stroke Briggs & Stratton motor and with a lightweight and seawater resistant aluminum frame.

### Specifications

- » 4 stroke Briggs & Stratton drive motor
- » Seawater resistant aluminum-frame (Colour: RAL 9006)
- » Crash frame c/w 4 carrying handles and sling eyes
- » Hour counter and integrated pressure gauge
- » Manual condensate drain
- » 4 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons with steel piston rings
- » **NEW** - Improved lubrication system with adjustable oil pump
- » Low pressure oil pump with oil sieve
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Automatic condensate drain
- » Automatic stop at final pressure
- » 200 and 300 bar parallel filling pressures
- » Additional high pressure outlet
- » Oil pressure gauge
- » Wheel set



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

## Technical Data

	LW 320 B AL Nautic
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	320 / 19.2 / 11.3
Max. Pressure [bar]:	350
RPM [1/min]:	1500
No of cylinders / No of stages:	3 / 3
Prime mover type:	4 stroke gasoline engine
Drive power [kW]:	9.7
Cooling air requirement [m <sup>3</sup> /h]:	2460
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	750 (at +20°C / approx. 39 h)
Dimensions W x D x H [mm]:	1290 x 640 x 740
Weight [kg]:	167
Noise level (measured at 1 m) [dB(A)]:	95 (measured at 1 m)

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

## LW 150 E MC / LW 200 E MC / LW 250 E MC

The MC Serie is the perfect solution for dive centers, ships, boats and places with limited space and convince with a brand new and powerful compressor block.

An innovative characteristic based on the new Motion Link design allows a very slim design. Customers can choose between three different models and delivery rates of 150 l/min, 200 l/min or 250 l/min. These compressors are designed for a long lifetime and continuously operations, the ideal machine for smaller stationary applications. Long maintenance intervals guarantee extremely low maintenance costs.

With a small and handy frame these compressors are highly predestined for mobile breathing air applications.



LW 150 E MC / LW 200 E MC / LW 250 E MC - Rear view with options

## LW 150 E MC / LW 200 E MC / LW 250 E MC

### Specifications

- » Electro motor (Standard: 400V, 3 phase, 50Hz)
- » Power cable and plug
- » Lightweight steel frame
- » Ergonomic nopped handles
- » Start / Stop switch c/w phase selector function
- » Manual condensate drain
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice (DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021

### Options

- » Automatic condensate drain
- » Automatic stop at final pressure
- » Additional filling hoses c/w filling valves
- » Auto start system
- » Phase monitoring c/w shut down at wrong direction of rotation
- » Switch over device 200/300 bar
- » Hour counter
- » Intermediate pressure gauges
- » Cylinder head temperature monitoring with auto shut down
- » Low pressure oil pump
- » Puracon filter monitoring (Auto shut down also available)
- » Remote control box
- » Additional high pressure outlet
- » Special voltages / frequencies on request

## Technical Data

	LW 150 E MC	LW 200 E MC	LW 250 E MC
Type:	Air cooled piston compressor	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	150 / 9 / 5.3	200 / 12 / 7.1	250 / 15 / 8.8
Max. Pressure [bar]:	350	350	350
RPM [1/min]:	1425	1425	1825
No of cylinders / No of stages:	3 / 3	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50-60 Hz	E-Motor / 400V / 3 Phase / 50-60 Hz	E-Motor / 400V / 3 Phase / 50-60 Hz
Drive power [kW] with 50 Hz / 60 Hz:	3.5 / 4.2	4.0 / 4.8	5.5 / 6.6
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1050 / 1260	1200 / 1440	1650 / 1980
Lubrication type:	Splash oil	Splash oil	Splash oil
Oil capacity [litre]:	approx. 0.8	approx. 0.8	approx. 0.8
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	108 (approx. 12 h) / *	500 (approx. 41 h)	500 (approx. 33 h)
Dimensions W x D x H [mm]:	1060 x 500 x 580	1060 x 500 x 580	1060 x 500 x 580
Weight [kg]:	94	115	119
Noise level (measured at 1 m) [dB(A)]:	84	86	87

<sup>1)</sup> In accordance with EN 12021 / \* optional 500 (approx. 55 h)

## LW 200 B MC / LW 250 B MC

Based on the successful MC series, the range was expanded to two gasoline-powered models.

The capacities of 200 l/min and 250 l/min were taken from the electric versions. The compressors can be customized and also allow the installation of an optional oil pump.

The low fuel consumption, long maintenance intervals and low maintenance costs round off the advantage package of the system.



## LW 200 B MC / LW 250 B MC

### Specifications

- » 4 stroke Briggs & Stratton motor
- » Lightweight steel frame
- » Ergonomic nopped handles
- » Hand start with pull start
- » Manual condensate drain
- » 1 x Filling hose c/w filling valve and pressure gauge
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice (DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021

### Options

- » Automatic stop at final pressure
- » Additional filling hoses c/w filling valves
- » Switch over device 200/300 bar
- » Hour counter
- » Intermediate pressure gauges
- » Cylinder head temperature monitoring with auto shut down
- » Low pressure oil pump
- » Puracon filter monitoring (Auto shut down also available)
- » Additional high pressure outlet
- » Honda motor (6.3 kW)

## Technical Data

	LW 200 B MC	LW 250 B MC
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	200 / 12 / 7.1	250 / 15 / 8.8
Max. Pressure [bar]:	350	350
RPM [1/min]:	1425	1825
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	4 stroke Briggs & Stratton motor	4 stroke Briggs & Stratton motor
Drive power [kW]:	6.7	6.7
Cooling air req. [m <sup>3</sup> /h]:	2100	2100
Lubrication type:	Splash oil	Splash oil
Oil capacity [litre]:	approx. 0.8	approx. 0.8
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	375 (approx. 31h)	375 (approx. 25 h)
Dimensions W x D x H [mm]:	1060 x 500 x 590	1060 x 500 x 590
Weight [kg]:	110	110
Noise level (measured at 1 m) [dB(A)]:	89	90

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

## LW 320 E MC / LW 400 E MC

The new MC Series from L&W has been created for dive centers, ships, boats and places with limited space. These are suitable for continuous operation and guarantee low maintenance costs due to long service intervals. Depending on the motor size they are fully equipped with either direct- or star /delta start systems. A super lightweight aluminum frame enables mobile applications, combined with very high filling capacity. The robust and powerful compressor block also allows being used at fully automatic stationary plants.



Figure with options



LW 320 E MC Rear view



## LW 320 E MC / LW 400 E MC

### Specifications

- » Electro motor (Standard: 400V, 3 phase, 50Hz)
- » Powder coated lightweight aluminium frame in RAL 9006
- » Hour counter
- » Start / Stop switch with star/delta start system
- » Emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » Manual condensate drain
- » 2 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil filter with bypass
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021



### Options

- » Automatic condensate drain incl. collecting tank
- » Automatic stop at final pressure
- » Additional filling hoses c/w filling valves
- » Auto start system
- » Switch over device 200/300 bar
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Oil pressure monitoring c/w auto shut down
- » Intermediate pressure gauges
- » Cylinder head temperature monitoring with auto shut down
- » Puracon filter monitoring (Auto shut down also available)
- » Remote control box
- » Additional high pressure outlet
- » Wheel set
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 320 E MC	LW 400 E MC
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	320 / 19.2 / 11.3	400 / 24 / 14
Max. Pressure [bar]:	350	350
RPM [1/min]:	1300	1700
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50-60 Hz	E-Motor / 400V / 3 Phase / 50-60 Hz
Drive power [kW] with 50 Hz / 60 Hz:	7.5 / 9.0	11.0 / 13.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	2250 / 2700	3300 / 3960
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	approx. 2.0	approx. 2.0
Oil pressure [bar]:	2.5 - 4.0 (± 0.5)	2.5 - 4.0 (± 0.5)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C)	900 (at +20°C)
Dimensions W x D x H [mm]:	1280 x 510 x 826	1280 x 510 x 826
Weight [kg]:	155 - 175	160 - 175
Noise level [dB]:	82 (measured at 1 m)	83 (measured at 1 m)

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

## LW 300 D MC

### Specifications

- » Diesel Engine
- » Powder coated lightweight aluminium frame in RAL 9006
- » Hour counter
- » Manual condensate drain
- » 2 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil filter with bypass
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021
- » 1.7 l filter system (Filter capacity 750 m<sup>3</sup> at +20°C)



LW 300 D MC

### Options

- » Automatic condensate drain incl. collecting tank
- » Automatic stop at final pressure
- » Additional filling hoses c/w filling valves
- » 200 and 300 bar parallel filling pressures
- » Oil- and interstage pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Additional high pressure outlet
- » Wheel set
- » Air Cooler Connection Kit
- » Switch Over Device 200 / 300bar
- » Puracon filter monitoring



LW 300 D MC - Rear view

## Technical Data

	LW 300 D MC
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	300 / 18.0 / 10.6
Max. Pressure [bar]:	350
RPM [1/min]:	1300
No of cylinders / No of stages:	3 / 3
Prime mover type:	Yanmar - Diesel Engine
Drive power [kW]:	6.8
Cooling air requirement [m <sup>3</sup> /h]:	2220
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	approx. 1.8
Oil pressure [bar]:	2.5 (± 0.5)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	750 (at +20°C)
Dimensions W x D x H [mm]:	1410 x 510 x 826
Weight [kg]:	195
Noise level (measured at 1 m) [dB(A)]:	96

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

## LW 320 B MC / LW 400 B MC

The new MC Series from L&W has been created for dive centers, ships, boats and places with limited space. These are suitable for continuous operation and guarantee low maintenance costs due to long service intervals. Comes ready to start. A super lightweight aluminum frame enables mobile applications, combined with very high filling capacity.

### Specifications

- » 4 stroke drive motor
- » Powder coated lightweight aluminium frame in RAL 9006
- » Hour counter
- » Manual condensate drain
- » 2 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil filter with bypass
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification in accordance to EN 12021
- » 1.7 l filter system (Filter capacity 750 m<sup>3</sup> at +20°C)



LW 320 B MC with options

### Options

- » Automatic condensate drain incl. collecting tank
- » Automatic stop at final pressure
- » Additional filling hoses c/w filling valves
- » 200 and 300 bar parallel filling pressures
- » Oil- and interstage pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Additional high pressure outlet
- » Wheel set
- » Air Cooler Connection Kit
- » Switch Over Device 200 / 300bar
- » Puracon filter monitoring

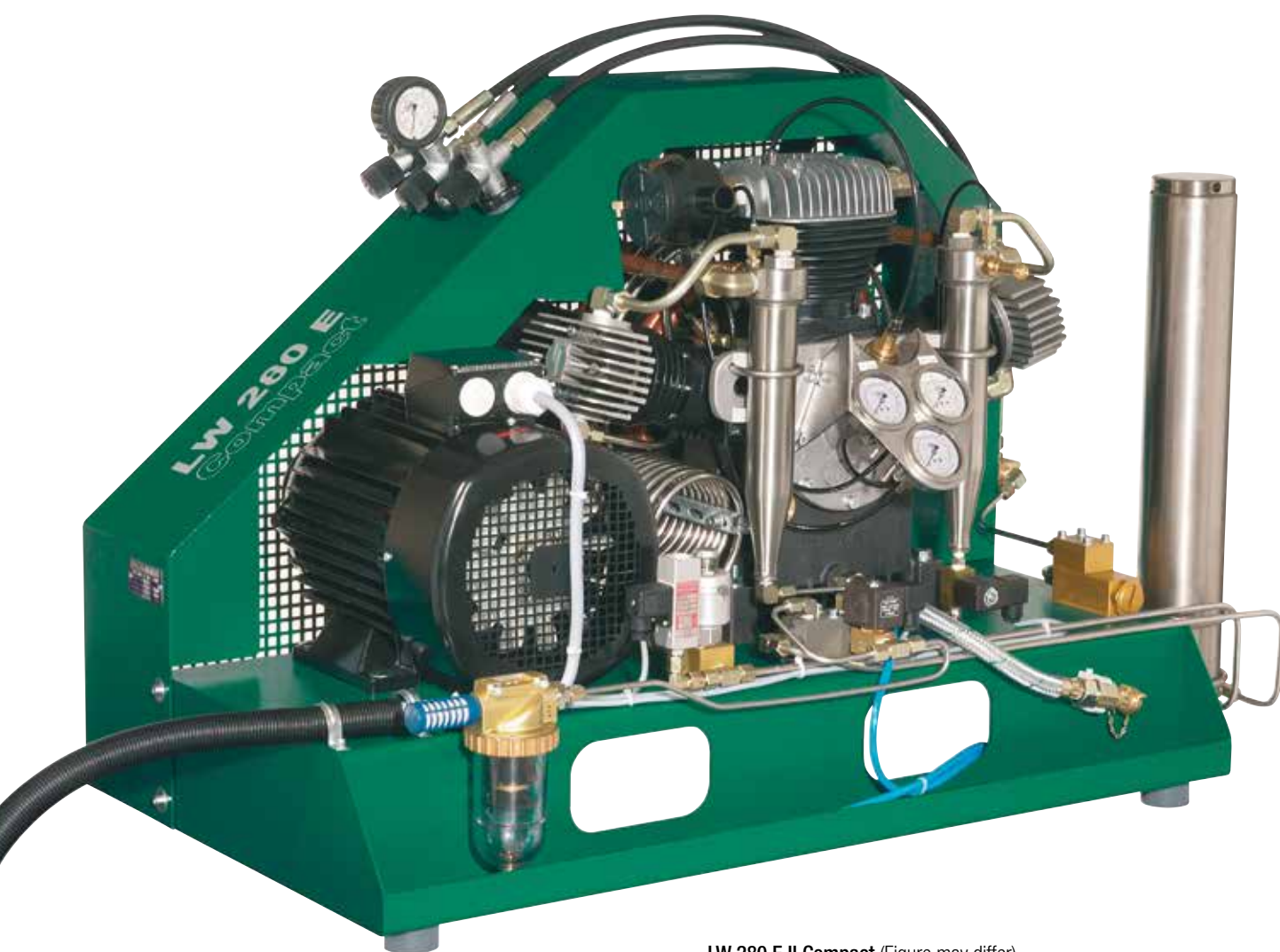
## Technical Data

	LW 320 B MC	LW 400 B MC
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	320 / 19.2 / 11.3	400 / 24 / 14
Max. Pressure [bar]:	350	350
RPM [1/min]:	1350	1700
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	Honda - 4 stroke drive motor	Vanguard - 4 stroke drive motor
Drive power [kW]:	8.7	13.4
Cooling air requirement [m <sup>3</sup> /h]:	2610	4020
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	approx. 1.8	approx. 1.8
Oil pressure [bar]:	2.5 (± 0.5)	2.5 (± 0.5)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	750 (at +20°C)	750 (at +20°C)
Dimensions W x D x H [mm]:	1410 x 510 x 826	1410 x 510 x 826
Weight [kg]:	168	171
Noise level (measured at 1 m) [dB(A)]:	95	95

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

## LW 230 E II Compact / LW 280 E II Compact / LW 320 E II Compact

The Compact series is ideal for dive centers, ships and boats with limited space. Based on our 280 blocks, these compressors can be equipped individually and used as stationary system. They come fully wired with star/delta start system.



**LW 280 E II Compact** (Figure may differ)

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

## LW 230 E II Compact / LW 280 E II Compact / LW 320 E II Compact

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel frame and fan belt guard (RAL 6026)
- » Hour counter
- » Start/ Stop and emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » Motor protection switch (LW 230 E II Compact Optional)
- » Manual condensate drain
- » 1 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system with adjustable oil pump
- » Low pressure oil pump with oil sieve
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » 3x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » **NEW** - Automatic condensate drain c/w condensate collection tank with venting silencer
- » Automatic stop at final pressure
- » Auto start system
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge and intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 hours)
- » Puracon filter monitoring (Auto shut down also available)
- » Additional high pressure outlet
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 230 E II Compact	LW 280 E II Compact	LW 320 E II Compact
Type:	Air cooled piston compressor	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	230 / 13.8 / 8.1	280 / 16.8 / 9.9	320 / 19.2 / 11.3
Max. Pressure [bar]:	350	350	350
RPM [1/min]:	1080	1300	1450
No of cylinders / No of stages:	3 / 3	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	5.5 / 6.6	7.5 / 9.0	7.5 / 9.0
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1650 / 1980	2250 / 2700	2250 / 2700
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	1.8	1.8	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 72 h)	900 (at +20°C / approx. 54 h)	900 (at +20°C / approx. 46 h)
Dimensions W x D x H [mm]:	1200 x 600 x 900	1200 x 600 x 900	1200 x 600 x 900
Weight [kg]:	195	205	195
Noise level (measured at 1 m) [dB(A)]:	82	83	83

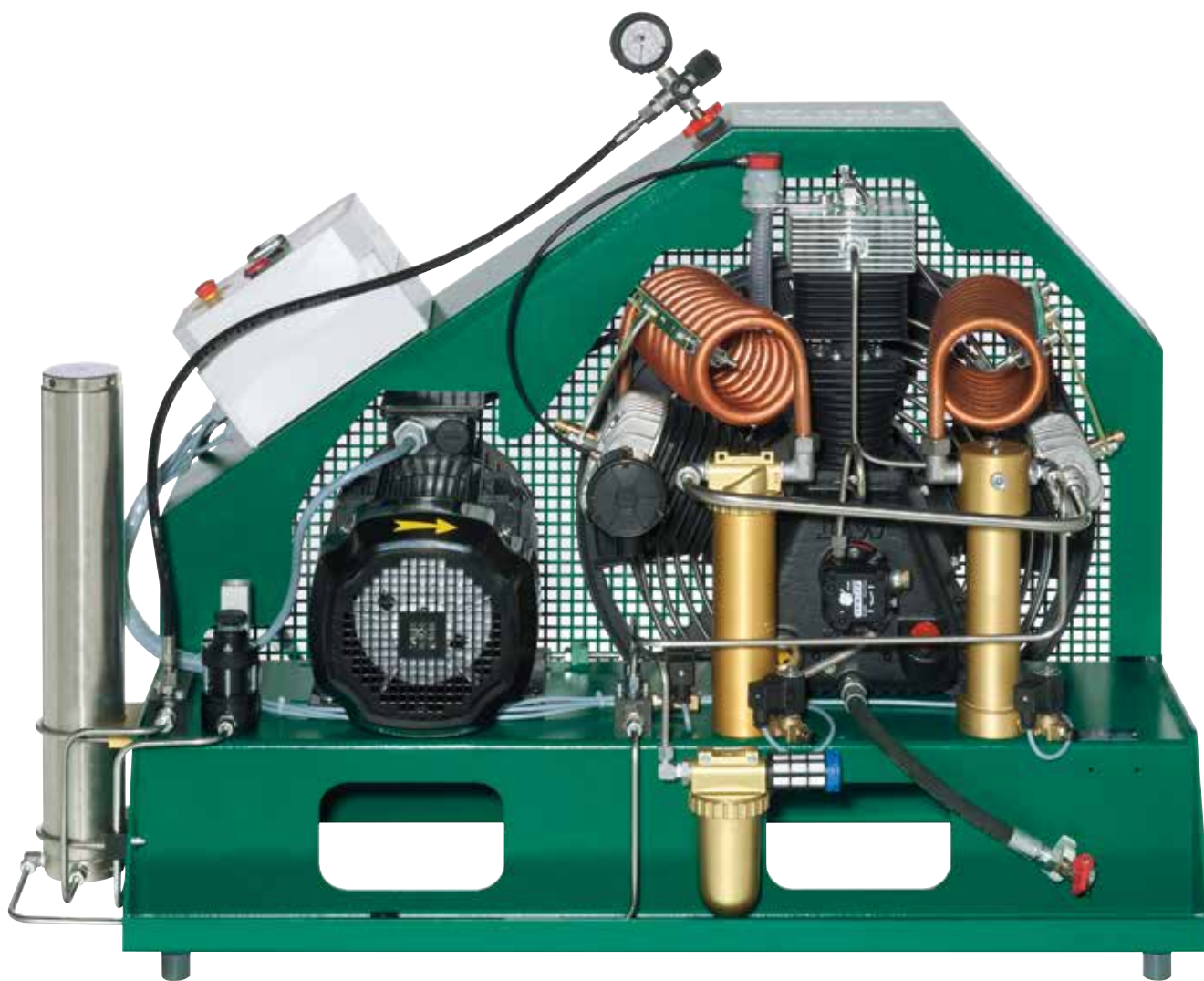
<sup>1)</sup> In accordance with EN 12021

## LW 450 E III Compact

Discover the new LW 450 E III Compact, robust, dynamic, powerful.

The LW 450 E III Compact is ideal for dive centers, ships and boats with limited space. The Compressor impresses with very low maintenance intervals and service costs.

A new, industry-proven lubrication system and reinforced components form the core of the advanced LW 450 compressor block and improves the lifetime of the compressor unit. The optional available innovative condensate system with the new Condensate Stop Valve optimizes the efficiency of the compressor and includes a 10 litre collection tank as well as a highly effective 0.8 litre pre-separator for prolonging filter lifetime.



**LW 450 E III Compact** with auto start system and automatic condensation drain

## LW 450 E III Compact

### Specifications

- » Electro motor
- » Powder coated steel frame and fan belt guard (RAL 6026)
- » **NEW** - Heavy duty compressor block components
- » Hour counter
- » Start/ Stop and emergency stop switch
- » Oil pressure monitoring c/w auto shut down
- » Manual condensate drain
- » 1 x Filling hose c/w filling valve
- » Motor protection switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system c/w oil filter
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Automatic stop at final pressure
- » Automatic Condensate Drain Basic
- » Automatic Condensate Drain PRO (incl. Condensate-Stop-Valve, 0.8 l Prefilter and 10 Litre Condensate Tank)
- » Auto start system
- » Up to 4 additional filling hoses available
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Oil temperature display with auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » 2.3 l Filter housing
- » Puracon filter monitoring
- » Remote Tab Control - RTC
- » Additional high pressure outlet
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 450 E III Compact
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	450 / 27.0 / 15.9
Max. Pressure [bar]:	350
RPM [1/min]:	1100
No of cylinders / No of stages:	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	11.0 / 13.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	3300 / 3960
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.7
Oil pressure [bar]:	1.5 (+/- 0.2)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 33.3 h)
Dimensions W x D x H [mm]:	1335 x 704 x 910
Weight [kg]:	325
Noise level (measured at 1 m) [dB(A)]:	83

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

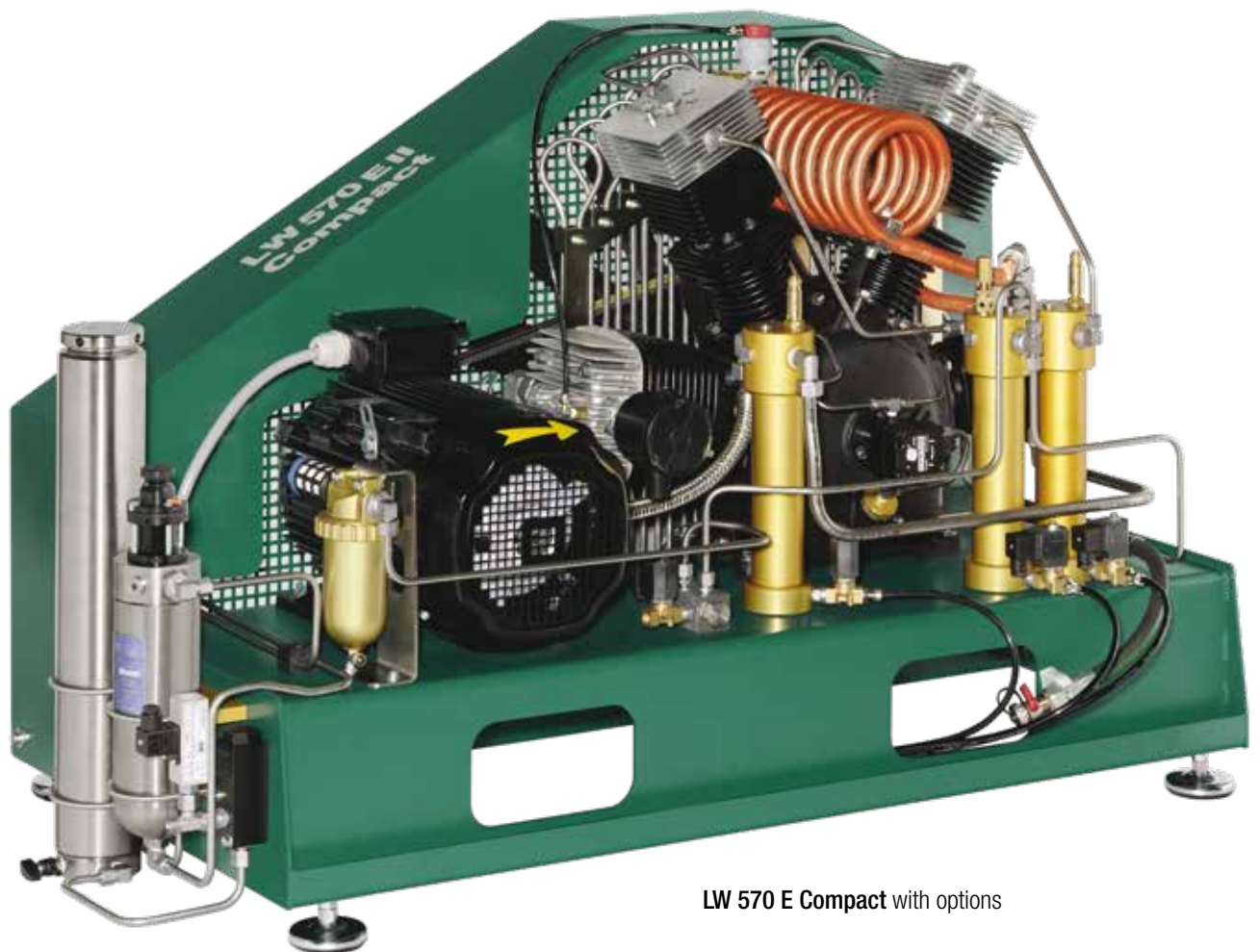
## LW 570 E II Compact

The LW 570 E II Compact is ideal for dive centers, ships and boats with limited space.

The slow-rotating compressor with low maintenance intervals and service costs is suitable for continuous running and for being used in three-shift operations at breathing air and high-pressure applications.

A new, industry-proven lubrication system and reinforced components form the core of the advanced LW 570 compressor block and improves the lifetime of the compressor unit. The optional available innovative condensate system with the new Condensate Stop Valve optimizes the efficiency of the compressor and includes a 10 litre collection tank as well as a highly effective 0.8 litre pre-separator for prolonging filter lifetime.

The 4-stage compressor block allows optional a maximum pressure of up to 420 bar.



LW 570 E Compact with options



## LW 570 E II Compact

### Specifications

- » Electro motor
- » Powder coated steel frame and fan belt guard (RAL 6026)
- » **NEW** - Heavy duty compressor block components
- » Hour counter
- » Start/ Stop and emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » Manual condensate drain
- » 1 x Filling hose c/w filling valve
- » Motor protection switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system c/w oil filter
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » 4 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Automatic stop at final pressure
- » Automatic Condensate Drain Basic
- » Automatic Condensate Drain PRO (incl. Condensate-Stop-Valve,  
0.8 l Prefilter and 10 Litre Condensate Tank)
- » Auto start system
- » Up to 4 additional filling hoses available
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Oil temperature display with auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » 2.3 l Filter housing
- » Puracon filter monitoring
- » Remote Tab Control - RTC
- » Additional high pressure outlet
- » Block heating device
- » 420 bar Version
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 570 E II Compact
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	570 / 34.0 / 20.1
Max. Pressure [bar]:	350 / 420
RPM [1/min]:	1060
No of cylinders / No of stages:	4 / 4
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	15.0 / 18.0
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	4500 / 5400
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.9
Oil pressure [bar]:	2.0 (+/- 0.1)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 26,5 h)
Dimensions W x D x H [mm]:	1407 x 795 x 918
Weight [kg]:	353
Noise level (measured at 1 m) [dB(A)]:	83

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

## LW 230 E II / LW 280 E II / LW 320 E II

The LW 230 E II / LW 280 E II / LW 320 E II is ideal for dive shops, diving clubs and diving schools, as well as medium-sized breathing air filling station. The three-stage compressor operates at low speed and is also suitable for continuous operation. It offers long service intervals, low maintenance costs and, through the oversized industrial components maximum reliability.

The compressor is delivered full wired, ready for connection with automatic shut-off, automatic condensate drain and star/delta start cycle.



LW 280 E II



LW 280 E II

incl. Inter stage pressure gauges and Oil temperature monitoring

## LW 230 E II / LW 280 E II / LW 320 E II

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel housing (RAL 6026)
- » Automatic condensate drain with pressure free start/stop
- » Automatic stop at final pressure
- » Hour counter
- » Motor protection switch (LW 230 E II Optional)
- » Operating panel with start/stop and condensate test button, as well emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » 4 x Filling hose c/w filling valve
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system with adjustable oil pump
- » Low pressure oil pump with oil sieve
- » Oil- / Water separators in stainless steel
- » **NEW** - 10 l Condensate tank with venting silencer
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » Oil temperature display with auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 hours)
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Additional high pressure outlet
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 230 E II	LW 280 E II	LW 320 E II
Type:	Air cooled piston compressor	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	230 / 13.8 / 8.1	280 / 16.8 / 9.9	320 / 19.2 / 11.3
Max. Pressure [bar]:	350	350	350
RPM [1/min]:	1080	1300	1450
No of cylinders / No of stages:	3 / 3	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	5.5 / 6.6	7.5 / 9.0	7.5 / 9.0
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1650 / 1980	2250 / 2700	2250 / 2700
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	1.8	1.8	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 72 h)	900 (at +20°C / approx. 54 h)	900 (at +20°C / approx. 46 h)
Dimensions W x D x H [mm]:	1250 x 600 x 1000	1250 x 600 x 1000	1250 x 600 x 1000
Weight [kg]:	243	243	243
Noise level (measured at 1 m) [dB(A)]:	82	83	83

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

## LW 300 E III / LW 450 E III

The new LW 300 E III / 450 E III is a slow-rotating compressor with low maintenance intervals and service costs. It is suitable for continuous running and for being used in three-shift operations at breathing air and high-pressure applications.

A new, industry-proven lubrication system and reinforced components form the core of the advanced LW 450 compressor block and improves the lifetime of the compressor unit. The innovative condensate system along with the new Condensate Stop Valve further optimizes the efficiency of the compressor and includes a 10 litre collection tank as well as a highly effective pre-separator for prolonging filter lifetime.



## LW 300 E III / LW 450 E III

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel housing (RAL 6026)
- » **NEW** - Heavy duty compressor block components
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Hour counter
- » Operating panel c/w start/stop and condensate test buttons, as well as emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » 4x Filling hose c/w filling valve
- » Motor protection switch
- » Safety switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system c/w oil filter
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » **NEW** - 0.8 l Prefilter
- » **NEW** - Condensate-Stop-Valve
- » **NEW** - 10 Litre Condensate tank
- » 3 concentric suction/pressure valves
- » Filling pressure of your choice (200 or 300 bar)
- » Connections to your choice (DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » Oil temperature display with auto shut down
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Additional high pressure outlet
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 300 E III	LW 450 E III
Type:	Air cooled piston compressor	Air cooled 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	350
RPM [1/min]:	800	1100
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	7.5 / 9.0	11.0 / 13.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	2250 / 2700	3300 / 3960
Lubrication type:	Oil pump	Oil pump
Oil capacity [litre]:	2.7	2.7
Oil pressure [bar]:	1.5 (+/- 0.2)	1.5 (+/- 0.2)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1050 (at +20°C / approx. 58 h)	1050 (at +20°C / approx. 38 h)
Dimensions W x D x H [mm]:	1540 x 730 x 1020	1540 x 730 x 1020
Weight [kg]:	365	365
Noise level (measured at 1 m) [dB(A)]:	83	83

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

## 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.



LW 450 D Basic



LW 450 D Basic Rear view

## LW 450 D Basic

### Specifications

- » Hatz 10kW diesel engine c/w hand start
- » Original Hatz diesel tank
- » Powder coated steel housing (RAL 7004)
- » Manuel condensate drain
- » 4 x Filling hose and filling valve
- » Pressure maintaining and non-return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil- / water separators after each stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Hour counter
- » Oil pressure monitoring c/w auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 h)
- » Additional high pressure outlet



LW 450 D Basic prime mover

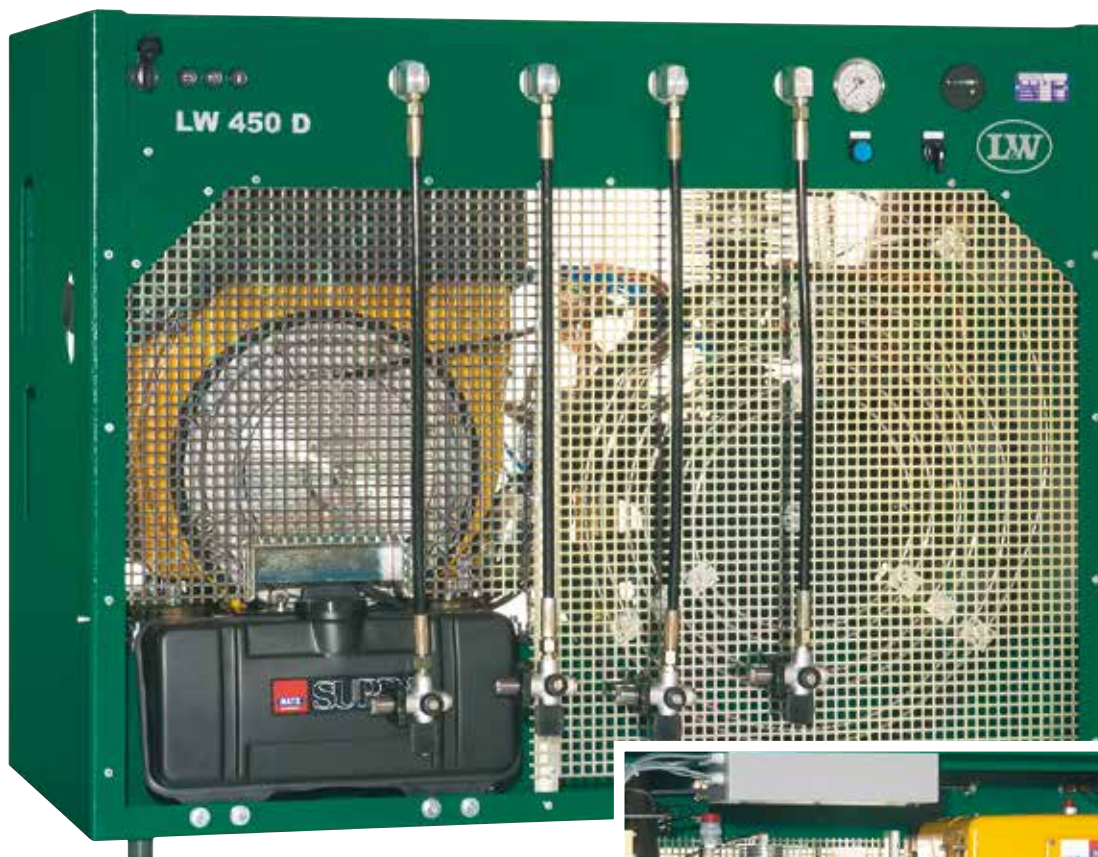
## Technical Data

	LW 450 D Basic
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	450 / 27.0 / 15.9
Max. Pressure [bar]:	350
RPM [1/min]:	1100
No of cylinders / No of stages:	3 / 3
Prime mover type:	Diesel engine, hand start
Drive power [kW]:	10.0
Cooling air requirement [m <sup>3</sup> /h]:	3300
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.2
Oil pressure [bar]:	2.2 (+/- 0.5)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	750 (at +20°C / approx. 28 h)
Dimensions W x D x H [mm]:	1270 x 740 x 1000
Weight [kg]:	400
Noise level (measured at 1 m) [dB(A)]:	95

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

## LW 450 D

The LW 450 D is ideal for use on a remote island, a safari boat or in an autonomous truck. This 450 litre compressor is equipped with a Hatz diesel motor, 12 volt control, automatic start, automatic condensate drain and an integrated filling unit with four hoses and filling valves. Compared to the basic version the standard Hatz Silent Pack provides a quieter operation of the compressor.



LW 450 D



LW 450 D Rear view



## LW 450 D

### Specifications

- » Hatz 10kW diesel engine in Hatz Silent Pack c/w electrical start
- » Original Hatz diesel tank
- » 12V electrical/pneumatic control
- » Powder coated steel housing (RAL 6026)
- » Condensate drain test switch, key switch for start/stop und speed selector
- » Hour counter
- » Diesel motor oil pressure and battery warning lamps
- » Automatic condensate drain
- » Automatic idle speed selector and condensate drain when end pressure is reached  
(compressor switches to full speed and drain valves close when empty tanks are opened)
- » 4 x Filling hose and filling valve
- » Pressure maintaining and non-return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil- / water separators after each stage
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 h)
- » Additional high pressure outlet



LW 450 D Silent Pack

## Technical Data

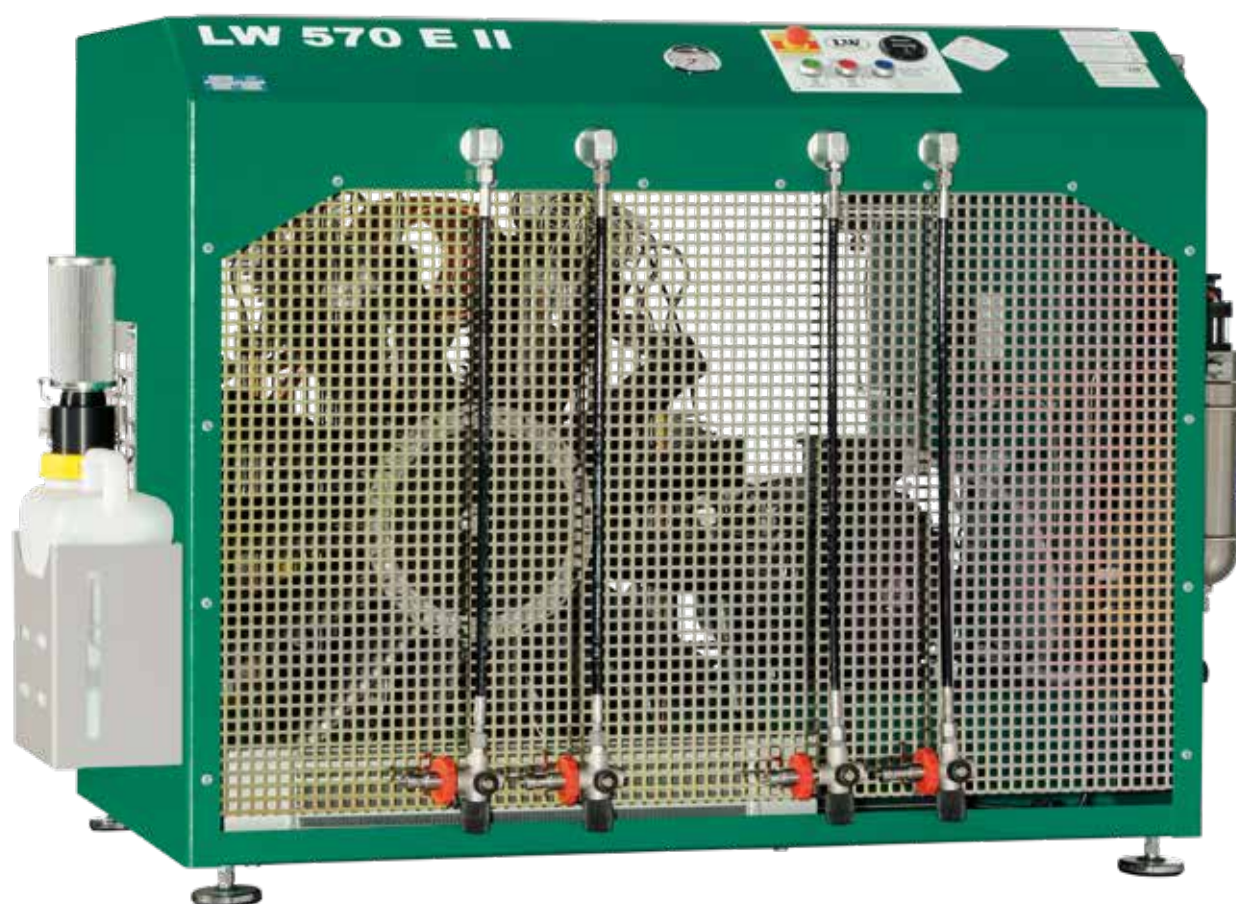
	LW 450 D
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	450 / 27.0 / 15.9
Max. Pressure [bar]:	350
RPM [1/min]:	1100
No of cylinders / No of stages:	3 / 3
Prime mover type:	Diesel engine, silent pack, electric start
Drive power [kW]:	10.0
Cooling air requirement [m <sup>3</sup> /h]:	3300
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.2
Oil pressure [bar]:	2.2 (+/- 0.5)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	750 (at +20°C / approx. 28 h)
Dimensions W x D x H [mm]:	1270 x 740 x 1000
Weight [kg]:	400
Noise level (measured at 1 m) [dB(A)]:	89

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

## LW 570 E II

The new LW 570 E II is a slow-rotating compressor with low maintenance intervals and service costs. It is suitable for continuous running and for being used in three-shift operations at breathing air and high-pressure applications.

A new, industry-proven lubrication system and reinforced components form the core of the advanced LW 570 compressor block and improves the lifetime of the compressor unit. The innovative condensate system along with the new Condensate Stop Valve further optimizes the efficiency of the compressor and includes a 10 litre collection tank as well as a highly effective pre-separator for prolonging filter lifetime.



## LW 570 E II

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel housing (RAL 6026)
- » **NEW** - Heavy duty compressor block components
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Hour counter
- » Operating panel c/w start/stop and condensate test buttons, as well as emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » 4x Filling hose c/w filling valve
- » Motor protection switch
- » Safety switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system c/w oil filter
- » Low pressure oil pump and oil sieve
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » **NEW** - 0.8 l Prefilter
- » **NEW** - Condensate-Stop-Valve
- » **NEW** - 10 Litre Condensate tank
- » 4 concentric suction/pressure valves
- » Filling pressure of your choice (200 or 300 bar)
- » Connections to your choice (DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Oil temperature display with auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Additional high pressure outlet
- » Power cable and plug
- » Block heating device
- » 420 bar Version
- » Air Cooler connection kit
- » Special voltages / frequencies on request

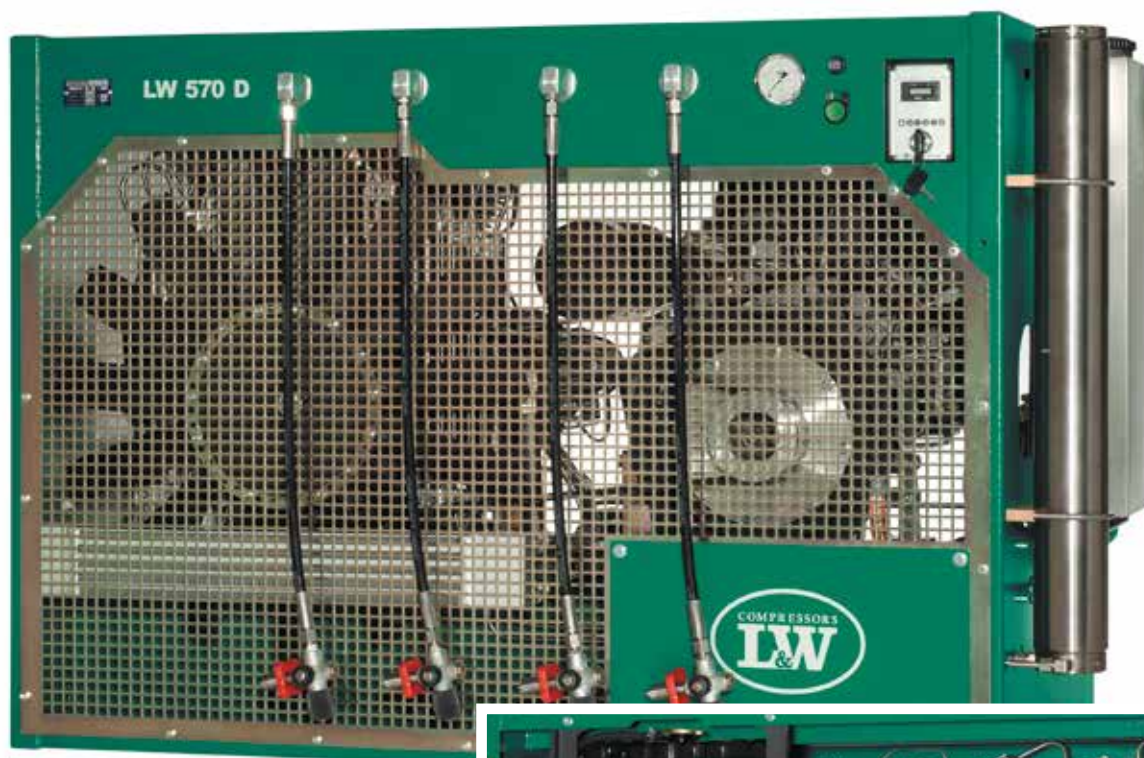
## Technical Data

	LW 570 E II
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	570 / 34,2 / 20,1
Max. Pressure [bar]:	350 / 420
RPM [1/min]:	1060
No of cylinders / No of stages:	4 / 4
Prime mover type:	E-Motor
Drive power [kW] with 50 Hz / 60 Hz:	15,0 / 18,0
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	4500 / 5400
Lubrication type:	Oil pump
Oil capacity [litre]:	2,9
Oil pressure [bar]:	2,0 (+/- 0,1)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1440 (at +20°C / approx. 42 h)
Dimensions W x D x H [mm]:	1540 x 820 x 1032
Weight [kg]:	405
Noise level [dB]:	82,7 (measured at 1 m) / 77 (measured at 3 m)

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

## LW 570 D

The large-volume high-pressure compressor LW 570 D is ideal for use in industrial applications and for use on a remote island. The 570 litre compressor is equipped with a 12 volt control, electric start, automatic condensate drain and an integrated filling unit with four hoses and filling valves. It is a slow running diesel compressor with very low maintenance intervals and maintenance costs.



LW 570 D



LW 570 D Rear view

## LW 570 D

### Specifications

- » Yanmar 12.9 kW water cooled 3 cylinders diesel engine c/w electrical start
- » 12V electrical/pneumatic control
- » Stainless steel diesel tank, 15.7 litre capacity (approx. 4 hours running at full load)
- » Powder coated steel housing (RAL 6026)
- » Condensate drain test switch, key switch for start/stop und speed selector
- » Hour counter
- » Safety switch
- » Diesel motor oil pressure and battery warning lamps
- » Automatic condensate drain
- » Automatic stop at final pressure
- » 4 x Filling hose and filling valve
- » Pressure maintaining and non-return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump
- » Oil- / water separators after each stage
- » Safety valves after each stage
- » 4 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice (DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 h)
- » Additional high pressure outlet
- » 420 bar Version

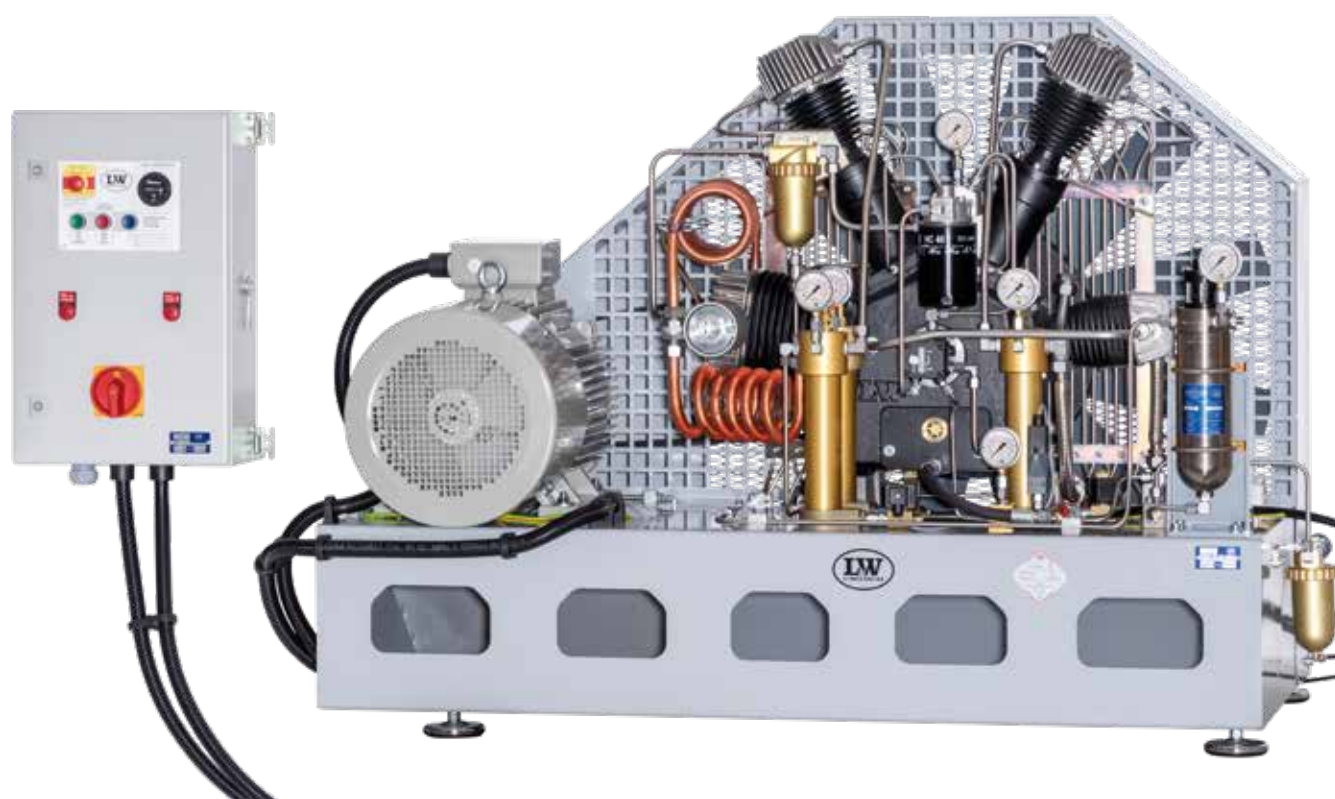
## Technical Data

	LW 570 D
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	570 / 34.0 / 20.1
Max. Pressure [bar]:	350 / 420
RPM [1/min]:	1100
No of cylinders / No of stages:	4 / 4
Prime mover type:	3 cylinder diesel engine, electric start
Drive power [kW]:	12.9
Cooling air requirement [m <sup>3</sup> /h]:	3900
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	2.5
Oil pressure [bar]:	2.2 (+/- 0.5)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1000 (at +20°C / approx. 30 h)
Dimensions W x D x H [mm]:	1450 x 770 x 1000
Weight [kg]:	520
Noise level (measured at 1 m) [dB(A)]:	88

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

## LW 720 E

The industrial compressor LW 720 E is suitable for breathing air applications and for large capacities. Low speed ensures continuous operation for long service intervals and reduced maintenance costs. The 4-stage compressor block is mounted on a Powder coated steel panel and is designed for maximum operating pressure of 420 bar. The compressor unit comes fully wired with star/delta start system and includes 2 x 2.3 litre breathing air filter console for wall mounting.



## LW 720 E

### Specifications

- » Electro motor
- » Powder coated steel frame (RAL 6026)
- » Powder coated steel fan guard (RAL 7004)
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Inclusive a remote control box for wall mounting
- » Main-, Start/Stop- and condensate test buttons, as well as emergency stop switch
- » Hour counter
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » High pressure outlet with 1500 mm hose
- » Motor protection switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » 4 x concentric suction/pressure valves
- » Filling pressure of your choice (200 or 300 bar)
- » Inclusive 2 x 2.3 l filter console for wall mounting
- » Breathing air purification in accordance to EN 12021

### Options

- » Auto start system
- » Oil temperature display with auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 hours)
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Power cable and plug
- » Block heating device
- » 420 bar Version
- » Special voltages / frequencies on request

## Technical Data

	LW 720 E
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	720 / 43.2 / 25.4
Max. Pressure [bar]:	350 / 420
RPM [1/min]:	1100
No of cylinders / No of stages:	4 / 4
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	18.5 / 22.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	5550 / 6660
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	4.2
Oil pressure [bar]:	4.0 (+/- 0.5)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	2400 (at +20°C / approx. 56 h)
Dimensions W x D x H [mm]:	1670 x 770 x 1170
Weight [kg]:	600
Noise level (measured at 1 m) [dB(A)]:	88

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

## LW 1300 E

The LW 1300 E is designed for large industrial applications and is therefore a favorite compressor for breathing air requirements. Low speed ensured continuous operation, long service intervals and reduced maintenance costs. The compressor unit comes fully wired with star/delta start system and includes 3 x 2.3 litre breathing air filter console for wall mounting. The 4-stage compressor block is mounted on a powder coated steel frame and allows a working pressure of max. 420 bar (optional). The drive motor is connected to the compressor by a rubber coupling.



LW 1300 E



## LW 1300 E

### Specifications

- » Electro motor
- » Powder coated steel frame (RAL 7004)
- » Inclusive a remote control box for wall mounting
- » Main-, Start/Stop- and condensate test buttons, as well as emergency stop switch
- » Hour counter
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » High pressure outlet with 1500 mm hose
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » 4 x concentric suction/pressure valves
- » Filling pressure of your choice (200 or 300 bar)
- » Inclusive 3 x 2.3 l filter console for wall mounting
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » Oil temperature display with auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 hours)
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Power cable and plug
- » Block heating device
- » 420 bar Version
- » Special voltages / frequencies on request

## Technical Data

	LW 1300 E
Type:	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	1300 / 78.0 / 45.9
Max. Pressure [bar]:	350 / 420
RPM [1/min]:	985
No of cylinders / No of stages:	4 / 4
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	37.0 / 44.4
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	11100 / 13320
Lubrication type:	Oil pump + Splash oil
Oil capacity [litre]:	4.9
Oil pressure [bar]:	3.0 (+/- 0.5)
Operating temperature [°C]:	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	3600 (at +20°C / approx. 46 h)
Dimensions W x D x H [mm]:	1620 x 1210 x 1275
Weight [kg]:	1000
Noise level (measured at 1 m) [dB(A)]:	89

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

## LW 150 ES / LW 200 ES

Finally L&W is offering small capacities in a sound insulated design.

The compressors LW 150 ES and LW 200 ES are ideally suited for use in residential buildings as well as sales rooms.

Equipped with all the features of the 450 to 700 series, the new soundproof models leave nothing to be desired. The space-saving plants enable filling operations in a confined space and allow peripheral devices to be set up efficiently. Long maintenance intervals of 1000 hours and filter lifetimes up to 100 hours ensure low maintenance costs.



Figure with following options:

- 200 & 300 bar filling pressure

## LW 150 ES / LW 200 ES

### Specifications

- » Electro motor
- » Powder coated housing in RAL 6026 / 7016
- » Sound insulated housing
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Hour counter
- » Operating panel with start/stop and condensate test button, as well emergency stop switch
- » Phase monitoring c/w start prevention
- » 2 x Filling hose and filling valve
- » Safety switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » 3 x concentric suction/pressure valves
- » Oil- / Water separators after 2nd and 3rd stage
- » Safety valves after each stage
- » 10 l Condensate tank with venting silencer
- » Maintenance door on both sides
- » Filling pressure of your choice (200 or 300 bar)
- » Breathing air purification in accordance to EN 12021

### Options

- » Auto start system
- » Up to 2 additional hoses available
- » Motor protection switch
- » Ambient temperature monitoring c/w auto shut down
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Oil pump c/w oil sieve
- » Indicator light - service interval
- » Cylinder head temperature monitoring with auto shut down
- » Oil temperature display with auto shut down
- » Filter housing for 2,3 l filter cartridges
- » Puracon filter monitoring (Auto shut down also available)
- » RTC - Remote Tab Control
- » Additional high pressure outlet
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 150 ES	LW 200 ES III
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	150 / 9 / 5.3	200 / 12 / 7.1
Max. Pressure [bar]:	350	350
RPM [1/min]:	1425	1425
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor	E-Motor
Drive power [kW] with 50 Hz / 60 Hz:	3.5 / 4.2	4.0 / 4.8
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1050 / 1260	1200 / 1440
Lubrication type:	Splash oil (oil pump as an option)	Splash oil (oil pump as an option)
Oil capacity [litre]:	0.8	0.8
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 100 h)	900 (at +20°C / approx. 75 h)
Dimensions W x D x H [mm]:	900 x 1085 x 1330	900 x 1085 x 1330
Weight [kg]:	265	270
Noise level (measured at 1 m) [dB(A)]:	61	61

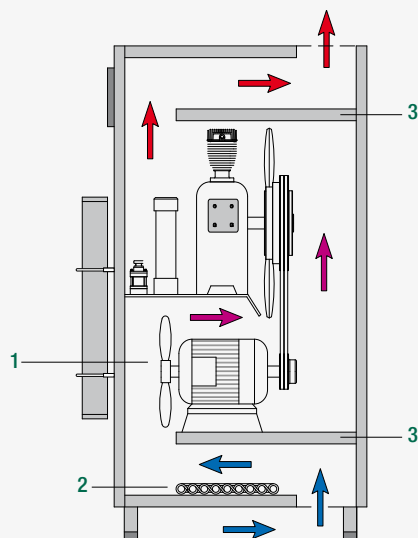
<sup>1)</sup> In accordance with EN 12021

## LW 230 ES II / LW 280 ES II / LW 320 ES II

The LW 230 ES II / LW 280 ES II / LW 320 ES II is ideal for dive shops, diving clubs and diving schools, as well as medium-sized breathing air filling station. The three-stage compressor is sound insulated and operates at low speed. It is also suitable for continuous operation. It offers long service intervals, low maintenance costs and, through the oversized industrial components maximum reliability. The compressor is delivered full wired, ready for connection with automatic shut-off, automatic condensate drain and star/delta start cycle.



### 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 II / LW 280 ES II / LW 320 ES II

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel housing (RAL 6026)
- » Sound insulated housing
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Hour counter
- » Operating panel with start/stop and condensate test button, as well emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » 2 x Filling hose c/w filling valve
- » Motor protection switch (LW 230 ES II Optional)
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system with adjustable oil pump
- » Low pressure oil pump with oil sieve
- » Oil- / Water separators in stainless steel
- » **NEW** - 10 l Condensate tank with venting silencer
- » Safety valves after each stage
- » 3 x concentric suction/pressure valves
- » Filling pressure to your choice (200 or 300 bar)
- » Connections to your choice  
(DIN 200 bar or 300 bar, CGA 200 bar or 300 bar and INT)
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » Up to 4 additional hoses available
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » Oil temperature display with auto shut down
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 h)
- » 2.3 l Filter housing (Filter capacity: 1200 m<sup>3</sup> at +20°C)
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Additional high pressure outlet
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 230 ES II	LW 280 ES II	LW 320 ES II
Type:	Air cooled piston compressor	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	230 / 13.8 / 8.1	280 / 16.8 / 9.9	320 / 19.2 / 11.3
Max. Pressure [bar]:	350	350	350
RPM [1/min]:	1080	1300	1450
No of cylinders / No of stages:	3 / 3	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	5.5 / 6.6	7.5 / 9.0	7.5 / 9.0
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	1650 / 1980	2250 / 2700	2250 / 2700
Lubrication type:	Oil pump + Splash oil	Oil pump + Splash oil	Oil pump + Splash oil
Oil capacity [litre]:	1.8	1.8	1.8
Oil pressure [bar]:	1.8 (+/- 0.3)	1.8 (+/- 0.3)	1.8 (+/- 0.3)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	900 (at +20°C / approx. 72 h)	900 (at +20°C / approx. 54 h)	900 (at +20°C / approx. 46 h)
Dimensions W x D x H [mm]:	775 x 1030 x 1630	775 x 1030 x 1630	775 x 1030 x 1630
Weight [kg]:	333	333	333
Noise level (measured at 1 m) [dB(A)]:	61 (+/- 2)	62 (+/- 2)	62 (+/- 2)

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

## LW 300 ES III / LW 450 ES III

Discover the new LW 300 ES III / 450 ES III. Robust, dynamic and powerful.

The soundproofed compressor is suitable for demanding breathing air and high pressure applications and convinces with very low maintenance intervals and service costs. The industry-proven, new lubrication system, as well as reinforced compressor components are the main points of the optimized compressor block and improve sustainably the lifetime of the compressor. The innovative condensate system with the new condensate stop valve optimizes the economic efficiency of the compressor and includes a 10 liter condensate collecting tank as well as a highly effective pre-separator to extend the filter life.

The third generation of the ES series is suitable for use in workshops as well as mixed industrial buildings. The compressor is delivered full wired, ready for connection with automatic shut-off, automatic condensate drain and star/delta start cycle.



Figure with option 4-fold filling panel

**NEW** - Heavy duty compressor block components

**NEW** - Improved lubrication system c/w oil filter

## LW 300 ES III / LW 450 ES III

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel housing (RAL 6026)
- » Sound insulated housing
- » **NEW** - Heavy duty compressor block components
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Hour counter
- » Operating panel with start/stop and condensate test button, as well emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » Motor protection switch
- » Safety switch
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » 3 x concentric suction/pressure valves
- » **NEW** - Improved lubrication system c/w oil filter
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 h)
- » Condensate-Stop-Valve
- » 10 Litre Condensate tank with venting silencer
- » Maintenance door on both sides
- » High pressure outlet with 1500 mm hose
- » Filling pressure of your choice (200 or 300 bar)
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » Up to 6 additional filling hoses available
- » **NEU** - 4- fold filling panel installed at front door
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » Oil temperature display with auto shut down
- » 2.3 l Filter housing (Filter capacity: 1440 m<sup>3</sup> at +20°C)
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 300 ES III	LW 450 ES III
Type:	Air cooled piston compressor	Air cooled 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	350
RPM [1/min]:	800	1100
No of cylinders / No of stages:	3 / 3	3 / 3
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	7.5 / 9.0	11.0 / 13.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	2250 / 2700	3300 / 3960
Lubrication type:	Oil pump	Oil pump
Oil capacity [litre]:	2.7	2.7
Oil pressure [bar]:	1.5 (+/- 0.2)	1.5 (+/- 0.2)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1050 (at +20°C / approx. 58 h)	1050 (at +20°C / approx. 38 h)
Dimensions W x D x H [mm]:	975 x 1260 x 1800	975 x 1260 x 1800
Weight [kg]:	450	452
Noise level (measured at 1 m) [dB(A)]:	70 (+/- 2)	72 (+/- 2)

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

## LW 570 ES II / LW 700 ES II

The new generation of breathing air compressor LW 570/700 ES II is characterized by its sturdy and powerful design. The improved sound insulation is ideal for being used in commercial and sales areas, as well as in mixed residential and industrial buildings.

A novel drainage system features a 10 litre condensate collection tank, as well as a highly efficient pre-separator unit which improves lifetime of the filter cartridge considerably. Innovative condensate valves also limit the pressure drops during condensation cycles to ensure enhanced profitability.

The industry-proven, new lubrication system, as well as reinforced compressor components are the main points of the optimized compressor block which allow to use the LW 570/700 ES II for continuous running and for being used in three-shift operations at breathing air and high-pressure applications



- NEW** - High effective 0.8 l Prefilter
- NEW** - Maintenance door on both sides
- NEW** - Condensate-Stop-Valve
- NEW** - 10 l Condensate tank with venting silencer
- NEW** - Heavy duty compressor block components
- NEW** - Improved lubrication system c/w oil filter



## LW 570 ES II / LW 700 ES II

### Specifications

- » Electro motor (E-Motor / 400V / 3 Phase / 50 Hz)
- » Powder coated steel housing (RAL 6026)
- » Sound insulated housing
- » **NEW** - Heavy duty compressor block components
- » Automatic condensate drain
- » Automatic stop at final pressure
- » Hour counter
- » Operating panel with start/stop and condensate test button, as well emergency stop switch
- » Phase monitoring c/w shut down at wrong direction of rotation
- » Motor protection switch
- » Safety switch
- » Maintenance doors on both sides
- » Pressure maintaining and non return valve
- » All pistons c/w steel piston rings
- » **NEW** - Improved lubrication system c/w oil filter
- » Low pressure oil pump and filter
- » Oil- / Water separators in stainless steel
- » Safety valves after each stage
- » **NEW** - 0.8 l Prefilter (Enlarged the lifetime of the filter by approx. 5 h)
- » **NEW** - Condensate-Stop-Valve
- » **NEW** - 10 l Condensate tank with venting silencer
- » **NEW** - Maintenance door on both sides
- » **NEW** - High effective new Cooling System (only LW 700 ES II)
- » 4 concentric suction/pressure valves
- » High pressure outlet with 1500 mm hose
- » Filling pressure of your choice (200 or 300 bar)
- » Breathing air purification an accordance to EN 12021

### Options

- » Auto start system
- » Up to 6 additional filling hoses available
- » **NEW** - 4- fold filling panel installed at front door
- » 200 and 300 bar parallel filling pressures
- » Oil pressure gauge
- » Intermediate pressure gauges
- » Oil pressure monitoring c/w auto shut down
- » Cylinder head temperature monitoring with auto shut down
- » Oil temperature display with auto shut down
- » Puracon filter monitoring (Auto shut down also available)
- » Remote Tab Control - RTC
- » Block heating device
- » 420 bar Version
- » Air Cooler connection kit
- » Power cable and plug
- » Special voltages / frequencies on request

## Technical Data

	LW 570 ES II	LW 700 ES II
Type:	Air cooled piston compressor	Air cooled piston compressor
Capacity [litre/min] / [Nm <sup>3</sup> /h] / [cfm]:	570 / 34.2 / 20.1	700 / 42 / 24.7
Max. Pressure [bar]:	350 / 420	350 / 420
RPM [1/min]:	1060	1390
No of cylinders / No of stages:	4 / 4	4 / 4
Prime mover type:	E-Motor / 400V / 3 Phase / 50 Hz	E-Motor / 400V / 3 Phase / 50 Hz
Drive power [kW] with 50 Hz / 60 Hz:	15.0 / 18.0	18.5 / 22.2
Cooling air req. [m <sup>3</sup> /h] with 50 Hz / 60 Hz:	4500 / 5400	5500 / 6660
Lubrication type:	Oil pump	Ölpumpe
Oil capacity [litre]:	2.9	2.9
Oil pressure [bar]:	2.0 (+/- 0.1)	2.0 (+/- 0.1)
Operating temperature [°C]:	+5°C to +45°C	+5°C to +45°C
Filter capacity [m <sup>3</sup> at +20°C] <sup>1)</sup> :	1440 (at +20°C / approx. 42 h)	1440 (at +20°C / approx. 34.3 h)
Dimensions W x D x H [mm]:	975 x 1260 x 1800	975 x 1480 x 1800
Weight [kg]:	517	605
Noise level (measured at 1 m) [dB(A)]:	72.5	75 (+/- 2)

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

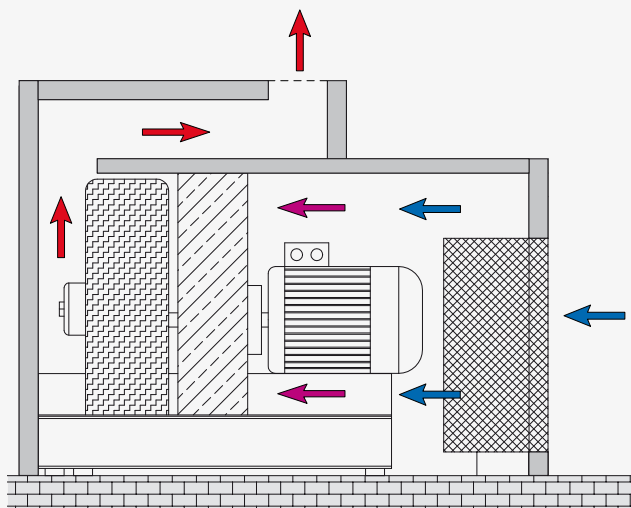
## Sound insulated Housing LW 720 E / LW 1300 E

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 E

## 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.

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

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 can be retrofitted to all LW 720 and 1300 models!

### Sound insulated Housing LW 720 E

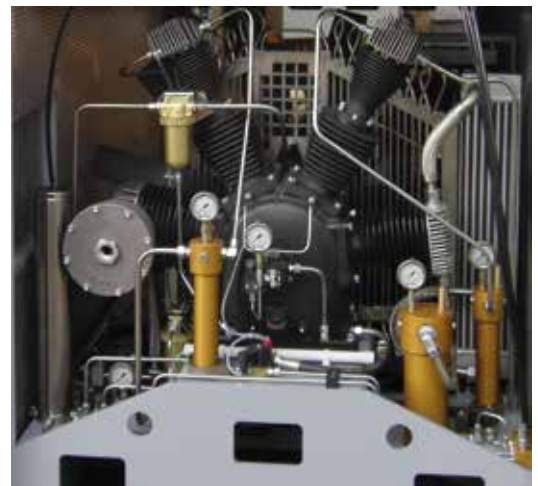
- » Complete incl. Gauge-Panel and Gauge-Hose (for 1 Pressure Gauge)
- » Including maintenance side door
- » 73 dB at 1 m
- » Color: RAL 7001
- » Dimensions: 2200 x 1630 x 1550 mm

### Sound insulated Housing LW 1300 E

- » 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 E – Operating Panel



Sound insulated Housing LW 1300 E - Interior

## Technical Data

Type	W x D x H [mm]	Noise [dB]
Sound insulated Housing LW 720 E	2200 x 1630 x 1550	73
Sound insulated Housing LW 1300 E	2260 x 1720 x 1450	75

## Remote Pro Control - RPC

The RPC control system contains all components (including Windows-based software) that enable the compressor to be controlled and monitored worldwide.

32,000 storable data units allow recording measurements per second, minute, hour or day in real time.

Location-independent remote-maintenance, adjustments, as well as displaying all machine parameters can be continuously controlled and called up.



## Remote Pro Control - RPC

### Consists of

- » Control board incl. 2.8" LCD display
- » L&W software for Windows-based systems (PC, laptop, notebook, tablet or mobile phone)
- » Pressure sensor for start / stop operation
- » Sensor for temperature monitoring of the ambient temperature
- » Phase monitoring module
- » 1 x potential-free contact for collective alarms
- » Emergency operation (can be operated without circuit board)
- » Emergency stop switch

### Functions without Windows-based device

- » Semi & fully automatic operation
- » Condensate, leakage and safety valve test function
- » Ambient temperature monitoring with automatic shutdown
- » Phase monitoring with automatic start prevention
- » Start cycle counter
- » Stroke and cycle counter for condensate drain
- » Timer for next condensate drainage
- » Operating hours counter for compressor and filter cartridge
- » Display of filling time [min] / timer for bottle filling
- » Service intervals with counter
- » Pinlock
- » Dynamic pressure and temperature displays

### Functions with Windows-based device

- » Remote control possible via LAN / W-LAN
- » Remote maintenance / settings by L&W possible after permission
- » Graphic display of machine parameters (Storage of 32,000 data units, display update per sec, min, h or d freely selectable)
- » Unlimited alarm memory in the log
- » Automatic saving to Excel etc. possible
- » Printing the machine parameters

### Options

- » Windows-based end device for external display (e.g. PC, laptop, tablet and much more)
- » Display / monitoring of pressures (levels / oil)
- » Display / monitoring of temperatures (cylinder heads / oil)
- » Display / monitoring of the gas (Humidity, CO, CO<sub>2</sub>, O<sub>2</sub> and VOC)
- » Installation of additional software on the company server for external operation

## L&W CO<sub>2</sub> Filter

Due to the large increase of CO<sub>2</sub> in the ambient air during the recent years the filling of breathing air bottles according to EN 12021 is not always guaranteed.

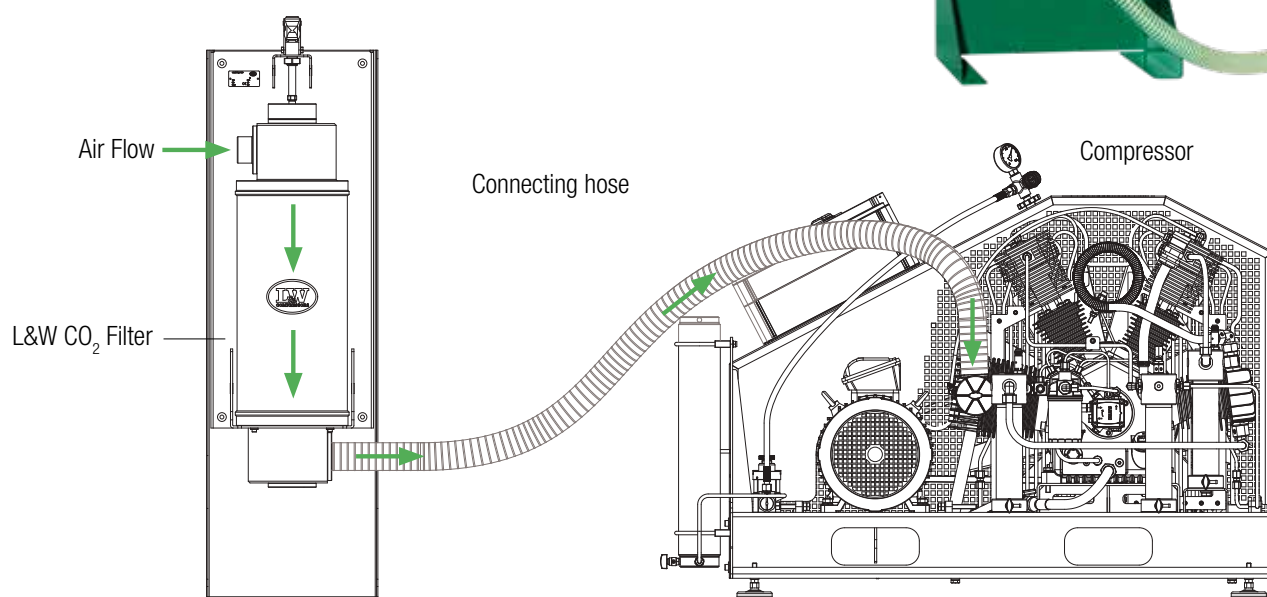
The new L&W CO<sub>2</sub> Filter is the professional solution to reduce the CO<sub>2</sub> value below the permissible limit in the intake section of the compressor.

### Specification

- » Powder coated steel frame (RAL 6026)
- » Holder with quick release for CO<sub>2</sub> filter cartridge
- » Intake hose connection Ø 32 mm
- » 2 meters connecting hose (Inside-Ø 32 mm)
- » CO<sub>2</sub> filter cartridge

### Options

- » Wall mounting kit
- » Stand for CO<sub>2</sub> Filter (390 x 400 x 1250 mm, 19 kg)
- » Intake hose connection Ø 50 mm / Ø 76 mm
- » Intake hose



## Technical Data

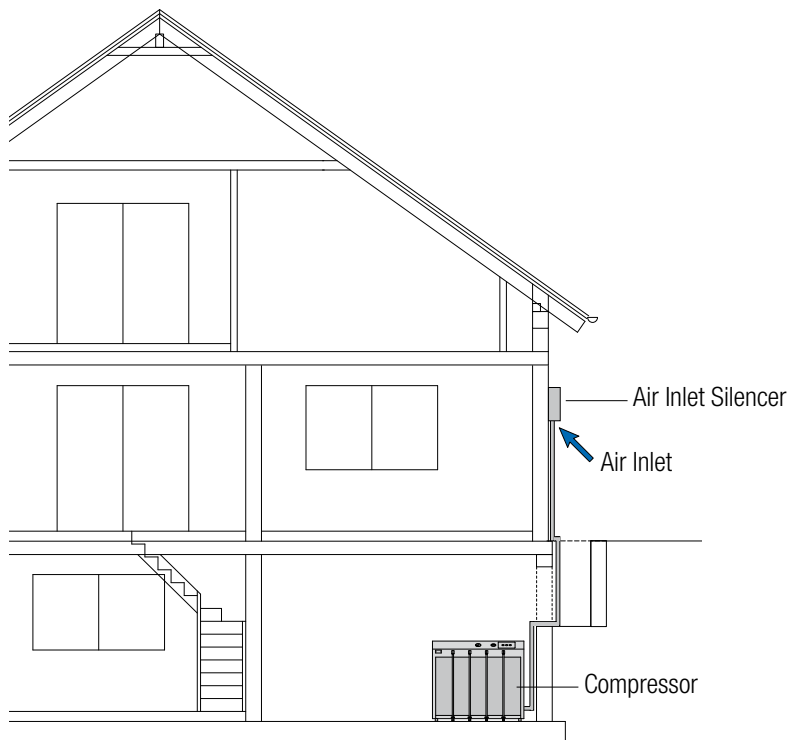
Technical Data	L&W CO <sub>2</sub> Filter
Medium	Breathing air
Intake pressure:	Atmospheric
Flow rate [l/min]:	100 - 750
Lifetime [working hours]:	80*
Operating temperature [°C]:	+5 to +45
Dimensions W x D x H [mm]:	370 x 330 x 1075
Weight [kg]:	42.5

\* at 700 l/min flow rate and 1000 ppm CO<sub>2</sub> concentration in the intake area. Attention: The lifetime depends on the ambient air

## Air Inlet Silencer

Fresh air, intaken from outside of the building, provokes an intake noise which is generated by the inlet valve. We recommend using an inlet silencer to reduce the intake noise to a minimum. The silencer is delivered with a special mount for wall mounting.

400 x 260 x 600 mm, 24 kg



## Condensation Collecting Tank

The 60 l tank is equipped with an active carbon filter to collect condensate odourlessly and quietly. The condensate can be easily transported in the collecting tank and disposed environmentally sound.

The flexible connection hoses are fitted with quick-couplings, to allow easy separation from the compressor. The tank is equipped with a level gauge to indicate max. filling level. Two sturdy carrying handles ensure a safe transportation.

Ø 400 x 800 mm, 20 kg



## Puracon Breathing Air Monitoring

### Puracon Mobil M200 / M300

The usage of a Puracon monitoring system is the most reliable and economic method of breathing air monitoring. L&W Puracon systems can be ordered as an option for a new compressor unit or can also be easily integrated into an existing filling stations.

Puracon Mobil M200 / M300 is used for humidity monitoring during filling procedures or to check the equipment before diving. The humidity value can be controlled during the entire filling procedure. Exceeding of the limits will be indicated by a red LED. The Puracon Mobil M200 / M300 can be connected directly between cylinder and filling hose (no installation work on the compressor required).

Pressure Ranges: M200: 150 to 250bar / M300: 250 to 350bar

### Specifications

- » Auto shut down (battery saving mode)
- » Pressure compensation
- » Higher accuracy by new temperature compensation
- » Applicable without installation work on the compressor
- » Storage of max. humidity value
- » Alarm LED - freely adjustable limit
- » Humidity checks of filled tanks possible



## Technical Data

Technical Data	M 200	M 300
Operating pressure	150 to 250 bar	250 to 350 bar
Power supply	2 x AAA LR03 alk. battery	2 x AAA LR03 alk. battery
Connector	DIN 200 (G5/8)	DIN 300 (G5/8)
Protection rating	IP64	IP64
Operating temperature	+5°C to +45°C	+5°C to +45°C
Dimensions	60 x 90 x 40 mm	60 x 90 x 40 mm

Monitoring Range	M 200	M 300
Humidity	0 - 99 mg/m <sup>3</sup>	0 - 99 mg/m <sup>3</sup>
Pressure	150 - 250 bar	250 - 350 bar



## Puracon Breathing Air Monitoring

### Puracon Mobil BA

The new Puracon Mobil BA is the professional solution for mobile monitoring of air quality according to the European standard EN 12021-2014. The system determines the moisture, CO, CO<sub>2</sub>, O<sub>2</sub> and VOC\* content in the compressed air within a few minutes.

Display and sensor system have been combined to a very compact and handy device, which replaces the conventional and laborious test method of using test tubes.

The system is connected between the filling connection and the bottle to be filled, the determined values are displayed clearly in the illuminated display. Air quality checks of already filled bottles can be carried out by using the high pressure throttle valve.

The Aerator unit of the Puracon Mobil BA enables the measuring of CO, CO<sub>2</sub> and O<sub>2</sub> concentration in the ambient air.

### Specifications

- » High quality aluminum housing
- » Digital LCD display incl. warning LED (red / green)
- » Pressure / temperature compensation
- » Pressure reducer including throttle valve
- » Adapter DIN 200 / DIN 300
- » Filling connector DIN 200 / DIN 300
- » High pressure throttle valve
- » Assembly tools
- » Power cable (length 1.2 m) with 230V plug
- » Calibration unit consisting of:
  - Aerator unit incl. activated carbon filter
  - Pressure regulator with control valve including teflon hose



## Technical Data

Technical Data	Puracon Mobil BA
Medium	Breathing air
Power supply	100 - 240 V
Connector	DIN 200 / DIN 300 (5/8")
Protection class	IP 50
Operating temperature	+5°C to +35°C
Dimensions	175 x 120 x 55 mm
Weight	1.3 kg

Monitoring Range	
Humidity	5 – 120 mg/m <sup>3</sup>
CO	0 - 30 ppm
CO <sub>2</sub>	0 - 3000 ppm
O <sub>2</sub>	0 - 25 %
Oil	0.05 - 0.5 mg/m <sup>3</sup>
Pressure	max. 350 bar

\* VOC = (volatile organic compounds) Sensor for oil vapors and other air pollution such as Hydrogen H, Hydrosulfide H<sub>2</sub>S, Ammonium NH<sub>4</sub>, Ethanol C<sub>2</sub>H<sub>6</sub>O, Toluene C<sub>7</sub>H<sub>8</sub>.

## Puracon Breathing Air Monitoring

### Puracon Stationary ECO

The usage of a Puracon monitoring system is the most reliable and economic method of breathing air monitoring. L&W Puracon systems can be ordered as an option for a new compressor unit or can also be easily integrated into an existing filling stations.

Puracon Stationary ECO is a cost-efficient solution for humidity monitoring during the filling procedure.

The Puracon Stationary ECO can be connected directly to the high-pressure line after the humidity filter. The humidity value can be observed during the entire filling procedure. Exceeding of the limits will be indicated by a red LED.

### Specifications

- » Adjustable measuring speed
- » Auto shut down (battery saving mode)
- » Pressure compensation
- » Higher accuracy by new temperature compensation
- » Storage of max. humidity value
- » Alarm LED - freely adjustable limit



## Technical Data

Technical Data	Puracon Stationary ECO
Operating pressure	150 to 350 bar - adjustable pressure range
Power supply	2 x AAA LR03 alk. battery
Connector	G1/4 thread
Protection rating	IP64
Operating temperature	+5°C to +45°C
Dimensions	60 x 90 x 40 mm

Monitoring Range	
Humidity	0 - 99 mg/m <sup>3</sup>
Pressure	150 - 350 bar

## Puracon Breathing Air Monitoring

### Puracon Stationary PRO

Puracon Stationary PRO is the professional solution for humidity monitoring during the filling procedure. The PRO version provides separated sensor and display unit. The sensor is connected directly to the high-pressure line after the humidity filter and is linked to the display unit via a data cable.

### Specifications

- » Aluminum sensor housing with G $\frac{1}{4}$ " inlet and outlet
- » Display unit (Ø 96 x 37 mm) for wall mounting with sensor cable (length: 2 m)
- » Power supply cable (length: 1.7 m) with CE plug 100 - 230 V ~ 50/60Hz
- » Digital LCD display with humidity display in mg/m<sup>3</sup> and error warnings
- » Higher accuracy by new temperature and pressure compensation
- » 2 monitoring LEDs, adjustable limits
- » 2 output signals (24V)
- » Sensor cables with 5, 10, 15 or 30 m available for surcharge
- » Approved up to 350 bar

### Available versions

- » 420 bar sensor (stainless steel)
- » 12 V DC
- » 24 V DC
- » Ex with ATEX certification



## Technical Data

Technical Data	Puracon Stationary PRO
Operating pressure	150 - 350 bar / optional 420 bar
Power supply	100 - 240 V / optional 12V or 24VDC
Connector	Sensor: G1/4 thread
Protection rating	IP64
Operating temperature	+5°C to +45°C

Monitoring Range	
Humidity	5 – 50 mg/m <sup>3</sup>
Pressure	150 - 350 bar

## Puracon Breathing Air Monitoring

### Puracon Stationary PRO CO/CO<sub>2</sub>

The new Puracon Stationary PRO CO/CO<sub>2</sub> is the professional solution for continuous monitoring of humidity + CO + CO<sub>2</sub> during the filling process of breathing air.

The stationary system is used to monitor all the required values of the breathing air quality in accordance with EN 12021 and provides a new security in the field of breathing air monitoring.

The Puracon Stationary PRO CO/CO<sub>2</sub> is connected to the high pressure line after the breathing air filter and can also easily retrofitted at already existing breathing air compressors.

The determined values are clearly shown in the illuminated LCD display and if at least one limit value in the breathing air is exceeded the red alarm LED lights up brightly and the compressor can be switched off automatically with the installed shut down relay. This guarantees legal compliant filling of breathing.

### Specifications

- » Switch box for wall mounting
- » Large LCD display unit  $\varnothing = 96$  mm
- » Power cord (length 1.2 m) with CE plug 230 V AC
- » Digital LCD display in ppm%, mg / m<sup>3</sup> and bar
- » Pressure / Temperature compensation
- » Red Alarm LED
- » Green Operation LED
- » Pressure reducer including throttle valve
- » Gas flow regulator
- » Max. pressure: 350 bar (Optional 420 bar)
- » Including humidification line
- » Shut down relay

### Options

- » Additional remote display incl. cable
- » 420 bar Version



## Technical Data

Technical Data	Stationary PRO CO/CO <sub>2</sub>
Operating pressure	350 bar (Optional 420 bar)
Power supply	100 - 240 V
Connector	Inlet: 8L / Outlet: 8L
Protection rating	IP 54
Operating temperature	+5°C to +45°C
Dimensions	300 x 400 x 155 mm

Monitoring Range	
Humidity	5 – 120 mg/m <sup>3</sup>
CO	0 - 30 ppm
CO <sub>2</sub>	0 - 3000 ppm
Pressure	max. 350 bar

## Puracon Breathing Air Monitoring

### Puracon Premium

The further development of the Puracon Premium offers professional monitoring of the breathing air quality during filling operations.

In accordance with EN 12021, all relevant components of the compressed breathing air such as humidity, CO, CO<sub>2</sub>, O<sub>2</sub> and VOC are monitored for the safety of the system operator. The measured values can be called up worldwide on Windows-based devices and allow recording of 32,000 data units per second, minute, hour or day in real time. Location-independent remote maintenance, adjustments, as well as the graphical representation of all intake and compressed gas readings are continuously available. The data will be saved on the unit, can be downloaded via USB and other storage media or can be sent directly via email. The sensor circuit board can be easily calibrated by exchanging.

### Specifications

- » Wall-mount control box
- » Mini-PC with display and storage of all relevant data
- » Display of the measured values in ppm, %, mg/m<sup>3</sup>, bar and °C
- » Pressure / temperature compensation
- » Green operation LED / red alarm LED
- » Pressure reducer including throttle valve
- » Signal output for compressor shutdown
- » Flushing function to eject non-standard air during compressor start-up
- » Integrated ventilation unit
- » Languages: German / English / French / Italian / Spanish / Chinese / Dutch

### Functions

- » Remote maintenance / settings by L&W after approval
- » Remote access via Bluetooth, WIFI or with external software
- » Graphic representation of the gas readings (storage of 32,000 data units, display update per sec, min, h or d freely selectable)
- » Data backups via USB or as email
- » Display of filling time [min]
- » Pressure and temperature displays
- » Display of certificates, instructions and approvals
- » Streaming of the display on e.g. TV devices (up to 50")
- » Additional Puracon software for displaying the data optionally available



## Technical Data

Technical Data	Puracon Premium
Operating pressure	350 bar (Optional 420 bar)
Power supply	100 - 240 V
Connector	Inlet: 8L / Outlet: 8L
Protection class	IP 54
Operating temperature	+5°C to +45°C
Dimensions	400 x 500 x 200 mm

Monitoring Range Sensor	
Humidity	5 – 120 mg/m <sup>3</sup>
CO	0 - 30 ppm
CO <sub>2</sub>	0 - 3000 ppm
O <sub>2</sub>	0 - 30 %
Oil	0.05 - 0.5 mg/m <sup>3</sup>
Pressure	max. 350 bar

\* VOC = (volatile organic compounds) Sensor for oil vapors and other air pollution such as Hydrogen H, Hydrosulfide H<sub>2</sub>S, Ammonium NH<sub>4</sub>, Ethanol C<sub>2</sub>H<sub>6</sub>O, Toluene C<sub>7</sub>H<sub>8</sub>.

## LW Air Cooler +3 °C

Filter capacity and filter life, an important theme with financial implications for industrial applications where cost control is vital. The life of a filter is strongly influenced by 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 11 hours!

If the gas is cooled down after the final compression stage, e.g. from 35 °C to 3 °C, the life of the filter cartridge can be extended many times over.

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.

The L&W refrigeration dryers (Air Coolers) can pay for themselves within 1 season by saving filter cartridge costs. To monitor the exact state of the filter, we recommend the L&W Puracon moisture controller.

### Specifications

- » Ready to connect to automatic, noise reduced condensation drain
- » (basic version without automatic condensation drain)
- » Digital temperature display in °C
- » Painted steel housing (RAL 6026)
- » Power supply cable for 230 V~ 50 Hz connection incl. CE plug  
(60 Hz versions available on demand)

Air Coolers are available in 2 pressure ranges:

Standard version up to 350 bar, Basic versions up to max. 420 bar.

All units up to 2850 litres/min are suitable for wall mounting.

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 (optional) [bar]	Cooling air requirement [m³/h]	Power consumption [kw]	Frequency [Hz]	Refrigeration fluid	W x D x H [mm]	Weight [kg]
LW AC 450 Basic	27 / 450	250 - 350 (420)	390	0.45	<sup>1)</sup> 50 and 60	R 134 a	500 x 250 x 805	42
LW AC 450 ACD	27 / 450	250 - 350 (420)	390	0.45	<sup>1)</sup> 50 and 60	R 134 a	500 x 250 x 805	52
LW AC 900 Basic	54 / 900	250 - 350 (420)	570	0.6	<sup>1)</sup> 50 and 60	R 134 a	500 x 250 x 805	44
LW AC 900 ACD	54 / 900	250 - 350 (420)	570	0.6	<sup>1)</sup> 50 and 60	R 134 a	500 x 250 x 805	54
LW AC 1350 Basic	81 / 1350	250 - 350 (420)	900	0.65	<sup>2)</sup> 50 or 60	R 404 a	500 x 430 x 845	63
LW AC 1350 ACD	81 / 1350	250 - 350 (420)	900	0.65	<sup>2)</sup> 50 or 60	R 404 a	500 x 430 x 845	73
LW AC 1950 Basic	117 / 1950	250 - 350 (420)	1140	0.7	<sup>2)</sup> 50 or 60	R 404 a	500 x 430 x 845	76
LW AC 1950 ACD	117 / 1950	250 - 350 (420)	1140	1.3	<sup>2)</sup> 50 or 60	R 404 a	500 x 430 x 845	96
LW AC 2850 Basic	171 / 2850	250 - 350 (420)	1700	1.5	<sup>2)</sup> 50 or 60	R 404 a	500 x 670 x 1300	135
LW AC 2850 ACD	171 / 2850	250 - 350 (420)	1700	1.5	<sup>2)</sup> 50 or 60	R 404 a	500 x 430 x 845	153

Other capacities and working pressures on request <sup>1)</sup> Suitable for both frequencies <sup>2)</sup> Please state required frequency

## Filter Panels

For purifying, drying and oil removal of air and gases.

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 the sizes 1.7, 2.3, 10 litres volume. Cartridges are available for breathing air, breathing air with additional CO/CO<sub>2</sub> filter, 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

### Options

- » Safety valve
- » Puracon filter monitoring
- » Div. filter cartridges



**Filter Panel 1 x 10 l**  
without Pressure maintaining valve



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

## Technical Data

Filter panel	Capacity at +20°C [m³]	Max WP [bar]	Connection thread		W x H x D [mm]	Weight [kg]
			Inlet	Outlet		
1 x 1.7 litre	900	350	8S	G 1/4" female	270 x 570 x 180	27
2 x 1.7 litre	1800	350	8S	G 1/4" female	430 x 570 x 180	44
3 x 1.7 litre	2700	350	8S	G 1/4" female	560 x 570 x 180	61
1 x 2.3 litre	1200	350	8S	G 1/4" female	270 x 815 x 180	32
2 x 2.3 litre	2400	350	8S	G 1/4" female	430 x 815 x 180	54
3 x 2.3 litre	3600	350	8S	G 1/4" female	560 x 815 x 180	76
1 x 2.3 litre	1200	420	8S	G 1/4" female	270 x 815 x 180	38
2 x 2.3 litre	2400	420	8S	G 1/4" female	430 x 815 x 180	67
3 x 2.3 litre	3600	420	8S	G 1/4" female	560 x 815 x 180	95
1 x 10 litre	8400	350	G 1/2" female	G 1/2" female	460 x 1116 x 320	165
1 x 10 litre + 1 x 2.3 litre	9600	350	G 1/2" female	G 1/2" female	720 x 1116 x 320	180
2 x 10 litre	16800	350	G 1/2" female	G 1/2" female	700 x 1116 x 320	265
2 x 10 litre + 1 x 2.3 litre	18000	350	G 1/2" female	G 1/2" female	1000 x 1116 x 320	315

## Storage Cylinders

Storage tanks are frequently used to provide extra filling capacity during peak periods (with or without cascade filling panels). Ideally, the storage pressure should be higher than the filling pressure. A fully automatic control system for compressors is recommended (e.g. Remote Tab Control - RTC). L&W provides different storage systems in modular design, starting from 10 m<sup>3</sup> storage volume up. Our cascade filling panels are available for one to four stages operation. Tell us your requirements and we will calculate your individual system.

### Specifications

- » Stationary steel tanks 10 year hydro test, powder coated in accordance with EN 1089/3
- » Powder coated according to EN 1089/3
- » Special paintings on request
- » 50 l tank size
- » Operation pressure: up to 350 bar
- » Operation pressure: 200, 300, 420 and 500 bar on request
- » Painted steel housing (RAL 6026)
- » Connected according to customer's specifications
- » Modular construction to accommodate future expansions



## Technical Data

Cylinders	Capacity [m <sup>3</sup> ]	W x H x D [mm]	Weight [kg]
<b>350 bar storage / PH 525 bar</b>			
1 x 50 l	17.5	250 x 1785 x 300	140
2 x 50 l	35	500 x 1785 x 300	240
3 x 50 l	52.5	750 x 1785 x 300	355
4 x 50 l	70	1000 x 1785 x 300	465
6 x 50 l	105	∅ 800 x 1950	660
6 x 50 l	105	745 x 464 x 1775	750



## 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 control in every L&W filling panel.

### Cascade panels

For overflow in stages from the storage cylinders via the filling panel or directly to the application. Thus, the gas storage in the storage cylinders can be used more effectively. This makes it possible to fill many more bottles to the final pressure until the compressor system has to be started.

### Specifications

- » Painted steel housing (RAL 6026)
- » 1-, 2-, 3- or 4-stages
- » Inlet, valve and pressure gauge for each stage
- » Inlet of the compressor
- » Outlet to the filling panel
- » Fully piped



3 stage cascade management panel

## Technical Data

Order no	No of stages	W x D x H [mm]	Weight [kg]
002957	1	210 x 230 x 330	6.5
002935	2	390 x 230 x 330	10
002329	3	580 x 230 x 330	13
002816	4	780 x 230 x 330	16

## Auto Filling Selector

The Auto filling selectors always ensures an optimal interaction between compressor, storage cylinder(s) and filling panel.

Automatic filling via storage (e.g. 300 bar) and compressor, if the storage pressure decreases to the required filling pressure. After filling, the storage cylinders are refilled automatically to the final storage pressure. This ensures an optimal and economic usage of the unit.

We recommend using automatic condensation and automatic stop at final pressure at the compressor. Due to a fully automatic changing function of the automatic switching device, it is not necessary to open and close locking valves manually. This ensures fast and uncomplicated filling procedures. Our cascade filling panels are available as management panels with 1, 2, 3 or 4 stages. Tell us your filling requirements and we will quickly calculate your individual system.

The L&W auto filling selector is available in 3 versions:



### Pneumatic controlled auto filling selector

For applications with a storage pressure of min. 300 bar and a max. filling pressure of 225 bar.

300 x 270 x 100 mm, 3 kg

### Pneumatic controlled auto filling selector with integrated pressure reducing station

For applications with a storage pressure of min. 300 bar and a max. filling pressure of 225 bar. The outlet pressure is set by the pressure reducing station and is secured by the downstream safety valve.

550 x 350 x 150 mm, 9 kg



### Electronic controlled auto filling selector

Switching points can be exactly set by the electronic pressure transducer. This system has to be used when the filling pressure is close to the storage pressure, e.g. storage pressure of 330 bar and filling pressure of 320 bar.

430 x 500 x 200 mm, 16 kg

#### Options

» Auto start signal for the compressor

## Pressure Reducing Stations

Ideal for safe reducing storage pressure down to the required filling pressure. The pressure reducing stations are available for various inlet and outlet pressures and volumetric flows.





Pressure reducing station with safety valve



Pressure reducing station with  
TÜV/ CE safety valve

## Pressure Reducers

Various pressure reducers are available for different applications, see. table. Other pressure reducers on request.

	Inlet	Outlet	Gas	Order number
	100 - 420 bar 2 x 1/4" NPT internal screw thread	27 - 300 bar 2 x 1/4" NPT internal screw thread	Air, Inert gases	000566 Repair kit: 000565
	100 - 420 bar 1 x 1/4" NPT external screw thread	27 - 300 bar 1 x 1/4" NPT internal screw thread	Air, Inert gases	001428 Repair kit: 001427
	0 - 200 bar G5/8" DIN 477 external screw thread	0 - 10 bar G1/4" internal screw thread	Air, Nitrogen	004323
	0 - 200 bar G5/8" DIN 477 external screw thread	0 - 20 bar G1/4" internal screw thread	Air, Nitrogen	000676
	0 - 300 bar G5/8" DIN 477 external screw thread	0 - 10 bar G1/4" internal screw thread	Air, Nitrogen	003602
	0 - 300 bar G5/8" DIN 477 external screw thread	0 - 50 bar G1/4" internal screw thread	Air, Nitrogen	003106
	0 - 6 bar 1 x 1/2" internal screw thread	150 mbar - 6 bar 1 x 1/2" internal screw thread	Air, Inert gases	001528

## 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 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
- » 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	W x D x H [mm]	Weight [kg]
1-point	210 x 230 x 330	6,5
2-point	390 x 230 x 330	9,0
3-point	580 x 230 x 330	12
4-point	800 x 230 x 330	15
6-point	1180 x 230 x 330	20
8-point	1560 x 230 x 330	25
9-point	1760 x 230 x 330	28
10-point	1950 x 230 x 330	31

2 Filling pressures	W x D x H [mm]	Weight [kg]	Configurations
2-point	580 x 230 x 330	13	1+1
3-point	800 x 230 x 330	16	1+2, 2+1
4-point	800 x 230 x 330	18	1+3, 2+2, 3+1
6-point	1180 x 230 x 330	23	1+5, 2+4, 3+3, 4+2, 5+1
8-point	1560 x 230 x 330	28	1+7, 2+6, 3+5, 4+4, 5+3, 6+2, 7+1
9-point	1760 x 230 x 330	31	1+8, 2+7, 3+6, 4+5, 5+4, 6+3, 7+2, 8+1

## Armoured Safety Filling Cabinets S - Version



2 Tank - SAFETY FILLING Cabinet for Single Pressure



4 Tank - SAFETY FILLING Cabinet for Dual Pressure with 2 x 200 bar and 2 x 300 bar



2 Tank - SAFETY FILLING Cabinet c/w optional inlet pressure reduction

## Armoured Safety Filling Cabinets S - Version

### 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.

L&W offers the cabinets based to the size of the tanks in S (small) and L (large) - versions.

The standard portfolio is designed for tanks with a diameter of 255 mm and a max. length of 880 mm. The cabinets are approved by the american UL organisation.

### Specifications

- » Max. Inlet pressure 330 bar (as option 350 & 420 bar)
- » Adjustable flow restrictor
- » Inlet pressure- and Filling pressure gauge, 0-400 bar, Ø 63 mm
- » Self-venting lever filling valves for each outlet
- » Emergency cut-off switch
- » High pressure solenoid / 230 V
- » Safety door and locking bar are controlled by position switch
- » Start / Stop buttons

### Options

- » L&W anti-whip safety connections for DIN/NF connections
- » Separate storage inlet c/w rotary valve and pressure gauge
- » Inlet pressure regulation incl. safety valve up to 420 bar
- » 8 mm bulkhead outlet for additional filling panels (modular system)
- » Filter system 1.7 or 2.3 ltr installed before the inlet



2 Tank - SAFETY FILLING Cabinet for Single Pressure - inside view

## Technical Data

Order-Nr.	Size	Numbers of filling connection & Pressure range	W x D x H [mm]	Max. diameter of cylinder [mm]
<b>S - Version for single pressure / 200 or 300 bar</b>				
004565	2 Tanks	2 x 200 bar or 2 x 300 bar	780 x 535 x 1640	255
	3 Tanks	3 x 200 bar or 3 x 300 bar	780 x 535 x 1640	170
010141	4 Tanks	4 x 200 bar or 4 x 300 bar	780 x 535 x 1640	140
008631	5 Tanks	5 x 200 bar or 5 x 300 bar	780 x 535 x 1640	138
<b>S - Version for dual pressure / 200 and 300 bar</b>				
	2 Tanks	Configuration as desired	780 x 535 x 1790	255
004567	2 Tanks	2 x 200 bar and 2 x 300 bar	780 x 535 x 1790	255
	3 Tanks	Configuration as desired	780 x 535 x 1790	170
	4 Tanks	Configuration as desired	780 x 535 x 1790	140
008677	5 Tanks	Configuration as desired	780 x 535 x 1790	163

## Armoured Safety Filling Cabinets L - Version



3 Tank - SAFETY FILLING Cabinet for Dual Pressure



3 Tank - SAFETY FILLING Cabinet for Dual Pressure with 3 x 200 bar and 3 x 300 bar



## Armoured Safety Filling Cabinets L - Version

The L-Version of the L&W safety filling box allows several tanks with large diameters to be filled at the same time. Our standard range offers to fill breathing air tanks with a max diameter up to 255 mm and with a max height of 880 mm. The cabinets are also approved by the american UL organisation.

### Specifications

- » Max. Inlet pressure 330 bar (as option 350 & 420 bar)
- » Adjustable flow restrictor
- » Inlet pressure- and Filling pressure gauge, 0-400 bar, Ø 63 mm
- » Self-venting lever filling valves for each outlet
- » Emergency cut-off switch
- » High pressure solenoid / 230 V
- » Safety door and locking bar are controlled by position switch
- » Start / Stop buttons

### Options

- » L&W anti-whip safety connections for DIN/NF connections
- » Storage inlet/outlet with hand wheel valve and pressure gauge
- » Inlet pressure regulation incl. safety valve up to 420 bar
- » 8 mm bulkhead outlet for additional filling panels (modular system)
- » Filter system at the inlet (1,7 l or 2,3 l)

## Technical Data

Order-Nr.	Size	Numbers of filling connection & Pressure range	W x D x H [mm]	Max. diameter of cylinder [mm]
<b>L - Version for single pressure / 200 or 300 bar</b>				
004566	3 Tanks	3 x 200 bar or 3 x 300 bar	1050 x 535 x 1640	255
010890	4 Tanks	4 x 200 bar or 4 x 300 bar	1050 x 535 x 1640	216
010447	5 Tanks	5 x 200 bar or 5 x 300 bar	1050 x 535 x 1640	182
010336	6 Tanks	6 x 200 bar or 6 x 300 bar	1050 x 535 x 1640	174
008678	7 Tanks	7 x 200 bar or 7 x 300 bar	1050 x 535 x 1640	163
<b>L - Version for dual pressure / 200 and 300 bar</b>				
	3 Tanks	Configuration as desired	1050 x 535 x 1790	255
004568	3 Tanks	3 x 200 bar and 3 x 300 bar	1050 x 535 x 1790	255
011501	4 Tanks	Configuration as desired	1050 x 535 x 1790	216
010999	5 Tanks	Configuration as desired	1050 x 535 x 1790	182
010393	6 Tanks	Configuration as desired	1050 x 535 x 1790	174
008679	7 Tanks	Configuration as desired	1050 x 535 x 1790	168

## Nitrox / Trimix

Nitrox or EAN (enriched air nitrox) is a widely accepted alternative to diving with air and offers various advantages. Trimix is a term referring to gas mixtures containing helium for deep diving.

L&W offers two alternatives for Nitrox filling stations.

Partial pressure blending panels require a supply of medical grade oxygen and safely control the flow of oxygen together with oxygen compatible air (OCA) into an oxygen clean diving cylinder. The panels have the advantage of low investment and zero energy consumption and are the ideal investment for Nitrox filling stations who have a reliable supply of oxygen with small or moderate filling requirements. The blending panels can also be used for mixing Trimix mixtures in diving cylinders.

Despite the higher investment and higher energy consumption, membrane nitrox generators are the indispensable choice for filling stations where there is no reliable supply of oxygen. This method of nitrox generation and filling is ideal for large volume diving centres where the membrane operation in conjunction with a suitable high pressure compressor is simple and quick.

L&W cannot endorse the use of continuous blending systems due to the potential risk of mixtures greater than 40% oxygen entering the high pressure compressor.

## Alpha 1 Oxygen Analyser

Hand held oxygen analyser ideal for analysing oxygen content in any location.

The robust metal housing which includes the oxygen sensor and the water-proof (IP65) construction make this analyser a first choice for diving schools, instructors and divers alike. The Alpha 1 is standard with the pro panel and Mixmaster panels and available as an option with the classic panel.

### Features

- >> Cast metal housing sealed with rubber gaskets, IP65 protection
- >> Large stainless steel eye for lanyard/hook
- >> Fine calibration with hand wheel, secondary calibration inside
- >> User replaceable 9V battery (display goes faint to indicate battery change due)
- >> Sensor inlet sealed with screw cap and O Ring for water protection and conserving sensor life
- >> User replaceable sensor, expected life approx. 3 years
- >> Measuring range 1-100% oxygen
- >> 0.1% accuracy



## 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
- >> Alpha 1 Oxygen Analyzer
- >> 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
- >> 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 (for Nitrox Classic Panel)
- >> Helium/Oxygen analyser



## Technical Data

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

## Nitrox Membrane Systems

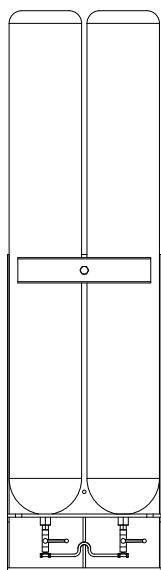
The Nitrox membrane must be supplied with a clean low pressure air supply, this can either come from a high pressure breathing air storage (in combination with a Mixmaster HP) or from a low pressure air compressor with excellent purification before the membrane (in combination with a Mixmaster LP).

The Mixmaster systems differ slightly in their scope of delivery.

### Mixmaster HP

Available in 2 versions, large and small. The Mixmaster HP panels have an HP breathing air inlet with isolation valve and pressure reducer that safely reduces the HP supply down to the desired LP inlet pressure. The HP version has a large filter for air conditioning to ensure that the membrane is supplied with oil-free air, this reduces the risk of membrane contamination.

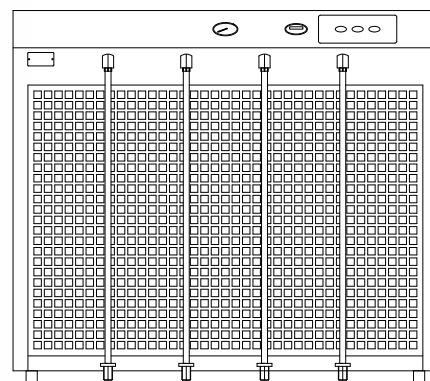
The HP solution has the advantage of using pure breathing air to feed the membrane, this reduces the risk of membrane contamination. The investment cost are lower than a LP solution, but the running costs are higher. 2 HP compressors offer the ideal solution with redundancy for professional diving centres. If only 1 HP compressor is available then a higher capacity storage will be necessary.



High pressure storage



Pressure reducer, membrane, analyser & reservoir



HP compressor (gas tight inlet) and filling hoses

## Technical Data

Mixmaster HP Technical Data	
Inlet Pressure [bar]	50 > 350 bar (G1/4" female)
Membrane inlet pressure LP [bar]:	4 > 11 (11.5 bar safety valve)
Outlet to compressor (air/nitrox):	G1" female
Air inlet (for air filling operations):	G1" female
Dimensions W x H x D [mm]:	650 x 1150 x 300
Weight [kg]:	75

## Nitrox Membrane Systems

Nitrox membrane systems are based around a special semi-permeable „filter“ called a membrane. The membrane is fed with very clean, low pressure air. The air is separated between oxygen and nitrogen within the membrane leaving a higher percentage of oxygen (> 28 - 40%) in the gas that exits the sides of the membrane, and a higher percentage of nitrogen (> 90 - 99%) exiting the top of the membrane.

The capacity of the membrane is the amount of nitrox produced. This is then compressed in a suitable HP compressor, the quantity of nitrox must be higher than the delivery rate of the HP compressor due to some loss within the HP compressor.

The membrane therefore has a degree of waste (the nitrogen) so that the amount of air entering the membrane is considerably higher than the nitrox exiting the membrane. This air requirement is the most important factor when sizing either the high pressure storage or the low pressure compressor that feeds the membrane and increases drastically with an increase in oxygen percentage of the nitrox.

L&W membranes are available in two sizes S & L. The L membranes can also be mounted in parallel to produce even higher quantities of nitrox if required (> 800 litre/min).

### Technical Data S membrane

Inlet pressure	Oxygen %						
	28%	30%	32%	34%	36%	38%	40%
<b>Technical Data S membrane outlet capacity (litre/min) at +20°C</b>							
4 bar	128	131	134	137	140	143	-
5 bar	163	167	170	174	178	181	185
6 bar	199	203	207	212	216	221	225
7 bar	235	240	246	251	256	261	267
8 bar	273	279	285	291	297	303	309
9 bar	311	318	325	332	339	346	353
10 bar	351	358	366	374	382	390	397
11 bar	391	400	408	417	426	435	443
<b>Technical Data S membrane air inlet requirement (litre/min) at +20°C</b>							
4 bar	177	206	242	299	392	557	-
5 bar	225	256	296	357	444	580	998
6 bar	274	311	361	417	526	662	991
7 bar	324	368	427	494	597	745	1066
8 bar	376	426	495	573	692	864	1190
9 bar	429	487	565	654	793	985	1340
10 bar	484	550	627	741	897	1130	1569
11 bar	543	615	715	830	1022	1304	1869

















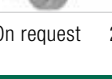
This data is based on a membrane air inlet temperature of +20°C. Temperatures below +20°C increase the selectivity of the membrane and the capacity and the air requirement is reduced, temperatures above +20°C increase the permeability of the membrane and the capacity and the air inlet requirement increases.

### Technical Data L membrane

Inlet pressure	Oxygen %						
	28%	30%	32%	34%	36%	38%	40%
<b>Technical Data L membrane outlet capacity (litre/min) at +20°C</b>							
4 bar	250	256	262	268	274	280	-
5 bar	318	325	333	341	348	356	364
6 bar	387	396	406	415	425	434	443
7 bar	458	470	481	492	503	514	515
8 bar	532	545	558	571	584	596	609
9 bar	607	622	637	652	666	681	696
10 bar	685	701	718	735	751	768	784
11 bar	764	783	801	820	838	857	875
<b>Technical Data L membrane air inlet requirement (litre/min) at +20°C</b>							
4 bar	345	401	472	585	768	1093	-
5 bar	438	500	579	698	871	1139	1964
6 bar	534	608	706	818	1027	1302	1950
7 bar	633	718	836	969	1172	1465	2101
8 bar	734	833	970	1124	1360	1700	2346
9 bar	838	952	1108	1284	1559	1941	2644
10 bar	945	1076	1249	1455	1765	2227	3097
11 bar	1062	1204	1402	1632	2012	2571	3691

## 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	002299	1)	002297	002301	003131
	Air	DIN 477 200 bar anti whip	232 bar / 3400 psi	002303	1)			
	Air	DIN 477 300 bar	300 bar / 4500 psi	002300		002298	002302	002305
	Air	DIN 477 300 bar anti whip	300 bar / 4500 psi	002304				
	Air	DIN 477 300 bar 360° swivel connection	300 bar / 4500 psi	1)				
	Air	INT/Yoke for scuba	232 bar / 3400 psi	002306	1)		002307	
	Air	CGA 346	200 bar / 3000 psi	000706		000705	1)	
	Air	CGA 347	300 bar / 4000 psi	000704		000703	1)	
	Air	NF E 29-662	232 bar / 3400 psi	000695 <sup>3)</sup> 000276 <sup>2)</sup>		001378 <sup>3)</sup> 000276 <sup>2)</sup>	1)	
	Air	NF E 29-662 anti whip	232 bar / 3400 psi	000701 <sup>3)</sup> 000276 <sup>2)</sup>				
	Air	NF E 29-663	300 bar / 4500 psi	000698 <sup>3)</sup> 000277 <sup>2)</sup>		001377 <sup>3)</sup> 000277 <sup>2)</sup>	1)	
	Air	NF E 29-663 anti whip	300 bar / 4500 psi	000702 <sup>3)</sup> 000277 <sup>2)</sup>				
	Air	Spasciani	200 bar / 3000 psi	002251				
	Nitrox	Draeger M24 x 2.0 prEN144	200 bar / 3000 psi	001381				
	Nitrox	M26 x 2.0 - 250 bar	250 bar / 3675 psi	001688 <sup>2)</sup> 003657 <sup>3)</sup>				
	Nitrox	M26 x 2.0 - 350 bar	350 bar / 5000 psi	001688 <sup>2)</sup> 000376 <sup>3)</sup>				
	O <sub>2</sub>	G3/4" DIN 477	200 bar / 3000 psi	004295	001407			

1) On request 2) Handwheel 3) Filling nozzle

## Filling Valves

	Order number	P max. Application	Mount	Repair kit / special tools / silencer
	<b>Cross design filling valve without pressure gauge</b>			
	Yoke: 003686 DIN 200: 003684 DIN 300: 003685	350 bar Filling valve with separate vent screw	Filling valve without pressure gauge for hose with swivel connection. (Standard connection 8S)	Repair kit: 002294
	<b>Cross design filling valve with pressure gauge</b>			
	Yoke: 003689 DIN 200: 003687 DIN 300: 003688	350 bar Filling valve with separate vent screw	Filling valve with pressure gauge for hose with swivel connection. (Standard connection 8S)	Repair kit: 002294
	<b>Overflow valve with venting</b>			
	DIN 200: 009327 DIN 300: 009328	350 bar Overflow valve with pressure gauge and with venting for connection of two cylinders	Connection thread 009327: 2 x DIN 200 (5/8") Connection thread 009328: 2 x DIN 300 (5/8")	Repair kit: 002294
	<b>Hand wheel valve without venting</b>			
	001477	350 bar. Standard 2/1 way valve, G $\frac{1}{4}$ " inlet and outlet for opening closing lines such as storage cylinders	For panels with diameter of bore 33 mm	Lower seat: 000571 Upper valve stem and bearing: 000573
	<b>Hand wheel valve self venting</b>			
	001476	350 bar Standard 2/1 way valve, G $\frac{1}{4}$ " inlet and outlet self venting on the outlet line for filling panels	For panels with diameter of bore 33 mm	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, G $\frac{1}{4}$ " 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>			
	No longer available	350 bar Standard 2/1 way valve, G $\frac{1}{4}$ " 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>			
	No longer available	350 bar. Standard 2/1 way valve, G $\frac{1}{4}$ " inlet and M16 x 1,5mm male outlet, self vent-ing on the outlet line for filling panels with hoses	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>			
	No longer available	350 bar Standard 2/1 way valve, G $\frac{1}{4}$ " 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
	000684	DIN 200 bar G5/8" female	G1/4" female	Stainless steel
	000683	DIN 300 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
	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, old version)	INT/Yoke A clamp connection	Chromed brass
	001479	DIN 200 bar G5/8" female (for anti whip connections, new 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 in various versions and for different gases and applications.

### Applications

- » Drying: Residual water content
- » CO-removal
- » CO<sub>2</sub>-removal
- » Oil / odour removal: Residual oil content
- » Drying and oil removal for Helium-, Nitrogen-, Argon and CNG applications



Order number (order number old)	Ø / Length [mm]	Compressor / Filter housing	Capacity [m <sup>3</sup> ] at	
			20° C*	35° C*
<b>Filter cartridge for drying and oil removal according to EN12021 (Service life based on residual moisture)</b>				
000644	45 / 200	LW 100 E / E1 ECO / LW 100 E / E1	108	32
001375 (LW160/190154)	48 / 165	LW 160 E / E1 / LW 170 E Nautic	180	54
001374 (LW225/245154)	48 / 210	LW 200 E Nautic / LW 225 E	200	60
011174	62 / 213	LW 150 E MC (as option) / LW 200 E MC / LW 250 E MC	500	167
000002 (4508005)	62 / 355	LW 210/230/260/280/320 E / E II LW 210/230/260/280/320 ES / ES II LW 230/280/320/450/450 E III / 570 / 230/280/320/570 EII Compact LW 300 E + E III / LW 450 E + E III LW 300 ES II + ES III / LW 450 ES II + ES III LW 320 E Nautic / LW 320 E MC / LW 400 E MC 1.7 litre filter housing	900	270
000003 (8022)	62 / 575	LW 300 ES / LW 450 ES LW 300 ES II + ES III (als Option) / LW 450 ES II + ES III (as option) LW 570 E + E II / LW 570 ES + ES II / LW 700 E II / LW 720 E / LW 1300 E 2.3 litre filter housing	1200	360
<b>Filter cartridge for drying and oil removal according to EN12021 incl. CO removal of small amounts of incoming CO gas (Service life based on residual moisture)</b>				
002309	45 / 200	LW 100 B ECO / LW 100 B	86	26
001463 (LW160/190154K)	48 / 165	LW 170 D Nautic / LW 190 B	150	45
001464 (LW225/154K)	48 / 210	LW 245 B	166	50
001459 (4508005K)	62 / 355	LW 300 D MC LW 320 B Nautic AL LW 320 B MC / LW 400 B MC LW 450 D Basic / LW 450 D 1.7 litre filter housing	750	225
001461 (4508022K)	62 / 575	LW 570 D 2.3 litre filter housing	1000	300

\* Temperature of the filter housing

## Filter Cartridges

Order number	Content	Equipment	Capacity
<b>CO<sub>2</sub>-removal ≤ 500 ppm</b>			
010381	20 kg	CO <sub>2</sub> filtration unit	80 h @ 1000 ppm
Order number (order number old)	Ø / Length [mm]	Compressor / Filter housing	Capacity
<b>Oil / odour removal &lt; 0,1mg/m<sup>3</sup> (nitrogen / helium / mixmaster applications)</b>			
002310	45 / 200	LW 100 E, LW 100 E1, LW 100 B	1)
001466 (4508005B)	62 / 355	Active Charcoal cartridge for 1.7 litre filter housing	
001467 (3790)	62 / 575	Active Charcoal cartridge for 2.3 litre filter housing	
<b>Air / inertgas drying only &lt; 15 mg/m<sup>3</sup></b>			
002311	45 / 200	LW 100 E, LW 100 E1, LW 100 B	1)
001460	62 / 355	Molecular Sieve drying cartridge for 1.7 litre filter housing	
001462 (8022A)	62 / 355	Molecular Sieve drying cartridge for 2.3 litre filter housing	
<b>CNG Filter (drying and oil removal)</b>			
001468 (8070)	62 / 355	Molecular Sieve drying cartridge for 2.3 litre filter housing	1)

1) Capacity depends on the inlet quality of the gas and the operating conditions, refer to instruction manual

## 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



## Inlet filters

The inlet filter is essential for the operating life of the compressor; it avoids that dirt particles damage valves, pistons and cylinder bores. Filters for different compressor sizes are available.

Inlet Filter Order number new (old)	Compressor
001708	LW 100 / from 2009: LW 200/225/245 LW 150/200/250 E MC
000119 (LW160/190123)	LW 160/170/190/ until 2009: LW 200/225/245
000170 (4507017)	LW 210/230/260/280/300/450/570/720
002662 (1820)	LW 1300



## Service Kits

The service kits contain all required parts for the maintenance interval according to the factory requirements. The use of the L&W service kits ensure that all required parts are ordered and be replaced and gives you the assurance that all parts are included in your order. The service kits include, depending on the model and interval parts such as O-Rings, Sinter Filter, Intake Filter, Silencers, In-& Outlet Valve, Valve Seals and Compressor oil.

**Note: The service kits do not include V-belts.**

### Mobile Compressors

Compressor	Order Number / Working Hours	
	500 h	1000 h
LW 100 E ECO / E1 ECO and LW 100 E / E1	006709	003604
LW 100 B ECO and LW 100 B	006712	006713
LW 160 E	006766	003963
LW 170 E / D	006883	006884
LW 190 B	006766	003963
LW 200 E Nautic (until 2008/ from 2009)	006883 / 007947	006884 / 007949
LW 225 E (until 2008/ from 2009)	006766 / 006771	003963 / 006629
LW 245 B (until 2008/ from 2009)	006766 / 006771	003963 / 006629

### Mobile Compressors - MC series

Compressor	Order Number / Working Hours		
	1000 h	2000 h	4000 h
LW 150 E MC / LW 200 E MC / LW 200 E MC	011169	011170	-
LW 300 D MC	009250	009260	009261
LW 320 B MC	009250	009260	009261
LW 320 E MC	009250	009260	009261
LW 400 B MC	009250	009260	009261
LW 400 E MC	009250	009260	009261

### Compact Compressors

Compressor	Order Number / Working Hours		
	1000 h	2000 h	4000 h
LW 230 E Compact (manual condensate drain / automatic condensate drain)	011061 / 004970	011062 / 003920	-
LW 280 E Compact (manual condensate drain / automatic condensate drain)	011061 / 004970	011062 / 003920	-
LW 320 E Compact (manual condensate drain / automatic condensate drain)	011061 / 004970	011062 / 003920	-
LW 450 E Compact until 06/2016 (manual condensate drain / automatic condensate drain)	011070 / 003841	-	011071 / 003834
LW 450 E Compact from 07/2016 (with automatic condensate drain)	003841	-	009677
LW 450 E III Compact (manual condensate drain / automatic condensate drain pro)	011219 / 009718	-	011220 / 010444
LW 570 E II Compact until 9/2017 (manual condensate drain / automatic condensate drain pro)	010104 / 010013	010105 / 010014	010106 / 010015
LW 570 E II Compact from 10/2017 (manual condensate drain / automatic condensate drain pro)	010104 / 010013	010431 / 010429	010357 / 010355

## Service Kits

### Stationary Compressors

Compressor	Order Number / Working Hours		
	1000 h	2000 h	4000 h
LW 230 E	004970	003920	-
LW 280 E	004970	003920	-
LW 300 E	003841	-	003834
LW 300 E III (until 09/2017 / from 10/2017)	009718 / 009718	-	009719 / 010444
LW 320 E	004970	003920	-
LW 320 E AL Nautic (manual condensate drain / automatic condensate drain)	011061 / 004970	011062 / 003920	-
LW 320 B AL Nautic (manual condensate drain / automatic condensate drain)	011061 / 004970	011062 / 003920	-
LW 450 E (until 06/2016 / from 07/2016)	003841 / 003841	-	003834 / 009677
LW 450 E III (until 09/2017 / from 10/2017)	009718 / 009718	-	009719 / 010444
LW 450 D Basic	011070	-	011071
LW 450 D (until 06/2016 / from 07/2016)	003841 / 003841	-	003834 / 009677
LW 570 E	005166	002272	004029
LW 570 E II (until 09/2017 / from 10/2017)	010013 / 010013	010014 / 010429	010015 / 010355
LW 570 D	005166	002272	004029
LW 720 E	Please indicate serial number and engine speed.		
LW 1300 E	Please indicate serial number and engine speed.		

### Silent Compressors

Compressor	Order Number / Working Hours		
	1000 h	2000 h	4000 h
LW 150 ES	011840	011841	-
LW 200 ES	011840	011841	-
LW 230 ES	004970	003920	-
LW 280 ES	004970	003920	-
LW 300 ES	003841	-	003834
LW 300 ES II (until 06/2016 / from 07/2016)	008619 / 009718	-	008620 / 009719
LW 300 ES III (until 09/2017 / from 10/2017)	009718 / 009718	-	009719 / 010444
LW 320 ES	004970	003920	-
LW 450 ES (until 06/2016 / from 07/2016)	003841 / 003841	-	003834 / 009677
LW 450 ES II (until 06/2016 / from 07/2016)	008619 / 009718	-	008620 / 009719
LW 450 ES III (until 09/2017 / from 10/2017)	009718 / 009718	-	009719 / 010444
LW 570 ES	005166	002272	004029
LW 570 ES II (until 09/2017 / from 10/2017)	010013 / 010013	010014 / 010429	010015 / 010355
LW 700 ES II	010725	010726	010727

## Customer reference list

### Automotive

- » Audi AG
- » BMW AG
- » Daimler AG
- » Volkswagen AG

### Army

- » Marinestützpunktkommando Kiel
- » Wehrtechnische Dienststelle Eckernförde
- » Mobile Atemschutz-Container für diverse Krisengebiete

### Natural gas + Biogas

- » Tankstellen in Deutschland, Niederlande, Belgien, Tschechien, Österreich
- » Biogasanlagen in Deutschland u. Österreich

### Fire department

- » Dräger AG
- » MSA

### Technical gases

- » Air Liquide
- » Linde AG
- » Westfalen AG

### Industry

- » ABS - Lawinenairbags
- » AIRCO SystemDruckluft GmbH
- » BASF SE
- » Bilfinger SE
- » Gardner Denver, Ltd.
- » Maximator GmbH
- » ThyssenKrupp Marine Systems GmbH

### Universities + Hospitals + Schools

- » HBO Zentrum Euregio Aachen
- » Luft u. Raumfahrtzentrum Köln
- » RWTH – Aachen
- » Staatliche Lehr u. Versuchsanstalt Heidelberg
- » Universität Mainz
- » Universität Stuttgart
- » Universität Köln
- » Uniklinikum Regensburg

### Electricity / Gas supplier

- » E.ON Kraftwerke GmbH
- » Evonik Degussa
- » Evonik Industries
- » Kernkraftwerk Isar
- » Kernkraftwerk Philippsburg
- » RWE Power AG

### Maritime

- » AIDA Cruises
- » Carnival Cruise Line
- » Costa Crociere S.p.A.
- » MSC Cruises
- » Sunseeker International

### Various

- » Aqua Lung
- » GREENPEACE
- » National Geographic Society
- » Sauer & Sohn Kiel
- » Walter AG
- » ZDF Mainz



## Seminars / Training courses at L&W

In our training courses we teach you the basics for the knowledgeable and reliable handling of our compressors and filling devices. You will receive practical skills that allow you to expand your skills in terms of compression technology and air conditioning essential.

All participants will receive a certificate of participation. Participation in the trainings enable you to hold regular training of personnel in accordance with the provisions of the BG.

For questions about our training, please contact:

### Lenhardt & Wagner GmbH

Mrs. Kerstin Stippel

An der Tuchbleiche 39

68623 Hüttenfeld / Germany

Phone: +49 (0)62 56 / 8 58 80 -21

Fax: +49 (0)62 56 / 8 58 80 -14

eMail: [kstippel@lw-compressors.com](mailto:kstippel@lw-compressors.com)

### Compressor Seminar

max. 24 persons, duration: approx. 7h

In this seminar, the basics of the following topics are covered in theory:

- » Compressor technology, maintenance, troubleshooting
- » Legal Notices
- » Air conditioning and air quality testing
- » Production and use of Nitrox

The seminar also includes instruction for filling high pressure cylinders.





## L&W - World Wide

Our worldwide network of dealers and service centers.



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

### Lenhardt & Wagner GmbH

An der Tuchbleiche 39  
68623 Hüttenfeld / Germany

Phone: +49 (0)62 56 / 8 58 80 -0

Fax: +49 (0)62 56 / 8 58 80 -14

eMail: [service@lw-compressors.com](mailto:service@lw-compressors.com)



Current product range as pdf



[www.lw-compressors.com](http://www.lw-compressors.com)