OILTECH®
OLAER GROUP

The Professional Choice – in Fluid Management

WEGO3

Cooling and filter system

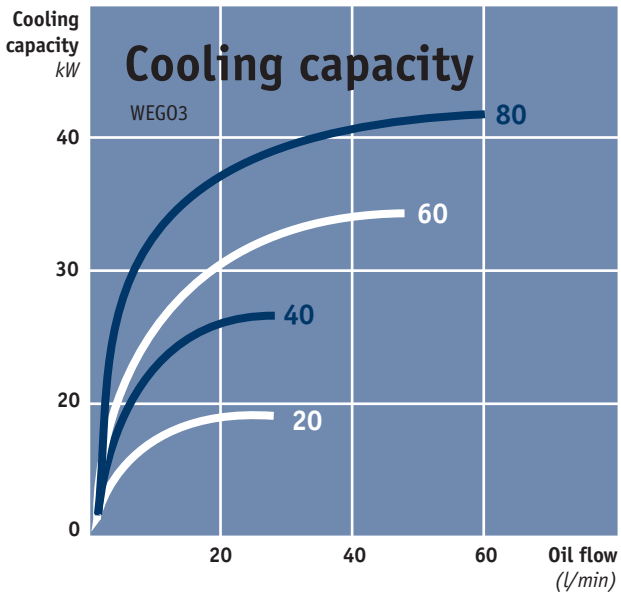
OLAER® OILTECH® OILAIR FCH

The Olaer Group is a global player specialising in innovative, efficient system solutions for temperature optimisation and energy storage. All over the world, our products operate in the most diverse environments and applications, e.g. the aircraft, engineering, steel and mining industries, as well as in sectors such as oil and gas, contracting and transport, farming and forestry, renewable energy, etc.

WEGO3

Off-line system for greater reliability and longer service life

WEGO3 is an off-line system for the cooling and filtration of oils in hydraulic and lubricant oil systems. The importance of the right temperature and degree of cleanliness cannot be emphasised enough and is a guarantee that your system is working at maximum efficiency. In an off-line circuit the system can operate 24 hours a day independently of the main system, avoiding any changes in pressure and flow, which ensures optimum cooling and filtration of the oil. A longer service life for the system fluid and for the components of the entire system, plus greater reliability and lower maintenance costs are excellent reasons for installing a WEGO3 in your plant.



The cooling capacity is based on ISO VG 46 oil. Oil inlet temperature 60°C. Water inlet temperature 20°C. Flow ratio oil/water 2:1.

Compact, economical and easy to install

The compact design, with functions for water cooling, filtration and circulation of the oil in a single unit, makes it very economical and easy to install even when you are rebuilding an existing system. The extra cost is negligible when you bear in mind how much you'll gain from a system that operates smoothly and requires only minimal maintenance.
Standard pump capacity 20, 40, 60 or 80 l/min.
Standard cooling capacity 10, 20, 30 or 40 kW.

Fields of application

The WEGO3 is ideal in equipment with:

- Low oil flow
- Unfiltered return and drainage flows
- Instantaneous high oil flow
- Large differences in temperature

Other suitable fields of application are:

- Contaminated environments
- Filling systems

The WEGO3 cooling and filter system is designed to meet the industry's strict requirements for clean oil with an ideal working temperature.

The WEGO3 is suitable for working with

- Mineral oils
- Vegetable oils
- Synthetic oils
- Turbine oils

Low initial pressure drop

For good filter economy the WEGO3 is sized for low initial pressure drop across the filter.

Oil side standard parts

- Pump with integrated pressure relief valve with opening pressure of 10 bar.
- Bypass valve in the filter housing.
- Visual or electrical pressure drop indicator

Oil side options

- Thermo contact
- Flow control
- Pressure switch

Water side options

- Self-acting water control valve, AVTA type with bulb
- Water cut-off valve
- Water filter with adaptor

Other options

- Wall bracket with vibration dampers.

Coreless/cageless design
Outer element cage is a permanent part of the filter housing.

Benefits: Lighter, environmentally friendly element for reduced disposal costs and ease of element change-out.

Proprietary cushion layer
Provides support for the media and protection from handling.

Benefits: Reliable, consistent performance.

Material
Inert, inorganic fibres securely bonded in a fixed, tapered pore structure with increase resistance to system stresses such as cyclic flow and dirt loading.

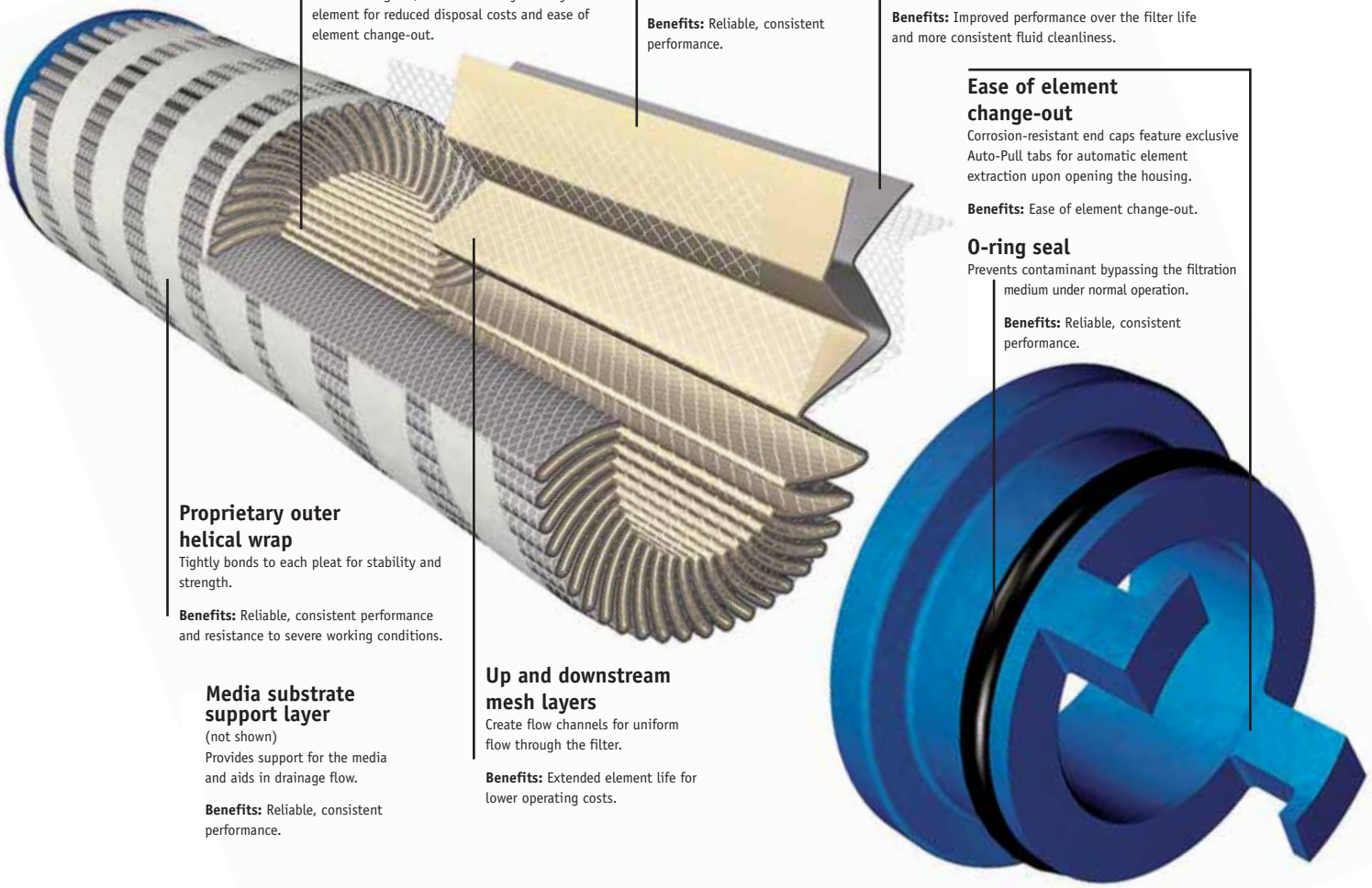
Benefits: Improved performance over the filter life and more consistent fluid cleanliness.

Ease of element change-out
Corrosion-resistant end caps feature exclusive Auto-Pull tabs for automatic element extraction upon opening the housing.

Benefits: Ease of element change-out.

O-ring seal
Prevents contaminant bypassing the filtration medium under normal operation.

Benefits: Reliable, consistent performance.



Proprietary outer helical wrap
Tightly bonds to each pleat for stability and strength.

Benefits: Reliable, consistent performance and resistance to severe working conditions.

Media substrate support layer
(not shown)
Provides support for the media and aids in drainage flow.

Benefits: Reliable, consistent performance.

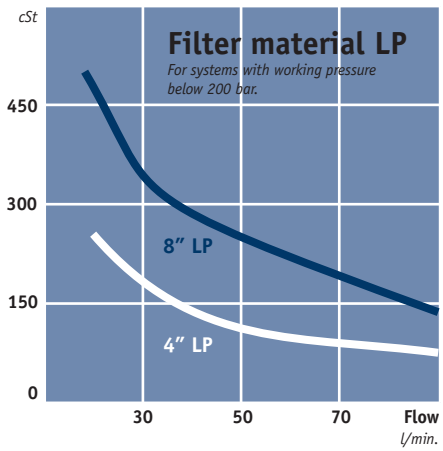
Up and downstream mesh layers
Create flow channels for uniform flow through the filter.

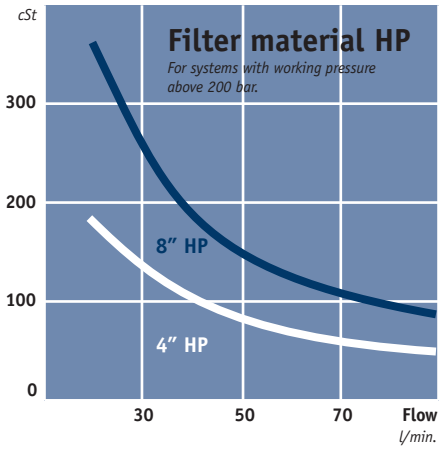
Benefits: Extended element life for lower operating costs.

Good things come in small packages...

Characteristics
- Stress-resistant design
- Uniform pore size control layer
- Tapered pore structure
- Epoxy resin bonded fibre matrix with small fibre size
- Anti-static design

Benefits
- Enhanced performance under cyclic flow and pressure conditions
- Maintained efficiency during the entire life
- Dirt captured throughout the media depth
- High particles removal efficiency
- Minimized static charge generation and electrostatic discharge





Choose the right filter element:

1) **Filter material HP or LP**
   – depends on pressure level, i.e. the system's average pressure.

2) **The filter's flow capacity**
   – the oil flow is determined by the WEGO3 cooling and filter system model.

3) **The length of the filter element**
   – depends on the operating viscosity. The pressure drop over the filter element is proportional to the viscosity, e.g. oil that is three times as thick produces a pressure drop that is three times as high.

The FX3 original filter gives you constantly cleaner oil, more lasting system protection and greater stability during operation at varying flow and pressure.

The FX3 captures dirt along the whole length of the filter material and retains efficiency throughout its useful life.

The element is easy to replace, it comes out when you unscrew the cover - it couldn't be simpler.

FX3 Original Filter

element makes difference

Why not clean the oil while cooling it? Equipped with our filter unit FX3 the oil will be cleaned in a separate circuit, an ideal complement to the system filter. Our filter unit FX3 is available as option.

Filter technique

Designing filter media has traditionally been a question of balance. By making the medium finer, more efficient and cleaner, a pressure drop occurs and/or the servicable life is sacrificed. To get a lower cleaner pressure drop the removal efficiency is sacrificed. With FX3 filter media has improved the filter's ability to maintain fluid cleanliness, while at the same time increasing flow capacity (reducing pressure drop). The result is a better and more consistent system protection, i.e. high flow capacity in a small envelope size, optimum performance at stages of filter life, i.e. optimum performance under cyclic flow and pressure conditions for consistently cleaner fluid.

FX3
FILTER UNIT

- Compact
- Environmental-friendly
- Highly efficient

Key to WEGO3 cooling and filter system

All positions must be filled in when ordering.

EXAMPLE:

WEGO3 - 20 - 4 - D - 0.75 - H - 20 - A - D - 0

1 2 3 4 5 6 7 8 9 10

1. TYPE OF COOLING AND OIL FILTER = WEGO3

2. PUMP SIZE

Pump flow 10 l/min.*	10
Pump flow 20 l/min.	20
Pump flow 40 l/min.	40
Pump flow 60 l/min.	60
Pump flow 80 l/min.	80

** = Refers to 8-pole motor.*

3. NUMBER OF POLES

4-pole	4
8-pole (only for WEGO3 10 l/min.)	*8*

4. ELECTRIC MOTOR

Trefas 220-240/380-420 50 Hz 440/480 60 Hz	= D
Three-phase 500 50 Hz	= E
Three-phase 400/690 50 Hz 440/480 60 Hz	= F
Three-phase 525 50 Hz	= G
Motor for special voltage *(stated in plain text)*	= X

5. OUTPUT

0.25 kW *(only for 10 l/m)*	0.25
0.75 kW	0.75
1.50 kW	1.50

6. BUILT-IN BYPASS VALVE

Built-in bypass valve, 10 bar	= H

7. NUMBER OF PWO PLATES

WEGO3 20	= 20
WEGO3 40	= 30
WEGO3 60	= 40
WEGO3 80	= 50

8. FILTER UNIT FX3 *(sizing, see page 4)*

Filter unit with 4" element HP	= A
Filter unit with 4" element LP	= B
Filter unit with 8" element HP	= E
Filter unit with 8" element LP	= F

9. PRESSURE DROP INDICATOR

Visual pressure drop indicator with manual reset.	= D
Visual pressure drop indicator with thermo guard and manual reset. No signal below 0°C, signal above +29°C.	= P
Electric pressure drop indicator with automatic reset. Connection in accordance with DIN 43650 ISO 4400 (Hirschmann) IP 65.	= M
Electric pressure drop indicator with 2-pole AMP contact.	= U

10. STANDARD/SPECIAL

Standard	= 0
Special	= Z

Technical specification

Maximum negative pressure in the pump's suction line with oil-filled pump	0.4 bar
Recommended oil viscosity	15-320 cSt
Max. oil temperature	100 °C

Contact us for information on applications with higher oil temperatures or other extreme operating conditions.

3-PHASE MOTOR

3-phase asynchronous motor in accordance with IEC 60072	
Insulation class	F
Rise of temperature	B
Protection class	IP 55

OIL SIDE OPTIONS

Thermo contact for monitoring the oil temperature and warning signal for/control of the water valve.
Fixed temperature: 40/50/60/70/80°C.

Flow control for monitoring the oil flow.

Pressure indicator to monitor working pressure.

Socket with G¼ connection for test point e.g. to control working pressure or for oil sampling.

WATER SIDE OPTIONS

Self-acting water control valve, AVTA type with bulb for controlling the oil temperature.

Water cut-off valve to regulate the water supply, i.e. control the oil temperature via the thermo contact.

Water filter with adaptor for filtration of contaminated cooling water.

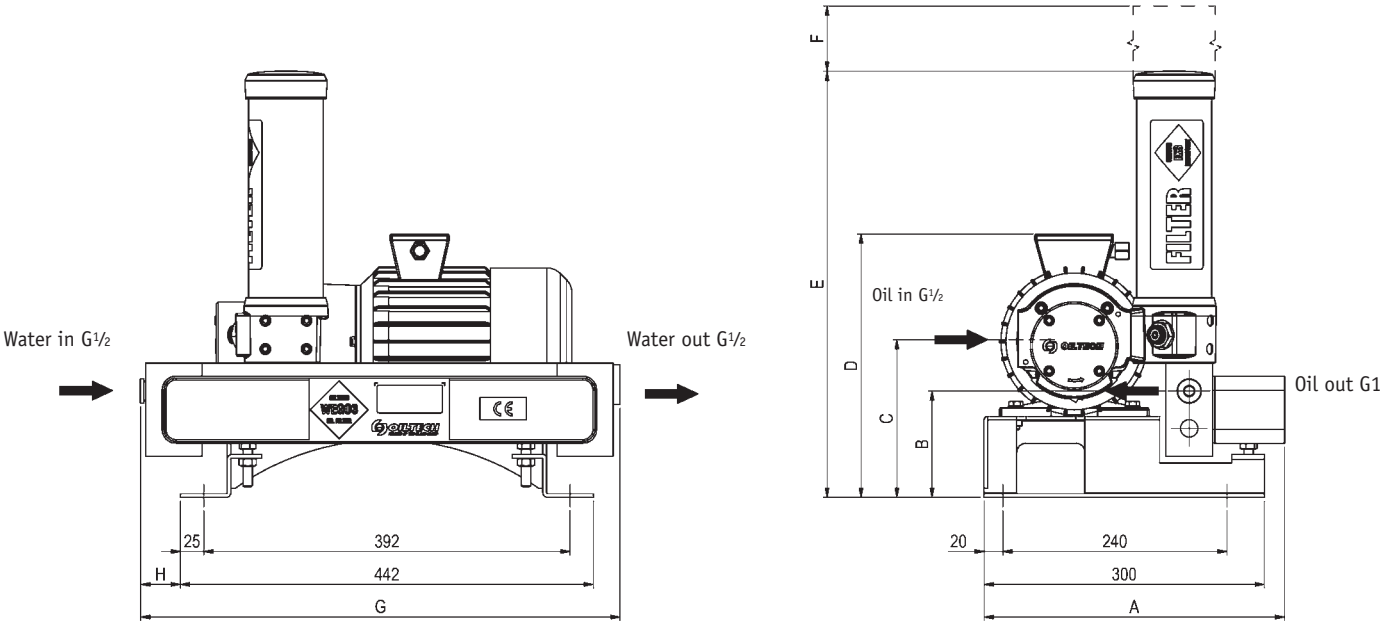
OTHER OPTIONS

Wall bracket with vibration dampers

OIL SIDE STANDARD PARTS

Pump with integrated pressure relief valve with opening pressure of 10 bar.

Bypass valve in the filter unit	3.5 bar



TYPE	DIMENSIONS mm							
	A	B	C	D	E	F	G	H
WEGO3 20-4-D-0.75-H-20-A	299	121	169	282	357	150	514	43
WEGO3 20-4-D-0.75-H-20-E	299	121	169	282	456	250	514	43
WEGO3 40-4-D-0.75-H-30-A	322	121	169	282	357	150	514	43
WEGO3 40-4-D-0.75-H-30-E	322	121	169	282	456	250	514	43
WEGO3 40-4-D-1.50-H-30-A	322	131	179	307	367	150	537	88
WEGO3 40-4-D-1.50-H-30-E	322	131	179	307	466	250	537	88
WEGO3 60-4-D-0.75-H-40-A	344	121	169	282	357	150	514	43
WEGO3 60-4-D-0.75-H-40-E	344	121	169	282	456	250	514	43
WEGO3 60-4-D-1.50-H-40-A	344	121	179	307	367	150	537	88
WEGO3 60-4-D-1.50-H-40-E	344	121	179	307	466	250	537	88
WEGO3 80-4-D-1.50-H-50-A	368	121	179	307	367	150	537	88
WEGO3 80-4-D-1.50-H-50-E	368	121	179	307	476	250	537	88
WEGO3 80-4-D-2.20-H-50-A	394	141	189	327	377	150	583	94
WEGO3 80-4-D-2.20-H-50-E	368	121	179	307	476	250	583	94

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The Olaer Group develops, manufactures and markets products and systems in six business areas.

Global perspective

and local entrepreneurial flair

The Olaer Group is a global player specialising in innovative, efficient system solutions for temperature optimisation and energy storage.
The Group develops, manufactures and markets products and systems for a number of different sectors, e.g. the aircraft, engineering, steel and mining industries, as well as for sectors such as oil and gas, contracting and transport, farming and forestry, renewable energy, etc.
All over the world, our products operate in the most diverse environments and applications. One constantly repeated demand in the market is for optimal energy storage and temperature optimisation.
We work at a local level with the whole world as our workplace – local entrepreneurial flair and a global perspective go hand in hand.
Our local presence, long experience and a wealth of knowledge combined with our cutting-edge expertise to give you the best possible conditions for making a professional choice.

OLAER® GROUP

The Professional Choice – in Fluid Management

Olaer Group Network

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