

# Pump Dynamis



## Product characteristics:

- + Pump for single-line, progressive and spray systems in wind power stations and for industrial applications
- + Lubricant: grease, liquid grease up to NLGI class 2
- + Discharge pressure max. 160 and 300 bar
- + Internal electric control (optional)
- + Max. 16 outlets with flanged progressive distributor (optional)
- + Filling connection



## Application

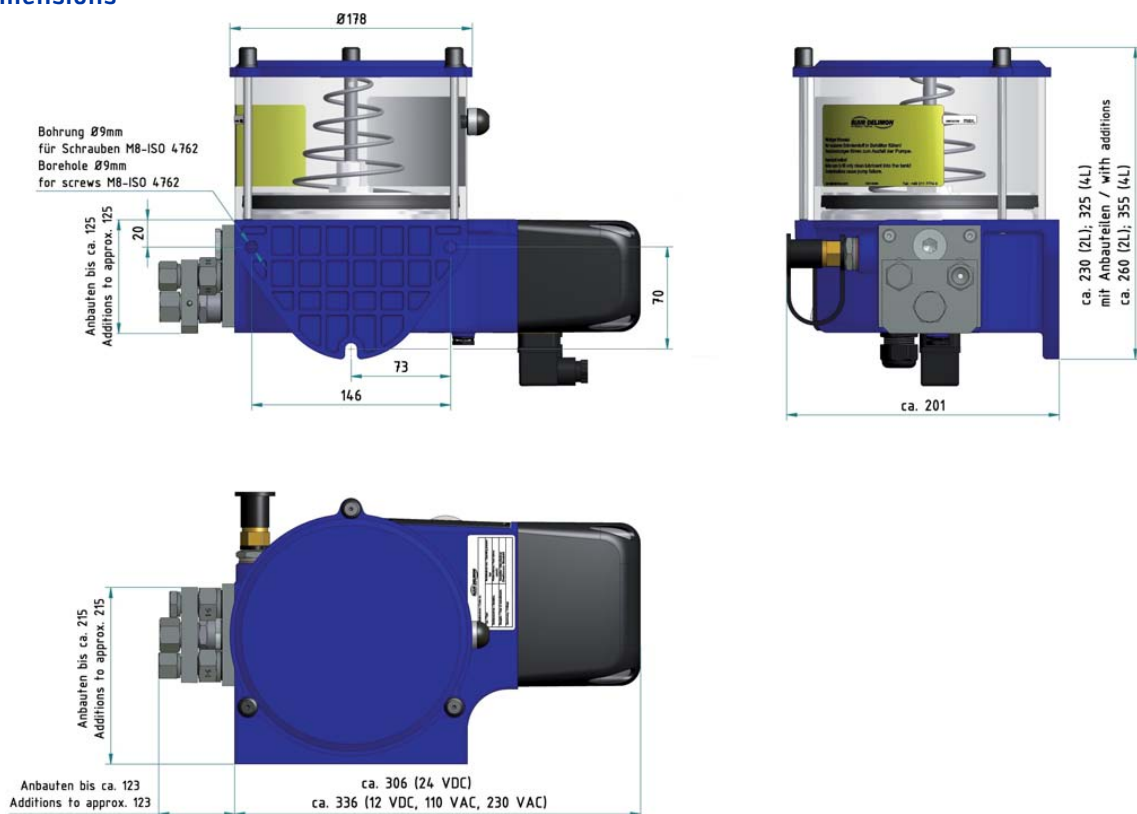
The DYNAMIS pump was designed and developed to serve as a multi-function automatic lubricant pump. Due to its compact size and modular design, the pump can easily be modified for use in wind turbine power stations, general industry, commercial vehicle and spraying applications.



## Advantages:

- + easy installation with re-integrated distributor and control
- + easy monitoring of all functions
- + robust and reliable (housing made of aluminium) even when used in vertically rotating systems
- + Add-on system for various applications
- + high level of corrosion resistance due to powder and zinc-nickel coating
- + energy-saving

## Dimensions

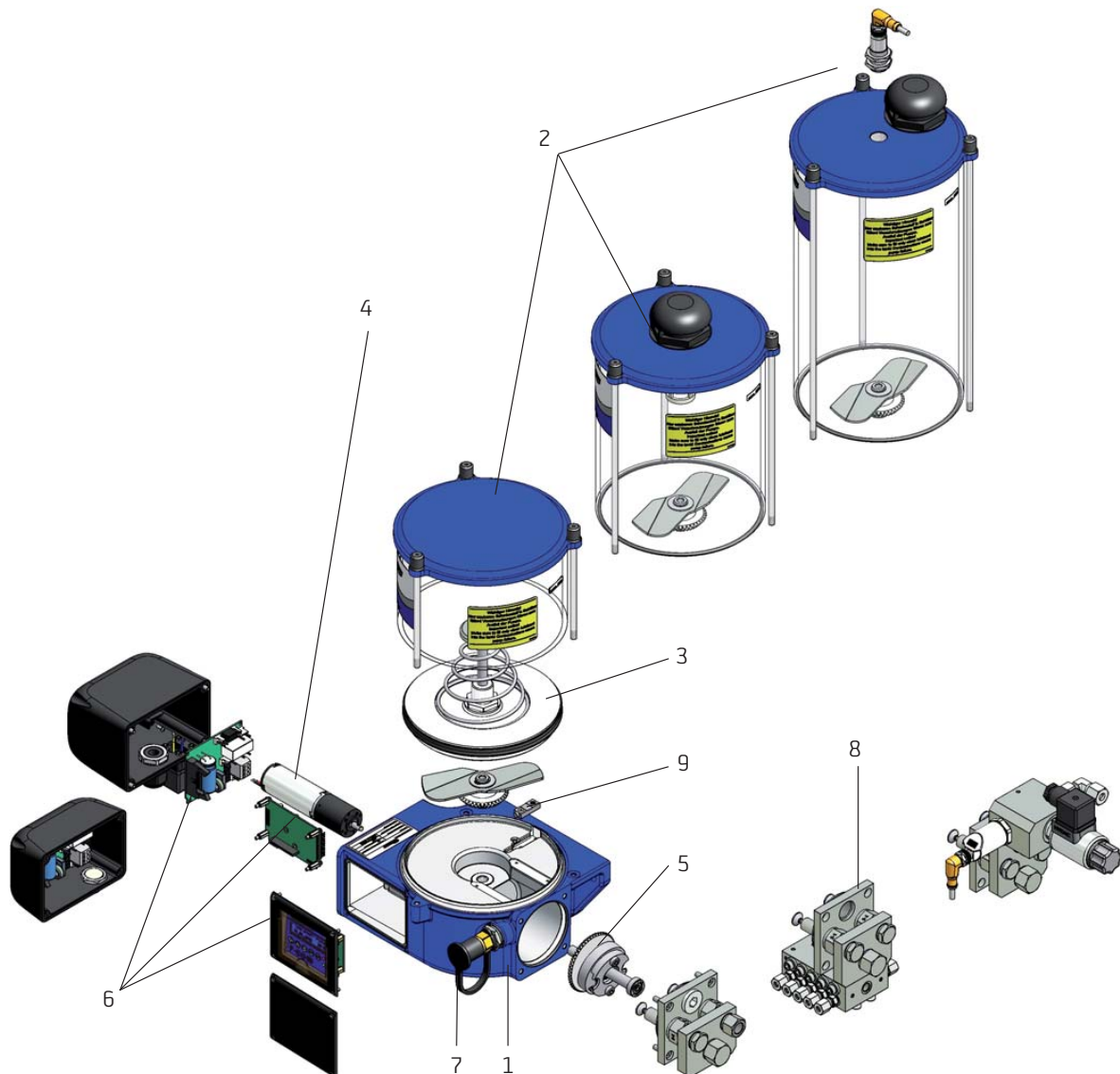


## Design and Function

The unit consists of a pump housing (Figure 1), a reservoir (Figure 2), a guide rod module with spring loaded piston (Figure 3), gear motor module (Figure 4) and a drive shaft module (Figure 5). A compact electronic control module (Figure 6) is optional. A filling junction (Figure 7) is provided. Adaption of the unit for a variety of applications is accomplished by means of a connection module (Figure 8) consisting of a base plate and one or two pressure relief valves.

A proximity sensor (Figure 9), located on the top side of the housing, provides a signal to the control just prior to the follower piston reaching its low end position; (minimum filling level). By varying the modules, the pump may be utilized with internal or external progressive distributor(s), single-line injectors with electric reversing, or in spray lubrication applications.

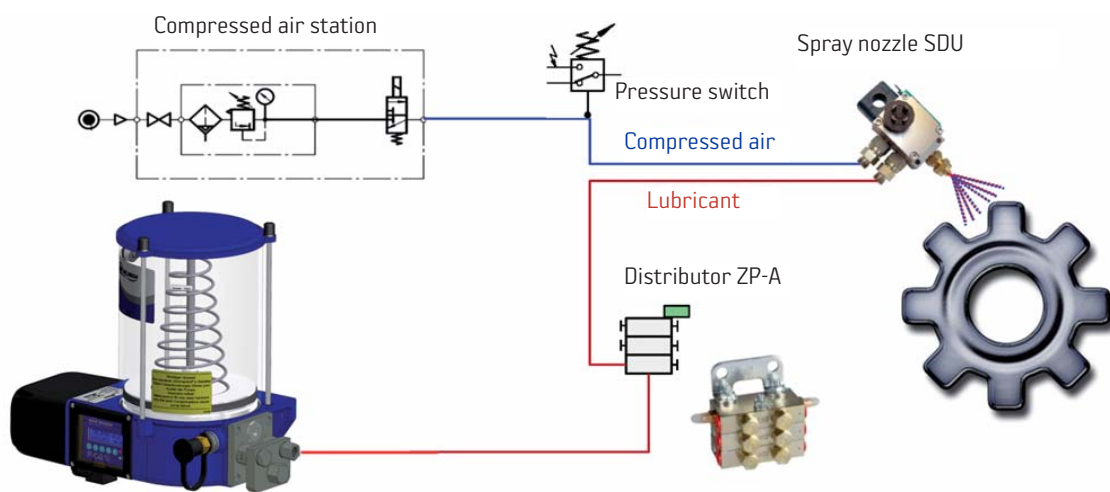
Many combinations are possible through mix and match utilization of various functional plates, pump elements and pressure relief valves; making this an extensively flexible modular system.



### System versions:

- + Pump version with free outlet
- + Pump version for progressive systems (integrated progressive distributor)
- + Pump version for progressive systems (externally located progressive distributors)
- + Pump design for single line systems

### Example of an application use with the SDU spray nozzle



## Technical Data

### General details

Operating pressure max.:	160 and 300 bar
Tank size:	2.0 liter and 4.0 liter reservoir
Number of outlets max.:	1 or 2, combinations possible
Lubrication outlet:	G 1/4
Output volume (combination of the pump elements):	2.5 - 5.0 cm <sup>3</sup> /min
Temperature range:	- 40° to + 75°C
Lubricants:	NLGI grade 2 (liquid) grease
Degree of protection :	IP 67
Material:	Steel for pressure loaded parts, aluminium die casting for housing, plastics for reservoir

### Electrical control

Supply voltage:	option of 12 / 24 V DC or 115 / 230 V AC, 50 - 60 Hz
Operating section:	<ul style="list-style-type: none"> <li>- optional <math>\mu</math>-controller based on pCo</li> <li>- display with plain text display</li> <li>- filling level switch empty (standard)</li> <li>- monitoring of distributors, overpressure, air pressure, oil pressure</li> <li>- optional communication interface for Profibus, CAN, MPI...</li> <li>- memory module for date and time</li> </ul>

## Coding / Example of order

	Code									
	DYN	ML	B	1	1	A	H	2	04	00
<b>Pump type</b> Pump DYNAMIS	DYN									
<b>Lubrication system</b> Multi-line / version with free outlet (outlets) Version for single-line systems Version for progressive systems Version for spraying lubrication systems Version for air-oil systems * results from system selection		ML * * * *								
<b>Revision</b> Status			B							
<b>Version of pump element 1</b> 1.3 cm <sup>3</sup> /min 2.5 cm <sup>3</sup> /min (only used up to 160 bar)				1 2						
<b>Version of pump element 2</b> 1.3 cm <sup>3</sup> /min 2.5 cm <sup>3</sup> /min (only used up to 160 bar)					1 2					
<b>Version of pressure relief valve / outlet connection</b> Pump element connected - 160 bar Pump element connected - 300 bar Pump element separated - 160 bar Pump element separated - 300 bar						A D G J				
<b>Reservoir size</b> 2.0 liter without follower plate, without level monitoring (only for oil) 2.0 liter with follower plate (only for grease and fluid grease) 2.0 liter with follower plate, with level monitoring EMPTY (only for grease and fluid grease) 4.0 liter without follower plate, without level monitoring (only for oil) 4.0 liter with follower plate (only for grease and fluid grease) 4.0 liter with follower plate, with level monitoring EMPTY (only for grease and fluid grease)							A C D E G H			
<b>Operating voltage</b> 12 V DC 24 V DC 115 V AC, 7 15% / 50 - 60 Hz 230 V AC, 7 15% / 50 - 60 Hz								1 2 3 4		
<b>Controller / Interface</b> internal controller, 1 x plug M 12x1, 5-pole internal controller, 1 x plug M 12x1, 5-pole + 1 x plug M 12x1, 8-pole internal controller, 1 x plug M 12x1, 5-pole + cable duct M 20x1.5 internal controller, 1 x plug M 12x1, 5-pole + 1 x plug M 12x1, 8-pole + cable duct M 20x1.5 internal controller, 1 x plug DIN 43650, 3-pole internal controller, 1 x plug DIN 43650, 3-pole + 1 x plug M 12x1, 8-pole internal controller, 1 x plug DIN 43650, 3-pole + cable duct M 20x1.5 internal controller, 1 x plug DIN 43650, 3-pole + 1 x plug M 12x1, 8-pole + cable duct M 20x1.5 Advice: Plug connector M 12x1, 5-pole - for 24 V DC pump type only to supply the pump Plug connector DIN 43650, 3-pole - for each pump type to supply the pump Plug connector M 12x1, 8-pole - for status signals exchange with the customer Cable gland M 20x1.5 with 3-fold seal insert for connection of sensors/pressure switches within the pump without controller, 1 x plug M 12x1, 5-pole without controller, 1 x plug M 12x1, 5-pole + 1 x plug M 12x1, 4-pole without controller, 1 x plug DIN 43650, 3-pole without controller, 1 x plug DIN 43650, 3-pole + 1 x plug M 12x1, 4-pole Advice: Plug connector M 12x1, 5-pole - for 24 V DC pump type only to connect the gear motor Plug connector DIN 43650, 3-pole - for each pump type to connect the gear motor Plug M 12x1, 4-pole - for level monitoring EMPTY									01 02 03 04 05 06 07 08  11 12 15 16	
<b>Accessories</b> without 1x cable connector M12x1, 5-pole 1x cable connector M12x1, 5-pole + 1x cable connector M12x1, 8-pole 1x cable connector M12x1, 5-pole + 1x cable connector M12x1, 4-pole 1x cable connector DIN43650, 3-pole 1x cable connector DIN43650, 3-pole + 1x cable connector M12x1, 8-pole 1x cable connector DIN43650, 3-pole + 1x cable connector M12x1, 4-pole										00 03 04 05 06 07 08

### Recommended accessories (must be ordered separately)

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- |    |  |           |
|----|--|-----------|
| 1. | Connection to voltage supply<br>Suitable cable: PVC NYSLYÖ-J 3 x 1 mm <sup>2</sup>               | 769212643 |
| 2. | Connection of signals<br>Suitable cable: UNITRONIC® PUR CP control line 7 x 0.25 mm <sup>2</sup> | 769217027 |

If the pump is ordered without internal control, the attached electrical devices (valves, pressure switch, monitoring switches) must be wired by the user.

The factory offers the valves as standard with line sockets without any protection circuit. At 230 V AC supply voltage, the standard line sockets can be used without a protection circuit; for 24V DC supply voltage we offer you the following line sockets with protection circuit:

- |    |   |           |
|----|---|-----------|
| 3. | Connection for valves   |           |
|    | a. Line socket DIN 43650 with protection circuit and status LED | 769289233 |
|    | b. Suitable cable: PVC NYSLYÖ-J 3 x 1 <sup>2</sup>              | 769212643 |
| 4. | Connection of pressure switch for a single-line system          |           |
|    | a. Line socket 4-pole, angular, M 12x1 with 2 m cable           | 76928E042 |
| 5. | Connection of monitoring switch 669251311 (relief valve)        |           |
|    | a. Selection as per data sheet                                  | 669251311 |
| 6. | Counterpart of the filling connection                           | 734142583 |