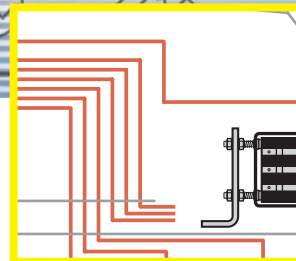
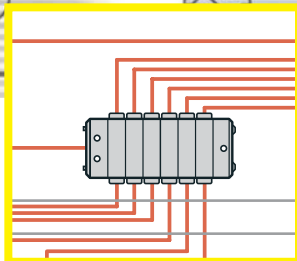


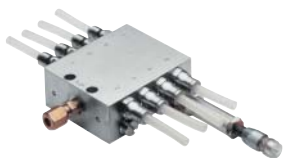
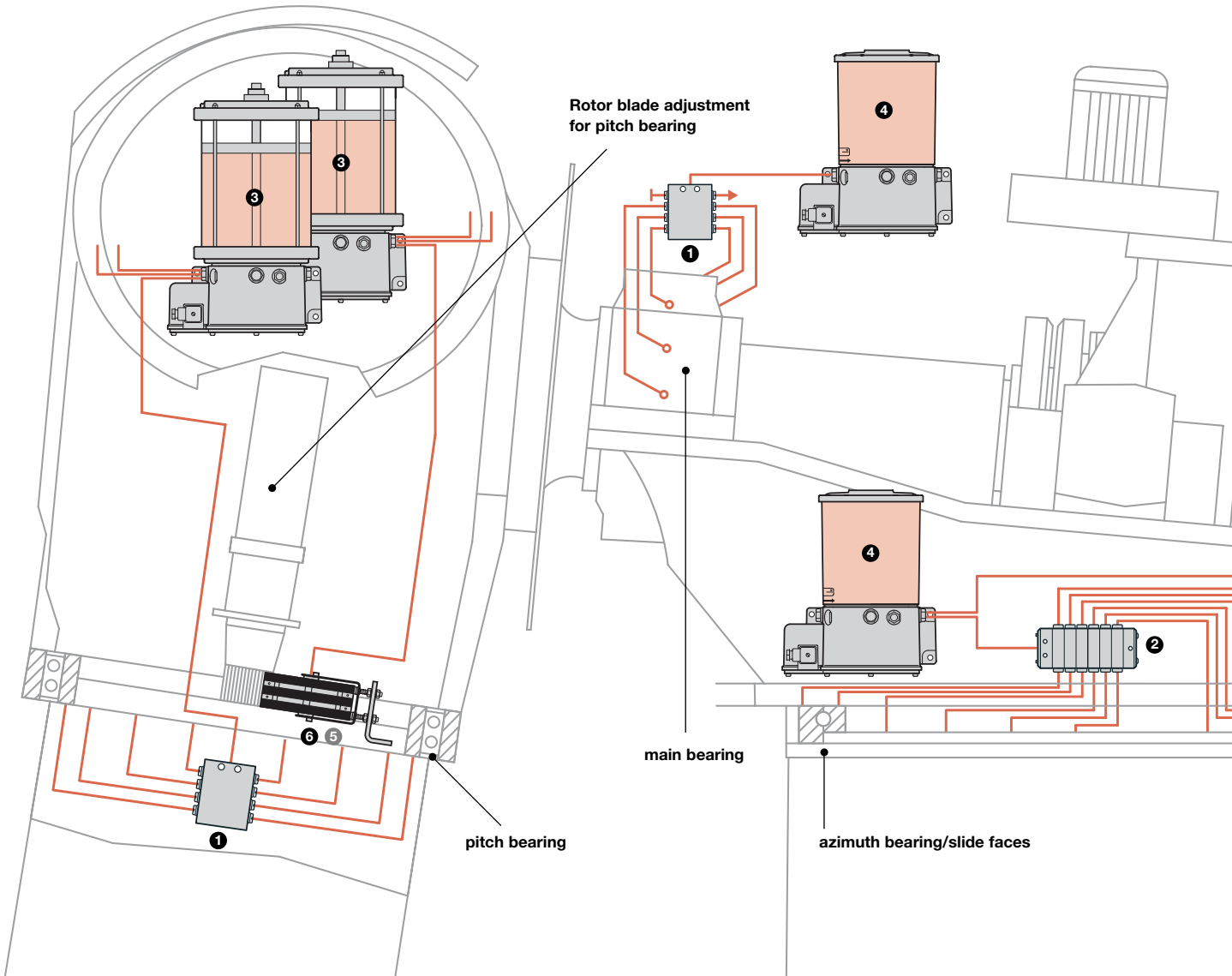
The central oil and grease lubricating system for all lubrication tasks in wind energy stations



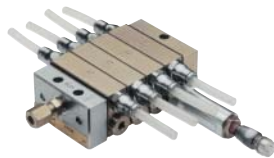
WINDLUB® central lubricating system

System advantages

- Pinpoint accurate distribution of lubricant in the contact area
- Precisely adjustable dosing tailored to requirement
- Electrical monitoring of the lubricating system
- Grease container with effective sealing system on the grease follower plate
- Lubricating pump with exchangeable container
- Discharge of used lubricant by means of a lubricant collector



1 Progressive distributor
block type VPBM – with optional monitoring (piston detector) and/or VOGEL quick connector



2 Progressive distributor
plate type VPKM – with optional monitoring (piston detector) and/or VOGEL quick connector

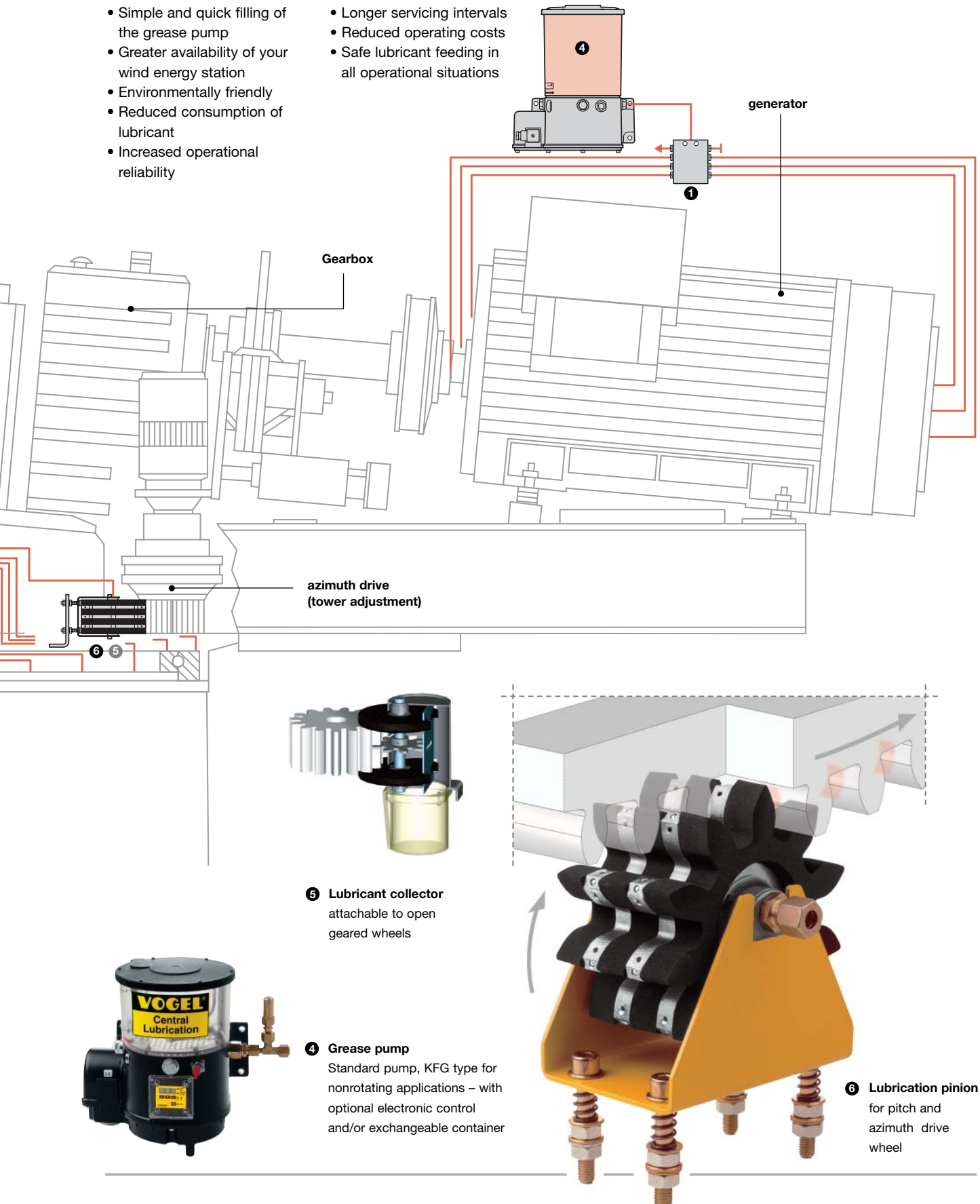


3 Grease pump
Special pump for rotating applications – with optional exchangeable container

for all lubricating tasks that apply to wind energy stations

resulting in

- Simple and quick filling of the grease pump
- Greater availability of your wind energy station
- Environmentally friendly
- Reduced consumption of lubricant
- Increased operational reliability
- Longer servicing intervals
- Reduced operating costs
- Safe lubricant feeding in all operational situations



5 Lubricant collector
attachable to open
geared wheels

4 Grease pump
Standard pump, KFG type for
nonrotating applications – with
optional electronic control
and/or exchangeable container

6 Lubrication pinion
for pitch and
azimuth drive
wheel

WINDLUB® oil circulation system

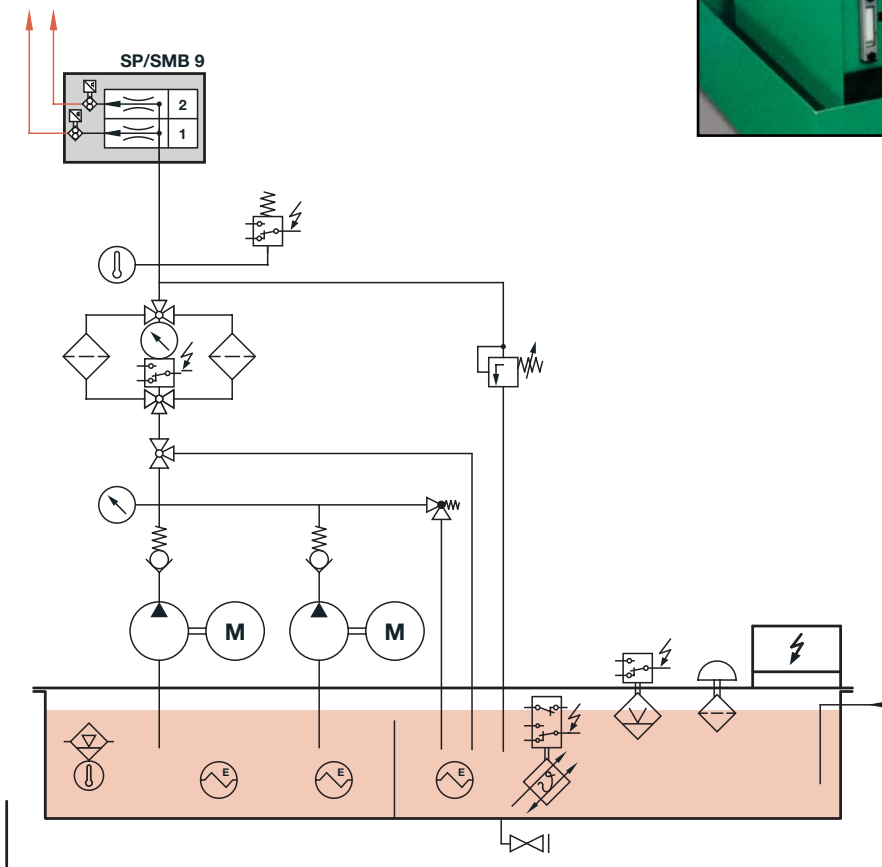
The oil circulation system is appropriate whenever large quantities of oil are needed for both lubricating and cooling friction points.

System advantages

- Constant flow, tailored to requirements
- Volumetric monitoring of oil quantity

resulting in

- High degree of operational reliability
- Longer working life of the bearings
- Reduced maintenance intervals



The SP/SMB9 volume limiter with gearwheel-type flow indicator in modular construction on mounting plate

Properties:

- Constant flow, in a wide range independent of pressure or temperature
- Dynamically operating flow control



Willy Vogel AG
 Motzener Straße 35/37
 12277 Berlin, Germany
 PF 97 04 44 · 12704 Berlin
 Tel. +49 (0) 30-720 02-0
 Fax +49 (0) 30-720 02-111
 info@vogel-berlin.de
 www.vogelag.com

Willy Vogel AG
 2. Industriestraße 4
 68766 Hockenheim
 Germany
 Tel. +49 (0) 62 05 / 27-0
 Fax +49 (0) 62 05 / 27-101
 info@vogel-fluidtec.de
 www.vogel-fluidtec.de

VOGEL France SAS
 Rue Robert Arny, B.P. 130
 49404 Saumur cedex
 France
 Tel. +33 (0) 241 404 200
 Fax +33 (0) 241 404 242
 info@vogelfrance.com
 www.vogelfrance.com