

# CombiFlex

Vertical Centrifugal Pump



# Top performing, space-saving vertical centrifugal pumps

## COMBIFLEX

The CombiFlex series' hydraulic field complies with EN 733. The space-saving design and the several positions of suction and pressure flange enable flexible mounting even in the smallest locations. Whether you require a workhorse for cramped quarters onboard ship or an easy-to-connect, versatile industrial pump, the CombiFlex series of vertical centrifugal pumps is your choice for pumping thin, clean or slightly contaminated liquids.

The CombiFlex's variable position suction and pressure connections together with its vertical build results in an economic space-saving installation. In addition to its impressive hydraulic range, the availability of several materials and shaft sealing options makes the CombiFlex a versatile pump with a large application area.

## PUMP CHARACTERISTICS

- Vertical space saving design
- Several positions of suction and discharge flange (8 x 45°)
- Seals externally flushed by pumped medium
- Available in several materials
- High pump efficiency
- Heavy duty design
- Very rigid shaft design
- Top-Pull-Out principle
- Foot pads and lantern pieces as profiled steel elements or tubular design with opening for suction bend top pull out
- Easy maintenance

	COMBIFLEX	COMBIFLEX BLOC*	COMBIFLEX UNIVERSAL*
MAX. CAPACITY	1500 m³/h	720 m³/h	1500 m³/h
MAX HEAD	140 m	100 m	160 m
MAX WORKING PRESSURE	1600 kPa**	1000 kPa**	2500 kPa**
MAX. TEMPERATURE	110°C	160°C	200°C
MAX. SPEED	3600 RPM	3600 RPM	3600 RPM

\* MAX WORKING PRESSURE  
\*\* DEPENDING ON MATERIALS

	STANDARD MATERIALS		
PUMP CASING	CAST IRON	NODULAR CAST IRON	BRONZE
IMPELLER	CAST IRON/BRONZE/ALUMINUM BRONZE		
SHAFT SLEEVE	BRONZE / STAINLESS STEEL		
SHAFT	STAINLESS STEEL		
SUCTION BEND	CAST IRON	CAST IRON	BRONZE

## CombiFlexBloc

availability on request

**CombiFlexBloc**, offering an even shorter design with the impeller mounted directly on an extended motor shaft or a stub shaft.

### BEARING

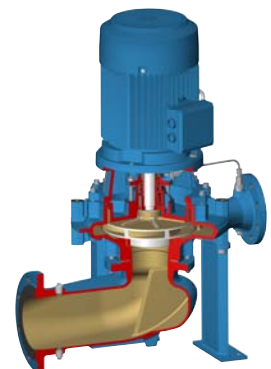
- pump shaft bearing provided by motor bearings

### SHAFT SEALING

- stuffing box; with or without water-cooling
- unbalanced and balanced mechanical seals
- single and double cartridge seals

### DESIGN

- mounted to a vertical flange motor by means of a lantern piece and stub shaft or a special electric motor with an extended shaft.
- compact build



## CombiFlex

The standard **CombiFlex** comes in two versions; with a spacer coupling for utilizing the Top-Pull-Out principle, or a standard coupling for a shorter design (CombiFlexBloc). The CombiFlex is provided with a mechanical seal according to EN 12756 mounted on a bronze shaft sleeve.

### BEARING

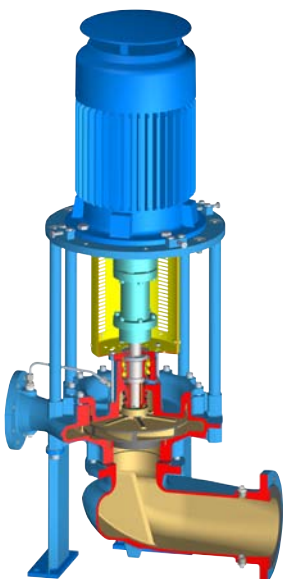
- 2 angular contact ball bearings in 'O'-arrangement
- proven arrangement for short shaft designs
- axially fixed with shaft nut and retaining ring
- reliable bearing fixation, easily replaceable
- grease lubricated
- re-greasing possible

### SHAFT SEALING

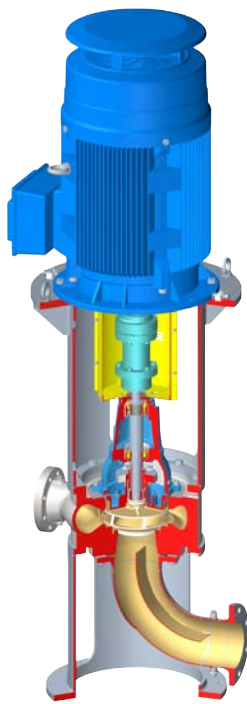
- mechanical seal according to EN 12756
- externally flushed by the pumped medium
- standardized seal specifications
- longer seal life

### DESIGN

- versions with 'spacer' coupling
- versions with standard coupling
- spacer coupling enabling Top-Pull-Out principle
- cost-effective solution



CombiFlex



CombiFlex Universal

## CombiFlex Universal

**CombiFlex Universal**, combining the vertical design and flexible suction & pressure flange positioning with a bearing bracket and an extended range of shaft sealing options.

CombiFlex Universal pumps can also be offered in stainless steel alloys with flanges according to ISO 7005 PN16, PN20 (150 lbs), PN25 and PN50 (300 lbs)

### BEARING

- rigid bearing bracket construction
- minimum bearing movement
- roller bearing and a double-row angular contact ball bearing
- extended MTBF
- axially fixed with shaft nut and retaining ring
- reliable bearing fixation, easily replaceable
- grease lubricated
- re-greasing possible

### SHAFT SEALING

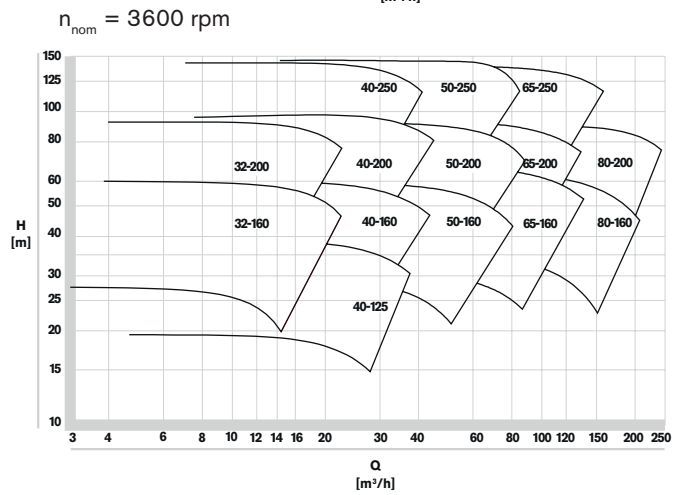
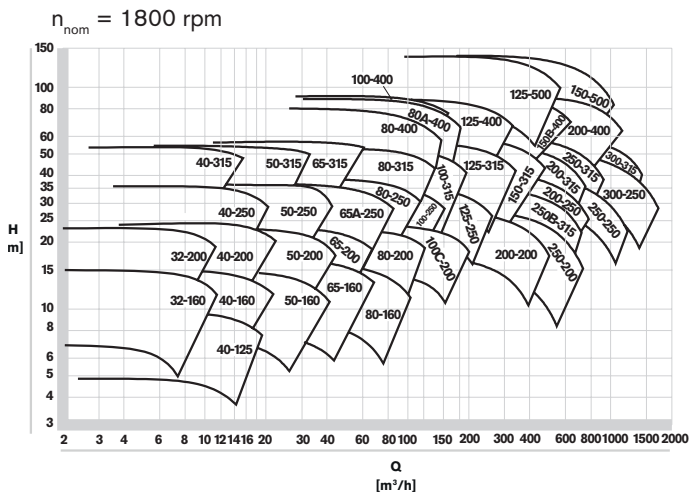
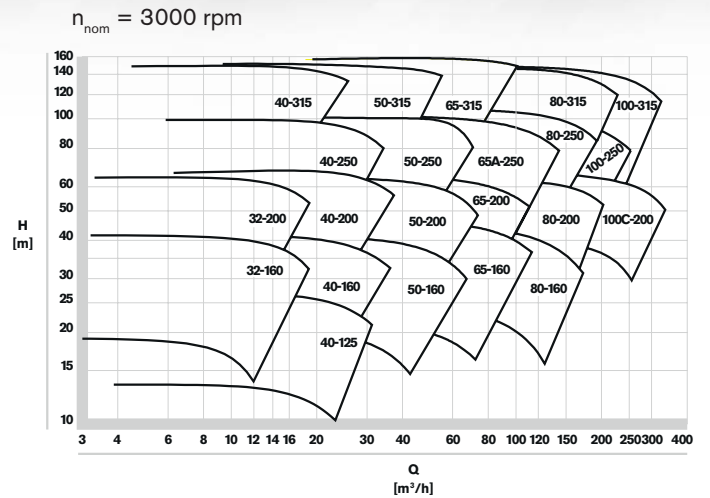
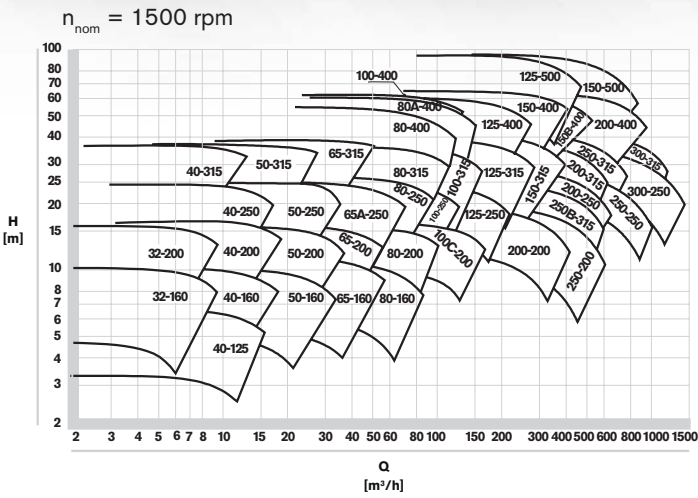
- stuffing box; with or without water-cooling
- unbalanced and balanced mechanical seals
- mechanical seal acc. to EN 12756
- single and double cartridge seals
- cartridge seals acc. to ISO 21049 (API 682)
- externally flushed by the pumped medium
- standardized seal specifications
- longer seal life

### DESIGN

- 'spacer' coupling
- spacer coupling enabling Top-Pull-Out principle
- cost-effective solution
- available as well in stainless steel alloys
- flanges according to ISO 7005 PN 16, PN 20 (150 lbs), PN 25, PN 50 (300 lbs)
- foot support and lantern piece in tubular design



# Performance Overview



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