

# PRK Centrifugal pumps, hydrostatic sealing

## Technical data

- Delivery rate  
 $Q_{\max} = 175 \text{ l/min}$
- Delivery head  
 $H_{\max} = 33 \text{ m}$
- Temperature range  
 $T = +5 \text{ °C to } +60 \text{ °C}$
- Kinematic viscosity  
 $\nu_{\max} = 20 \text{ mm}^2/\text{s}$



# PRK – Immersion pumps, hydrostatic sealing

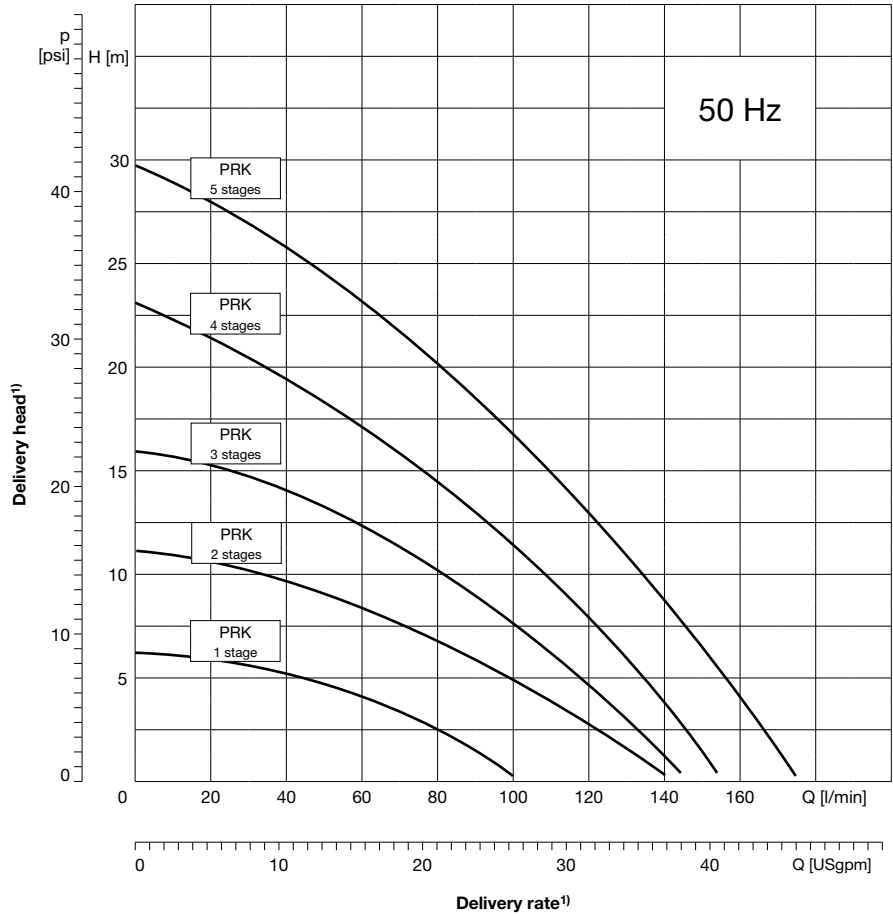
## 50 Hz, open impellers



PRK

### Features

- Vertical multistage pump, hydrostatic sealing
- For delivery of slightly contaminated types of fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G3/4
- Wide range of immersion depths 90-410 mm



### Technical data

Delivery rate $Q_{max}$	175 l/min
Delivery head $H_{max}$	29 m
Immersion depth $t_{max}$	375 mm
Kinematic viscosity	max. 20 mm <sup>2</sup> /s
Delivery temperature	+5 °C to +60 °C
Grain size	max. Ø3 mm
Contamination	max. 50 g/m <sup>3</sup>
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Emulsions, cooling and cutting oils, cleaning liquids, water, mild acids

### Mechanical design

Component	Material
Flange	POM
Base	PPS
Shaft	Stainless steel 1.4122
Impeller	POM
Diffuser	PP
Intermediate chamber	PPS
Bearings	Deep groove ball bearing with covering disk
Pumps bottom	PP
Elastomers	NBR

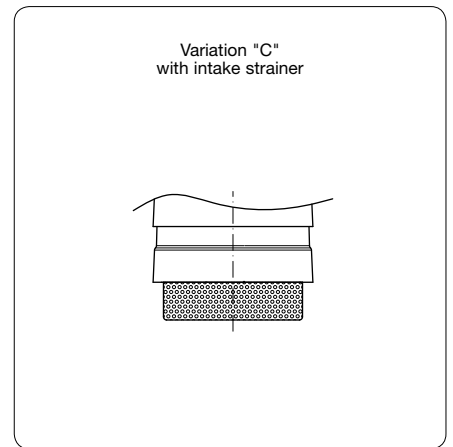
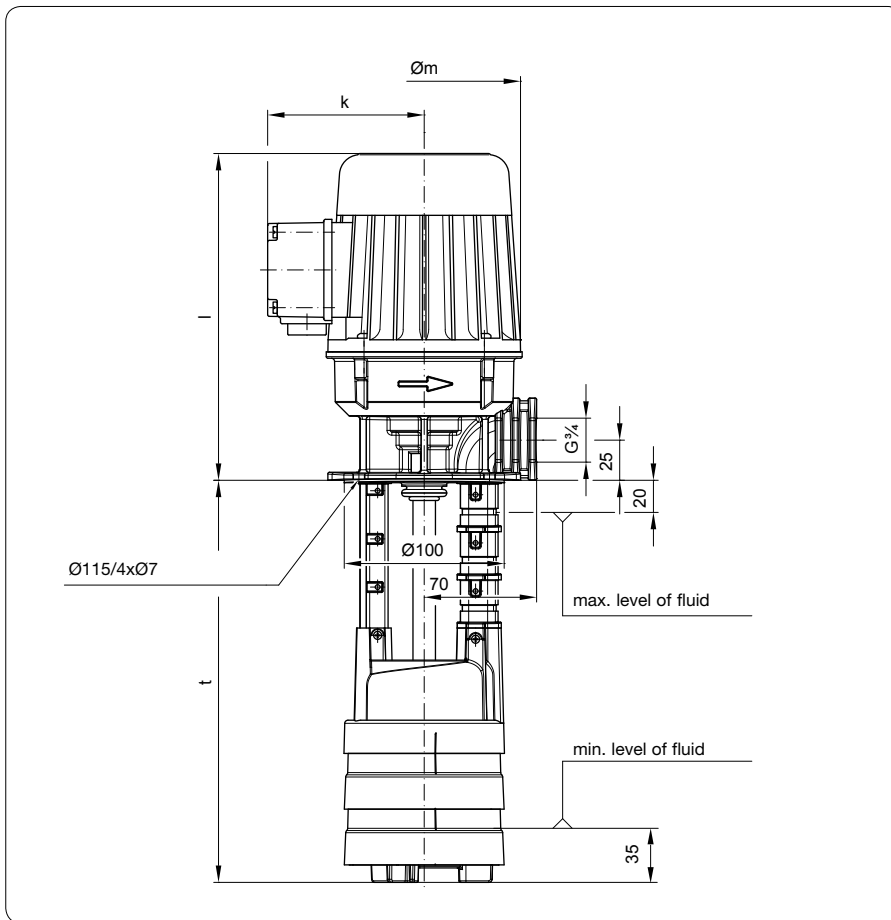
### Variations

Component	Material
Intake strainer	Stainless steel 1.4301
Extension tube	PP

<sup>1)</sup> Data for viscosity of ~1 mm<sup>2</sup>/s at a density of ~1 kg/dm<sup>3</sup>. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

# PRK – Immersion pumps, hydrostatic sealing

## 50 Hz, open impellers



PRK

### Electrical data, dimensions and weights at 50 Hz

Type of pump			Immersion depth $t$ [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port series (DIN ISO 228)
Series	Frame size	Stages		Voltage $\Delta/Y$ U [V]	Motor index	Output $P_N$ [kW]	Current $\Delta/Y$ $I_N$ [A]	Speed $n_N$ [min <sup>-1</sup> ]	$\varnothing m$	$k$	$l$			
PRK	03	01	90	230/400	D	0,25	1,11/0,64	2701	122	99	204	4,0 – 4,4	45	G¾
			120											
			150											
			180											
			210											
		02	240	230/400	E	0,37	1,72/1,00	2667	122	99	204	4,2 – 4,6	48	G¾
			270											
			125											
			155											
			185											
		03	215	230/400	F	0,55	2,06/1,19	2836	122	99	204	4,4 – 4,8	52	G¾
			245											
			275											
			305											
			160											
		04	190	230/400	G	0,75	2,56/1,48	2870	140	114	283	8,1 – 8,5	54	G¾
			220											
			255											
			285											
			315											
05	345	230/400	H	1,1	4,07/2,35	2730	140	114	283	8,3 – 8,7	58	G¾		
	375													
	230													
	260													
	290													
320														
350														
380														
410														



## PRK – Immersion pumps, hydrostatic sealing

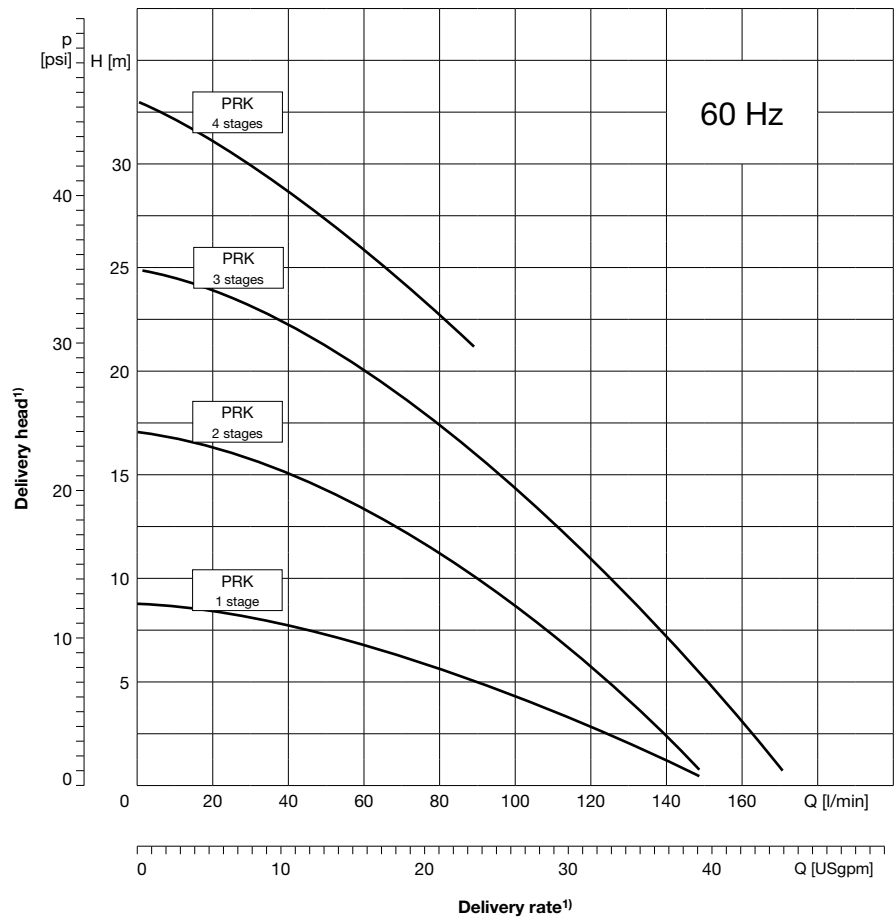
### 60 Hz, open impellers



PRK

#### Features

- Vertical multistage pump, hydrostatic sealing
- For delivery of slightly contaminated types of fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G3/4
- Wide range of immersion depths 90-410 mm



#### Technical data

Delivery rate $Q_{max}$	170 l/min
Delivery head $H_{max}$	33 m
Immersion depth $t_{max}$	375 mm
Kinematic viscosity	max. 20 mm <sup>2</sup> /s
Delivery temperature	+5 °C to +60 °C
Grain size	max. Ø3 mm
Contamination	max. 50 g/m <sup>3</sup>
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Emulsions, cooling and cutting oils, cleaning liquids, water, mild acids

#### Mechanical design

Component	Material
Flange	POM
Base	PPS
Shaft	Stainless steel 1.4122
Impeller	POM
Diffuser	PP
Intermediate chamber	PPS
Bearings	Deep groove ball bearing with covering disk
Pumps bottom	PP
Elastomers	NBR

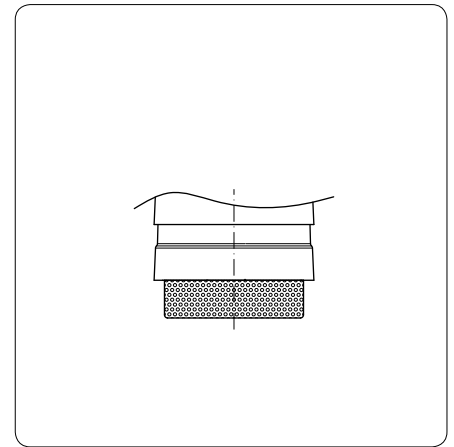
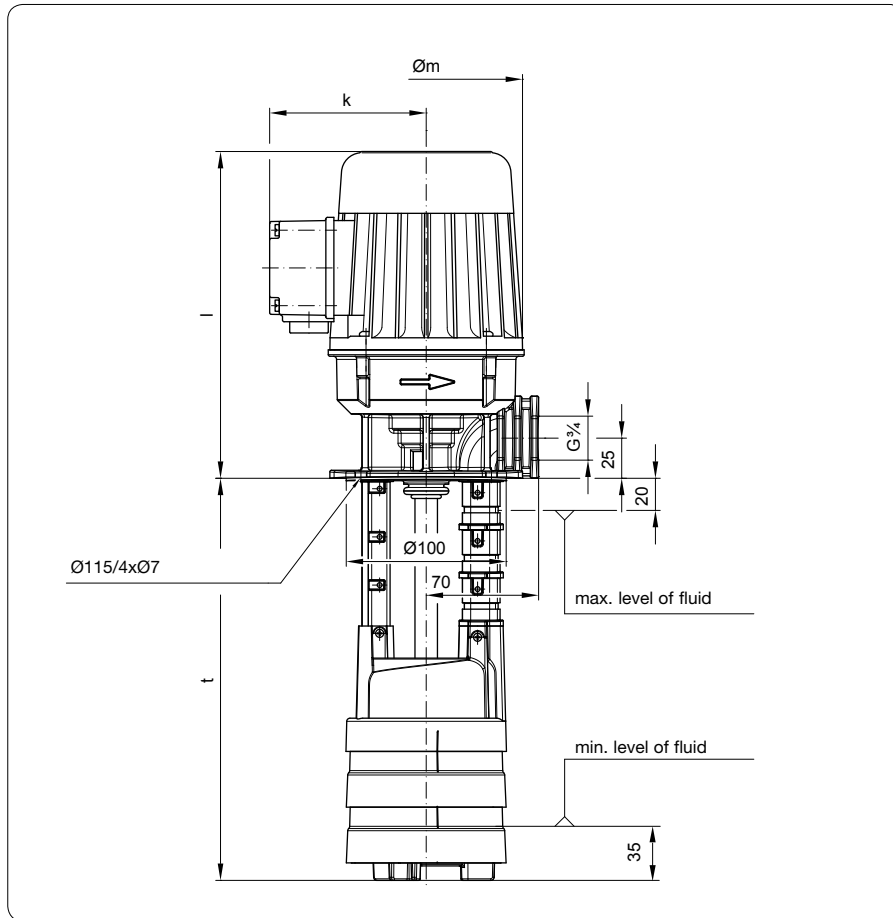
#### Variations

Component	Material
Intake strainer	Stainless steel 1.4301
Extension tube	PP

<sup>1)</sup> Data for viscosity of ~1 mm<sup>2</sup>/s at a density of ~1 kg/dm<sup>3</sup>. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

# PRK – Immersion pumps, hydrostatic sealing

## 60 Hz, open impellers



PRK

### Electrical data, dimensions and weights at 60 Hz

Type of pump			Immer- sion depth t [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port series (DIN ISO 228)
Series	Frame size	Stages		Voltage $\Delta/Y$ U [V]	Motor index	Output P <sub>N</sub> [kW]	Current $\Delta/Y$ I <sub>N</sub> [A]	Speed n <sub>N</sub> [min <sup>-1</sup> ]	$\varnothing m$	k	l			
PRK	03	01	90	265/460	E	0,42	1,72/1,00	3329	122	99	204	4,0 – 4,4	48	G $\frac{3}{4}$
			120											
			150											
			180											
			210											
			240											
		270												
		02	125	265/460	F	0,62	2,06/1,19	3446	122	99	204	4,2 – 4,6	52	G $\frac{3}{4}$
			155											
			185											
	215													
	03	245	265/460	G	0,86	2,56/1,48	3410	140	114	283	7,9 – 8,3	54	G $\frac{3}{4}$	
		275												
		305												
		160												
		190												
		220												
	04	250	265/460	H	1,26	4,07/2,35	3368	140	114	283	8,1 – 8,5	58	G $\frac{3}{4}$	
		280												
		310												
340														
195														
225														
255														
285														
315														
345														
375														



## PRK – Immersion pumps, hydrostatic sealing

### Order key

PRK

	P	R	K															
Series																		
Frame size																		
				<b>03</b>														
Stages																		
To determine the desired number of stages the corresponding characteristics has to be used.																		
<b>01</b> = 1 stage																		
...																		
<b>05</b> = 5 stages																		
Materials																		
<b>P</b> = POM (standard))																		
Seal																		
<b>B</b> = gap bush (standard)																		
Pump design																		
<b>S</b> = standard design (bottom prepared for extension tube)																		
<b>C</b> = bottom equipped with intake strainer																		
Immersion depth in mm																		
To determine the desired immersion depth the appropriate table "Electrical data, dimensions and weights" has to be used.																		
<b>090</b> = 90 mm																		
...																		
<b>410</b> = 410 mm																		
Motor index																		
To determine the desired motor index the appropriate table "Electrical data, dimensions and weights" has to be used.																		
Example:																		
<b>E</b> = 0,55 kW																		
Power supply																		
<b>01</b> = 230/400 V bei 50 Hz; 265/460 V bei 60Hz																		
<b>05</b> = 230/400 V 50 Hz																		
Further designs on request.																		
Motorausführung																		
<b>AA</b> = standard to 0,55 kW (insulation class F, IP 54, 2-pole.)																		
<b>BA</b> = standard from 0,75 kW (insulation class F, IP 54, 2-pole., IE2)																		
Further designs on request.																		
<b>Order example: PRK0304PBS255G05BA</b>																		
Series:: <b>PRK</b> , frame size: <b>03</b> , 4 stages., material: <b>P</b> POM plastic, seal: <b>B</b> gap bush, pump design: <b>S</b> standard design, immersion depth: <b>225</b> mm, motor index:: <b>G</b> 0,75 kW, power supply: <b>05</b> 230/400 V 50 Hz;																		
Motor design: <b>BA</b> standard (IE2)																		



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