

# Centrifugal Immersion Pumps



More than just pumps



# FLUX Centrifugal Immersion Pumps –

Quality that sets standards.

**Manufactured at our main plant, these ranges of immersion pumps are the result of extensive product and process evaluation by our research and development department. They are a true FLUX product, from conception through to manufacture, assembly and testing. Their design philosophy, and the materials selected for their construction make them ideal for applications in the chemical industry, surface treatment, electroplating, printed circuit manufacturing, water treatment and wastewater treatment. FLUX centrifugal immersion pumps can be used whenever liquids have to be transferred or circulated. They are suitable for use with a wide variety of acids and alkalis as well as other chemicals, typically coolants, lubricants and non-flammable solvents.**

With delivery rates of up to 74 m<sup>3</sup>/h and delivery heads of maximum 35 m water column, FLUX centrifugal immersion pumps combine maximum efficiency with a robust and reliable construction, resulting in a pump that provides the ultimate in process security. These are features that you can rely on, each hour, 24 hours a day.

The mechanical seal types F 620 and F 640 are designed for typical liquid transfer operations, with either stationary or portable variants. These units compliment the well-proven barrel pumps range and have a higher output and kW-rating.

Top of the range, are the sealless units, these pumps complete the range of high output, high reliability immersion pumps. Designed for continuous use with a wide range of aggressive liquids, from acids to alkalis, the range includes the type F 706 – with only a sleeve bearing in contact with the liquid – or the types F 716 and F 726 - with a suspended free-flying shaft and no bearings or seals in contact with the liquid.

Three-phase drive motors are available as matched power units in kW-ratings from 0,37 to 5,5 kW, protected to IP 55 as well as explosion-proof to EEx e II T3 for models F 620, F 640, F 706 and F 726.

With immersion lengths from 300 to 4000 mm almost every application requirement can be met. The use of high-class materials such as Hastelloy C and polyvinylidenfluoride, together with polypropylene and stainless steel, are combined with design experience perfected over decades of pump manufacturing. This guarantees the long service life of FLUX centrifugal immersion pumps.

Detailed information and performance charts are shown on the following pages.

To receive a quotation compiled to your application, please could you to fill in the questionnaire on page 22.2 and return it to us.



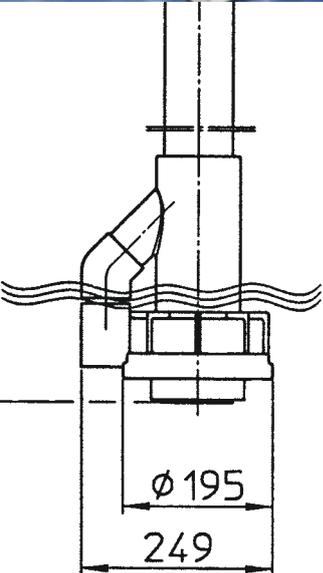


# Save, powerful, reliable – The new FLUX range

With 4 different design formats within the vertical centrifugal immersion pump range FLUX offer a cost effective, reliable solution for many liquid transfer and circulating operations. With these pumps FLUX meet the requirements of the market with their forward-looking designs and the manufacture of high quality products.

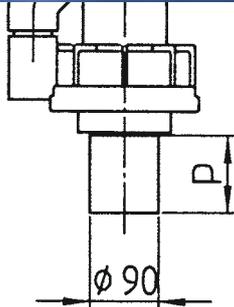
## Type F 620 and F 640:

with mechanical seal in vertical and horizontal version



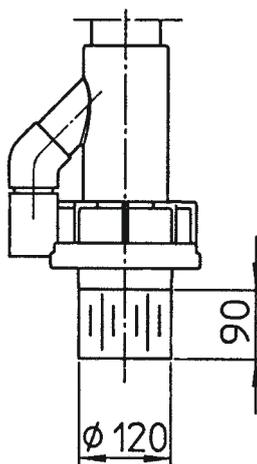
## Type F 706:

4 different sizes, sealless design with sleeve bearing, immersion length up to 2000 mm



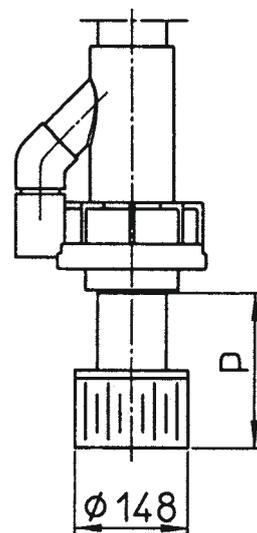
## Type F 716:

compact design requires little space for installation, version with support tube or support bars for continuous use, suitable for dry operation



## Type F 726:

very robust construction with shaft bearing located in a pedestal, version with support bars for continuous use, suitable for dry operation



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<b>FLUX Centrifugal Immersion Pumps F 716 PP and F 716 PVDF</b> size 185 and 230 in polypropylene or polyvinylidenfluoride for delivery rates of up to 45 m <sup>3</sup> /h	<b>16-17</b>
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<b>FLUX Centrifugal Immersion Pumps F 726 PP and F 726 PVDF</b> size 185 and 230 in polypropylene or polyvinylidenfluoride for delivery rates of up to 45 m <sup>3</sup> /h	<b>20-21</b>
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<b>Questionnaire</b>	

# FLUX Centrifugal Immersion Pump F 620 S in stainless steel

Size 15 and 30

## Typical Applications

Transferring low flammability liquids up to a viscosity of 2500 mPas (cP) from containers or tanks, either open topped or closed.

Suitable for stationary or portable applications.

## Construction features

Centrifugal pump in stainless steel consisting of an inner tube and outer tube.

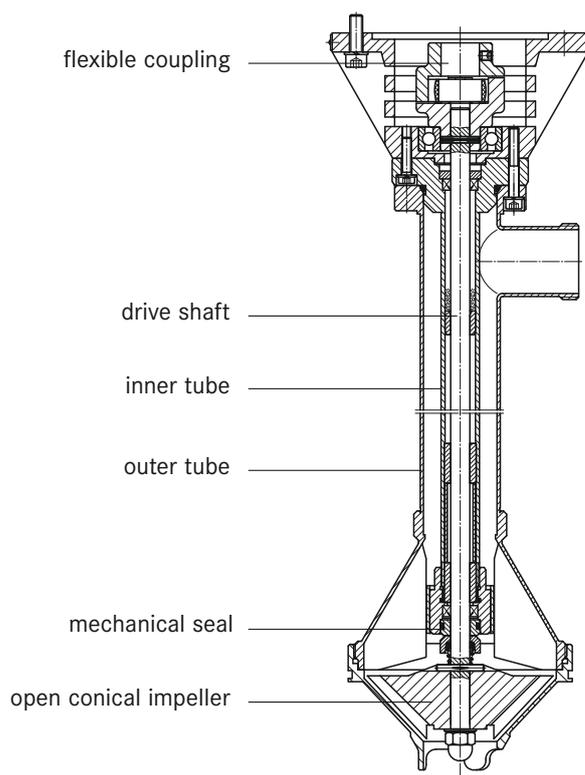
The centrifugal impeller in the pump housing is driven by the motor via the drive shaft. The drive shaft is supported by intermediate bearings within the inner tube, a mechanical seal separates the liquid from the bearings and upper shaft. This construction provides the ultimate in stability, and ensures the maximum integrity of the mechanical seal. With an open conical impeller.

Three-phase motors in differing kW-ratings are available as a matched power unit. Connection to the pump is made via a flexible coupling.



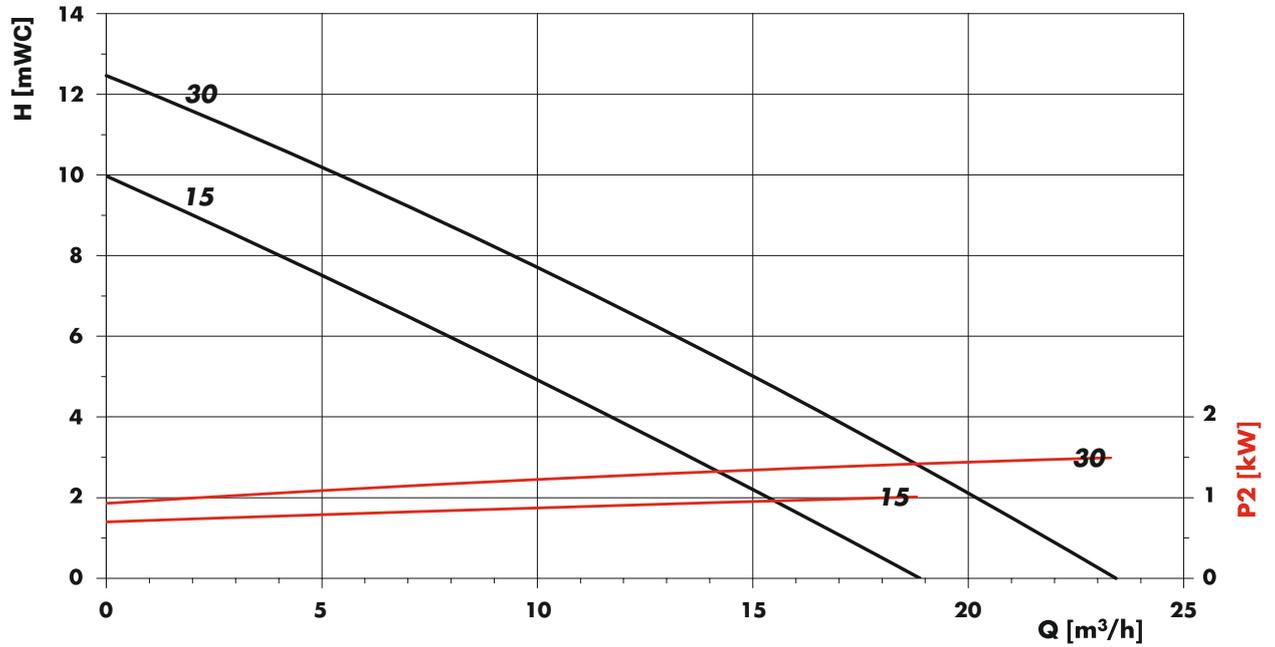
F 620 S-30  
with suction  
strainer

## Construction features in detail



### Technical data

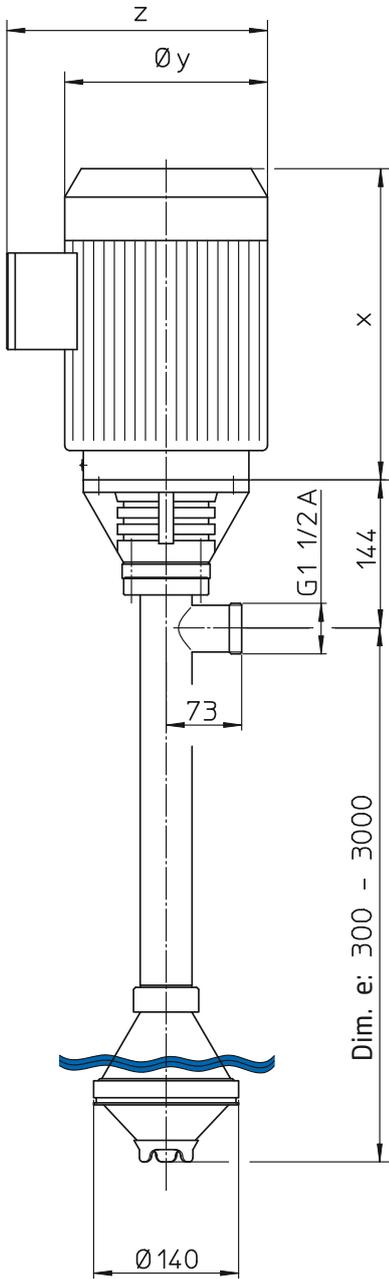
#### Performance chart FLUX F 620 S-15 and F 620 S-30



Measured values  $\pm 10\%$  determined with water (20 °C). Nominal speed  $n = 2850$  rpm

In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

**Technical data**  
**Dimensions F 620 S-15 and F 620 S-30**



Three-phase motor:  
 dimension X, Ø Y  
 and Z see page 22

 Minimum liquid level  
 when starting the pump.  
 Also valid for variant 1.

Variant 1  
 with suction strainer  
 dimension e + 28 mm

Basic model  
 dimension e max. 3000 mm

# Centrifugal Immersion Pump F 620 S



## Centrifugal Immersion Pump F 620 S in stainless steel,

thread on outlet G 1½ A, without drive motor

Type/Size	F 620 S-15	F 620 S-30
Delivery rate Q max.	19 m³/h	23 m³/h
Delivery head H max.	10 m water column	12 m water column
Viscosity max.	2500 mPas	2500 mPas
Temperature max.	100 °C	100 °C
Seal type	mechanical seal in ceramic oxide, o-rings in FKM	
Material	shaft in stainless steel 316 Ti, seal in FKM	
Impeller	conical impeller in polypropylene (version in stainless steel on request)	
Pump housing	Ø 140 mm	Ø 140 mm
Part No.		
Immersion length Dimension e 700 mm	620 23 001	621 23 001
Immersion length Dimension e 1000 mm	620 23 002	621 23 002
Immersion length Dimension e 1500 mm	620 23 003	621 23 003

Part numbers for immersion length 300 to 3000 mm (in steps of 100 mm) on request.

Accessories	Part No.
Mounting flange in stainless steel 316 Ti outside Ø 265 mm, pitch circle Ø 225 mm, 8 bores Ø 18 mm each	947 14 005
Suction strainer in stainless steel 316 Ti	001 10 232
Hose connection in stainless steel, complete with nut in brass G 1½	
for hose inside diameter DN 25	959 04 002
for hose inside diameter DN 32	959 04 003
for hose inside diameter DN 38	959 04 004

## Drive motors for Centrifugal Immersion Pump F 620 S,

three-phase motors protected to IP 55, with motor protection switch or cable terminal box

Capacity	Voltage	Frequency	Nominal speed	Part No.	Part No.
P2				Version with motor protection switch	Version with cable terminal box
0,75 kW	230/400 V	50 Hz	2850 rpm	001 00 056	001 00 035
1,1 kW	230/400 V	50 Hz	2850 rpm	001 00 057	001 00 036
1,5 kW	230/400 V	50 Hz	2850 rpm	001 00 058	001 00 037
2,2 kW	230/400 V	50 Hz	2850 rpm	001 00 059	001 00 038
3,0 kW	400 V	50 Hz	2850 rpm	001 00 060	001 00 039
4,0 kW	400 V	50 Hz	2850 rpm	001 00 061	001 00 040

Three-phase motors explosion-proof to II 2 G EEx e II T3 with cable terminal box.

Capacity	Voltage	Frequency	Nominal speed	Part No.	Part No.
P2				Three-phase motor with cable terminal box	Motor protection switch II 2 G EEx de II C T6 to be mounted on the carrying handle
0,75 kW	230/400 V	50 Hz	2850 rpm	001 00 066	936 06 118
1,1 kW	230/400 V	50 Hz	2850 rpm	001 00 067	936 06 118
1,5 kW	230/400 V	50 Hz	2850 rpm	001 00 068	936 06 119
2,0 kW	230/400 V	50 Hz	2850 rpm	001 00 069	936 06 119
2,5 kW	400 V	50 Hz	2850 rpm	001 00 070	936 06 120
3,3 kW	400 V	50 Hz	2850 rpm	001 00 071	936 06 120

Accessories	Part No.
Carrying handle for three-phase motors up to 3,0 kW	001 10 571
Carrying handle for three-phase motors up 4,0 kW	001 10 531
Carrying handle for three-phase motors explosion-proof up to 3,3 kW	001 10 586

## Scope of supply

A complete vertical centrifugal immersion pump consists of: drive motor, pump and necessary accessories.

Weight per pump: 15 – 45 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pump

## F 640 PP in polypropylene

Size 15, 30, 15 Z and 30 Z

### Typical Applications

Transferring low flammability liquids up to a viscosity of 2500 mPas (cP) from containers, tanks, either open topped or closed.

Transferring corrosive liquids in chemical processing and engineering, metal-working and electroplating together with water treatment and waste water treatment. Suitable for stationary or portable application.

### Construction features

Vertical centrifugal immersion pump in polypropylene consisting of an inner tube and outer tube.

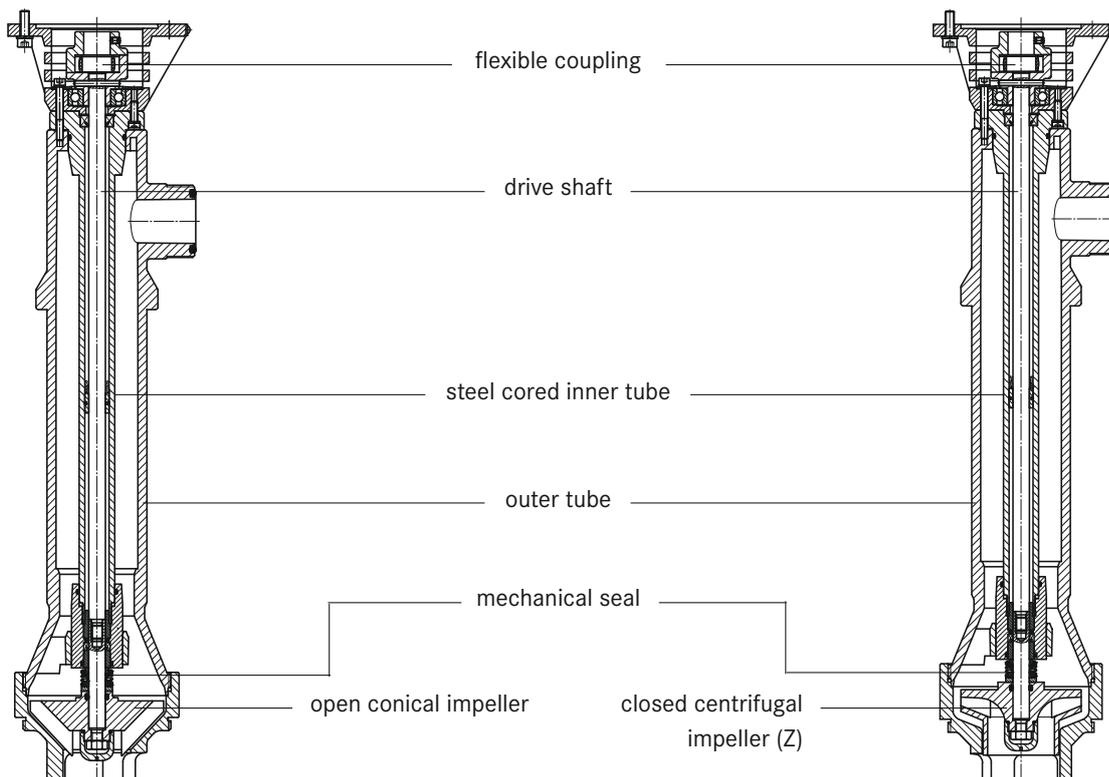
The centrifugal impeller in the pump housing is driven by the motor via the drive shaft. The drive shaft is supported by intermediate bearings within the plastic sleeved steel inner tube, a mechanical seal separating the liquid from the bearings and upper shaft. This construction provides the ultimate in stability, preventing elongation of the plastic at high temperatures and ensures the maximum integrity of the mechanical seal. With an open conical impeller or a closed centrifugal impeller (Z). The liquid is delivered between the inner and outer tubes to the pump outlet.

Three-phase motors in differing kW-ratings are available as a matched power unit. Connection to the pump is made via a flexible coupling.



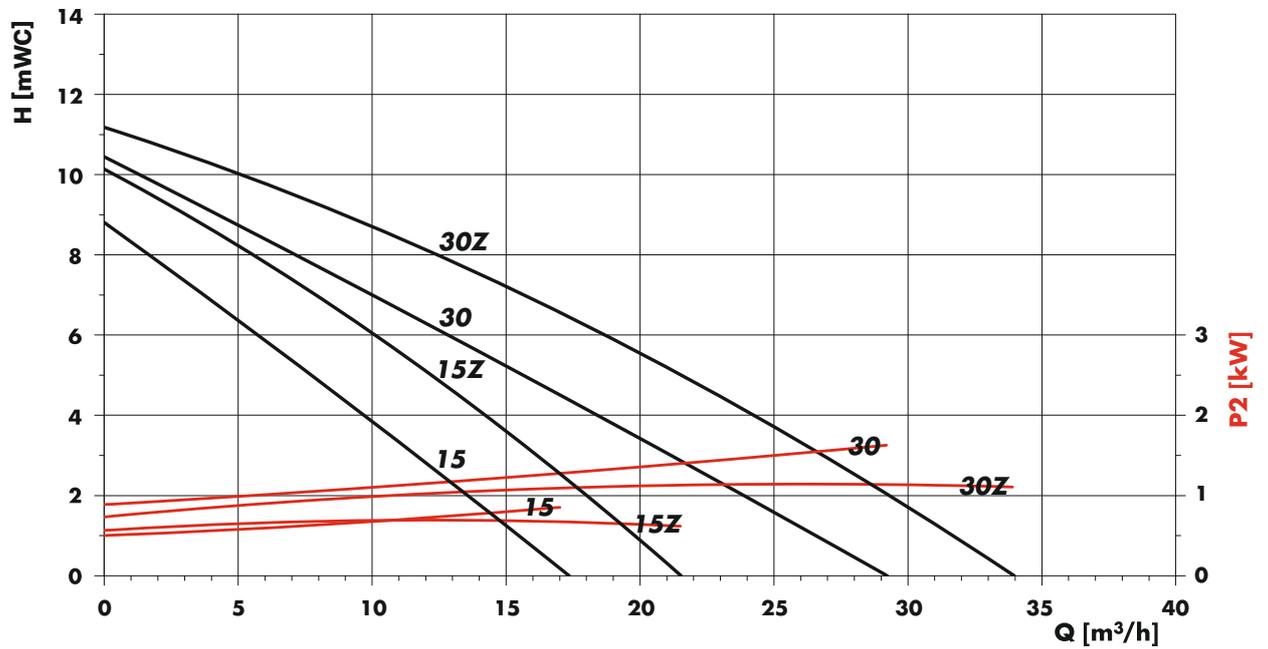
F 640 PP-30  
with suction  
strainer

### Construction features in detail



### Technical data

Performance chart F 640 PP-15, F 640 PP-30, F 640 PP-15 Z and F 640 PP-30 Z

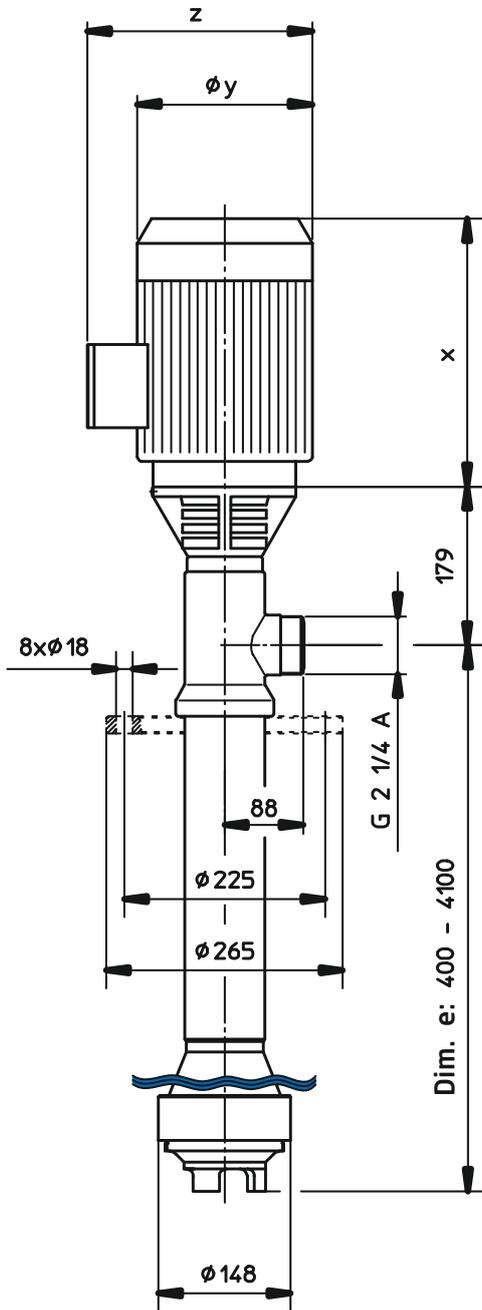


Measured values  $\pm 10\%$  determined with water (20 °C). Nominal speed  $n = 2850$  rpm

In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

Technical data

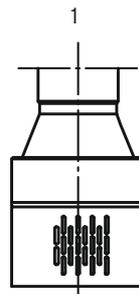
Dimensions F 640 PP-15, F 640 PP-30, F 640 PP-15 Z and F 640 PP-30 Z



Three-phase motor:  
dimension X,  $\phi Y$   
and Z see page 22

 Minimum liquid level  
when starting the pump.  
Also valid for variant 1.

Variant 1  
with suction strainer  
dimension e + 38 mm



Basic model  
dimension e max. 4100 mm

# Centrifugal Immersion Pump F 640 PP



## Centrifugal Immersion Pump F 640 PP in polypropylene,

thread on outlet G 2¼ A, without drive motor

Type/Size	F 640 PP-15	F 640 PP-30	F 640 PP-15Z	F 640 PP-30Z
Delivery rate Q max.	17 m³/h	29 m³/h	21 m³/h	34 m³/h
Delivery head H max.	8 m water column	10 m water column	10 m water column	11 m water column
Viscosity max.	2500 mPas	2500 mPas	150 mPas	150 mPas
Temperature max.	50 °C	50 °C	50 °C	50 °C
Seal type	mechanical seal in ceramic oxide / SiC, o-rings in FKM			
Material	shaft in Hastelloy C, seals in FKM			
Impeller	open conical impeller in PP		closed centrifugal impeller in PP	
Pump housing	Ø 148 mm	Ø 148 mm	Ø 148 mm	Ø 148 mm
Part No.				
Immersion length Dimension e 700 mm	640 41 407	640 41 607	640 41 507	640 41 707
Immersion length Dimension e 1000 mm	640 41 410	640 41 610	640 41 510	640 41 710
Immersion length Dimension e 1500 mm	640 41 415	640 41 615	640 41 515	640 41 715

Part numbers for immersion length 400 to 4000 mm (in steps of 100 mm) on request.

Accessories	Part No.
Suction strainer in polypropylene outside Ø 265 mm, pitch circle Ø 225 mm, 8 bores Ø 18 mm	947 14 001
Hose connection in polypropylene, complete with nut G 2¼ for hose inside diameter DN 32	959 04 098
for hose inside diameter DN 38	959 04 099
for hose inside diameter DN 50	959 04 100

## Drive motors for Centrifugal Immersion Pump F 640 PP,

three-phase motors protected to IP 55, with motor protection switch or cable terminal box

Capacity	Voltage	Frequency	Nominal speed	Part No.	Part No.
P2				Version with motor protection switch	Version with cable terminal box
0,75 kW	230/400 V	50 Hz	2850 rpm	001 00 056	001 00 035
1,1 kW	230/400 V	50 Hz	2850 rpm	001 00 057	001 00 036
1,5 kW	230/400 V	50 Hz	2850 rpm	001 00 058	001 00 037
2,2 kW	230/400 V	50 Hz	2850 rpm	001 00 059	001 00 038
3,0 kW	400 V	50 Hz	2850 rpm	001 00 060	001 00 039
4,0 kW	400 V	50 Hz	2850 rpm	001 00 061	001 00 040

Three-phase motors explosion-proof to II 2 G EEx e II T3 with cable terminal box.

Capacity	Voltage	Frequency	Nominal speed	Part No.	Part No.
P2				Version with cable terminal box	Motor protection switch II 2 G EEx de II C T6 to be mounted on the carrying handle
0,75 kW	230/400 V	50 Hz	2850 rpm	001 00 066	936 06 118
1,1 kW	230/400 V	50 Hz	2850 rpm	001 00 067	936 06 118
1,5 kW	230/400 V	50 Hz	2850 rpm	001 00 068	936 06 119
2,0 kW	230/400 V	50 Hz	2850 rpm	001 00 069	936 06 119
2,5 kW	400 V	50 Hz	2850 rpm	001 00 070	936 06 120
3,3 kW	400 V	50 Hz	2850 rpm	001 00 071	936 06 120

Accessories	Part No.
Carrying handle for three-phase motors up to 3,0 kW	001 10 571
Carrying handle for three-phase motors up 4,0 kW	001 10 531
Carrying handle for three-phase motors explosion-proof up to 3,3 kW	001 10 586

## Scope of supply

A complete vertical centrifugal immersion pump consists of: drive motor, pump and necessary accessories.

Weight per pump: 15 - 60 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pump F 640 PP and F 640 PVDF

Size 185 and 230

## Typical applications

Transferring low flammability liquids up to a viscosity of 2500 mPas (cP) from containers, tanks, either open topped or closed. Transferring corrosive liquids in chemical processing and engineering, metal-working and electroplating together with water treatment and waste water treatment. Suitable for stationary or portable application.

## Construction features

Vertical centrifugal immersion pump for stationary application. The centrifugal impeller in the pump housing is driven by the motor via the drive shaft. The drive shaft is supported by intermediate bearings within the plastic sleeved steel inner tube, a mechanical seal separating the liquid from the bearings and upper shaft. This construction provides the ultimate in stability, preventing elongation of the plastic at high temperatures and ensures the maximum integrity of the mechanical seal.

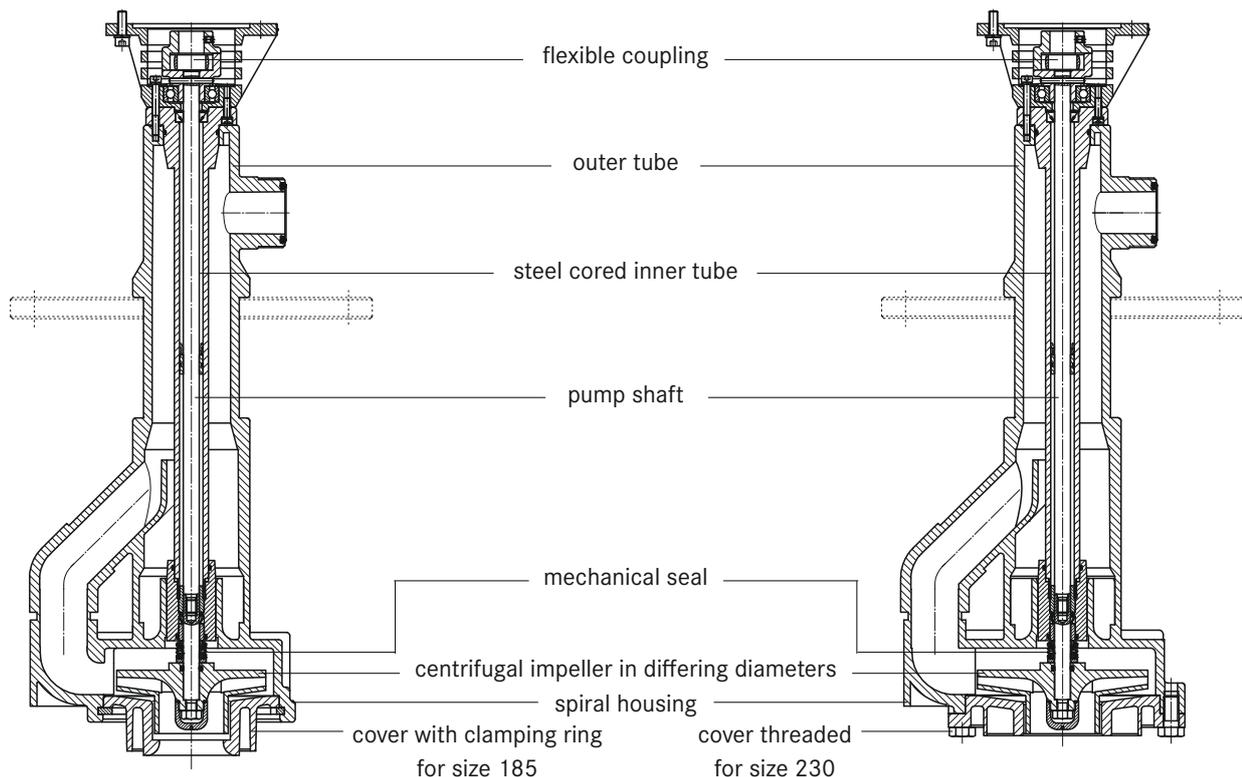
This pump design does not have a separate discharge tube. Immediately after the pump housing the liquid is fed back into the outer tube and delivered to the outlet connection between the inner and outer tubes.

A range of carefully chosen impeller diameters, together with a range of three-phase motors in differing kW-ratings, ensures the optimum selection of pumps to meet the specific operating requirements. Connection of pump and motor is made via a flexible coupling.



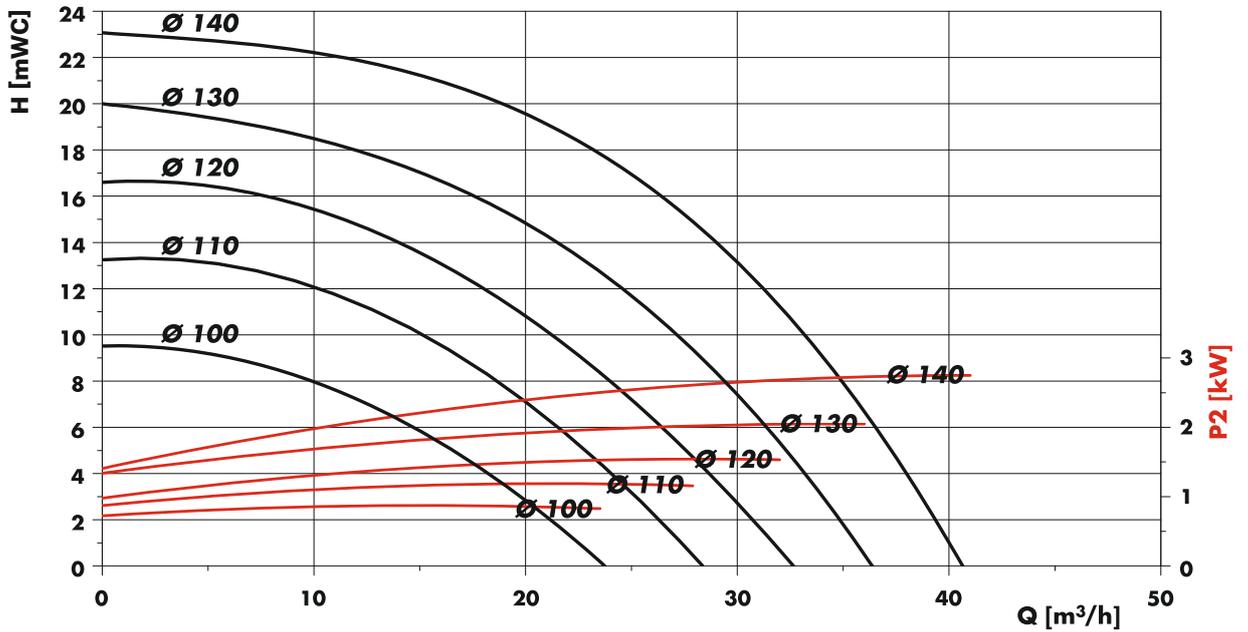
F 640 PP-185  
with mounting flange

## Construction features in detail



Technical data

Performance chart F 640 PP-185 and F 640 PVDF-185

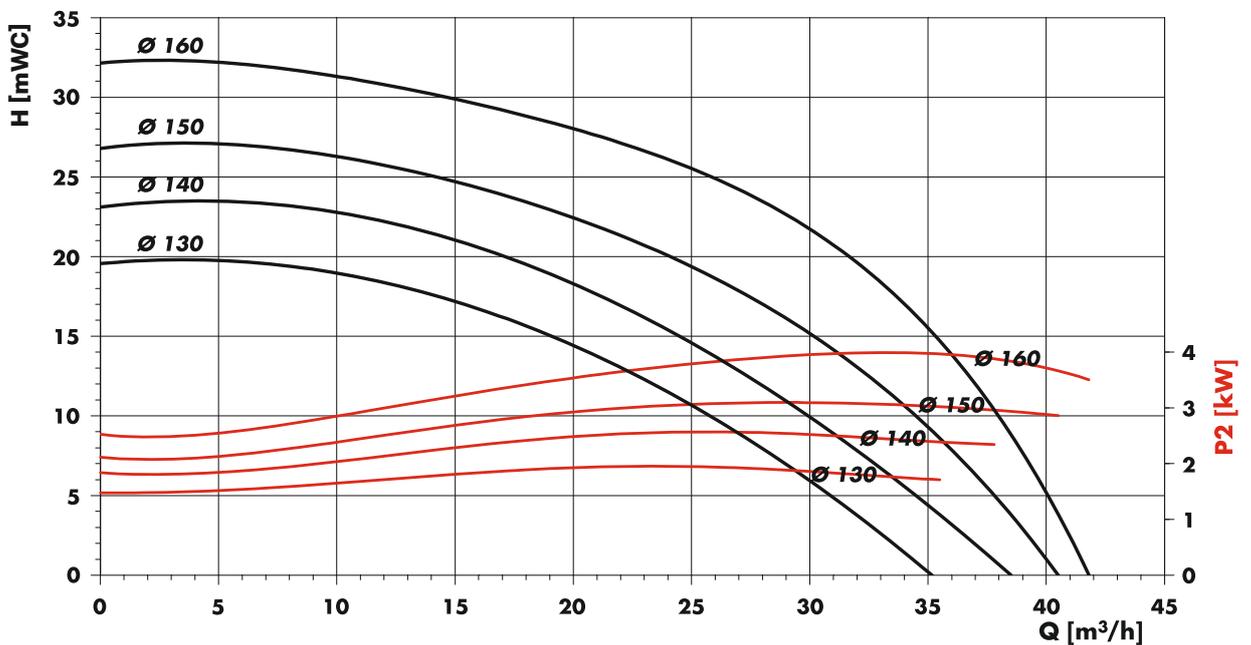


Measured values  $\pm$  10% determined with water (20 °C). Nominal speed  $n = 2850$  rpm

In order to achieve the desired output, centrifugal impellers in diameters of 100 to 160 mm are available.

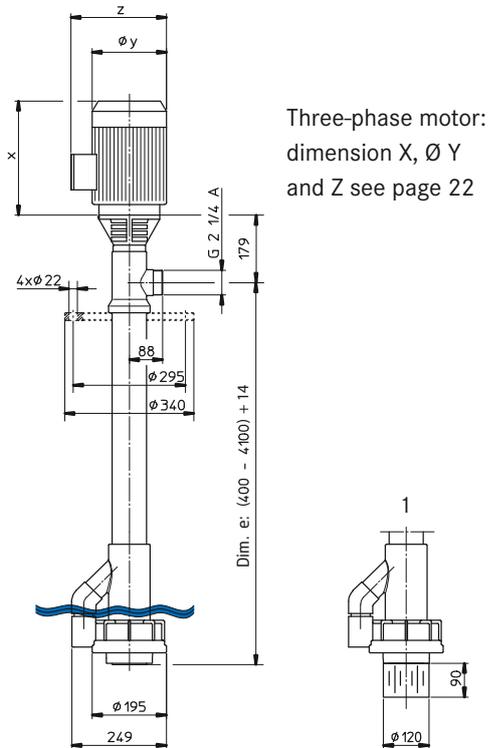
In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

Performance chart F 640 PP-230 and F 640 PVDF-230



## Technical data

### Dimensions F 640 PP-185 and F 640 PVDF-185



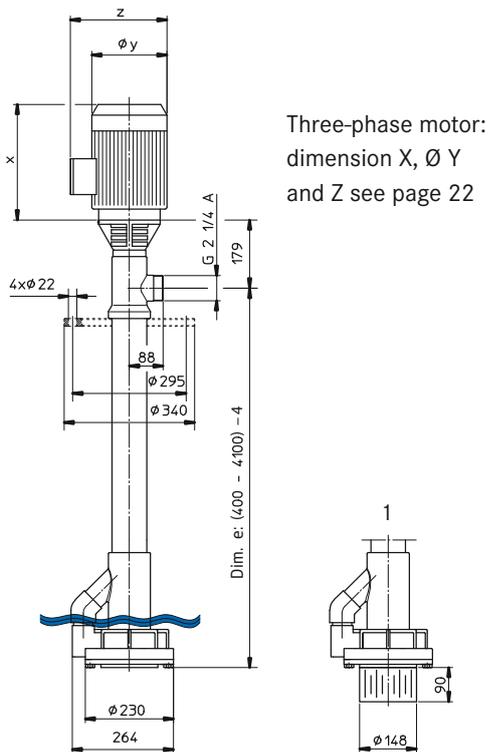
Three-phase motor:  
dimension X, Ø Y  
and Z see page 22

 Minimum liquid level  
when starting the pump.  
Also valid for variant 1.

Variant 1  
with suction strainer  
dimension e + 90 mm

Basic model dimension e  
max. 4100 mm

### Dimensions F 640 PP-230 and F 640 PVDF-230



Three-phase motor:  
dimension X, Ø Y  
and Z see page 22

 Minimum liquid level  
when starting the pump.  
Also valid for variant 1.

Variant 1  
with suction strainer  
dimension e + 90 mm

Basic model dimension e  
max. 4100 mm

# Centrifugal Immersion Pump

## F 640 PP and F 640 PVDF



### Centrifugal Immersion Pump F 640 PP in polypropylene and F 640 PVDF in polyvinylidenfluoride,

thread on outlet G 2¼ A, without drive motor

Type/Size	F 640 PP-185	F 640 PVDF-185	F 640 PP-230	F 640 PVDF-230
Delivery rate Q max.	40 m³/h	40 m³/h	42 m³/h	42 m³/h
Delivery head H max.	23 m water column	23 m water column	32 m water column	32 m water column
Viscosity max.	150 mPas	150 mPas	150 mPas	150 mPas
Temperature max.	60 °C	80 °C	60 °C	80 °C
Seal type	mechanical seal in ceramic oxide /SiC, o-rings in FKM			
Material	shaft in Hastelloy C, seals in FKM			
Impeller	Ø 100 – 140 mm in PP or PVDF		Ø 130 – 160 mm in PP or PVDF	
Pump housing	Ø 249 mm		Ø 264 mm	
Part No.				
Immersion length Dimension e 1000 mm	640 41 210	640 61 210	640 41 310	640 61 310
Immersion length Dimension e 1500 mm	640 41 215	640 61 215	640 41 315	640 61 315
Immersion length Dimension e 2000 mm	640 41 220	640 61 220	640 41 320	640 61 320

Part numbers for immersion length 400 to 4100 mm (in steps of 100 mm) on request.  
From dimension 2100 mm with welded pump housing part number 640 42 ... or rather 640 62 ...

Accessories	Part No.
Mounting flange in polypropylene to dimension 2000 mm: outside Ø 340 mm, pitch circle Ø 295 mm, 4 bores Ø 22 mm from dimension 2100 mm: outside Ø 445 mm, pitch circle Ø 400 mm, 4 bores Ø 22 mm	947 14 049 947 14 084
Mounting flange in polyvinylidenfluoride to dimension 2000 mm: outside Ø 340 mm, pitch circle Ø 295 mm, 4 bores Ø 22 mm from dimension 2100 mm: outside Ø 445 mm, pitch circle Ø 400 mm, 4 bores Ø 22 mm	947 14 070 947 14 085

Suction strainer in PP or PVDF welded onto the cover of the pump housing

Hose connection in polypropylene, complete with nut G 2¼	
for hose inside diameter DN 32	959 04 098
for hose inside diameter DN 38	959 04 099
for hose inside diameter DN 50	959 04 100

Hose connection in polyvinylidenfluoride, complete with nut	
for hose inside diameter DN 32	959 04 104
for hose inside diameter DN 38	959 04 105
for hose inside diameter DN 50	959 04 096

### Drive motors for Centrifugal Immersion Pump F 640 PP and F 640 PVDF,

three-phase motors protected to IP 55, with motor protection switch or cable terminal box

Capacity	Voltage	Frequency	Nominal speed	Part No.	Part No.
P2				Version with motor protection switch	Version with cable terminal box
0,75 kW	230/400 V	50 Hz	2850 rpm	001 00 056	001 00 035
1,1 kW	230/400 V	50 Hz	2850 rpm	001 00 057	001 00 036
1,5 kW	230/400 V	50 Hz	2850 rpm	001 00 058	001 00 037
2,2 kW	230/400 V	50 Hz	2850 rpm	001 00 059	001 00 038
3,0 kW	400 V	50 Hz	2850 rpm	001 00 060	001 00 039
4,0 kW	400 V	50 Hz	2850 rpm	001 00 061	001 00 040

Three-phase motors explosion-proof to II 2 G EEx II T3 with cable terminal box.

Capacity	Voltage	Frequency	Nominal speed	Part No.	Part No.
P2				Version with cable terminal box	Motor protection switch II 2 G EEx de II C T6 to be mounted on the carrying handle
0,75 kW	230/400 V	50 Hz	2850 rpm	001 00 066	936 06 118
1,1 kW	230/400 V	50 Hz	2850 rpm	001 00 067	936 06 118
1,5 kW	230/400 V	50 Hz	2850 rpm	001 00 068	936 06 119
2,0 kW	230/400 V	50 Hz	2850 rpm	001 00 069	936 06 119
2,5 kW	400 V	50 Hz	2850 rpm	001 00 070	936 06 120
3,3 kW	400 V	50 Hz	2850 rpm	001 00 071	936 06 120

### Scope of supply

A complete vertical centrifugal immersion pump consists of: drive motor, pump with mounting flange and necessary accessories.

Weight per pump: 20 – 70 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pump F 620 S TR and F 640 PP TR

for dry installation for horizontal use

## Typical applications

Transferring low flammability liquids up to a viscosity of 2500 mPas (cP) from containers or tanks, either open topped or closed. The pump is used either horizontally mounted onto a base plate or fixed vertically.

## Construction features

Centrifugal pump in horizontal version in stainless steel or polypropylene, consisting of an inner tube and outer tube.

The centrifugal impeller in the pump housing is driven by the motor via the drive shaft. The drive shaft is supported by intermediate bearings within inner tube, a mechanical seal separates the liquid from the bearings and upper shaft. The PP version has a steel cored PP inner tube. This construction provides the ultimate in stability, preventing elongation of the plastic at high temperatures and ensures the maximum integrity of the mechanical seal.

With an open conical impeller or a closed centrifugal impeller (Z)

Depending on the model, suction and discharge sides are fitted with threaded or flanged connections.

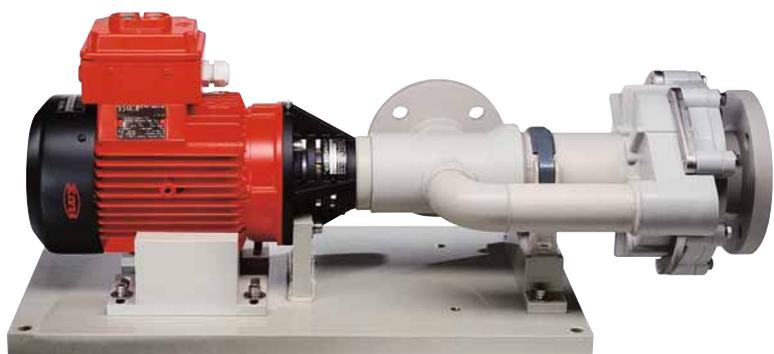
Three-phase motors in differing kW-ratings are available as a matched power unit. Connection to the pump is made via a flexible coupling.



F 620 S-30 TR



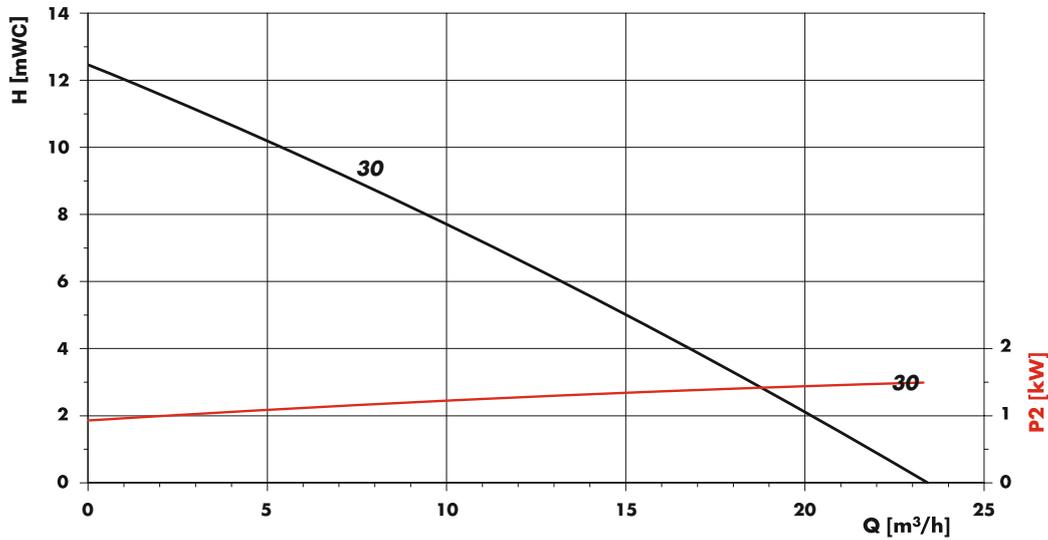
F 640 PP-30 TR



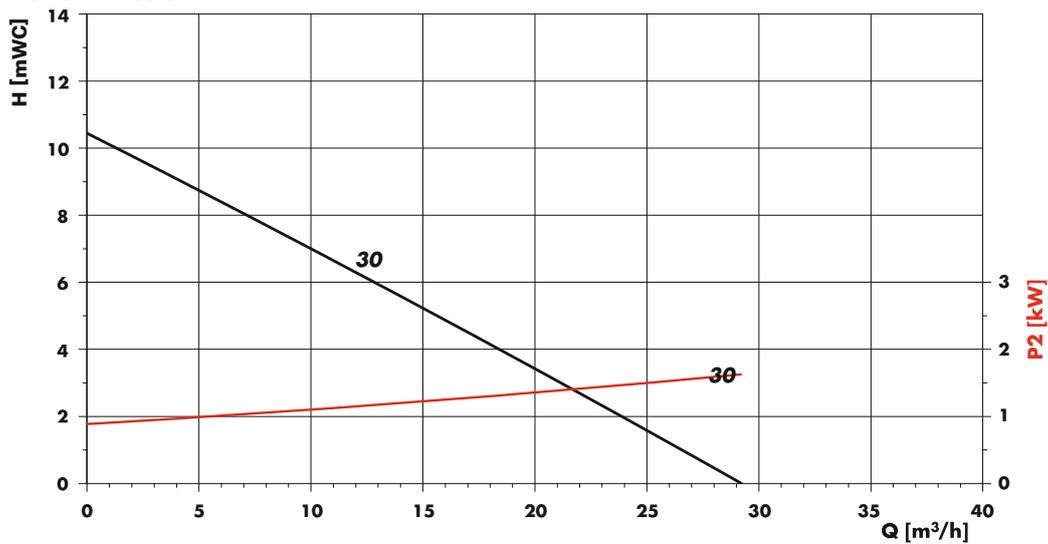
F 640 PP-230 TR with base plate

Technical data

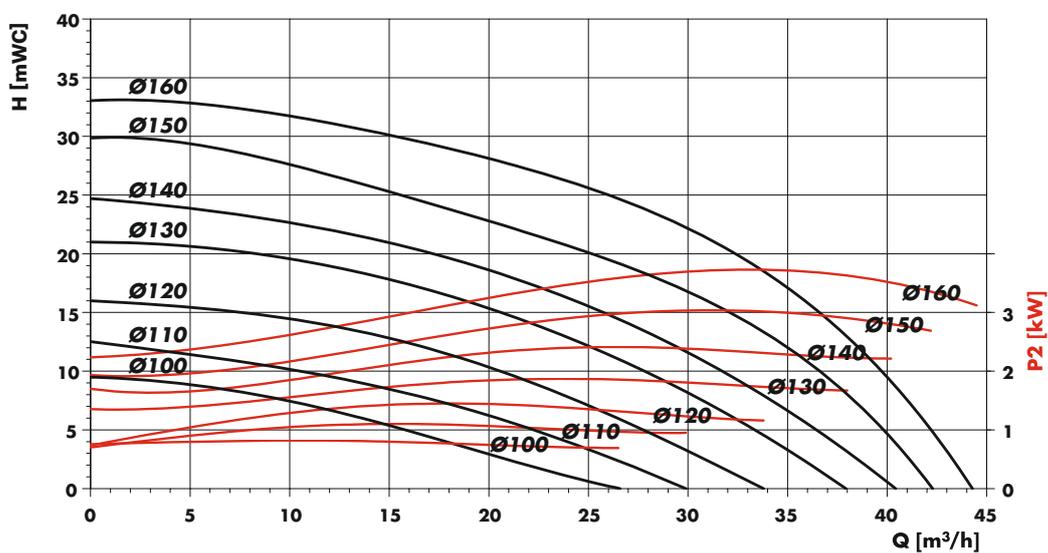
Performance chart F 620 S-30 TR



Performance chart F 640 PP-30 TR



Performance chart F 640 PP-230 TR

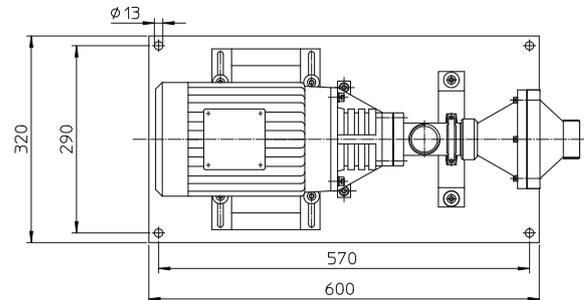
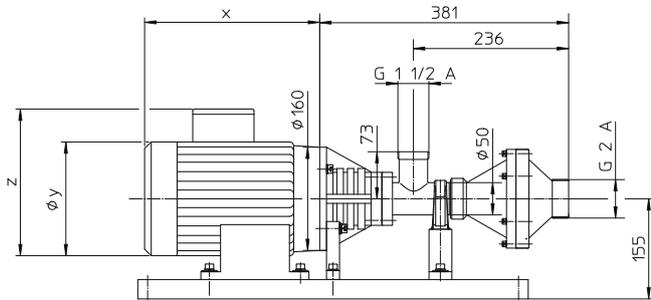


Measured values  $\pm 10\%$  determined with water (20 °C). Nominal speed  $n = 2850$  rpm  
 In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

## Technical data

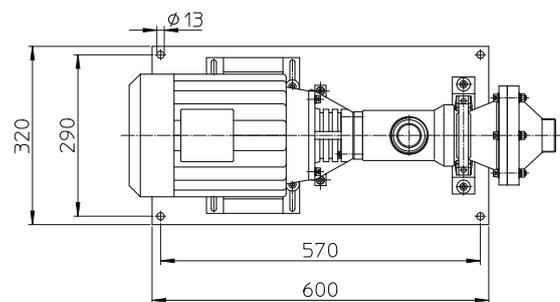
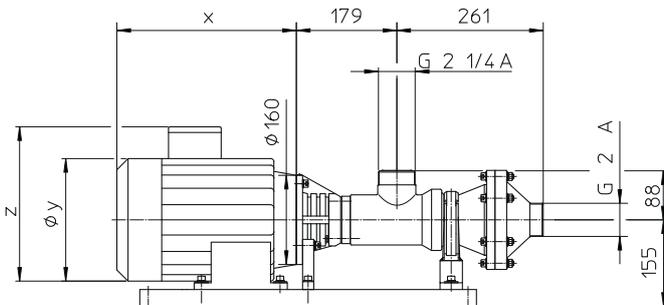
### Dimensions F 620 S-30 TR

Three-phase motor: dimension X, Ø Y and Z see page 22



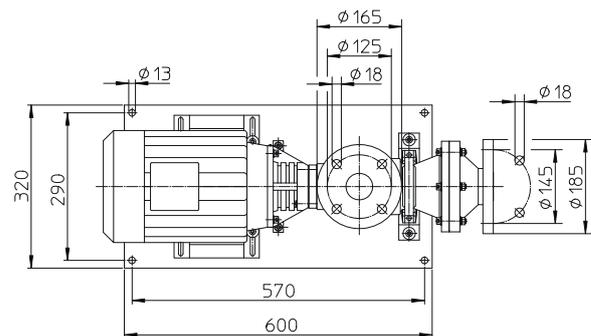
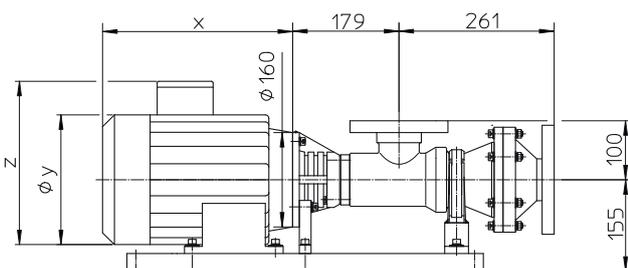
### Dimensions F 640 PP-30 TR with thread connection

Three-phase motor: dimension X, Ø Y and Z see page 22



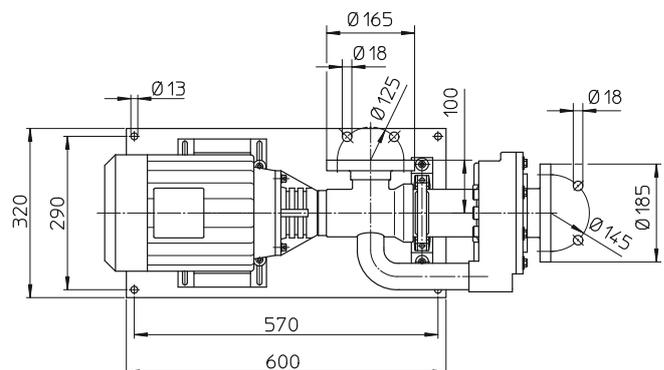
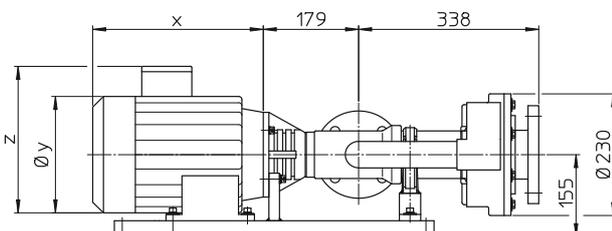
### Dimensions F 640 PP-30 TR with flange connection

Three-phase motor: dimension X, Ø Y and Z see page 22



### Dimensions F 640 PP-230 TR

Three-phase motor: dimension X, Ø Y and Z see page 22



# Centrifugal Immersion Pump

for dry installation



## Centrifugal Immersion Pump F 620 S TR in stainless steel,

without drive motor

Type/Size	<b>F 620 S-30 TR</b>	
Delivery rate Q max.	23 m <sup>3</sup> /h	
Delivery head H max.	12 m water column	
Viscosity max.	2500 mPas	
Temperature max.	100 °C	
Seal type	mechanical seal in ceramic oxide, o-rings in FKM	
Material	shaft in stainless steel 316 Ti, seals in FKM	
Impeller	open conical impeller in polypropylene (version in stainless steel on request)	
Suction side	thread G 2 A	
Discharge side	thread G 1½ A	
Part No.	620 25 502	
<b>Accessoires</b>		
Base plate in polypropylene	Part No. 001 15 024	
Hose connection in stainless steel, complete with nut G 1½		
for hose inside diameter DN 25	959 04 002	
for hose inside diameter DN 32	959 04 003	
for hose inside diameter DN 38	959 04 004	

## Centrifugal Immersion Pump F 640 PP TR in polypropylene,

without drive motor

Type/Size	<b>F 640 PP-30 TR</b>	
Delivery rate Q max.	29 m <sup>3</sup> /h	
Delivery head H max.	10 m water column	
Viscosity max.	2500 mPas	
Temperature max.	50 °C	
Seal type	mechanical seal in ceramic oxide /SiC, o-rings in FKM	
Material	shaft in Hastelloy C, seals in FKM	
Impeller	open conical impeller in PP	
Suction side	thread G 2 A	flange DN 65, PN 10
Discharge side	thread G 2½ A	flange DN 50, PN 10
Part No.	640 41 601	640 41 600

## Centrifugal Immersion Pump F 640 PP TR in polypropylene,

without drive motor

Type/Size	<b>F 640 PP-230 TR</b>	
Delivery rate Q max.	44 m <sup>3</sup> /h	
Delivery head H max.	33 m water column	
Viscosity max.	150 mPas	
Temperature max.	60 °C	
Seal type	mechanical seal in ceramic oxide/SiC, o-rings in FKM	
Material	shaft in Hastelloy C, seals in FKM	
Impeller	Ø 100 – 160 mm in PP	
Suction side	flange DN 65, PN 10; outside Ø 185 mm, p.c.Ø 145 mm, 4 bores Ø 18 mm each	
Discharge side	flange DN 50, PN 10; outside Ø 165 mm, p.c.Ø 125 mm, 4 bores Ø 18 mm each	
Part No.	640 41 300	
<b>Accessories</b>		
Base plate in polypropylene for F 640 PP-30 TR and F 640 PP-230 TR	Part No. 001 15 023	
Hose connection in polypropylene, complete with nut G 2¼		
for hose inside diameter DN 32	959 04 098	
for hose inside diameter DN 38	959 04 099	
for hose inside diameter DN 50	959 04 100	

Drive motors see page 9.

### Scope of supply

A complete centrifugal immersion pump for dry installation consists of drive motor, pump and base plate.

Weight per pump including base plate: 9-50 kg depending on pump size and motor kW.

# FLUX Centrifugal Immersion Pumps

## F 706 PP in polypropylene

Size 135, 185, 230 and 350

### Typical applications

Transfer of corrosive liquids in the chemical industry and all aspects of chemical engineering together with any application that requires the safe and economical transfer, or circulation, of acids and alkalis or other chemical fluids, with or without solids in suspension.

### Construction features

Vertical centrifugal immersion pump for stationary application. The robust pump housing is solidly welded to the support tube. A sleeve bearing, which is lubricated by the liquid, allows immersion lengths of up to 1000 mm, and on the pump size 230, with additional intermediate bearings, even up to 2000 mm.

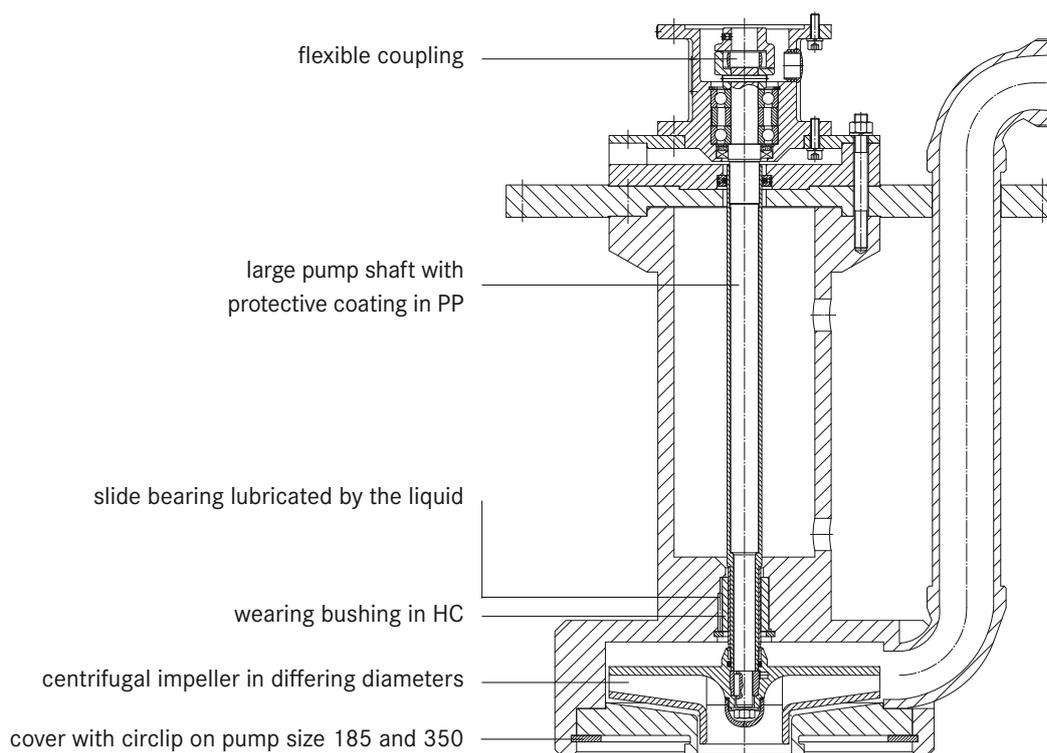
A large polypropylene-coated drive shaft together with the use of a thick-walled support tube ensures a very smooth running pump. This type of construction prevents the rotating components from coming to contact with the pump housing and guarantees a long service life and extended maintenance intervals, even in the case of continuous use.

A range of carefully chosen impeller diameters, together with a range of three-phase motors in differing kW-ratings, ensures the optimum selection of pumps to meet the specific operating requirements. Connection of pump and motor is made via a flexible coupling.



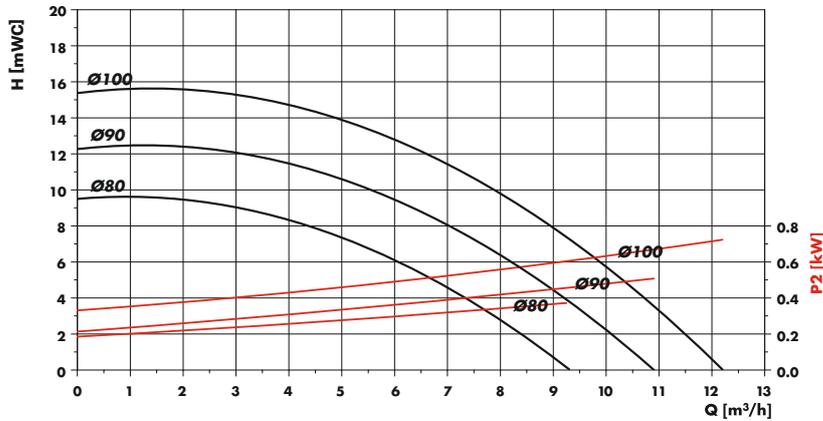
F 706 PP-350

### Construction features in detail



## Technical data

### Performance chart F 706 PP-135

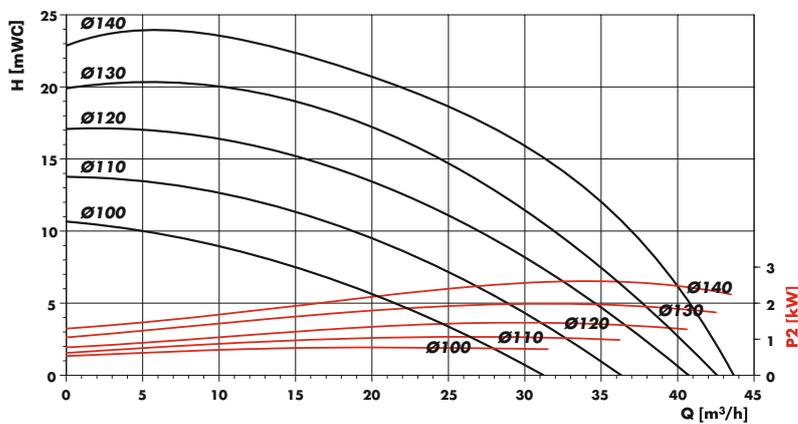


Measured values  $\pm 10\%$   
determined with water (20 °C).  
Nominal speed  $n = 2850$  rpm

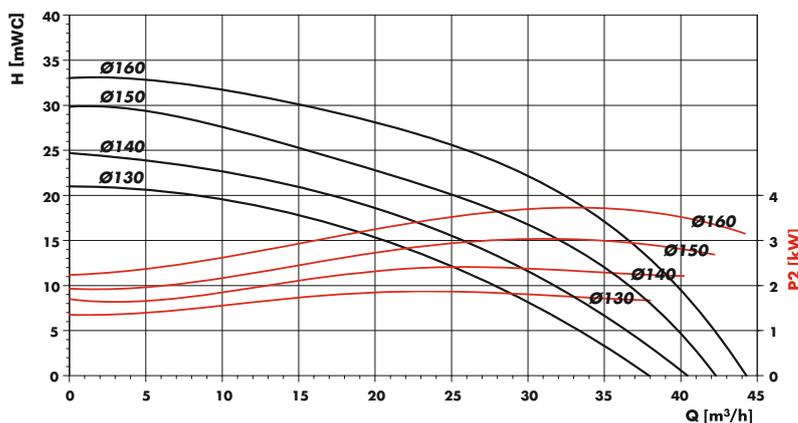
In order to obtain the desired output, centrifugal impellers in differing diameters are available.

In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

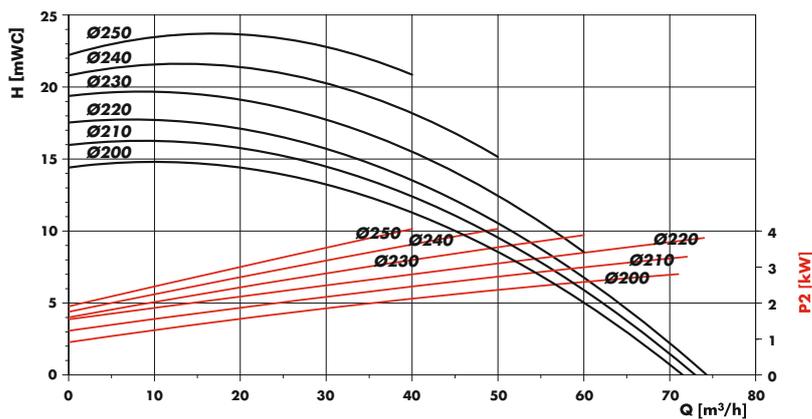
### Performance chart F 706 PP-185



### Performance chart F 706 PP-230

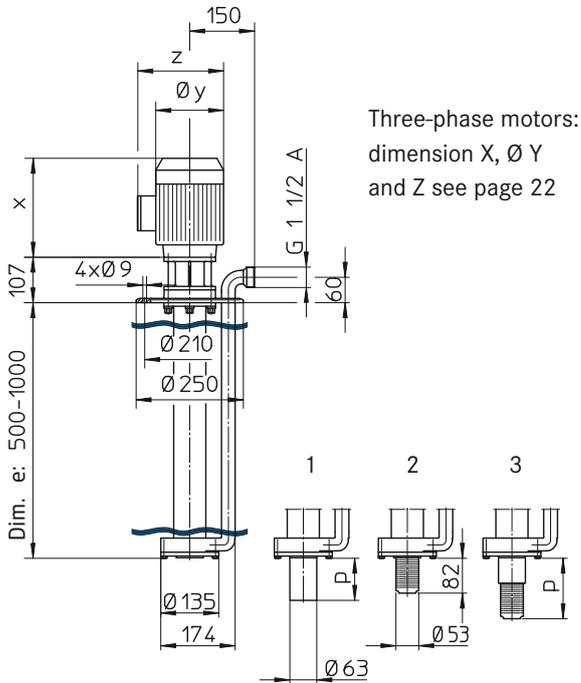


### Performance chart F 706 PP-350



Nominal speed  $n = 1450$  rpm

**Technical data**  
**Dimensions F 706 PP-135**

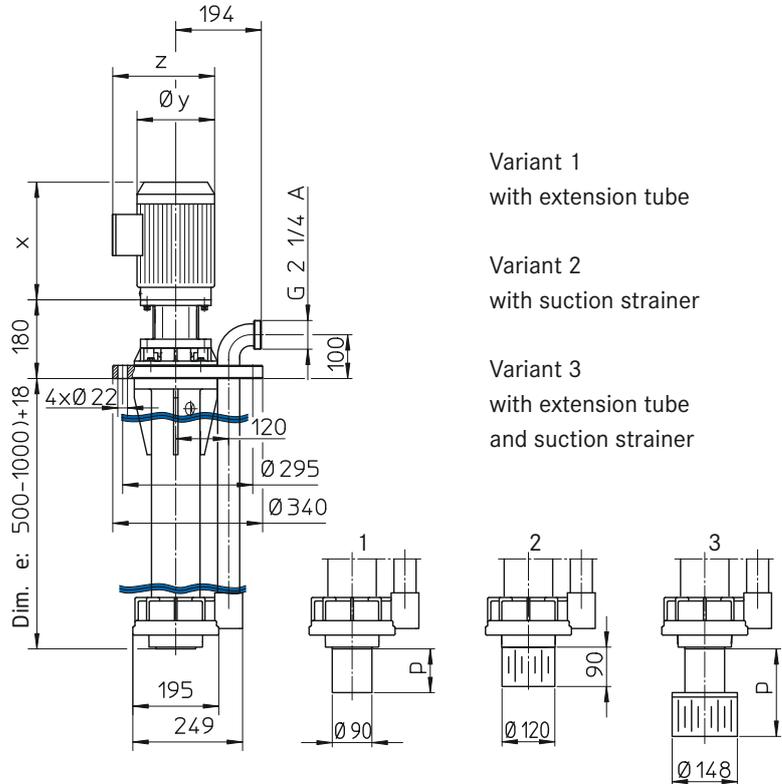


Three-phase motors:  
 dimension X, Ø Y  
 and Z see page 22

Basic model  
 dimension e  
 max. 1000 mm

Dimension p  
 max. 1000 mm

**Dimensions F 706 PP-185**



Variant 1  
 with extension tube

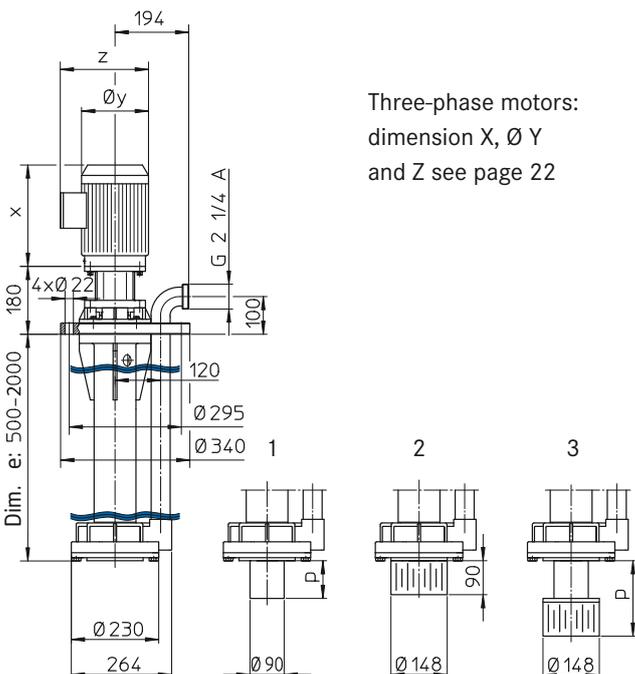
Variant 2  
 with suction strainer

Variant 3  
 with extension tube  
 and suction strainer

Basic model  
 dimension e  
 max. 1000 mm

Dimension p  
 max. 1500 mm

**Dimensions F 706 PP-230**

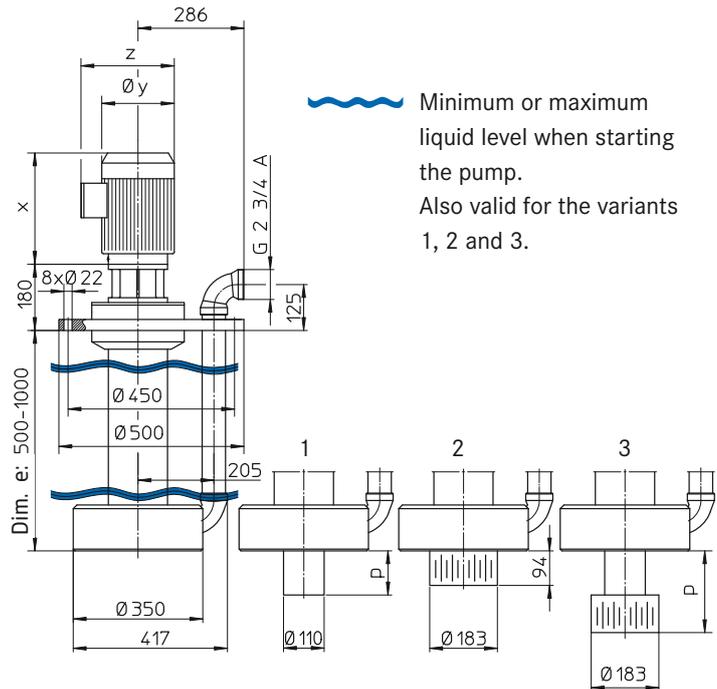


Three-phase motors:  
 dimension X, Ø Y  
 and Z see page 22

Basic model  
 dimension e  
 max. 2000 mm

Dimension p  
 max. 1500 mm

**Dimensions F 706 PP-350**



 Minimum or maximum  
 liquid level when starting  
 the pump.  
 Also valid for the variants  
 1, 2 and 3.

Basic model  
 dimension e  
 max. 1000 mm

Dimension p  
 max. 1500 mm

# Centrifugal Immersion Pumps F 706 PP



## Centrifugal Immersion Pump F 706 PP in polypropylene,

with support tube, without drive motor

Type/Size	F 706 PP-135	F 706 PP-185	F 706 PP-230	F 706 PP-350
Delivery rate Q max.	12 m <sup>3</sup> /h	43 m <sup>3</sup> /h	44 m <sup>3</sup> /h	74 m <sup>3</sup> /h
Delivery head H max.	15 m water column	23 m water column	33 m water column	23 m water column
Viscosity max.	150 mPas	150 mPas	150 mPas	150 mPas
Temperature max.	60 °C	60 °C	60 °C	60 °C
Seal material	no seals in contact with the liquid			
Material	shaft in stainless steel 316 Ti with protective coating in PP, slide bearing in hard carbon or fluorosint			
Centrifugal Impeller in PP	Ø 80 - 100 mm	Ø 100 - 140 mm	Ø 130 - 160 mm	Ø 200 - 250 mm
Pump housing	Ø 174 mm	Ø 249 mm	Ø 264 mm	Ø 417 mm
Mounting flange in PP	outside Ø 250 mm	outside Ø 340 mm	outside Ø 340 mm	outside Ø 500 mm
Thread on outlet	G 1½ A	G 2¼ A	G 2¼ A	G 2¾ A
Motor capacity	0,37 - 0,75 kW n = 2850 rpm	1,5 - 4,0 kW n = 2850 rpm	3,0 - 5,5 kW n = 2850 rpm	3,0 - 5,5 kW n = 1450 rpm
Part No.				
Immersion length Dimension e 500 mm	706 41 105	706 41 205	706 41 305	706 41 405
Immersion length Dimension e 700 mm	706 41 107	706 41 207	706 41 307	706 41 407
Immersion length Dimension e 1000 mm	706 41 210	706 41 210	706 41 310	706 41 410

### Accessories

Extension tube in PP in steps of 100 mm.

Dimension p up to max. 1000 mm at size 135 and up to 1500 mm at sizes 185, 230 and 350.

Suction strainer in PP welded onto the cover of the pump housing or onto the extension tube.

## Drive motors for Centrifugal Immersion Pump F 706 PP,

three-phase motors protected to IP 55, with cable terminable box

Capacity P2	Flange Ø	Voltage	Frequency	Nominal speed	Part No.
0,37 kW	120 mm	230/400 V	50 Hz	n = 2850 rpm	001 00 004
0,55 kW	120 mm	230/400 V	50 Hz	n = 2850 rpm	001 00 005
0,75 kW	120 mm	230/400 V	50 Hz	n = 2850 rpm	001 00 034
1,5 kW	160 mm	230/400 V	50 Hz	n = 2850 rpm	001 00 037
2,2 kW	160 mm	230/400 V	50 Hz	n = 2850 rpm	001 00 038
3,0 kW	160 mm	400 V	50 Hz	n = 2850 rpm	001 00 039
4,0 kW	160 mm	400 V	50 Hz	n = 2850 rpm	001 00 040
5,5 kW	160 mm	400 V	50 Hz	n = 2850 rpm	001 00 041
3,0 kW	160 mm	400 V	50 Hz	n = 1450 rpm	001 00 530
4,0 kW	160 mm	400 V	50 Hz	n = 1450 rpm	001 00 511
5,5 kW	160 mm	400 V	50 Hz	n = 1450 rpm	001 00 532

Three-phase motors explosion-proof to II 2 G EEx e II T3 with terminal box on request.

### Scope of supply

A complete vertical centrifugal immersion pump consists of: drive motor, pump with mounting flange and necessary accessories.

Weight per pump F 706 PP: 13 - 85 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pumps F 716 PP and F 716 PVDF

In polypropylene or polyvinylidenfluoride size 115 and 135

## Typical applications

Transferring and circulating of neutral or corrosive liquids in the chemical industry and chemical engineering, electroplating industry, steel or stainless steel pickling plants, flue gas decontamination, exhaust air purification, water and waste water treatment.

## Construction features

Vertical centrifugal immersion pump for stationary application. With a compact design requiring very little head room above the mounting flange. This design uses a three-phase motor with extended shaft, especially allowing the pump to use the motor shaft. All wetted parts are made in PP or PVDF. The robust support tube (bars) solidly connected to the mounting flange ensures a very smooth running, prevents the rotating elements from making contact with the pump housing and guarantees a very long service life, even in case of continuous use. As neither bearings nor seals are in contact with the liquid, the pump is very wear-resistant and suitable for dry running operation. The immersion length of the pump can be extended, up to 1000 mm maximum, by the suction tube option. A suction strainer welded onto the cover of the pump housing or onto the extension tube protects the pump against the ingress of coarse impurities.

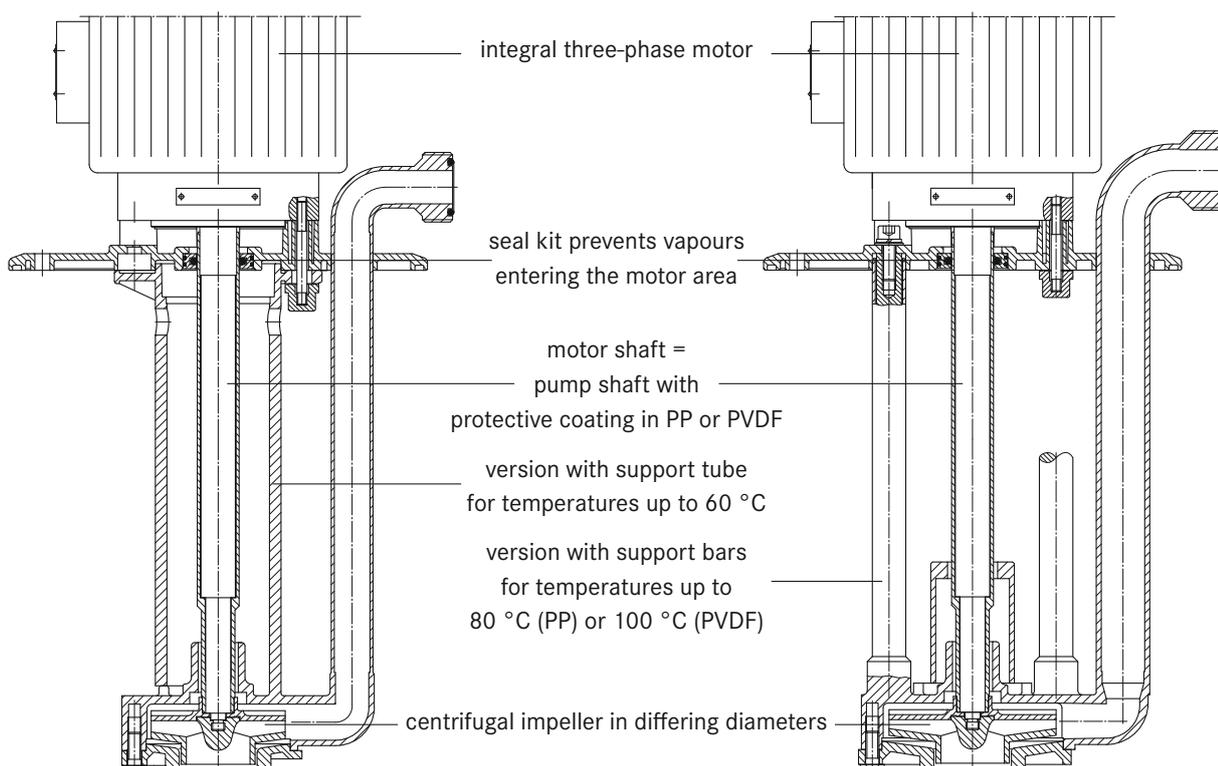
A range of carefully chosen impeller diameters, together with a range of three-phase motors in differing kW-ratings, ensures the optimum selection of pumps to meet the specific operating requirements.



F 716 PP1-115

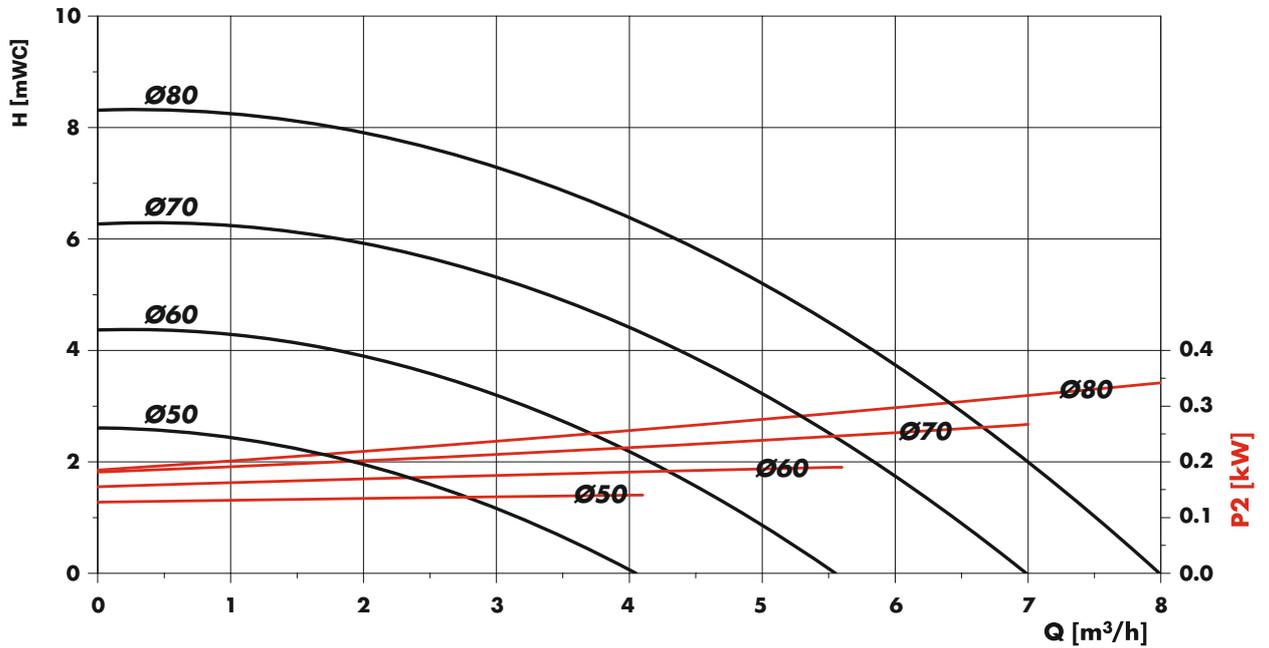
F 716 PVDF2-135

## Construction features in detail



### Technical data

#### Performance chart F 716 PP1-115, F 716 PP2-115 and F 716 PVDF2-115

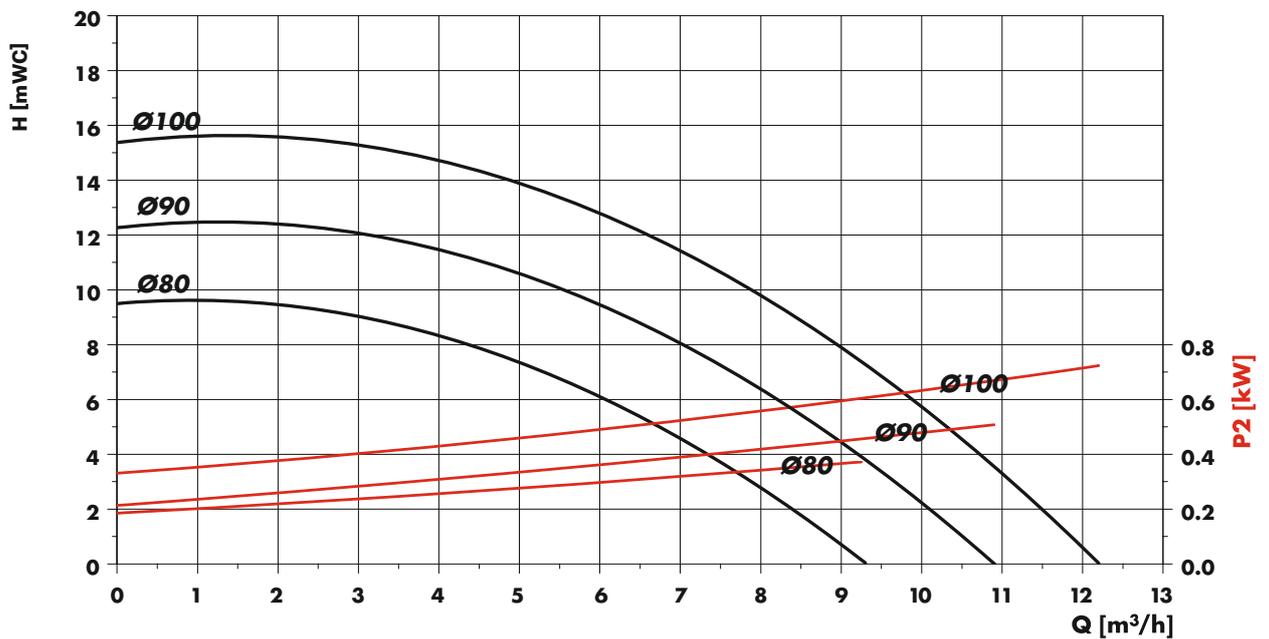


Measured values  $\pm 10\%$  determined with water (20 °C). Nominal speed  $n = 2850$  rpm

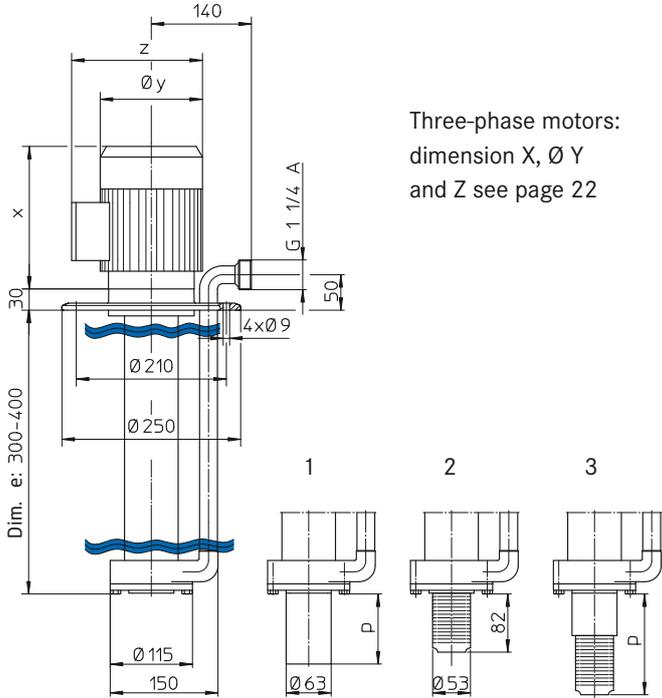
In order to obtain the desired output, centrifugal impellers in differing diameters are available.

In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

#### Performance chart F 716 PP1-135, F 716 PP2-135 and F 716 PVDF2-135



**Technical data**  
**Dimensions F 716 PP1-115**  
**Version with support tube**

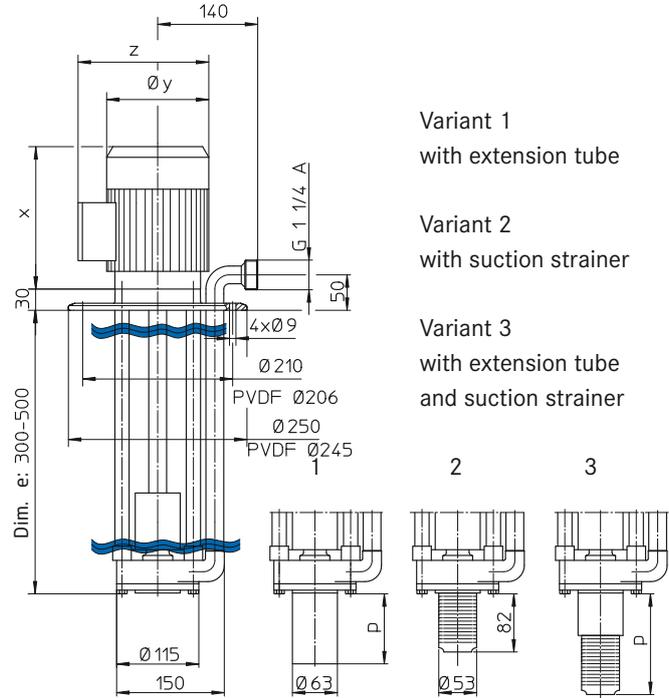


Three-phase motors:  
 dimension X, Ø Y  
 and Z see page 22

Basic model  
 dimension e  
 max. 400 mm

Dimension p max. 1000 mm

**Dimensions F 716 PP2-115 and F 716 PVDF2-115**  
**Version with support bars**



Variant 1  
 with extension tube

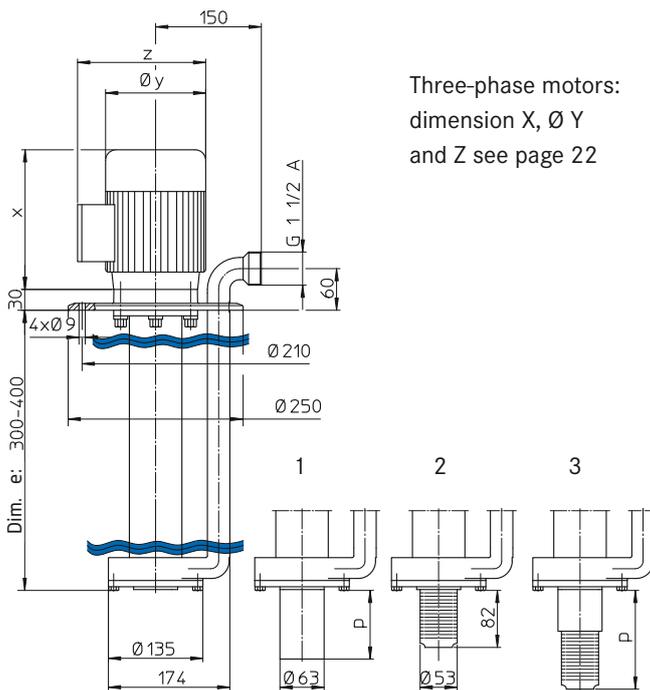
Variant 2  
 with suction strainer

Variant 3  
 with extension tube  
 and suction strainer

Basic model  
 dimension e  
 max. 500 mm

Dimension p max. 1000 mm

**Dimensions F 716 PP1-135**  
**Version with support tube**

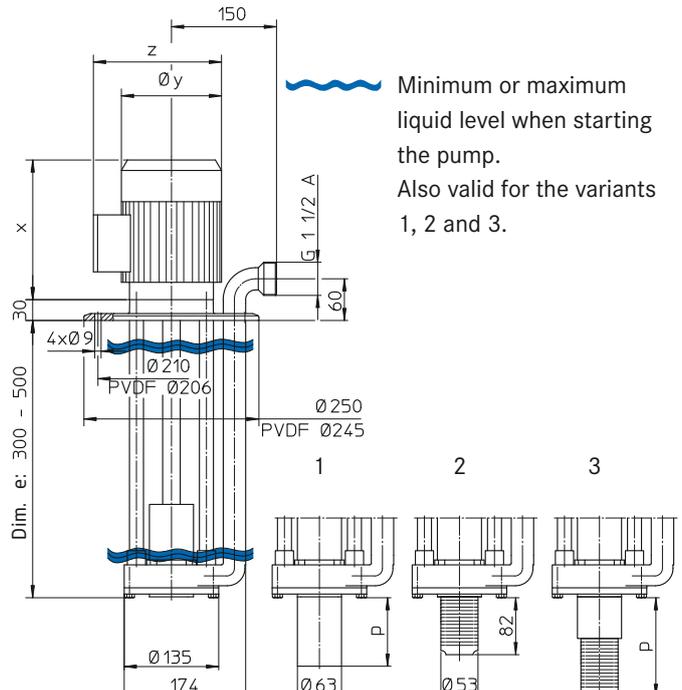


Three-phase motors:  
 dimension X, Ø Y  
 and Z see page 22

Basic model  
 dimension e  
 max. 400 mm

Dimension p max. 1000 mm

**Dimensions F 716 PP2-135 and F 716 PVDF2-135**  
**Version with support bars**



Minimum or maximum  
 liquid level when starting  
 the pump.  
 Also valid for the variants  
 1, 2 and 3.

Basic model  
 dimension e  
 max. 500 mm

Dimension p max. 1000 mm

# Centrifugal Immersion Pump F 716 PP



## Centrifugal Immersion Pump F 716 PP in polypropylene,

with integral three-phase motor

Type/Size	F 716 PP1-115	F 716 PP2-115	F 716 PP1-135	F 716 PP2-135
Version	with support tube	with support bars	with support tube	with support bars
Delivery rate Q max.	8 m <sup>3</sup> /h	8 m <sup>3</sup> /h	12 m <sup>3</sup> /h	12 m <sup>3</sup> /h
Delivery head H max.	8 m water column	8 m water column	15 m water column	15 m water column
Viscosity max.	150 mPas	150 mPas	150 mPas	150 mPas
Temperature max.	60 °C	80 °C	60 °C	80 °C
Seal material	no bearings nor seals in contact with the liquid			
Material	shaft in stainless steel 316 Ti with protective coating in PP			
Centrifugal impeller in PP	Ø 50 – 80 mm	Ø 50 – 80 mm	Ø 80 – 100 mm	Ø 80 – 100 mm
Pump housing	Ø 150 mm	Ø 150 mm	Ø 174 mm	Ø 174 mm
Mounting flange in PP	Außen-Ø 250 mm	Außen-Ø 250 mm	Außen-Ø 250 mm	Außen-Ø 250 mm
Thread on outlet	G 1¼ A	G 1¼ A	G 1½ A	G 1½ A
Part No.				
Motor capacity P2	0,37 kW	0,37 kW	0,37 kW	0,37 kW
Immersion length Dimension e 300 mm	716 41 003	716 42 003	716 41 103	716 42 103
Immersion length Dimension e 400 mm	716 41 004	716 42 004	716 41 104	716 42 104
Immersion length Dimension e 500 mm	-	716 42 005	-	716 42 105
Part No.				
Motor capacity P2	0,55 kW	0,55 kW	0,55 kW	0,55 kW
Immersion length Dimension e 300 mm	716 41 013	716 42 013	716 41 113	716 42 113
Immersion length Dimension e 400 mm	716 41 014	716 42 014	716 41 114	716 42 114
Immersion length Dimension e 500 mm	-	716 42 015	-	716 42 115
Part No.				
Motor capacity P2	0,75 kW	0,75 kW	0,75 kW	0,75 kW
Immersion length Dimension e 300 mm	-	-	716 41 123	716 42 123
Immersion length Dimension e 400 mm	-	-	716 41 124	716 42 124
Immersion length Dimension e 500 mm	-	-	-	716 42 125

## Centrifugal Immersion Pump F 716 PVDF in polyvinylidenfluoride,

with integral three-phase motor

Type/Size	F 716 PVDF2-115	F 716 PVDF2-135
Version	with support bars	with support bars
Delivery rate Q max.	8 m <sup>3</sup> /h	12 m <sup>3</sup> /h
Delivery head H max.	8 m water column	15 m water column
Viscosity max.	150 mPas	150 mPas
Temperature max.	100 °C	100 °C
Seal material	no bearings nor seals in contact with the liquid	
Material	shaft in stainless steel 316 Ti with protective coating in PVDF	
Centrifugal impeller in PVDF	Ø 50 – 80 mm	Ø 80 – 100 mm
Pump housing	Ø 150 mm	Ø 174 mm
Mounting flange in PVDF	outside Ø 245 mm	outside Ø 245 mm
Thread on outlet		
Part No.	0,37 kW	0,55 kW
Motor capacity P2	716 62 003	716 62 013
Immersion length Dimension e 400 mm	716 62 004	716 62 014
Immersion length Dimension e 500 mm	716 62 005	716 62 015
	0,37 kW	0,55 kW
Motor capacity P2	716 62 103	716 62 113
Immersion length Dimension e 400 mm	716 62 104	716 62 114
Immersion length Dimension e 500 mm	716 62 105	716 62 115
	0,75 kW	0,75 kW
Motor capacity P2	716 62 123	716 62 124
Immersion length Dimension e 400 mm	716 62 124	716 62 125
Immersion length Dimension e 500 mm	716 62 125	

### Accessories

Extension tube in PP or PVDF in steps of 100 mm. Dimension p up to max. 1000 mm.

Suction strainer in PP or PVDF welded at the cover of the pump housing or at the extension tube.

### Scope of supply

A complete vertical centrifugal immersion pump consists of: pump with mounting flange and integral three-phase motor and necessary accessories. Weight per pump: 9 – 15 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pump

## F 716 PP and F 716 PVDF

In polypropylene or polyvinylidenfluoride size 185 and 230

### Typical applications

Transferring and circulating of neutral or corrosive liquids in the chemical industry and chemical engineering, electroplating industry, steel or stainless steel pickling plants, flue gas decontamination, exhaust air purification, water and waste water treatment.

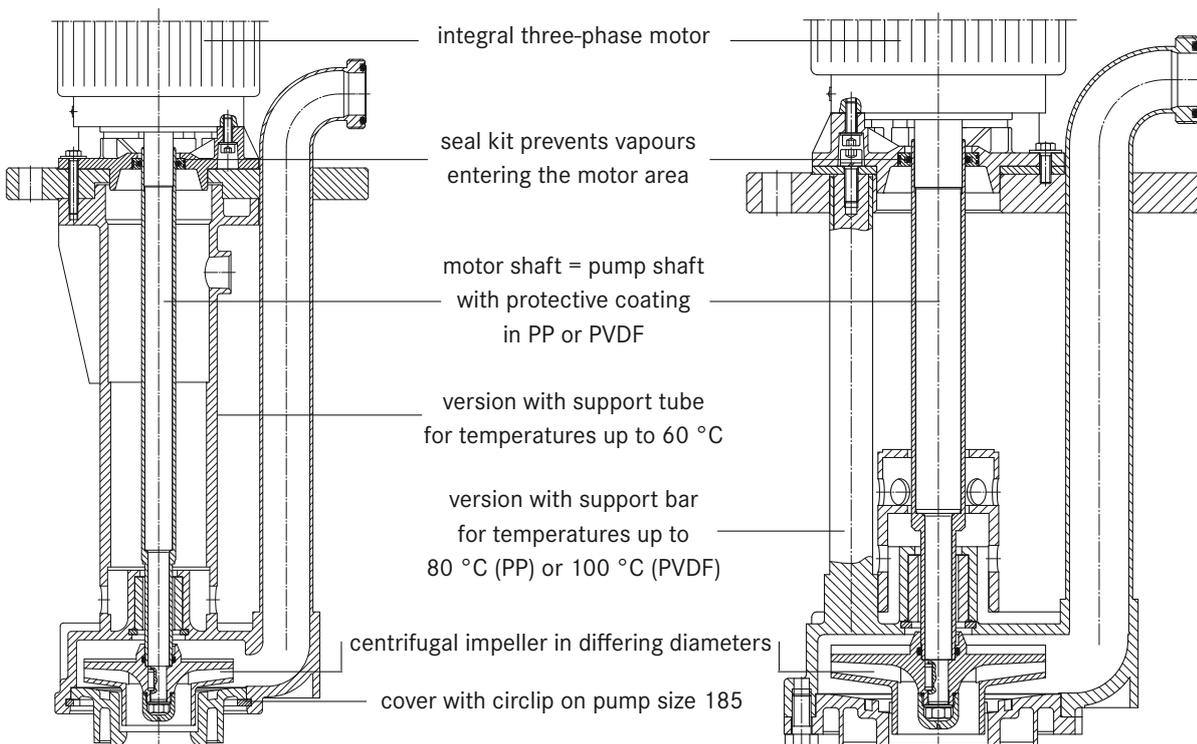
### Construction features

Vertical centrifugal immersion pump for stationary application. With a compact design requiring very little head room above the mounting flange. This design uses a three-phase motor with extended shaft, allowing the pump to use the motor shaft. All wetted parts are made in PP or PVDF.

The robust support tube (bars) solidly connected to the mounting flange ensures a very smooth running, prevents the rotating elements from making contact with the pump housing and guarantees a very long service life, even in case of continuous use. As neither bearings nor seals are in contact with the liquid, the pump is very wear-resistant and suitable for dry running operation. The immersion length of the pump can be extended, up to 1500 mm maximum, by the suction tube option. A suction strainer welded onto the cover of the pump housing or onto the extension tube protects the pump against the ingress of coarse impurities.

A range of carefully chosen impeller diameters, together with a range of three-phase motors in differing kW-ratings, ensures the optimum selection of pumps to meet the specific operating requirements.

### Construction features in detail



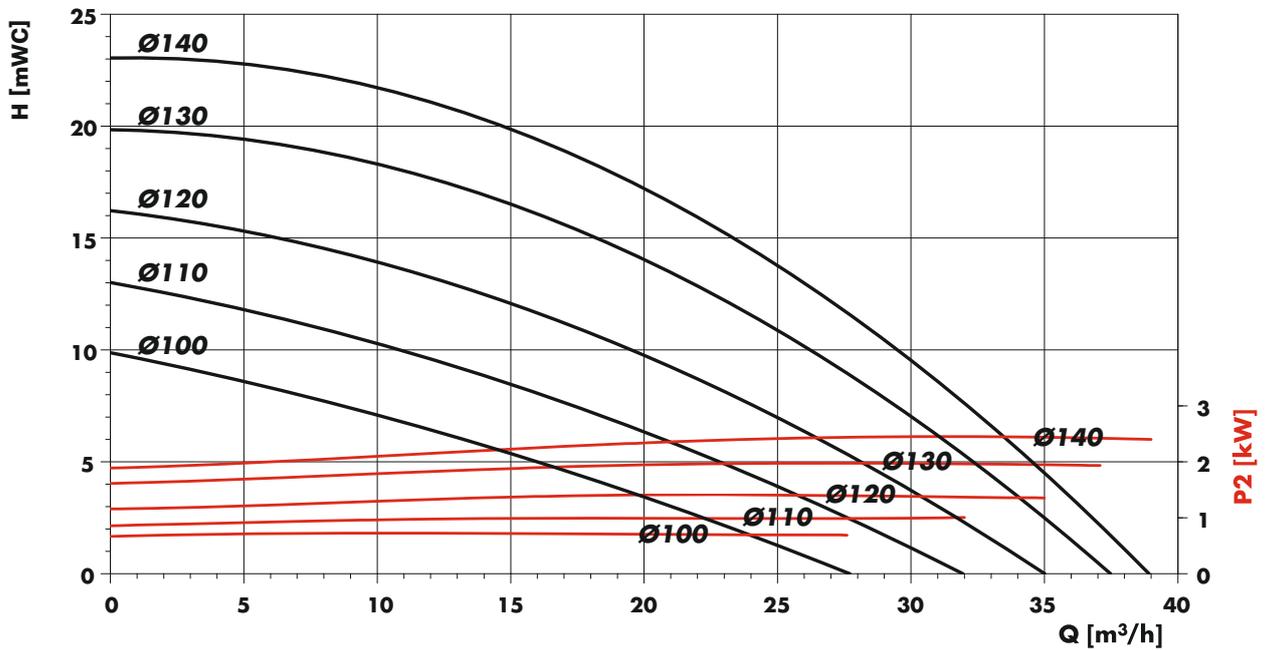
F 716 PP1-185



F 716 PVDF2-230

Technical data

Performance chart F 716 PP1-185, F 716 PP2-185 and F 716 PVDF2-185

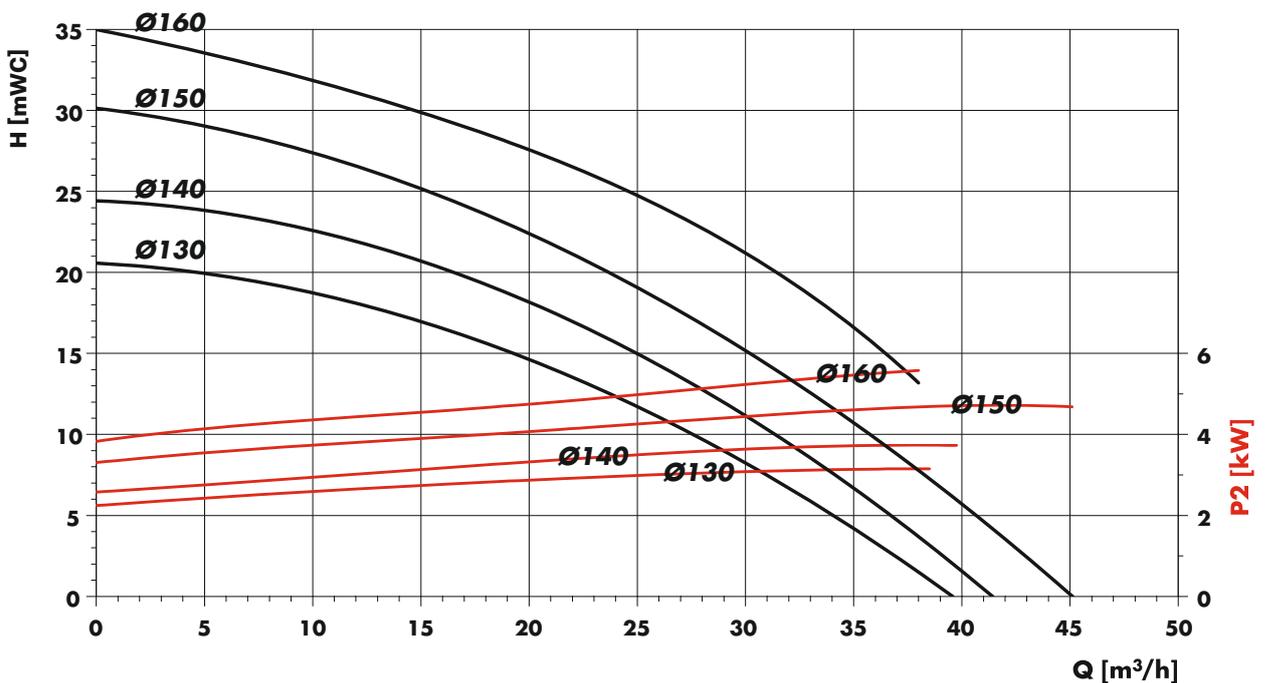


Measured values  $\pm$  10% determined with water (20 °C). Nominal speed  $n = 2850$  rpm

In order to obtain the desired output, centrifugal impellers in differing diameters are available.

In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

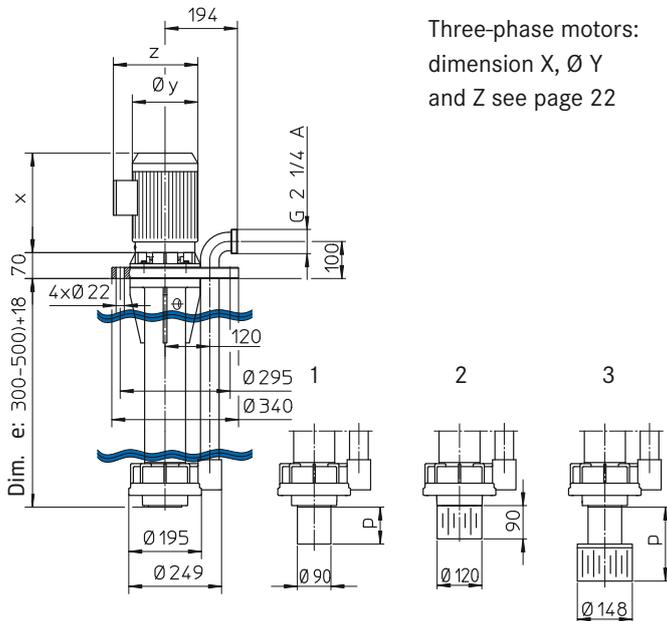
Performance chart F 716 PP1-230, F 716 PP2-230 and F 716 PVDF2-230



### Technical data

#### Dimensions F 716 PP1-185

##### Version with support tube



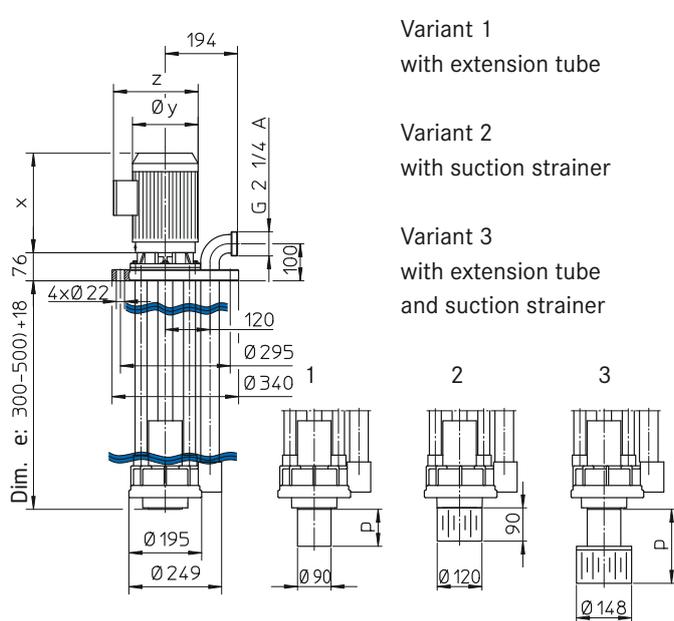
Three-phase motors:  
dimension X, Ø Y  
and Z see page 22

Basic model  
dimension e  
max. 500 mm

Dimension p max. 1500 mm

#### Dimensions F 716 PP2-185 and F 716 PVDF2-185

##### Version with support bars



Variant 1  
with extension tube

Variant 2  
with suction strainer

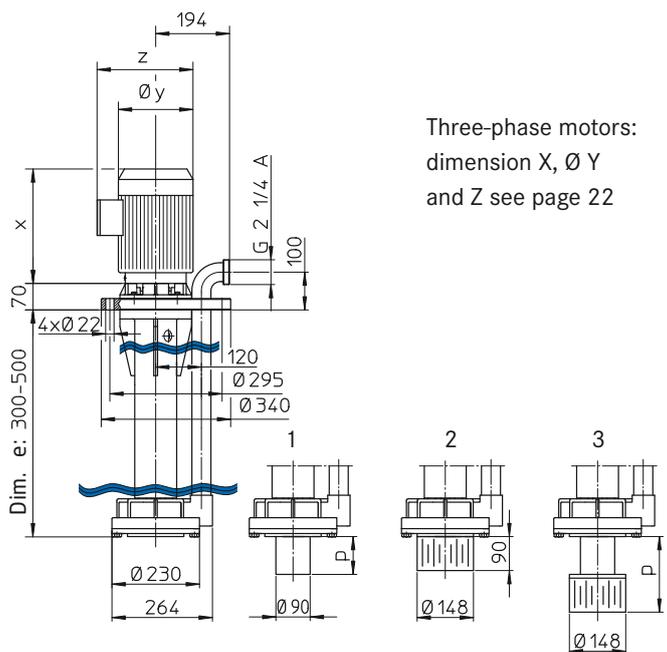
Variant 3  
with extension tube  
and suction strainer

Basic model  
dimension e  
max. 500 mm

Dimension p max. 1500 mm

#### Dimensions F 716 PP1-230

##### Version with support tube



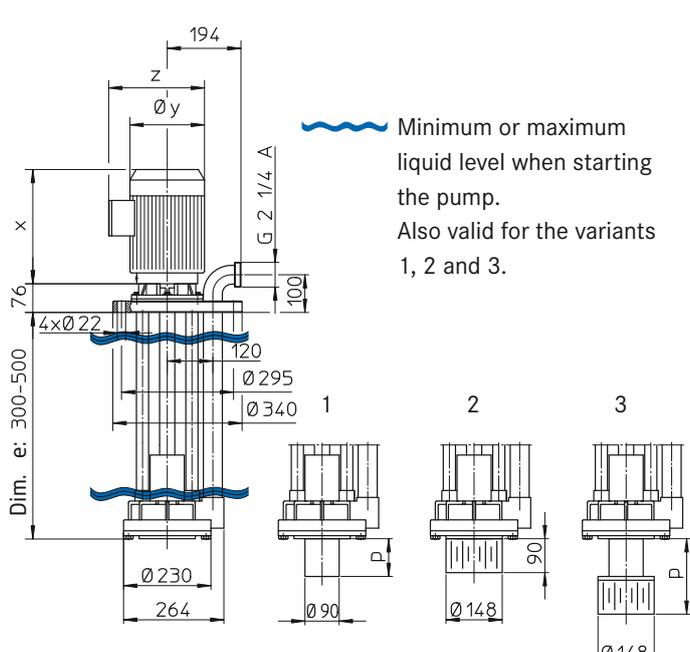
Three-phase motors:  
dimension X, Ø Y  
and Z see page 22

Basic model  
dimension e  
max. 500 mm

Dimension p max. 1500 mm

#### Dimensions F 716 PP2-230 and F 716 PVDF2-230

##### Version with support bars



~~~~~ Minimum or maximum  
liquid level when starting  
the pump.  
Also valid for the variants  
1, 2 and 3.

Basic model  
dimension e  
max. 500 mm

Dimension p max. 1500 mm

# Centrifugal Immersion Pump F 716 PP



## Centrifugal Immersion Pump F 716 PP in polypropylene,

with integral three-phase motor

| Type/Size                           | F 716 PP1-185                                                 | F 716 PP2-185        | F 716 PP1-230        | F 716 PP2-230        |
|-------------------------------------|---------------------------------------------------------------|----------------------|----------------------|----------------------|
| Version                             | with support tube                                             | with support bars    | with support tube    | with support bars    |
| Delivery rate Q max.                | 38 m <sup>3</sup> /h                                          | 38 m <sup>3</sup> /h | 45 m <sup>3</sup> /h | 45 m <sup>3</sup> /h |
| Delivery head H max.                | 23 m water column                                             | 23 m water column    | 35 m water column    | 35 m water column    |
| Viscosity max.                      | 150 mPas                                                      | 150 mPas             | 150 mPas             | 150 mPas             |
| Temperature max.                    | 60 °C                                                         | 80 °C                | 60 °C                | 80 °C                |
| Seal material                       | no bearings nor seals in contact with the liquid              |                      |                      |                      |
| Material                            | shaft in stainless steel 316 Ti with protective coating in PP |                      |                      |                      |
| Centrifugal impeller in PP          | Ø 100 – 140 mm                                                | Ø 100 – 140 mm       | Ø 130 – 160 mm       | Ø 130 – 160 mm       |
| Pump housing                        | Ø 249 mm                                                      | Ø 249 mm             | Ø 264 mm             | Ø 264 mm             |
| Mounting flange in PP               | outside Ø 340 mm                                              | outside Ø 340 mm     | outside Ø 340 mm     | outside Ø 340 mm     |
| Thread on outlet                    | G 2¼ A                                                        | G 2¼ A               | G 2¼ A               | G 2¼ A               |
| Part No.                            |                                                               |                      |                      |                      |
| Motor capacity P2                   | 1,5 kW                                                        | 1,5 kW               | 3,0 kW               | 3,0 kW               |
| Immersion length Dimension e 300 mm | 716 41 203                                                    | 716 42 203           | 716 41 303           | 716 42 303           |
| Immersion length Dimension e 400 mm | 716 41 204                                                    | 716 42 204           | 716 41 304           | 716 42 304           |
| Immersion length Dimension e 500 mm | 716 41 205                                                    | 716 42 205           | 716 41 305           | 716 42 305           |
| Motor capacity P2                   | 2,2 kW                                                        | 2,2 kW               | 4,0 kW               | 4,0 kW               |
| Immersion length Dimension e 300 mm | 716 41 213                                                    | 716 42 213           | 716 41 313           | 716 42 313           |
| Immersion length Dimension e 400 mm | 716 41 214                                                    | 716 42 214           | 716 41 314           | 716 42 314           |
| Immersion length Dimension e 500 mm | 716 41 215                                                    | 716 42 215           | 716 41 315           | 716 42 315           |
| Motor capacity P2                   | 3,0 kW                                                        | 3,0 kW               | 5,5 kW               | 5,5 kW               |
| Immersion length Dimension e 300 mm | 716 41 223                                                    | 716 42 223           | 716 41 323           | 716 42 323           |
| Immersion length Dimension e 400 mm | 716 41 224                                                    | 716 42 224           | 716 41 324           | 716 42 324           |
| Immersion length Dimension e 500 mm | 716 41 225                                                    | 716 42 225           | 716 41 325           | 716 42 325           |
| Motor capacity P2                   | 4,0 kW                                                        | 4,0 kW               | -                    | -                    |
| Immersion length Dimension e 300 mm | 716 41 233                                                    | 716 42 233           | -                    | -                    |
| Immersion length Dimension e 400 mm | 716 41 234                                                    | 716 42 234           | -                    | -                    |
| Immersion length Dimension e 500 mm | 716 41 235                                                    | 716 42 235           | -                    | -                    |

## Centrifugal Immersion Pump F 716 PVDF in polyvinylidenfluoride,

with integral three-phase motor

| Type/Size                           | F 716 PVDF2-185                                                 | F 716 PVDF2-230      |            |            |
|-------------------------------------|-----------------------------------------------------------------|----------------------|------------|------------|
| Version                             | with support bars                                               | with support bars    |            |            |
| Delivery rate Q max.                | 38 m <sup>3</sup> /h                                            | 45 m <sup>3</sup> /h |            |            |
| Delivery head H max.                | 23 m water column                                               | 35 m water column    |            |            |
| Viscosity max.                      | 150 mPas                                                        | 150 mPas             |            |            |
| Temperature max.                    | 100 °C                                                          | 100 °C               |            |            |
| Seal material                       | no bearings nor seals in contact with the liquid                |                      |            |            |
| Material                            | shaft in stainless steel 316 Ti with protective coating in PVDF |                      |            |            |
| Centrifugal impeller in PVDF        | Ø 100 – 140 mm                                                  | Ø 130 – 160 mm       |            |            |
| Pump housing                        | Ø 249 mm                                                        | Ø 264 mm             |            |            |
| Mounting flange in RCH1000          | outer Ø 340 mm                                                  | outer Ø 340 mm       |            |            |
| Thread on outlet                    | G 2¼ A                                                          | G 2¼ A               |            |            |
| Part No.                            |                                                                 |                      |            |            |
| Motor capacity P2                   | 1,5 kW                                                          | 2,2 kW               | 3,0 kW     | 4,0 kW     |
| Immersion length Dimension e 300 mm | 716 62 203                                                      | 716 62 213           | 716 62 303 | 716 62 313 |
| Immersion length Dimension e 400 mm | 716 62 204                                                      | 716 62 214           | 716 62 304 | 716 62 314 |
| Immersion length Dimension e 500 mm | 716 62 205                                                      | 716 62 215           | 716 62 305 | 716 62 315 |
| Motor capacity P2                   | 3,0 kW                                                          | 4,0 kW               | 5,5 kW     |            |
| Immersion length Dimension e 300 mm | 716 62 223                                                      | 716 62 233           | 716 62 323 |            |
| Immersion length Dimension e 400 mm | 716 62 224                                                      | 716 62 234           | 716 62 324 |            |
| Immersion length Dimension e 500 mm | 716 62 225                                                      | 716 62 235           | 716 62 325 |            |

### Accessories

Extension tube in PP or PVDF in steps of 100 mm. Dimension p up to max. 1500 mm.

Suction strainer in PP or PVDF welded onto the cover of the pump housing or onto the extension tube.

Weight per pump: 22 – 50 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pump F 726 PP and F 726 PVDF

In polypropylene or polyvinylidenfluoride size 115 and 135

## Typical applications

Transferring and circulating of neutral or corrosive liquids in the whole field of the chemical industry and chemical engineering, electroplating industry, steel or stainless steel pickling plants, flue gas decontamination, exhaust air purification, water and waste-water treatment.

## Construction features

Vertical centrifugal immersion pump for stationary application. The robust pump shaft is mounted in an upper pedestal and supported by two antifriction bearings. This construction, with the bearings spaced along the pedestal, ensures that any radial or axial forces are absorbed, even under heavy load. The result is a very smooth running pump. The solid version with support bars prevents the rotating elements from making contact with the pump housing and guarantees a very long service life, even in continuous use applications. As neither bearing nor seals are in contact with the liquid, the pump is very wear-resistant and suitable for dry running operation. The immersion length of the pump can be extended, up to 1000 mm maximum, by the suction tube option. A suction strainer welded onto the cover of the pump housing or onto the extension tube protects the pump against the ingress of coarse impurities.

A range of carefully chosen impeller diameters, together with a range of three-phase motors in differing kW-ratings, ensures the optimum selection of pumps to meet the specific operating requirements.

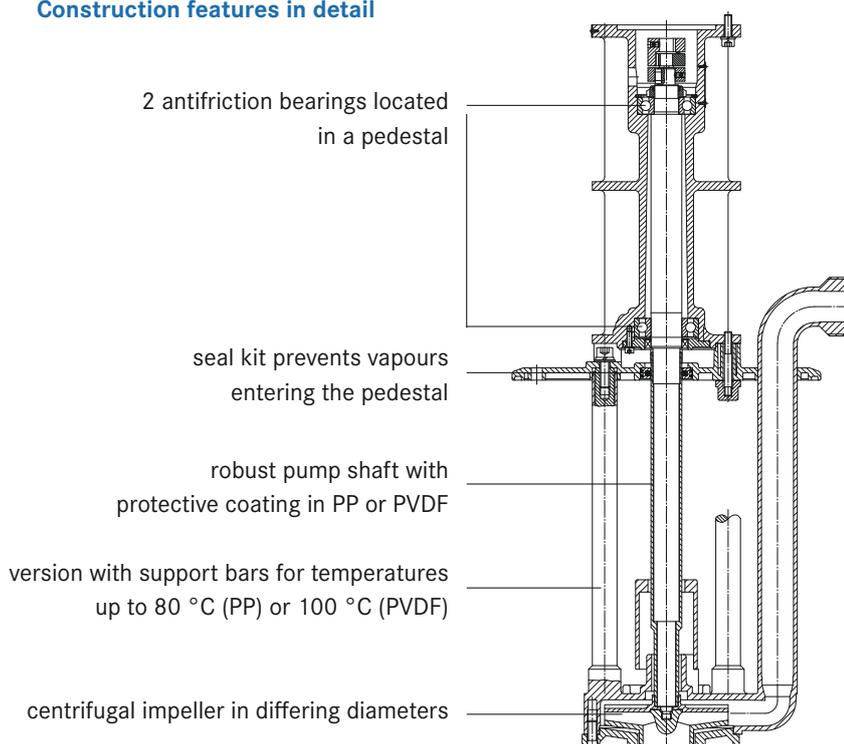


F 726 PP2-115



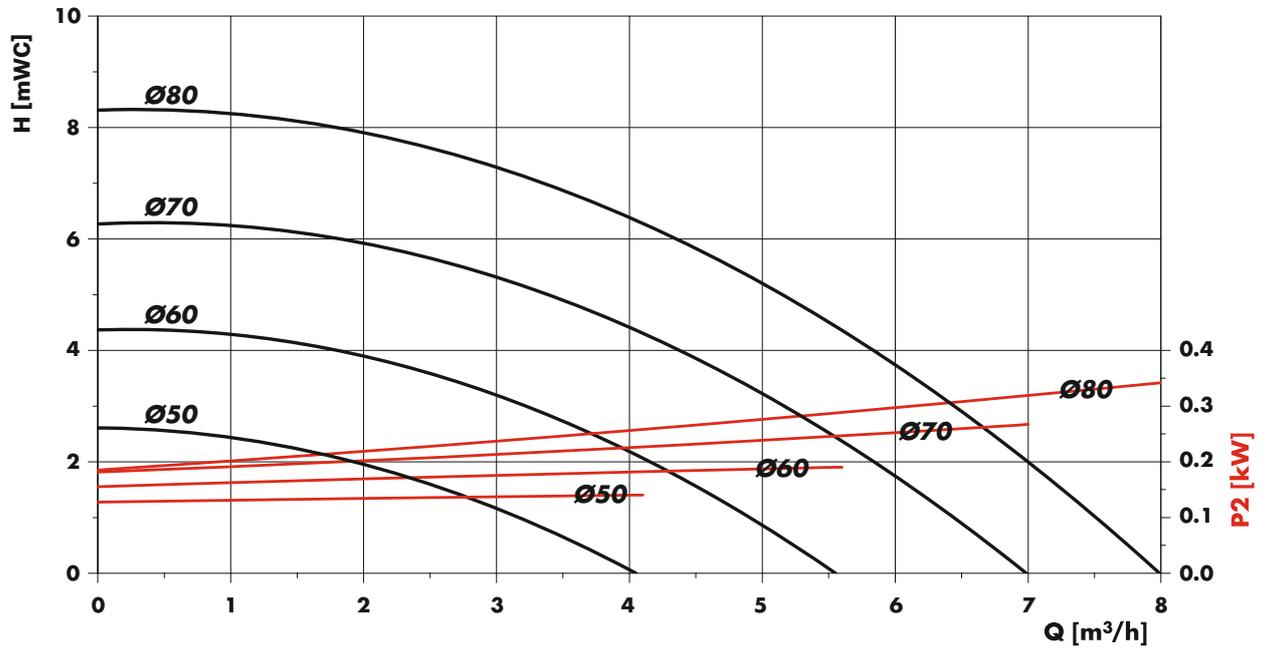
F 726 PVDF2-135

## Construction features in detail



Technical data

Performance chart F 726 PP2-115 and F 726 PVDF2-115

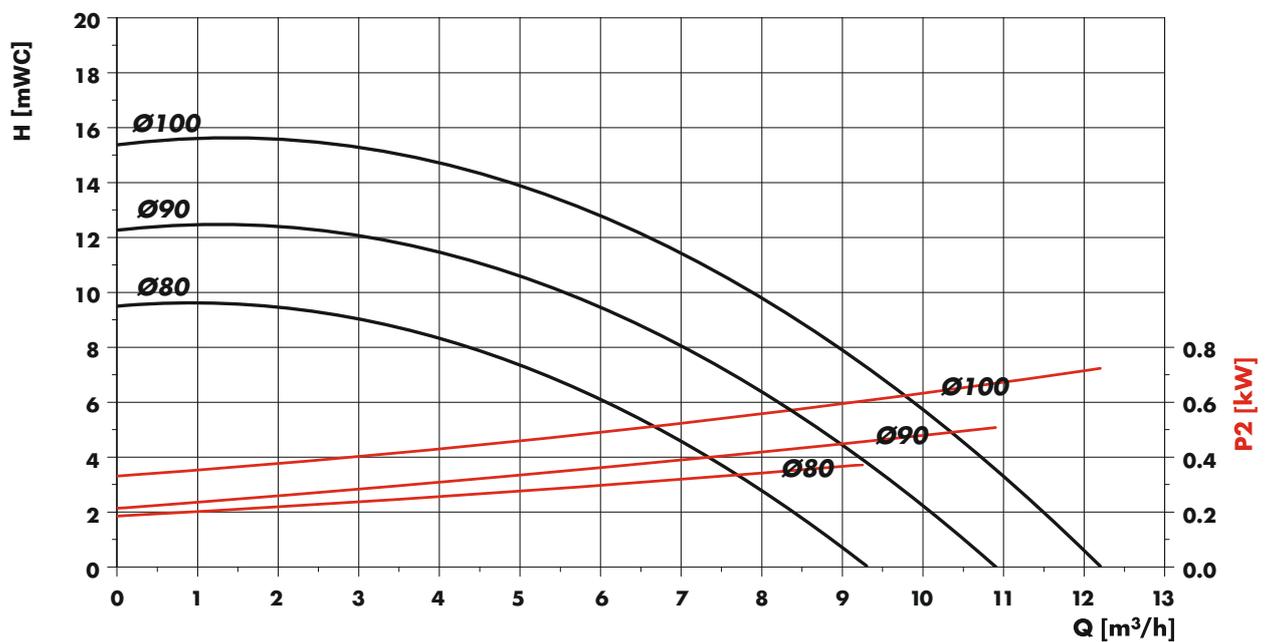


Measured values  $\pm 10\%$  determined with water (20 °C). Nominal speed  $n = 2850$  rpm

In order to achieve the desired output, centrifugal impellers in differing diameters are available.

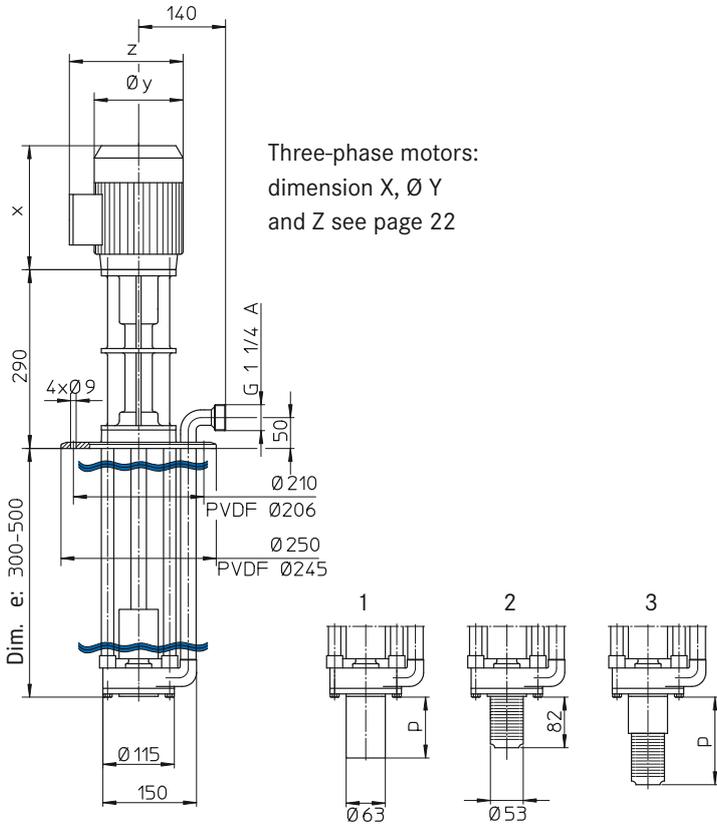
In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

Performance chart F 726 PP2-135 and F 726 PVDF2-135



**Technical data**

**Dimensions F 726 PP2-115 and F 726 PVDF2-115**



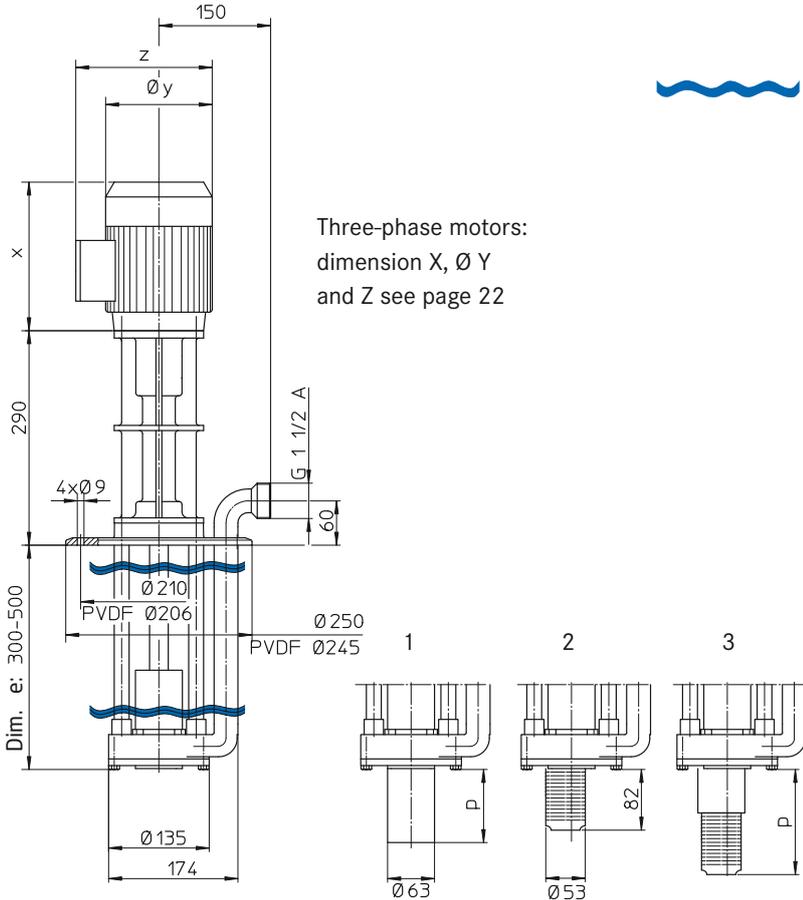
Basic model  
dimension e max. 500 mm

Variant 1  
with extension tube  
dimension p max. 1000 mm

Variant 2  
with suction strainer

Variant 3  
with extension tube  
and suction strainer

**Dimensions F 726 PP2-135 and F 726 PVDF2-135**



 Minimum or maximum liquid level  
when starting the pump.  
Also valid for the variants 1, 2 and 3.

Basic model  
dimension e max. 500 mm

Variant 1  
with extension tube  
dimension p max. 1000 mm

Variant 2  
with suction strainer

Variant 3  
with extension tube  
and suction strainer

# Centrifugal Immersion Pump F 726 PP



## Centrifugal Immersion Pump F 726 PP in polypropylene and F 726 PVDF in polyvinylidene fluoride,

version with support bars, without drive motor

| Type/Size                           | F 726 PP2-115                                                 | F 726 PP2-135        | F 726 PVDF2-115     | F 726 PVDF2-135      |
|-------------------------------------|---------------------------------------------------------------|----------------------|---------------------|----------------------|
| Delivery rate Q max.                | 8 m <sup>3</sup> /h                                           | 12 m <sup>3</sup> /h | 8 m <sup>3</sup> /h | 12 m <sup>3</sup> /h |
| Delivery head H max.                | 8 m water column                                              | 15 m water column    | 8 m water column    | 15 m water column    |
| Viscosity max.                      | 150 mPas                                                      | 150 mPas             | 150 mPas            | 150 mPas             |
| Temperature max.                    | 80 °C                                                         | 80 °C                | 100 °C              | 100 °C               |
| Seal material                       | no bearings nor seals in contact with the liquid              |                      |                     |                      |
| Material                            | shaft in stainless steel 316 Ti with protective coating in PP |                      |                     |                      |
| Centrifugal impeller in PP or PVDF  | Ø 50 – 80 mm                                                  | Ø 80 – 100 mm        | Ø 50 – 80 mm        | Ø 80 – 100 mm        |
| Pump housing                        | Ø 150 mm                                                      | Ø 174 mm             | Ø 150 mm            | Ø 174 mm             |
| Mounting flange in PP or PVDF       | outside Ø 250 mm                                              | outside Ø 250 mm     | outside Ø 245 mm    | outside Ø 245 mm     |
| Thread on outlet                    | G 1¼ A                                                        | G 1½ A               | G 1¼ A              | G 1½ A               |
| Part No.                            |                                                               |                      |                     |                      |
| Immersion length Dimension e 300 mm | 726 42 003                                                    | 726 42 103           | 726 62 003          | 726 62 103           |
| Immersion length Dimension e 400 mm | 726 42 004                                                    | 726 42 104           | 726 62 004          | 726 62 104           |
| Immersion length Dimension e 500 mm | 726 42 005                                                    | 726 42 105           | 726 62 005          | 726 62 105           |

### Accessories

Extension tube in PP or PVDF in steps of 100 mm. Dimension p up to. max. 1000 mm.

Suction strainer in PP or PVDF welded onto the cover of the pump housing or onto the extension tube.

## Drive motors for Centrifugal Immersion Pump F 726 PP and F 726 PVDF,

three-phase motors protected to IP 55, with cable terminable box

| Capacity P2 | Flange Ø | Voltage   | Frequency | Nominal speed | Part No.   |
|-------------|----------|-----------|-----------|---------------|------------|
| 0,37 kW     | 120 mm   | 230/400 V | 50 Hz     | 2850 rpm      | 001 00 004 |
| 0,55 kW     | 120 mm   | 230/400 V | 50 Hz     | 2850 rpm      | 001 00 005 |
| 0,75 kW     | 120 mm   | 230/400 V | 50 Hz     | 2850 rpm      | 001 00 034 |

Drive motors explosion-proof to II 2 G EEx e II T3 with cable terminal box on request.

### Scope of supply

A complete vertical centrifugal immersion pump consists of: drive motor, pump with mounting flange and the necessary accessories. Weight per pump 17 – 30 kg depending on the pump size, immersion length and motor kW.

# FLUX Centrifugal Immersion Pump F 726 PP and F 726 PVDF

In polypropylene or polyvinylidenfluoride size 185 and 230

## Typical applications

Transferring and circulating of neutral or corrosive liquids in the whole field of the chemical industry and chemical engineering, electroplating industry, steel or stainless steel pickling plants, flue gas decontamination, exhaust air purification, water and waste-water treatment.

## Construction features

Vertical centrifugal immersion pump for stationary application. The robust pump shaft is mounted in an upper pedestal and supported by two antifriction bearings. This construction, with the bearings spaced along the pedestal, ensures that any radial or axial forces are absorbed, even under heavy load. The result is a very smooth running pump. The solid version with support bars prevents the rotating elements from making contact with the pump housing and guarantees a very long service life, even in continuous use applications. As neither bearing nor seals are in contact with the liquid, the pump is very wear-resistant and suitable for dry running operation. The immersion length of the pump can be extended, up to 1500 mm maximum, by the suction tube option. A suction strainer welded onto the cover of the pump housing or onto the extension tube protects the pump against the ingress of coarse impurities.

A range of carefully chosen impeller diameters, together with a range of three-phase motors in differing kW-ratings, ensures the optimum selection of pumps to meet the specific operating requirements.

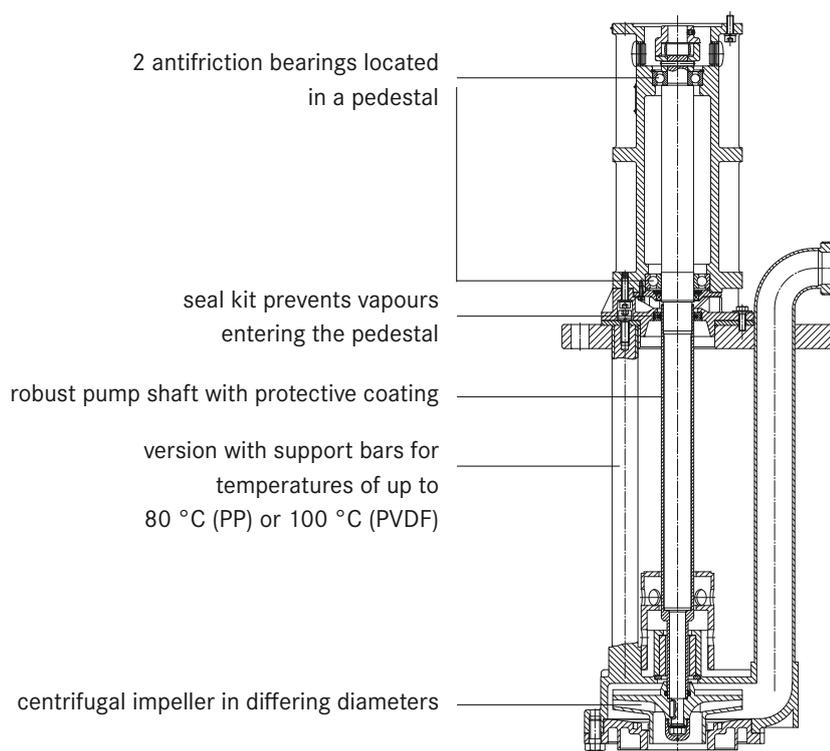


F 726 PP2-185



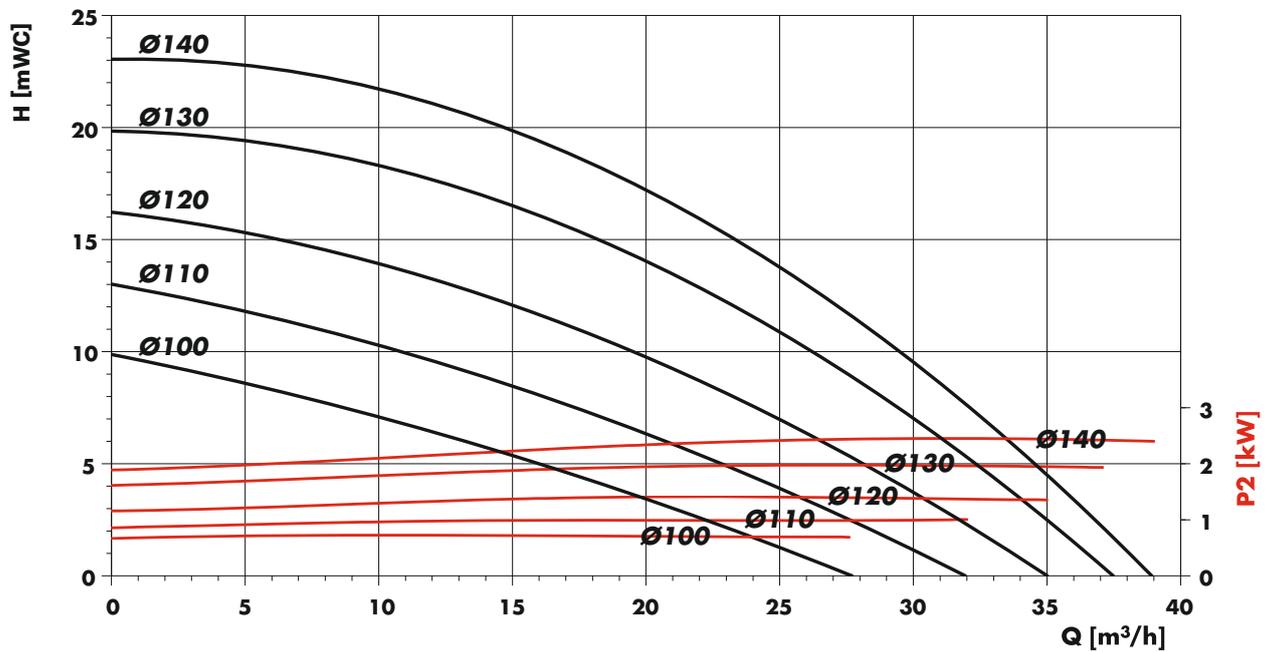
F 726 PVDF2-230

## Construction features in detail



### Technical data

#### Performance chart F 726 PP2-185 and F 726 PVDF2-185

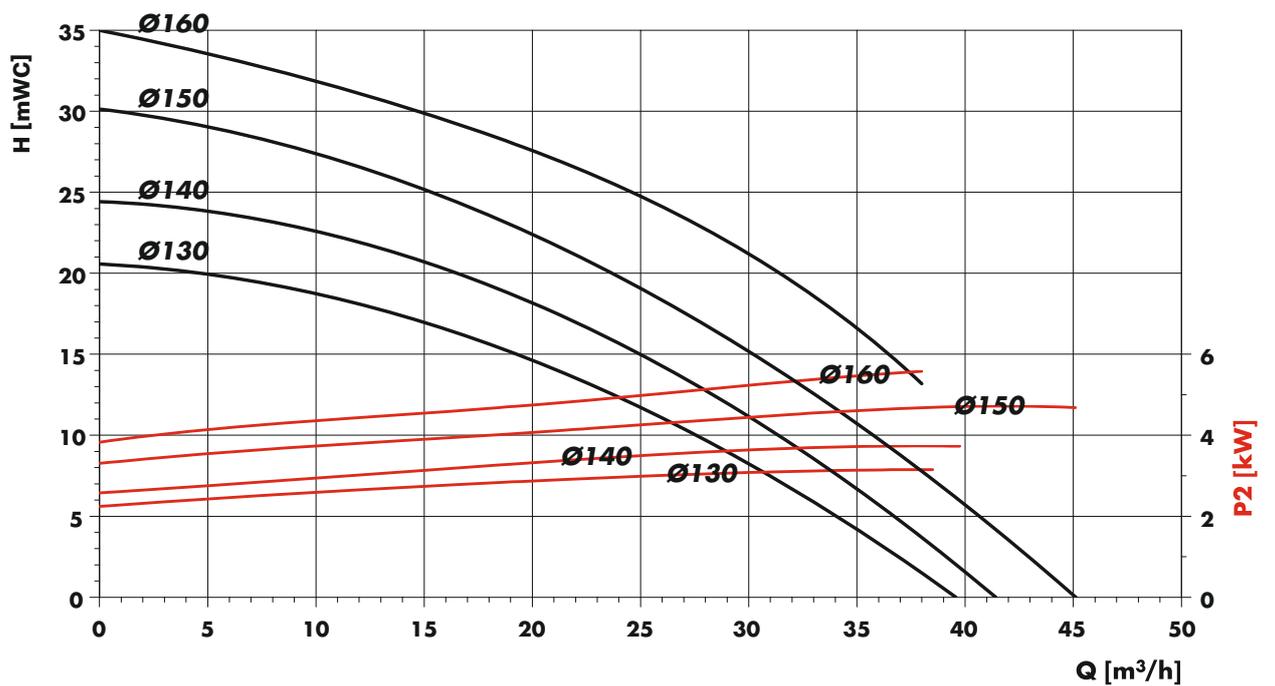


Measured values  $\pm 10\%$  determined with water (20 °C). Nominal speed  $n = 2850$  rpm

In order to achieve the desired output, centrifugal impellers in differing diameters are available.

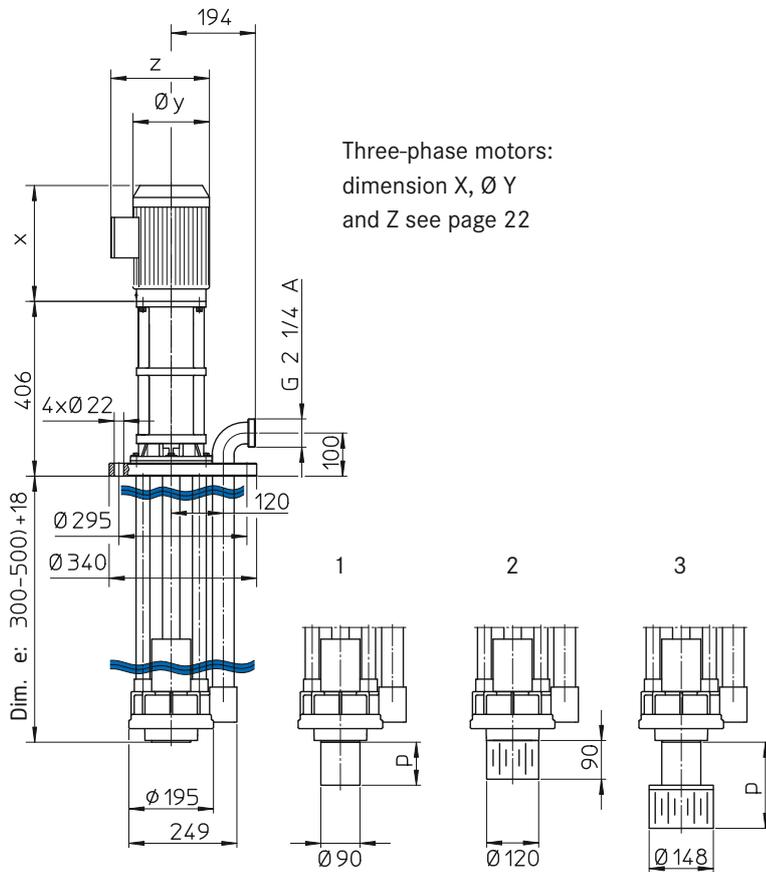
In determining the absorbed kW of the motor, multiply the absorbed kW shown in the above diagram with the specific gravity of the liquid to be pumped.

#### Performance chart F 726 PP2-230 and F 726 PVDF2-230



**Technical data**

**Dimensions F 726 PP2-185 and F 726 PVDF2-185**



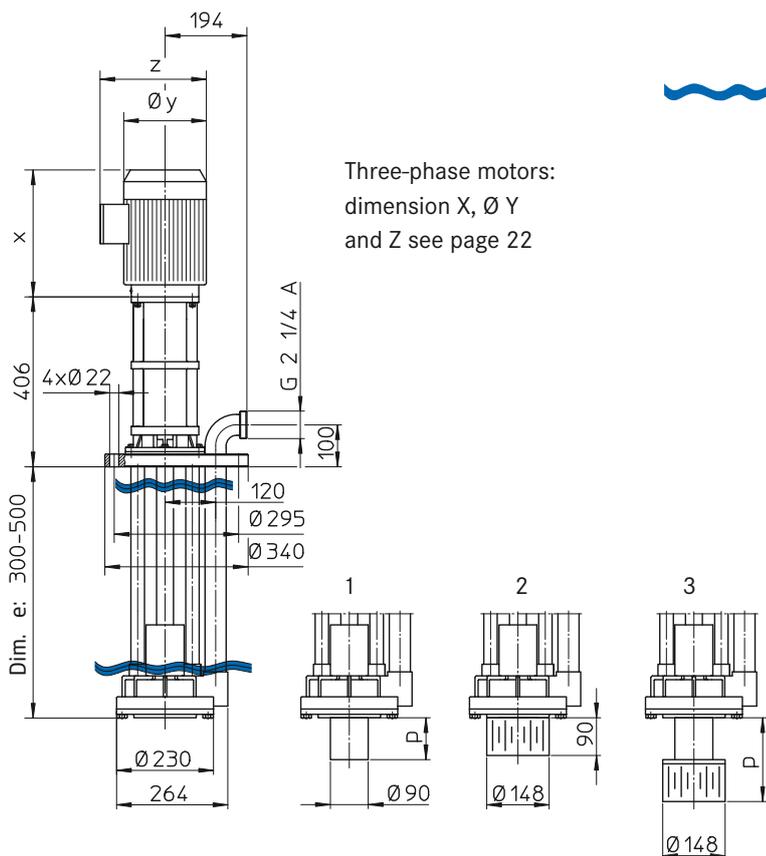
Basic model  
dimension e max. 500 mm

Variant 1  
with extension tube  
dimension p max. 1500 mm

Variant 2  
with suction strainer

Variant 3  
with extension tube  
and suction strainer

**Dimensions F 726 PP2-230 and F 726 PVDF2-230**



Minimum or maximum liquid level  
when starting the pump.  
Also valid for the variants 1, 2 and 3.

Basic model  
dimension e max. 500 mm

Variant 1  
with extension tube  
dimension p max. 1500 mm

Variant 2  
with suction strainer

Variant 3  
with extension tube  
and suction strainer

# Centrifugal Immersion Pump F 726 PP



## Centrifugal Immersion Pump F 726 PP in polypropylene and F 726 PVDF in polyvinylidene fluoride,

version with support bars, without drive motor

| Type/Size                           | F 726 PP2-185                                                 | F 726 PP2-230        | F 726 PVDF2-185      | F 726 PVDF2-230      |
|-------------------------------------|---------------------------------------------------------------|----------------------|----------------------|----------------------|
| Delivery rate Q max.                | 38 m <sup>3</sup> /h                                          | 45 m <sup>3</sup> /h | 38 m <sup>3</sup> /h | 45 m <sup>3</sup> /h |
| Delivery head H max.                | 23 m water column                                             | 35 m water column    | 23 m water column    | 35 m water column    |
| Viscosity max.                      | 150 mPas                                                      | 150 mPas             | 150 mPas             | 150 mPas             |
| Temperature max.                    | 80 °C                                                         | 80 °C                | 100 °C               | 100 °C               |
| Seal material                       | no bearings nor seals in contact with the liquid              |                      |                      |                      |
| Material                            | shaft in stainless steel 316 Ti with protective coating in PP |                      |                      |                      |
| Centrifugal impeller in PP or PVDF  | Ø 100 - 140 mm                                                | Ø 130 - 160 mm       | Ø 100 - 140 mm       | Ø 130 - 160 mm       |
| Pump housing                        | Ø 249 mm                                                      | Ø 264 mm             | Ø 249 mm             | Ø 264 mm             |
| Mounting flange in PP or RCH 1000   | outside Ø 340 mm                                              | outside Ø 340 mm     | outside Ø 340 mm     | outside Ø 340 mm     |
| Thread on outlet                    | G 2¼ A                                                        | G 2¼ A               | G 2¼ A               | G 2¼ A               |
| Part No.                            |                                                               |                      |                      |                      |
| Immersion length Dimension e 300 mm | 726 42 203                                                    | 726 42 303           | 726 62 203           | 726 62 303           |
| Immersion length Dimension e 400 mm | 726 42 204                                                    | 726 42 304           | 726 62 204           | 726 62 304           |
| Immersion length Dimension e 500 mm | 726 42 205                                                    | 726 42 305           | 726 62 205           | 726 62 305           |

### Accessories

Extension tube in PP or PVDF in steps of 100 mm, Dimension p up to max. 1500 mm.

Suction strainer in PP or PVDF welded onto the cover of the pump housing or onto the extension tube.

## Drive motor for Centrifugal Immersion Pump F 726 PP and F 726 PVDF,

three-phase motors protected to IP 55, with cable terminal box

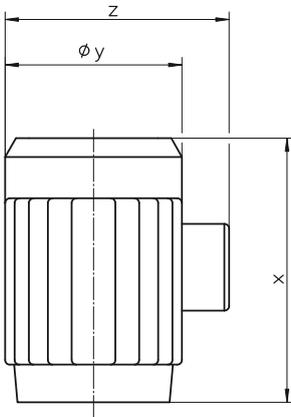
| Capacity P2 | Flange Ø | Voltage   | Frequency | Nominal speed | Part No.   |
|-------------|----------|-----------|-----------|---------------|------------|
| 1,5 kW      | 160 mm   | 230/400 V | 50 Hz     | 2850 rpm      | 001 00 037 |
| 2,2 kW      | 160 mm   | 230/400 V | 50 Hz     | 2850 rpm      | 001 00 038 |
| 3,0 kW      | 160 mm   | 400 V     | 50 Hz     | 2850 rpm      | 001 00 039 |
| 4,0 kW      | 160 mm   | 400 V     | 50 Hz     | 2850 rpm      | 001 00 040 |
| 5,5 kW      | 160 mm   | 400 V     | 50 Hz     | 2850 rpm      | 001 00 041 |

Three-phase motors explosion-proof to II 2 G EEx e II T3 with cable terminal box on request.

### Scope of supply

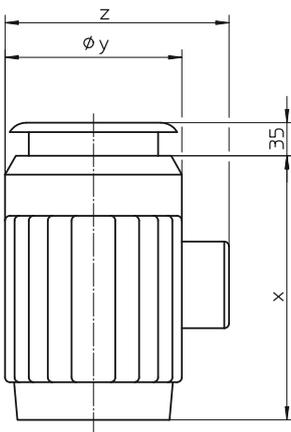
A complete vertical centrifugal immersion pump consists of: drive motor, pump with mounting flange and the necessary accessories. Weight per pump 25 - 75 kg depending on the pump size, immersion length and motor kW.

### Dimensions of three-phase motors protected to IP 55



| Capacity P2 | Nominal speed | X   | Ø Y | Z   |
|-------------|---------------|-----|-----|-----|
| 0,37 kW     | 2850 rpm      | 201 | 143 | 183 |
| 0,55 kW     | 2850 rpm      | 201 | 143 | 183 |
| 0,75 kW     | 2850 rpm      | 232 | 158 | 201 |
| 1,1 kW      | 2850 rpm      | 232 | 158 | 201 |
| 1,5 kW      | 2850 rpm      | 244 | 176 | 227 |
| 2,2 kW      | 2850 rpm      | 269 | 176 | 227 |
| 3,0 kW      | 2850 rpm      | 303 | 196 | 252 |
| 4,0 kW      | 2850 rpm      | 320 | 220 | 277 |
| 5,5 kW      | 2850 rpm      | 405 | 246 | 313 |
| 3,0 kW      | 1450 rpm      | 303 | 196 | 252 |
| 4,0 kW      | 1450 rpm      | 320 | 220 | 277 |
| 5,5 kW      | 1450 rpm      | 405 | 246 | 313 |

### Dimensions of three-phase motors explosion-proof to II 2 G EEx e II T3



| Capacity P2 | Nominal speed | X   | Ø Y | Z   |
|-------------|---------------|-----|-----|-----|
| 0,75 kW     | 2850 rpm      | 232 | 158 | 212 |
| 1,1 kW      | 2850 rpm      | 232 | 158 | 212 |
| 1,5 kW      | 2850 rpm      | 244 | 176 | 237 |
| 2,0 kW      | 2850 rpm      | 269 | 176 | 237 |
| 2,5 kW      | 2850 rpm      | 303 | 196 | 256 |
| 3,3 kW      | 2850 rpm      | 320 | 220 | 279 |



# Questionnaire to quote on

## FLUX Vertical Centrifugal Immersion Pumps



### Requested version

for portable application  for stationary application  for horizontal application

### Liquid data

Description \_\_\_\_\_ Chemical Formula \_\_\_\_\_

Concentration \_\_\_\_\_ % Specific gravity \_\_\_\_\_ g/cm<sup>3</sup>

Viscosity \_\_\_\_\_ mPas/cP at \_\_\_\_\_ °C Operating temperature \_\_\_\_\_ °C

Solids in suspension \_\_\_\_\_ g/l  hard  soft Size of solids \_\_\_\_\_ mm

Does liquid crystallize?  Yes  No at \_\_\_\_\_ °C

Which materials are resistant to liquid according to previous experience?

### Operating data

Delivery rate \_\_\_\_\_ m<sup>3</sup>/h Delivery head \_\_\_\_\_ m water column

Immersion length \_\_\_\_\_ mm Suction strainer  Yes  No

Mounting flange in special dimensions: Extension tube  Yes  No

outside Ø \_\_\_\_\_ mm, p.c. Ø \_\_\_\_\_ mm Dimension p = \_\_\_\_\_ mm

pressure flange  Yes  No

outside Ø \_\_\_\_\_ mm, p.c. Ø \_\_\_\_\_ mm Ø of the container opening \_\_\_\_\_ mm

Operating time per day \_\_\_\_\_ Number of starts \_\_\_\_\_

### Drive motor

Three-phase motor Operating voltage \_\_\_\_\_ Volt \_\_\_\_\_ Hz

Is motor to be explosion-proof?  Yes  No

### Quotation to be sent by:

Telephone  E-Mail  Telefax

Mr. / Mrs: \_\_\_\_\_ Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

ZIP / City / Country: \_\_\_\_\_

Phone: \_\_\_\_\_ Telefax: \_\_\_\_\_

Mobile: \_\_\_\_\_ E-Mail: \_\_\_\_\_

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More than just pumps

Today the FLUX name is recognised around the globe as the trademark for top standards in pump technology. Everything started with the invention of the electric drum pump in 1950. Nowadays FLUX has an extensive range of products each of which can be customized. FLUX pumps are used for example in the chemical and pharmaceutical industries; in machinery and plant engineering as well as companies in electroplating, effluent treatment and the foodstuffs sector.

Whether single-product or system solution – FLUX quality is synonymous with a long service life, excellent economy and maximum safety.

In addition to the excellent product quality FLUX customers appreciate the superb level of expertise our staff has to offer as well as their genuine customer focus.

These days FLUX-GERÄTE GMBH supplies pumps to almost 100 countries around the globe.

