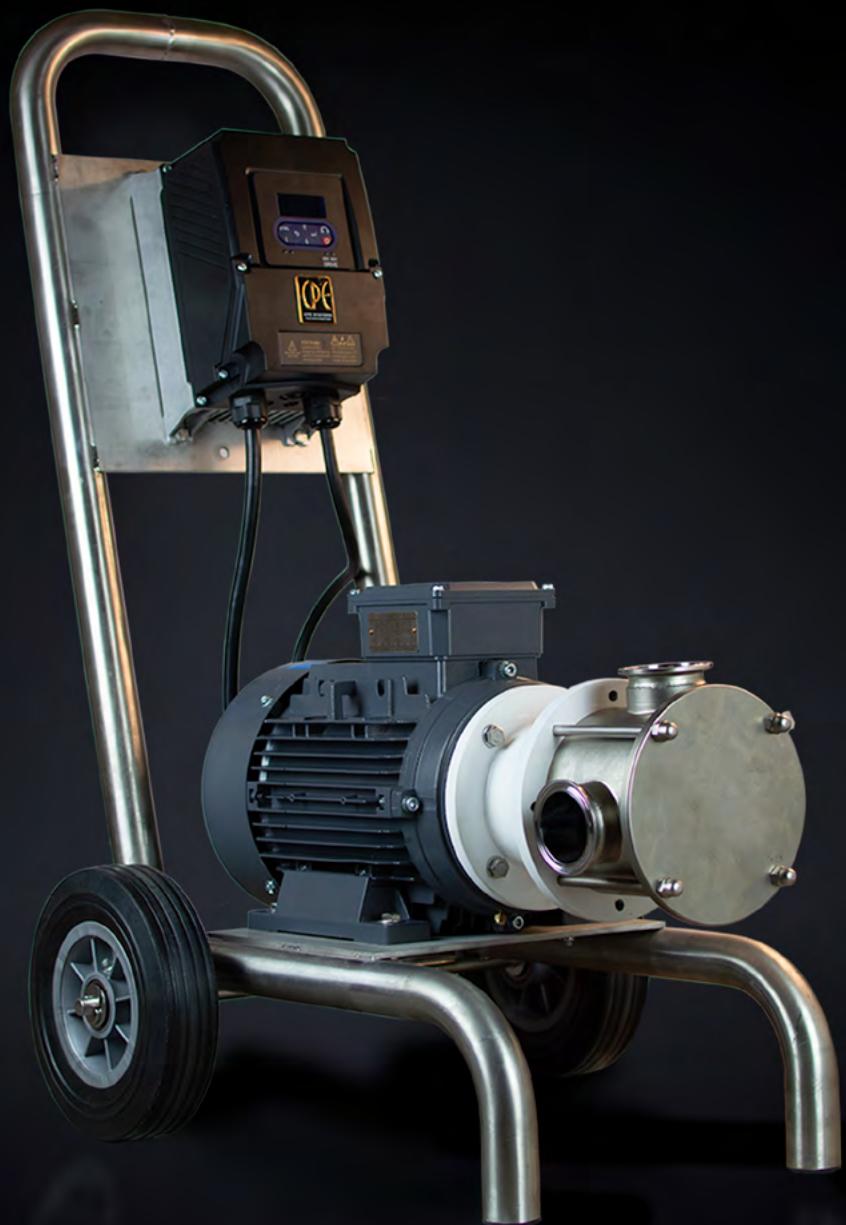




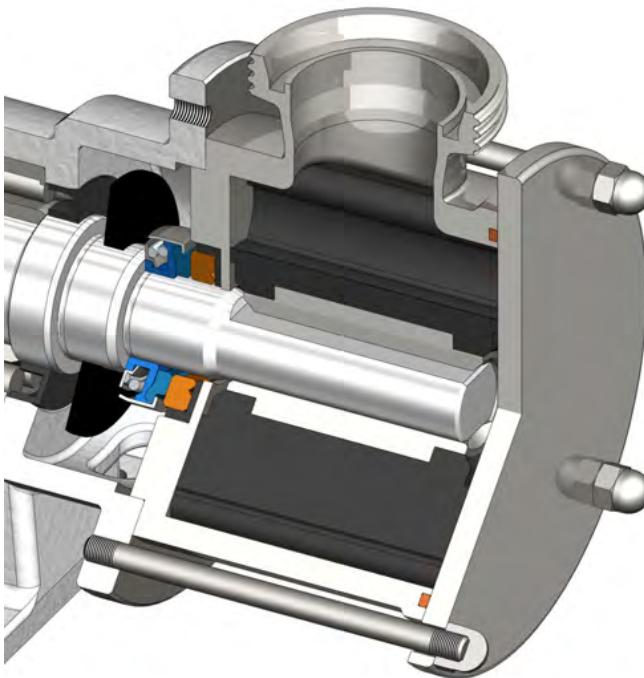
CPE SYSTEMS INC

# RF-20/50

## TECHNICAL SPECIFICATIONS



The Inoxpa RF-20/50 is a flexible impeller pump designed for the transfer of beer wort, dairy products, edible oils, wine, concentrates, and beverages in general. The flexible impeller design makes it uniquely equipped to handle viscous products such as jam, marmalade, custard, soap, gel, and creams. The RF pump series features a food-grade neoprene impeller that is both gentle and powerful. The RF pumps are self-priming and reversible making them versatile and easy to use for multiple applications throughout the food, beverage, pharmaceutical, cosmetic, and oil extraction industries. The RF-20/50 pump head is paired with a 3 HP IEC motor with a TEFC enclosure.



## DESIGN

Flexible Impeller pumps have a unique design that sets them apart from standard centrifugal pumps. The RF-20/50 is designed with a food-grade neoprene flexible impeller and an external mechanical seal. The housing is eccentrically shaped to create suction and discharge. On the suction side the blades enlarge creating a vacuum that sucks in the product. The product is carried by the impeller to the discharge side where the blades are bent to reduce the volume and the product is forced out the discharge outlet.



## TECHNICAL SPECIFICATIONS

Style:	
Monobloc	Standard
Bare Shaft	Special Order
Connections:	2" Tri-Clamp
<b>Materials</b>	
Parts in Contact With Product:	316L Stainless Steel
Lantern and Bearing Support:	GG 22
Other Parts	EPDM (Buna & Viton optional)
Impeller:	CR (Neoprene)
Gaskets:	NBR
Mechanical Seal:	Cer/C/NBR
Surface Finish:	Polished, Ra ≤ 0.8 µm
<b>Specifications</b>	
Weight:	
Monobloc	81.57 lbs (37 kg)
Bare Shaft	37.48 lbs (17 kg)
<b>Motor</b>	
RPM	1800
Voltage	230/460V
Enclosure	TEFC
Horsepower	3 HP
Compliances	Class I, Division II, Groups A, B, C and D compliant
Material	Performance cast aluminum
Weight	26 lbs
<b>Performance v</b>	
Flow	20 m <sup>3</sup> / h (88.06 US GPM)
Max. Working Pressure	2 - 4 bar (29 - 58 PSI)
Max. Working Temperature	80 °C (176 °F)
Max. Speed	1450 rpm
Max. Differential Pressure:	
Monoblock	2 bar
Bare Shaft	2 bar
Reverse Torque:	51.6 Nm
Starting Torque	24.4 Nm



## Assemblies

The RF-20/50 is available as a pump and motor or as a portable pump assembly. The portable pump assembly includes a VFD, cart, cord, and plug. The portable assembly comes fully programmed and has more voltage options than the pump and motor.

### PORTABLE ASSEMBLY COMPONENTS:

- RF-20/50 Pump Head
- IEC Motor (3 HP)
- LENZE VFD (3 HP)
- Medium Duty Cart
- Electrical Cord and Plug of Choice

### PUMP AND MOTOR COMPONENTS:

- RF 20/50 Pump Head
- IEC Motor (3 HP)

## LENZE Variable Frequency Drive

The Lenze i550 Protec is our new inverter series in the  $\frac{1}{2}$  HP to 20 HP range. The slim and sleek casing is also extremely durable, featuring both impact resistance and IP66 washdown protection. A micro USB interface is provided for more efficient programming. This user-friendly VFD is programmable and has scalable functionality. This trustworthy and powerful VFD can be implemented into your operations with ease. The i550 can be controlled by the keypad, a potentiometer, or a remote control (the remote control is available at additional cost). Our portable pump assemblies feature this VFD to achieve optimal efficiency.



### FEATURES

- IP66 (NEMA 4X) approved; it is both dust and water resistant.
- Equipped with a micro USB interface for programming and diagnostics.
- Full onboard PID programming for interfacing with flow meters, level controls, pressure sensors, and can/bottle fillers.
- The i550 Protec has a sensorless vector control for synchronous motors.
- Equipped with multiple digital and analog inputs for remote control and safety interlocks.
- Compatible with our wireless remote controls, pressure switches, and run dry protection.
- Equipped with a potentiometer.

### TECHNICAL SPECIFICATIONS

Horsepower:	3 HP
1Ø/3Ø Input:	1Ø 230 VAC ; 3Ø 230/460/575 VAC
3Ø Output:	208-230/460 VAC
Ambient Temperature:	-22°F - 131°F (-30°C - 55°C)
Standard IO:	5x digital input, 1x digital output, 2x analog input, 1x analog output
Communication Networks:	CANopen, Modbus RTU, Modbus TCP, IO-Link, EtherCAT, EtherNet/IP, PROFINET (optional)
Approvals:	CE, UL, CSA, EAC, RoHS

## Medium Duty Cart



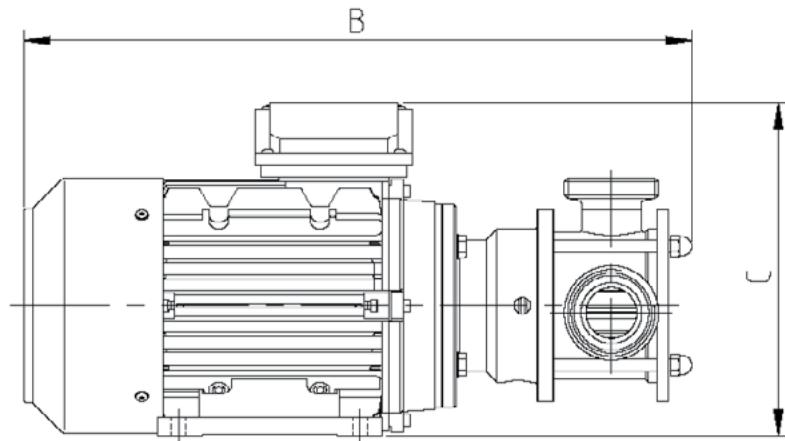
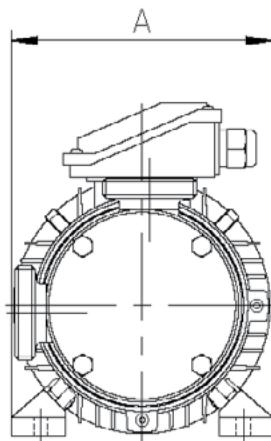
Custom designed for the craft food and beverage industry, this is our mid-sized pump cart, built for pumps 3 to 5 HP. This cart is aerodynamic, tilt draining, maneuverable, and has a small footprint. All parts are hand welded in Canada for quality assurance and durability.

Frame:	16 ga stainless steel round tube with foot
Handle:	16 ga stainless steel round tube
Platform:	11 ga Stainless steel AISI 304
	Pre-drilled to fit 184 and 213 NEMA frame
Axle:	1/2 " Stainless steel rod axle
Wheels:	8" Duraflex rubber wheels



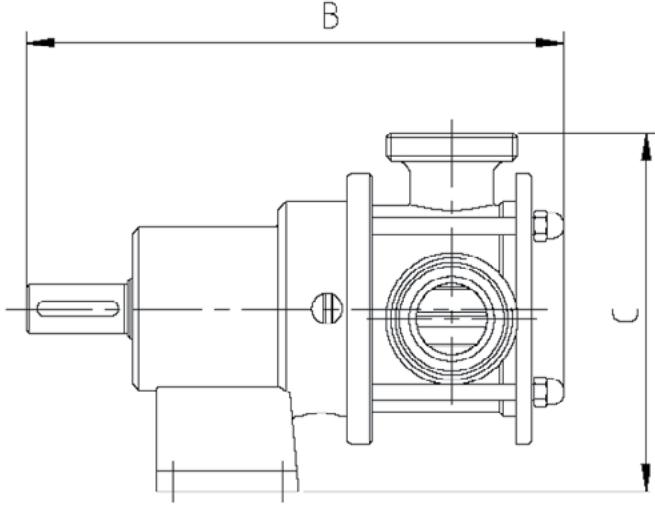
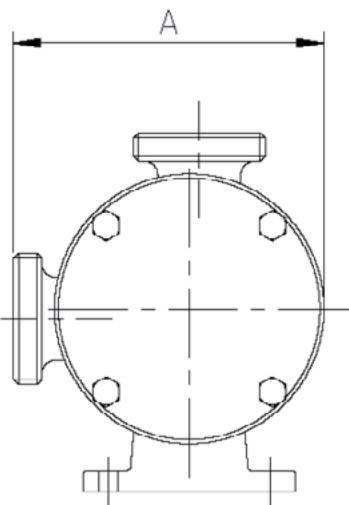
Dimensions

STYLE: MONOBLOC  
(STANDARD)

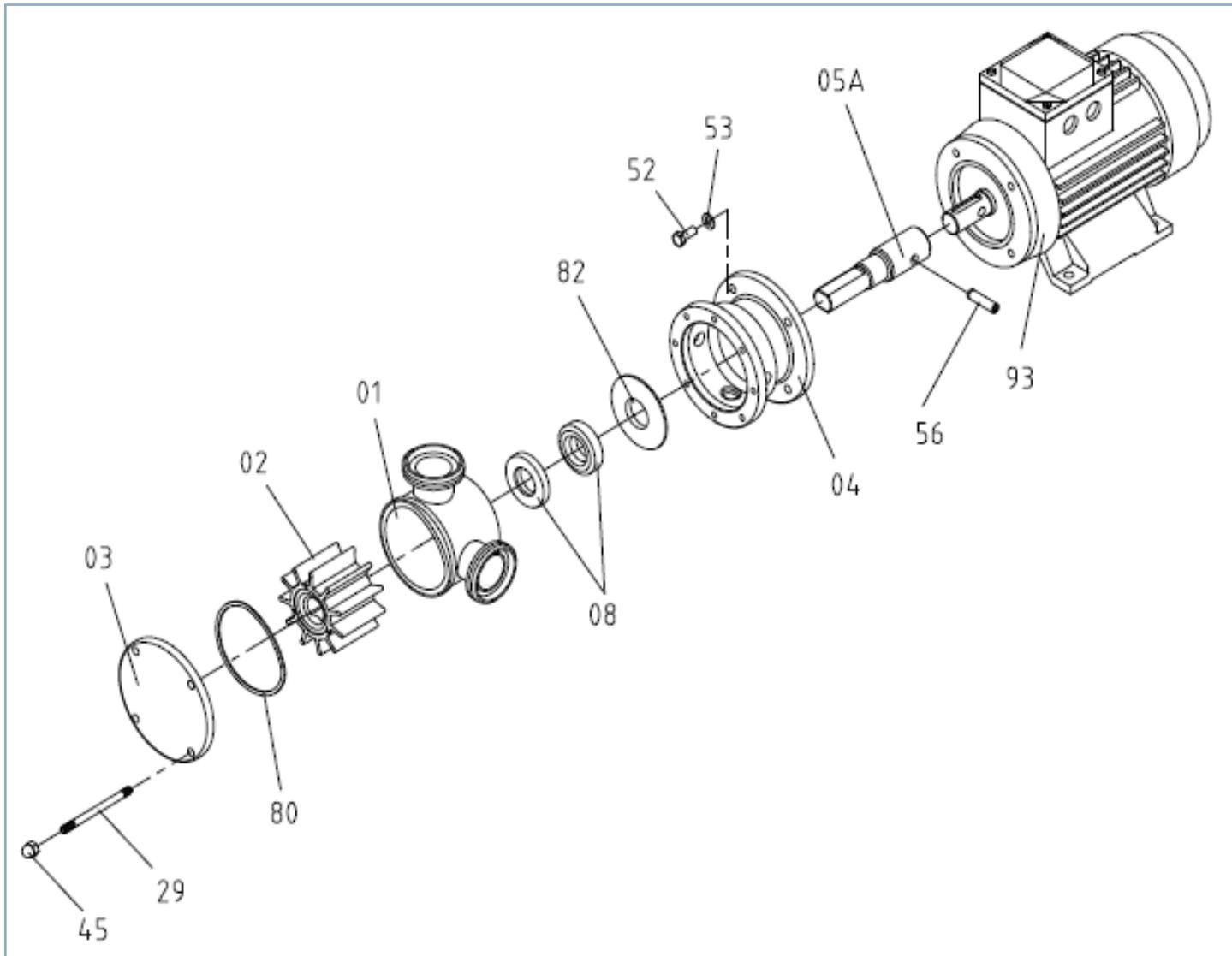


Pump Model	A	B	C
RF-02/20	155	350	220
RF-05/25	155	370	220
RF-10/40	180	445	240
RF-20/50	200	510	265

STYLE: BARE SHAFT  
(SPECIAL ORDER)

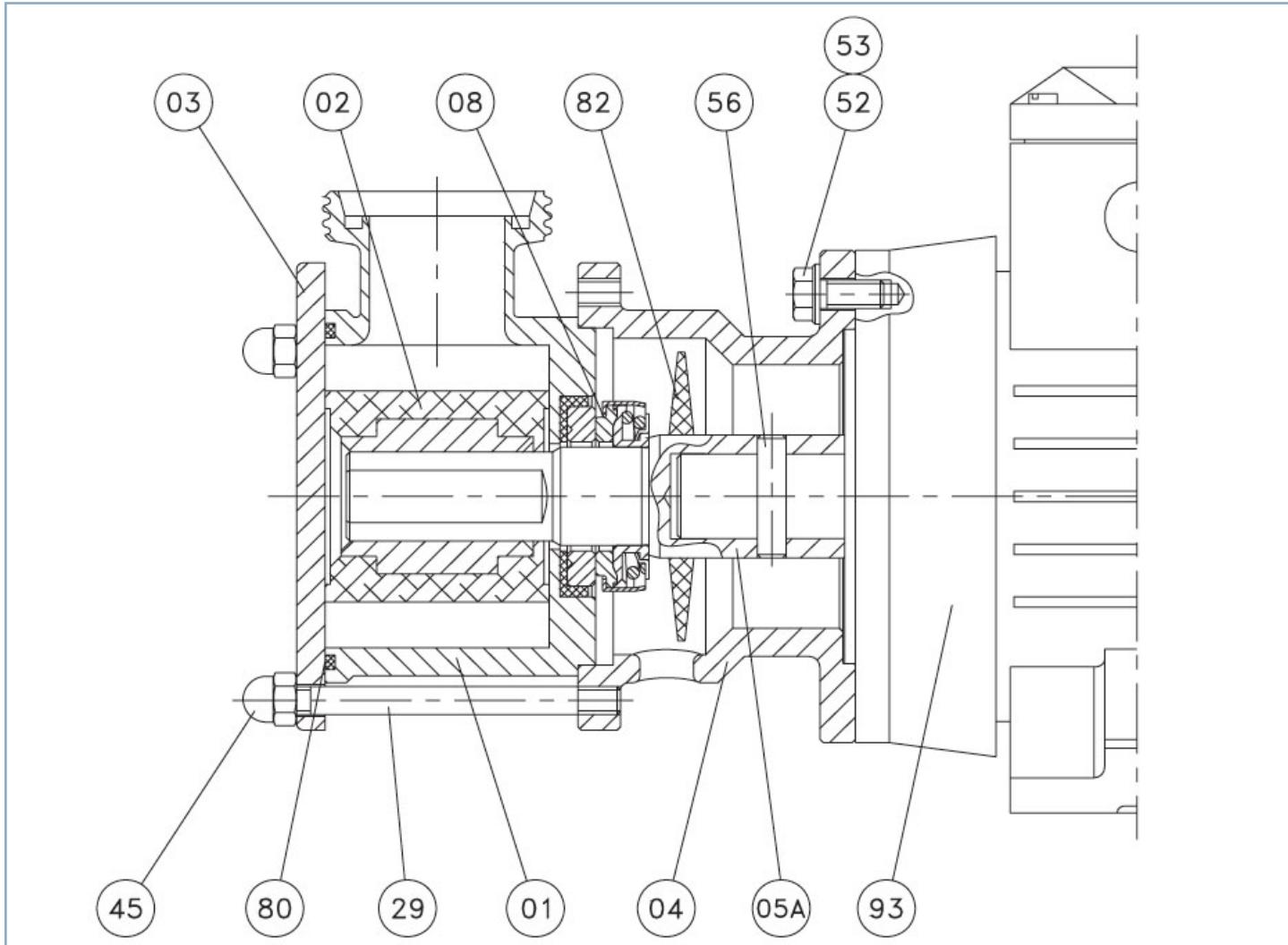


Pump Model	A			B	C		
	DIN	SMS	CLAMP		DIN	SMS	CLAMP
RF-02/20	124	121	114	206	154	151	144
RF-05/25	128	125	118	225	158	155	148
RF-10/40	151	152	142	265	178	179	169
RF-20/50	183	183	173	335	203	203	193
RF-30/65	195	197	183	350	210	212	198



Part #	Part Name	Quantity	Material
01.	Pump Casing	1	AISI 316L
02.	Impeller	1	Neoprene
03.	Pump Cover	1	AISI 316L
04.	Lantern	1	GG 15
05A	Shaft	1	AISI 316L
08.	Mechanical Seal	1	Cer/C/NBR
29.	Tie Bar	4	AISI 316L

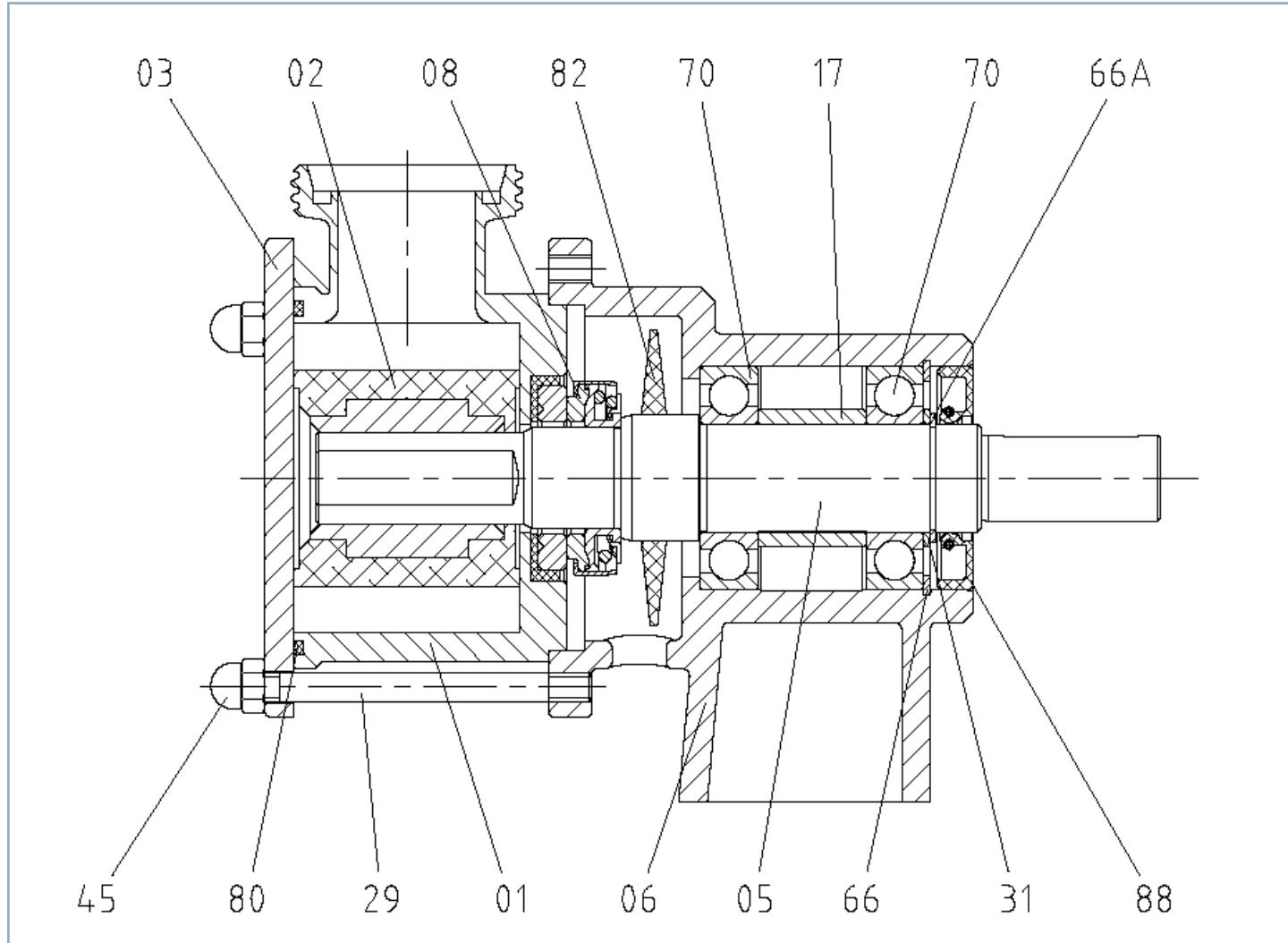
Part #	Part Name	Quantity	Material
45.	Blind Nut	4	A2
56.	Elastic Pin	1	A2
52.	Hexagonal Screw	4	8.8
53.	Flat Washer	4	Steel
80.	O-Ring	1	NBR
82.	Splash Ring	1	EPDM
93.	Motor	1	-



Part #	Part Name	Quantity	Material
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03.	Pump Cover	1	AISI 316L
04.	Lantern	1	GG 15
05A	Shaft	1	AISI 316L
08.	Mechanical Seal	1	Cer/C/NBR
29.	Tie Bar	4	AISI 316L

Part #	Part Name	Quantity	Material
45.	Blind Nut	4	A2
56.	Elastic Pin	1	A2
52.	Hexagonal Screw	4	8.8
53.	Flat Washer	4	Steel
80.	O-Ring	1	NBR
82.	Splash Ring	1	EPDM
93.	Motor	1	-

THIS MODEL IS ONLY AVAILABLE BY SPECIAL ORDER



Part #	Part Name	Quantity	Material
01.	Pump Casing	1	AISI 316 L
02.	Impeller	1	Neoprene
03.	Pump Cover	1	AISI 316L
05.	Shaft	1	AISI 316L
06.	Bearings Support	1	GG 15
08.	Mechanical Seal	1	Cer/C/NBR
17.	Spacer Bushing	1	F-114
29.	Tie bar	4	AISI 304

Part #	Part Name	Quantity	Material
31.	Stop Ring	1	F-114
45.	Blind Nut	4	A2
66.	Elastic Ring	1	Steel
66A.	Elastic Ring	1	Steel
70.	Bearing	2	Steel
80.	O-Ring	1	NBR
82.	Splash Ring	1	EPDM
88.	Seal	1	NBR



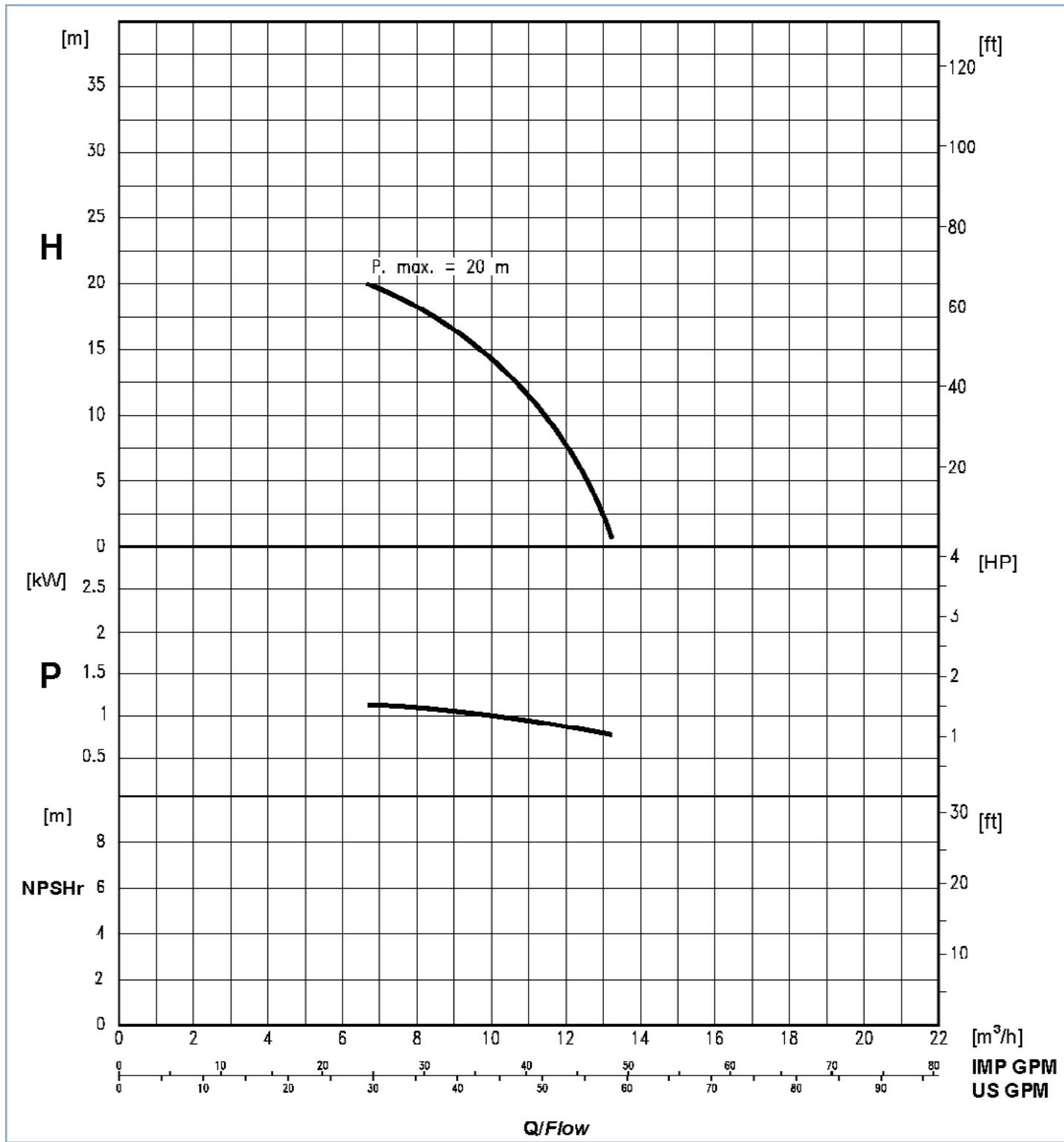
## Capacity Curves

MODEL: RF-20/50

Frequency: 50hz

RPM: 900

Self-Priming: 3.6 m





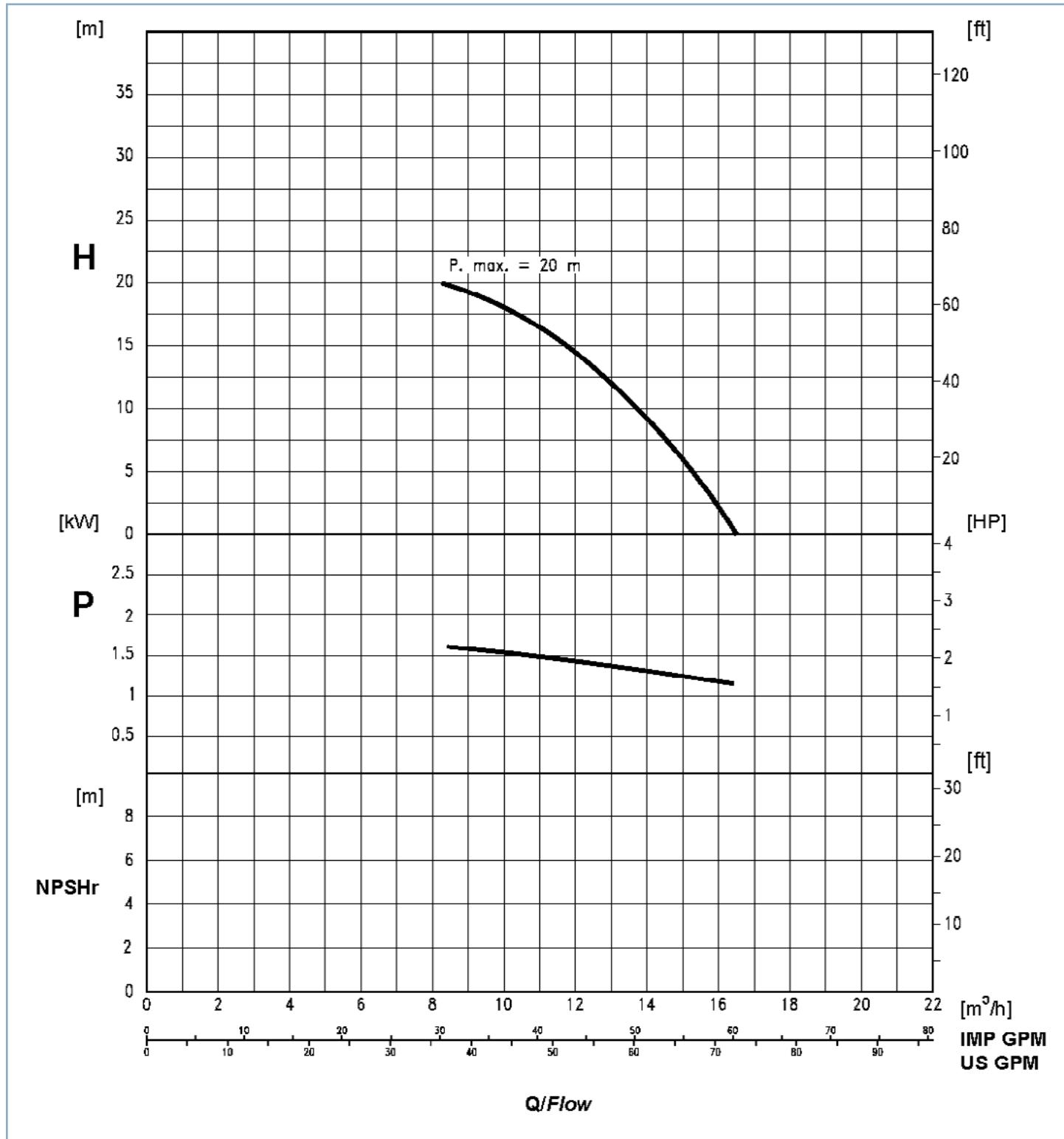
## Capacity Curves

MODEL: RF-20/50

Frequency: 60hz

RPM: 1150

Self-Priming: 3.8 m





## Capacity Curves

MODEL: RF-20/50

Frequency: 50hz

RPM: 1450

Self-Priming: 4 m

