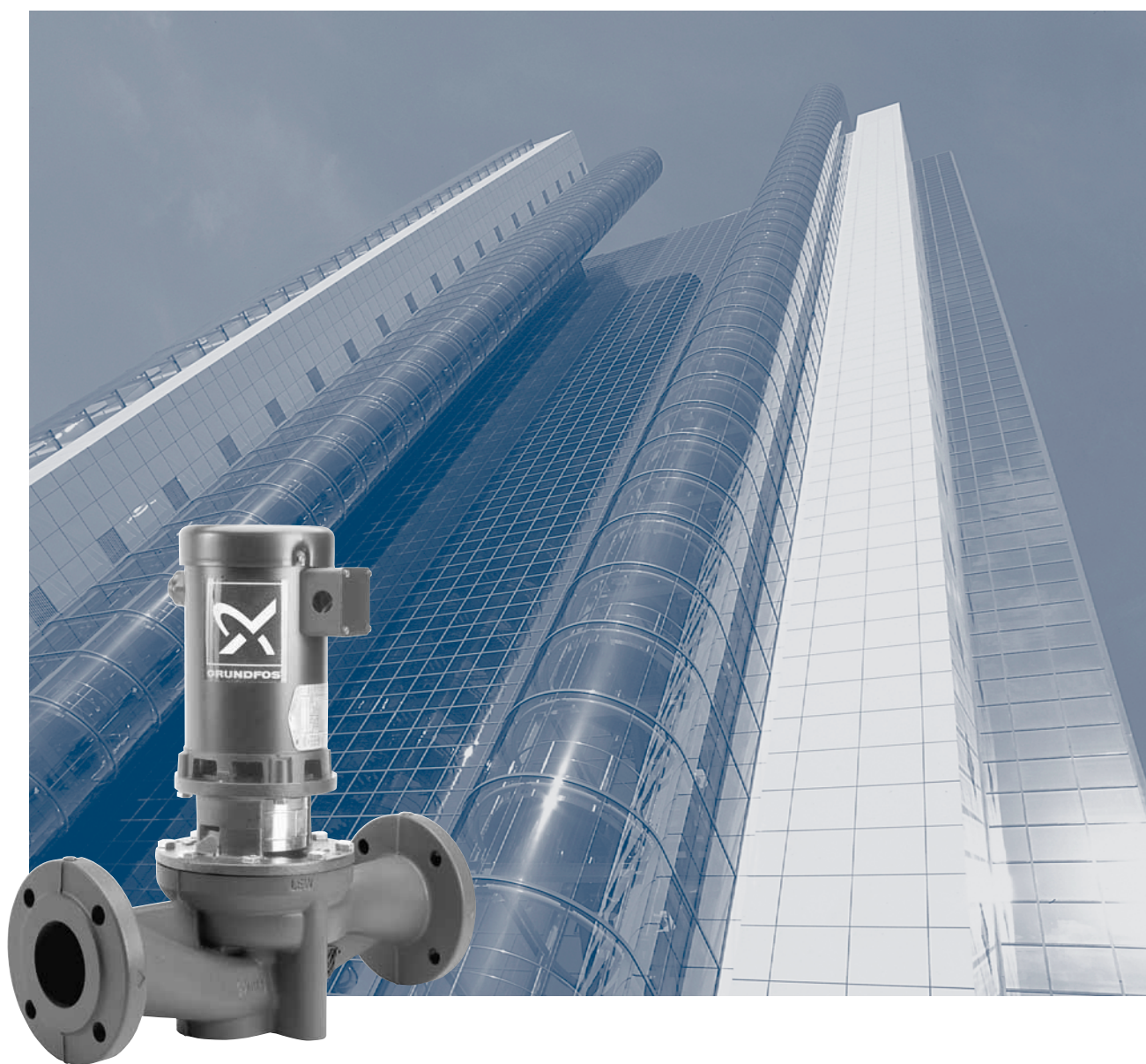


# VersaFlo®

TP circulator pumps  
60 Hz



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- to successfully develop, produce, and sell high quality pumps and pumping systems worldwide, contributing to a better quality of life and healthier environment.



Bjerringbro, Denmark



Fresno, California



Olathe, Kansas



Monterrey, Mexico



Allentown, Pennsylvania



Oakville, Ontario

- One of the 3 largest pump companies in the world
- The second largest manufacturer of submersible motors in the world
- World headquarters in Denmark
- North American headquarters in Kansas City - Manufacturing in Fresno, California
- 73 companies in 41 countries
- More than 10 million motors and pumps produced annually worldwide
- North American companies operating in USA, Canada and Mexico
- Continuous reinvestment in growth and development enables the company to **BE** responsible, **THINK** ahead, and **INNOVATE**.

## Cross reference guide: B&G, Taco and Armstrong to Grundfos

B&G Series 60&80	HP	Port to Port Length	Flange Size	Taco Series 1600	HP	Port to Port Length	Flange Size	Armstrong	HP	Port to Port Length	Flange Size	Grundfos Model TP	HP	Port to Port Length	Flange Size
								H-32	1/6	8-1/2"	1-1/4"	32-40	1/3	11"	1-1/4"
6011	1/4	11"	1-1/4"	1600	1/4	10-1/4"	1-1/2"	H-52	1/3	11-1/2"	1-1/4"	32-80	1/2	11"	1-1/4"
6016	3/4	13-1/2"	1-1/2"	1614	3/4	13-1/2"	1-1/2"	H-64	3/4	13-1/2"	1-1/2"	32-160	3/4	13-1/2"	1-1/2"
								H-52	1/3	11-1/2"	1/4"	40-40	1/3	13-1/2"	1-1/2"
								H-53	1/2	11-1/2"	1-1/2"		1/2	13-1/2"	1-1/2"
6013	1/2	11-1/2"	1-1/2"	1612	1/2	13-1/2"	1-1/2"	H-53	1/2	11-1/2"	1-1/2"	40-80	3/4	13-1/2"	1-1/2"
6015	1/2	13-1/2"	1-1/2"	1612	1/2	13-1/2"	1-1/2"	H-63	1/2	13-1/2"	1-1/2"	40-80	3/4	13-1/2"	1-1/2"
								H-67	1	14"	2"	40-160	3/4	11-1/2"	1-1/2"
6017	1	13-1/2"	1-1/2"	1616	1-1/2	14-1/2"	2"	H-65	1	13-1/2"	1-1/2"	40-240	1-1/2	13-1/2"	1-1/2"
								H-53	1/2	11-1/2"	1-1/2"	50-40	1/3	14"	2"
								H-54	3/4	11-1/2"	2"		3/4	11-1/2"	2"
6014	3/4	11-1/2"	2"	1632	3/4	13-1/2"	2"	H-54	3/4	11-1/2"	2"	50-80	3/4	11-1/2"	2"
6019	1	14"	2"	1634	1	13-1/2"	2"	H-67	1	14"	2"	50-160	1-1/2	14"	2"
6020	1-1/2	14"	2"	1634	1	13-1/2"	2"	H-68	1-1/2	14"	2"	50-160	1-1/2	14"	2"
6021	2	14"	2"					10603D	3	18"	3"	50-240	2	14"	2"
								105028	1/2	11-1/2"	2"	80-40	1/2	19"	3"ANSI
801	1-1/2	19"	3"ANSI					10603D	1-1/2	18"	3"	80-80	1-1/2	19"	3"ANSI
802	3	19"	3"ANSI					10603D	3	18"	3"	80-160	3	19"	3"ANSI
803	3	19"	3"ANSI					10603D	3	18"	3"	80-240	3	19"	3"ANSI
								10603D	1	18"	3"	100-40	1	21"	4"ANSI
806	2	21"	4"ANSI					10603D	2	18"	3"	100-80	2	21"	4"ANSI
807	3	21"	4"ANSI					10603D	3	18"	3"	100-160	3	21"	4"ANSI

## Performance range, TP

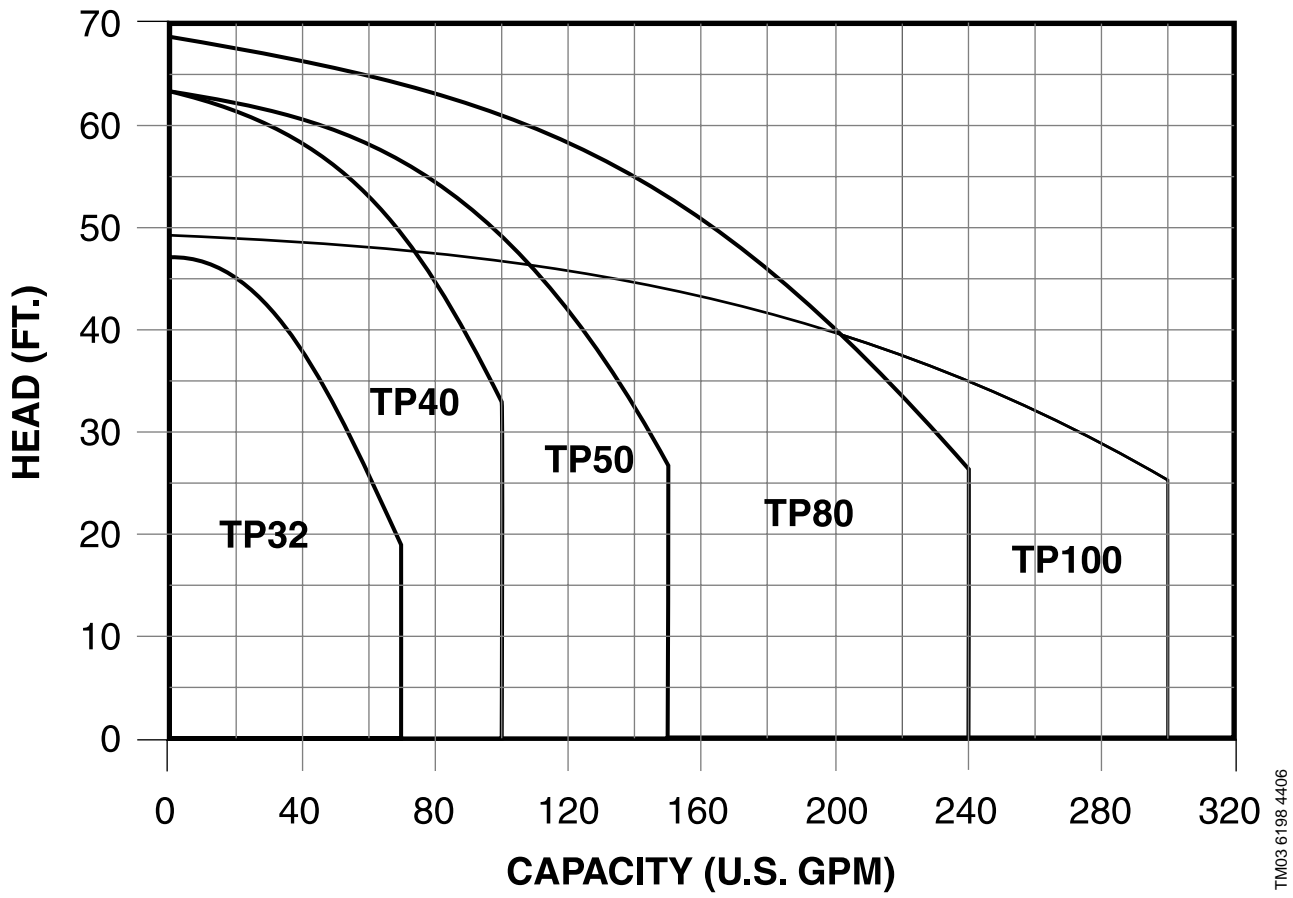


Fig. 1 Performance range

TM03 6198 4406

## Product range, TP

Pump type	Flow	Head	PH	HP	Flange	Page
TP32-40/4	8-50 U.S. GPM	3.5-12 FEET	1, 3	1/3	1 1/4"- 2 Bolt with 5/8" Hole	10
TP32-80/2	8-55 U.S. GPM	11-24 FEET	1, 3	1/2	1 1/4"- 2 Bolt with 5/8" Hole	10
TP32-160/2	8-70 U.S. GPM	18-47 FEET	1, 3	3/4	1 1/2"- 2 Bolt with 5/8" Hole	10
TP 40-40/4	8-70 U.S. GPM	5-12 FEET	1, 3	1/3	1 1/2"- 2 Bolt with 5/8" Hole	12
TP 40-80/2	8-80 U.S. GPM	16-29 FEET	1, 3	3/4	1 1/2"- 2 Bolt with 5/8" Hole	12
TP40-160/2	8-85 U.S. GPM	22-46 FEET	1, 3	3/4	1 1/2"- 2 Bolt with 5/8" Hole	12
TP40-240/2	8-100 U.S. GPM	33-63 FEET	1, 3	1 1/2	1 1/2"- 2 Bolt with 5/8" Hole	12
TP50-40/4	8-100 U.S. GPM	7-13 FEET	1, 3	1/3	2"- 4 Bolt with 5/8" Hole	14
TP50-80/2	8-120 U.S. GPM	14-32 FEET	1, 3	3/4	2"- 4 Bolt with 5/8" Hole	14
TP50-160/2	8-140 U.S. GPM	22-47 FEET	1, 3	1 1/2	2"- 4 Bolt with 5/8" Hole	14
TP50-240/2	8-150 U.S. GPM	27-63 FEET	1, 3	2	2"- 4 Bolt with 5/8" Hole	14
TP80-40/4	12-170 U.S. GPM	4-13 FEET	1, 3	1/2	3" ANSI 125lb RF	16
TP80-80/4	12-200 U.S. GPM	17-28 FEET	1, 3	1 1/2	3" ANSI 125lb RF	16
TP80-160/2	12-220 U.S. GPM	22-48 FEET	1, 3	3	3" ANSI 125lb RF	16
TP80-240/2	12-240 U.S. GPM	26-67.5 FEET	1, 3	3	3" ANSI 125lb RF	16
TP100-40/4	25-200 U.S. GPM	8-13.5 FEET	1, 3	1	4" ANSI 125lb RF	18
TP100-80/4	25-300 U.S. GPM	18-28 FEET	1, 3	2	4" ANSI 125lb RF	18
TP100-160/2	25-300 U.S. GPM	25-49 FEET	1, 3	3	4" ANSI 125lb RF	18

## Type key, TP

<b>Example</b>	<b>TP</b>	<b>32</b>	<b>-40</b>	<b>/4</b>
Pump range				
Nominal flange diameter [mm]				
Max. head [dm]				
Number of motor poles				

## Applications

Grundfos TP circulator pumps, are designed for circulation of liquids in heating and air-conditioning systems. Pumps with bronze pump housings are suitable for circulation in domestic hot water systems.

General examples of systems in which TP pumps are suitable are listed below.

- Boiler/Hydronic heating
- Chilled water
- Air conditioning systems
- Cooling towers
- Domestic hot water
- Radiant floor heat
- Solar
- Snow melt systems.

## Construction, TP

The TP pump is a single-stage, in-line centrifugal pump with standard motor and mechanical shaft seal.

The pumps are of the top-pull-out design, i.e. pump head (motor, motor stool and impeller) can be removed without interfering with the pipework on either side of the pump housing. Consequently, even on the biggest pumps service work can be performed by a single person.

## TP technical data

Relative humidity: Max. 95%.

Max. working pressure: 145 psi.

## Material specification, TP

Pos.	Description	Materials	AISI, ASTM
2	Motor stool	Cast iron	
6	Pumphousing	Cast iron	
7	Coupling guard	Stainless steel	304
8	Coupling	Sintered metal HPX PNC45	
17	Vent screw	Brass	
19	Pipe plug	Steel	
		Stainless steel	304
45	Neck ring	Stainless steel/ Teflon	
48	Split cone nut	Stainless steel	430F
49	Impeller	Stainless steel	304
49b	Split cone	Stainless steel	304
51	Shaft	Stainless steel	431
71	Distributing cup	Stainless steel	304
72a	O-ring/flat gasket	EPDM rubber	
105a	Shaft seal		

## Sectional drawing, TP

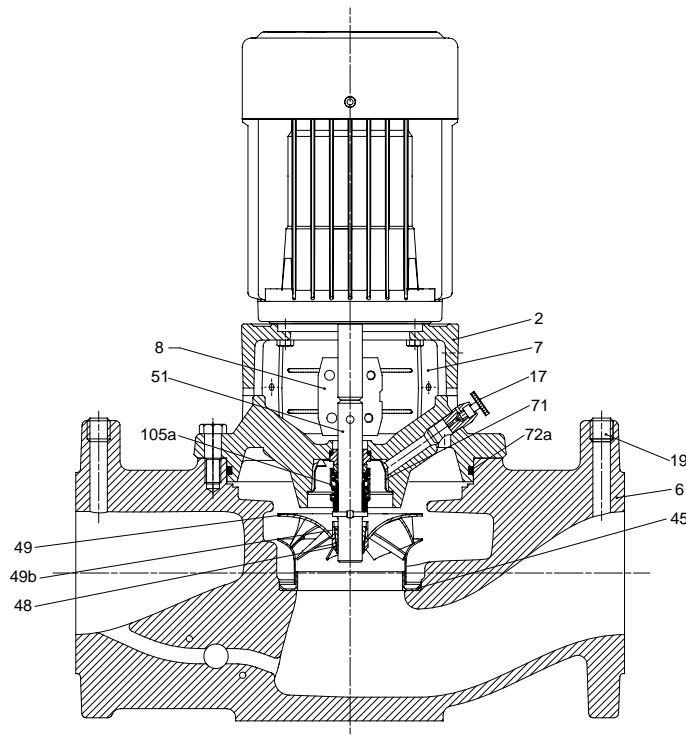


Fig. 2 Sectional drawing, TP

TM01 0175 0697

## Motor

The motor is a totally enclosed, fan-cooled standard motor with main dimensions to NEMA standards.

Mounting designation: NEMA C FACE

Enclosure class: TEFC; (ODP) optional

Insulation class: F

Ambient temperature: Max. 104°F.

## Pump

In-line cast iron or bronze spiral pump housing.

Flange dimensions for USA are according to Industry and or ANSI Standard.

The flanges have ¼ NPT pressure gauge tapings.

Tapped holes are provided on the underside of the pumps. These holes can be used for fitting the pump to a base plate, bracket or the like by means of hexagon screws. The pump housing is provided with a replaceable stainless steel/Teflon neck ring. The ring reduces to a minimum the amount of liquid running from the discharge side of the impeller to the suction side.

## Surface treatment

The pump housing and the motor stool are electrocoated .

The treatment includes:

1. Alkaline cleaning.
2. Pre-treatment with zinc phosphate coating.
3. Cathodic electrocoating (epoxy).  
Coating thickness: 15-20 µm.
4. Curing of paint film at 200-250°C.

## Motor stool

The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is either an O-ring or a flat gasket.

The central part of the motor stool is provided with guards for protection against shaft and coupling.

The dimensions of the motor side flange of the motor stool are according to NEMA.

## Pump shaft

The shaft is a cylindrical Ø16 mm stainless steel shaft. The coupling end of the shaft has a hole for the coupling shaft pin.

## Coupling

The coupling is a two-piece, inelastic sintered metal coupling secured with four hexagon socket head screws.

## Impeller

The impeller is made of stainless steel, AISI 304 SS.

As the impeller is made of stainless steel sheet, it can be pressed into the correct hydraulic form.

## Shaft seal

The pumps are fitted as standard with a single, unbalanced tungsten carbide/carbon rubber bellows shaft seal in a 16 mm diameter size with EPDM elastomer (BUBE). The tungsten carbide/carbon shaft seal has a wide range of applications and is especially suitable where there is a risk of dry running and in case of high temperatures.

The tungsten carbide/carbon shaft seal is not suitable for liquids containing abrasive particles, as the carbon parts will be worn down. In that case a tungsten carbide/ tungsten carbide seal is recommended.

### Optional shaft seals available:

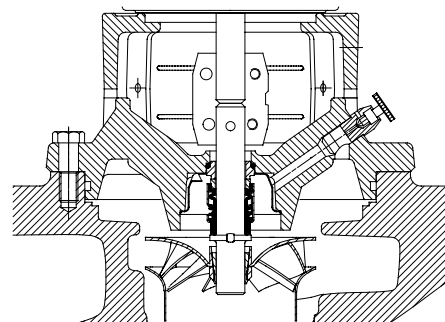
- unbalanced tungsten carbide/tungsten carbide O-ring shaft seal with EPDM elastomer (AUUE).

### And for glycol/water mixtures:



Unbalanced reduced face tungsten carbide/tungsten carbide O-ring shaft seal with EPDM elastomers (RUUE).

The circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.



TM00 2265 4696

Fig. 3

TP pumps can be installed in horizontal and vertical pipes.

**Note:** The motor must never point downwards.

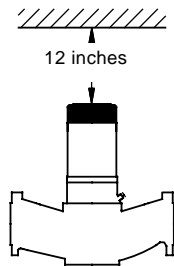


The pumps must be installed in such a way that strain from the pipework is not transferred to the pump housing.

The pump may be suspended direct in the pipes, provided the pipework can support the pump. If not, the pump must be installed on a mounting bracket or base plate.

## Space requirements

For inspection and motor/pump head removal a 12" (300 mm) clearance above the motor is required.



TM00 9242 3495

Fig. 4 Space requirements

## Pumped liquids

Thin, clean, non-aggressive and non-explosive liquids, not containing solid particles or fibers that may mechanically or chemically attack the pump, please see "List of pumped liquids" below.

### Examples of liquids:

- central heating system water (we recommend that the water meets the requirements of accepted standards on water quality in heating systems)
- cooling liquids
- domestic hot water
- industrial liquids
- softened water.

**If glycol or another antifreeze agent is added to the pumped liquid, the pump must have a shaft seal of the type RUUE.**

The pumping of liquids with densities or kinematic viscosities higher than those of water can cause

- a considerable pressure drop
- a drop in the hydraulic performance
- a rise in the power consumption.

In these situations, equip the pump with an oversize motor. If in doubt, contact Grundfos.

If the water contains mineral oils or chemicals, or if other liquids than water are pumped, the O-rings should be chosen accordingly.

## Liquid temperature

Liquid temperature:  $-13^{\circ}\text{F}$  to  $+284^{\circ}\text{F}$ .

Please note that shaft seals operating close to their maximum temperature will require regular maintenance, i.e. replacement.

Pump type	Shaft seal	Temperature
TP	BUBE	$32^{\circ}\text{F}$ to $+284^{\circ}\text{F}$
	AUUE	$32^{\circ}\text{F}$ to $+194^{\circ}\text{F}$
	RUUE	$-13^{\circ}\text{F}$ to $+194^{\circ}\text{F}$

## List of pumped liquids

Grundfos TP pumps are designed for circulation systems with constant flow, TPE pumps for systems with variable flow.

Thanks to their design, these pumps can be used in a wider liquid temperature range than pumps of the canned rotor type.

A number of typical liquids are listed page 10.

Other pump versions may be used, but we consider the ones stated in the list to be the best choices.

The list is intended as a general guide only, and it cannot replace actual testing of the pumped liquids and pump materials under specific working conditions. If in doubt, contact Grundfos.

However, use the list with some caution as factors such as

- concentration of the pumped liquid
- liquid temperature or
- pressure

may affect the chemical resistance of a specific pump version.

## Legend for notes in the list

<b>A</b>	May contain additives or impurities that may cause shaft seal problems.
<b>B</b>	The density and/or viscosity differ from those of water. Consider this when calculating motor and pump performance.
<b>C</b>	The liquid must be oxygen-free (anaerobic).
<b>D</b>	Risk of crystallization/precipitation in shaft seal.
<b>E</b>	Insoluble in water.
<b>F</b>	The shaft seal rubber parts must be replaced with FKM rubber.
<b>G</b>	Bronze housing/impeller required.
<b>H</b>	Risk of formation of ice on the standby pump.

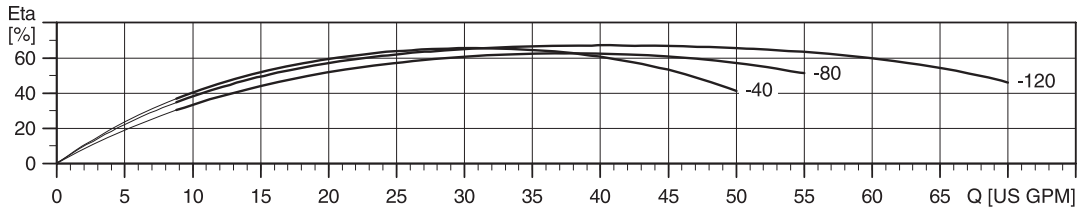
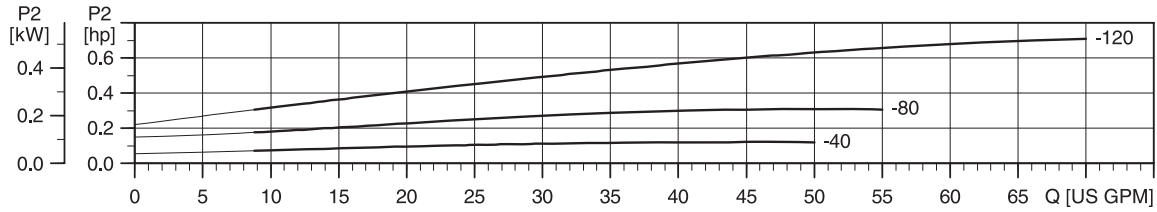
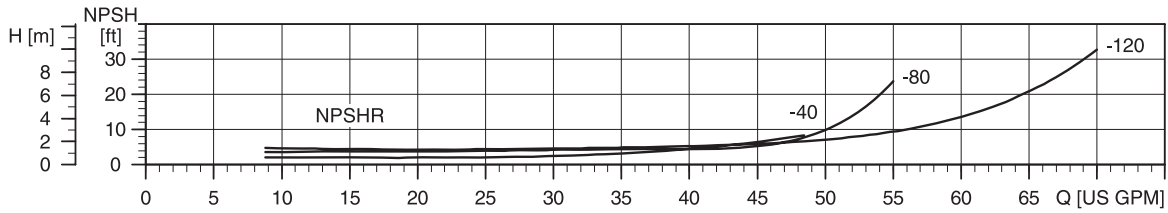
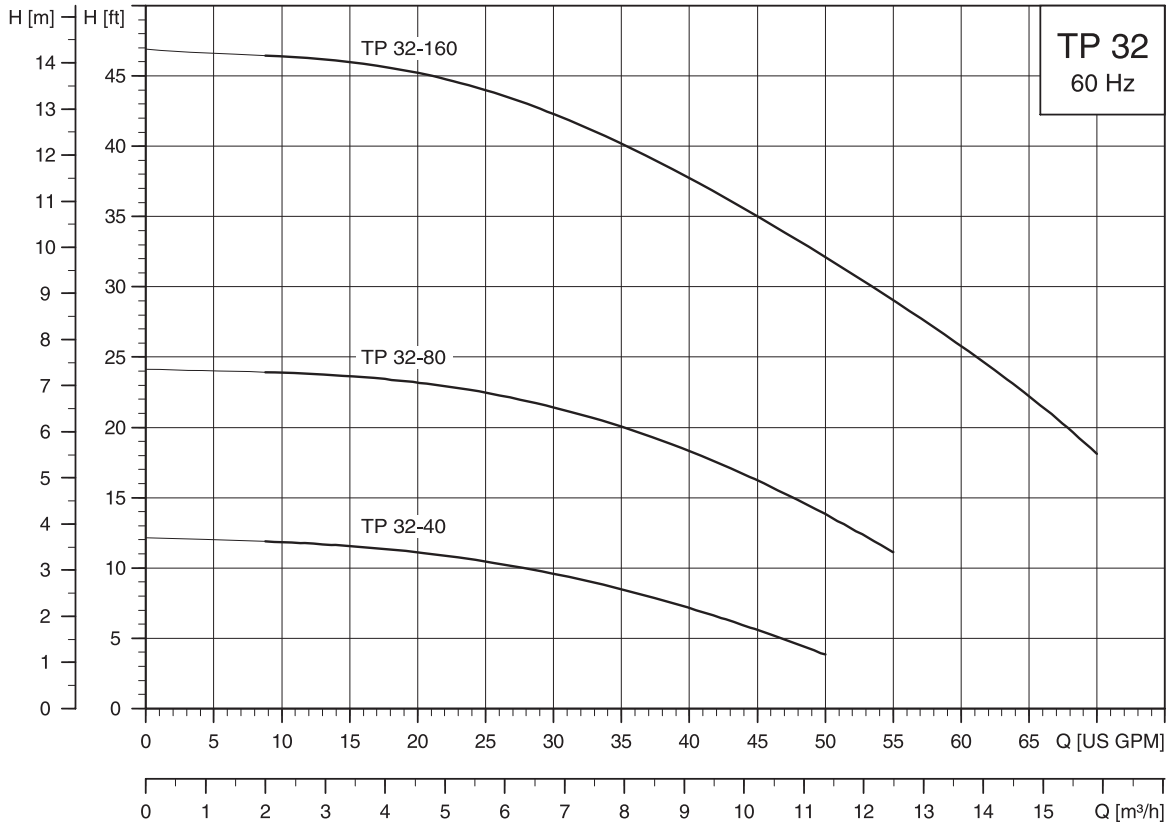
Pumped liquids	Notes	Additional information	Shaft seal TP
<b>Water</b>			
Groundwater		<+194°F	AUUE
		>+194°F	BUBE
Boiler feed water		<+248°F	BUBE
District heating water		<+248°F	BUBE
Condensate		<+194°F	AUUE
		>+194°F	BUBE
Softened water	C	<+194°F	AUUE
		>+194°F	BUBE
Brackish water	G	pH>6.5, +40°F, 1000 ppm Cl <sup>-</sup>	BUBE AUUE
			AUUE
<b>Coolants</b>			
Ethylene glycol	B, D, H	+122°F, 50%	AUUE RUUE
Glycerine (glycerol)	B, D, H	+122°F, 50%	AUUE RUUE
Potassium acetate	B, D, C, H	+122°F, 50%	AUUE RUUE
Potassium formate	B, D, C, H	+122°F, 50%	AUUE RUUE
Propylene glycol	B, D, H	+122°F, 50%	AUUE RUUE
Brine-sodium chloride	B, D, C, H	+41°F, 30%	AUUE RUUE
<b>Synthetic oils</b>			
Silicone oil	B, E		BUBE AUUE
<b>Vegetable oils</b>			
Corn oil	B, F, E		BUBV <sup>3)</sup> AUUV <sup>3)</sup>
Olive oil	B, F, E	<+176°F	BUBV <sup>3)</sup> AUUV <sup>3)</sup>
Peanut oil	B, F, E		BUBV <sup>3)</sup> AUUV <sup>3)</sup>
Grape seed oil	D, B, F, E		BUBV <sup>3)</sup> AUUV <sup>3)</sup>
Soybean oil	B, F, E		BUBV <sup>3)</sup> AUUV <sup>3)</sup>
<b>Cleaning agents</b>			
Soap (salts of fatty acids)	A, E, (F)	<+176°F	AUUE (AUUV) <sup>3)</sup>
Alkaline degreasing agent	A, E, (F)	<+176°F	AUUE (AUUV) <sup>3)</sup>
<b>Oxidants</b>			
Hydrogen peroxide		<+104°C, <2%	BUBE AUUE
<b>Salts</b>			
Ammonium bicarbonate	A	<+68°F, <15%	AUUE
Calcium acetate	A, B	<+68°F, <30%	AUUE
Potassium bicarbonate	A	<+68°F, <20%	AUUE
Potassium carbonate	A	<+68°F, <20%	AUUE
Potassium permanganate	A	<+68°F, <10%	AUUE
Potassium sulfate	A	<+68°F, <20%	AUUE
Sodium acetate	A	<+68°F, <100%	AUUE
Sodium bicarbonate	A	<+68°F, <2%	AUUE
Sodium carbonate	A	<+68°F, <20%	AUUE

Pumped liquids	Notes	Additional information	Shaft seal TP
Sodium nitrate	A	<+68°F, <40%	AUUE
Sodium nitrite	A	<+68°F, <40%	AUUE
Sodium phosphate (di)	A	<+212°F, <30%	AUUE
Sodium phosphate (tri)	A	<+194°F, <20%	AUUE
Sodium sulfate	A	<+68°F, <20%	AUUE
Sodium sulfite	A	<+68°F, <1%	AUUE
<b>Alkalis</b>			
Ammonium hydroxide		<+212°F, <30%	AUUE
Calcium hydroxide	A	<+212°F, <10%	AUUE
Potassium hydroxide	A	<+68°F, <20%	AUUE
Sodium hydroxide	A	<+104°F, <20%	AUUE

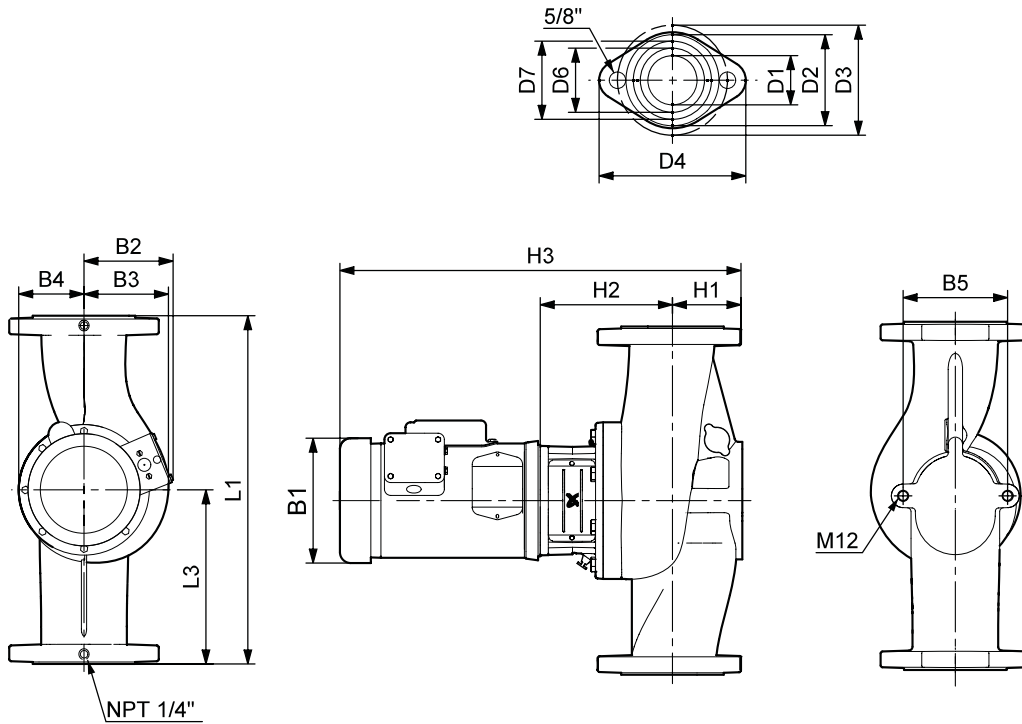
<sup>3)</sup> The shaft seal is not standard, but available on request.



## TP 32-XX



TK00 9225 1897



TM03 7757 4806

## Dimensions and weights

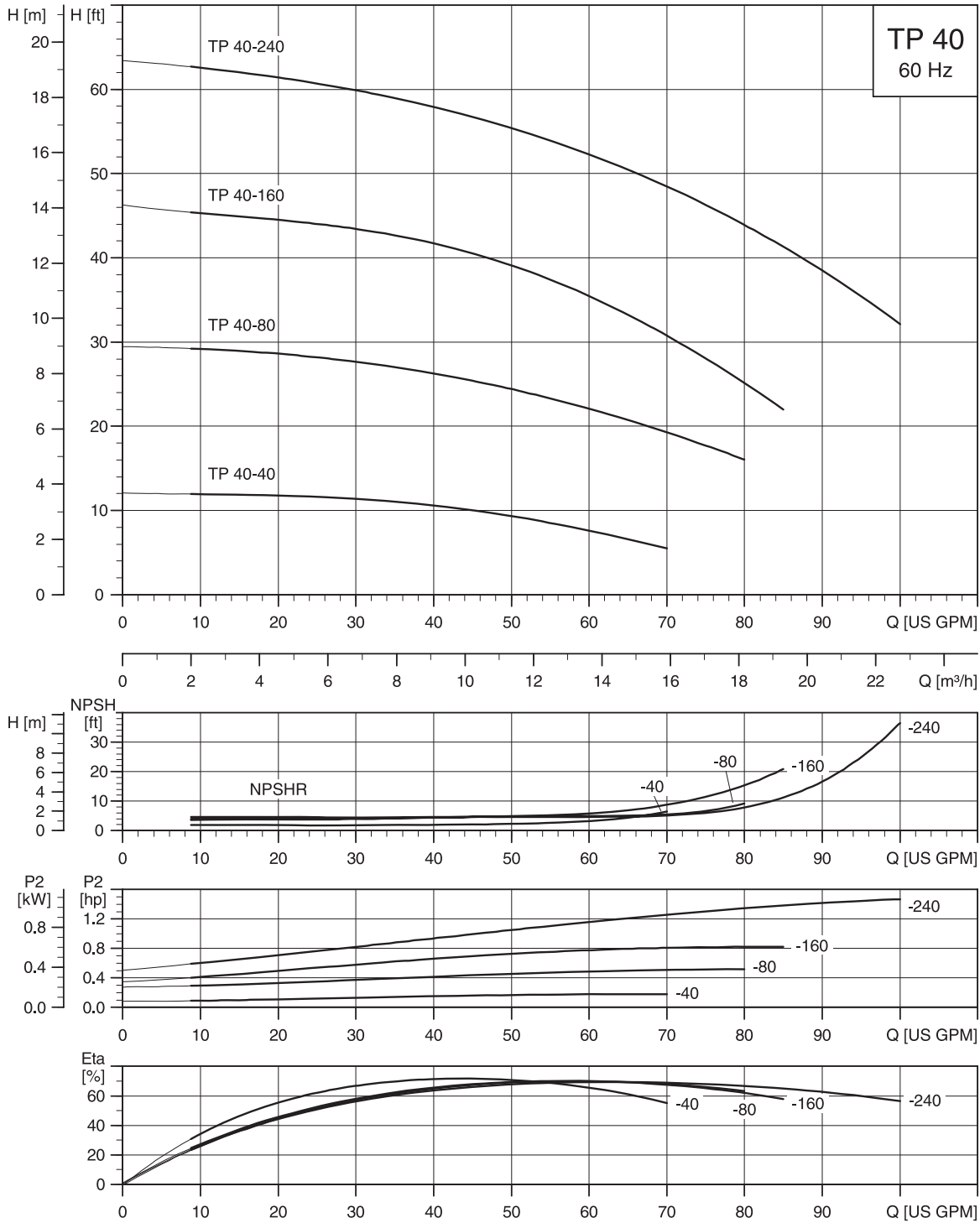
Pump type	HP	Suc. disc. size	Ph	Dimensions [inches] (mm)														Net wt. [lbs]			
				L1	L3	B1	B2	B3	B4	B5	B7	H1	H2	H3	D1	D2	D3		D4	D6	D7
TP32-40/4	1/3	1 1/4 (32)	1/3	11	5 1/2 (140)	6 5/8 (168)	4 7/16 (113)		3	3	3 3/16 (78)	2 11/16 (68)	5 15/16 (151)	17 3/4 (451)	1 7/16 (37)	2 9/16 (65)	3 1/2 (89)	4 5/8 (117)	1 13/16 (46)	2 1/4 (57)	51.5
			1/3																		
TP32-80/2	1/2	1 1/4 (32)	1/3	11	5 1/2 (140)	6 5/8 (168)	4 7/16 (113)		3	3	3 3/16 (78)	2 11/16 (68)	5 13/16 (148)	17 11/16 (449)	1 7/16 (37)	2 9/16 (65)	3 1/2 (89)	4 5/8 (117)	1 13/16 (46)	2 1/4 (57)	51.5
			1/2																		
TP32-160/2	3/4	1 1/2 (38)	1/3	13 1/2 (343)	6 3/4 (171)	6 5/8 (168)	4 7/16 (113)		3	3	3 3/16 (78)	2 11/16 (68)	5 7/8 (149)	18 3/16 (462)	1 11/16 (43)	2 7/8 (73)	3 15/16 (100)	5 (127)	2 1/16 (52)	2 9/16 (52)	55.5
			1/2												17 11/16 (449)						

**Note:** For information about motor data, see page 22.

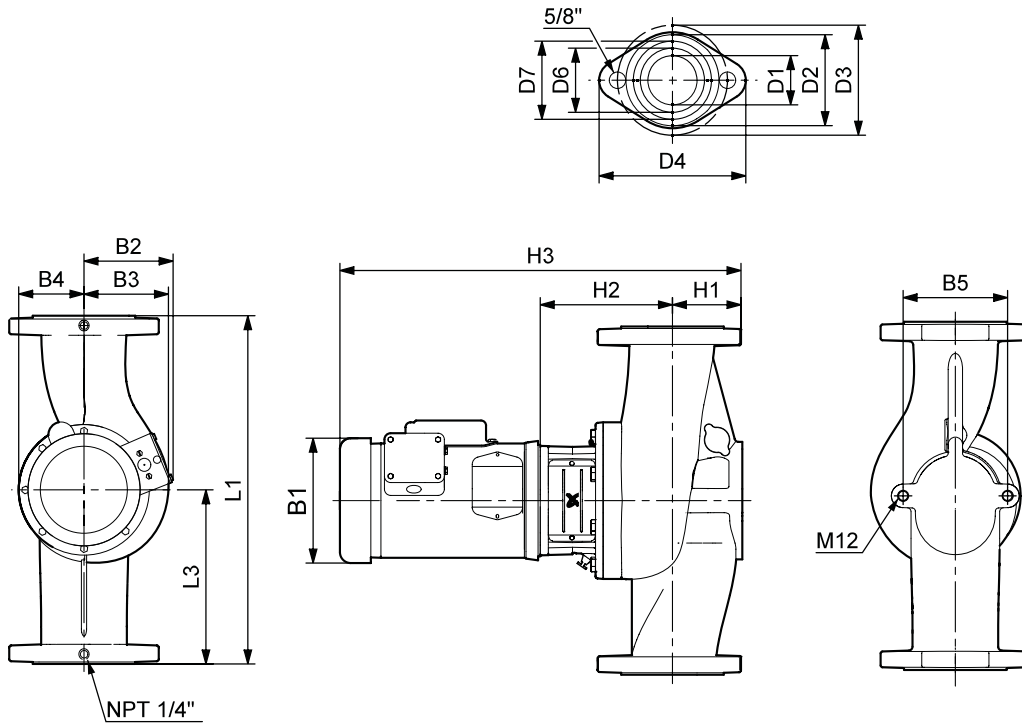
## Technical data

Flow range:	8-70 U.S. GPM
Head range:	3.5-47 ft
Maximum working pressure:	145 PSI
Temperature range:	5°F (-15°C) to 284°F (140°C)
Max ambient air temperature:	104°F (40°C)
Motors:	TEFC-Standard, ODP-Optional
Flanges:	1 1/4" (TP32-40, TP32-80) and 1 1/2" (TP32-160), 2 bolt with (2) 5/8 dia. holes

## TP 40-XX



TK00 9226 1897



TM03 7757 4806

## Dimensions and weights

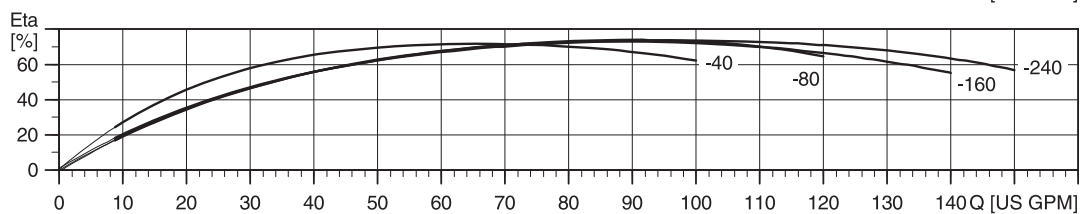
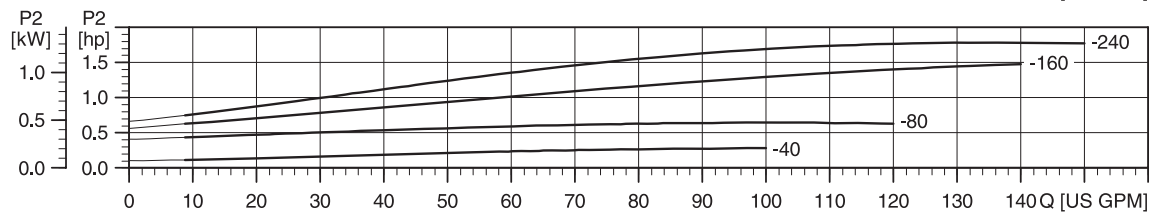
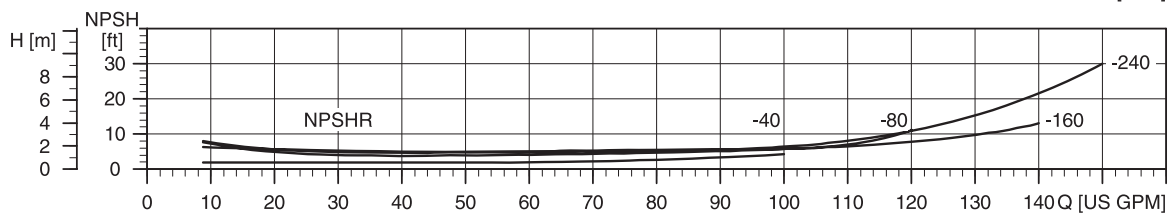
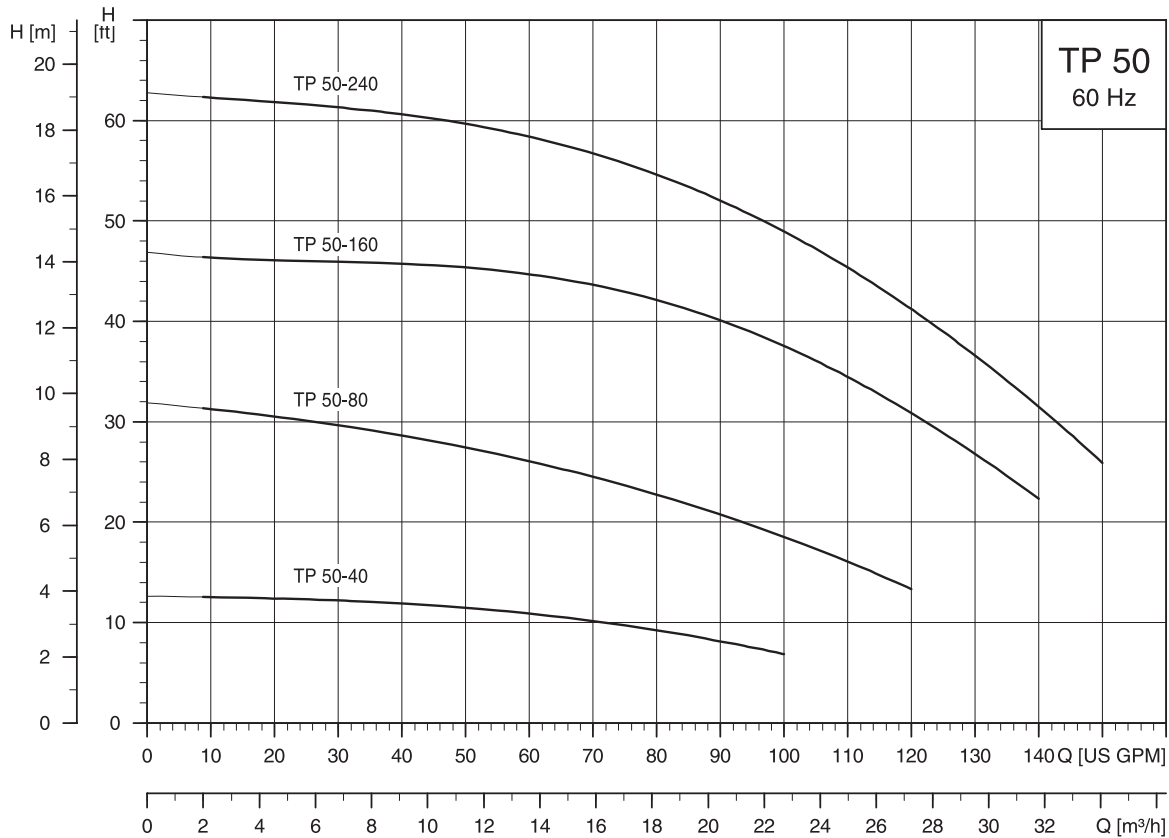
Pump type	HP	Suc. disc. size	Ph	Dimensions [inches]														Net wt. [lbs]			
				(mm)																	
				L1	L3	B1	B2	B3	B4	B5	H1	H2	H3	D1	D2	D3	D4	D6	D7		
TP40-40/4	1/3			1	13 1/2	6 3/4	6 1/4	4 7/16	3 3/8	3	4 3/4	2 11/16	6 1/8	17 15/16	1 11/16	2 7/8	3 7/8	5	2 1/16	2 9/16	54.5
				3	(343)	(171)	(159)	(113)	(86)	(76)	(121)	(68)	(156)	(456)	(43)	(73)	(98)	(127)	(52)	(52)	53
TP40-80/2	3/4			1	13 1/2	6 3/4	6 1/4	4 7/16	3	3	4 3/4	2 11/16	6 1/16	19 7/16	1 11/16	2 7/8	3 7/8	5	2 1/16	2 9/16	57.5
				3	(343)	(171)	(159)	(113)	(76)	(76)	(121)	(68)	(154)	17 7/8	(43)	(73)	(98)	(127)	(52)	(52)	53.5
TP40-160/2	3/4	1 1/2 (38)		1	11 1/2	5 3/4	6 1/4	4 7/16	4	4	3 3/16	2 11/16	5 7/8	19 3/16	1 11/16	2 7/8	3 7/8	5	2 1/16	2 9/16	65.5
				3	(292)	(146)	(159)	(113)	(102)	(102)	(78)	(68)	(149)	17 11/16	(43)	(73)	(98)	(127)	(52)	(52)	62
TP40-240/2	1 1/2			1	13 1/2	6 3/4	7 1/4	5 1/8	4	4	3 3/16	2 11/16	6 3/16	20	1 11/16	2 7/8	3 7/8	5	2 1/16	2 9/16	81
				3	(343)	(171)	(184)	(130)	(102)	(102)	(78)	(68)	(157)	19 9/16	(43)	(73)	(98)	(127)	(52)	(52)	72

**Note:** For information about motor data, see page 22.

## Technical data

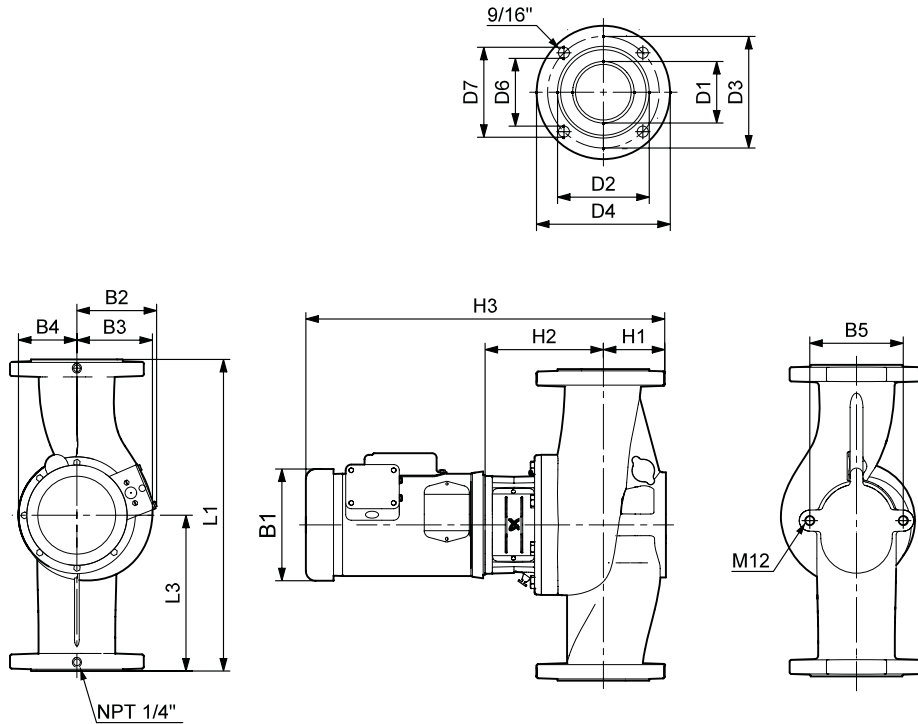
Flow range:	8-100 U.S. GPM
Head range:	5-63 ft
Maximum working pressure:	145 PSI
Temperature range:	5°F (-15°C) to 284°F (140°C)
Max ambient air temperature:	104°F (40°C)
Motors:	TEFC-Standard, ODP-Optional
Flanges:	1 1/2" 2 bolt with (2) 5/8 dia. holes

## TP 50-XX



TK00 9227 1897





TM03 7756 4806

## Dimensions and weights

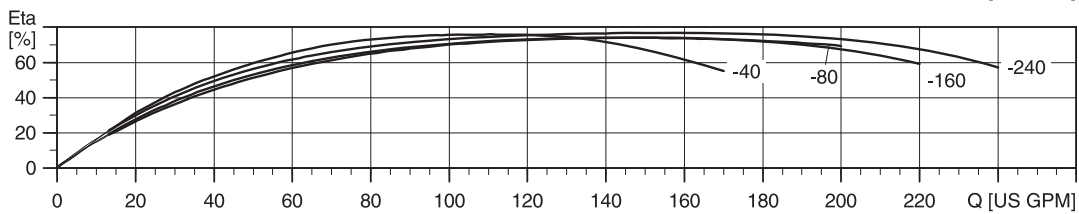
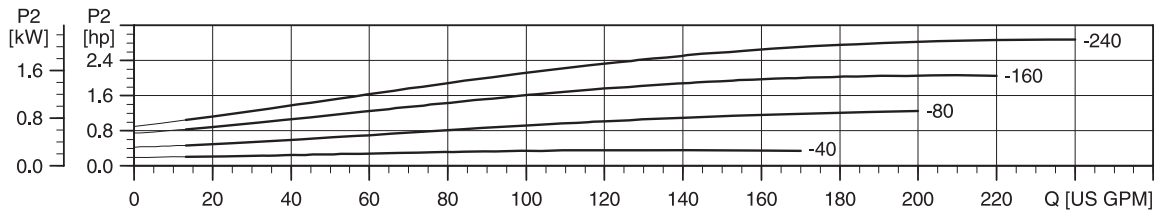
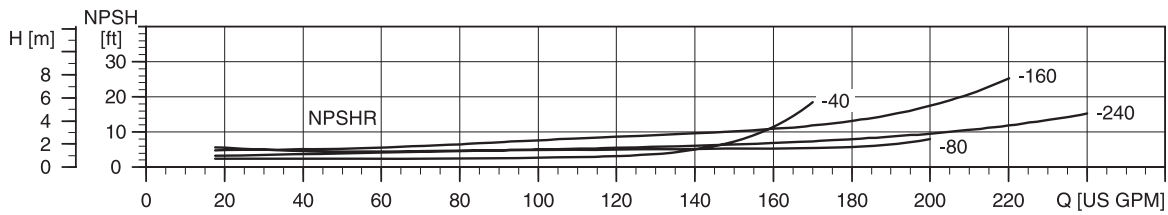
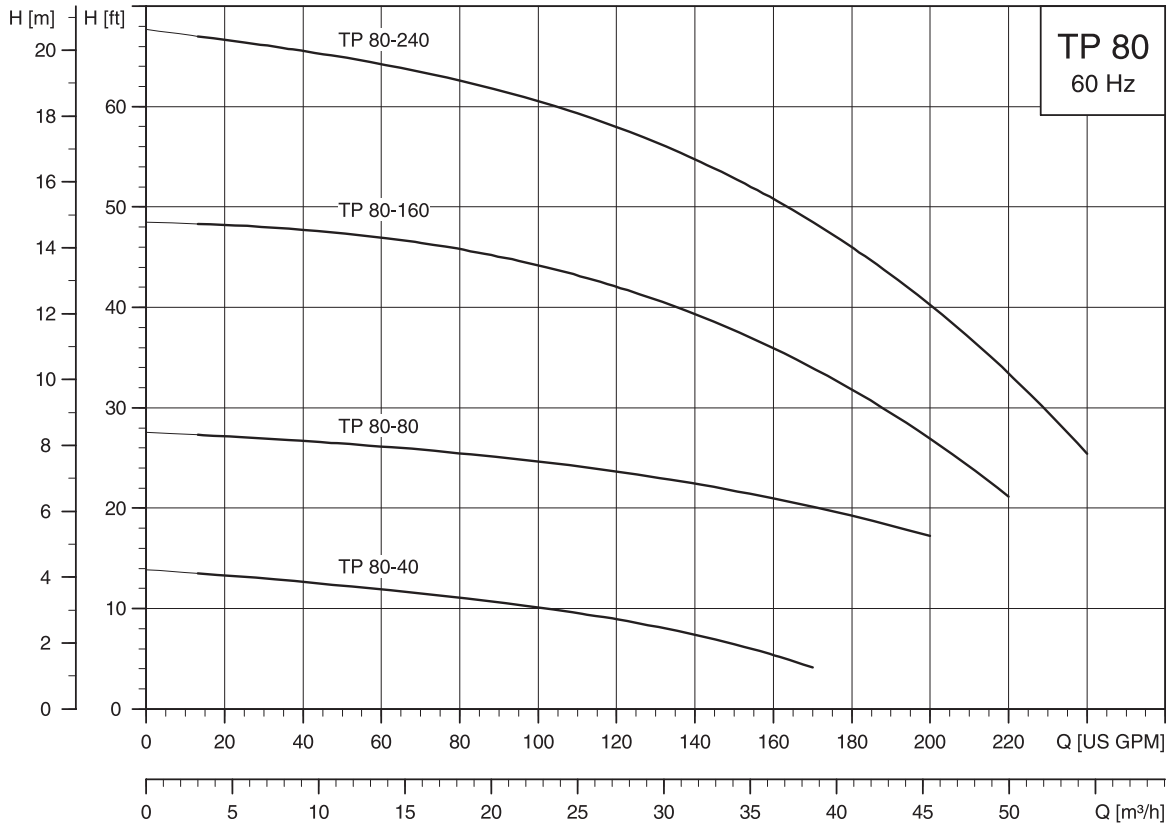
Pump type	HP	Suc. disc. size	Ph	Dimensions [inches]														Net wt. [lbs]		
				L1	L3	B1	B2	B3	B4	B5	H1	H2	H3	D1	D2	D3	D4		D6	D7
TP50-40/4	1/3	1/3	1	14	7	6 1/4	4 7/16	3 9/16	3	4 3/4	3 1/4	6 1/4	18 5/8	2 1/8	3 7/16	4 1/16	5 1/4	2 1/2	3 1/16	61.5
			3	(356)	(178)	(159)	(113)	(90)	(76)	(121)	(83)	(159)	(473)	(54)	(87)	(103)	(133)	(64)	(78)	67.5
TP50-80/2	3/4	1/3	1	11 1/2	5 3/4	6 1/4	4 7/16	3 3/4	3	4 3/4	3	6 3/16	20 1/16	2 1/8	3 7/16	4 1/16	5 1/4	2 1/2	3 1/16	71
			3	(292)	(146)	(159)	(113)	(95)	(76)	(121)	(76)	(157)	18 5/16	(54)	(87)	(103)	(133)	(64)	(78)	67.5
TP50-160/2	1 1/2	2 (51)	1	14	7	7 1/4	5 1/8	4	4	4 3/4	3	5 15/16	20 5/16	2 1/8	3 7/16	4 1/16	5 1/4	2 1/2	3 1/16	86.5
			3	(356)	(178)	(184)	(130)	(102)	(102)	(121)	(76)	(151)	19 13/16	(54)	(87)	(103)	(133)	(64)	(78)	77.5
TP50-240/2	2	1/3	1	14	7	7 1/4	5 1/8	4	4	4 3/4	3	5 7/8	20 1/4	2 1/8	3 7/16	4 1/16	5 1/4	2 1/2	3 1/16	88.5
			3	(356)	(178)	(184)	(130)	(102)	(102)	(121)	(76)	(149)	19 5/16	(54)	(87)	(103)	(133)	(64)	(78)	79.5

**Note:** For information about motor data, see page 22.

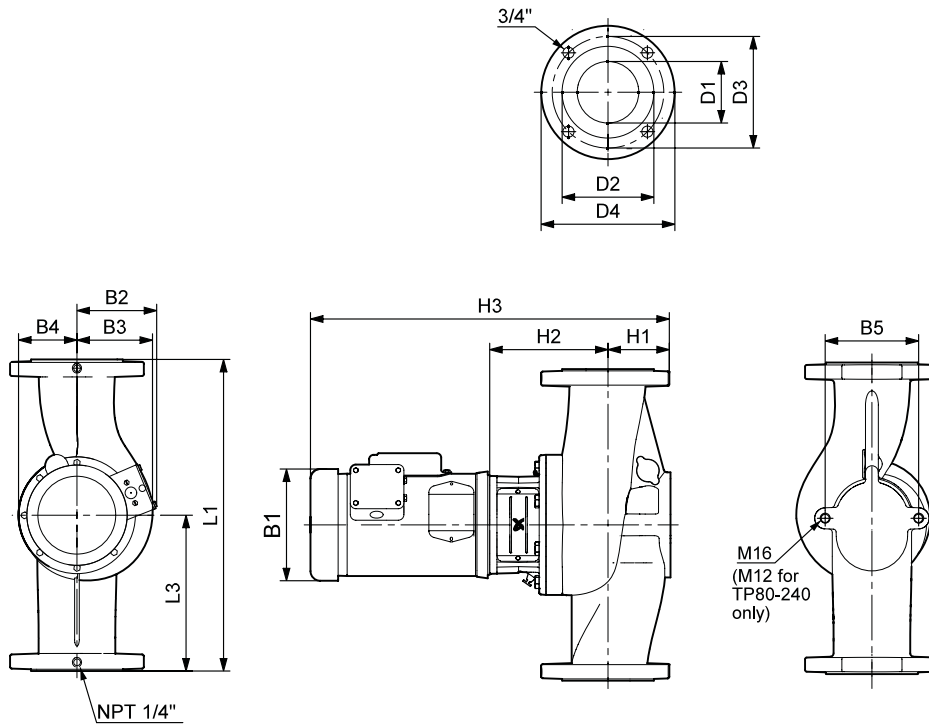
## Technical data

Flow range:	8-150 U.S. GPM
Head range:	7-63 ft
Maximum working pressure:	145 PSI
Temperature range:	5°F (-15°C) to 284°F** (140°C)
Max ambient air temperature:	104°F (40°C)
Motors:	TEFC-Standard, ODP-Optional
Flanges:	1 1/2" 4 bolt with (4) 9/16 dia. holes

## TP 80-XX



TK00 9228 1097



TMO 7769 4806

## Dimensions and weights

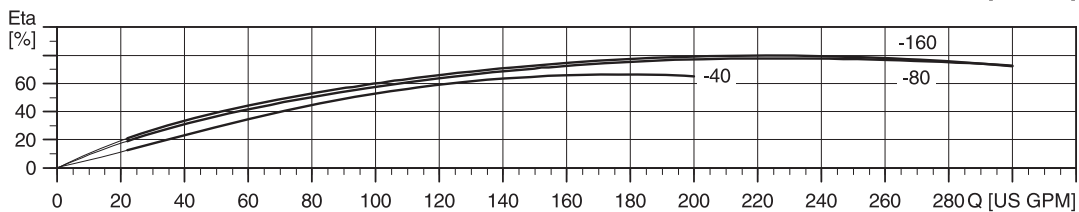
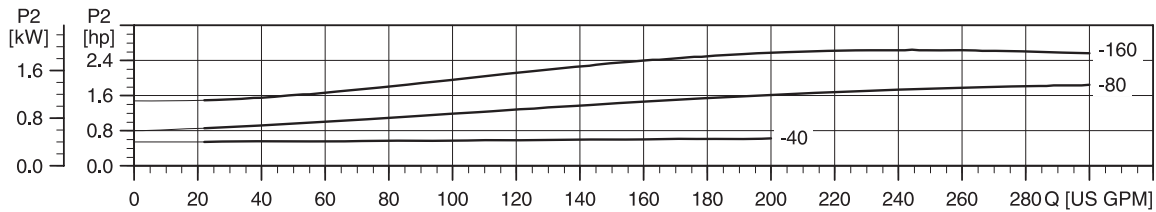
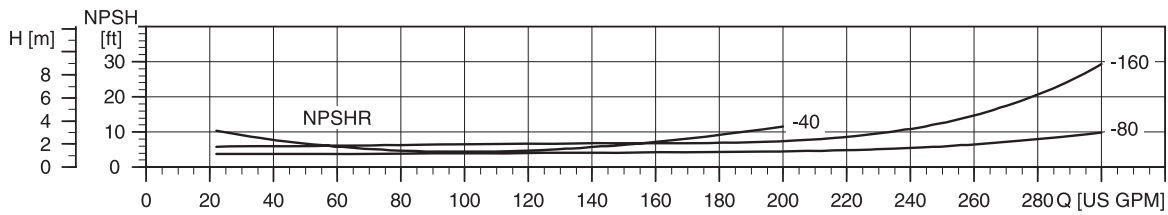
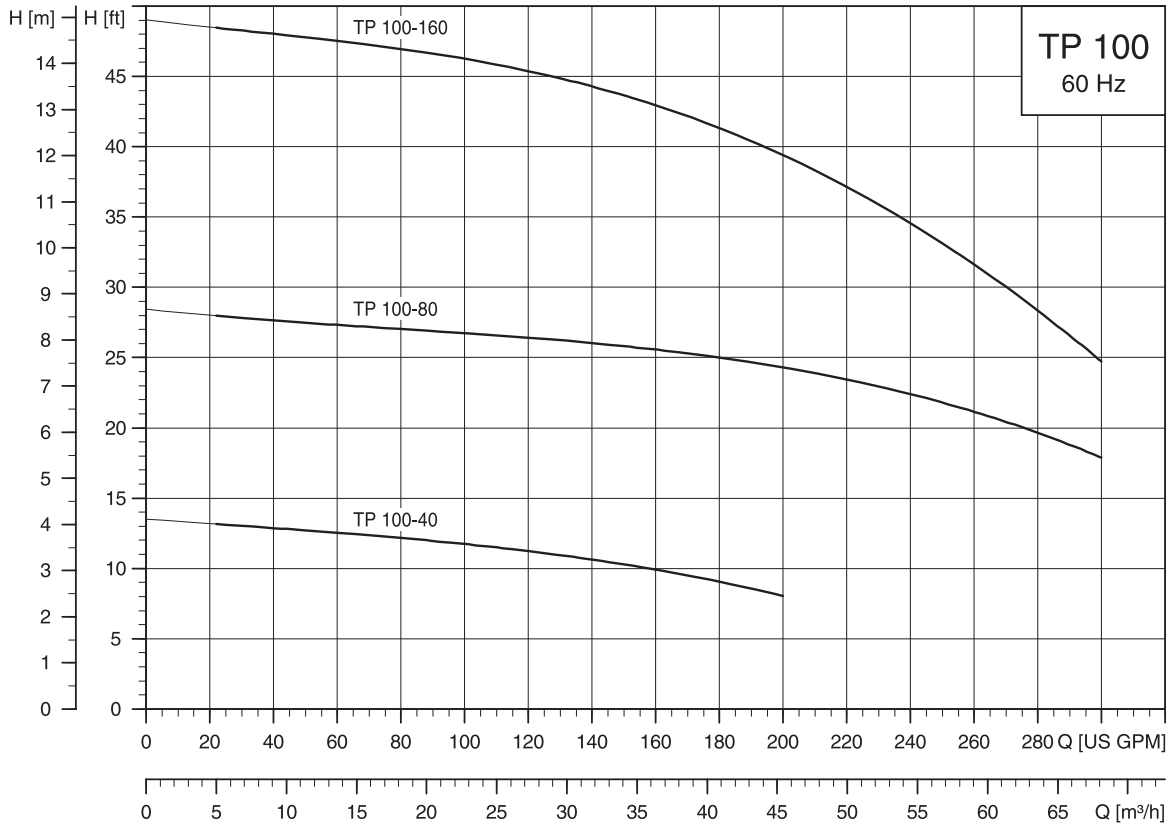
Pump type	HP	Suc. disc. size	Ph	Dimensions [inches]													Net wt. [lbs]	
				(mm)														
				L1	L3	B1	B2	B3	B4	B5	H1	H2	H3	D1	D2	D3	D4	
TP80-40/4	1/2	1/3	1	19	9 1/2	6 1/4	4 7/16	5	4	6 5/16	3 13/16	6 3/8	19 15/16	3 3/16	5	6	7 9/16	107
			3	(483)	(241)	(159)	(113)	(127)	(102)	(160)	(97)	(162)	(506)	(81)	(127)	(152)	(192)	97
TP80-80/4	1 1/2	1/3	1	19	9 1/2	7 1/4	5 1/8	5	4	6 5/16	3 13/16	6 3/8	21 3/8	3 3/16	5	6	7 9/16	121
			3	(483)	(241)	(184)	(130)	(127)	(102)	(160)	(97)	(162)	(543)	(81)	(127)	(152)	(192)	108
TP80-160/2	3	1/3	1	19	9 1/2	8 1/2	5 7/8	4	4	6 5/16	3 13/16	6 7/8	24 3/8	3 3/16	5	6	7 9/16	152
			3	(483)	(241)	(216)	(149)	(102)	(102)	(160)	(97)	(175)	(619)	(81)	(127)	(152)	(192)	142
TP80-240/2	3	1/3	1	19	9 1/2	8 1/2	5 7/8	4	4	4 3/4	3 13/16	6 11/16	24 1/8	3 3/16	5	6	7 9/16	148.5
			3	(483)	(241)	(216)	(149)	(102)	(102)	(121)	(97)	(170)	(613)	(81)	(127)	(152)	(192)	138.5

**Note:** For information about motor data, see page 22.

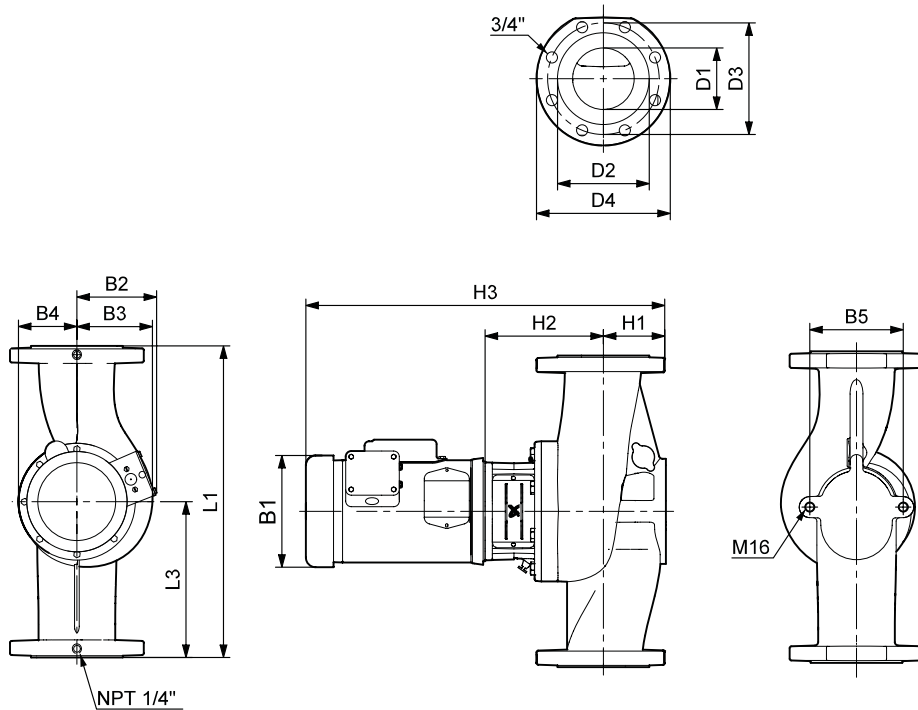
## Technical data

Flow range:	12-2400 U.S. GPM
Head range:	4-67.53 ft
Maximum working pressure:	145 PSI
Temperature range:	5°F (-15°C) to 284°F (140°C)
Max ambient air temperature:	104°F (40°C)
Motors:	TEFC-Standard, ODP-Optional
Flanges:	3" ANSI 125 lb., R.F.

## TP 100-XX



TK00 9229 1097



TM03 7755 4806

## Dimensions and weights

Pump type	HP	Suc. disc. size	Ph	Dimensions [inches]												Net wt. [lbs]		
				(mm)														
				L1	L3	B1	B2	B3	B4	B5	H1	H2	H3	D1	D2	D3	D4	
TP100-40/4	1		1/3	21	10 1/2	7 1/4	5 1/8	5 1/8	4	6 5/16	4 13/16	7 7/16	23 7/16	4 3/16	6 3/16	7 9/16	9 1/16	107
				(533)	(267)	(184)	(130)	(130)	(102)	(160)	(122)	(189)	(595)	(106)	(157)	(192)	(230)	97
TP100-80/4	2	4 (102)	1/3	21	10 1/2	7 1/4	5 1/8	5 5/16	4	6 5/16	4 13/16	6 5/8	23 7/16	4 3/16	6 3/16	7 9/16	9 1/16	121
				(533)	(267)	(184)	(130)	(135)	(102)	(160)	(122)	(168)	(595)	(106)	(157)	(192)	(230)	108
TP100-160/2	3		1/3	21	10 1/2	8 1/2	5 7/8	4 15/16	4	6 5/16	4 13/16	7 1/16	25 1/2	4 3/16	6 3/16	7 9/16	9 1/16	152
				(533)	(267)	(216)	(149)	(125)	(102)	(160)	(122)	(179)	(648)	(106)	(157)	(192)	(230)	142

**Note:** For information about motor data, see page 22.

## Technical data

Flow range:	25-300 U.S. GPM
Head range:	3-49 ft
Maximum working pressure:	145 PSI
Temperature range:	5°F (-15°C) to 284°F (140°C)
Max ambient air temperature:	104°F (40°C)
Motors:	TEFC-Standard, ODP-Optional
Flanges:	4" ANSI 125 lb., R.F.

## VersaFlo® TP

Model	Cas iron Product no.	Bronze Product no.	Mtr. Brand	Max HP	Motor type	PH	Mtr. SF.	Voltage	Max. RPM	I-F/L AMPS	I-start AMPS
TP32-40/4	96411778	96411780	Baldor	1/3	TEFC	1	1.35	115/208-230	1725	6/3.6-3	26.0/14.4-13
	96411779	96411781	Baldor			3	1.35	208-230/460	1725	1.9-1.6/0.8	9.7-8.8/4.4
TP32-80/2	96411782	96411784	Baldor	1/2	TEFC	1	1.6	115/208-230	3450	7.4/5.2-3.7	39.0/21.6-19.5
	96411783	96411785	Grundfos			3	1.25	208-230/460	3460	1.64-1.55/0.78	9.7-10.1/5.1
TP32-160/2	96411786	96411788	Baldor	3/4	TEFC	1	1.25	115/208-230	3450	9.6/5.3-4.8	56.0/31.0-28
	96411787	96411789	Grundfos			3	1.25	208-230/460	3460	2.4-2.3/1.2	14.2-15/7.8
TP40-40/4	96411790	96411792	Baldor	1/3	TEFC	1	1.35	115/208-230	1725	6/3.6-3	26.0/14.4-13
	96411791	96411793	Baldor			3	1.35	208-230/460	1725	1.9-1.6/0.8	9.7-8.8/4.4
TP40-80/2	96411794	96411796	Baldor	3/4	TEFC	1	1.25	115/208-230	3450	9.6/5.3-4.8	56.0/31.0-28
	96411795	96411797	Grundfos			3	1.25	208-230/460	3460	2.4-2.3/1.2	14.2-15/7.8
TP40-160/2	96411798	96411800	Baldor	3/4	TEFC	1	1.25	115/208-230	3450	9.6/5.3-4.8	56.0/31.0-28
	96411799	96411801	Grundfos			3	1.25	208-230/460	3460	2.4-2.3/1.2	14.2-15/7.8
TP40-240/2	96411802	96411804	Baldor	1-1/2	TEFC	1	1.3	115/208-230	3450	17/9.5-8.6	106/58.6-53
	96411803	96411805	Grundfos			3	1.15	208-230/460	3480	4.7-4.6/2.3	33.8-36.8/18.4
TP50-40/4	96411806	96411808	Baldor	1/3	TEFC	1	1.35	115/208-230	1725	6/3.6-3	26.0/14.4-13
	96411807	96411809	Baldor			3	1.35	208-230/460	1725	1.9-1.6/0.8	9.7-8.8/4.4
TP50-80/2	96411810	96411812	Baldor	3/4	TEFC	1	1.25	115/208-230	3450	9.6/5.3-4.8	56.0/31.0-28
	96411811	96411813	Grundfos			3	1.25	208-230/460	3460	2.4-2.3/1.2	14.2-15/7.8
TP50-160/2	96411814	96411816	Baldor	1-1/2	TEFC	1	1.3	115/208-230	3450	17/9.5-8.6	106/58.6-53
	96411815	96411817	Grundfos			3	1.15	208-230/460	3450	4.7-4.6/2.3	33.8-36.8/18.4
TP50-240/2	96411818	96411820	Baldor	2	TEFC	1	1.15	115/208-230	3450	23/12.7-11.5	156.0/86.2-78
	96411819	96411821	Grundfos			3	1.15	208-230/460	3510	8.9-8.5/4.25	60.5-63.8/31.9
TP80-40/4	96411823	96411825	Baldor	1/2	TEFC	1	1.25	115/208-230	1725	7.4/3.9-3.7	33.0/18.2-16.5
	96411824	96411826	Baldor			3	1.25	208-230/460	1725	2.5-2/1	14.4-13/6.5
TP80-80/4	96411827	96411829	Baldor	1-1/2	TEFC	1	1.15	115/208-230	1725	16/8.2-8.0	228.0/126.1-114
	96411828	96411830	Baldor			3	1.15	208-230/460	1725	5.3-5/2.5	37.6-34.0/17
TP80-160/2	96411831	96411833	Baldor	3	TEFC	1	1.15	115/208-230	3450	29/16-14.5	170.0/94.0-85
	96411832	96411834	Grundfos			3	1.15	208-230/460	3500	8.9-8.5/4.25	60.5-63.8/31.9
TP80-240/2	96411836	96411840	Baldor	3	TEFC	1	1.15	115/208-230	3450	29/16-14.5	170.0/94.0-85
	96411839	96411841	Grundfos			3	1.15	208-230/460	3500	8.9-8.5/4.25	60.5-63.8/31.9
TP100-40/4	96411842	96411844	Baldor	1	TEFC	1	1.15	115/208-230	1725	13.0/7.6-6.5	74.0/40.9-37
	96411843	96411845	Baldor			3	1.15	208-230/460	1725	3.6-3.4/1.7	25.4-23.0/11.5
TP100-80/4	96411846	96411848	Baldor	2	TEFC	1	1.15	115/230	1725	17.2/8.6	234.0/117
	96411847	96411849	Baldor			3	1.15	208-230/460	1725	6.5-6.2/3.1	48.7-44.0/22
TP100-160/2	96411850	96411852	Baldor	3	TEFC	1	1.15	115/208-230	3450	29/16-14.5	170.0/94.0-85
	96411851	96411853	Grundfos			3	1.15	208-230/460	3500	8.9-8.5/4.25	60.5-63.8/31.9

## VersaFlo® UPS/TP packaged flange sets ★

For use w/models	Product numbers	Description
<b>Accessories and spare parts</b>		
UPS/TP32-40	<b>519603</b> <b>96409356</b>	1-1/4" 1-1/4" Threaded, cast iron threaded, bronze
UPS/TP32-80	<b>519603</b> <b>96409356</b>	1-1/4" 1-1/4" Threaded, cast iron threaded, bronze
UPS/TP32-160UPS/TP40-All	<b>539605</b> <b>539615</b>	1-1/2" 1-1/2" Threaded, cast iron threaded, bronze
UPS/TP50 (All models)	<b>96409354</b> <b>96409355</b>	2" 2" Threaded, cast iron threaded, bronze
UPS/TP80 (All models)	<b>569601</b> <b>569611</b>	3" 3" Threaded, ANSI 125# Cast iron threaded, ANSI 125# bronze
UPS/TP100 (All models)	<b>579801</b> <b>96409355</b>	4" 4" Threaded, ANSI 125# Cast iron threaded, ANSI 125# cast iron
<b>Flange gaskets</b>		
For use w/these flangesets	Product numbers	Description
1-1/4" Threaded	<b>510179</b>	Single gasket for 1-1/4" flange
1-1/2" Threaded	<b>530244</b>	Single gasket for 1-1/2" flange
2" Threaded	<b>96409353</b>	Single gasket for 2" flange single gasket for 3" flange
3" Threaded 125#	<b>560185</b>	
4" Threaded 125#	<b>570008</b>	Single gasket for 4" flange

\* Flange set includes two (2) flanges, two (2) gaskets, and eight (8) nuts and bolts.

## VersaFlo® TP optional shaft seal kits

VersaFlo TP - Optional shaft seal kits			
For use with these models	Type, seal faces, elastomers	Designation	Product number
All VersaFlo TPs	O-ring type, tungsten carbide/ tungsten carbide, EPDM	AUUE	96409266
For use with glycol/water mixtures			
For use with these models	Type, seal faces, elastomers	Designation	Product number
All VersaFlos	Reduced face O-ring type, tungsten carbide/tungsten carbide, EPDM and FKM	RUUE/V	985844

## Submittal data sheet



Company name: \_\_\_\_\_  
Prepared by: \_\_\_\_\_  
Phone number: ( ) - \_\_\_\_\_  
Fax number: ( ) - \_\_\_\_\_  
Date: \_\_\_\_\_ Page 1 of: \_\_\_\_\_  
Quote number: \_\_\_\_\_

### Submittal Data Sheet

#### Client Information

Project title: _____	Client name: _____
Reference number: _____	Client number: _____
Client contact: _____	Client phone no: ( ) - _____

#### Location Information

For: _____	Unit: _____
Site: _____	Service: _____
Address: _____	City: _____ State: _____ Zip Code: _____

#### Technical Data

Flow (GPM) \_\_\_\_\_  
Head (Ft) \_\_\_\_\_  
Motor \_\_\_\_\_  
Max Fluid Temp \_\_\_\_\_  
Min Fluid Temp \_\_\_\_\_  
Max Working Pressure \_\_\_\_\_  
Min Required Inlet Pressure \_\_\_\_\_  
Connection Type and Size \_\_\_\_\_

#### Motor Information

HP: \_\_\_\_\_  
Phase: \_\_\_\_\_  
Voltage: \_\_\_\_\_  
Enclosure: \_\_\_\_\_

#### Pump Information

Model Information from Type Key and Codes: _____	
Quantity Required: _____	Example: <b>TP-40-160/2</b>
Minimum required flow: _____	NPSH required at duty point: _____
<b>Product Guide additional information pages</b>	
Materials page number: _____	Performance curve page number: _____
Technical data page number: _____	Motor data page number: _____

Custom-built pump information (optional): \_\_\_\_\_

#### Additional Information

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

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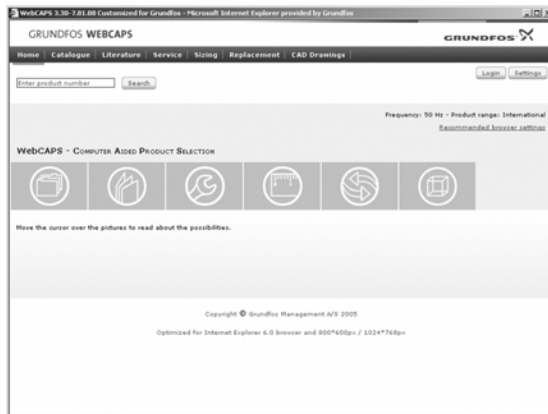
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## WebCAPS

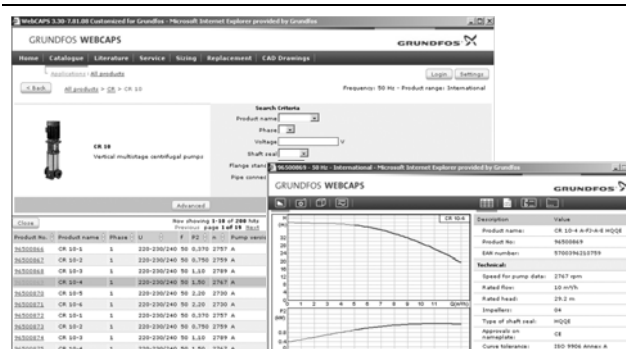


WebCAPS is a **Web-based Computer Aided Product Selection** program available on [www.grundfos.com](http://www.grundfos.com).

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 22 languages.

In WebCAPS, all information is divided into 6 sections:

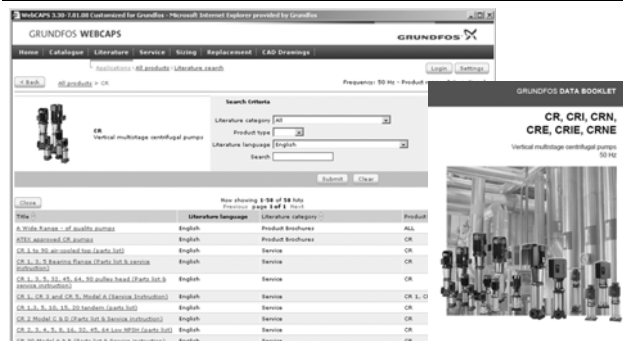
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



### Catalogue

This section is based on fields of application and pump types, and contains

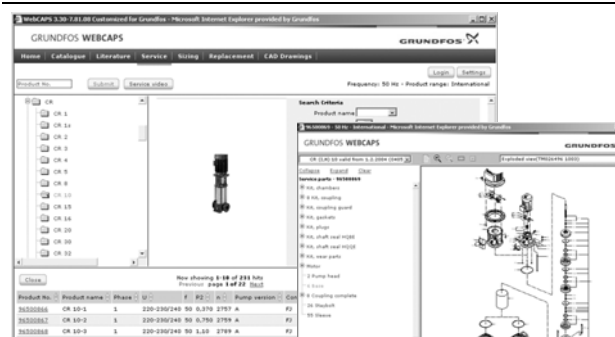
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



### Literature

In this section you can access all the latest documents of a given pump, such as

- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures, etc.



### Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

Furthermore, this section contains service videos showing you how to replace service parts.



## Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

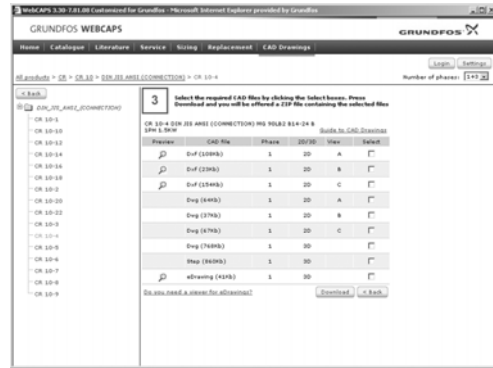
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



## Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump. The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



## CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

## WinCAPS



Fig. 5 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185,000 Grundfos products in more than 22 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.



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