tapflo®

HOSE PUMPS

2023 | 1

All about your flow®

www.tapflo.com

Hose Pumps

Certificates may vary depending on material execution of particular product.

solutions for difficult, abrasive, corrosive and viscous liquids with particles

PT - high pressure (up to 15 bars)

- **capacity 0 - 60m³/h (up to 150 m³/h twin head)**
- **shoe design**
- **lubricant type: glycerine FDA**
- housing material - **nodular cast iron**
- **15 sizes available**
- **horizontal and vertical** gear motor position

- **industries:** industrial, paint, waste water treatment, food, paper mils, chemical, biogas, recycling, mining, building

PTL - low pressure (up to 4 bars)

- **capacity up to 5 m³/h (up to 10m³/h twin head)**
- **roller design**
- **lubricant type: silicone grease**
- housing material - **aluminium**
- **6 (7) sizes available**
- **horizontal and vertical** gear motor position

- **industries:** pharmaceutical, water treatment food & beverage, cosmetics, chemical

Clean PRO - Pioneer Cleaning Technology (up to 10 bars)

- **capacity up to 12 m³/h**
- **special Clean In Place shoe design**
- **lubricant type: glycerine FDA**
- housing material - **nodular cast iron**
- **2 (3) sizes available**

- **industries:** pharmaceutical, food, cosmetics

Product images are for illustrative purposes only and may differ from the actual product.

Features & Benefits

Pumping difficult liquids
Peristaltic pumps are ideally suited for pumping highly abrasive, corrosive, viscous liquids with particles

Simple maintenance, less downtime
Few components, the liquid is only in contact with the inner hose, no seals

Easy operation
No special qualified persons are needed

Cost-effective
Low TOC (Total costs of ownership)

No turbulence
In the case of highly abrasive media, gentle, low-wear pumping takes place. Also for sensitive media.

Self-priming
Best suction capacity up to -0.9 bar

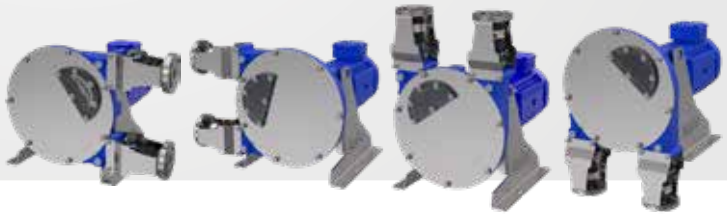
High viscosity
Viscosities of up to 100,000 mPas can be pumped

Reversible operation
Simply change the direction of rotation to empty lines

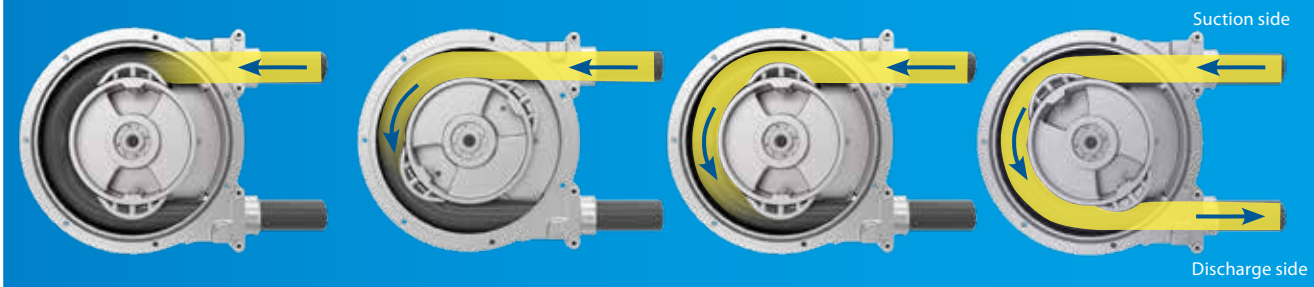
Adjustable flow / Dosing
By changing the speed (e.g. using a frequency converter) the flow rate can be regulated, also for dosing tasks with an accuracy of approx.± 5%

Safe to run dry
Easy to use, no monitoring required, pump can run dry

Extensive configuration options different mounting positions



Working principle



PTL PUMPS – ROLLER DESIGN FOR LOWER PRESSURES UP TO 4 BAR
The rollers are assembled on the brackets and rotor using bearings therefore eliminating most of the friction on the hose caused by a sliding roller. This allows the pumps to run at much higher speeds but only with limited discharge pressure. The roller design requires much less lubrication (only grease) allowing longer hose lifetime. Depending on the pump size, the rollers are adjusted either by changing the position of the roller mounting bracket (PTL09-PTL25) or adding shims (PTL30-45)

PT PUMPS – SHOE DESIGN FOR HIGHER PRESSURES UP TO 15 BAR
In the shoe design, the shoes are fixed to the rotor and slide against the hose. The sliding generates a lot of friction and heat, therefore constant lubrication is needed to dissipate the heat. This shoe design allows the pump to operate at high working pressures (up to 15 bar) avoiding any blockage and optimizing the lifetime of the hose.

Advanced hose design technology

Our focus is to reduce in the best possible way the hose wear and our engineers are fully involved in this important work. We have achieved hoses today that lasts approximately 30% longer than any other hose on the market.

Non-machining of the external surface improves the lubrication of the reinforced hoses.

The lubricant has a better grip on the hose, reducing friction and lower heat generation to extend the hose lifetime.

Features & Benefits

Optimized quality
Our hoses are exclusively European made, produced with the best quality compounds and according to the highest quality standards.

Large selection of materials & sizes
Tapflo offers a large selection of different available hose materials.

Hoses with inner diameter from 5 mm to 125 mm.

Biggest available stock
We have more than 7000 hoses available in our headquarter and in many countries.

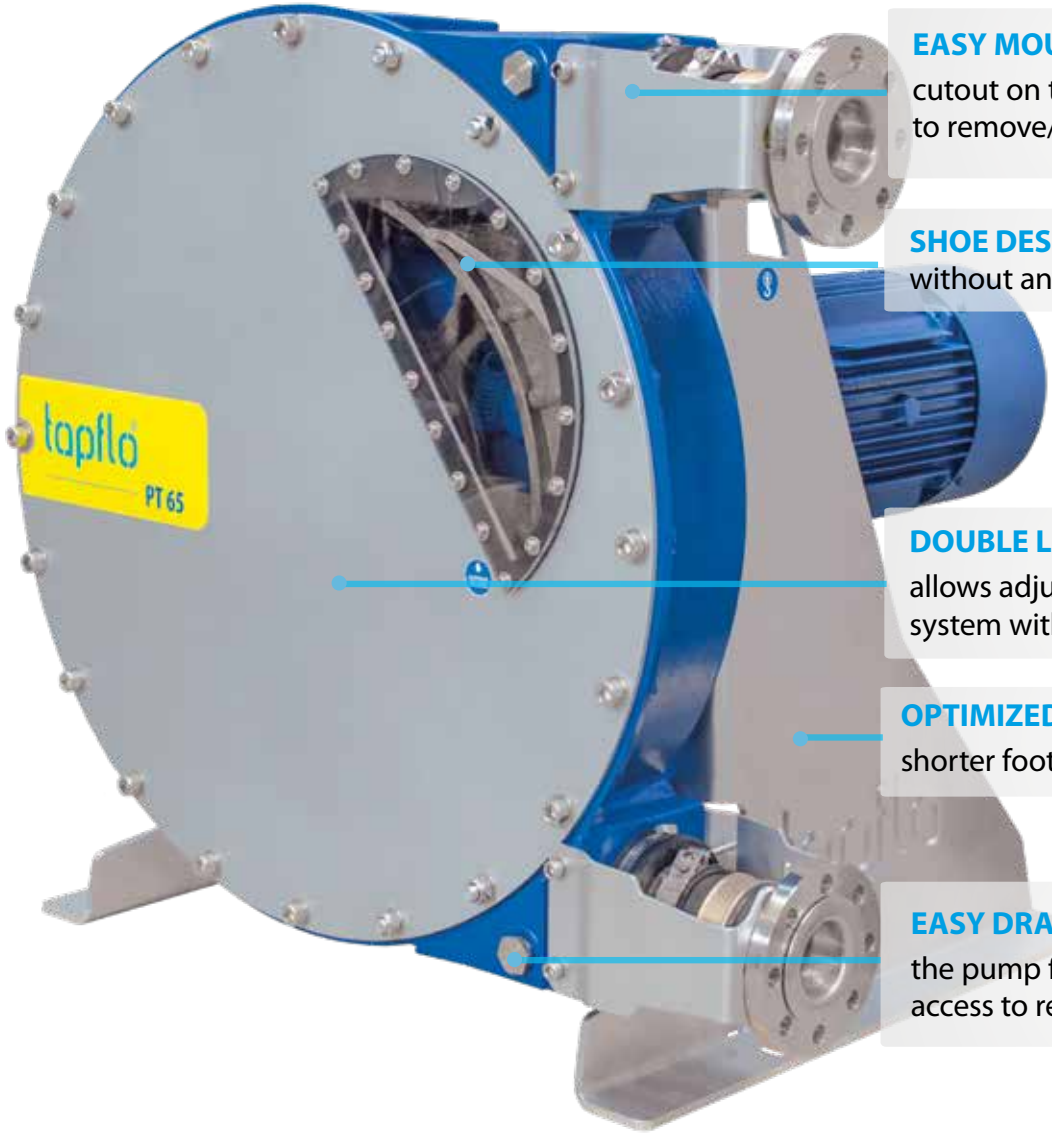
Fits for most competition pumps
Our hoses can be adjusted by length to fit in most competition pumps.

Clear codification & branding label
Allowing transparency and clearness that this is a original TAPFLO product.

Available hoses materials

Hose	ATEX	Industry							
		Water treatment	Ceramic	Mining & quarries	Building & constructions	Chemical	Food & beverage	Paint, pulp & paper	Agriculture & biogas
Industrial									
NR	●	●	●	●	●	●		●	●
NBR		●		●		●			●
EPDM	●	●	●	●	●	●		●	●
CSM		●		●		●			●
Food Grade									
NR FDA							●	●	
NBR FDA							●		
EPDM FDA							●		

PT Optimised pump design



EASY MOUNT FLANGE BRACKETS
cutout on the brackets makes it easy to remove/maintain the pump

SHOE DESIGN
without any sharp edges

DOUBLE LIP SEAL
allows adjustment of the vacuum system without removing the pump

OPTIMIZED PUMP DESIGN
shorter footprint

EASY DRAINAGE OF LUBRICANT
the pump feet does not obstruct access to realize the drainage

PRE DISPOSITION OF THE SENSORS IN THE PUMP CASING
Pump casing is pre-disposed for leakage sensor, stroke counter

LEAKING CHANNEL IN THE PUMP CASING
Avoids that the liquid gets into the gearmotor in case of failure of the pump casing sealing

PT High pressure hose pumps

- **capacity 0 - 60m³/h (up to 150 m³/h twin head)**
- **shoe design**
- **lubricant type: glycerine FDA**
- housing material - **nodular cast iron**
- **15 sizes available**
- **horizontal and vertical** gear motor position
- **industries:** industrial, paint, waste water treatment, food, paper mils, chemical, biogas, recycling, mining, building

Materials, data and limits

Technical data	Specification
Casing material	nodular cast iron (std)
Hose material (wetted)	Industrial reinforced - NR (std), NBR, EPDM, CSM Food grade reinforced - NR FDA, BR FDA, EPDM FDA
Insert material (wetted)	AISI 316L (std), PTFE, PP
Connection type	EN1092-1 Flange (std), ANSI flange, BSP/NPT thread, Camlock, hose tail, DIN 32676 clamp, DIN 11851 thread, SMS 3017 clamp
Motor*	IEC standard, 3-phase, 4-pole, 50/60 Hz, IP55+PTC
Max. capacity	83 m³/h
Max. viscosity	100 000 cps***
Max. liquid temp.	80 °C**
Max. discharge pressure	15 bar
Max. suction lift	- 0.9 bar

* Other motor options available on request
** At a room temperature of 20°C. Furthermore, it depends on the pumped fluid and on the hose quality
*** It depends on the pump dimension/execution, on the speed and installation of the pump at customer site

Available standard gear motors*

Pump size	Motor power [kW]	Pump speed [rpm]
PT 5, PT 10	0.25	11, 15, 19, 23
PT 10	0.37	15, 23, 25, 35
PT 15, PT 20	0.37	15, 23, 25, 35
	0.55	43, 47, 61
PT 25	1.1	23
	1.5	30, 35, 44, 50, 60
PT 32, PT 38	1.5	20, 25, 31
	2.2	34, 44, 50, 61
PT 40	2.2	25, 31, 33, 41
	3	47
	4	54, 63
PT 51, PT 60	7.5	20, 33, 38, 47, 55, 60
PT 65, PT 80, PT 80L	7.5	20
	11	20, 26, 32, 38
	15	22,5, 26, 32, 38
PT 100	15	18, 24
	18,5	18
	22	24, 31
PT 125	22	20
	30	25, 32
	37	20, 32, 38

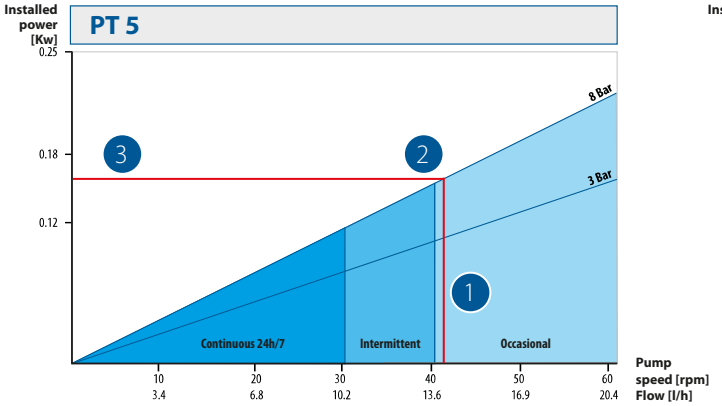
* Other gear motor speed options available on request

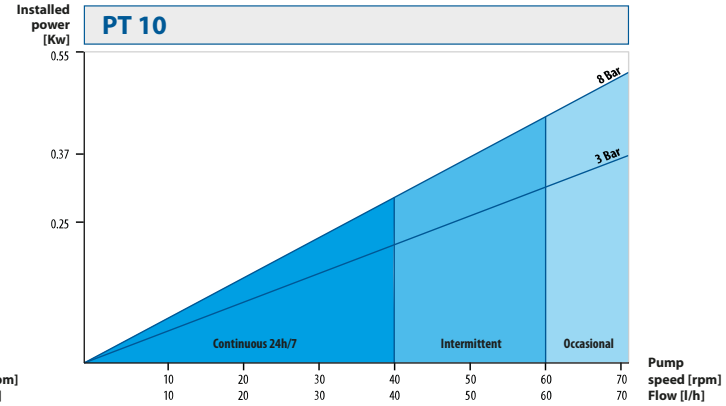
Performance curves

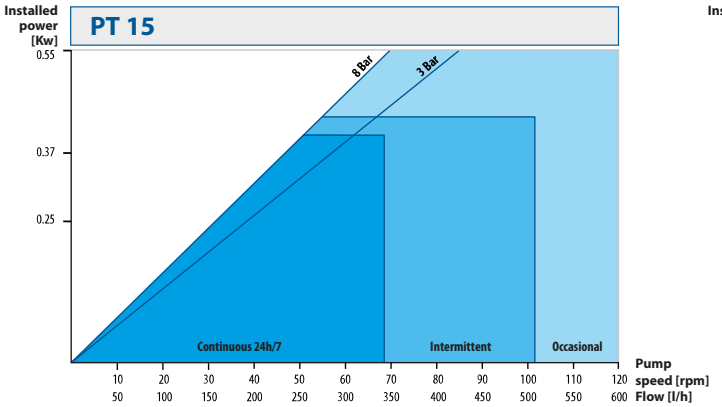
The performance curves are based on water. (ρ = 1000 kg/m³, T = 20 °C)
Other circumstances might change the performance.
Intermittent duty = 1 hour stop for every 2 hours of operation.
Occasional duty = not more than 1 hour per day.

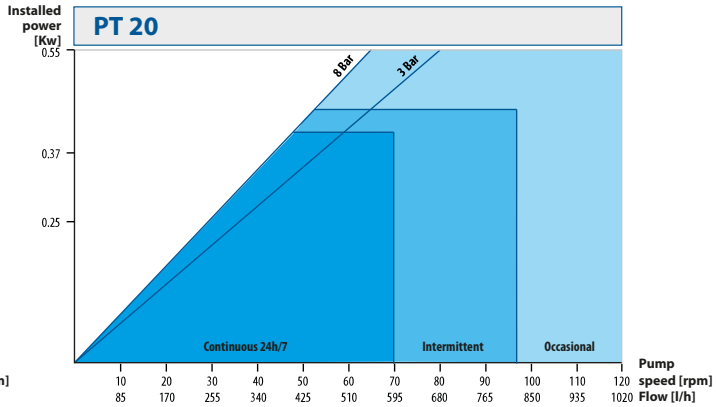
Example see points and the red line

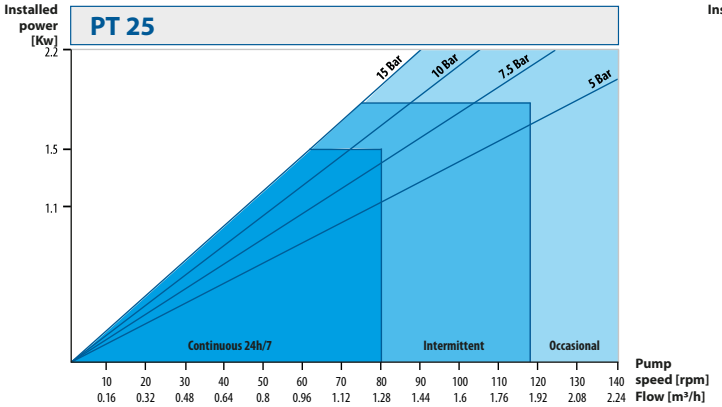
1. Select the required flow. Thanks to this you will get required pump speed.
2. Move higher to calculate discharge pressure.
3. Move left to read engine power.

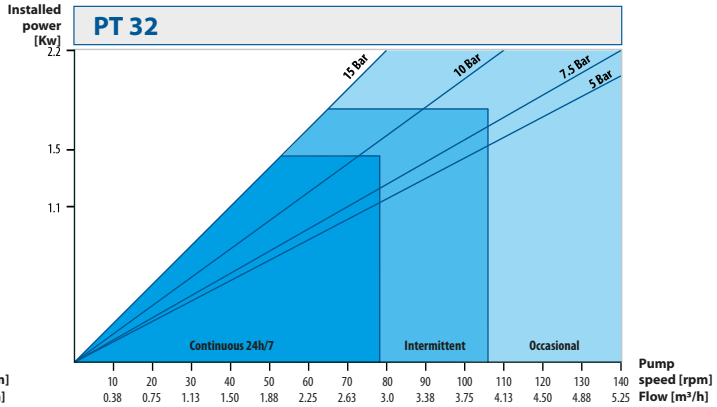


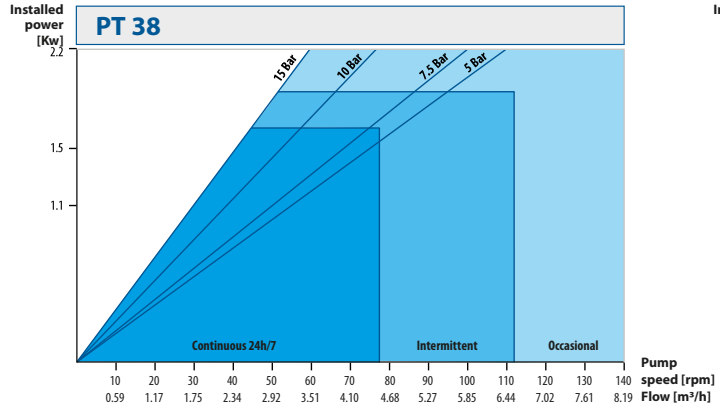


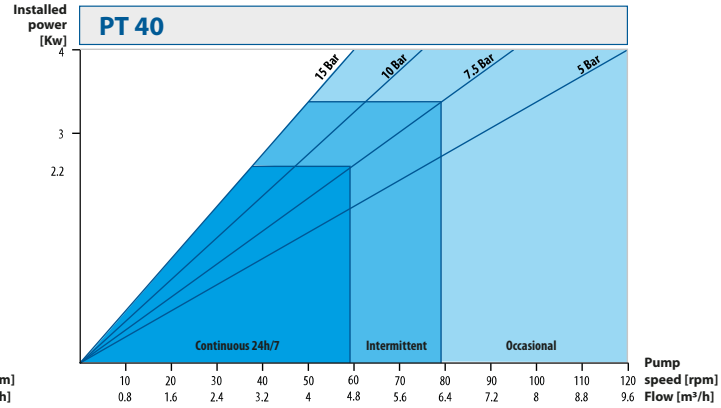






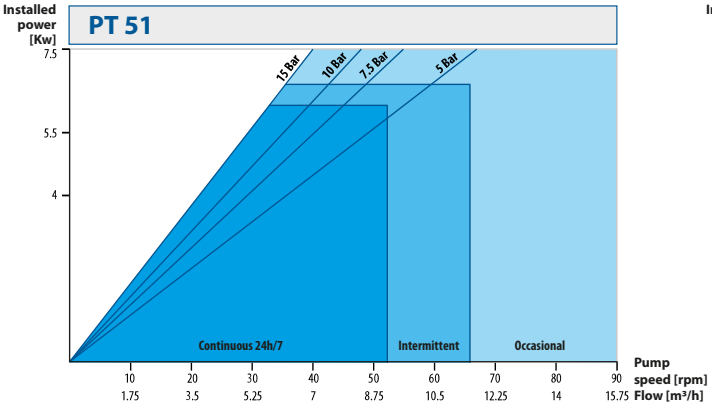




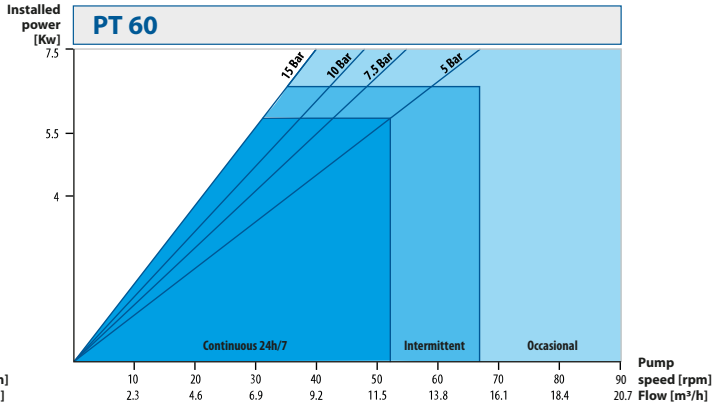


Changes reserved without notice

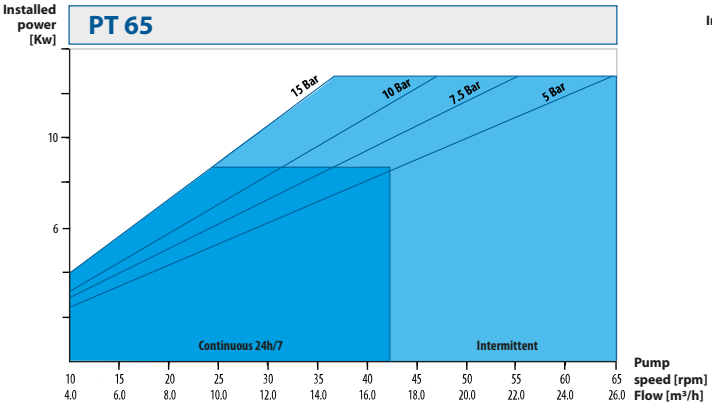
PT 51



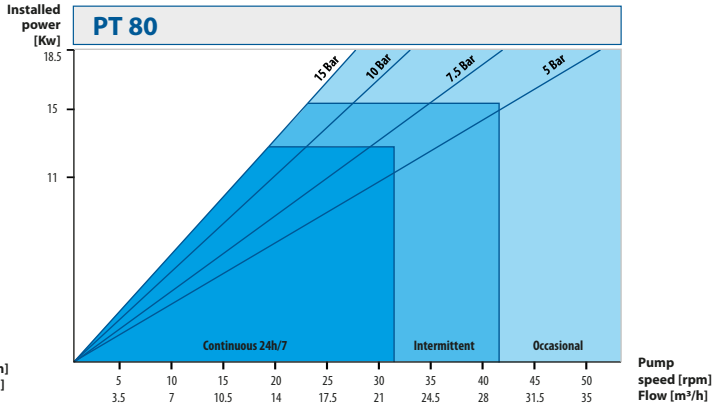
PT 60



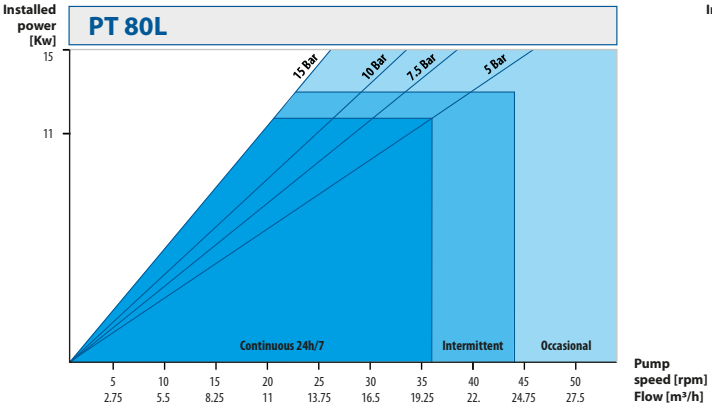
PT 65



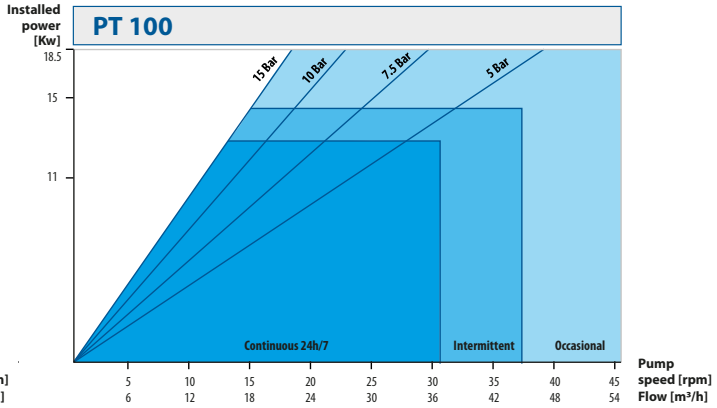
PT 80



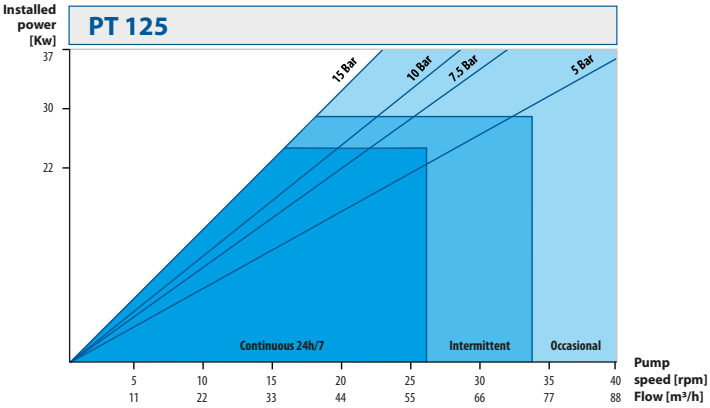
PT 80L



PT 100



PT 125



Changes reserved without notice

PTL Optimised pump design

STANDARD VERTICAL GEARMOTOR
Less space required for the pump installation

SEALED PUMP CASING
Avoids that in case of hose rupture the liquid gets on the floor (factory tested)

BETTER SETTING OF ROLLERS
Improved roller setting technology

OPTIMIZED PUMP DESIGN
shorter footprint

PRE DISPOSTION OF THE SENSORS IN THE PUMP CASING
Pump casing is pre-disposed for leakage sensor, stroke counter

PTL Low pressure hose pumps

- **capacity up to 5 m³/h (up to 10 m³/h twin head)**
- **roller design**
- **lubricant type: silicone grease**
- housing material - **aluminium**
- **6 sizes available**
- **horizontal and vertical** gear motor position
- **industries:** pharmaceutical, water treatment food & beverage, cosmetics, chemical

Materials, data and limits

Technical data	Specification
Casing material	aluminium
Hose material (wetted)	Industrial reinforced - NR (std), NBR, EPDM, CSM Food grade reinforced - NR FDA, NBR FDA, EPDM FDA Extruded hose - Silicone
Insert material (wetted)	AISI 316L (std), PTFE, PE AST, PP
Connection type	Hose tail (std) , EN1092-1 Flange, ANSI flange, BSP/NPT thread, Camlock, DIN 32676 clamp, DIN 11851 thread, SMS 3017 clamp
Motor*	IEC standard, 3-phase, 4-pole, 50/60 Hz, IP55+PTC
Max capacity	10 m³/h
Max viscosity	12 000 cps***
Max. liquid temp.	80 °C**
Max. discharge pressure	4 bar (with reinforced hose)
Max. suction lift	- 0.9 bar

* Other motor options available on request
** At a room temperature of 20°C. Furthermore, it depends on the pumped fluid, on the hose quality
*** It depends on the pump dimension/execution, on the speed and installation of the pump at customer site

Available standard vertical gear motors*

Pump size	Motor power [kW]	Pump speed [rpm]
PTL 9, PTL 13	**0.18**	18, 24, 28, 35, 47, 56, 69, 93, 139, 187
PTL 17	**0.18**	14, 18, 24, 28, 35, 47, 56, 69, 93, 139
	0.25	187
PTL 25	**0.55**	37, 62, 86, 138
PTL 30	**1.1**	40
	1.5	49, 58, 86, 104
PTL 45	**1.5**	40, 58
	2.2	72, 93

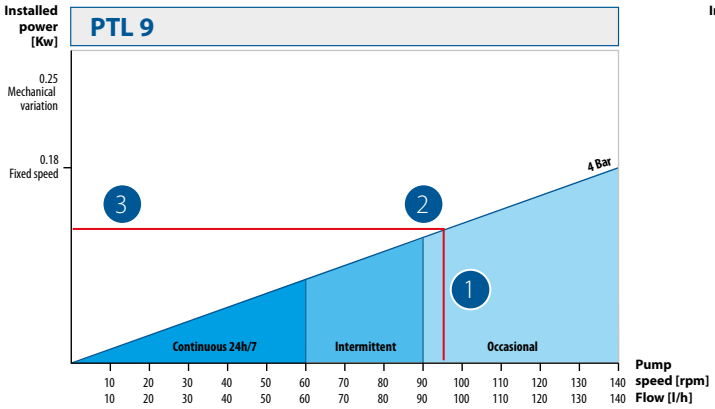
* Other gear motor speed options available on request

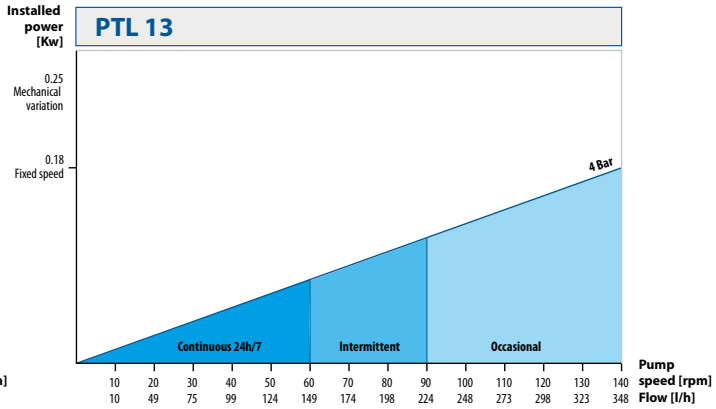
Performance curves

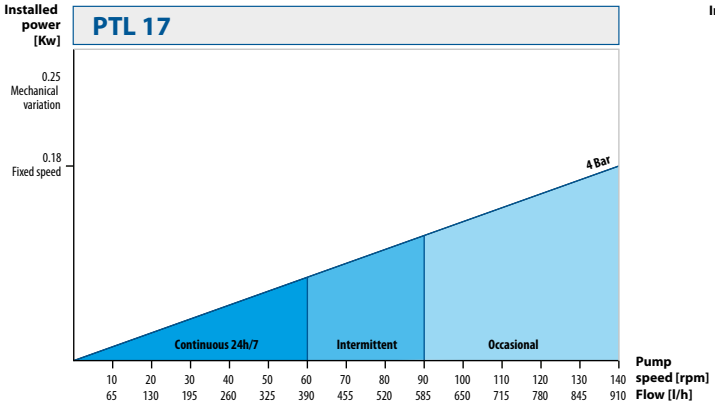
The performance curves are based on water. (ρ = 1000 kg/m³, T = 20 °C)
Other circumstances might change the performance.
Intermittent duty = 1 hour stop for every 2 hours of operation.
Occasional duty = not more than 1 hour per day.

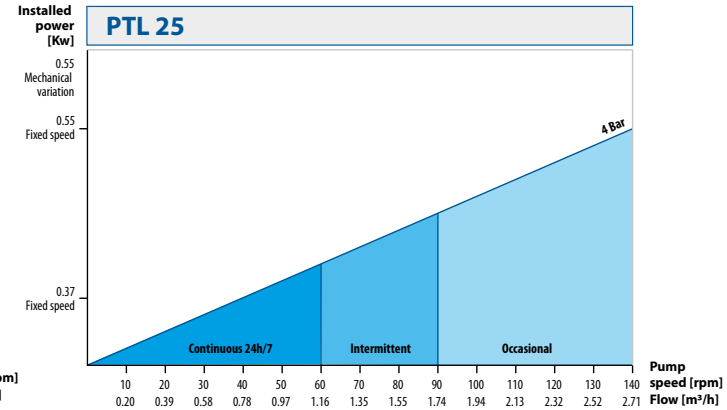
Example see points and the red line

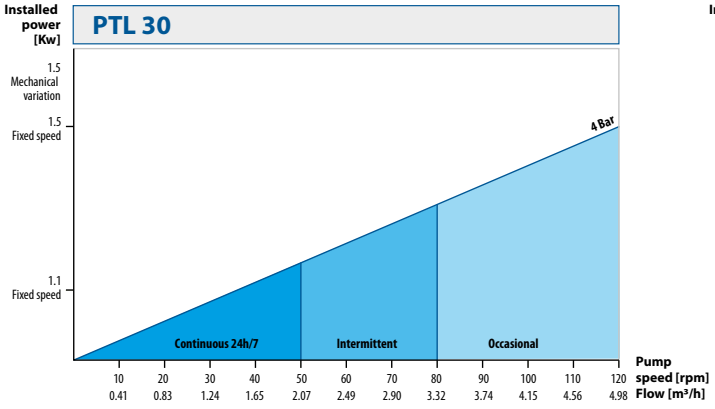
1. Select the required flow. Thanks to this you will get required pump speed.
2. Move higher to calculate discharge pressure.
3. Move left to read engine power.

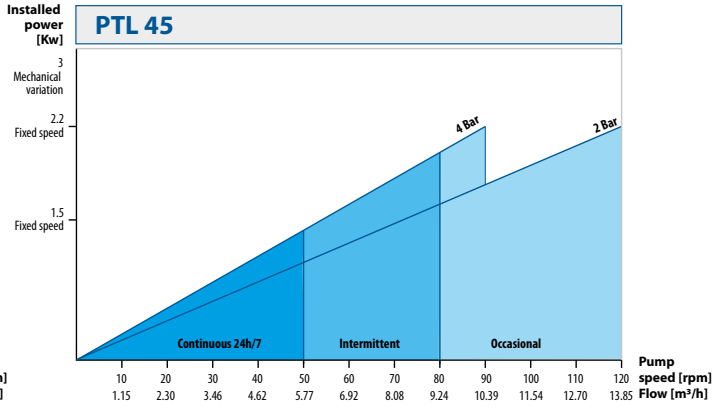












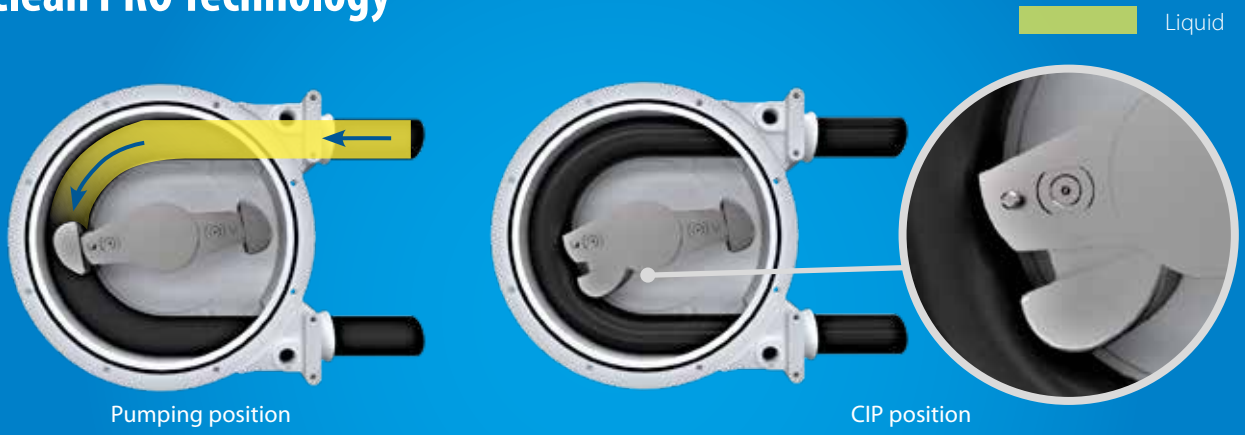
Changes reserved without notice

Clean PRO Optimised pump design

Our Clean PRO pump with its automatic & innovative advanced pioneer cleaning technology design, allows a peferct and reliable cleaning process.

It keeps the inner surface of the hose clean without any compression of the shoes on the hose during the CIP (Clean in Process), optimizing best possible the lifetime of the hose, minimizing time out in production and keeping maintenace costs as low as possible.

Clean PRO Technology



Our CLEANPRO pump with its innovative and advanced PIONEER CLEANING TECHNOLOGY design allows reliable and perfect CIP (Clean in Place) process of the hose pump.

By reversing the direction of the pump, the automatic retracting of the shoes, avoids to have any compression on the hose during the cleaning process, optimizing the lifetime of the hose & pump in the best possible way. This minimizes production time out and therefore keeps maintenance costs as low as possible.

Features & Benefits

- **Safe to run dry**
  Easy to use, no monitoring required
- **Does not damage or shear the pumped fluid**
  Pump operation principle ensures smooth and slow fluid transfer
- **Suitable for food and beverages**
  FDA and EC1935 certified hoses. Sanitary clamp and thread connections.
- **Seal-less design**
  The pump has no sealing or valves.
- **Few components, easy maintenance**
  The only wear part is the hose, there are no valves, low maintenance costs
- **Only 2 parts in contact with the liquid**
  Ensures high level of hygienie and easy cleaning.

Clean Pro - Pioneer Cleaning Technology

- **capacity up to 12 m³/h**
- **special Clean In Place shoe design**
- **lubricant type: glycerine FDA**
- housing material - **nodular cast iron**
- **2 sizes available**

- **industries:** pharmaceutical, food, cosmetics

Materials, data and limits

Technical data	Specification
Casing material	nodular cast iron
Hose material (wetted)	NR FDA (std), NBR FDA, EPDM FDA
Insert material (wetted)	AISI 316L
Connection type	DIN 11851 thread, SMS 3017 clamp, DIN 32676 clamp
Motor*	IEC standard, 3-phase, 4-pole, 50/60 Hz, IP55+PTC
Max. capacity	13 m³/h
Max. viscosity	100 000 cps***
Max. liquid temp.	80 °C**
Max. discharge pressure	10 bar
Max. suction lift	- 0.9 bar

* Other motor options available on request
** At a room temperature of 20°C. Furthermore, it depends on the pumped fluid, on the hose quality
*** It depends on the pump dimension/execution, on the speed and installation of the pump at customer site

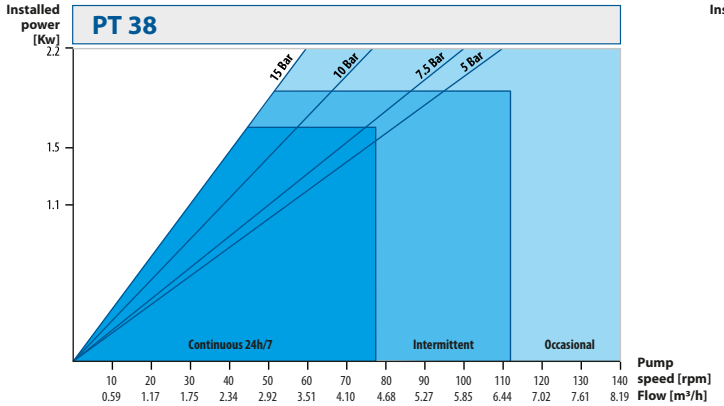
Available standard horizontal gear motors*

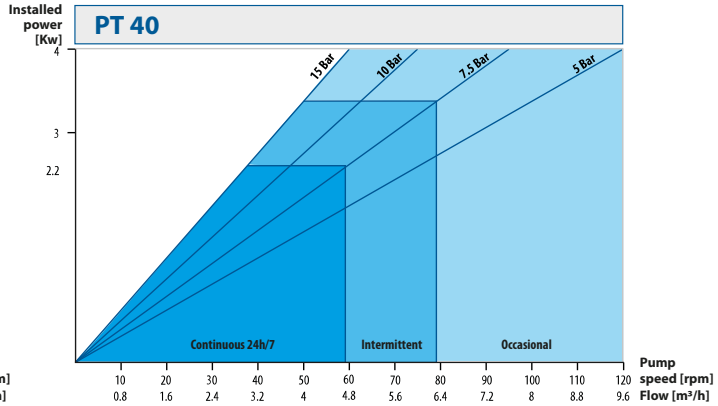
Pump size	Motor power [kW]	Pump speed [rpm]
PT 38	1.5	20, 25, 31
	2.2	34, 44, 50, 61
PT 40	2.2	25, 31, 33, 41
	3	47
	4	54, 63

* Other gear motor speed options available on request

Performance curves

The performance curves are based on water. (ρ = 1000 kg/m³, T = 20 °C), Other circumstances might change the performance.
Intermittent duty = 1 hour stop for every 2 hours of operation. Occasional duty = not more than 1 hour per day.





Accessories

DPT Pulsation dampener

Certificates may vary depending on material execution of particular product.

DPT pulsation dampener reduces vibrations, pulsations and hammering in the piping to a minimum, by using a stainless steel pressure housing with a reinforced rubber hose surrounded by a volume of air.

Revolution counter (RC)

The revolution counter allows to monitor the number of rotor revolutions.

Based on the volume per revolution data, this allows to calculate and batch products according to customer needs.

This option can be further equipped with a digital display for easy monitoring of the pump speed.

Hose leak detector (HLD)

The rupture of the hose, which is a wear part, creates a leakage of the pumped liquid.

Hose detectors make it possible to detect these leakages and will stop the pump upon hose rupture.

Vacuum system

The vacuum system is utilized in applications where viscous products are handled (above 10.000 cP) and with a negative suction lift.

Because of the liquid viscosity the hose does not return to initial shape after squeezing by the shoe fast enough.

By installing a vacuum system, the pressure inside the pump casing is reduced and the hose can expand quicker.

Build-in inverter (top or side)

Built-in frequency inverter is a solution for comfortable pump operation control. The unit is equipped with a IP66 programmed frequency inverter and all necessary equipment such as wires and plugs.

The main advantage of this solution is that the inverter is mounted directly on the pump, which makes the whole unit compact and ready to use.

Trolleys

Trolleys are designed to enable mobility but also stable and easy operation of delivered devices.

Thanks to these new accessories, pumps can be easily transported and the most important, used in many applications and locations.

Special dedicated units

PTL13 with external inverter + support

2x PTL17 on trolley with electrical cabinet & external inverters

PT40 with electric driven vacuum pump and cooling lubricant system

PT38 with electrical cabinet support

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Orders: **order@tapflo.com**
Tech support: **support@tapflo.com**

We began our journey in 1980 in Kungälv, a small town on the Swedish west coast, as a family company with an ambition to one day become a global player on the pump market.

Since the foundation, we have taken pride in delivering a wealth of knowledge and passion for pumps to the industry, whilst supplying a wide range of premium products for various industrial applications.

Over the years, the company has developed into a global Tapflo Group with branches and distributors present in nearly every region of the world.

One thing did not change - we are still a family company.

Tapflo products and services are available worldwide.

Tapflo is represented by own Tapflo Group Companies and carefully selected distributors assuring highest Tapflo service quality for our customers' convenience.

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