tapflo®

CTI & CTH CENTRIFUGAL PUMPS

2021 | 1

All about your flow™

www.tapflo.com

All about your flow™

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.

Our solutions are designed and manufactured in Europe and distributed globally to offer the best service and flow solutions to our customers for a variety of applications.

Our values, Commitment, Quality and Simplicity are reflected both in our product and business approach.

For fast and flexible service and high-quality products readily available worldwide, choose Tapflo.

Quality commitment

At Tapflo we are simply committed to quality. As a result, our production standards, as well as products quality, comply with various globally recognised certification and quality control standards. The Tapflo manufacturing process is certified according to ISO 9001:2015, confirming that our processes are appropriate, effective, customer-focused and continuously improved.

Tapflo values

Our culture is concluded in Our values

Commitment

We are different from our competitors because of our willingness to exceed the customers' expectations, move fast and be flexible. Our culture is based on the spirit of togetherness, enthusiasm and integrity. We come from all over the world but we share the same values and we respect each other. We are committed.

Quality

We understand that the quality in our work is never better than the weakest link, that's why we focus on every small detail. We share a common passion for continuously finding more efficient and effective ways to provide value to our customers. As a manufacturer we have control of the complete process both in terms of our products and the way we operate internally. That is why we manufacture the highest quality pumps in our segment.

Simplicity

We have a saying, "Simple is art" which means we try to find smooth and uncomplicated solutions in everything. By keeping it simple we can focus on the essential, like designing uncomplicated pumps with few components. For us it is a key to success; strive to simplify what is complex.

CTI & CTH Centrifugal Pumps

meet the demands of various modern industries

The CT pumps are open or semi-open impeller single stage centrifugal pumps. They are manufactured in high finish and mechanically strong material - AISI 316L stainless steel.
CT pumps are available in hygienic and industrial execution.

CTH - hygienic execution

- **pump casing** and **wetted parts** electropolished to **Ra<0,8 µm**
- intended for hygienic duties in food, beverage and pharmaceutical industries, **where cleanability is an important factor**
- mechanical seals and elastomers **FDA and EC1935 approved**
- **hygienic connections** with DIN 11851 as standard

CTI - industrial execution

- **pump casing** (both external and wetted parts) glass blasted to **Ra<1,6 µm**
- a variety of connection types, mechanical seal options and other executions are available to **satisfy most of industrial duties**
- **as standard BSPT thread connection** or with flanged connections according to **EN 1092-1 or ANSI 150 Lbs**

FDA EN 10204 AT Ex REACH Compliant ROHS Compliant

Certificates may vary depending on material execution of particular product.

Features

- Simple and compact design
- Low maintenance cost
- Open impeller
- High grade materials
- Competitive price-quality ratio
- Multiple options
- Solids handling
- Wide range of applications

Big choice of sealing solutions

To suit most type of liquids the CTI & CTH pump range features top brand mechanical seals in a variety of materials:

- ceramics / carbon,
- carbon / SiC
- SiC / SiC

and elastomer parts made of EPDM (standard), FKM, FFKM, FEP / silicon or NBR.

Wide range of applications (CTH & CTI)

CTS H

Industries:

- **dairy**
- **ice cream**
- **beverage**
- **food**
- **pharma**
- **cosmetics**
- **brewery and winery**

Applications:

diary,
fats,
juices,
alcohol,
semi products,
food additives,
ingredients for cosmetic and pharmaceutical,
products in explosive and safe zones,
mild and aggressive chemicals,
hot and cold liquids,
suspensions and emulsions,
cleaning and washing agents,
wastewater,
feeding and unloading of storage tanks, containers, filters, sumps,
powering process equipment, dosing systems, dispensing units,

CTS I

Industries:

- **chemical,**
- **mining,**
- **oil & gas,**
- **packaging,**
- **printing,**
- **automotive,**
- **machinery,**

wastewater treatments plants,

Applications:

oils,
fuels,
solvents,
concentrated or diluted acids and alkalis in explosives and safe zones,
mild and aggressive chemicals,
hot and cold liquids,
suspensions and emulsions,
cleaning and washing agents,
wastewater
cooling and heating media,
feeding and unloading of storage tanks, containers, filters, sumps.
powering process equipment, dosing systems, dispensing units, test rigs,

CTH - hygienic series

Materials, data and limits

Casing	AISI 316L stainless steel electropolished to Ra<0.8 µm
Impeller	AISI 316L stainless steel electropolished to Ra<0.8 µm
Mechanical seal	Single ceramic/carbon (standard), SiC/SiC or SiC/carbon
O-rings	EPDM, FKM, FFKM, NBR, FEP compliant with FDA and EC 1935/2004 directive requirements
Motor*	IEC standard, 3-phase, 2-pole/4-pole, IP55
Max pressure	10 bar (PN10)
Temperature	max 90 °C, max 180 °C for long coupled version
Viscosity	max ~200 cSt
Particles	max diameter is Ø 6 mm (with standard open impeller), bigger if soft particles

*other motor options available on request

Connection dimensions

Model	DIN 11851 thread (standard)		DIN 32676 clamp		ISO 2852 clamp		SMS 1145 thread		RJT thread	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
CTH A...	25	25	25	20	25	21.3	38	25	1 ½"	1"
CTH B...	40	32	40	25	38	25	51	38	1 ½"	1 ½"
CTH C...	40	40	40	40	38	38	51	38	3 "	3"
CTH D...	65	50	65	50	70	51	63	51	3"	2"
CTH E...	65	50	65	50	70	51	63	51	3"	2"

Options and special executions

Hygienic shroud

The hygienic motor shroud in polished AISI 304L **protects the motor from spraying water during pump cleaning procedure**.

Buffer fluid system

A great option **when the product tends to solidify or crystalize**. An oil reservoir is connected to the mechanical seal chamber.

Long coupled execution

The perfect solution **when pumping hot products** like edible oil. Complete pump unit **mounted on baseplate, with coupling and cover**.

Casing drainage

Draining plug with variety of connection types, **allow to empty the pump** at the end of the process.

Heating jacket

Great **protection for the mechanical seal** in cases where product solidification is likely.
The heating jacket is also **used when the pumped product has to maintain a specific temperature**, high or low.
A heating or cooling medium is continuously circulated in the jacket.

Adjustable feet

The solution allows **easy cleaning** of the surface underneath the pump. It can also prove useful when there is a need to move the pump to a different location.

CTI - industrial series

Materials, data and limits

Casing	AISI 316L stainless steel glass blasted to Ra<1,6 µm
Impeller	AISI 316L stainless steel electropolished
Mechanical seal	Single ceramic/carbon (standard), SiC/SiC or SiC/carbon
O-rings	EPDM (standard), FKM, FFKM, FEP/silicone or NBR
Motor*	IEC standard, 3-phase, 2-pole/4-pole, IP55
Max pressure	10 bar (PN10)
Temperature	max 90 °C, max 180 °C for long coupled version
Viscosity	max ~200 cSt
Particles	max diameter is Ø 6 mm (with standard open impeller), bigger if soft particles

*other motor options available on request

Connection dimensions

Model	BSPT male thread (standard)		EN 1092-1		ANSI 150 Lbs flange	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
CTI A...	1"	¾"	DN25	DN 20	1"	¾"
CTI B...	1 ½"	1"	DN40	DN25	1 ½"	1"
CTI C...	1 ½"	1 ½"	DN40	DN40	1 ½"	1 ½"
CTI D...	2 ½"	2"	DN65	DN50	2 ½"	2"
CTI E...	2 ½"	2"	DN65	DN50	2 ½"	2"

Options and special executions

Flushed seal

Ideal **when abrasive or sticky particles are present**. System where a small amount of the pumped product is recirculated from the discharge side to the seal chamber through a strainer, will protect the mechanical seal and seal chamber from excessive wear.

Buffer fluid system

A great option **when the product tends to solidify or crystalize**. An oil reservoir is connected to the mechanical seal chamber.

Long coupled execution

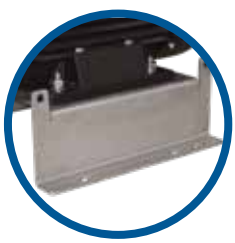
The perfect solution **when pumping hot products** like oil or paraffin wax at temperatures **up to 180 °C**. Complete pump unit **mounted on baseplate, with coupling and cover**.

Casing drainage

The drain connection at the bottom of the pump casing **allows to fully drain the pumped liquid from the casing**.

Flanged connections

The CTI pump can be supplied with a **standard BSPT thread connection** or with flanged connections according to **EN 1092-1 or ANSI 150 Lbs**.

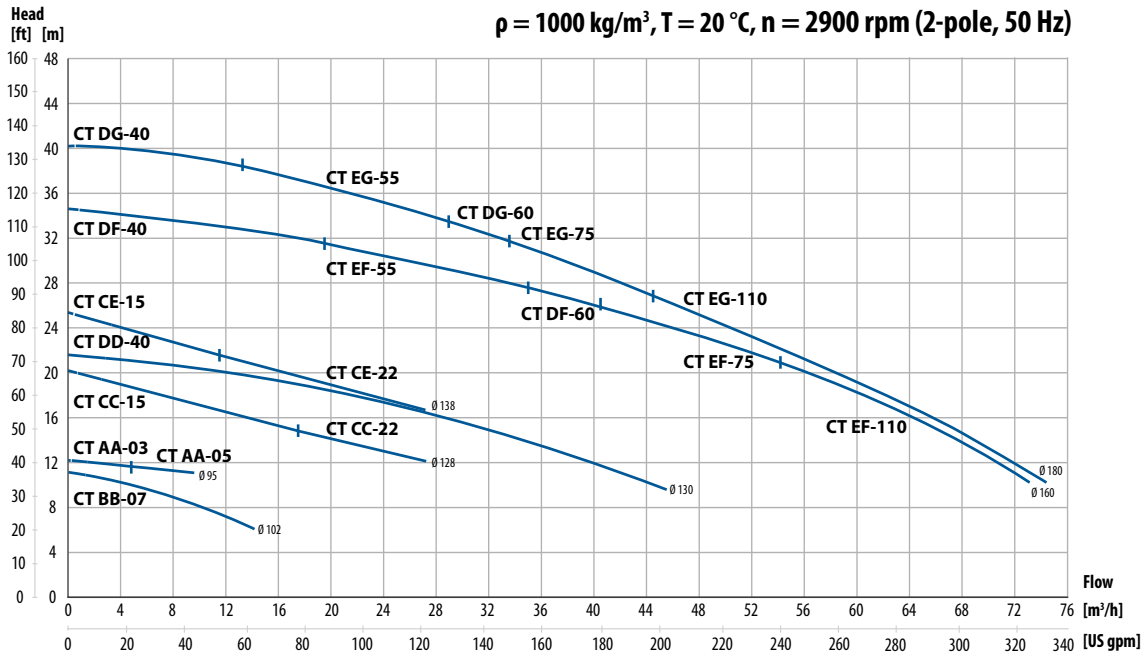


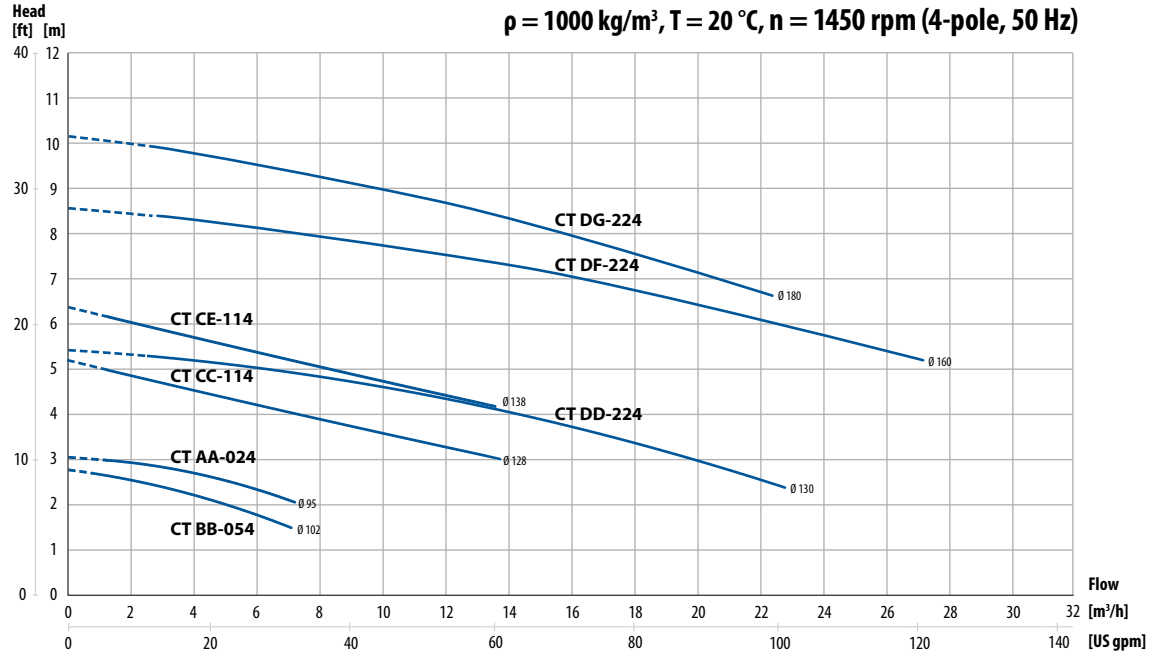
Mounting brackets

Complete pump unit may be assembled on a baseplate **which can be firmly, permanently fixed to the foundation.**

Performance curves

The performance curves are based on water.





Available motor powers

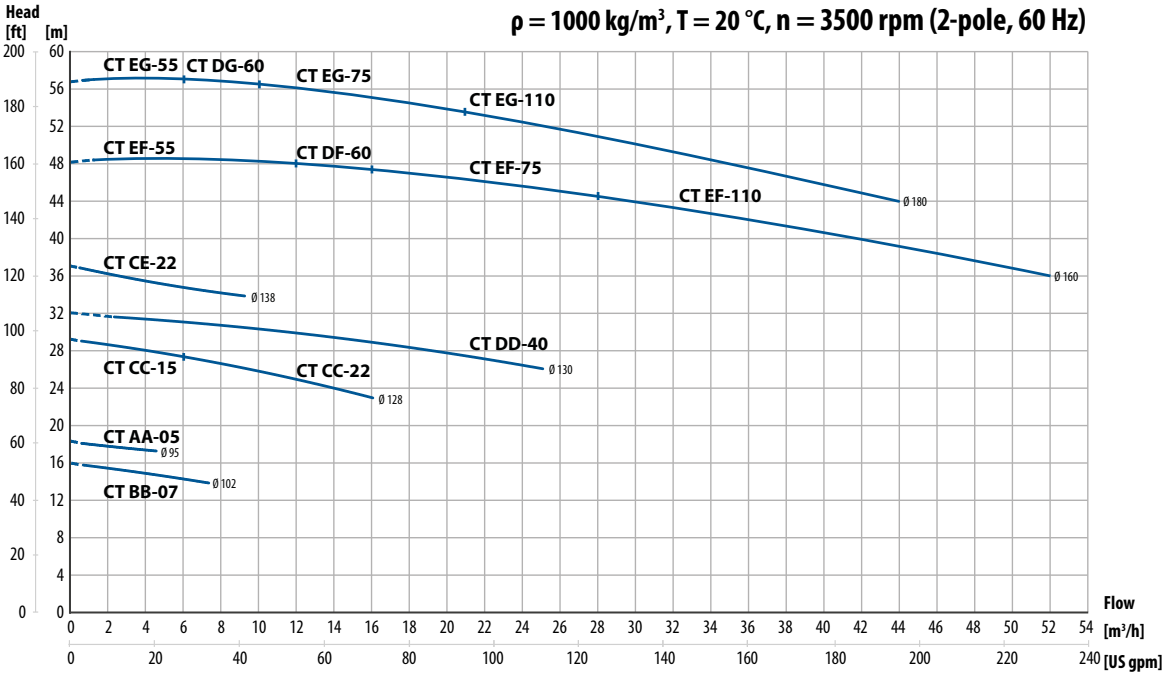
2-pole motor	AA-03	AA-05	BB-07	CC-15	CC-22 CE-22	DD-40 DF-40	DF-60 DG-60	EF-55 EG-55	EF-75 EG-75	EG-110 EF-110
Motor power [kW]	0.37	0.55	0.75	1.5	2.2	4.0	6.0	5.5	7.5	11*
IEC motor size	71	71	80	90	90	112	112	132	132	160

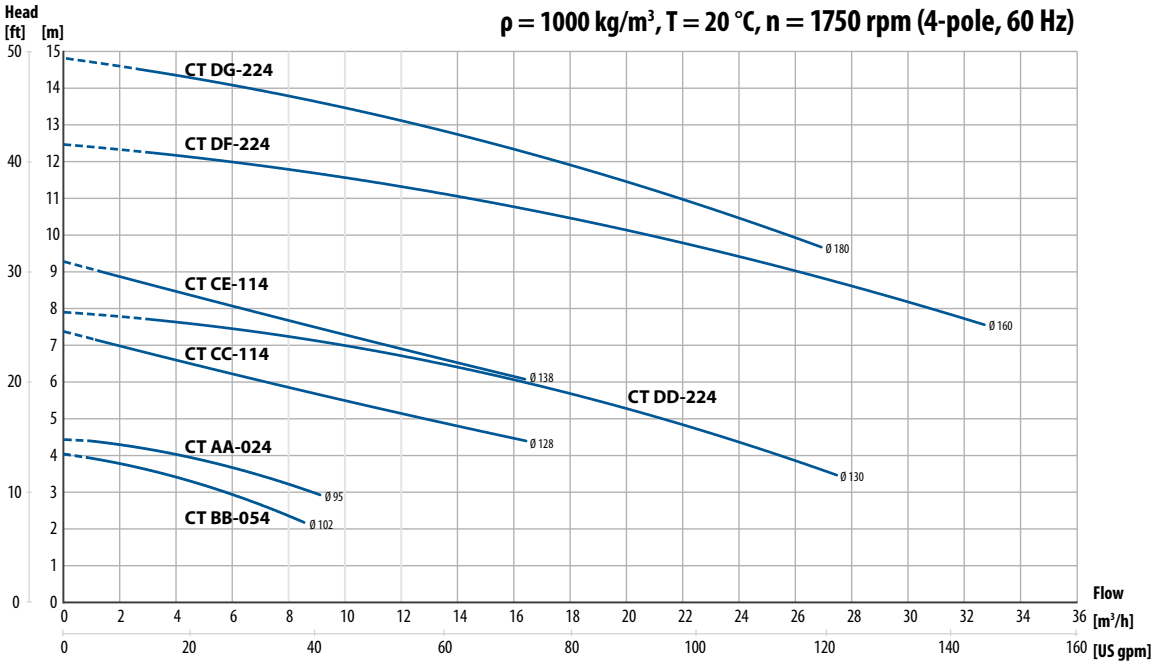
* Long coupled execution

4-pole motor	AA-024	BB-054	CC-114; E-114	DD-224; DF-224; DG-224
Motor power [kW]	0.25	0.55	1.1	2.2
IEC motor size	71	80	90	100

Performance curves

The performance curves are based on water.





CT Pump code

I.	II.	III.	IV.		V.	VI.	VII.
CT	I	C	C	-	1CGV3F-	03	M

I. CT = Tapflo centrifugal pump

II. Pump execution:
I = Industrial
H = Hygienic

III. Casing size (motor flange diameter / IEC size):
A = 105 mm / 71
B = 120 mm / 80
C = 140 mm / 90
D = 160 mm / 100 or 112
E = 200 mm / 132

IV. Impeller size
A = 90 mm
B = 98 mm
C = 125 mm
D = 130 mm (reinforced as standard)
E = 135 mm
F = 155 mm (reinforced as standard)
G = 180 mm (reinforced as standard)

V. Pump options:

1. Mechanical seal:
Blank* = ceramic/graphite/EPDM (FDA on CTH)
1CGV = ceramic/graphite/FKM (FDA on CTH)
1CGF = ceramic/graphite/FEP (FDA)
1CGN = ceramic/graphite/NBR (FDA on CTH)
1SSE = SiC/SiC/EPDM (FDA on CTH)
1SSV = SiC/SiC/FKM (FDA on CTH)
1SSF = SiC/SiC/FEP (FDA)
1SSN = SiC/SiC/NBR (FDA on CTH)
1SGE = SiC/graphite/EPDM (FDA on CTH)
1SGV = SiC/graphite/FKM (FDA on CTH)
1SGF = SiC/graphite/FEP (FDA)
1SGN = SiC/graphite/NBR (FDA on CTH)

2. Mechanical seal type:
P = Standard mechanical seal with OP-ring
K = Different hardness of static and dynamic seal elements – J/D with OP-ring (SiC/SiC only)

3. Connection options
Blank* = Thread BSPT on CTI
Thread DIN 11851 on CTH
3A = ANSI flange
3B = BSPT thread (on CTH)
3C = Clamp SMS3017 (CTH only)
3F = Flange DIN2633 PN 10/16
3T = Clamp DIN 32676 (CTH only)
3S = Thread SMS 1145 (CTH only)
3R = Thread RJT (CTH only)
3P = ISO 1127 clamp (CTH only)
3DA = DIN11866-1A thread (CTH only)
3X = Thread DIN 11851 (on CTI)

4. Special executions
4J = Pump with heating jacket
4F = Flushed seal
4Z = Buffer liquid system
4H = Semi open heavy duty impeller (C-G sizes)
4K = Drain plug (3/8" BSP thread as standard)
4PX = Welds polishing (CTH only)
4W = Reinforced impeller
4Q = External quench
4B = Reinforced front cover; special O-ring
4O = Increased number of mounting holes

VI. Motor power / IEC motor size
2900 rpm motors (2-pole):
03 = 0.37 kW / 71
05 = 0.55 kW / 71
07 = 0.75 kW / 80
15 = 1.5 kW / 90
22 = 2.2 kW / 90
40 = 4.0 kW / 112
55 = 5.5 kW / 132
60 = 6.0 kW / 112
75 = 7.5 kW / 132
110 = 11.0 kW / 160 (long coupled pump only)
1450 rpm motors (4-pole):
024 = 0.25 kW / 71
054 = 0.55 kW / 80
114 = 1.1 kW / 90
224 = 2.2 kW / 100

VII. Motor options
M = Hygenic motor shroud (CT H)
B = Long coupled pump
P = Single phase motor
X2d = Eex d IIB T4 motor
X2e = Eex e IIB T3 motor
X3e = Ex II 3G T135C motor - tropic
T = Motor with PTC thermistor
V…F… = Motor for special voltage, frequency
* = standard execution

Special executions and options

Big choice of sealing solutions

The CTI & CTH pump range features top brand mechanical seals in a variety of materials to suit most type of liquids. They are available in combinations of ceramic, graphite and SiC.

For special duties, flushed, lubricated and quenched seals are available.

Semi-open impeller

Tapflo CT pumps can be fitted with a semi-open impeller in comparison to its standard open impeller. This option ensures more stable operation, lower noise, lower vibrations and more robust construction. It is recommended to use the semi-open impeller when hard solids can be present in the pumped liquid.

Open impeller

Semi-open impeller

Mobile Pump Solutions

solve the problem of spread technological processes

The portability of the units allows easy movement to various locations. This means almost limitless application.

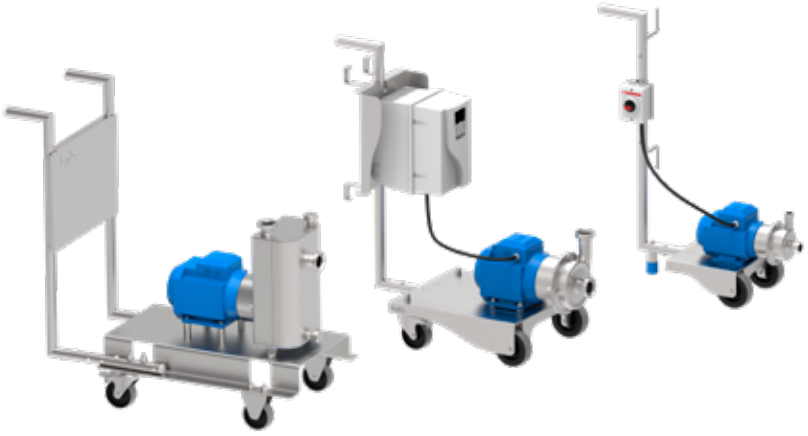
Mobile pump units are available in both hygienic and industrial designs. The great advantage is the compatibility with the majority of Tapflo centrifugal pumps range.
Moreover, it is possible to compose the trolley to your own needs by using a number of accessories such as ON-OFF switches, frequency inverters, or cable holders.

Hygienic Trolleys

- Stainless steel polished drip tray
- Valve for drainage
- 3 sizes available

Industrial Trolleys

- Stainless steel construction
- Compact and strong baseplate
- 3 sizes available



Special executions

CTH Liquid Soap Dispensing Unit on M hygienic trolley

CTI mobile transferring pump on the dedicated trolley

Product range

Diaphragm pumps & accessories

NEW

Electrically operated pumps

PE & PTFE pumps

Metal pumps

Pharmaceutical pumps

Sanitary pumps

TC Intelligent pumps

Powder pumps

TF Filter press pumps

NEW

Steinle filter press pumps

Aseptic pumps

Peristaltic Pumps

Active pulsation dampeners

Systems & accessories

Trolleys

PT pumps

PTL pumps

Centrifugal pumps, filter units & accessories

NEW

CTX centrifugal pumps

CTI & CTH centrifugal pumps

CTS self-priming centrifugal pumps

CTV vertical centrifugal pumps

CTP plastic centrifugal pumps

CTM magnetic drive centrifugal pumps

Trolleys

FT Filter units

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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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