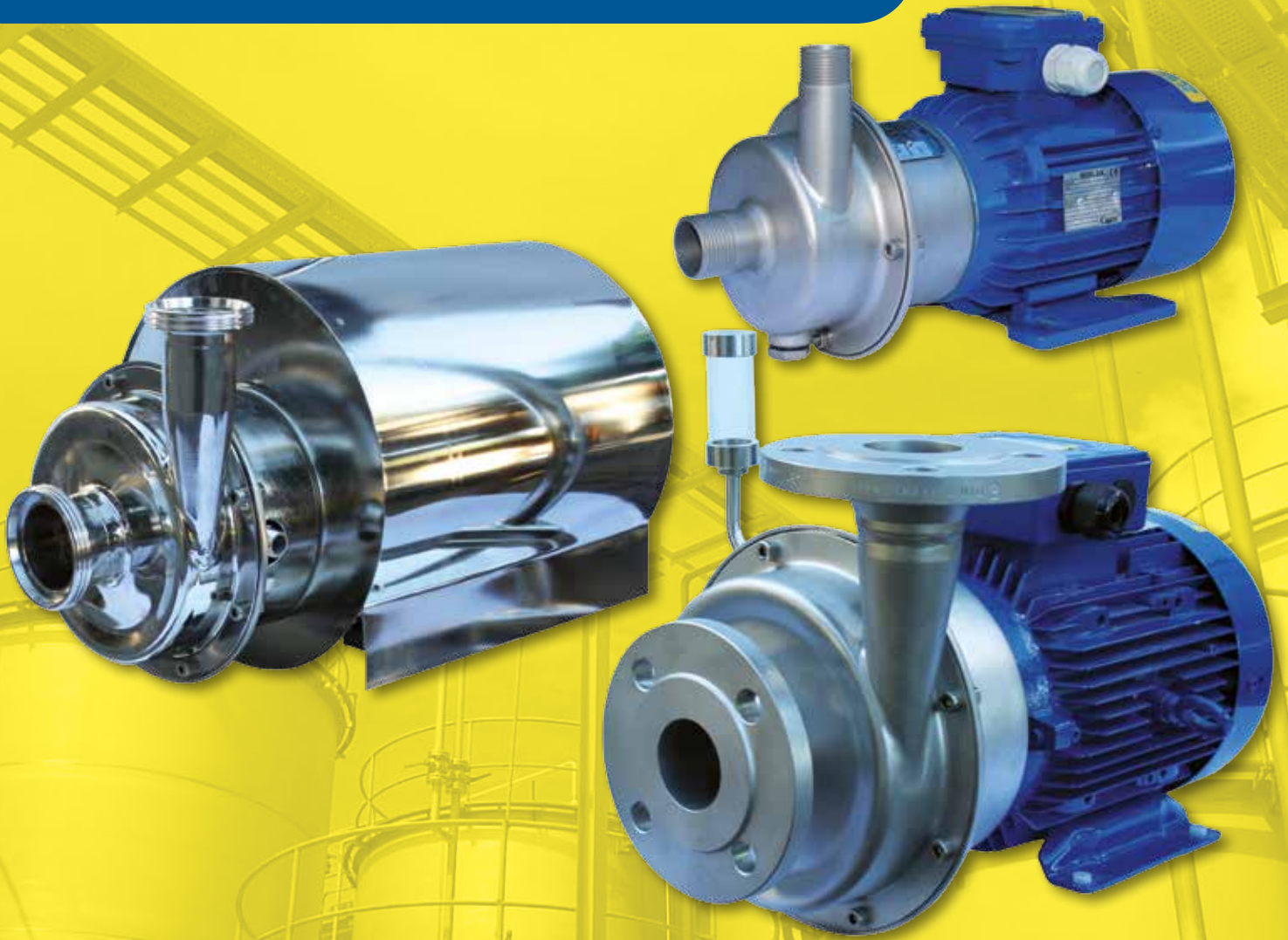


tapflo®

CT CENTRIFUGAL PUMPS

edition 2015 rev 1



» All about your flow

www.tapflo.com

All about your flow. Everywhere.

Tapflo is a leading pump manufacturer with the ambition to provide a wide range of premium products for various industrial applications. Tapflo is represented by own companies and independent distributors in more than 60 countries spread over the world on 6 continents – products and spare parts are available worldwide. The headquarters are situated in Sweden.



About Tapflo

Tapflo Group is an independent, Swedish, family owned, manufacturer and global supplier of Air operated diaphragm pumps, centrifugal pumps and other industrial process equipment.

The company was founded as Temag Pumpar in Kungälv, Sweden in 1980 and has since then been working with design and manufacture of thermoplastic, metal and sanitary series diaphragm pumps and also with complete range of centrifugal pumps and industrial equipment. After years of dynamic development the company evolved into Tapflo Group with worldwide operations.

Quality certified

At Tapflo we believe that quality is one of the highest values, both for our customers as well as our employees. As a result, we comply with various globally recognised certification and quality control institutions. Many of our products comply with EC ATEX directives for equipment intended for use in explosion hazardous environments.

The aseptic series is EHEDG certified (European Hygienic Engineering & Design Group), the pharmaceutical series has USP VI approval.

All our products are obviously CE marked and followed by our comprehensive instruction manuals. Tapflo manufacturing process is certified according to ISO 9001:2001.



Our values

■ Long term engagement is our core

Our aim is to continuously provide premium products according to evolving needs of our customers. That is why we see each customer relationship as a long term commitment.

■ Local means on your terms

Tapflo is your global partner providing local support. No matter where your plant is located you can expect us to support you locally.

■ Flexibility the foundation of good service

We are prepared to deal with reality, knowing that in practice this means answering questions, offering solutions and supplying spare parts with a minimal loss of time.

■ Customizing to bring the product to the needs

Our intention is always to help our clients find the most cost effective solutions to increase their company's efficiency. If this means changing the design of the pump we see it as a challenge - not a problem.

■ To produce is to develop

When you are actively involved in the manufacturing of a product, it is almost impossible not to discover ways to improve it. This allows us to frequently offer solutions that are even more sustainable and efficient.

CT Centrifugal Pumps

The CT pumps are open or semi open single stage centrifugal pumps. They are manufactured in high finish and mechanical strong material stainless steel AISI 316L. The pump range meets the demands from a variety of today's industry. After all, CT is still available at a very appealing price level.

CTI – industrial series

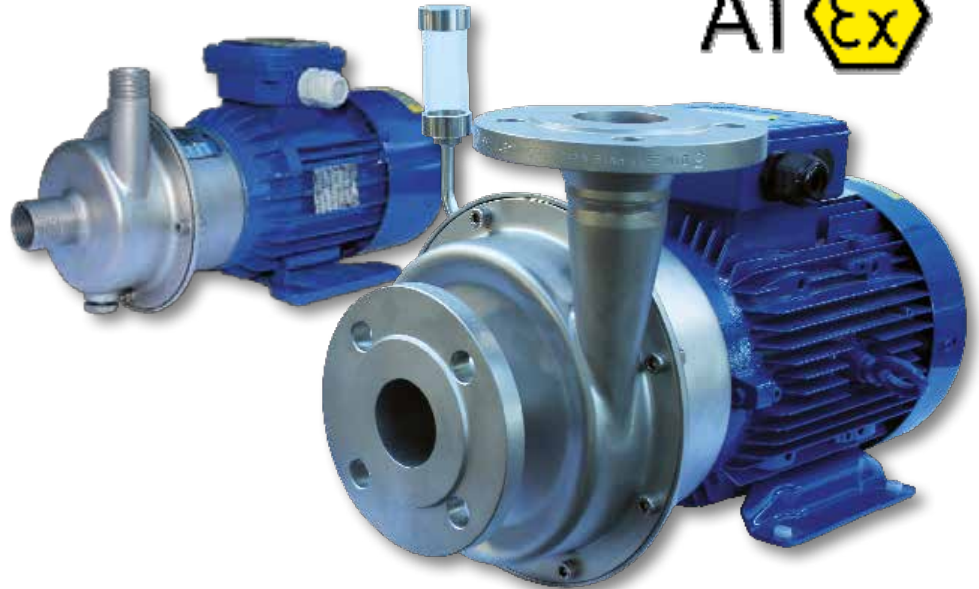
The industrial series CTI is designed with glass blasted pump casing. A variety of connection types, mechanical seal options and other executions are available to satisfy most type of industrial duties.

With 2900 rpm motor:

CTI AA-03	7 m³/h, 10 m
CTI AA-05	12 m³/h, 10 m
CTI BB-07	17 m³/h, 11 m
CTI CC-15	19 m³/h, 22 m
CTI CC-22	34 m³/h, 22 m
CTI CE-22	20 m³/h, 31 m
CTI DD-40	50 m³/h, 22 m
CTI DF-40	28 m³/h, 35 m
CTI DF-60	42 m³/h, 35 m
CTI DG-60	30 m³/h, 47 m
CTI EF-55	42 m³/h, 35 m
CTI EG-55	30 m³/h, 47 m
CTI EF-75	60 m³/h, 35 m
CTI EG-75	35 m³/h, 47 m

With 1450 rpm motor:

CTI AA-024	7 m³/h, 2.7 m
CTI BB-054	9 m³/h, 2.8 m
CTI CC-114	18 m³/h, 5.5 m
CTI CE-114	22 m³/h, 7.7 m
CTI DD-224	25 m³/h, 5.5 m
CTI DF-224	34 m³/h, 8.7 m
CTI DG-224	42 m³/h, 12.0 m



available in
AT 

CTH – hygienic series

The hygienic series CTH is supplied with electro polished pump casing and internals. This series is specially dedicated for hygienic duties in food, beverage and pharmaceutical industries, where clean- and drain-ability are important keys.

With 2900 rpm motor:

CTH AA-03	7 m³/h, 10 m
CTH AA-05	12 m³/h, 10 m
CTH BB-07	17 m³/h, 11 m
CTH CC-15	19 m³/h, 22 m
CTH CC-22	34 m³/h, 22 m
CTH CE-22	20 m³/h, 31 m
CTH DD-40	50 m³/h, 22 m
CTH DF-40	28 m³/h, 35 m
CTH DF-60	42 m³/h, 35 m
CTH DG-60	30 m³/h, 47 m
CTH EF-55	42 m³/h, 35 m
CTH EG-55	30 m³/h, 47 m
CTH EF-75	60 m³/h, 35 m
CTH EG-75	35 m³/h, 47 m

With 1450 rpm motor:

CTH AA-024	7 m³/h, 2.7 m
CTH BB-054	9 m³/h, 2.8 m
CTH CC-114	18 m³/h, 5.5 m
CTH CE-114	22 m³/h, 7.7 m
CTH DD-224	25 m³/h, 5.5 m
CTH DF-224	34 m³/h, 8.7 m
CTH DG-224	42 m³/h, 12.0 m



available in
AT 



Wide range of applications

The CT range has a very wide range of applications – from transfer of water, to pumping of mild chemicals. Now with the hygienic series CTH, the number of applications within food, beverage and pharmaceutical industries has increased dramatically.

Food & beverage (CTH series)

Transfer of various ingredients and products like edible oil, flavor, alcohol, dairy products and juice. With heating jacket version there are further possibilities like pumping margarine, paraffin and chocolate. There are also many auxiliary applications like transfer of CIP liquids, detergents and water.

Chemical & pharma (CTI & CTH series)

Transfer of a variety of mild chemicals and solvents.

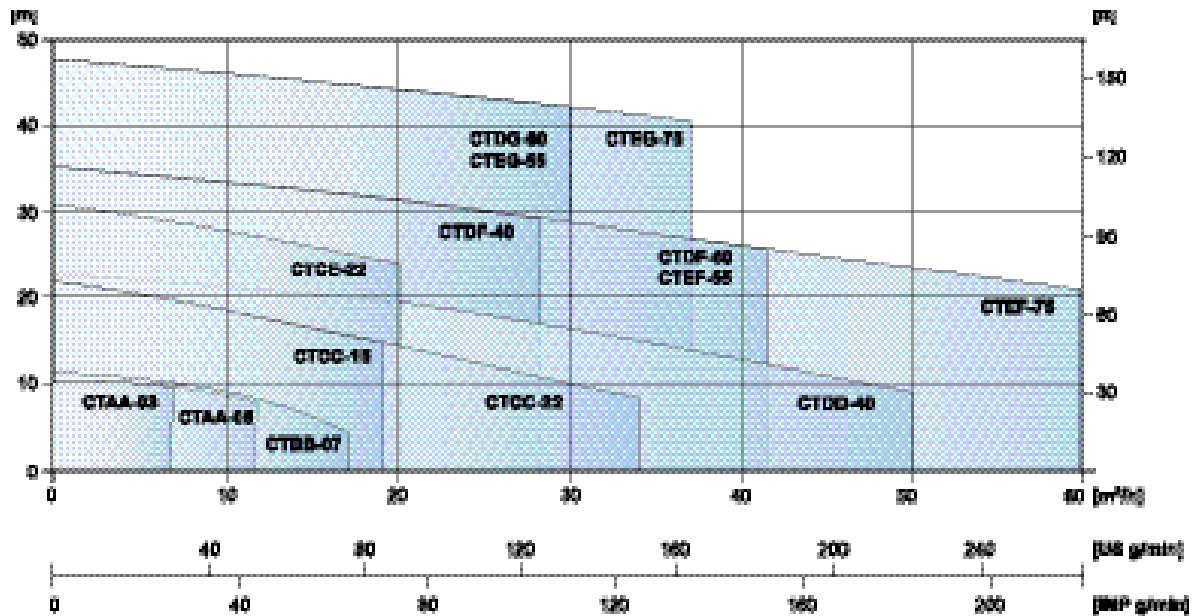
Mechanic industries (CTI series)

Handling of oil, lubricants, coolants and detergents etc.

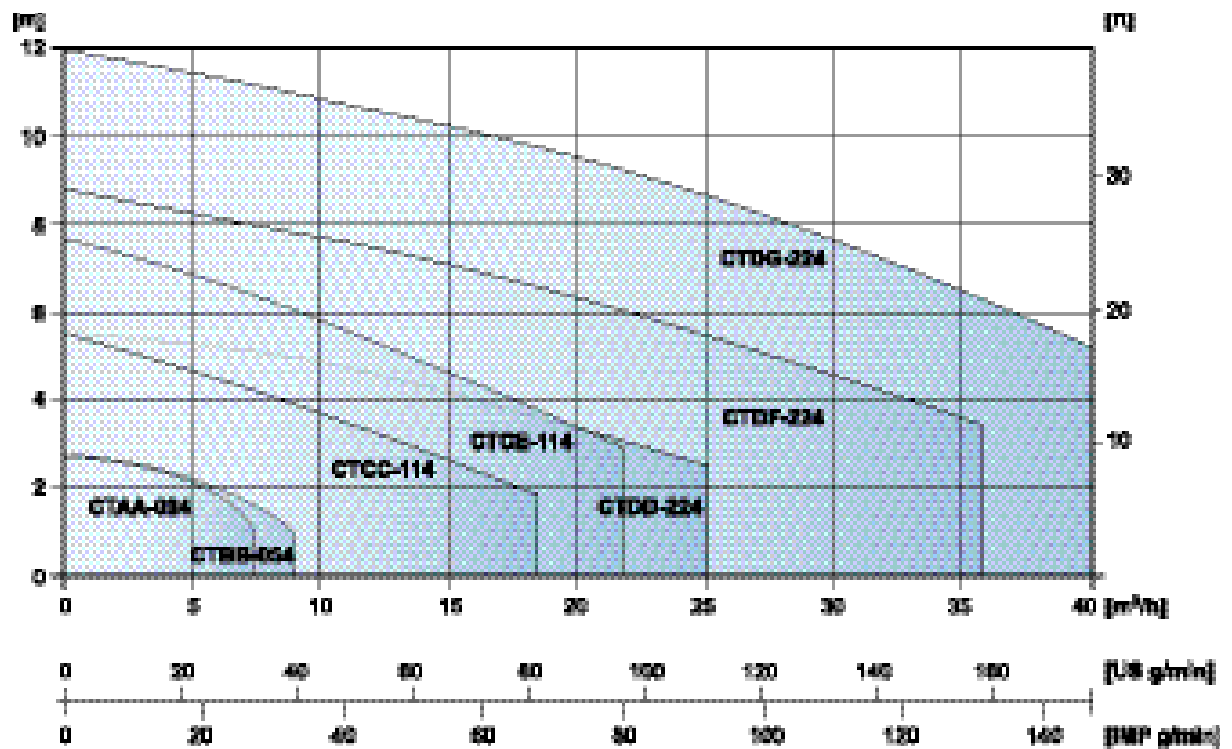
Performance curves

The performance curves are based on water at 20°C. Other circumstances will affect the performance. These curves are only for first selection, contact us for detailed curves with required power, NPSH etc.

With 2900 rpm motor

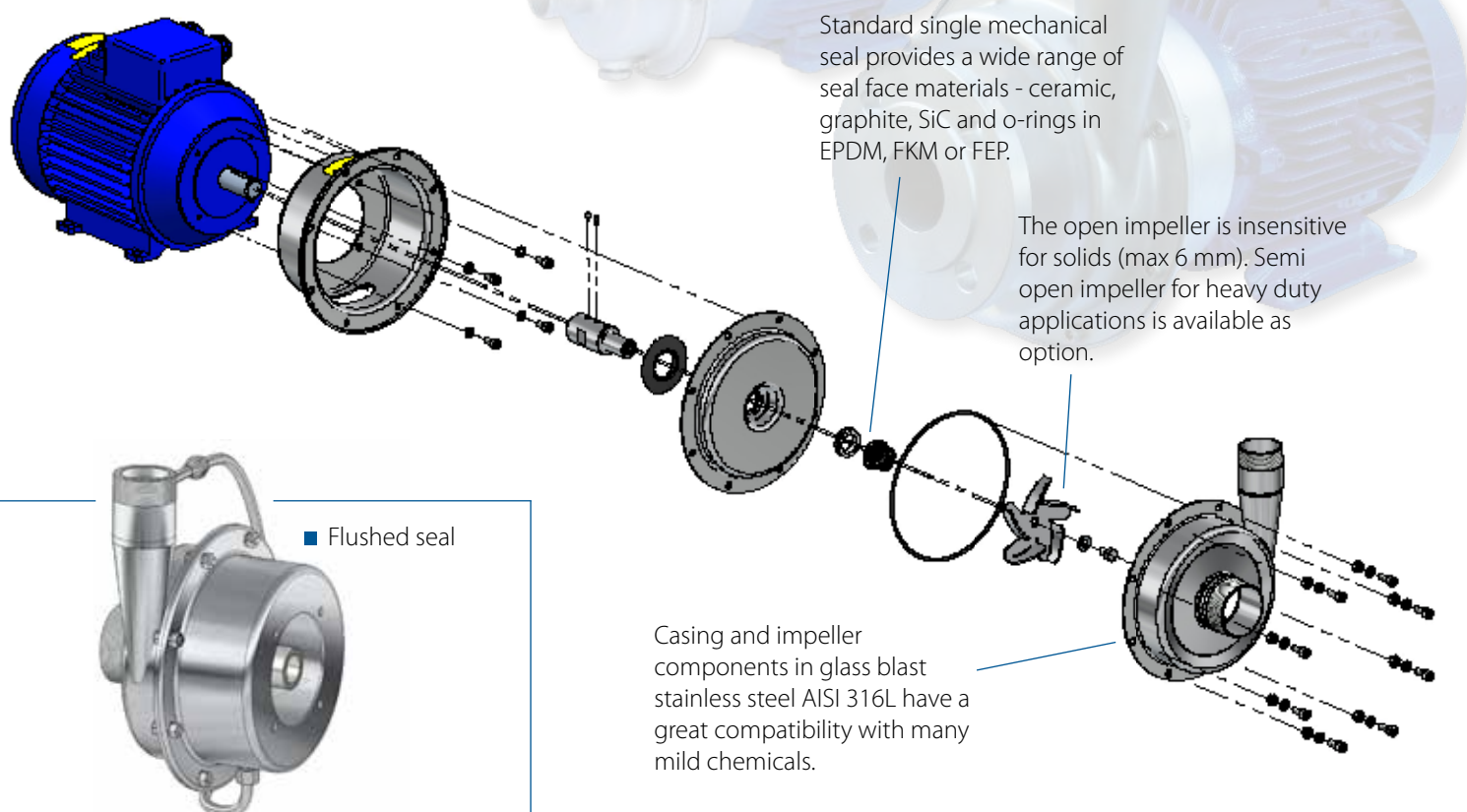


With 1450 rpm motor



CTI - industrial series

A very simple and ingenious design, with only 19 different components grants for easy and quick maintenance, in many cases completely maintenance free. The effect is very short down time and extremely low maintenance costs.



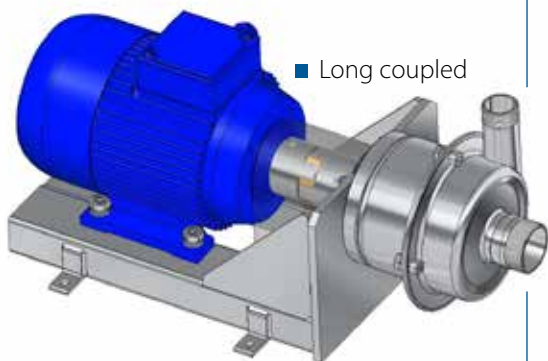
■ Flushed seal



■ Lubricated seal



■ Long coupled



Options and special executions

■ Flushed seal

Ideal when abrasive or sticky particles are present. This system where a small amount of the pumped product is recirculated from the discharge side to the seal chamber, will save the mechanical seal and seal chamber from being worn.

■ Lubricated seal

A great option where there is a potential risk of dry running, or where the product tends to solidify or crystallize. An oil cup is connected to the mechanical seal chamber.

■ Long coupled execution

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

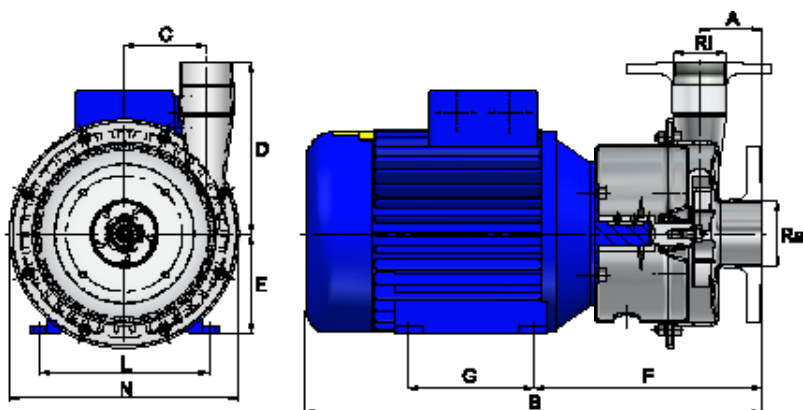
■ Flanged connections

Instead of the standard BSP threaded connections, you can order all CTI pumps with flanged connections according to DIN (2633) or ANSI 150.

■ Draining device

Plug at the bottom of the pump casing allows draining.

CTI - technical data



Connection dimensions

Model	BSPT male thread (standard)*		DIN 2633/ PN16 flange		ANSI 150 flange	
	Ra	Ri	Ra	Ri	Ra	Ri
CTI A..	1"	3/4"	25	20	1"	3/4"
CTI B..	1 1/2"	1"	40	25	1 1/2"	1"
CTI C..	1 1/2"	1 1/2"	40	40	1 1/2"	1 1/2"
CTI D..	2 1/2"	2"	65	50	2 1/2"	2"
CTI E..	2 1/2"	2"	65	50	2 1/2"	2"

* = NPT thread available as option

General dimensions

Model	Motor power (kW)	IEC motor size	A	B**	C	D	E	F	G	L	N
CTI AA-03	0.37	71	60	358	36	100	71	193	90	112	145
CTI AA-05	0.55	71	60	358	36	100	71	193	90	112	145
CTI BB-07	0.75	80	63	395	50	110	80	205	100	125	170
CTI CC-15	1.5	90	64	451	68	160	90	226	125	140	205
CTI CC-22	2.2	90	64	451	68	160	90	226	125	140	205
CTI CE-22	2.2	90	64	451	68	160	90	226	125	140	205
CTI DD-40	4.0	112	70	510	92	192	112	257	140	190	256
CTI DF-40	4.0	112	70	510	92	192	112	257	140	190	256
CTI DF-60***	6.0	112	70	521	92	192	112	262	140	190	256
CTI DG-60***	6.0	112	70	521	92	192	112	262	140	190	256
CTI EF-55	5.5	132	70	587	92	192	132	304	140	216	256
CTI EG-55	5.5	132	70	587	92	192	132	304	140	216	256
CTI EF-75	7.5	132	70	587	92	192	132	304	140	216	256
CTI EG-75	7.5	132	70	587	92	192	132	304	140	216	256
CTI AA-024	0.25	71	60	358	36	100	71	193	90	112	145
CTI BB-054	0.55	80	63	395	50	110	80	205	100	125	170
CTI CC-114	1.1	90	64	451	68	160	90	226	125	140	205
CTI CE-114	1.1	90	64	451	68	160	90	226	125	140	205
CTI DD-224	2.2	100	70	478	92	192	100	250	140	160	256
CTI DF-224	2.2	100	70	478	92	192	100	250	140	160	256
CTI DG-224	2.2	100	70	478	92	192	100	250	140	160	256

** = This dimension may vary depending on motor brand

*** = Special motor with increased power. Not available in EX-proof (ATEX) version

Materials, data and limits

Casing	Stainless steel AISI 316L glass blast
Impeller	Stainless steel AISI 316L glass blast, open (standard) or optional semi open type
Mechanical seal	Single ceramic/graphite (standard), SiC/SiC or SiC/graphite, optional with oil lube or flushed
O-rings	EPDM (standard), FKM, FEP/silicone or NBR
Motor	IP55, IEC frame B3/B14 (B3 on long coupled version). Available with ATEX cat 2 or 3, Eex e or Eex d motor
Max pressure	10 bar (PN10)
Temperature	max 90°C, max 180°C for long coupled version
Viscosity	max ~200 cSt
Particles	max diameter 6 mm (with standard open impeller), bigger if soft particles

Changes reserved without notice

CTH - hygienic series

The CTH series is dedicated for hygienic duties mainly within food, beverage and pharmaceutical industries. With casing and impeller in <0.8 Ra electro polished stainless steel AISI 316L, draining possibilities and hygienic shroud option it meets the demands of clean ability and high finish. Elastomers are approved according to FDA article 177.2600.

Standard single mechanical seal provides a wide range of seal face materials - ceramic, graphite, SiC and o-rings in FDA approved EPDM or FEP.

Hygienic connections DIN 11851 (thread) are standard on the CTH series. It is also available with clamp connections (DIN or ISO), SMS or RJT threads.

The open impeller is insensitive for solids (max 6 mm). Semi open impeller for heavy duty applications is available as option.

■ Heating jacket

■ Hygienic shroud

■ Casing drainage

Options and special executions

■ Heating jacket

Great protection for the mechanical seal in cases where there is a risk for solidification of the product. 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. Chocolate glaze, paraffin, starch, glucose syrup, margarine and eatable oil are some application examples.

■ Hygienic shroud

The hygienic motor shroud in polished AISI 316L protects the motor from spraying water.

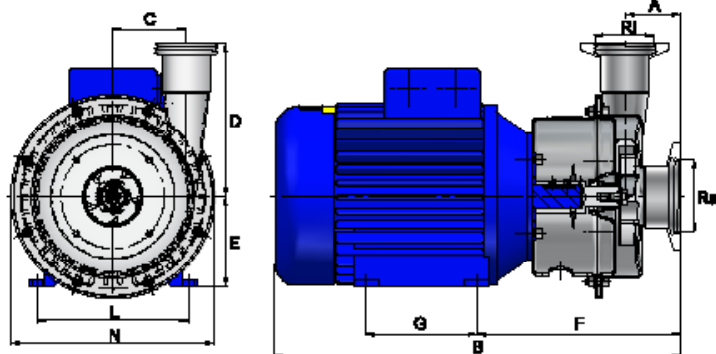
■ Casing drainage

By positioning the outlet horizontal at the bottom, the pump features a hygienic and automatic draining.

■ Long coupled execution

The perfect solution when pumping hot products like eatable oil. Complete pump unit mounted on baseplate, with coupling and guard. See image on page 6.

CTH - technical data



Connection dimensions

Connection type	Dim	Model CTH				
		A..	B..	C..	D..	E..
DIN 11851 thread (standard)	Ra	25	40	40	65	65
	Ri	25	32	40	50	50
DIN 32676 clamp	Ra	25	40	40	65	65
	Ri	20	25	40	50	50
ISO 2852 clamp	Ra	25	38	38	70	70
	Ri	21.3	25	38	51	51
SMS thread	Ra	38	51	51	63	63
	Ri	25	38	38	51	51
RJT thread	Ra	1 1/2"	1 1/2"	2"	3"	3"
	Ri	1"	1 1/2"	2"	2"	2"

General dimensions

Model	Motor power (kW)	IEC motor size	A	B**	C	D	E	F	G	L	N
CTH AA-03	0.37	71	60	358	36	100	71	193	90	112	145
CTH AA-05	0.55	71	60	358	36	100	71	193	90	112	145
CTH BB-07	0.75	80	63	395	50	110	80	205	100	125	170
CTH CC-15	1.5	90	64	451	68	160	90	226	125	140	205
CTH CC-22	2.2	90	64	451	68	160	90	226	125	140	205
CTH CE-22	2.2	90	64	451	68	160	90	226	125	140	205
CTH DD-40	4.0	112	70	510	92	192	112	257	140	190	256
CTH DF-40	4.0	112	70	510	92	192	112	257	140	190	256
CTH DF-60***	6.0	112	70	521	92	192	112	262	140	190	256
CTH DG-60***	6.0	112	70	521	92	192	112	262	140	190	256
CTH EF-55	5.5	132	70	587	92	192	132	304	140	216	256
CTH EG-55	5.5	132	70	587	92	192	132	304	140	216	256
CTH EF-75	7.5	132	70	587	92	192	132	304	140	216	256
CTH EG-75	7.5	132	70	587	92	192	132	304	140	216	256
CTH AA-024	0.25	71	60	358	36	100	71	197	90	112	145
CTH BB-054	0.55	80	63	395	50	110	80	205	100	125	170
CTH CC-114	1.1	90	64	451	68	160	90	226	125	140	205
CTH CE-114	1.1	90	64	451	68	160	90	226	125	140	205
CTH DD-224	2.2	100	70	478	92	192	100	250	140	160	256
CTH DF-224	2.2	100	70	478	92	192	100	250	140	160	256
CTH DG-224	2.2	100	70	478	92	192	100	250	140	160	256

** = This dimension may vary depending on motor brand

*** = Special motor with increased power. Not available in EX-proof (ATEX) version

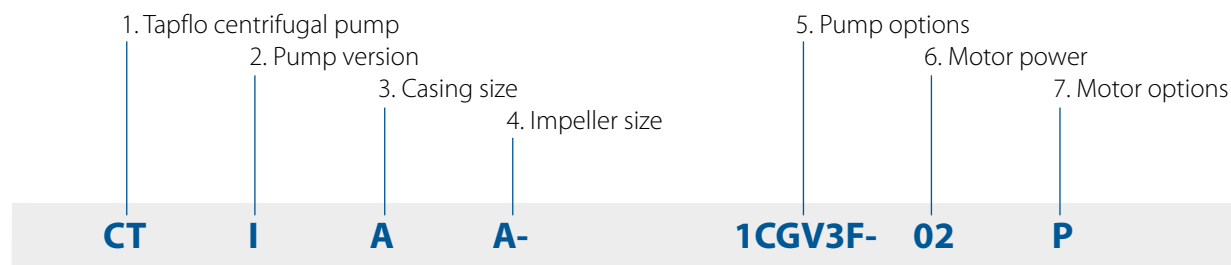
Materials, data and limits

Casing	Stainless steel AISI 316L electro polished Ra <0.8
Impeller	Stainless steel AISI 316L electro polished Ra <0.8, open (standard) or optional semi open type
Mechanical seal	Single ceramic/graphite (standard), SiC/SiC or SiC/graphite, optional flushed
O-rings	EPDM FDA approved (standard), or FEP/silicone FDA approved
Motor	IP55, IEC frame B3/B14 (B3 on long coupled version). Available with ATEX cat 2 or 3, Eex e or Eex d motor
Max pressure	10 bar (PN10)
Temperature	max 90°C, max 180°C for long coupled version
Viscosity	max ~200 cSt
Particles	max diameter 6 mm (with standard open impeller), bigger if soft particles

Changes reserved without notice

Ordering a CT pump

CTI and CTH series are available in standard versions from stock as well as special versions to suit any requirements. When ordering, please follow below example.



1. CT = Tapflo centrifugal pump

2. Pump version

- I = Industrial version
- H = Hygienic version

3. Casing size

Motor flange diameter / motor IEC size

- A = 105 mm / 71
- B = 120 mm / 80
- C = 140 mm / 90
- D = 160 mm / 100 or 112
- E = 200 mm / 132

4. Impeller size

- A = 90 mm
- B = 98 mm
- C = 125 mm
- D = 130 mm
- E = 135 mm
- F = 155 mm
- G = 180 mm

5. Pump options

1. Mechanical seal

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

3. Connection options

- Blank* = Thread BSP on CTI
- Thread DIN 11851 on CTH
- 3A = Flanged ANSI 150 (CTI only)
- 3F = Flanged DIN 2633, PN10/16 (CTI only)
- 3C = Clamp ISO 2852 (CTH only)
- 3T = Clamp DIN 32676 (CTH only)
- 3S = Thread SMS (CTH only)
- 3R = Thread RJT (CTH only)

4. Special executions

- 4J = Heating jacket
- 4F = Flushed seal
- 4Z = Oil lubricated seal
- 4H = Semi open heavy duty impeller
- 4K = Drain plug
- 4P05 = Polished to Ra<0.5 (CTH only)

6. 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
- 60 = 6.0 kW / 112 special increased power
- 55 = 5.5 kW / 132
- 75 = 7.5 kW / 132

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

7. Motor options

- M = Hygienic motor shroud (CTH only)
- B = Long coupled pump w. base plate/coupling
- X2d = Eex d IIB T4 motor
- X2e = Eex e IIB T3 motor
- P = Single phase motor
- T = Motor with PTC thermistor

* = standard execution

Other Tapflo products

Tapflo is today one of the leading European manufacturers of air operated diaphragm pumps. With comprehensive ranges in metals and plastics, the diaphragm pumps are the core of Tapflo. The portfolio is now also widened with magdrive centrifugal pumps, vertical centrifugal pumps and filter units.

■ Air operated diaphragm pumps

PE & PTFE pumps

Pumps made of polyethylene (PE) or virgin PTFE-plastics are suitable for handling almost any kind of liquid.

Metal pumps

Available in aluminium, cast iron, stainless steel, Hastelloy and PTFE-coated aluminium.

Sanitary pumps

Pumps particularly designed to meet the requirements of the food, beverage, pharmaceutical and cosmetic industries.

Pharamceutical pumps

This series is produced to serve the biotech- and pharmaceutical industries in numerous applications.

EHEDG aseptic pumps

Our new aseptic series for sterile applications in primarily the pharmaceuticals, bio technology and foodstuffs industries.



■ Magdrive centrifugal pumps



■ Vertical centrifugal pumps



■ Filter units



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Tapflo products and services are available in 64 countries on 6 continents.

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

AUSTRALIA | AUSTRIA | AZERBAIJAN | BELARUS | BELGIUM | BOSNIA | BRAZIL | BULGARIA | CHILE | CHINA | COLOMBIA | CROATIA | CZECH REPUBLIC | DENMARK | ECUADOR | ESTONIA | FINLAND | FRANCE | GREECE | GEORGIA | GERMANY | HONG-KONG | HUNGARY | INDIA | INDONESIA | IRAN | IRELAND | ISRAEL | ITALY | JAPAN | KAZAKHSTAN | LATVIA | LITHUANIA | MACEDONIA | MALAYSIA | MEXICO | MONTENEGRO | THE NETHERLANDS | NEW ZEALAND | NORWAY | POLAND | PORTUGAL | PHILIPPINES | ROMANIA | RUSSIA | SERBIA | SINGAPORE | SLOVAKIA | SLOVENIA | SOUTH AFRICA | SOUTH KOREA | SPAIN | SWEDEN | SWITZERLAND | SYRIA | TAIWAN | THAILAND | TURKEY | UKRAINE | UNITED ARAB EMIRATES | UNITED KINGDOM | USA | UZBEKISTAN | VIETNAM

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