CTS Self-priming Centrifugal Pumps

perfectly complement the series of centrifugal pumps

The CTS are open impeller self-priming centrifugal pumps, manufactured from AISI 316L stainless steel. They are capable of creating up to 4,5 m of suction lift. The CTS series maintains all the benefits and strengths of the standard CT pumps. CTS pumps are available in hygienic and industrial execution.

CTS H - hygienic execution

- surfaces electropolished **to Ra<0.8 µm**
- meet the demands of **food and sanitary applications** (high finish, mechanical strength)
- mechanical seals and elastomers **FDA and EC1935 approved**
- **hygienic connections** with DIN 11851 as standard

CTS I - industrial execution

- a reliable choice for **industrial applications** (mechanical strength and AISI 316L chemical resistance)
- **as standard BSPT thread connection** or with flanged connections according to **EN 1092-1 or ANSI 150 Lbs**

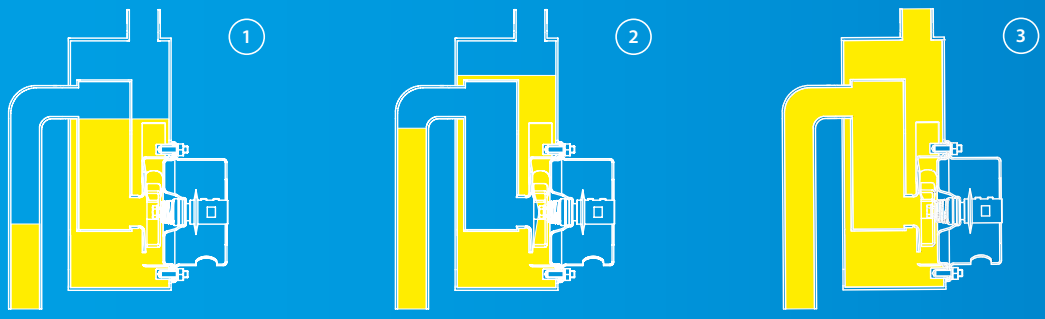
EN 10204 AT

Certificates may vary depending on material execution of particular product.

Features

- Self-priming
- Ideal for highly aerated liquids
- Easy installation and maintenance
- Simple and compact design

Working principle



(1) In order for the priming action to be achieved, the pump casing has to be filled with liquid to a level above the impeller.

(2) When the pump starts its operation, it is slowly sucking out the air from the suction line thus creating negative pressure and lifting the product. The air is mixed with the liquid in the pump casing.

(3) In order to achieve the self-priming capability the shut off/regulation valve on the discharge side must be opened. The air escapes the casing through the discharge line while the liquid returns to the impeller as it has a higher specific gravity than the liquid/air mixture. This process continues until the suction line is completely free of air and the pump can operate as a standard centrifugal pump

Wide range of applications (CTS H & CTS I)

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,





Options and special executions

Hygienic shroud (CTS H)

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

Buffer fluid system (CTS H, CTS I)

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

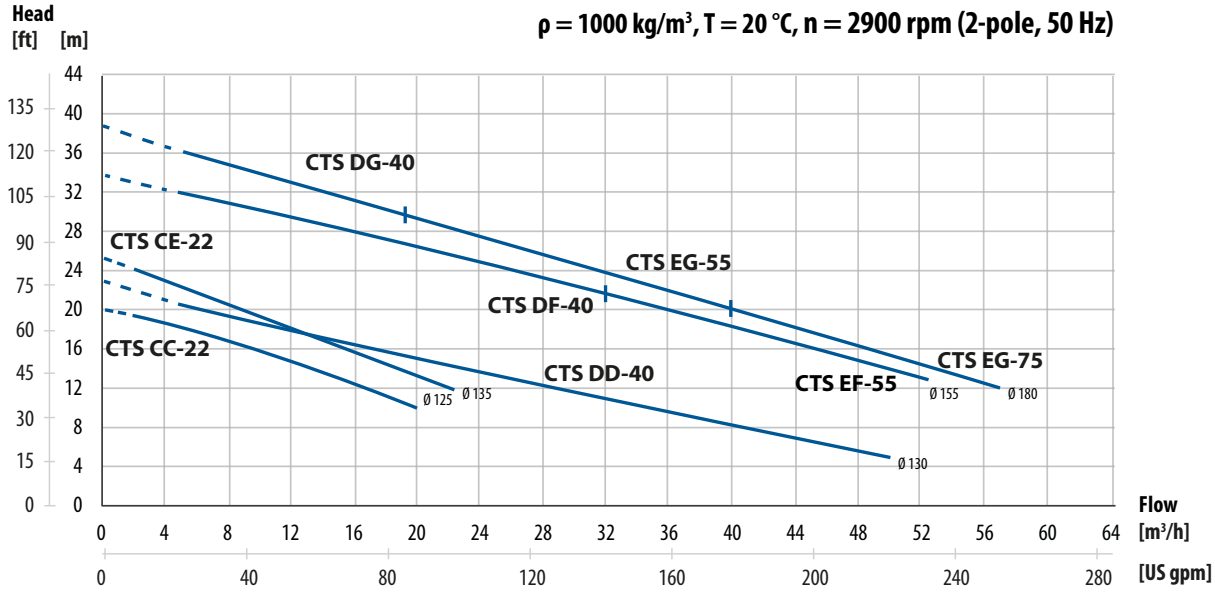
Quench (CTS H, CTS I)

This option is similar to the lubricated seal option and is **recommended when there is a potential risk of dry running**, or where the product **tends to solidify or crystallize when in contact with air**.

There is however an added value to this option, as circulating quench liquid removes heat from the mechanical seal.

Performance curves

The performance curves are based on water.



Available motor powers

2-pole motor	CC-22; CE-22	DD-40; DF-40	EF-55; G-55	EF-75; EG-75
Motor power [kW]	2.2	4.0	5.5	7.5
IEC motor size	90	112	132	132

CTS Pump code

I. Tapflo self-priming centrifugal pump	II. Pump execution	III. Casing size	IV. Impeller size		V. Pump options		VI. Motor power	VII. Motor options
CTS	I	C	C	-	1CGV3F	-	02	P