

**Chemical Shaft-Driven Sump Pump**

**Automation products available:**

- Hyamaster
- hyatronic

**Fields of Application**

**CTN**

For handling chemically aggressive liquids, also slightly contaminated or with a low solids content.

CTN pumps can be used in the chemical and petrochemical industry.

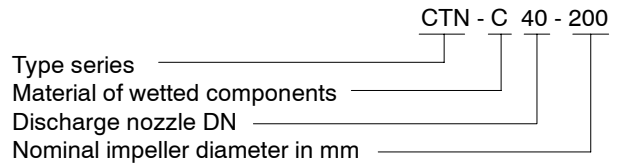
**CTN-H**

For handling liquids which can only be pumped when warm or hot.

**Design**

Vertical, radially split shaft-driven sump pump with double volute casing, in wet or dry installation; radial impeller, single-flow, single- and double-stage. The shaft seal is not in contact with the pumped product.

**Designation**



**Operating Data**

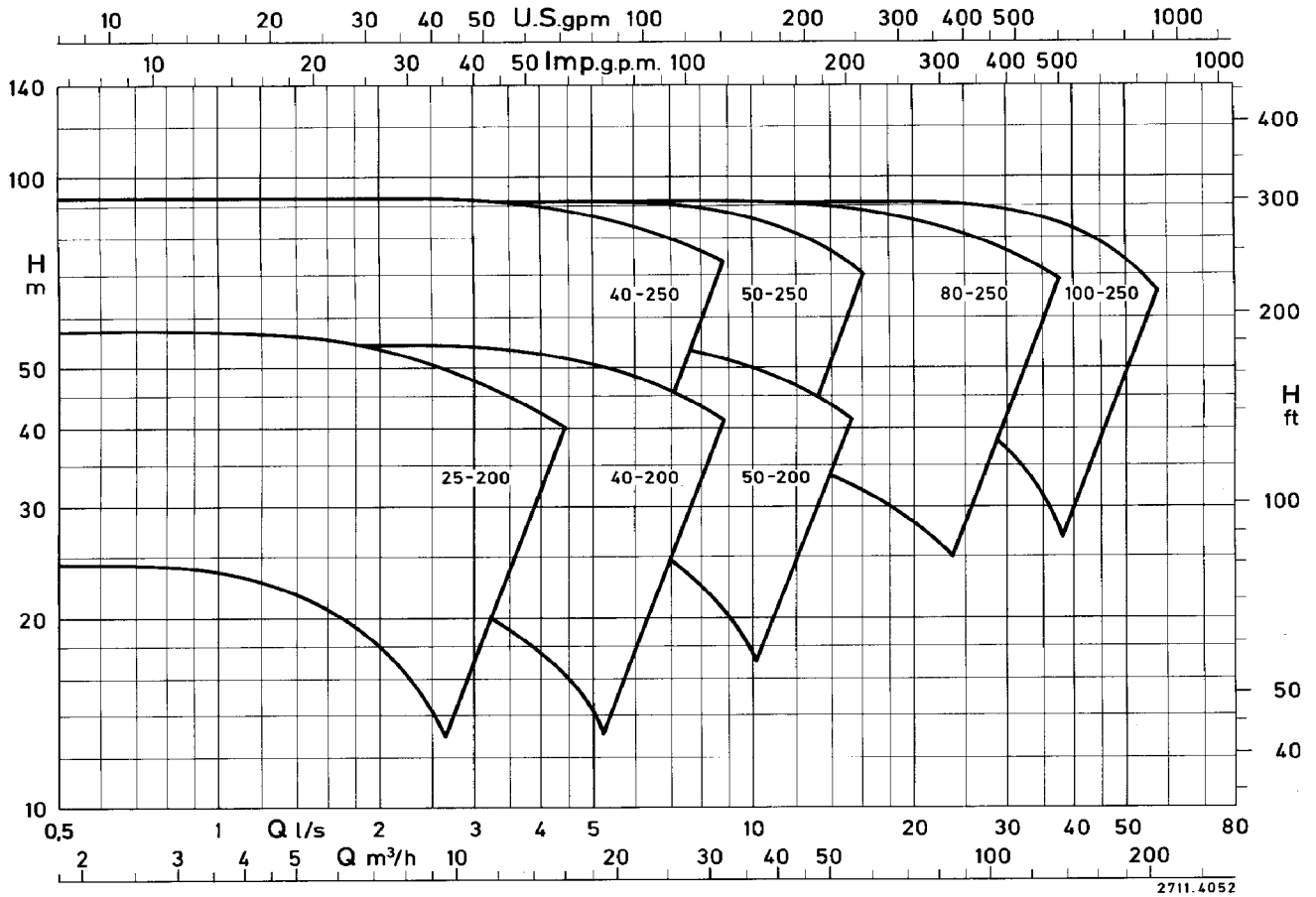
Capacities	Q	up to 220 l/s (800 m <sup>3</sup> /h)
Heads	H	up to 93 m
Pump sizes	DN	25 to 250
Operating pressures	p <sub>2</sub>	up to 16 bar
Operating temperatures	t	-70 °C to +300 °C

**Certification**

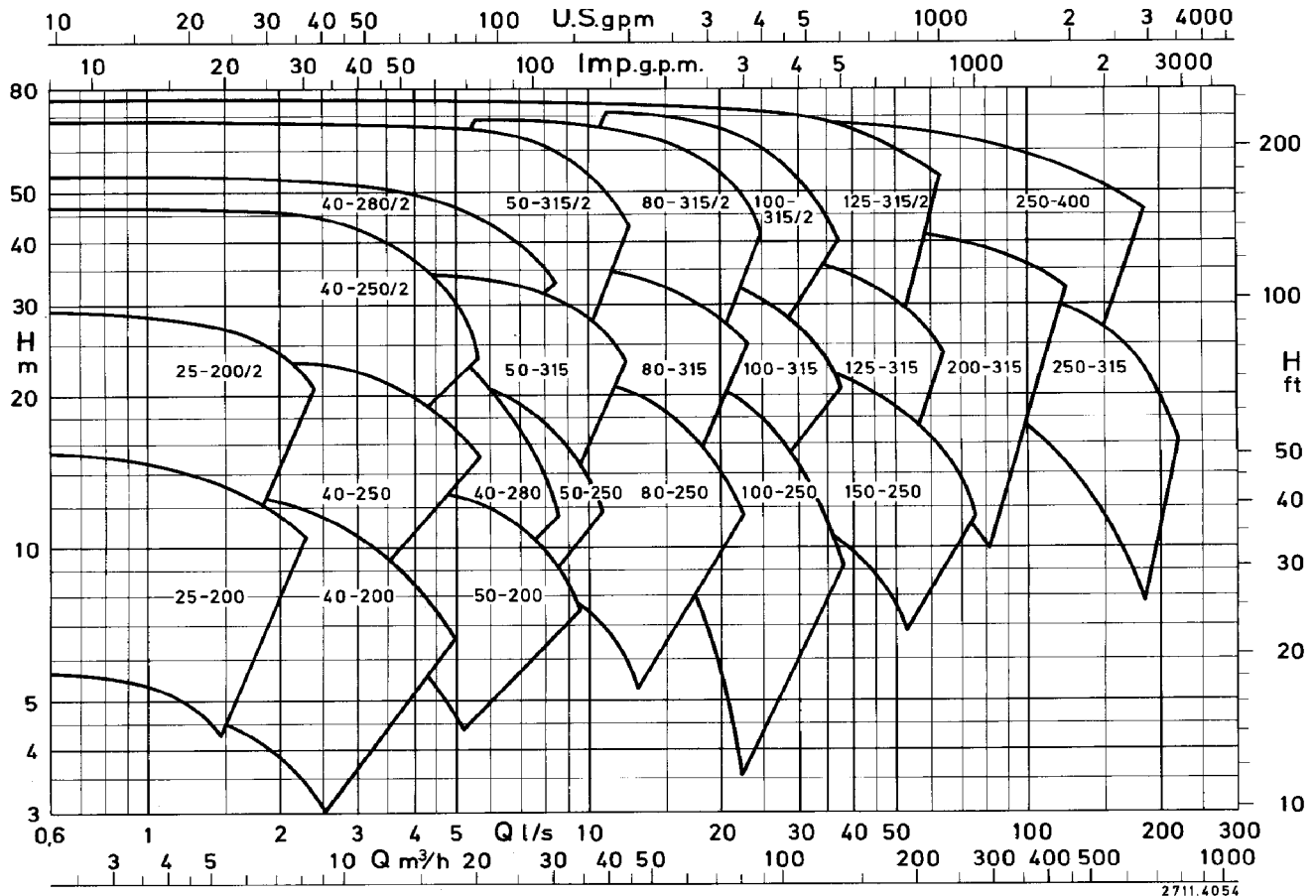
Certified quality management ISO 9001.

**Selection Charts**

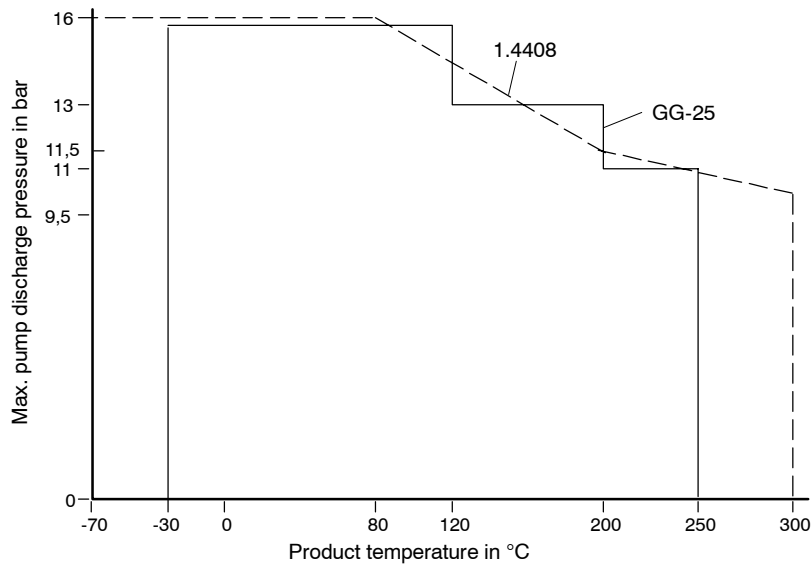
n = 2900 1/min



n = 1450 1/min



## Pressure and Temperature Limits



## Materials

Part No.	Description	CTN/CTN-H	
		Material G	Material C
102	Volute casing	JL1040 <sup>5)</sup>	1.4408
108	Stage casing	JL1040 <sup>5)</sup>	1.4408
153	Suction nozzle	JL1040 <sup>5)</sup>	1.4408
162	Suction cover	JL1040 <sup>5)</sup>	1.4408
210	Shaft	C45SH+S	1.4571SH
230	Impeller	JL1040 <sup>5)</sup>	1.4408
341	Motor stool	JL1040 <sup>5)</sup>	JL1040 <sup>5)</sup>
344	Bearing bracket lantern	JL1040 <sup>5)</sup>	JL1040 <sup>5)</sup>
350.04	Guide bearing housing <sup>3)</sup>	JL1040 <sup>5)</sup>	1.4408
452.02	Gland cover	C22+N	1.4571
454.02	Stuffing box ring	1.4571	1.4571
458.02	Lantern ring	1.4571	1.4571
502.01 bis .04	Casing wear ring	JL1040 <sup>5)</sup>	-
529.01/.03	Bearing sleeve	1.4122+QT750	1.4571
545.01/.03	Bearing bush	Carbon <sup>4)</sup>	Carbon <sup>4)</sup>
71-9.01/.02	Pipe assembly	JL1040 <sup>2) 5)</sup>	1.4571/1.4408
72-1	Flanged elbow	JL1040 <sup>2) 5)</sup>	1.4408 <sup>2)</sup>
852	Threaded coupling	1.4021+QT750	1.4571
893.02	Soleplate	JL1040 <sup>5)</sup>	JL1040 <sup>5)</sup>
	Nuts and bolts	5.6	A4

1) if only one shaft is fitted: for larger installation depths the shaft assembly consists of pump shaft and drive shaft or of pump shaft, intermediate shaft(s) and drive shaft

2) on CTN-H: material variant G = St35; C = 1.4571

3) not applicable to CTN-H

4) standard version: other materials possible, depending on pumped liquid

5) to EN 1561

## Benefits at a Glance

### Thrust bearing

little axial movement of the rotor; held in position by the shaft nut. Rotor adjustable on mounted pump

### Shaft seal

not in contact with the pumped product, gland packing or mechanical seal possible

### Plain bearings

adapted to operating conditions, product-lubricated

### Double volute

reduces load on the plain bearings

### Pressure-retaining components

selected in well-proven calculation procedure, manufactured as quality casting with corrosion allowance

### Discharge pipe

raised above the soleplate, easy and quick installation without draining the tank

### Soleplate

round, interchangeable among certain pump sizes, odour- and gasproof soleplate design possible

### Installation depth

variable by combining different quantities of pipe assemblies (modular design system)

### Casing wear rings

replaceable (in material variant GG)

