

## YOUR BENEFIT:

- Optimum inlet
- Wide range of variants
- Submersible length up to 6 m

## SUBMERSIBLE PUMP **NCT** +SPECIAL DESIGN FOR ZONE 0

## SUBMERSIBLE PUMP NCT

### Description / Application

The type NCT is a volute casing submersible pump with shaft seal according to the principle of the two-pipe pump, i.e. separate shaft guide pipe and pressure pipe.

The hydraulic pump part is arranged in the container or in the pumped medium.

The connection is made by a multi-level shaft and pipe string. The bearings of the pump and drive shafts are in sleeve bearings. The upper drive shaft is fixed by a grease-lubricated double-sided angular ball bearing. This allows submersible length up to 6 m and this at a maximum operating temperature of 200°C [392°F].

In addition to the standard design, the NCT can also be supplied as a cantilever version without sleeve bearings, a heated design and an oil-lubricated design according to API 610 is possible. Furthermore, the NCT is also available as a variant for use in zone 0 in accordance with the Explosion Directive.

### Applications

- Oil & Gas
- Chemistry & Petrochemistry
- Offshore
- Ship technology & Marine
- Refueling equipment & Aviation
- Tank storages & Tank farms
- renewable energy & Environmental engineering

Info NCT



## SUBMERSIBLE PUMP NCT

### Technical Data

#### Design

Pump type	Volute casing pump
Stages	Single-stage
Sealing	Mechanical seal or stuffing box
Set-up	Vertical
Self-priming	No
Bearing	Antifriction bearing, sleeve bearing***
Lubrication	Grease / Oil

#### Material

Spheroidal graphite iron (EN-GJS) / Cast steel (GP-240 GH), Austenitic cast steel (1.4408/1.4571), Duplex (1.4517), Ni-based (2.4686)

#### Technical Data

Q max*	1000 m <sup>3</sup> /h [4400 gpm]
H max*	250 m [820 ft]
Operating pressure**	16 bar [232 psi/1.6 MPa]
Temperature**	200°C [390°F]
max. speed	3500 rpm

\* depending on size and speed

\*\* higher temperatures and pressures on request

\*\*\* product side

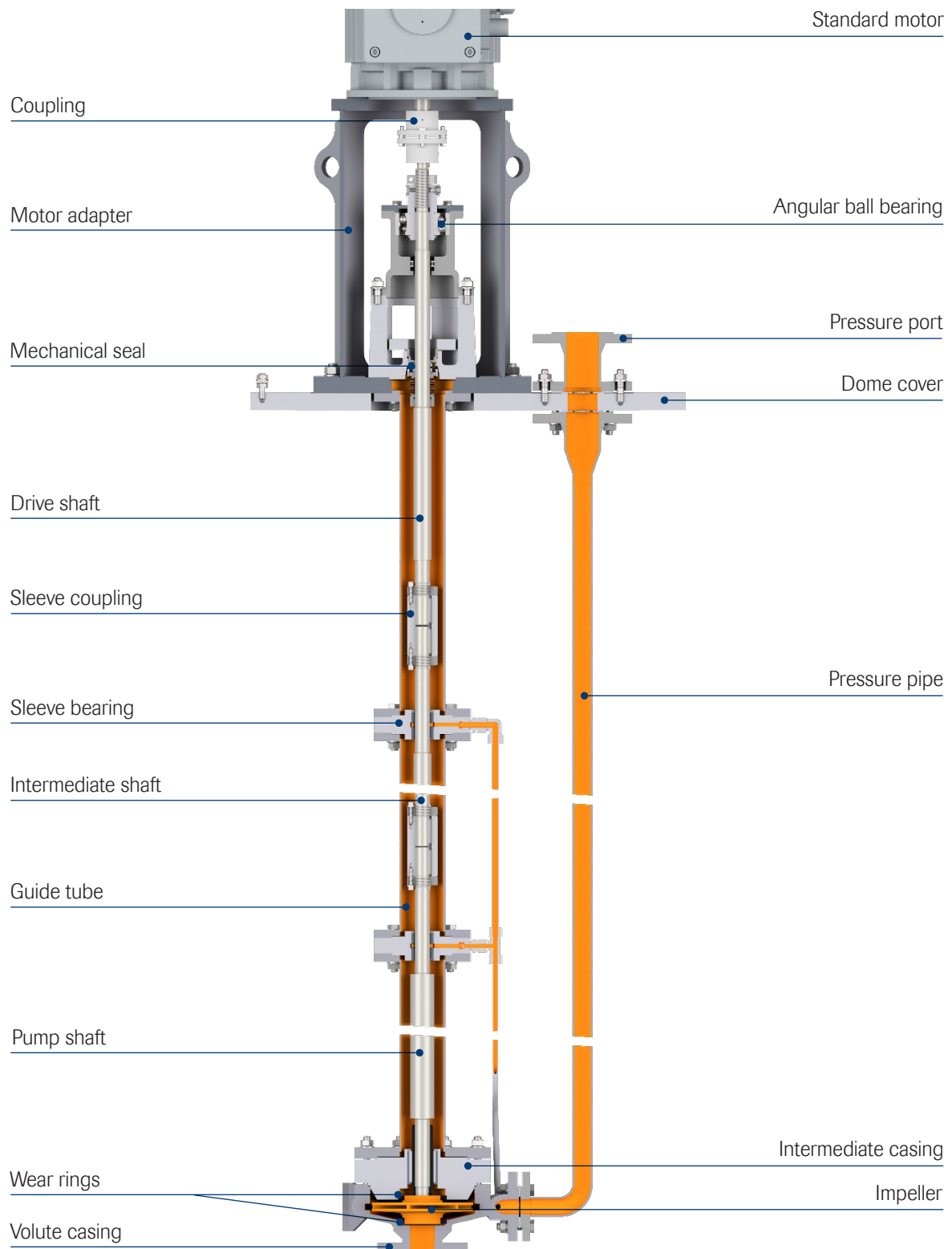
#### Norm

ISO 5199 / API 610 (VS4)

Explosion protection: Category 1 / Zone 0

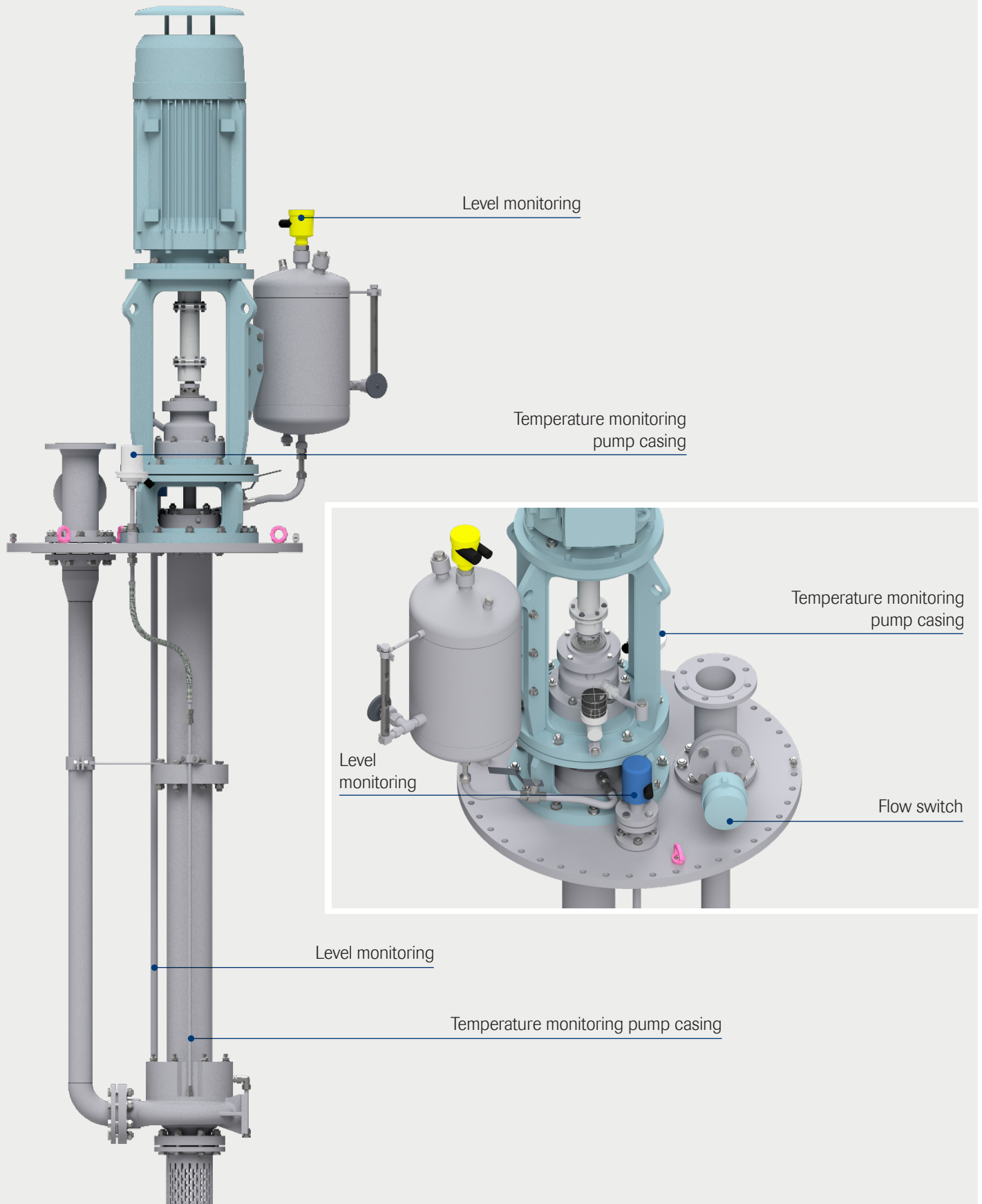
# SUBMERSIBLE PUMP NCT

## Sectional view / Standard design



# SUBMERSIBLE PUMP **NCT CAT.1**

**Type-tested ATEX-design**





## SUBMERSIBLE PUMP **NCT CAT.1**

**Type-tested ATEX-design**

Category 1 - Submersible pumps are used to pump flammable, light flammable and highly flammable liquids from zone 0. The liquids must belong to temperature classes T1 to T4.

An EU type-examination certificate issued by the notified body confirms compliance with the essential health and safety requirements of the Explosion Directive for the design of these submersible pumps.

### **Diverse security concept**

A level monitor in the tank ensures that there is sufficient liquid coverage during operation of the pump. A flow switch ensures a defined minimum flow rate. Temperature monitoring on the pump body prevents the pump casing from heating up excessively. The entire safety chain must be checked regularly as part of maintenance measures. With this concept, the failure of a monitoring device is to be viewed as a rare malfunction. The simultaneous failure of several monitoring devices is sufficiently unlikely.

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