NETZSCH

Proven Excellence.

NETZSCH Pumps compliant to API 676 3rd edition

Individual Solutions for Mid- and Downstream

Pumps & Systems

NETZSCH API Compliant Pumps 676 3rd Edition

The highest standards for equipment and safety are a basic requirement for oil field work to ensure that processes remain safe and reliable.

NETZSCH offers pump systems consisting of a pump, drive, base plate and various accessories, which are meeting the requirements of API 676 3rd edition, NACE MR0175, MR0103, NORSOK and many more. The sophisticated and reliable design meets the particular pump job requirements and contributes to efficient process control.

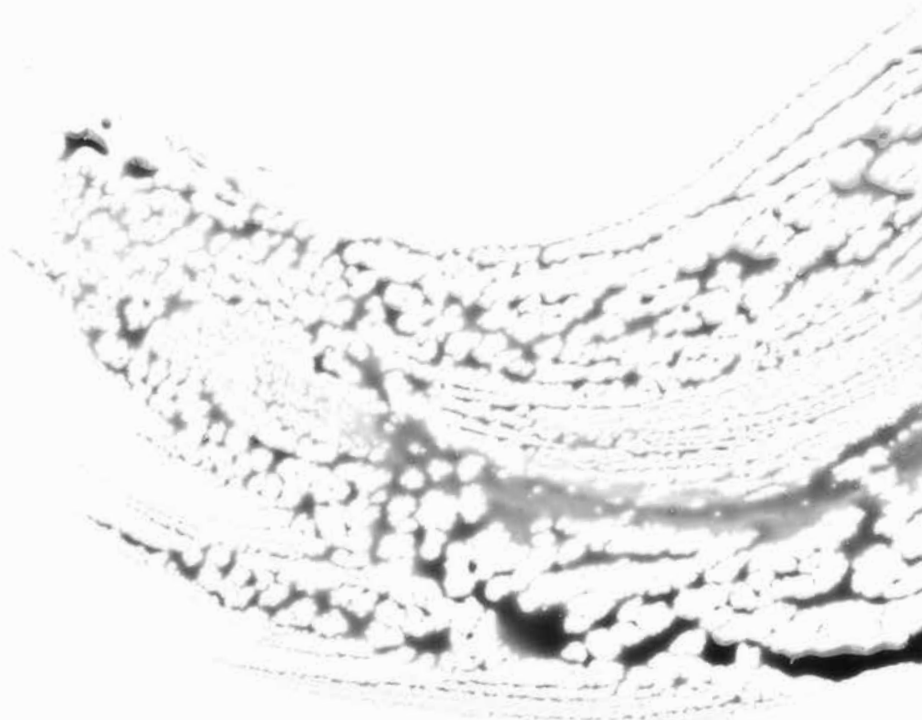
These systems are available with NEMO® Progressing Cavity Pumps, TORNADO® Rotary Lobe Pumps and NOTOS® Multi Screw Pumps. They contribute to improved safety and reliability due to their robust construction and intelligent system integration.

Fluid Properties, pumped by NEMO® and TORNADO®

- Shear-sensitive
- Low to high viscosity
- With or without solids
- Dilatant or thixotropic
- Low to highly abrasive
- Adhesive
- Multiphase liquids

Fluid Properties, pumped by NOTOS®

- Shear-sensitive
- Lubricating and non lubricating
- Low to high viscosity
- With low solid content
- Dilatant or thixotropic
- Low to medium abrasive
- Adhesive



We face unique challenges

with our pump solutions

Wide Range of Applications

Enhanced oil recovery
- Water injection pumps
- EOR polymer transfer
- Surfactant transfer

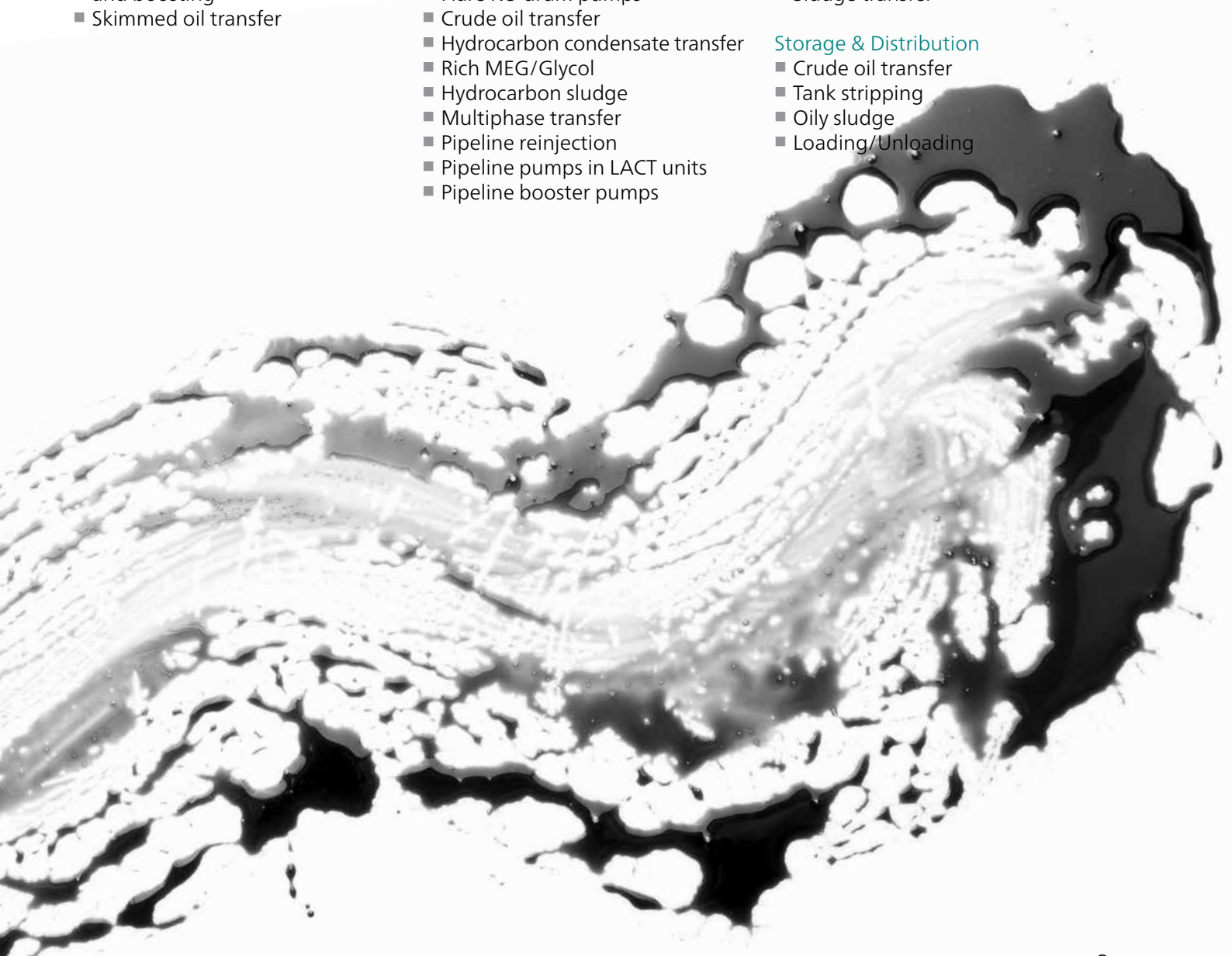
Produced water management
- Produced water transfer and boosting
- Skimmed oil transfer

Well services
- Well Testing: Crude Oil Transfer
- Drilling mud: Decanter centrifuge feeding

Oil & Gas processing
- Open & closed drains transfer
- Flare KO drum pumps
- Crude oil transfer
- Hydrocarbon condensate transfer
- Rich MEG/Glycol
- Hydrocarbon sludge
- Multiphase transfer
- Pipeline reinjection
- Pipeline pumps in LACT units
- Pipeline booster pumps

Refinery
- Asphalt, bitumen tower bottoms
- Fuel oils
- Kerosine, diesel
- Catalyst slurry
- Lubricant oil
- Oily water treatment
- Sludge transfer

Storage & Distribution
- Crude oil transfer
- Tank stripping
- Oily sludge
- Loading/Unloading



Our Multi Screw Pump Family

The NOTOS® mulitiple screw pump family consists of three series in various arrangements which serve a wide range of industries and applications. The superior quality standard meets the highest level of requirements for our customers.

2NS – Two Screw Pump

- Flow up to 2,860 gpm / 650 m^3/h
- Pressure up to 230 psi / 16 bar
- Temperature up to 570°F / 300°C
- Viscosity up to 100,000 cSt
- From non to light abrasive
- Corrosive
- Low to medium viscosities
- Lubricant fluids

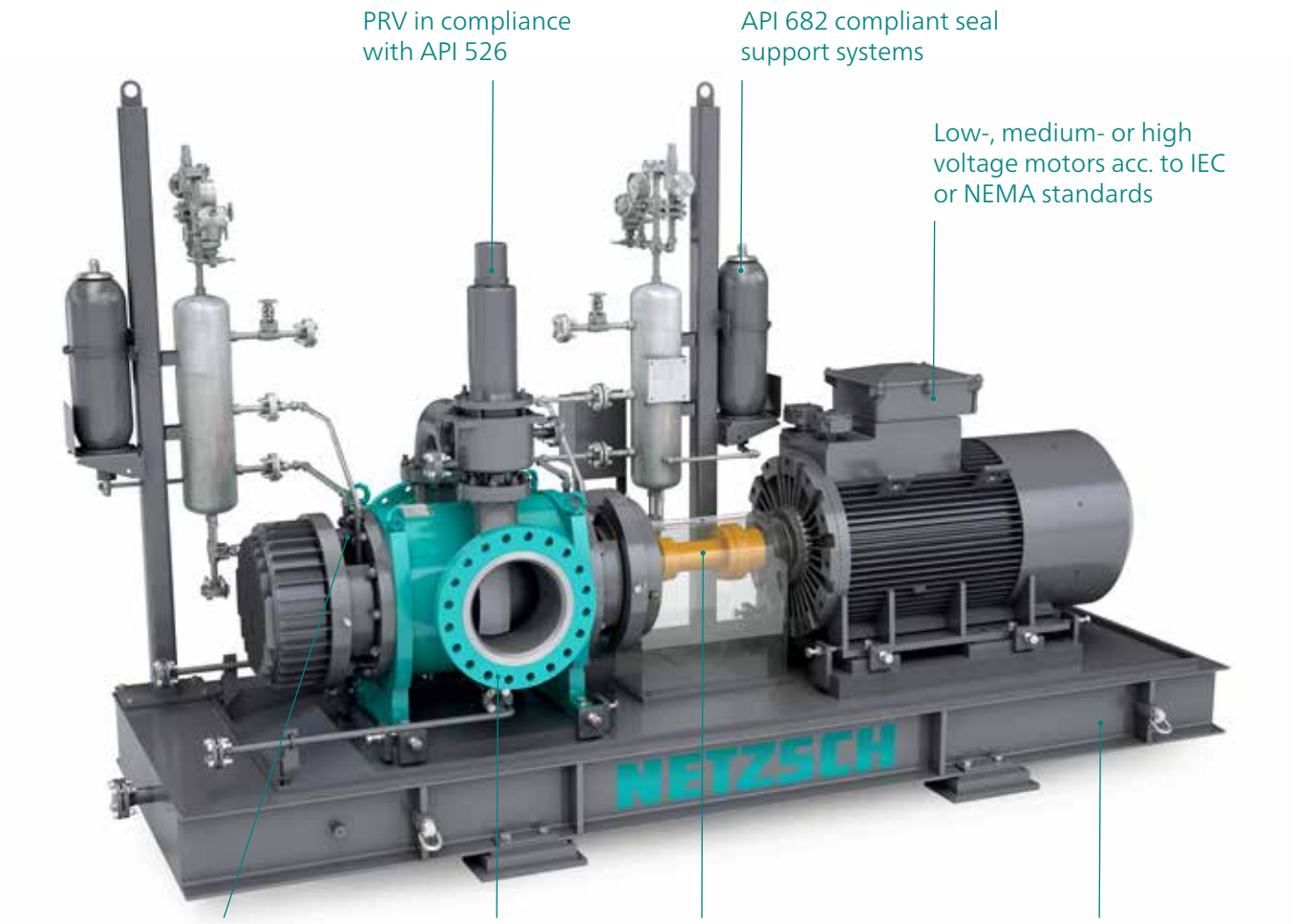
3NS – Three Screw Pump

- Flow up to 1,760 gpm / 400 m^3/h
- Pressures up to 1,450 psi / 100 bar
- Temperature up to 570°F / 300°C
- Viscosity up to 15,000 cSt
- Non abrasive
- Non corrosive
- Low to medium viscosities
- Lubricant fluids

4NS – Geared Twin Screw Pump

- Flow up to 11,000 gpm / 2,500 m^3/h
- Pressures up to 1,160 psi / 80 bar
- Temperature up to 570°F / 300°C
- Viscosity up to 200,000 cSt
- From non to medium abrasive
- Corrosive
- Low to high viscosities
- Non lubricant and lubricant fluids

NOTOS® in API-Compliant Design



Pump Data

- Pump type: 4NS – Geared Twin Screw Pump
- Capacity: up to 11,000 gpm / 2,500 m^3/h
- Pressure: up to 1,160 psi / 80 bar
- Medium: Asphalt, bitumen, diesel, crude oil, polymer, produced water with or without traces of solid
- Medium temperature: up to 570°F / 300°C
- Ambient temperature: -49°F to +136°F / -45°C to +58°C

Customer Benefits

- High performance with small footprint
- HEUD highest efficiency due to optimized screw profile
- One-piece screw design for maximum stiffness
- Customized design to fit individual needs
- Able to handle a wide range of temperatures and viscosities

Safety Accessories

- Seal support system
- Pressure relief valve
- Leakage, temperature and vibration sensors
- Noise enclosure

API Compliant Pump: TORNADO®

Pump Data

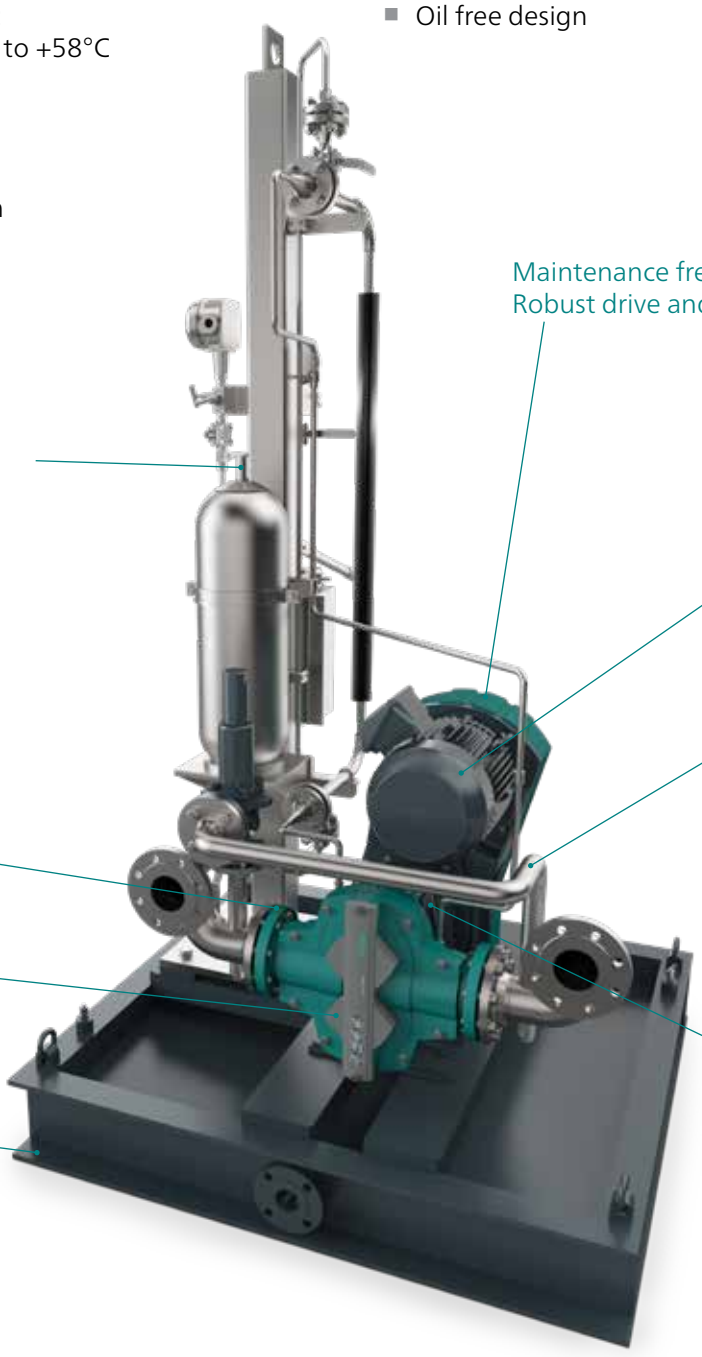
- Pump type: TORNADO® T.Proc Rotary Lobe Pump
- Capacity: up to 4,400 gpm / 1,000 m^3/h
- Pressure: up to 145 psi / 10 bar
- Medium: Oil, oily water, produced water, slurries and mixtures with gas
- Medium temperature: up to 302°F / 150°C
- Ambient temperature: -49°F to +136°F / -45°C to +58°C

Customer Benefits

- Maximum wear resistance
- Available as rubber/metal or metal/metal construction to best fit individual requirements
- FSIP® Full Service-In-Place. Can be serviced in the oilfield.
- Oil free design

Safety Accessories

- Dry running protection
- Pressure relief valves
- Seal system
- API base plate

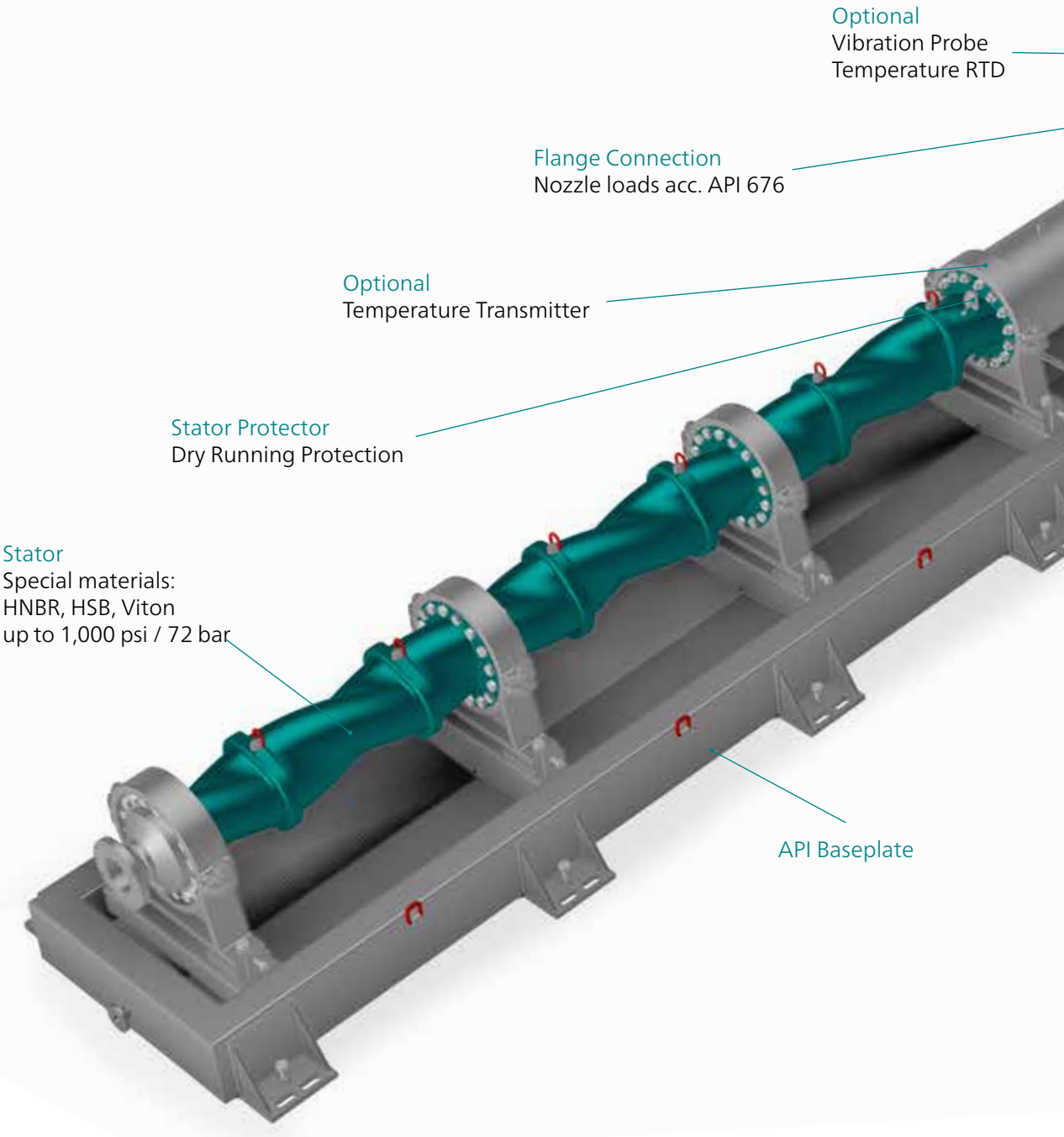


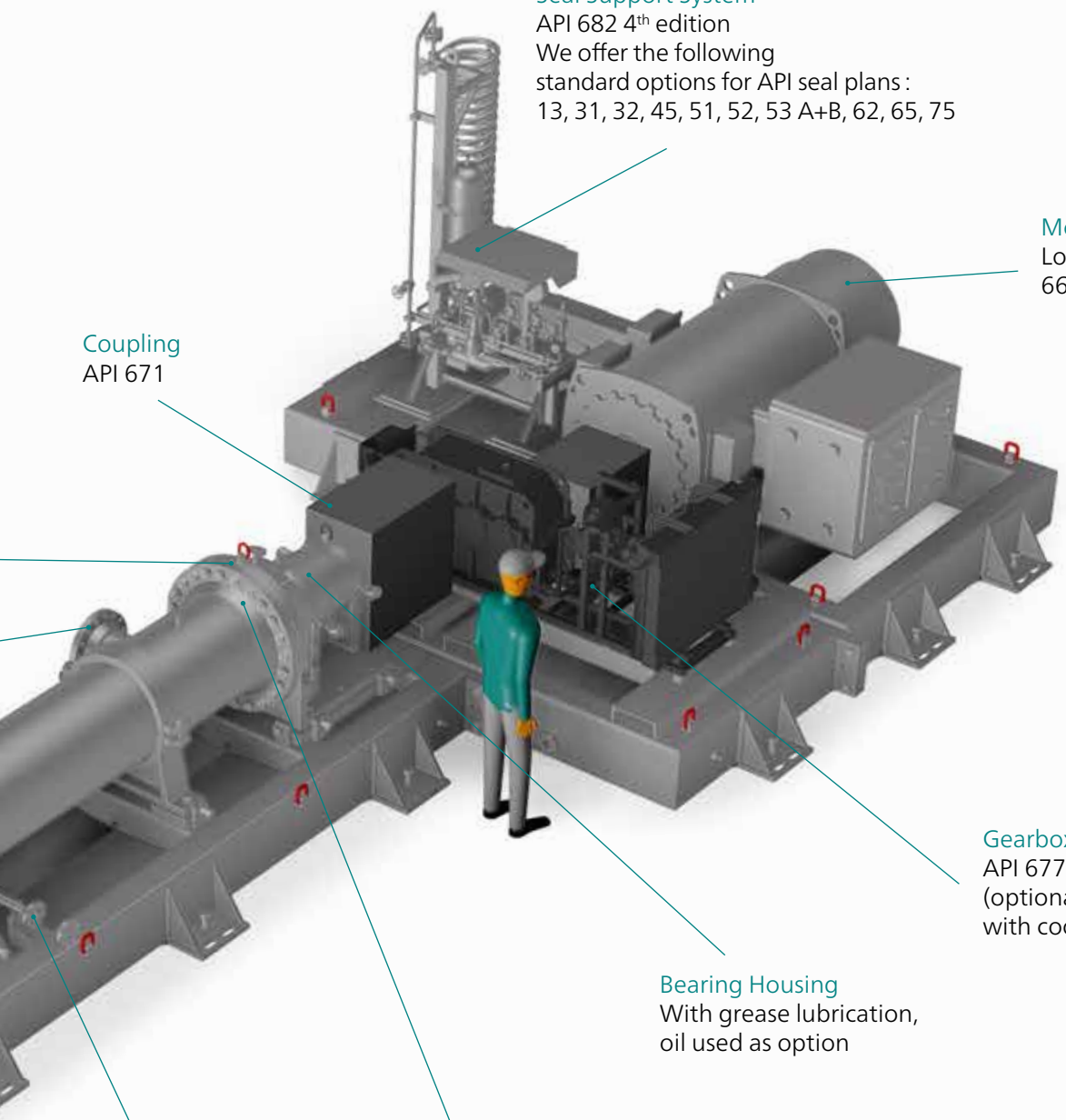
NETZSCH API Compliant Pump 676 3rd Edition

As an example of the fulfillment of the API requirements please see the NEMO® L.Cap® pump, detailed below: the biggest progressing cavity pump in the world.

Safety Accessories

- Pressure relief valves according API
- Pressure monitoring
- Overpressure protection and many more





Seal Support System
API 682 4th edition
We offer the following
standard options for API seal plans :
13, 31, 32, 45, 51, 52, 53 A+B, 62, 65, 75

Motor
Low voltage to high voltage:
6600V/750 KW (1,000 HP)

Coupling
API 671

Gearbox
API 677
(optional API 613
with cooling system)

Bearing Housing
With grease lubrication,
oil used as option

Mechanical Seal
API 682 4th ed.

Pump casing
Flanged drain connection

Pump Data

- Pump type: NEMO® L.Cap® Progressing Cavity Pump
- Capacity: Up to 4,400 gpm / 1,000 m^3/h
- Pressure: Up to 1,000 psi / 72 bar
- Medium: Oil, gas or water mixtures with solids
- Medium temperature: Up to 302°F / 150°C
- Ambient temperature: -49°F to +136°F / -45°C to +58°C