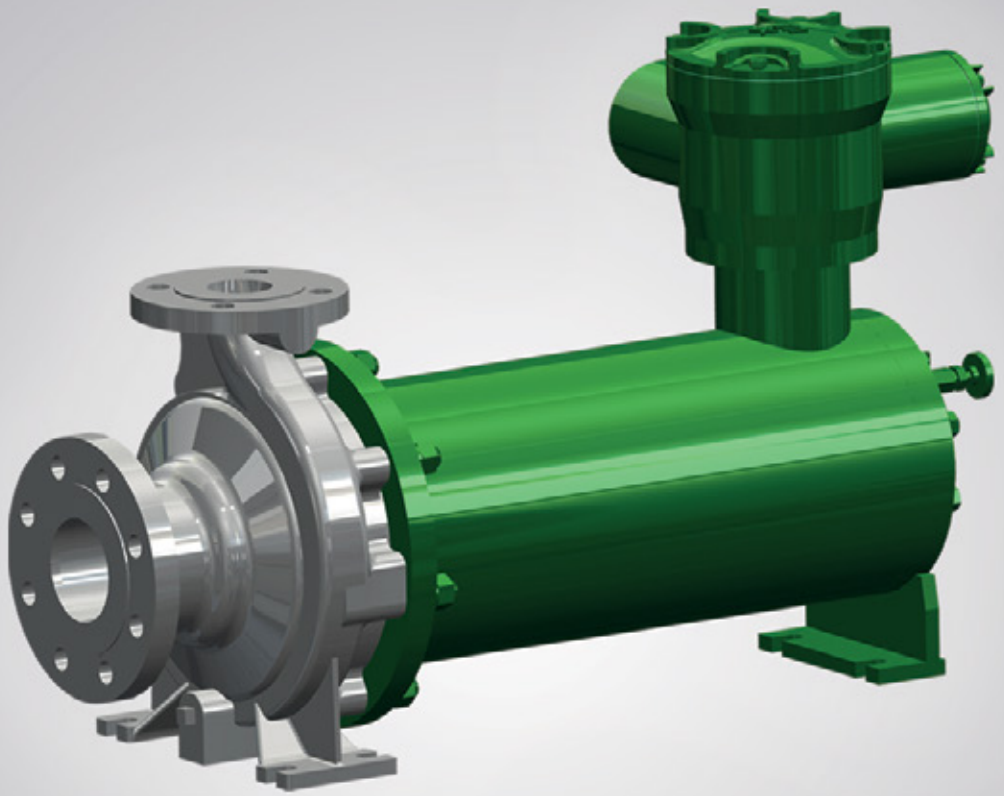
HERMAG®
pumps

Company Profile

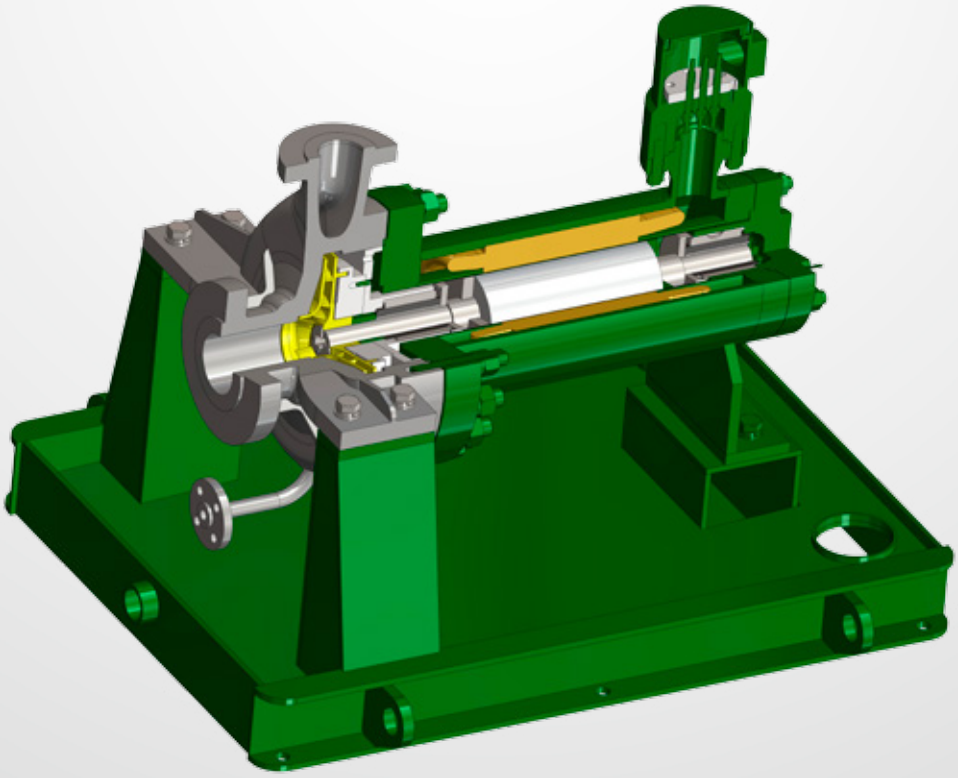


Pumps for Life

HERMAG

canned motor pumps

- **SAFETY**
- **RELIABILITY**
- **EASE OF MAINTENANCE**
- **FLOW RATE UP TO 650 m^3/h**
- **HEAD UP TO 600 m**
- **DESIGN PRESSURE UP TO 42 MPa**
- **TEMPERATURE FROM -120 °C UP TO +450 °C**
- **VISCOSITY UP TO 200 cP**
- **SOLIDS CONTENTS UP TO 3% CONCENTRATION AND 0,5 mm DIAMETER**



Company Profile

- Leading manufacturer of **ISO and API 685** canned motor pumps.
- Products covering an outstanding range of applications in **chemical, petrochemical, and general industry.**
- Handling more than **600 liquids**, including explosive, dangerous, toxic and valuable liquids.
- Modern and dynamic company using cutting-edge **engineering technologies** and **advanced computational methods.**
- Located in the **geographical centre of Europe**, bringing perfect logistical position for our customers.

Quality First

HERMAG pumps holds the **ISO 9001 certificate** issued by **TÜV SÜD** and operates the Quality Management System to achieve the **ultimate business excellence**. Our policy is briefly described as follows:

- To become a **reliable business partner** for our customers.
- To be fully compliant with the requirements of **ČSN EN ISO 9001** standard.
- We will always dedicate sufficient **organisational, financial and human resources** to the development of our QMS.
- To provide **necessary training** to all of our employees to support their growth while keeping HERMAG pumps at the forefront of the **innovative technology**.

Chemical

Challenging Conditions:

Constantly growing requirements on **environmental** and **human safety**, **low maintenance** and **trouble free operation**, all at **low power consumption** and **low cost.** Even under these challenging technical conditions, HERMAG pumps can provide optimised and cost effective solution.

Wide Selection of Materials:

Including **Cast Iron, Stainless steel, Hastelloy** and **Titanium** to cover an outstanding range of more than **600** liquids.

Oil & Gas

Extreme Requirements:

Robustness, reliability and ability to withstand **high pressures** and **high temperatures** are the key challenges any process in the Oil&Gas industry must face. Hermetically sealed pumps offer many advantages when it comes to minimisation of failure in these highly demanding applications.

HERMAG's **API** and **ISO** ranges are designed for **ultimate reliability** and smooth operation in **extreme conditions**, minimising the overall lifecycle cost.

General Industry

Cutting-edge Technology

From radioactive liquids in **nuclear** plants, **aerospace** industry, **high speed trains** to **air conditioning**, HERMAG pumps can offer cutting edge, technically **advanced products** that meet the harshest of requirements.

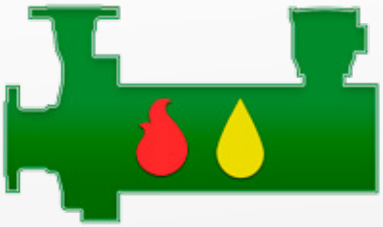
In the rapidly developing world and quickly changing markets, our products are ready to face the most **difficult challenges** across a wide range of industrial applications.

Canned Motor Pump Technology

No Leakage

Operational and environmental safety.

Suitable for handling explosive, toxic, corrosive, or flammable liquids.



Secondary Containment

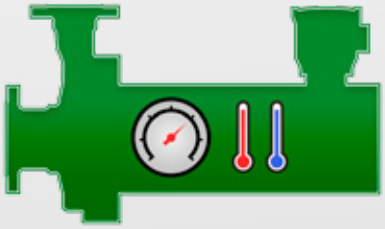
Important safety feature natural for canned motor pumps only.

Makes sure the liquid remains inside the pump even in case of severe failure.

No Shaft Seal

Mechanical seal failures completely avoided.

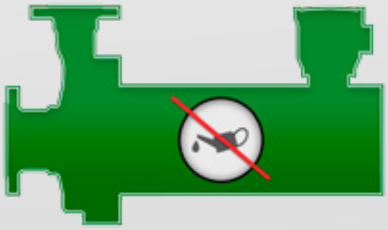
Suitable for high pressure systems, extreme temperatures and high melting point liquids.



No External Lubrication

Rotor assembly fitted on slide bearings lubricated by pumped liquid.

No need to check or maintain any lubrication levels.



Compact Design

No bearing housing, no shaft coupling.

Small, self-contained design.

Easy installation with no need to align the coupling.

Low Noise & Vibration

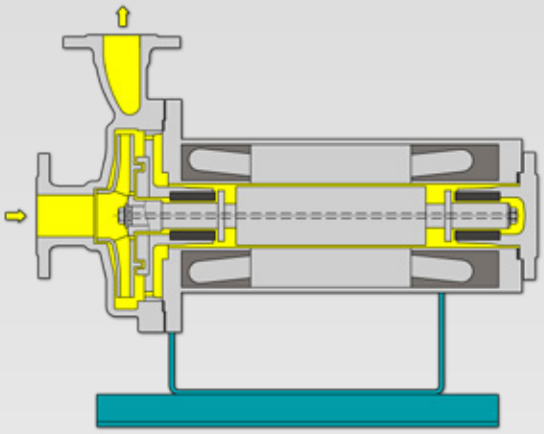
Rotor assembly completely filled with pumped liquid, which leads to significantly reduced noise and vibration levels.

Standard Design

CH - Hollow Shaft

- Widely used, basic design
- Inner circulation through hollow shaft
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

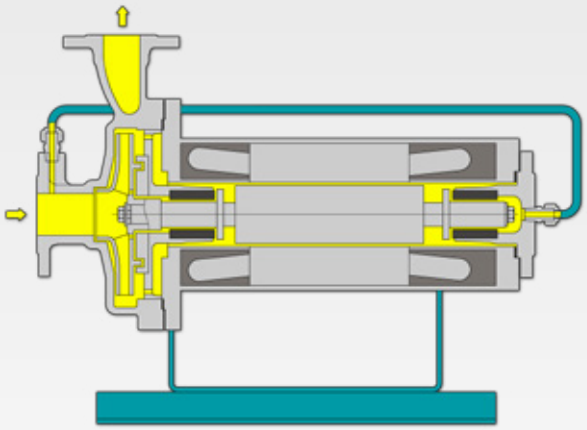
Flow rate:	max 650 m³/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 110 kW
Temperature:	max 120 °C



CE - External Circulation

- Basic design for larger shaft power
- Inner circulation through external pipe
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

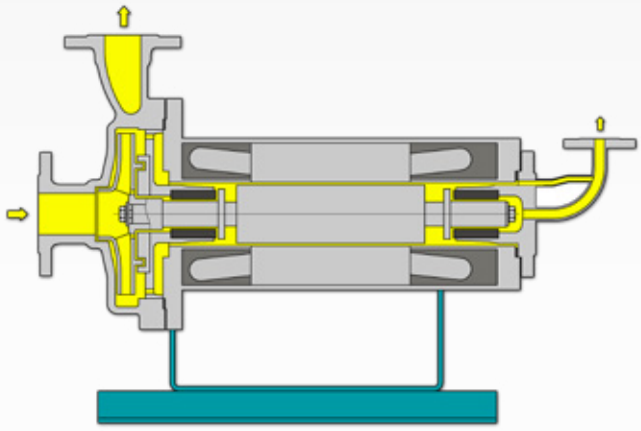
Flow rate:	max 650 m³/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 120 °C



CR - Reverse Circulation

- Suitable for easily vaporisable liquids
- Inner circulation through reverse pipe
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

Flow rate:	max 650 m³/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 120 °C

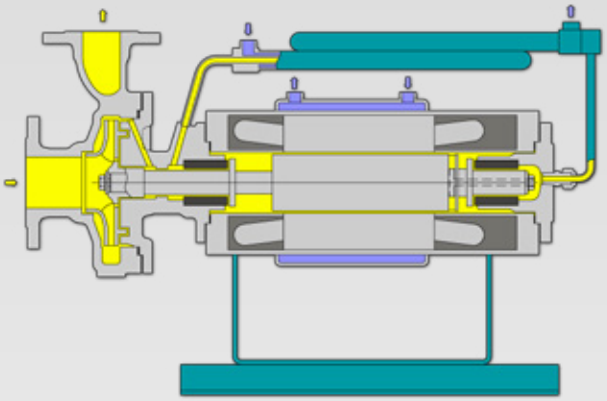


High Temperature Design

CT - High Temperature

- Pump and motor thermally separated by an adapter
- Inner circulation through heat exchanger
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

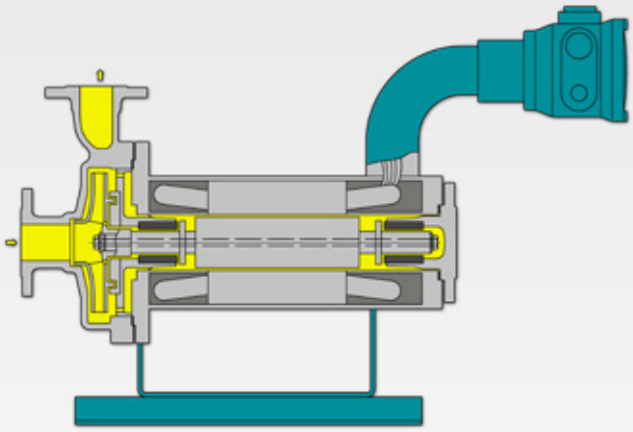
Flow rate:	max 650 m³/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 450 °C



CI - High Insulation

- High insulation class motor - no cooling required
- Inner circulation through hollow shaft
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

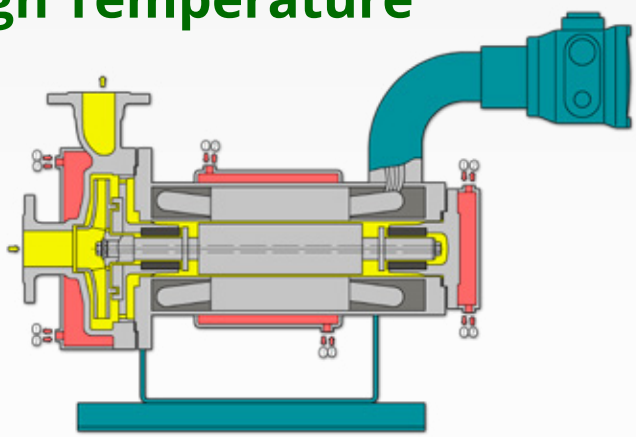
Flow rate:	max 650 m³/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 90 kW
Temperature:	max 400 °C



CMI - High Melting Point/High Temperature

- Suitable for handling high melting point liquids
- High insulation class motor with heating jacket
- Inner circulation through hollow shaft
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

Flow rate:	max 650 m³/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 90 kW
Temperature:	max 400 °C

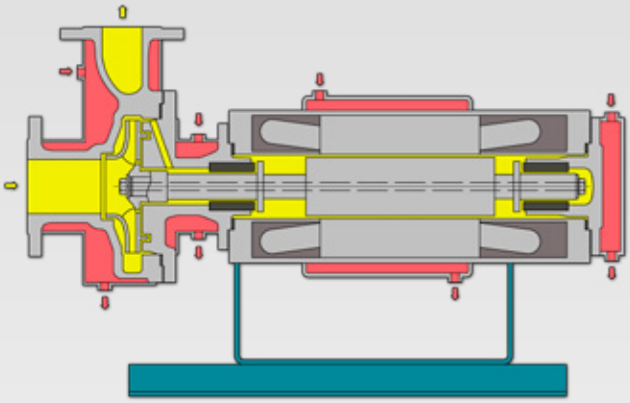


High Melting Point Design

CM - High Melting Point

- Suitable for handling high melting point liquids
- With full heating jacket
- Inner circulatrion through hollow shaft
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

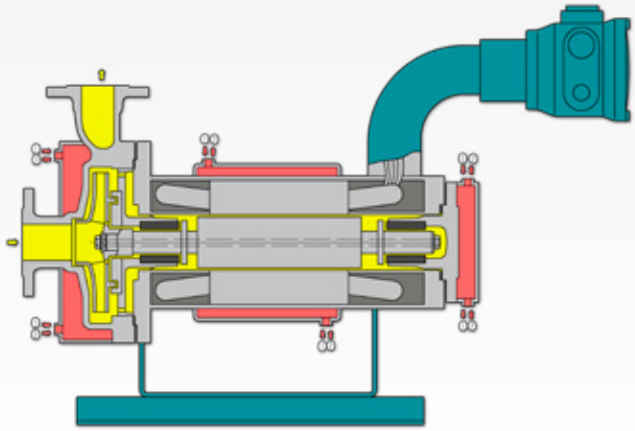
Flow rate:	max 650 m^3/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 110 kW
Temperature:	max 120 °C



CMI - High Melting Point/High Temperature

- Suitable for handling high melting point liquids
- High insulation class motor with heating jacket
- Inner circulation through hollow shaft
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

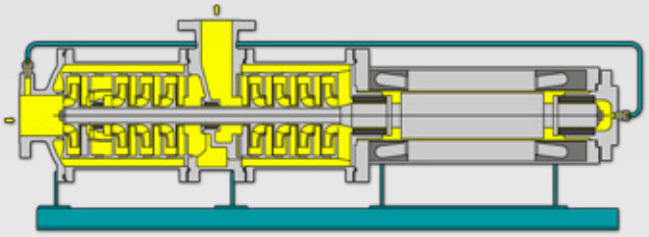
Flow rate:	max 650 m^3/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 90 kW
Temperature:	max 400 °C



High Pressure Applications

CEM - External Circulation (Multistage)

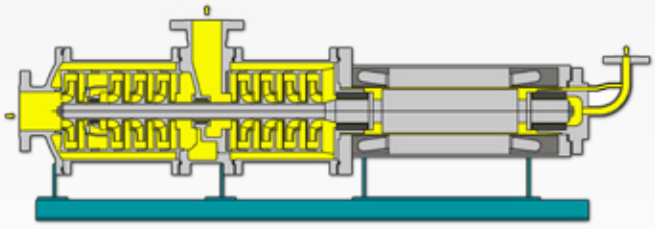
- Back to back design for axial thrust balance
- Inner circulation through external pipe
- Standard design or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4



Flow rate:	max 250 m^3/h
Head:	max 600 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 120 °C

CRM - Reverse Circulation (Multistage)

- Back to back design for axial thrust balance
- Inner circulation through reverse pipe
- Standard design or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4



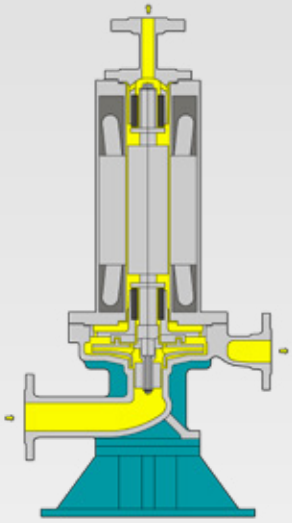
Flow rate:	max 250 m^3/h
Head:	max 600 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 120 °C

Special Applications

CRV - Vertical Reverse Circulation

- Reverse circulation type in vertical configuration
- Suitable for very easily vaporisable liquids (LPG,LNG)
- Inner circulation through reverse pipe
- Standard design or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

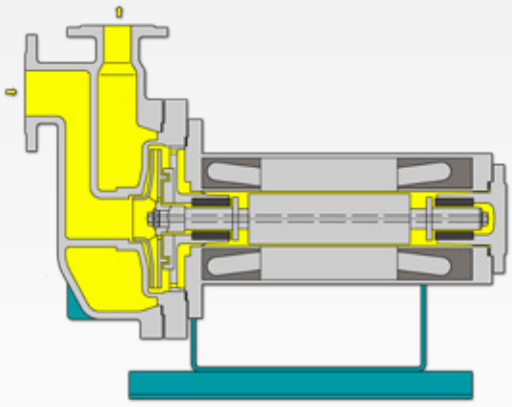
Flow rate:	max 650 m^3/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 120 °C



CP - Self Priming

- Suitable for pumping liquids from underground tank
- Inner circulation through hollow shaft
- Standard design or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

Flow rate:	max 50 m^3/h
Head:	max 50 m
Speed:	1450 to 3500 rpm
Power:	max 45 kW
Temperature:	max 120 °C

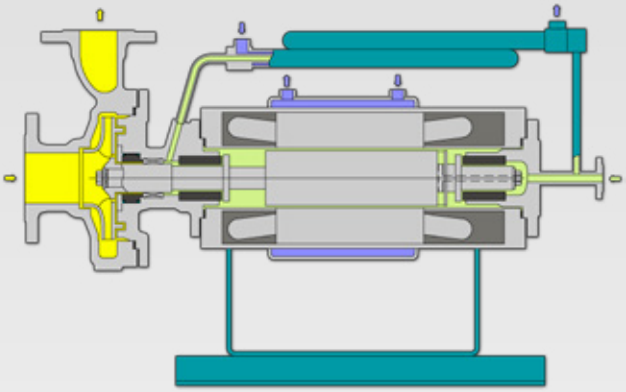


Special Applications

CS - Slurry Handling

- Suitable for slurry liquids with small amount of solid particle
- With separator seal
- Inner circulation through heat exchanger
- Designed acc. to ISO 2858 or API 685
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

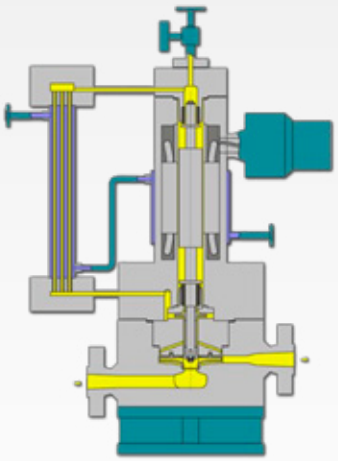
Flow rate:	max 650 m^3/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 400 °C



CEV

- High pressure and high temperature design
- Pressure up to 42 MPa
- Designed for the most demanding applications (also nuclear)
- ATEX 2014/34/EU for explosive atmospheres
  Marking: Ex II 2 G Ex d IIC T4

Flow rate:	max 650 m^3/h
Head:	max 165 m
Speed:	1450 to 3500 rpm
Power:	max 315 kW
Temperature:	max 450 °C



Excellent Service Support

- Maintenance and repairs
- Fast spare parts delivery
- Technical consultancy and training
- Pump commissioning and startup
- Comprehensive long-term support

Modern Test Facility

- Power up to 1.6 MW
- Flow rates up to 11 000 m^3/h
- Pressures up to 60 bar
- Conformity with ČSN EN ISO 9906
- Modern, automated data capturing

Monitoring Equipment

HPB Meter:

Measures the radial wear of bearings. When the indicator approaches the red field, maintenance works can be planned ahead and unexpected shutdowns can be avoided.

Shows the wrong direction of rotation after the pump start up. This is very useful as the direction of rotation cannot be checked visually on the canned motor pump.

Dry run protection:

For safety reasons, the pump and rotor chamber must always be filled with pumped liquid. HERMAG provides suitable, easy to install protection system to keep the pump operation safe.

Thermal protection:

Temperature monitoring is important to prevent the pump from operating at inadmissibly high temperatures. HERMAG offers solutions covering a wide range of requirements using bimetallic thermal switches, PT100 or PTC thermocouples.

Customised Solutions

Flexibility, Responsiveness

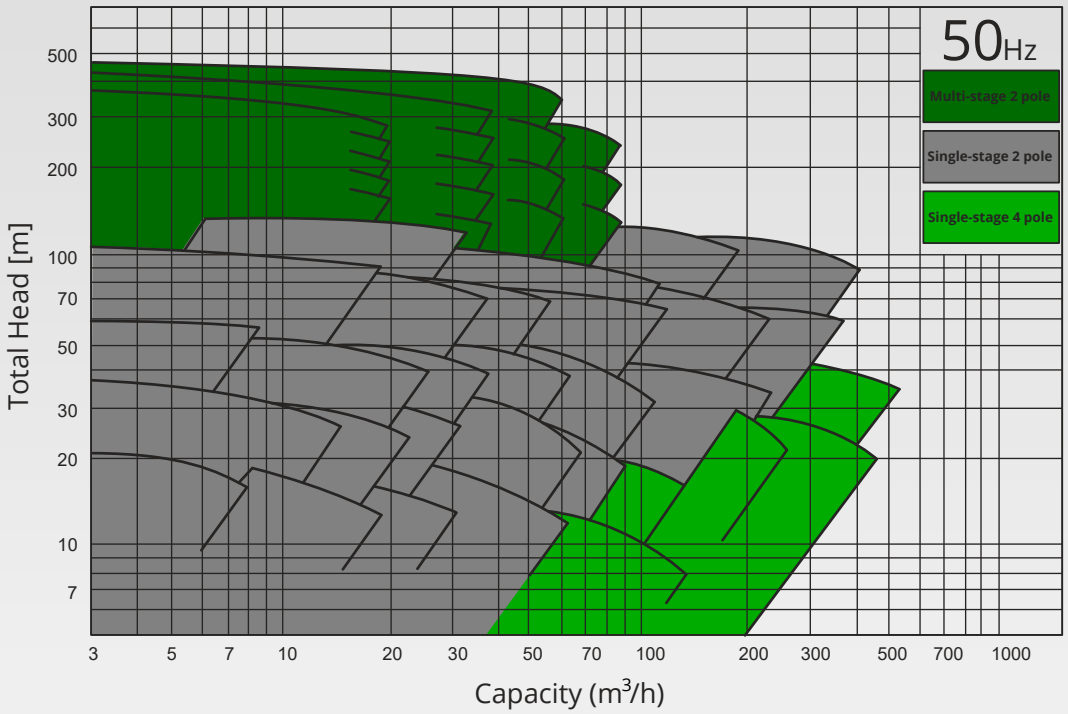
At HERMAG we welcome special requirements and challenging tasks. We react flexibly and are able to produce custom-made solutions at reasonable costs.

Innovative Designs

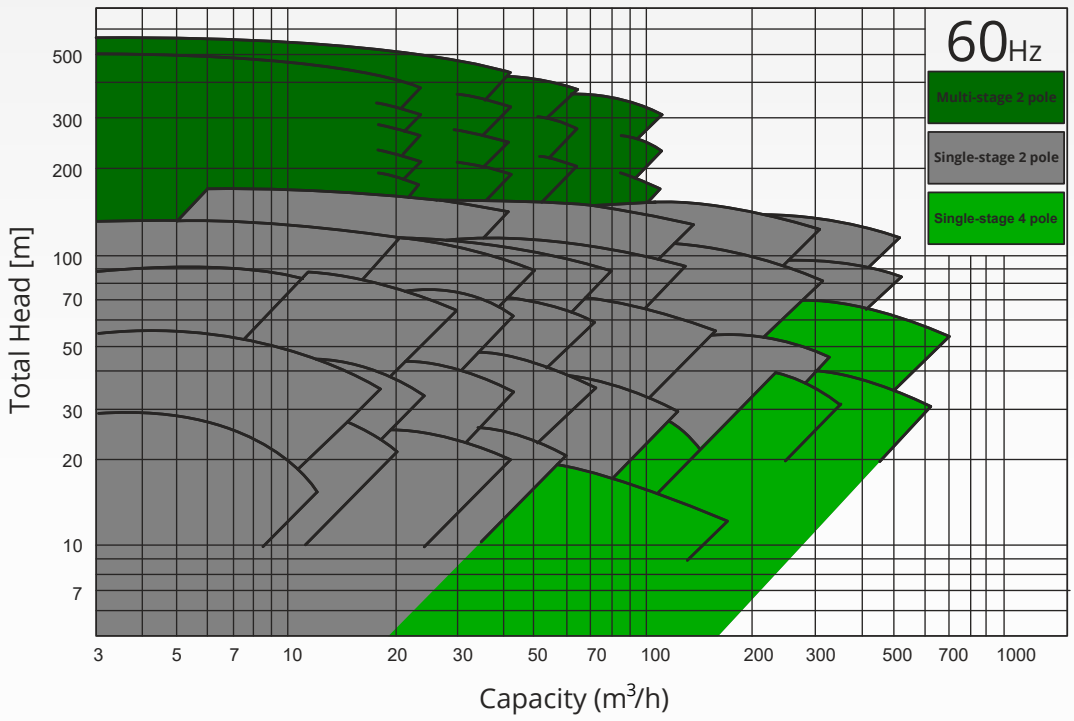
Where others might step back or even fail, HERMAG can come up with suitable designs for almost any requests. Due to our high engineering skills and extensive experience in pump design, we see no boundaries.

Range Charts

Characteristics diagram at 50 Hz (2900/1450 rpm)



Characteristics diagram at 60 Hz (3480/1740 rpm)



Certificates

ATEX 2014/34/EU

- Explosion-proof design
- Suitable for explosive atmospheres

ČSN EN ISO 9001

- High quality of products and internal processes
- Quality control of supplier chain
- Continuous training of all employees

Declaration of Conformity

- All products fully conforming with European legislation

Pumps for Life

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