Compact power unit type INKA

Innovation for the future

Motivation for the development of INKA

Increasing requirements

Compact power unit - Hardware

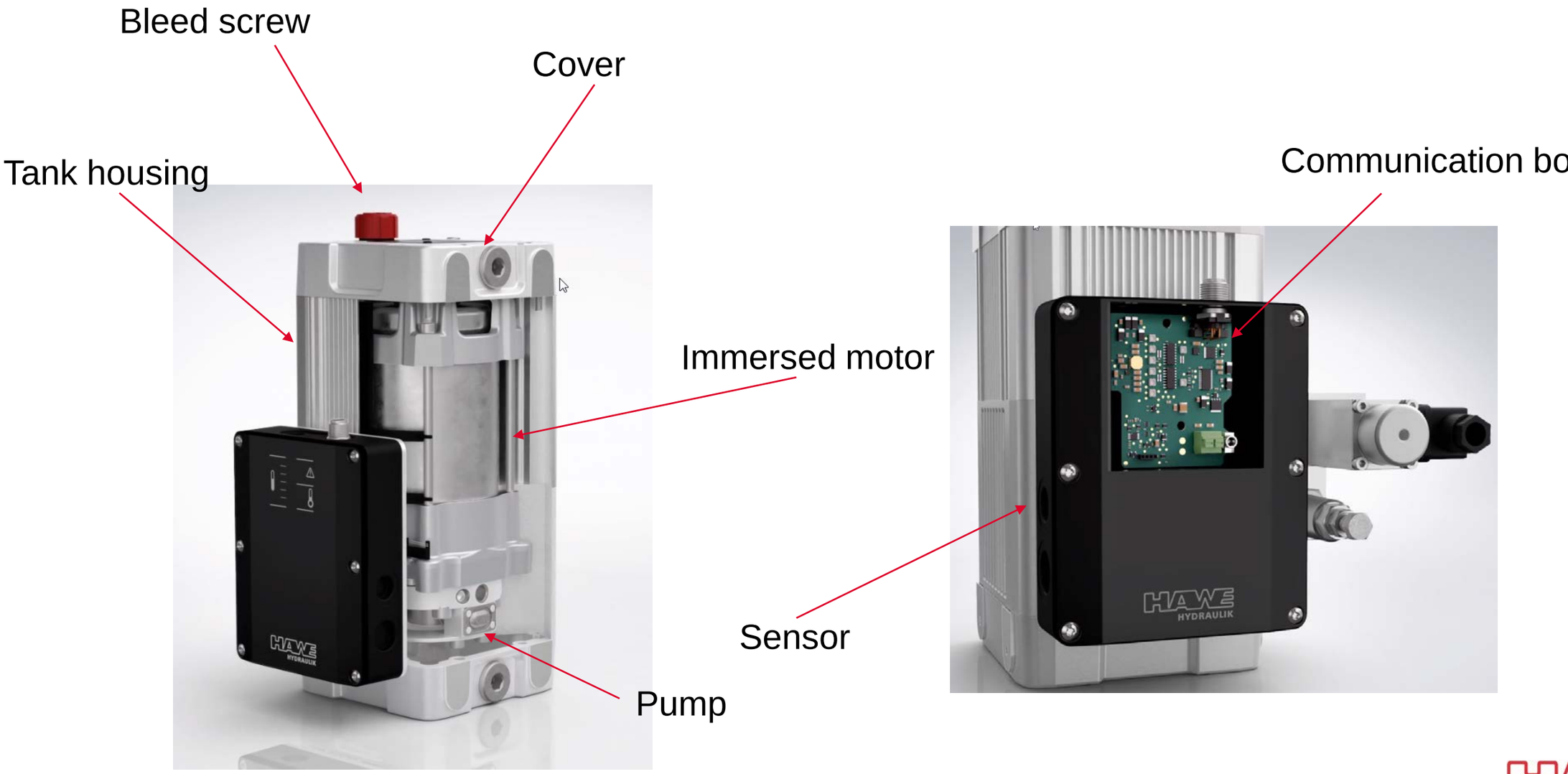
Sub-merged design

- Motor, pump and tank as one compact unit:
  - Single-circuit pump (R, Z)
- Ribbed housing:
  - For optimum heat dissipation
- Further options can be added:
  - External fan
  - Storage tank

Attachable valve technology

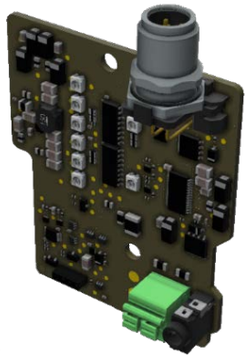
- Manifold with safety valve
- Directional seated valves
- Directional spool valves
- Also as manifold

Design of the compact unit type INKA



Communication box

- Available with:
  - Switching outputs
  - IO-Link
- Visualization of:
  - Oil level
  - Temperature
  - General state
  - Power supply and control of the external fan

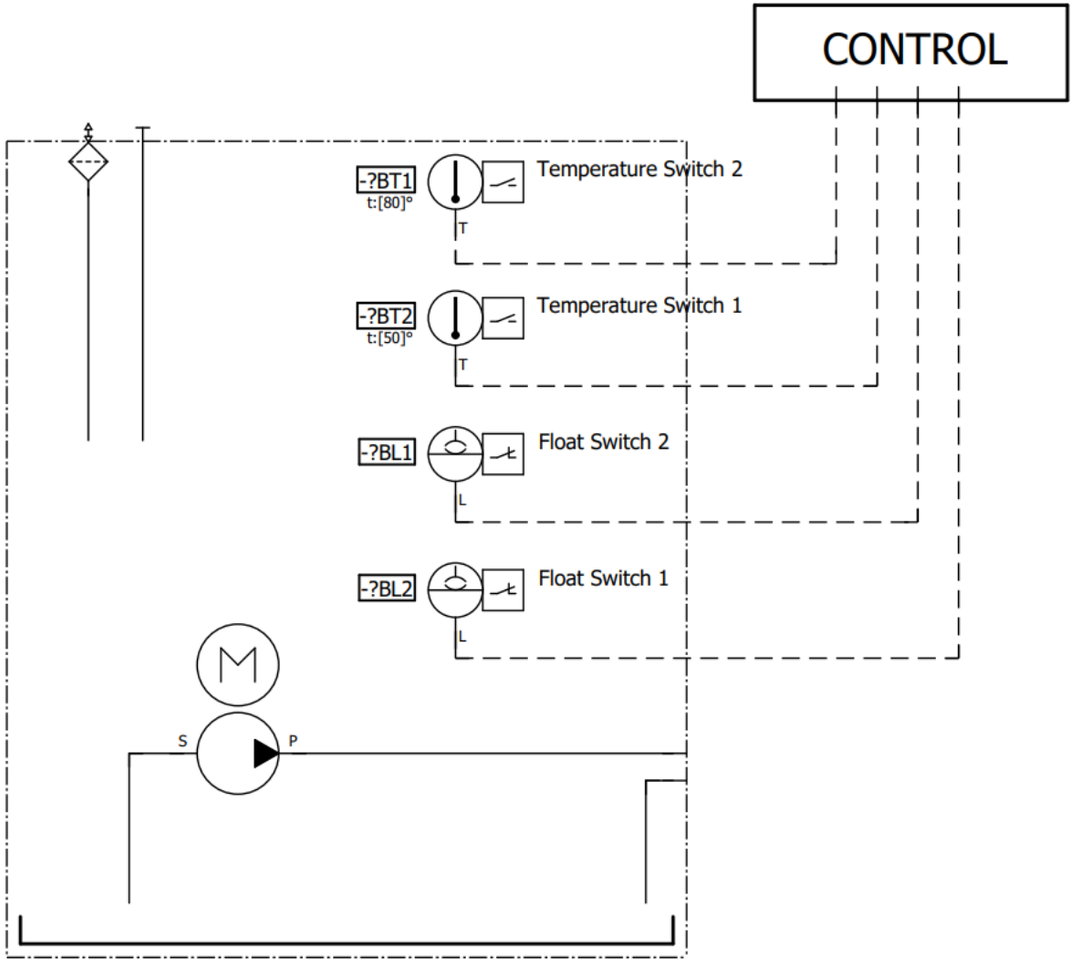


Integrated sensor

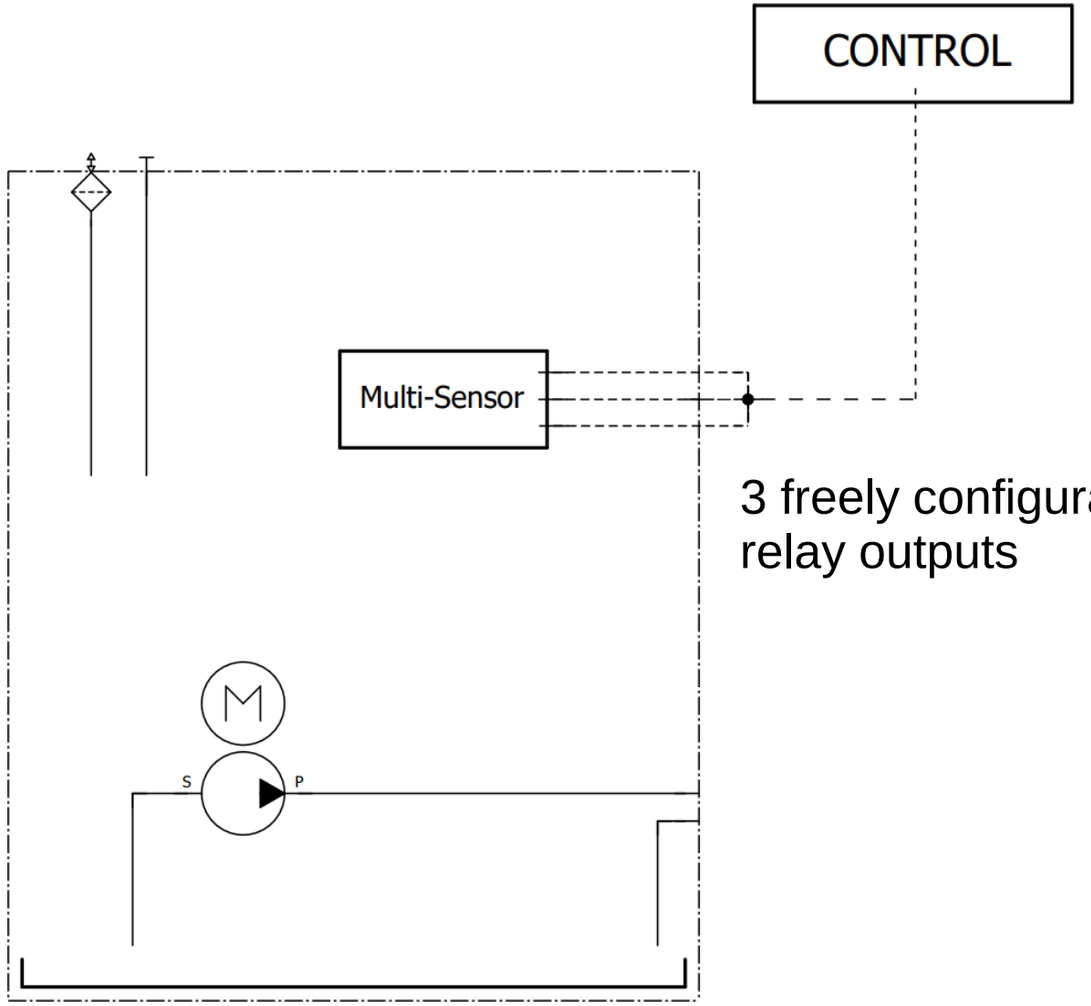
- Recording of:
  - Duration of runtime
  - Temperature
  - Oil level
  - Engine speed

Interface to machine control - switching outputs

- Power units with individual sensors



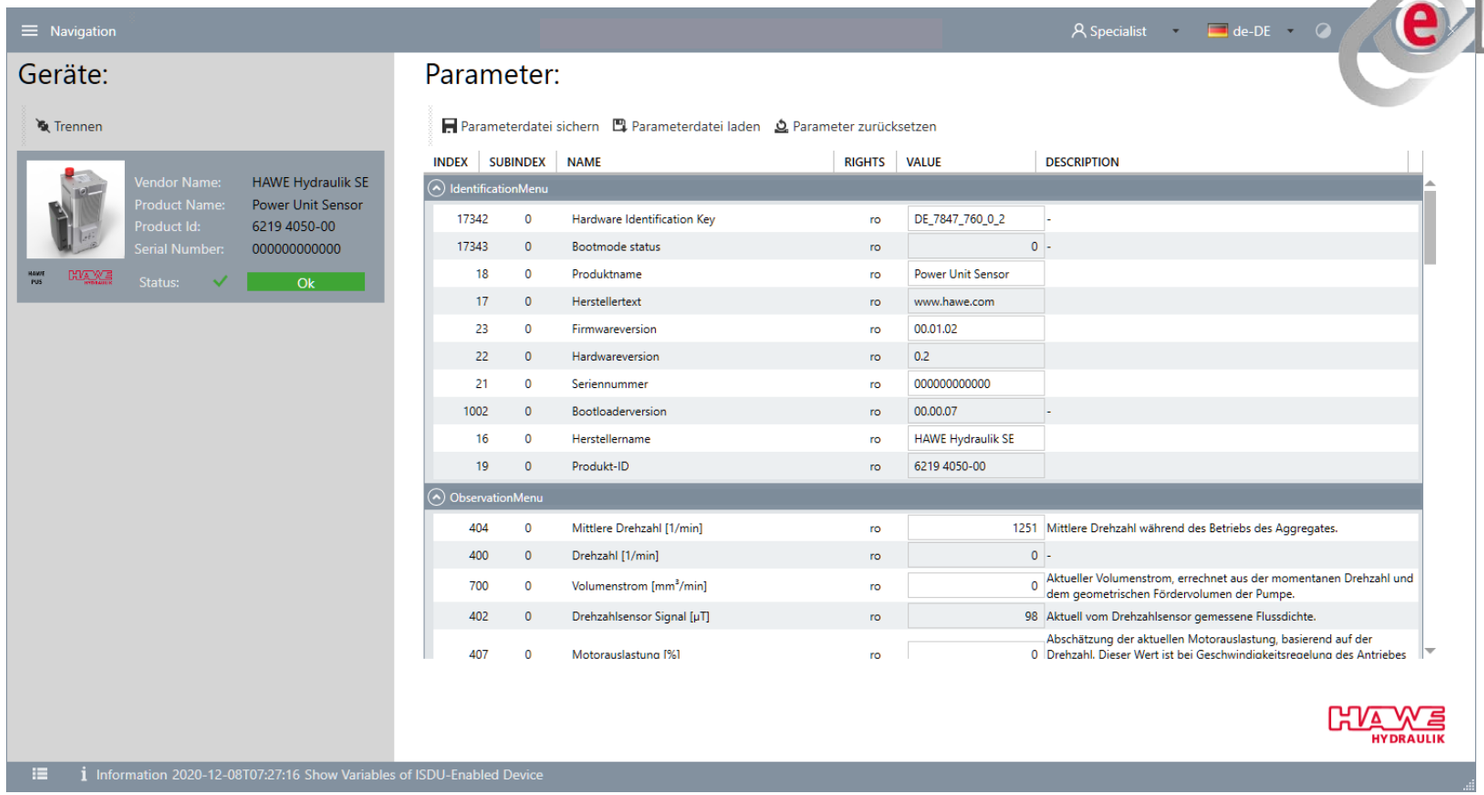
- INKA with multisensor and switching outputs



3 freely configurable relay outputs

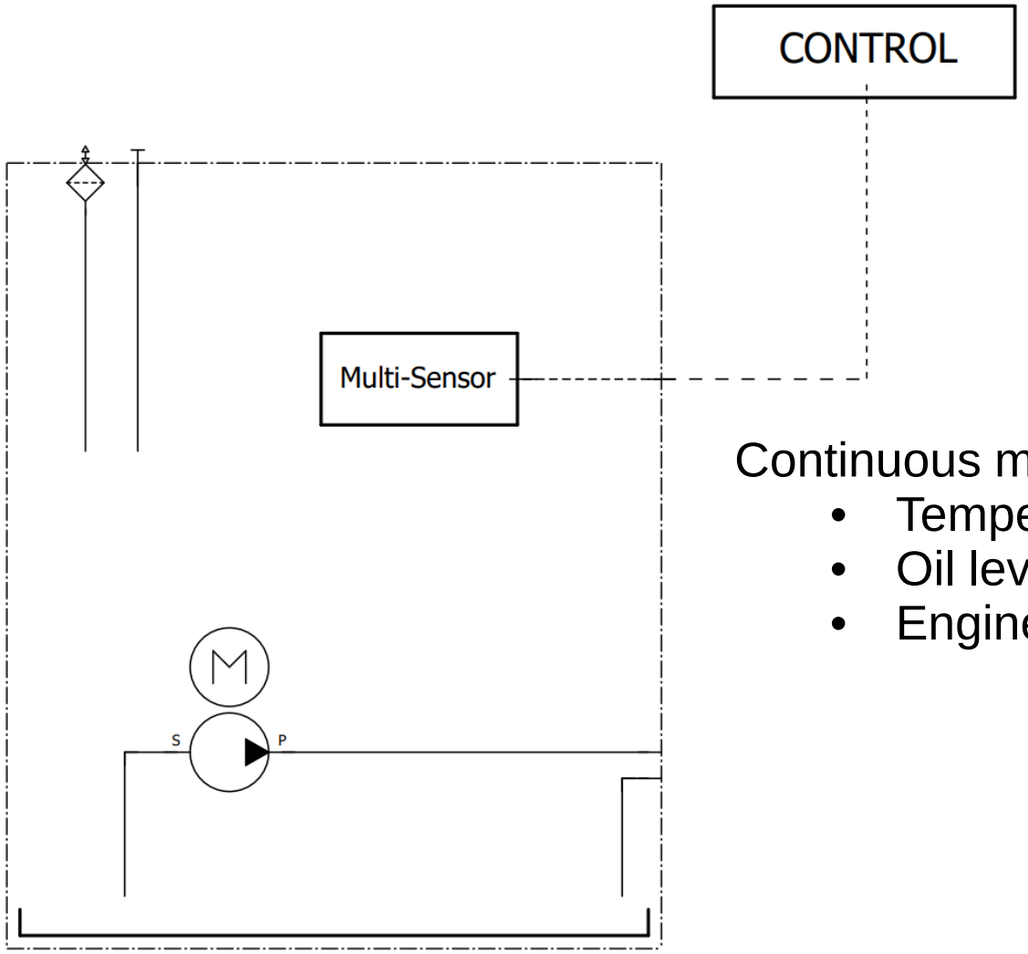
Software and hardware for switching output variant

- Programming cable and cloud solution for the switching output variant enable extensive analysis, diagnostics and configuration (cf. IO-Link variant).



Interface to machine control - IO-Link

- INKA with multisensor and IO-Link



Continuous measurement of:

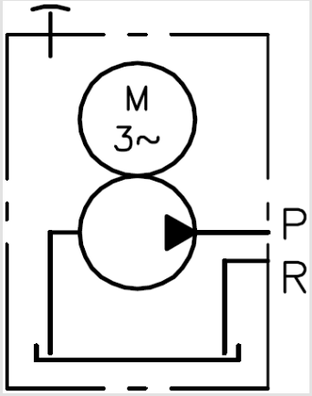
- Temperature
- Oil level
- Engine speed

IO-Link

Cost savings by:

- One sensor for 3 parameters
- Reduction of cabling effort
- Use of standard cables with M12 connector

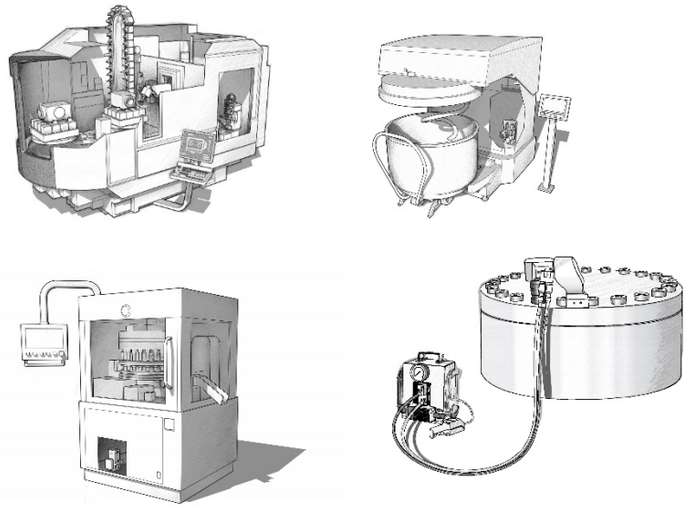
Compact hydraulic power unit type INKA



Technical specifications	
Type of device	Hydraulic power unit
Sizes	1
Design	Oil immersed motor for operating modes S2, S3
Pump type	Radial piston and / or gear pump
pmax	Radial piston pump 700 bar Gear pump 200 bar
Qmax	Radial piston pump 1.35 lpm Gear pump 2.25 lpm
Geometric displacement	Gear 0.19 - 0.95 cm³/rev Radial 0.50 - 1.50 cm³/rev
Max. motor power	0.55kW
Motor type	Single- or three phase
Filling volume	1 l - 2 l
Useable volume	0.5 l – 1.5 l
Mounting position	Horizontal and vertical

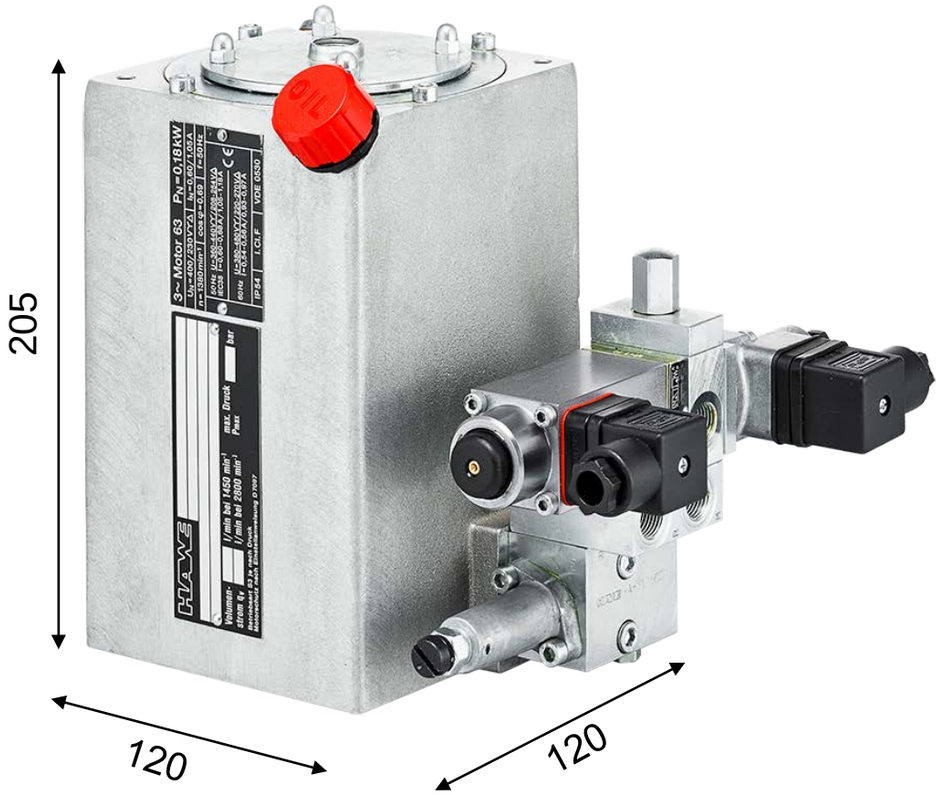
Features and benefits:

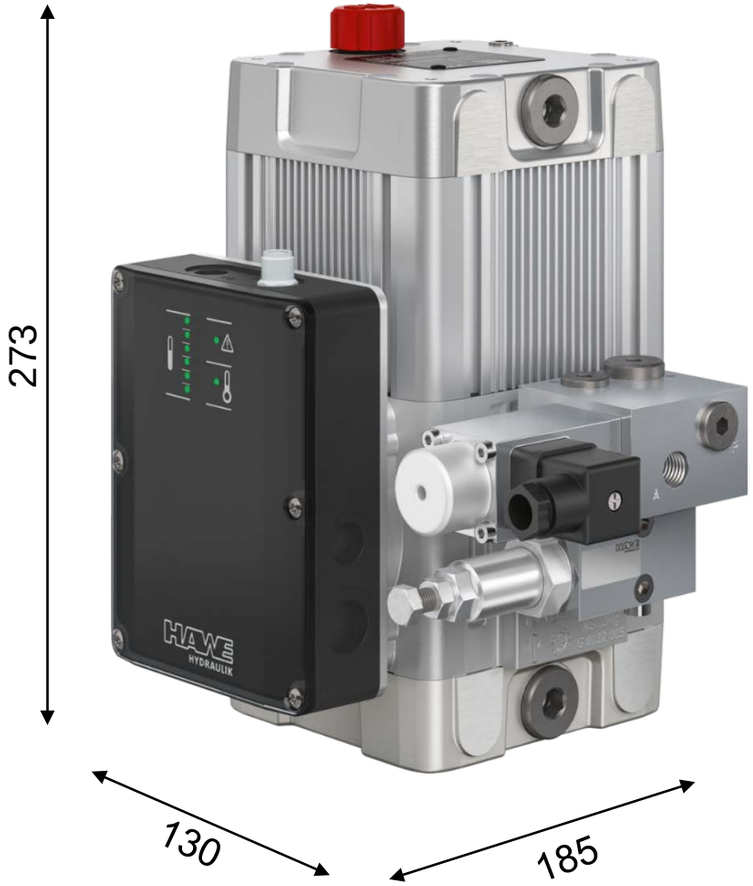
- Integrated multi sensor with IO-Link
- Space-saving integrated design
- Filling and useable oil volumes can be flexibly extended by modular tank design
- Optimal efficiency through oil immersed motor cooling



Modular design kit

Comparison of HC and INKA(Size 1)





Performance:

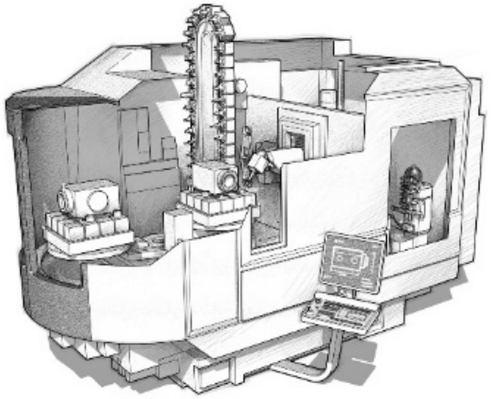
- Higher flow rate and pressure
- More usable volume (variable tank sizes)
- Lower noise emission

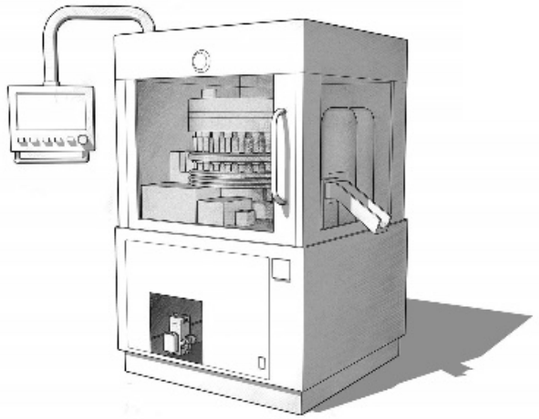
Additional option:

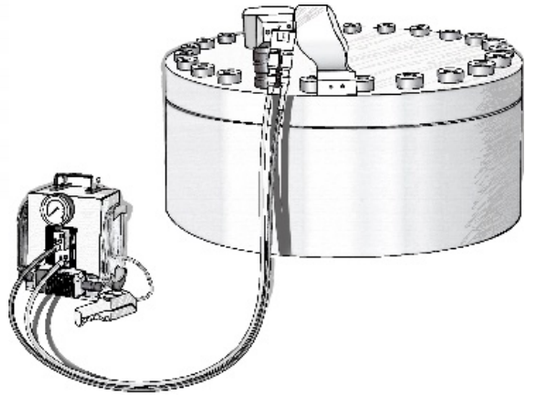
- Electronics
- Variant with Z-pump
- Variant with DMPE
- Option lateral fans

Potential applications

- Tablet press
- Workshop presses
- Calender roll
- Machine tools
- Rotary punching
- Material testing
- Hydraulic tools
- …







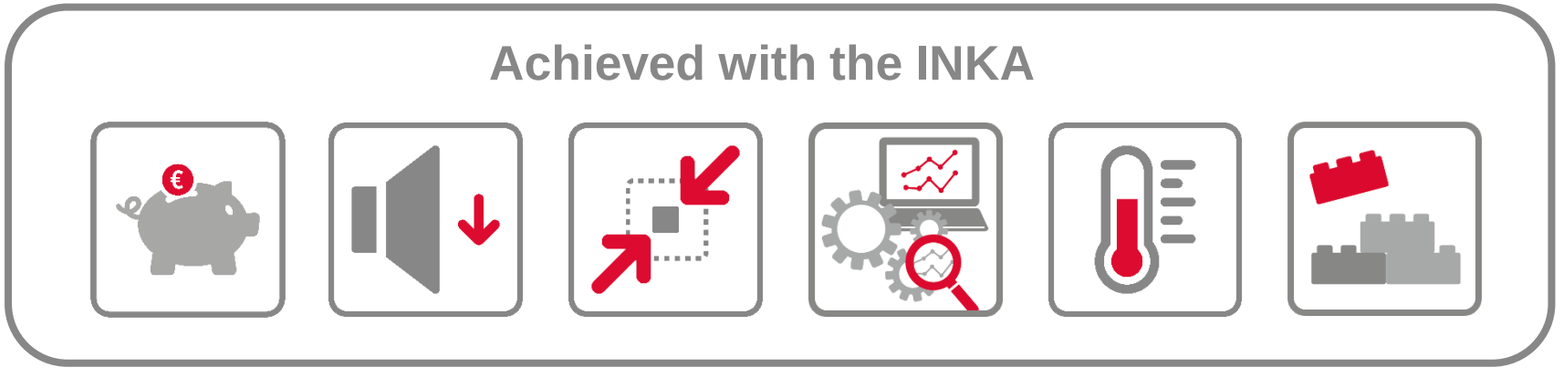
- Decentralized controls
- Control of auxiliary functions

Awarded Product design and Usability (UX)

reddot winner 2021
industrial design

GERMAN DESIGN AWARD WINNER 2022

Your benefits when using INKA



Features:

- Low oil filling volume
- Low noise emission
- Very compact design
- Integrated condition monitoring
- Integrated multisensor
- Modular design

Benefits:

- Reduced operating costs
- Increased comfort for users
- Reduced required installation space
- Reduction of maintenance effort
- Long service life