

**По вопросам продаж и поддержки обращайтесь:**

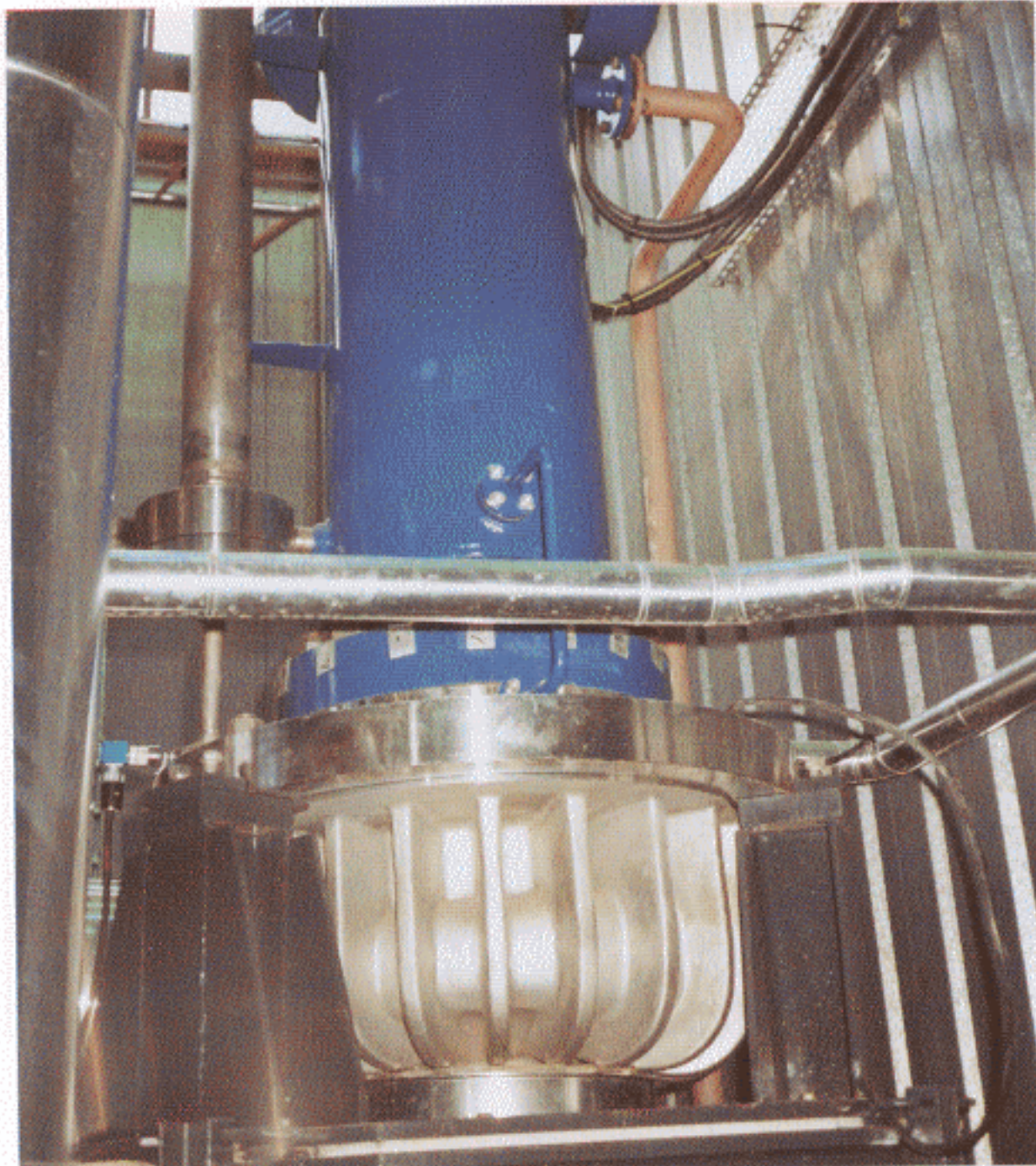
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## Бессальниковые насосы KSB. Техническое описание



# LUS

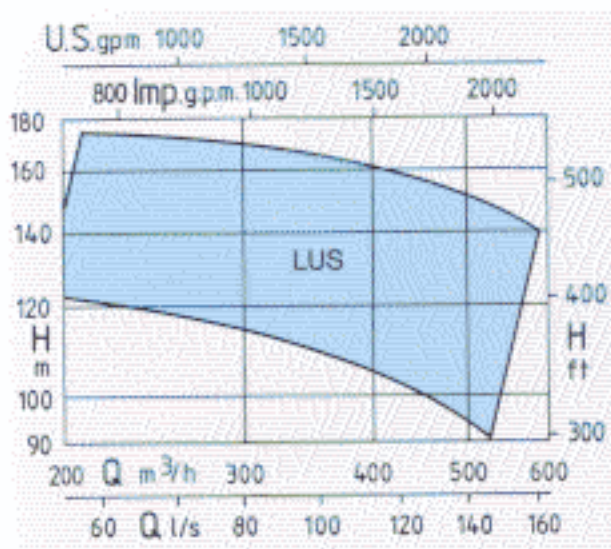


Application =  
Glandless canned motor pump for boron injection and miscellaneous reactor systems.

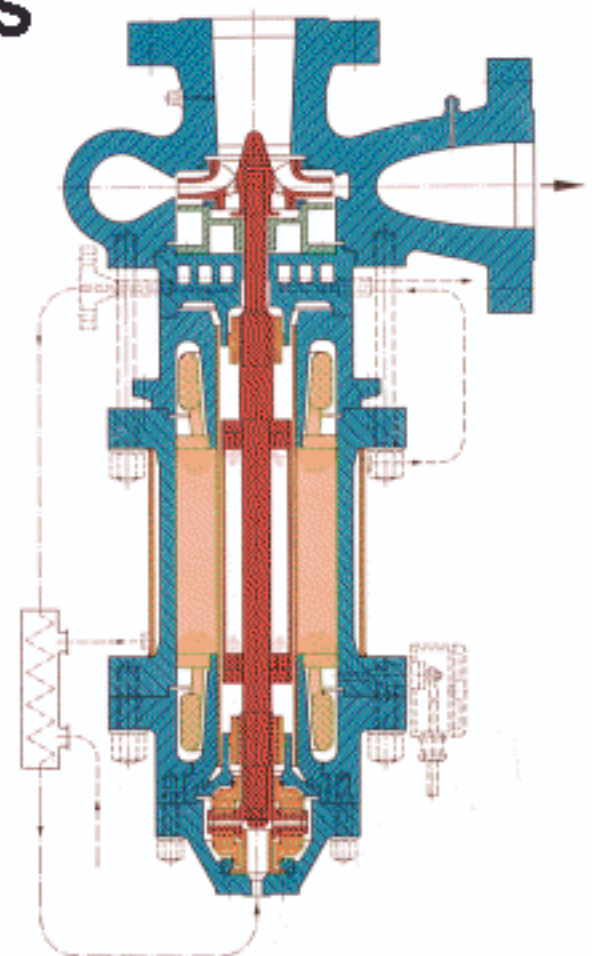
Application =  
Groupe étanche chemisé vertical pour injection de bore et alimentation auxiliaire.

Einsatzgebiet =  
Stopfbuchslose Spaltrohmotorpumpe zur Borsäureinjektion und weitere Anwendungen.

DN	mm	≤	350
Q	l/s	≤	160
H	m	≤	175
p	bar		120
t	°C	≤	300
n	1/min	≤	1500



# LUS





# Canned-motor circulating pumps with absolutely leaktight casings

## Design features

- Glandless canned motor pump, vertical or horizontal arrangement.
- Internal bearings made of graphite or silicon carbide, lubricated by the pumped liquid.
- Class-H motor with insulation material specially selected to withstand radiation; terminals qualified for high-pressure integrity.
- Thermal barrier and heat exchanger for high-temperature service.
- Rotor axial-displacement monitor.

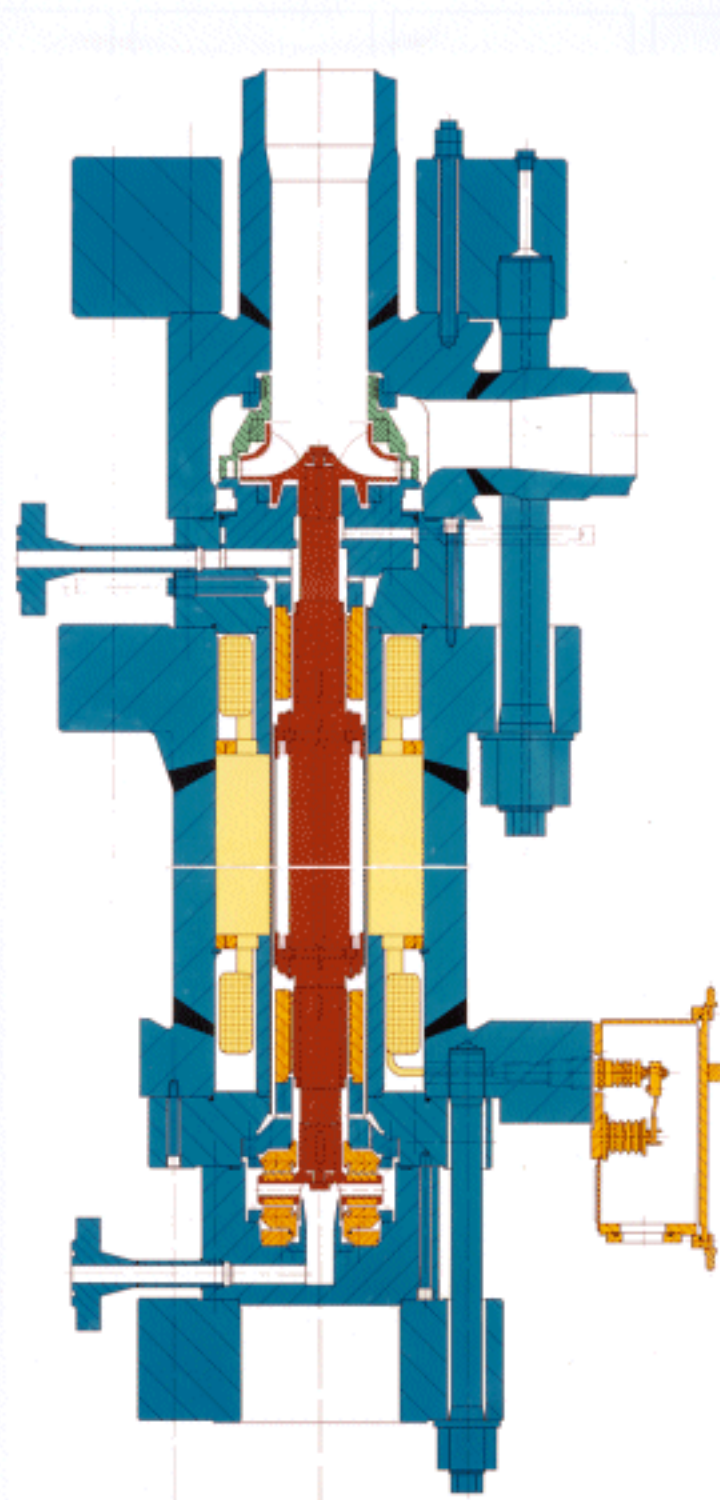
## Particularités techniques

- Groupe étanche chemisé en position verticale ou horizontale.
- Paliers internes en graphite ou en carbure de silicium, lubrifiés par le liquide pompé.
- Moteur classe H avec des matériaux spécialement choisis pour leur résistance à l'irradiation; passages étanches qualifiés pour les hautes pressions.
- Barrière thermique et échangeur pour les hautes températures de service.
- Système de détection du déplacement axial du rotor.

## Konstruktionsmerkmale

- Spaltrohrmotorpumpe, vertikal oder horizontal.
- Interne mediumgeschmierte Graphit-oder Siliziumkarbidlager.
- Motor der Klasse H mit einem speziell ausgewählten strahlungsbeständigen Isolationsmaterial; Polklemmen hochdruckbeständig.
- Wärmesperre und Wärmetauscher für Hochtemperaturbetrieb.
- Überwachung der axialen Läuferstellung.

**LUSz**



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## RUV – Generation 3+ customized Reactor Coolant Pump



### Applications:

- Reactor coolant pump for generation 3+ nuclear power stations

More information:

# RUV – Generation 3+ customized Reactor Coolant Pump

## 1 Operational Safety

- Maximum safety due to completely forged pressure boundary
- Hermetically sealed (leakage free, no mechanical seals)
- Perfect rotor dynamic behaviour

## 2 Integrity under upset conditions

- Motor cooling through thermosyphon effect

## 3 Flywheel

- High inertia flywheel to address coast down requirements

## 4 Optimized thermal barrier

- Advanced cooling concept for homogeneous temperature distribution

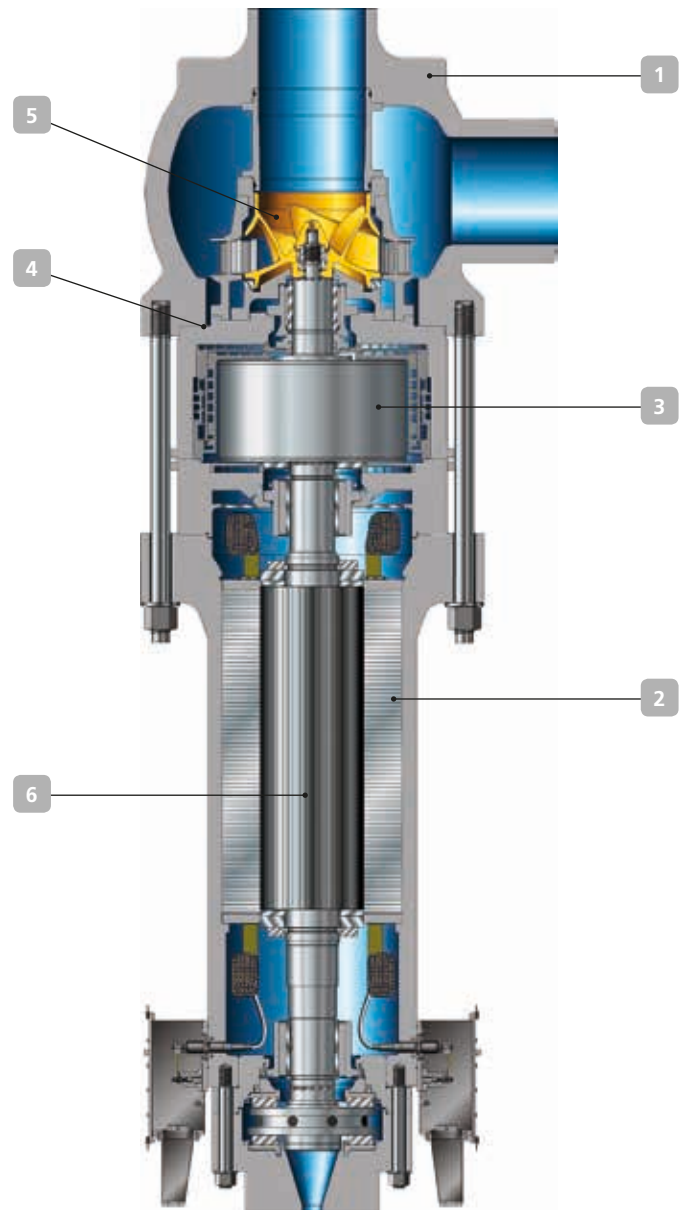
## 5 Optimized hydraulics

- Well proven design with very high hydraulic efficiency

## 6 Maximum overall efficiency

- Due to proven wet winding motor technology

## 7 Maintenance free design



### Technical data\*

Size	up to DN 650
Pressure	up to 175 bar (17.5 MPa (a))
Temperature	up to 350 °C (662 °F)
Capacity	up to 22,000 m <sup>3</sup> /h (96,866 gpm)
Head	up to 120 m (394 ft)
Speed	up to 1,800 min <sup>-1</sup>
Frequency	50 Hz or 60 Hz

\*Higher ratings on request



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## LUV – Reactor coolant / Reactor water clean-up pump



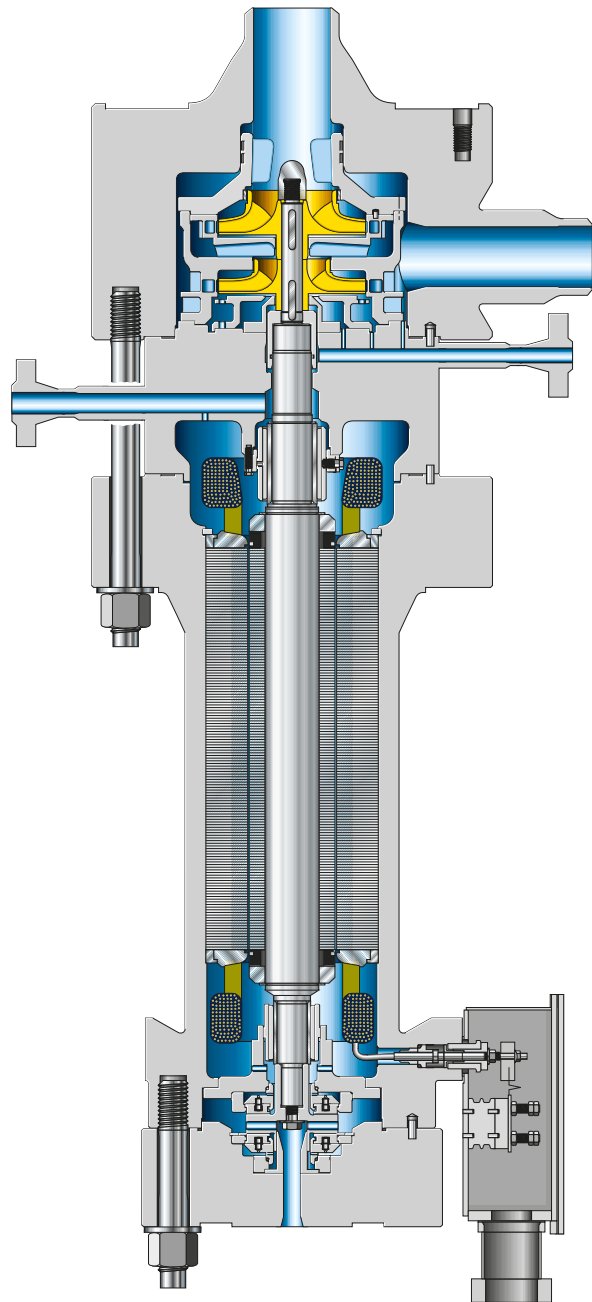
### Applications:

- Reactor water clean-up systems

More information:

# LUV – Reactor coolant / Reactor water clean-up pump

- **High safety and increased plant availability**
  - Self-contained cooling and lubrication through integrated impeller
  - Hermetically sealed pump casing
  - No shaft seals
  - Symmetrically forged and thermoelastic casing, optimized to handle temperature and pressure transients
  - Hot standby at full pressure and temperature loads
  
- **Low life cycle costs (LCC)**
  - Long maintenance intervals – major inspection every 10 years
  - Stainless steel for all pump parts eliminates corrosion
  
- **Reduced radiation exposure (ALARA) and enhanced environmental protection**
  - Zero leakage
  - Long inspection intervals
  - Asbestos-free
  
- **Quick replacement and maintenance**
  - Pull-out design – the entire pump/motor unit can be pulled out without having to remove the pump casing, which also reduces the maintenance personnel's radiation exposure.
  - Easy access to wear parts



## Technical data\*

Size	DN 40-600
Capacity	up to 7,000 m <sup>3</sup> /h
Head	up to 300 m
Operating pressure	up to 320 bar
Temperature	up to +430 °C
Frequency	50 Hz / 60 Hz

\*Higher ratings on request

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