

KSB visoko efikasna rešenja u sistemima KGH

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KSB u daljinskom grejanju

Nas obično znaju:

- $Q=1800\text{m}^3/\text{h}$
 $H=54\text{m}$
 $T=120^\circ\text{C}$
 $P=355\text{kW}/250\text{kW}$



KSB u daljinskom grejanju

Nas obično znaju:

- $Q=125\text{m}^3/\text{h}$
 $H=193\text{m}$
 $T=110^\circ\text{C}$
 $P=355\text{kW}/250\text{kW}$





KSB u daljinskom grejanju

Ili po ovome...





Calio



All Sizes Calio* $EEI \leq 0,2$
All Sizes Calio Z $EEI \leq 0,23$

$$EEI = \frac{P_{L,avg}}{P_{ref}}$$

*Calio 50-90 $EEI=0,21$ und 40-90 $EEI=0,22$



Calio Z



Calio Pro

All Sizes Calio Pro $EEI \leq 0,2$
All Sizes Calio Pro Z pro $EEI \leq 0,21$

$$EEI = \frac{P_{L,avg}}{P_{ref}}$$



Calio Z Pro

KSB u sistemima KGH

Pored toga imamo i program pumpi za sledeće aplikacije:

- Grejanje, ventilacija i sistemi klimatizacije
 - Jednocevni ili dvocevni sistemi
 - Podno grejanje
 - Za kotlove ili primarni krug
 - Solarne sisteme
 - Toplotne pumpe
 - Cirkulacione sistemi za komercijalne zgrade



Calio / Calio Z

Dynamic Control (2)

Application:

Is the system characteristic known (e.g. hydraulic balancing):

Set the setpoint manually and select a control curve that is minimally above the system characteristic curve. The additional activation of the dynamic control is recommended. Even with an optimally adjusted setpoint, the thermostatic valves may throttle too much in certain weather conditions. The dynamic control further optimizes the operating point.

If the system characteristics are unknown:

Accept default settings and activate the dynamic control. The pump unit automatically recognizes the system characteristics through the speed control and optimizes the operating point.

THE BEGINNING OF A NEW ERA

EtaLine Pro



EtaLine Pro

More compact, flexible and efficient

Flexible

- Small number of pump sizes covers a broad pump selection chart.
- Compact design as the hydraulic systems are designed for high speeds
- Multi-voltage capability for worldwide use

Future-proof

- Components optimised for high energy efficiency
- EtaLine Pro exceeds tomorrow's EU efficiency requirements already today.

Intelligent

- Various digital interfaces for intelligent buildings
- Sophisticated pump functions including
 - Sensorless process controls
 - Dual pump configuration
 - Heat quantity measurement

Easy to service

- Perfectly corrosion-protected by cathodic E-coating
- Fast availability of spare parts
- Reduced variety of components if spare parts are required
- Standardised mechanical seal

Sustainable

- CO₂-neutralised production
- Recyclable packaging
- Long service life avoids waste.
- Intelligent control modes prevent unnecessary energy consumption.
- Numerous setting and adjustment options extend the life cycle.

Straightforward

- Easy operation via app
- Well-structured display
- Pump functions preset for safe and reliable operation

KSB FlowManager app



Future-proof, sustainable and clever!

EtaLine Pro

More flexibility with less complexity



Fully integrated in-line pump unit

General description

In-line pump with dry-rotor permanent magnet synchronous motor and optimised hydraulic system for high speeds

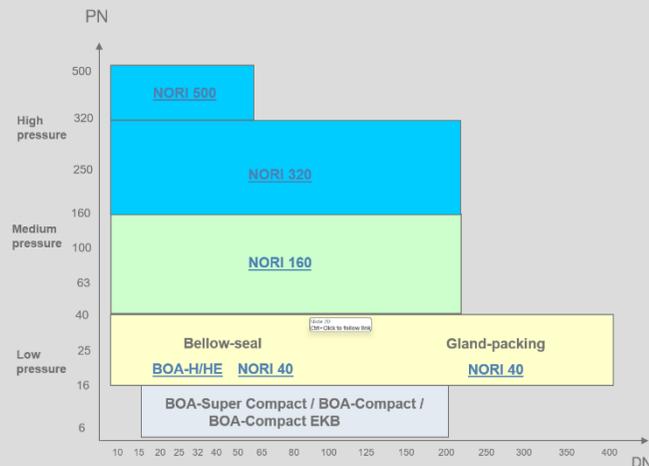
Operating modes:

- Fixed speed
- Sensorless control
- Optional externally connected sensors

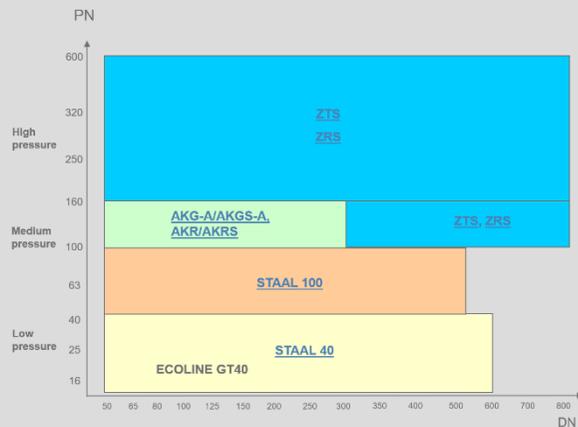
Main applications

- Air conditioning
- Cooling circuits
- Heating systems
- Water systems
- Heat recovery systems
- Water supply systems
- Industrial circulation systems

Zaporna armatura



Zasuni



Nepovratni ventili



Hvatači nečistoća

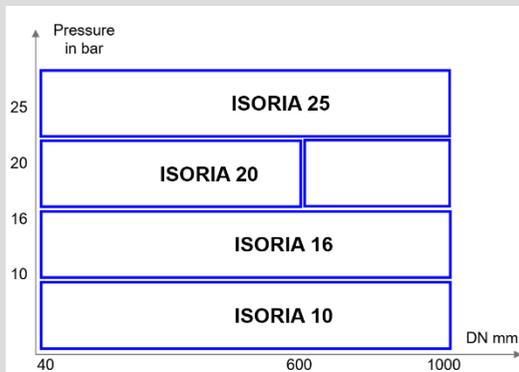


KSB u sistemima KGH

Pored toga za sisteme KGH postoji program ventila:

- *Zaporna armatura*
- *Zasuni*
- *Nepovratni ventili*
- *Hvatači nečistoće*
- *Leptir ventili*

Leptir ventili



KSB u sistemima KGH

Pored toga za sisteme KGH postoji program ventila:

- Zaporna armatura
- Zasuni
- Nepovratni ventili
- Hvatači nečistoće
- **Leptir ventili**
- **Membranski ventili**
- **Regulacioni ventili**
- **Balasn ventili**

Membranski ventili

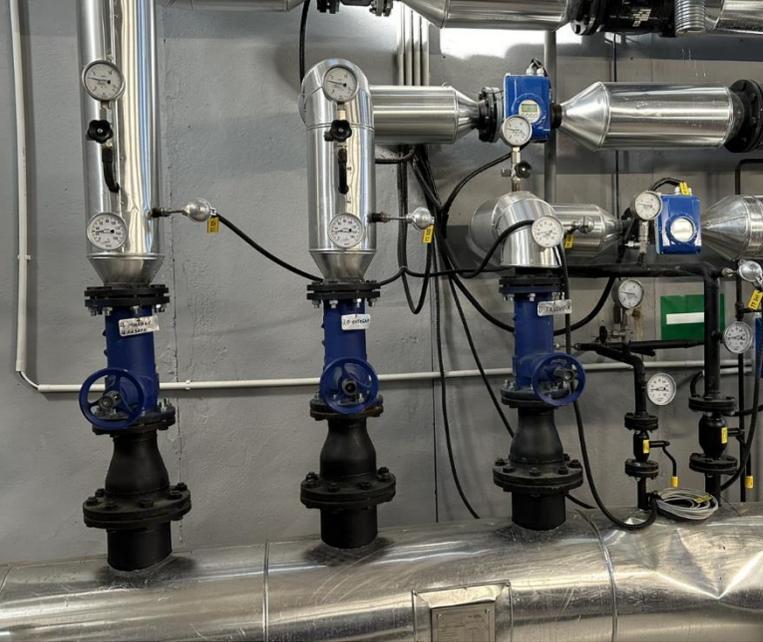


Regulacioni ventili



Balasn ventili





HVALA NA PAŽNJI!

**Damir Obradović i
Aleksandar Popović**

