MAGNA

The MAGNA ranges of circulator pumps are specially designed for

- heating systems
- domestic hot-water systems (stainless-steel pump housing).

Duty range

Data	MAGNA
Maximum flow, Q	170 GPM
Maximum head, H	42 ft
Maximum system pressure	175 PSI (12 bar, 1.2 MPa)
Liquid temperature	+50 to +230°F *(+15 to +110°C.)

Fig. 1 MAGNA pump

Characteristic features

- AUTO*ADAPT*
- proportional-pressure duty
- constant-pressure duty
- constant-curve duty
- max. or min. curve duty
- parallel connection of two pumps (requires additional expansion mod ule).
- no external motor protection required.

Benefits

- low noise level
- safe selection
- simple installation
- low energy consumption, all MAGNA pumps are high efficiency with permanent magnet (PM) motors. Energy class "A' in European energy labeling schedule.
- in addition to this, the AUTO*ADAPT* function ensures energy savings for MAGNA pumps
- long life and no maintenance
- external control and monitoring enabled via optional expansion modules.

Applications

Heating systems

- Main loop
- Mixing loops
- Heating surfaces.

The MAGNA circulator pumps are designed for circulating liquids in heating systems with variable flows where it is desirable to optimize the setting of the pump duty point. The pumps are also suitable for domestic hot-water systems.

To ensure correct operation, it is important that the sizing range of the system falls within the duty range of the pump.

The MAGNA is especially suitable for installation in existing systems where the differential pressure of the pump is too high in periods with reduced flow demand. The pump is also suitable for new systems where automatic adjustment of pump head to actual flow demand is required without using expensive bypass valves or the like.

Furthermore, the pump is suitable for application in systems with hot-water priority where an external contact can immediately force the pump to operate according to the max. curve.

Pumped liquids

Thin, clean, non-aggressive and non-explosive liquids, not containing any solid particles, fibers or mineral oil.

If the pump is installed in a heating system, the water should meet the requirements of accepted standards on water quality in heating systems.

In domestic hot-water systems, the pump should be used only for water with a degree of hardness lower than 17 grains/gallon (14°dH). The pump must **not** be used for the transfer of flammable liquids such as diesel oil and petrol.

If the pump is not used during periods of frost, necessary steps must be taken to prevent frost bursts. Additives with a density and/or kinematic viscosity higher than those/ that of water will reduce the hydraulic performance.

Whether a pump is suitable for a particular liquid, depends on a number of factors of which the most important are lime content, pH value, temperature and content of solvents, oils, etc.