

# MEGASOL

## Gas Injection Valves for Gas & Dual Fuel Engines



MEGASOL 425 A

MEGASOL 425 B

### ***Metering of gas by solenoid***

- ✓ Excellent load response
- ✓ Precise fuel amount for each cylinder
- ✓ Cylinder balancing
- ✓ No risk of backfire

*Engine & Turbine Controls*

**HEINZMANN®**



## MEGASOL gas injection valves

The MEGASOL valves are electrically actuated gas injection valves for industrial gas and dual fuel engines.

One MEGASOL is required for each cylinder to inject gas close to the inlet valves.

### MEGASOL advantages

- excellent load response of the engine due to the gas injection close to the inlet valves
- precise fuel amount for each cylinder
- adjustment of the gas quantity from cylinder to cylinder
- no risk of backfire
- fast responding gas valves for low and high speed engines

### Construction

The MEGASOL valves exist with two flow sizes




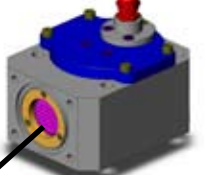
- **MEGASOL 200**
- **MEGASOL 425**

Each size of the MEGASOL valves can be delivered with two possible bodies

- the body A with the gas inlet on the upper face
- the body B with lateral gas inlet



## Different bodies for the MEGASOL 200 & 425 valves

	Body A	Body B
MEGASOL 200	 Gas inlet with filter	 Gas inlet with filter
MEGASOL 425	 Gas inlet with filter	 Gas inlet with filter

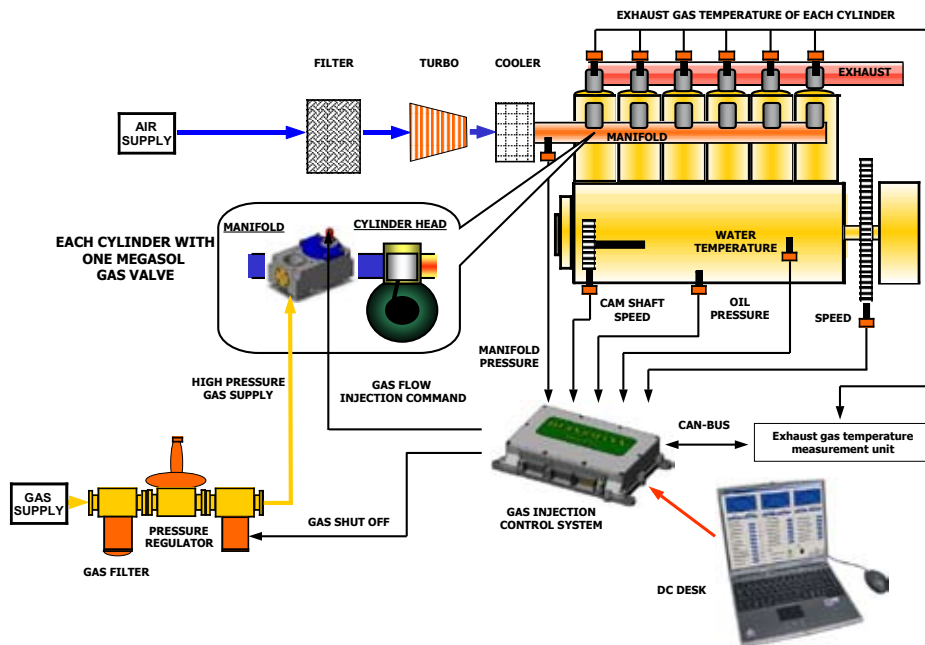
### Performance

MEGASOL	200	425
<b>Time to full open after signal on</b>	4 ms	4 ms
<b>Time to full closed after signal off</b>	4 ms	4 ms
<b>Supply voltage</b>	60 V (up to 110 V)	
<b>Boost current</b>	8 A during 3,6 ms	15 A during 4 ms
<b>Hold current</b>	1 A the rest of the time	
<b>Leakage</b>	Less than 0.25% of the opened valve flow	
<b>Maximum gas pressure (absolute)</b>	4,5 bar	6,2 bar
<b>Maximum air pressure (absolute)</b>	2,5 bar	4 bar
<b>Maximum pressure drop</b>	2 bar	2.2 bar
<b>Filtration required</b>	5 μ	
<b>Operation temperature</b>	-20°C / +105°C	
<b>Lifetime</b>	540 million cycles (12.000 hours at 1500 rpm)	

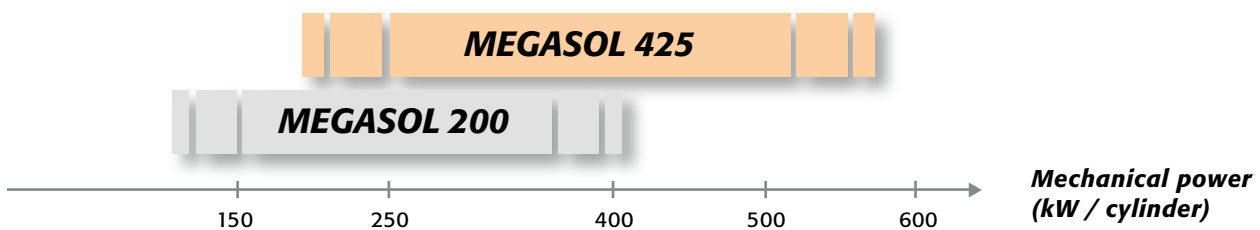
## Principle of installation

The MEGASOL valve is one component of a complete HEINZMANN gas injection system made up of:

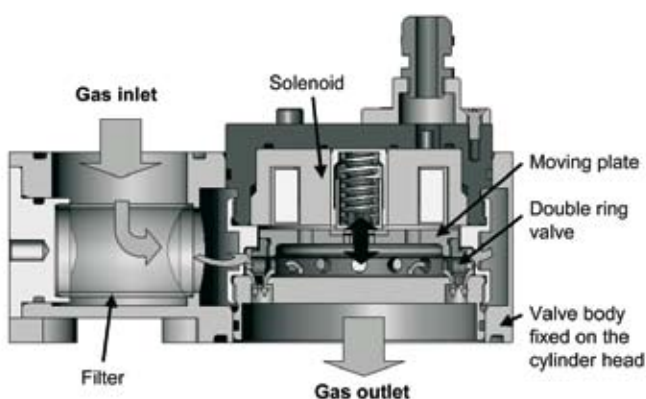
- Engine control unit (MVC 04 for example)
- One MEGASOL valve for each cylinder
- Sensors (speed sensors, etc) and cables
- Other governors according to your needs (waste gate actuator...)



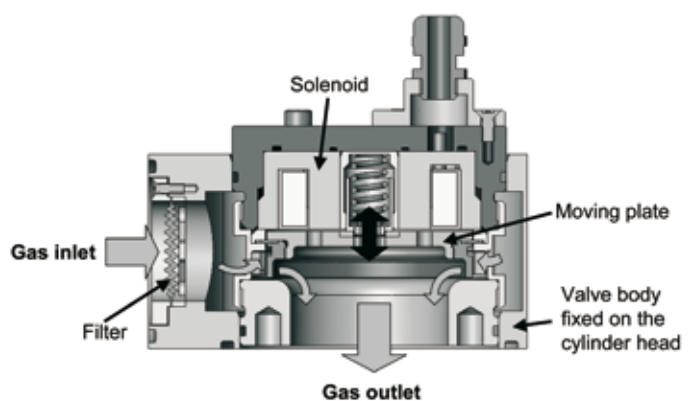
## Power range of the valves MEGASOL 200 und 425



(These are only indications: it depends on gas quality and gas pressure relative to air)



Cross section of MEGASOL 425 A



Cross section of MEGASOL 200 B



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## **Selection of HEINZMANN products**

### **Wide range of digital and analogue control units**



### **Different sized electrical actuators for 1Nm up to 500 Nm**



### **Electronic fuel control system (EFI) - control units from 4 cyl. up to 20 cyl. engines**



### **Range of analogue and digital generator management units**



### **Gas engine management**



### **Common rail systems**



### **Sensors & solenoids**



### **Digital control systems for gas turbines**



### **Hydraulic governors & actuators**



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**HEINZMANN®**



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