

# CLARK

## MK200/300 Magnetic Drive Gear Pumps, PTFE/PEEK Gears

Flow to 69 GPH, Pressure to 290 PSI, Metric & NEMA 56C Motor Adaptors

### DESCRIPTION

The MK200, MK300 and MK300 High Viscosity series pumps are designed to complete the existing MG200 series. They offer improved performance in terms of flow rate, pressure, capability to handle high viscosity fluids and a wider offer of materials to suit most applications from food to industrial and chemical markets. The housing of the pump and the internal metal parts are available in AISI 303, AISI 316L or SAF 2205. The gears are available in PTFE or PEEK™. The PEEK™ encapsulated driving magnet, available in Ferrite or in rare earths, is able to drive the pump at high pressure. The quality of the materials of the assembled components allows handling of fluids with temperatures up to 120°C (248°F).

Metric and NEMA 56C motor adaptor assemblies with pump drive magnets are offered for customer supplied motors.

The pulsation-free and noiseless operation is the result of precision gears accurately assembled and balanced within the housing combined with the magnetic coupling in perfect alignment.

### SPECIFICATIONS

Self priming

Connections: 1/4" NPT ports

Temperature range: PTFE -45 to 50°C/-49 to 122°F  
PEEK™-45 to 120 °C/-49 to 248 °F

Max system pressure: 20 bar/290 psi

Flow: See performance curves

Motor Adaptors & Drive Magnets: See table 1

Relief valve: available for MGK200 series only



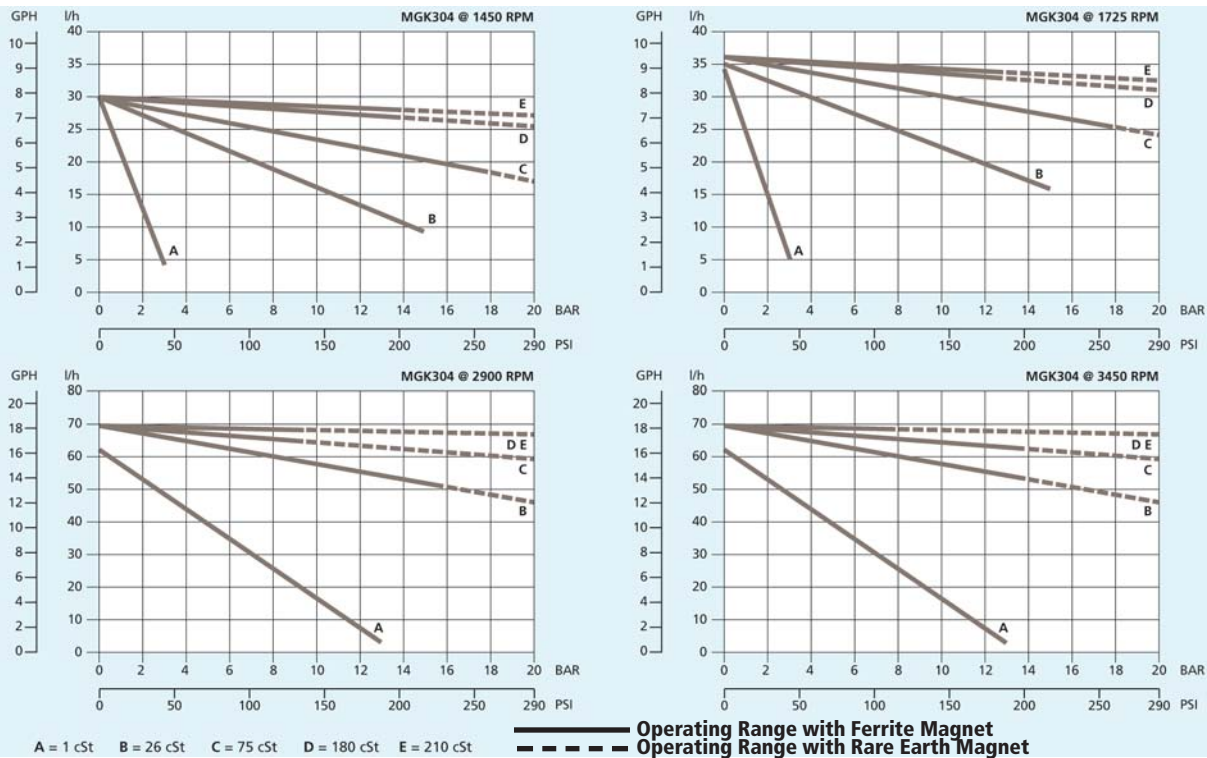
MGK Without Motor

### APPLICATIONS

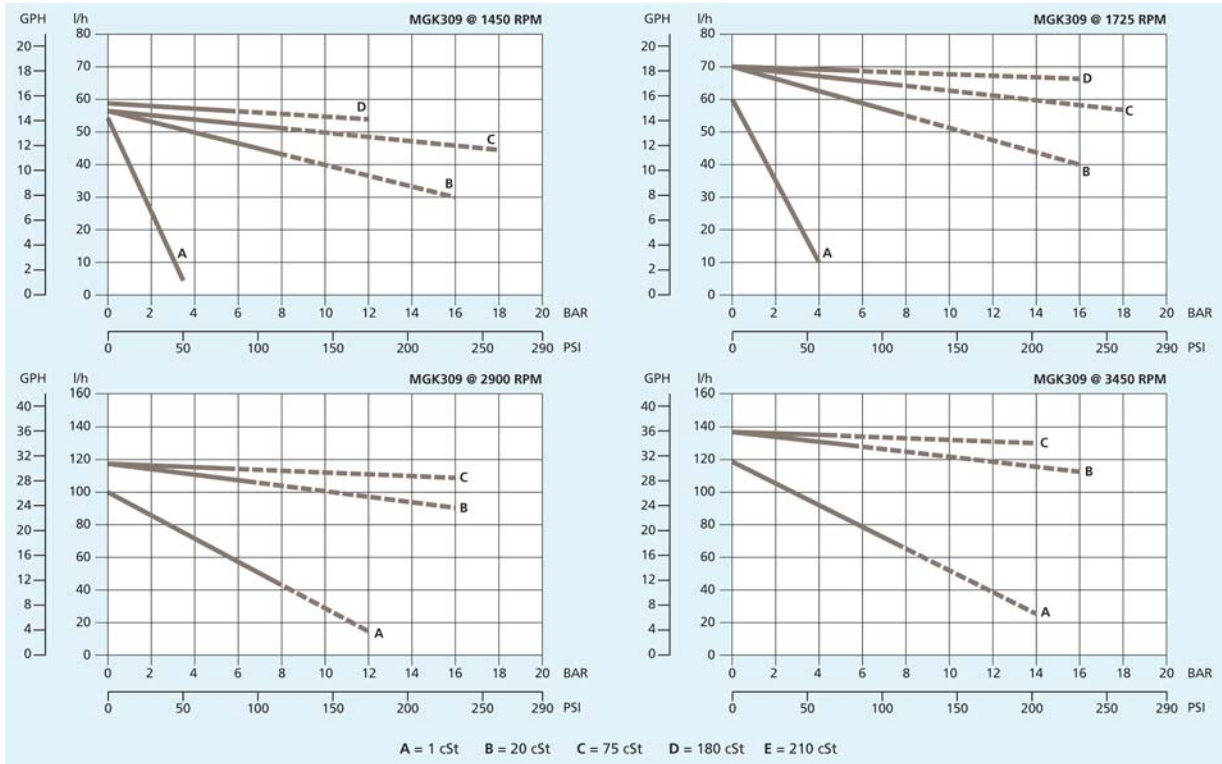
- Medical and surgical equipment
- Hemodialysis apparatus
- Laser apparatus
- Lubrication
- Ink-jet printing systems
- Cooling systems
- Laboratory instrumentation
- Water purification and ultra-filtration
- Sampling
- Food processing equipment



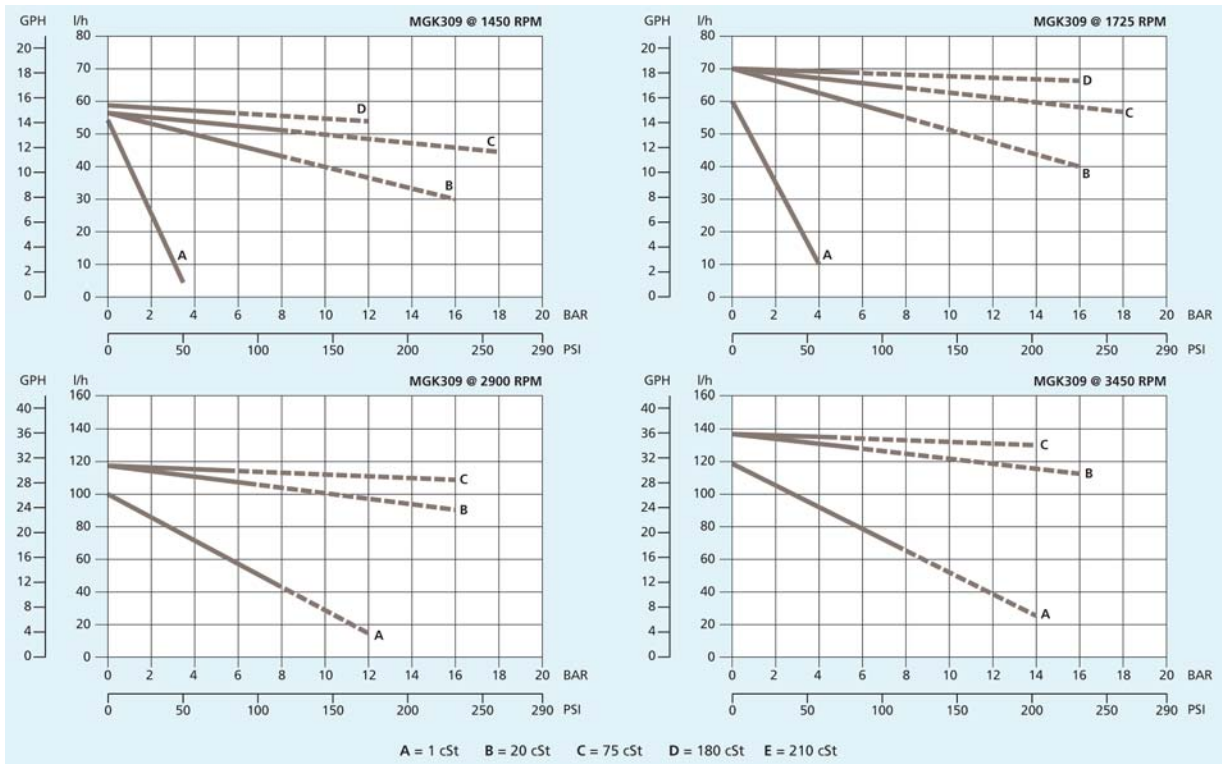
### MGK304 Performance at Different Viscosities



### MGK309 Performance at Different Viscosities

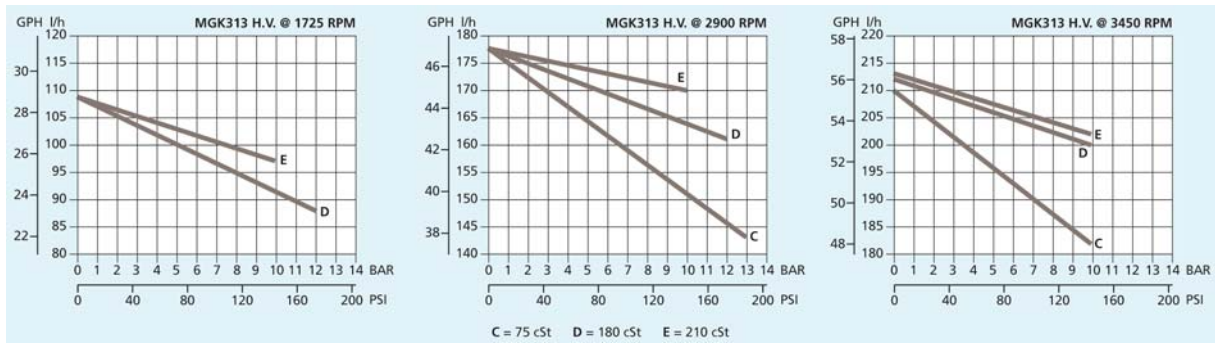


### MGK313 Performance at Different Viscosities

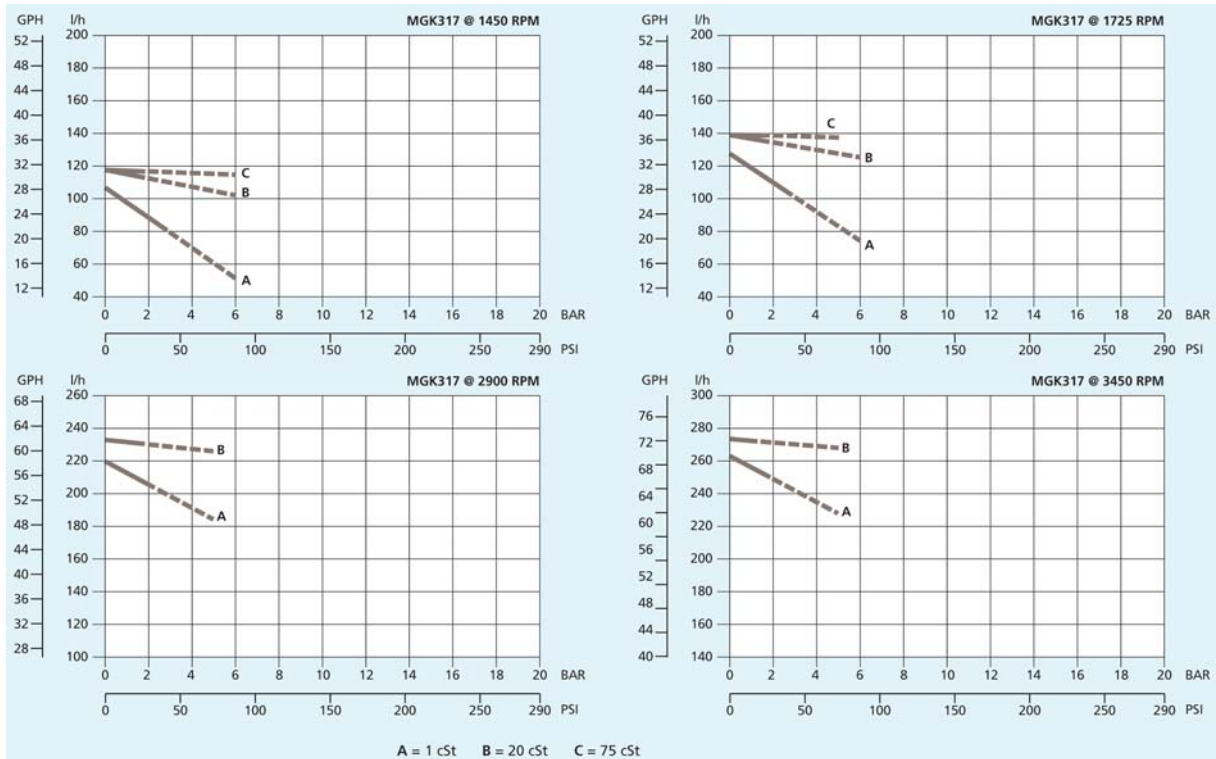


————— Operating Range with Ferrite Magnet  
 - - - - - Operating Range with Rare Earth Magnet

## MGK313 High Viscosity Performance at Different Viscosities

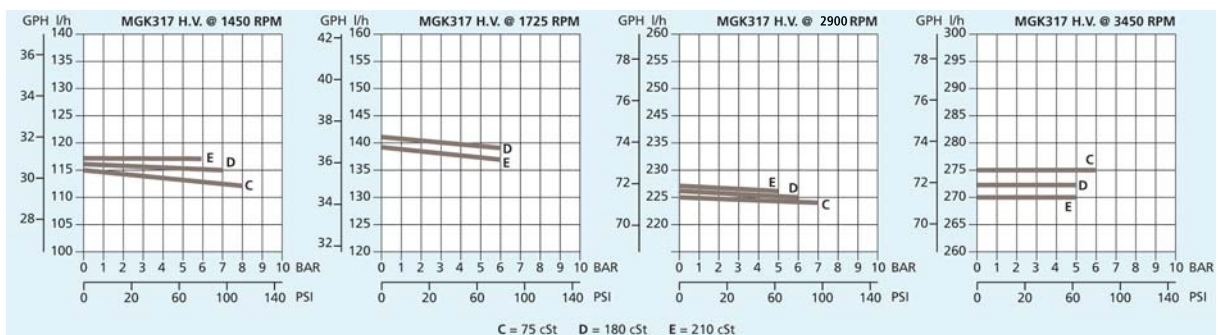


## MGK317 Performance at Different Viscosities



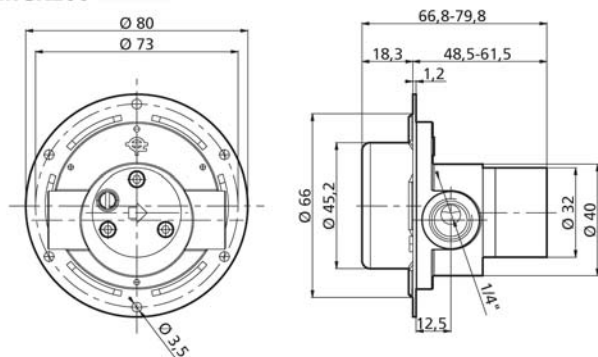
————— Operating Range with Ferrite Magnet  
 - - - - - Operating Range with Rare Earth Magnet

## MGK317 High Viscosity Performance at Different Viscosities

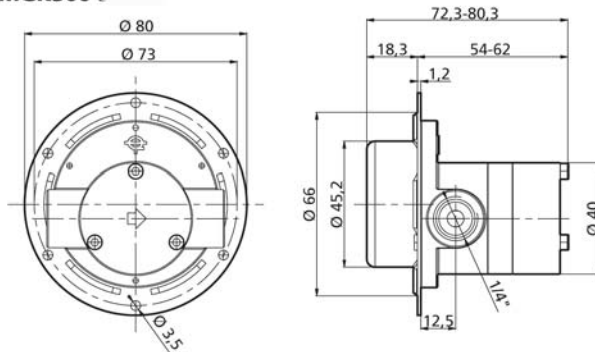


## DIMENSIONS (MM) PUMP WITHOUT MOTOR

**MGK200**

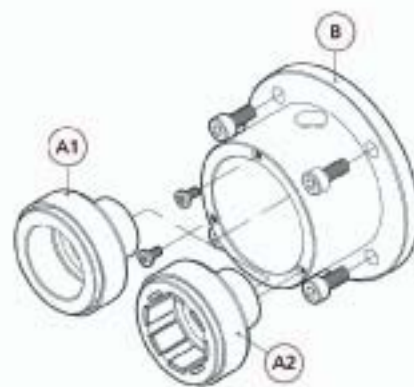


**MGK300**



## 56C MOTOR COUPLING ASSEMBLY

Table 1- NEMA 56C Motor Adapters	
Model	Description
MKBF5BS	Includes MKAF5BS, 5/8" bore ferrite magnet (A1) and 92-06-05 NEMA 56C adaptor (B)
MKB55BS	Includes MKAS5BS, 5/8" bore rare earth magnet (A2) and 92-06-05 NEMA 56C adaptor (B)
MKBF56S	Includes MKAF09S, 9 mm bore ferrite magnet (A1) and 92-06-06 M56 B14 adaptor (B)
MKB56S	Includes MKAS09S, 9 mm bore rare earth magnet (A2) and 92-06-06 M56 B14 adaptor (B)
MKBF63S	Includes MKAF11S, 11 mm bore ferrite magnet (A1) and 60058 M63 B14 adaptor (B)
MKB63S	Includes MKAS11S, 11 mm bore rare earth magnet (A2) and 60058 M63 B14 adaptor (B)
<b>Consult us for motor sizing</b>	



## ORDERING INFORMATION

1) Order Pump From Table 2 Below- ABCDEFG

**EXAMPLE: MK309X170PV**

2) Order Motor Adapter from Table 1

**EXAMPLE: MKBF5BS**

Table 2- Pump Part Number ABCDEFG						
A	B	C	D	E	F	G
*Pump Series	Gear Width	Housing Material	Connections	Relief Valve	Gear Material	*Static Seal Material
MK2= PTFE Flat Seals MK3= O-ring Seal	09= 9mm 13= 13mm 17= 17mm	X= AISI 316	17= 1/4" NPT	0= without 1= with MK3 is not available with relief valve	T= PTFE P= PEEK™	- =MK2 ordered S= Silicon N= NBR T= PTFE V= Viton
*Each pump has three seals, two for the pump body and one for the magnet cup. Model type MK2 has all PTFE flat seals. Model MK3 is offered with a choice of o-ring seal material. Note that the material chosen in the order matrix is used for all three seal locations. If a relief valve is ordered the seal for the relief valve is always PTFE.						