

MG 4

High-Pressure homogeniser Model MG4

Pressures up to 700 bar
Capacities up to 5000 l/h



Cylinder block

A single piece precision machined block made out of a high tensile, corrosion resistant, forged stainless steel. Built with front and upper caps giving easy access for inspection and maintenance. The standard design has spring loaded plunger packings with integrated water cooling. The fully sanitary design utilises a minimum of parts and seals and is suitable for C.I.P.

Plungers and plunger packings are available in different materials to meet the toughest demands. Generally the cylinder block is executed with high efficient, low noise spherical type pump valves. These valves are spring loaded, suitable for processing viscose and moderate abrasive products. For abrasive products the well known ball type pump valves are available. All these pump valve designs have high wear and corrosion resistant pump valves and field replaceable seats, both made out of Rexalloy®™ or optional seats made of Tungsten Carbide. There are many other options available to meet specific product or process requirements.

Homogenising valve

Available in a variety of designs and materials, single or two stage, with the standard flat valve and seat in Rexalloy®™ but also with a serrated surface (LW type) or Knife edge for cell rupture applications. Each type specially designed to achieve the highest efficiency with the lowest energy consumption. The different valve designs are available in the standard Rexalloy®™ material, Tungsten Carbide, Ceramic and for some applications with Diamond coating.

The homogenising pressures can be adjusted manually with a handwheel or through a hydraulic system which also allows a completely automatic pressure control.

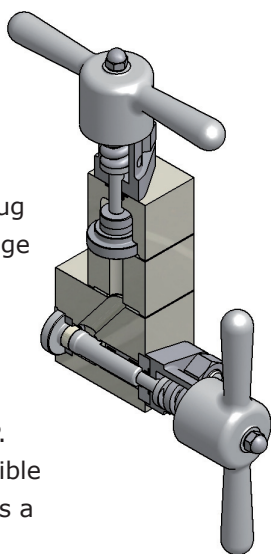
Drive end

The one piece high strength cast iron design with integrated gear reduction provides a quiet running machine with low eccentric shaft speeds. The drive has a dry sump with a separate lubrication oil tank and does not require any cooling water. All bearings are pressure lubricated by an electric driven oil pump allowing capacity variation between 15-100% under full load. Both drive shaft and eccentric shaft have oversized roller bearings. The crossheads are designed with adjustable, self aligning ball joint bearings. This unique concept offers unbeatable reliability, requires a minimum of maintenance and down time.

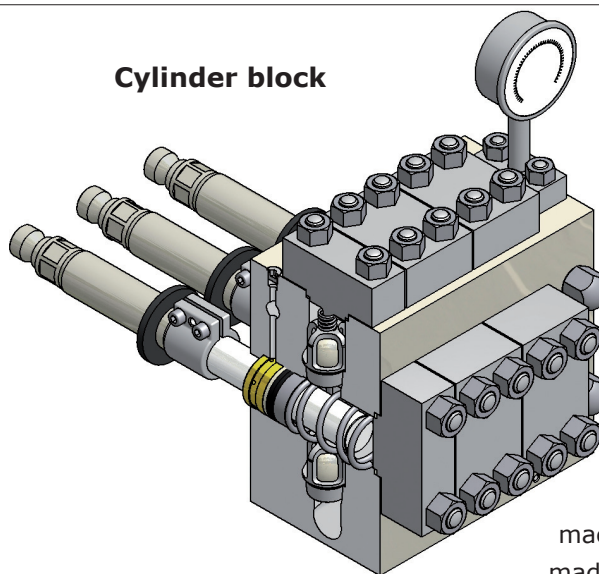
Two stage homogenising valve

A typical two stage hand operated homogenising valve assembly with a plug type valve in the first stage and a pilot type valve in the second stage.

This assembly meets the highest demand for C.I.P. cleaning, is easily accessible for maintenance and uses a minimum of parts.



Cylinder block



The pump block is a one piece precision machined block, made out of high strength corrosion resistant forged stainless steel. The one piece design utilises a minimum of parts and seals, is fully sanitary and suitable for C.I.P.

MG4 CAPACITY RANGE

MG4 with BALL TYPE pump valves for high viscosity/ abrasive products and products containing solids				MG4 with SPHERICAL TYPE pump valves for viscous and moderate abrasive products		
Machine type	Maximum capacity	Eccentric shaft speed	Operating pressure	Machine type	Maximum capacity	Eccentric shaft speed
MG4-600B	600 l/h	150 rpm	600 bar			
MG4-500B	700 l/h	151 rpm	500 bar	MG4-500S	900 l/h	188 rpm
MG4-450B	850 l/h	157 rpm	450 bar	MG4-450S	1100 l/h	197 rpm
MG4-400B	950 l/h	157 rpm	400 bar	MG4-400S	1400 l/h	224 rpm
MG4-325B	1200 l/h	156 rpm	325 bar	MG4-325S	1750 l/h	221 rpm
MG4-275B	1350 l/h	159 rpm	275 bar	MG4-275S	2000 l/h	228 rpm
MG4-250B	1500 l/h	158 rpm	250 bar	MG4-250S	2200 l/h	224 rpm
MG4-215B	1800 l/h	157 rpm	215 bar	MG4-215S	2600 l/h	220 rpm
MG4-175B	2200 l/h	161 rpm	175 bar	MG4-175S	3200 l/h	227 rpm
MG4-130B	3000 l/h	161 rpm	130 bar	MG4-130S	4200 l/h	219 rpm
MG4-100B	3600 l/h	158 rpm	100 bar	MG4-100S	5500 l/h	234 rpm

Weight 800 kg

