

BOS

homogenisers

MG 4

High-Pressure homogeniser
Model MG4

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



The 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.

The 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.

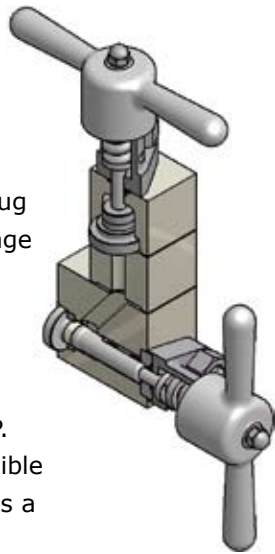
The drive end

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.

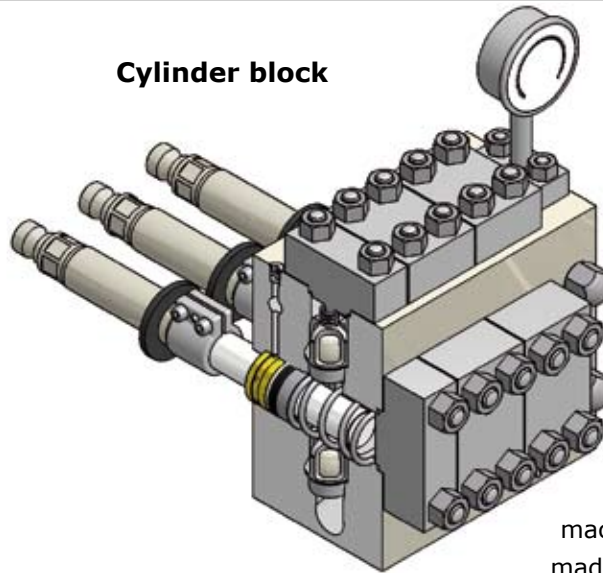
Two stage homogenising valve

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 viscose and moderate abrasive products		
Machine type	Maximum capacity	Eccentric shaft speed	Operating pressure	Machine type	Maximum capacity	Eccentric shaft speed
MG4-700B	600 l/h	150 rpm	700 bar			
MG4-600B	700 l/h	151 rpm	600 bar	MG4-600S	800 l/h	167 rpm
MG4-500B	850 l/h	157 rpm	500 bar	MG4-500S	1000 l/h	179 rpm
MG4-450B	950 l/h	157 rpm	450 bar	MG4-450S	1300 l/h	208 rpm
MG4-350B	1200 l/h	156 rpm	350 bar	MG4-350S	1650 l/h	208 rpm
MG4-300B	1350 l/h	159 rpm	300 bar	MG4-300S	1950 l/h	222 rpm
MG4-275B	1500 l/h	158 rpm	275 bar	MG4-275S	2100 l/h	214 rpm
MG4-250B	1800 l/h	157 rpm	250 bar	MG4-250S	2350 l/h	199 rpm
MG4-200B	2100 l/h	154 rpm	200 bar	MG4-200S	3000 l/h	213 rpm
MG4-150B	2900 l/h	156 rpm	150 bar	MG4-150S	3900 l/h	203 rpm
MG4-115B	3600 l/h	158 rpm	115 bar	MG4-115S	5000 l/h	213 rpm

Weight 800 kg

