

BOS

homogenisers

MG 3

High-Pressure homogeniser
Model MG3

Pressures up to 600 bar
Capacities up to 4000 l/h



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 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.

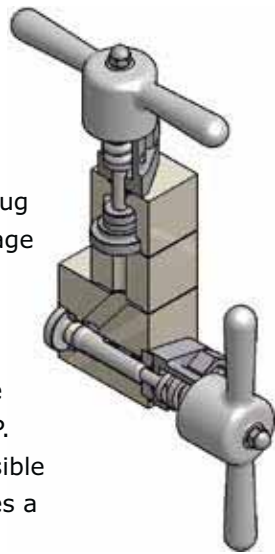
The drive end

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.

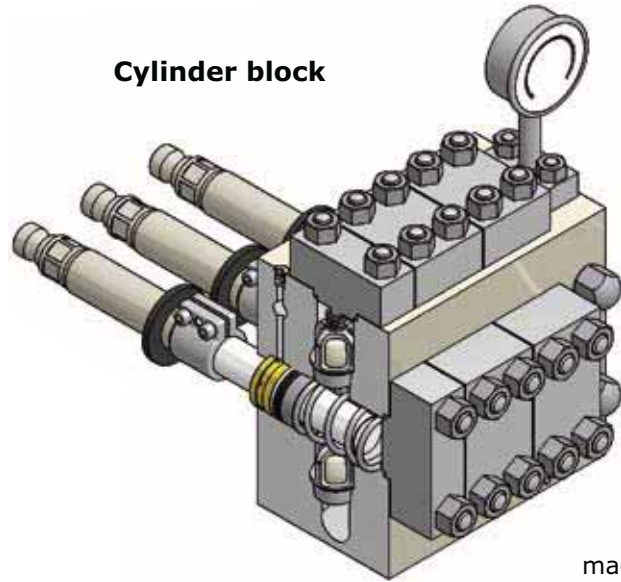
Two stage homogenising valve

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.

MG3 CAPACITY RANGE

MG3 with BALL TYPE pump valves for high viscosity/ abrasive products and products containing solids				MG3 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
MG3-600B	450 l/h	148 rpm	600 bar	MG3-600S	500 l/h	160 rpm
MG3-550B	550 l/h	156 rpm	550 bar	MG3-550S	600 l/h	165 rpm
MG3-450B	650 l/h	158 rpm	450 bar	MG3-450S	800 l/h	189 rpm
MG3-400B	750 l/h	156 rpm	400 bar	MG3-400S	900 l/h	182 rpm
MG3-350B	850 l/h	158 rpm	350 bar	MG3-350S	1000 l/h	180 rpm
MG3-250B	1150 l/h	152 rpm	250 bar	MG3-250S	1400 l/h	180 rpm
MG3-200B	1600 l/h	158 rpm	200 bar	MG3-200S	1800 l/h	172 rpm
MG3-150B	1900 l/h	157 rpm	150 bar	MG3-150S	2400 l/h	192 rpm
MG3-115B	2600 l/h	158 rpm	115 bar	MG3-115S	3100 l/h	182 rpm
MG3-90B	3200 l/h	159 rpm	90 bar	MG3-90S	4000 l/h	192 rpm

Weight 800 kg

