

BOS

homogenisers

MG 14

High-Pressure homogeniser
Model MG14

Pressures up to 600 bar
Capacities up to 11000 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.

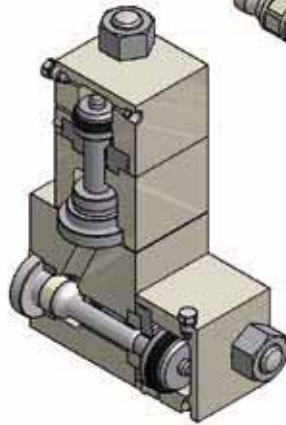
The drive end

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.

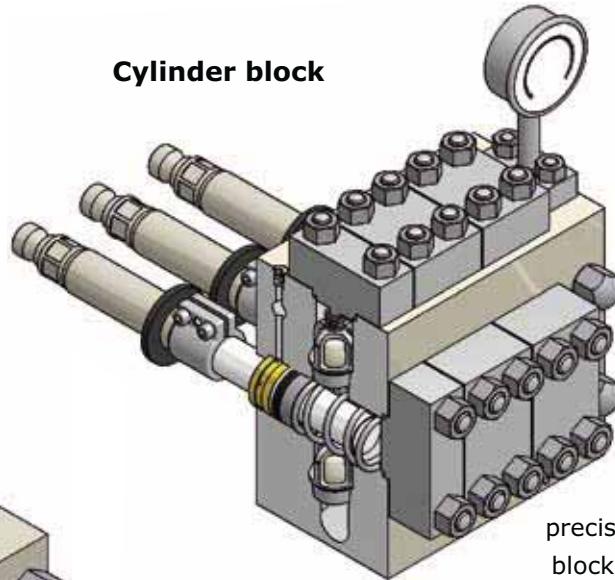
Two stage homogenising valve

A typical two stage 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.

MG14 CAPACITY RANGE						
MG14 with SPHERICAL TYPE pump valves for viscose and moderate abrasive products				MG14 with BALL TYPE pump valves for high viscosity/ abrasive products and products containing solids		
Machine type	Maximum capacity	Eccentric shaft speed	Operating pressure	Machine type	Maximum capacity	Eccentric shaft speed
MG14-600S	1500 l/h	177 rpm	600 bar	MG14-600B	1200 l/h	146 rpm
MG14-500S	2300 l/h	192 rpm	500 bar	MG14-500B	1800 l/h	155 rpm
MG14-450S	2600 l/h	195 rpm	450 bar	MG14-450B	2000 l/h	155 rpm
MG14-350S	3500 l/h	200 rpm	350 bar	MG14-350B	2600 l/h	153 rpm
MG14-300S	4000 l/h	209 rpm	300 bar	MG14-300B	2900 l/h	157 rpm
MG14-250S	4400 l/h	196 rpm	275 bar	MG14-250B	3400 l/h	156 rpm
MG14-200S	6100 l/h	201 rpm	200 bar	MG14-200B	4500 l/h	153 rpm
MG14-150S	8000 l/h	208 rpm	150 bar	MG14-150B	5700 l/h	153 rpm
MG14-125S	9700 l/h	203 rpm	125 bar	MG14-125B	7000 l/h	151 rpm

Weight 1600 kg

