

# BOS

## homogenisers

# MG 124

High-Pressure homogeniser  
Model MG124

Pressures up to 550 bar  
Capacities up to 44000 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 viscous 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. As an alternative the machine can be executed with conventional 17-4PH poppet type pump valves in combination with Rexalloy®™ seats. 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 pressure is hydraulically actuated. The hydraulic system also allows complete automatic control of the homogenising pressures.

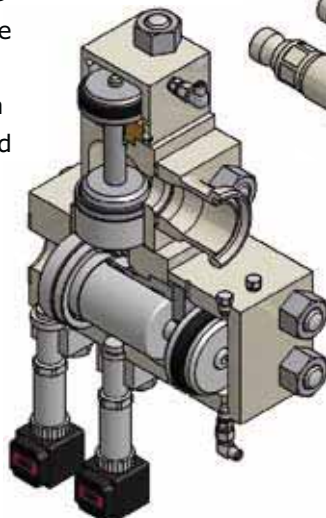
### **The drive end**

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.

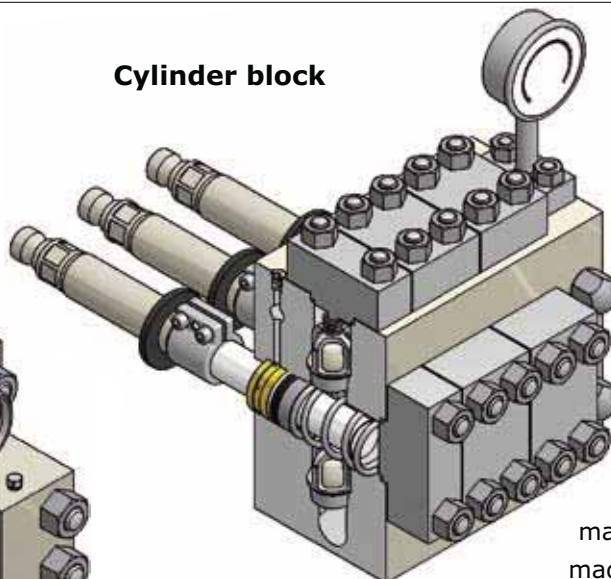
## Two stage homogenising valve

A typical two stage hydraulic 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.

## MG124 CAPACITY RANGE

Operating pressure	SPHERICAL type pump valves for viscose and moderatly abrasive products		POPPET TYPE pump valves for low-viscosity and moderately abrasive products		BALL TYPE pump valves for high-viscosity and abrasive products and products containing solids	
	Maximum capacity	Eccentric shaft speed	Maximum capacity	Eccentric shaft speed	Maximum capacity	Eccentric shaft speed
550 bar	11500 l/h	153 rpm	11000 l/h	148 rpm	10500 l/h	144 rpm
500 bar	13000 l/h	159 rpm	12000 l/h	148 rpm	11500 l/h	145 rpm
450 bar	14500 l/h	158 rpm	13500 l/h	149 rpm	13000 l/h	146 rpm
400 bar	16000 l/h	154 rpm	15000 l/h	146 rpm	14500 l/h	144 rpm
350 bar	18000 l/h	155 rpm	17000 l/h	148 rpm	16000 l/h	142 rpm
300 bar	21000 l/h	154 rpm	20000 l/h	148 rpm	19000 l/h	143 rpm
250 bar	25000 l/h	158 rpm	23000 l/h	147 rpm	21000 l/h	137 rpm
200 bar	32000 l/h	155 rpm	28000 l/h	137 rpm	27000 l/h	135 rpm
175 bar	36000 l/h	161 rpm	30000 l/h	135 rpm	29000 l/h	133 rpm
140 bar	44000 l/h	157 rpm	36000 l/h	129 rpm	35000 l/h	128 rpm

Weight 7200 kg

