

High-Pressure homogeniser Model MG3

Pressures up to 600 bar
Capacities up to 4000 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.

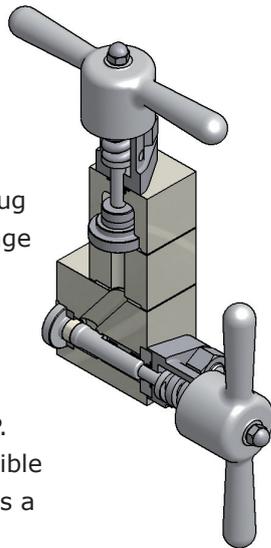
Drive end

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.

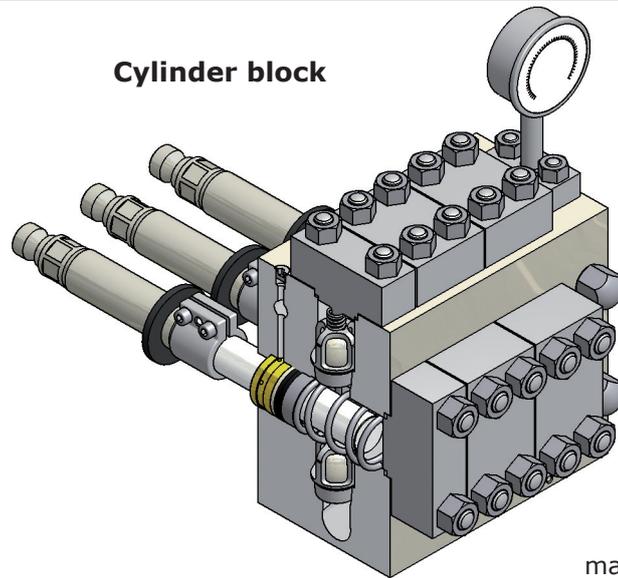
Two stage homogenising valve

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.



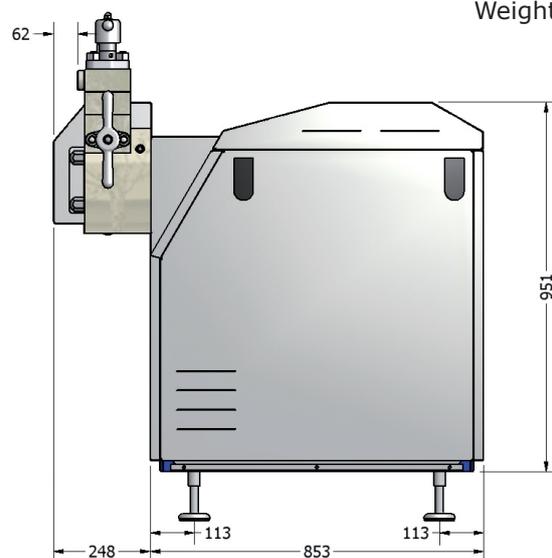
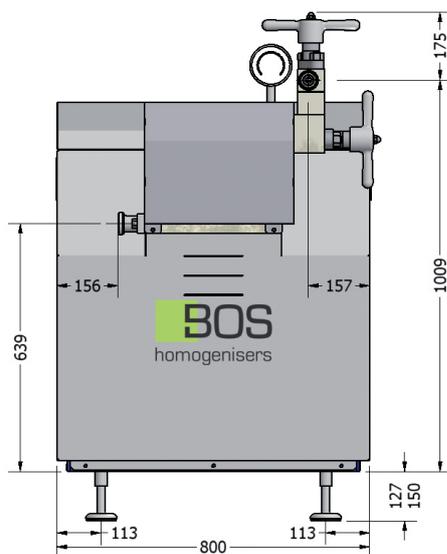
Cylinder block



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.

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 | 1200 l/h | 159 rpm | 250 bar | MG3-250S | 1500 l/h | 193 rpm |
| MG3-200B | 1600 l/h | 158 rpm | 200 bar | MG3-200S | 2000 l/h | 191 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 | 3200 l/h | 188 rpm |
| MG3-90B | 3200 l/h | 159 rpm | 90 bar | MG3-90S | 4000 l/h | 192 rpm |



Weight 800 kg