Planetary Mixer MP
QUALITY SYSTEM:
The Manufacturing Procedures used for all SICOMA Mixers have been compliant with the Quality Requirements of ISO 9001 since 1995 and have been updated and approved by CERMET since 2009 as compliant to ISO 9001:2008.

3-D MODELLING
Since 1999 all Mixers are designed and constantly improved with the use of three-dimensional modeling softwares.

CNC MACHINE CENTER
The steel fabrication of the mixer tank is machined with a CNC boring machine to guarantee the perfect alignment and parallelism of the mixing shafts.

ASSEMBLY LINE
The Mixers are line assembled giving very short lead times due to the high level of standardisation.

PATENTS
The mixing elements as well as other particular features are protected by International Patents.
GEAR BOX

With over 60 years of mechanical experience, Sicoma has created a gearbox virtually indestructible. The huge double horizontal design is strong and shock resistant. The wide horizontal oil bath is cool running and gives every gear optimum lubrication. It is good for life and carries a 5 year, 10,000 hour warranty.

Quality Built to Build Quality
MIXING BLADES

Complete the mixing action and give fast discharge. Cast from Ni-hard iron, 550 HB minimum, for extreme wear resistance. Outer edges are thickened to equalize wear and the angle of attack is optimized to push, not slice, to maximize both mixing and blade life.

MIXING ARMS

SICOMA’s mixing action starts with the arms, which are responsible for most of the mixing, from top to bottom. Three cast iron arms per star, two stars starting from MP 1875/1250 and three stars for MP 4500/3000 and MP6000/4000. Together with two hardened steel scraping arms they are the best for toughness plus abrasion resistance. Adjustment slots allow easy blade adjustment to compensate for wear.

LINER PLATES

15 mm Ni-hard cast iron tiles give many times the life of abrasion resistant steel liner plates, reducing lifetime cost. Bolted assembly makes replacement a simple task; in addition, the wall plates are reversible to increase life even further. Additionally, tight fabrication tolerances mean that blades can be adjusted close to walls and floor for perfect cleanout between batches, ensuring the best performance on coloured products.

JUNCTION BOX

All connections, including motor 3-phase power as well as solenoid valves and switches, are available in one easy access junction box.

HYDRAULIC POWER PACK

It has plenty of capacity to operate doors reliably in even the largest mixer. Manual lever allows the door dual use, to be opened during power loss and to be closed right after.

DISCHARGE

Up to four swing-out sector doors running in rubber seals are completely watertight, non-jamming and low in maintenance, further reducing lifetime cost. All models are hydraulically powered, but for small ones is also available a choice between pneumatic or manual operation.

HALF-MOON COVER

Widest opening of any, to give faster cleanup and adjustment of wear parts while making the process safer all round. One, two or three-part depending on mixer size. Single piece cover with hydraulic lift for easiest access is optional in largest models.
The size of our Planetary Mixers ranges from 10 to 4000 liters of compacted concrete output, covering every possible need from small laboratory mixers to the largest production plants. The excellent performance of SICOMA-OMG Planetary Mixers are recognized in several application fields: readymix concrete, production of prestressed / precast elements, block and pavers, concrete pipes, dry mortar mix, but also in different sectors such as glass, refractory materials for foundries and chemical products.

Depending on the type of application, the mixers can be equipped with several accessories and options to optimize their productivity, mixing quality and life expectancy. Whenever necessary, we work with our customers in the development of new solutions that best suit their specific needs.
OPTIONS AVAILABLE

CONTROL PANEL
Mounts on the mixer, allowing major mixer functions to be controlled locally to make cleanout, testing and maintenance easier.

BELT TRANSMISSION
In case the mixer must be installed in a plant with a reduced height dimension, it is possible to install the mixer motor at the side of the pan and to use a belt transmission between the motor and the gearbox.

POWERED PULVERIZER
The unique hollow central shaft allows electrical connection to the motorised blades which improve mixing of clay products by breaking up balls of unmixed material.

HIGH PRESSURE WASHING SYSTEM
SICOMA’s unique hollow central shaft allows washout jets to be mounted under the rotating arms. Together with the powerful high pressure pump unit, a tornado of water cleans the mixer better than anything before. Your final cleanup time is reduced by 80% or more.

STAINLESS STEEL TANK AND MIXING TOOLS
Whenever the material to be mixed must be contamination free or when the ingredients are chemically aggressive, it is recommended to use special materials (such as Stainless Steel) for the lining of the pan and for the mixing tools.

SAMPLING BOX
All Planetary mixers can be equipped with a sampling box to take some samples of material before the discharge, usually used to prepare concrete test cubes. The operator can collect the sample very easily and safely without opening the top cover of the mixer, which would require the main switch of the plant to be turned off.

HIGH PRESSURE WASHER
ICOMA’s unique hollow central shaft allows washout jets to be mounted under the rotating arms. Together with the powerful high pressure pump unit, a tornado of water cleans the mixer better than anything before. Your final cleanup time is reduced by 80% or more.

FLOOR MOUNTED MOISTURE PROBE
The production of high quality concrete usually requires a moisture measurement in the mixer, in order to control the water content in the mix. Upon request, all Planetary Mixers can be equipped with moisture probes installed at the floor level.

DUST COLLECTOR AIRBAG
During the discharge of the aggregates into the mixer, either from a skip or from a holding hopper, the Dust Collector Bag must absorb the air shock generated by the fast inrush of the material. The function of the airbag is very important for the Dust Control, even though it does not replace the dust filter.

GROUND MOUNTED PROBE CLEANING BLADE
In case a floor mounted probe is installed, we recommend using a rubber cleaning blade which cleans the surface of the sensor at every rotation of the planetary gearbox, improving the quality of the measurement.

SERVICE SIDE DOOR
In case, when access to the mixer from above is rather difficult, there is a possibility to provide one or two side service doors. This option is particularly recommended for spacial batches in order to improve cleaning of the tank.

HYDRAULIC COUPLING
Gives long service life by reducing the high mechanical stress in conditions such as repeated startup with a full load.

ROTATING PROBE
SICOMA – OMG Planetary Mixers can be equipped with a probe which is fixed to the scraping arm connection and rotates immersed in the mix for a faster and better measurement. A unique feature of our planetary mixers is the possibility to pass through the main shaft of the gearbox with the cables connecting the probe to the control system.
### Technical Characteristics

<table>
<thead>
<tr>
<th>Type</th>
<th>MP 75/50</th>
<th>MP 150/100</th>
<th>MP 375/250</th>
<th>MP 565/375</th>
<th>MP 750/500</th>
<th>MP 1125/750</th>
<th>MP 1500/1000</th>
<th>MP 1875/1250</th>
<th>MP 2250/1500</th>
<th>MP 3000/2000</th>
<th>MP 3750/2500</th>
<th>MP 4500/3000</th>
<th>MP 6000/4000</th>
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</thead>
<tbody>
<tr>
<td>Dry Filling Capacity (*) cu/ft</td>
<td>0.1</td>
<td>0.2</td>
<td>0.3</td>
<td>0.5</td>
<td>0.7</td>
<td>1</td>
<td>1.2</td>
<td>1.5</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Concrete Output Per Cycle (Compacted) (*) cu/ft</td>
<td>35</td>
<td>50</td>
<td>75</td>
<td>100</td>
<td>125</td>
<td>150</td>
<td>175</td>
<td>200</td>
<td>225</td>
<td>250</td>
<td>275</td>
<td>300</td>
<td>325</td>
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<tr>
<td>Maximum Load Capacity lb</td>
<td>220</td>
<td>440</td>
<td>1100</td>
<td>1650</td>
<td>2200</td>
<td>3300</td>
<td>4400</td>
<td>5500</td>
<td>6600</td>
<td>8000</td>
<td>10200</td>
<td>13000</td>
<td>16000</td>
</tr>
<tr>
<td>Maximum Load Capacity kg</td>
<td>300</td>
<td>600</td>
<td>1500</td>
<td>2000</td>
<td>2500</td>
<td>3500</td>
<td>4500</td>
<td>5500</td>
<td>6600</td>
<td>8000</td>
<td>10200</td>
<td>13000</td>
<td>16000</td>
</tr>
<tr>
<td>Inner Pan Diameter inch</td>
<td>50</td>
<td>60</td>
<td>72</td>
<td>87</td>
<td>102</td>
<td>125</td>
<td>160</td>
<td>200</td>
<td>240</td>
<td>300</td>
<td>400</td>
<td>550</td>
<td>630</td>
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<tr>
<td>Mixing Motor(s) HP</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5.5</td>
<td>7</td>
<td>11</td>
<td>15</td>
<td>20</td>
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<tr>
<td>Hydraulic Power Pack Motor kW</td>
<td>0.15</td>
<td>0.25</td>
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<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>15</td>
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<td>30</td>
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<tr>
<td>Speed of Planetary Gearbox rpm</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
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<td>20</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

(*) In order to identify the productivity of the mixer, two parameters must be taken into consideration:

1. Maximum Weight of the Mix, on the basis of the usual specific weight of concrete (150 lb/ft³ or 2400 kg/m³)
2. Maximum Volume occupied by all batch components charged into the mixer, not exceeding the Dry Filling Capacity.

For more information about productivity and accessories, please contact our Sales Department.

All technical data are subject to change without notice due to technical improvement.

Values indicated are not applicable in all applications and conditions and are subject to variations depending on the use and quantity of the product.