

### I Application

The horizontal blender is used to dissolve solid/powder products into a circulating liquid. The unit is limited to the suction of small amount of solids as the blender has no table for bags and the hopper is smaller than that of the table blender.

# I Operating principle

The blender is a compact unit, it consists of a centrifugal pump with a venturi system on the suction side and a hopper with a butterfly valve above the venturi to add solid product to the pumped liquid. In this blender, the suction and venturi system are set horizontally.

The venturi system and the suction of the pump creates a negative pressure at the base of the hopper. When the valve of the hopper opens, the solids are drawn from the hopper and are dissolved in the liquid when they pass through the casing of the pump.

To achieve the best possible dissolution, it is recommended to recirculate the product (batch production) untill all the solid/powder product is sucked in and then, when the solid product is completely incorporated into the liquid product, continue recirculating the product for a while. In some cases, it can be used in-line depending on the solid product to add and the required level of dissolution.

## I Design and features

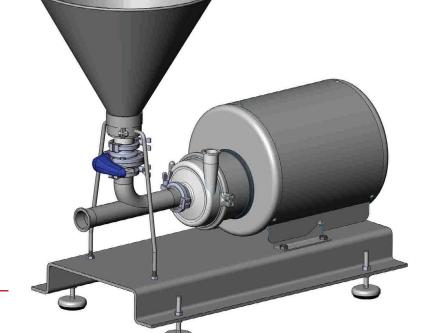
Very simple and versatile equipment for a fast and homogeneous mixing of a wide range of solid products without any contact with atmosphere.

Hygienic design.

Single mechanical seal.

ISO 2852 Clamp connections for easy assembly/disassembly.

Cleaning and disinfection without disassembling the unit.





#### I Materials

Parts in contact with the product AISI 316L
Other metal parts AISI 304

Gaskets EPDM in compliance with FDA

Mechanical sealSiC / SiC / EPDMInternal surface finish $Ra \le 0.8 \ \mu m$ External surface finishBright polishBaseplate surface finishMatt

## **I Options**

Gaskets: FPM or PTFE. Connections: DIN, SMS.

Drain port.

Vibrator for hopper.

Pneumatically actuated valve + low level sensor for solids.

High level sensor for solids.

Control panel for the vibrator, level sensors and automated valve.

Grid for hopper.

# I Technical specifications

BlenderMH-20MH-26Approximate flow rate $20 \text{ m}^3/\text{h}$  $40 \text{ m}^3/\text{h}$ Max.differential height7 mwc15 mwcMax.solids intake $1300 \text{ kg/h}^*$  $2000 \text{ kg/h}^*$ 

Pump Hyginox SE20 with Ø130 impeler Hyginox SE26 with Ø145 impeller

5.5 kW - 3000 rpm

Motor 3 kW - 3000 rpm

Max.temperature $65^{\circ}$ C $65^{\circ}$ CConnections (inlet/outlet)CLAMPCLAMPHopper capacity25 L48 L

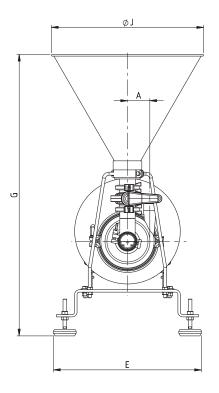
Hopper valve CLAMP butterfly valve CLAMP butterfly valve

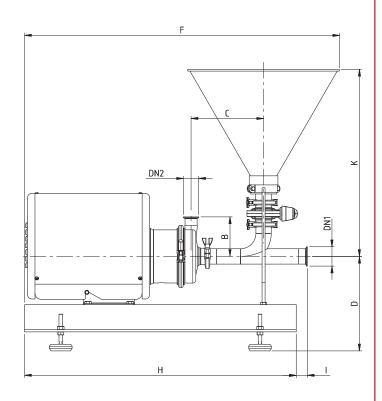




<sup>\*</sup> Intake of solids may vary depending on their properties.

### **I Dimensions**





| Model | Hopper<br>capacity<br>(L) | kW  | DN1         | DN2           | Α  | В   | С   | D   | E   | F    | G    | н    | ı  | ØΙ  | Weight<br>(kg) |
|-------|---------------------------|-----|-------------|---------------|----|-----|-----|-----|-----|------|------|------|----|-----|----------------|
| MH-20 | 25                        | 3   | CLAMP<br>2" | CLAMP<br>1 ½" | 74 | 131 | 240 | 313 | 490 | 1045 | 933  | 900  | 37 | 505 | 88             |
| MH-26 | 48                        | 5,5 | CLAMP<br>3" | CLAMP<br>2"   | 72 | 145 | 322 | 325 | 490 | 1185 | 1060 | 1200 | 40 | 605 | 103            |



