WANGEN PUMPEN

Hygienic Progressing Cavity Pumps

# WANGEN MX

## For demanding hygienic conveying and dosing in the food & beverage-, pharmaceutical and cosmetics industry

Hygienic Progressing Cavity Pumps

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The WANGEN MX progressing cavity pump precisely fulfills the demanding requirements of the food, pharma and cosmetics industries. State-of-the-art design features allow excellent ease of cleaning and maintenance. Therefore, the pump is available with all common certificates. And thanks to its great pressure stability, the MX can also be used in many ways in the chemical, paint and paper industries, among others.

MX 20S

Designation

Size

Model

Size: Drive shaft diameter

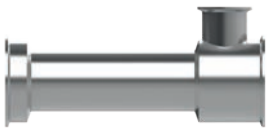
Models: Suction, submergible, hopper, follower plate versions

## Modular design

The modular design of the MX makes it suitable for numerous applications and extremely easy to maintain. The wide variety of components enable the pump to be modified in the optimum way to suit customers' specific applications.

Discharge nozzle DIN32676

Stator EW40/10

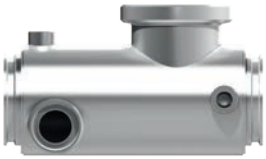


Suction housing DIN32676

Hygienic mechanical seal MXHS

Discharge nozzle tangential outlet

Stator EW25/10 with double jacket



Suction housing with CIP nozzle and double jacket

Double acting mechanical seal for quench MXHS-MXEB

Discharge nozzle DIN11851

Stator EW30/10

Suction housing DIN11851

Elastomer bellow mechanical seal MXEB

Gear motor in aseptic design

Discharge nozzle EN1092-1



Stator EW15/40

Suction housing EN1092-1

PS shaft seal with flushing

Spur gear motor

Discharge nozzle DIN11864-1

Stator EW20/20

Rectangular hopper housing with two CIP nozzles

Gland packing with flushing

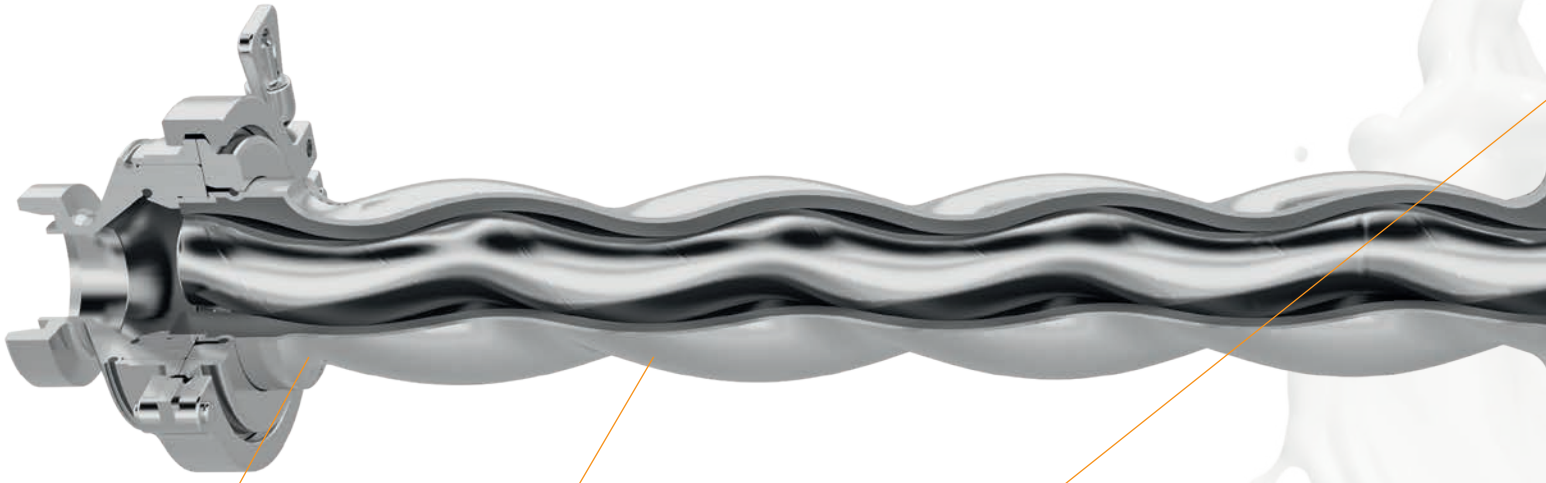
Servo gear motor

Example: MX20S

# Design characteristics

**Advantages**

1. 10 bar per pressure stage thanks to EvenWall® technology
2. Compact assembly length at high pressures
3. Low-impact product delivery
4. Quick and easy to clean
5. Captive connecting elements
6. Modular design
7. Outstanding stability under pressure



Modular design (various pump assemblies can be adapted)

Stators in EvenWall® design (uniform elastomer wall thickness)

Fast disassembly and assembly by means of clamping closures

Cardan joint, covered with hygienic collar

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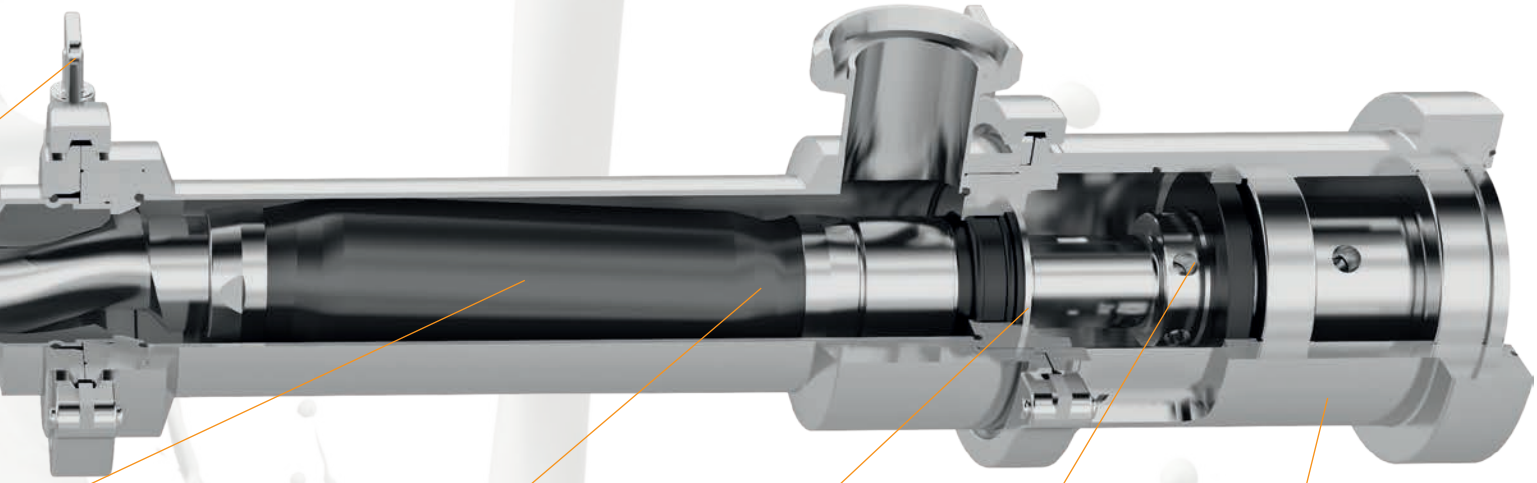
**Characteristics**

- Compatible with CIP and SIP
- Hygienic design
- Design with minimal dead space
- Extremely easy to service
- Intelligent interfaces



Non-slip cylindrical connection elements prevent the unintentional loosening of pump components

Spacious sealing chamber for all seal assemblies

Wear parts can be replaced quickly via a separation point opposite the product

Robust and splash-resistant bearing housing enables a fully assembled „standby pump“ to be fitted even without a drive

Follower plate version

# MX-F

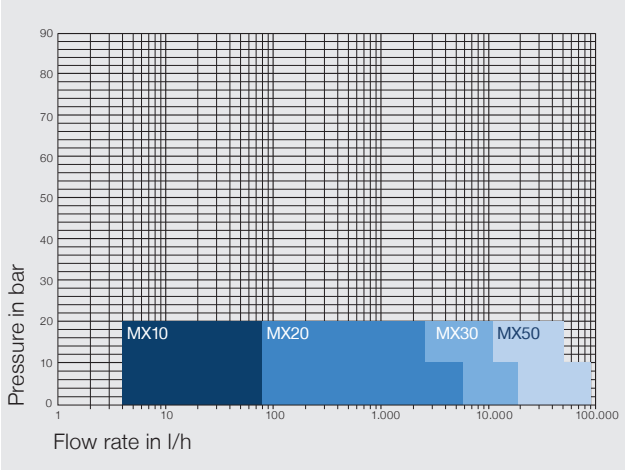
| Pump size | Maximum completely free passage (mm) | Flowrate (l/h) | Maximum differential pressure (bar) |
|---|---|---|---|
| 10 | 6 | 1 to 75 | 20 |
| 20 | 22 | 5 to 5.600 | 20 |
| 30 | 48 | 50 to 20.000 | 20 |
| 50 | 76 | 500 to 100.000 | 20 |

## Application

- Drum and hopper drained via follower plate
- Low-impact delivery of products containing solids

## Features

- Self-priming pump
- Short assembly length
- Uniform metering with low pulsation

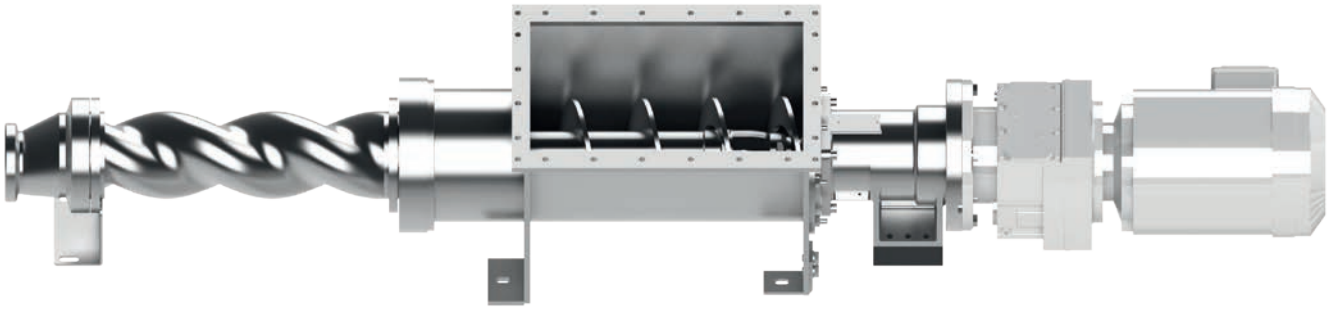



Details based on a medium with a viscosity of 1 mPas and a density of 1.0 kg/dm³

Hopper version

# MX-R

| Pump size | Maximum completely free passage (mm) | Flowrate (l/h) | Maximum differential pressure (bar) |
|---|---|---|---|
| 20 | 22 | 5 to 5.600 | 40 |
| 30 | 48 | 50 to 20.000 | 80 |
| 50 | 76 | 500 to 100.000 | 60 |



## Application

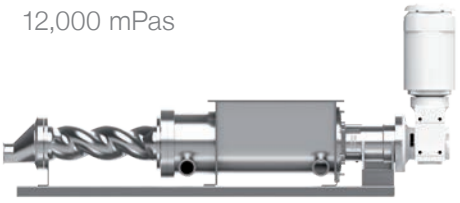
- Highly viscous to airtight media
- Suitable for media with a high solids content
- Metering and transferring applications

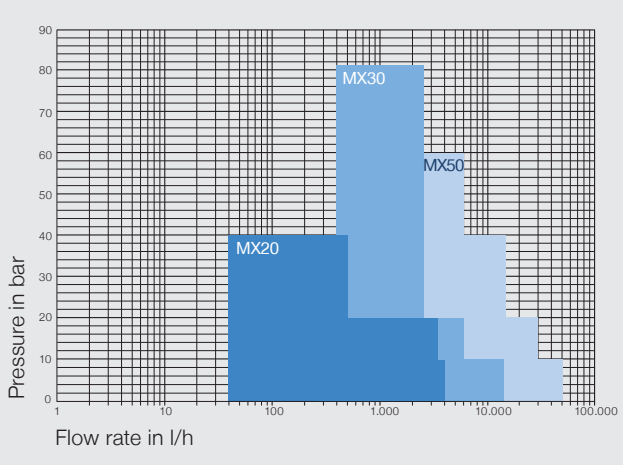
## Features

- Conical screw conveyor ensures optimum emptying of the hopper floor
- Position of the mechanical seal ensures excellent cleanability
- Well-designed separation points for easy disassembly
- Trough shape prevents deposits from forming on the hopper walls
- Additional extension hopper can be adapted
- Reliable delivery of the medium to the pump assembly thanks to stable screw conveyor shortly before the pump assembly
- Overfeeding in the pump tunnel ensures efficient conveying

## Example MX50R: Baked goods industry

Medium: dough
Flow rate: 5,800 l/h
Pressure: 6 bar
Viscosity: 12,000 mPas



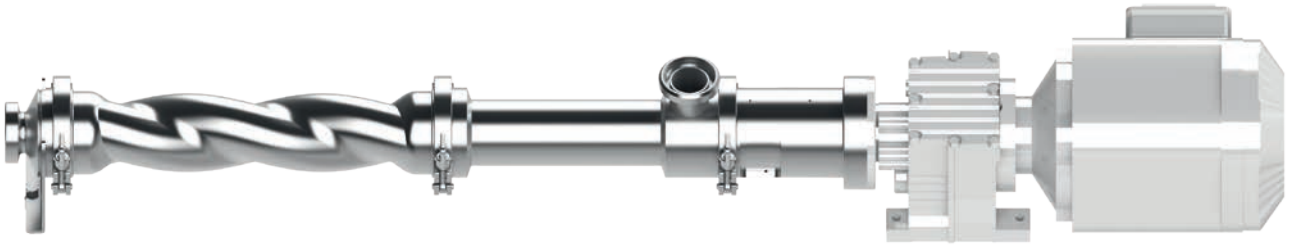



Details based on a medium with a viscosity of 1 mPas and a density of 1.0 kg/dm³

Suction version

# MX-S

| Pump size | Maximum completely free passage (mm) | Flowrate (l/h) | Maximum differential pressure (bar) |
|---|---|---|---|
| 10 | 6 | 1 to 75 | 40 |
| 20 | 22 | 5 to 5.600 | 40 |
| 30 | 48 | 50 to 20.000 | 80 |
| 50 | 76 | 500 to 100.000 | 60 |

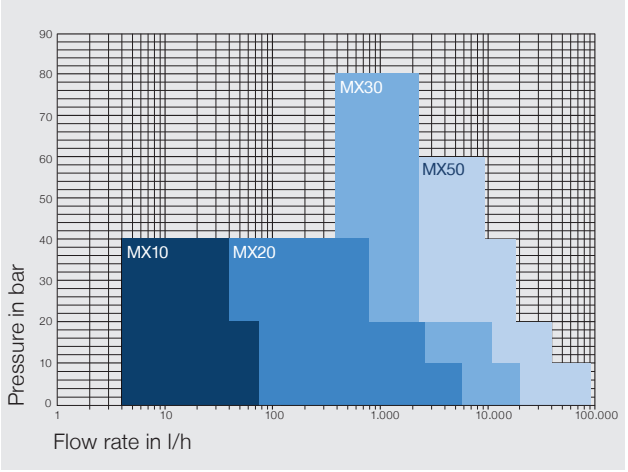


## Application

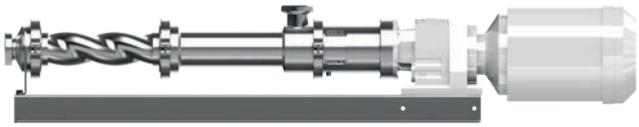
- Metering and transferring applications
- Suitable for aqueous to highly viscous media
- Low-impact delivery of products containing solids

## Features

- Vertical and horizontal configuration possible
- Can be used regardless of the direction of rotation
- Self-priming pump to 0.8 bar absolute
- Available as a mobile or stationary pump
- CIP and SIP cleaning possible
- Ability to control the temperature of the entire pump
- Short assembly length

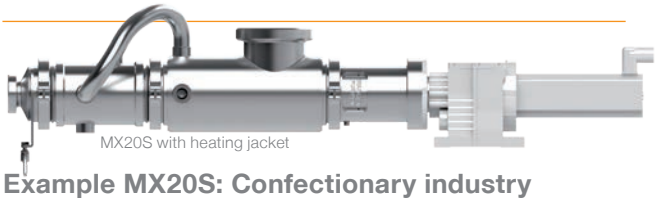



Details based on a medium with a viscosity of 1 mPas and a density of 1.0 kg/dm³



**Example MX20S: Pet food industry**

Medium: Meat Slurry
Flow rate: 78 l/h
Pressure: 10 bar
Viscosity: 1,500 mPas



MX20S with heating jacket

**Example MX20S: Confectionary industry**

Medium: fat / fruit puree
Flow rate: 450 l/h
Pressure: 7 bar
Viscosity: 70,000 mPas

**Example MX50S: Food industry**

Medium: Dairy products
Flow rate: 300 – 3,000 l/h
Pressure: 30 bar
Viscosity: 1,300 mPas

Submerged version

# MX-T

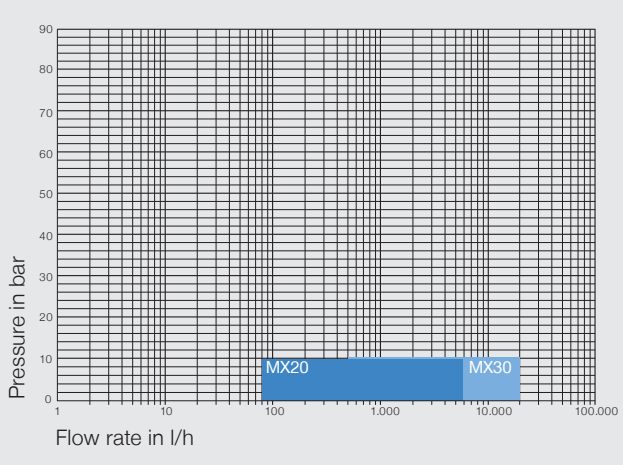
| Pump size | Maximum completely free passage (mm) | Flowrate (l/h) | Maximum differential pressure (bar) |
|---|---|---|---|
| 20 | 22 | 5 to 5.600 | 10 |
| 30 | 48 | 50 to 20.000 | 10 |

## Application

- Metering and transferring applications
- Suitable for aqueous to highly viscous media
- Low-impact delivery of products containing solids

## Features

- Easy to drain drums, mixers, agitators and big bags
- Short assembly length
- Cassette design with minimal dead space
- Uniform metering with low pulsation
- Quick and easy to clean




Details based on a medium with a viscosity of 1 mPas and a density of 1.0 kg/dm³

# Options and Materials

**Double jacket for tempering**

Pump assembly with double jacket

Suction housing with double jacket

Hopper housing with double jacket

**Base plates**

Base plate in cap profile

Base plate with height adjustable feet

Hygienic base frame

Mobile base plate

## Materials

**Materials in contact with the product:**

1.4571, 1.4404, 1.4301

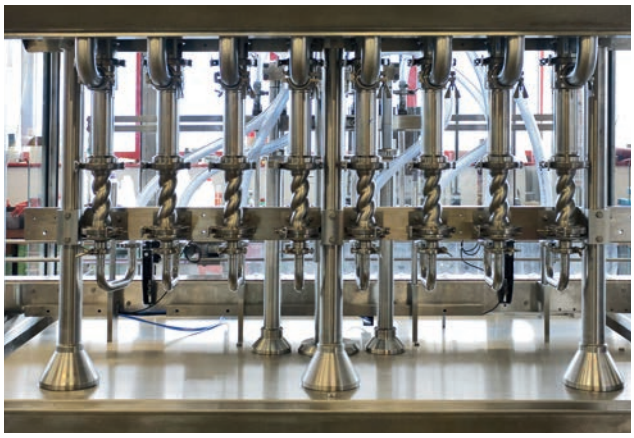
**Elastomer parts:**

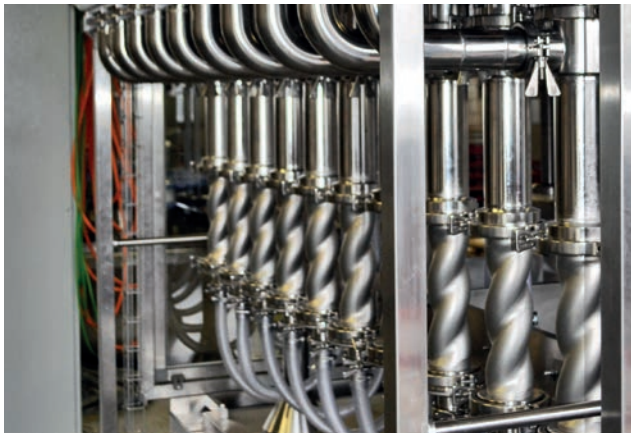
Elastomers in different qualities, with conformity FDA 21 CFR 177.2600 and EU 1935/2004

**Connections:**

DIN11851, DIN32676, DIN11864-1, DIN11864-2, DIN11864-3, DIN EN1092-1

# The MX Pumps in Use





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**WANGEN PUMPEN is certified to:**

ISO 9001 (Quality management)

ISO 14001 (Environmental management)

ISO 45001 (Occupational safety and health protection)

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