

# DYNAMIX MD3

## FIXED-TANK DISPERSER MIXER WITH TRIPLE SHAFT

DYNAMIX MD3 fixed-tank disperser mixers are machines designed for the dispersion and mixing of medium- and high-viscosity products. They are installed on mezzanine platforms and engineered and built to operate under demanding industrial conditions. The processing cycle takes place inside closed tanks, either suspended on mezzanines or positioned at floor level.

Equipped with a triple shaft-including a high-speed dispersion unit, a slow helical screw mixing unit, and an anchor scraper shaft-also available in vacuum version, they are capable of meeting any production requirement thanks to a wide range of motors up to 250 kW. This allows the processing of products with viscosities ranging from 40,000 to 310,000 cP and batch sizes of up to 13,000 liters



## ADVANTAGES

- Innovative Industry 4.0-enabled technology designed to optimize business processes in terms of management time, costs, and quality
- Continuous process monitoring through an integrated PLC
- Automated integration into the production flow and with the company ERP system
- Efficient recipe management, high product repeatability, and reduced production waste
- Minimization of failures and unplanned downtime through predictive maintenance indicators
- Remote assistance for immediate customer support
- Special design allowing easy maintenance of the drive system

## TECHNICAL FEATURES

High-speed dispersion unit featuring:

- Heavy-gauge sheet-metal head with anti-vibration reinforcements and protective housing
- Belt-and-pulley transmission
- Shaft support with high-efficiency ball bearings
- High-speed side dispersion shaft in AISI 304 stainless steel
- Serrated Turbo-type impeller in AISI 304 stainless steel
- Intermediate serrated Cowles-type impeller in AISI 304 stainless steel
- Impeller height adjustable by sliding the head during mixing

Helical screw mixing unit featuring:

- Shaft support with high-efficiency ball bearings
- Side mixing shaft in AISI 304 stainless steel
- Shaft geared motor with coaxial transmission
- Wendel-type helical screw impeller

Anchor scraper shaft unit featuring:

- Shaft support with high-efficiency ball bearings
- Central shaft in AISI 304 stainless steel with anchor scraper in AISI 304 stainless steel and adjustable blades
- Shaft geared motor with coaxial transmission
- Open-top or welded container with dished bottom, cylindrical vertical-axis construction in AISI 304 stainless steel
- Multiple powder and liquid feeding systems integrable into the cover
- Electronic speed control via inverter
- Also available in ATEX version

### INDUSTRY 4.0 READY

- Integrated PLC
- Intuitive touch-screen operator interface
- Network connectivity

### INDUSTRY 4.0 OPTIONAL

- Wi-Fi operator control panel
- Router for remote assistance
- Latest-generation MISURA software
- Predictive maintenance indicators
- OEE (Overall Equipment Effectiveness) indicators
- Dashboard with digital analog-style gauges
- Software interface with the customer's ERP system

## CONFIGURATIONS

Modello	Triplo albero	Coperchio fisso semplice	Coperchio fisso bombato per versione sottovuoto SV
Modello F	X	X	
Modello SV	X		X

## OPTIONALS

- Hydraulic lifting via electric pump integrated into the control unit
- Servo-ventilated motor for forced cooling of the dispersion unit motor
- Reinforced container with cooling jacket and external insulation for heating
- Container inner wall mirror-polished or lined with wear-resistant material
- Product temperature sensor integrated into the shaft
- Level sensor (encoder)
- Foam sensor
- Safety pressure switch
- Work cycle duration timer
- Option to install a second dispersion unit in place of the slow mixing unit
- Cup-type impeller, replacing the Cowles impeller, suitable for high-viscosity and high-density products containing quartz or sand
- Possibility of product discharge under overpressure for vacuum-version machines
- Weighing platform integrated into the container anchoring system
- Washing system:
  - Rotating spray heads mounted on the cover
  - Motorized immersion lance with rotating spray head