

2C GEAR DISPENSING SYSTEM

mastermix gear drive

Three variants, one technology.

The mastermix gear drive processes 2C adhesives and sealants from drum and pail, volumetrically precise from 1:1 to 50:1.

1:1 to 50:1

Mixing ratio

Gear pumps

Metering technology

* depending on viscosity

25 to 10,000 ml/min*

Output rate

Siemens S7-1500

Control system



COMMON TECHNICAL DATA

Mixing ratio	1:1 to 50:1, variably adjustable
Output rate	25 to 10,000 ml/min, depending on viscosity and configuration
Material feed	Pneumatically driven shovel piston pumps with Festo pneumatic cylinders
Metering	Gear metering pumps with Siemens servo motors
Mixing	Static mixer, disposable plastic mixers possible
A-side	pneumatic control
B-side	pneumatic control
Power connection	3 × 400 V + N + PE / 3.8 kW
Compressed air requirement	6 bar, 600 l/min
Standard hose length	2500 mm

MATERIALS

2C adhesives and sealants such as silicones, polyurethanes, MS polymers, epoxy resins, polysulfides, methacrylates (MMA) and booster systems.

OPTIONS FOR ALL VARIANTS

- Other container sizes on request
- Follower plate heating A and B components
- Cartridge filling (1C and 2C)
- Parking position with automatic purge shot

Mixing ratio control

As standard, the ratio is checked manually at the system. Optional volume measuring cells monitor it continuously: recommended for every 2C application, essential for safety-relevant bonds.

COMMON STANDARD EQUIPMENT

- Siemens S7-1500 / Touch Panel / Ethernet-capable for later integration into automated systems
- Siemens servo motors
- Digital pressure sensors
- Dead-volume-free design
- Optical and acoustic pot life monitoring
- Signal light for system notifications on the display
- Material shortage monitoring
- Overpressure protection
- Follower plate with reduced residual quantities
- Two-hand safety control for A and B sides
- Drum empty signal with pump shutdown
- Maintenance-free pump sealing
- Manual mixing ratio control
- Variably adjustable mixing ratio

- Permanent control of the mixing ratio by volume measuring cells
- Longer hose packages
- Special paint finish on request

2C material valve

The 2C material valve opens and closes the A and B sides separately. When we run in the system with your original material, we tune the start and stop delays to your application, so the bead starts and ends precisely, even when the A and B components differ in viscosity.

Which gear drive fits your process?



mastermix gear drive compact

Article number 2381-0000-1000



mastermix gear drive

Article number 2382-0000-1000



mastermix gear drive robot

Article number 2382-0000-2000

Use case	Space-saving for confined spaces and changing locations, optionally mobile	Standard for manual and semi-automated workstations	For automated cells with robot or linear gantry
Material supply	Standard 20 l pail for A and B, alternatively 600 ml foil pack for B	Standard 200 l drum (A) and 20 l pail (B), other containers from 600 ml foil pack to 1,000 l IBC	Standard 200 l drum (A) and 20 l pail (B), other containers from 600 ml foil pack to 1,000 l IBC
Dimensions L×W×H	1200 × 800 × 2200 mm	1500 × 1000 × 1800 mm	1500 × 1000 × 1800 mm
Swivel arm		Height 2500 mm, length 1200 mm	
Weight	approx. 640 kg	approx. 640 kg	approx. 620 kg
Application	2C material valve on hose	2C material valve on swivel arm	Metering units on aluminium base plates, for direct mounting on the robot or linear unit
Integration	PROFINET prepared	PROFINET prepared	PROFINET as standard

EQUIPMENT COMPARED

	compact	gear drive	robot
Software interface prepared for controlling the automation (standard via PROFINET; other interfaces on request)	●	●	
Optimized 200 l drum change (recesses in base plate for pallet truck)		●	●
PROFINET interface integrated, project-specific adaptation of the software interface included (other interfaces on request)			●
Mobile system with wheels	○	○	
Swivel arm extension		○	
Increased swivel arm height		○	

● Standard ○ Option

Equipment may vary depending on project requirements. Further options on request.

Commissioning

Once the order is placed, you send us your original material and we run in the system with it at our plant. A starter set with static mixers and accessories is included, so your production starts right away.

Service

Spare and wear parts, maintenance and repair come directly from the manufacturer in Waldmohr, Germany.

Request quote

t-s-i.de Misch- und Dosiertechnik GmbH
Georg-Fleischer-Straße 6 · 66914 Waldmohr · Germany
+49 (6373) 819980 · info@t-s-i.de · www.t-s-i.de

Since 1998 mixing and metering technology · Developed and built in Germany

Subject to technical changes.



Details and quote online