BENEFITS AT A GLANCE

Optimum mix quality
thanks to unique mixing and conveying technology plus innovative water injection.

Top performance
with operating pressure in excess of 40 bar and hose lengths of up to 60 m.

Long service life and high added value
due to rust-proof, hot-dip galvanized and stainless steel construction as well as high-quality three-dimensionally cross-linked plastics.

Thorough and convenient cleaning
due to modular, easily dismantled design and innovative full plastic lining of the mixing zone using MAI®CODUR.

MAI SAVES TIME AND MONEY

MAI®400NT compared to compulsory mixer/pump-operated systems.

MAI / Compulsory mixer/pump — ca. 40 % — Time saving because mixing and pumping of the material is fully automatic and there is no idle time.

MAI / Compulsory mixer/pump — ca. 10 % — Easier to operate and greater process reliability, as water metering works automatically after one-off basis adjustment.

MAI / Compulsory mixer/pump — ca. 20 % — Means cost savings due to quicker project completion and reduced resource costs.

TECHNICAL SPECIFICATIONS

Operating voltage:	400 V/3/PE/50 Hz other voltage options possible
Nominal capacity:	6,2 kW
Fuse protection:	25 A
Feed rate:	6,5 bis 35 l/min
Dimensions:	173 x 57 x 96 cm
Filling height:	96 cm

WEIGHT

Total weight:	213 kg

INDIVIDUAL EQUIPMENT ACCORDING TO YOUR REQUIREMENTS

A comprehensive range of accessories is available for all MAI®400NT models, allowing the machine to be customized to meet your specific needs. As well as various types of worm pumps with different conveying capacities, other available options including injection pressure switch for pressure limitation as well as the MAI®LOG control and data recording system. It can also be fitted with crane lugs, a delivery hood or injection hood.

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MAI®400NT

BAGS
SILO
MIN. 25 A
TOOL
MAX. 40 BAR
MAX. 4 MM
HOPPER VOL 80 L
MAX. 100 M

THE RELIABLE INJECTION PUMP FOR EXTREME CONDITIONS

Tried and tested technology for optimum reliability: the MAI®400NT is designed for extreme conditions and has been successfully used throughout the world for many decades in mining, tunnel and underground construction and for securing mountain slopes and excavation pits. With the patented MAI conveying and mixing technology, material is mixed by a single motor in one pass and delivered in the required quantity. The machine is designed to cope with hard-to-process materials, long conveying distances and/or high pressures. The use of different worm pumps allows the feed rate to be adjusted to suit the respective application.



THE INDIVIDUAL IS OUR MAIN CONCERN

INTELLIGENT TECHNOLOGY CREATES A WORLD LEADER

In a decades-long innovation process, the MAI®400NT has been refined in close consultation with users and therefore represents the current State of the Art in tunnel-building and ground engineering applications. Its easy-to-maintain and robust construction, specially adapted to the demands of a construction site, helps to minimize expenditure on maintenance, troubleshooting and cleaning. It allows operating pressures in excess of 40 bar and conveying distances of up to 60 m. Sustainability is ensured by hot-dip galvanized parts, stainless steel components and MAI®CODUR plastic components in the wet and dry section.



Ingo Cottogni
Project Manager, Spittal, Austria

"I know this machine for more than 25 years. We work more or less exclusively with the MAI®400NT. Our supervisors and foremen don't want any other machine. We have several units in operation on every job-site. In my projects in Iran, China, Turkey and Austria we used them successfully. The lastest one was the 5.509 m long Bosrucktunnel, connecting Upper Austria with Styria. In my opinion, the main benefits of the MAI®400NT are their usability and robust design. We typically mount them on a pick-up truck to move them quickly wherever we need them. We use them for grouting of rock bolts but also for fore poling injections in tunnels, caverns and shafts."

ESPECIALLY SUITABLE FOR

■ Grouting rock bolts ■ Injections ■ Geothermal drilling ■ Backfilling

The MAI®400NT is a fully automatic grout mixing pump for continuous processing of cement and all machine-compatible injection mortars. Its main application is in tunnel construction and it is also frequently used for ground engineering applications. In conjunction with the MAI®LOG, injection data can be recorded: e.g. pressure, volume and time.

1 **SPUR GEAR MOTOR** ensures that the material is mixed in one pass and delivered in the required quantity. The feed rate can be adapted to different needs by using different sizes of worm pumps.

2 **CONTROL** with automatic phase inverter ensures that the motor rotates in right direction. The modern control technology and an integral overload protection with auto-reset function ensure fluid operation and minimized downtime.

3 **FILLING HOPPER** Easy-to-clean stainless steel hopper with low-level protective grid. The galvanized frame ensures a long service life and protects against corrosion.

4 **WATER SYSTEM** with adaptive pressure reducer for variable site conditions. The vertical arrangement allows self-emptying and prevents frost damages.

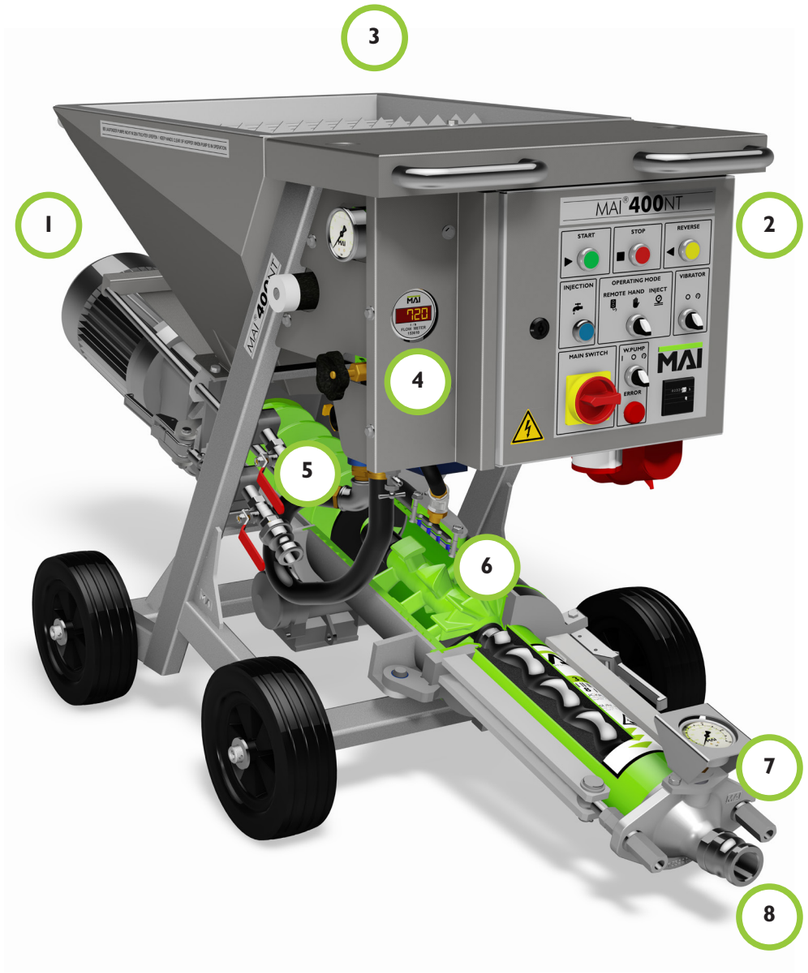
5 **MAI®CODUR** All components in the wet section are made from extremely wear-resistant plastic, allowing easy and complete cleaning.

6 **MIXING CHAMBER** The patented mixing and conveying technology and innovative water injection ensure homogenous mixing and processing quality.
(Patent No. WO 2004/080676 A1)

7 **PUMP OUTLET** with integral pressure gauge. The special shape ensures linear material flow, as well as easy assembly and maintenance.

8 **OPTIONAL** injection pressure switch for monitoring injection pressures to safeguard the structure and health of operators. Adjustment ranges: 0 – 16 bar, 0 – 25 bar or 0 – 40 bar.

MAI®**400**NT IN DETAIL





Drilling and injection



Geothermal drilling



Injection of self-drilling anchors



MAI®400NT with automated feeding

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