

LIGHTWEIGHT ABRASIVE RAIL SAW

MODEL MTZ 400 AS

The lightweight abrasive rail saw model MTZ 400 AS, the new standard in rail cutting, was born from a **close partnership between Geismar and Stihl**, and incorporates the latest technology covered by several patents. It offers:

- Exceptional cutting performance:
 - **Ultra short** cutting times;
 - Outstanding accuracy which meets the most stringent standards (less than 1% horizontally and vertically).
- Exceptional comfort in use:
 - **Comfort Cushion™ patented device** eliminates intense vibrations during rail cutting;
 - Reduced acoustic level due to a new silencer system;
 - **Weight less than 18 kg.**
- Important savings for the operator:
 - Extended disc lifetime (up to 20% extra);
 - Patented air filtration system with cyclone pre-filtration which requires **50% less maintenance.**



1. DESCRIPTION AND OPERATION

The new lightweight abrasive rail saw model MTZ 400 AS, has evolved from the pioneering MTX and revolutionises once again the cutting of rails.

The MTZ 400 AS consists of two parts: the **abrasive rail saw itself** and the **guiding support**.

The abrasive rail saw comprises:

- A two stroke petrol engine with electronic high energy ignition, an air filter with **triple filtration** (with cyclone pre-filtration) and a Elastostart™ starting system;
- A driving pulley with a **centrifugal clutch** for safety should the disc become jammed during the cut;
- A **polytrapezoidal belt** enabling ultra effective power transmission. This transmission is enclosed beneath two protective casings.
- A brand new automatic tensioning device for the belt;
- A **Comfort Cushion™** system which eliminates vibration by creating a flexible link between the engine and disc holder assembly;
- A very rigid disc holder assembly which supports the returning pivot and the disc spindle enabling a highly accurate cut;
- An engine flange and a tightening / anti-unscrewing elastic flange enables accurate guiding of the disc;
- A **swivelling disc protection cover** combines work comfort with operator safety;
- Two ergonomically suspended handles judiciously combine a comfortable cutting position with ease of carrying
- An engine automatic stopping device. The machine stops once it is released from its guiding support.

The guiding support comprises:

- A **reinforced clamp** adapted for the rails to be cut;
- A spring balanced arm which minimises operator fatigue;
- Two rigid articulated arms allowing freedom of movement in the cutting plane;
- An integrated **adjustment template** to accurately position the guiding support for the cut.

From its early design the MTZ 400 AS has been created to offer a high degree of safety and **meets the strictest of standards**.

Additionally to the safety points listed above (centrifugal clutch, belt casings, swivelling disc cover...), the following must be highlighted:

- The MTZ 400 AS can be turned around in a few seconds without the need to invert the engine, thus avoiding the risk of accidents (petrol leakage, hazardous sparks, loss of stability for the operator);
- The petrol cap is vented to avoid pressure build up.
- The throttle with its safety device prevents accidental rotation of disc.

2. TECHNICAL DATA

- Petrol engine **Stihl TS 800**, 2 stroke, electronic high energy sparks ignition, triple air filtration with cyclone pre filtration: 6,8 hp (5 kW) at 9 000 rpm
- Filter lifetime: ≈ 14 hours
- Fuel tank capacity: 1.2 litre
- Petrol consumption : 1.7 litres per hour
- Cutting disc: 400 mm (diameter)
- Spindle diameter: 25.4 mm or 22.2 mm
(to be specified when ordering)
- Average cutting time : from 75 to 90 seconds (*depending upon rail profiles and steel grade – Source S.N.C.F.*)
- Squaring cutting accuracy (horizontal and vertical): < 1 %
- Acoustic level:
 - Acoustic pressure level (when cutting): ≈ 102 dB(A)
 - Acoustic power level: ≈ 113.3 LwA
- Vibrations:
 - Vibrations level (acceleration handle): ≈ 6.2 m.s⁻²
 - Vibrations level (front handle): ≈ 7.1 m.s⁻²
 - Estimation of vibration level for 1 hour use distributed on a 8 hours day: ≈ 2.5 m.s⁻²
- Dimensions:
 - Length without disc: 790 mm
 - Length with disc: 890 mm
 - Width: 315 mm
 - Height: 455 mm
- Weight of rail saw without guiding support: 17.6 kg
- Weight of guiding support: 6.9 kg

3. ACCESSORIES AND OPTIONS (at extra price)

- Vice for flat bottom rail and grooved rail
- Metal case for transportation and protection (picture hereunder)
- Protective goggles
- Pair of gaiters
- Split leather apron

4. CONSUMABLES (at extra price)

- Cutting disc 400 x 4 x 22,2 mm
- Cutting disc 400 x 4 x 25,4 mm



*We reserve the right to modify any equipment specification of the present offer to take into account the latest technical improvements and working conditions at the date of manufacturing.
Pictures and drawings may include some options and are not contractual.*