Semi-automatic thread-cutting machines

REMS Unimat
High operating efficiency
Piece and series production
Easy to operate
Short changeover times
- Bolts
- Pipes
- Rebar

- Metric bolt threads
- Straight pipe threads
- Tapered pipe threads

- Peeling
- Chamfering

- DIN 13\(^1\) tolerance class medium (6g)

German quality product
Semi-automatic threading machine for efficient thread cutting on bolts, pipes and rebar.

- ¼–4” Unimat 77
- ⅛–2½” Unimat 75
- 6–72 mm Unimat 75
- 18–33 mm Unimat 75
REMS Unimat – semi-automatic heavy-duty machine for efficient thread cutting on bolts and pipes. For industry, metalworking, installation.

Highly cost-effective due to rapid working speeds, short changeover times, low machine hour rates and simple operation. For piece and series production. Relieves the burden on expensive turning machines and skilled workers.

To see for yourself how easy it is to use the machine, please visit: www.youtube.de/remstools

1 Working principle
   Stationary material – rotating die head.

2 Design
   Compact, robust construction for continuous operation. Die head with regrindable tangential chaser dies in self-centring holder system. Die head moves forward automatically (no guide thread) after start cutting with feed lever and rack mechanism. Strong welded machine stand with large oil chamber and large removable chip drawer.

3 Unimat 75 drive
   Indestructible planetary gear with annulus gear for long threads up to Ø 30 mm. Tried and tested high-torque, pole-reversible, three-phase hollow-shaft motor, with 2000/2300 W intake and overload protection, specially designed for thread cutting. Switch to reverse direction of rotation for right-hand and left-hand thread. High working velocity and two die head speeds (70 and 35 rpm).

4 Unimat 77 drive
   Robust worm gear and double-reduction spur gear. Tried and tested high-torque, pole-reversible three-phase motor, with 2000/2300 W intake and overload protection, specially designed for thread cutting. Switch to reverse direction of rotation for right-hand and left-hand thread. Four die head speeds (50, 25, 16 and 8 rpm).

5 Clamping fixture
   Strong, distortion-resistant, universal vice with full clamping capacity and specially serrated and hardened jaws. Choice of manual or pedal-operated oil-hydraulic/pneumatic clamping (working pressure 6 bar). Accessories for Unimat 75: special clamping jaws for drawn material, stud bolts, hexagon head bolts and pipe nipples.

6 Universal automatic die head
   Just one universal automatic die head for all threads. Graduated spindle for precision adjustment of thread diameter. Die head closes automatically and opens automatically on reaching the set thread length. All the threads can be cut in one pass. Profiling attachment for tapered threads. Even more efficiency thanks to (several) quick-change universal automatic die heads instead of die set changeover.

7 Threading dies
   The cutting edge geometry of the tried and tested regrindable REMS tangential chaser dies is optimised for extremely easy starting action, easy thread cutting and clean-cut threads. Tool steel chaser dies made of tough, extra-hardened special steel for materials ≤ 500 N/mm². HSS chaser dies for materials ≥ 500 N/mm² which are difficult to machine. The chaser dies are mounted in a special holder system. The dies and holder together form a threading set.

8 Safety guard
   The safety guard has an electric lock which prevents the machine from being switched on with the guard open and which stops the machine automatically when the guard is opened. Meets the safety and accident prevention regulations.

9 Thread cutting on rebar (Unimat 75)
   Special M 24–27 HSS and M 30–33 HSS chaser dies with additional bevelled face for cutting threads on rebar in a single pass. REMS Unimat 75 drive with oil-hydraulic/pneumatic vice for high clamping pressure.
REMS Unimat 75 – for bolt and pipe threads and for threads on rebar


REMS Unimat 75 Basic mS
Manual vice Art. No. 750003

REMS Unimat 75 Basic pS
Oil-hydraulic-pneumatic vice Art. No. 750004

Other voltages on request.

Accessories¹)

Chasers and holders (threading sets)
Pipe thread R, tapered, right, ISO 7-1, DIN EN 10226 (DIN 2999, BSPT)
Pipe thread G, straight, right, EN ISO 228-1 (DIN 259, BSPP)
Pipe thread NPT, tapered, right, Taper Pipe Thread ASME B1.20.1
Pipe thread NPSM, straight, right, Straight Pipe Thread ASME B1.20.1
Steel conduit thread Pg, DIN 40430
Thread M for conduits for electrical installations, DIN EN 60423
Thread M for rebar, ISO 261 (DIN 13)
Metric bolt thread M, ISO 261 (DIN 13)
Bolt thread UNC, Unified Inch Screw Thread ASME B1.1
Whitworth bolt thread BSW
Bicycle screw thread Fg
Fine thread M

Threading sets for left-hand threads and tangential chaser dies can be supplied in HSS.

Universal automatic die head
excluding threading sets and closing lever Art. No. 751000
Chamfering/peeling head 45°, Ø 7 – 62 mm,
with chamfering/peeling chasers 45°, Ø 7 – 62 mm, HSS, with holder Art. No. 751100

Closing lever for closing and opening the chasers
R For tapered right-hand pipe thread Art. No. 751040
R-L For tapered left-hand pipe thread Art. No. 751050
G For straight right-hand pipe thread Art. No. 751060
G-L For straight left-hand pipe thread Art. No. 751070
M For all right-hand bolt threads Art. No. 751080
M-L For all left-hand bolt threads Art. No. 751090

Special clamping jaws
for drawn material, stud bolts, hexagon head bolts and pipe nipples.
Length of workpiece in front of vice excluding thread min. 15 mm, Ø 6 – 42 mm Art. No. 753240

¹) Details: www.rems.de → Products → Threading → REMS Unimat 75 (PDF)
REMS Unimat 77 – for pipe threads up to 4”


REMS Unimat 77 Basic mS
Manual vice Art. No. 770003

REMS Unimat 77 Basic pS
Oil-hydraulic-pneumatic vice Art. No. 770004

Other voltages on request.

Accessories 2)

Chasers and holders (threading sets)
Pipe thread R, tapered, right, ISO 7-1, (DIN EN 10226, DIN 2999, BSPT)
Pipe thread G, straight, right, ISO 228-1 (DIN 259, BSPP)
Pipe thread NPT, tapered, right, Taper Pipe Thread ASME B1.20.1
Pipe thread NPSM, straight, right, Straight Pipe Thread ASME B1.20.1

Threading sets for left-hand threads and tangential chasers can be supplied in HSS.

Universal automatic die head, excluding threading sets and closing lever Art. No. 771000

Closing lever for closing and opening chasers

R For tapered right-hand pipe thread Art. No. 751040
R-L For tapered left-hand pipe thread Art. No. 751050
G For straight right-hand pipe thread Art. No. 751060
G-L For straight left-hand pipe thread Art. No. 751070
Clamping jaws ¼ – ¾” (set) Art. No. 773060

2) Details: www.rems.de → Products → Threading → REMS Unimat 77 (PDF)
Further accessories

Thread-cutting oils

REMS Sanitol
Synthetic thread-cutting oil free of mineral oil. Specially for drinking water pipes. Also suitable for universal use. For all materials.

REMS Spezial
High-alloy mineral oil-based thread-cutting material. For all materials: steel, stainless steel, non-ferrous metals, plastics.

Nipple cutting
Efficient processes with the REMS Nippelfix ½–2½” (REMS Unimat 75) or ½–4” (REMS Unimat 77) automatic pipe nipple chucks for internal clamping or with the REMS Nippelspanner ¼–2” manual pipe nipple chuck for internal clamping (REMS Unimat 75/77).

REMS Herkules
Height-adjustable stand with ball bearing for easy rotation and pulling and pushing movements in all directions.