

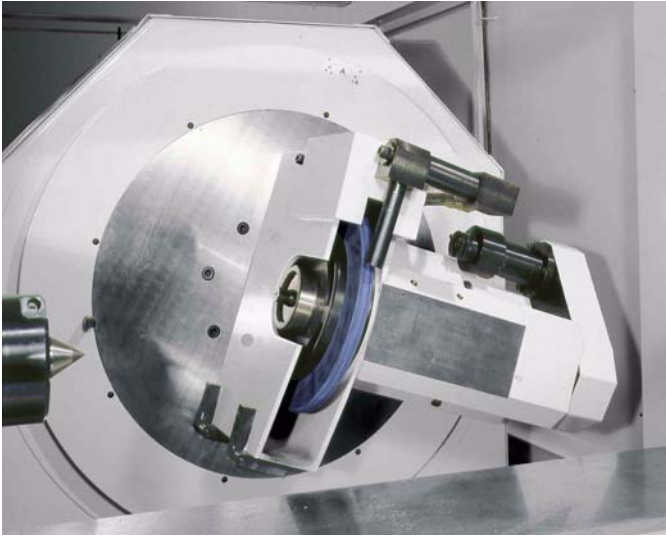
TOOLING GRINDING MACHINE : "RUTAS"



RUTAS, model is a universal grinding machine which allows, with very quick changes, the external and internal helicoidal profiles.

APPLICATIONS.

- Hobs, in a very important module variety, hobs for crowns, striated axes, chains, side cutter, of multiple toothed, of conical profile, of form (of any profile).
- Cylindrical smooth broaches, with straight channels, with helicoidal channels, circular and helicoidal.
- Threading taps, feeding spindle for micro-mechanic's, wormgears for lifts, wormgears of long pitch for compressors, thread and striated gauges and in general prototypes.
- Internal grinding, for nuts of ball-screws, and steering, threads gages...etc.

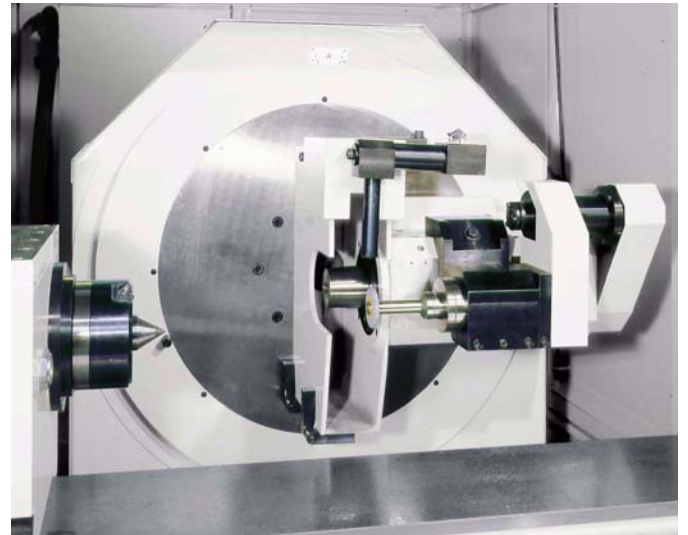


Wheel head, prepared to grind external threads.

- Wheel dimensions : 400x40x203.
- Possibility to grind threads, without limitation of helix angle of pitch:
 - All type of threads profile.
 - All type of worms profiles (Zk, Zn, Zz and Za).
 - Etc.

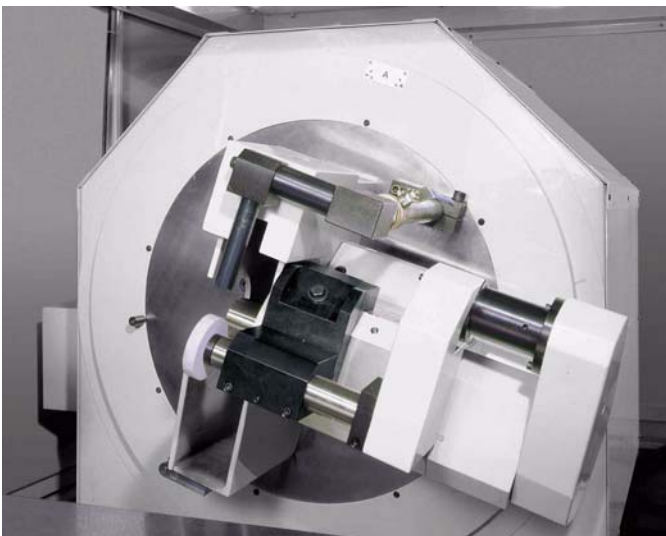
Wheel head prepared to grind internal threads.

- Range of bores to be grind till $\varnothing 250$ mm.
- Different interchangeable electro spindles in function of the dimensions of the bore (30.000 rpm, 60.000 rpm...).
- The spindle could be also driven by the main motor with belts.



Wheel head prepared to grind hobs.

- Electrospindle of 11 kw and 3.000 rpm.
- Minimum wheel diameter 45 mm.
- Possibility to grind different hobs profile.
- Automatic calculation of wheel profile and dressing path.
- The spindle could be also driven by the main motor.



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