

# Doimak

## EXTERNAL GEAR GRINDING MACHINE : REN-T-550



Doimak machine REN-T-550 has been designed for high size gear grinding. The grinding process is realized tooth by tooth.

The main features of the model are:

- Automatic calculation of wheel profile.
- Possibility of grinding external spur and helical gears.
- High accuracy (ISO 4).

### TECHNICAL FEATURES

Max. module.....	16 mm.
Max. outside diameter of gear...	550 mm.
Max. over-all workpiece length...	500 mm.
Max. feed travel.....	450 mm.
Swivel range of grinding adapter...	$\pm 90$ deg.
Wheel size:.....	400x40x203mm.



#### WORKHEAD "C" AXIS

- Spindle driven by digital type direct A.C. servomotor.
- The synchronising of spindle rotation with table stroke is carried out by means of CNC control.
- Possibility for controlling part rotation in one or several different positions and controlled through high resolution encoder.

#### TABLE "Z" AXIS

- Table driven by digital type A.C. servo motor and precision ball screw.
- Infinity variable working speed between: 0 and 6.000 mm/min.

#### TAILSTOCK

- Two pieces device with upper side laterally movement for taper correction. A graduated dial is available for this purpose.

#### BASE

- Amply sized perlitic cast iron with the internal ribs necessary to ensure good machine rigidity and vibration-free running.

#### WHEEL HEAD SLIDE -"X" AXIS-

- Slide driven by digital type A.C. servomotor and precision ball screw.
- Slide stroke reading by glass scale.

#### WHEEL HEAD SLIDE -"Y" AXIS-(vertical)

- Slide driven by digital type A.C. servomotor and precision ball screw.
- Slide stroke reading by glass scale.

#### WHEEL DRESSER

- Installed in the rear part of workhead.
- Support for dressing with diamond roll driven by 0,74 kW A.C. motor power.
- Dressing cycle and wheel wear compensation are both programmable by CNC.

#### CNC CONTROL SIEMENS SINUMERIK 840 D

- Three lineal axis plus 1 rotary axis controlling.

#### GRINDING CYCLES AVAILABLE

- Grinding External Gears.
- Wheel wears compensation.
- Wheel dressing.
- Other applications (threads).
  - Grinding of taper threads.
  - Plunge for metrical threads.
  - Outside diameter grinding.

#### SOFTWARE

- It is a set of sub-programmes corresponding with each grinding cycle, being managed all of them through the main programme developed by DOIMAK to these special purposes.

