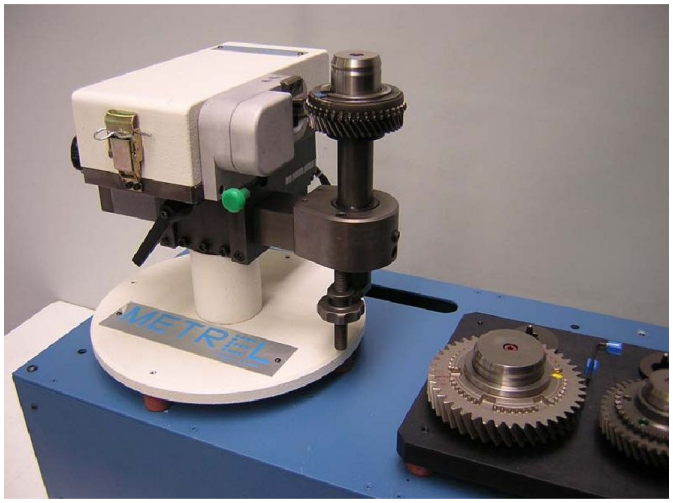
Flexible gears control

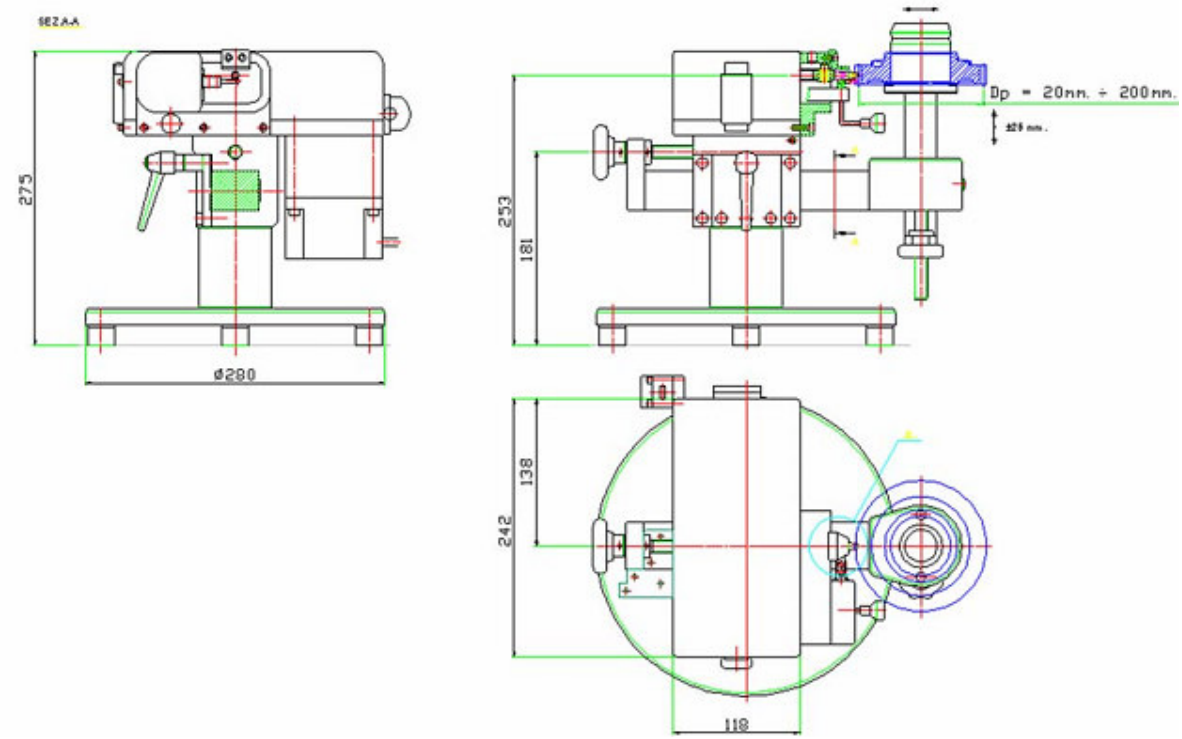
It's now available a new flexible, accurate and quick solution for the control in production of different parameters of cylindrical spur and helical gears.
This new equipment, produced by Metrel (Cornate d'Adda – Milan – Italy), allow , with the base system, the automatic control of gear eccentricity E (F", according to the standard ISO 1328-2) and replacing the part dowel pin with a optional one (equipped with two electronic transducers) allow the additional control of max/min OBD, ovality, and the value of the gear bore diameter and its roundness.
These measurements are obtained computing the radial value measured by the ball with respect to the part centre measured by means of the two electronic transducers.



The measuring system allows the control of gear with pitch diameter between 20 and 200 mm and allow a precise adjustment of the ball alignment with the gear under exam that can be moved vertically in a field of 50 mm.
In the base version some measurements for gear with modules included between 1,7 and 3 mm divided in 3 ranges that require a complete re-tooling at range change, are foreseen.
The retooling, inside a range, requires 3 operations that take only a few minutes (included the replacement of the dowel pin if the bore diameter changes).
At range change it is necessary to replace also the ball transducer and the feed cam for a time lower than 10 minutes.

Gear modules (mm)	*Recommended ball diameter (mm)*
1,7 -- 2	*3,175*
2 -- 2,4	*3,969*
2,4 -- 3	*4,762*
Other control range are available on demand	

Dimension of measuring equipment



The measuring system can be integrated in a Metrel double-flank rolling gear tester to carry out a final complete gear control.
It's possible use also different electronic solution to satisfy all customer requirements.