PROFLEX® is the new line of CNC external and internal grinding machines that sums up the whole concept of flexible production. Proflex is the perfect answer to today’s market trends towards fully reconfigurable systems capable of combining multiple grinding operations on the same machine. Proflex is a true grinding center that can be customized on the basis of specific production needs and grinding applications. At the heart of the Proflex’s flexibility is its range of wheelhead configurations, which makes it possible to use multiple tools in different combinations. Thus, two, three or four conventional or high-speed CBN wheels can be mounted at the same time on integrated motor spindle assemblies and used in successive grinding operations.
The Proflex® lineup consists of three models, PROFLEX2, PROFLEX3 and PROFLEX4, which differ according to the number of external and internal grinding wheels housed in the wheelhead structure.

Each model is specially designed to use conventional external wheels with ø508, ø610 or ø760 mm and peripheral speeds from 50 to 63 m/s [C line], or high-speed CBN wheels with ø400 or ø500 mm and peripheral speeds from 120 to 140 m/s [S line], in combination with several internal grinding units.

Different spindle designs are available for each wheel type. All spindle units feature extra-precise ceramic rolling bearings, coaxial integrated drive motors and wheel balancers incorporated in the spindle nose. Extensive product engineering work made it possible to develop a full range of machine sizes with different between-centers capacities. The machine bed and stationary table are modular units with one-piece load-bearing structure, ribbed to guarantee thermal and dynamic stability. Stationary table design with recirculating roller or hydrostatic Z-axis crossfeed and X-axis infeed minimizes the machine’s footprint and rationalizes fluid and electrical system layout. Easy, user-friendly programming is ensured by Tacchella's patented T.O.P.-Tacchella® (Tacchella Operator Package): powerful interactive software that meets the challenge of combining flexibility with full process capacity.

The wide selection of standard grinding cycles makes it possible to satisfy an enormous range of needs, carrying out complete, complex grinding operations with ease. The standard grinding cycles, which can be combined in any machine configuration, can be used for diameter, shoulder, groove radius, chamfer and taper grinding with or without interpolation, as well as for contouring and grinding threads, regular polygons, non-round shapes and cams with regular or special wheels, all in a single setup.

The T.O.P.-Tacchella software package is patented by Tacchella Macchine S.p.A.