



Bonesi Pneumatik is an actual Logo, but its origin is far in the years being raised at dawning of Pneumatics in Italy, considering the MADE IN ITALY one of its strengths. Such Lombard Company, in addition to a production of standard components, develops special products according to the requirements of the customers. Here following some significant examples.

Standard and special products

BERNARDINO CORRIELLI

Underlining that the main share of the market in Pneumatics is still the component and that this represents the core of the business, we can understand how, in order to increase such business, during the recent past years new technologies raised to develop advanced miniaturizations, simple and low cost components and components available to be integrated in complex systems. In order to better satisfy the need of flexibility of the market and to catch at best the various possibilities, Bonesi Pneumatik in Legnano (MI) has implemented also another strategy, that of the "special product" becoming, step by step, a kind of ATELIER of the Pneumatics.

Satisfactory results

Such choice is a winning solution thanks to the expertise and the professionalism of its Commercial Department with high capacity to understand the needs of the OEM and the presence of its R&D available to develop products according to the specific needs, also in presence of limited quantities. In particular, the combination of precision mechanical solutions with pneumatic actuators allows the realization of integrated mechanical groups supplied as turnkey products. The fast timing of development of the products, with the consequent reduction of the time-to-market, is possible thanks to the advanced CAD 3D software of design used and to the direct contacts of the Bonesi technicians with the technicians of the Customer.

These significant results are possible also thanks to the potentiality of the Production Unit of Bonesi Pneumatik in which operates 25 CNC some of them subservient by anthropomorphic robots.

Some examples of special products realized by the Company.

Double acting compact cylinder for production of ophthalmic lens. Such cylinders are made with components with very strict machining tolerances in order to have very precise positioning of the piston rod and include an external anti-rotation device very strong. At the end of the piston rod the tooling for the machining of the lens are mounted: for this reason the position of the piston rod when extended, must be very precise.



Special Bonesi Pneumatik cylinders for use on industrial machineries.

Special cylinders for hydraulic doors, autoclaves and fill in pumps.

Single acting cylinder for lifting of bottles in filling machines in food & beverages field. Such cylinder has two external anti-torsion rods, they are mounted on a rotary table and they are constantly supplied by compressed air for the lifting of the bottles and moved by cam for the quick drop, at the speed synchronized with that the same of the machine. Among the various peculiarities of such cylinders can be mentioned the rigidity mechanical fixation of the upper cap to the rotary table and the strength of the lower cap where there are located the sliding seats of the two anti-torsion rods, in stainless steel AISI 304. Cylinder for heavy duty applications on autoclaves and machines for textile dyeing. Such cylinders include all the components in stainless steel and seals in material suitable to resist to chemical attack. The dimensional sizes are according to Customer design. Single acting cylinder with high force spring for safety closure of gate valves. The cylinders realized are for 1" G valves with spring from 160 to 230 Kg., for 1½" G valves with spring from 250 to 330 Kg. and for 2" G valves with spring from 250 to 450 Kg.

Cylinder according to ISO 15552 Standards, with tie rods, for functioning with compressed air and with high vacuum, for security lock of autoclave doors. The cylinder is alternatively supplied by compressed air at 15 bar for the exit of the piston rod and by vacuum to return the piston rod to the internal of the cylinder. A spring located internally to the rear chamber guarantees the exit of the piston rod in lack of vacuum or pressure. The topic of the project has been the choice of the seals suitable for the functioning both with compressed air and vacuum. Double acting cylinder, with dimensions according to ISO 15552 Standards, with manual precision adjustment of the stroke with 0.1 mm of tolerance and with internal end of stroke sensor, for fill in pumps. Among the several other realizations of special products, we underline: the double ended rod micro cylinders with external adjustment of the stroke for silk-screen printing machineries; the double acting cylinders for use into ovens up to 220° C; compact tandem cylinder with non rotating opposed piston rods for silk-screen printing on glass bottles; press

cylinder bore 200 mm with rear hinge integrated to the cap for textile machines. Regarding the standard products, the catalogue proposed by the Company includes a complete range of directional control valves and cylinders, with some crowning achievements like the tested Pneumo-Hydraulic control units from bore 50 to 200 and the historical poppet valves from 1/8" to 1", that guarantee high flow capacity and great functioning reliability, both with compressed air and vacuum.