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ESCOFIER presents its new modular concept FLEX series machines

FLEX : A new modular concept for a great numbers of applications

As a result of its modular design, the FLEX machine series provides many application solutions for all kinds of cold rolling processes used with dies. The 2 sizes of machine base (M & L) enable it to accommodate a large range of work pieces. The maximum rolling force of the cylinder (from 5 to 60t), the energy (electrical or hydraulic), the spindles sizes, the different solutions of motors…etc. assure precision when making all types of standard profiles, Incremental®, Syncroll®, roll-finishing of gears, densification of powered metal parts, tubes…etc.

Main characteristics:

- A cast iron base available in 2 sizes assures optimal rigidity.
- High accuracy of carriage movement due to the ground guides.
- Two movable carriers are symmetrically moved by a single cylinder.
- Spindles are rotated by reducers or direct drive shafts.
- The spindle diameter is adapted to the rolling dies and applications.
- Movements are controlled by PLC, numerical axis or CNC.
- Optional Force control and Position control systems for the gear finishing process.
- Optional easy taper and helix adjustment.

Principle and application

The unique design of Escofier machines using only one single cylinder to ensure the symmetrical movement of the slides, the quality of the guideways, the drive unit without backlash, the numerical axis…etc are all elements to obtain high quality and high precision results. Whether special threads, precision splines or surface burnishing, rolling achieves exceptional results with a cost per piece particularly competitive. This process has applications in many industries, like automotive, aerospace, railway, medical, construction etc ....

- In feed, thru feed or forced thru-feed uses
- Possibility of multiple rolling operations in the same cycle
- Easy production changeovers
- High accessibility of the rolling station which enables the adaptation of specific part fixtures and / or automatic loading integration.

Applications

- All types of thread and knurl rolling
- High precision Spline rolling
- Gear roll-finishing and sintered part densification
- Tubes specific form rolling: finned and corrugated tubes

- Machines adapted to high productivity like the automotive market
- High accuracy work piece in many markets: aerospace, arms, medical…etc.