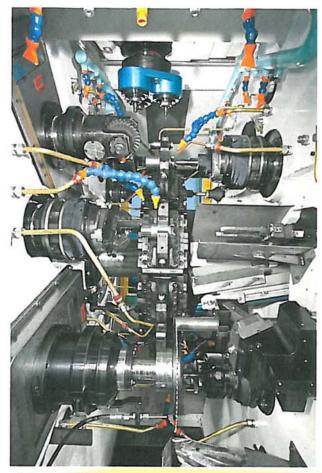
## **Buffoli Introduces Trans-Bar Multi-Spindle Non-Rotating Bar Machines**



The Trans-Bar is a rotary transfer machine designed and built specifically for high efficiency bar machining with fast changeover. The basic elements have been custom engineered into a machining system designed to meet the unique challenges presented by bar stock parts.

The rigid double-walled frame is designed to eliminate vibrations from spindle to spindle and is engineered for improved ergonomics and accessibility, facilitating high operating efficiencies and shorter setup times, the company said.

The bar feeder integrates bundle type storage. The capacity is approximately 3,000 kg (6,500 lbs.) with the possibility of loading random length bars (up to 6m, 20 ft.).

The bars are fed into the machine automatically; the operator has no need to handle single bars. Profiled bars, ex-

truded bars, (T, L or cross shapes) are automatically positioned without operator intervention.

The integrated cut-off system values material cost and tool cost, the company said. The 1 mm (.040-inch) thin saw blades are designed to allow consistent material savings. An electronic monitoring system improves saw blade life, allowing for the programming of saw blade limits, as well as graphical representation of relative saw blade wear. Carbide tipped blades may be used in some cut-off applications.

Buffoli machines feature a rapid turret index time (0.2-0.5 sec.). The turret supports self centering chucks, collets or expanding mandrels, gripping and holding the cut bar sock as it is transferred from station to station for various concurrent machining operations. Bar feeding and cut-off are carried out simultaneously with the other operations.

The clamping fixtures (chucks, collets, expanding mandrels) are designed for optimum work piece clamping. Machined feature characteristics such as centerline, concentricity and roundness are usually more critical on bar machined parts than on forged parts or castings. The Buffoli machining system maintains these high quality standards. All clamping fixtures are of the quick change type.

Rotating tools working in various directions (aligned on a separate axis, or transversally oriented) facilitate chip breakage especially in the machining of steel and aluminum. Process capabilities include: cut-off, facing, drilling, boring, reaming and conical and profiled turning, internal and external grooving or recessing, tapping, threading, single point threading, milling broaching, rolling, thread forming, thread milling, slotting knurling, deburring, marking, feature gauging, or even sub assembly of various components, i.e. bushings, inserts or pins.

Buffoli's CNC profiling and recessing heads are designed to be easily installed or removed from any spindle. Precision machining functionality, through advanced CNC interpolation, allows facing, turning, contouring, grooving and single point threading for flexible machining with low cost standard inserts.

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