FORGE TRONIC®

Samples of forged parts

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FORGE TRONIC®

ELECTRIC PRESSES FOR HOT FORGING

AUTOMAZIONI INDUSTRIALI® S.r.l.

ENG

Thanks to ForgeTronic,
it is no longer necessary
to rely on skilled staff
to obtain flashless parts!

FORGE TRONIC®

AUTOMAZIONI INDUSTRIALI

It is an electric press for the hot forging of metals. With ForgeTronic, the hot forging process has been re-engineered! All the axes, the upper die, the four extruders and the unloading arm are directly driven by electric motors, allowing the user to regulate and monitor the process variables: position, speed, torque, etc. The motors are handled by a dedicated controller, suitably programmed to adjust the sequence of each single axis so that it synchronizes with the others. A PC with a touch-screen monitor enables the user to set up the work cycle.

With conventional presses, regulations used to require time and specific knowledge, whereas now they are easily accessible and give immediate results! The stroke, start and end parameters for each extruder can be directly set up from the touch screen!

The software provides for the storage of the various items in a database, so any previously stored item can be quickly retrieved. Integrated die lubrication through 16 upper nozzles and 16 lower nozzles. Start-stop regulation of lubrication points according to position of die. Programmable adjustment of the required oil volume. Monitoring of entire work cycle, including extruder position and par.

ADVANTAGES
Low noise emissions
No waste of energy
No direct contact with hydraulic oil
No need for costly and demanding maintenance
Easy to use
Very safe
Versatile
Precise and fast
Flexible
Waiting to be discovered!

TYPE	CAPACITY	UPPER PLATE STROKE	GAP BETWEEN PLATES	PUNCHES	PUNCH STROKE	SINGLE PUNCH CAPACITY	TOTAL INSTALLED POWER CAPACITY	
FT	kN	mm	mm	TYPE	mm	TON	kW	N. of cycles/1'
FT 4800	1800	450	675	ELECTRIC	0 /105	4 X 75	45	25
FT 7100CL	2600	450	720	ELECTRIC	0/105	2 X 75 + 2 X150	60	20
FT 13000	4500	450	720	ELECTRIC	0/120	2 X 150 + 2 X 320	105	19

- Loading of single billet or double billet through anthropomorphic robot
- Electric unloading linear arm synchronized with machine cycle
- Pyrometers mounted at entry for temperature control
- Pyrometers mounted at exit for temperature control of forged parts
- Closed circuit cooling chamber to ensure motor temperature remains constant
- Self-regulating speed function according to required number of cycles per minute
- Independently adjustable rising and lowering speeds
- Strength trend analysis for each extruder and vertical axis
- Automatic calculation of hourly oil consumption for die lubrication
- Recovery of waste die lubricant in a single point

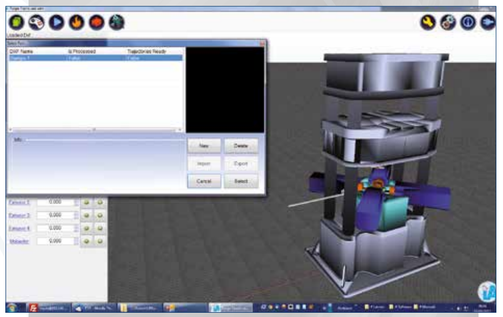
Simple adjustments
on a touch screen are
transformed into
machine motions!

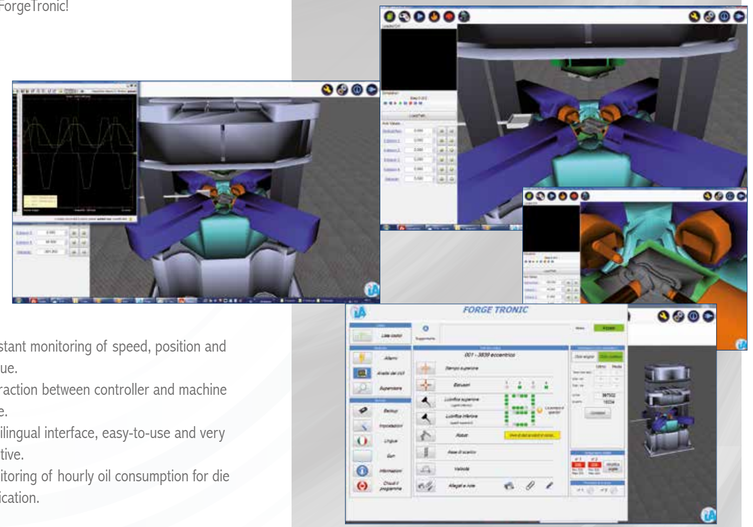
Specific CAD-CAM for FORGE TRONIC®

Specific Cad/Cam software that allows you to import Step files of the die, workpiece, pins and pin bushings.

It lets you move each axis to its own end position (vertical axis in contact with lower die, and pins in contact with the part), and save those positions; it also lets you save other relevant settings, such as the start/stop sequences of the pins, adjust timing, adjust the lube start/stop settings, display the areas to be lubricated, etc.

It also allows you to emulate the machine cycle and then transfer the relevant file directly to the ForgeTronic!





- Constant monitoring of speed, position and torque.
- Interaction between controller and machine cycle.
- Multilingual interface, easy-to-use and very intuitive.
- Monitoring of hourly oil consumption for die lubrication.