

bPTronic

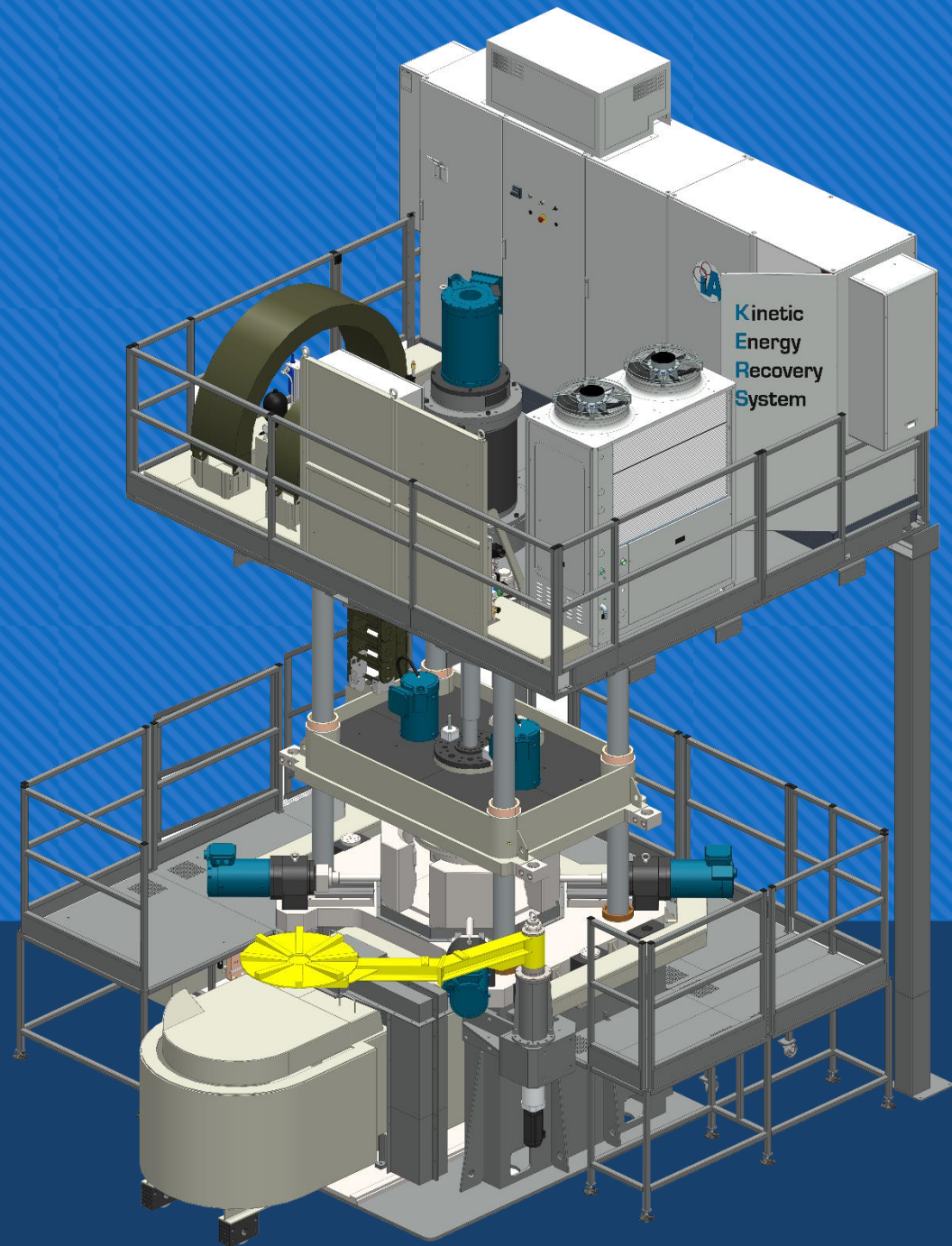
ELECTRIC low pressure

CASTING PRESS

bPTronic



LOW-PRESSURE CASTING PRESS
with full ELECTRIC technology



BP Tronic is the **new and only low-pressure aluminum casting press** with **full-electric** technology, which applies a totally innovative and revolutionary concept and method.

It is equipped with a vertical **screw clamping unit** with *direct-drive* transmission, driven by a torque motor, plus four horizontal axes arranged at 90°, also moved by direct-drive transmission and torque motors, which enable a precise, repeatable and fast clamping, always under control. The unloading system is also automatically driven, moved by *brushless* motor with encoder.

The electrical technology, by managing and synchronizing every single movement, makes it possible to reduce the opening cycle time and new cycle start, achieving the amazing result of **15 seconds of cycle time**.

Due to its **unique features**, the press offers **numerous advantages** over conventional technology:

- ❖ **Individual start and stop control** of each horizontal axis: for example, we can set their start sequence according to predetermined delays (time criterion) or according to predetermined measures (distance criterion). It is also possible to **set the final position** of the horizontal axes in two ways: simultaneous or independent stop.
- ❖ Significant **reduction in waiting time** between cycles
- ❖ **Complete control of motion**, making it absolutely repeatable and accurate. Repeatability of positioning even when temperatures vary is guaranteed by a CNC controller.
- ❖ Drastic **reduction of energy consumption** with process efficiency: BPtronic® presses guarantee the lowest energy consumption in the industry: **less than 7 kWh** (this reduction is only possible thanks to the energy recovery system and software developed by Automazioni Industriali).

The electrical technology ensures a stable process, greater accuracy and repeatability, allowing each machine parameter to be constantly monitored in real time during the cycle and any differences to be detected during the process.



K P I - Key Performance Indicators

- **Ease of use:** thanks to a modern and intuitive user interface, the operator is guided through every step when using the machine
- **Flexibility:** full-electric press that allows cycles to be run with high accuracy and repeatability
- **Energy recovery** through the **KERS** system
- **High level of customization:** the know-how belongs entirely to Automazioni Industriali, which gives the possibility to add custom features according to the customer's needs
- **Numerical control** ensuring absolute repeatability and process control
- **Synchronization of all machine axes** to optimize critical cycle steps
- **Reduction of cycle time**
- **Algorithms for control, supervision and management** of key process parameters
- **Compact layout** due to equipment located at the top of the machine
- **Mobile application** to monitor the status of the machine remotely on smartphones (for IOS and Android)

TECHNICAL FEATURES



Distance between columns	1605mm – longitudinal 940mm – transversal
Stroke of movable plate	1100mm
Diameter of columns	150mm
Distance between movable and fixed plates	Min. 500mm
Clamping force of the machine	250kN (25 ton)
Clamping force of each axis	40kN (4 ton)
Ejection force	290kN (29 ton)
Max. dimension of casted wheel	24"
Max. stroke of axes	300mm
Max. stroke of ejector	90mm
Cooling channels	20 channels (regulated by proportional valves and with analog flow detector) Indicative flow rate:10 - 30 liters/min)
Main voltage	400 V 50Hz
Average consumption of the cell	7 kW/h
Energy recovery system	KERS
Inlet air pressure	Above 6 bar
Inlet cooling water	Above 3 bar



AUTOMAZIONI INDUSTRIALI S.r.l.

Via Castagnotta, 8
25075 Nave (BS) - ITALY
Tel +39 (0)30 8925563
sales@autind.com

www.autind.com

