



SMART POURING MACHINE

- ▶ High production and fast pouring capacity
- ▶ Better metal yield, no overweight, less scrap
- ▶ Optimized ladles shape to reduce heat loss
- ▶ High reliability, low operating cost
- ▶ Total connectivity and powerfull remote control for effective support and maintenance
- ▶ Simple design, quick installation and commissioning
- ▶ Unique technology – Interesting price



ABOUT US

After a long experience in mechanical and electrical development, integration and setting-up of pouring machines,

EASYsa and HUBO GmbH

have chosen to collaborate in the development and production of a new generation of machines.

With a modern architecture and a perfect control of the pouring process,

EASYsa and HUBO GmbH

are now able to offer the best solution to meet the needs and requirements of modern foundries.

SwissPour

FROM MANUAL TO TOTALLY AUTOMATIC POURING

The **HP** generation has been designed to meet the needs of modern foundries and to ensure the robustness and reliability of the mechanical and electrical components of the machine. In addition, to further reduce the risk of defects, the machine does not include any hydraulic or pneumatic components.

The basic machine concept is designed for all pouring modes: manual, semi-automatic and automatic. It is driven by a control system organized in a static main unit in charge of the global management, security, operator's interfaces and an embedded unit in charge of the motors drives and the control of all real time operations of the pouring process.

ADVANTAGES

The **Numerical Pouring Control Unit** drives each axis individually and analyzes the weight, jet and level information in real time to ensure accurate positioning and pouring quality. It also offers a maximum of flexibility and comfort such as :

- ▶ accurate end of pouring with our new dynamic weighing system.
- ▶ temperature measurement by short wavelength pyrometer and ATD function
- ▶ automatic positioning on cup by high speed dot matrix camera.
- ▶ synchronous pouring for fast molding installations.
- ▶ change of material with ladle replacement, sample pouring, 180° pigging
- ▶ a convivial and optimized cockpit for the control and the follow of all the manual, semi-automatic and automatic functions of the machine.
- ▶ and the integrated quality assurance with automatic recording of each pour (weight, temperature, duration, inoculation, type of iron, etc.)

The simple architecture ensures the quality and longevity of its operation, improves its performances and facilitates access to all its functions like :

- ▶ round ladles to reduce temperature drops and turbulence during movements.
- ▶ long spout to improve access to the cups.
- ▶ ICE 700 simple or double inoculation system proportional to pouring flow.
- ▶ iron treatment processes directly in the ladle (CGI or by tundish)
- ▶ and finally, reduced labor requirements and associated costs.

FUNCTIONS

- ▶ Numerical Pouring Control Unit, the heart of the smart pouring machine
- ▶ X, Y, Z axes for ladle positioning
- ▶ A axis for ladle tilting
- ▶ I1, [I2] axes for inoculation systems
- ▶ X1 axis for cameras and sensors positioning
- ▶ Ladle weight measurement system
- ▶ Iron temperature measurement system
- ▶ Molding line and host server interfaces
- ▶ Inoculation flow according to poured iron
- ▶ Control panel and vision system for the control and supervision of the pouring process
- ▶ Safety of persons with doors, gates, emergency stop buttons, acoustic and light signals

TECHNICAL DATA

- ▶ Siemens TIA Portal PLC, S7 IO technology, Profinet and Ethernet interfaces
- ▶ SEW Brushless AC Technology for servo systems and real-time controller
- ▶ AC brushless motor technology with IP65 protection class designed to withstand severe environments
- ▶ Industrial PC HMI with Ethernet interfaces, wide color screens, keyboard and mouse

OPTIONS

- ▶ Independent inoculation
- ▶ Iron handling
- ▶ Ladle sizes
- ▶ Ladle exchanger



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