

babyplast

The System



The Autonomous Injection Unit



a **small** unit
for **big** machines

Autonomous Injection Unit I/10P

A Plug and Play solution

Babyplast

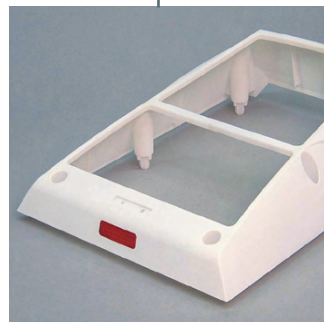
The original concept of this Autonomous Injection Unit has been developed, based on the experience accumulated from thousands of applications using the Babyplast injection moulding machine.



Easy to consult and user friendly display

- Colour touch screen display.
- Easy to consult and user friendly display
- Handles and stores over 100 tool settings
- Back-up on USB memory drive
- Record of last 20 cycles
- Ethernet connections: modbus TCP

*Example of an installation on a
200 Ton machine*





A plug and play solution

The Autonomous Injection Unit Babyplast I/10P is comprised of an injection unit which can be installed directly onto a mould and a control unit, on wheels, which contains the electronics and the proportional hydraulics.

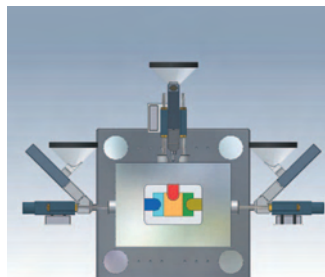
The connection to the injection moulding machine can be carried out quickly and easily, thanks to a simple interface using current free INPUT/OUTPUT contacts. Any injection moulding thermoplastic material can be processed with processing temperatures up to 420°C.

Add-on injection unit for multi-component injection moulding

The advantage of the Babyplast injection unit for multi-component moulding is that the unit is completely autonomous, at least as far as the electronics and hydraulics are concerned, from the main machine and, by means of a simple interface using current free contacts, it is possible to connect the unit to any injection moulding machine.

Considering the fact that in most applications using multi-component moulding, the main component is usually of a much greater volume than that of the second component, thanks to the low shot weight, from 3 to 15cc for the standard injection unit and up to 36cc for the augmented version, the (UAI) injection unit permits precise injection shots and minimum resident times at melting temperature.

The Autonomous Injection Unit (UAI), offers an economical and practical solution for transforming an existing, standard, traditional single component injection moulding machine, into a multi-component machine. Another advantage is in the flexibility when choosing the position of the unit: the injection unit of the UAI, thanks to its compact size (approx. 400x500x200mm), can be installed directly onto the mould, either horizontally or vertically, and either on the fixed half or on the moving half. This simplifies the mould construction considerably and allows the freedom to choose the best injection point for the second component. It is also possible to install the unit directly onto automatic production lines.



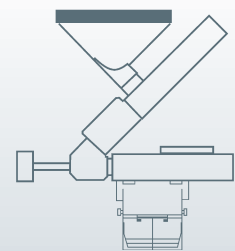
Standard features included:

- Colour touch screen display
- Quality control (Cycle time/cushion/injection time)
- Automatic shut down in case of alarm or out of tolerances
- De-compression
- Temperature tolerance band
- PID temperature control
- Easy to consult and user friendly display
- Multi-lingual
- Handles and stores over 100 tool settings
- Record of last 20 cycles
- USB connection
- Intrusion programme
- Hour meter
- Sprue break
- Injection and clamp positions monitored via transducers
- Electronic transducer for pressure control
- Inverter for motor speed control
- 4th zone for mould temperature control

Optional

- Mixer nozzle (static mixer)
- Nozzle with tip for injecting directly into part
- Shut off nozzle (Spring operated/pneumatic)
- Accumulator for injection speed
- Output for hot runner shut off nozzle
- Extra heater zone
- LSR injection unit
- Air blow
- Configuration for high temperatures
- Drier
- Material loader (electric or Venturi)
- Interface cable for Euromap 67/12

Other options can be available on request.



Autonomous Injection Unit I/10P

ARBURG

**FERROMATIK
MILACRON**

Wittmann Battenfeld

HUSKY

BOY

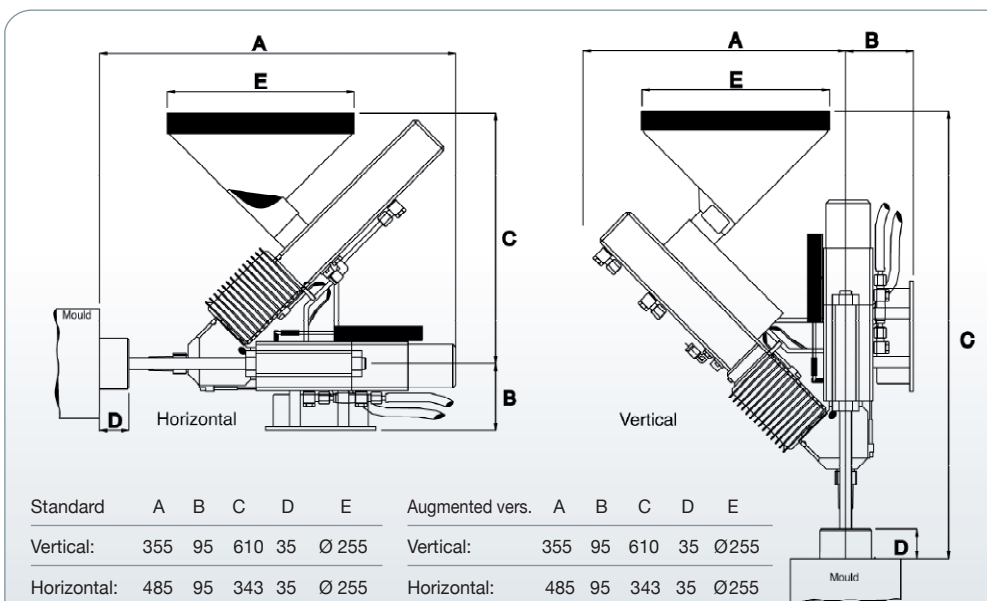
KRAUSSMAFFEI

**Sumitomo
DEMAG**

NETSTAL

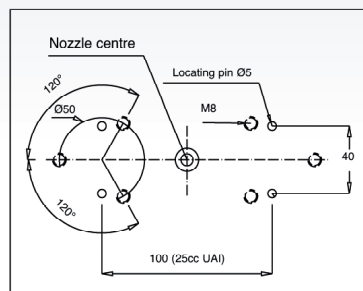
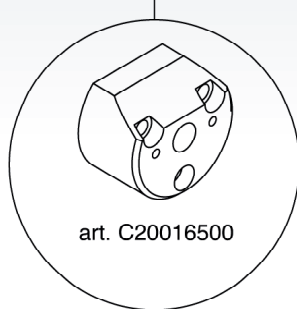
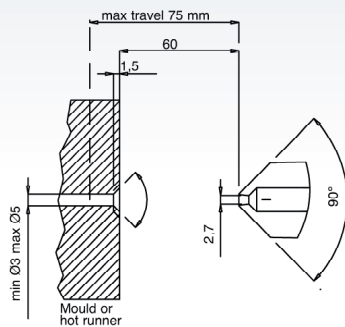
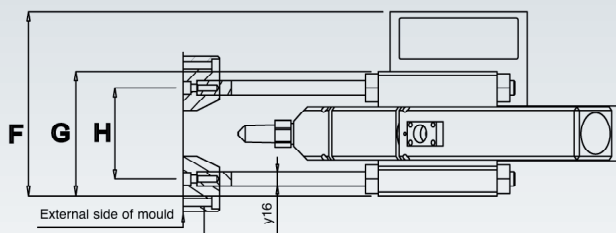
ENGEL

Installation directly
on an automatic
production/ assembly line



Autonomous Injection Unit I/10P technical data

	F	G	H
Standard Vers.	202	136	100
Augmented vers.	202	146	110



make flow channel diam. as small as possible

To fix the the adapters to the mould, use 6 screws M6x40, we also recommend to use locating pins.

Standard Version						Augmented Version*				
Piston diameter (mm):	10	12	14	16	18	16	18	20	22	24
Volume (cm ³):	4	6,5	9	12	15	16	20	25	30	36
Injection pressure (bar):	2030	1850	1340	1030	815	1535	1250	980	830	680
Power consumption Kw:						3,2				
Weight of injection unit Kg:	25					37				
Weight incl. controller Kg:	130					142				
Hydraulic pressure bar:	130									
Oil tank capacity l.	16									
Power supply	3 Phase - 230/400V - 50/60 Hz									
Hydraulic and electronics control unit dimensions	790 x 500 x h 1030mm									

*over 16 cm³ is recommended for low viscosity materials only