

## **POURING AUTOMATS**

**P 10 · P 20 · P 30**

## **POURING MACHINES**

**GIMA 8 · GIMA 12**



## AUTOMATIC TILTING LADLES FOR HIGH QUALITY CASTING

With HWS pouring machines, iron from grey or spheroidal graphite can be cast continuously and with no detriment to the cycle time at moulding plants of all kinds.

Here we apply our fully developed technology with tilting pouring ladles, where the flow and volume of iron can be precisely regulated.

The pouring stream of molten metal is monitored by means of optical sensors and cameras, and a programmable control system regulating the pouring speed to the take-in

capacity of the sand moulds ensures the precise production of cast iron parts of every type and design.

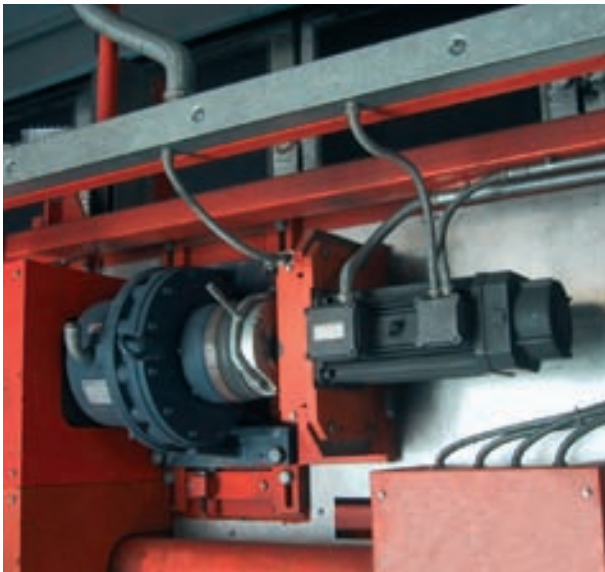
Two standard types of mobile and stationary revolving ladle changeovers – which can be expanded with additional functions as required – have proved their worth when used at moulding plants of various designs.

In all models pouring ladles with a segment construction are used, i.e. the flow rate is proportional to the angle of tilt of the ladle – a prerequisite for precise and loss-free casting.



*Pouring Automat P 10-S in a SEIATSU moulding plant for grey and spheroidal graphite casting.*





*Tilting mechanism*



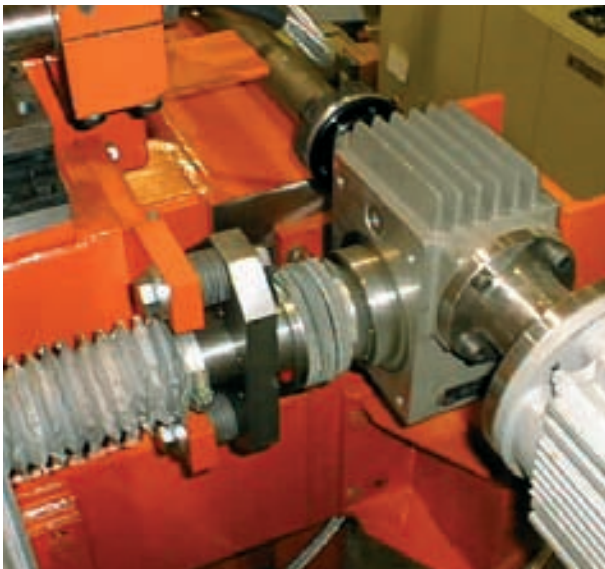
*Weighing frame*



*Inoculant dosing device*



*Travelling mechanism*



*Transverse drive*



*Revolving ladle changeover, stationary*

# AUTOMATIC TILTING LADLES FOR HIGH QUALITY CASTING

**Our pouring machines for modern foundries offer the following advantages:**

- change of material with no production stop, even with spheroidal pouring
- change of model without interruption through saving of model data
- traceable evidence of quality through data evaluation interface
- economical use of iron through reduced filling level in the hopper and avoidance of overflow
- reduced waste through regulated and precisely measured pouring
- only one operator possible for the organisation of iron feed and pouring process

**Quality pouring at lowest costs through:**

- robust optical sensors for measuring the pouring volume and monitoring the mould with regard to flow and overflow
- digital camera system for monitoring the iron level in the hopper
- sensitive and fast regulation of the tilt through precise booster control
- high resolution programmable casting control
- fast change of the pouring ladle with no stoppage of the moulding plant

- gear rack travelling mechanism along the casting line for optimisation and synchronisation of both cycle time and emptying on moulding plant faults
- G.L.S. 2010 - Pouring Machine Monitoring System

**Our pouring machines can be fitted with additional appliances:**

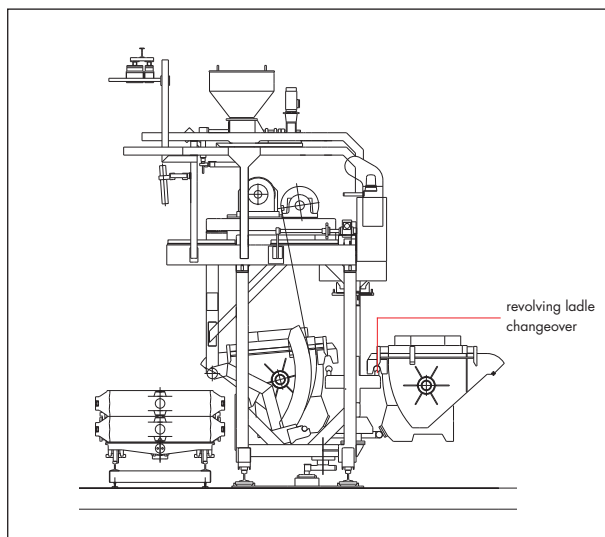
- control module accompanying the pouring process in continuous moulding plants or on advance feed through synchronisation
- optional ladle pick-up for suspension rail or forklift truck transport
- ladle lid with integrated automatic removal device for minimisation of temperature drop during spheroidal casting
- mobile system with evaluation electronics for controlling the weight of the ladle contents and further reduction of the filling level in the pouring hopper i.e. further economizing on iron
- inoculant dosing device to regulate the exact feed of the injection agent into the pouring stream of molten metal
- intermediate ladle for high-capacity moulding plants or boxless moulding plants

**The pouring process can be regulated or monitored in three pre-selectable ways:**

- pouring by weight
- pouring by time
- pouring by level

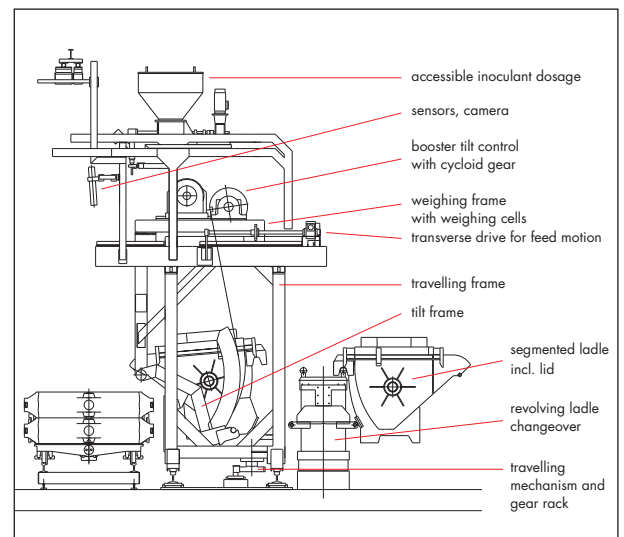
**Pouring Automat with mobile revolving ladle changeover**

**P 10-W · P 20-W · P 30-W**



**Pouring Automat with stationary revolving ladle changeover**

**P 10-S · P 20-S · P 30-S**







Pouring Automat P 20-W during direct filling.



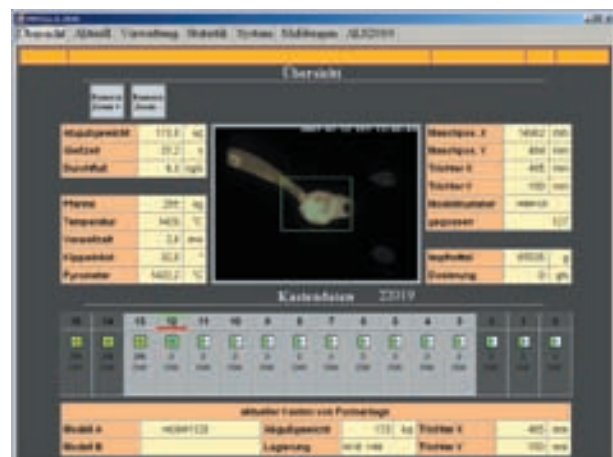
Pouring Process and simultaneous injection into the molten stream at moulding boxes with mould weight.



Pouring with intermediate ladle at a boxless moulding plant



Online display of all pouring parameters on the monitor



Starting menu of G.L.S. 2010

## THE CLASSIC POURING MACHINE: GIMA 8 AND GIMA 12

HWS produces the classic semiautomatic pouring machine for automatic moulding plants with cyclic automation of the casting lines.

Our further development of tried and tested pouring technology is also based on customer experience and requests for a semiautomatic, operator-controlled pouring machine.



**Pouring Machine**

Pouring is carried out through manually controlled tilting of the pouring ladle. A hydraulic tilting device takes up the ladle and rotates it around the midpoint of the flow-out radius of the pouring spout.

Two stationary, electric motor driven roller conveyers are situated in front of the travelling radius of the pouring

machine to allow a fast ladle changeover.

The pouring ladles can be paced on these roller tables by means of forklift trucks or suspension rail, ready to be transferred into the pouring machine, and the empty ladles transferred out from the machine can either be removed or filled directly from the operating ladle.



**Casting ladle**







*Pouring Machine with roller conveyor for the transport of the ladle*

The GIMA can travel along a rail system parallel to the pouring route. It is moved along either by an electric or hydraulic mechanism.

#### Pouring machines from Heinrich Wagner Sinto

- simple to operate
- robust design
- well-priced

The feed, tilt and travelling movements are controlled by the operator in the operator's cab of the pouring machine by means of a joystick.

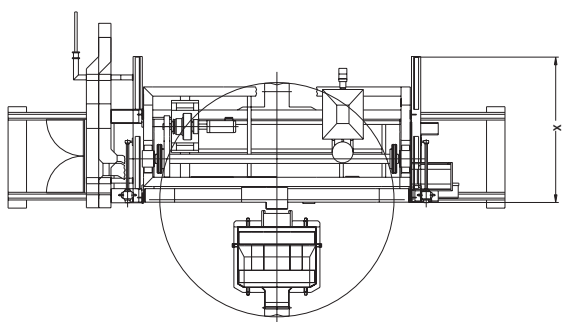
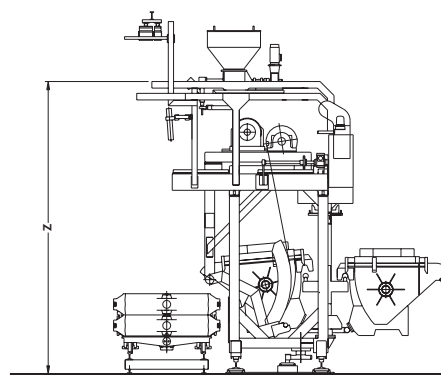
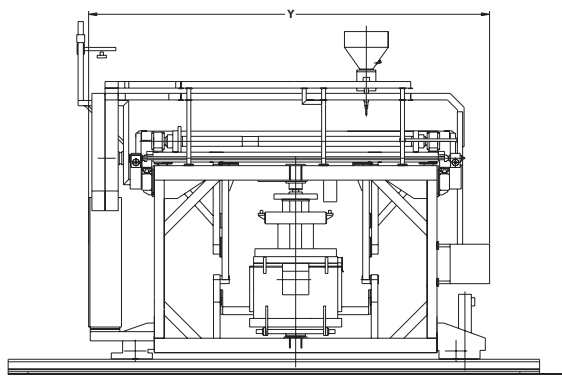


*Operator's control panel*



*Joysticks*

## Pouring Automat with mobile revolving ladle changeover P 10-W · P 20-W · P 30-W

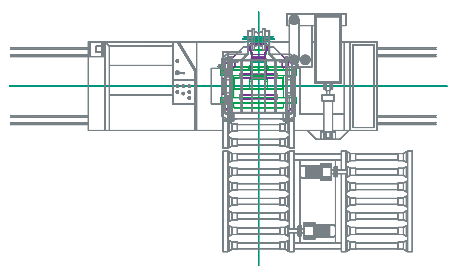
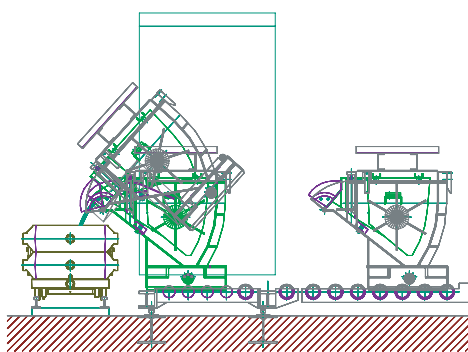
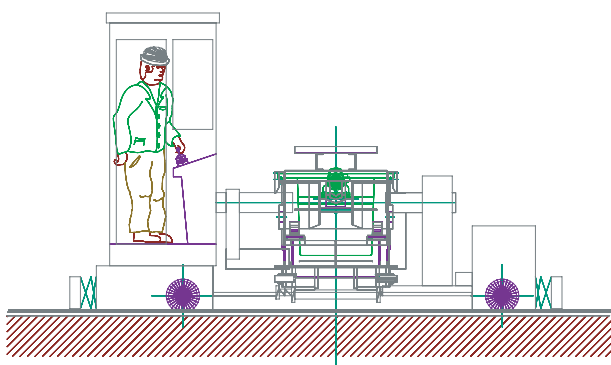


### Capacity and dimensions

Type	Ladle content kg	Dimensions (approximate)		
		X mm	Y mm	Z mm
P 10-W	600 – 1400	2000	5700	4000
P 20-W	1400 – 2400	2400	6200	4400
P 30-W	2400 – 3200	2600	6500	4800

Variations possible according to ladle size.

## Semiautomatic Pouring Machine with roller conveyor for ladle changeover GIMA 8 · GIMA 12



### Capacity and dimensions

Type	Ladle content kg	Dimensions (approximate)		
		X mm	Y mm	Z mm
GIMA 8	500 – 900	1400	5000	2800
GIMA 12	1000 – 1500	1400	5000	2800

Variations possible according to ladle size.