



# PCB

H I G H P R E S S U R E C A S T I N G

# WORLD LEADERS IN PRESSURE CASTING TECHNOLOGY

**pcl**  
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# INTRODUCTION

The PCB machine is a proven high pressure bowl casting unit that offers an economic casting solution for the production of a full range of W.C. bowls. The system can produce over 500 pieces per day with a single operator per shift. When fitted with IMSC (Individual Mould Station Control) it can cast multiple styles of bowl on the same machine at the same time. The PCB machine utilises PCL's unique high quality resin mould technology and proven construction techniques developed over the last 25 years.

Made in England, the high quality PCB machine is supplied as a complete pre-fabricated unit with a heated slip supply, chemical injection systems, control unit, automatic mould movement and a robotic demoulding system. A novel mould design allows up to eight bowl moulds to be mounted onto a single PCB casting machine. This gives you the ability to pressure cast a high volume of bowls economically whilst still providing sufficient flexibility for low volume products.

The standard machine has a nominal 5-metre active beam length on which up to 8 single cavity bowl moulds can be hung. A machine with an increased beam length is also available for increased output if needed. We have an experienced in-house modelling, blocking and casing department to update and develop new product styles or use your current product designs.

The PCB machine is typically supplied as a complete package including, robot and rail, moulds, slip system, conveyor and an installation/commissioning/training package.



## PCB CASTING PRODUCTS

Our high pressure casting system typically includes a PCB casting machine, demoulding robot and rail, conveyor, piece handling system, skid mounted 1000Lt heated slip tank, water tank, mould development, mould supply, shipping (optional), and supervision of installation and commissioning. This system is suitable for casting the following products;

- 3, 4 and 5 part mould open rim bowls
- Back to wall bowls
- Stuck on box rim bowls (rims may be cast on same machine or on a separate PCL rim casting system, the SLIDE).

## PCB STANDARD KEY FEATURES

W.C bowl mould overhead beam casting system

- Robot demoulder and rail
- Customer specified PLC and HMI, 10" touchscreen colour graphical interface
- 1000Lt heated slip tank, agitator and level sensor and a water washing tank system
- Low pressure slip fill pump and high pressure slip system
- Auto mould movement system
- Standard 70 tonne operating force
- CE certified and supplied with light guards, interlocks and safety switches with lock out
- Operates from a 6bar client supplied air supply
- Robotic wareboard replacement.

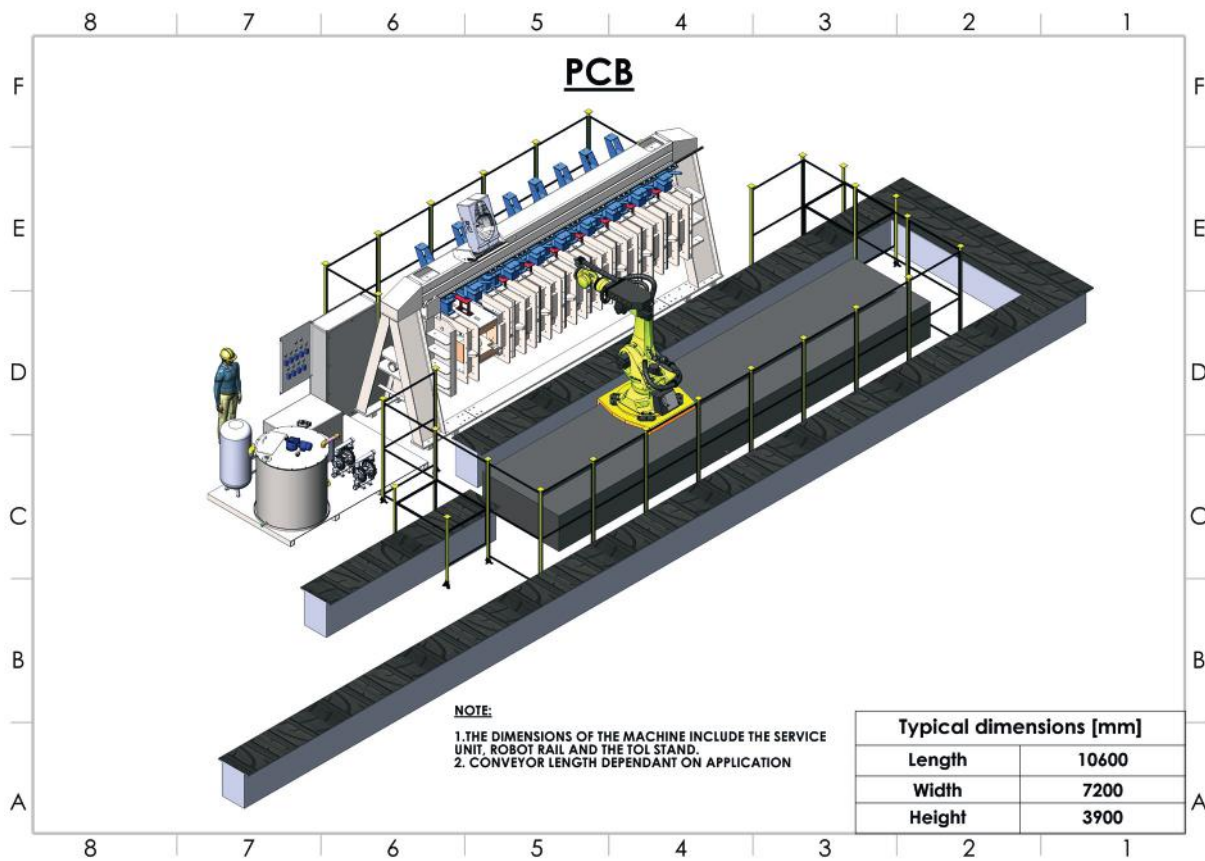
## PCB EXTRAS & UPGRADES AVAILABLE

- The PLC and HMI control systems can be supplied and tailored to suit your standards and preference
- A full range of bowl styles may be cast at the same time on the same machine with the IMSC upgrade
- Extended beam length for additional output
- 90 tonne operating force upgrade available for larger products
- The standard integrated conveyor system can be designed, modified and built to order
- Air conditioned panels
- The PCB may be used in conjunction with a standalone or integrated PCL slide rim casting system for the production of SOBR bowls. For more complex SOBR bowls we would recommend the use of the PCL RotoBowl Bowl casting system
- Rim cutting.

## PCB UTILITIES & CONSUMPTION DATA

The power, water and air consumptions are very economical and are typically;

- 350Lt water tank; average usage of 300 to 350Lts per day for mould washing
- Voltage and frequency to suit your available supply
- Electrical consumption excluding slip tank; 0.7kWh
- Electrical consumption of slip tank 4.5kWh, subject to supplied slip temperature (9kW heat capacity)
- Air 7bar, 100psi; average usage of 10 to 12m<sup>3</sup> per hour
- No vacuum required
- Only 1 mould wash cycle per 24hrs.



TYPICAL MACHINE SCHEMATIC. The Layout of the conveyor and wareboard handling system can be supplied to suit your layout and requirements.

## TYPICAL OUTPUTS FOR THE PCB 3, 4 & 5 PART BOWL HIGH PRESSURE CASTING SYSTEM

These outputs are based on the following assumptions: 350 days per year, 24 hours per day, 95% utilisation.

Typical Cycle Time (minutes)	Mould Type	No. of Moulds	Cavities per Mould	Casts per year
25	3 Part & Back to Wall Bowl	8	1	159,600
25	4 Part Bowl	8	1	159,600
25	5 Part Bowl	8	1	159,600

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