

**PUNJAB ENGINEERING COLLEGE  
(Deemed to be University), Chandigarh**

**Notice for procurement of PLC based Vacuum Casting Machine being proprietary Article under Rule 166 of General Financial Rules, 2017.**

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The Department of Production & Industrial Engineering Department intends to purchase PLC based Vacuum Casting Machine having following specifications:

Detailed Specifications:

S. No.	Item	Specifications
1	Mode of operation	Should be capable of Semi-Automatic & Automatic with mandatory independent manual mode operation option. It must be a PLC controlled based system. The quoted machine should have option of Wax pouring, plastic pouring & Silicone pouring.
2	Power requirement	Rating suitable for Indian system
3	Maximum mould box size to be used for casting	440x420x480 mm - Machine must have internal dimensions adequate to accommodate the above mould size
4	Machine External dimension	compact
5	Temperature control accuracy of heated cup	± 5 degree centigrade (with temperature setting, measurement and display facility) Heated cup is preferred to be a part of equipment
6	Stirrer	Machine must be equipped with stirrer of adequate design and strength to mix at least 1 litre of resin/wax in heated cup. RPM of stirrer : 100 max and with control
7	Pouring mechanism	Through controlled tilting mechanism
8	Ultimate vacuum	0.5 mbar minimum or better. Machine shall have digital (preferred) vacuum level indicator. Arrangement for creating variable vacuum between heating/material mixing and casting chamber is preferred.
9	Vacuum Pump capacity	Rated vacuum level for the chamber size shall be attained within 15 minutes. Pump should be mounted on vibration isolators to minimize/eliminate vibrations in the pouring/casting chamber
10	Vario Vacuum	Should have the capability to create differential vacuum in top chamber & bottom chamber.
11	Construction of Heating/Vacuum Chamber	Durable/corrosion resistant chamber inside well-polished and well illuminated

12	mould height adjustor	Essential, adjustment facility to full range of pouring chamber is preferred.
13	View Window	Mandatory for mixing & casting chamber (either continuous or split) with 400 x 400 mm each for split window
14	Heavy Duty Construction	Mandatory
15	Circuit diagrams	Party shall enclose full circuit diagrams along with the machine
16	Schematic/functional drawing of machine	shall be enclosed with quotation
17	Mandatory and optional accessories	Party shall separately quote for mandatory and optional accessories for basic operations of the vacuum casting machine along with the offer. Durability of such accessories shall be mentioned.
18	Mandatory and optional spares	Party shall separately quote for mandatory (for periodic compulsory change) and optional spares with consumption rate as per replacement frequency to prevent breakdown of machine for 5 years.

As per knowledge of this Institute, above said article/equipment is only manufactured by M/s Renishaw, UK and the said firm sells the same through its authorized agency/reseller/Indian subsidiary Renishaw Metrology Systems Limited, Bangalore in the Chandigarh region. The Proprietary Article Certificate issued by the OEM is attached as **Annexure-I**.

In case, there is any other OEM or its authorized agent/reseller for the above said article then they are requested to submit their proposal to the Director, Punjab Engineering College, Sector-12, Chandigarh through email- [coe2013pec@gmail.com/](mailto:coe2013pec@gmail.com) hard copy latest by 21.02.2018 failing which it will be presumed that there is no other firm who manufacture the required article/equipment and purchase will be processed and finalized from the available source.

**Head  
Production & Industrial Engineering Department**