

**Central Glass & Ceramic Research Institute  
KOLKATA (WEST BENGAL) INDIA  
CORRIGENDUM**

REFERENCE NO. :- PS-1/NC/56/SB/SPO/OTE/20-21

DATE: 20/10/2020

NAME OF EQUIPMENT: Twin-Screw Extruder Equipment

**NOTE:** The Bids must be submitted in the Central Public Procurement Portal (URL: <https://etenders.gov.in/eprocure/app>) only. Manual/Offline bids shall not be accepted under any circumstances. Bidders should quote in INR only.

CONSEQUENT TO THE PRE-BID MEETING HELD ON 15/10/2020, THE REVISED SPECIFICATION IS GIVEN BELOW:-

**SPECIFICATIONS:-**

**Revised Technical Specifications after Pre-bid Conference Meeting**

Twin-Screw Extruder equipment capable of processing high performance polymers [such as Polyether ketone ketone (PEKK), Polyether ether ketone (PEEK) etc.] and their composites reinforced with ceramics fillers. The machine should be equipped with an extruder with double co-rotating and detachable screws, strand die assembly, one volumetric feeder, one water bath with blower and one strand puller for pulling strand.

<b>Detailed Technical Specifications</b>	
<b>Screw specifications</b>	
Screw type	Two parallel co-rotating screws
Screw Diameter	≥ 19 mm
L/D ratio	≥ 40
Screw Speed (RPM)	Controllable, 1000 RPM or more
Material of construction	High grade wear resistance steel with hardness of ≥ 55 HRC
Nominal Operating Torque	≥ 30 Nm for each shaft
Screw elements	Modular type
Screw Shaft	Screw elements should be mounted on a pair of spline shafts
<b>Barrels</b>	
Barrel Type	Flanged and segmented type with a liner for easy access for cleaning & maintenance
Barrel Diameter	≥ 20 mm (compatible with screw diameter)
/Barrel Liner Material	High grade wear resistance steel with hardness of ≥ 55 HRC or more
Barrel cover	Appropriate insulated barrel cover with handles for safety
Heating system	Electrical cartridge heater
Cooling System	By water circulation through cooling channels.
Number of Zones	Heating and Cooling Zones ≥ 7 Cooling Only – 1 Zone (in Feed barrel) Heating Only ≥ 1 Zones (in Die)
<b>Working Temperature</b>	Controllable, 450°C or more
<b>Strand die</b>	Standard die assembly with easy access for cleaning & maintenance. Die diameter ≥ 2.25 mm
<b>Output</b>	2-5 kg/hour
<b>Melt Pressure Indicator</b>	Appropriate melt pressure indicator for monitoring and safe operation of the Extruder
<b>Vacuum based devolatilizing system</b>	Vacuum level upto 600 mm of Hg should be achieved through a vacuum pump with appropriate vent inserts
<b>Drive and motor</b>	Motor from reliable company such as Danfoss, Honeywell or substantial equivalent with capacity of 400 ± 5% VAC, 3 Phase, 50 Hz.
<b>Gear Box</b>	Appropriate gear box to meet desired screw speed and output as mentioned above

*Ray*  
20/10/20  
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