

Annex-I (Specifications)

Cutting Capacity: The abrasive cutter should be able to cut hard metals and alloys up to a maximum size 110 mm dia or 100 x 150 mm block. At the same time, the machine should be able to cut smaller job of 10 mm diameter.

Spindle speed: 2000-2500 rpm

Cut-off wheel diameter: Between 250-320mm

Parallel sectioning system: A suitable system should be designed to move the specimen and make parallel cut to get a slice

Koppel Fixture: Apart from the standard fixture, an additional Fixture should be provided to hold irregular shaped components

Control Panel: Control panel with switches such as - cutting, coolant, LED light, emergency stop button with door safety limit switch

Chamber: Corrosion Resistant Cutting Chamber equipped with splash proof, corrosion resistant see-through/transparent hood. The chamber should be illuminated by suitable illuminating system.

Cooling: Cooling should be done by two high flow water cooling system to reduce the risk of burn during the cutting operation. Cut off Wheel Cooling System through two water coolant jets. For this, a coolant tank with about 100 ltrs capacity should be provided. Suitable drain mechanism should be provided for coolant recirculation through Coolant recirculation Pump Flash cleaning attachment with hook for mounting

Auto Wash system: Arrangement to be made to set the required time and leave the machine to clean automatically

Door Safety Inter Lock System: Additional Safety Feature where the Door cannot be opened unless the Cutting process is stopped

Variable Speed System: Cutting Wheel RPM should be varied from 1000-3000 RPM

Phase Monitoring System: Arrangement for identifying the failure of any phase. In the event of failure of any phase, the unit should stop the Machine and protects the motor from overheating and failure

Brake Motor System: Safety Feature should be attached to stop the Motor and the cutting wheel immediately once the Cutting is stopped

Fume Digestor: A suitable fumes arresting system should be provided to help in recirculate the fume caused while cutting into coolant for providing clear vision of the cutting process.

Spares:

(a) Cut-off wheels

50 numbers of Cut-off wheels specific (with respect to spindle size) to the machine for cutting non ferrous material and hard steels.

(b) Cutting Oil: 10 Litres

(c) A suitable Tool Kit required maintaining and operating the cutting machine.