

CHARPY SPECIMEN MACHINE



Produces a 10mm square Charpy test specimens from rough cut samples of up to 15mm square. It is designed to enable laboratory personnel to produce their own Charpy test samples instead of waiting for machine shop time.

The machine uses a 5 bladed cutter with easily replaceable insets, used without any cutting lubricants. Up to 4 specimens can be machined at the same time and these are mounted in a rotating fixture. After the first rotation, which cuts the first side, the fixture is removed and turned through 180° to cut the second side, after which the specimens are remounted in the fixture at 90° to cut the third and fourth sides in a similar fashion. On completion of the fourth side, a 10mm square specimen is achieved, meeting surface finish and dimensional tolerances of all international standards including BSI and ASTM. In its basic form, the machine has a single cutting speed appropriate to users applications. If a wide range of steels is being tested, then the machine can be offered with a variable speed thyristor controlled D.C. drive. The rotating fixture drive on all machines has a variable speed adjustment by thyristor controlled D.C. drive, giving a selectable feed rate. In production the machine will produce complete specimens at the rate of 4 every 8 minutes and is capable of cutting steels up to a hardness of 35 Rockwell C. The machine is sold as a bench top model, requiring only a 10 amp 3 phase electrical supply. A micrometer adjustment is incorporated to compensate for cutter wear and improved tolerance control.

GENERAL SPECIFICATIONS

- ◆ Compact size – 900mm X 400mm X 360mm (approx. 36" X 16" X 14")
- ◆ 440 Volts, 3 phase, 50/60 cycle operation (10 amp)
- ◆ Push button operation with variable feed rate control
- ◆ Requires fitting on suitable workbench capable of supporting a weight of approx. 220 Kg (485 lbs.)

BENEFITS:

- ◆ Minimal setting up requirements enables the machine to be operated by laboratory personnel.
- ◆ Will produce finished specimens to specifications at the rate of 4 every 8 minutes.
- ◆ Used in conjunction with our Charpy Notch Broaching Machines, this unit enables laboratories to

CSM - 1 Charpy Specimen Machine, with high speed 5 blade cutter and carbide inserts, variable speed feed rate controlled, rotating work-holding fixture (to accept 4 specimens up to 16mm square or up to 18mm dia. bar) removable swarf tray, suitable for bench mounting 440V, 3 phase, 50/60 cycle operation ONLY

CSM - RF Rotating work-holding fixture (one is supplied with CSM-1 – two fixtures are necessary to achieve Maximum production rate)

CSM - CT Carbide cutter-tips, 5 are required to completely replace worn tips on cutter, per/10