

Compression Testing Machine

CAPABILITY SHEET · A STIFF FRAME MAKES A SAFE FAILURE · LOAD SQUARE ON THE SPECIMEN · ENGINEERED

THE ONE IDEA

PRINCIPLE	A stiff frame makes a safe failure.
WHY IT MATTERS	A loaded frame stores energy like a spring and gives it back when the specimen fails, so the machine is built stiff, holds the rate of loading with a servo loop and contains the fragments.

THE MACHINE

FRAME & RAM	A stiff four-column frame with a heavy crosshead, and a hydraulic ram and power pack that apply the load without surges.
CONTROL	A servo valve and controller that hold the rate of loading from first touch to failure, with a force transducer checked against a reference.
PLATENS & SEAT	Hardened, flat and parallel platens, and a spherical seat that lines the upper platen up with the face of the specimen.
GUARD & RECORD	A guard of steel and shatter-resistant glass with an interlock, and a record of the load, the rate and the time to failure for every specimen.

THE METHOD

ORDER	Specify, frame, control, build, test and prove. Sizing the frame for stiffness and not only for the maximum load, and trying the guard interlock before any specimen, are what a quick order skips.
LIMITS	Loads, rates and tolerances come from the method the customer names and from the specimen, and are not printed here.

CONFIGURATIONS

STIFF-FRAME MACHINE	A four-column frame, ram, platens and guard for routine cubes, cylinders and blocks.
SERVO-CONTROLLED MACHINE	The same stiff frame with a servo valve and controller that hold the rate, for high-strength concrete and strict methods.
ROCK TESTING FRAME	A stiff frame with a fast servo valve and deformation transducers on the specimen, for rock cores and tests past the peak.

STANDARDS & SCOPE

STANDARDS	Public references: EN 12390-4 for compression testing machines for concrete, ASTM C39 for concrete cylinders and ASTM D7012 for rock core.
SCOPE BOUNDARY	It is the compression testing machine: not a hydraulic press, not a servo-hydraulic fatigue test system and not a triaxial test system.
STATUS	Neometrix engineers compression testing machines to order, and no delivered compression testing machine is claimed.

DEFENCE PROGRAMMES DESK

sales@neometrixgroup.com · +91 7777 876 876 · neometrixgroup.com
Neometrix Defence Limited · E-148, Sector 63, Noida, Uttar Pradesh, India