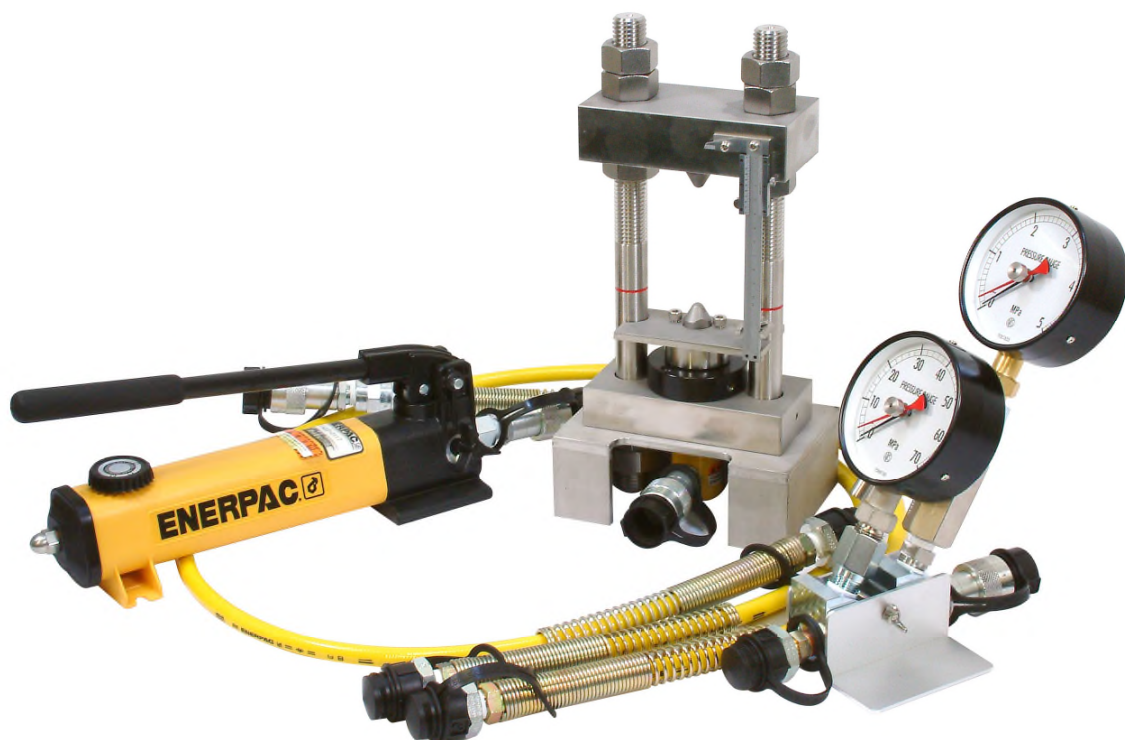


POINT LOADER

Point Load Tester



<Abstract>

POINT LOADER is designed for obtaining uniaxial compressive strength from soft-rock to hard-rock.

It does not require any power supply besides a little manpower.

It is robust system and requires only easy maintenance.

Easy field operations.

Applications:

Mining

Civil constructions such as dam and tunnel and so on.

<Features>

- Light in weight, approx. 24kg including a housing case
- Apply to ISRM suggested method
- Easy handlings using oil driven hydraulic pressure with hand pump
- High-precision measurement for soil to hard-rock
- Easy measurement of size of core using the attached kit

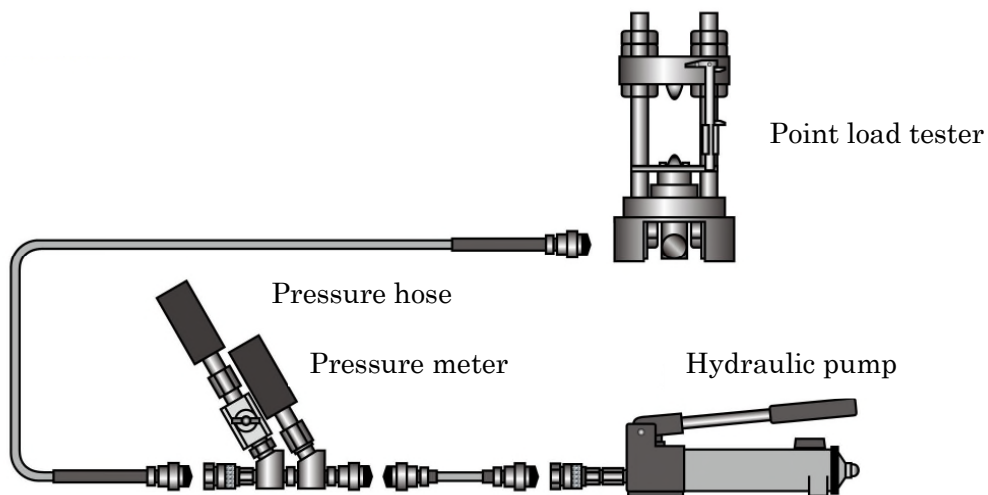
<Specification>

Maximum load	: Max. 45kN
Maximum specimen size	: Max. 80mm
Maximum pressure	: max.70MPa
Operating temperature	: -10degree C to 50degree C
Volume	: 360H x 180W x 145Dmm
Weight	: approx. 24.5kg (including the case)

<Equipment Configuration>

Point Load Tester	
Main unit	: 1 unit
Storage case	: 1 ea
Pressurizing Instruments	
Hydraulic pump	: 1 ea
Bourdon tube pressure meter	: 1 unit
Hydraulic pressure hose	: 1 ea
Storage case	: 1 ea

<Configuration Diagram>



<Data Acquisition Method>

Calculation method for strength is as below.

$$St = 0.9 \times P/d^2 \dots (\text{tension strength})$$

Since "St" varies depend on a specimen's size, it shall be determined on a basis of the time when $d = 5 \text{ cm}$ as standard. However, in case of irregular samples, its dimension would not be constant. Thus, "St" will be estimated by testing 5 to 8 specimens and organizing like following graph.

