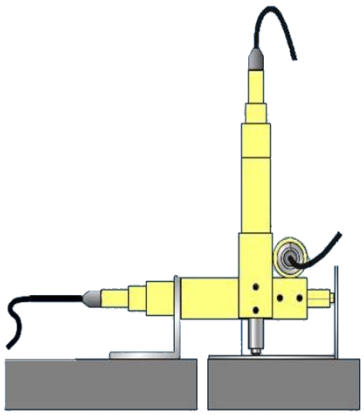
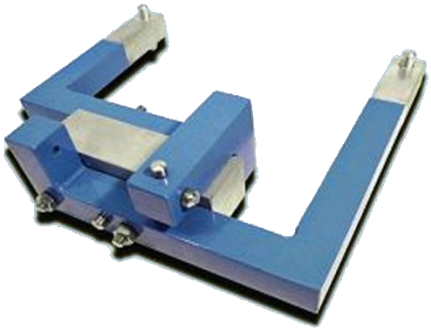
TRI-AXLE JOINTMETERS (V.W & MECH.)





FEATURES:

- Robust 3-Dimensional Joint Meter
- Accurate, highly reliable
- Caliper provides direct reading
- Extremely stable for long term operations
- Easy to install and monitor
- Recoverable and reusable
- Used on all type of surface

APPLICATIONS:

The Model SIS-1300 Three Dimensional Jointmeter is a mechanical instrument used to measure the relative displacement of two adjacent surfaces in three orthogonal directions

The two – part Jointmeter is used to monitor:

- The widening of surface crack in concrete, masonry or other structures
- Surface movement at construction joint in concrete
- Displacement of rock block in three dimensions

DESCRIPTION:

The SIS-1300 Three Dimensional Jointmeter is comprised of two mating elbow-shaped brackets with three 20 mm square section arms on each bracket. Each bracket is fitted with three reference studs. One of the arms is used to anchor the bracket at the location of the measurement point. The other two arms support three spherically-tipped precision stainless steel reference studs mounted in three orthogonal directions.

The two Jointmeter anchoring arms are installed 190mm apart and grouted astride the discontinuity approximately 70mm deep into the structure being monitored. The brackets are configured so that when installed using the template provided with the Jointmeter, three sets of co-planar reference studs located in three orthogonal directions are set up. The template is removed once the grout has set up. The template is removed once the grout has set. The relative displacements of the two measurement point in each of the X, Y, and Z axes are determined by monitoring with caliper the changes of distance of three pairs of reference stud.

READING AND INTERPRETATION:

Displacements reading are carried out with either a vernier or Digital Caliper. Once the instrument is in place the initial reading is taken by successively measuring the X, Y and Z distance between each pair of studs. More highly accurate results are obtained by taking the average of two or three consecutive readings.

To take reading the Caliper jaws are positioned perpendicular to the axis containing a pair of studs and closed until contact with the apex of the pair of reference studs is made. The Vernier is rotated 90 degree

From the initial position and another reading is taken. The procedure is repeated until the difference between two consecutive readings is within the instrument accuracy.
Subsequent XYZ measurement carried out under the same condition provide displacement of the measurement point relative to their initial position.

MECHANICAL TRI-AXLE JOINT METER

SPECIFICATIONS

MODEL SIS-1300

Accuracy (overall)

With vernier caliper 0.04 mm

With digital caliper 0.02 mm

Max. relative displacement 50 mm / 40 mm

X axis (convergence/divergence)30 mm / ∞

Y axis (convergence/divergence)10 mm / ∞

Z axis (convergence/divergence)0.04 mm

Initial reading (nominal)

X axis 100 mm ,Y axis 82 mm ,Z axis 65 mm

Dimensions ,Width210 mm ,Length 180 mm

Depth 60 mm Weight (Kg.) 4-5 Kg.

V.W TRI-AXLE JOINT METER

SPECIFICATIONS

MODEL SIS-1500

Standard Range	25, 50 mm
Over Range	1.5 x Range
Resolution	0.1 mm
Accuracy	1% of Full scale or better
Repeatability	± 0.5 mm
Electrical Surge Protection	Optional

Dimensions

25 mm range: Ø 16 x 295 mm

50 mm range: Ø 16 x 295 mm