

The SP-01-03XX is built to test shock absorbers used in the tilting position, as used on railway coaches. The machine is used to ensure that assembled parts meet specified performance specifications. It is the result of over seven years of R&D with a focus on harmonizing tilt test requirements.



## Standard features

- Two column load frame with a bottom mount actuator
- Hydraulic/Manual tilting option for the load frame to test shox/strut at user defined angle between 0 to 90°.
- Configuration available from 5 to 50 kN dynamic rating
- Evaluation of seal friction, gas charge, static and dynamic response
- Quick change jaw faces and spacers to switch between parts

## Unique Features

- Proprietary low noise, servo-controlled pump for energy efficiency. Down to about 30% of most conventional pumps.
- Contamination insensitive servo-hydraulics with readily available COTS spares.
- Dust proof air conditioned enclosures for electrical and electronics

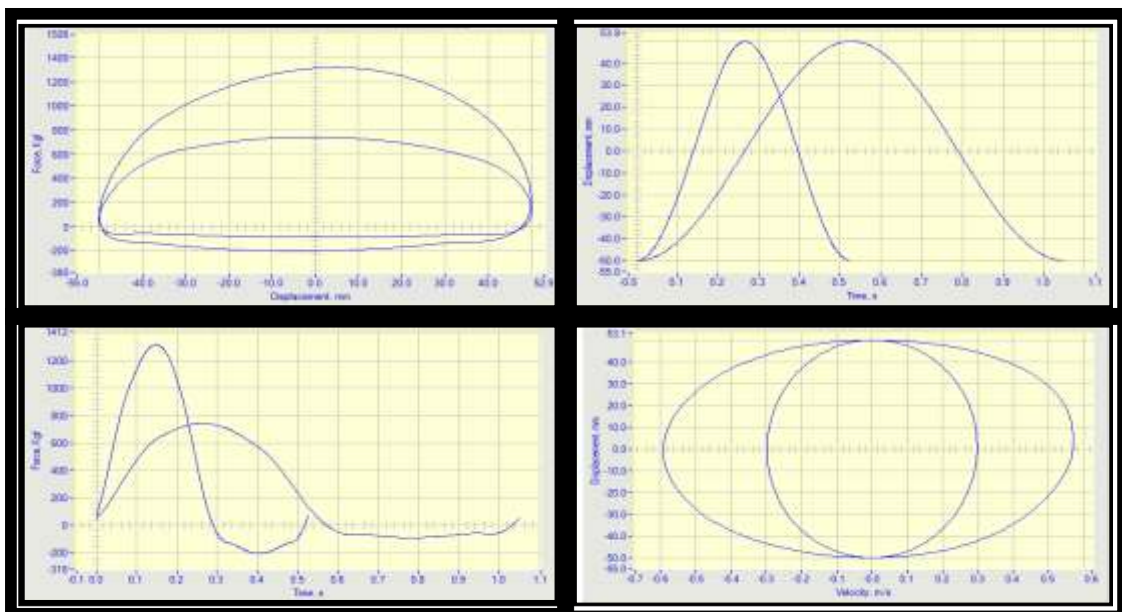
**Hardware**

Actuator stroke	200 mm
Dynamic force rating	5/10/15/25/50 kN
Velocity range	0.01 to 1.2 m/s
Safety interlocks	Against pump failure and power failure
Power rating	7.5/10/15 kVA
Options	Light screen, rod assembly inserted, grips closed
Grips	Mechanical R&D and clevis grips

**Software**

Fully programmable priming and stroking conditions including number of cycles	
Displacement Sensor	1 micron digital measurement
Single or multiple cycle	Up to 8 programmable velocities in single test
Gas charge/seal friction measurement with loop tilt correction	
Tolerances in terms of tension/compression damping force, energy, lag	
Adaptive control algorithm for guaranteed stroking accuracy	
Auto-calibration of stroke and load	
Auto-taring of part weight at commencement of test	
Optional banding of passed parts into hard, medium and soft	
Automatic recording of test results into Microsoft Excel spreadsheets for c.p.k. analysis, etc.	
Optional automatic assembly defect detection (missing part, backlash, etc.)	
Quality of waveform confirmed by accelerometer feedback.	

Test Results



Options for user selectable graph