

Hydraulic Test Equipment for Hydro-pneumatic Suspension Unit (HSU)

HSU proof-pressure Test

Verifies strength of master cylinder of HSU.

The master cylinder does not get deformed or damaged even under 1000bar. applied for 1minute (testing proof pressure).



Static and Dynamic Mechanical testing of HSU



Dynamic Load: 180kN
Max Stroke: 0-300 mm

Max static stage load: 180kN
Stroke of static stage: 0-300 mm

Hydrostatic Bearing, Pedestal based Actuator to can execute following test condition :

Test cycle	No. of cycles	Displacement (mm)	Load (Kgf)	Velocity (mm/sec)
Cycle-1	3	50	4200-5200	12 - 15
Cycle-2	3	100	5000 - 6500	12 - 15
Cycle-3	3	150	6600 – 8000	12 - 15
Cycle-4	3	200	8500 - 10200	12 - 15
Cycle-5		250	11300 – 14000	12 – 15
Cycle-6		275	13200 - 16200	12 - 15

Damper Test Bench



Jounce Table:

Sl.No	Flow (lpm)	Acceptable pressure drop across damper (bar)
1	50	72.8 – 23.5
2	90	115.8 – 76.1
3	110	117.2 – 100.4
4	200	131.0 – 105.1

Rebound Table:

Sl.No	Flow (lpm)	Acceptable pressure drop across damper (bar)
1	60	76.4 – 33.3
2	90	81.7 – 66.9
4	200	93.7 – 80.3

