



Load Rings—

Sometimes called "Proving Rings," Load Rings are used with various asphalt, concrete, or soil instrumentation to measure loads, and are ideal for use with our MasterLoader compression machines, Direct Shear machines and other testing equipment.

Our high quality tensile steel rings have spherical seatings suitable for all shear boxes and load frames. Each load ring is shipped with a fitted dial gauge and calibration certificate, and supplied with tables listing all measurement units. 8-1/4" (210mm) high, 3/4-16 UNF thread female mounting. Available with digital indicators compatible with data acquisition systems. Eight models range in size from 110 to 22,000 lbf (0.5 to 100.0 kN). Meet ASTM E74.

Load Ring with Dial Gauge

lbf	kN	kgf	Model
110	0.5	50	H-4454.001
220	1.0	100	H-4454.002
550	2.5	250	H-4454.005
1100	5.0	500	H-4454.010
2200	10.0	1000	H-4454.020
5500	25.0	2500	H-4454.050
11000	50.0	5000	H-4454.100
22000	100.0	10000	H-4454.200

Load Ring with Digital Indicator

lbf	kN	kgf	Model
110	0.5	50	H-4454.001D
220	1.0	100	H-4454.002D
550	2.5	250	H-4454.005D
1100	5.0	500	H-4454.010D
2200	10.0	1000	H-4454.020D
5500	25.0	2500	H-4454.050D
11000	50.0	5000	H-4454.100D
22000	100.0	10000	H-4454.200D

S-Type Load Cells—

Load cells are bi-directional for both tension and compression loads. Constructed from stainless steel. Load cells can be used with various instrumentation to measure loads. Includes: 6 ft. cable with 5-pin DIN plug and calibration certificate.

Performance Specifications:

- Excitation Voltage:** 10 VDC, Maximum 15 VDC
- Rated output:** 3.0 mv/V Minimum
- Non-linearity:** 0.03% Full Scale Output
- Hysteresis:** 0.02% FSO
- Non-repeatability:** 0.01% FSO
- Creep (30 minutes):** 0.03% FSO
- Zero Balance:** ±1.0% FSO

Bridge resistance

- Input: 350 ohms, nominal
- Output: 350 ohms, ±3.5 ohms

Overload

- Safe Static: 150% of Rated Capacity
- Ultimate: 175% of Rated Capacity

Temperature

- Compensated range: 0-150°F
- Effect on output: 0.0006% FSO/°F
- Effect on zero: 0.0008% FSO/°F

Finish:

Nickel-plated or Stainless Steel

Seal:

Waterproof

S-type Load Cells

	Model
Load Cell 500 lbf (2.5 kN)	HM-2300.005
Load Cell 1000 lbf (5 kN)	HM-2300.010
Load Cell 2000 lbf (10 kN)	HM-2300.020
Load Cell 5000 lbf (25 kN)	HM-2300.050
Load Cell 10000 lbf (50 kN)	HM-2300.100
Single Channel Readout	HM-2350

Other capacities and styles of Load Cells are available, such as pancake and submersible, please contact Humboldt for information.