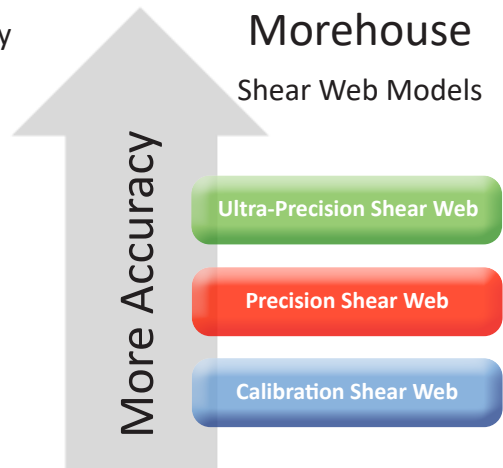




Standard Features

- » ASTM E74 performance. Lower Limit Factor (LLF) better than 0.005 %, Class A better than 2 %, and Class AA better than 10 % of capacity when used only in a single direction.¹
- » ISO 376 Class 00 from 5 % of capacity (Case C only, Case D varies by capacity)
- » Compression and/or tension modes
- » Capacities from 300–200,000 lbf, or equivalent kgf/Newton
- » Calibration available to Primary deadweight standards
- » Available accessories include Quick-Change Tension Members, custom-cut protective cases, and various indicators

1. When the directions are combined, there may be a reduction in the loading range. The reduction varies by capacity, and the verified range of forces could increase to 40 % of capacity.





Technical Specifications

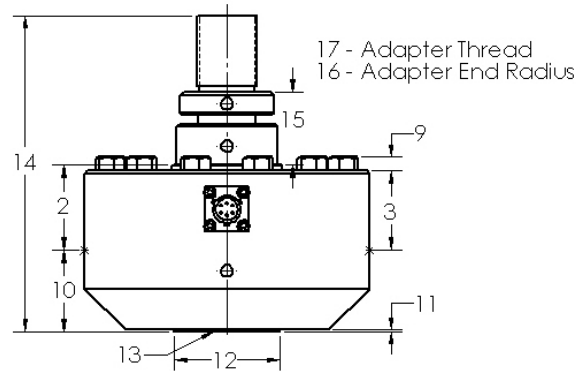
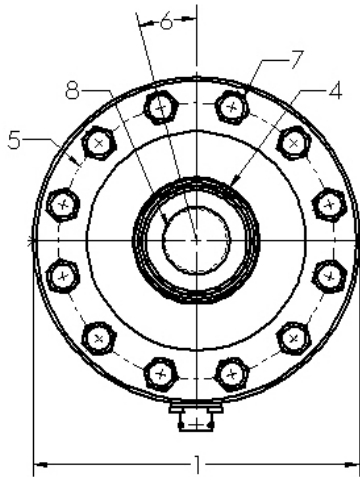
Specifications	Model - Capacity (lbf / kN)					
	300-2K / 1-10	5K-10K / 25-50	25K-50K / 100-250	60K / 300	100K / 500	200K / 900
Accuracy						
Static Error Band, % R.O.	±0.02	± 0.025	± 0.025	± 0.025	± 0.05	± 0.05
Non-Linearity, % R.O.	±0.03	± 0.035	± 0.035	± 0.035	± 0.05	± 0.05
Hysteresis, % R.O.	± 0.02	± 0.035	± 0.045	± 0.045	± 0.05	± 0.05
Non-Repeatability, % R.O.	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005
Creep, % Rdg / 20 Min.	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01
Off-Center Load Sensitivity, %/in	±0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1
Side Load Sensitivity, %	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1
Zero Balance, % R.O.	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
Temperature						
Range, Compensated, °F	+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115
Range, Operating, °F	-65 to +200	-65 to +200	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Sensitivity Effect, % Rdg / 100°F	0.08	0.08	0.08	0.08	0.08	0.08
Zero Effect, % R.O. / 100°F	0.08	0.08	0.08	0.08	0.08	0.08
Electrical						
Recommended Excitation, VDC	10	10	10	10	10	10
Input Resistance, Ω	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5
Output Resistance, Ω	350 ± 3.5	350 ± 3.5	350 ± 3.5	350 ± 3.5	350 ± 3.5	350 ± 3.5
Sensitivity (R.O.), mV/V, Nominal	2	4	4	4	4	24
Insulation Bridge/Case, MegΩ	5000 @50 VDC	5000 @50 VDC	5000 @50 VDC	5000 @50 VDC	5000 @50 VDC	5000 @50 VDC
Mechanical						
Safe Overload, % R.O.	150	150	150	150	150	150
Weight, lbs	3.8	8.0	23.5	26.0	58.0	171.0
Flexure Material	Aluminum	Steel	Steel	Steel	Steel	Steel

Capacity (lbf)	300	500	1,000	2,000	5,000	10,000	25,000	50,000	60,000	100,000	200,000
Capacity (kN)	1	2.5	5	10	25	50	100	250	300	500	900
Part No.	UPC-300	UPC-500	UPC-1k	UPC-2k	UPC-5k	UPC-10k	UPC-25k	UPC-50k	UPC-60k	UPC-100k	UPC-200k

Load cells for other capacities are available. Contact Morehouse for more information.



Dimensions



Dimensions	Model - Capacity (lbf / kN)					
	300-2K / 1-10	5K-10K / 20-50	25K-50K / 100-250	60K / 300	100K / 500	200K / 900
1 – Cell & Base Diameter (in/mm)	4.12 / 104.65	4.12 / 104.65	6.06 / 153.92	6.06 / 153.92	8.00 / 203.20	11.00 / 279.0
2 – Cell Height to Hub (in/mm)	1.38 / 35.05	1.38 / 35.05	1.75 / 44.45	2.28 / 57.91	2.50 / 63.50	3.50 / 88.90
3 – Cell Body Height (in/mm)	1.25 / 31.75	1.25 / 31.75	1.63 / 41.40	2.02 / 51.30	2.25 / 57.15	3.00 / 76.20
4 – Hub Diameter (in/mm)	1.29 / 32.77	1.29 / 32.77	2.34-2.58 / 59.44-65.53	2.65 / 67.31	3.76 / 95.50	4.81 / 122.17
5 – Mounting B.C. Diameter (in/mm)	3.50 / 88.90	3.50 / 88.90	5.13 / 130.30	5.13 / 130.30	6.50 / 165.10	9.00 / 228.60
6 – Symmetric B.C. Offset	22.5 Degrees	22.5 Degrees	15 Degrees	15 Degrees	11.25 Degrees	11.25 Degrees
7 – Mounting Hole Diameter (in/mm)	0.28 / 7.11	0.28 / 7.11	0.41 / 10.41	0.41 / 10.41	0.53 / 13.46	0.78 / 19.81
8 – Hub Thread Size, Depth (in-TPI)	0.625"-18, UNF-3B	0.625"-18, UNF-3B	1.25"-12, UNF-3B	1.50" - 12, UNF-3B	1.75"-12, UNF-3B	2.75"-8, UNF-3B
9 – Bolt Head Protrusion (in/mm)	0.20 / 5.08	0.20 / 5.08	0.30 / 7.62	0.30 / 7.62	0.40 / 10.16	0.60 / 15.24
10 – Base Thickness, Total (in/mm)	1.13 / 28.70	1.13 / 28.70	1.75 / 44.45	2.00 / 50.80	2.00 / 50.80	3.00 / 76.20
11 – Base Step Height (in/mm)	0.03 / 0.76	0.03 / 0.76	0.03 / 0.76	0.03 / 0.76	0.03 / 0.76	0.03 / 0.76
12 – Base Step Diameter (in/mm)	1.25 / 31.75	1.25 / 31.75	2.25 / 57.15	2.75 / 69.85	3.00 / 76.20	4.50 / 114.3
13 – Base Thread Size, Depth (in-TPI)	0.625"-18, UNF-3B	0.625"-18, UNF-3B	1.25"-12, UNF-3B	1.50" - 12, UNF-3B	1.75"-12, UNF-3B	2.75"-8, UNF-3B
14 – Total Height (in/mm)	4.38 / 111.3	4.38 / 111.3	6.50 / 162.1	7.38 / 187.45	8.75 / 218.9	10.50 / 266.7
15 – Adapter Thread Length (in/mm)	0.75 / 19.05	0.75 / 19.05	1.50 / 38.10	1.65 / 41.91	1.75 / 44.45	2.75 / 69.85
16 – Adapter End Radius (in/mm)	6.00 / 152.40	6.00 / 152.40	6.00 / 152.40	6.00 / 152.40	12.00 / 304.80	18.00 / 457.0
17 – Adapter Thread Size (in-TPI)	0.625"-18	0.625"-18	1.25"-12	1.50" - 12	1.75"-12	2.75"-8



Wiring

Ultra Precision Shear Web	
Connector Pin	Description
Pin A	Excitation +
Pin B	Signal +
Pin C	Signal -
Pin D	Excitation -

