

**Product Information Load Stand II**
**FOOD**

# Weighing System Load Stand II

**Application/Specified usage**

- Direct vessel-to-foundation structural member for dependable and accurate continuous inventory monitoring and control
- Level control through dynamic, continuous and accurate weight measurement
- Standard load range from 11 to 450 tons (25,000 to 1,000,000 lbs) per support point
- Thanks to the average measuring accuracy of 0.2 %, an incredible value for this load range, even smallest weight variations are detected

**Application Examples**

- Storage containers for bulk material or liquids in all types of industries
- Indoor or outdoor containers
- Also possible for skirted silos

**Features**

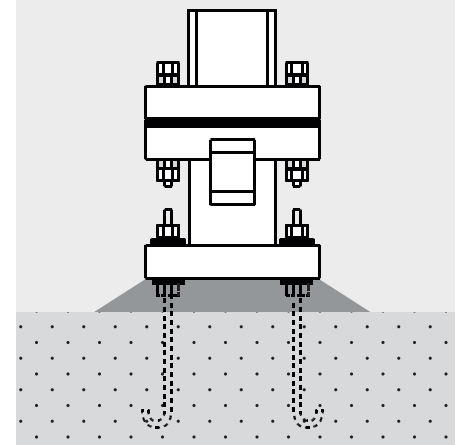
- The solid, monolithic, and firmly bolted assembly ensures stability, tilt resistance and high-precision measurement
  - even with funnel, rat-hole, or bridge formation in the bulk material,
  - also under uneven material loading,
  - under wind load in the outdoor area,
  - without the effect of thermally induced expansion of silo or contents,
  - without effect of density or moisture changes
- The four replaceable mounted strain gauge sensors of the Microcell® type have a fatigue life of > 20 million cycles and 200% overload protection. In case of damage, they can be easily field- replaced. This gives the Load Stand II a virtually unlimited service life.
- Half-Bridge Strain Gauge Technology with high signal output for cable length up to 600 m
- Weight loading approval can even meet Seismic applications

**Options/Accessories**

- ATEX approval as an option (with stainless steel junction box)
- Control units for 1 to 120 vessels

**Communication**

**12...30 V DC**
**Load Stand II**

**Typical Load Stand II set-up**


Specification		
<b>Technical Features</b>	Excitation Voltage - Operating Range Maximum Current Recommended Supply Voltage Functional Integrity Humidity Protection Class Materials  Sensor Junction Box	12...30 V DC Half-Bridge 15.52 mA @ 12 VDC excitation 12 V DC 2 x rated load (compression) 100 % Non-condensing Designed for outdoor applications Pedestal: Carbon Steel 1.0044 (ASTM A53 GR) Flanges: Carbon Steel 1.0459 (ASTM A36) Finish: Polyester Powder Coating 4 x Microcell II Plastic or Stainless Steel (ATEX), included
<b>Measurement Accuracy</b>	Non-Linearity/Hysteresis Combined Repeatability Rated Output No Load Output	0.2 % of rated load 0.2 % of rated load 320 mV DC @ 12 V DC $\pm 1$ % $\pm 50$ mV
<b>Temperature ranges</b>	Ambient Temperature Range  Operational Temperature Range  Storage Temperature Range	Standard: -18...38 °C (0...100 °F) Mid: 10...66 °C (50...150 °F) -34...66 °C (-30...150 °F) (outside this range the accuracy may be reduced) -34...66 °C (-30...150 °F)
<b>Authorizations</b>	All models	ATEX (option)

**Transport/Storage**

- Do not store outside
- Store in an area that is dry and dust-free
- Do not expose to corrosive media
- Protect against solar radiation
- Avoid mechanical shock and vibration
- Storage temperature -34...66 °C (-30...150 °F)
- Relative humidity max. 98 %

**Conventional usage**

- Not suitable for applications in safety-relevant system parts (SIL).

**Standards and guidelines**

- Compliance with the applicable regulations and directives is mandatory.

**Cleaning/Maintenance**

- When using a pressure washer, do not point the nozzle directly at the electrical connections.

**Note on CE**

- Applicable directives:  
Electromagnetic Compatibility Directive 2014/30/EU
- Compliance with the applicable EU directives is identified by the CE label on the product.
- The operating company is responsible for complying with the guidelines applicable to the entire installation.

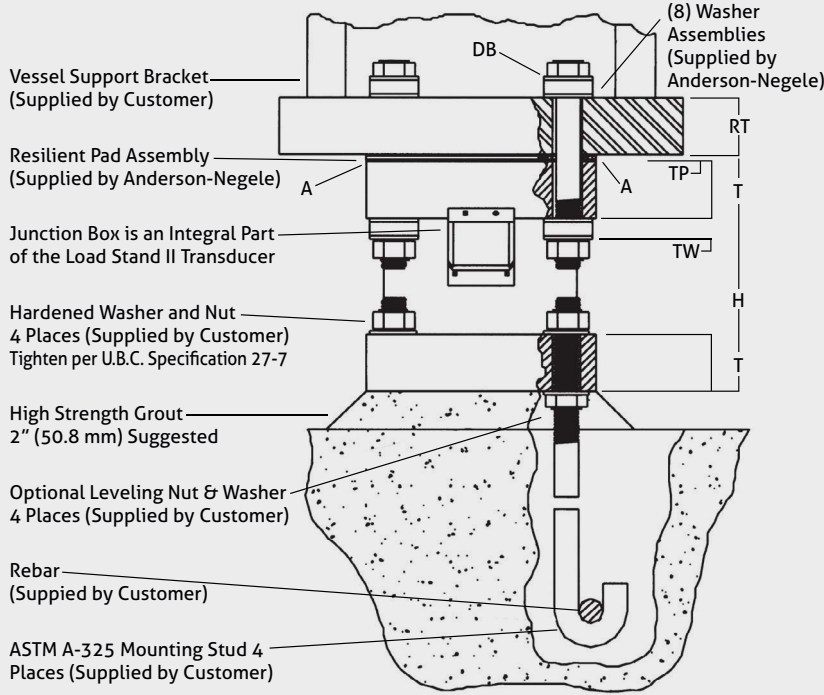
**Reshipment**

- Sensors shall be clean and free of media or heat-conductive paste and must not be contaminated with dangerous media!
- Use suitable transport packaging only to avoid damage of the equipment!

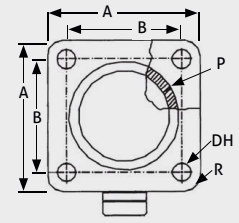
**Disposal**

- Electrical devices should not be disposed of with household trash. They must be recycled in accordance with national laws and regulations.
- Take the device directly to a specialized recycling company and do not use municipal collection points.

Load Stand II Installation Set-up



Load Stand II Dimensions



Legend

A	Outside Dimension
B	Hole Dimension
DB	Bolt Size
DH	Hole Diameter
DW	Washer Outside Diameter
H	Installed Height
P	Pipe Size
R	Corner Radius
RT	Recommended Thickness
T	Plate Thickness
TP	Pad Thickness
TW	Washer Thickness

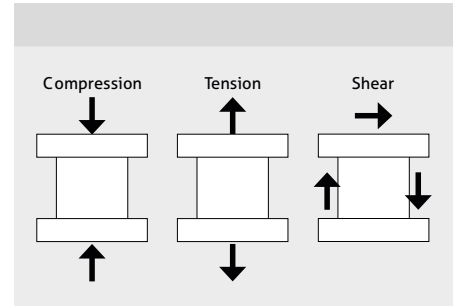
Dimensions

Load Rating lb (kg)	P	A in (mm)	B in (mm)	ØDB <sup>1</sup> in (mm)	DH in (mm)	R in (mm)	H in (mm)	T in (mm)	TP in (mm)	DW in (mm)	TW in (mm)	Weight lb (kg)	RT in (mm)	XX <sup>2</sup> in (mm)
25,000 (11,339)	3.5 SCH 40	6.25 (158.7)	4.25 (107.9)	.625 (15.9)	.875 (22.2)	1.00 (25.4)	7.37 (187.2)	1.25 (31.7)	.37 (9.5)	1.30 (33.0)	.44 (11.2)	31 (14.1)	1.25 (31.7)	.187 (4.7)
50,000 (22,679)	4 SCH 120	7.00 (177.8)	4.75 (120.6)	.75 (19.0)	1.00 (25.4)	1.12 (28.4)	9.37 (238)	1.50 (38.1)	.37 (9.5)	1.48 (37.5)	.65 (16.5)	50 (22.7)	1.50 (38.1)	.187 (4.7)
75,000 (34,020)	6 SCH 120	9.80 (248.9)	6.75 (171.4)	1.00 (25.4)	1.25 (31.7)	1.50 (38.1)	12.37 (314.2)	2.00 (50.8)	.37 (9.5)	2.00 (50.8)	.77 (19.6)	127 (57.7)	2.00 (44.5)	.187 (4.7)
100,000 (45,359)	6 SCH 120	9.80 (248.9)	6.75 (171.4)	1.00 (25.4)	1.25 (31.7)	1.50 (38.1)	12.37 (314.2)	2.00 (50.8)	.37 (9.5)	2.00 (50.8)	.77 (19.6)	128 (58.1)	2.00 (50.8)	.187 (4.7)
150,000 (68,040)	8 SCH 120	12.20 (312.4)	8.50 (215.9)	1.25 (31.7)	1.50 (38.1)	1.90 (48.2)	15.37 (390.4)	2.50 (63.5)	.37 (9.5)	2.50 (63.5)	1.03 (26.2)	154 (69.9)	2.50 (50.8)	.187 (4.7)
200,000 (90,718)	8 SCH 160	12.20 (312.4)	8.50 (215.9)	1.25 (31.7)	1.50 (38.1)	1.90 (48.2)	15.37 (390.4)	2.50 (63.5)	.37 (9.5)	2.50 (63.5)	1.03 (26.2)	262 (119.0)	2.50 (63.5)	.187 (4.7)
300,000 (136,077)	12 SCH 140	16.50 (419.1)	12.40 (314.9)	1.75 (44.4)	2.00 (50.8)	1.68 (42.6)	22.00 (558.8)	3.00 (76.2)	.75 (19.1)	3.37 (85.5)	1.05 (26.7)	619 (281.0)	3.00 (76.2)	.187 (4.7)
400,000 (181,440)	14 SCH 140	17.50 (444.5)	13.50 (342.9)	2.00 (50.8)	2.25 (57.2)	2.00 (50.8)	22.75 (577.8)	3.00 (76.2)	.75 (19.1)	3.75 (95.3)	1.05 (26.7)	719 (326.5)	3.00 (76.2)	.187 (4.7)
500,000 (226,796)	16 SCH 140	18.50 (469.9)	14.75 (374.6)	2.00 (50.8)	2.25 (57.2)	1.87 (47.4)	24.50 (622.3)	3.50 (88.9)	.75 (19.1)	3.75 (95.3)	1.05 (26.7)	758 (344.1)	3.50 (88.9)	.187 (4.7)
750,000 (340,194)	20 SCH 140	24.00 (609.6)	19.00 (482.6)	2.50 (63.5)	2.75 (69.8)	2.50 (63.5)	30.00 (762)	3.50 (88.9)	.75 (19.1)	4.50 (114.3)	1.05 (26.7)	1,725 (783.2)	3.50 (88.9)	.187 (4.7)
1,000,000 (453,592)	24 SCH 120	27.00 (685.8)	21.50 (546.1)	3.00 (76.2)	3.25 (82.5)	2.75 (69.8)	35.50 (901.7)	4.00 (101.6)	.75 (19.1)	5.50 (139.7)	1.05 (26.7)	2,525 (1,146.4)	4.00 (101.6)	.187 (4.7)

1. Bolts: ASTM A - 325, bolt length determined and supplied by the customer.
2. XX = Maximum thermal deformation allowed. Computed as shown here:  $XX = DH - DB - 1/16"$  (1.6 mm).

## Maximum Frame Loads allowed per AISC 14th Ed.

Model No.	Load Rating	Compression	Tension	Shear
S2-25K	25,000 lbs 11,338 kg	55,810 lbs 25,310 kg	29,100 lbs 13,197 kg	9,165 lbs 4,156 kg
S2-50K	50,000 lbs 22,676 kg	116,138 lbs 52,670 kg	41,904 lbs 19,004 kg	16,227 lbs 7,359 kg
S2-75K	75,000 lbs 34,014 kg	222,838 lbs 101,060 kg	74,495 lbs 33,785 kg	35,102 lbs 15,919 kg
S2-100K	100,000 lbs 45,351 kg	222,838 lbs 101,060 kg	74,495 lbs 33,785 kg	35,102 lbs 15,919 kg
S2-150K	150,000 lbs 68,027 kg	371,511 lbs 168,486 kg	101,849 lbs 46,190 kg	52,468 lbs 23,795 kg
S2-200K	200,000 lbs 90,703 kg	457,519 lbs 207,491 kg	101,849 lbs 46,190 kg	52,468 lbs 23,795 kg
S2-300K	300,000 lbs 136,054 kg	856,097 lbs 388,253 kg	199,624 lbs 90,532 kg	87,952 lbs 39,888 kg
S2-400K	400,000 lbs 181,406 kg	1,043,947 lbs 473,445 kg	258,683 lbs 117,316 kg	113,174 lbs 51,326 kg
S2-500K	500,000 lbs 226,757 kg	1,372,421 lbs 622,413 kg	260,733 lbs 118,246 kg	112,419 lbs 50,984 kg
S2-750K	750,000 lbs 340,136 kg	2,093,619 lbs 949,487 kg	352,096 lbs 159,681 kg	169,760 lbs 76,989 kg
S2-001M	1,000,000 lbs 453,515 kg	2,636,143 lbs 1,195,530 kg	459,880 lbs 208,562 kg	194,012 lbs 87,987 kg



The loads listed above are the maximum ASD loads for the condition listed and are based on the Steel Construction Manual, 14th Edition, of the AISC (American Institute of Steel Construction). Shear and tension values assume mounting hardware is A325 minimum (provided by customer). Higher strength hardware can be used if desired. All load stands must be selected to resist the combined loading effects for the specific jobsite and building code requirements.

**Note:**

Please contact the Anderson-Negele Technical Support for the determination of the correct Load Stand II type.

Please refer to the Load Stand II Installation & Operation Manual for Ultimate Frame Loads (Material breaking loads).

## Order Code

S2	Load Stand II
	<b>Load rated</b>
	<b>25K</b> 11.340 kg (25.000 lb)
	<b>50K</b> 22.680 kg (50.000 lb)
	<b>75K</b> 34.020 kg (75.000 lb)
	<b>100K</b> 45.360 kg (100.000 lb)
	<b>150K</b> 68.038 kg (150.000 lb)
	<b>200K</b> 90.720 kg (200.000 lb)
	<b>300K</b> 136.100 kg (300.000 lb)
	<b>400K</b> 181.437 kg (400.000 lb)
	<b>500K</b> 226.800 kg (500.000 lb)
	<b>750K</b> 340.200 kg (750.000 lb)
	<b>001M</b> 453.600 kg (1.000.000 lb)
	<b>Junction Box</b>
	<b>1</b> Plastic, 1-hole entry ea 3/4"
	<b>2</b> Plastic, 2-hole entry ea PG 13.5
	<b>S</b> Stainless Steel, ATEX approved, 1-hole entry
	<b>T</b> Stainless Steel, ATEX approved, 2-hole entry
	<b>Operating temperature</b>
	<b>X</b> Standard Temperature, -18 °C...38 °C (0 °F...100 °F)
	<b>M</b> Mid-Range Temperature, 10 °C...66 °C (50 °F...150 °F)
<b>S2</b>	<b>25K 1 M</b>