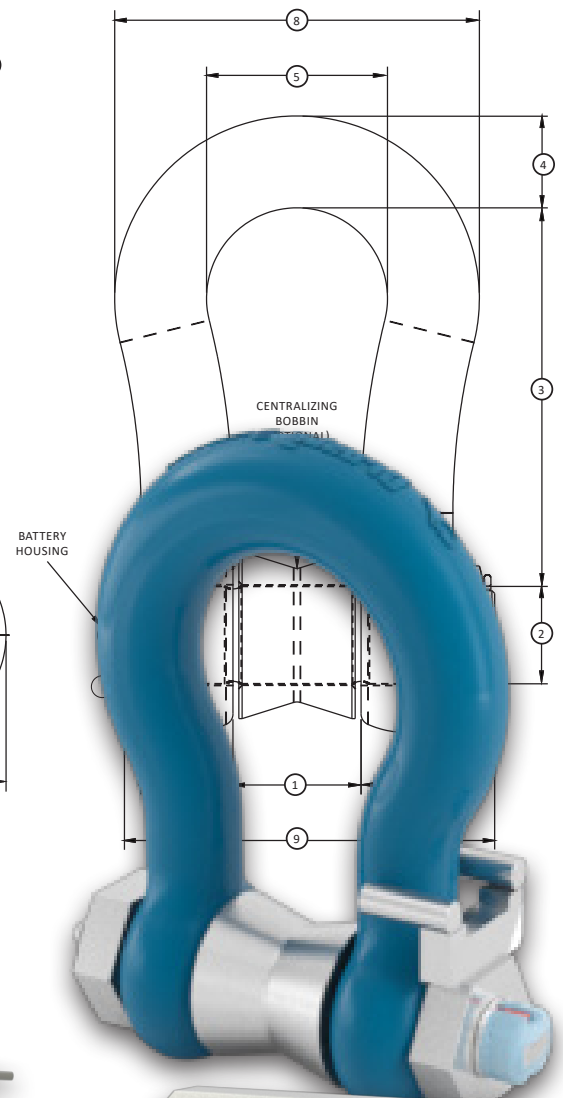
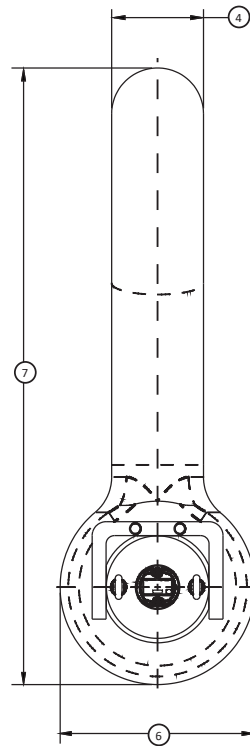
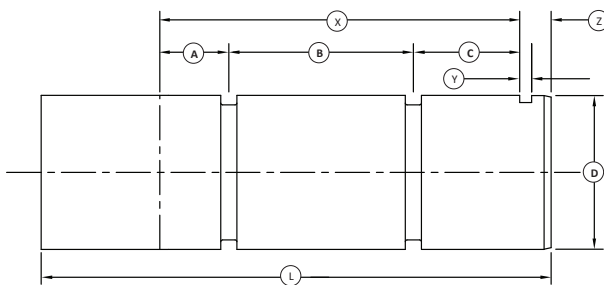
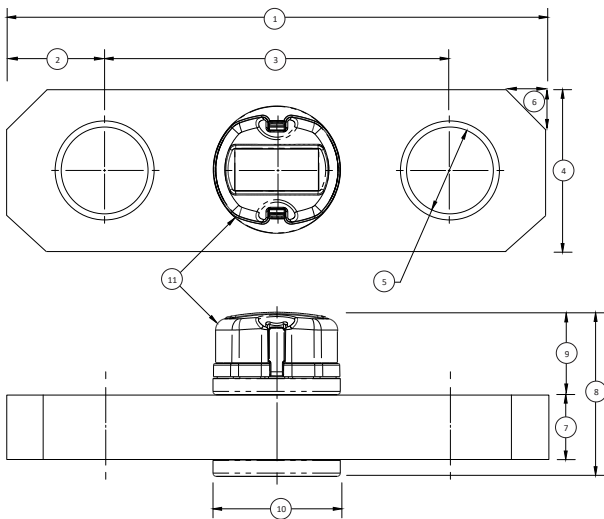


Load Pins

Tension Links

Load Shackles



Load Pins, Tension Links, & Shackles v1.0 02-10-2021



Interface load pins, tension links, and load shackles are used to provide force measurement readings joined by load-bearing pins or bolts.

Interface's wide range of load pins are designed for the measurement of tensile and compressive forces for application uses including crane and lifting, industrial, marine, offshore, and civil engineering. Machined from high tensile stainless steel, our load pins are suitable for exposed situations including seawater. We offer standard load pins with ratings between 1.1K lbf to 3.3M lbf (500kgs to 1500 MT). Most load pins are custom manufactured to meet specific dimensional requirements.

The tension link series manufactured from high tensile aluminum and stainless steel are designed for lifting and weighing applications in harsh environments. Matched to shackle sizes, our load links come in ratings from 2.2K lbf to 1.1M lbf (1 to 500 MT) and are environmentally sealed to IP65, IP66, or IP67. Higher ratings are available upon request.

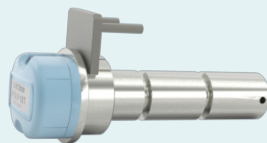
Load shackles are designed for lifting and weighing in rugged or harsh environments. The load shackles are manufactured from high tensile carbon steel. Our basic shackle is the renowned Crosby G2130, G2140, and G2150 series depending on the load rating. An optional rotating bobbin can centralize the load and minimize any point-load effects. We also offer fully submersible and telemetry load shackles.

Load Pin Benefits Includes:

- Easy to install new or retrofit
- Robust construction
- Replaces existing load bearing pins without any system modifications
- Many special designs available
- Can be supplied with integral connector
- Custom sizes and higher capacities available



LP Stainless Steel Load Pin
Up to 3,000K lbf
Up to 13.3 kN



WTSLP Wireless Stainless Steel Load Pin
Up to 3,000K lbf
Up to 13.3 kN



CLP Custom Design Load Pin
Dimensions to suit application
From 100 kgs to 1500+ MT



WTS-BS-1-HA Wireless Handheld Display for Multiple Transmitters
Provides Summation of Up to 12 Transmitters

Tension Link Benefits Includes:

- Custom designed sizes and ratings available
- Easy to install
- High accuracy
- Compact size
- Lightweight
- Custom sizes and higher capacities available



ITL Tension Link Load Cell
11K to 220K lbf
5 to 100 MT



WTSTL Wireless Tension Link
11K to 220K lbf
5 to 100 MT



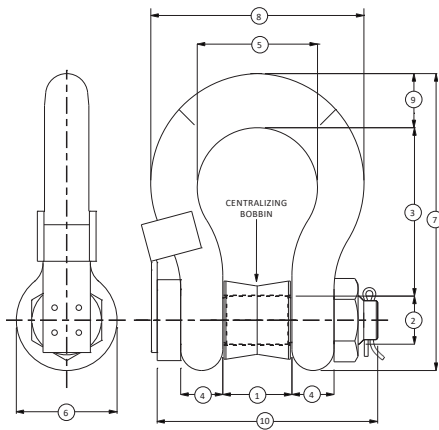
ISITL Self-Indicating Tension Link
2.2K to 661K lbf
1 to 300 MT



WTSITL Lightweight Wireless Tension Link
2.2K to 661K lbf
1 to 300 MT

Load Shackles Benefits Includes:

- Simple installation and operation
- Robust construction
- Ideal for use in harsh environments
- Environmentally sealed to IP67 (higher IP levels available on request)
- Available in ratings from 1 ton to 400 tons (higher ratings available on request)



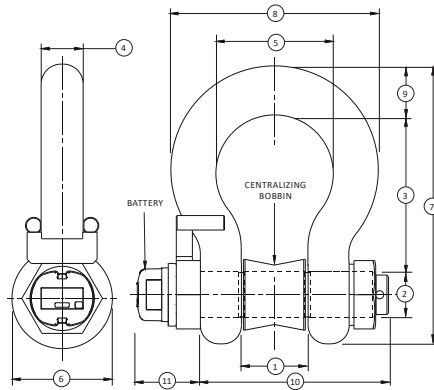
ISHK-B Bow Type Crosby™ Cabled Load Shackle

2.2K and 2205K lbf (1 to 1K MT)

Crosby™ G2130 (1 to 25 MT / 2205 to 55.1K lbf)

G2140 (40 to 120 MT / 88.2K to 265K lbf)

GN Rope H10 (150 to 1K MT / 331K to 2205K lbf) shackles

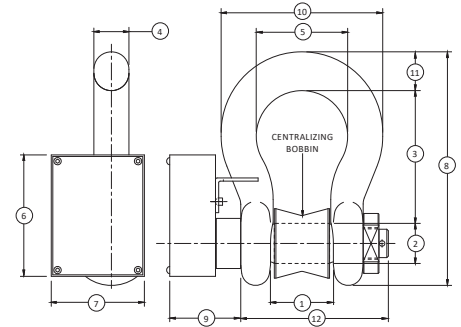


WTSSHK-B Wireless Crosby™ Bow Load Shackle

26.5K and 265K lbf (12 to 120 MT)

Crosby™ G2130 (12 to 15 MT / 26.5K and 33.1K lbf)

G2140 (40 to 120 MT / 88.2K to 265K LBF) shackles



WTSSHK-B-JR Wireless Crosby™ Bow Load Shackle

7.17K to 20.9K lbf (3.25 to 9.5 MT)

Crosby™ G2130 shackle

Crosby™ Bow Type Cabled & Wireless Load Shackles																
See Drawing	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)
Capacity	1	2.2K	2	4.41K	3.25	7.17K	4.75	10.5K	6.5	14.3K	9.5	20.9K	12	26.5K	17	37.5K
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
(1)	16.8	0.66	20.6	0.81	26.9	1.06	31.8	1.25	36.6	1.44	46	1.8	51.5	2.03	60.5	2.38
(2)	Ø11.2	Ø0.44	Ø16	Ø0.6	Ø19.1	Ø0.75	Ø22.4	Ø0.88	Ø25.4	Ø1.00	Ø31.8	Ø1.25	Ø35.1	Ø1.38	Ø41.4	Ø1.63
(3)	36.6	1.44	47.8	1.88	60.5	2.38	71.5	2.81	84	3.3	108	4.3	119	4.7	146	5.7
(4)	9.65	0.380	12.7	0.50	16	0.6	19.1	0.75	22.4	0.88	28.7	1.23	31.8	1.25	38.1	1.50
(5)	26.2	1.03	33.3	1.31	42.9	1.69	51	2.0	58	2.3	74	2.9	82.5	3.25	98.5	3.88
(6)	23.1	0.91	30.2	1.19	38.1	1.50	46	1.8	53	2.1	68.5	2.70	76	3.0	92	3.6
(7)	63	2.5	83.5	3.29	106	4.2	126	5.0	148	5.8	190	7.5	210	8.3	254	10.0
(8)	45.2	1.78	58.5	2.30	74.5	2.93	89	3.5	102	4.0	131	5.2	146	5.7	175	6.9
(9)	Ø9.65	Ø0.380	Ø12.7	Ø0.50	Ø17.5	Ø0.69	Ø20.6	Ø0.81	Ø24.6	Ø0.97	Ø31.8	Ø1.25	Ø35.1	Ø1.38	Ø41.1	Ø1.62
(10)	90	3.5	97	3.8	96	3.8	111	4.4	122	4.8	156	6.1	171	6.7	201	7.9
Capacity	25	55.1K	40	88.2K	55	121K	85	187K	120	265K	150	331K	200	441K	250	551K
(1)	73	2.9	73.2	2.88	82.6	3.25	105	4.1	127	5.0	170	6.7	180	7.1	205	8.1
(2)	Ø51	Ø2.0	Ø50.8	Ø2.0	Ø57.2	Ø2.25	Ø69.9	Ø2.75	Ø82.6	Ø3.3	Ø108	Ø4.3	Ø125	Ø4.9	Ø140	Ø5.5
(3)	178	7.0	178	7.0	197	7.8	267	10.5	330	13.0	400	15.7	500	19.7	540	21.3
(4)	44.5	1.75	44.5	1.75	50.8	2.0	66.5	2.62	76.2	3.00	102	4.0	120	4.7	125	4.9
(5)	127	5.0	127	5.0	146	5.7	184	7.2	200	7.9	275	10.8	290	11.4	305	12.0
(6)	106	4.2	106	4.2	122	4.8	148	5.8	165	6.5	230	9.1	260	10.2	260	10.2
(7)	313	12.3	313	12.3	347	13.7	455	17.9	546	21.5	671	26.4	813	32.0	865	34.0
(8)	225	8.9	224	8.8	258	10.2	324	12.8	371	14.6	479	18.9	530	20.9	555	21.9
(9)	Ø57	Ø2.2	Ø57.2	Ø2.25	Ø61	Ø2.4	Ø79.2	Ø3.12	Ø92.2	Ø3.63	Ø102	Ø4.0	Ø120	Ø4.7	Ø125	Ø4.9
(10)	236	9.3	236	9.3	269	10.6	351	13.8	387	15.2	475	18.7	520	20.5	560	22.0
Capacity	300	661K	400	882K	500	1102K	600	1324K	700	1543K	800	1764K	900	1984K	1K	2205K
(1)	205	8.1	230	9.1	255	10.0	285	11.2	310	12.2	310	12.2	330	13.0	350	13.8
(2)	Ø150	Ø5.9	Ø175	Ø6.9	Ø185	Ø7.3	Ø205	Ø8.1	Ø217	Ø8.5	Ø217	Ø8.5	Ø230	Ø9.1	Ø240	Ø9.4
(3)	600	23.6	680	26.8	700	27.6	700	27.6	700	27.6	700	27.6	700	27.6	750	29.5
(4)	130	5.1	165	6.5	180	7.1	195	7.7	205	8.1	210	8.3	220	8.7	230	9.1
(5)	305	12.0	325	12.8	350	13.8	375	14.8	400	15.7	400	15.7	420	16.5	420	16.5
(6)	305	12.0	350	13.8	370	14.6	405	15.9	435	17.1	435	17.1	465	18.3	480	18.9
(7)	958	37.7	1108	43.6	1158	45.6	1200	47.2	1231	48.5	1236	48.7	1268	49.9	1290	50.8
(8)	565	22.4	655	25.8	710	28.0	765	30.1	810	31.9	820	32.3	860	33.9	880	34.6
(9)	Ø130	Ø5.1	Ø165	Ø6.5	Ø180	Ø7.1	Ø195	Ø7.7	Ø205	Ø8.1	Ø210	Ø8.3	Ø220	Ø8.7	Ø230	Ø9.1
(10)	570	22.4	655	25.8	720	28.3	815	32.1	860	33.9	870	34.3	910	35.8	950	37.4



**ISHK-B Bow Type Crosby™
Cabled Load Shackle**
2.2K and 2205K lbf
1 to 1K MT



**ISHK-D 'D' Type Crosby™
Cabled Load Shackle**
2.2K to 77.2K lbf
1 to 35 MT



**WTSSHK-B Wireless Crosby™
Bow Load Shackle**
26.5K and 265K lbf
12 to 120 MT

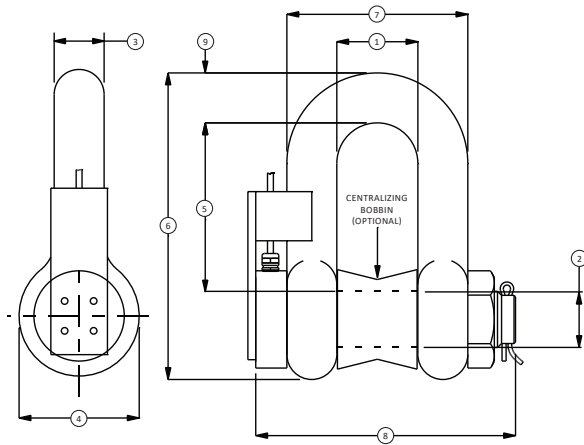


**WTSSHK-B-HL Wireless Crosby™
Bow Load Shackle**
265K to 2205K lbf
120 to 1K MT

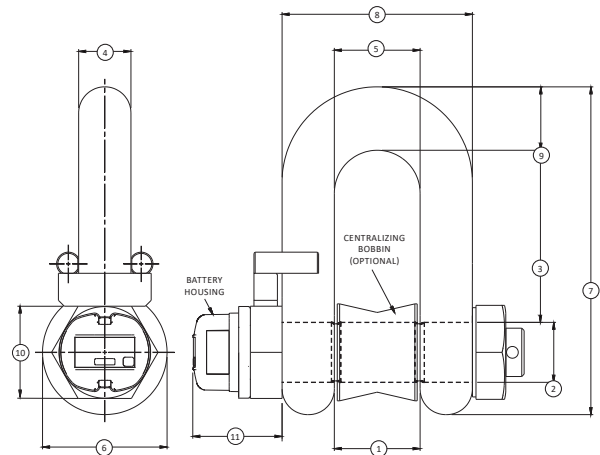
Interface load shackles have been designed for lifting and weighing in rugged or harsh environments. The load shackle pins are manufactured from high tensile carbon steel, while the basic shackle uses the renowned Crosby G2130, G2140 and G2150 series (depending on the load rating).

Optional rotating bobbin can be supplied to centralize the load and minimize any point-load effects.

Interface also supplies load shackles that are fully submersible for sub-sea and offshore applications, as well as wireless telemetry load shackles.



ISHK-D 'D' Type Crosby™ Cabled Load Shackle
2.2K to 77.2 lbf (1 to 35 MT)
Crosby™ G2150 1 MT to 35 MT (2.2K to 77.2K lbf) shackle



WTSSHK-D Wireless Crosby™ Load Shackle
26.5K to 77.2K lbf (12 to 35 MT)
Crosby™ G2150 12 MT to 35 MT (26.5K to 77.2K lbf) shackle

Crosby™ D Type Cabled & Wireless Load Shackles										
See Drawing	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)
Capacity	1	2.2K	2	4.41K	3.25	7.17K	4.75	10.5K	6.5	14.3K
	mm	in	mm	in	mm	in	mm	in	mm	in
(1)	16.8	0.66	20.6	0.81	26.9	1.06	31.8	1.25	36.6	1.44
(2)	Ø11.2	Ø0.44	Ø16	Ø0.6	Ø19.1	Ø0.75	Ø22.4	Ø0.88	Ø25.4	Ø1.00
(3)	Ø9.65	Ø0.380	Ø12.7	Ø0.50	Ø16	Ø0.6	Ø19.1	Ø0.75	Ø22.4	Ø0.88
(4)	Ø23.1	Ø0.91	Ø30.2	Ø1.19	Ø38.1	Ø1.50	Ø46	Ø1.8	Ø53	Ø2.1
(5)	31	1.2	41.4	1.63	51	2.0	60.5	2.38	71.5	2.81
(6)	58.5	2.30	77	3.0	95.5	3.76	115	4.5	135	5.3
(7)	35.8	1.41	46	1.8	58.5	2.30	70	2.8	81	3.2
(8)	55	2.2	84	3.3	89.5	3.52	103	4.1	120	4.7
(9)	9.65	0.380	12.7	0.50	16	0.6	20.6	0.81	24.6	0.97
Capacity	9.5	20.9K	12	26.5K	17	37.5K	25	55.1K	35	77.2K
(1)	46.0	1.81	51.5	2.03	60.5	2.38	73.0	2.87	82.5	3.25
(2)	Ø31.8	Ø1.25	Ø35.1	Ø1.38	Ø41.4	Ø1.63	Ø51	Ø2.0	Ø57	Ø2.2
(3)	Ø28.7	Ø1.13	Ø31.8	Ø1.25	Ø38.1	Ø1.50	Ø44.5	Ø1.75	Ø51	Ø2.0
(4)	Ø68.5	Ø2.70	Ø76	Ø3.0	Ø92	Ø3.6	Ø106	Ø4.2	Ø122	Ø4.8
(5)	91	3.6	100	3.9	122	4.8	146	5.7	172	6.8
(6)	172	6.8	191	7.5	230	9.1	279	11.0	312	12.3
(7)	103	4.1	115	4.5	137	5.4	162	6.4	184	7.2
(8)	150	5.9	165	6.5	196	7.7	230	9.1	264	10.4
(9)	31.8	1.25	35.1	1.38	41.1	1.62	54	2.1	60	2.4

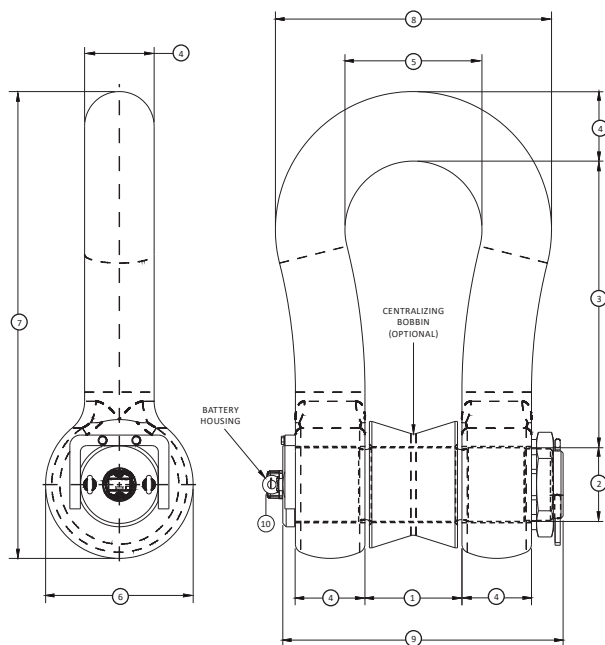


WTSSHK-B-JR Wireless Crosby™ Bow Load Shackle
7.17K to 20.9K lbf
3.25 to 9.5 MT



WTSSHK-D Wireless Crosby™ Load Shackle
26.5K to 77.2K lbf
12 to 35 MT

The WTS-BS-1-HA handheld displays data from up to 12 wireless transmitter modules and forms part of the WTS modular telemetry system. The data sent by transmitter modules can be utilized by multiple receivers such as displays, handheld readers, analog outputs, relay modules and PC interfaces.



WTSSHK-B-HL High Capacity Wireless Bow Load Shackle
265K to 2205K lbf (120 to 1K MT)
Crosby™ GN rope H10 shackle

Crosby™ High Capacity Bow Type Wireless Load Shackles												
See Drawing	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)
Capacity	120	265K	150	331K	200	441K	250	551K	300	661K	400	882K
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
(1)	150	5.9	170	6.7	180	7.1	205	8.1	205	8.1	230	9.1
(2)	Ø95	Ø3.7	Ø108	Ø4.3	Ø125	Ø4.9	Ø140	Ø5.5	Ø150	Ø5.9	Ø175	Ø6.9
(3)	380	15.0	400	15.7	500	19.7	540	21.3	600	23.6	680	26.8
(4)	89	3.5	102	4.0	120	4.7	125	4.9	130	5.1	165	6.5
(5)	238	9.4	275	10.8	290	11.4	305	12.0	305	12.0	325	12.8
(6)	Ø200	Ø7.9	Ø230	Ø9.1	Ø260	Ø10.2	Ø260	Ø10.2	Ø305	Ø12.0	Ø350	Ø13.8
(7)	617	24.3	671	26.4	813	32.0	865	34.1	958	37.7	1,108	43.6
(8)	416	16.4	479	18.9	530	20.9	555	21.9	565	22.2	655	25.8
(9)	420	16.5	475	18.7	520	20.5	560	22.0	570	22.4	655	25.8
(10)	40	1.6	40	1.6	40	1.6	40	1.6	40	1.6	40	1.6
Capacity	500	1102K	600	1324K	700	1543K	800	1764K	900	1984K	1K	2205K
(1)	255	10.0	285	11.2	310	12.2	310	12.2	330	13.0	350	13.8
(2)	Ø185	Ø7.3	Ø205	Ø8.1	Ø217	Ø8.5	Ø217	Ø8.5	Ø230	Ø9.1	Ø240	Ø9.4
(3)	700	27.6	700	27.6	700	27.6	700	27.6	700	27.8	750	29.5
(4)	180	7.1	195	7.7	205	8.1	210	8.3	220	8.7	230	9.1
(5)	350	13.8	375	14.8	400	15.7	400	15.7	420	16.5	420	16.5
(6)	Ø370	Ø14.6	Ø405	Ø15.9	Ø435	Ø17.1	Ø435	Ø17.1	Ø465	Ø18.3	Ø480	Ø18.9
(7)	1158	45.6	1,200	47.2	1,231	48.5	1,236	48.7	1,268	49.9	1,290	50.8
(8)	710	28.0	765	30.1	810	31.9	820	32.3	860	33.9	880	34.6
(9)	720	28.3	815	32.1	860	33.9	870	34.3	910	35.8	950	37.4
(10)	40	1.6	40	1.6	40	1.6	40	1.6	40	1.6	40	1.6

Interface Load Pins Tension Links Load Shackles

- Load Pins
- Tension Links
- Shackles
- Wireless
- Self-Indicating
- Custom
- Bow Type
- D Type

Interface force measurement load pins, tension links, and load shackles are available in many design configurations for project designs requiring the highest performance.

To learn more about the Interface products or force measurement solutions call **480-948-5555**.

Interface is the world's trusted leader in technology, design and manufacturing of force measurement solutions.

Our clients include a "who's who" of the aerospace, automotive and vehicle, medical device, energy, industrial manufacturing, test and measurement industries.

Interface engineers around the world are empowered to create high-level tools and solutions that deliver consistent, high quality performance. These products include load cells, torque transducers, multi-axis sensors, wireless telemetry, instrumentation and calibration equipment.

Interface, Inc., was founded in 1968 and is a US-based, woman-owned technology manufacturing company headquartered in Scottsdale, Arizona.