

# ***AP Dynamometer***

The world leader in  
dynamometers since 1937



**DILLON**<sup>®</sup>

Overload Protection and Overhead Weighing Equipment

# ***Dillon Dynamometer — Nobody does it better!***

Originally designed to measure the tension on telephone wires, the Dynamometer has proven to have limitless versatility as a tension, traction and weight measuring instrument. It has been used for such diverse jobs as mounting cables for bridges; adjusting tension on guy wires; field testing chain, rope, wire—anything requiring precision force or tension measurement. For critical overhead lifting applications, we recommend our ProLift dynamometer.



## **Typical Applications**



*Power Lines*



*Communications Towers*



*Bridge Guy Lines*

### **Certificate of Calibration**

An official Certificate of Calibration traceable to NIST, dated and signed, accompanies each new or factory serviced Dillon Model AP dynamometer.

Experienced technicians calibrate each instrument on an individual basis making certain that all parts are carefully adjusted and that every unit is within stated accuracy tolerances before it leaves the factory.

Utility companies count on the Model AP Dynamometer. Communication tower erectors employ several dynamometers during installation to properly tension guy wires.

The Dillon Dynamometer is also working every day for the aviation industry and is used worldwide in military installations.

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### **Worldwide distribution network**

Dillon supports its customers with a worldwide distribution network. In addition to the US and Canada, we serve fifty-seven other countries. Every Dillon distributor offers complete service capabilities from application assistance to sales and product support. Their experienced representatives are knowledgeable experts in the force measurement field and can satisfy virtually any need.

# Feature for feature — Dillon Dynamometer sets the standard.

## Accuracy: $\pm 0.5\%$ of full range

If precision data is what you need, there is a Dillon Dynamometer for every force measurement task offering  $\pm 0.5\%$  of full range accuracy.

## Wide range of capacities:

500 to 100,000 lb  
200 to 50000 kg

## Choice of dial sizes:

Portable 5" (125 mm) or highly visible 10" (250 mm) dials.

**Anti-parallax dial and pointer** offers accurate readings from varying sight lines. Dial is mar and fog resistant.

**Zero control** (at rear of case) can cancel preset loads up to 20% of capacity.

**Maximum indicator** remains in position to indicate peak load point after load is removed from instrument. Standard.

**Mechanism case** constructed of high strength composite plastic or rugged cast aluminum resists heavy blows.

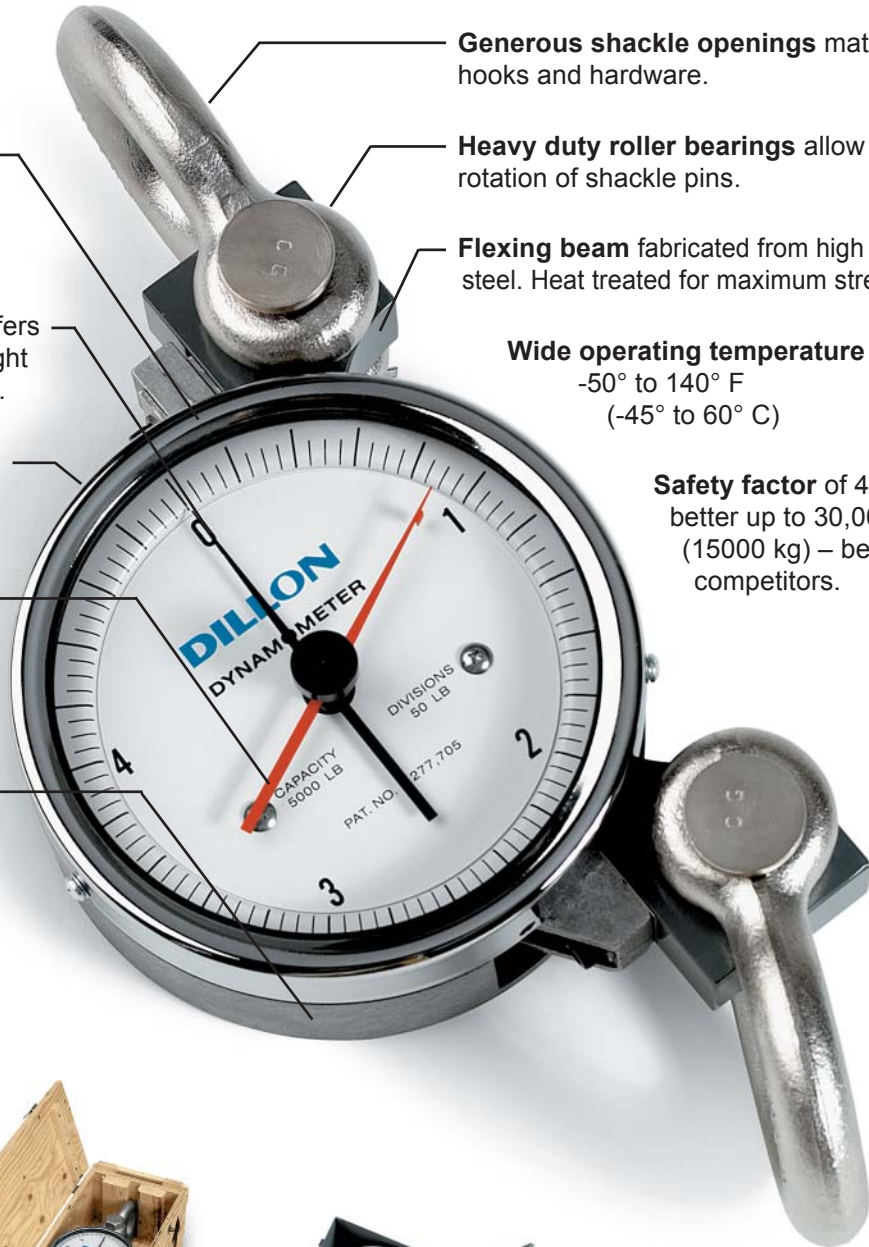
**Generous shackle openings** mate with most hooks and hardware.

**Heavy duty roller bearings** allow free rotation of shackle pins.

**Flexing beam** fabricated from high specification steel. Heat treated for maximum strength.

**Wide operating temperature range**  
-50° to 140° F  
(-45° to 60° C)

**Safety factor** of 4.5:1 or better up to 30,000 lb (15000 kg) – beats all competitors.



5" (125 mm) diameter AP dynamometer includes a rugged ABS plastic carry case with die-cut foam inserts. Capacities of 30,000 lb (15000 kg) and above are shipped in a heavy-duty reinforced plywood crate. An optional steel carry case is available for 10" (250 mm) diameter dynamometers up to 20,000 lb (10000 kg) capacity.

## OPTION



### Zero positioning

The standard zero position is 9 o'clock for both the 5" and 10" dial sizes. Capacities up to 20,000 lb can be supplied with the zero at 12, 3 or 6 if specified at the time of ordering. *Photo shows a nonstandard position of 12 o'clock.*



Dillon also manufactures an enhanced mechanical dynamometer, the ProLift, and electronic dynamometers for high precision, improved convenience and data extraction requirements.

## MODEL AP MECHANICAL DYNAMOMETER CAPACITIES AND INCREMENTS

(Newton capacities also available)

### POUND CAPACITIES

5" (125 mm) Dial Size		10" (250 mm) Dial Size	
Part Number	Capacity x Division Size	Part Number	Capacity x Division Size
30006-0019	500 x 5	30007-0018	500 x 2
30006-0027	1,000 x 10	30007-0026	1,000 x 5
30006-0035	2,000 x 20	30007-0034	2,000 x 10
30006-0043	4,000 x 25	30007-0042	4,000 x 20
30006-0050	5,000 x 50	30007-0059	5,000 x 20
30006-0068	6,000 x 50	30007-0067	6,000 x 25
30006-0076	8,000 x 50	30007-0075	8,000 x 50
30006-0084	10,000 x 100	30007-0083	10,000 x 50
30006-0092	15,000 x 100	30007-0091	15,000 x 100
30006-0100	20,000 x 200	30007-0109	20,000 x 100
		30784-0017	30,000 x 200
		30784-0025	40,000 x 200
		30784-0033	50,000 x 200
		30332-0014	100,000 x 500

### KILOGRAM CAPACITIES

125 mm (5") Dial Size		250 mm (10") Dial Size	
Part Number	Capacity x Division Size	Part Number	Capacity x Division Size
30006-0142	200 x 2	30007-0141	200 x 1
30006-0134	500 x 5	30007-0133	500 x 2
30006-0159	1000 x 10	30007-0158	1000 x 5
30006-0126	2000 x 20	30007-0125	2000 x 10
30006-0167	4000 x 25	30007-0166	4000 x 20
30006-0175	5000 x 50	30007-0174	5000 x 50
30006-0118	10000 x 100	30007-0117	10000 x 50
		30784-0041	15000 x 100
		30784-0058	20000 x 100
		30332-0022	50000 x 200

For dimensional information and other specifications, see the Model AP Dynamometer specifications sheet available from an authorized Dillon distributor, the website at [www.dillon-force.com](http://www.dillon-force.com) or call the factory.

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# AP Dynamometer Specifications

## Pound Capacities

5" (125mm) Dial Size		10" (250 mm) Dial Size		Ultimate Safety Factor	
Part number	Cap x division size	Part number	Cap x division size		
LOW	30006-0019	500 x 5	30007-0018	500 x 2	5:1
	30006-0027	1,000 x 10	30007-0026	1,000 x 5	5:1
	30006-0035	2,000 x 20	30007-0034	2,000 x 10	5:1
	30006-0043	4,000 x 25	30007-0042	4,000 x 20	5:1
	30006-0050	5,000 x 50	30007-0059	5,000 x 20	5:1
	30006-0068	6,000 x 50	30007-0067	6,000 x 25	5:1
	30006-0076	8,000 x 50	30007-0075	8,000 x 50	5:1
	30006-0084	10,000 x 100	30007-0083	10,000 x 50	5:1
MED	30006-0092	15,000 x 100	30007-0091	15,000 x 100	5:1
	30006-0100	20,000 x 200	30007-0109	20,000 x 100	4.5:1
HIGH			30784-0017	30,000 x 200	5:1
			30784-0025	40,000 x 200	4:1
			30784-0033	50,000 x 200	3:1
			30332-0014	100,000 x 500	4:1

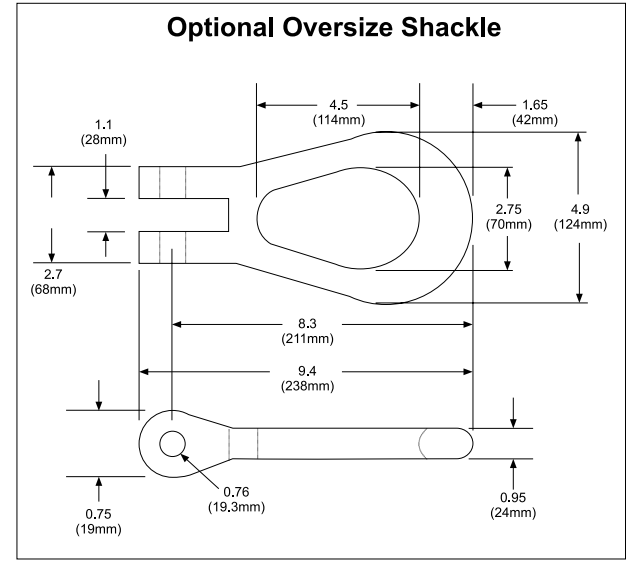
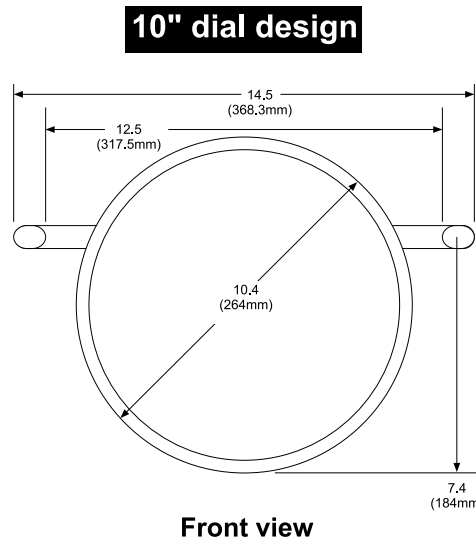
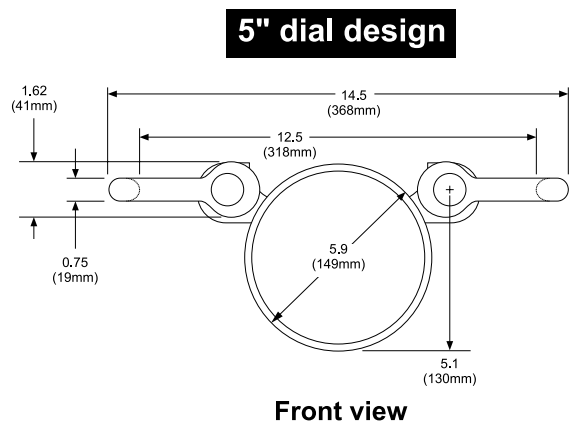
## Kilogram Capacities

5" (125mm) Dial size		10" (250mm) Dial size		Ultimate Safety Factor	
Part number	Cap x division size	Part number	Cap x division size		
LOW	30006-0142	200 x 2	30007-0141	200 x 1	5:1
	30006-0134	500 x 5	30007-0133	500 x 2	5:1
	30006-0159	1,000 x 10	30007-0158	1,000 x 5	5:1
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	30006-0167	4,000 x 25	30007-0166	4,000 x 20	5:1
	30006-0175	5,000 x 50	30007-0174	5,000 x 20	5:1
	MED	30006-0118	10,000 x 100	30007-0117	10,000 x 50
HIGH			30784-0041	15,000 x 100	5:1
			30784-0058	20,000 x 100	4:1
			30332-0022	50,000 x 200	4:1

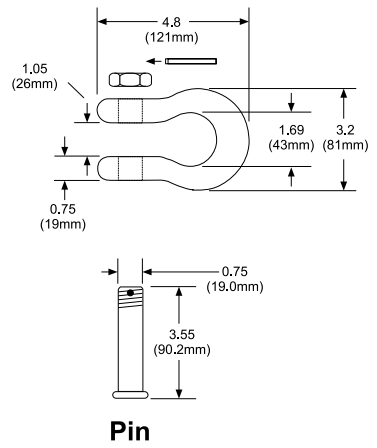
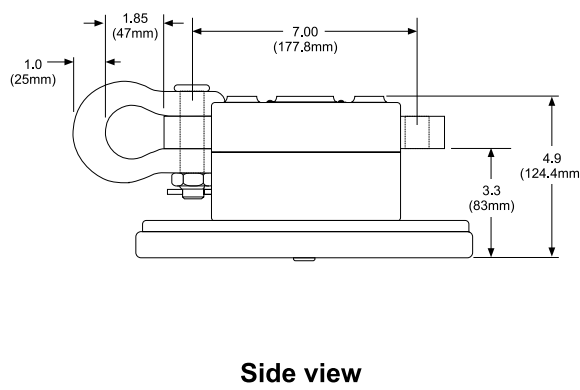
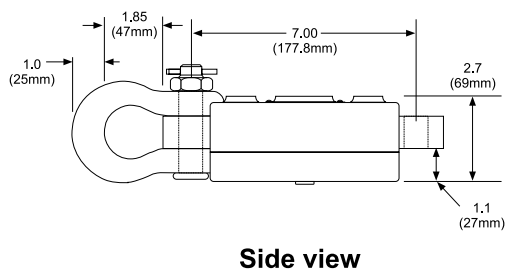
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Dimensions in inches (mm)  
 Drawing scales differ between capacities  
 Dimensions subject to manufacturer /supplier tolerances and  
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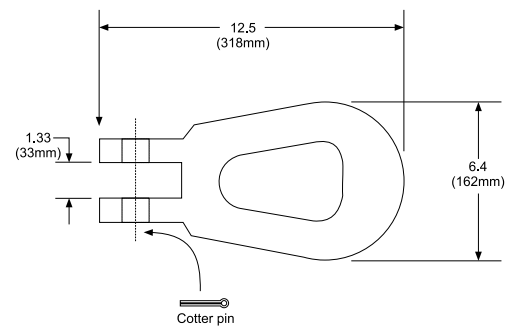
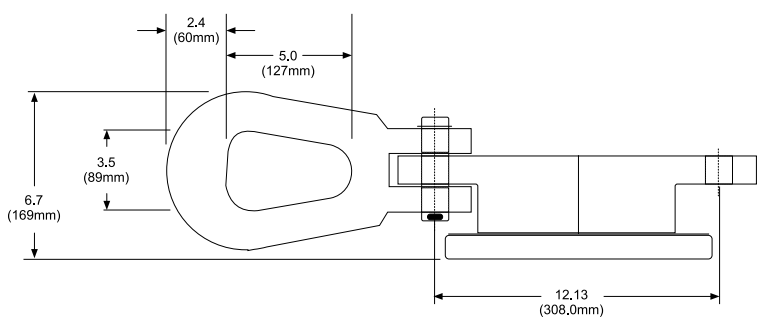
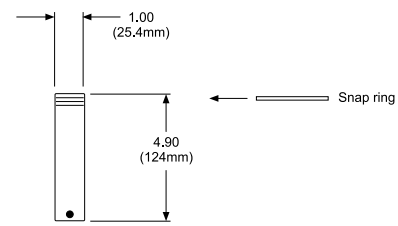
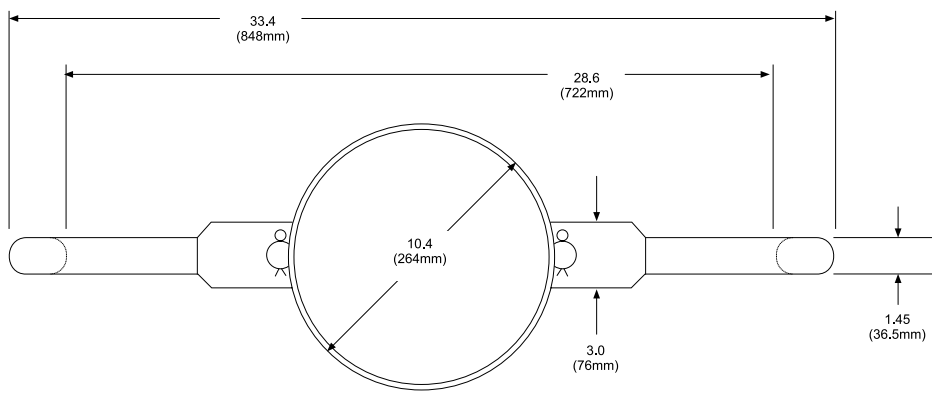
## Low & Medium Capacities 500-20,000lb / 200-10000kg



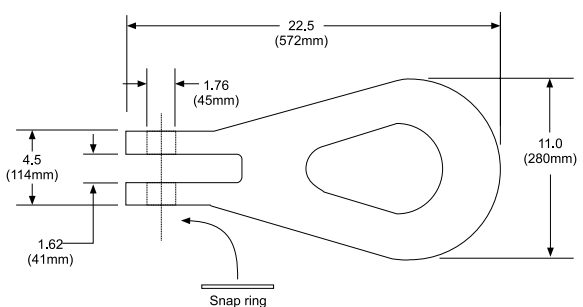
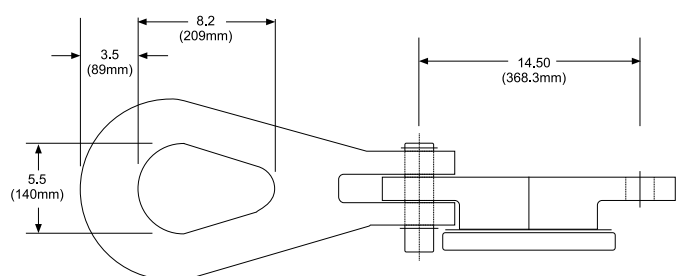
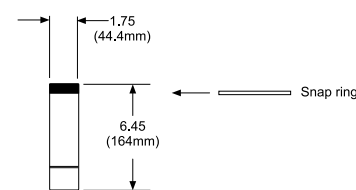
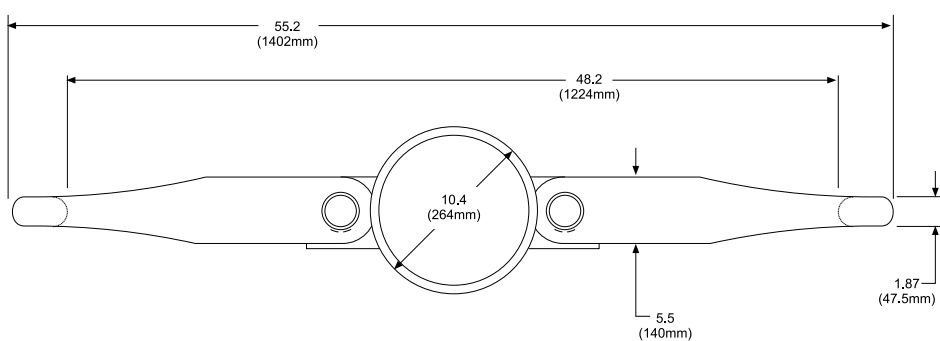
### Standard Shackle



## High Capacities 30,000-50,000lb / 150000-20000kg



## High Capacities 100,000lb / 50000kg



# Model AP Mechanical Dynamometer Specifications

**Accuracy:** + 0.5% of capacity

**Temperature range:** -50° to 140° F (-45° to 60° C)

**Ultimate Safety Factor:**

See table on cover for minimum USF

**Construction:**

*Pressure bar—*

Aircraft quality E4340 steel or 7075-T651 aluminum

*Shackles –*

A4140 forged steel (machined from E4340 steel)

*Shackle pins –*

Machined from E4340 steel

**Case housing:**

5" models are equipped with high strength composite plastic case.

10" models use cast aluminum enclosure.

**Corrosion protection:** Pressure bar protected with durable powder coat paint. Shackles and pins are electroless nickel plated. All integral machining and fasteners are produced from noncorrosive materials or have suitable plating.

**Zero control:** Zero up to 20% of capacity. Zeroed load must be considered as part of ultimate load.

**Calibration:** Traceable to NIST.

**Documentation:** Includes User's Guide and signed calibration card.

**Carry case/crate:**

Low/Med capacity 5" dial – includes plastic carry case

Low/Med capacity 10" dial – optional steel carry case

All high capacity – includes reinforced plywood crate

**Periodic proof loads:** Controlled 150% proof loads permitted annually.

**Shipping and packing** (approximate weights):

5" Low and Med capacities

Net weight	9 lb
Shipping weight	15 lb
Shipping box	16" x 11" x 7"

10" Low and Med capacities

Net weight	16 lb
Shipping weight	26 lb
Shipping box	14" x 14" x 7"

30,000 – 50,000 lb (15000 – 20000 kg) High capacity

Net weight	64 lb
Shipping weight	98 lb
Shipping crate	37.5" x 13" x 10.5"

100,000 lb (50000 kg) High capacity

Net weight	226 lb
Shipping weight	315 lb
Shipping crates	22.5" x 12.5" x 8" 26" x 13" x 9" (2 included)



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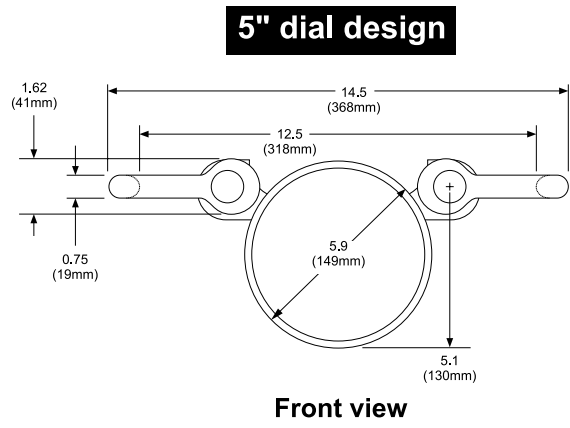
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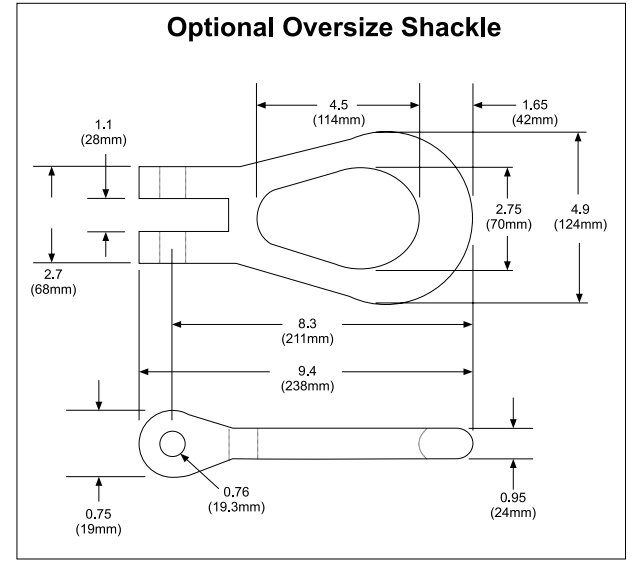
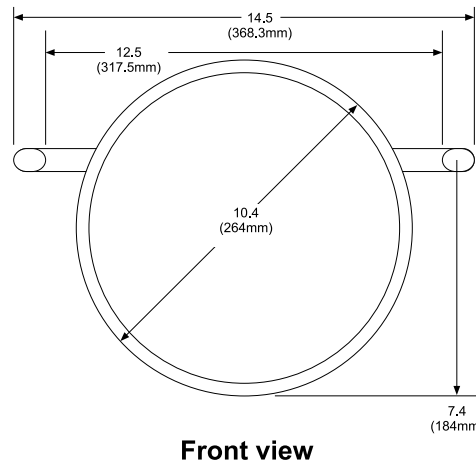
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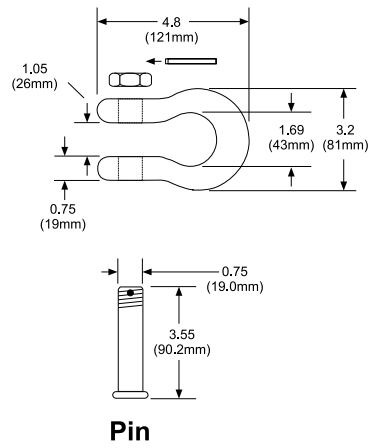
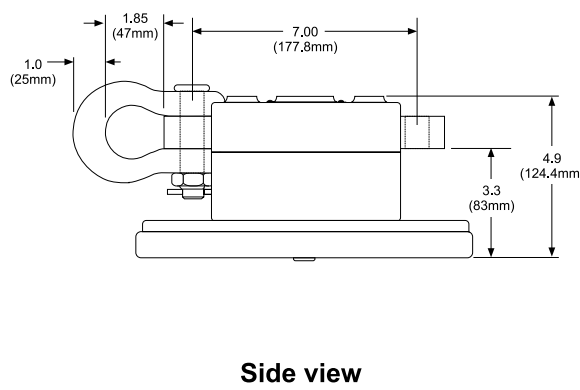
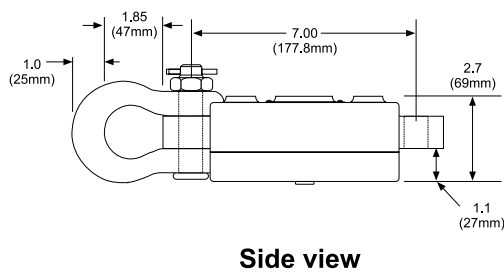
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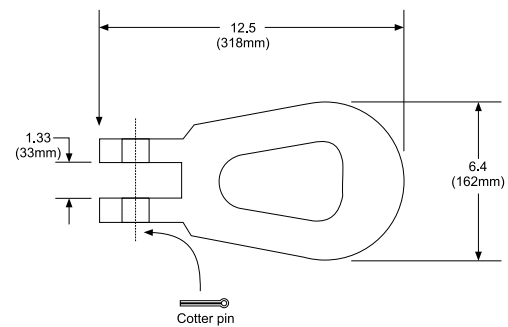
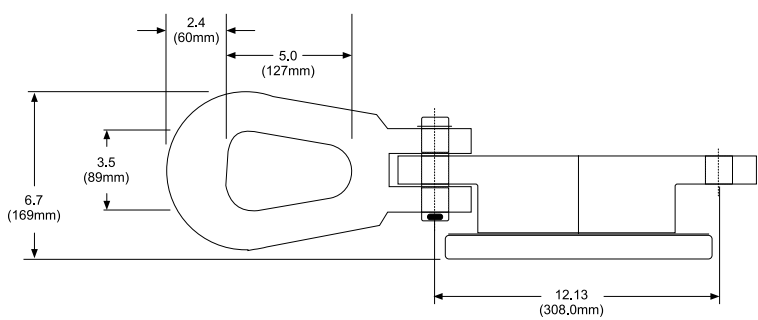
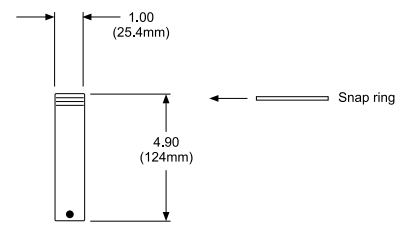
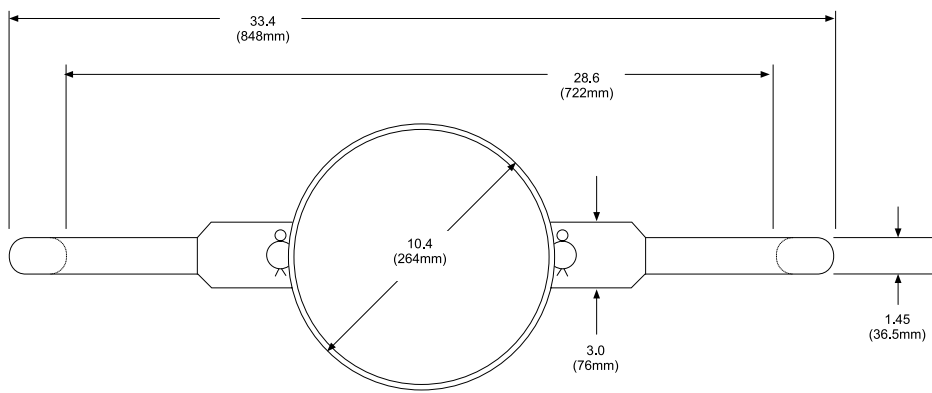
### 10" dial design



### Standard Shackle



## High Capacities 30,000-50,000lb / 150000-20000kg



## High Capacities 100,000lb / 50000kg

