

AP Dynamometer



5" (125 mm)
ABS plastic carry case



Optional
10" (250 mm)
Steel carry case



5" (125 mm) 30,000 lb (15,000 kg)
Heavy-duty reinforced plywood crate



The AP Dynamometer was originally designed to measure the tension on telephone wires and has proven to have limitless versatility as a tension and weight measuring instrument.

It is used for such diverse jobs as suspended weighing; tensioning support cables for bridges or aerial work ways; adjusting tension on guy wires; load testing; field testing chain, rope and wire.

Dillon is the world leader in mechanical dynamometers with the largest installed population globally. The sturdy design, top grade components, full NIST traceability and premium coatings make it the standard in force measurement and able to stand the test of time in the most severe environments and applications.

Embraced by both the military and industrial markets across the globe, we are confident that the AP will work in the most demanding applications.

Feature for feature — Dillon Dynamometer sets the standard.

- **Capacity** – 500 lb to 50,000 lb / 500 kg to 20,000 kg.
- **Accuracy** – $\pm 0.5\%$ of full scale capacity for precise data.
- **Safety** – 5:1 ultimate safety factor for overload protection and long life
- **Environmental** – Wide temperature range for use in nearly any environment (-50 to 140°F / -45 to 60°C)
- **Approvals** – CE on all capacities excluding 30,000 lb and 50,000 lb; ASME b30.26 compliant on 20,000 lb (10,000 kg) and below
- No batteries required
- Choice of dial face sizes 5" or 10" for the best in portability or visibility
- Anti-parallax design allows accurate readings from any perspective
- Maximum hand retains peak load point and is easily reset
- Zero reset or Tare functionality
- High strength case resists heavy blows
- Generous shackle openings mate with most hooks and hardware
- High specification materials on all load components. Heat treated to tight tolerances
- Durable powder coat paint provides outstanding protection
- Offset load beam eases tension measurement

Shipping and Storage

- 5" (125 mm) diameter AP Dynamometer includes a rugged ABS plastic carry case with die-cut foam inserts.
- Capacities of 30,000 lb (15,000 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 (10,000 kg) capacity.

Options:

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. Photo shows a nonstandard position of 12 o'clock.



Zero positioning

Klaxon signal alarm

Mounted on the rear of the dynamometer, this sounds an alarm at a preset load point.

AP Dynamometer

Pound Capacities

5" (125 mm) Dial Size			
	Part Number	Capacity x Division	Ultimate Safety Factor
LOW	30006-0019	500 x 5	5:1
	30006-0027	1000 x 10	5:1
	30006-0035	2000 x 20	5:1
	30006-0043	4000 x 25	5:1
	30006-0050	5000 x 50	5:1
	30006-0076	8000 x 50	5:1
	30006-0084	10,000 x 100	5:1
MED	30006-0092	15,000 x 100	5:1
	30006-0100	20,000 x 200	5:1

Kilogram Capacities

5" (125 mm) Dial Size			
	Part Number	Capacity x Division	Ultimate Safety Factor
LOW	30006-0134	500 x 5	5:1
	30006-0159	1000 x 10	5:1
	30006-0126	2000 x 20	5:1
	30006-0167	4000 x 25	5:1
MED	30006-0118	10,000 x 100	5:1

10" (250 mm) Dial Size			
	Part Number	Capacity x Division	Ultimate Safety Factor
LOW	30007-0026	1000 x 5	5:1
	30007-0034	2000 x 10	5:1
	30007-0059	5000 x 20	5:1
	30007-0083	10,000 x 50	5:1
MED	30007-0109	20,000 x 100	5:1
HIGH	30784-0017	30,000 x 200	5:1
	30784-0033	50,000 x 200*	3:1

* Not CE approved.

10" (250 mm) Dial Size			
	Part Number	Capacity x Division	Ultimate Safety Factor
LOW	30007-0158	1000 x 5	5:1
	30007-0125	2000 x 10	5:1
	30007-0174	5000 x 20	5:1
MED	30007-0117	10,000 x 50	5:1
HIGH	30784-0058	20,000 x 100	4:1

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—

High-grade E4340 alloy steel or 7075-T651 aluminum

Shackles—

A4140 forged steel (machined from E4340 steel)

Shackle pins—

Machined from E4340 steel or 300 m 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 non-corrosive 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

Approval: CE on all capacities excluding 30,000 lb and 50,000 lb;
ASME b30.26 compliant on 20,000 lb (10,000 kg) and below

Weights

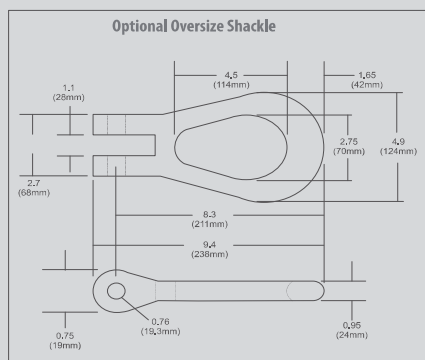
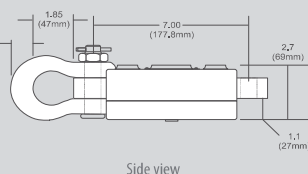
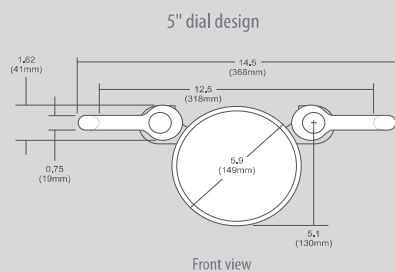
5" (125 mm) Low and Med			
Net Weight lb (kg)	Shipping Weight lb (kg)	Shipping Weight lb (kg) (steel case)	Packaging Dimension In (mm)
9 (4)	15 (6.8)		16 x 11 x 7" (406 x 279 x 177 mm)
10" (250 mm) Low and Med			
10 (4.5)	16 (7.2)	26 (11.7)	14 x 14 x 7" (355 x 355 x 177 mm)
30,000 - 50,000 (20,000 kg) High			
64 (29)	98 (44)		37.5 x 13 x 10.5" (952 x 330 x 266 mm)



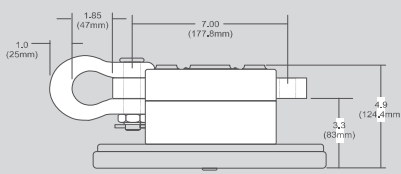
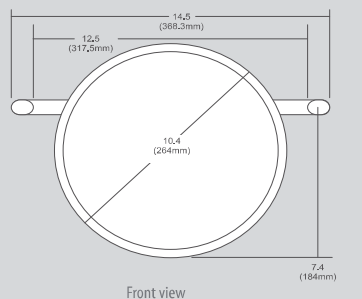
AP Dynamometer

Low and Medium Capacities
500–20,000 lb / 200–10,000 kg

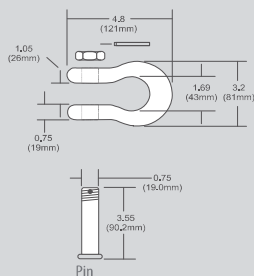
Dimensions in inches (mm)
Drawing scales differ between capacities
Dimensions subject to manufacturer /supplier tolerances and
are subject to change without notice.



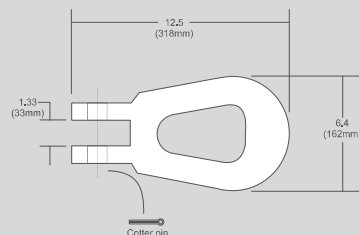
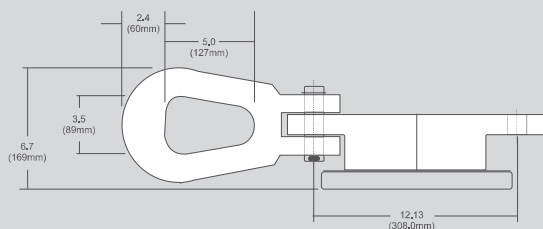
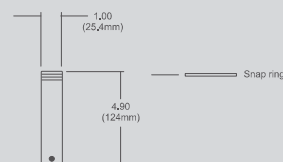
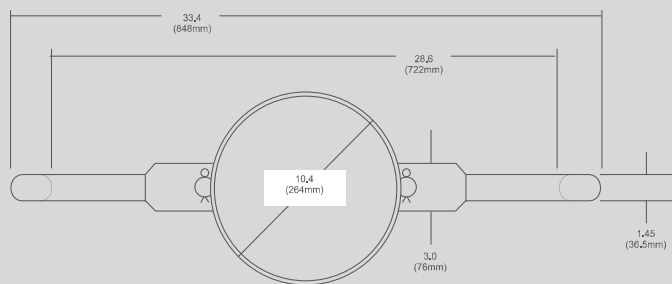
10" dial design



Standard Shackle



High Capacities
30,000–50,000 lb / 15,000–20,000 kg



AP Crane Scale Hardware Kits



The AP Dynamometer is designed to work with oversized shackles and various hooks to provide complete flexibility to support your required application.

Feature for feature — Dillon Dynamometer sets the standard.

- **Available in Low, Intermediate and High Range Models:** Capacities from 1000 to 20,000 pounds. Capacities from 500 to 10,000 kg.
- **Anti-parallax Dial and Pointer:** Easy to read even at an angle.
- **Tare Capability:** Tare loads up to 20% of capacity can be zeroed out by means of zero control.
- **Dust Protection:** Pinion gear, sector gear and shafts are mounted in precision aircraft bearings, permanently sealed against dust and dirt. Oiling is never required.
- **Tough Construction:** Mechanism case is a heavy aluminum alloy casting, tough enough to resist even heavy blows.
- **Ingenious Design:** Utilizes a specially designed alloy steel beam that translates force to pounds. Full scale reading results from beam deflection of only 0.026". Applied loads are indicated instantly.
- **Reduced Wear:** Pinion and sector gears are cut from stainless steel and hardened aluminum. Use of these dissimilar materials greatly reduces friction and wear.
- **Protective Finish:** Scale cases are coated with a baked-on powder paint process making them resistant to chips, scratches, rust and corrosion.
- **Maximum indicator:** Remains in position to indicate peak load point after load is removed from scale.
- **Hardware Kits:** Now offered as an add on feature for the AP Dynamometer.

Capacity and Resolution

Capacity	Capacities & Dial Divisions (lb)	Length in (mm)	Net Weight lb (kg)	Gross Weight lb (kg)	Hook Kit Net Weight lb (kg)	Hook Kit Ship Weight lb (kg)
Low	1,000 x 5	25.5 (647)	28 (12)	62 (28)	13 (5)	44 (19)
Low	2,000 x 10	25.5 (647)	28 (12)	62 (28)	13 (5)	44 (19)
Low	5,000 x 20	25.5 (647)	28 (12)	62 (28)	13 (5)	66 (29)
Low	10,000 X 50	25.5 (647)	28 (12)	62 (28)	20 (9)	66 (29)
Med	*20,000 x 100	29.75 (755)	48 (21)	83 (37)	42 (19)	77 (34)

Capacity	Capacities & Dial Divisions (kg)	Length in (mm)	Net Weight lb (kg)	Gross Weight lb (kg)	Hook Kit Net Weight lb (kg)	Hook Kit Ship Weight lb (kg)
Low	1000 x 5	25.5 (647)	28 (12)	62 (28)	13 (5)	44 (19)
Low	2000 x 10	25.5 (647)	28 (12)	62 (28)	13 (5)	44 (19)
Low	5000 x 20	25.5 (647)	28 (12)	62 (28)	20 (9)	66 (29)
Med	*10,000 x 50	29.75 (755)	48 (21)	83 (37)	42 (19)	77 (34)



Heavy-duty reinforced plywood crate

Crane Specifications

Accuracy: To $\pm 0.5\%$ of full scale

Tare adjustment: Up to 20% of full scale range

Ultimate safety factor: 5:1 (*4:1 for 20,000 lb and 10000 kg)

Dial diameter: 10"

Scale length: (from inside of eye to inside of hook)

Low Range: 25½"

Medium Range: 29¾"

All kits are shipped complete to allow direct interface to the AP Dynamometer. Hook kit and AP Dynamometer are shipped in separate packaging.

