

# DILLON®

## ProLift Dynamometer

Enhanced design  
of the original  
Model AP Dillon  
Dynamometer

Incorporates  
advanced  
engineering

Legendary  
durability



*Designed for Safety Critical Requirements*

# Dillon ProLift — The strongest available

## Dillon – Inventor of the mechanical dynamometer

In 1937, Dillon built the first ever mechanical dynamometer for overhead weight and tension measurement. Since that time, the Dillon name has become synonymous with safe, overhead weighing and tension measurement.

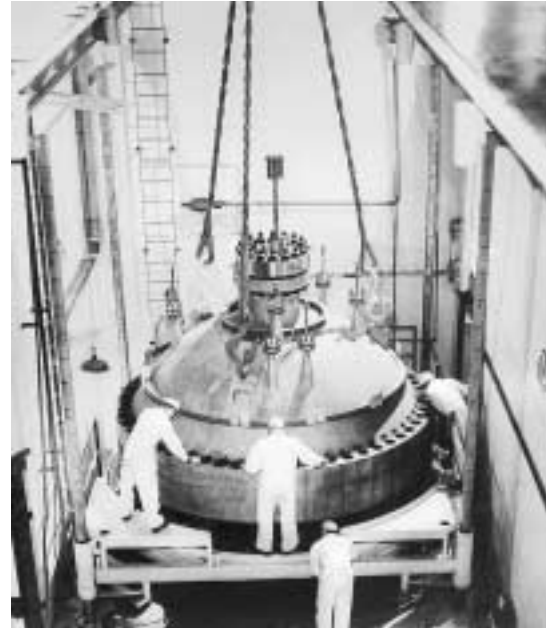
Dillon is the leader in dynamometers and the classic Model AP has become the recognized standard. The Dillon ProLift was designed with input from a lift specialist with truly critical demands – a nuclear fuel handler. The ProLift takes the rock solid performance and reliability of Dillon's legendary AP dynamometer to new heights. The ProLift is perfect for other demanding environments such as critical military duty, crane lifts and ultra-sensitive commercial environments.

## Engineered for Precision and Durability

Dillon takes enormous care in choosing materials used for its products. Only the best metals and coatings are selected against our rigid engineering standards and procedures. Taking this care a step further, Dillon manufactures ProLift load bars from only premium grade, certified and traceable E4340 aircraft quality alloy steel. Each and every ProLift load bar must pass stringent Magnetic Particle Inspection after machining. ProLift load bars and shackles are electroless nickel plated, a treatment that offers both exceptional corrosion protection and typically permits periodic future inspections without costly coating removal.

ProLift dynamometers undergo proof loading to 150% of capacity to confirm strength, followed by a "three-run" calibration procedure to guarantee accuracy.

Great products begin with great design. Dillon adopts a highly responsible and cautious approach to its design engineering, backed up by the use of sophisticated, modern techniques, such as Finite Element Analysis (FEA). Our philosophy results in the safest, most reliable and most accurate dynamometers available. Given the critical nature of ProLift applications for example, the design of every capacity and configuration was confirmed to achieve a 5:1 minimum ultimate safety factor via destructive testing. In fact, the ProLift load bars are designed to greatly surpass this hurdle.



*The nuclear power industry trusts Dillon dynamometers.*



*Computer-controlled milling with skilled operators ensure strict adherence to specifications.*



*Our engineering team heavily scrutinized every load-bearing component of the ProLift.*

## ProLift Certificate of Calibration — Your assurance of the most thorough calibration in the industry

An official Certificate of Calibration traceable to NIST, dated and signed, accompanies each new or factory serviced Dillon ProLift dynamometer. Experienced technicians calibrate each instrument on an individual basis making certain that all parts are carefully adjusted and that each unit is well within stated accuracy tolerances before it leaves the factory. The dynamometer must pass three confirming runs before it gets approval. This is the most thorough calibration procedure in the industry.

# Feature for feature — ProLift is the premium dynamometer

Dillon sets the standard for mechanical dynamometers. The ProLift has the same great basic features of the Dillon Model AP which include:

- Anti-parallax dial and pointer guarantees accurate readings from any angle
- Industry leading accuracy to within 0.5% of capacity
- Choice of 5" or 10" (125 mm or 250 mm) dial sizes
- Tight heat-treatment tolerances insure strength and long life
- Premium bearings facilitate smooth, repeatable operation
- Simple zero control tares easily
- Maximum indicator holds peak load
- Durable composite plastic or cast aluminum case resists blows
- Wide operating temperature range: -50°F to 140°F (-45°C to 60°C)

The ProLift takes performance and reliability to new heights addressing the needs of critical lift applications with these enhancements:

- 5:1 ultimate safety factor achieved in all capacities
- Exclusive material selection using even tighter tolerances
- Rounded pressure bar ends reduce binding with lift rigging
- Electroless nickel plating – extra corrosion resistance
- Non-destructive examination of key components
- Lower weight and reduced headroom loss in high capacities
- Anchor shackles in all capacities
- Every unit proof-load tested to 150% of capacity
- Calibration confirmed by three runs
- Optional alarm and trip-point switching



*ProLift Dynamometers include a rugged ABS plastic case, heavy-duty reinforced plywood shipping/storage crate or steel carrying case suited for the instrument size.*



**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 position if specified at the time of ordering. *Photo shows a non-standard 12 o'clock zero position.*



**Klaxon signal alarm**

Mounted on rear of the ProLift Dynamometer and sounds an alarm at a preset load point.



**Auto control switch**

This microswitch allows automated control of motors, hopper grates, conveyors or it can sound remote alarms. Preset at any desired load point.

**PROLIFT CAPACITIES AND INCREMENTS**

(Newton capacities also available. See specifications sheet.)

**POUND CAPACITIES**

5" (125 mm) Dial Size		10" (250 mm) Dial Size	
Part Number	Capacity x Division Size	Part Number	Capacity x Division Size
51695-0011	500 x 5	51700-0014	500 x 2
51695-0029	1,000 x 10	51700-0022	1,000 x 5
51695-0037	2,000 x 20	51700-0030	2,000 x 10
51695-0045	4,000 x 25	51700-0048	4,000 x 20
51695-0052	5,000 x 50	51700-0055	5,000 x 20
51695-0060	6,000 x 50	51700-0063	6,000 x 25
51695-0078	8,000 x 50	51700-0071	8,000 x 50
51695-0086	10,000 x 100	51700-0089	10,000 x 50
51695-0094	15,000 x 100	51700-0097	15,000 x 100
51695-0102	20,000 x 200	51700-0105	20,000 x 200
		52160-0015	30,000 x 200
		52160-0023	40,000 x 200
		52160-0031	50,000 x 200
		52170-0013	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
51695-0144	200 x 2	51700-0147	200 x 1
51695-0136	500 x 5	51700-0139	500 x 2
51695-0151	1000 x 10	51700-0154	1000 x 5
51695-0128	2000 x 10	51700-0121	2000 x 10
51695-0169	4000 x 25	51700-0162	4000 x 20
51695-0177	5000 x 50	51700-0170	5000 x 20
51695-0110	10000 x 100	51700-0113	10000 x 50
		52160-0049	15000 x 100
		52160-0056	20000 x 200

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



Dillon also manufactures highly accurate electronic dynamometers for overhead lifting and the classic Model AP mechanical dynamometer.

**AUTHORIZED DISTRIBUTORS**

**Ask the experts.** Dillon distributors offer complete service capabilities from application assistance to sales and product support. Their experienced representatives are the most knowledgeable experts that you will find in the force measurement industry. We recommend that you consult these capable specialists for all of your measuring needs.

Please call us or visit [www.dillon-force.com](http://www.dillon-force.com) for your nearest Dillon distributor

**DILLON**

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