Modern | Accurate | Convenient

High-Performance, Hand-Held Digital Scale

Features:

High-Performance

This premium scale offers all the qualities of a traditional hanging balance with the simplicity, convenience and accuracy of digital operation.

Large, easy to read LCD display.

Pre-calibrated to factory specs. Easily re-calibrated as needed for long term accuracy.

Convenient

"HOLD" feature for one person operation on heavier loads.

A robust, compact and lightweight portable scale.

Carrying pouch and weighing handle is supplied.

Auto power off to save on battery life.

Specifications:

Keys: On/Zero, off, hold, units

Power: 9V alkaline battery (included)

Annunciators: Tare, hold

Capacities: (Switchable Units - kg, lb, lb/oz)
10 kg x 0.01 kg (22 lb x 0.02 lb 1/4 oz)

Display: (0.6"/15 mm) 7 segment LCD

Temperature: 0° C to 40° C (32° to 104° F)

Approvals:
CE electromagnetic compatibility
EN 50081-1
EN 50082-1
(Tested to comply with FCC standards)

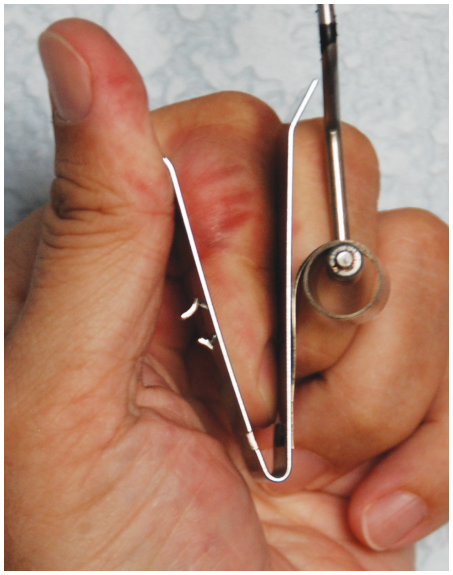
American Owned and Made

HELWIG CARBON PRODUCTS, INC.

www.helwigcarbon.com

ISO 9001 Certified

How to Measure Spring Force



Instructions:

1. Turn on and "zero" the scale.
2. Connect appropriate attachment to bottom loop of Digiscale, based on type of spring.
3. Insert roller assembly inside constant force spring or slide strap around torsion spring finger.
4. Pull spring back to approximate new brush location.
5. **SLOWLY** let the spring recoil in the direction of brush travel. Observe spring force and take reading at approximately .75 length of travel.
6. Be sure to check ALL springs.

NOTE:

Insufficient and/or inconsistent spring pressure will adversely affect motor performance and brush life.

If spot checking, and you find some spring pressures are too light, be sure to replace ALL springs!

Remember to re-calibrate your Digiscale periodically to ensure accurate spring pressure readings.

To calculate Spring Pressure:

$$\text{Spring Pressure (P.S.I.)} = \frac{\text{Measured Force (lbs.)}}{\text{Brush Thickness (in.)} \times \text{Brush Width}}$$

Recommended Range of Spring Pressure

Industrial D.C Applications	4.0 - 6.0 P.S.I. (280-420 g/cm2)
WRIM & Sync. Rings	3.5 - 4.5 P.S.I. (240-310 g/cm2)
High Speed Turbine Rings Soft Graphite Grades	2.5 - 3.5 P.S.I. (170-240 g/cm2)
Metal Graphite Brushes	4.5 - 5.5 P.S.I. (310-390 g/cm2)
Fractional HP Brushes	4.0 - 7.0 P.S.I. (280-490 g/cm2)
Traction Brushes	5.0 - 8.0 P.S.I. (350-560 g/cm2)

* For brushes with top and/or bottom angles greater than 25° add an extra 0.5 - 1 P.S.I.

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See Helwig Carbon Videos on YouTube

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