CONSTANT FORCE & REDUCED BRUSH WEAR

SPRING ASSEMBLIES

HELWIG CARBON PRODUCTS, INC.

helwigcarbon.com/spring-assemblies

CONSTANT FORCE SPRING ADVANTAGES

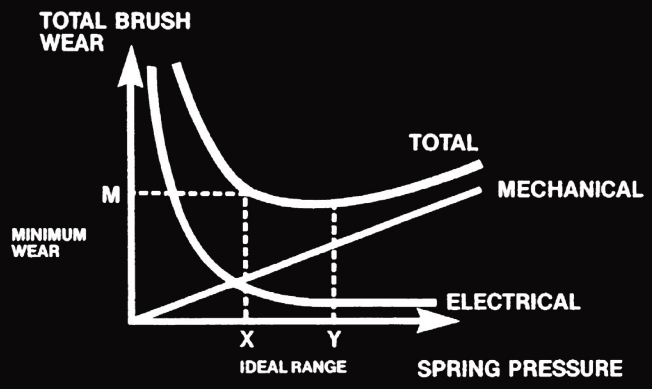
- **Enhances Brush Life and Performance**
  - Improved Spring Force
  - Longer Usable Spring Life
  - Efficient Spring Clip Design
  - Replaceable Spring Clips
  - Decreased Spring Maintenance
  - Lower Maintenance Costs

BRUSH WEAR INDICATORS

- Brush wear indicators are the industry's most convenient way to monitor brush wear, using the red "danger strip" to inform you the brush should be replaced

Recommended
Range of Spring Pressures for Different Applications

BRUSH TYPE	PSI	G/CM^2
Industrial DC Motor Applications	4.0-6.0	280-420
High Speed Turbine, Soft Graphite Grades	2.5-3.5	170-240
Metal Graphite Brushes	4.5-5.5	310-390
Fractional HP Brushes	4.0-7.0	280-490
Traction Brushes	5.0-8.0	350-560



Top and bottom bevels contribute to loss of spring pressure.

ANGLE IN DEGREES	LOSS OF FORCE
5°	0.40%
10°	1.50%
20°	6.00%
25°	9.40%
30°	13.4%
35°	18.10%
40°	23.40%

SPRING REPAIR

Did you know that we can replace the springs on your existing clips? Just send in the old clips and we can put on new springs. Make sure you include the part number, brush size, style, and RPM so we can determine the correct spring force.

MEASURING SPRING FORCE

Measure spring force accurately with Helwig Carbon's high performance, hand held, digital scale. It includes a large easy to read LCD display and attachments for both constant force and torsion type springs.

NEED TECHNICAL SUPPORT?

With 30 Representatives all over the USA, Canada, & Mexico, we can provide on-site support for all of your motor/generator needs.

ABOUT HELWIG CARBON

Helwig Carbon Products, Inc. is the premier, family-owned, American manufacturer of carbon brushes, brush holders, spring assemblies, bearing protection kits, metal graphite brushes, and mechanical carbons. Since 1928, we have forged innovations that have since become industry standards and requirements. We pride ourselves on manufacturing all of our products to the highest standard and performance because we know your application depends on it!

HELWIG CARBON PRODUCTS, INC.

8900 West Tower Avenue | Milwaukee, WI 53224-2849
Toll Free: (800) 962-4851 | Phone: (414) 354-2411 | Fax: (800) 365-3113
Email: carboncrew@helwigcarbon.com

MADE IN USA