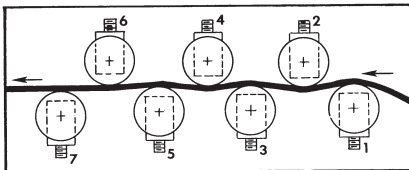


RMG Integrated Multi-Roll Wire Straighteners

General Specifications

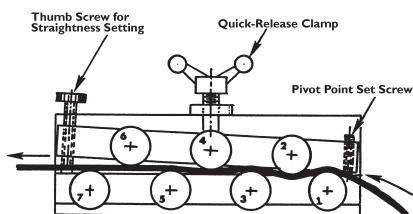


Almost all roll-type wire straighteners use the reverse-bending technique illustrated below.

The object is to cause the wire to reversibly flex beyond its elastic limit as it traverses through the straightening rolls. Most straighteners in use today provide a screw adjustment on each individual roll and the operator individually adjusts each roll to achieve the desired straightness.

The usual set-up procedure is to adjust the rolls so that a greater degree of offset or reverse-bending is imposed on the upstream rolls at positions 1-2-3. The downstream rolls (5-6-7) are adjusted so that gradually less reverse-bending is imposed upon the wire as it traverses through the straightener. The final set of rolls should impose just enough reverse-bending to flex the wire just very slightly beyond its elastic limit and hope that it “springs back” to a reasonably straight condition.

How The Integrator® works



All lower rolls are attached to the fixed lower plate along a straight line. The upper set of rolls are attached to a tiltable upper plate which pivots about a set screw. This pivot-point set screw determines the degree of relatively-higher reverse-bending imposed upon the wire on the entering end of the

straightener and usually requires re-adjustment only when the wire diameter is changed.

The force required for reverse-bending the wire is imposed by the quick-release handle working against the upper plate assembly. The upper plate is slotted and secured in place by two socket head cap screws. Re-tightening of the cap screws after each opening and closing of the straightener is usually necessary only on intermittent-feed applications.

The quick-release handle is screwed downwards, tilting the upper movable plate assembly until it bottoms out against the setting of the thumb screw. This thumb screw is adjusted up or down so that the wire exiting from the straightener has been subjected to minimum reverse bending at rolls 5-6-7 just enough to attain desired straightness. Essentially, all rolls are positioned relative to each other, and in a controlled, integrated manner with this single position-limiting thumb screw.

The Integrator's Unique Features “Three-in-One” Construction

Two basic-size straighteners each accommodate three different sets of rolls on different center distances. Therefore, RMG can offer six different models in two basic sizes. To change the straightener over to a different wire diameter range, simply unscrew one set of rolls and replace with another set.

One-Knob Straightness Setting

Saves operator time and effort and achieves optimum wire straightness with minimum pull-back being imposed upon the wire. Straightness-setting thumb screw is changeable from left side to right side, permitting either left-to-right or right-to-left wire flow.

Quick-Release with Memory Return

Whenever the quick-release handle is disengaged and re-engaged, it always returns the upper roll assembly to the predetermined position.

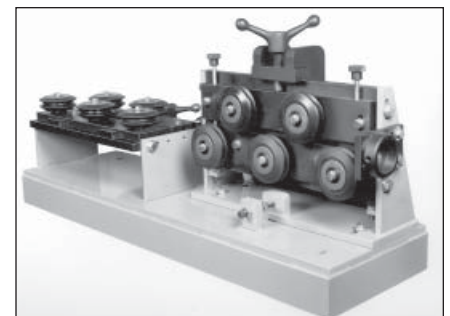
Easy Conversion to Two Planes

Complete adjustments are provided for wire-line alignment in both axis. Standardized mounting holes are provided to permit field conversion from left-to-right or right-to-left with the horizontal plane mounted either right or left.

Optional Accessories

We provide a number of standard optional accessories and mounting arrangements with RMG integrated wire and rod straighteners:

1. Heavy-duty frames for mounting Model SS and larger straighteners. These are typically supplied when ever RMG power-driven feed rolls are required.
2. Fixed-speed or adjustable-speed drives for power-driven feed rolls.
3. Entrance roller guides and end-of-coil detection switches.
4. Straightener benches are available to support all sizes.



RMG Model KS-1605
Two-Plane Straightener.

Type SS and MS - Small and Medium Straighteners

RMG Integrated Multi-Roll Wire Straighteners

6.4

Specifications for Type SS - Small Straighteners

MODEL SS-0213

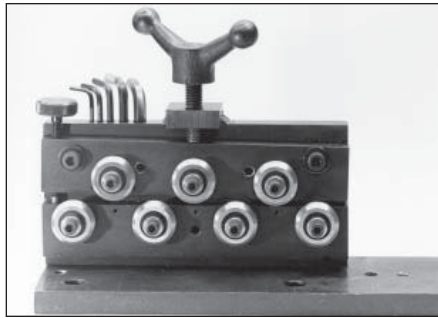
Minimum Wire Diameter	.045" (1.1 mm)
Nominal Wire Diameter	.080" (2.0 mm)
Maximum Wire Diameter	.100" (2.5 mm)
Number of Rolls	13
Outside Diameter of Rolls	.780" (19.8 mm)
Pitch Diameter of Rolls	.700" (17.8 mm)
Roll Center Distance	.625" (15.8 mm)
Nominal L/d Value	7.8

MODEL SS-0407

Minimum Wire Diameter	.080" (2.0 mm)
Nominal Wire Diameter	.160" (4.0 mm)
Maximum Wire Diameter	.175" (4.5 mm)
Number of Rolls	7
Outside Diameter of Rolls	1.25" (31.8 mm)
Pitch Diameter of Rolls	1.10" (28.0 mm)
Roll Center Distance	1.13" (28.7 mm)
Nominal L/d Value	7.2

MODEL SS-0605

Minimum Wire Diameter	.100" (2.5 mm)
Nominal Wire Diameter	.236" (6.0 mm)
Maximum Wire Diameter	.250" (6.4 mm)
Number of Rolls	5
Outside Diameter of Rolls	1.78" (45.2 mm)
Pitch Diameter of Rolls	1.60" (40.5 mm)
Roll Center Distance	1.50" (38.1 mm)
Nominal L/d Value	6.4



RMG Model SS-0407-02 Straightener

Specifications for Type MS - Medium Straighteners

MODEL MS-0409

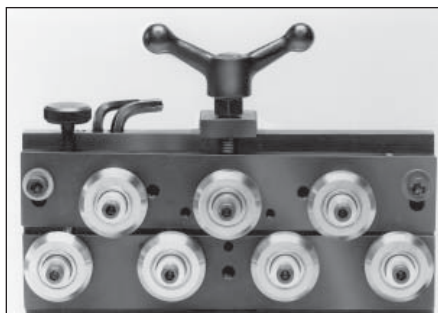
Minimum Wire Diameter	.080" (2.0 mm)
Nominal Wire Diameter	.160" (4.0 mm)
Maximum Wire Diameter	.175" (4.5 mm)
Number of Rolls	9
Outside Diameter of Rolls	1.25" (31.8 mm)
Pitch Diameter of Rolls	1.10" (28.0 mm)
Roll Center Distance	1.13" (28.7 mm)
Nominal L/d Value	7.2

MODEL MS-0607

Minimum Wire Diameter	.100" (2.5 mm)
Nominal Wire Diameter	.236" (6.0 mm)
Maximum Wire Diameter	.250" (6.4 mm)
Number of Rolls	7
Outside Diameter of Rolls	1.78" (45.2 mm)
Pitch Diameter of Rolls	1.60" (40.5 mm)
Roll Center Distance	1.50" (38.1 mm)
Nominal L/d Value	6.4

MODEL MS-0805

Minimum Wire Diameter	.125" (3.2 mm)
Nominal Wire Diameter	.312" (8.0 mm)
Maximum Wire Diameter	.340" (8.6 mm)
Number of Rolls	5
Outside Diameter of Rolls	2.38" (60.5 mm)
Pitch Diameter of Rolls	2.25" (57.2 mm)
Roll Center Distance	2.00" (50.8 mm)
Nominal L/d Value	6.4

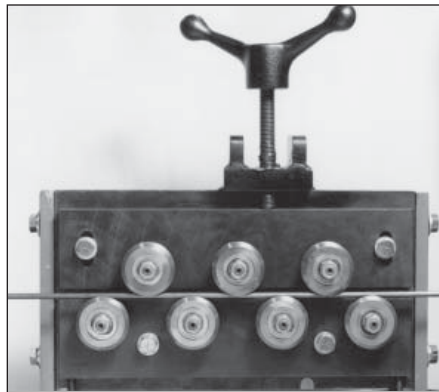


RMG Model MS-0607-01 Straightener

Specifications for
Type LS - Large Straighteners

MODEL LS-0413

Minimum Wire Diameter	.080" (2.0 mm)
Nominal Wire Diameter	.160" (4.0 mm)
Maximum Wire Diameter	.175" (4.5 mm)
Number of Rolls	13
Roll Diameter	1.25" (31.8 mm)
Roll Center Distance	1.13" (28.7 mm)



RMG Model LS-0807-02 Straightener

MODEL LS-0609

Minimum Wire Diameter	.100" (2.5 mm)
Nominal Wire Diameter	.240" (6.0 mm)
Maximum Wire Diameter	.250" (6.4 mm)
Number of Rolls	9
Roll Diameter	1.78" (45.2 mm)
Roll Center Distance	1.5" (38.0 mm)

MODEL LS-0807

Minimum Wire Diameter	.125" (3.2 mm)
Nominal Wire Diameter	.312" (8.0 mm)
Maximum Wire Diameter	.340" (8.6 mm)
Number of Rolls	7
Roll Diameter	2.38" (60.5 mm)
Roll Center Distance	2.00" (50.8 mm)

MODEL LS-1205

Minimum Wire Diameter	.200" (5.0 mm)
Nominal Wire Diameter	.470" (12.0 mm)
Maximum Wire Diameter	.500" (12.7 mm)
Number of Rolls	5
Roll Diameter	4.0" (102 mm)
Roll Center Distance	3.0" (76.0 mm)

Specifications for
Type KS - King-size
Straighteners

MODEL KS-0811

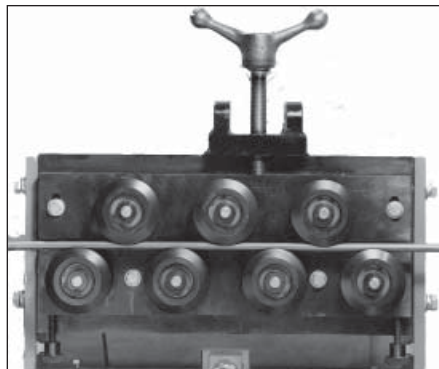
Minimum Wire Diameter	.125" (3.2 mm)
Nominal Wire Diameter	.312" (8.0 mm)
Maximum Wire Diameter	.340" (8.6 mm)
Number of Rolls	11
Roll Diameter	2.38" (60.5 mm)
Roll Center Distance	2.00" (50.8 mm)

MODEL KS-1207

Minimum Wire Diameter	.200" (5.0 mm)
Nominal Wire Diameter	.470" (12.0 mm)
Maximum Wire Diameter	.500" (12.7 mm)
Number of Rolls	7
Roll Diameter	4.00" (102 mm)
Roll Center Distance	3.00" (76.0 mm)

MODEL KS-1605

Minimum Wire Diameter	.350" (9.0 mm)
Nominal Wire Diameter	.630" (16.0 mm)
Maximum Wire Diameter	.700" (17.8 mm)
Number of Rolls	5
Roll Diameter	5.00" (127 mm)
Roll Center Distance	4.50" (114 mm)



RMG Model KS-1207-02 Straightener

Type JS-HS-GS Straighteners

RMG Integrated Multi-Roll Wire Straighteners

6.6

MODEL JS-1209

Minimum Wire Diameter	.200" (5.0 mm)
Nominal Wire Diameter	.470" (12.0 mm)
Maximum Wire Diameter	.500" (12.7 mm)
Number of Rolls	9
Roll Diameter	4.00" (102 mm)
Roll Center Distance	3.00" (76.0 mm)

Specifications for

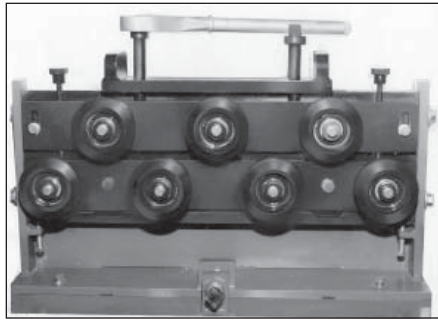
Type JS - Jumbo Straighteners

MODEL JS-1607

Minimum Wire Diameter	.350" (9.0 mm)
Nominal Wire Diameter	.630" (16.0 mm)
Maximum Wire Diameter	.700" (17.8 mm)
Number of Rolls	7
Roll Diameter	5.00" (127 mm)
Roll Center Distance	4.50" (114 mm)

MODEL JS-2005

Minimum Wire Diameter	.500" (12.7 mm)
Nominal Wire Diameter	.780" (20.0 mm)
Maximum Wire Diameter	.870" (22.0 mm)
Number of Rolls	5
Roll Diameter	5.00" (127 mm)
Roll Center Distance	6.00" (152 mm)



RMG Model JS-1607-00 Straightener

Special HS and GS Straighteners



RMG Model 2428 Uncoiler
equipped with HS Straightener

These two large series of integrated wire and rod straighteners are available in only two model arrangements:

Model HS-3005 for wire and rod diameters in a range of .700" (17.8 mm) to 1.30" (33.0 mm)

Model GS-4005 for handling wire and rod diameters in a range of 1.00" (25.4 mm) to 1.75" (44.5 mm).

Because of the extreme difficulty in handling, pre-straightening and pre-feeding, an RMG Power Driven Uncoiler is almost always recommended for use with these larger straighteners.