

# Sjogren<sup>®</sup>

Industries

Wire Straighteners, straightener rolls, and wire tooling equipment

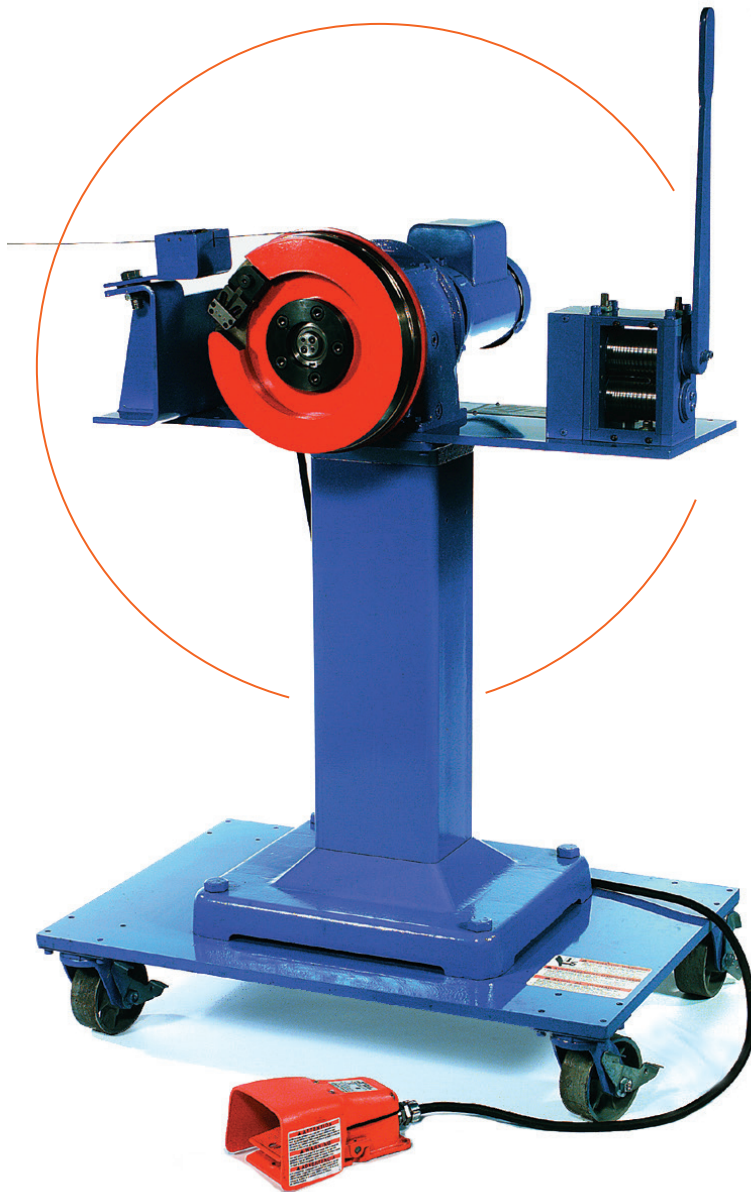
## QUALITY & PROCESS MACHINES



### ► DESCRIPTION

Bench-top motorized die stringer sized for .018 to .188 inches (0,46mm to 4,78mm) diameter wire, includes an integrally mounted support bracket. The die stringer will produce a 390 lb. (1735 N) max. die pull. Optional equipment includes a roll pointer and a roll-around pedestal base.

Unit can be supplied as a stringer, a stringer with manual lever-operated roll pointing device or a stringer with a hydraulic operated roll pointing device.



### ► FEATURES

- 305 mm diameter drum with integral SH-style wedge grip and interlocked safety guard
- Clutch type mounting of drum for manual positioning
- Triple reduction gear reducer to rotate drum at 20 RPM
- 3/4 HP, single phase, 115/230 VAC motor with foot switch
- Swiveling die support bracket with reservoir for lubricant
- Capacity is .188" to .025" (0,635 mm to 4,775 mm) diameter wire with 177 kg (390 lbs.) maximum pull
- Supplied as benchtop unit or on a rolling pedestal (as shown)
- Includes an interlocked safety guard (not shown)
- Foot pedal operation allows the operator to be in complete control
- Shown with optional Hand Pointer unit which can be powered

### ► BENEFITS:

- Time saving device improves operator efficiency
- Eliminates operator string-up injuries

### ► APPLICATIONS:

- The Motorized Die Stringer is used by the wire industry to simplify the stringing of wet draw machines.

### ► OPERATION

Starting with .188 inches (4,78mm) diameter wire, use the pointer (optional equipment) to reduce the diameter approximately 2" to 4" in length, until wire fits through first die.

The hand pointer is operated by rotating the hand lever through 90 degree rotation to draw the wire in through the rolls; then returning the lever to the starting position reverses the rolls to eject the wire.

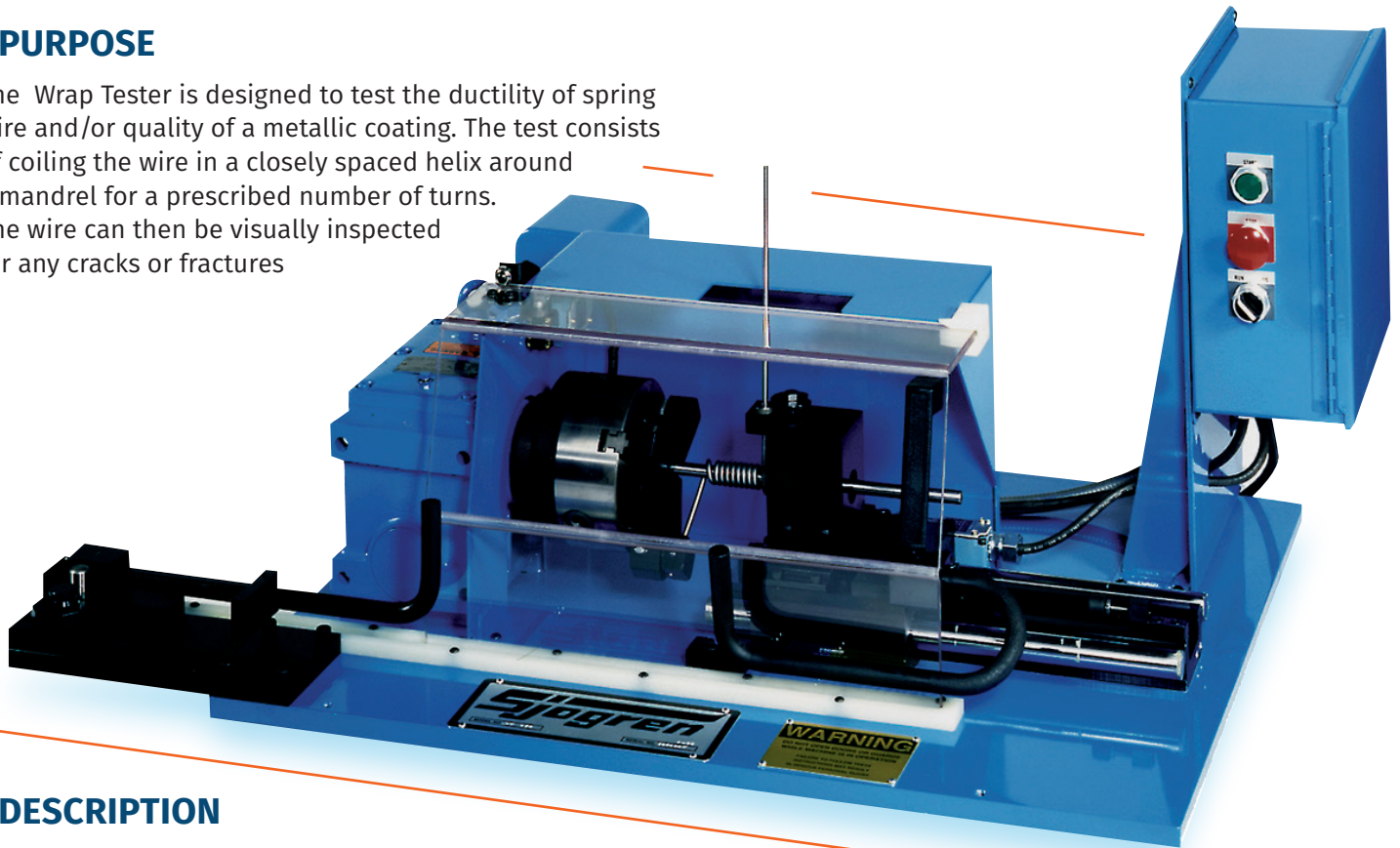
The power pointer is operated by depressing the foot switch to draw the wire in through the rolls; releasing the foot switch will reverse the rolls, pushing the wire back out toward the operator.

The wire must be worked several times back and forth through the pointer to obtain a round diameter. Place the die in the support bracket and manually rotate the drum clockwise until the wire can be inserted into the wedge grip. Depress the foot pedal to rotate the drum clockwise and draw a sufficient length of wire to allow for remaining dies.

Unload the drawn wire from the drum and repeat the pointing and drawing sequence with the remaining dies.

## ► PURPOSE

The Wrap Tester is designed to test the ductility of spring wire and/or quality of a metallic coating. The test consists of coiling the wire in a closely spaced helix around a mandrel for a prescribed number of turns. The wire can then be visually inspected for any cracks or fractures



## ► DESCRIPTION

The Wrap Tester is supplied complete with a steel base plate, constant speed gear reduction unit, adjustable jaw chuck, wire guide assembly mounted to a sliding carriage, interlocked guards and an electrical control box.

The wrap tester also includes a specially designed feature for pre-bending the wire sample prior to loading

## ► SPECIFICATIONS

- Wire Size Range..... .050 inches (1,27mm) to .375 inches (9,5mm) diameter spring wire
- Mandrel Capacity..... .050 inches (1,27mm) to 1.5 inches (38mm) diameter
- Drive Unit ..... .5 Hp, single phase, 115 VAC, 15 RPM output
- Number of Wraps..... minimum = 5 turns
- Dimensions ..... 28 inches (71cm) wide x 52 inches (132cm) long x 22 inches (56cm) high
- Weight ..... Approximately 400 lbs (182kgs)

Tooling to accommodate the following wire diameter ranges can be ordered separately:

- .050 — .162 inches (1,27 - 4,11mm)
- .162 — .257 inches (4,11 - 6,52mm)
- .257 — .375 inches (6,52 - 9,52mm)

Mandrels, mandrel bushings and bushing spacers sized to specific wire sizes can be special ordered.

## ► OPERATION

Tooling for the proper wire size range is first installed in the machine. The wire sample, which initially must be straight, is bent at a 15° angle at one end, then loaded through the wire guide assembly and attached to a dog on the face of the chuck. The work zone guard is closed and the drive motor started.

Tooling consists of a drive dog, mandrel support block and hardened steel wire guide bushing. The mandrel support block is designed to accept commercial “H” type drill bushings. Tooling is quick change and changeover can be accomplished without tools. Only an Allen wrench is required to secure the wire sample to the drive dog.

The wrapping of the wire sample will cause the carriage, mounted on ball bushing guide rails, to move away from the chuck. A handle, attached to the carriage, allows the operator to control the spacing of the wraps as well as the movement of the carriage after completion to end the cycle.

The work zone guard includes an interlock switch to prevent operation while the guard is open.

Sjogren's Torsion Twist Tester comes in three models to address a wide range of applications, and features 12 possible twisting programs with memory of the complete cycle. The Torsion Twist Tester is used whenever wire needs

to be tested for brittleness, inclusions, hidden seams, and other flaws, such as with high carbon steel wire or copper/aluminum rod.

## ► FEATURES:

### • LD MODEL

- 1/3 HP 220V; 3 Amp; 1 PH, 60Hz
- Input Range: .010" to .090" (0,25 mm to 2,3 mm)
- Max. Material Tensile Strength: 450,000 PSI (3100 Mpa)
- Sample Length Capacity: 2" to 15" (0,50 mm to 380 mm)
- Max. Operating Speed: 120 RPM
- Machine Dimensions: 56" wide x 27" deep x 50" high (1,422 mm x 685 mm x 1,270 mm)
- Working height to the centerline of wire is 39" (1000 mm)

### • MD MODEL

- 1 Hp, 220 VAC; 5 Amp; 1 PH, 50/60 Hz
- Input range: .15" to .375" (3,81 mm to 9,53 mm)
- Max Material Tensile Strength: 70,000 PSI (483 Mpa) Copper or aluminum
- Sample Length Capacity: 6" to 20" (152 mm to 500 mm)
- Maximum operating speed: 60 RPM.

### • HD MODEL

- 1-1/2 HP 220V; 10 Amp; 1 PH, 60Hz
- Input Range: .090" to .312" (2,3 mm to 8,0 mm)
- Max. Material Tensile Strength: 450,000 PSI (3100 Mpa) or with extended capacity up to .375" (9,5 mm) dia. material at 220,000 PSI (1860 Mpa)
- Sample Length Capacity: 6" to 24" (150 mm to 610 mm)
- Max. Operating Speed: 30 RPM
- Machine Dimensions: 56" wide x 27" deep x 50" high (1,422 mm x 685 mm x 1,270 mm)
- Working height to the centerline of wire is 39" (1000 mm)

## ► BENEFITS:

- Programmable counter with automatic forward/reverse capability; includes digital display and positive holding chucks with replaceable jaws
- Safe, semi-automatic operation provides consistent output test results: meets ASTM Test Specifications E558 and A938



The Power Pointer is used for setup of wire and bar drawing machinery and manufactured to the highest quality and durability.

## ▶ FEATURES:

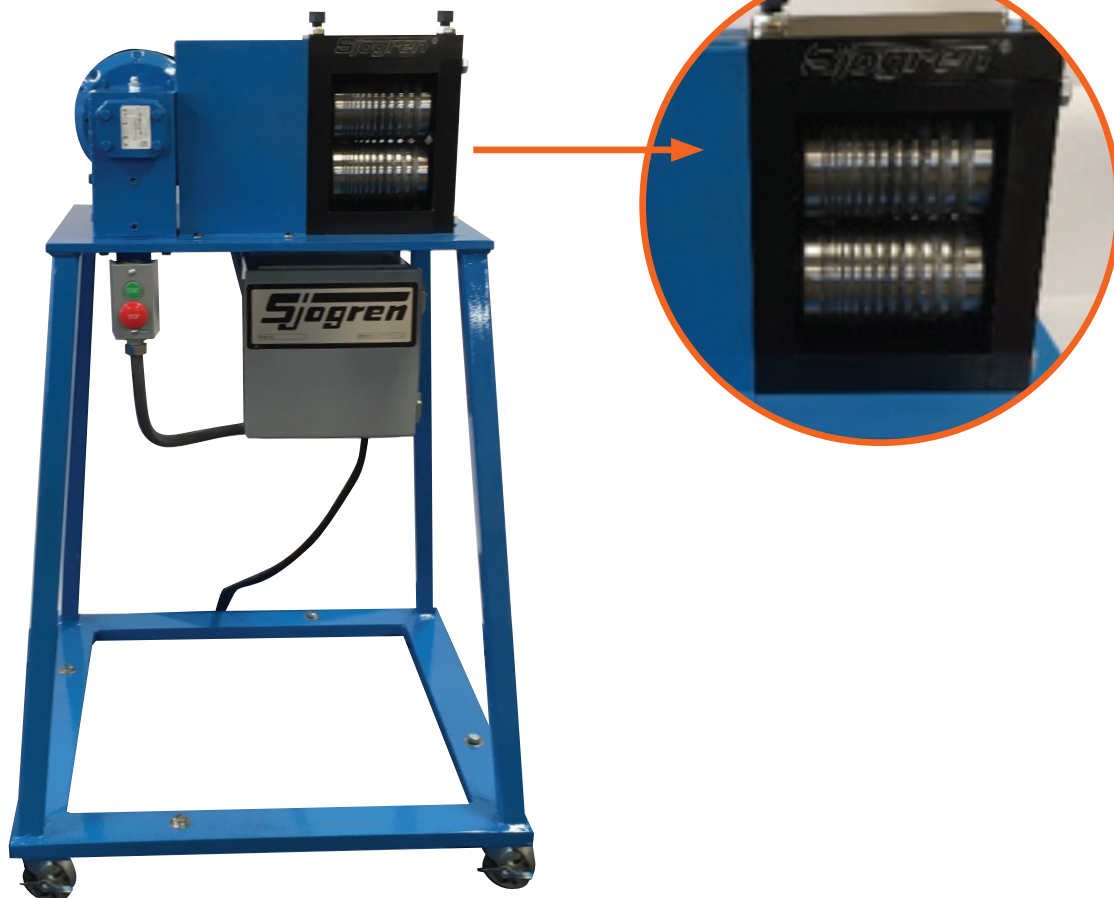
- Wire Size Range:
  - .07" - .375" (2,0-9,53mm) Model 448482-04
  - .03" - .250" (0,8-6,35mm) Model 448482-05
  - .12" - .500" (3,0-12,7mm) Model 448482-02
- Drive Unit: 3hp, (2,2kW), 220v
- Dimensions: 30"w X 30"d X 49.5"h  
762mm w X 762mm d x 1257mm h
- Power Input: 220v, 3 ph, (1 ph available)
- Weight: 350lbs (160kg)

## ▶ APPLICATIONS:

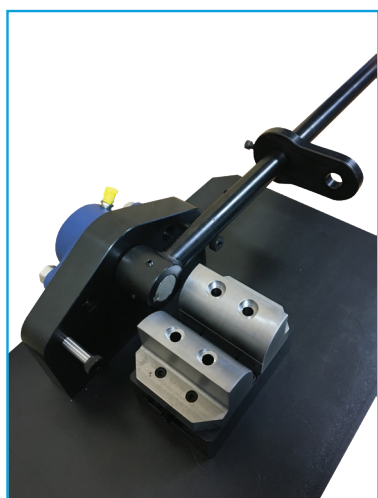
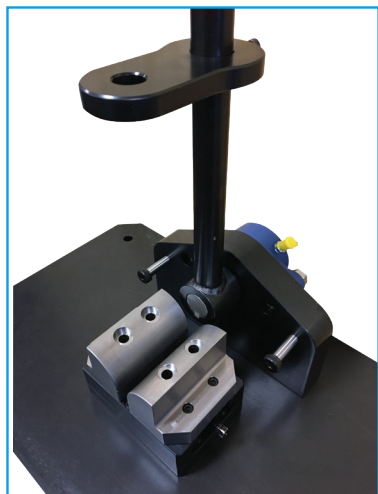
- The Power Pointer is used to sufficiently reduce the wire diameter to allow the wire to pass through a drawing die. Once enough material has passed through the die it can be gripped by a puller and then drawn around the block. This process is repeated using a series of dies until the desired size is achieved.

## ▶ BENEFITS

- Precision ground rollers and tooling ensure effective long term pointing applications.
- Protective guarding to ensure operator safety and ease of use.
- Safe, easy to use, quiet and minimal vibration operation.
- Variable speeds set to operator preference.



The Reverse Bend Tester provides a simple solution to the bend testing process. It is operated by pivoting the bending arm back and forth 90° while the material is positioned in adjustable jaws and sample supports.



### ► FEATURES

- Compact and lightweight to fit on any work surface – 20”L x 12”W x 6”H (508mm x 305mm x 153mm) and only 80 lbs (36kg). Dimensions do not include bending arm.
- Easily mounted at a work site or on a separate pedestal mounting stand using four M10 bolts
- Rugged, steel-plate construction with black oxide finish
- Design features self-centering base clamp with cylindrical test sample supports and test sample guides on bending arm.
- Interchangeable support/guide are available for

### ► BENEFITS

- Manual operation for simple test results for metallic wire diameters 0.012” – 0.394” (0,3mm-10mm) and metallic flat wire 0.118” (3mm) thick or less.
- Designed in accordance with ISO 7801 and ISO 7799 Test Specifications
- Manual lever of 29” (737mm) provides necessary leverage for ease of operations
- No need for electricity
- Flexible mounting options.

### ► APPLICATION

The Reverse Bend Tester is used by the wire industry to determine the ability of metallic wire and flat strip to undergo plastic deformation during reverse bending.

WIRE RANGE	PART NUMBER
Base Unit (w/o supports & guide):	448552-00
Support/Guide for Ø0,3-0,5mm wire:	886641-01
Support/Guide for Ø0,5-0,7mm wire:	886641-02
Support/Guide for Ø0,7-1,0mm wire:	886641-03
Support/Guide for Ø1,0-1,5mm wire:	886641-04
Support/Guide for Ø1,5-2,0mm wire:	886641-05
Support/Guide for Ø2,0-3,0mm wire:	886641-06
Support/Guide for Ø3,0-4,0mm wire:	886641-07
Support/Guide for Ø4,0-6,0mm wire:	886641-08
Support/Guide for Ø6,0-8,0mm wire:	886641-09
Support/Guide for Ø8,0-10,0mm wire:	886641-10

