RMG Straightening and Cutting Machines

4.1

RMG Straightening and Cutting Machines are available in four sizes—the Model 14, Model 15, Model 16 and Model 28.

General Features and Benefits

All RMG Straightening and Cutting machines provide the same benefits:

- Ease of adjustment
- Lower tooling costs
- Quiet operation
- Low cost maintenance

The following features apply to all models of the RMG straightening and cutting machine Model 14, Model 15, Model 16 and Model 28.

Single Offset Arbor

- Single offset, variable pitch (3 die).
- Wide range of diameters for each arbor size.
- Arbor speed independently adjustable by use of variable frequency AC drive (not on Model 14).
- No interconnecting transmission components.

Electrics

- Electronic parts counter.
- NEMA 12 enclosure.
- NEMA 12 disconnect.
- TEFC electrical motors.
- AC variable frequency drives for arbor and feed roll speeds (Model 14 has fixed speed arbor).
- Centrally located pushbutton station.
- Electrical enclosure remote-mounted away from vibration, for reliability.
- Electrical interlocks provided for wire drawer or payoff.
- Standard turntable air brake electrical interlock.

Creative Floor Plan

RMG Straightening and Cutting machines are available in L-R or R-L wire flow configurations. This floor plan allows two machines to operate facing each other, for operator convenience.
4.2

Clutchless Cutter
- Variable frequency drive controls rotation of the cutter shaft.
- Independent drive; results in no jamming.
- Wiper system solves wire droppage problems associated with some lengths.
- Adjustable wiper system reduces knife wear by eliminating need to fully penetrate wire.
- No flywheel required.

Feedhead
- Four (4) roll belt driven feedhead, no gears or oil bath.
- Independent drive.
- Standard pneumatic pressure feed roll adjustment.
- Quick change rolls using single clamping bolt and drive pin.

Extension
- Quick change guide bar with short travel shutter bar.
- Sectional guide bar system enables easy change by single operator.

Release Assembly
- Positive stop release assembly provides accurate wire length control, with a tolerance of ±.005” (± .13 mm).
- Fully adjustable release assembly with spring pressure, release plunger travel adjustment, adjustable proximity switch position, and micro fine adjustment of wire cut length on the fly.
- Clamp block allows positioning of gage rod without deforming rod.
- Can be moved to an alternate extension bracket when running shorter lengths on a machine with a long extension, for increased sensitivity and length control.

Optional Accessories
- Wire lubricating system.
- Dump action wire catcher tray.
- Pre-set electronic parts counter stops machine when batch size is complete.
- Dual arbor.
- D9885 Guide Roller (when machine is used with a wire drawer).
- Short length support.
RMG Model 14 Standard Features

- Single offset, variable pitch arbor.
- Fixed speed arbor with DC injection brake.
- Single variable speed, reversible four roll feedhead.
- Arbor, feedhead and cutter powered by separate electric motors.
- Cutoff system with wiper to ensure wire droppage at shorter wire lengths.
- Quick change guide bar with short travel shutter bar.
- Fully adjustable release assembly, micro fine adjustment up to 1” (25.4 mm) while machine is running.
- Electronic parts counter.
- Electrically interlocked guard system.
- Lifetime lubricated arbor bearing system.
- Electrical components mounted in a NEMA 12 enclosure.
- TEFC motors.
- Hardened D-2 feed rolls, cutoff die and knife.
- RMG blue enamel finish with Federal Safety Yellow guards.
- Quick change tooling for one wire size including arbor dies, feed rolls, cutoff die and knife.
- Pushbutton control station.
- Roll type prestraightener.
- Wrench assortment.
- Timer to stop the machine if a feeding problem restricts wire flow.

Optional Features:

- Variable speed arbor.
- Special materials for arbor dies.
- Special materials for feed rolls.
- Dump action wire catcher tray.
- Short length support.

RMG Model 14 Specifications

Diameter Range

.054" - .250" (1.37mm - 6.35mm)

Nominal Tensile

70,000 psi (500 N/mm²)

Minimum Length

3” (76mm) (without optional support)
1.5” (38.1mm) (with optional support)

Production Speed

Up to 4 cuts per second or 400 fpm (122m/min) feed roll speed.

Length Tolerance

± .005” (.13mm) or better

Single Offset Arbor

State-of-the-art, single offset arbor with variable pitch wave guides to accommodate different wire sizes. Only three arbor die inserts are required.

Feedhead

Precision four-roll feedhead; belt driven by an AC variable frequency drive. Air operated feed roll pressure control is standard.

Clutchless Cutter

Independent drive gives full cutting power at all times. This powerful cutter is impossible to jam. A wiper system is attached to solve wire droppage problems associated with shorter lengths.

Release Assembly

RMG’s positive stop release assembly provides accurate wire length control, with a tolerance of ±.005”.

Achieving accurate and uniform lengths is easier due to several fine adjustments including gage rod return spring pressure, release plunger travel, proximity switch positions, and micro adjustment for wire length while machine is running, if desired. Total micro adjustment travel is 1” (25.4 mm).

Release assembly can be moved to an alternate extension bracket when running shorter lengths on a machine with a long extension, for increased sensitivity and length control.

Maintenance Friendly

All assemblies on the Model 14 machine are easily accessible. Motors are exposed with C-face mounting. Drive belts are guarded with heavy steel, yet remain easy to access. The electrical box is mounted separate from the base, ensuring a vibration free mount.
RMG Model 15
Straightening and Cutting Machine

4.4 RMG Model 15 Standard Features
- Variable speed arbor with dynamic braking.
- Single die offset, variable pitch arbor.
- Single variable speed reversible four roll feedhead.
- Clutchless cutter with wiper system.
- Pneumatic feed roll pressure control.
- Arbor and feedhead powered by separate AC variable speed electric motors.
- Quick change guide bar with short travel shutter bar.
- Fully adjustable release assembly, micro fine adjustment up to 1” (25.4 mm) while machine is running.
- Electronic parts counter.
- Electrically interlocked guard system.
- Lifetime lubricated bearing system.
- NEMA 12 disconnect.
- NEMA 12 enclosures.
- TEFC motors.
- Left or right hand direction machine base (wire flow).
- Hardened D-2 feed rolls, cutoff die and knife.
- RMG blue enamel finish with Federal Safety Yellow guards.
- Quick change tooling for two wire sizes including arbor dies, feed rolls, cutoff dies and knives.
- Pushbutton control station.
- Tool tray with assortment of wrenches.
- Timer to stop the machine if a feeding problem restricts wire flow.

Optional Features:
- Special materials for arbor dies.
- Special materials for feed rolls.
- Dump action wire catcher tray.
- Short length support.

RMG Model 15 Specifications

**Diameter Range**
.062” - .312” (1.57mm - 7.92mm)

**Nominal Tensile**
70,000 psi (500 N/mm²)

**Minimum Length**
3” (76mm) (without optional support)
1.5” (38.1 mm) (with optional support)

**Production Speed**
Up to 4 cuts per second or 400 fpm (122m/min) feed roll speed.

**Length Tolerance**
± .005” (.13mm) or better

**Single Offset Arbor**
State-of-the-art, single offset arbor with variable pitch wave guides to accommodate different wire sizes. Only three arbor die inserts are required.

**Feedhead**
Precision four-roll feedhead; belt driven by an AC variable frequency drive. Air operated feed roll pressure control is standard.

**Clutchless Cutter**
Independent drive gives full cutting power at all times. This powerful cutter is impossible to jam. A wiper system is attached to solve wire droppage problems associated with shorter lengths.

**Release Assembly**
RMG’s positive stop release assembly provides accurate wire length control, with a tolerance of ±.005”. Achieving accurate and uniform lengths is easier due to several fine adjustments including gage rod return spring pressure, release plunger travel, proximity switch positions, and micro adjustment for wire length while machine is running, if desired. Total micro adjustment travel is 1” (25.4 mm).

Release assembly can be moved to an alternate extension bracket when running shorter lengths on a machine with a long extension, for increased sensitivity and length control.

**Maintenance Friendly**
All assemblies on the Model 15 machine are easily accessible. Motors are exposed with C-face mounting. Drive belts are guarded with heavy steel, yet remain easy to access. The electrical box is mounted separate from the base, ensuring a vibration free mount.
RMG Model 16 Standard Features

- Variable speed arbor with dynamic braking.
- Single die offset, variable pitch arbor.
- Dual variable speed reversible four roll feedheads.
- Clutchless cutter with wiper system.
- Pneumatic feed roll pressure control.
- Arbor and feedheads powered by separate AC variable speed electric motors.
- Quick change guide bar with short travel shutter bar.
- Fully adjustable release assembly, micro fine adjustment up to 1” (25.4 mm) while machine is running.
- Electronic parts counter.
- Electrically interlocked guard system.
- Lifetime lubricated bearing system.
- NEMA 12 disconnect.
- NEMA 12 enclosures.
- TEFC motors.
- Left or right hand direction machine base (wire flow).
- Hardened D-2 feed rolls, cutoff die and knife.
- RMG blue enamel finish with Federal Safety Yellow guards.
- Quick change tooling for two wire sizes including arbor dies, feed rolls, cutoff dies and knives.
- Pushbutton control station.
- Tool tray with assortment of wrenches.
- Timer to stop the machine if a feeding problem restricts wire flow.

Optional Features:

- Dual counter rotating arbors.
- Special materials for arbor dies.
- Special materials for feed rolls.
- Dump action wire catcher tray.
- Short length support.

RMG Model 16 Specifications

Diameter Range

.062” - .375” (1.57mm - 9.52mm)

Nominal Tensile

70,000 psi (500 N/mm²)

Minimum Length

3” (76mm) (without optional support)
1.5” (38.1mm) (with optional support)

Production Speed

Up to 4 cuts per second or 400 fpm (122m/min) feed roll speed.

Length Tolerance

± .005” (.13mm) or better

Single Offset Arbor

State-of-the-art, single offset arbor with variable pitch wave guides to accommodate different wire sizes. Only three arbor die inserts are required.

Feedhead

Precision four-roll feedhead; belt driven by a one horsepower AC variable frequency drive. Air operated feed roll pressure control is standard.

Clutchless Cutter

Independent drive gives full cutting power at all times. This powerful cutter is impossible to jam. A wiper system is attached to solve wire droppage problems associated with shorter lengths.

Release Assembly

RMG’s positive stop release assembly provides accurate wire length control, with a tolerance of ±.005” (±.13 mm). Achieving accurate and uniform lengths is easier due to several fine adjustments including gage rod return spring pressure, release plunger travel, proximity switch positions, and micro adjustment for wire length while machine is running, if desired. Total micro adjustment travel is 1” (25.4 mm).

Release assembly can be moved to an alternate extension bracket when running shorter lengths on a machine with a long extension, for increased sensitivity and length control.

Maintenance Friendly

All assemblies on the Model 16 machine are easily accessible. Motors are exposed with C-face mounting. Drive belts are guarded with heavy steel, yet remain easy to access. The electrical box is mounted separate from the base, ensuring a vibration free mount.
RMG Model 28
Straightening and Cutting Machine

RMG Model 28 Standard Features

- Single offset, variable pitch arbor.
- Variable speed arbor with dynamic braking.
- Three variable speed reversible four roll feedheads.
- Arbor, feedheads and cutter powered by separate electric motors.
- Cutoff system with wiper to ensure wire droppage at shorter wire lengths.
- Quick change guide bar with short travel shutter bar.
- Fully adjustable release assembly, micro fine adjustment up to 1” (25.4 mm) while machine is running.
- Electronic parts counter.
- Lifetime lubricated bearing system.
- NEMA 12 enclosures.
- NEMA 12 disconnect.
- Hardened D-2 feed rolls, cutoff die and knife.
- RMG blue enamel finish with Federal Safety Yellow guards.
- Quick change tooling for two wire sizes including arbor dies, feed rolls, cutoff die and knife.
- Pushbutton control station.
- Electrically interlocked guard system.
- Roll type prestraightener.
- Timer to stop the machine if a feeding problem restricts wire flow.

Optional Features:

- Dual counter rotating arbors.
- Special materials for arbor dies.
- Special materials for feed rolls.
- Short length support.

RMG Model 28 Specifications

| Diameter Range | .125” - .500” (3.18mm - 12.7mm) |
| Nominal Tensile | 70,000 psi (500 N/mm²) |

Minimum Length

- 3” (76mm) (without optional support)
- 1.5” (38.1mm) (with optional support)

Production Speed

- 3 cuts per second or 400 fpm (122m/min) feed roll speed.

Length Tolerance

± .005” (.13mm) or better

Single Offset Arbor

State-of-the-art, single offset arbor with variable pitch wave guides to accommodate different wire sizes. Only three arbor die inserts are required.

Feedhead

Three precision four-roll feedheads; belt driven by a three horsepower AC variable frequency drive. Air operated feed roll pressure control is standard.

Clutchless Cutter

Independent drive gives full cutting power at all times. This powerful cutter is impossible to jam. A wiper system is attached to solve wire droppage problems associated with shorter lengths.

Release Assembly

RMG’s positive stop release assembly provides accurate wire length control, with a tolerance of ±.005” (±.13 mm). Achieving accurate and uniform lengths is easier due to several fine adjustments including gage rod return spring pressure, release plunger travel, proximity switch positions, and micro adjustment for wire length while machine is running, if desired. Total micro adjustment travel is 1” (25.4 mm).

Release assembly can be moved to an alternate extension bracket when running shorter lengths on a machine with a long extension, for increased sensitivity and length control.

Maintenance Friendly

All assemblies on the Model 28 machine are easily accessible. Motors are exposed with C-face mounting. Drive belts are guarded with heavy steel, yet remain easy to access. The electrical box is mounted separate from the base, ensuring a vibration free mount.
Lewis Machine SHVF Straightening & Cutting Machines for Small Wire Diameter

Featuring

- The independently adjustable Variable Frequency AC drive “CLUTCHLESS” cutoff
- Auto cycle control of cutter for improved productivity of short part lengths
- Fully adjustable, absolute setting of feed roll pressure and speed with independent controls
- Light weight release system designed for small diameter materials
- Micro fine length control allows for adjustments in length up to 1” (25.4mm) while machine is running
- Knock out wiper system to assist in wire dropout
- Higher production speeds for small diameter wire
- Reverse frame option Left to Right and Right to Left allows two machines to face each other for operator convenience
- No interconnecting transmission components
- Updated 24 volt DC electrical controls

Why do more customers in the world purchase Lewis Machine Straightening & Cutting machines to meet their production needs?

Reputation

For over 100 years, customers have relied on Lewis Straightening & Cutting Machines to meet their daily production needs. They know that they can count on a Lewis Straightening & Cutting machine to run 24 hours-a-day, 7 days-a-week with accurate, dependable performance!

Flexibility

All new Lewis Straightening & Cutting machines are designed to accurately cut a variety of materials and diameters. From low carbon steel to high tensile alloys, you can always depend on our machine to provide straight and accurate wire.

Productivity

For years, companies have chosen Lewis Straightening & Cutting machines to maximize their production throughput.

Superior Technical Support

Our Service Department provides exceptional worldwide customer service. For all of your Lewis Straightening & Cutting Machines, we can provide a Service Technician to assure that the machine is properly installed and your operators are adequately trained.

Superior Customer Service

Our Spare Parts Department responds immediately to your spare parts inquiries.

And, at RMG, we are the OEM for all spare parts and tooling for your Lewis Machine, Fastener Engineers and G.C. Patterson machinery. We have over 40,000 active part numbers in inventory and the necessary documentation to produce parts for your older equipment in our 60,000 square foot manufacturing facility.
And, for Complete Wire Products Applications...

…here’s how your company can use RMG In-Line Wire Drawers with LEWIS Straightening & Cutting Machines to lower material and manufacturing costs, as well as improve productivity and product quality:

**Lower Material Costs**

Drawing semi-finished wire in-line, will drastically reduce your raw material inventory, therefore improving profits and giving your company a competitive edge.

**Utilize Just-In-Time Inventory**

An in-line wire drawer at the point of wire consumption is the ultimate in JIT inventory management and the definition of “Lean Manufacturing”. By careful selection of parent diameters and drawing many different sizes from a few stock sizes, inventory dollars can be considerably reduced.

**Provide Exact Diameter Control**

An in-line wire drawer provides the perfect diameter at the point of use, consistently, from coil-to-coil.

**Improve Wire Surface Conditions**

The surface of wire drawn in-line has no chance to rust or deteriorate. Additionally, you can control the quality, type and amount of wire lubricant in your own production process.

**Eliminate Wire Kinks**

Wire drawn in-line is always smooth and straight, of the highest quality… with no kinks!!

**Reduce Pull Back on Feed Rolls**

RMG’s AUTODRAW Speed Control System matches the consumption rate of the production machine. All tension is removed from the feed rolls.

Also, STARTGARD, SLIPGARD and TANGLEGARD sense any problems with the process and immediately stop the production machine.

**Employ any Coil Size or Weight**

Regardless of coil size an RMG wire drawer does all the work of turning the coil, eliminating the load on the feed rolls.

**Increase Overall Operating Efficiency**

When you consider the improvements associated with using RMG machines in regards to material cost, tool usage, coil change time and the ability to use larger coils, it’s easy to understand why a LEWIS Straightening & Cutting machine utilizing an RMG In-Line Wire Drawer will outperform one that doesn’t…in both cost and quality of product!
Lewis Machine SV16
Straightening & Cutting Machines

Featuring

• The independently adjustable Variable Frequency AC drive “CLUTCHLESS” cutoff
• Fully adjustable, absolute setting of feed roll pressure and speed with independent controls
• No interconnecting transmission components
• Updated 24 volt DC electrical controls

Why do more customers in the world purchase Lewis Machine Straightening & Cutting machines to meet their production needs?

Reputation

For over 90 years, customers have relied on Lewis Straightening & Cutting Machines to meet their daily production needs. They know that they can count on a Lewis Straightening & Cutting machine to run 24 hours-a-day, 7 days-a-week with accurate, dependable performance!

Flexibility

All new Lewis Straightening & Cutting machines are designed to accurately cut a wide variety of materials and diameters. From low carbon steel to high tensile alloys, you can always depend on our machine to provide straight and accurate wire.

Productivity

For years, companies have chosen Lewis Straightening & Cutting machines to maximize their production throughput.

Superior Technical Support

Our Service Department provides exceptional worldwide customer service. For all of your Lewis Straightening & Cutting Machines, we can provide a Service Technician to assure that the machine is properly installed and your operators are adequately trained.

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Our Spare Parts Department responds immediately to your spare parts inquiries.

And, at RMG, we are the OEM for all spare parts and tooling for your Lewis Machine, Fastener Engineers and G.C. Patterson machinery. We have over 40,000 active part numbers in inventory and the necessary documentation to produce parts for your older equipment in our 60,000 square foot manufacturing facility.
And, for Complete Wire Products Applications...

...here’s how your company can use RMG In-Line Wire Drawers with LEWIS Straightening & Cutting Machines to lower material and manufacturing costs, as well as improve productivity and product quality:

Lower Material Costs

Descaling hot-rolled rod, or drawing semi-finished wire in-line, will drastically reduce your material costs, therefore improving profits and giving your company a competitive edge.

Utilize Just-In-Time Inventory

An in-line wire drawer at the point of wire consumption is the ultimate in JIT inventory management. By careful selection of parent diameters and drawing many different sizes from a few stock sizes, inventory dollars can be considerably reduced.

Provide Exact Diameter Control

An in-line wire drawer provides the perfect diameter at the point of use, consistently, from coil-to-coil.

Improve Wire Surface Conditions

The surface of wire drawn in-line has no chance to rust or deteriorate. Additionally, you can control the quality, type and amount of wire lubricant in your own production process.

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RMG’s AUTODRAW Speed Control System matches the consumption rate of the production machine. All tension is removed from the feed rolls.

Also, STARTGARD, SLIPGARD and TANGLEGARD sense any problems with the process and immediately stop the production machine.

Employ any Coil Size or Weight

Regardless of coil size an RMG wire drawer does all the work of turning the coil, eliminating the load on the feed rolls.

Increase Overall Operating Efficiency

When you consider the improvements associated with using RMG machines in regards to material cost, tool usage, coil change time and the ability to use larger coils, it’s easy to understand why a LEWIS Straightening & Cutting machine utilizing an RMG In-Line Wire Drawer will outperform one that doesn’t… in both cost and quality of product!

### Description/Machine Model

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<thead>
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<th>Description/Machine Model</th>
<th>3SV16CLC</th>
<th>5SV16CLC</th>
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<tbody>
<tr>
<td>Straight and Cut Wire Diameter Capacity</td>
<td>.050” - .188” / 1.3 - 4.8mm</td>
<td>.062” - .315” / 1.6 - 8.0mm</td>
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<td>Nominal Tensile</td>
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<td>90,000 psi / 620N/mm²</td>
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