

COIL REELS

COE PRESS EQUIPMENT CORPORATION

8,000#
SERIES



The 8,000# Series of coil reels is designed to provide a lifetime of reliable payoff of light gauge and medium gauge coil stock material. This series of coil reels is typically matched with ServoMaster Series 3 and 4 servo roll feeds and the 250 or 350 Series of power straighteners. Heavy duty welded construction, three (3) pad mandrel construction, "bearing tube" support of the mandrel, and manual handcrank expansion with a snap out handle are a few of the features that make this series of coil reels an excellent value in the market. Coe Press Equipment coil reels can be configured to work in a

"pull-off" application with power straighteners and rollforming equipment, or they can be provided as "pay-off" reels with the drive mechanism to unwind the coil built into the machine. The 8,000# Series of coil reels is backed by our comprehensive "3-2-1" Warranty. Three year limited coverage on all major components manufactured by Coe Press Equipment; two year limited coverage on all mechanical components originally installed by Coe Press Equipment; and one year full coverage on the system complete.

Note: Machine is shown with optional hydraulic traveling coil car and hydraulic expansion.

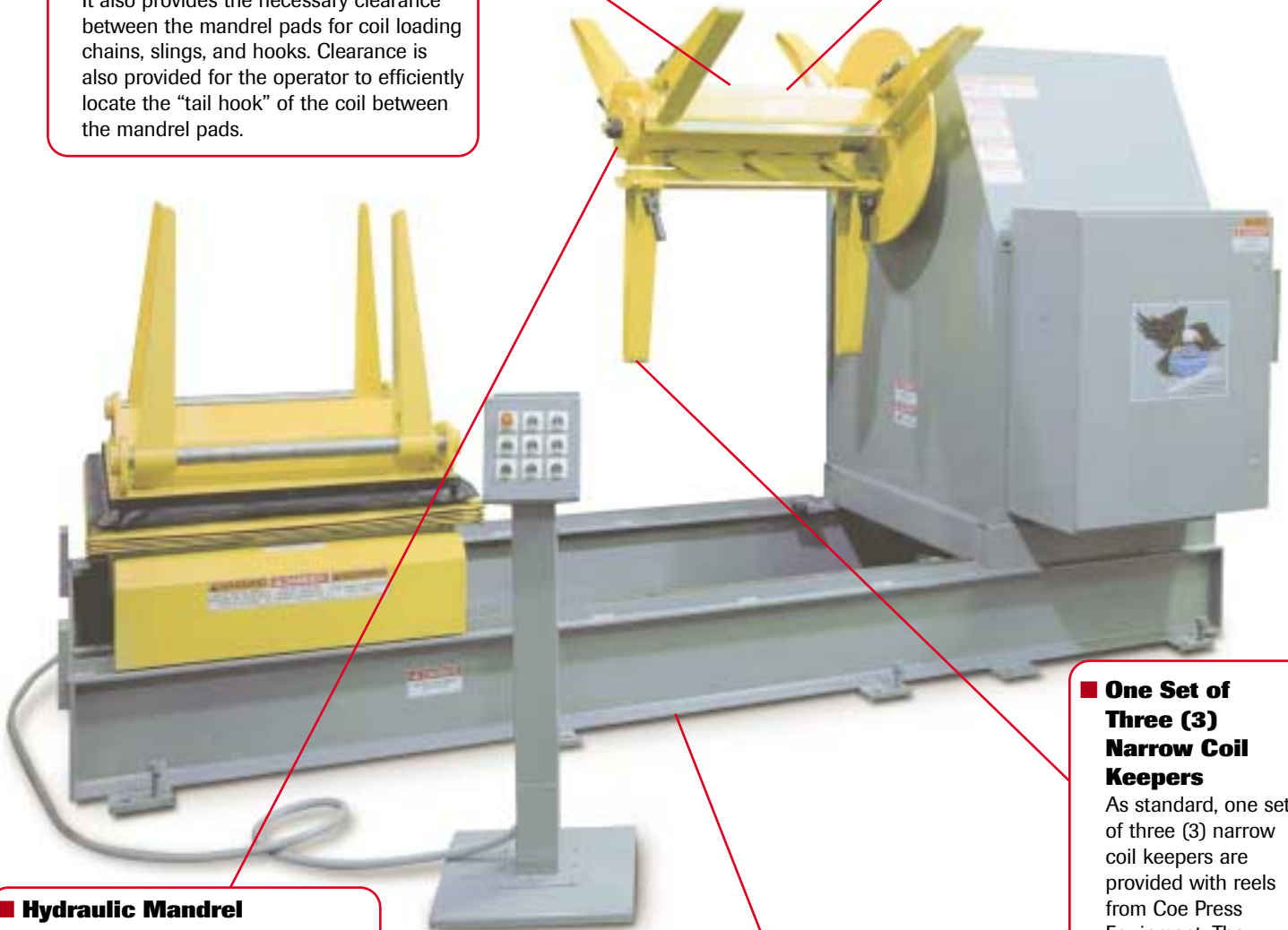


■ Three (3) Pad Mandrel Construction

All Coe Press Equipment reels are designed as standard with three (3) mandrel pads. This feature provides the surface area required to effectively contact and control the inside diameter of the coil. It also provides the necessary clearance between the mandrel pads for coil loading chains, slings, and hooks. Clearance is also provided for the operator to efficiently locate the "tail hook" of the coil between the mandrel pads.

■ 16"-21" Mandrel Expansion Range

As standard, this series of coil reels is designed with a 16"-21" expansion range. The three (3) pad mandrel will expand and contract to uniformly contact and control coils with inside diameters within this range.



■ Hydraulic Mandrel Expansion Feature

This feature allows the operator to expand the mandrel to contact and control the inside diameter of the coil by a hand valve or a push button. A hydraulic power unit and the necessary controls are provided to safely expand and contract the mandrel. The mandrel pads are expanded by a hydraulic cylinder internally mounted in the reel cabinet. The hydraulic power unit and controls are located and plumbed inside the reel cabinet to provide maximum protection from the stamping room environment.

■ Heavy Duty Welded Steel Construction

Coe Press Equipment reels are manufactured with heavy duty structural steels and plates to assure a lifetime of rigidity and performance. The streamlined machine cabinets contain the mandrel bearing support assembly and provide a protective housing for all controls, valves, and power units. Heavy duty support legs allow the reel to be floor mounted without any customer supplied structure or foundation. Machine mounting and leveling pads are provided for lagging the reel to the floor.

■ One Set of Three (3) Narrow Coil Keepers

As standard, one set of three (3) narrow coil keepers are provided with reels from Coe Press Equipment. The narrow coil keepers are placed on the mandrel pads to assure accurate and repeatable coil location when loading narrow width coils. In addition to improving the coil loading process, the narrow coil keepers retain the coil vertically to prevent the material from telescoping.

Note: Machine is shown with optional hydraulic traveling coil car and hydraulic expansion.

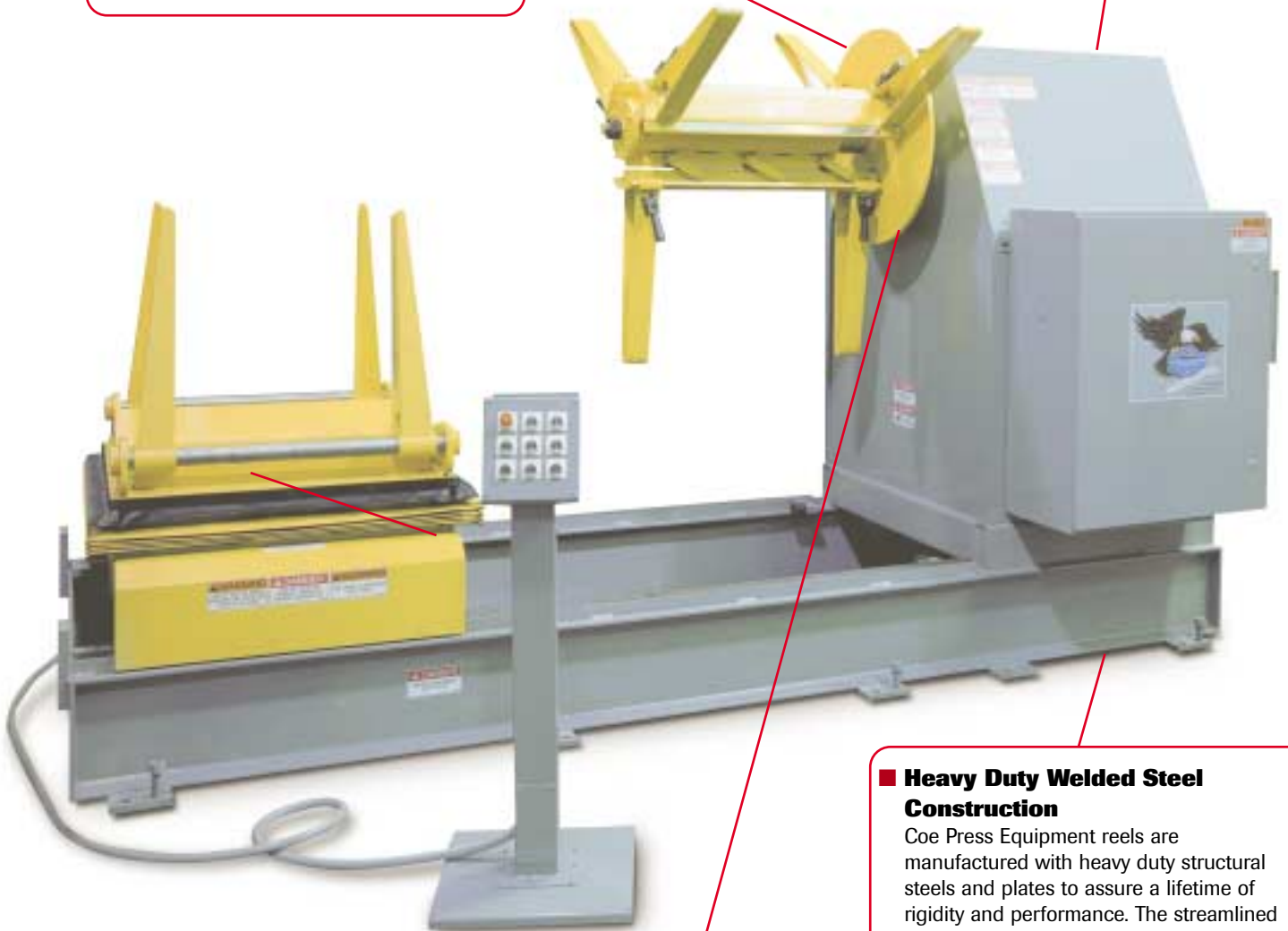


■ 30" Diameter Heavy Duty Backplate

This series of reels is provided as standard with a 30" diameter backplate. This heavy duty fabrication provides the surface that guides the cam followers mounted on the mandrel pads. Consistent and true expansion of the mandrel is assured for the lifetime of the reel.

■ "Bearing Tube" Support of Mandrel

The expanding mandrel is supported by a unique "bearing tube" assembly which consists of two (2) Timken tapered roller bearings mounted in a heavy wall structural steel tube. The "bearing tube" assembly is mounted in a box-type constructed support housing in the reel cabinet. This design provides the rigidity and structural integrity for a lifetime of reliable performance.



■ Air Disc Drag Brake to Prevent Coil Over Run

The non-motorized models in this series of reels is provided as standard with an adjustable tension air disc brake. This feature assures that proper tension is maintained on the coil strip when the reel is working in a "pull-off" application. An air pressure regulator provides the operator with the capability to fine tune the amount of tension for various coil weights, and to decrease the amount of tension as the coil diminishes.

■ 60" Maximum Coil Outside Diameter

As standard, this series of coil reels is designed with a centerline height above floor to accommodate a 60" maximum coil outside diameter.

■ Heavy Duty Welded Steel Construction

Coe Press Equipment reels are manufactured with heavy duty structural steels and plates to assure a lifetime of rigidity and performance. The streamlined machine cabinets contain the mandrel bearing support assembly and provide a protective housing for all controls, valves, and power units. Heavy duty support legs allow the reel to be floor mounted without any customer supplied structure or foundation. Machine mounting and leveling pads are provided for lagging the reel to the floor.

Note: Machine is shown with optional hydraulic traveling coil car and hydraulic expansion.



Non-Motorized Coil Reels Optional Equipment

■ Extra Set of Three (3) Narrow Coil Keepers

The extra set of three (3) narrow coil keepers is used to fully contain the coil on the mandrel. After the coil is loaded and located against the inside set of narrow coil keepers, the operator places the outside set of narrow coil keepers against the edge of the coil. The coil is fully contained between the keepers and cannot telescope from its location on the mandrel.

■ Full O.D. Backplate – 60" Maximum Coil O.D.

This option is specified when the payoff application requires full width or full outside diameter coils. The full O.D. backplate is used to register the position of the coil during the coil loading process.

■ Material Width Scales on Mandrel Pads

The material width scales are mounted in milled recessed slots on all three (3) mandrel pads. This feature allows the operator to accurately locate the coil on the exact centerline of the reel. As standard, these scales are provided as "half-width" scales. The operator locates the edge of the coil on the scale increment that matches the width of the coil.

■ Heavy Duty Coil Clock Spring Guard

The heavy duty fabricated clock spring guard is positioned behind the reel to prevent personal injury in the event that the coil clock springs on the mandrel. This option is recommended when unwinding materials above .125" thickness and materials with high yield strength properties.

■ Coil Adapter Pads for Larger Inside Diameters

Coil adapter pads are provided to increase the standard expansion range of the coil reel. This option provides the capability for the reel to effectively contact and control coil inside diameters that are larger than the standard expansion range. These adapter pads can be provided in 1" increments up to a maximum of 6".

■ Air Operated Coil Hold Down Arm

The hold down arm is provided with a non-drive urethane coated end wheel to contact the outside diameter of the coil to assist the threading process. The hold down arm is actuated by an air cylinder and will pivot open 4" past the centerline of the mandrel. This allows coils to be loaded by an overhead crane or hilo with straps, hooks, or chains.

■ Coil Hold Down Arm with Motorized End Wheel

The hold down arm is provided with a driven end wheel to contact the O.D. of the coil to assist the threading process. The hold down arm is actuated by an air cylinder and will pivot open 4" past the centerline of the mandrel. This allows coils to be loaded by an overhead crane or hilo straps, hooks, or chains.

■ Hydraulic Mandrel Expansion Feature

This feature allows the operator to expand the mandrel to contact and control the inside diameter of the coil by a hand valve or a push button. A hydraulic power unit and the necessary controls are provided to safely expand and contract the mandrel. The mandrel pads are expanded by a hydraulic cylinder internally mounted in the reel cabinet. The hydraulic power unit and controls are located and plumbed inside the reel cabinet to provide maximum protection from the stamping room environment.

■ Hydraulic Threading Drive Feature

This feature allows the operator to jog the mandrel forward and reverse for threading the leading edge of the coil into the straightener. A hydraulic power unit and the necessary controls are provided to safely rotate the mandrel. The threading drive also provides the capability to rewind the coil when a partial coil is processed. A compact hydraulic motor is mounted inside the reel cabinet and coupled to the mandrel by a sprocket and chain type of drive. The hydraulic power unit and controls are located and plumbed inside the reel cabinet to provide maximum protection from the stamping room environment.

■ Hydraulic Traveling Coil Car

The traveling coil car provides the operator with the capability to stage the next coil to be processed and efficiently locate and load the coil on the reel mandrel. This feature improves production efficiency by minimizing the downtime for coil changes, and improves safety by removing the operator from the direct manual elements of the coil change process. The heavy duty carriage is manufactured with all welded construction and is mounted on four wheels. Heavy duty axle shafts are mounted in precision roller bearings. The v-deck is lifted by a center mounted hydraulic cylinder and guided by 4 outboard guide posts. As standard, 14" of vertical lift of the v-deck is provided. The coil car is powered by a hydraulic motor and chain type drive. The coil car and reel are set up to accommodate a 72" maximum coil O.D.



Motorized Coil Reels Standard Equipment

■ “Bearing Tube” Support of Mandrel

The expanding mandrel is supported by a unique “bearing tube” assembly which consists of two (2) Timken tapered roller bearings mounted in a heavy wall structural steel tube. The “bearing tube” assembly is mounted in a box-type constructed support housing in the reel cabinet. This design provides the rigidity and structural integrity for a lifetime of reliable performance.

■ Heavy Duty Welded Steel Construction

Coe Press Equipment reels are manufactured with heavy duty structural steels and plates to assure a lifetime of rigidity and performance. The streamlined machine cabinets contain the mandrel bearing support assembly and provide a protective housing for all controls, valves, and power units. Heavy duty support legs allow the reel to be floor mounted without any customer supplied structure or foundation. Machine mounting and leveling pads are provided for lagging the reel to the floor.

■ Manual Handcrank Expansion with Snap Out Handle

The three (3) pad mandrel is manually expanded and contracted by the operator through the use of a handcrank mechanism. This feature is provided with a spring tensioned snap out handle. The handcrank mechanism provides the operator with the necessary mechanical advantage to expand the mandrel pads to the inside diameter of the coil. When not in use, the snap out handle is positioned toward the inside of the mandrel to protect it from damage during the coil loading process.

■ One Set of Three (3) Narrow Coil Keepers

As standard, one set of three (3) narrow coil keepers are provided with reels from Coe Press Equipment. The narrow coil keepers are placed on the mandrel pads to assure accurate and repeatable coil location when loading narrow width coils. In addition to improving the coil loading process, the narrow coil keepers retain the coil vertically to prevent the material from telescoping.

■ Three (3) Pad Mandrel Construction

All Coe Press Equipment reels are designed as standard with three (3) mandrel pads. This feature provides the surface area required to effectively contact and control the inside diameter of the coil. It also provides the necessary clearance between the mandrel pads for coil loading chains, slings, and hooks. Clearance is also provided for the operator to efficiently locate the “tail hook” of the coil between the mandrel pads.

■ 0–17 RPM Mandrel Speed

As standard, this series of motorized reels is designed with a drive package and gear reducer to provide a variable speed payoff of 0-17 RPM. The standard combination of motor and reduction will produce an approximate line speed of 70 FPM at the worst case condition, when the coil reaches the minimum diameter of 16".

■ 16"–21" Mandrel Expansion Range

As standard, this series of coil reels is designed with a 16"–21" expansion range. The three (3) pad mandrel will expand and contract to uniformly contact and control coils with inside diameters within this range.

■ 30" Diameter Heavy Duty Backplate

This series of reels is provided as standard with a 30" diameter backplate. This heavy duty fabrication provides the surface that guides the cam followers mounted on the mandrel pads. Consistent and true expansion of the mandrel is assured for the lifetime of the reel.

■ 60" Maximum Coil Outside Diameter

As standard, this series of coil reels is designed with a centerline height above floor to accommodate a 60" maximum coil outside diameter.

■ 3 Horsepower AC Variable Speed Drive • Digital Control

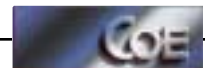
This reliable drive package has been designed by Coe Press Equipment to meet the demands of the coil unwinding application. The AC drive package offers exceptional torque output through its full speed range. From a standing start through full line speed, this drive package delivers the horsepower and torque required to effectively straighten the toughest materials.

■ Potentiometer Control Variable Speed Loop Arm

This device provides the feedback signal required for Coe Press Equipment motorized reels and power straighteners to operate with variable speed payoff. The potentiometer box is mounted to the machine and provides a variable low voltage signal to the drive system. The loop control arm or “dancer arm” is positioned on the slack loop and provides feedback to the potentiometer box as the depth of the loop changes.

■ 230/460 Volt AC Three Phase

Supply voltage for this machine is 230/460 volt AC three phase as standard.



Motorized Coil Reels Optional Equipment

■ Extra Set of Three (3) Narrow Coil Keepers

The extra set of three (3) narrow coil keepers is used to fully contain the coil on the mandrel. After the coil is loaded and located against the inside set of narrow coil keepers, the operator places the outside set of narrow coil keepers against the edge of the coil. The coil is fully contained between the keepers and cannot telescope from its location on the mandrel.

■ Full O.D. Backplate – 60" Maximum Coil O.D.

This option is specified when the payoff application requires full width or full outside diameter coils. The full O.D. backplate is used to register the position of the coil during the coil loading process.

■ Material Width Scales on Mandrel Pads

The material width scales are mounted in milled recessed slots on all three (3) mandrel pads. This feature allows the operator to accurately locate the coil on the exact centerline of the reel. As standard, these scales are provided as "half-width" scales. The operator locates the edge of the coil on the scale increment that matches the width of the coil.

■ Heavy Duty Coil Clock Spring Guard

The heavy duty fabricated clock spring guard is positioned behind the reel to prevent personal injury in the event that the coil clock springs on the mandrel. This option is recommended when unwinding materials above .125" thickness and materials with high yield strength properties.

■ Coil Adapter Pads for Larger Inside Diameters

Coil adapter pads are provided to increase the standard expansion range of the coil reel. This option provides the capability for the reel to effectively contact and control coil inside diameters that are larger than the standard expansion range. These adapter pads can be provided in 1" increments up to a maximum of 6".

■ Air Operated Coil Hold Down Arm

This feature is required when processing heavy gauge materials or materials with high yield strength properties. The hold down arm is provided with a urethane coated end wheel to contact the outside diameter of the coil. The material is prevented from clockspringing when the bands are cut or during rewinding of the coil. The hold down arm is actuated by an air cylinder and will pivot open 4" past the centerline of the mandrel. This allows coils to be loaded by an overhead crane or a hilo with a strap, hook, or chain.

■ Hydraulic Mandrel Expansion Feature

This feature allows the operator to expand the mandrel to contact and control the inside diameter of the coil by a hand valve or a push button. A hydraulic power unit and the necessary controls are provided to safely expand and contract the mandrel. The mandrel pads are expanded by a hydraulic cylinder internally mounted in the reel cabinet. The hydraulic power unit and controls are located and plumbed inside the reel cabinet to provide maximum protection from the stamping room environment.

■ Hydraulic Traveling Coil Car

The traveling coil car provides the operator with the capability to stage the next coil to be processed and efficiently locate and load the coil on the reel mandrel. This feature improves production efficiency by minimizing the downtime for coil changes, and improves safety by removing the operator from the direct manual elements of the coil change process. The heavy duty carriage is manufactured with all welded construction and is mounted on four wheels. Heavy duty axle shafts are mounted in precision roller bearings. The v-deck is lifted by a center mounted hydraulic cylinder and guided by 4 outboard guide posts. As standard, 14" of vertical lift of the v-deck is provided. The coil car is powered by a hydraulic motor and chain type drive. The coil car and reel are set up to accommodate a 72" maximum coil O.D..

■ Remote Jog Pendant for Material Threading

The remote jog pendant is attached to the machine by a flexible coil cord. This feature allows the operator to jog the machine forward or reverse while assisting the leading edge through the loop area. The flexible coil cord allows the operator to maintain full visual contact with the leading edge of the material during initial threading of the coil.

■ Ultra Sonic Variable Speed Loop Control

This state of the art system provides the feedback signal required for Coe Press Equipment motorized reels and power straighteners to operate with variable speed payoff. The fabricated support stand is located at the halfway point or low point of the loop area. The precision ultra sonic sensor provides an infinitely variable low voltage signal back to the drive system based on changes in the depth of the loop. This device provides the variable speed feedback required for the non-contact payoff of pre-finished materials.

