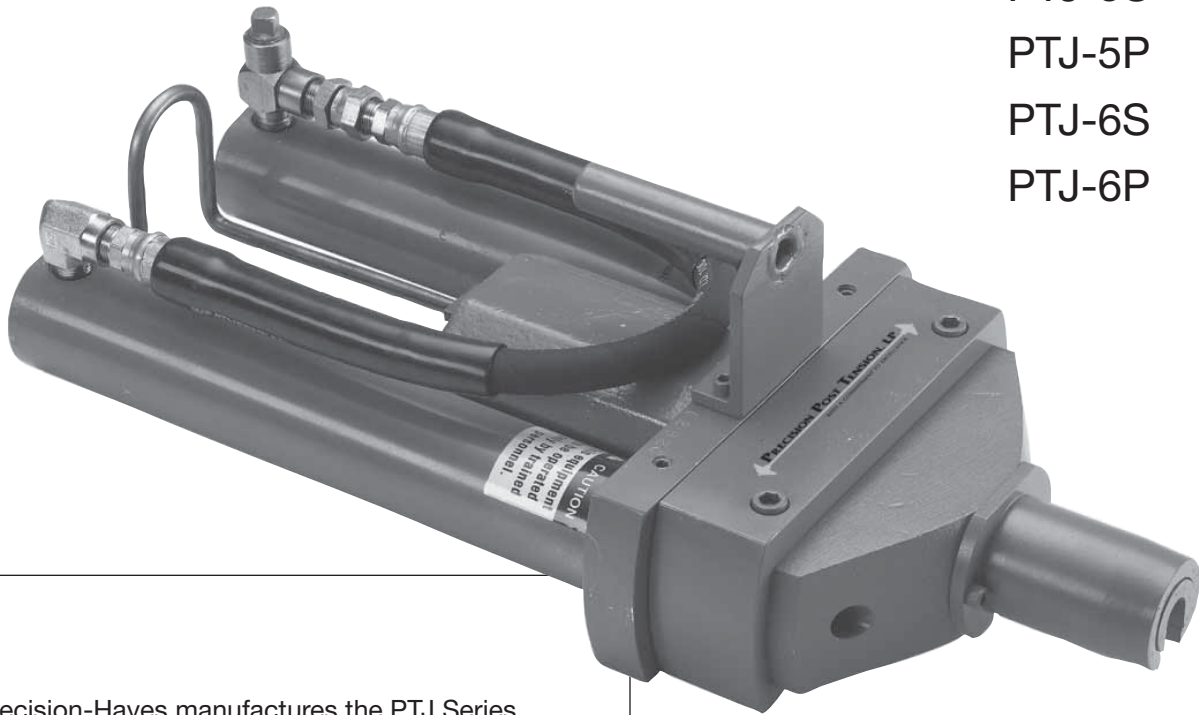


PHI0102 Rev. B 01/15



PTJ-5S

PTJ-5P

PTJ-6S

PTJ-6P

**P**recision-Hayes manufactures the PTJ Series of stressing jacks to meet the most rigorous job demands. With a proven design that has become an industry standard, these heavy duty jacks are available in a range of capacities and configurations.

- 20 ton, for stressing up to .5" strand
- 30 ton, for stressing up to .6" strand
- Component style for easy parts replacement
- Spring-loaded or power-seater wedge setters

From stressing accessories to hardware, Precision-Hayes carries the most complete line of jacks and related components in the industry.

**V**ersatile, powerful, durable –

*Ideal for slab-on-grade.*

*The workhorse of the industry*

*for over 20 years!*

# Stressing Jacks

## PTJ-5S, PTJ-5P, PTJ-6S, PTJ-6P 20 & 30 Ton Jacks with Single-Acting Cylinders

### About our Company

Precision-Hayes offers a complete line of anchors, chucks, wedges, and jack stressing systems for the post tension, prestress and mining industries. With over 30,000 square foot of manufacturing space, we are located in Seagoville, Texas, just south of Dallas. Our dedication and commitment to excellence have made our company the leading supplier to these industries.

Precision-Hayes manufactures the most durable jacks in the industry. For slab-on-grade applications where high volume is required, the PTJ Series are the jacks of choice, and are available in a wide range of configurations to meet any customer requirements.

### Spring-Loaded Wedge Setter

Spring pressure keeps the wedge setter against the wedges in the anchor as the strand is being stressed. With simple, cost-effective performance, this is our most popular jack configuration.

### Power-Seating Wedge Setter

In this configuration, spring pressure is still used to keep the wedges in place while stressing. After the desired stressing pressure is achieved, the valve on the pump is switched to the retract position. The

valve maintains pressure on the strand. Engaging the pump causes the wedge setter to push forward and seat the wedges; when a preset pressure is achieved, the jack will then begin its return stroke.

### Capacities

- **20 ton jacks** – stress strand up to .5" in diameter. For use with smaller strand, jack grippers of different sizes are available.
- **30 ton jacks** – stress stand up to .6" in diameter. For use with smaller strand, jack grippers of different sizes are available.

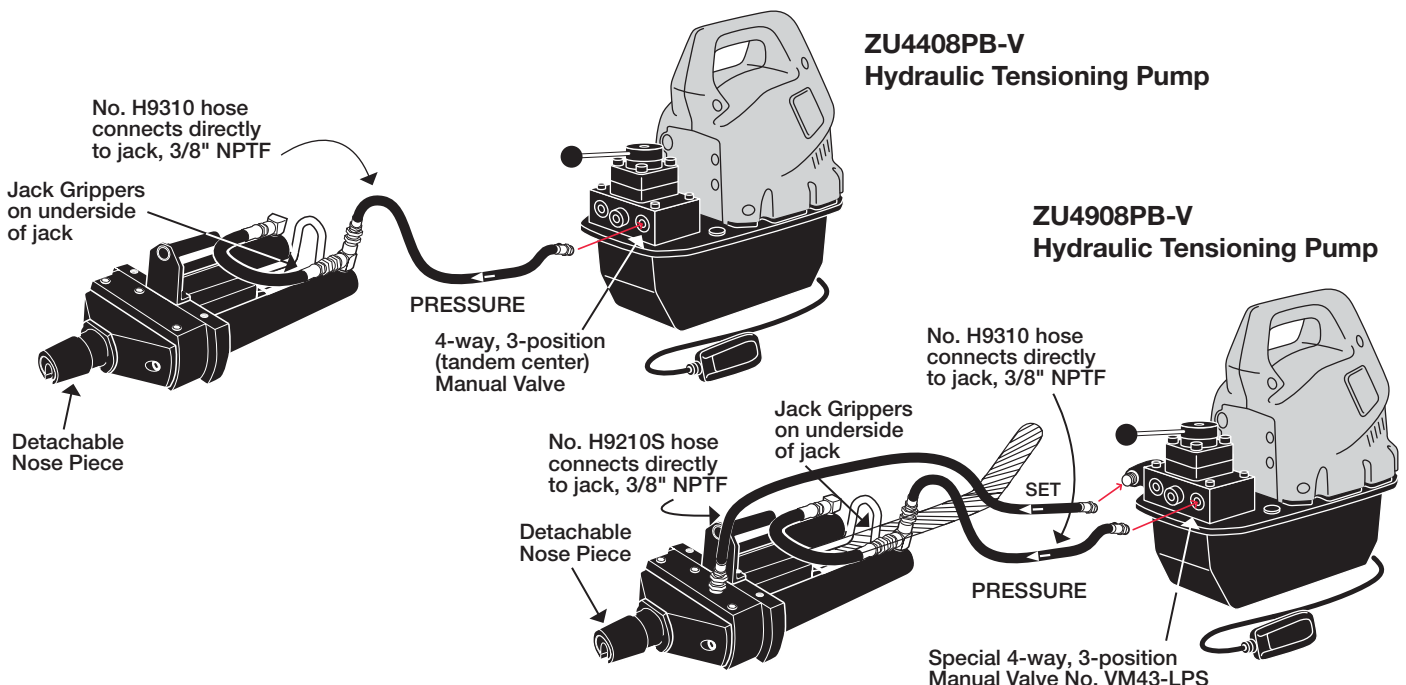
### Systems and Parts

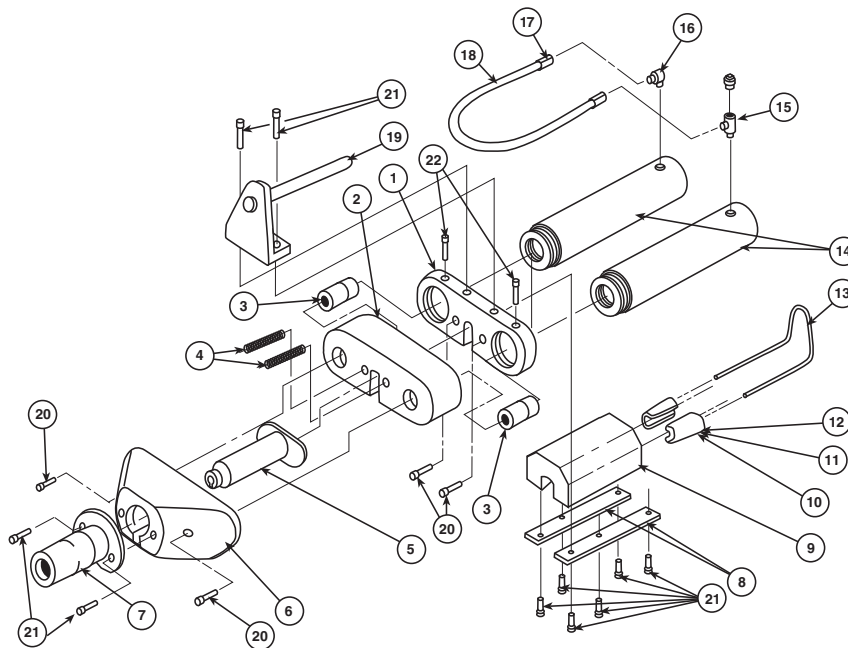
The PTJ jacks can be purchased as a single tool or as complete systems with pump, hoses, and gauge. We carry all the pumps and valves necessary to operate our jack systems, along with a full line of replacement parts.

- PTJ-5S – 20 ton jack with spring-loaded wedge setter
- PTJ-5P – 20 ton jack with power-seating wedge setter
- PTJ-6S – 30 ton jack with spring-loaded wedge setter
- PTJ-6P – 30 ton jack with power-seating wedge setter

**ZU4408PB-V  
Hydraulic Tensioning Pump**

**ZU4908PB-V  
Hydraulic Tensioning Pump**





**PTJ-5S Jack\***

No.	Part Number	Description		
1.	400700	Rear Center Block		
2.	400680	5S Front Center Block (5P-Part No. 400760)		
3.	401040	Cylinder Stud		
4.	302040	Wedge Setter Spring		
5.	305340	Wedge Setter (3" Std.)		
6.	400720	Nose Body		
7.	400740	Nose Piece (3" Std.)		
8.	401020	Gripper Retainer Plates		
9.	400820	Gripper Block		
10.	400900	3/8" Grippers		
11.	400880	7/16" Grippers		
12.	400850	1/2" Grippers		
13.	401000	Gripper Spring Handle		
14.	302306	10 Ton Cylinders		
15.	302060	3/8" MRO Fitting		
16.	301880	3/8" Street EII		
17.	302080	Hose Connector 3/8" Swivel		
18.	303125	Cylinder Loop Hose		
19.	401100E	Ram Handle		
20.	305150	3/8 x 16 x 1 1/4 SHCS		
21.	305160	1/4 x 20 x 1/2 SHCS		
22.	305175	3/16 x 1/2 Set Screw		
Length	Width	Height	Stroke	Weight @
21"	9"	7"	10"	54 lbs.

\*Effective cylinder area 4.48 sq. in.

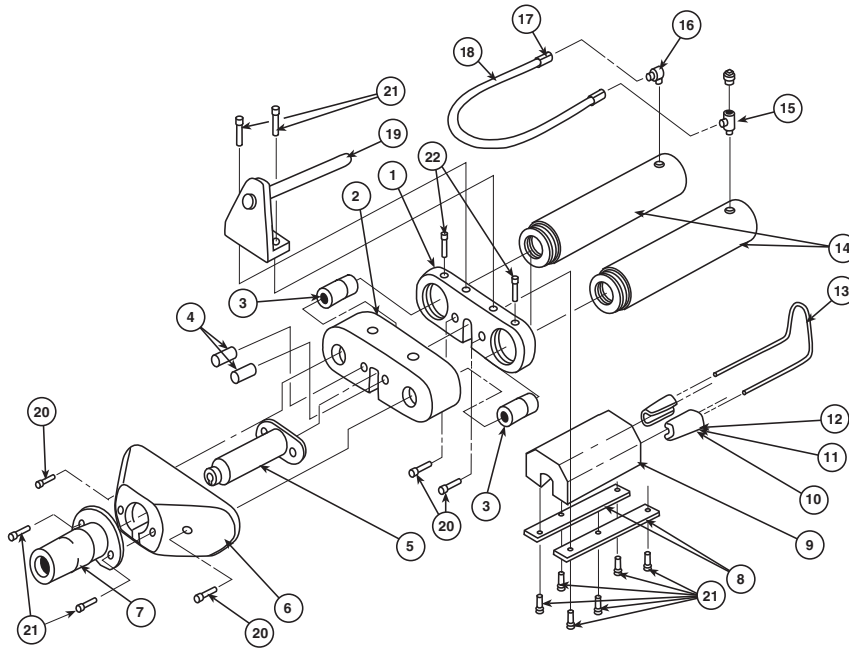
**PTJ-6S Jack\*\***

No.	Part Number	Description		
1.	401420	Rear Center Block		
2.	401400	Front Center Block		
3.	401040	Cylinder Stud		
4.	302040	Wedge Setter Spring		
5.	305340	Wedge Setter (3" Std.)		
6.	401440	Nose Body		
7.	400740	Nose Piece (3" Std.)		
8.	401020	Retainer Plates		
9.	400820	Gripper Block		
10.	400900	3/8" Grippers		
11.	400850	1/2" Grippers		
12.	400980	.6 Grippers		
13.	401000	Gripper Spring Handle		
14.	302319	15 Ton Cylinders		
15.	302060	3/8" MRO Fitting		
16.	301880	3/8" Street EII		
17.	302080	Hose Connector 3/8" Swivel		
18.	303125	Cylinder Loop Hose		
19.	401100E	Ram Handle		
20.	305150	3/8 x 16 x 1 1/4 SHCS		
21.	305160	1/4 x 20 x 1/2 SHCS		
22.	305175	3/16 x 1/2 Set Screw		
Length	Width	Height	Stroke	Weight @
22.5"	10"	7"	10"	74 lbs.

\*\*Effective cylinder area 6.28 sq. in.

# Stressing Jacks

## PTJ-5P and PTJ-6P



### PTJ-5P Jack\*

No.	Part Number	Description		
1.	400700	Rear Center Block		
2.	400760	Front Center Block		
3.	401040	Cylinder Stud		
4.	401140	Power Seater Pistons		
5.	305340	Wedge Setter (3" Std.)		
6.	400720	Nose Body		
7.	400740	Nose Piece (3" Std.)		
8.	401020	Gripper Retainer Plates		
9.	400820	Gripper Block		
10.	400900	3/8" Grippers		
11.	400880	7/16" Grippers		
12.	400850	1/2" Grippers		
13.	401000	Gripper Spring Handle		
14.	302306	10 Ton Cylinders		
15.	302060	3/8" MRO Fitting		
16.	301880	3/8" Street EII		
17.	302080	Hose Connector 3/8" Swivel		
18.	303125	Cylinder Loop Hose		
19.	401100E	Ram Handle		
20.	305150	3/8 x 16 x 1 1/4 SHCS		
21.	305160	1/4 x 20 x 1/2 SHCS		
22.	305175	3/16 x 1/2 Set Screw		
23.	301980	Power Seater Piston Return Spring		
24.	302000	Power Seater Piston "O" Ring		
Length	Width	Height	Stroke	Weight @
21"	9"	7"	10"	54 lbs.

\*\*Effective cylinder area 4.48 sq. in.

### PTJ-6P Jack\*\*

No.	Part Number	Description		
1.	401420	Rear Center Block		
2.	401460	6P Front Center Block		
3.	401040	Cylinder Stud		
4.	401140	Power Seater Pistons		
5.	305340	Wedge Setter (3" Std.)		
6.	401440	Nose Body		
7.	400740	Nose Piece (3" Std.)		
8.	401020	Retainer Plates		
9.	400820	Gripper Block		
10.	400900	3/8" Grippers		
11.	400850	1/2" Grippers		
12.	400980	.6 Grippers		
13.	401000	Gripper Spring Handle		
14.	302319	15 Ton Cylinders		
15.	302060	3/8" MRO Fitting		
16.	301880	3/8" Street EII		
17.	302080	Hose Connector 3/8" Swivel		
18.	303125	Cylinder Loop Hose		
19.	401100E	Ram Handle		
20.	305150	3/8 x 16 x 1 1/4 SHCS		
21.	305160	1/4 x 20 x 1/2 SHCS		
22.	305175	3/16 x 1/2 Set Screw		
23.	301980	Power Seater Piston Return Spring		
24.	302000	Power Seater Piston "O" Ring		
Length	Width	Height	Stroke	Weight @
22.5"	10"	7"	10"	74 lbs.

\*\*Effective cylinder area 6.28 sq. in.

- ❶ Improper care and use of stressing equipment may result in property damage, and/or personal injury. Only trained, qualified personnel should be allowed in the immediate vicinity of equipment during use. Personnel doing the stressing and inspectors should remain clear of the strand being stressed at all times. Never permit anyone to stand in the immediate vicinity of the jack and the pump while stressing.
- ❷ Open the jack gripper by pulling back on the gripper handle or cable.
- ❸ Position the jack on the strand to be stressed and push forward until the jack nose bears on the anchor. Never attempt to adjust the position of the jack, either by striking or pushing after any load has been applied. Remove the jack and reposition if necessary.
- ❹ Push the jack grippers forward to engage the strand making sure that:
  - a. Jack grippers are parallel to avoid damage to themselves or the strand
  - b. Strand is in proper position within the jack grippers.
- ❺ Place the pump 4-way valve in stressing position.
- ❻ Operate the pump by use of the pendant switch. (Use of the pendant switch allows the operator stand to the side of the pump, out of harm's way, should the strand or jack grippers fail.)
- ❼ On pumps equipped with a sequence valve or automatic seating valve:
  - a. Start pump motor and run until proper pressure is indicated on the pressure gauge.
  - b. Switch 4-way valve to retract position.
  - c. Pressure will remain on the pressure side of the jack, but gauge will drop to zero and start to rebuild pressure.
  - d. When preset pressure is achieved (depending on the equipment used), the seating plunger will be fully pressurized, a popping noise will be heard, and the jack will start to retract.
  - e. When the jack is fully retracted, stop the pump and switch the 4-way valve to stressing position. The seating plunger should fully retract. It is important to stop the pump and switch the valve quickly to avoid excessive pressure build-up in the jack after it has completely returned. This excessive pressure build-up can cause premature failure of the jack seals, hoses and fittings.
  - f. Slide the jack forward to release the jack grippers and remove the jack from the strand.

**NOTE:** For jacks without power seating wedge setters, after proper gauge pressure is achieved, by switching the valve to the retract position, the jack will begin to retract.

## SCJ-Short Cable Jack



- Safe and effective for pulling 4" cables.\*
- No need for chairs or other cumbersome accessories.
- Gripper jaws release when jack is fully retracted.
- Requires only single hose and standard pump.
- Uses standard 10" stroke cylinders; other strokes are available – call for quote.
- Replacement parts readily available.

\* For shorter cables, consult factory

### Don'ts of Stressing

### Stressing Jacks

- 1 Don't stress any tendons which contain concrete slurry inside the anchor cavity. Concrete in the anchor cavity will prevent proper seating of the wedges. It is safer and less expensive to clean out concrete slurry than to have detension, repair or replace tendons, or repair the jack.
- 2 Don't use the jack when you can see that it does not seat properly on the face of the anchor.
- 3 Don't overstress tendons in order to achieve proper elongation.
- 4 Don't allow obstructions in the path of the jack extension.
- 5 Don't use extension cords longer than 100 ft. (30m) or less than 3 wire, 12 gauge.
- 6 Don't continue stressing if you suspect that something is not working properly.
- 7 Don't detension with loose plates, spacing shims or piggy backing.
- 8 Don't stand in immediate vicinity of the jack, or between the jack and the pump during stressing or detensioning.
- 9 Don't permit other workmen in the immediate area of the jack or pump during stressing operations.
- 10 Don't hammer or beat on the jack or jack cylinders.
- 11 Don't do anything if you're not sure – ask someone who knows.

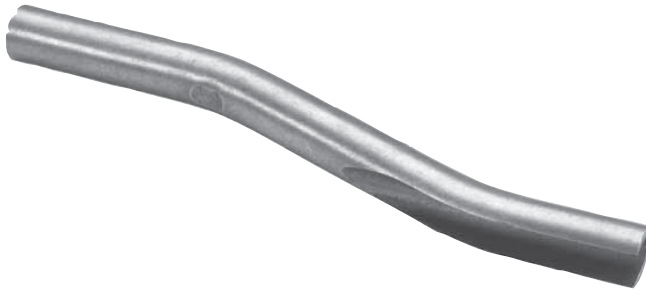
ALL OF THE INFORMATION LISTED IS MEANT TO BE A GENERAL GUIDELINE FOR OPERATION OF POST TENSION STRESSING EQUIPMENT. THE POST TENSIONING INSTITUTE PUBLISHES A "FIELD PROCEDURES MANUAL FOR UNBONDED SINGLE STRAND TENDONS" WHICH CAN BE OBTAINED BY CALLING (248) 848-3180.

## Stressing Accessories

ZU4908PB-V Stressing Pump



Hand Wedge Setter

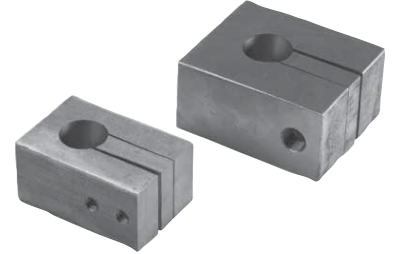


Reusable Splice Chuck and Short Cable Tube with Detachable Nose Piece



## Stressing Jacks

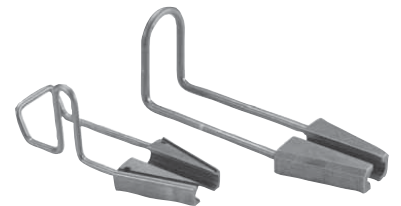
.5 Trouble Shooting Anchor  
.6 Trouble Shooting Anchor



Jack Feet



5DA1 Grippers with Handle, Standard Grippers with Handle



Chrome Pulling Wedges



# The Precision-Hayes Product Family



*Precision-Hayes manufactures and stocks a broad line of hardware and equipment for the Prestress, Mining and Post Tension Industries.*



## Sure-Lock® Multi-Use Chucks

Designed for repeated use, Sure-lock® spring-loaded chucks are 100% mag particle inspected

for cracks and imperfections, and each body is proof-tested to 125% of ultimate strand breaking load. Carefully controlled heat-treatment of components provides you with Extended Life and fully-warranted products. Bayonet-style caps allow quick release for easy cleaning and inspection. Combination reusable splice chucks for all types and sizes of strand are readily available.

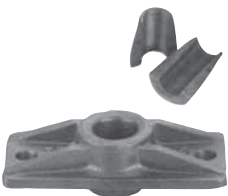
## Sure-Lock® One-Time Use Chucks

Our one-time use chuck is available with 2 or 3 piece wedge set. Cost effective design and reliable quality have been the Sure-Lock® standard for more than 15 years. One-time use splice chucks are also available, for all types and sizes of strand.



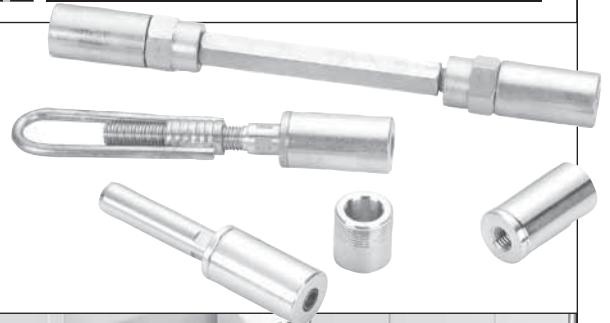
## Sure-Lock® Anchorage Systems

The Sure-Lock® system is the industry "standard", and has been fully tested to all PTI requirements. This system is used worldwide, in thousands of applications.



## Barrier Cable Products

GRABB-IT® and other barrier cable components are available from stock for next day delivery.



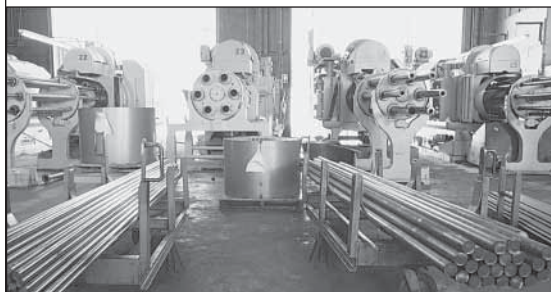
## We also offer . . .

### Fabrication Equipment

- Complete Fabrication Lines
- Material Handling Equipment
- Expert Advise and Installation

### Strand Extrusion Systems

- Turn-Key Extrusion Systems
- Custom Components for Upgrade
- Over 25 Years Experience Building Production Equipment



## Wedges

Wedges are machined from high quality steel and case hardened to precise specifications. All Sure-Lock® wedges are lot-controlled. They can be supplied in sizes 3/8" thru .7" with 2 or 3 piece wedges and retaining rings available.

Proudly made in the USA since 1946

704 WEST SIMONDS RD.

Seagoville, TX 75159

972-287-2390

fax 972-287-4469

www.precision-hayes.com

