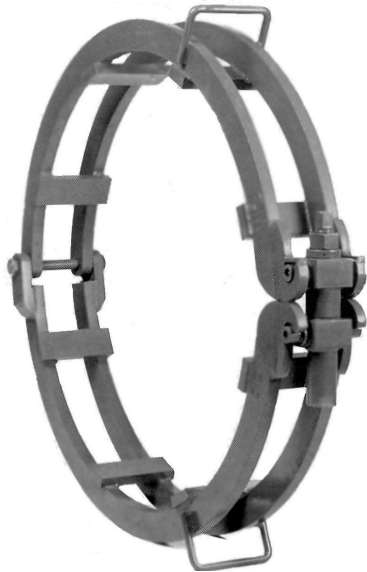


## External Clamps

### Alignment and Reforming Ratchet Type Line-Up Clamp

#### RATCHET ALIGNMENT CLAMP



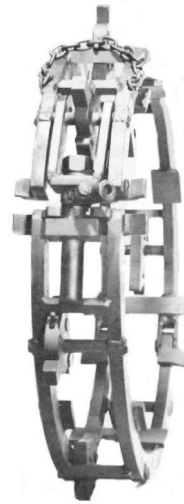
**Heavy duty** clamp designed for the most demanding pipe-line construction.

#### FEATURES:

- Ratchet closure for speed and ease of aligning pipe ends.
- Rings are exceptionally heavy, accurately rolled the hard way to close tolerances, fitted with pads, hooks and hinge assembly.
- Crossbars are heavier and larger to assure straight alignment—**1" X 2" cross section** (compared to other industry clamps of 1" X 1" design).
- Operational mechanism is enclosed in protective housing to eliminate mud and dirt contamination.
- Pads are heavy to insure rigidity. They are placed flat to give large bearing area for truing and aligning pipe, then bored to exact size
- Hinge Pin is a large diameter of alloy steel, unbreakable in service. It is drilled and fitted with grease fitting.
- Ratchet Handle is reversible, long lasting, heavy construction. One ratchet handle included with each clamp. Extra ratchet handles available from Challenger Services.

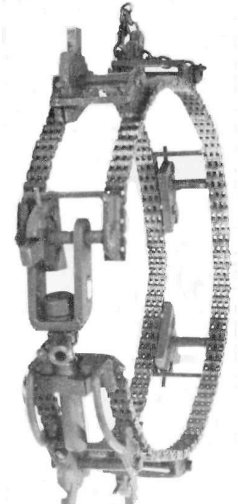
Available in sizes 4", 6", 8", 10", 12", 14", 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 38", 40", 42", 44", 46", 48", 54", 60".  
Clamps smaller than 60", other than those listed, can be made to order.

#### RATCHET REFORMING CLAMPS



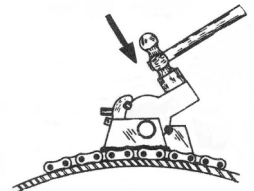
**Rim Clamp**

PATENTED



**Chain Clamp**

Drive down to eliminate high-low. Set at minimum 1/64" to maximum 1/2".



This clamp reforms pipe quickly and easily with 100% line-up.

#### FEATURES:

- Everything you need in one clamp. No wear out or lost parts.
- Made of strong, rugged alloy steel.
- Eccentric operating shoes do the work.
- Precision machined to pipe contour which eliminates pipe damage.
- Ratchet is standard on Rim and Chain Clamps 12" and above.

Stock sizes: 6", 8", 10", 12", 14", 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 38", 40", 42", 44", 46", 48", 54", 60". Other sizes are special order.

**HEAVY DUTY RIM CLAMP**—3/4" Alloy Steel—For pipe up to .750 wall thickness. Stock Sizes 10" to 48". Special order available.

**EXTRA HEAVY DUTY RIM CLAMP**—1" Alloy Steel—For pipe .750 (and above) wall thickness. Stock Sizes 16" to 48".

Special order available.

**LIGHT WEIGHT LEAF CHAIN CLAMP**—48,000 lb. Test—For pipe up to .4375 wall thickness. Stock Sizes 6" to 48".

**EXTRA HEAVY DUTY LEAF CHAIN CLAMP**—69,000 lb. Test—For e .500 to .750 wall thickness. Stock Sizes 18" to 48".