

Aligns boiler tube ends for welding

### Key Features

- Aligns tube ends quickly for tube joint tack welding
- Ideal for waterwall, economizer, header, crossover, superheat, reheat, and generating tubes
- Speeds boiler tube waterwall welding process
- Reduces the risk of costly tube joint failure due to misalignment
- Made of high strength precision machined steel for long service
- For tube sizes 1.75" O.D. to 3.25" O.D.
- Threaded inserts are replaceable
- Available kits come with everything needed
- Set-up is easy and fast
- Saves time and money
- For Sale and Rent

### Simplifies tube alignment and improves tube joint welds

The HOG TIE® boiler tube joint alignment tool speeds the welding process for boiler tube waterwall panel replacement by quickly and accurately aligning new boiler tube ends with existing tubes in preparation for creating welded tube joints.

The HOG TIE® two piece design is simple and easy to use. One piece has two through holes and the other has two threaded replaceable inserts. Two bolts draw the assembly together. Each bolt passes through the through hole and threads into the piece with the threaded insert. With the two tube ends between the HOG TIE® assembly, the tack weld window on each HOG TIE® piece is centered. When the bolts are tightened, it draws the tube ends into alignment.

During this process, adjustments can be made to ensure a proper gap is maintained between the tube ends before tack welding them. After the HOG TIE® is removed, the tack weld holds the tube ends in alignment, allowing for full access to the tube joint in order to complete the tube joint weld.

Accurate tube end alignment helps to make a better welded tube joint and reduces the risk of tube joint failure due to inaccurate alignment which saves time and money on costly boiler shut-down and re-work.

The HOG TIE® alignment tool can also be used in other applications requiring accurate alignment of tube and pipe for welding. It is made of precision machined high strength steel for long service and is available for tube sizes from 1.75" to 3.25" O.D.



HOG TIE® tube alignment tools speed waterwall boiler tube fit-up and helps reduce tube joint failure due to misalignment.



Available impact wrench draws the HOG TIE® assembly together for fast tube end alignment.

### Specifications: HOG-TIE® Boiler Tube Joint Weld Alignment Tool

Product #	Tube Size OD		Dimensions		Weight		Gr B7 Bolt Length
	in	mm	in	mm	lbs	kgs	
HT-134	1.75	44.5	6 x 4	152.4 x 101.6	7.5	3.4	3in (76.2mm)
HT-200	2	50.8	6 x 4	152.4 x 101.6	7.5	3.4	3.5in (88.9mm)
HT-214	2.25	57.2	6 x 4	152.4 x 101.6	8	3.63	3.5in (88.9mm)
HT-238	2.375	60.3	6 x 4.375	152.4 x 111.1	8	3.63	4in (101.6mm)
HT-212	2.5	63.5	6 x 4.375	152.4 x 111.1	8	3.63	4in (101.6mm)
HT-300	3	76.2	6 x 4.75	152.4 x 120.7	10	4.54	4.5in (114.3mm)
HT-325	3.25	82.6	6 x 4.75	152.4 x 120.7	10	4.54	4.5in (114.3mm)

HOG-TIE® assemblies are designed for use on boiler tube waterwall panels with 0.5" (12.7mm) wide membrane. For other pipe applications, please consult factory.

Available HOG TIE® kits include an impact wrench and socket, four B7 0.5" bolts, two spare threaded inserts and a carrying case.



HOG TIE® assemblies use replaceable threaded inserts.



HOG TIE® alignment tools also align single tubes and pipe ends for tack welding.

MILLHOG® Rolling Motors and Tube Expanders for fabricating and maintaining boilers, heat exchangers and condensers...

### MILLHOG® Rolling Motor Features

- Quickly, automatically control tube expansion
- Precise, consistent tube wall reduction and tight tube joints
- Torque Control helps prevent over and under expansion
- Pneumatically powered
- Right angle models are available for tight, restricted areas
- Many models are available for sale and rent

### MILLHOG® Tube Expander Features

- 0.625" to 4.5" (15.9mm to 114.3mm)
- Tube sheets to 5.375" (136.53MM)
- Flare and Straight rolls
- Kits available for sale and rent

### Precisely Bonds Tube to Tube Sheet

Equipped with the proper MILLHOG® Tube Expander and MILLHOG® Boiler Tube Rolling Control Motor, premature tube failure and damage to the tube sheet, due to over or under expansion is prevented, assuring a tight, uniform bond between the tube and O.D. and the tube sheet.



Straight, Flare Beading, Long Reach and accompanying spares are available for rent.



Available for sale and rent, tube expanding kits are custom fitted to meet your needs.



Lever and roll Throttle Torque Control Rolling Motors accurately govern tube expansion and stop automatically when the tube is joined to the boiler tube sheet.

### Specifications: HOG-TIE® Boiler Tube Rolling Control Motors

		RT 90	LT 90	RT 190	LT 190	RT 280	LT 280
Free Speed	RPM	90	90	190	190	280	280
Torque Control		Yes	Yes	Yes	Yes	Yes	Yes
Maximum Torque	FT LBS	305	305	140	140	104	104
	NM	410	410	200	200	140	140
Minimum Torque	FT LBS	150	150	70	70	44	44
	NM	200	200	95	95	60	60
Weight	LBS	14.75	14.75	13	13	13	13
	KG	6.7	6.7	5.8	5.8	5.8	5.8
Overall Length	INCH	21.7	21.7	20.1	20.1	20.1	20.1
	MM	550	550	530	530	530	530
Height Without Drive	INCH	2.75	2.75	2.6	2.6	2.6	2.6
	MM	70	70	65	65	65	65
Side To Center	INCH	1.5	1.5	1.1	1.1	1.1	1.1
	MM	37	37	28	28	28	28
Square Drive	INCH	3/4	3/4	5/8 or 3/4	5/8 or 3/4	5/8 or 3/4	5/8 or 3/4
	MM	19.1	19.1	15.9 or 19.1	15.9 or 19.1	15.9 or 19.1	15.9 or 19.1
Throttle Type	TYPE	Roll	Lever	Roll	Lever	Roll	Lever
	INCH	4	4	2.5	2.5	2.25	2.25
Tube Capacity	MM	101.6	101.6	63.5	63.5	57.1	57.1
	INCH	3/4 x 3/4 or 3/4 x 1	3/4 x 3/4 or 3/4 x 1	3/4 x 3/4 or 5/8 x 3/4	3/4 x 3/4 or 5/8 x 3/4	3/4 x 3/4 or 5/8 x 3/4	3/4 x 3/4 or 5/8 x 3/4
Chuck Size	MM	19.1 x 19.1 or 19.1 x 25.4	19.1 x 19.1 or 19.1 x 25.4	19.1 x 19.1 or 15.9 x 19.1	19.1 x 19.1 or 15.9 x 19.1	19.1 x 19.1 or 15.9 x 19.1	19.1 x 19.1 or 15.9 x 19.1
	INCH	3/4	3/4	1/2	1/2	1/2	1/2
Chuck Size Optional	MM			12.7	12.7	12.7	12.7
	INCH			1/2	1/2	1/2	1/2

Tube Rolling motors can be set-up with adapters, universals, extensions and right angle gear drives for a wide variety of applications.



Adapters and Universals



Parallel and Right Angle Gear Drives



Straight Extensions and Universal Extensions