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SAFETY PRECAUTIONS

IN GENERAL:

When using rotating head cutting equipment, basic safety precautions should always be followed to reduce the risk of personal injury.

Operate this tool only in accordance with specific operating instructions.

WARNING:

Do not override the deadman switch on the power unit. Locking down, obstructing, or in any way defeating the deadman switch on the power drive unit may result in serious injury.

DRESS CONSIDERATIONS:

Use standard safety equipment. Hard hats, safety shoes, safety harnesses, protective clothes, and other safety devices should always be used when appropriate.

Use safety glasses. Do not operate cutting tools without eye protection.

Dress properly. Do not wear loose clothing or jewelry. They can be caught in rotating and moving parts. Avoid slippery floors or wear nonskid footwear. If you have long hair, wear protective hair covering to contain it.

WORK AREA:

Keep the work area clean. Cluttered work areas and benches invite injuries.

Consider the work area environment. Keep the area well lit. Keep electrical cords, cables, rags, rigging straps, etc. clear of rotating equipment. Do not use power cutting tools in the presence of flammable liquids and gasses.

Keep visitors away. Do not let visitors or untrained personnel at or near operating tools. Enforce eye protection requirements for all observers.

Do not over reach. Keep proper footing at all times.

Stay alert. Watch what you are doing. Use common sense. Do not operate tools when you are tired.

TOOL CARE:

Maintain tools with care. Keep tools in good operating condition. Sharp tool bits perform better and safer than dull tool bits. Well maintained tools function properly when needed.

Check for damaged parts. If a tool has malfunctioned, been dropped or hit, it must be checked for damage. Run no-load tests and feed function checks. Do a complete visual inspection.

Electric motors. Use only with proper AC voltage power sources and observe all normal electric shock hazard procedures.

Do not abuse power and control cords. Pulling or running over cords and cables can result in electrical shock hazards and malfunctions. Keep control and power cords out of all cutting fluids and water.

Hydraulic drives. Observe proper procedures for electrically driven power sources. Avoid damage to hydraulic lines. Keep quick-disconnects clean. Grit contamination causes malfunctions.

Air tools. Check the exhaust muffler. Broken or damaged mufflers can restrict air flow or cause excessive noise. Use air motors only with a filtered, lubricated and regulated air supply. Dirty air, low pressure air or over pressure air will cause malfunctions, including delayed starting.

AREA EQUIPMENT:

Secure work. Whenever possible use clamps, vises, chains and straps to secure pipe.

Make sure the tool is secured; it is safer to have both hands free to operate the tool.

TOOL USE:

Use the right tool and tool bit for the job. Do not use a tool which is incorrect for the job you are doing.

Keep the tool bits fully engaged in the tool bit holders. Loose bits are a safety hazard.

Disconnect power supply during setup and maintenance. Use all stop or shut-off features available when changing or adjusting tool bits, maintaining the tool, or when the tool is not in use.

Remove adjusting keys and wrenches before applying power to the equipment. Develop a habit of checking the tool before turning it on to make sure that all keys and wrenches have been removed.

Do not force tools. Tools and tool bits function better and safer when used at the feed and speed rate for which they were designed.

Do not reach into rotating equipment. Do not reach into the rotating head stock to clear chips, to make adjustments, or to check surface finish. A machine designed to cut steel will not stop for a hand or an arm.

Handle chips with care. Chips have very sharp edges and are hot. Do not try to pull chips apart with bare hands; they are very tough.

Avoid unintentional starts. Do not carry or handle tools with your hand on the operating switches or levers. Do not lay the tool down in a manner which will start the drive. Do not allow the tool to flip around or move when adjusting or changing tool bits.

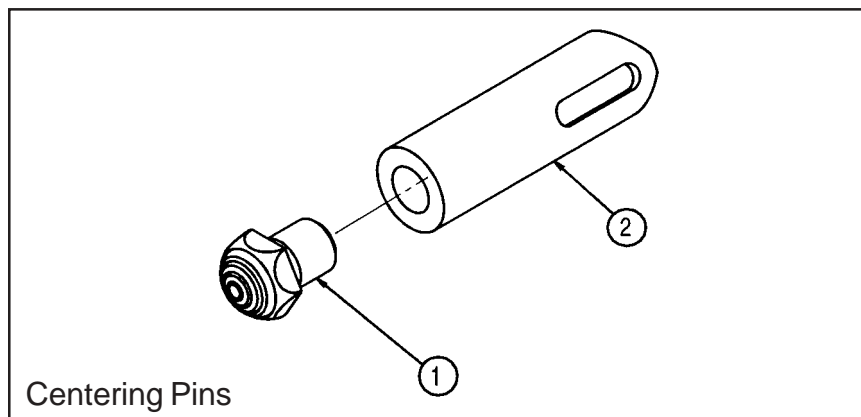
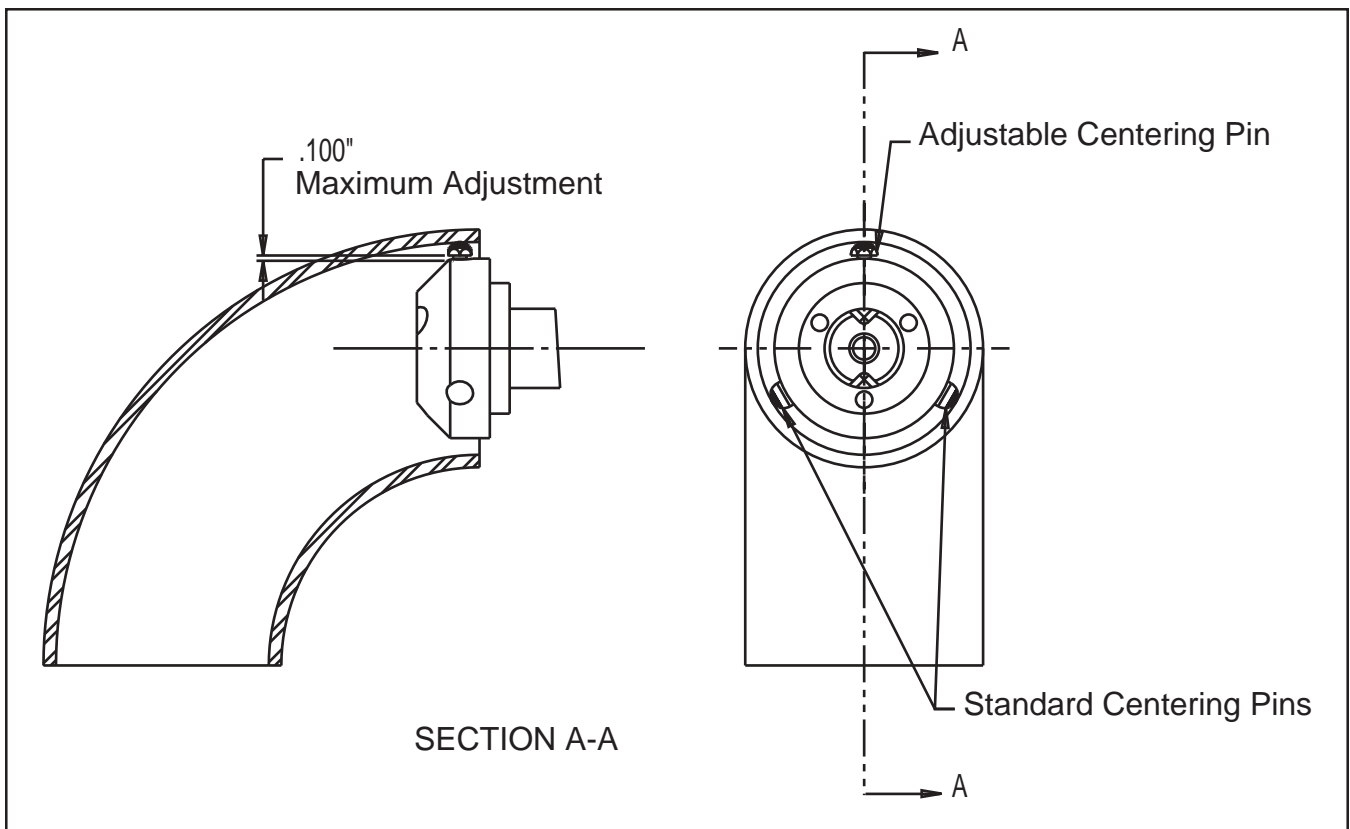
Store idle tools properly. Disconnect tools from the power source and store in a safe place. Remove tool bits for safe handling of the tool.

ADJUSTABLE CENTERING PIN KITS FOR ELBOW MANDRELS

PURPOSE:

Purpose: For adjustment of the Mandrel Assemblies centerline into the elbow. With the Adjustable Pin located at the top of the elbow radius the Mandrel Assemblies centerline can be adjusted up to .100" (2.5 mm). The Adjustable Pin is to be used with 2 Std. Centering Pins of the same length.

Kits include: 1 ea. of multiple Centering Pin lengths, 2 Centering Pin Heads and adjustment wrenches.



TRI TOOL INC.

05-0355 204B-EM				
Item No.	P/N	Description	Qty.	Std. Pin Ref.
1	21-0555	HEAD, CTR. PIN, 204B-EM	2	
2	32-0569	PIN, CTR., 3/8 DIA X .443" LG (11.3MM)	1	32-0372
2	32-0570	PIN, CTR., 3/8 DIA X .585" LG (14.9MM)	1	32-0373
2	32-0571	PIN, CTR., 3/8 DIA X .728" LG (19.9MM)	1	32-0374
2	32-0572	PIN, CTR., 3/8 DIA X .870" LG (22.1MM)	1	32-0375
2	32-0573	PIN, CTR., 3/8 DIA X 1.013" LG (25.7MM)	1	32-0376
2	32-0574	PIN, CTR., 3/8 DIA X 1.155" LG (29.3MM)	1	32-0377
2	32-0575	PIN, CTR., 3/8 DIA X 1.298" LG (33.0MM)	1	32-0378
2	32-0576	PIN, CTR., 3/8 DIA X 1.440" LG (36.2MM)	1	32-0379
2	32-0577	PIN, CTR., 3/8 DIA X 1.593" LG (40.5MM)	1	32-0498
2	32-0578	PIN, CTR., 3/8 DIA X 1.745" LG (44.3MM)	1	32-0499
not shown	36-0001	WRENCH,L, 1/16 HEX	1	
not shown	36-0189	WRENCH, COMBINATION, 5/16, STD	1	

204B Elbow Mandrel Kit Range:

Head Assy P/N	Contact Pin P/n	ID Mounting Range		Pin Length
		"A" dia minimum	"B" dia maximum	
21-0332	32-0372	1.55" (39.4MM)	1.85" (47.0MM)	.743" (18.9MM)
	32-0373	1.84" (46.7MM)	2.13" (54.1MM)	.885" (22.5MM)
	32-0374	2.12" (53.8MM)	2.42" (61.5MM)	1.028" (26.1MM)
	32-0375	2.41" (61.2MM)	2.70" (68.6MM)	1.170" (29.7MM)
21-0479	32-0376	2.69" (68.3MM)	2.99" (75.9MM)	1.313" (33.4MM)
	32-0377	2.98" (75.7MM)	3.27" (83.1MM)	1.455" (37.0Mm)
	32-0378	3.26" (82.8MM)	3.56" (90.4MM)	1.598" (40.6MM)
	32-0379	3.55" (90.2MM)	3.87" (98.3MM)	1.740" (44.2MM)
	32-0498	3.88" (98.6MM)	4.18" (106.2MM)	1.893" (48.1MM)
	32-0499	4.19" (106.4MM)	4.50" (114.3MM)	2.045" (51.9MM)

Adjustable Centering Pin Kits for Elbow Mandrels

05-0356 206B-EM				
Item No.	P/N	Description	Qty.	Std. Pin Ref.
1	21-0556	HEAD, CTR. PIN, 206B-EM	2	
2	32-0556	PIN, CTR., 1/2 DIA X .625" LG (15.9MM)	1	32-0295
2	32-0560	PIN, CTR., 1/2 DIA X .831" LG (21.1MM)	1	32-0296
2	32-0561	PIN, CTR., 1/2 DIA X 1.067" LG (27.1MM)	1	32-0297
2	32-0562	PIN, CTR., 1/2 DIA X 1.274" LG (32.4MM)	1	32-0298
2	32-0563	PIN, CTR., 1/2 DIA X 1.510" LG (38.4MM)	1	32-0299
2	32-0564	PIN,CTR., 1/2 DIA X 1.717" LG (43.6MM)	1	32-0300
2	32-0565	PIN, CTR., 1/2 DIA X 1.953" LG (49.7MM)	1	32-0301
2	32-0566	PIN, CTR., 1/2 DIA X 2.160" LG (54.9MM)	1	32-0302
2	32-0567	PIN, CTR., 1/2 DIA X 2.396" LG (60.9MM)	1	32-0303
not shown	36-0002	WRENCH,L, 5/64 HEX	1	
not shown	36-0003	WRENCH,L, 3/32HEX	1	
not shown	36-0098	WRENCH,COMBINATION, 7/16	1	

206B Elbow Mandrel Kit Range:

Head Assy P/N	Contact Pin P/n	ID Mounting Range		Pin Length
		"A" dia minimum	"B" dia maximum	
	32-0295	2.11" (53.6MM)	2.56" (65.0MM)	.985" (25.0MM)
21-0212	32-0296	2.51" (63.8MM)	2.98" (75.7MM)	1.191" (30.3MM)
	32-0297	2.98" (75.7MM)	3.45" (87.6MM)	1.427" (36.2MM)
21-0213	32-0298	3.40" (86.4MM)	3.87" (98.3MM)	1.634" (41.5MM)
	32-0299	3.87" (98.3MM)	4.34" (110.2MM)	1.870" (47.5MM)
21-0214	32-0300	4.29" (109.0MM)	4.76" (120.2MM)	2.077" (52.8MM)
	32-0301	4.76" (120.9MM)	5.23" (132.8MM)	2.313" (58.8MM)
21-0215	32-0302	5.17" (131.3MM)	5.65" (143.5MM)	2.520" (64.0MM)
	32-0303	5.65" (143.5MM)	6.12" (155.4MM)	2.756" (70.0MM)

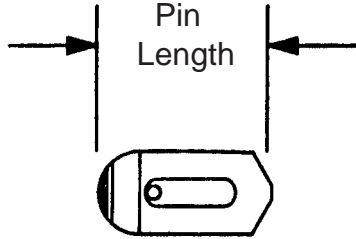
TRI TOOL INC.

05-0357 212B-EM				
Item No.	P/N	Description	Qty.	Std. Pin Ref.
1	21-0557	HEAD, CTR. PIN, 212B-EM	2	
2	32-0580	PIN, CTR., 3/4 DIA X 1.090" LG (27.7MM)	1	32-0318
2	32-0581	PIN, CTR., 3/4 DIA X 1.543" LG (39.2MM)	1	32-0319
2	32-0582	PIN, CTR., 3/4 DIA X 1.996" LG (50.7MM)	1	32-0320
2	32-0583	PIN, CTR., 3/4 DIA X 2.424" LG (61.6MM)	1	32-0321
2	32-0584	PIN, CTR., 3/4 DIA X 2.877" LG (73.1MM)	1	32-0322
2	32-0585	PIN, CTR., 3/4 DIA X 3.330" LG (84.6MM)	1	32-0323
2	32-0586	PIN, CTR., 3/4 DIA X 3.783" LG (96.1MM)	1	32-0324
2	32-0587	PIN, CTR., 3/4 DIA X 4.211" LG (107.0MM)	1	32-0325
2	32-0588	PIN, CTR., 3/4 DIA X 4.664" LG (118.5MM)	1	32-0326
2	32-0589	PIN, CTR., 3/4 DIA X 5.117" LG (130.0MM)	1	32-0327
2	32-0590	PIN, CTR., 3/4 DIA X 5.570" LG (141.5MM)	1	32-0328
not shown	36-0005	WRENCH,L,1/8 HEX	1	
not shown	36-0230	WRENCH,COMBINATION,5/8,STD	1	

212B Elbow Mandrel Kit Range:

Head Assy P/N	Contact Pin P/n	ID Mounting Range		Pin Length
		"A" dia minimum	"B" dia maximum	
21-0245	32-0318	3.31" (84.1MM)	4.16" (105.7MM)	1.575" (40.0MM)
	32-0319	4.15" (105.4MM)	5.06" (128.5MM)	2.028" (51.5MM)
	32-0320	5.06" (128.5MM)	5.97" (151.6MM)	2.481" (63.0MM)
21-0246	32-0321	5.19" (131.8MM)	6.82" (173.2MM)	2.909" (73.9MM)
	32-0322	6.82" (173.2MM)	7.73" (196.3MM)	3.362" (85.4MM)
	32-0323	7.73" (196.3MM)	8.64" (219.5MM)	3.815" (96.9MM)
	32-0324	8.64" (219.5MM)	9.54" (242.3MM)	4.268" (108.4MM)
21-0247	32-0325	9.49" (241.0MM)	10.39" (263.9MM)	4.696" (119.3MM)
	32-0326	10.40" (264.2MM)	11.39" (289.3MM)	5.149" (130.8MM)
	32-0327	11.30" (287.0MM)	12.21" (310.1MM)	5.602" (142.3MM)
	32-0328	12.21" (310.1MM)	13.12" (333.2MM)	6.055" (153.8MM)

Pin Length



Correct pin length is important for rigidity. Use only the correct Contact Pins specified for each head size.

Maximum, minimum diameters

