

Airetool®

Product Catalog



Condenser & Boiler Expanders

Rolling Controls

Pipe & Tube Cleaners

Installation & Removal Tools



Equipment Group International



The Airetool® family of tube service tools is one of the most diverse in the heat transfer industry with a broad selection of tube expanders, tube rolling controls, tube cleaners, and re-tubing tools to cover various applications.

Airetool®

Tools that perform

Improving production rates and decreasing cost are critical to the success of today's manufacturer or contractor. The Airetool line of tools are designed and manufactured to perform consistently time after time. When it comes to performance and reliability, there is no doubt as to why manufacturers and contractors around the world have come to rely on the Airetool brand of products.

Tools of the highest quality

When we say our tools are built well, we really mean it. Equipment Group International has brought back the exacting quality that Airetool brand is known for. While manufacturing in the USA to the highest standard.

Tools that work with the operator

It is simple... give an operator a tool that is comfortable to use and the operator will work better. Airetool tool balancing systems do just that, coupled with extending expander or associated tooling life.



Tools that set the standard

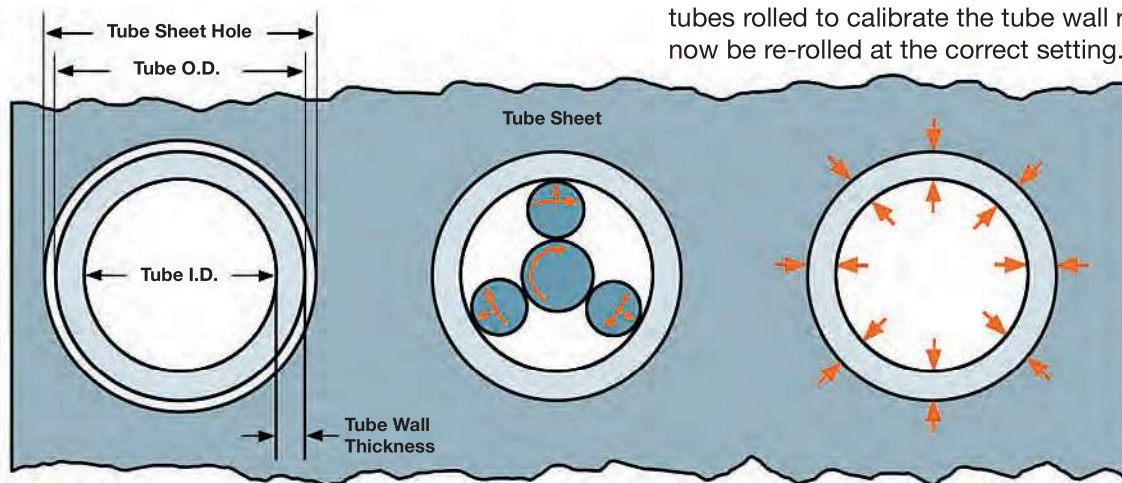
Outstanding performance, incredible durability, plus the ease of maintenance have made Airetool tube rolling controls the standard which all other manufacturers are measured against.

Why use torque control when expanding tubes?

Torque controlled tube rolling increases productivity by achieving the desired tube wall reduction each and every time a tube is expanded. Torque-controlled tube rolling compensates for variations in the tube wall thickness and the tube sheet hole dimensions.

What is tube wall reduction?

Tube wall reduction is the percent the tube wall is reduced after the tube OD has contacted the tube sheet ID. The amount of tube wall reduction varies with the tube material, the tube sheet material and the design requirements of the unit. Several factors including pullout strength, tube and tube wall thickness, tube sheet material and thickness, and operating pressure are considered in determining the optimum wall reduction.



Tube Rolling Set - Up Guide

Pick five tubes in the vessel to be rolled and complete the work sheet below. It is important that the measurements used in the set up are actual. Never use averaged dimensions.

Always Use Engineering Design Specifications for Tube Wall Reduction Percentage. Satisfactory joints are produced using the above listed percentage of tube wall reduction.

- **Step A – Measure tube sheet hole**
- **Step B – Measure tube OD**
- **Step C – Calculate clearance (A-B)**
- **Step D – Measure tube ID**
- **Step E – Calculate 2x wall thickness (B-D)**
- **Step F – Calculate 5% wall reduction* (.05 x E)**
- **Step G – Calculate finished rolled ID (C+D+F)**

After the work sheet is finished, start setting up the torque control motor by test rolling the first of the five tubes. The first test roll must be done with the Airetool or Electric tube rolling motor set for low torque to avoid over rolling.

Measure the tube ID after rolling the first tube. If more expansion is needed, increase the torque setting on the control and roll the second tube. Check the finished ID. This step may require repeating on tube three, but by the fifth tube you should have achieved your desired finished rolled ID of step G below. The tubes rolled to calibrate the tube wall reduction can now be re-rolled at the correct setting.

STEP	EXAMPLE	Joint Number				
		1	2	3	4	5
A	Tube Sheet Hole	.760"				
B	- Tube OD	.750"				
C	= Clearance	.010"				
D	Tube ID	.620"				
E	2 x Wall Thickness	.130"				
F	+5% Wall Reduction*	.006"				
G	= Finish Rolled ID	.636"				

*Example only

Rolling Controls

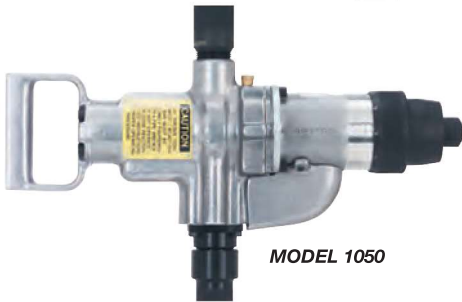
Hand-held Torque Controller Rolling Motors



MODEL 720



MODEL 850



MODEL 1050



MODEL 1550



Airetool Air Driven Rolling Motors

Airetool rolling motors control expansion by the accurate measurement of torque. They automatically stop expanding according to a predetermined setting. Torque control prevents over- and underexpansion of tubes, assures uniformly tightened tube joints, and provides maximum holding strength for individual tubes. All Airetrols include torque sensing cams designed and manufactured specifically for tube expanding applications.

- Strong, lightweight aluminum housings for easier handling and less operator fatigue.
- Rugged drive combines precision control and measured torque output.
- Simple dial-a-torque adjustment collar for easy set up.
- Cushioned shut-off reduces torque reaction.
- Quick change chucks to improve productivity.

Model Number	Order Number	Speed & Torque @ 90 psig Air Pressure*					Overall Length		Weight		Side to Center		Operating Hose		CFM	Square Drive	Tube Capacities*		Quick Change Chuck (in.)	
		Free Speed	Max. Torque		Min. Torque															
		RPM	in. lbs.	Nm	in. lbs.	Nm	in.	mm	lbs.	Kg	in.	mm	in.	mm		in.	mm	Included	Optional	
720-2500B	8405541	2500	20.0	2.3	2.0	0.23	7.875	198	2.4	1.09	0.813	20.7	3/8	9.5	17	1/4	1/4	6.4	1/4	3/8
720-2500B 3/8	8405561	2500	20.0	2.3	2.0	0.23	7.875	198	2.4	1.09	0.813	20.7	3/8	9.5	17	1/4	1/4	6.4	1/4	3/8
720-1800B	8405383	1800	27.0	3.1	2.0	0.23	7.875	200	2.4	1.09	0.813	20.7	3/8	9.5	17	1/4	3/8	9.5	1/4	3/8
720-1800B 3/8	8405512	1800	27.0	3.1	2.0	0.23	7.875	200	2.4	1.09	0.813	20.7	3/8	9.5	17	1/4	3/8	9.5	1/4	3/8
720-550B	8405391	550	75.0	8.5	2.0	0.23	8.625	219	2.7	1.22	0.813	20.7	3/8	9.5	17	3/8	1/2	12.7	3/8	1/4
850-1250A	8405399	1100	115.0	13.0	22.0	2.49	12.250	311	10.5	4.76	1.438	36.5	1/2	12.7	48	3/8	3/4	19.1	3/8	1/2
850-600A	8405398	500	192.0	21.7	31.0	3.50	12.250	311	10.5	4.76	1.438	36.5	1/2	12.7	48	3/8	1	25.4	3/8, 1/2	-
850-400A	8403500	400	315.0	35.6	43.0	4.85	12.250	311	10.5	4.76	1.438	36.5	1/2	12.7	48	3/8	1	25.4	3/8, 1/2	-

*Varies depending on tube material, gauge, and tube sheet thickness

Model Number	Order Number	Speed & Torque @ 90 psig Air Pressure*					Overall Length		Weight		Side to Center		Operating Hose		CFM	Square Drive	Tube Capacities*		Quick Change Chuck (in.)	
		Free Speed	Max. Torque		Min. Torque															
		RPM	ft. lbs.	Nm	ft. lbs.	Nm	in.	mm	lbs.	Kg	in.	mm	in.	mm		in.	mm	Included	Optional	
1050-400	8404200	394	22.0	29.8	6.5	8.8	13.625	346	14	6.35	1.938	49.2	3/4"	19.1	68	1/2	1-1/4	31.8	3/8, 1/2	3/4, 1
1050-400 HD	8404201	394	29.5	40.0	7.5	10.2	13.625	346	14	6.35	1.938	49.2	3/4"	19.1	68	1/2	1-1/4	31.8	3/8, 1/2	3/4, 1
1550-900	8404290	756	30.7	41.6	4.7	6.4	18.000	457	27	12.25	1.938	49.2	3/4"	19.1	70	1/2	1-1/2	38.1	3/8, 1/2	3/4, 1
1550-250	8404280	217	100.0	135.5	25.0	33.9	18.000	457	27	12.25	1.938	49.2	3/4"	19.1	56	3/4	2-1/2	63.5	3/4, 1	3/8, 1/2

*Varies depending on tube material, gauge, and tube sheet thickness

1850 Series Torque Control Rolling Motors

Heavy duty torque controlled rolling motor capable of rolling boiler tubes up to 4-1/2" O.D.

- Offers the highest controlled torque of any rolling motor currently available.
- Torque range 320 - 570 ft.lbs.



1760 Series Right Angle Torque Control Rolling Motors

These right angle torque control rolling motors are used to roll tubes into drums of package and stationary boilers.

- Heavy duty gear train components for increased durability.
- External torque control setting for easy adjustment.
- Rotating exhaust deflector and indexing angle head for operator control and comfort.
- Modular construction simplifies tool maintenance.
- Roll Throttle makes for safe operation in any working position.



Model Number	Order Number	Speed & Torque 90 psig Air Pressure*					Overall Length		Weight		Side to Center		Operating Hose		CFM	Square Drive	Tube Capacities*		Chucks (in.)†	
		Free Speed	Maximum Torque		Minimum Torque												in.	mm	in.	mm
		RPM	ft. lbs.	Nm	ft. lbs.	Nm	in.	mm	lbs.	kg	in.	mm	in.	mm	in.	mm	Incl.	Opt.		

1850 Series Torque Control Rolling Motors

1850-90	8405315	82	301	408	92	125	13	330	46	20.9	3.375	86	1/2	12.7	60	1	3-1/2	89	3/4, 1	1-1/4, 1-1/2
1850-40	8405314	34	570	772	320	434	15	381	52	23.6	3.625	92.1	1/2	12.7	60	1	4-1/2	114	3/4, 1	1-1/4, 1-1/2

*Varies depending on tube material, gauge, and tube sheet thickness

Model Number	Order Number	Speed & Torque 90 psig Air Pressure*					Overall Length		Weight		Head Dimensions				Square Drive Size	Tube Capacities*		Chuck Size (in.)†
		Free Speed	Maximum Torque		Minimum Torque						Side to Center		Height Less Square Drive			in.	mm	in.
		RPM	ft. lbs.	Nm	ft. lbs.	Nm	in.	mm	lbs.	kg	in.	mm	in.	mm	in.	mm	in.	mm

1760 Series Reversible – Roll Throttle

1763-R-190	8405440	190	140	190	70	95	20.1	530.0	13.0	5.8	1.1	28.0	2.60	65.0	5/8	2.5	63.5	3/4
1763-RS-190	8405442	190	155	210	0	0	19.4	490.0	11.4	5.2	1.1	28.0	2.50	64.0	5/8	2.5	63.5	3/4
1762-R-90	8405444	90	305	413	150	203	21.7	550.0	14.8	6.7	1.5	37.0	2.75	70.0	3/4	4.0	101.5	3/4, 1
1762-RS-90	8405446	90	325	440	0	0	20.1	511.0	13.1	6.0	1.4	37.0	2.8	70.0	3/4	4.0	101.5	3/4, 1

1760 Series Reversible – Lever Throttle

1762-L-90	8405448	90	305	413	150	203	21.7	550.0	14.8	6.7	1.5	37.0	2.60	65.0	3/4	4.0	101.5	3/4, 1
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† See page 13 for chuck size chart.

*Varies depending on tube material, gauge, and tube sheet thickness

Standard Equipment

Air Inlet: 1/2" NPT

Minimum hose size: 1/2"

Splined torque reaction plate and reaction bar included (8567610)

Rolling Controls

DAS II Rolling Motors

DAS II Dominator System

The Airetool DAS II Dominator Tube Rolling System was designed to take pneumatic tube rolling technology to the next level using time proven Airetool rolling motors outfitted with on-board pneumatic control logic.

- Fully pneumatic system for fabrication shops and/or field service work.
- “Basic” unit works well with tube pulling, tube end facing, and orbital welding equipment.
- Greatly enhances the accuracy of tube rolling reducing costly rework of improperly rolled tubes.
- Increases expander life (up to 3X) compared to conventional hand-held equipment.
- Ergonomic design supports tool weight and torque reaction.
- Floor lock holds system in place for stability while rolling tubes.
- Right or left hand operation without conversion.
- Five foot vertical and horizontal reach.
- Available in three different configurations: Basic Unit*, Standard, Lubricator.



DAS II Component	DAS II Dominators		
	Basic Unit*	Standard	With Lube
Base	*	*	*
Tower	*	*	*
Articulating ToolArm	*	*	*
Filter & Lubricator (Tool)		*	*
Airetool Supply Hoses		*	*
Lubricator (Expander)			*

*The basic positioning unit can be used to support a wide variety of tube service tools including drills, end facers, tube cutting tools, tube pulling rams, and tube cleaning motors

Model Number	Order Number	Movement				Lift Capacity		Operating Pressure		Operating Hose		Allowable Torque	
		Vertical		Horizontal		lbs.	kg	PSI	Bar	in.	mm	ft.-lbs.	Nm
		ft.	m	ft.	m								
Automatic Tube Rolling System Less DAS II Airetool													
DAS II Dominator	5526081	5.0	1.5	5.0	1.5	55	25	90	6.2	3/4	19.1	125	169
DAS II Dominator w/lube	5526140	5.0	1.5	5.0	1.5	55	25	90	6.2	3/4	19.1	125	169
Basic Positioning Unit*													
DAS II Dominator Basic Unit	5529158	5.0	1.5	5.0	1.5	55	25	90	6.2	3/4	19.1	125	169



DAS II Dominator System

The Airetool DAS II Dominator Rolling Motors are designed to deliver power, performance, and durability while providing accurate and repeatable tube expansion.

- Time proven torque control rolling motors with on-board pneumatic control logic.
- Simple dial-a-torque adjustment collar for easy set up.
- Push-to-start configurations (no suffix) run only when activated, reducing noise and conserving shop air.
- Timed Start* configurations (T suffix) cycle continuously for trigger free tube rolling.
- Tool Options include “Cycle Counter” (C suffix) and “Expander Lubricator” (L suffix).



Examples:

DAS II 1550 900 TCL is a timed start model with counter & lube.

DAS II 850 1250 CL is a push-to-start model with counter & lube.

**Timed Start option will run continuously when the toggle switch is in the “on” position. After the tube is rolled and the tool switches into reverse rotation, an adjustable delay timer is activated. The tool will start running in the forward direction again after the time delay is finished. (Available only on 1050 & 1550 Series.)*

Model Number	Order Number	Free Speed	CFM	Maximum Torque		Minimum Torque		Chucks (in.)†	
		RPM		ft. lbs.	Nm	ft. lbs.	Nm	Included	Optional
DAS II Dominator Rolling Motors*									
DAS II 850 1250 Airetool	8405562	1100	48	9.6	13.0	1.8	2.4	3/8	1/2
DAS II 850 1250 CL Airetool	8405567	1100	48	9.6	13.0	1.8	2.4	3/8	1/2
DAS II 850 600 Airetool	8405569	500	48	16.0	21.7	2.6	3.5	3/8, 1/2	-
DAS II 850 600 CL Airetool	8405578	500	48	16.0	21.7	2.6	3.5	3/8, 1/2	-
DAS II 1050 400 TCL Airetool	8405594	394	68	29.5	40.0	7.5	10.2	3/8, 1/2	3/4 - 1
DAS II 1550 900 Airetool	8405563	756	75	30.7	41.6	4.7	6.4	3/8, 1/2	3/4, 1
DAS II 1550 900 CL Airetool	8405565	756	75	30.7	41.6	4.7	6.4	3/8, 1/2	3/4, 1
DAS II 1550 900 T Airetool	8405576	756	75	30.7	41.6	4.7	6.4	3/8, 1/2	3/4, 1
DAS II 1550 900 TCL Airetool	8405580	756	75	30.7	41.6	4.7	6.4	3/8, 1/2	3/4, 1
DAS II 1550 250 Airetool	8405564	217	75	100.0	135.5	25.0	33.9	3/4, 1	3/8, 1/2
DAS II 1550 250 T Airetool	8405577	217	75	100.0	135.5	25.0	33.9	3/4, 1	3/8, 1/2
DAS II 1550 250 CL Airetool	8405568	271	75	100.0	135.5	25.0	33.9	3/4, 1	3/8, 1/2

† 3/8 & 1/2 are QC Chucks (quick change)

* Configurations

No suffix - Basic Airetool, push-to-start (PTS)

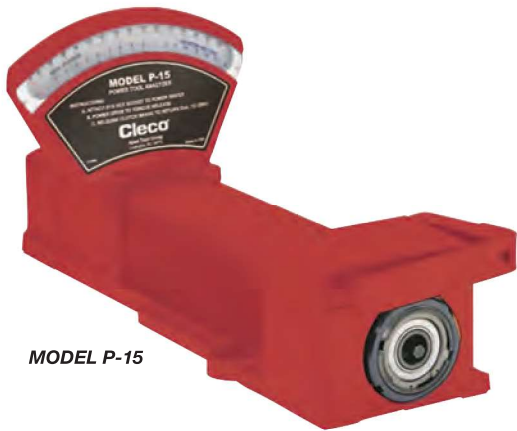
C suffix - PTS with Counter

L suffix - PTS with Lubricator

T suffix - Timer (continuous cycling, negates PTS, available only on 1050 & 1550 Series)

Rolling Controls

Accessories



MODEL P-15

Model P-15 Torque Analyzer

Use the P-15 analyzer to set a specific torque value on Airetool rolling controls. The torque analyzers' readings may be used as a standard for the Airetool's performance providing greater quality control over rolled tube joints.

- Set rolling motor at a specific torque value.
- Enhances quality control with torque value consistency.
- Time saver with multiple rolling motor applications.

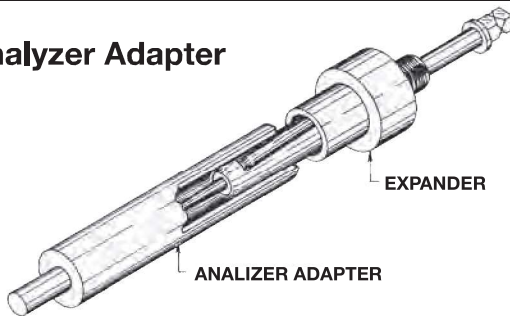


Model Number	Order Number	Graduations	Capacity	Height		Width		Length		Weight	
				in.	mm	in.	mm	in.	mm	lb.	kg
P-15 Torque Analyzer											
P-15	810002PT	2 in.-lbs.	5 - 150 in. lbs.	8.0	203.0	5.0	127.0	18.0	457.0	23.0	10.4
MP-15 (metric)	810151	5 cm-kg.	5 - 180 cm-kg	8.0	203.0	5.0	127.0	18.0	457.0	23.0	10.4

General Drive Size: 5/16" male hex

Optional Equipment: Calibration Kit - 810080

Analyzer Adapter



Adapter Number	Order Number	Adapter Used with the Following Expanders
Adapters for P-15 Analyzer		
AD-1	8566501	1201 thru 1203 & 801 thru 803
AD-2	8566503	1205 & 805
AD-3	8566502	1207 thru 1210 & 807 thru 810
AD-4	8567012	1211 thru 1214 & 811 thru 814
AD-5	8566521	1215 thru 1220 & 815 thru 820
AD-6	8566518	1221 thru 1224 & 821 thru 824
AD-7	8566519	1225 thru 1230 & 825 thru 830
AD-8	8566514	1231 thru 1234 & 831 thru 834
AD-9	8566531	1235 thru 1240 & 835 thru 840
AD-8	8566475	1241 thru 1242 & 831 thru 842
AD-10	8566475	1243 thru 1248 & 843 thru 846
AD-11	8566520	1247 thru 1254 & 847 thru 854
AD-12	8566676	1255 thru 1260 & 855 thru 860
AD-13	8567332	1261 thru 1266 & 861 thru 866
AD-14	8566649	1267 thru 1272 & 867 thru 872
AD-15	8567039	1273 thru 1276 & 873 thru 878
AD-16	8567289	1279 thru 1288 & 870 thru 888
AD-17	8567050	1289 thru 1290 & 889 thru 890
AD-18	8567602	1291 thru 1294 & 891 thru 894
AD-19	8567230	1295 thru 1300 & 895 thru 900

For information on AD-0 to AD-08 adapters for P2-B Analyzer, contact technical service.

Optional and Replacement Chucks

Chuck Description	Order Number	Input Square Drive (in.)	Output Mandrel Square (in.)
720-720S-735S			
720 250 1/4" Chuck	8405334	3/8	1/4
720 375 B 3/8" Chuck ASSY	8405403	3/8	3/8
850			
375 QC Chuck	8400100	3/8	3/8
850 500 QC Chuck	8400200	3/8	1/2
1050-400 1550-900			
1000 375 QC Chuck complete	8400700	1/2	3/8 QC
1000 500 QC Chuck complete	8400800	1/2	1/2 QC
1000 750 Chuck complete	8400900	1/2	3/4
1000 1000 Chuck complete	8404820	1/2	1
1550-250			
QC 1550 500 QC Chuck complete	8405272	3/4	3/8 QC
QC 1550 500 QC Chuck complete	8405271	3/4	1/2 QC
1550 750 Chuck complete	8405259	3/4	3/4
1550 1000 Chuck complete	8405260	3/4	1
999/1850s			
989 750 3/4" square Chuck	8404700	1	3/4
989 1000 1" square Chuck	8404960	1	1
1850 1250 Chuck complete	8405319	1	1-1/4
1850 1500 Chuck complete	8405437	1	1-1/2
1752			
1770 110 3/4" Chuck complete	8405299	3/4	3/4
1770 110 1" Chuck complete	8405300	3/4	1
1770 110 1-1/4" Chuck complete	8405400	3/4	1-1/4
1753			
QC 1770 230 1/2" QC Chuck complete	8405302	5/8	1/2
1770 230 3/4" Chuck complete	8405298	5/8	3/4
1770 230 1" Chuck complete	8405306	5/8	1
966s			
850 375 Chuck	8400100	3/8	3/8
979s			
939 375 Chuck	8400400	5/8 Hex	3/8
939 500 Chuck	8400500	5/8 Hex	1/2
939 750 3/4" Chuck	8401100	5/8 Hex	3/4