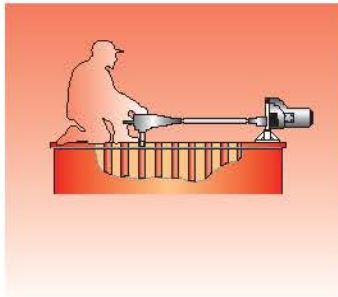


# 'T - 1000' - Series [Flare] Boiler Tube Expander

3 Plain Rollers  
3 Flare Rollers

- Most ideal for inaccessible areas
  - Water boxes
  - Small diameter drums

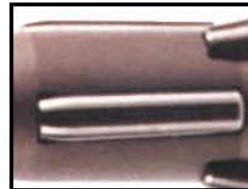
*Tristar offers solutions to overcome any installation problem.*



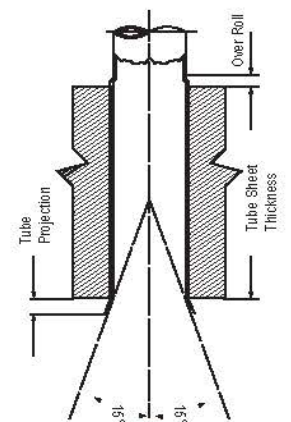
*One of our drive systems helps overcome a problem caused by a difficult access...*

- Reduces operator fatigue
- Ensures operator safety
- Increases productivity
- Maintains consistent accuracy

TUBE SIZE				Min I.D. Tool Enters	Max Expansion of Tool	TUBE EXPANDER MODEL						
						Tube Sheet Thickness Range						
O.D. inch	THK bwg	O.D. inch	THK bwg	mm	inch	mm	inch	1/2 to 3/4"	7/8" to 1.1/4"	1.3/8" to 1.3/4"	1.7/8" to 2.1/4"	2.3/8" to 2.3/4"
				Tube Sheet Thickness Codes >		3	5	7	9	11		
1	13 - 14			20.0	0.787	23.4	0.921	T1079/3	T1079/5			
	15 - 16			21.0	0.827	24.4	0.961	T1083/3	T1083/5			
1.1/4	7			22.0	0.866	25.5	1.004	T1087/3	T1087/5			
	8 - 9			23.0	0.906	26.5	1.043	T1091/3	T1091/5			
	10			24.0	0.945	28.1	1.105	T1095/3	T1095/5			
	11-13			25.0	0.984	29.0	1.142	T1099/3	T1099/5			
	14 -15			26.0	1.024	30.0	1.181	T1103/3	T1103/5			
1.1/2	16			28.1	1.105	33.0	1.299	T1111/3	T1111/5			
	10-12			31.0	1.221	35.0	1.378	T1118/3	T1118/5			
1.3/4	13-16			33.0	1.300	38.0	1.496	T1126/3	T1126/5			
	8 - 9	2	3	35.0	1.379	40.0	1.575	T1134/3	T1134/5	T1134/7	T1134/9	T1134/11
	10 - 12	2	4 - 5	37.0	1.457	42.5	1.673	T1142/3	T1142/5	T1142/7	T1142/9	T1142/11
2	13 - 16	2	6	39.0	1.536	44.5	1.752	T1150/3	T1150/5	T1150/7	T1150/9	T1150/11
	7 - 9	2.1/4	3	41.0	1.615	47.0	1.850	T1158/3	T1158/5	T1158/7	T1158/9	T1158/11
	10-12	2.1/4	4 - 5	43.0	1.694	49.0	1.929	T1166/3	T1166/5	T1166/7	T1166/9	T1166/11
	13-16	2.1/4	6	45.0	1.772	51.5	2.027	T1174/3	T1174/5	T1174/7	T1174/9	T1174/11
2.1/4	16	2.1/2	3	47.0	1.851	54.0	2.126	T1181/3	T1182/5	T1182/7	T1182/9	T1182/11
	10 - 13	2.1/2	4 - 5	49.0	1.930	56.0	2.205	T1189/3	T1189/5	T1189/7	T1189/9	T1189/11
	14 - 16	2.1/2	6	51.0	2.009	60.0	2.362	T1197/3	T1197/5	T1197/7	T1197/9	T1197/11
2.1/2	7-10			53.0	2.087	62.0	2.441	T1205/3	T1205/5	T1205/7	T1205/9	T1205/11
	11-13	3	2	55.0	2.116	64.0	2.520	T1213/3	T1213/5	T1213/7	T1213/9	T1213/11
	14-16			57.0	2.245	66.0	2.598	T1221/3	T1221/5	T1221/7	T1221/9	T1221/11



SPARE ROLLER SET MODEL					SPARE MANDREL MODEL		
Tube Sheet Thickness Range					Drum Type	Short Series Mandrels	SQ
1/2" to 3/4"	7/8" to 1.1/4"	1.3/8" to 1.3/4"	1.7/8" to 2.1/4"	2.3/8" to 2.3/4"			
3	5	7	9	11			
0793-FS	0795-FS				TMP-83		1/2" <input checked="" type="checkbox"/>
0833-FS	0835-FS						
0873-FS	0875-FS				TMP-91		1/2" <input checked="" type="checkbox"/>
0953-FS	0955-FS						
0953-FS	0955-FS				TMP-99		1/2" <input checked="" type="checkbox"/>
0993-FS	0995-FS						
1033-FS	1035-FS				TMP-118	TMPS-1,2,3	3/4" <input checked="" type="checkbox"/>
1113-FS	1115-FS						
1183-FS	1185-FS					TMPS-1,2,3	3/4" <input checked="" type="checkbox"/>
1263-FS	1265-FS				TMP-126	TMPS-2,3,4	
1263-FS	1265-FS	1267-FS	1269-FS	12611-FS	TMP-134	TMPS-3,4,5	3/4" <input checked="" type="checkbox"/>
1423-FS	1425-FS	1427-FS	1429-FS	14211-FS			
1503-FS	1505-FS	1507-FS	1509-FS	15011-FS	TMP-174	TMPS-4,5,6,7,8	3/4" <input checked="" type="checkbox"/>
1583-FS	1585-FS	1587-FS	1589-FS	15811-FS			
1663-FS	1665-FS	1667-FS	1669-FS	16611-FS	TMP-197	TMPS-7,8,9,10,11	1" <input checked="" type="checkbox"/>
1743-FS	1745-FS	1747-FS	1749-FS	17411-FS			
1813-FS	1815-FS	1817-FS	1819-FS	18111-FS			1" <input checked="" type="checkbox"/>
1743-FS	1745-FS	1747-FS	1749-FS	17411-FS			
2053-FS	2055-FS	2057-FS	2059-FS	20511-FS		TMPS-6,7,8,9,10,11	1" <input checked="" type="checkbox"/>
2053-FS	2055-FS	2057-FS	2059-FS	20511-FS	TMP-221	TMPS-7,8,9,10,11,12	
2133-FS	2135-FS	2137-FS	2139-FS	21311-FS			1" <input checked="" type="checkbox"/>
2213-FS	2215-FS	2217-FS	2219-FS	22111-FS			

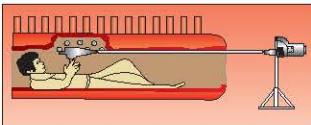


# 'T - 1000' - Series [Flare] Boiler Tube Expander

3 Plain Rollers  
3 Flare Rollers

- Most ideal for inaccessible areas
  - Water boxes
  - Small diameter drums

Tristar offers solutions to overcome any installation problem.

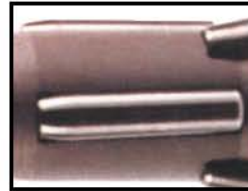


A typical example of an inaccessible area where Tristar drive system ensures..

- Reduced operator fatigue
- Operator safety
- Increased productivity
- Better accessibility

TUBE SIZE				Min I.D. Tool Enters		Max Expansion of Tool		TUBE EXPANDER MODEL				
								Tube Sheet Thickness Range				
O.D. inch	THK bwg	O.D. inch	THK bwg	mm	inch	mm	inch	1/2" to 3/4"	7/8" to 1.1/4"	1.3/8" to 1.3/4"	1.7/8" to 2.1/4"	2.3/8" to 2.3/4"
				Tube Sheet Thickness Codes >				3	5	7	9	11
2.3/4	7 - 9			59.0	2.323	68.0	2.677	T1229/3	T1229/5	T1229/7	T1229/9	T-1229/11
	10 - 12			61.0	2.402	70.0	2.756	T1237/3	T1237/5	T1237/7	T1237/9	T-1237/11
	13 - 16			63.0	2.481	72.0	2.835	T1244/3	T1244/5	T1244/7	T1244/9	T1244/11
3	7 - 8			65.0	2.560	74.0	2.913	T1252/3	T1252/5	T1252/7	T1252/9	T1252/11
	10 - 12			67.0	2.638	76.0	2.992	T1260/3	T1260/5	T1260/7	T1260/9	T1260/11
	13 - 14			69.0	2.717	78.0	3.071	T1268/3	T1268/5	T1268/7	T1268/9	T1268/11
	15 - 16			71.0	2.796	80.0	3.150	T1276/3	T1276/5	T1276/7	T1276/9	T1276/11
3.1/4	7 - 11			73.0	2.874	82.0	3.228	T1284/3	T1284/5	T1284/7	T1284/9	T1284/11
	12 - 14			75.0	2.953	84.0	3.307	T1292/3	T1292/5	T1292/7	T1292/9	T1292/11
	15 - 16	3.1/2	7 - 9	77.0	3.032	86.0	3.386	T1300/3	T1300/5	T1300/7	T1300/9	T1300/11
3.1/2	10 - 12			79.0	3.111	88.0	3.465	T1308/3	T1308/5	T1308/7	T1308/9	T1308/11
	13 - 15			81.0	3.190	92.0	3.622	T1315/3	T1315/5	T1315/7	T1315/9	T1315/11
	16	3.3/4	7 - 8	83.0	3.268	94.0	3.701	T1323/3	T1323/5	T1323/7	T1323/9	T1323/11
3.3/4	9 - 12			85.0	3.347	96.0	3.780	T1331/3	T1331/5	T1331/7	T1331/9	T1331/11
	13 - 16			87.0	3.426	98.0	3.858	T1339/3	T1339/5	T1339/7	T1339/9	T1339/11
4	7 - 8			89.0	3.505	100.0	3.937	T1347/3	T1347/5	T1347/7	T1347/9	T1347/11
	9 - 12			91.0	3.583	102.0	4.016	T1355/3	T1355/5	T1355/7	T1355/9	T1355/11
	13 - 15			93.0	3.662	104.0	4.094	T1363/3	T1363/5	T1363/7	T1363/9	T1363/11
	16	4.1/4	7 - 8	95.0	3.741	106.0	4.173	T1370/3	T1370/5	T1370/7	T1370/9	T1370/11
4.1/4	9 - 11			97.0	3.820	108.0	4.252	T1378/3	T1378/5	T1378/7	T1378/9	T1378/11
	12 - 16			99.0	3.898	110.0	4.331	T1386/3	T1386/5	T1386/7	T1386/9	T1386/11
4.1/2	7 - 14			101.0	3.997	111.0	4.407	T1394/3	T1394/5	T1394/7	T1394/9	T1394/11





SPARE ROLLER SET MODEL					SPARE MANDREL MODEL		
Tube Sheet Thickness Range					Drum Type	Short Series Mandrels	SQ ☑
1/2" to 3/4"	7/8" to 1.14"	1.38" to 1.34"	1.78" to 2.14"	2.38" to 2.34"			
3	5	7	9	11			
2213-FS	2215-FS	2217-FS	2219-FS	22111-FS	TMP-244	TMPS-8,9,10,11,12,13	☑
2373-FS	2375-FS	2377-FS	2379-FS	23711-FS			
2523-FS	2525-FS	2527-FS	2529-FS	25211-FS			
2523-FS	2525-FS	2527-FS	2529-FS	25211-FS	TMP-268	TMPS-10,11,12,13,14	☑
2603-FS	2605-FS	2607-FS	2609-FS	26011-FS			
2683-FS	2685-FS	2687-FS	2689-FS	26811-FS	TMP-300	TMPS-12,13,14,15,16	☑
2763-FS	2765-FS	2767-FS	2769-FS	27611-FS			
2843-FS	2845-FS	2847-FS	2849-FS	28411-FS			
2923-FS	2925-FS	2927-FS	2929-FS	29211-FS	TMP-347	TMPS-15,16,17,18,19	☑
3153-FS	3155-FS	3157-FS	3159-FS	31511-FS			
3153-FS	3155-FS	3157-FS	3159-FS	31511-FS			
3233-FS	3235-FS	3237-FS	3239-FS	32311-FS			☑
3313-FS	3315-FS	3317-FS	3319-FS	33111-FS			
3553-FS	3555-FS	3557-FS	3559-FS	35511-FS			
3633-FS	3635-FS	3637-FS	3639-FS	36311-FS	TMP-394	TMPS-17,18,19,20,21	☑
3553-FS	3555-FS	3557-FS	3559-FS	35511-FS			
3633-FS	3635-FS	3637-FS	3639-FS	36311-FS			
3703-FS	3705-FS	3707-FS	3709-FS	37011-FS			
3783-FS	3785-FS	3787-FS	3789-FS	37811-FS			
3863-FS	3865-FS	3867-FS	3869-FS	38611-FS			
3943-FS	3945-FS	3947-FS	3949-FS	39411-FS			

