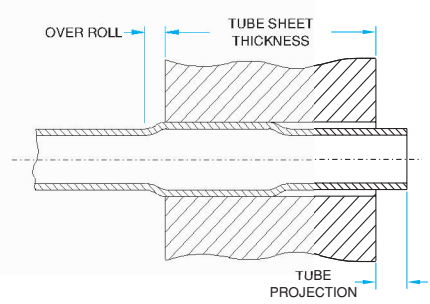


1/4" - 4 1/2"
O.D.

P-3000 SERIES WITH COLLAR

- Features :*
- Expander can be accurately positioned in the boiler tube in relation to the drum, for consistent expansions.
 - Use - For boiler tube sheets and drums thicker than 2.3/4" (70mm). Normally used in conjunction with P-1000 Series.

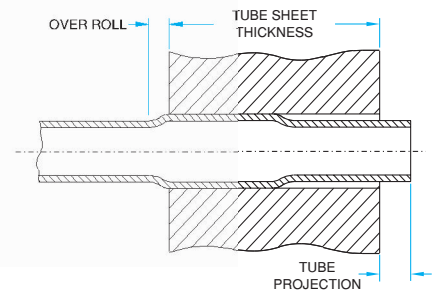


Tube O.D.	Tube Thickness		Tube O.D.	Tube Thickness		Minimum I.D. Tool Enters		Maximum Expansion Of Tool		Tube Expander Model Number Tube Sheet Thickness Range	
	inch	bwg		inch	bwg	inch	mm	inch	mm	inch	1/2" To 4.3/8"
1.1/4	16	.065	1.3/8	10	.134	27.8	1.094	33.0	1.299	P3111/7	-
1.1/2	10 - 12	.134 - .109	1.3/8	13 - 16	.095 - .065	30.7	1.208	35.0	1.378	P3118/7	-
1.1/2	13 - 16	.095 - .065	1.3/4	5 - 7	.220 - .180	32.7	1.287	38.0	1.496	P3126/7	-
2	3	.259	1.3/4	8 & 9	.165 & .148	34.7	1.366	40.0	1.575	P3134/7	P3134/11
2	4 & 5	.238 & .220	1.3/4	10 - 12	.134 - .109	36.7	1.444	42.5	1.673	P3142/7	P3142/11
2	6	.203	1.3/4	13 - 16	.095 - .065	38.7	1.523	44.5	1.752	P3150/7	P3150/11
2	7 - 9	.180 - .148	2.1/4	3	.259	40.7	1.602	47.0	1.850	P3158/7	P3158/11
2	10 - 12	.134 - .109	2.1/4	4 & 5	.238 & .220	42.7	1.681	49.0	1.929	P3166/7	P3166/11
2	13 - 15	.095 - .072	2.1/4	6 & 7	.203 & .180	44.7	1.760	51.5	2.027	P3174/7	P3174/11
2	16	.065	2.1/4	8 & 9	.165 & .148	46.7	1.838	54.0	2.126	P3181/7	P3181/11
2.1/2	4 & 5	.238 - .220	2.1/4	10 - 13	.134 - .095	48.7	1.917	65.0	2.205	P3189/7	P3189/11
2.1/2	6	.203	2.1/4	14 - 6	.083 - .065	50.7	1.996	60.0	2.362	P3197/7	P3197/11
2.1/2	7 - 10	.180 - .134	2.3/4	3	.259	52.7	2.074	62.0	2.441	P3205/7	P3205/11
2.1/2	11 - 13	.120 - .095	2.3/4	4 & 5	.238 & .220	54.7	2.153	64.0	2.520	P3213/7	P3213/11
2.1/2	14 - 16	.083 - .065	2.3/4	6	.203	56.7	2.232	66.0	2.598	P3221/7	P3221/11
3	2 & 3	.284 & .259	2.3/4	7 - 9	.203 - .148	58.7	2.311	68.0	2.677	P3229/7	P3229/11
3	4	.238	2.3/4	10 - 12	.134 - .109	60.7	2.389	70.0	2.756	P3237/7	P3237/11
3	5 & 6	.220 - .203	2.3/4	13 - 16	.095 - .065	62.7	2.468	72.0	2.835	P3244/7	P3244/11
3	7 - 9	.180 - .148	3.1/4	2 & 3	.284 & .259	64.7	2.547	74.0	2.913	P3252/7	P3252/11
3	10 - 12	.134 - .109	3.1/4	4	.238	66.7	2.625	76.0	2.992	P3260/7	P3260/11
3	13 - 14	.095 - .083	3.1/4	5	.220	68.7	2.704	78.0	3.071	P3268/7	P3268/11
3	15 & 16	.072 & .065	3.1/4	6	.203	70.7	2.783	80.0	3.150	P3276/7	P3276/11
3.1/2	3 & 4	.284 & .238	3.1/4	7 - 11	.203 - .120	72.7	2.862	82.0	3.228	P3284/7	P3284/11
3.1/2	5 & 6	.220 & .203	3.1/4	12 - 14	.109 - .083	74.7	2.940	84.0	3.307	P3292/7	P3292/11
3.1/2	7 - 9	.180 - .148	3.1/8	15 & 16	.072 & .065	76.7	3.019	86.0	3.386	P3300/7	P3300/11
3.1/2	10 - 12	.134 - .109	3.1/4	3 & 4	.284 & .238	78.7	3.098	88.0	3.465	P3308/7	P3308/11
3.1/2	13 - 15	.095 - .072	3.3/4	5 & 6	.220 & .203	80.7	3.177	92.0	3.622	P3315/7	P3315/11
3.1/2	16	.065	3.3/4	7 & 8	.203 & .165	82.7	3.255	94.0	3.701	P3323/7	P3323/11
4	3 & 4	.284 & .238	3.3/4	9 - 12	.148 - .109	84.7	3.334	96.0	3.780	P3331/7	P3331/11
4	5 & 6	.220 & .203	3.3/4	13 - 16	.095 - .065	86.7	3.413	98.0	3.858	P3339/7	P3339/11
4	7 & 8	.180 & .165	4.1/4	2	.284	88.7	3.492	100.0	3.937	P3347/7	P3347/11
4	9 - 12	.148 - .109	4.1/4	3 & 4	.284 & .238	90.7	3.570	102.0	4.016	P3355/7	P3355/11
4	13 - 15	.095 - .072	4.1/4	5 & 6	.220 & .203	92.7	3.649	104.0	4.094	P3363/7	P3363/11
4	16	.065	4.1/4	7 & 8	.203 & .165	94.7	3.728	106.0	4.173	P3370/7	P3370/11
4.1/2	3	.284	4.1/4	9 - 11	.148 - .120	96.7	3.807	108.0	4.252	P3378/7	P3378/11
4.1/2	4 - 6	.238 - .203	4.1/4	12 - 16	.109 - .065	98.7	3.885	110.0	4.331	P3386/7	P3386/11
4.1/2	7 - 14	.180 - .083				100.7	3.964	111.0	4.407	P3394/7	P3394/11

P-3000 SERIES WITH COLLAR

1/4" - 1/2"
O.D.

P-3000 SERIES WITH COLLAR



Spare Rollers Set Model Number Tube Sheet Thickness Range		Mandrel Square Drive Size inch	Spare Mandrel Model Number	
1/2" To 4.3/8"	1.1/2" To 5.3/8"		Drum Type	Short Series Mandrels
111-7-RS	-	3/4	118-M	MS-1,2,3
118-7-RS	-	3/4	118-M	MS-1,2,3
126-7-RS	-	3/4	126-M	MS-2,3,4
126-7-RS	126-11-RS	3/4	134-M	MS-3,4,5
142-7-RS	142-11-RS	3/4	150-M	MS-3,4,5,6
150-7-RS	150-11-RS	3/4	150-M	MS-3,4,5,6
158-7-RS	158-11-RS	3/4	174-M	MS-4,5,6,7,8
166-7-RS	166-11-RS	3/4	174-M	MS-4,5,6,7,8
174-7-RS	174-11-RS	3/4	174-M	MS-4,5,6,7,8
181-7-RS	181-11-RS	1	197-M	MS-7,8,9,10,11,12
174-7-RS	174-11-RS	1	197-M	MS-7,8,9,10,11,12
205-7-RS	205-11-RS	1	197-M	MS-6,7,8,9,10,11,12
205-7-RS	205-11-RS	1	221-M	MS-7,8,9,10,11,12
213-7-RS	213-11-RS	1	221-M	MS-7,8,9,10,11,12
221-7-RS	221-11-RS	1	221-M	MS-7,8,9,10,11,12
221-7-RS	221-11-RS	1	244-M	MS-8,9,10,11,12,13
237-7-RS	237-11-RS	1	244-M	MS-8,9,10,11,12,13
252-7-RS	252-11-RS	1	244-M	MS-8,9,10,11,12,13
252-7-RS	252-11-RS	1	268-M	MS-10,11,12,13,14
260-7-RS	260-11-RS	1	268-M	MS-10,11,12,13,14
268-7-RS	268-11-RS	1	268-M	MS-10,11,12,13,14
276-7-RS	276-11-RS	1	300-M	MS-12,13,14,15,16
284-7-RS	284-11-RS	1	300-M	MS-12,13,14,15,16
292-7-RS	292-11-RS	1	300-M	MS-12,13,14,15,16
315-7-RS	315-11-RS	1	300-M	MS-12,13,14,15,16
284-7-RS	284-11-RS	1	347-M	MS-15,16,17,18,19
315-7-RS	315-11-RS	1	347-M	MS-14,15,16,17,18,19
323-7-RS	323-11-RS	1	347-M	MS-14,15,16,17,18,19
331-7-RS	331-11-RS	1	347-M	MS-14,15,16,17,18,19
355-7-RS	355-11-RS	1	347-M	MS-14,15,16,17,18,19
363-7-RS	363-11-RS	1	347-M	MS-14,15,16,17,18,19
355-7-RS	355-11-RS	1	394-M	MS-17,18,19,20,21
363-7-RS	363-11-RS	1	394-M	MS-17,18,19,20,21
370-7-RS	370-11-RS	1	394-M	MS-17,18,19,20,21
378-7-RS	378-11-RS	1	394-M	MS-17,18,19,20,21
386-7-RS	386-11-RS	1	394-M	MS-17,18,19,20,21
394-7-RS	394-11-RS	1	394-M	MS-17,18,19,20,21