

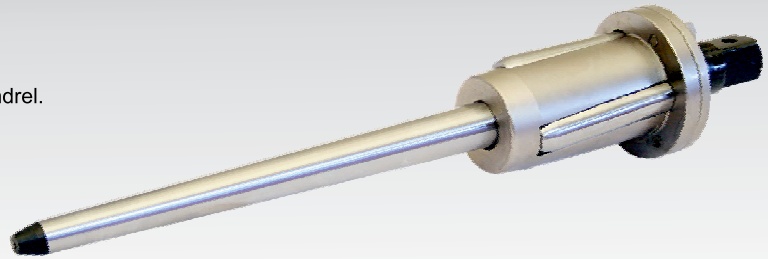
BOILER TUBE EXPANDER



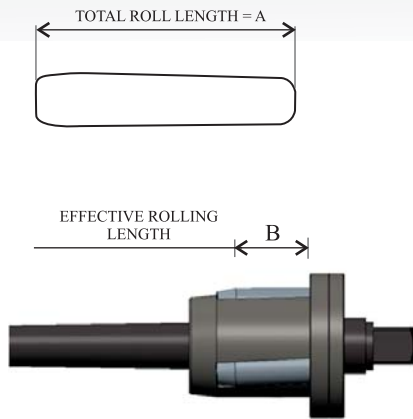
A SERIES BOILER TUBE EXPANDER

Features :

- >> Available for 7/8" to 4.1/2" O.D.
- >> Self feeding.
- >> 3 plain Rolls.
- >> Available for tube sheet 1/2"(12.7) to 2.5/8" (66.7)
- >> Available in short series, Drum series & Header series mandrel.
- >> Use for parallel expansion of boiler tubes



BOILER TUBE EXPANDER



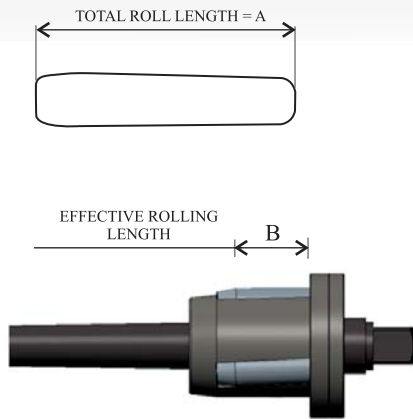
X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	68.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. no.	Tube O.D.	Tube Thickness			Tube I.D.		Tube O.D.	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool	
		Inch (mm)	bwg	mm	Inch	mm		Inch	Inch (mm)	bwg	mm	Inch	mm	Inch	mm	Inch
1	7/8 (22.22)	15	1.82	.072	18.5	0.731	1 (25.40)	10	3.40	.134	18.5	0.732	18.1	.712	20.4	.803
2		16	1.65	.065	18.9	0.745							18.4	.724	20.7	.814
3		17	1.47	.058	19.2	0.759	1 (25.40)	11	3.04	.120	19.3	0.760	18.8	.740	21.1	.830
4		18	1.24	.049	19.7	0.777		12	1.24	.109	22.9	0.902	19.4	.763	21.6	.850
5		19 & 20	1.07 & 0.89	.042 & .035	20.1 & 20.4	0.791 & 0.805	1.1/8	8	4.19	.165	20.1	0.795	19.7	.775	22.3	.877
6	1 (25.40)	13	2.41	.095	20.5	0.810	1.1/8 (28.58)						20.1	.791	22.4	.881
7		14	2.10	.083	21.2	0.834		9	3.75	.148	21.0	0.829	20.6	.811	23.1	.909
8		15 & 16	1.82 & 1.65	.072 & .065	21.7 & 22.0	0.856 & 0.870		10	3.40	.134	21.7	0.857	21.3	.838	23.8	.937
9		17 & 18	1.47 & 1.24	.058 & .048	22.4 & 22.9	0.884 & 0.902		11	3.04	.120	22.4	0.885	22.0	.866	24.5	.964
10		19 & 20	1.06 & 0.88	.042 & .035	23.2 & 23.6	0.916 & 0.930		12	2.76	.109	23.0	0.907	22.4	.881	25.0	.984
11	1.1/4 (31.75)	8	4.19	.165	23.3	0.920	1.1/8 (28.58)	13	2.41	.095	23.7	0.935	23.3	.917	25.9	1.019
12		9	3.75	.148	24.2	0.954		14	2.10	.083	24.3	0.959	23.8	.937	26.5	1.043
13		10	3.40	.134	24.9	0.982		15 & 16	1.82 & 1.65	.072 & .065	24.9 & 25.2	.981 & .995	24.4	.960	27.2	1.070
14		11	3.04	.120	25.6	1.010						25.2	.992	28.0	1.102	
15		12	2.76	.109	26.2	1.032						25.7	1.011	28.5	1.122	
16		13	2.41	.095	26.9	1.060	1.3/8	8	4.19	.165	26.5	1.045	26.1	1.027	28.8	1.133
17		14	2.10	.083	27.5	1.084						26.4	1.039	29.2	1.149	
18		15	1.82	.072	28.0	1.106	1.3/8	9	3.75	.148	27.4	1.079	26.9	1.059	29.7	1.169
19		16	1.65	.065	28.4	1.120	(34.92)	10	3.40	.134	28.1	1.107	27.6	1.086	30.4	1.196

>> NOTE : Drum Mandrel is std. supply.

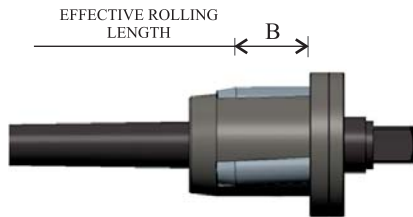
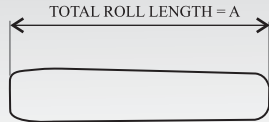


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. no.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number		
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series Mandrel set (No. Of Mandrel)
1	A-31/2	A-31/3	-	-	-	15-2-RS	15-3-RS	-	-	-	3/8	DM-11	-	-
2	A-32/2	A-32/3	-	-	-	15-2-RS	15-3-RS	-	-	-	3/8	DM-12	-	-
3	A-33/2	A-33/3	-	-	-	16-2-RS	16-3-RS	-	-	-	3/8	DM-12	-	-
4	A-34/2	A-34/3	-	-	-	20-2-RS	20-3-RS	-	-	-	3/8	DM-12	-	-
5	A-35/2	A-35/3	-	-	-	17-2-RS	17-3-RS	-	-	-	3/8	DM-13	-	-
6	A-36/2	A-36/3	-	-	-	18-2-RS	18-3-RS	-	-	-	3/8	DM-12	-	-
7	A-37/2	A-37/3	A-37/4	-	-	18-2-RS	18-3-RS	18-4-RS	-	-	3/8	DM-13	HM-13	SM-13 (2)
8	A-38/2	A-38/3	A-38/4	-	-	19-2-RS	19-3-RS	19-4-RS	-	-	3/8	DM-13	HM-13	SM-13 (2)
9	A-39/2	A-39/3	A-39/4	-	-	21-2-RS	21-3-RS	21-4-RS	-	-	3/8	DM-13	HM-13	SM-13 (2)
10	A-40/2	A-40/3	A-40/4	-	-	21-2-RS	21-3-RS	21-4-RS	-	-	3/8	DM-14	HM-14	SM-14 (2)
11	A-41/2	A-41/3	A-41/4	-	-	22-2-RS	22-3-RS	22-4-RS	-	-	3/8	DM-14	HM-14	SM-14 (2)
12	A-42/2	A-42/3	A-42/4	-	-	23-2-RS	23-3-RS	23-4-RS	-	-	1/2	DM-15	HM-15	SM-15 (2)
13	A-43/2	A-43/3	A-43/4	-	-	24-2-RS	24-3-RS	24-4-RS	-	-	1/2	DM-15	HM-15	SM-15 (2)
14	A-44/2	A-44/3	A-44/4	-	-	26-2-RS	26-3-RS	26-4-RS	-	-	1/2	DM-16	HM-16	SM-16 (2)
15	A-45/2	A-45/3	A-45/4	-	-	27-2-RS	27-3-RS	27-4-RS	-	-	1/2	DM-16	HM-16	SM-16 (2)
16	A-46/2	A-46/3	A-46/4	-	-	31-2-RS	31-3-RS	31-4-RS	-	-	1/2	DM-16	HM-16	SM-16 (2)
17	A-47/2	A-47/3	A-47/4	-	-	28-2-RS	28-3-RS	28-4-RS	-	-	1/2	DM-17	HM-17	SM-17 (2)
18	A-48/2	A-48/3	A-48/4	-	-	29-2-RS	29-3-RS	29-4-RS	-	-	1/2	DM-17	HM-17	SM-17 (2)
19	A-49/2	A-49/3	A-49/4	A-49/5	A-49/6	30-2-RS	30-3-RS	30-4-RS	30-5-RS	30-6-RS	1/2	DM-17	HM-17	SM-17 (2)

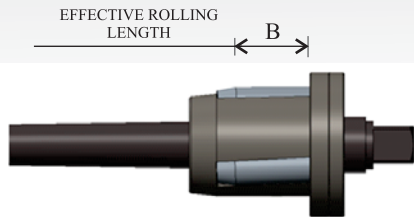
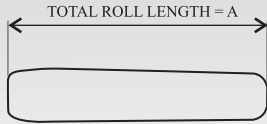


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. no.	Tube O.D.	Tube Thickness			Tube I.D.			Tube O.D.	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool	
		Inch	bwg	mm	Inch	mm	Inch		Inch (mm)	bwg	mm	Inch	mm	Inch	mm	Inch	mm
20	1.1/2 (38.10)	7		.180				1.3/8 (34.92)	11	3.04	.120	28.8	1.135	28.3	1.114	31.2	1.228
21		8	4.19	.165	29.7	1.170	12		2.76	.109	29.3	1.157	28.8	1.133	31.7	1.248	
22		9	3.75	.148	30.5	1.204	13 & 14		2.41 & 2.10	.095 & .083	30.1 & 30.7	1.185 & 1.209	29.5	1.161	33.4	1.314	
23		10	3.40	.134	31.2	1.232	15 & 16		1.82 & 1.65	.072 & .065	31.2 & 31.6	1.231 & 1.245	30.0	1.181	34.1	1.342	
24		11 & 12	3.04 & 2.76	.120 & .109	32.0 & 32.5	1.260 & 1.282						30.6	1.204	34.8	1.370		
25		13	2.41	.095	33.2	1.310	1.3/4 (44.45)	5		.220			31.4	1.236	35.6	1.401	
26		14 & 15	2.10 & 1.82	.083 & .072	33.8 & 34.4	1.334 & 1.356		6		.203			32.6	1.283	36.8	1.448	
27								7		.180				33.4	1.314	38.1	1.500
28						8		4.19	.165	36.1	1.420	34.2	1.346	38.7	1.523		
29	2 (50.80)	3		.259			1.3/4 (44.45)	9 & 10	3.40	.148 & .134	37.6	1.482	35.0	1.377	40.6	1.598	
30		4		.238				11 & 12	3.04 & 2.76	.120 & .109	38.3 & 38.9	1.510 & 1.532	36.6	1.440	42.2	1.661	
31		5 & 6		.220 & .203				13 & 14	2.41 & 2.10	.095 & .083	39.6 & 40.2	1.560 & 1.584	38.2	1.503	43.8	1.712	
32		7 & 8	4.57 & 4.19	.180 & .165	41.6 & 42.4	1.640 & 1.670		15 & 16		.072 & .065			39.8	1.566	45.4	1.787	
33		9 & 10	3.40	.148 & .134	43.9	1.732	3		.259			41.4	1.629	47.0	1.850		
34		11 & 13	3.04 & 2.41	.120 & .095	44.7 & 45.9	1.760 & 1.810	2.1/4 (57.15)	4		.238			42.9	1.688	49.5	1.948	
35		14 & 16	2.10 & 1.65	.083 & .065	46.5 & 47.4	1.834 & 1.870		6 & 7		.203 & .180			44.5	1.751	51.1	2.011	
36		17 & 18	1.47 & 1.24	.058 & .049	47.9 & 48.3	1.884 & 1.902		8 & 9		.165 & .148			46.1	1.814	52.7	2.074	
37	2.1/2 (63.50)	3		.259				2.1/4 (57.15)	10 & 11	3.40 & 3.04	.134 & .120	50.3 & 51.0	1.982 & 2.010	47.7	1.877	54.3	2.137
38		4 & 5		.238 & .220			12 & 13		2.76 & 2.41	.109 & .095	51.6 & 52.3	2.032 & 2.060	49.3	1.940	55.9	2.200	
39		6 & 7	4.50	.203 & .180	54.5	2.146	14 - 16		2.10 - 1.65	.083 - .065	52.9 - 53.8	2.084 - 2.120	50.8	2.000	57.8	2.275	
40		8 & 9	4.50 & 3.75	.165 & .148	54.5 & 56.0	2.146 & 2.204	3			.259			52.4	2.062	59.4	2.338	
41		10 & 11	3.40 & 3.04	.134 & .120	56.6 & 57.4	2.232 & 2.260	2.3/4 (69.85)	4		.238			54.0	2.125	61.0	2.401	
42		12 - 14	2.76 & 2.10	.109 & .083	57.9 & 59.2	2.282 & 2.334		5 & 6		.220 & .203			55.6	2.188	64.0	2.519	
43		15 & 16	1.83 & 1.65	.072 & .065	59.8 & 60.1	2.356 & 2.370		7 & 8		.180 & .165			57.2	2.251	65.6	2.582	

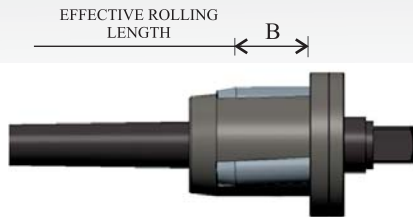
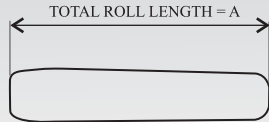


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		Inch	mm	Inch	mm
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4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
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SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number		
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series Mandrel set (No. Of Mandrel)
20	A-50/2	A-50/3	A-50/4	A-50/5	A-50/6	30-2-RS	30-3-RS	30-4-RS	30-5-RS	30-6-RS	1/2	DM-18	HM-18	SM-18 (2)
21	A-51/2	A-51/3	A-51/4	A-51/5	A-51/6	32-2-RS	32-3-RS	32-4-RS	32-5-RS	32-6-RS	1/2	DM-18	HM-18	SM-18 (2)
22	A-52/2	A-52/3	A-52/4	A-52/5	A-52/6	28-2-RS	28-3-RS	28-4-RS	28-5-RS	28-6-RS	1/2	DM-20	HM-20	SM-20 (2)
23	A-53/2	A-53/3	A-53/4	A-53/5	A-53/6	29-2-RS	29-3-RS	29-4-RS	29-5-RS	29-6-RS	1/2	DM-20	HM-20	SM-20 (2)
24	A-54/2	A-54/3	A-54/4	A-54/5	A-54/6	30-2-RS	30-3-RS	30-4-RS	30-5-RS	30-6-RS	1/2	DM-20	HM-20	SM-20 (2)
25	A-55/2	A-55/3	A-55/4	A-55/5	A-55/6	33-2-RS	33-3-RS	33-4-RS	33-5-RS	33-6-RS	1/2	DM-20	HM-20	SM-20 (2)
26	A-56/2	A-56/3	A-56/4	A-56/5	A-56/6	32-2-RS	32-3-RS	32-4-RS	32-5-RS	32-6-RS	1/2	DM-21	HM-21	SM-21 (2)
27	A-57/2	A-57/3	A-57/4	A-57/5	A-57/6	36-2-RS	36-3-RS	36-4-RS	36-5-RS	36-6-RS	1/2	DM-21	HM-21	SM-21 (2)
28	A-58/2	A-58/3	A-58/4	A-58/5	A-58/6	37-2-RS	37-3-RS	37-4-RS	37-5-RS	37-6-RS	1/2	DM-21	HM-21	SM-21 (2)
29	A-59/2	A-59/3	A-59/4	A-59/5	A-59/6	33-2-RS	33-3-RS	33-4-RS	33-5-RS	33-6-RS	3/4	DM-22	HM-22	SM-22 (3)
30	A-60/2	A-60/3	A-60/4	A-60/5	A-60/6	37-2-RS	37-3-RS	37-4-RS	37-5-RS	37-6-RS	3/4	DM-22	HM-22	SM-22 (3)
31	A-61/2	A-61/3	A-61/4	A-61/5	A-61/6	38-2-RS	38-3-RS	38-4-RS	38-5-RS	38-6-RS	3/4	DM-22	HM-22	SM-22 (3)
32	A-62/2	A-62/3	A-62/4	A-62/5	A-62/6	39-2-RS	39-3-RS	39-4-RS	39-5-RS	39-6-RS	3/4	DM-22	HM-22	SM-22 (3)
33	A-63/2	A-63/3	A-63/4	A-63/5	A-63/6	40-2-RS	40-3-RS	40-4-RS	40-5-RS	40-6-RS	3/4	DM-22	HM-22	SM-22 (3)
34	A-64/2	A-64/3	A-64/4	A-64/5	A-64/6	40-2-RS	40-3-RS	40-4-RS	40-5-RS	40-6-RS	3/4	DM-23	HM-23	SM-23 (3)
35	A-65/2	A-65/3	A-65/4	A-65/5	A-65/6	41-2-RS	41-3-RS	41-4-RS	41-5-RS	41-6-RS	3/4	DM-23	HM-23	SM-23 (3)
36	A-66/2	A-66/3	A-66/4	A-66/5	A-66/6	42-2-RS	42-3-RS	42-4-RS	42-5-RS	42-6-RS	3/4	DM-23	HM-23	SM-23 (3)
37	A-67/2	A-67/3	A-67/4	A-67/5	A-67/6	43-2-RS	43-3-RS	43-4-RS	43-5-RS	43-6-RS	3/4	DM-23	HM-23	SM-23 (3)
38	A-68/2	A-68/3	A-68/4	A-68/5	A-68/6	44-2-RS	44-3-RS	44-4-RS	44-5-RS	44-6-RS	3/4	DM-23	HM-23	SM-23 (3)
39	A-69/2	A-69/3	A-69/4	A-69/5	A-69/6	43-2-RS	43-3-RS	43-4-RS	43-5-RS	43-6-RS	3/4	DM-24	HM-24	SM-24 (3)
40	A-70/2	A-70/3	A-70/4	A-70/5	A-70/6	44-2-RS	44-3-RS	44-4-RS	44-5-RS	44-6-RS	3/4	DM-24	HM-24	SM-24 (3)
41	A-71/2	A-71/3	A-71/4	A-71/5	A-71/6	45-2-RS	45-3-RS	45-4-RS	45-5-RS	45-6-RS	3/4	DM-24	HM-24	SM-24 (3)
42	A-72/2	A-72/3	A-72/4	A-72/5	A-72/6	47-2-RS	47-3-RS	47-4-RS	47-5-RS	47-6-RS	3/4	DM-24	HM-24	SM-24 (3)
43	A-73/2	A-73/3	A-73/4	A-73/5	A-73/6	46-2-RS	46-3-RS	46-4-RS	46-5-RS	46-6-RS	1	DM-25	HM-25	SM-25 (3)

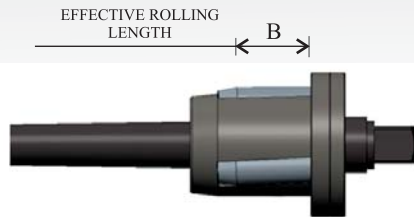
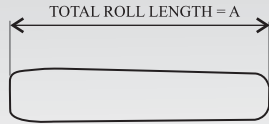


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. No.	Tube O.D.	Tube Thickness			Tube I.D.		Tube O.D. Inch (mm)	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool		
	Inch	bwg	mm	Inch	mm	Inch		bwg	mm	Inch	mm	Inch	mm	Inch	mm	Inch	
44	3 (76.20)	3		.259			2.3/4 (69.85)	9 & 10	3.40	.148 & .134	63.0	2.482	58.6	2.307	67.0	2.637	
45		4		.238				11-13	3.04 - 2.41	.120 - .095	63.7 - 65.0	2.510 - 2.560	60.4	2.377	68.8	2.708	
46		5 & 6		.220 & .203				14-16	2.10 - 1.65	.083 & .065	65.6 - 66.5	2.584 - 2.620	62.2	2.448	70.4	2.771	
47		7 & 8	4.19	.180 & .165		67.8	2.67	-	-	-	-	-	63.6	2.503	72.0	2.834	
48		9 & 10	3.75 & 3.40	.148 & .134		68.6 & 69.3	2.704 & 2.732	3.1/4 (82.55)	3		.259			65.0	2.559	73.4	2.889
49		11 & 13	3.04 - 2.41	.120 - .095		70.1 - 71.3	2.760 - 2.810		4		.238			66.6	2.622	75.0	2.952
50		14 & 16	2.10 - 1.65	.083 - .065		71.9 - 72.8	2.834 - 2.870		5 & 6		.220 & .203			68.3	2.688	76.9	3.027
51		2		.284					3.1/4 (82.55)	7 & 8		.180 & .165			69.9	2.751	78.5
52		3		.259				9 & 10			.148 & .134			71.5	2.814	80.1	3.153
53		4		.238				11-13			.120 - .095			73.1	2.877	81.7	3.216
54	5 & 6		.220 & .203				14-16			.083 - .065			74.6	2.937	84.2	3.314	
55	3.1/2 (88.9)	7 & 8		.180 & .165			3.3/4 (95.25)	2		.084			76.2	3.000	85.5	3.366	
56		9 & 10		.148 & .120				3		.259			77.8	3.062	87.4	3.440	
57		12- 16		.109 - .065					4		.238			79.4	3.125	89.0	3.503
58									5 & 6		.220 & .203			81.0	3.188	90.6	3.566
59	4 (101.6)	2		.284			3.3/4 (95.25)	7 & 8		.180 & .165			82.6	3.251	92.2	3.629	
60		3	6.60	.259		88.4		3.480	9 & 10		.148 & .134			84.2	3.314	93.8	3.629
61		4	6.00	.238		89.6		3.527	11-13		.120 - .095			85.8	3.377	96.2	3.787
62		5 & 6		.220 & .203					14-16		.083-.065			87.4	3.440	97.8	3.850
63		7 & 8	4.19	.180 & .165		93.2	3.67	4.1/4 (107.9)	2					89.0	3.503	99.4	3.913
64		9 & 11	4.19 - 3.04	.148 - .120		94.1 - 95.5	3.704 - 3.760		3		.284			90.4	3.559	100.8	3.968
65		12-16	2.76 - 1.65	.109 - .065		96.1 - 98.3	3.783 - 3.870		4		.238			92.0	3.622	102.4	4.031
66									5 & 6		.220 & .203			93.4	3.677	103.8	4.086
67	4.1/2 (114.3)	2		.284			4.1/4 (107.9)	7 & 8		.180 & .165			95.0	3.740	105.4	4.149	
68		3	6.60	.259		101.1		3.98	9-11		.148 - .120			96.6	3.803	107.0	4.212
69		4 & 5	6.00	.238 & .220		102.3&		4.030	11-13		.120 - .095			98.2	3.866	108.6	4.275
70		6 & 7		.203 & .180				-	-	-			101.2	3.984	110.0	4.330	
71		8 & 9	4.19 & 3.75	.165 & .148		105.9 & 106.8	4.170 & 4.204	-	-	-			102.8	4.047	111.6	4.393	
72		10-12	3.40 - 2.76	.134 & .109		107.5 - 108.8	4.232 - 4.283	-	-	-			104.4	4.110	113.2	4.456	



X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

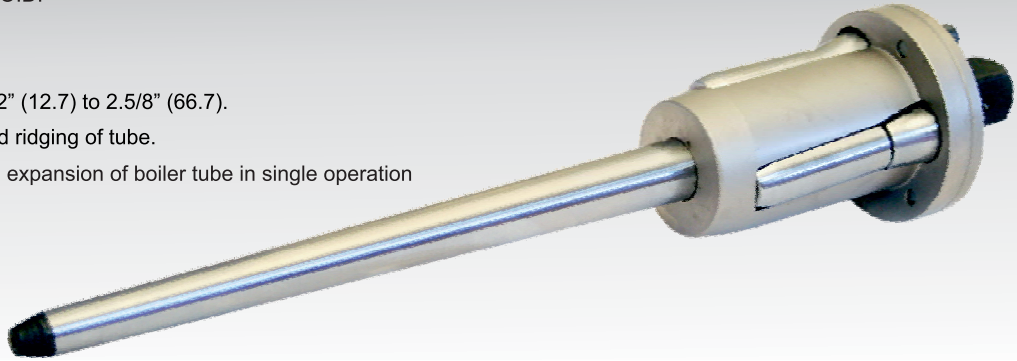
SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number		
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series Mandrel set (No. Of Mandrel)
44	A-74/2	A-74/3	A-74/4	A-74/5	A-74/6	47-2-RS	47-3-RS	47-4-RS	47-5-RS	47-6-RS	1	DM-25	HM-25	SM-25 (3)
45	A-75/2	A-75/3	A-75/4	A-75/5	A-75/6	48-2-RS	48-3-RS	48-4-RS	48-5-RS	48-6-RS	1	DM-25	HM-25	SM-25 (3)
46	A-76/2	A-76/3	A-76/4	A-76/5	A-76/6	49-2-RS	49-3-RS	49-4-RS	49-5-RS	49-6-RS	1	DM-25	HM-25	SM-25 (3)
47	A-77/2	A-77/3	A-77/4	A-77/5	A-77/6	50-2-RS	50-3-RS	50-4-RS	50-5-RS	50-6-RS	1	DM-25	HM-25	SM-25 (3)
48	A-78/2	A-78/3	A-78/4	A-78/5	A-78/6	51-2-RS	51-3-RS	51-4-RS	51-5-RS	51-6-RS	1	DM-25	HM-25	SM-25 (3)
49	A-79/2	A-79/3	A-79/4	A-79/5	A-79/6	52-2-RS	52-3-RS	52-4-RS	52-5-RS	52-6-RS	1	DM-25	HM-25	SM-25 (3)
50	A-80/2	A-80/3	A-80/4	A-80/5	A-80/6	51-2-RS	51-3-RS	51-4-RS	51-5-RS	51-6-RS	1	DM-26	HM-26	SM-26 (4)
51	A-81/2	A-81/3	A-81/4	A-81/5	A-81/6	52-2-RS	52-3-RS	52-4-RS	52-5-RS	52-6-RS	1	DM-26	HM-26	SM-26 (4)
52	A-82/2	A-82/3	A-82/4	A-82/5	A-82/6	53-2-RS	53-3-RS	53-4-RS	53-5-RS	53-6-RS	1	DM-26	HM-26	SM-26 (4)
53	A-83/2	A-83/3	A-83/4	A-83/5	A-83/6	54-2-RS	54-3-RS	54-4-RS	54-5-RS	54-6-RS	1	DM-26	HM-26	SM-26 (4)
54	A-84/2	A-84/3	A-84/4	A-84/5	A-84/6	54-2-RS	54-3-RS	54-4-RS	54-5-RS	54-6-RS	1	DM-27	HM-27	SM-27 (4)
55	A-85/2	A-85/3	A-85/4	A-85/5	A-85/6	55-2-RS	55-3-RS	55-4-RS	55-5-RS	55-6-RS	1	DM-27	HM-27	SM-27 (4)
56	A-86/2	A-86/3	A-86/4	A-86/5	A-86/6	56-2-RS	56-3-RS	56-4-RS	56-5-RS	56-6-RS	1	DM-27	HM-27	SM-27 (4)
57	A-87/2	A-87/3	A-87/4	A-87/5	A-87/6	57-2-RS	57-3-RS	57-4-RS	57-5-RS	57-6-RS	1	DM-27	HM-27	SM-27 (4)
58	A-88/2	A-88/3	A-88/4	A-88/5	A-88/6	58-2-RS	58-3-RS	58-4-RS	58-5-RS	58-6-RS	1	DM-27	HM-27	SM-27 (4)
59	A-89/2	A-89/3	A-89/4	A-89/5	A-89/6	59-2-RS	59-3-RS	59-4-RS	59-5-RS	59-6-RS	1	DM-27	HM-27	SM-27 (4)
60	A-90/2	A-90/3	A-90/4	A-90/5	A-90/6	60-2-RS	60-3-RS	60-4-RS	60-5-RS	60-6-RS	1	DM-27	HM-27	SM-27 (4)
61	A-91/2	A-91/3	A-91/4	A-91/5	A-91/6	59-2-RS	59-3-RS	59-4-RS	59-5-RS	59-6-RS	1	DM-28	HM-28	SM-28 (4)
62	A-92/2	A-92/3	A-92/4	A-92/5	A-92/6	60-2-RS	60-3-RS	60-4-RS	60-5-RS	60-6-RS	1	DM-28	HM-28	SM-28 (4)
63	A-93/2	A-93/3	A-93/4	A-93/5	A-93/6	61-2-RS	61-3-RS	61-4-RS	61-5-RS	61-6-RS	1	DM-28	HM-28	SM-28 (4)
64	A-94/2	A-94/3	A-94/4	A-94/5	A-94/6	62-2-RS	62-3-RS	62-4-RS	62-5-RS	62-6-RS	1	DM-28	HM-28	SM-28 (4)
65	A-95/2	A-95/3	A-95/4	A-95/5	A-95/6	63-2-RS	63-3-RS	63-4-RS	63-5-RS	63-6-RS	1	DM-28	HM-28	SM-28 (4)
66	A-96/2	A-96/3	A-96/4	A-96/5	A-96/6	62-2-RS	62-3-RS	62-4-RS	62-5-RS	62-6-RS	1	DM-29	HM-29	SM-29 (4)
67	A-97/2	A-97/3	A-97/4	A-97/5	A-97/6	63-2-RS	63-3-RS	63-4-RS	63-5-RS	63-6-RS	1	DM-29	HM-29	SM-29 (4)
68	A-98/2	A-98/3	A-98/4	A-98/5	A-98/6	64-2-RS	64-3-RS	64-4-RS	64-5-RS	64-6-RS	1	DM-29	HM-29	SM-29 (4)
69	A-99/2	A-99/3	A-99/4	A-99/5	A-99/6	63-2-RS	63-3-RS	63-4-RS	63-5-RS	63-6-RS	1	DM-30	HM-30	SM-30 (4)
70	A-100/2	A-100/3	A-100/4	A-100/5	A-100/6	64-2-RS	64-3-RS	64-4-RS	64-5-RS	64-6-RS	1	DM-30	HM-30	SM-30 (4)
71	A-101/2	A-101/3	A-101/4	A-101/5	A-101/6	65-2-RS	65-3-RS	65-4-RS	65-5-RS	65-6-RS	1	DM-30	HM-30	SM-30 (4)
72	A-102/2	A-102/3	A-102/4	A-102/5	A-102/6	66-2-RS	66-3-RS	66-4-RS	66-5-RS	66-6-RS	1	DM-30	HM-30	SM-30 (4)

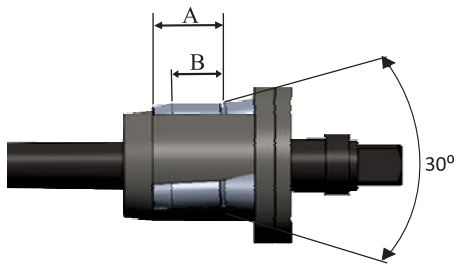
AF-3 SERIES BOILER TUBE EXPANDER

Features :

- >> Available for 7/8" to 4.1/2" O.D.
- >> Self feeding
- >> 3 plain & 3 flare rolls.
- >> Available for tube sheet 1/2" (12.7) to 2.5/8" (66.7).
- >> Overlapping flare rolls avoid ridging of tube.
- >> Use for parallel cum flaring expansion of boiler tube in single operation



BOILER TUBE EXPANDER



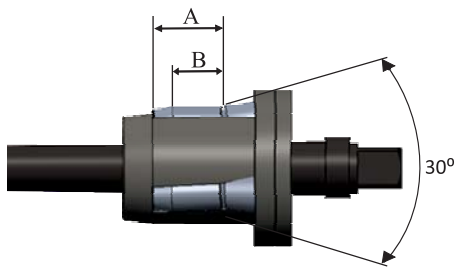
X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	1/2" to 7/8" (12.7 to 22.2mm)	1.1/8"	28.5	7/8"	22.2
3	3/4" to 1.1/8" (19.05 to 28.5mm)	1.3/8"	39.4	1.1/8"	28.5
4	1.1/8" to 1.5/8" (25.4 to 41.2mm)	1.7/8"	47.6	1.5/8"	41.2
5	1.5/8" to 2.1/8" (38.1 to 53.9mm)	2.3/8"	60.3	2.1/8"	53.9
6	2.1/8" to 2.5/8" (50.8 to 66.7mm)	2.7/8"	73.0	2.5/8"	66.7

SPECIFICATIONS

Sr. No.	Tube O.D.	Tube Thickness			Tube I.D.		Tube O.D.	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool		
	Inch (mm)	bwg	mm	Inch	mm	Inch	Inch (mm)	bwg	mm	Inch	mm	Inch	mm	Inch	mm	Inch	
1	7/8" (22.22)	15	1.82	.072	18.5	0.731	1 (25.40)	10	3.40	.134	18.5	0.732	18.1	.712	20.4	.803	
2		16	1.65	.065	18.9	0.745		18.4	.724	20.7	.814						
3		17	1.47	.058	19.2	0.759		11	3.04	.120	19.3	0.760	18.8	.740	21.1	.830	
4		18	1.24	.049	19.7	0.777		12	1.24	.109	22.9	0.902	19.4	.763	21.6	.850	
5		19 & 20	1.07 & 0.89	.042 & .035	20.1 & 20.4	0.791 & 0.805		1.1/8	8	4.19	.165	20.1	0.795	19.7	.775	22.3	.877
6	1" (25.40)	13	2.41	.095	20.5	0.810	1.1/8 (28.58)						20.1	.791	22.4	.881	
7		14	2.10	.083	21.2	0.834		9	3.75	.148	21.0	0.829	20.6	.811	23.1	.909	
8		15 & 16	1.82 & 1.65	.072 & .065	21.7 & 22.0	0.856 & 0.870		10	3.40	.134	21.7	0.857	21.3	.838	23.8	.937	
9		17 & 18	1.47 & 1.24	.058 & .048	22.4 & 22.9	0.884 & 0.902		11	3.04	.120	22.4	0.885	22.0	.866	24.5	.964	
10		19 & 20	1.06 & 0.88	.042 & .035	23.2 & 23.6	0.916 & 0.930	12	2.76	.109	23.0	0.907	22.4	.881	25.0	.984		
11	1.1/4" (31.75)	8	4.19	.165	23.3	0.920	1.1/8 (28.58)	13	2.41	.095	23.7	0.935	23.3	.917	25.9	1.019	
12		9	3.75	.148	24.2	0.954		14	2.10	.083	24.3	0.959	23.8	.937	26.5	1.043	
13		10	3.40	.134	24.9	0.982		15 & 16	1.82 & 1.65	.072 & .065	24.9 & 25.2	.981 & .995	24.4	.960	27.2	1.070	
14		11	3.04	.120	25.6	1.010							25.2	.992	28.0	1.102	
15		12	2.76	.109	26.2	1.032							25.7	1.011	28.5	1.122	
16		13	2.41	.095	26.9	1.060		1.3/8	8	4.19	.165	26.5	1.045	26.1	1.027	28.8	1.133
17		14	2.10	.083	27.5	1.084							26.4	1.039	29.2	1.149	
18	15	1.82	.072	28.0	1.106	1.3/8 (34.92)	9	3.75	.148	27.4	1.079	26.9	1.059	29.7	1.169		
19	16	1.65	.065	28.4	1.120		10	3.40	.134	28.1	1.107	27.6	1.086	30.4	1.196		

AF-3 SERIES BOILER TUBE EXPANDER



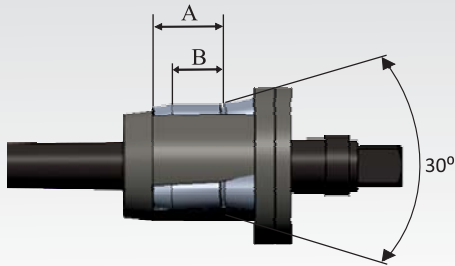
X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	1/2" to 7/8" (12.7 to 22.2mm)	1.1/8"	28.5	7/8"	22.2
3	3/4" to 1.1/8" (19.05 to 28.5mm)	1.3/8"	39.4	1.1/8"	28.5
4	1.1/8" to 1.5/8" (25.4 to 41.2mm)	1.7/8"	47.6	1.5/8"	41.2
5	1.5/8" to 2.1/8" (38.1 to 53.9mm)	2.3/8"	60.3	2.1/8"	53.9
6	2.1/8" to 2.5/8" (50.8 to 66.7mm)	2.7/8"	73.0	2.5/8"	66.7

■ SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number		
	1/2" To 7/8"	3/4" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	1/2" To 7/8"	3/4" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series Mandrel set (No. Of Mandrel)
1	AF3-31/2	AF3-31/3	-	-	-	15-2-F3S	15-3-F3S	-	-	-	3/8	DM-11	-	-
2	AF3-32/2	AF3-32/3	-	-	-	15-2-F3S	15-3-F3S	-	-	-	3/8	DM-12	-	-
3	AF3-33/2	AF3-33/3	-	-	-	16-2-F3S	16-3-F3S	-	-	-	3/8	DM-12	-	-
4	AF3-34/2	AF3-34/3	-	-	-	20-2-F3S	20-3-F3S	-	-	-	3/8	DM-12	-	-
5	AF3-35/2	AF3-35/3	-	-	-	17-2-F3S	17-3-F3S	-	-	-	3/8	DM-13	-	-
6	AF3-36/2	AF3-36/3	-	-	-	18-2-F3S	18-3-F3S	-	-	-	3/8	DM-12	-	-
7	AF3-37/2	AF3-37/3	AF3-37/4	-	-	18-2-F3S	18-3-F3S	18-4-F3S	-	-	3/8	DM-13	HM-13	SM-13 (2)
8	AF3-38/2	AF3-38/3	AF3-38/4	-	-	19-2-F3S	19-3-F3S	19-4-F3S	-	-	3/8	DM-13	HM-13	SM-13 (2)
9	AF3-39/2	AF3-39/3	AF3-39/4	-	-	21-2-F3S	21-3-F3S	21-4-F3S	-	-	3/8	DM-13	HM-13	SM-13 (2)
10	AF3-40/2	AF3-40/3	AF3-40/4	-	-	21-2-F3S	21-3-F3S	21-4-F3S	-	-	3/8	DM-14	HM-14	SM-14 (2)
11	AF3-41/2	AF3-41/3	AF3-41/4	-	-	22-2-F3S	22-3-F3S	22-4-F3S	-	-	3/8	DM-14	HM-14	SM-14 (2)
12	AF3-42/2	AF3-42/3	AF3-42/4	-	-	23-2-F3S	23-3-F3S	23-4-F3S	-	-	1/2	DM-15	HM-15	SM-15 (2)
13	AF3-43/2	AF3-43/3	AF3-43/4	-	-	24-2-F3S	24-3-F3S	24-4-F3S	-	-	1/2	DM-15	HM-15	SM-15 (2)
14	AF3-44/2	AF3-44/3	AF3-44/4	-	-	26-2-F3S	26-3-F3S	26-4-F3S	-	-	1/2	DM-16	HM-16	SM-16 (2)
15	AF3-45/2	AF3-45/3	AF3-45/4	-	-	27-2-F3S	27-3-F3S	27-4-F3S	-	-	1/2	DM-16	HM-16	SM-16 (2)
16	AF3-46/2	AF3-46/3	AF3-46/4	-	-	31-2-F3S	31-3-F3S	31-4-F3S	-	-	1/2	DM-16	HM-16	SM-16 (2)
17	AF3-47/2	AF3-47/3	AF3-47/4	-	-	28-2-F3S	28-3-F3S	28-4-F3S	-	-	1/2	DM-17	HM-17	SM-17 (2)
18	AF3-48/2	AF3-48/3	AF3-48/4	-	-	29-2-F3S	29-3-F3S	29-4-F3S	-	-	1/2	DM-17	HM-17	SM-17 (2)
19	AF3-49/2	AF3-49/3	AF3-49/4	AF3-49/5	AF3-49/6	30-2-F3S	30-3-F3S	30-4-F3S	30-5-F3S	30-6-F3S	1/2	DM-17	HM-17	SM-17 (2)

AF-3 SERIES BOILER TUBE EXPANDER



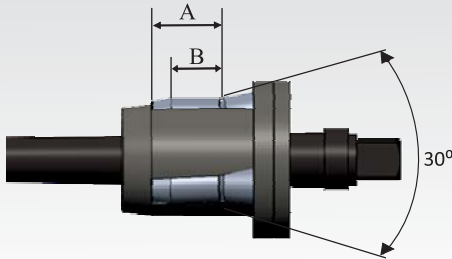
X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	1/2" to 7/8" (12.7 to 22.2mm)	1.1/8"	28.5	7/8"	22.2
3	3/4" to 1.1/8" (19.05 to 28.5mm)	1.3/8"	39.4	1.1/8"	28.5
4	1.1/8" to 1.5/8" (25.4 to 41.2mm)	1.7/8"	47.6	1.5/8"	41.2
5	1.5/8" to 2.1/8" (38.1 to 53.9mm)	2.3/8"	60.3	2.1/8"	53.9
6	2.1/8" to 2.5/8" (50.8 to 66.7mm)	2.7/8"	73.0	2.5/8"	66.7

SPECIFICATIONS

Sr. No.	Tube O.D. Inch (mm)	Tube Thickness			Tube I.D.			Tube O.D. Inch (mm)	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool		
		bwg	mm	Inch	mm	Inch	Inch (mm)		bwg	mm	Inch	mm	Inch	mm	Inch	mm	Inch	
20	1.1/2" (38.10)	7		.180			1.3/8 (34.92)	11	3.04	.120	28.8	1.135	28.3	1.114	31.2	1.228		
21		8	4.19	.165	29.7	1.170		12	2.76	.109	29.3	1.157	28.8	1.133	31.7	1.248		
22		9	3.75	.148	30.5	1.204		13 & 14	2.41 & 2.10	.095 & .083	30.1 & 30.7	1.185 & 1.209	29.5	1.161	33.4	1.314		
23		10	3.40	.134	31.2	1.232		15 & 16	1.82 & 1.65	.072 & .065	31.2 & 31.6	1.231 & 1.245	30.0	1.181	34.1	1.342		
24		11 & 12	3.04 & 2.76	.120 & .109	32.0 & 32.5	1.260 & 1.282							30.6	1.204	34.8	1.370		
25		13	2.41	.095	33.2	1.310		1.3/4 (44.45)	5		.220			31.4	1.236	35.6	1.401	
26		14 & 15	2.10 & 1.82	.083 & .072	33.8 & 34.4	1.334 & 1.356			6		.203			32.6	1.283	36.8	1.448	
27									7		.180				33.4	1.314	38.1	1.500
28									8	4.19	.165	36.1	1.420	34.2	1.346	38.7	1.523	
29		2" (50.80)	3		.259				1.3/4 (44.45)	9 & 10	3.40	.148 & .134	37.6	1.482	35.0	1.377	40.6	1.598
30	4			.238			11 & 12	3.04 & 2.76		.120 & .109	38.3 & 38.9	1.510 & 1.532	36.6	1.440	42.2	1.661		
31	5 & 6			.220 & .203			13 & 14	2.41 & 2.10		.095 & .083	39.6 & 40.2	1.560 & 1.584	38.2	1.503	43.8	1.712		
32	7 & 8		4.57 & 4.19	.180 & .165	41.6 & 42.4	1.640 & 1.670	15 & 16			.072 & .065			39.8	1.566	45.4	1.787		
33	9 & 10		3.40	.148 & .134	43.9	1.732	3			.259			41.4	1.629	47.0	1.850		
34	11 & 13		3.04 & 2.41	.120 & .095	44.7 & 45.9	1.760 & 1.810	2.1/4 (57.14)	4			.238			42.9	1.688	49.5	1.948	
35	14 & 16		2.10 & 1.65	.083 & .065	46.5 & 47.4	1.834 & 1.870		6 & 7			.203 & .180			44.5	1.751	51.1	2.011	
36	17 & 18		1.47 & 1.24	.058 & .049	47.9 & 48.3	1.884 & 1.902		8 & 9			.165 & .148	50.3 & 51.0	1.982 & 2.010	47.7	1.877	54.3	2.137	
37			3		.259					10 & 11	3.40 & 3.04	.134 & .120	51.6 & 52.3	2.032 & 2.060	49.3	1.940	55.9	2.200
38	2.1/2" (63.50)		4 & 5		.238 & .220			2.3/4 (69.58)		12 & 13	2.76 & 2.41	.109 & .095	52.9 - 53.8	2.084 - 2.120	50.8	2.000	57.8	2.275
39		6 & 7	4.50	.203 & .180	54.5	2.146	14 - 16		2.10 - 1.65	.083 - .065			52.4	2.062	59.4	2.338		
40		8 & 9	4.50 & 3.75	.165 & .148	54.5 & 56.0	2.146 & 2.204	3			.259			54.0	2.125	61.0	2.401		
41		10 & 11	3.40 & 3.04	.134 & .120	56.6 & 57.4	2.232 & 2.260	4			.238			55.6	2.188	64.0	2.519		
42		12 - 14	2.76 & 2.10	.109 & .083	57.9 & 59.2	2.282 & 2.334	5 & 6			.220 & .203			57.2	2.251	65.6	2.582		
43		15 & 16	1.83 & 1.65	.072 & .065	59.8 & 60.1	2.356 & 2.370	7 & 8			.180 & .165								

AF-3 SERIES BOILER TUBE EXPANDER



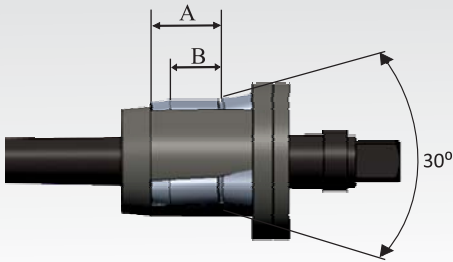
X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	1/2" to 7/8" (12.7 to 22.2mm)	1.1/8"	28.5	7/8"	22.2
3	3/4" to 1.1/8" (19.05 to 28.5mm)	1.3/8"	39.4	1.1/8"	28.5
4	1.1/8" to 1.5/8" (25.4 to 41.2mm)	1.7/8"	47.6	1.5/8"	41.2
5	1.5/8" to 2.1/8" (38.1 to 53.9mm)	2.3/8"	60.3	2.1/8"	53.9
6	2.1/8" to 2.5/8" (50.8 to 66.7mm)	2.7/8"	73.0	2.5/8"	66.7

SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number		
	1/2" To 7/8"	3/4" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	1/2" To 7/8"	3/4" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series Mandrel set (No. Of Mandrel)
20	AF3-50/2	AF3-50/3	AF3-50/4	AF3-50/5	AF3-50/6	30-2-F3S	30-3-F3S	30-4-F3S	30-5-F3S	30-6-F3S	1/2	DM-18	HM-18	SM-18 (2)
21	AF3-51/2	AF3-51/3	AF3-51/4	AF3-51/5	AF3-51/6	34-2-F3S	34-3-F3S	34-4-F3S	34-5-F3S	34-6-F3S	1/2	DM-18	HM-18	SM-18 (2)
22	AF3-52/2	AF3-52/3	AF3-52/4	AF3-52/5	AF3-52/6	28-2-F3S	28-3-F3S	28-4-F3S	28-5-F3S	28-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
23	AF3-53/2	AF3-53/3	AF3-53/4	AF3-53/5	AF3-53/6	29-2-F3S	29-3-F3S	29-4-F3S	29-5-F3S	29-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
24	AF3-54/2	AF3-54/3	AF3-54/4	AF3-54/5	AF3-54/6	30-2-F3S	30-3-F3S	30-4-F3S	30-5-F3S	30-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
25	AF3-55/2	AF3-55/3	AF3-55/4	AF3-55/5	AF3-55/6	33-2-F3S	33-3-F3S	33-4-F3S	33-5-F3S	33-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
26	AF3-56/2	AF3-56/3	AF3-56/4	AF3-56/5	AF3-56/6	32-2-F3S	32-3-F3S	32-4-F3S	32-5-F3S	32-6-F3S	1/2	DM-21	HM-21	SM-21 (2)
27	AF3-57/2	AF3-57/3	AF3-57/4	AF3-57/5	AF3-57/6	36-2-F3S	36-3-F3S	36-4-F3S	36-5-F3S	36-6-F3S	1/2	DM-21	HM-21	SM-21 (2)
28	AF3-58/2	AF3-58/3	AF3-58/4	AF3-58/5	AF3-58/6	37-2-F3S	37-3-F3S	37-4-F3S	37-5-F3S	37-6-F3S	1/2	DM-21	HM-21	SM-21 (2)
29	AF3-59/2	AF3-59/3	AF3-59/4	AF3-59/5	AF3-59/6	33-2-F3S	33-3-F3S	33-4-F3S	33-5-F3S	33-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
30	AF3-60/2	AF3-60/3	AF3-60/4	AF3-60/5	AF3-60/6	37-2-F3S	37-3-F3S	37-4-F3S	37-5-F3S	37-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
31	AF3-61/2	AF3-61/3	AF3-61/4	AF3-61/5	AF3-61/6	38-2-F3S	38-3-F3S	38-4-F3S	38-5-F3S	38-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
32	AF3-62/2	AF3-62/3	AF3-62/4	AF3-62/5	AF3-62/6	39-2-F3S	39-3-F3S	39-4-F3S	39-5-F3S	39-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
33	AF3-63/2	AF3-63/3	AF3-63/4	AF3-63/5	AF3-63/6	40-2-F3S	40-3-F3S	40-4-F3S	40-5-F3S	40-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
34	AF3-64/2	AF3-64/3	AF3-64/4	AF3-64/5	AF3-64/6	40-2-F3S	40-3-F3S	40-4-F3S	40-5-F3S	40-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
35	AF3-65/2	AF3-65/3	AF3-65/4	AF3-65/5	AF3-65/6	41-2-F3S	41-3-F3S	41-4-F3S	41-5-F3S	41-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
36	AF3-66/2	AF3-66/3	AF3-66/4	AF3-66/5	AF3-66/6	42-2-F3S	42-3-F3S	42-4-F3S	42-5-F3S	42-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
37	AF3-67/2	AF3-67/3	AF3-67/4	AF3-67/5	AF3-67/6	43-2-F3S	43-3-F3S	43-4-F3S	43-5-F3S	43-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
38	AF3-68/2	AF3-68/3	AF3-68/4	AF3-68/5	AF3-68/6	44-2-F3S	44-3-F3S	44-4-F3S	44-5-F3S	44-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
39	AF3-69/2	AF3-69/3	AF3-69/4	AF3-69/5	AF3-69/6	43-2-F3S	43-3-F3S	43-4-F3S	43-5-F3S	43-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
40	AF3-70/2	AF3-70/3	AF3-70/4	AF3-70/5	AF3-70/6	44-2-F3S	44-3-F3S	44-4-F3S	44-5-F3S	44-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
41	AF3-71/2	AF3-71/3	AF3-71/4	AF3-71/5	AF3-71/6	45-2-F3S	45-3-F3S	45-4-F3S	45-5-F3S	45-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
42	AF3-72/2	AF3-72/3	AF3-72/4	AF3-72/5	AF3-72/6	47-2-F3S	47-3-F3S	47-4-F3S	47-5-F3S	47-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
43	AF3-73/2	AF3-73/3	AF3-73/4	AF3-73/5	AF3-73/6	46-2-F3S	46-3-F3S	46-4-F3S	46-5-F3S	46-6-F3S	1	DM-25	HM-25	SM-25 (3)

AF-3 SERIES BOILER TUBE EXPANDER



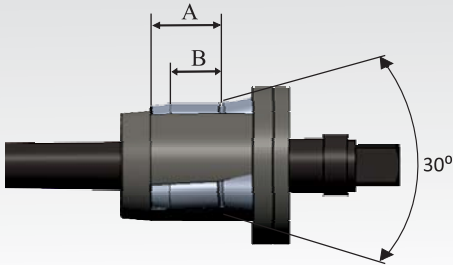
X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	1/2" to 7/8" (12.7 to 22.2mm)	1.1/8"	28.5	7/8"	22.2
3	3/4" to 1.1/8" (19.05 to 28.5mm)	1.3/8"	39.4	1.1/8"	28.5
4	1.1/8" to 1.5/8" (25.4 to 41.2mm)	1.7/8"	47.6	1.5/8"	41.2
5	1.5/8" to 2.1/8" (38.1 to 53.9mm)	2.3/8"	60.3	2.1/8"	53.9
6	2.1/8" to 2.5/8" (50.8 to 66.7mm)	2.7/8"	73.0	2.5/8"	66.7

SPECIFICATIONS

Sr. No.	Tube O.D.	Tube Thickness			Tube I.D.	Tube O.D.	Tube Thickness			Tube I.D.	Minimum I.D. Tool Enters		Maximum of Expansion Tool			
		Inch (mm)	bwg	mm			Inch	mm	Inch		mm	Inch	mm	Inch	mm	
44	3" (76.20)	3		.259		2.3/4 (69.85)	9 & 10	3.40	.148 & .134	63.0	2.482	58.6	2.307	67.0	2.637	
45		4		.238			11 - 13	3.04-2.41	.120 - .095	63.7 - 65.0	2.510 - 2.560	60.4	2.377	68.8	2.708	
46		5 & 6		.220 & .203			14 - 16	2.10 - 1.65	.083 & .065	65.6 - 66.5	2.584 - 2.620	62.2	2.448	70.4	2.771	
47		7 & 8	4.19	.180 & .165	67.8	2.67	-	-	-			63.6	2.503	72.0	2.834	
48		9 & 10	3.75 & 3.40	.148 & .134	68.6 & 69.3	2.704 & 2.732	3	6.6	.259			65.0	2.559	73.4	2.889	
49		11 & 13	3.04 - 2.41	.120 - .095	70.1 - 71.3	2.760 - 2.810	4	6.0	.238			66.6	2.622	75.0	2.952	
50	14 & 16	2.10 - 1.65	.083 - .065	71.9-72.8	2.834 - 2.870	5 & 6	5.6 & 5.2	.220 & .203			68.3	2.688	76.9	3.027		
51	3.1/2" (88.9)	2		.284		3.1/4 (82.55)	7 & 8	4.6 & 4.2	.180 & .165			69.9	2.751	78.5	3.090	
52		3		.259			9 & 10	3.8 & 3.4	.148 & .134			71.5	2.814	80.1	3.153	
53		4		.238			11 - 13	3.0 & 2.4	.120 - .095			73.1	2.877	81.7	3.216	
54		5 & 6		.220 & .203		14 - 16	2.1 & 1.7	.083 - .065			74.6	2.937	84.2	3.314		
55		7 & 8		.180 & .165		2	7.2	.284			76.2	3.000	85.5	3.366		
56		9 & 11		.148 & .120		3	6.6	.259			77.8	3.062	87.4	3.440		
57	12 - 16		.109 - .065		4	6.0	.238			79.4	3.125	89.0	3.503			
58						5 & 6	5.6 & 5.2	.220 & .203			81.0	3.188	90.6	3.566		
59	4" (101.6)	2		.284		3.3/4 (95.25)	7 & 8	4.6 & 4.2	.180 & .165			82.6	3.251	92.2	3.629	
60		3	6.60	.259	88.4		3.480	9 & 10	3.8 & 3.4	.148 & .134			84.2	3.314	93.8	3.629
61		4	6.00	.238	89.6		3.527	11 - 13	3.0 & 2.4	.120 - .095			85.8	3.377	96.2	3.787
62		5 & 6		.220 & .203			14 - 16	2.1 & 1.7	.083 - .065			87.4	3.440	97.8	3.850	
63		7 & 8	4.19	.180 & .165	93.2	3.67	2	7.2				89.0	3.503	99.4	3.913	
64		9 & 11	4.19 - 3.04	.148 - .120	94.1-95.5	3.704-3.760	3	6.6	.284			90.4	3.559	100.8	3.968	
65	12 - 16	2.76 - 1.65	.109 - .065	96.1-98.3	3.783-3.870	4	6.0	.238			92.0	3.622	102.4	4.031		
66						5 & 6	5.6 & 5.2	.220 & .203			93.4	3.677	103.8	4.086		
67	4.1/2 (114.3)	2		.284		4.1/4 (107.9)	7 & 8	4.6 & 4.2	.180 & .165			95.0	3.740	105.4	4.149	
68		3	6.60	.259	101.1		3.98	9 - 11	3.8 & 3.0	.148			96.6	3.803	107.0	4.212
69		4 & 5	6.00	.238 & .220	102.3&		4.030	11 - 13	3.0 & 2.4	.120 - .095			98.2	3.866	108.6	4.275
70		6 & 7		.203 & .180			-	-	-			101.2	3.984	110.0	4.330	
71		8 & 9	4.19 & 3.75	.165 & .148	105.9 & 106.8	4.170 & 4.204	-	-	-			102.8	4.047	111.6	4.393	
72		10 - 12	3.40 - 2.76	.134 & .109	107.5 - 108.8	4.232 - 4.283						104.4	4.110	113.2	4.456	

AF-3 SERIES BOILER TUBE EXPANDER



X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	1/2" to 7/8" (12.7 to 22.2mm)	1.1/8"	28.5	7/8"	22.2
3	3/4" to 1.1/8" (19.05 to 28.5mm)	1.3/8"	39.4	1.1/8"	28.5
4	1.1/8" to 1.5/8" (25.4 to 41.2mm)	1.7/8"	47.6	1.5/8"	41.2
5	1.5/8" to 2.1/8" (38.1 to 53.9mm)	2.3/8"	60.3	2.1/8"	53.9
6	2.1/8" to 2.5/8" (50.8 to 66.7mm)	2.7/8"	73.0	2.5/8"	66.7

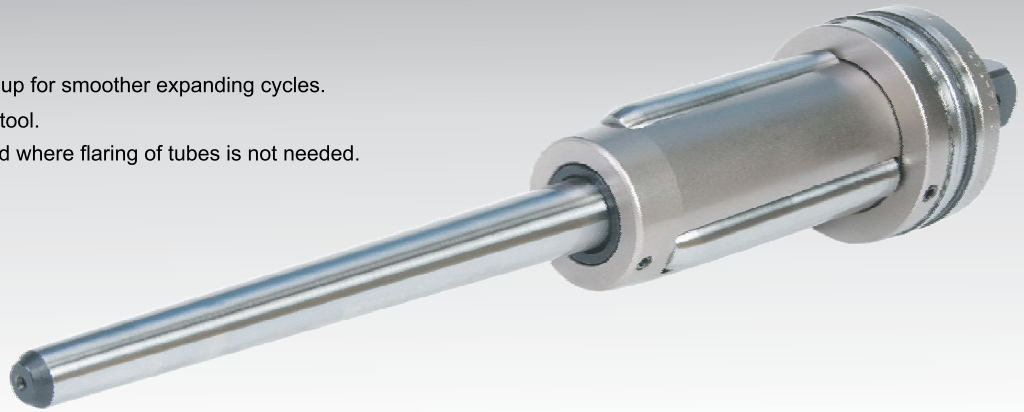
SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number		
	1/2" To 7/8"	3/4" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	1/2" To 7/8"	3/4" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series Mandrel set (No. Of Mandrel)
44	AF3-74/2	AF3-74/3	AF3-74/4	AF3-74/5	AF3-74/6	47-2-F3S	47-3-F3S	47-4-F3S	47-5-F3S	47-6-F3S	1	DM-25	HM-25	SM-25 (3)
45	AF3-75/2	AF3-75/3	AF3-75/4	AF3-75/5	AF3-75/6	48-2-F3S	48-3-F3S	48-4-F3S	48-5-F3S	48-6-F3S	1	DM-25	HM-25	SM-25 (3)
46	AF3-76/2	AF3-76/3	AF3-76/4	AF3-76/5	AF3-76/6	49-2-F3S	49-3-F3S	49-4-F3S	49-5-F3S	49-6-F3S	1	DM-25	HM-25	SM-25 (3)
47	AF3-77/2	AF3-77/3	AF3-77/4	AF3-77/5	AF3-77/6	50-2-F3S	50-3-F3S	50-4-F3S	50-5-F3S	50-6-F3S	1	DM-25	HM-25	SM-25 (3)
48	AF3-78/2	AF3-78/3	AF3-78/4	AF3-78/5	AF3-78/6	51-2-F3S	51-3-F3S	51-4-F3S	51-5-F3S	51-6-F3S	1	DM-25	HM-25	SM-25 (3)
49	AF3-79/2	AF3-79/3	AF3-79/4	AF3-79/5	AF3-79/6	52-2-F3S	52-3-F3S	52-4-F3S	52-5-F3S	52-6-F3S	1	DM-25	HM-25	SM-25 (3)
50	AF3-80/2	AF3-80/3	AF3-80/4	AF3-80/5	AF3-80/6	51-2-F3S	51-3-F3S	51-4-F3S	51-5-F3S	51-6-F3S	1	DM-26	HM-26	SM-26 (4)
51	AF3-81/2	AF3-81/3	AF3-81/4	AF3-81/5	AF3-81/6	52-2-F3S	52-3-F3S	52-4-F3S	52-5-F3S	52-6-F3S	1	DM-26	HM-26	SM-26 (4)
52	AF3-82/2	AF3-82/3	AF3-82/4	AF3-82/5	AF3-82/6	53-2-F3S	53-3-F3S	53-4-F3S	53-5-F3S	53-6-F3S	1	DM-26	HM-26	SM-26 (4)
53	AF3-83/2	AF3-83/3	AF3-83/4	AF3-83/5	AF3-83/6	54-2-F3S	54-3-F3S	54-4-F3S	54-5-F3S	54-6-F3S	1	DM-26	HM-26	SM-26 (4)
54	AF3-84/2	AF3-84/3	AF3-84/4	AF3-84/5	AF3-84/6	54-2-F3S	54-3-F3S	54-4-F3S	54-5-F3S	54-6-F3S	1	DM-27	HM-27	SM-27 (4)
55	AF3-85/2	AF3-85/3	AF3-85/4	AF3-85/5	AF3-85/6	55-2-F3S	55-3-F3S	55-4-F3S	55-5-F3S	55-6-F3S	1	DM-27	HM-27	SM-27 (4)
56	AF3-86/2	AF3-86/3	AF3-86/4	AF3-86/5	AF3-86/6	56-2-F3S	56-3-F3S	56-4-F3S	56-5-F3S	56-6-F3S	1	DM-27	HM-27	SM-27 (4)
57	AF3-87/2	AF3-87/3	AF3-87/4	AF3-87/5	AF3-87/6	57-2-F3S	57-3-F3S	57-4-F3S	57-5-F3S	57-6-F3S	1	DM-27	HM-27	SM-27 (4)
58	AF3-88/2	AF3-88/3	AF3-88/4	AF3-88/5	AF3-88/6	58-2-F3S	58-3-F3S	58-4-F3S	58-5-F3S	58-6-F3S	1	DM-27	HM-27	SM-27 (4)
59	AF3-89/2	AF3-89/3	AF3-89/4	AF3-89/5	AF3-89/6	59-2-F3S	59-3-F3S	59-4-F3S	59-5-F3S	59-6-F3S	1	DM-27	HM-27	SM-27 (4)
60	AF3-90/2	AF3-90/3	AF3-90/4	AF3-90/5	AF3-90/6	60-2-F3S	60-3-F3S	60-4-F3S	60-5-F3S	60-6-F3S	1	DM-27	HM-27	SM-27 (4)
61	AF3-91/2	AF3-91/3	AF3-91/4	AF3-91/5	AF3-91/6	59-2-F3S	59-3-F3S	59-4-F3S	59-5-F3S	59-6-F3S	1	DM-28	HM-28	SM-28 (4)
62	AF3-92/2	AF3-92/3	AF3-92/4	AF3-92/5	AF3-92/6	60-2-F3S	60-3-F3S	60-4-F3S	60-5-F3S	60-6-F3S	1	DM-28	HM-28	SM-28 (4)
63	AF3-93/2	AF3-93/3	AF3-93/4	AF3-93/5	AF3-93/6	61-2-F3S	61-3-F3S	61-4-F3S	61-5-F3S	61-6-F3S	1	DM-28	HM-28	SM-28 (4)
64	AF3-94/2	AF3-94/3	AF3-94/4	AF3-94/5	AF3-94/6	62-2-F3S	62-3-F3S	62-4-F3S	62-5-F3S	62-6-F3S	1	DM-28	HM-28	SM-28 (4)
65	AF3-95/2	AF3-95/3	AF3-95/4	AF3-95/5	AF3-95/6	63-2-F3S	63-3-F3S	63-4-F3S	63-5-F3S	63-6-F3S	1	DM-28	HM-28	SM-28 (4)
66	AF3-96/2	AF3-96/3	AF3-96/4	AF3-96/5	AF3-96/6	62-2-F3S	62-3-F3S	62-4-F3S	62-5-F3S	62-6-F3S	1	DM-29	HM-29	SM-29 (4)
67	AF3-97/2	AF3-97/3	AF3-97/4	AF3-97/5	AF3-97/6	63-2-F3S	63-3-F3S	63-4-F3S	63-5-F3S	63-6-F3S	1	DM-29	HM-29	SM-29 (4)
68	AF3-98/2	AF3-98/3	AF3-98/4	AF3-98/5	AF3-98/6	64-2-F3S	64-3-F3S	64-4-F3S	64-5-F3S	64-6-F3S	1	DM-29	HM-29	SM-29 (4)
69	AF3-99/2	AF3-99/3	AF3-99/4	AF3-99/5	AF3-99/6	63-2-F3S	63-3-F3S	63-4-F3S	63-5-F3S	63-6-F3S	1	DM-30	HM-30	SM-30 (4)
70	AF3-100/2	AF3-100/3	AF3-100/4	AF3-100/5	AF3-100/6	64-2-F3S	64-3-F3S	64-4-F3S	64-5-F3S	64-6-F3S	1	DM-30	HM-30	SM-30 (4)
71	AF3-101/2	AF3-101/3	AF3-101/4	AF3-101/5	AF3-101/6	65-2-F3S	65-3-F3S	65-4-F3S	65-5-F3S	65-6-F3S	1	DM-30	HM-30	SM-30 (4)
72	AF3-102/2	AF3-102/3	AF3-102/4	AF3-102/5	AF3-102/6	66-2-F3S	66-3-F3S	66-4-F3S	66-5-F3S	66-6-F3S	1	DM-30	HM-30	SM-30 (4)

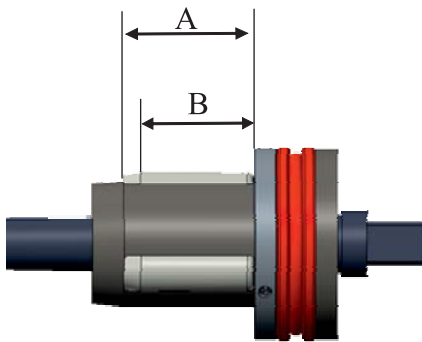
AB SERIES BOILER TUBE EXPANDER

Features :

- >> Similar to 'A' Series expanders.
- >> Bearing reduces frictional build up for smoother expanding cycles.
- >> Bearing increases useful life of tool.
- >> Use - High productivity tool used where flaring of tubes is not needed.



BOILER TUBE EXPANDER

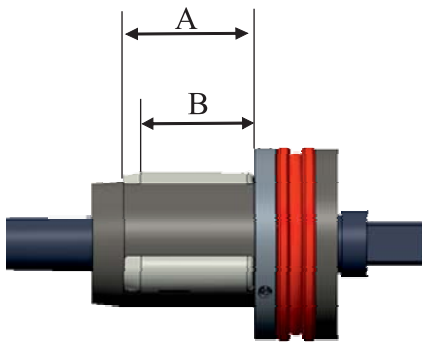


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. No.	Tube O.D.	Tube Thickness			Tube I.D.		Tube O.D.	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool	
		Inch (mm)	bwg	mm	Inch	mm		Inch	Inch (mm)	bwg	mm	Inch	mm	Inch	mm	Inch
1	7/8 (22.22)	15	1.82	.072	18.5	0.731	1	10	3.40	.134	18.5	0.732	18.1	.712	20.4	.803
2		16	1.65	.065	18.9	0.745							18.4	.724	20.7	.814
3		17	1.47	.058	19.2	0.759	1 (25.40)	11	3.04	.120	19.3	0.760	18.8	.740	21.1	.830
4		18	1.24	.049	19.7	0.777		12	1.24	.109	22.9	0.902	19.4	.763	21.6	.850
5		19 & 20.	1.07 & 0.89	.042 & .035	20.1 & 20.4	0.791 & 0.805	1.1/8	8	4.19	.165	20.1	0.795	19.7	.775	22.3	.877
6	1 (25.40)	13	2.41	.095	20.5	0.810							20.1	.791	22.4	.881
7		14	2.10	.083	21.2	0.834		9	3.75	.148	21.0	0.829	20.6	.811	23.1	.909
8		15 & 16	1.82 & 1.65	.072 & .065	21.7 & 22.0	0.856 & 0.870	1.1/8 (28.58)	10	3.40	.134	21.7	0.857	21.3	.838	23.8	.937
9		17 & 18	1.47 & 1.24	.058 & .048	22.4 & 22.9	0.884 & 0.902		11	3.04	.120	22.4	0.885	22.0	.866	24.5	.964
10		19 & 20	1.06 & 0.88	.042 & .035	23.2 & 23.6	0.916 & 0.930		12	2.76	.109	23.0	0.907	22.4	.881	25.0	.984
11	1.1/4 (31.75)	8	4.19	.165	23.3	0.920		13	2.41	.095	23.7	0.935	23.3	.917	25.9	1.019
12		9	3.75	.148	24.2	0.954	1.1/8 (28.58)	14	2.10	.083	24.3	0.959	23.8	.937	26.5	1.043
13		10	3.40	.134	24.9	0.982		15 & 16		.072 & .065		.981 & .995	24.4	.960	27.2	1.070
14		11	3.04	.120	25.6	1.010							25.2	.992	28.0	1.102
15		12	2.76	.109	26.2	1.032							25.7	1.011	28.5	1.122
16		13	2.41	.095	26.9	1.060	1.3/8	8	4.19	.165	26.5	1.045	26.1	1.027	28.8	1.133
17		14	2.10	.083	27.5	1.084							26.4	1.039	29.2	1.149
18	15	1.82	.072	28.0	1.106		9	3.75	.148	27.4	1.079	26.9	1.059	29.7	1.169	
19	16	1.65	.065	28.4	1.120	1.3/8 (34.92)	10	3.40	.134	28.1	1.107	27.6	1.086	30.4	1.196	

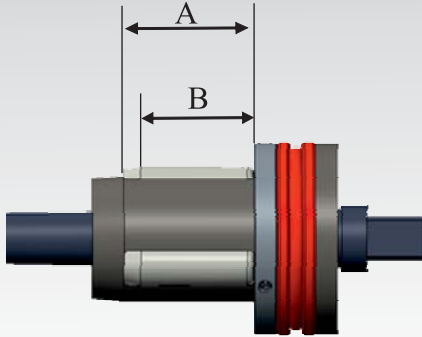


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Drum Mandrel Model Number
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		
1	AB-31/2	AB-31/3	-	-	-	15-2-RS	15-3-RS	-	-	-	3/8	DMB-11
2	AB-32/2	AB-32/3	-	-	-	15-2-RS	15-3-RS	-	-	-	3/8	DMB-12
3	AB-33/2	AB-33/3	-	-	-	16-2-RS	16-3-RS	-	-	-	3/8	DMB-12
4	AB-34/2	AB-34/3	-	-	-	20-2-RS	20-3-RS	-	-	-	3/8	DMB-12
5	AB-35/2	AB-35/3	-	-	-	17-2-RS	17-3-RS	-	-	-	3/8	DMB-13
6	AB-36/2	AB-36/3	-	-	-	18-2-RS	18-3-RS	-	-	-	3/8	DMB-12
7	AB-37/2	AB-37/3	AB-37/4	-	-	18-2-RS	18-3-RS	18-4-RS	-	-	3/8	DMB-13
8	AB-38/2	AB-38/3	AB-38/4	-	-	19-2-RS	19-3-RS	19-4-RS	-	-	3/8	DMB-13
9	AB-39/2	AB-39/3	AB-39/4	-	-	21-2-RS	21-3-RS	21-4-RS	-	-	3/8	DMB-13
10	AB-40/2	AB-40/3	AB-40/4	-	-	21-2-RS	21-3-RS	21-4-RS	-	-	3/8	DMB-14
11	AB-41/2	AB-41/3	AB-41/4	-	-	22-2-RS	22-3-RS	22-4-RS	-	-	3/8	DMB-14
12	AB-42/2	AB-42/3	AB-42/4	-	-	23-2-RS	23-3-RS	23-4-RS	-	-	1/2	DMB-15
13	AB-43/2	AB-43/3	AB-43/4	-	-	24-2-RS	24-3-RS	24-4-RS	-	-	1/2	DMB-15
14	AB-44/2	AB-44/3	AB-44/4	-	-	26-2-RS	26-3-RS	26-4-RS	-	-	1/2	DMB-16
15	AB-45/2	AB-45/3	AB-45/4	-	-	27-2-RS	27-3-RS	27-4-RS	-	-	1/2	DMB-16
16	AB-46/2	AB-46/3	AB-46/4	-	-	31-2-RS	31-3-RS	31-4-RS	-	-	1/2	DMB-16
17	AB-47/2	AB-47/3	AB-47/4	-	-	28-2-RS	28-3-RS	28-4-RS	-	-	1/2	DMB-17
18	AB-48/2	AB-48/3	AB-48/4	-	-	29-2-RS	29-3-RS	29-4-RS	-	-	1/2	DMB-17
19	AB-49/2	AB-49/3	AB-49/4	AB-49/5	AB-49/6	30-2-RS	30-3-RS	30-4-RS	30-5-RS	30-6-RS	1/2	DMB-17

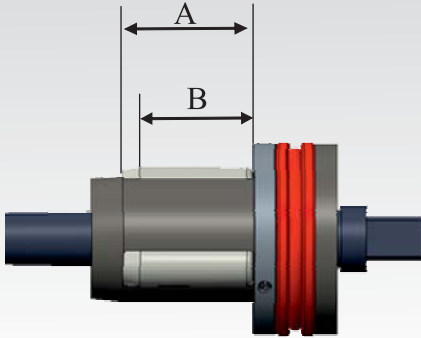


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. No.	Tube O.D.	Tube Thickness			Tube I.D.			Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool	
	Inch (mm)	bwg	mm	Inch	mm	Inch	Inch (mm)	bwg	mm	Inch	mm	Inch	mm	Inch	mm	Inch
20	1.1/2 (38.10)	7		.180			1.3/8 (34.92)	11	3.04	.120	28.8	1.135	28.3	1.114	31.2	1.228
21		8	4.19	.165	29.7	1.170		12	2.76	.109	29.3	1.157	28.8	1.133	31.7	1.248
22		9	3.75	.148	30.5	1.204		13 & 14	2.41 & 2.10	.095 & .083	30.1 & 30.7	1.185 & 1.209	29.5	1.161	33.4	1.314
23		10	3.40	.134	31.2	1.232		15 & 16	1.82 & 1.65	.072 & .065	31.2 & 31.6	1.231 & 1.245	30.0	1.181	34.1	1.342
24		11 & 12	3.04 & 2.76	.120 & .109	32.0 & 32.5	1.260 & 1.282	1.3/4 (44.45)						30.6	1.204	34.8	1.370
25		13	2.41	.095	33.2	1.310		5		.220			31.4	1.236	35.6	1.401
26		14 & 15	2.10 & 1.82	.083 & .072	33.8 & 34.4	1.334 & 1.356		6		.203			32.6	1.283	36.8	1.448
27								7		.180			33.4	1.314	38.1	1.500
28						8	4.19	.165	36.1	1.420	34.2	1.346	38.7	1.523		
29	2 (50.80)	3		.259			1.3/4 (44.45)	9 & 10	3.40	.148 & .134	37.6	1.482	35.0	1.377	40.6	1.598
30		4		.238				11 & 12	3.04 & 2.76	.120 & .09	38.3 & 38.9	1.510 & 1.532	36.6	1.440	42.2	1.661
31		5 & 6		.220 & .203				13 & 14	2.41 & 2.10	.095 & .083	39.6 & 40.2	1.560 & 1.584	38.2	1.503	43.8	1.712
32		7 & 8	4.57 & 4.19	.180 & .165	41.6 & 42.4	1.640 & 1.670		15 & 16		.072 & .065			39.8	1.566	45.4	1.787
33		9 & 10	3.40	.148 & .134	43.9	1.732	2.1/4 (57.15)	3		.259			41.4	1.629	47.0	1.850
34		11 - 13	3.04 & 2.41	.120 - .095	44.7 & 45.9	1.760 & 1.810		4		.238			42.9	1.688	49.5	1.948
35		14 - 16	2.10 & 1.65	.083 - .065	46.5 & 47.4	1.834 & 1.870		6 & 7		.203 & .180			44.5	1.751	51.1	2.011
36		17 & 18	1.47 & 1.24	.058 & .049	47.9 & 48.3	1.884 & 1.902		8 & 9		.165 & .148			46.1	1.814	52.7	2.074
37	2.1/2 (63.50)	3		.259			2.1/4 (57.15)	10 & 11	3.40 & 3.04	.134 & .120	50.3 & 51.0	1.982 & 2.010	47.7	1.877	54.3	2.137
38		4 & 5		.238 & .220				12 & 13	2.76 & 2.41	.109 & .095	51.6 & 52.3	2.032 & 2.060	49.3	1.940	55.9	2.200
39		6 & 7	4.50	.203 & .180	54.5	2.146		14 - 16	2.10-1.65	.083 - .065	52.9 - 53.8	2.084 - 2.120	50.8	2.000	57.8	2.275
40		8 & 9	4.50 & 3.75	.165 & .148	54.5 & 56.0	2.146 & 2.204	2.3/4 (69.85)	3		.259			52.4	2.062	59.4	2.338
41		10 & 11	3.40 & 3.04	.134 & .120	56.6 & 57.4	2.232 & 2.260		4		.238			54.0	2.125	61.0	2.401
42		12 - 14	2.76 & 2.10	.109 - .083	57.9 & 59.2	2.282 & 2.334		5 & 6		.220 & .203			55.6	2.188	64.0	2.519
43		15 & 16	1.83 & 1.65	.072 & .065	59.8 & 60.1	2.356 & 2.370		7 & 8		.180 & .165			57.2	2.251	65.6	2.582

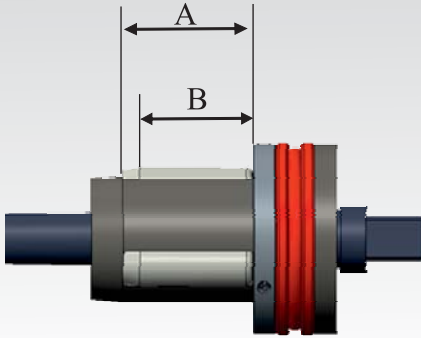


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Drum Mandrel Model Number
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		
20	AB-50/2	AB-50/3	AB-50/4	AB-50/5	AB-50/6	30-2-RS	30-3-RS	30-4-RS	30-5-RS	30-6-RS	1/2	DMB-18
21	AB-51/2	AB-51/3	AB-51/4	AB-51/5	AB-51/6	32-2-RS	32-3-RS	32-4-RS	32-5-RS	32-6-RS	1/2	DMB-18
22	AB-52/2	AB-52/3	AB-52/4	AB-52/5	AB-52/6	28-2-RS	28-3-RS	28-4-RS	28-5-RS	28-6-RS	1/2	DMB-20
23	AB-53/2	AB-53/3	AB-53/4	AB-53/5	AB-53/6	29-2-RS	29-3-RS	29-4-RS	29-5-RS	29-6-RS	1/2	DMB-20
24	AB-54/2	AB-54/3	AB-54/4	AB-54/5	AB-54/6	30-2-RS	30-3-RS	30-4-RS	30-5-RS	30-6-RS	1/2	DMB-20
25	AB-55/2	AB-55/3	AB-55/4	AB-55/5	AB-55/6	33-2-RS	33-3-RS	33-4-RS	33-5-RS	33-6-RS	1/2	DMB-20
26	AB-56/2	AB-56/3	AB-56/4	AB-56/5	AB-56/6	32-2-RS	32-3-RS	32-4-RS	32-5-RS	32-6-RS	1/2	DMB-21
27	AB-57/2	AB-57/3	AB-57/4	AB-57/5	AB-57/6	36-2-RS	36-3-RS	36-4-RS	36-5-RS	36-6-RS	1/2	DMB-21
28	AB-58/2	AB-58/3	AB-58/4	AB-58/5	AB-58/6	37-2-RS	37-3-RS	37-4-RS	37-5-RS	37-6-RS	1/2	DMB-21
29	AB-59/2	AB-59/3	AB-59/4	AB-59/5	AB-59/6	33-2-RS	33-3-RS	33-4-RS	33-5-RS	33-6-RS	3/4	DMB-22
30	AB-60/2	AB-60/3	AB-60/4	AB-60/5	AB-60/6	37-2-RS	37-3-RS	37-4-RS	37-5-RS	37-6-RS	3/4	DMB-22
31	AB-61/2	AB-61/3	AB-61/4	AB-61/5	AB-61/6	38-2-RS	38-3-RS	38-4-RS	38-5-RS	38-6-RS	3/4	DMB-22
32	AB-62/2	AB-62/3	AB-62/4	AB-62/5	AB-62/6	39-2-RS	39-3-RS	39-4-RS	39-5-RS	39-6-RS	3/4	DMB-22
33	AB-63/2	AB-63/3	AB-63/4	AB-63/5	AB-63/6	40-2-RS	40-3-RS	40-4-RS	40-5-RS	40-6-RS	3/4	DMB-22
34	AB-64/2	AB-64/3	AB-64/4	AB-64/5	AB-64/6	40-2-RS	40-3-RS	40-4-RS	40-5-RS	40-6-RS	3/4	DMB-23
35	AB-65/2	AB-65/3	AB-65/4	AB-65/5	AB-65/6	41-2-RS	41-3-RS	41-4-RS	41-5-RS	41-6-RS	3/4	DMB-23
36	AB-66/2	AB-66/3	AB-66/4	AB-66/5	AB-66/6	42-2-RS	42-3-RS	42-4-RS	42-5-RS	42-6-RS	3/4	DMB-23
37	AB-67/2	AB-67/3	AB-67/4	AB-67/5	AB-67/6	43-2-RS	43-3-RS	43-4-RS	43-5-RS	43-6-RS	3/4	DMB-23
38	AB-68/2	AB-68/3	AB-68/4	AB-68/5	AB-68/6	44-2-RS	44-3-RS	44-4-RS	44-5-RS	44-6-RS	3/4	DMB-23
39	AB-69/2	AB-69/3	AB-69/4	AB-69/5	AB-69/6	43-2-RS	43-3-RS	43-4-RS	43-5-RS	43-6-RS	3/4	DMB-24
40	AB-70/2	AB-70/3	AB-70/4	AB-70/5	AB-70/6	44-2-RS	44-3-RS	44-4-RS	44-5-RS	44-6-RS	3/4	DMB-24
41	AB-71/2	AB-71/3	AB-71/4	AB-71/5	AB-71/6	45-2-RS	45-3-RS	45-4-RS	45-5-RS	45-6-RS	3/4	DMB-24
42	AB-72/2	AB-72/3	AB-72/4	AB-72/5	AB-72/6	47-2-RS	47-3-RS	47-4-RS	47-5-RS	47-6-RS	3/4	DMB-24
43	AB-73/2	AB-73/3	AB-73/4	AB-73/5	AB-73/6	46-2-RS	46-3-RS	46-4-RS	46-5-RS	46-6-RS	1	DMB-25

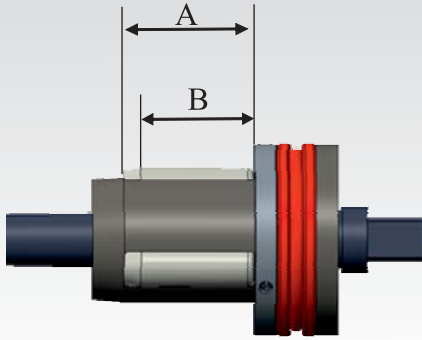


X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

SPECIFICATIONS

Sr. No.	Tube O.D.	Tube Thickness			Tube I.D.		Tube O.D.	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool	
		Inch (mm)	bwg	mm	Inch	mm		Inch	Inch (mm)	bwg	mm	Inch	mm	Inch	mm	Inch
44	3 (76.20)	3		.259			2.3/4 (69.85)	9 & 10	3.40	.148 & .134	63.0	2.482	58.6	2.307	67.0	2.637
45		4		.238				11 - 13	3.04-2.41	.120 - .095	63.7 - 65.0	2.510 - 2.560	60.4	2.377	68.8	2.708
46		5 & 6		.220 & .203				14 - 16	2.10-1.65	.083 - .065	65.6 - 66.5	2.584 - 2.620	62.2	2.448	70.4	2.771
47		7 & 8	4.19	.180 & .165	67.8	2.67	3.1/4 (82.55)	3		.259			63.6	2.503	72.0	2.834
48		9 & 10	3.75 & 3.40	.148 & .134	68.6 & 69.3	2.704 & 2.732		4		.238			65.0	2.559	73.4	2.889
49		11 - 13	3.04 - 2.41	.120 - .095	70.1 - 71.3	2.760 - 2.810		5 & 6		.220 & .203			66.6	2.622	75.0	2.952
50		14 - 16	2.10 - 1.65	.083 - .065	71.9 - 72.8	2.834 - 2.870							68.3	2.688	76.9	3.027
51	3.1/2 (88.9)	2		.284			3.1/4 (82.55)	7 & 8		.180 & .165			69.9	2.751	78.5	3.090
52		3		.259				9 & 10		.148 & .134			71.5	2.814	80.1	3.153
53		4		.238				11 - 13		.120 - .095			73.1	2.877	81.7	3.216
54		5 & 6		.220 & .203				14 - 16		.083 - .065			74.6	2.937	84.2	3.314
55		7 & 8		.180 & .165			2		.284			76.2	3.000	85.5	3.366	
56		9 - 11		.148 - .120			3		.259			77.8	3.062	87.4	3.440	
57		12 - 16		.109 - .065			4		.238			79.4	3.125	89.0	3.503	
58						5 & 6		.220 & .203			81.0	3.188	90.6	3.566		
59	4 (101.6)	2		.284			3.3/4 (95.25)	7 & 8		.180 & .165			82.6	3.251	92.2	3.629
60		3	6.60	.259	88.4	3.480		9 & 10		.148 & .134			84.2	3.314	93.8	3.692
61		4	6.00	.238	89.6	3.527		11 - 13		.120 - .095			85.8	3.377	96.2	3.787
62		5 & 6		.220 & .203				14 - 16		.083 - .065			87.4	3.440	97.8	3.850
63		7 & 8	4.19	.180 & .165	93.2	3.67	2		.284			89.0	3.503	99.4	3.913	
64		9 - 11	4.19 - 3.04	.148 - .120	94.1 - 95.5	3.704 - 3.760	3		.259			90.4	3.559	100.8	3.968	
65		12 - 16	2.76 - 1.65	.109 - .065	96.1 - 98.3	3.783 - 3.870	4		.238			92.0	3.622	102.4	4.031	
66						5 & 6		.220 & .203			93.4	3.677	103.8	4.086		
67	4.1/2 (114.3)	2		.284			4.1/4 (107.9)	7 & 8		.180 & .165			95.0	3.740	105.4	4.149
68		3	6.60	.259	101.1	3.98		9 - 11		.148 - .120			96.6	3.803	107.0	4.212
69		4 & 5	6.00	.238 & .220	102.3 &	4.030		11 - 13		.120 - .095			98.2	3.866	108.6	4.275
70		6 & 7		.203 & .180									101.2	3.984	110.0	4.330
71		8 & 9	4.19 & 3.75	.165 & .148	105.9 & 106.8	4.170 & 4.204							102.8	4.047	111.6	4.393
72	10 - 12	3.40 - 2.76	.134 - .109	107.5 - 108.8	4.232 - 4.283						104.4	4.110	113.2	4.456		



X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.1/2"	38.1
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	1.3/4"	44.5
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.1/4"	57.2
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	2.3/4"	69.9
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.1/4"	82.6

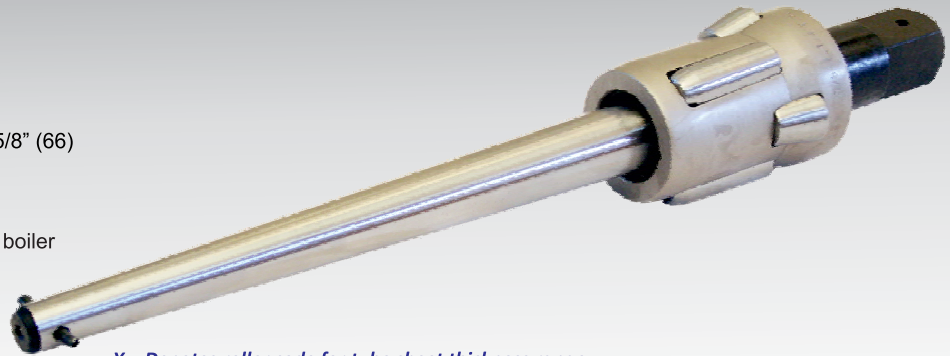
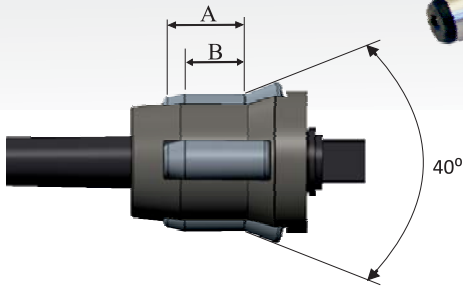
SPECIFICATIONS

Sr. No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Drum Mandrel Model Number
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		
44	AB-74/2	AB-74/3	AB-74/4	AB-74/5	AB-74/6	47-2-RS	47-3-RS	47-4-RS	47-5-RS	47-6-RS	1	DMB-25
45	AB-75/2	AB-75/3	AB-75/4	AB-75/5	AB-75/6	48-2-RS	48-3-RS	48-4-RS	48-5-RS	48-6-RS	1	DMB-25
46	AB-76/2	AB-76/3	AB-76/4	AB-76/5	AB-76/6	49-2-RS	49-3-RS	49-4-RS	49-5-RS	49-6-RS	1	DMB-25
47	AB-77/2	AB-77/3	AB-77/4	AB-77/5	AB-77/6	50-2-RS	50-3-RS	50-4-RS	50-5-RS	50-6-RS	1	DMB-25
48	AB-78/2	AB-78/3	AB-78/4	AB-78/5	AB-78/6	51-2-RS	51-3-RS	51-4-RS	51-5-RS	51-6-RS	1	DMB-25
49	AB-79/2	AB-79/3	AB-79/4	AB-79/5	AB-79/6	52-2-RS	52-3-RS	52-4-RS	52-5-RS	52-6-RS	1	DMB-25
50	AB-80/2	AB-80/3	AB-80/4	AB-80/5	AB-80/6	51-2-RS	51-3-RS	51-4-RS	51-5-RS	51-6-RS	1	DMB-26
51	AB-81/2	AB-81/3	AB-81/4	AB-81/5	AB-81/6	52-2-RS	52-3-RS	52-4-RS	52-5-RS	52-6-RS	1	DMB-26
52	AB-82/2	AB-82/3	AB-82/4	AB-82/5	AB-82/6	53-2-RS	53-3-RS	53-4-RS	53-5-RS	53-6-RS	1	DMB-26
53	AB-83/2	AB-83/3	AB-83/4	AB-83/5	AB-83/6	54-2-RS	54-3-RS	54-4-RS	54-5-RS	54-6-RS	1	DMB-26
54	AB-84/2	AB-84/3	AB-84/4	AB-84/5	AB-84/6	54-2-RS	54-3-RS	54-4-RS	54-5-RS	54-6-RS	1	DMB-27
55	AB-85/2	AB-85/3	AB-85/4	AB-85/5	AB-85/6	55-2-RS	55-3-RS	55-4-RS	55-5-RS	55-6-RS	1	DMB-27
56	AB-86/2	AB-86/3	AB-86/4	AB-86/5	AB-86/6	56-2-RS	56-3-RS	56-4-RS	56-5-RS	56-6-RS	1	DMB-27
57	AB-87/2	AB-87/3	AB-87/4	AB-87/5	AB-87/6	57-2-RS	57-3-RS	57-4-RS	57-5-RS	57-6-RS	1	DMB-27
58	AB-88/2	AB-88/3	AB-88/4	AB-88/5	AB-88/6	58-2-RS	58-3-RS	58-4-RS	58-5-RS	58-6-RS	1	DMB-27
59	AB-89/2	AB-89/3	AB-89/4	AB-89/5	AB-89/6	59-2-RS	59-3-RS	59-4-RS	59-5-RS	59-6-RS	1	DMB-27
60	AB-90/2	AB-90/3	AB-90/4	AB-90/5	AB-90/6	60-2-RS	60-3-RS	60-4-RS	60-5-RS	60-6-RS	1	DMB-27
61	AB-91/2	AB-91/3	AB-91/4	AB-91/5	AB-91/6	59-2-RS	59-3-RS	59-4-RS	59-5-RS	59-6-RS	1	DMB-28
62	AB-92/2	AB-92/3	AB-92/4	AB-92/5	AB-92/6	60-2-RS	60-3-RS	60-4-RS	60-5-RS	60-6-RS	1	DMB-28
63	AB-93/2	AB-93/3	AB-93/4	AB-93/5	AB-93/6	61-2-RS	61-3-RS	61-4-RS	61-5-RS	61-6-RS	1	DMB-28
64	AB-94/2	AB-94/3	AB-94/4	AB-94/5	AB-94/6	62-2-RS	62-3-RS	62-4-RS	62-5-RS	62-6-RS	1	DMB-28
65	AB-95/2	AB-95/3	AB-95/4	AB-95/5	AB-95/6	63-2-RS	63-3-RS	63-4-RS	63-5-RS	63-6-RS	1	DMB-28
66	AB-96/2	AB-96/3	AB-96/4	AB-96/5	AB-96/6	62-2-RS	62-3-RS	62-4-RS	62-5-RS	62-6-RS	1	DMB-29
67	AB-97/2	AB-97/3	AB-97/4	AB-97/5	AB-97/6	63-2-RS	63-3-RS	63-4-RS	63-5-RS	63-6-RS	1	DMB-29
68	AB-98/2	AB-98/3	AB-98/4	AB-98/5	AB-98/6	64-2-RS	64-3-RS	64-4-RS	64-5-RS	64-6-RS	1	DMB-29
69	AB-99/2	AB-99/3	AB-99/4	AB-99/5	AB-99/6	63-2-RS	63-3-RS	63-4-RS	63-5-RS	63-6-RS	1	DMB-30
70	AB-100/2	AB-100/3	AB-100/4	AB-100/5	AB-100/6	64-2-RS	64-3-RS	64-4-RS	64-5-RS	64-6-RS	1	DMB-30
71	AB-101/2	AB-101/3	AB-101/4	AB-101/5	AB-101/6	65-2-RS	65-3-RS	65-4-RS	65-5-RS	65-6-RS	1	DMB-30
72	AB-102/2	AB-102/3	AB-102/4	AB-102/5	AB-102/6	66-2-RS	66-3-RS	66-4-RS	66-5-RS	66-6-RS	1	DMB-30

114 SERIES BOILER TUBE EXPANDER

Features :

- >> Available for 2" to 4.1/2 O.D.
- >> Self feeding.
- >> 2 flare & 4 plain Rolls.
- >> Available for tube sheet 1/2" (12.7) to 2.5/8" (66)
- >> Self retained rolls in cage.
- >> Overlapping rolls prevents riding of tube.
- >> Use for parallel cum flaring expansion of boiler tube in single operation



X – Denotes roller code for tube sheet thickness range

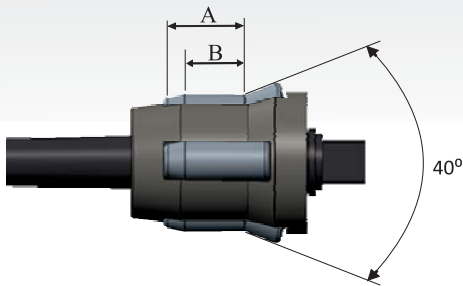
X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.7/8"	47.6
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	2.5/32"	54.8
4	1.1/8 to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.5/8"	66.7
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	3.5/32"	80.1
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.5/8"	92.0

SPECIFICATIONS

Sr No.	Tube O.D.	Tube Thickness			Tube I.D.		Tube O.D.	Tube Thickness			Tube I.D.		Minimum I.D. Tool Enters		Maximum of Expansion Tool		
		Inch (mm)	bwg	mm	Inch	mm		Inch	Inch	bwg	mm	Inch	mm	Inch	mm	Inch	mm
1	2 (50.80)	4 & 5	6.0 - 5.6	.238 - .220			1.3/4 (44.45)	11 - 13	3.0 - 2.4	.120 - .095	38.3 - 39.6	1.510 - 1.560	36.7	1.444	43.1	1.696	
2		6 & 7	5.2 - 4.6	.203 - .180	41.6	1.640		14 - 16	12.1 - 1.7	.480 - .065	40.2	1.584	38.3	1.507	44.6	1.755	
3		7 & 8	4.6 - 4.2	.180 - .165	42.4	1.670								39.9	1.570	46.4	1.826
4		9 & 10	3.8 - 3.4	.148 - .134	43.9	1.7320	2.1/4 (57.15)	13	2.4	.095	52.3	2.060	41.5	1.633	48.0	1.889	
5		11 - 13	3.0 & 2.4	.120 - .095	44.7 - 45.9	1.76 - 1.810		4 & 5	6.0 - 5.6	.238 & .220				43.1	1.696	49.6	1.952
6	2.1/2 (63.50)	2	7.2	.284			2.1/4 (57.15)	6 - 8	5.2 - 4.2	.203 - .165			45.5	1.791	52.6	2.070	
7		3 & 4	6.6 - 6.0	.259 & .238				9 - 11	3.8 - 3.0	.148 - .120	51.0	2.01	47.1	1.856	54.2	2.133	
8		4 - 6	6.0 - 5.2	.238 - .203			2.3/4 (69.85)	12 - 15	2.8 - 1.8	.109 - .072	51.6 - 53.4	2.032 - 2.106	49.0	1.929	57.3	2.255	
9		7 - 10	4.6 - 3.4	.180 - .134	54.5 - 56.6	2.146 - 2.232		2 & 3	7.2 - 6.6	.284 & .259				51.9	2.043	60.5	2.381
10		11 - 13	3.0 - 2.4	.120 - .095	57.4 - 58.6	2.260 - 2.310	4 & 5	6.0 - 5.6	.238 & .220				55.1	2.169	63.7	2.507	
11	(76.20)	1 - 3	7.6 - 6.6	.300 - .259			2.3/4 (69.85)	6 - 10	5.2 - 3.4	.203 - .134	63.0	2.482	57.4	2.259	66.6	2.622	
12		4 - 6	6.0 - 5.2	.238 - .203				11 - 15	3.0 - 1.8	.120 - .072	63.7 - 66.1	2.510 - 2.606	60.6	2.385	70.0	2.755	
13		7 - 11	4.6 - 3.0	.180 - .120	70.1	2.760	3.1/4 (82.55)	1 - 4	7.6 - 5.6	.300 - .238			63.8	2.511	73.9	2.909	
14		10 - 12	3.4 - 2.8	.134 - .109	69.3 - 70.6	2.732 - 2.782		4 - 7	6.0 - 4.6	.238 - .180				66.9	2.635	77.3	3.043
15	3.1/2 (88.9)	1 - 4	7.6 - 6.0	.300 - .238			3.1/4 (82.55)	7 - 11	4.6 - 3.0	.180 - .120			70.1	2.759	80.1	3.153	
16		4 - 7	6.0 - 4.6	.238 - .180				10 - 15	3.4 - 1.8	.134 - .072			73.0	2.874	83.4	3.283	
17		7 - 11	4.6 - 3.0	.180 - .120			3.3/4 (95.25)	2 & 3	7.2 - 6.6	.284 & .259			76.2	3.000	86.8	3.417	
18		10 - 12	3.4 - 2.8	.134 - .109				4 & 5	6.0 - 5.2	.238 & .220			79.3	3.122	89.8	3.535	
19	4 (101.6)	1 - 4	7.6 - 5.2	.300 - .238	89.6	3.527	3.3/4 (95.25)	6 - 10	5.2 - 3.4	.203 - .134			82.5	3.248	93.0	3.661	
20		4 - 7	6.0 - 4.6	.238 - .180				11 - 15	3.0 - 1.8	.120 - .072			85.7	3.374	96.0	3.779	
21		7 - 11	4.6 - 3.0	.180 - .120	95.5	3.760	4.1/4 (107.9)	2 & 3	7.2 - 6.6	.284 & .259			88.9	3.500	98.6	3.881	
22		8 - 12	4.2 - 2.8	.165 - .109	93.2 - 96.1	3.670 - 3.783		3 & 5	6.6 - 5.6	.259 & .220			90.5	3.562	102.3	4.027	
23	4.1/2 (114.3)	1 - 4	7.6 - 6.0	.300 - .238	102.3	4.030	4.1/4 (107.9)	6 - 9	5.2 - 3.8	.203 - .148			95.2	3.748	104.7	4.122	
24		3 - 8	6.0 - 4.2	.238 - .165	101.1-105.9	3.980 - 4.170		10 - 13	3.4 - 2.4	.134 - .095			98.4	3.874	110.3	4.342	
25		6 - 12	5.2 - 2.8	.203 - .109	108.8	4.283	-	-	-	-	-	-	101.6	4.000	113.5	4.468	

114 SERIES BOILER TUBE EXPANDER

BOILER TUBE EXPANDER



X – Denotes roller code for tube sheet thickness range

X	Tube sheet thick range	Total roller length (A)		Effective roller length (B)	
		Inch	mm	Inch	mm
2	½" to 7/8" (12.7 to 22.22mm)	2.1/4"	57.1	1.7/8"	47.6
3	¾" to 1.1/8" (19.05 to 28.58mm)	2.1/2"	63.4	2.5/32"	54.8
4	1.1/8" to 1.5/8" (28.58 to 41.28mm)	3"	76.2	2.5/8"	66.7
5	1.5/8" to 2.1/8" (41.28 to 53.98mm)	3.1/2"	88.8	3.5/32"	80.1
6	2.1/8" to 2.5/8" (53.98 to 66.68mm)	4"	101.5	3.5/8"	92.0

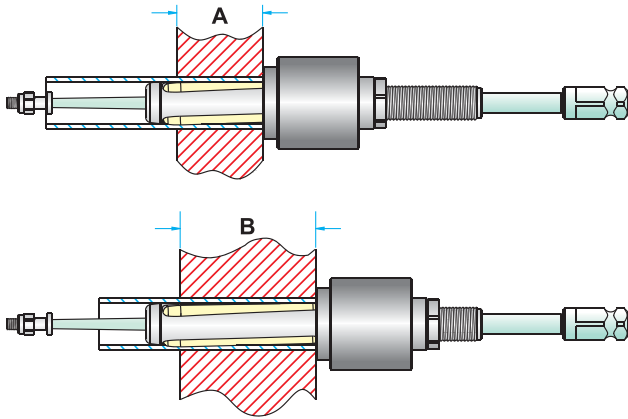
SPECIFICATIONS

Sr No.	Tube Expander Model Number Tube Sheet Thickness Range					Spare Rollers Set Model Number Tube Sheet Thickness Range					Mandrel Square Drive Size inch	Spare Mandrel Model Number			
	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"	½" To 7/8"	¾" To 1.1/8"	1.1/8" To 1.5/8"	1.5/8" To 2.1/8"	2.1/8" To 2.5/8"		Drum Type	Header Type	Short Series 5.1/8 inch	
1	-	14172	14174	14176	14178	-	34872	34874	34878	34948	3/4	32269	32289	32308 32309 32310 32311	34876, 34948
2	-	14182	14184	14186	14188	-	34879	34881	34883	34949	3/4	32269	32289	32309 32310 32311	-
3	14191	14192	14194	14196	14198	34878	34879	34881	34883	34949	3/4	32270	32290	32309 32310 32311 32312	-
4	14201	14202	14204	14206	14208	34878	34879	34881	34883	34949	3/4	32271	32291	32311 32312 32313	32346
5	14211	14212	14214	14216	14218	34885	34886	34888	34890	34950	3/4	32270	32290	32310 32311 32312	32345
6	-	14222	14224	14226	14228	-	34893	34895	34897	34951	3/4	32270	32290	32310 32311 32312 32313	-
7	-	14232	14234	14236	14238	-	34893	34895	34897	34951	3/4	32271	32291	32311 32312 32313 32314	-
8	-	14242	14244	14246	14248	-	34893	34895	34897	34951	3/4	32272	32292	32312 32313 21214 32315 32316	-
9	-	14252	14254	14256	14258	-	34900	34902	34904	34952	3/4	32272	32292	32312 32313 32314 32315 32316	32347 32348 32349
10	14261	14262	14264	14266	14268	34899	34900	34902	34904	34952	3/4	32273	32293	32315 32316 32317	33630 33631
11	-	14272	14274	14276	14278	-	34907	34909	34911	34953	3/4	32273	32293	32315 32316 32317 32318 32319	-
12	-	14282	14284	14286	14288	-	34907	34909	34911	34953	1	32274	32294	32317 32318 32319 32320 32321	-
13	-	14292	14294	14296	14298	-	34914	34916	34918	34954	1	32274	32294	32318 32319 32320 32321 32322	33632 33633 33634 33635
14	14301	14302	14304	14306	14308	34913	34914	34916	34918	34954	1	32275	32295	32320 32321 32322	33634 33635
15	-	14312	14314	14316	14318	-	34921	34923	34925	34955	1	32274	32294	32318 32319 32320 32321 32322	-
16	-	14322	14324	14326	14328	-	34921	34923	34925	34955	1	32275	32295	32321 32322 32323 32324 32325	-
17	-	14332	14334	14336	14338	-	34921	34923	34925	34955	1	32276	32296	32323 32324 32325 32326 32327	-
18	-	14342	14344	14346	14348	-	34921	34923	34925	34955	1	32277	32297	32324 32325 32326 32327 32328	-
19	-	14352	14354	14356	14358	-	34928	34930	34932	34956	1	32276	32296	32324 32325 32326 32327 32328	-
20	-	14362	14364	14366	14368	-	34928	34930	34932	34956	1	32277	32297	32326 32327 32328 32329 32330	-
21	-	14372	14374	14376	14378	-	34928	34930	34932	34956	1	32278	32298	32328 32329 32330 32331 32332	-
22	-	14382	14384	14386	14388	-	34935	34937	34939	34957	1	32277	32297	32324 32325 32326 32327 32328	-
23	-	14392	14394	14396	14398	-	34935	34937	34939	34957	1	32278	32298	32329 32330 32331 32332 32350	-
24	-	14402	14404	14406	14408	-	34935	34937	34939	34957	1	32279	32299	32331 32332 32350 32337 32338	-
25	-	14412	14414	14416	14418	-	34942	34944	34946	34958	1	32278	32298	32326 32327 32328 32329 32330	-

8012 SERIES BOILER TUBE EXPANDER



BOILER TUBE EXPANDER



FOR TUBES INTERNAL DIAMETER
FROM (36.1 mm) 1.420" TO (123.7 mm) 4.870"

TUBE EXPANDERS FITTED WITH ROLLER LENGTH	FOR TUBE SHEET ADJUSTABLE RANGE	
	MINIMUM A	MAXIMUM B
2.1/4" (57.1mm)	STD. REACH - 6" REACH - 8" REACH	(101.4mm) 4" (152.4mm) 6" (203.2mm) 8"

For Mandrels in 6" and 8" reach - suffix -6" or -8" to the mandrel model number.

- Use : To expand tubes in Air Heaters, Boilers and Refinery still tubes. Can be used to expand thick tube sheets (upto 8").
- For Larger Size '8012' series expanders, please contact us.

■ SPECIFICATIONS

TUBE OD	Tube thickness			Tube ID		Minimum ID tool enters		Maximum expansion of tool		Expander with roller 2.1/4" (57.15mm) long		
	(MM) Inch	Bwg	mm	inch	mm	inch	mm	inch	mm	inch	Complete tool no	Mandrel no
(44.45mm) 1.3/4"	8	4.19	.165	36.1	1.420	34.7	1.368	39.3	1.550	8012-1.3/4-8	M-90	R-33-A
	10	3.40	.134	37.6	1.482	36.0	1.420	40.8	1.607	8012-1.3/4-10	M-90	R-37-A
	11	3.04	.120	38.3	1.510	36.9	1.454	41.5	1.635	8012-1.3/4-11	M-90	R-42
	12	2.76	.109	38.9	1.532	37.6	1.482	42.0	1.657	8012-1.3/4-12	M-90	R-44
	13	2.41	.095	39.6	1.560	38.3	1.510	42.7	1.685	8012-1.3/4-13	M-90	R-46
	14	2.10	.083	40.2	1.584	38.9	1.532	43.4	1.709	8012-1.3/4-14	M-90	R-48

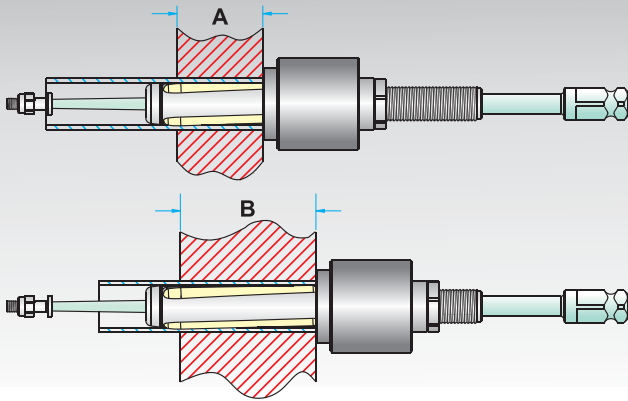
8012 SERIES BOILER TUBE EXPANDER

TUBE OD	Tube thickness			Tube ID		Minimum ID tool enters		Maximum expansion of tool		Expander with roller 2.1/4" (57.15mm) long		
	(MM) Inch	Bwg	mm	inch	mm	inch	mm	inch	mm	inch	Complete tool no	Mandrel no
(50.80mm) 2"	7	4.57	.180	41.6	1.640	39.8	1.570	45.0	1.770	8012-2-7	M-91	R-46
	8	4.19	.165	42.4	1.670	40.5	1.595	45.6	1.795	8012-2-8	M-91	R-48
	10	3.40	.134	43.9	1.732	41.6	1.640	47.1	1.857	8012-2-10	M-91	R-50
	11	3.04	.120	44.7	1.760	42.4	1.670	47.8	1.885	8012-2-11	M-91	R-52
	12	2.76	.109	45.2	1.782	43.2	1.704	48.4	1.907	8012-2-12	M-91	R-54
	13	2.41	.095	45.9	1.810	43.9	1.732	49.6	1.956	8012-2-13-18	M-91	R-56
	14	2.10	.083	46.5	1.834	43.9	1.732	49.6	1.956	8012-2-13-18	M-91	R-56
	15	1.83	.072	47.1	1.856	43.9	1.732	49.6	1.956	8012-2-13-18	M-91	R-56
	16	1.65	.065	47.4	1.870	43.9	1.732	49.6	1.956	8012-2-13-18	M-91	R-56
	17	1.47	.058	47.9	1.884	43.9	1.732	49.6	1.956	8012-2-13-18	M-91	R-56
	18	1.24	.049	48.3	1.902	43.9	1.732	49.6	1.956	8012-2-13-18	M-91	R-56

(57.15mm) 2.1/4"	10	3.40	.134	50.3	1.982	48.0	1.890	53.5	2.107	8012-2.1/4-10	M-92	R-56
	11	3.04	.120	51.0	2.010	48.7	1.920	54.2	2.135	8012-2.1/4-11	M-92	R-58
	12	2.76	.109	51.6	2.032	49.6	1.954	54.7	2.157	8012-2.1/4-12	M-92	R-60
	13	2.41	.095	52.3	2.060	50.3	1.982	55.4	2.185	8012-2.1/4-13-16	M-92	R-62
	14	2.10	.083	52.9	2.084	50.3	1.982	55.4	2.185	8012-2.1/4-13-16	M-92	R-62
	15	1.83	.072	53.4	2.106	50.3	1.982	55.4	2.185	8012-2.1/4-13-16	M-92	R-62
	16	1.65	.065	53.8	2.120	50.3	1.982	55.4	2.185	8012-2.1/4-13-16	M-92	R-62

(63.50mm) 2.1/2"	7-8	4.50	.177	54.5	2.146	52.0	2.050	59.3	2.335	8012-2.1/2-7-8	M-92	R-45-A
	9	3.75	.148	56.0	2.204	53.5	2.106	60.4	2.380	8012-2.1/2-9	M-93	R-46-A
	10	3.40	.134	56.6	2.232	54.3	2.140	61.1	2.407	8012-2.1/2-10-12	M-93	R-64
	11	3.04	.120	57.4	2.260	54.3	2.140	61.1	2.407	8012-2.1/2-10-12	M-93	R-64
	12	2.76	.109	57.9	2.282	54.3	2.140	61.1	2.407	8012-2.1/2-10-12	M-93	R-64
	13	2.41	.095	58.6	2.310	56.6	2.232	62.2	2.450	8012-2.1/2-13-18	M-94	R-64
	14	2.10	.083	59.2	2.334	56.6	2.232	62.2	2.450	8012-2.1/2-13-18	M-94	R-64
	15	1.83	.072	59.8	2.356	56.6	2.232	62.2	2.450	8012-2.1/2-13-18	M-94	R-64
	16	1.65	.065	60.1	2.370	56.6	2.232	62.2	2.450	8012-2.1/2-13-18	M-94	R-64
	17	1.47	.058	60.6	2.384	56.6	2.232	62.2	2.450	8012-2.1/2-13-18	M-94	R-64
	18	1.24	.049	61.0	2.402	56.6	2.232	62.2	2.450	8012-2.1/2-13-18	M-94	R-64

8012 SERIES BOILER TUBE EXPANDER



FOR TUBES INTERNAL DIAMETER
FROM (36.1 mm) 1.420" TO (123.7 mm) 4.870"

TUBE EXPANDERS FITTED WITH ROLLER LENGTH		FOR TUBE SHEET ADJUSTABLE RANGE	
		MINIMUM A	MAXIMUM B
2.1/4" (57.1mm)	STD. REACH - 6" REACH - 8" REACH	(12.7mm) 1/2"	(101.4mm) 4" (152.4mm) 6" (203.2mm) 8"

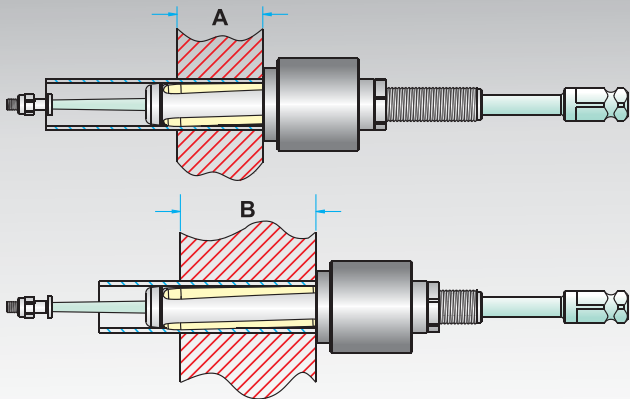
For Mandrels in 6" and 8" reach - suffix -6" or -8" to the mandrel model number.

TUBE OD	Tube thickness			Tube ID		Minimum ID tool enters		Maximum expansion of tool		Expander with roller 2.1/4" (57.15mm) long		
	(MM) Inch	Bwg	mm	inch	mm	inch	mm	inch	mm	inch	Complete tool no	Mandrel no
(69.85mm) 2.3/4"	10	3.40	.134	63.0	2.482	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66
	11	3.04	.120	63.7	2.510	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66
	12	2.76	.109	64.3	2.532	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66
	13	2.41	.095	65.0	2.560	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66
	14	2.10	.083	65.6	2.584	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66
	15	1.83	.072	66.1	2.606	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66
	16	1.65	.065	66.5	2.620	60.7	2.390	68.6	2.702	8012-2.3/4-10-16	M-96	R-66

(76.20mm) 3"	8	4.19	.165	67.8	2.670	65.0	2.560	71.8	2.829	8012-3-8-9	M-97	R-67
	9	3.75	.148	68.6	2.704	65.0	2.560	71.8	2.829	8012-3-8-9	M-97	R-67
	10	3.40	.134	69.3	2.732	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	11	3.04	.120	70.1	2.760	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	12	2.76	.109	70.6	2.782	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	13	2.41	.095	71.3	2.810	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	14	2.10	.083	71.9	2.834	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	15	1.82	.072	72.5	2.856	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	16	1.65	.065	72.8	2.870	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	17	1.47	.058	73.3	2.884	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67
	18	1.24	.049	73.7	2.902	67.0	2.640	74.9	2.952	8012-3-10-18	M-96	R-67

(88.9mm) 3.1/2"	13	2.41	.095	84.1	3.311	81.0	3.190	88.0	3.464	8012-3.1/2-10-18	M-99	R-70
	14	2.10	.083	84.7	3.334	81.0	3.190	88.0	3.464	8012-3.1/2-10-18	M-99	R-70
	15	1.83	.072	85.2	3.354	81.0	3.190	88.0	3.464	8012-3.1/2-10-18	M-99	R-70
	16	1.65	.065	85.6	3.370	81.0	3.190	88.0	3.464	8012-3.1/2-10-18	M-99	R-70
	17	1.47	.058	86.0	3.385	81.0	3.190	88.0	3.464	8012-3.1/2-10-18	M-99	R-70
	18	1.24	.049	86.4	3.401	81.0	3.190	88.0	3.464	8012-3.1/2-10-18	M-99	R-70

8012 SERIES BOILER TUBE EXPANDER



FOR TUBES INTERNAL DIAMETER
FROM (36.1 mm) 1.420" TO (123.7 mm) 4.870"

TUBE EXPANDERS FITTED WITH ROLLER LENGTH	FOR TUBE SHEET ADJUSTABLE RANGE	
	MINIMUM A	MAXIMUM B
2.1/4" (57.1mm)	STD. REACH - 6" REACH - 8" REACH	(12.7mm) 1/2" (101.4mm) 4" (152.4mm) 6" (203.2mm) 8"

For Mandrels in 6" and 8" reach - suffix -6" or -8" to the mandrel model number.

TUBE OD (MM) Inch	Tube thickness			Tube ID		Minimum ID tool enters		Maximum expansion of tool		Expander with roller 2.1/4" (57.15mm) long		
	Bwg	mm	inch	mm	inch	mm	inch	mm	inch	Complete tool no	Mandrel no	Rollers set no
(101.6mm) 4"	3	6.60	.259	88.4	3.480	87.0	3.425	96.0	3.780	8012-4-3-4	M-100	R-71
	4	6.00	.236	89.6	3.527	87.0	3.425	96.0	3.780	8012-4-3-4	M-100	R-71
	8	4.19	.165	93.2	3.670	91.0	3.582	100.0	3.940	8012-4-8-9	M-101	R-71
	9	3.75	.148	94.1	3.704	91.0	3.582	100.0	3.940	8012-4-8-9	M-101	R-71
	10	3.40	.134	94.8	3.732	93.0	3.661	100.6	3.960	8012-4-10-18	M-101	R-72
	11	3.04	.120	95.5	3.760	93.0	3.661	100.6	3.960	8012-4-10-18	M-101	R-72
	12	2.76	.109	96.1	3.783	93.0	3.661	100.6	3.960	8012-4-10-18	M-101	R-72
	13	2.41	.095	96.8	3.811	93.0	3.661	100.6	3.960	8012-4-10-18	M-101	R-72
	14	2.10	.083	97.4	3.834	93.0	3.661	100.6	3.960	8012-4-10-18	M-101	R-72
	16	1.65	.065	98.3	3.870	93.0	3.661	100.6	3.960	8012-4-10-18	M-101	R-72

(114.3mm) 4.1/2"	3	6.60	.259	101.1	3.980	100.0	3.940	109.0	4.291	8012-4.1/2-3-4	M-102	R-73
	4	6.00	.236	102.3	4.030	100.0	3.940	109.0	4.291	8012-4.1/2-3-4	M-102	R-73
	8	4.19	.165	105.9	4.170	102.0	4.020	111.0	4.370	8012-4.1/2-8-9	M-102	R-74
	9	3.75	.148	106.8	4.204	102.0	4.020	111.0	4.370	8012-4.1/2-8-9	M-102	R-74
	10	3.40	.134	107.5	4.232	104.0	4.100	113.0	4.450	8012-4.1/2-10-18	M-103	R-74
	12	2.76	.109	108.8	4.283	104.0	4.100	113.0	4.450	8012-4.1/2-10-18	M-103	R-74
	16	1.65	.065	111.0	4.370	104.0	4.100	113.0	4.450	8012-4.1/2-10-18	M-103	R-74

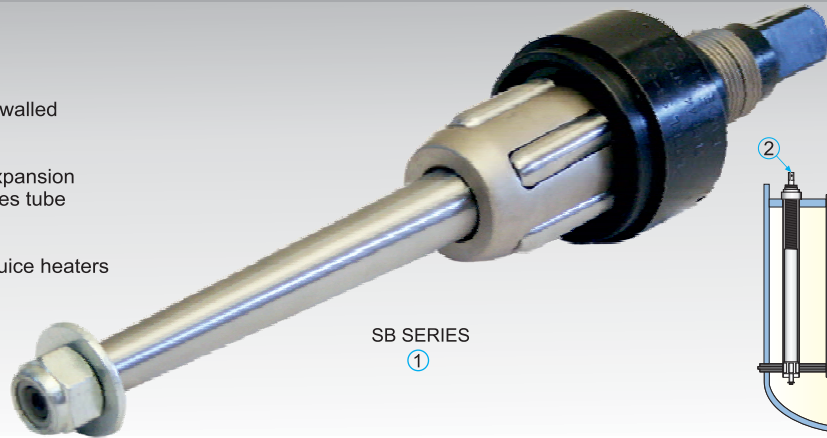
(127.0mm) 5"	3	6.60	.259	113.8	4.480	112.0	4.410	121.0	4.763	8012-5-3-4	M-105	R-76
	4	6.00	.236	115.0	4.527	112.0	4.410	121.0	4.763	8012-5-3-4	M-105	R-76
	8	4.19	.165	118.6	4.670	116.0	4.566	125.0	4.921	8012-5-8-9	M-105	R-77
	9	3.75	.148	119.5	4.704	116.0	4.566	125.0	4.921	8012-5-8-9	M-105	R-77
	10	3.40	.134	120.2	4.732	117.0	4.606	126.0	4.960	8012-5-10-18	M-105	R-78
	11	3.04	.120	121.0	4.763	117.0	4.606	126.0	4.960	8012-5-10-18	M-105	R-78
	12	2.76	.109	121.5	4.783	117.0	4.606	126.0	4.960	8012-5-10-18	M-105	R-78
	14	2.10	.083	122.8	4.834	117.0	4.606	126.0	4.960	8012-5-10-18	M-105	R-78
	16	1.65	.065	123.7	4.870	117.0	4.606	126.0	4.960	8012-5-10-18	M-105	R-78

SB SERIES BOILER TUBE EXPANDER

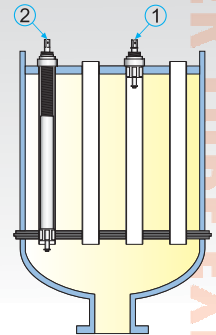
BOILER TUBE EXP

Features :

- >> '5 Roll' design is used primarily for rolling thin walled tubes in sugar mill juice heaters, pans.
- >> '5 Roll' give you a more concentric, uniform expansion vs. a '3 Roll' expander in thin tubes and reduces tube 'spring back' effect.
- >> Use - For top plate tubes expansion in pans, juice heaters in sugar mills.



SB SERIES
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■ SPECIFICATIONS

Sr. No	Tube OD Inch	Tube Thickness		Minimum I.D. Tool Enters		Maximum Expansion Of Tool		Tube Sheet Thickness mm (inch)			Spare Mandrel Model No.	Mandrel Sq. Drive Inch	Spare Roller Set Model		
		bwg	Inch	mm	Inch	mm	Inch	31.75(1.25)	38.1(1.5)	50.8(2.0)					
								Tube Expander Model No.							
1	1.2/2	11 & 12	.120 & .109	31.0	1.220	33.2	1.307	SB-00A	SB-00B	SB-00C	SBM-1	1/2	SBR-1A	SBR-1B	SBR-1C
2	1.2/2	13 & 14	.095 & .083	32.5	1.279	36.0	1.417	SB-0A	SB-0B	SB-0C	SBM-2	1/2	SBR-2A	SBR-2B	SBR-2C
3	1.2/2	15 & 16	.072 & .065	33.5	1.319	37.2	1.465	SB-1A	SB-1B	SB-1C	SBM-2	1/2	SBR-3A	SBR-3B	SBR-3C
4	1.3/4	9 & 10	.148 & .134	35.2	1.386	39.1	1.465	SB-2A	SB-2B	SB-2C	SBM-3	3/4	SBR-3A	SBR-3B	SBR-3C
5	1.3/4	11 & 12	.120 & .109	36.5	1.437	40.5	1.594	SB-3A	SB-3B	SB-3C	SBM-3	3/4	SBR-4A	SBR-4B	SBR-4C
6	1.3/4	13 & 14	.095 & .083	38.1	1.500	42.7	1.681	SB-4A	SB-4B	SB-4C	SBM-3	3/4	SBR-5A	SBR-5B	SBR-5C
7	1.3/4	15 & 16	.072 & .065	39.1	1.539	44.2	1.740	SB-5A	SB-5B	SB-5C	SBM-4	3/4	SBR-4A	SBR-4B	SBR-4C
8	2	7 & 8	.180 & .165	41.3	1.626	46.7	1.838	SB-6A	SB-6B	SB-6C	SBM-4	3/4	SBR-5A	SBR-5B	SBR-5C
9	2	9 & 10	.148 & .134	42.8	1.685	48.3	1.901	SB-7A	SB-7B	SB-7C	SBM-4	3/4	SBR-6A	SBR-6B	SBR-6C
10	2	11 - 13	.120 - .095	44.4	1.748	49.7	1.957	SB-8A	SB-8B	SB-8C	SBM-5	3/4	SBR-6A	SBR-6B	SBR-6C
11	2	14 - 16	.083 - .065	46.0	1.811	52.2	2.055	SB-9A	SB-9B	SB-9C	SBM-5	3/4	SBR-7A	SBR-7B	SBR-7C
12	2.1/4	9 & 10	.148 & .134	47.6	1.874	53.8	2.118	SB-10A	SB-10B	SB-10C	SBM-5	3/4	SBR-8A	SBR-8B	SBR-8C
13	2.1/4	11 - 13	.120 & .095	49.2	1.937	55.4	2.181	SB-11A	SB-11B	SB-11C	SBM-5	3/4	SBR-9A	SBR-9B	SBR-9C
14	2.1/4	14 - 16	.083 - .065	50.7	1.996	57.8	2.275	SB-12A	SB-12B	SB-12C	SBM-6	3/4	SBR-8A	SBR-8B	SBR-8C
15	2.1/2	9 & 10	.148 & .134	54.9	2.161	61.0	2.401	SB-13A	SB-13B	SB-13C	SBM-6	3/4	SBR-10A	SBR-10B	SBR-10C
16	2.1/2	14 - 16	.083 - .065	57.1	2.248	65.6	2.582	SB-14A	SB-14B	SB-14C	SBM-7	1	SBR-11A	SBR-11B	SBR-11C
17	2.3/4	10 - 14	.134 - .083	60.3	2.374	68.8	2.708	SB-15A	SB-15B	SB-15C	SBM-7	1	SBR-12A	SBR-12B	SBR-12C
18	3	7 - 9	.180 - .148	63.5	2.500	72.0	2.835	SB-16A	SB-16B	SB-16C	SBM-7	1	SBR-13A	SBR-13B	SBR-13C
19	3	10 - 14	.134 - .083	66.5	2.618	75.0	2.953	SB-17A	SB-17B	SB-17C	SBM-7	1	SBR-14A	SBR-14B	SBR-14C
20	3.1/4	7 & 8	.180 & .165	69.8	2.748	78.5	3.090	SB-18A	SB-18B	SB-18C	SBM-8	1	SBR-14A	SBR-14B	SBR-14C
21	3.1/2	4 & 5	.238 & .220	73.0	2.874	81.7	3.216	SB-19A	SB-19B	SB-19C	SBM-8	1	SBR-15A	SBR-15B	SBR-15C
22	3.1/2	6 - 8	.203 - .165	76.1	2.996	85.8	3.378	SB-20A	SB-20B	SB-20C	SBM-9	1	SBR-16A	SBR-16B	SBR-16C
23	3.3/4	4 & 5	.238 & .220	79.3	3.122	89.0	3.504	SB-21A	SB-21B	SB-21C	SBM-9	1	SBR-17A	SBR-17B	SBR-17C
24	3.3/4	6 - 8	.203 - .165	82.5	3.248	92.2	3.629	SB-22A	SB-22B	SB-22C	SBM-9	1	SBR-18A	SBR-18B	SBR-18C
25	4	3 & 4	.259 & .238	85.7	3.374	96.2	3.787	SB-23A	SB-23B	SB-23C	SBM-10	1	SBR-18A	SBR-18B	SBR-18C
26	4	10 - 16	.134 - .065	90.3	3.555	100.8	3.968	SB-24A	SB-24B	SB-24C	SBM-10	1	SBR-19A	SBR-19B	SBR-19C
27	4.1/4	6 - 8	.203 - .165	94.9	3.736	105.8	4.141	SB-25A	SB-25B	SB-25C	SBM-11	1	SBR-20A	SBR-20B	SBR-20C
28	4.1/2	4 - 7	.238 - .180	89.7	3.531	110.9	4.366	SB-26A	SB-26B	SB-26C	SBM-11	1	SBR-21A	SBR-21B	SBR-21C
29	4.1/2	8 - 10	.165 - .134	104.3	4.106	113.1	4.452	SB-27A	SB-27B	SB-27C	SBM-12	1	SBR-21A	SBR-21B	SBR-21C

Features :

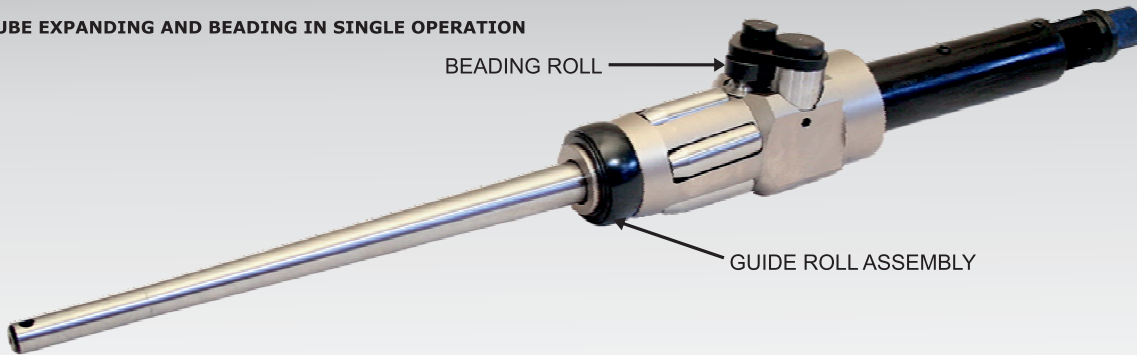
- >> '5 Roll' design is used primarily for rolling thin walled tubes in sugar mill juice heaters, pans.
- >> '5 Roll' give you a more concentric, uniform expansion vs. a '3 Roll' expander in thin tubes and reduces tube 'spring back' effect.
- >> Use - For bottom plate tubes expansion in pans, juice heaters in sugar mills.



SPECIFICATIONS

Sr. NO	Tube O.D. Inch	Tube Thickness		Minimum I.D. Tool Enters		Maximum Expansion Of Tool		Tube Sheet Thickness 'T'		Depth in Mtrs.		Mandrel Sq. Size	Oal	Weight in Kgs.	Tube Expander Model No.	Spare Mandrel Model No.	Spare Rollers Set Model No.
		bwg	inch	mm	inch	mm	inch	mm	inch	min	max						
CSB-5 (3 Rollers)																	
1	1.3/4	15 & 16	.072 & .065	39.8	1.566	45.3	1.783	32.0	1.259	1.7	2.0	3/4	2.258	10.0	CSB-5STD	CSBM-5STD	CSBR-5
2	1.3/4	15 & 16	.072 & .065	39.8	1.566	45.3	1.783	32.0	1.259	2.0	2.3	3/4	2.258	11.2	CSB-5A	CSBM-5A	CSBR-5
3	1.3/4	15 & 16	.072 & .065	39.8	1.566	45.3	1.783	32.0	1.259	2.3	2.3	3/4	2.258	12.4	CSB-5B	CSBM-5B	CSBR-5
4	1.3/4	15 & 16	.072 & .065	39.8	1.566	45.3	1.783	32.0	1.259	2.6	2.9	3/4	3.158	13.7	CSB-5C	CSBM-5C	CSBR-5
5	1.3/4	15 & 16	.072 & .065	39.8	1.566	45.3	1.783	32.0	1.259	2.9	3.2	3/4	3.458	14.9	CSB-5D	CSBM-5D	CSBR-5
6	1.3/4	15 & 16	.072 & .065	39.8	1.566	45.3	1.783	32.0	1.259	3.2	3.5	3/4	3.758	16.2	CSB-5E	CSBM-5E	CSBR-5
CSB-9 (5 Rollers)																	
7	2	14 - 16	.083 - .065	46.2	1.818	50.8	2.000	32.0	1.259	1.7	2.0	3/4	2.241	16.2	CSB-9STD	CSBM-9STD	CSBR-9
8	2	14 - 16	.083 - .065	46.2	1.818	50.8	2.000	32.0	1.259	2.0	2.3	3/4	2.541	18.3	CSB-9A	CSBM-9A	CSBR-9
9	2	14 - 16	.083 - .065	46.2	1.818	50.8	2.000	32.0	1.259	2.3	2.3	3/4	2.841	20.4	CSB-9B	CSBM-9B	CSBR-9
10	2	14 - 16	.083 - .065	46.2	1.818	50.8	2.000	32.0	1.259	2.6	2.9	3/4	3.141	22.5	CSB-9C	CSBM-9C	CSBR-9
11	2	14 - 16	.083 - .065	46.2	1.818	50.8	2.000	32.0	1.259	2.9	3.2	3/4	3.441	24.6	CSB-9D	CSBM-9D	CSBR-9
12	2	14 - 16	.083 - .065	46.2	1.818	50.8	2.000	32.0	1.259	3.2	3.5	3/4	3.741	26.7	CSB-9E	CSBM-9E	CSBR-9
CSB-24 (5 Rollers)																	
13	4	12 - 18	.109 - .049	90.5	3.563	102.4	4.031	32.0	1.259	0.7	1.0	1	1.416	23.7	CSB-24STD	CSBM-24STD	CSBR-24
14	4	12 - 18	.109 - .049	90.5	3.563	102.4	4.031	32.0	1.259	1.0	1.3	1	1.716	29.4	CSB-24A	CSBM-24A	CSBR-24
15	4	12 - 18	.109 - .049	90.5	3.563	102.4	4.031	32.0	1.259	1.3	1.6	1	2.016	35.5	CSB-24B	CSBM-24B	CSBR-24
16	4	12 - 18	.109 - .049	90.5	3.563	102.4	4.031	32.0	1.259	1.6	1.9	1	2.316	40.8	CSB-24C	CSBM-24C	CSBR-24
17	4	12 - 18	.109 - .049	90.5	3.563	102.4	4.031	32.0	1.259	1.9	2.2	1	2.616	46.5	CSB-24D	CSBM-24D	CSBR-24
18	4	12 - 18	.109 - .049	90.5	3.563	102.4	4.031	32.0	1.259	2.2	2.5	1	2.916	52.5	CSB-24E	CSBM-24E	CSBR-24

TUBE EXPANDING AND BEADING IN SINGLE OPERATION



	Previously	Now
Tools Required	1) Flaring tube expander 2) Tube expander drive 3) Beading tool 4) Air hammer	1) Combination beading expander 2) Tube expander drive
Operating Steps	1) Expand 2) Bead 3) Reroll	1) Expand and bead in single operation
Operating Fatigue	High...largely due to air hammer vibration and noise	Reduced significantly no air hammer. for beading ..no rerolling

■ SPECIFICATIONS

Tube OD Inch	Tube Thickness		Expansion Range		Model No.	Mandrel Model No. (Square)	Spare Roller set Model No.	Beading Roll Model No.	Guide Roll Assembly Model No.
	bwg	Inch	mm	Inch					
2	10	.134	43.2 - 48.41	1.700 - 1.906	41633 - 0010	41615 (3/4")	41670 set of 4	41631 - 0010	41701 - 0010
	11	.120			41633 - 0011			41631 - 0011	41701 - 0011
	12	.109			41633 - 0012			41631 - 0012	41701 - 0012
	13	.095			41633 - 0013			41631 - 0013	41701 - 0013
2.1/2	10	.134	55.9 - 62.48	2.200 - 2.460	41634 - 0010	41635 (1")	41673 set of 5	41651 - 0010	41702 - 0010
	11	.120			41634 - 0011			41651 - 0011	41702 - 0011
	12	.109			41634 - 0012			41651 - 0012	41702 - 0012
	13	.095			41634 - 0013			41651 - 0013	41702 - 0013
3	10	.134	68.6 - 75.69	2.700 - 2.960	41359 - 0010	41653 (1")	41676 set of 5	41666 - 0010	41703 - 0010
	11	.120			41359 - 0011			41666 - 0011	41703 - 0011
	12	.109			41359 - 0012			41666 - 0012	41703 - 0012

Note : Refer to operation manual for other spare parts. Reverse mandrels are available.