

Airetool®

Product Catalog

Condenser & Boiler Expanders

Rolling Controls

Pipe & Tube Cleaners

Installation & Removal Tools



Equipment Group International



B-3000 Series Boiler Expanders

(Mandrels Sold Separately)

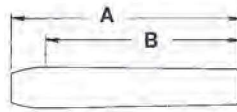
B-3000 Series Boiler Expanders (Mandrels Sold Separately)

- Straight roll expander for non-flare tube rolling.
- Use in conjunction with B-1000 & B-2000 expanders for thicker tube sheet applications.
- Convertible to B-2000 series.



B-3000 Series: x = Tube Sheet Thickness
Refer to the Expander Table: Replace the X with the appropriate number

X	Tube Sheet Thickness		"A" Dimension		"B" Dimension	
	in.	mm	in.	mm	in.	mm
7	1-3/8 - 1-3/4	34.9 - 44.4	2-7/16	61.9	2-1/16	52.3
11	2-3/8 - 2-3/4	60.3 - 69.8	3-7/16	87.3	3-1/16	77.7



SHORT SERIES MANDRELS

Tube Size					Expander						
Expander Number*	O.D.	Gauge	O.D.	Gauge	Expansion Range		Straight Roll Set*	Mandrel Options			
					in.	mm		Long Mandrel		Square Drive	Short Mandrels **
								Number	Length		
B-3111-7	1-1/4	16			1.105-1.299	28.1-33.0	111-x-RS	118-M	15-27/32"	3/4	MS-1,2,3
B-3118-7	1-1/2	10-12			1.221-1.378	31.0-35.0	118-x-RS	118-M	15-27/32"	3/4	MS-1,2,3
B-3126-7	1-1/2	13-16			1.300-1.496	33.0-38.0	126-x-RS	126-M	16-31/64"	3/4	MS-2,3,4
B-3134-x	1-3/4	8-9	2	3	1.379-1.575	35.0-40.0	126-x-RS	134-M	16-31/64"	3/4	MS-2,3,4
B-3142-x	1-3/4	10-12	2	4-5	1.457-1.673	37.0-42.5	142-x-RS	150-M	17-3/32"	3/4	MS-3,4,5
B-3150-x	1-3/4	13-16	2	6	1.536-1.752	39.0-44.5	150-x-RS	150-M	17-3/32"	3/4	MS-3,4,5
B-3158-x	2	7-9	2-1/4	3	1.615-1.850	41.0-47.0	158-x-RS	174-M	18-3/32"	3/4	MS-4,5,6,7,8
B-3166-x	2	10-12	2-1/4	4-5	1.693-1.929	43.0-49.0	166-x-RS	174-M	18-3/32"	3/4	MS-4,5,6,7,8
B-3174-x	2	13-16	2-1/4	6	1.722-2.027	45.0-51.5	174-x-RS	174-M	18-3/32"	3/4	MS-4,5,6,7,8
B-3181-x	2	16	2-1/2	3	1.851-2.126	47.0-54.0	181-x-RS	197-M	20-15/32"	1	MS-7,8,9,10,11
B-3189-x	2-1/4	10-13	2-1/2	4-5	1.930-2.205	49.0-56.0	174-x-RS	197-M	20-15/32"	1	MS-7,8,9,10,11
B-3197-x	2-1/4	14-16	2-1/2	6	2.009-2.362	51.0-60.0	205-x-RS	197-M	20-15/32"	1	MS-6,7,8,9,10,11
B-3205-x	2-1/2	7-10			2.087-2.441	53.0-62.0	205-x-RS	221-M	20-21/32"	1	MS-7,8,9,10,11,12
B-3213-x	2-1/2	11-13	3	2	2.116-2.520	55.0-64.0	213-x-RS	221-M	20-21/32"	1	MS-7,8,9,10,11,12
B-3221-x	2-1/2	14-16			2.245-2.598	57.0-66.0	221-x-RS	221-M	20-21/32"	1	MS-7,8,9,10,11,12
B-3229-x	2-3/4	7-9			2.323-2.677	59.0-68.0	221-x-RS	244-M	20-1/2"	1	MS-8,9,10,11,12,13
B-3237-x	2-3/4	10-12			2.402-2.756	61.0-70.0	237-x-RS	244-M	20-1/2"	1	MS-8,9,10,11,12,13
B-3244-x	2-3/4	13-16			2.481-2.835	63.0-72.0	252-x-RS	244-M	20-1/2"	1	MS-8,9,10,11,12,13
B-3252-x	3	7-8			2.560-2.913	65.0-74.0	252-x-RS	268-M	20-1/64"	1	MS-10,11,12,13,14
B-3260-x	3	10-12			2.638-2.992	67-076.0	260-x-RS	268-M	20-1/64"	1	MS-10,11,12,13,14
B-3268-x	3	13-14			2.717-3.071	69.0-78.0	268-x-RS	268-M	20-1/64"	1	MS-10,11,12,13,14
B-3276-x	3	15-16			2.796-3.150	71.0-80.0	276-x-RS	300-M	20-1/2"	1	MS-12,13,14,15,16
B-3284-x	3-1/4	7-11			2.874-3.228	73.0-82.0	284-x-RS	300-M	20-1/2"	1	MS-12,13,14,15,16
B-3292-x	3-1/4	12-14			2.953-3.307	75.0-84.0	292-x-RS	300-M	20-1/2"	1	MS-12,13,14,15,16
B-3300-x	3-1/4	15-16	3-1/2	7-9	3.032-3.386	77.0-86.0	315-x-RS	300-M	20-1/2"	1	MS-12,13,14,15,16
B-3308-x	3-1/2	10-12			3.111-3.465	79.0-88.0	284-x-RS	347-M	22-15/32"	1	MS-15,16,17,18,19
B-3315-x	3-1/2	13-15			3.190-3.622	81.0-92.0	315-x-RS	347-M	22-15/32"	1	MS-14,15,16,17,18,19
B-3323-x	3-1/2	16	3-3/4	7-8	3.268-3.701	83.0-94.0	323-x-RS	347-M	22-15/32"	1	MS-14,15,16,17,18,19
B-3331-x	3-3/4	9-12			3.347-3.780	95.0-96.0	331-x-RS	347-M	22-15/32"	1	MS-14,15,16,17,18,19
B-3339-x	3-3/4	13-16			3.426-3.858	87.0-98.0	355-x-RS	347-M	22-15/32"	1	MS-14,15,16,17,18,19
B-3347-x	4	7-8			3.505-3.937	89.0-100.0	363-x-RS	347-M	22-15/32"	1	MS-14,15,16,17,18,19
B-3355-x	4	9-12			3.583-4.016	91.0-102.0	355-x-RS	394-M	22-33/64"	1	MS-17,18,19,20,21
B-3363-x	4	13-15			3.662-4.094	93.0-104.0	363-x-RS	394-M	22-33/64"	1	MS-17,18,19,20,21
B-3370-x	4	16	4-1/4	7-8	3.741-4.173	95.0-106.0	370-x-RS	394-M	22-33/64"	1	MS-17,18,19,20,21
B-3378-x	4-1/4	9-11			3.820-4.252	97.0-108.0	378-x-RS	394-M	22-33/64"	1	MS-17,18,19,20,21
B-3386-x	4-1/4	12-16			3.898-4.331	99.0-110.0	386-x-RS	394-M	22-33/64"	1	MS-17,18,19,20,21
B-3394-x	4-1/2	7-14			3.997-4.407	101.5-111.9	394-x-RS	394-M	22-33/64"	1	MS-17,18,19,20,21

*x Signifies tube sheet thickness

** Note: Short Mandrel lengths: MPS-1 thru MPS-10 = 7" (177.8mm), MPS-11 thru MPS-16 = 8" (203.2mm), MPS-17 thru MPS-21 = 9" (228.1mm)

Expander	Units	Expansion Range		MS & MPS	Expansion Range		MS & MPS	Expansion Range		MS & MPS	Expansion Range		MS & MPS	Expansion Range		MS & MPS	Expansion Range		MS & MPS	Expansion Range	
		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max
B - X111	in. mm	1.102 28.0	1.299 33.0	#1	1.102 28.0	1.183 30.0	#2	1.124 28.5	1.234 31.3	#3	1.189 30.2	1.299 33.0	Mandrel Lengths Mandrel Number B-1000 MPS B-2000 & B-3000 MS 1 - 107.000" (177.8mm) 11 - 168.000" (203.2mm) 17 - 219.000" (228.1mm)								
B - X118	in. mm	1.181 30.0	1.378 35.0	#1	1.181 30.0	1.262 32.1	#2	1.203 30.6	1.313 33.4	#3	1.268 32.2	1.378 35.0									
B - X126	in. mm	1.26 32.0	1.496 38.0	#2	1.26 32.0	1.366 34.7	#3	1.342 34.1	1.431 36.3	#4	1.407 35.7	1.496 38.0									
B -X134	in. mm	1.339 34.0	1.575 40.0	#3	1.339 34.0	1.432 36.4	#4	1.407 35.7	1.497 38.0	#5	1.485 37.7	1.575 40.0									
B - X142	in. mm	1.417 36.0	1.673 42.5	#3	1.417 36.0	1.489 37.8	#4	1.486 37.7	1.554 39.5	#5	1.564 39.7	1.632 41.5		#6	1.605 40.8	1.673 42.5					
B - X150	in. mm	1.496 38.0	1.752 44.5	#3	1.496 38.0	1.568 39.8	#4	1.565 39.7	1.633 41.5	#5	1.643 41.7	1.711 43.5	#6	1.684 42.8	1.752 44.5						
B - X158	in. mm	1.575 40.0	1.85 47.0	#4	1.575 40.0	1.613 41.0	#5	1.622 41.2	1.691 43.0	#6	1.663 42.3	1.732 44.0	#7	1.722 43.7	1.791 45.5	#8	1.781 45.2	1.85 47.0			
B -X166	in. mm	1.654 42.0	1.929 49.0	#4	1.654 42.0	1.692 43.0	#5	1.701 43.2	1.77 45.0	#6	1.742 44.3	1.811 46.0	#7	1.801 45.8	1.807 47.5	#8	1.86 47.3	1.929 49.0			
B -X174	in. mm	1.732 44.0	2.027 51.5	#4	1.732 44.0	1.79 45.5	#5	1.799 45.7	1.868 47.4	#6	1.84 46.7	1.909 48.5	#7	1.899 48.2	1.968 50.0	#8	1.958 49.7	2.027 51.5			
B -X181	in. mm	1.811 46.0	2.126 54.0	#7	1.811 46.0	1.889 48.0	#8	1.88 47.7	1.948 49.5	#9	1.938 49.2	2.006 51.0	#10	1.993 50.6	2.061 52.3	#11	2.017 51.2	2.126 54.0			
B -X189	in. mm	1.89 48.0	2.205 56.0	#7	1.89 48.0	1.968 50.0	#8	1.958 49.7	2.027 51.5	#9	2.016 51.2	2.085 53.0	#10	2.071 52.6	2.14 54.4	#11	2.095 53.2	2.205 56.0			
B -X197	in. mm	1.969 50.0	2.362 60.0	#6	1.969 50.0	2.066 52.5	#7	2.057 52.2	2.125 54.0	#8	2.116 53.7	2.184 55.5	#9	2.174 55.2	2.242 56.9	#10	2.229 56.6	2.297 58.3	#11	2.253 57.2	2.362 60.0
B -X205	in. mm	2.047 52.0	2.441 62.0	#7	2.047 52.0	2.126 54.0	#8	2.116 53.7	2.185 55.5	#9	2.174 55.2	2.243 57.0	#10	2.229 56.6	2.298 58.4	#11	2.253 57.2	2.363 60.0	#12	2.331 59.2	2.441 62.0
B -X213	in. mm	2.126 54.0	2.52 64.0	#7	2.126 54.0	2.205 56.0	#8	2.197 55.8	2.264 57.5	#9	2.255 57.3	2.322 59.0	#10	2.31 58.7	2.377 60.4	#11	2.334 59.3	2.442 62.0	#12	2.412 61.3	2.52 64.0
B -X221	in. mm	2.205 56.0	2.598 66.0	#7	2.205 56.0	2.283 58.0	#8	2.274 57.8	2.342 59.5	#9	2.332 59.2	2.4 61.0	#10	2.387 60.6	2.455 62.4	#11	2.411 61.2	2.52 64.0	#12	2.489 63.2	2.598 66.0
B -X229	in. mm	2.283 58.0	2.677 68.0	#8	2.283 58.0	2.342 59.5	#9	2.331 59.2	2.4 61.0	#10	2.386 60.6	2.455 62.4	#11	2.41 61.2	2.52 64.0	#12	2.488 63.2	2.598 66.0	#13	2.567 65.2	2.677 68.0
B -X237	in. mm	2.362 60.0	2.756 70.0	#8	2.362 60.0	2.421 61.5	#9	2.41 61.2	2.479 63.0	#10	2.465 62.6	2.534 64.4	#11	2.489 63.2	2.599 66.0	#12	2.567 65.2	2.677 68.0	#13	2.646 67.2	2.756 70.0
B -X244	in. mm	2.441 62.0	2.835 72.0	#8	2.441 62.0	2.5 63.5	#9	2.489 63.2	2.558 65.0	#10	2.544 64.6	2.61 66.4	#11	2.568 65.2	2.678 68.0	#12	2.646 67.2	2.756 70.0	#13	2.725 69.2	2.835 72.0
B -X252	in. mm	2.52 64.0	2.913 74.0	#10	2.52 64.0	2.612 66.3	#11	2.568 65.2	2.667 68.0	#12	2.646 67.2	2.755 70.0	#13	2.725 69.2	2.834 72.0	#14	2.804 71.2	2.913 74.0			
B -X260	in. mm	2.598 66.0	2.992 76.0	#10	2.598 66.0	2.691 68.4	#11	2.647 67.2	2.756 70.0	#12	2.725 69.2	2.834 72.0	#13	2.804 71.2	2.913 74.0	#14	2.883 73.2	2.992 76.0			
B -X268	in. mm	2.667 68.0	3.071 78.0	#10	2.667 68.0	2.77 70.4	#11	2.725 69.2	2.835 72.0	#12	2.803 71.2	2.913 74.0	#13	2.882 73.2	2.992 76.0	#14	2.961 75.2	3.071 78.0			
B -X276	in. mm	2.756 70.0	3.15 80.0	#12	2.76 70.0	2.887 73.3	#13	2.857 72.6	2.966 75.3	#14	2.936 74.6	3.045 77.3	#15	2.988 75.9	3.097 78.7	#16	3.041 77.2	3.15 80.0			
B -X284	in. mm	2.835 72.0	3.228 82.0	#12	2.835 72.0	2.965 75.3	#13	2.935 74.5	3.044 77.3	#14	3.014 76.5	3.123 79.3	#15	3.066 77.9	3.175 80.6	#16	3.119 79.2	3.228 82.0			
B -X292	in. mm	2.913 74.0	3.307 84.0	#12	2.913 74.0	3.044 77.3	#13	3.014 76.5	3.123 79.3	#14	3.093 78.6	3.202 81.3	#15	3.15 79.9	3.25 82.7	#16	3.198 81.2	3.307 84.0			
B -X300	in. mm	2.992 76.0	3.386 86.0	#12	2.992 76.0	3.123 79.3	#13	3.094 78.6	3.202 81.3	#14	3.173 80.6	3.281 83.3	#15	3.225 81.9	3.333 84.7	#16	3.278 83.3	3.386 86.0			
B -X308	in. mm	3.071 78.0	3.465 88.0	#15	3.071 78.0	3.177 80.7	#16	3.119 79.2	3.23 82.0	#17	3.151 80.0	3.304 83.9	#18	3.231 82.1	3.384 86.0	#19	3.312 84.1	3.465 88.0			
B -X315	in. mm	3.15 80.0	3.622 92.0	#14	3.15 80.0	3.282 83.4	#15	3.225 81.9	3.334 84.7	#16	3.278 83.3	3.387 86.0	#17	3.31 84.1	3.461 87.9	#18	3.39 86.1	3.541 89.9	#19	3.471 88.2	3.622 92.0
B -X323	in. mm	3.228 82.0	3.701 94.0	#14	3.228 82.0	3.361 85.4	#15	3.304 83.9	3.413 86.7	#16	3.357 85.3	3.466 88.0	#17	3.389 86.1	3.54 89.9	#18	3.469 88.1	3.62 91.9	#19	3.55 90.2	3.701 94.0
B -X331	in. mm	3.307 84.0	3.78 96.0	#14	3.307 84.0	3.44 87.4	#15	3.383 85.9	3.492 88.7	#16	3.436 87.3	3.545 90.0	#17	3.468 88.1	3.619 91.9	#18	3.548 90.1	3.699 94.0	#19	3.629 92.2	3.78 96.0
B -X339	in. mm	3.386 86.0	3.858 98.0	#14	3.386 86.0	3.518 89.4	#15	3.461 87.9	3.57 90.7	#16	3.514 89.2	3.623 92.0	#17	3.546 90.1	3.697 93.9	#18	3.626 92.1	3.777 95.9	#19	3.707 94.1	3.858 98.0
B -X347	in. mm	3.465 88.0	3.937 100.0	#14	3.465 88.0	3.597 91.4	#15	3.539 89.9	3.649 92.7	#16	3.592 91.2	3.702 94.0	#17	3.624 92.0	3.776 95.9	#18	3.704 94.1	3.856 97.9	#19	3.785 96.1	3.937 100.0
B -X355	in. mm	3.543 90.0	4.016 102.0	#17	3.543 90.0	3.696 93.9	#18	3.626 92.1	3.776 95.9	#19	3.707 94.1	3.857 98.0	#20	3.786 96.2	3.936 100.0	#21	3.866 98.2	4.016 102.0			
B -X363	in. mm	3.622 92.0	4.094 104.0	#17	3.622 92.0	3.774 95.9	#18	3.704 94.1	3.854 97.9	#19	3.785 96.1	3.935 99.9	#20	3.863 98.1	4.014 102.0	#21	3.944 100.2	4.094 104.0			
B -X370	in. mm	3.701 94.00	4.173 106.00	#17	3.701 94.00	3.853 97.90	#18	3.782 96.10	3.933 99.90	#19	3.863 98.10	4.014 102.00	#20	3.942 100.10	4.093 104.00	#21	4.022 102.10	4.173 106.00			
B -X378	in. mm	3.78 96.00	4.252 108.00	#17	3.78 96.00	3.932 99.90	#18	3.862 98.10	4.012 101.90	#19	3.934 100.10	4.093 104.00	#20	4.022 102.10	4.172 106.00	#21	4.102 104.20	4.252 108.00			
B -X386	in. mm	3.858 98.00	4.331 110.00	#17	3.858 98.00	4.011 101.90	#18	3.94 100.00	4.091 103.90	#19	4.012 101.90	4.17 106.00	#20	4.1 104.10	4.251 108.00	#21	4.18 106.10	4.331 110.00			
B -X394	in. mm	3.937 100.00	4.407 111.90	#17	3.937 100.00	4.087 103.80	#18	4.018 102.10	4.167 105.80	#19	4.099 104.10	4.248 107.90	#20	4.178 106.10	4.327 109.90	#21	4.258 108.20	4.4 111.90			

Boiler Expanders

B-1000 & B-2000 Series Boiler Expanders Material Descriptions & Ordering Numbers

Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number
B-1079-3	5522190	B-1150-3	5522796	B-1244-3		B-1339-3		B-2095-3	
B-1079-5		B-1150-5	5522197	B-1244-5		B-1339-5		B-2095-5	5521961
B-1079-7		B-1150-7	5521883	B-1244-7	5522181	B-1339-7		B-2095-7	
B-1079-9		B-1150-9	5521888	B-1244-9	5522842	B-1339-9		B-2095-9	
B-1079-11		B-1150-11	5521862	B-1244-11	5521952	B-1339-11	5522540	B-2095-11	
B-1083-3		B-1158-3	5521933PT	B-1252-3	5521953	B-1347-3	5526391	B-2099-3	
B-1083-5	5523808	B-1158-5	5521934	B-1252-5	5522327	B-1347-5		B-2099-5	
B-1083-7		B-1158-7	5521935	B-1252-7	5522477	B-1347-7	5522180	B-2099-7	
B-1083-9		B-1158-9	5521845	B-1252-9	5521954	B-1347-9		B-2099-9	
B-1083-11		B-1158-11	5521910	B-1252-11	5522320PT	B-1347-11	5523722	B-2099-11	
B-1087-3	5523735	B-1166-3	5521936	B-1260-3	5521955	B-1355-3		B-2103-3	
B-1087-5	5525513	B-1166-5	5521937	B-1260-5	5522094	B-1355-5		B-2103-5	5522411
B-1087-7		B-1166-7	5521938	B-1260-7	5522095	B-1355-7	5525944	B-2103-7	
B-1087-9		B-1166-9	5521939	B-1260-9	5522096	B-1355-9	5524221	B-2103-9	
B-1087-11		B-1166-11	5521940	B-1260-11	5522097	B-1355-11		B-2103-11	
B-1091-3		B-1174-3	5521941	B-1268-3		B-1363-3	5522062	B-2111-3	
B-1091-5		B-1174-5	5521942PT	B-1268-5	5521957	B-1363-5		B-2111-5	
B-1091-7		B-1174-7	5521943	B-1268-7		B-1363-7		B-2111-7	
B-1091-9		B-1174-9	5521944	B-1268-9		B-1363-9		B-2111-9	
B-1091-11		B-1174-11	5521945	B-1268-11		B-1363-11		B-2111-11	
B-1095-3		B-1181-3	5522017	B-1276-3	5523191	B-1370-3		B-2118-3	5521963
B-1095-5	5521927	B-1181-5	5522149	B-1276-5	5523270	B-1370-5		B-2118-5	
B-1095-7		B-1181-7	5522868	B-1276-7	5524555	B-1370-7		B-2118-7	
B-1095-9		B-1181-9	5522783	B-1276-9		B-1370-9		B-2118-9	
B-1095-11		B-1181-11	5522205PT	B-1276-11		B-1370-11		B-2118-11	
B-1099-3		B-1189-3	5525255	B-1284-3	5522173	B-1378-3		B-2126-3	5525355PT
B-1099-5	5525463	B-1189-5	5522393	B-1284-5	5521958	B-1378-5		B-2126-5	
B-1099-7	5525386	B-1189-7	5522179	B-1284-7		B-1378-7		B-2126-7	5524532PT
B-1099-9		B-1189-9	5522782	B-1284-9		B-1378-9		B-2126-9	
B-1099-11		B-1189-11	5523948	B-1284-11	5525545	B-1378-11		B-2126-11	
B-1103-3	5525904	B-1197-3	5525999	B-1292-3		B-1386-3		B-2134-3	
B-1103-5		B-1197-5		B-1292-5		B-1386-5		B-2134-5	
B-1103-7		B-1197-7	5522178	B-1292-7		B-1386-7		B-2134-7	5523729
B-1103-9		B-1197-9		B-1292-9	5525084	B-1386-9		B-2134-9	
B-1103-11		B-1197-11	5522223	B-1292-11		B-1386-11		B-2134-11	
B-1111-3	5522195	B-1205-3	5522426	B-1300-3		B-1394-3	5525605	B-2142-3	
B-1111-5	5521928	B-1205-5	5521946	B-1300-5	5523696PT	B-1394-5	5526042	B-2142-5	5523064
B-1111-7	5522147	B-1205-7	5521947	B-1300-7		B-1394-7		B-2142-7	5522063
B-1111-9	5526051	B-1205-9	5521948	B-1300-9		B-1394-9	5524597	B-2142-9	5521965
B-1111-11		B-1205-11	5521949	B-1300-11		B-1394-11	5525385	B-2142-11	5521966
B-1118-3	5521929	B-1213-3	5521950	B-1308-3	5523571	B-2079-3		B-2150-3	
B-1118-5	5522360	B-1213-5	5521951PT	B-1308-5	5524747	B-2079-5		B-2150-5	5522167
B-1118-7		B-1213-7	5522175	B-1308-7		B-2079-7		B-2150-7	5521967
B-1118-9		B-1213-9	5522146	B-1308-9		B-2079-9		B-2150-9	5521968
B-1118-11		B-1213-11	5522092	B-1308-11	5523694	B-2079-11		B-2150-11	5521902
B-1126-3	5522795	B-1221-3	5521889	B-1315-3		B-2083-3		B-2158-3	
B-1126-5		B-1221-5	5522313	B-1315-5		B-2083-5		B-2158-5	5521971
B-1126-7	5522204	B-1221-7		B-1315-7		B-2083-7		B-2158-7	5521972
B-1126-9		B-1221-9		B-1315-9		B-2083-9		B-2158-9	5521973
B-1126-11		B-1221-11		B-1315-11		B-2083-11		B-2158-11	5521974
B-1134-3	5526046	B-1229-3	5526082	B-1323-3		B-2087-3		B-2166-3	5521975PT
B-1134-5	5521930	B-1229-5		B-1323-5		B-2087-5		B-2166-5	5521897
B-1134-7	5524036	B-1229-7		B-1323-7	5525891	B-2087-7		B-2166-7	5521977
B-1134-9	5521846	B-1229-9		B-1323-9		B-2087-9		B-2166-9	5521978
B-1134-11		B-1229-11		B-1323-11		B-2087-11		B-2166-11	5521979
B-1142-3	5522196	B-1237-3		B-1331-3		B-2091-3		B-2174-3	5521892
B-1142-5	5522391	B-1237-5	5526020	B-1331-5		B-2091-5		B-2174-5	5521981
B-1142-7	5522423	B-1237-7		B-1331-7		B-2091-7		B-2174-7	5521982
B-1142-9	5521931	B-1237-9		B-1331-9		B-2091-9		B-2174-9	5521983
B-1142-11	5521932	B-1237-11	5523711	B-1331-11	5525198	B-2091-11		B-2174-11	5521984

B-2000, B-3000 Series Boiler Expanders & Mandrel Material Descriptions & Ordering Numbers

Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number
B-2181-3		B-2276-3		B-2370-3		B-3276-11	5523194	83-M	
B-2181-5		B-2276-5	5523087	B-2370-5		B-3284-7	5523026	91-M	2995063
B-2181-7		B-2276-7		B-2370-7		B-3284-11		99-M	2995057
B-2181-9	5523784	B-2276-9		B-2370-9		B-3292-7	5524448	118-M	2993819
B-2181-11	5523785	B-2276-11		B-2370-11		B-3292-11		126-M	2993820
B-2189-3	5522452	B-2284-3		B-2378-3		B-3300-7	5526349	134-M	2902805
B-2189-5		B-2284-5		B-2378-5		B-3300-11		150-M	2993821
B-2189-7		B-2284-7		B-2378-7		B-3308-7		174-M	2993545
B-2189-9		B-2284-9	5525237	B-2378-9		B-3308-11		197-M	2994636
B-2189-11		B-2284-11		B-2378-11		B-3315-7	5523710	221-M	2993822
B-2197-3	5525873	B-2292-3		B-2386-3		B-3315-11		244-M	2993823
B-2197-5		B-2292-5		B-2386-5		B-3323-7	5523763	268-M	2993824
B-2197-7		B-2292-7		B-2386-7		B-3323-11		300-M	2994303
B-2197-9		B-2292-9		B-2386-9		B-3331-7	5523220	347-M	2994235
B-2197-11		B-2292-11		B-2386-11		B-3331-11	5525197	394-M	2994208
B-2205-3		B-2300-3		B-2394-3	5526218	B-3339-7			
B-2205-5		B-2300-5		B-2394-5		B-3339-11	5522269		
B-2205-7	5521986	B-2300-7		B-2394-7		B-3347-7	5522319	83-MP	2993831
B-2205-9	5521987	B-2300-9		B-2394-9		B-3347-11	5523311PT	91-MP	2995080
B-2205-11	5521988	B-2300-11		B-2394-11	5525608	B-3355-7	5524218	99-MP	2993832
B-2213-3	5521989	B-2308-3	5525607	B-3111-7	5522000	B-3355-11		118-MP	2993833
B-2213-5	5521990	B-2308-5		B-3118-7	5522001	B-3363-7	5522111	126-MP	2994714
B-2213-7	5522498	B-2308-7		B-3126-7	5522002PT	B-3363-11		134-MP	2994065
B-2213-9	5522499	B-2308-9		B-3134-7	5522206	B-3370-7	5522020	150-MP	2993834
B-2213-11	5522200	B-2308-11	5526011	B-3134-11		B-3370-11		174-MP	2993835
B-2221-3	5521991	B-2315-3		B-3142-7	5522003	B-3378-7		197-MP	2994196
B-2221-5	5522812	B-2315-5		B-3142-11	5522004	B-3378-11	5526556PT	221-MP	2993836
B-2221-7		B-2315-7		B-3150-7	5522005	B-3386-7		244-MP	2993837
B-2221-9		B-2315-9		B-3150-11	5521861	B-3386-11		268-MP	2993838
B-2221-11		B-2315-11		B-3158-7	5522006	B-3394-7	5522427	300-MP	2994133
B-2229-3		B-2323-3	5525510	B-3158-11	5522007	B-3394-11	5524626	347-MP	2994675
B-2229-5		B-2323-5	5525498	B-3166-7	5522008			394-MP	2994321
B-2229-7		B-2323-7		B-3166-11	5522009				
B-2229-9	5525606	B-2323-9		B-3174-7	5521692				
B-2229-11		B-2323-11	5523775	B-3174-11	5522010			MPS-1	2994289
B-2237-3		B-2331-3		B-3181-7	5522918			MPS-2	2994290
B-2237-5		B-2331-5		B-3181-11				MPS-3	2994070
B-2237-7		B-2331-7	5525050	B-3189-7				MPS-4	2994071
B-2237-9		B-2331-9		B-3189-11	5523691			MPS-5	2994072
B-2237-11	5524444PT	B-2331-11		B-3197-7	5522318PT			MPS-6	2994073
B-2244-3		B-2339-3		B-3197-11	5522032			MPS-7	2994074
B-2244-5		B-2339-5		B-3205-7	5522011PT			MPS-8	2994075
B-2244-7		B-2339-7		B-3205-11	5522012			MPS-9	2994192
B-2244-9		B-2339-9		B-3213-7	5522260			MPS-10	2994193
B-2244-11	5521992	B-2339-11	5522544	B-3213-11	5522121			MPS-11	2994194
B-2252-3		B-2347-3		B-3221-7	5522098			MPS-12	2994293
B-2252-5		B-2347-5		B-3221-11	5522099			MPS-13	2994294
B-2252-7	5523089	B-2347-7	5523730	B-3229-7	5522869			MPS-14	2994295
B-2252-9	5521994	B-2347-9		B-3229-11	5525863			MPS-15	2994296
B-2252-11	5522293	B-2347-11	5522240	B-3237-7	5522013			MPS-16	2994297
B-2260-3	5521995	B-2355-3		B-3237-11	5522014			MPS-17	2994298
B-2260-5	5523357PT	B-2355-5		B-3244-7	5522787			MPS-18	2994299
B-2260-7	5524223	B-2355-7	5524219	B-3244-11	5522425			MPS-19	2994300
B-2260-9	5525158	B-2355-9		B-3252-7	5521893			MPS-20	2994301
B-2260-11	5522294	B-2355-11		B-3252-11	5522015			MPS-21	2994302
B-2268-3		B-2363-3		B-3260-7	5521894				
B-2268-5		B-2363-5		B-3260-11	5522292				
B-2268-7		B-2363-7		B-3268-7	5524157				
B-2268-9		B-2363-9		B-3268-11	5523193				
B-2268-11		B-2363-11		B-3276-7	5522407PT				

Boiler Expanders

Roll Set Material Descriptions & Ordering Numbers

Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number	Material Description	Material Number
079-3-FS		103-9-RS		158-7-FS	5522373	221-3-RS		276-11-FS	5525382PT	355-7-RS	5524220
079-3-RS	5523172	103-11-FS		158-7-RS	5522225	221-5-FS	5522054	276-11-RS	5525381	355-9-FS	5524222PT
079-5-FS	5525164	103-11-RS		158-9-FS	5521848	221-5-RS		284-3-FS	5523578	355-9-RS	
079-5-RS		111-3-FS		158-9-RS	5522519	221-7-FS	5522055	284-3-RS		355-11-FS	5523010PT
079-7-FS	5526561PT	111-3-RS		158-11-FS	5522048PT	221-7-RS	5523687	284-5-FS	5522873	355-11-RS	5523011
079-7-RS		111-5-FS	5522312PT	158-11-RS	5521911	221-9-FS		284-5-RS	5523246	363-3-FS	5526393
079-9-FS		111-5-RS		166-3-FS	5522348	221-9-RS		284-7-FS		363-3-RS	5526392
079-9-RS		111-7-FS	5524554	166-3-RS	5523155	221-11-FS	5522056	284-7-RS	5523415	363-5-FS	
079-11-FS		111-7-RS	5522493	166-5-FS	5522049	221-11-RS	5522150	284-9-FS		363-5-RS	
079-11-RS		111-9-FS		166-5-RS	5522064	237-3-FS	5523599	284-9-RS		363-7-FS	5522182
083-3-FS	5523046	111-9-RS		166-7-FS	5522027	237-3-RS		284-11-FS	5523695	363-7-RS	5523024
083-3-RS		111-11-FS		166-7-RS	5522531	237-5-FS	5526021	284-11-RS		363-9-FS	
083-5-FS		111-11-RS		166-9-FS	5522036	237-5-RS		292-3-FS		363-9-RS	
083-5-RS		118-3-FS	5522786	166-9-RS	5522779	237-7-FS	5523399	292-3-RS		363-11-FS	5523309
083-7-FS	5526562PT	118-3-RS	5526018	166-11-FS	5522037	237-7-RS	5523818	292-5-RS		363-11-RS	5523310
083-7-RS		118-5-FS	5522361	166-11-RS	5522126	237-9-FS	5522144	292-5-RS		370-3-FS	
083-9-FS		118-5-RS		174-3-FS	5523113	237-9-RS		292-7-FS		370-3-RS	
083-9-RS		118-7-FS	5522814	174-3-RS	5523950	237-11-FS	5522142	292-7-RS	5524449	370-5-FS	
083-11-FS		118-7-RS	5522828	174-5-FS	5522051	237-11-RS	5522141	292-9-FS		370-5-RS	
083-11-RS		118-9-FS		174-5-RS	5525683PT	252-3-FS	5524791	292-9-RS		370-7-FS	
087-3-FS		118-9-RS	5523453	174-7-FS	5522050	252-3-RS		292-11-FS		370-7-RS	5522441
087-3-RS		118-11-FS		174-7-RS	5522271	252-5-FS	5522328	292-11-RS		370-9-FS	
087-5-FS		118-11-RS		174-9-FS	5522270	252-5-RS		315-3-FS		370-9-RS	
087-5-RS		126-3-FS	5522792PT	174-9-RS	5522992	252-7-FS	5522183	315-3-RS		370-11-FS	
087-7-FS		126-3-RS	5525356	174-11-FS	5522052	252-7-RS	5522436	315-5-FS	5523697PT	370-11-RS	
087-7-RS		126-5-FS	5522876	174-11-RS	5523215	252-9-FS	5522848	315-5-RS		378-3-FS	
087-9-FS		126-5-RS		181-3-FS	5524738	252-9-RS	5524331	315-7-FS		378-3-RS	
087-9-RS		126-7-FS	5523731	181-3-RS		252-11-FS	5522038	315-7-RS	5523762	378-5-FS	
087-11-FS		126-7-RS	5522989	181-5-FS	5522369	252-11-RS	5522087	315-9-FS		378-5-RS	
087-11-RS		126-9-FS	5521849	181-5-RS		260-3-FS	5523152	315-9-RS		378-7-FS	
095-3-FS	5522322	126-9-RS	5525691	181-7-FS	5522164	260-3-RS		315-11-FS		378-7-RS	
095-3-RS		126-11-FS	5525168	181-7-RS	5522913	260-5-FS	5522057PT	315-11-RS		378-9-FS	
095-5-FS	5522412	126-11-RS	5524958PT	181-9-FS	5522849	260-5-RS		323-3-FS		378-9-RS	
095-5-RS		142-3-FS		181-9-RS		260-7-FS	5522058	323-3-RS		378-11-FS	
095-7-FS		142-3-RS		181-11-FS	5523786	260-7-RS	5522911	323-5-FS	5525499	378-11-RS	5526557PT
095-7-RS		142-5-FS	5522392	181-11-RS	5522850	260-9-FS	5522059	323-5-RS	5525500	386-3-FS	
095-9-FS		142-5-RS	5525911PT	205-3-FS	5522867	260-9-RS		323-7-FS		386-3-RS	
095-9-RS		142-7-FS	5522066PT	205-3-RS		260-11-FS	5522060	323-7-RS	5523764	386-5-FS	
095-11-FS		142-7-RS	5522065	205-5-FS	5522395	260-11-RS	5522481	323-9-FS		386-5-RS	
095-11-RS		142-9-FS	5521850	205-5-RS	5522529	268-3-FS		323-9-RS		386-7-FS	
099-3-FS		142-9-RS	5522947	205-7-FS	5522177	268-3-RS		323-11-FS	5523776	386-7-RS	
099-3-RS		142-11-FS	5522235	205-7-RS	5522317	268-5-FS	5522370	323-11-RS	5522031	386-9-FS	
099-5-FS	5526003	142-11-RS	5522028	205-9-FS	5522316	268-5-RS	5522895	331-3-FS	5522893	386-9-RS	
099-5-RS		150-3-FS	5522813	205-9-RS		268-7-FS	5525323	331-3-RS		386-11-FS	
099-7-FS		150-3-RS		205-11-FS	5522221	268-7-RS	5525876	331-5-FS		386-11-RS	
099-7-RS		150-5-FS	5522781	205-11-RS	5522033	268-9-FS		331-5-RS		394-3-FS	
099-9-FS		150-5-RS	5524531	213-3-FS	5522339	268-9-RS		331-7-FS		394-3-RS	5526219
099-9-RS		150-7-FS	5521884	213-3-RS	5523777	268-11-FS	5522061	331-7-RS	5523221	394-5-FS	5523360
099-11-FS		150-7-RS	5522086	213-5-FS	5522805	268-11-RS	5521976	331-9-FS		394-5-RS	
099-11-RS		150-9-FS	5521891	213-5-RS	5522530	276-3-FS	5524737	331-9-RS		394-7-FS	
103-3-FS		150-9-RS	5522518	213-7-FS	5522176	276-3-RS		331-11-FS	5525200	394-7-RS	
103-3-RS	5526024	150-11-FS	5521864	213-7-RS	5522315	276-5-FS	5523091	331-11-RS	5525199	394-9-FS	
103-5-FS	5522390	150-11-RS	5521863	213-9-FS	5522314	276-5-RS		355-3-FS		394-9-RS	
103-5-RS		158-3-FS	5522238	213-9-RS		276-7-FS	5523092PT	355-3-RS		394-11-FS	
103-7-FS		158-3-RS		213-11-FS	5522053	276-7-RS	5524323	355-5-FS	5522483	394-11-RS	
103-7-RS		158-5-FS	5522302	213-11-RS	5522155	276-9-FS		355-5-RS			
103-9-FS		158-5-RS	5523693	221-3-FS		276-9-RS		355-7-FS	5523090		