

TUBE SIZE						MIN ID TOOL ENTERS		MAX EXPANSION OF TOOL		TUBE EXPANDER MODEL NUMBER				
OD INCH	THK. GA	THK. INCH	TUBE OD INCH	THK. GA	THK. INCH	INCH	MM	INCH	MM	TUBE SHEET THICKNESS RANGE				
										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"
7/8	15	0,072	1	10	0,134	0,712	18,1	0,803	20,4	33-31/2	33-31/3			
7/8	16	0,065				0,724	18,4	0,814	20,7	33-32/2	33-32/3			
7/8	17	0,058	1	11	0,12	0,74	18,8	0,830	21,1	33-33/2	33-33/3			
7/8	18	0,049	1	12	0,109	0,763	19,4	0,850	21,6	33-34/2	33-34/3			
7/8	19 & 20	.042 & .035	1-1/8	8	0,165	0,775	19,7	0,877	22,3	33-35/2	33-35/3			
1	13	0,095				0,791	20,1	0,881	22,4	33-36/2	33-36/3			
1	14	0,083	1-1/8	9	0,148	0,811	20,6	0,909	23,1	33-37/2	33-37/3	33-37/4		
1	15 & 16	.072 & .065	1-1/8	10	0,134	0,838	21,3	0,937	23,8	33-38/2	33-38/3	33-38/4		
1	17 & 18	.058 & .048	1-1/8	11	0,12	0,866	22,0	0,964	24,5	33-39/2	33-39/3	33-39/4		
1	19 & 20	.042 & .035	1-1/8	12	0,109	0,881	22,4	0,984	25,0	33-40/2	33-40/3	33-40/4		
1-1/4	8	0,165	1-1/8	13	0,095	0,917	23,3	1,019	25,9	33-41/2	33-41/3	33-41/4		
1-1/4	9	0,148	1-1/8	14	0,083	0,937	23,8	1,043	26,5	33-42/2	33-42/3	33-42/4		
1-1/4	10	0,134	1-1/8	15 & 16	.072 & .065	0,960	24,4	1,070	27,2	33-43/2	33-43/3	33-43/4		
1-1/4	11	0,12				0,992	25,2	1,102	28,0	33-44/2	33-44/3	33-44/4		
1-1/4	12	0,109				1,011	25,7	1,122	28,5	33-45/2	33-45/3	33-45/4		
1-1/4	13	0,095	1-3/8	8	0,165	1,027	26,1	1,133	28,8	33-46/2	33-46/3	33-46/4		
1-1/4	14	0,083				1,039	26,4	1,149	29,2	33-47/2	33-47/3	33-47/4		
1-1/4	15	0,072	1-3/8	9	0,148	1,059	26,9	1,169	29,7	33-48/2	33-48/3	33-48/4		
1-1/4	16	0,065	1-3/8	10	0,134	1,086	27,6	1,196	30,4	33-49/2	33-49/3	33-49/4	33-49/5	33-49/6
1-1/2	7	0,18	1-3/8	11	0,12	1,114	28,3	1,228	31,2	33-50/2	33-50/3	33-50/4	33-50/5	33-50/6
1-1/2	8	0,165	1-3/8	12	0,109	1,133	28,8	1,248	31,7	33-51/2	33-51/3	33-51/4	33-51/5	33-51/6
1-1/2	9	0,148	1-3/8	13 & 14	.095 & .083	1,161	29,5	1,314	33,4	33-52/2	33-52/3	33-52/4	33-52/5	33-52/6
1-1/2	10	0,134	1-3/8	15 & 16	.072 & .065	1,181	30,0	1,342	34,1	33-53/2	33-53/3	33-53/4	33-53/5	33-53/6
1-1/2	11 & 12	.120 & .109				1,204	30,6	1,370	34,8	33-54/2	33-54/3	33-54/4	33-54/5	33-54/6
1-1/2	13	0,095	1-3/4	5	0,22	1,236	31,4	1,401	35,6	33-55/2	33-55/3	33-55/4	33-55/5	33-55/6
1-1/2	14 & 15	.083 & .072	1-3/4	6	0,203	1,283	32,6	1,448	36,8	33-56/2	33-56/3	33-56/4	33-56/5	33-56/6
			1-3/4	7	0,18	1,314	33,4	1,500	38,1	33-57/2	33-57/3	33-57/4	33-57/5	33-57/6
			1-3/4	8	0,165	1,346	34,2	1,523	38,7	33-58/2	33-58/3	33-58/4	33-58/5	33-58/6
2	3	0,259	1-3/4	9 & 10	.148 & .134	1,377	35,0	1,598	40,6	33-59/2	33-59/3	33-59/4	33-59/5	33-59/6
2	4	0,238	1-3/4	11 & 12	.120 & .109	1,440	36,6	1,661	42,2	33-60/2	33-60/3	33-60/4	33-60/5	33-60/6
2	5 & 6	.220 & .203	1-3/4	13 & 14	.095 & .083	1,503	38,2	1,712	43,8	33-61/2	33-61/3	33-61/4	33-61/5	33-61/6
2	7 & 8	.180 & .165	1-3/4	15 & 16	.072 & .065	1,566	39,8	1,787	45,4	33-62/2	33-62/3	33-62/4	33-62/5	33-62/6
2	9 & 10	.148 & .134	2-1/4	3	0,259	1,629	41,4	1,850	47,0	33-63/2	33-63/3	33-63/4	33-63/5	33-63/6

2	11 - 13	.120 - .095	2-1/4	4	0,238	1,688	42,9	1,948	49,5	33-64/2	33-64/3	33-64/4	33-64/5	33-64/6
2	14 - 16	.083 - .065	2-1/4	6 & 7	.203 & .180	1,751	44,5	2,011	51,1	33-65/2	33-65/3	33-65/4	33-65/5	33-65/6
2	17 & 18	.058 - .049	2-1/4	8 & 9	.165 & .148	1,814	46,1	2,074	52,7	33-66/2	33-66/3	33-66/4	33-66/5	33-66/6
2-1/2	3	0,259	2-1/4	10 & 11	.134 & .120	1,877	47,7	2,137	54,3	33-67/2	33-67/3	33-67/4	33-67/5	33-67/6
2-1/2	4 & 5	.238 & .220	2-1/4	12 & 13	.109 & .095	1,940	49,3	2,200	55,9	33-68/2	33-68/3	33-68/4	33-68/5	33-68/6
2-1/2	6 & 7	.203 & .180	2-1/4	14 - 16	.083 - .065	2,000	50,8	2,275	57,8	33-69/2	33-69/3	33-69/4	33-69/5	33-69/6
2-1/2	8 & 9	.165 & .148	2-3/4	3	0,259	2,062	52,4	2,338	59,4	33-70/2	33-70/3	33-70/4	33-70/5	33-70/6
2-1/2	10 & 11	.134 & .120	2-3/4	4	0,238	2,125	54	2,401	61,0	33-71/2	33-71/3	33-71/4	33-71/5	33-71/6
2-1/2	12 - 14	.109 - .083	2-3/4	5 & 6	.220 & .203	2,188	55,6	2,519	64,0	33-72/2	33-72/3	33-72/4	33-72/5	33-72/6
2-1/2	15 & 16	.072 & .065	2-3/4	7 & 8	.180 & .165	2,251	57,2	2,582	65,6	33-73/2	33-73/3	33-73/4	33-73/5	33-73/6
3	3	0,259	2-3/4	9 & 10	.148 & .134	2,307	58,6	2,637	67,0	33-74/2	33-74/3	33-74/4	33-74/5	33-74/6
3	4	0,238	2-3/4	11 - 13	.120 & .095	2,377	60,4	2,708	68,8	33-75/2	33-75/3	33-75/4	33-75/5	33-75/6
3	5 & 6	.220 & .203	2-3/4	14 - 16	.083 - .065	2,448	62,2	2,771	70,4	33-76/2	33-76/3	33-76/4	33-76/5	33-76/6
3	7 & 8	.180 & .165				2,503	63,6	2,834	72,0	33-77/2	33-77/3	33-77/4	33-77/5	33-77/6
3	9 & 10	.148 & .134	3-1/4	3	0,259	2,559	65	2,889	73,4	33-78/2	33-78/3	33-78/4	33-78/5	33-78/6
3	11 - 13	.120 & .095	3-1/4	4	0,238	2,622	66,6	2,952	75,0	33-79/2	33-79/3	33-79/4	33-79/5	33-79/6
3	14 - 16	.083 - .065	3-1/4	5 & 6	.220 & .203	2,688	68,3	3,027	76,9	33-80/2	33-80/3	33-80/4	33-80/5	33-80/6
3-1/2	2	0,284	3-1/4	7 & 8	.180 & .165	2,751	69,9	3,090	78,5	33-81/2	33-81/3	33-81/4	33-81/5	33-81/6
3-1/2	3	0,259	3-1/4	9 & 10	.148 & .134	2,814	71,5	3,153	80,1	33-82/2	33-82/3	33-82/4	33-82/5	33-82/6
3-1/2	4	0,238	3-1/4	11 - 13	.120 - .095	2,877	73,1	3,216	81,7	33-83/2	33-83/3	33-83/4	33-83/5	33-83/6
3-1/2	5 & 6	.220 & .203	3-1/4	14 - 16	.083 - .065	2,937	74,6	3,314	84,2	33-84/2	33-84/3	33-84/4	33-84/5	33-84/6
3-1/2	7 & 8	.180 & .165	3-3/4	2	0,084	3,000	76,2	3,366	85,5	33-85/2	33-85/3	33-85/4	33-85/5	33-85/6
3-1/2	9 - 11	.148 - .120	3-3/4	3	0,259	3,062	77,8	3,440	87,4	33-86/2	33-86/3	33-86/4	33-86/5	33-86/6
3-1/2	12 - 16	.109 - .065	3-3/4	4	0,238	3,125	79,4	3,503	89,0	33-87/2	33-87/3	33-87/4	33-87/5	33-87/6
			3-3/4	5 & 6	.220 & .203	3,188	81,0	3,566	90,6	33-88/2	33-88/3	33-88/4	33-88/5	33-88/6
4	2	0,284	3-3/4	7 & 8	.180 & .165	3,251	82,6	3,629	92,2	33-89/2	33-89/3	33-89/4	33-89/5	33-89/6
4	3	0,259	3-3/4	9 & 10	.148 & .134	3,314	84,2	3,629	93,8	33-90/2	33-90/3	33-90/4	33-90/5	33-90/6
4	4	0,238	3-3/4	11 - 13	.120 - .095	3,377	85,8	3,787	96,2	33-91/2	33-91/3	33-91/4	33-91/5	33-91/6
4	5 & 6	.220 & .203	3-3/4	14 - 16	.083 - .065	3,440	87,4	3,850	97,8	33-92/2	33-92/3	33-92/4	33-92/5	33-92/6
4	7 & 8	.180 & .165	4-1/4	2		3,503	89,0	3,913	99,4	33-93/2	33-93/3	33-93/4	33-93/5	33-93/6
4	9 - 11	.148 - .120	4-1/4	3	0,284	3,559	90,4	3,968	100,8	33-94/2	33-94/3	33-94/4	33-94/5	33-94/6
4	12 - 16	.109 - .065	4-1/4	4	0,238	3,622	92	4,031	102,4	33-95/2	33-95/3	33-95/4	33-95/5	33-95/6
			4-1/4	5 & 6	.220 & .203	3,677	93,4	4,086	103,8	33-96/2	33-96/3	33-96/4	33-96/5	33-96/6
4-1/2	2	0,284	4-1/4	7 & 8	.180 & .165	3,74	95,0	4,149	105,4	33-97/2	33-97/3	33-97/4	33-97/5	33-97/6
4-1/2	3	0,259	4-1/4	9 - 11	.148 - .120	3,803	96,6	4,212	107,0	33-98/2	33-98/3	33-98/4	33-98/5	33-98/6
4-1/2	4 & 5	.238 & .220	4-1/4	11 - 13	.120 - .095	3,866	98,2	4,275	108,6	33-99/2	33-99/3	33-99/4	33-99/5	33-99/6
4-1/2	6 & 7	.203 & .180				3,984	101,2	4,330	110,0	33-100/2	33-100/3	33-100/4	33-100/5	33-100/6
4-1/2	8 & 9	.165 & .148				4,047	102,8	4,393	111,6	33-101/2	33-101/3	33-101/4	33-101/5	33-101/6
4-1/2	10 - 12	.134 - .109				4,110	104,4	4,456	113,2	33-102/2	33-102/3	33-102/4	33-102/5	33-102/6

SPARE ROLLER 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"		DRUM TYPE	HEADER TYPE	SHORT SERIES MANDREL SET
15-2-F3S	15-3-F3S				3/8	DM-11		
15-2-F3S	15-3-F3S				3/8	DM-12		
16-2-F3S	16-3-F3S				3/8	DM-12		
20-2-F3S	20-3-F3S				3/8	DM-12		
17-2-F3S	17-3-F3S				3/8	DM-13		
18-2-F3S	18-3-F3S				3/8	DM-12		
18-2-F3S	18-3-F3S	18-4-F3S			3/8	DM-13	HM-13	SM-13 (2)
19-2-F3S	19-3-F3S	19-4-F3S			3/8	DM-13	HM-13	SM-13 (2)
21-2-F3S	21-3-F3S	21-4-F3S			3/8	DM-13	HM-13	SM-13 (2)
21-2-F3S	21-3-F3S	21-4-F3S			3/8	DM-14	HM-14	SM-14 (2)
22-2-F3S	22-3-F3S	22-4-F3S			3/8	DM-14	HM-14	SM-14 (2)
23-2-F3S	23-3-F3S	23-4-F3S			1/2	DM-15	HM-15	SM-15 (2)
24-2-F3S	24-3-F3S	24-4-F3S			1/2	DM-15	HM-15	SM-15 (2)
26-2-F3S	26-3-F3S	26-4-F3S			1/2	DM-16	HM-16	SM-16 (2)
27-2-F3S	27-3-F3S	27-4-F3S			1/2	DM-16	HM-16	SM-16 (2)
31-2-F3S	31-3-F3S	31-4-F3S			1/2	DM-16	HM-16	SM-16 (2)
28-2-F3S	28-3-F3S	28-4-F3S			1/2	DM-17	HM-17	SM-17 (2)
29-2-F3S	29-3-F3S	29-4-F3S			1/2	DM-17	HM-17	SM-17 (2)
30-2-F3S	30-3-F3S	30-4-F3S	30-5-F3S	30-6-F3S	1/2	DM-17	HM-17	SM-17 (2)
30-2-F3S	30-3-F3S	30-4-F3S	30-5-F3S	30-6-F3S	1/2	DM-18	HM-18	SM-18 (2)
34-2-F3S	34-3-F3S	34-4-F3S	34-5-F3S	34-6-F3S	1/2	DM-18	HM-18	SM-18 (2)
28-2-F3S	28-3-F3S	28-4-F3S	28-5-F3S	28-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
29-2-F3S	29-3-F3S	29-4-F3S	29-5-F3S	29-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
30-2-F3S	30-3-F3S	30-4-F3S	30-5-F3S	30-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
33-2-F3S	33-3-F3S	33-4-F3S	33-5-F3S	33-6-F3S	1/2	DM-20	HM-20	SM-20 (2)
32-2-F3S	32-3-F3S	32-4-F3S	32-5-F3S	32-6-F3S	1/2	DM-21	HM-21	SM-21 (2)
36-2-F3S	36-3-F3S	36-4-F3S	36-5-F3S	36-6-F3S	1/2	DM-21	HM-21	SM-21 (2)
37-2-F3S	37-3-F3S	37-4-F3S	37-5-F3S	37-6-F3S	1/2	DM-21	HM-21	SM-21 (2)
33-2-F3S	33-3-F3S	33-4-F3S	33-5-F3S	33-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
37-2-F3S	37-3-F3S	37-4-F3S	37-5-F3S	37-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
38-2-F3S	38-3-F3S	38-4-F3S	38-5-F3S	38-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
39-2-F3S	39-3-F3S	39-4-F3S	39-5-F3S	39-6-F3S	3/4	DM-22	HM-22	SM-22 (3)
40-2-F3S	40-3-F3S	40-4-F3S	40-5-F3S	40-6-F3S	3/4	DM-22	HM-22	SM-22 (3)

40-2-F3S	40-3-F3S	40-4-F3S	40-5-F3S	40-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
41-2-F3S	41-3-F3S	41-4-F3S	41-5-F3S	41-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
42-2-F3S	42-3-F3S	42-4-F3S	42-5-F3S	42-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
43-2-F3S	43-3-F3S	43-4-F3S	43-5-F3S	43-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
44-2-F3S	44-3-F3S	44-4-F3S	44-5-F3S	44-6-F3S	3/4	DM-23	HM-23	SM-23 (3)
43-2-F3S	43-3-F3S	43-4-F3S	43-5-F3S	43-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
44-2-F3S	44-3-F3S	44-4-F3S	44-5-F3S	44-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
45-2-F3S	45-3-F3S	45-4-F3S	45-5-F3S	45-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
47-2-F3S	47-3-F3S	47-4-F3S	47-5-F3S	47-6-F3S	3/4	DM-24	HM-24	SM-24 (3)
46-2-F3S	46-3-F3S	46-4-F3S	46-5-F3S	46-6-F3S	1	DM-25	HM-25	SM-25 (3)
47-2-F3S	47-3-F3S	47-4-F3S	47-5-F3S	47-6-F3S	1	DM-25	HM-25	SM-25 (3)
48-2-F3S	48-3-F3S	48-4-F3S	48-5-F3S	48-6-F3S	1	DM-25	HM-25	SM-25 (3)
49-2-F3S	49-3-F3S	49-4-F3S	49-5-F3S	49-6-F3S	1	DM-25	HM-25	SM-25 (3)
50-2-F3S	50-3-F3S	50-4-F3S	50-5-F3S	50-6-F3S	1	DM-25	HM-25	SM-25 (3)
51-2-F3S	51-3-F3S	51-4-F3S	51-5-F3S	51-6-F3S	1	DM-25	HM-25	SM-25 (3)
52-2-F3S	52-3-F3S	52-4-F3S	52-5-F3S	52-6-F3S	1	DM-25	HM-25	SM-25 (3)
51-2-F3S	51-3-F3S	51-4-F3S	51-5-F3S	51-6-F3S	1	DM-26	HM-26	SM-26 (4)
52-2-F3S	52-3-F3S	52-4-F3S	52-5-F3S	52-6-F3S	1	DM-26	HM-26	SM-26 (4)
53-2-F3S	53-3-F3S	53-4-F3S	53-5-F3S	53-6-F3S	1	DM-26	HM-26	SM-26 (4)
54-2-F3S	54-3-F3S	54-4-F3S	54-5-F3S	54-6-F3S	1	DM-26	HM-26	SM-26 (4)
54-2-F3S	54-3-F3S	54-4-F3S	54-5-F3S	54-6-F3S	1	DM-27	HM-27	SM-27 (4)
55-2-F3S	55-3-F3S	55-4-F3S	55-5-F3S	55-6-F3S	1	DM-27	HM-27	SM-27 (4)
56-2-F3S	56-3-F3S	56-4-F3S	56-5-F3S	56-6-F3S	1	DM-27	HM-27	SM-27 (4)
57-2-F3S	57-3-F3S	57-4-F3S	57-5-F3S	57-6-F3S	1	DM-27	HM-27	SM-27 (4)
58-2-F3S	58-3-F3S	58-4-F3S	58-5-F3S	58-6-F3S	1	DM-27	HM-27	SM-27 (4)
59-2-F3S	59-3-F3S	59-4-F3S	59-5-F3S	59-6-F3S	1	DM-27	HM-27	SM-27 (4)
60-2-F3S	60-3-F3S	60-4-F3S	60-5-F3S	60-6-F3S	1	DM-27	HM-27	SM-27 (4)
59-2-F3S	59-3-F3S	59-4-F3S	59-5-F3S	59-6-F3S	1	DM-28	HM-28	SM-28 (4)
60-2-F3S	60-3-F3S	60-4-F3S	60-5-F3S	60-6-F3S	1	DM-28	HM-28	SM-28 (4)
61-2-F3S	61-3-F3S	61-4-F3S	61-5-F3S	61-6-F3S	1	DM-28	HM-28	SM-28 (4)
62-2-F3S	62-3-F3S	62-4-F3S	62-5-F3S	62-6-F3S	1	DM-28	HM-28	SM-28 (4)
63-2-F3S	63-3-F3S	63-4-F3S	63-5-F3S	63-6-F3S	1	DM-28	HM-28	SM-28 (4)
62-2-F3S	62-3-F3S	62-4-F3S	62-5-F3S	62-6-F3S	1	DM-29	HM-29	SM-29 (4)
63-2-F3S	63-3-F3S	63-4-F3S	63-5-F3S	63-6-F3S	1	DM-29	HM-29	SM-29 (4)
64-2-F3S	64-3-F3S	64-4-F3S	64-5-F3S	64-6-F3S	1	DM-29	HM-29	SM-29 (4)
63-2-F3S	63-3-F3S	63-4-F3S	63-5-F3S	63-6-F3S	1	DM-30	HM-30	SM-30 (4)
64-2-F3S	64-3-F3S	64-4-F3S	64-5-F3S	64-6-F3S	1	DM-30	HM-30	SM-30 (4)
65-2-F3S	65-3-F3S	65-4-F3S	65-5-F3S	65-6-F3S	1	DM-30	HM-30	SM-30 (4)
66-2-F3S	66-3-F3S	66-4-F3S	66-5-F3S	66-6-F3S	1	DM-30	HM-30	SM-30 (4)