

# '3A' Type

(3 Roller, 3 Single Belling Roller Type)

## Ordering Instructions

To ascertain the correct tool number for your purposes, first establish the minimum bore which the tool enters (1 st column of table below). Then select the appropriate Seat Thickness column, and read off at the Minimum Bore size line ... e.g.: for a tube with minimum bore size of 40mm and a seat thickness of 35mm, the tool number will read: 3A40/35.

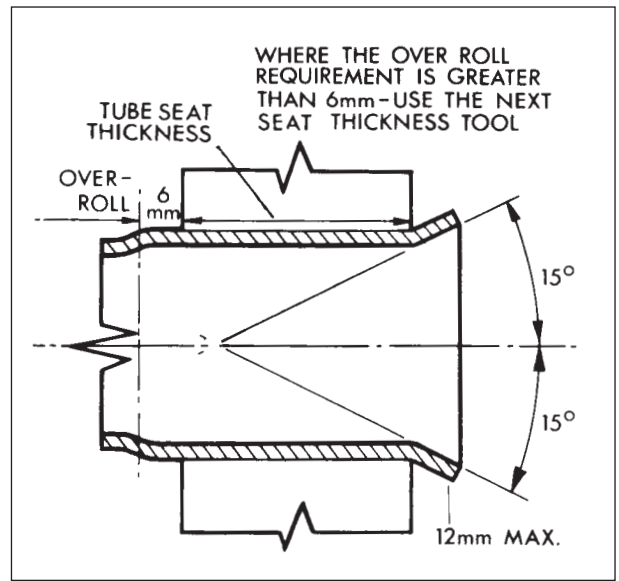
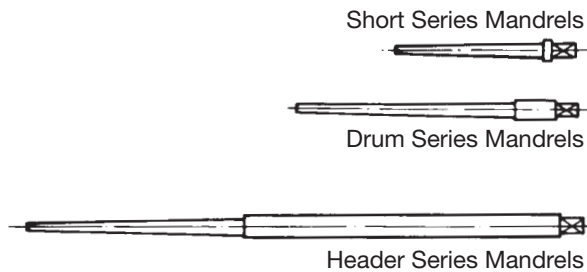
Intermediate range tools are available to special order.



MIN BORE TOOL ENTERS		MAX EXPN OF TOOL		MIN HAND HOLE SIZE TOOL ENTERS		TUBE SEAT THICKNESS					
						20mm .787"	25mm .985"	30mm 1.181"	35mm 1.378"	40mm 1.575"	45mm 1.772"
mm	inch	mm	inch	mm	inch	TOOL NUMBER					
15	.591	17.5	.689	35	1.378	3A15/20	3A15/25	3A15/30	3A15/35	3A15/40	3A15/45
16	.630	18.9	.744	35	1.378	3A16/20	3A16/25	3A16/30	3A16/35	3A16/40	3A16/45
17	.669	20.3	.799	36	1.418	3A17/20	3A17/25	3A17/30	3A17/35	3A17/40	3A17/45
18	.709	21.5	.846	37	1.457	3A18/20	3A18/25	3A18/30	3A18/35	3A18/40	3A18/45
19	.748	22.1	.870	38	1.500	3A19/20	3A19/25	3A19/30	3A19/35	3A19/40	3A19/45
20	.787	23.5	.925	39	1.536	3A20/20	3A20/25	3A20/30	3A20/35	3A20/40	3A20/45
21	.827	24.7	.972	40	1.575	3A21/20	3A21/25	3A21/30	3A21/35	3A21/40	3A21/45
22	.866	26.5	1.043	42	1.654	3A22/20	3A22/25	3A22/30	3A22/35	3A22/40	3A22/45
23.5	.925	28.3	1.114	44	1.732	3A23/20	3A23/25	3A23/30	3A23/35	3A23/40	3A23/45
25	.984	29.8	1.173	45	1.772	3A25/20	3A25/25	3A25/30	3A25/35	3A25/40	3A25/45
27	1.063	31.8	1.252	47	1.850	3A27/20	3A27/25	3A27/30	3A27/35	3A27/40	3A27/45
29	1.142	33.8	1.331	49	1.929	3A29/20	3A29/25	3A29/30	3A29/35	3A29/40	3A29/45
31	1.220	36.5	1.437	52	2.047	3A31/20	3A31/25	3A31/30	3A31/35	3A31/40	3A31/45
33	1.300	38.5	1.516	54	2.126	3A33/20	3A33/25	3A33/30	3A33/35	3A33/40	3A33/45
35	1.378	42.5	1.673	58	2.284	3A35/20	3A35/25	3A35/30	3A35/35	3A35/40	3A35/45
37	1.457	43.3	1.704	60	2.363	3A37/20	3A37/25	3A37/30	3A37/35	3A37/40	3A37/45
40	1.575	47.7	1.877	64	2.520	3A40/20	3A40/25	3A40/30	3A40/35	3A40/40	3A40/45
43	1.693	51.9	2.043	68	2.678	3A43/20	3A43/25	3A43/30	3A43/35	3A43/40	3A43/45
46	1.811	54.9	2.161	72	2.835	3A46/20	3A46/25	3A46/30	3A46/35	3A46/40	3A46/45
49	1.930	57.9	2.279	74	2.914	3A49/20	3A49/25	3A49/30	3A49/35	3A49/40	3A49/45
52	2.047	60.9	2.397	78	3.071	3A52/20	3A52/25	3A52/30	3A52/35	3A52/40	3A52/45
56	2.205	63.9	2.515	80	3.150	3A56/20	3A56/25	3A56/30	3A56/35	3A56/40	3A56/45
60	2.362	68.9	2.712	85	3.347	3A60/20	3A60/25	3A60/30	3A60/35	3A60/40	3A60/45
64	2.520	72.9	2.870	89	3.504	3A64/20	3A64/25	3A64/30	3A64/35	3A64/40	3A64/45
68	2.678	76.3	3.003	92	3.622	3A68/20	3A68/25	3A68/30	3A68/35	3A68/40	3A68/45
72	2.835	80.3	3.161	96	3.780	3A72/20	3A72/25	3A72/30	3A72/35	3A72/40	3A72/45
76	2.992	84.5	3.326	103	4.056	3A76/20	3A76/25	3A76/30	3A76/35	3A76/40	3A76/45
80	3.149	88.5	3.484	106	4.174	3A80/20	3A80/25	3A80/30	3A80/35	3A80/40	3A80/45
84	3.307	92.5	3.641	110	4.331	3A84/20	3A84/25	3A84/30	3A84/35	3A84/40	3A84/45
88	3.465	96.5	3.799	114	4.489	3A88/20	3A88/25	3A88/30	3A88/35	3A88/40	3A88/45
92	3.622	100.5	3.956	118	4.646	3A92/20	3A92/25	3A92/30	3A92/35	3A92/40	3A92/45
96	3.780	104.5	4.114	122	4.803	3A96/20	3A96/25	3A96/30	3A96/35	3A96/40	3A96/45
100	3.937	108.5	4.271	125	4.922	3A100/20	3A100/25	3A100/30	3A100/35	3A100/40	3A100/45

# '3A' Type

(continued)



Drum mandrels will be supplied unless header or short series mandrels are ordered.

**Note:** In all cases the effective parallel rolling lengths of these tools is 6mm longer than the seat thickness dimensions given in the tables. Where it is necessary to expand in seats which are thicker than those covered below, the recommended procedure for rolling in thick drums applies.

MIN BORE TOOL ENTERS		TUBE SEAT THICKNESS			Mandrel Size	DRUM MANDREL	HEADER MANDREL	SHORT MANDREL	EXTRA SHORT MANDREL
		50mm 1.969"	60mm 2.362"	70mm 2.756"					
mm	inch	TOOL NUMBER			inch				
15	.591				3/8	DA1	HA1	SA1/2	ESA1/2/3
16	.630					225mm lg	450mm lg	145mm lg	125mm lg
17	.669					8.858" lg	17.717" lg	5.709" lg	4.921" lg
18	.709								
19	.748				3/8	DA2	HA2	SA3/4	ESA4/5/6
20	.787					225mm lg	450mm lg	160mm lg	135mm lg
21	.827					10.039" lg	17.717" lg	6.299" lg	5.315" lg
22	.866								
23.5	.925				1/2	DA3	HA3	SA5/6	ESA7/8/9
25	.984					225mm lg	450mm lg	160mm lg	135mm lg
27	1.063					10.039" lg	17.717" lg	6.299" lg	5.315" lg
29	1.142								
31	1.220				3/4	DA4	HA4	SA7/8	ESA10/11/12
33	1.300					350mm lg	500mm lg	214mm lg	174mm lg
35	1.378					13.780" lg	19.685" lg	8.425" lg	6.850" lg
37	1.457	3A37/50	3A37/60	3A37/70	3/4	DA5	HA5	SA9/10	ESA13/14/15
40	1.575	3A40/50	3A40/60	3A40/70		355mm lg	550mm lg	225mm lg	185mm lg
43	1.693	3A43/50	3A43/60	3A43/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg
46	1.811	3A46/50	3A46/60	3A46/70					
49	1.930	3A49/50	3A49/60	3A49/70					
52	2.047	3A52/50	3A52/60	3A52/70	3/4	DA6	HA6	SA11/12	ESA16/17/18
56	2.205	3A56/50	3A56/60	3A56/70		355mm lg	550mm lg	225mm lg	185mm lg
60	2.362	3A60/50	3A60/60	3A60/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg
64	2.520	3A64/50	3A64/60	3A64/70					
68	2.678	3A68/50	3A68/60	3A68/70					
72	2.835	3A72/50	3A72/60	3A72/70	1	DA7	HA7	SA13/14	ESA19/20/21
76	2.992	3A76/50	3A76/60	3A76/70		355mm lg	550mm lg	225mm lg	185mm lg
80	3.149	3A80/50	3A80/60	3A80/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg
84	3.307	3A84/50	3A84/60	3A84/70					
88	3.465	3A88/50	3A88/60	3A88/70					
92	3.622	3A92/50	3A92/60	3A92/70	1	DA8	HA8	SA15/16	ESA22/23/24
96	3.780	3A96/50	3A96/60	3A96/70		355mm lg	550mm lg	225mm lg	185mm lg
100	3.937	3A100/50	3A100/60	3A100/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg