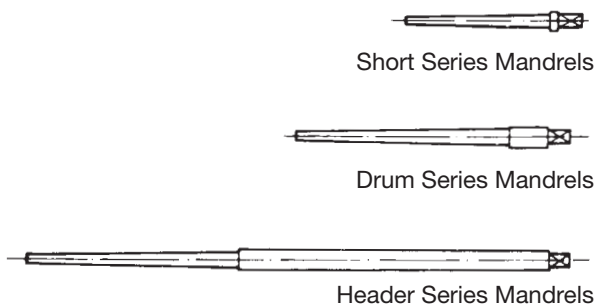


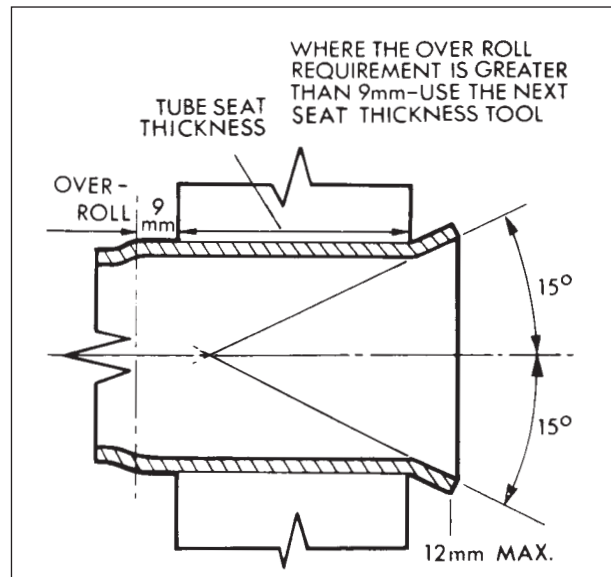
'1A' Type

(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 9mm 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					255mm 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	1A37/50	1A37/60	1A37/70	3/4	DA5	HA5	SA9/10	ESA13/14/15
40	1.575	1A40/50	1A40/60	1A40/70		355mm lg	550mm lg	225mm lg	185mm lg
43	1.693	1A43/50	1A43/60	1A43/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg
46	1.811	1A46/50	1A46/60	1A46/70					
49	1.930	1A49/50	1A49/60	1A49/70	3/4	DA6	HA6	SA11/12	ESA16/17/18
52	2.047	1A52/50	1A52/60	1A52/70		355mm lg	550mm lg	225mm lg	185mm lg
56	2.205	1A56/50	1A56/60	1A56/70		13.976" lg	21.654" lg	8.858" lg	7.294" lg
60	2.362	1A60/50	1A60/60	1A60/70					
64	2.520	1A64/50	1A64/60	1A64/70	1	DA7	HA7	SA13/14	ESA19/20/21
68	2.678	1A68/50	1A68/60	1A68/70		355mm lg	550mm lg	225mm lg	185mm lg
72	2.835	1A72/50	1A72/60	1A72/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg
76	2.992	1A76/50	1A76/60	1A76/70					
80	3.149	1A80/50	1A80/60	1A80/70	1	DA8	HA8	SA15/16	ESA22/23/24
84	3.307	1A84/50	1A84/60	1A84/70		355mm lg	550mm lg	225mm lg	185mm lg
88	3.465	1A88/50	1A88/60	1A88/70		13.976" lg	21.654" lg	8.858" lg	7.284" lg
92	3.622	1A92/50	1A92/60	1A92/70					
96	3.780	1A96/50	1A96/60	1A96/70	1	DA8	HA8	SA15/16	ESA22/23/24
100	3.937	1A100/50	1A100/60	1A100/70		355mm lg	550mm lg	225mm lg	185mm lg