APPENDICES

Fault finding chart

Fault	Possible cause	Remedy
Metal squirting between matrix and mould.	Worn or damaged matrix.	Renew matrix.
	Seating face of mould not level.	Dismantle mould and re-assemble correctly, ensuring matrix seating face is level.
	Matrix incorrectly inserted in holder.	Remove and insert correctly. (Refer to Chapter 19.)
	Incorrect adjustment of composition matrix head.	Re-adjust. (Refer to 11.1.)
	14–36pt matrix (0·050 drive) in use with holder for 42–72pt matrix (0·065 drive).	Ensure that correct matrix holder is in use.
Metal squirting between nozzle and mould.	Nozzle not rising exactly in the centre of its seating in the mould base.	Centralise the nozzle (refer to 15.7); replace if badly worn or damaged.
	Incorrect engagement of nozzle seating device.	Device should be out of action at speeds above 15 r.p.m.
	Nozzle seating damaged.	Works repair.
Marked or damaged type or type turning in channel.	Type clamp distorted.	Remove clamp and correct distortion.
	Incorrect stroke of type carrier.	Re-adjust. (Refer to 10.5.) Ensure type support spring cam is being used with or without bracket and/or packing, as necessary. (Refer to 10.9.)
		Check adjustment of type pusher. (Refer to 10.14.)
		Ensure that type channel blocks are not damaged on type delivery faces.
Stop casting.	Type metal below recommended working temperature.	Adjust temperature. (Refer to Product Information Table.)
	Too much water passing through mould.	Adjust water flow. (Refer to Product Information Table.)
	Blocked nozzle.	Drill nozzle.
	Machine running too slowly.	Adjust speed. (Refer to 15.32.)
	Hole in pump body hat valve obstructed.	Clear obstruction.
	Incorrect adjustment of the piston operating rod crosshead stud.	Re-adjust. (Refer to 15.15.)
Furniture being cast to irregular lengths.	5-em gag not functioning correctly.	Clean and ensure free operation.
	Counter mechanism not registering correctly.	Check adjustment. (Refer to 13.2.)
	Slight compression is not being obtained at mould blade slide drive lever when a non-fusing cast is required.	Re-adjust. (Refer to 9.16.)
	Mould clamp not holding product in position during casting period.	Re-adjust. (Refer to 40.17.)
Inconsistent set size when casting type.	Mould blade coupling fork pin loose.	Tighten by means of knurled nut, and lock in position.
	Micrometer wedge not secured by lock clamps.	Remove clamps and replace, ensuring they are correctly located.
	Mould blade binding.	Dismantle mould, clean and re-assemble.
	Wedge screw nut damaged.	Replace with new nut.
Counter mechanism not registering correctly.	Pawl spring has become disengaged.	Re-engage.
	Counter mechanism out of adjustment.	Re-adjust. (Refer to 13.2.)
Mould blade slide drive lever continually locking.	Mould blade obstructed.	Remove obstruction. (Refer to 9.10.)
		Ensure friction plunger is sufficiently lubricated.
Type carrier cam lever continually locking.	Obstruction in the path of the type carrier.	Remove obstruction. (Refer to 10.4.)

Speed change table

For display matrices for Super casters equipped with Varigear

Matrix marking	r.p.m. for 72pt	60pt	48pt	42pt	36pt	30pt	24pt	18pt	14pt
2	70	85	105	105	140	140	140	145	145
2½	70	85	105	105	140	140	140	145	145
3	70	70	100	100	140	140	140	140	145
3½	55	70	95	100	140	140	140	140	145
4	55	70	85	90	125	135	140	140	145
4½	50	70	85	85	105	125	135	140	145
5	45	60	70	75	105	115	130	140	145
5½	45	55	65	70	90	100	120	135	145
6	40	45	55	60	85	95	120	135	145
6½	40	45	50	55	85	90	115	135	140
7	40	45	50	50	70	90	105	120	140
7½	35	40	45	45	70	85	95	120	135
8	35	40	45	45	55	75	90	110	135
8½	35	35	40	45	55	70	90	105	130
9	30	35	40	45	55	70	85	100	130
9½	30	35	35	40	50	70	80	95	125
10	30	30	35	40	50	65	75	90	125
10½	30	30	35	40	45	55	70	80	110
11	25	30	30	35	45	55	70	80	110
11½	25	25	30	35	40	50	70	75	105
12	22	25	30	35	35	45	55	70	95
13	22	25	30	30	35	40	55	65	90
14	20	22	25	30	30	35	45	60	85
15	18	20	25	25	30	35	45	60	85
16	18	20	22	25	25	30	45	55	85
17	18	18	22	25	25	30	45	55	80
18	15	18	22	25	25	30	40	50	70
19	15	18	18	22	22	25	40	50	70
20	15	18	18	20	20	25	35	50	60
21	15	15	15	18	18	22	30	45	55
22	15	15	15	18	18	20	25	40	50
23	15	15	15	18	18	20	25	35	45
24	15	15	15	18	18	20	25	30	45
25	12	15	15	15	18	20	22	30	45
26	11	15	15	15	15	18	22	25	40
27	10	12	12	15	15	18	22	25	40
28	10	12	12	15	12	15	20	25	35
30	10	12	12	15	12	15	18	20	35
33	8	10	10	12	10	12	18		
36	7	8	9	10	8	12	15		
42	6	7	8	9	5	10			
48	5	6	7	8	5				
54	4	4	6	7					
60	3	4	5	6					
66	3	3	5	5					
72	3	3							
84	2	3							
90	2	2							

Change speed table

Based upon direct drive speed of 144 revolutions per minute

Present matrix marking	Old matrix marking	42 pt to 72 pt (cored)					36 pt and below					
		72	60	54	48	42	36	30	24	18	14	12
2		†AD	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4
	△ 6 8	125	144	144	144	144	144	144	144	144	144	144
2½	△ 7 4	†BD	†AD	†AD	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4
	* 2 4	102	125	125	144	144	144	144	144	144	144	144
3	△ 7 8	†CD	†BD	†BD	†AD	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4
	* 2 8	83	102	102	125	144	144	144	144	144	144	144
3½	△ 8 4	†AE	†CD	†BD	†BD	†AD	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4
	* 3 4	68	83	102	102	125	144	144	144	144	144	144
4	△ 8 8	†BE	†AE	†CD	†CD	†BD	†AD	2-H-4	2-H-4	2-H-4	2-H-4	2-H-4
	* 3 8	55	68	83	83	102	125	144	144	144	144	144
4½	△ 9 4	†BE	†AE	†AE	†CD	†CD	†BD	†AD	2-H-4	2-H-4	2-H-4	2-H-4
	* 4 4	55	68	68	83	83	102	125	144	144	144	144
5	△ 9 8	†CE	†AE	†AE	†AE	†CD	†BD	†AD	2-H-4	2-H-4	2-H-4	2-H-4
	* 4 8	45	68	68	68	83	102	125	144	144	144	144
5½	△ 10 4	†CE	†BE	†BE	†AE	†AE	†CD	†BD	2-H-4	2-H-4	2-H-4	2-H-4
	* 5 4	45	55	55	68	68	83	102	144	144	144	144
6	△ 10 8	†AF	†CE	†BE	†BE	†AE	†CD	†CD	†AD	2-H-4	2-H-4	2-H-4
	* 5 8	37	45	55	55	68	83	83	125	144	144	144
6½	△ 11 4	†AF	†CE	†CE	†BE	†BE	†CD	†CD	†AD	2-H-4	2-H-4	2-H-4
	* 6 4	37	45	45	55	55	83	83	125	144	144	144
7	△ 11 8	†AF	†CE	†CE	†BE	†BE	†AE	†CD	†CD	2-H-4	2-H-4	2-H-4
	* 6 8	37	45	45	55	55	68	83	83	144	144	144
7½	△ 12 4	†BF	†AF	†CE	†CE	†BE	†AE	†CD	†CD	2-H-4	2-H-4	2-H-4
	* 7 4	30	37	45	45	55	68	83	83	144	144	144
8	△ 12 8	†BF	†AF	†AF	†CE	†BE	†BE	†AE	†CD	†BD	2-H-4	2-H-4
	* 7 8	30	37	37	45	55	55	68	83	102	144	144
8½	△ 13 4	†BF	†AF	†AF	†CE	†CE	†BE	†AE	†CD	†BD	2-H-4	2-H-4
	* 8 4	30	37	37	45	45	55	68	83	102	144	144
9	△ 13 4	†CF	†BF	†AF	†CE	†CE	†BE	†AE	†CD	†BD	2-H-4	2-H-4
	* 8 8	25	30	37	45	45	55	68	83	102	144	144
9½	△ 14 4	†CF	†BF	†BF	†AF	†CE	†CE	†BE	†AE	†CD	†AD	2-H-4
	* 9 4	25	30	30	37	45	45	55	68	83	125	144
10	△ 14 8	†CF	†BF	†BF	†AF	†AF	†CE	†BE	†AE	†CD	†AD	2-H-4
	* 9 8	25	30	30	37	37	45	55	68	83	125	144
10½	△ 15 4	†CF	†CF	†BF	†BF	†AF	†CE	†CE	†AE	†CD	†BD	†AD
	* 10 4	25	25	30	30	37	45	45	68	83	102	125
11	△ 15 8	‡AD	†CF	†BF	†BF	†AF	†CE	†CE	†AE	†CD	†BD	†AD
	* 10 8	22	25	30	30	37	45	45	68	83	102	125
11½	△ 16 4	‡AD	†CF	†BF	†BF	†AF	†CE	†CE	†AE	†CD	†BD	†AD
	* 11 4	22	25	30	30	37	45	45	68	83	102	125
12	△ 16 8	‡AD	†CF	†CF	†BF	†AF	†AF	†CE	†BE	†CD	†CD	†BD
	* 11 8	22	25	25	30	37	37	45	55	83	83	102
13	△ 17 8	‡BD	‡AD	†CF	†BF	†BF	†AF	†CE	†BE	†CD	†CD	†BD
	* 12 8	18	22	25	30	30	37	45	55	83	83	102
14	△ 18 8	‡BD	‡AD	‡AD	†CF	†BF	†BF	†AF	†CE	†AE	†CD	†CD
	* 13 8	18	22	22	25	30	30	37	45	68	83	83
15	* 2 8	‡CD	‡BD	‡AD	†CF	†CF	†BF	†AF	†CE	†AE	†CD	†CD
	* 14 8	15	18	22	25	25	30	37	45	68	83	83

Present matrix marking	Old matrix marking	42 pt to 72 pt (cored)					36 pt and below					
		72	60	54	48	42	36	30	24	18	14	12
16	* 3 8 * 15 8	‡CD 15	‡BD 18	‡AD 22	‡AD 22	†CF 25	†CF 25	†BF 30	†CE 45	†BE 55	†CD 83	†CD 83
17	* 4 8 * 16 8	‡CD 15	‡BD 18	‡BD 18	‡AD 22	†CF 25	†CF 25	†BF 30	†CE 45	†BE 55	†CD 83	†CD 83
18	* 5 8 * 17 8	‡AE 12	‡CD 15	‡BD 18	‡AD 22	‡AD 22	‡AD 22	†CF 25	†AF 37	†CE 45	†AE 68	†CD 83
19	* 6 8 * 18 8	‡AE 12	‡CD 15	‡CD 15	‡BD 18	‡AD 22	‡AD 22	†CF 25	†AF 37	†CE 45	†AE 68	†CD 83
20	* 7 8 2 8	‡AE 12	‡CD 15	‡CD 15	‡BD 18	‡AD 22	‡BD 18	‡AD 22	†BF 30	†CE 45	†BE 55	†AE 68
21	* 8 8 3 8	‡AE 12	‡AE 12	‡CD 15	‡CD 15	‡BD 18	‡BD 18	‡AD 22	†BF 30	†CE 45	†BE 55	†AE 68
22	* 9 8 4 8	‡BE 10	‡AE 12	‡CD 15	‡CD 15	‡BD 18	‡BD 18	‡BD 18	†CF 25	†AF 37	†CE 45	†BE 55
23	* 10 8 5 8	‡BE 10	‡AE 12	‡CD 15	‡CD 15	‡BD 18	‡BD 18	‡BD 18	†CF 25	†AF 37	†CE 45	†BE 55
24	* 11 8 6 8	‡BE 10	‡AE 12	‡AE 12	‡CD 15	‡BD 18	‡BD 18	‡BD 18	†CF 25	†AF 37	†CE 45	†BE 55
25	* 12 8 7 8	‡BE 10	‡BE 10	‡BE 10	‡CD 15	‡CD 15	‡CD 15	‡BD 18	‡AD 22	†BF 30	†CE 45	
26	* 13 8 8 8	‡BE 10	‡BE 10	‡BE 10	‡CD 15	‡CD 15	‡CD 15	‡BD 18	‡AD 22	†BF 30	†CE 45	
27	* 14 8 9 8	‡CE 8	‡BE 10	‡BE 10	‡AE 12	‡CD 15	‡CD 15	‡BD 18	‡AD 22	†BF 30	†CE 45	
28	* 15 8 10 8	‡CE 8	‡BE 10	‡BE 10	‡AE 12	‡CD 15	‡AE 12	‡CD 15	‡BD 18	†CF 25	†AF 37	
30	* 17 8 12 8	‡CE 8	‡BE 10	‡BE 10	‡AE 12	‡CD 15	‡AE 12	‡CD 15	‡BD 18	†CF 25	†AF 37	
33	3 8 15 8	‡AF 6½	‡CE 8	‡BE 10	‡BE 10	‡AE 12	‡BE 10	‡AE 12	‡BD 18			
36	6 8 18 8	‡AF 6½	‡CE 8	‡BE 10	‡BE 10	‡BE 10	‡CE 8	‡AE 12	‡CD 15			
42	12 8 ** 7 8	‡BF 5½	‡AF 6½	‡CE 8	‡CE 8	‡CE 8	‡BE 5½	‡BE 10				
48	18 8 ** 13 8	‡CF 4½	‡BF 5½	‡AF 6½	‡AF 6½	‡CE 8	‡CF 4½					
54		§‡CE 8	‡CF 4½	‡BF 5½	‡BF 5½	‡AF 6½						
60		§‡CE 8	‡CF 4½	‡CF 4½	‡BF 5½	‡AF 6½						
66		§‡AF 6½	§‡CE 8	‡CF 4½	‡CF 4½	‡BF 5½						
72		§‡BF 5½	§‡CE 8									
84		§‡BF 5½	§‡AF 6½									
90		§‡CF 4½	§‡CF 4½									

† These have speed control 1-3-H in operation ‡ These have speed control 2-3-G in operation § Pump to be stopped every alternate revolution

Counter drum and micrometer head settings

Table showing adjustments in pica ems and half-ems, for use with furniture mould equipped for casting predetermined lengths.

Pica ems	Adjustments			Pica ems	Adjustments			Pica ems	Adjustments			Pica ems	Adjustments		
	Drum (casts)	*Indicator scale (ems)*	*Micrometer wedge +*		*Drum (casts)*	*Indicator scale (ems)*	*Micrometer wedge +*		*Drum (casts)*	*Indicator scale (ems)*	*Micrometer wedge +*		*Drum (casts)*	*Indicator scale (ems)*	*Micrometer wedge +*
8	1	3		**27**	4	5½		**46**	7	5½	0·0592	**65**	10	6	
8½	1	3½		**27½**	4	5½	0·0207	**46½**	7	5½	0·0711	**65½**	11	5½	
9	1	4		**28**	4	5½	0·0415	**47**	7	6		**66**	11	5½	0·0075
9½	1	4½		**28½**	4	5½	0·0622	**47½**	8	5	0·0519	**66½**	11	5½	0·0151
10	1	5		**29**	4	6		**48**	8	5	0·0622	**67**	11	5½	0·0226
10½	1	5½		**29½**	5	4½	0·0664	**48½**	8	5	0·0726	**67½**	11	5½	0·0301
11	1	6		**30**	5	5		**49**	8	5½		**68**	11	5½	0·0377
11½	2	3	0·0415	**30½**	5	5	0·0166	**49½**	8	5½	0·0103	**68½**	11	5½	0·0453
12	2	3½		**31**	5	5	0·0332	**50**	9	5		**69**	11	5½	0·0528
12½	2	3½	0·0415	**31½**	5	5	0·0498	**50½**	8	5½	0·0311	**69½**	11	5½	0·0604
13	2	4		**32**	5	5	0·0664	**51**	8	5½	0·0415	**70**	13	5	
13½	2	4	0·0415	**32½**	5	5½		**51½**	8	5½	0·0518	**70½**	11	5½	0·0754
14	2	4½		**33**	5	5½	0·0166	**52**	8	5½	0·0622	**71**	11	6	
14½	2	4½	0·0415	**33½**	5	5½	0·0332	**52½**	8	5½	0·0727	**71½**	12	5½	0·0069
15	2	5		**34**	5	5½	0·0498	**53**	8	6		**72**	12	5½	0·0138
15½	2	5	0·0415	**34½**	5	5½	0·0664	**53½**	9	5	0·0645	**72½**	12	5½	0·0208
16	2	5½		**35**	5	6		**54**	9	5	0·0715	**73**	12	5½	0·0276
16½	2	5½	0·0415	**35½**	6	5	0·0138	**54½**	9	5½		**73½**	12	5½	0·0345
17	2	6		**36**	6	5	0·0276	**55**	10	5		**74**	12	5½	0·0415
17½	3	4	0·0276	**36½**	6	5	0·0414	**55½**	10	5	0·0083	**74½**	12	5½	0·0484
18	3	4	0·0553	**37**	6	5	0·0552	**56**	10	5	0·0166	**75**	14	5	
18½	3	4½		**37½**	6	5	0·0691	**56½**	10	5	0·0249	**75½**	12	5½	0·0622
19	3	4½	0·0276	**38**	6	5½		**57**	9	5½	0·0461	**76**	12	5½	0·0691
19½	3	4½	0·0553	**38½**	6	5½	0·0138	**57½**	9	5½	0·0553	**76½**	13	5½	
20	3	5		**39**	6	5½	0·0276	**58**	9	5½	0·0645	**77**	12	6	
20½	3	5	0·0276	**39½**	6	5½	0·0415	**58½**	9	5½	0·0737	**77½**	13	5½	0·0127
21	3	5	0·0553	**40**	7	5		**59**	9	6		**78**	13	5½	0·0191
21½	3	5½		**40½**	6	5½	0·0691	**59½**	10	5	0·0747	**78½**	13	5½	0·0255
22	3	5½	0·0276	**41**	6	6		**60**	11	5		**79**	13	5½	0·0319
22½	3	5½	0·0553	**41½**	7	5	0·0355	**60½**	10	5½	0·0083	**79½**	13	5½	0·0383
23	3	6		**42**	7	5	0·0474	**61**	10	5½	0·0166	**80**	15	5	
23½	4	4½	0·0207	**42½**	7	5	0·0592	**61½**	10	5½	0·0249	**80½**	13	5½	0·0511
24	4	4½	0·0415	**43**	7	5	0·0711	**62**	10	5½	0·0332	**81**	13	5½	0·0575
24½	4	4½	0·0622	**43½**	7	5½		**62½**	10	5½	0·0415	**81½**	13	5½	0·0638
25	4	5		**44**	7	5½	0·0118	**63**	10	5½	0·0498	**82**	14	5½	
25½	4	5	0·0207	**44½**	7	5½	0·0237	**63½**	10	5½	0·0581	**82½**	13	5½	0·0766
26	4	5	0·0415	**45**	8	5		**64**	10	5½	0·0664	**83**	13	6	
26½	4	5	0·0622	**45½**	7	5½	0·0474	**64½**	10	5½	0·0747	**83½**	14	5½	0·0178

Pica ems	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
84*	14	5½	0·0237
84½	14	5½	0·0296
85	16	5	
85½	14	5½	0·0415
86	14	5½	0·0474
86½	14	5½	0·0534
87	14	5½	0·0593
87½	15	5½	
88	14	5½	0·0711
88½	14	5½	0·0771
89	14	6	
89½	15	5½	0·0221
90	17	5	
90½	15	5½	0·0332
91	15	5½	0·0387
91½	15	5½	0·0443
92	15	5½	0·0498
92½	15	5½	0·0553
93	16	5½	
93½	15	5½	0·0664
94	15	5½	0·0719
94½	15	5½	0·0774
95	15	6	
95½	16	5½	0·0259
96	16	5½	0·0311
96½	16	5½	0·0363
97	16	5½	0·0415
97½	16	5½	0·0467
98	16	5½	0·0519
98½	17	5½	
99	16	5½	0·0623
99½	16	5½	0·0675
100	19	5	
100½	16	5½	0·0778
101	16	6	
101½	17	5½	0·0293
102	17	5½	0·0342
102½	17	5½	0·0391

Pica ems	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
103	17	5½	0·0439
103½	17	5½	0·0488
104	18	5½	
104½	17	5½	0·0586
105	20	5	
105½	17	5½	0·0683
106	17	5½	0·0732
106½	17	5½	0·0781
107	17	6	
107½	18	5½	0·0323
108	18	5½	0·0369
108½	18	5½	0·0415
109	18	5½	0·0461
109½	19	5½	
110	21	5	
110½	18	5½	0·0599
111	18	5½	0·0646
111½	18	5½	0·0692
112	18	5½	0·0738
112½	18	5½	0·0784
113	18	6	
113½	19	5½	0·0349
114	19	5½	0·0393
114½	19	5½	0·0437
115	22	5	
115½	19	5½	0·0524
116	19	5½	0·0568
116½	19	5½	0·0612
117	19	5½	0·0655
117½	19	5½	0·0699
118	19	5½	0·0743
118½	19	5½	0·0786
119	19	6	
119½	20	5½	0·0374
120	23	5	
120½	21	5½	
121	20	5½	0·0498
121½	20	5½	0·0540

Pica ems	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
122	20	5½	0·0581
122½	20	5½	0·0623
123	20	5½	0·0664
123½	20	5½	0·0705
124	20	5½	0·0747
124½	20	5½	0·0788
125	20	6	
125½	21	5½	0·0395
126	22	5½	
126½	21	5½	0·0474
127	21	5½	0·0514
127½	21	5½	0·0553
128	21	5½	0·0593
128½	21	5½	0·0632
129	21	5½	0·0672
129½	21	5½	0·0711
130	25	5	
130½	21	5½	0·0790
131	21	6	
131½	23	5½	
132	22	5½	0·0453
132½	22	5½	0·0490
133	22	5½	0·0528
133½	22	5½	0·0566
134	22	5½	0·0603
134½	22	5½	0·0641
135	22	5½	0·0679
135½	22	5½	0·0716
136	22	5½	0·0754
136½	22	5½	0·0792
137	22	6	
137½	23	5½	0·0433
138	23	5½	0·0469
138½	23	5½	0·0505
139	23	5½	0·0541
139½	23	5½	0·0577
140	23	5½	0·0613
140½	23	5½	0·0650

Pica ems	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
141	23	5½	0·0686
141½	23	5½	0·0722
142	23	5½	0·0758
142½	25	5½	
143	23	6	
143½	24	5½	0·0450
144	24	5½	0·0484
144½	24	5½	0·0519
145	24	5½	0·0554
145½	24	5½	0·0583
146	24	5½	0·0623
146½	24	5½	0·0657
147	24	5½	0·0692
147½	24	5½	0·0726
148	24	5½	0·0761
148½	24	5½	0·0795
149	24	6	
149½	25	5½	0·0465
150	25	5½	0·0498
150½	25	5½	0·0531
151	25	5½	0·0564
151½	25	5½	0·0598
152	25	5½	0·0631
152½	25	5½	0·0664
153	25	5½	0·0697
153½	25	5½	0·0730
154	25	5½	0·0763
154½	25	5½	0·0796
155	25	5½	0·0830

Counter drum and micrometer head settings

Table showing adjustments in ciceros and half-ciceros, for use with furniture mould equipped for casting predetermined lengths.

Ciceros	Adjustments		
	Drum (casts)	*Indicator scale (ems)*	*Micrometer wedge +*
7½	1	3	0·0040
8	1	3½	0·0098
8½	1	4	0·0156
9	1	4½	0·0214
9½	1	5	0·0272
10	1	5½	0·0330
10½	2	3	0·0194
11	2	3	0·0638
11½	2	3½	0·0252
12	2	3½	0·0696
12½	2	4	0·0310
13	2	4	0·0754
13½	2	4½	0·0368
14	2	4½	0·0812
14½	2	5	0·0426
15	2	5½	0·0040
15½	2	5½	0·0484
16	3	4	0·0065
16½	3	4	0·0361
17	3	4	0·0657
17½	3	4½	0·0123
18	3	4½	0·0419
18½	3	4½	0·0715
19	3	5	0·0181
19½	3	5	0·0477
20	3	5	0·0773
20½	3	5½	0·0239
21	3	5½	0·0535
21½	4	4½	0·0001
22	4	4½	0·0223
22½	4	4½	0·0445
23	4	4½	0·0667
23½	4	5	0·0059
24	4	5	0·0281
24½	4	5	0·0403
25	4	5	0·0725
25½	4	5½	0·0117
26	4	5½	0·0339
26½	4	5½	0·0561
27	4	5½	0·0788
27½	5	4½	0·0638
28	5	4½	0·0815
28½	5	5	0·0163
29	5	5	0·0341
29½	5	5	0·0518
30	5	5	0·0696
30½	5	5½	0·0044
31	5	5½	0·0221
31½	5	5½	0·0399
32	5	5½	0·0576
32½	5	5½	0·0754
33	6	5	0·0085
33½	6	5	0·0233
34	6	5	0·0381
34½	6	5	0·0529
35	6	5	0·0677
35½	6	5	0·0825
36	6	5½	0·0142
36½	6	5½	0·0291
37	6	5½	0·0439
37½	6	5½	0·0587
38	6	5½	0·0735
38½	7	5	0·0282
39	7	5	0·0409
39½	7	5	0·0536
40	7	5	0·0663
40½	7	5	0·0789
41	7	5½	0·0087
41½	7	5½	0·0213
42	7	5½	0·0340
42½	7	5½	0·0467
43	7	5½	0·0594
43½	7	5½	0·0721
44	8	5	0·0431
44½	8	5	0·0541
45	8	5	0·0652
45½	8	5	0·0763
46	8	5½	0·0045
46½	8	5½	0·0156
47	8	5½	0·0266
47½	8	5½	0·0376
48	8	5½	0·0489
48½	8	5½	0·0599
49	8	5½	0·0710
49½	8	5½	0·0821
50	9	5	0·0644
50½	9	5	0·0743
51	9	5½	0·0012
51½	9	5½	0·0110
52	9	5½	0·0209
52½	9	5½	0·0308
53	9	5½	0·0406
53½	9	5½	0·0505
54	9	5½	0·0604
54½	9	5½	0·0702
55	9	5½	0·0801
55½	10	5	0·0727
56	10	5	0·0815
56½	10	5½	0·0074
57	10	5½	0·0163
57½	10	5½	0·0252
58	10	5½	0·0341
58½	10	5½	0·0429
59	10	5½	0·0518
59½	10	5½	0·0607
60	10	5½	0·0696
60½	10	5½	0·0785
61	12	5	0·0038
61½	11	5½	0·0080
62	11	5½	0·0161
62½	11	5½	0·0242
63	11	5½	0·0322
63½	11	5½	0·0403
64	11	5½	0·0483
64½	11	5½	0·0564
65	11	5½	0·0645
65½	11	5½	0·0726
66	11	5½	0·0807
66½	12	5½	0·0020
67	12	5½	0·0095
67½	12	5½	0·0178
68	12	5½	0·0242
68½	12	5½	0·0317
69	12	5½	0·0426
69½	12	5½	0·0470
70	12	5½	0·0542
70½	12	5½	0·0612
71	12	5½	0·0687
71½	12	5½	0·0760
72	13	5½	0·0068
72½	13	5½	0·0136
73	13	5½	0·0204
73½	13	5½	0·0273
74	13	5½	0·0341
74½	13	5½	0·0409
75	13	5½	0·0478
75½	13	5½	0·0546
76	13	5½	0·0614
76½	13	5½	0·0683
77	13	5½	0·0751
77½	13	5½	0·0817
78	14	5½	0·0172
78½	14	5½	0·0235

Ciceros	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
79	14	5½	0·0299
79½	14	5½	0·0362
80	14	5½	0·0424
80½	14	5½	0·0492
81	14	5½	0·0552
81½	14	5½	0·0616
82	14	5½	0·0679
82½	14	5½	0·0743
83	14	5½	0·0806
83½	15	5½	0·0203
84	15	5½	0·0262
84½	15	5½	0·0321
85	15	5½	0·0381
85½	15	5½	0·0440
86	15	5½	0·0499
86½	15	5½	0·0565
87	15	5½	0·0617
87½	15	5½	0·0677
88	15	5½	0·0736
88½	15	5½	0·0795
89	16	5½	0·0230
89½	16	5½	0·0286
90	16	5½	0·0341
90½	16	5½	0·0397
91	16	5½	0·0452
91½	16	5½	0·0508
92	16	5½	0·0563
92½	16	5½	0·0619
93	16	5½	0·0674
93½	16	5½	0·0729
94	16	5½	0·0785
94½	17	5½	0·0254
95	17	5½	0·0307
95½	17	5½	0·0359
96	17	5½	0·0411
96½	17	5½	0·0463

Ciceros	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
97	17	5½	0·0515
97½	17	5½	0·0568
98	17	5½	0·0619
98½	17	5½	0·0672
99	17	5½	0·0724
99½	17	5½	0·0777
100	18	5½	0·0276
100½	18	5½	0·0325
101	18	5½	0·0374
101½	18	5½	0·0423
102	18	5½	0·0473
102½	18	5½	0·0522
103	18	5½	0·0572
103½	18	5½	0·0621
104	18	5½	0·0681
104½	18	5½	0·0719
105	18	5½	0·0766
105½	18	5½	0·0818
106	19	5½	0·0305
106½	19	5½	0·0409
107	19	5½	0·0435
107½	19	5½	0·0481
108	19	5½	0·0528
108½	19	5½	0·0575
109	19	5½	0·0622
109½	19	5½	0·0668
110	19	5½	0·0715
110½	19	5½	0·0762
111	19	5½	0·0809
111½	20	5½	0·0356
112	20	5½	0·0401
112½	20	5½	0·0445
113	20	5½	0·0489
113½	20	5½	0·0534
114	20	5½	0·0578
114½	20	5½	0·0622

Ciceros	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
115	20	5½	0·0667
115½	20	5½	0·0711
116	20	5½	0·0755
116½	20	5½	0·0800
117	21	5½	0·0369
117½	21	5½	0·0412
118	21	5½	0·0454
118½	21	5½	0·0492
119	21	5½	0·0538
119½	21	5½	0·0577
120	21	5½	0·0622
120½	21	5½	0·0665
121	21	5½	0·0708
121½	21	5½	0·0750
122	21	5½	0·0792
122½	22	5½	0·0382
123	22	5½	0·0422
123½	22	5½	0·0463
124	22	5½	0·0503
124½	22	5½	0·0543
125	22	5½	0·0584
125½	22	5½	0·0624
126	22	5½	0·0664
126½	22	5½	0·0705
127	22	5½	0·0745
127½	22	5½	0·0789
128	22	5½	0·0825
128½	23	5½	0·0432
129	23	5½	0·0470
129½	23	5½	0·0509
130	23	5½	0·0547
130½	23	5½	0·0586
131	23	5½	0·0625
131½	23	5½	0·0663
132	23	5½	0·0702
132½	23	5½	0·0740

Ciceros	Adjustments		
	Drum (casts)	Indicator scale (ems)	Micrometer wedge +
133	23	5½	0·0779
133½	23	5½	0·0818
134	24	5½	0·0440
134½	24	5½	0·0477
135	24	5½	0·0514
135½	24	5½	0·0551
136	24	5½	0·0588
136½	24	5½	0·0625
137	24	5½	0·0662
137½	24	5½	0·0699
138	24	5½	0·0736
138½	24	5½	0·0773
139	24	5½	0·0810
139½	25	5½	0·0448
140	25	5½	0·0484
140½	25	5½	0·0519
141	25	5½	0·0555
141½	25	5½	0·0590
142	25	5½	0·0626
142½	25	5½	0·0661
143	25	5½	0·0697
143½	25	5½	0·0732
144	25	5½	0·0768
144½	25	5½	0·0803

Cutting strip material (pica ems)

The following table shows the position of the counter drum and the adjustment of the micrometer wedge to shear strip material to pica ems and half-ems

Pica ems	Adjustments: Drum (casts)	Indicator scale (ems)	Micrometer wedge +
5	1	5	
5½	1	5½	
6	1	6	
6½	2	3	0·0415
7	2	3½	
7½	2	3½	0·0415
8	2	4	
8½	2	4	0·0415
9	2	4½	
9½	2	4½	0·0415
10	2	5	
10½	2	5	0·0415
11	2	5½	
11½	2	5½	0·0415
12	2	6	
12½	3	4	0·0276
13	3	4	0·0553
13½	3	4½	
14	3	4½	0·0276
14½	3	4½	0·0553
15	3	5	
15½	3	5	0·0276
16	3	5	0·0553
16½	3	5½	
17	3	5½	0·0276
17½	3	5½	0·0553
18	3	6	
18½	4	4½	0·0207
19	4	4½	0·0415
19½	4	4½	0·0622
20	4	5	
20½	4	5	0·0207
21	4	5	0·0415
21½	4	5	0·0622
22	4	5½	
22½	4	5½	0·0207
23	4	5½	0·0415
23½	4	5½	0·0622
24	4	6	
24½	5	4½	0·0664
25	5	5	
25½	5	5	0·0166
26	5	5	0·0332
26½	5	5	0·0498
27	5	5	0·0664
27½	5	5½	
28	5	5½	0·0166
28½	5	5½	0·0332
29	5	5½	0·0498
29½	5	5½	0·0664
30	5	6	
30½	6	5	0·0138
31	6	5	0·0276
31½	6	5	0·0414
32	6	5	0·0552
32½	6	5	0·0691
33	6	5½	
33½	6	5½	0·0138
34	6	5½	0·0276
34½	6	5½	0·0415
35	7	5	
35½	6	5½	0·0691
36	6	6	
36½	7	5	0·0355
37	7	5	0·0474
37½	7	5	0·0592
38	7	5	0·0711
38½	7	5½	
39	7	5½	0·0118
39½	7	5½	0·0237
40	8	5	
40½	7	5½	0·0474
41	7	5½	0·0592
41½	7	5½	0·0711
42	7	6	
42½	8	5	0·0519
43	8	5	0·0622
43½	8	5	0·0726
44	8	5½	
44½	8	5½	0·0103
45	9	5	
45½	8	5½	0·0311
46	8	5½	0·0415
46½	8	5½	0·0518
47	8	5½	0·0622
47½	8	5½	0·0727
48	8	6	
48½	9	5	0·0645
49	9	5	0·0715
49½	9	5½	
50	10	5	
50½	10	5	0·0083
51	10	5	0·0166
51½	10	5	0·0249
52	9	5½	0·0461
52½	9	5½	0·0553
53	9	5½	0·0645
53½	9	5½	0·0737
54	9	6	
54½	10	5	0·0747
55	11	5	
55½	10	5½	0·0083
56	10	5½	0·0166
56½	10	5½	0·0249
57	10	5½	0·0332
57½	10	5½	0·0415
58	10	5½	0·0498
58½	10	5½	0·0581
59	10	5½	0·0664
59½	10	5½	0·0747
60	10	6	
60½	11	5½	
61	11	5½	0·0075
61½	11	5½	0·0151
62	11	5½	0·0226
62½	11	5½	0·0301
63	11	5½	0·0377
63½	11	5½	0·0453
64	11	5½	0·0528
64½	11	5½	0·0604
65	13	5	
65½	11	5½	0·0754
66	11	6	
66½	12	5½	0·0069
67	12	5½	0·0138
67½	12	5½	0·0208
68	12	5½	0·0276
68½	12	5½	0·0345
69	12	5½	0·0415
69½	12	5½	0·0484
70	14	5	
70½	12	5½	0·0622
71	12	5½	0·0691
71½	13	5½	
72	12	6	
72½	13	5½	0·0127
73	13	5½	0·0191
73½	13	5½	0·0255
74	13	5½	0·0319
74½	13	5½	0·0383
75	15	5	
75½	13	5½	0·0511
76	13	5½	0·0575
76½	13	5½	0·0638
77	14	5½	
77½	13	5½	0·0766
78	13	6	
78½	14	5½	0·0178
79	14	5½	0·0237
79½	14	5½	0·0296
80	16	5	
80½	14	5½	0·0415
81	14	5½	0·0474
81½	14	5½	0·0534
82	14	5½	0·0593
82½	15	5½	
83	14	5½	0·0711
83½	14	5½	0·0771
84	14	6	
84½	15	5½	0·0221

Pica ems	Adjustments: Drum (casts)	Adjustments: Indicator scale (ems)	Adjustments: Micrometer wedge +
85	17	5	
85½	15	5½	0·0332
86	15	5½	0·0387
86½	15	5½	0·0443
87	15	5½	0·0498
87½	15	5½	0·0553
88	16	5½	
88½	15	5½	0·0664
89	15	5½	0·0719
89½	15	5½	0·0774
90	15	6	
90½	16	5½	0·0259
91	16	5½	0·0311
91½	16	5½	0·0363
92	16	5½	0·0415
92½	16	5½	0·0467
93	16	5½	0·0519
93½	17	5½	
94	16	5½	0·0623
94½	16	5½	0·0675
95	19	5	
95½	16	5½	0·0778
96	16	6	
96½	17	5½	0·0293
97	17	5½	0·0342
97½	17	5½	0·0391
98	17	5½	0·0439
98½	17	5½	0·0488
99	18	5½	
99½	17	5½	0·0586
100	20	5	
100½	17	5½	0·0683
101	17	5½	0·0732
101½	17	5½	0·0781
102	17	6	
102½	18	5½	0·0323
103	18	5½	0·0369
103½	18	5½	0·0415
104	18	5½	0·0461
104½	19	5½	
105	21	5	
105½	18	5½	0·0599
106	18	5½	0·0646
106½	18	5½	0·0692
107	18	5½	0·0738
107½	18	5½	0·0784
108	18	6	
108½	19	5½	0·0349
109	19	5½	0·0393
109½	19	5½	0·0437
110	22	5	
110½	19	5½	0·0524
111	19	5½	0·0568
111½	19	5½	0·0612
112	19	5½	0·0655
112½	19	5½	0·0699
113	19	5½	0·0743
113½	19	5½	0·0786
114	19	6	
114½	20	5½	0·0374
115	23	5	
115½	21	5½	
116	20	5½	0·0498
116½	20	5½	0·0540
117	20	5½	0·0581
117½	20	5½	0·0623
118	20	5½	0·0664
118½	20	5½	0·0705
119	20	5½	0·0747
119½	20	5½	0·0788
120	20	6	
120½	21	5½	0·0395
121	22	5½	
121½	21	5½	0·0474
122	21	5½	0·0514
122½	21	5½	0·0553
123	21	5½	0·0593
123½	21	5½	0·0632
124	21	5½	0·0672
124½	21	5½	0·0711
125	25	5	
125½	21	5½	0·0790
126	21	6	
126½	23	5½	
127	22	5½	0·0453
127½	22	5½	0·0490
128	22	5½	0·0528
128½	22	5½	0·0566
129	22	5½	0·0603
129½	22	5½	0·0641
130	23	5½	0·0252
130½	22	5½	0·0716
131	22	5½	0·0754
131½	22	5½	0·0792
132	22	6	
132½	23	5½	0·0433
133	23	5½	0·0469
133½	23	5½	0·0505
134	23	5½	0·0541
134½	23	5½	0·0577
135	24	5½	0·0208
135½	23	5½	0·0650
136	23	5½	0·0686
136½	23	5½	0·0722
137	23	5½	0·0758
137½	25	5½	
138	23	6	
138½	24	5½	0·0450
139	24	5½	0·0484
139½	24	5½	0·0519
140	25	5½	0·0166
140½	24	5½	0·0583
141	24	5½	0·0623
141½	24	5½	0·0657
142	24	5½	0·0692
142½	24	5½	0·0726
143	25	5½	0·0365
143½	24	5½	0·0795
144	24	6	

The calculations are based upon casting in multiples of 5, 5½ or 6 pica ems per cast, plus any necessary addition in 'thousandths' of an inch. In the section under 'Adjustments' the first column shows the row of the drum which must be brought to 'A' on the remainder scale on the counter mechanism head; the second column shows the position of the pointer on the micrometer indicator scale; and the third shows the addition in 'thousandths' of an inch to be added by the micrometer wedge (this is indicated, as the micrometer wedge is adjusted by the figures on the upper edge of the upper section of the handwheel on the micrometer wedge). The total amount in the third and fourth columns multiplied by the number of casts in the second column, is equivalent to the measure given in the first column.

Cutting strip material (ciceros)

The following table shows the position of the counter drum and the adjustment of the micrometer wedge to shear strip material to ciceros and half-ciceros.

Ciceros	Adjustments: Drum (casts)	Indicator scale (ems*)	Micrometer wedge +†
5	1	5	0·0580
5½	1	5½	0·0638
6	2	3	0·0348
6½	2	3	0·0792
7	2	3½	0·0406
7½	2	4	0·0020
8	2	4	0·0464
8½	2	4½	0·0078
9	2	4½	0·0522
9½	2	5	0·0136
10	2	5	0·0580
10½	2	5½	0·0194
11	2	5½	0·0638
11½	3	4	0·0168
12	3	4	0·0464
12½	3	4	0·0760
13	3	4½	0·0226
13½	3	4½	0·0522
14	3	4½	0·0818
14½	3	5	0·0284
15	3	5	0·0580
15½	3	5½	0·0046
16	3	5½	0·0342
16½	3	5½	0·0638
17	4	4½	0·0078
17½	4	4½	0·0300
18	4	4½	0·0522
18½	4	4½	0·0744
19	4	5	0·0136
19½	4	5	0·0358
20	4	5	0·0580
20½	4	5	0·0802
21	4	5½	0·0194
21½	4	5½	0·0416
22	4	5½	0·0638
22½	5	4½	0·0522
23	5	4½	0·0700
23½	5	5	0·0047
24	5	5	0·0225
24½	5	5	0·0402
25	5	5	0·0580
25½	5	5	0·0758
26	5	5½	0·0105
26½	5	5½	0·0283
27	5	5½	0·0460
27½	5	5½	0·0638
28	5	5½	0·0816
28½	6	5	0·0136
29	6	5	0·0284
29½	6	5	0·0432
30	6	5	0·0580
30½	6	5	0·0728
31	6	5½	0·0046
31½	6	5½	0·0194
32	6	5½	0·0342
32½	6	5½	0·0490
33	6	5½	0·0638
33½	6	5½	0·0786
34	7	5	0·0326
34½	7	5	0·0453
35	7	5	0·0580
35½	7	5	0·0707
36	7	5½	0·0004
36½	7	5½	0·0131
37	7	5½	0·0257
37½	7	5½	0·0384
38	7	5½	0·0511
38½	7	5½	0·0638
39	7	5½	0·0765
39½	8	5	0·0469
40	8	5	0·0580
40½	8	5	0·0691
41	8	5	0·0802
41½	8	5½	0·0083
42	8	5½	0·0194
42½	8	5½	0·0305
43	8	5½	0·0416
43½	8	5½	0·0527
44	8	5½	0·0638
44½	8	5½	0·0749
45	9	5	0·0580
45½	9	5	0·0679
46	9	5	0·0777
46½	9	5½	0·0046
47	9	5½	0·0145
47½	9	5½	0·0243
48	9	5½	0·0342
48½	9	5½	0·0441
49	9	5½	0·0539
49½	9	5½	0·0638
50	9	5½	0·0737
50½	10	5	0·0669
51	10	5	0·0758
51½	10	5½	0·0016
52	10	5½	0·0105
52½	10	5½	0·0194
53	10	5½	0·0283
53½	10	5½	0·0372
54	10	5½	0·0460
54½	10	5½	0·0549
55	10	5½	0·0638
55½	10	5½	0·0727
56	10	5½	0·0816
56½	12	5	0·0062
57	11	5½	0·0073
57½	11	5½	0·0154
58	11	5½	0·0234
58½	11	5½	0·0315
59	11	5½	0·0396
59½	11	5½	0·0477
60	11	5½	0·0557
60½	11	5½	0·0638
61	11	5½	0·0719
61½	11	5½	0·0799
62	12	5½	0·0046
62½	12	5½	0·0120
63	12	5½	0·0194
63½	12	5½	0·0268
64	12	5½	0·0342
64½	12	5½	0·0416
65	12	5½	0·0490
65½	12	5½	0·0564
66	12	5½	0·0638
66½	12	5½	0·0712
67	13	5½	0·0023
67½	13	5½	0·0092
68	13	5½	0·0160
68½	13	5½	0·0228

Ciceros	Adjustments		
	Drum (casts)	*Indicator scale (ems*)*	*Micrometer wedge +†*
69	13	5½	0·0296
69½	13	5½	0·0365
70	13	5½	0·0433
70½	13	5½	0·0501
71	13	5½	0·0570
71½	13	5½	0·0638
72	14	5½	0·0004
72½	14	5½	0·0067
73	14	5½	0·0131
73½	14	5½	0·0194
74	14	5½	0·0257
74½	14	5½	0·0321
75	14	5½	0·0384
75½	14	5½	0·0448
76	14	5½	0·0511
76½	14	5½	0·0574

Ciceros	Adjustments		
	Drum (casts)	*Indicator scale (ems*)*	*Micrometer wedge +†*
77	14	5½	0·0638
77½	15	5½	0·0046
78	15	5½	0·0105
78½	15	5½	0·0164
79	15	5½	0·0224
79½	15	5½	0·0283
80	15	5½	0·0342
80½	15	5½	0·0401
81	15	5½	0·0460
81½	15	5½	0·0519
82	15	5½	0·0579
82½	16	5½	0·0028
83	16	5½	0·0083
83½	16	5½	0·0138
84	16	5½	0·0194
84½	16	5½	0·0249

Ciceros	Adjustments		
	Drum (casts)	*Indicator scale (ems*)*	*Micrometer wedge +†*
85	16	5½	0·0305
85½	16	5½	0·0361
86	16	5½	0·0416
86½	16	5½	0·0472
87	16	5½	0·0527
87½	17	5½	0·0011
88	17	5½	0·0063
88½	17	5½	0·0116
89	17	5½	0·0168
89½	17	5½	0·0220
90	17	5½	0·0272
90½	17	5½	0·0325
91	17	5½	0·0377
91½	17	5½	0·0429
92	17	5½	0·0481
92½	17	5½	0·0534

Ciceros	Adjustments		
	Drum (casts)	*Indicator scale (ems*)*	*Micrometer wedge +†*
93	18	5½	0·0046
93½	18	5½	0·0095
94	18	5½	0·0145
94½	18	5½	0·0194
95	18	5½	0·0243
95½	18	5½	0·0293
96	18	5½	0·0342
96½	18	5½	0·0391
97	18	5½	0·0441
97½	18	5½	0·0490
98	19	5½	0·0030
98½	19	5½	0·0077
99	19	5½	0·0124
99½	19	5½	0·0171
100	19	5½	0·0217

*These are pica ems and half ems (0·166 inch). †These figures represent thousandths of an inch.

The calculations are based upon casting in multiples of 5, 5½ or 6 pica ems per cast, plus any necessary addition in 'thousandths' of an inch. In the section under 'Adjustments' the first column shows the row of the drum which must be brought to 'A' on the remainder scale on the counter mechanism head; the second column shows the position of the pointer on the micrometer indicator scale; and the third shows the addition in 'thousandths' of an inch to be added by the micrometer wedge (this is indicated, as the micrometer wedge is adjusted by the figures on the upper edge of the upper section of the handwheel on the micrometer wedge). The total amount in the third and fourth columns multiplied by the number of casts in the second column, is equivalent to the measure given in the first column.

Micrometer head settings

For composition matrices – 5 set to 9¾ set – 3 units to 14 units

Upper figures show adjustment in points and fractions of a point of wedge screw handwheel scale; lower figures show resultant sizes in thousandths of an inch.

	Units											
Set	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
5	27/32 0·0115	1 1/6 0·0154	1 13/32 0·0192	1 11/16 0·0231	1 15/16 0·0269	2 7/32 0·0307	**2 1/2** **0·0346**	2 25/32 0·0384	3 1/16 0·0423	3 11/32 0·0461	3 5/8 0·0500	3 7/8 0·0538
5¼	7/8 0·0121	1 5/32 0·0161	1 15/32 0·0202	1 3/4 0·0242	2 1/32 0·0282	2 11/32 0·0323	**2 5/8** **0·0363**	2 29/32 0·0403	3 7/32 0·0444	3 1/2 0·0484	3 13/16 0·0525	4 3/32 0·0565
5½	29/32 0·0127	1 7/32 0·0169	1 17/32 0·0211	1 27/32 0·0254	2 5/32 0·0296	2 7/16 0·0338	**2 3/4** **0·0380**	3 1/16 0·0423	3 3/8 0·0465	3 21/32 0·0507	3 31/32 0·0549	4 9/32 0·0592
5¾	31/32 0·0133	1 9/32 0·0177	1 19/32 0·0221	1 29/32 0·0265	2 1/4 0·0309	2 9/16 0·0354	**2 7/8** **0·0398**	3 3/16 0·0442	3 1/2 0·0486	3 27/32 0·0530	4 5/32 0·0574	4 15/32 0·0619
6	1 0·0138	1 11/32 0·0184	1 11/16 0·0231	2 0·0277	2 11/32 0·0323	2 11/16 0·0369	**3** **0·0415**	3 11/32 0·0461	3 21/32 0·0507	4 0·0553	4 11/32 0·0599	4 11/16 0·0646
6¼	1 1/32 0·0144	1 3/8 0·0192	1 3/4 0·0240	2 3/32 0·0288	2 7/16 0·0336	2 25/32 0·0384	**3 1/8** **0·0432**	3 15/32 0·0480	3 13/16 0·0528	4 5/32 0·0576	4 1/2 0·0624	4 7/8 0·0672
6½	1 3/32 0·0150	1 7/16 0·0200	1 13/16 0·0250	2 3/16 0·0300	2 17/32 0·0350	2 29/32 0·0400	**3 1/4** **0·0450**	3 5/8 0·0500	3 31/32 0·0549	4 11/32 0·0599	4 11/16 0·0649	5 1/16 0·0699
6¾	1 1/8 0·0156	1 1/2 0·0207	1 7/8 0·0259	2 1/4 0·0311	2 5/8 0·0363	3 0·0415	**3 3/8** **0·0467**	3 3/4 0·0519	4 1/8 0·0571	4 1/2 0·0622	4 7/8 0·0674	5 1/4 0·0726
7	1 3/16 0·0161	1 9/16 0·0215	1 15/16 0·0269	2 11/32 0·0323	2 23/32 0·0377	3 1/8 0·0430	**3 1/2** **0·0484**	3 7/8 0·0538	4 9/32 0·0592	4 11/16 0·0646	5 1/16 0·0699	5 7/16 0·0753
7¼	1 7/32 0·0167	1 5/8 0·0223	2 1/32 0·0279	2 13/32 0·0334	2 13/16 0·0390	3 7/32 0·0446	**3 5/8** **0·0501**	4 1/32 0·0557	4 7/16 0·0613	4 27/32 0·0669	5 1/4 0·0724	5 21/32 0·0780
7½	1 1/4 0·0173	1 11/16 0·0231	2 3/32 0·0288	2 1/2 0·0346	2 29/32 0·0403	3 11/32 0·0461	**3 3/4** **0·0519**	4 5/32 0·0576	4 19/32 0·0634	5 0·0692	5 13/32 0·0749	5 27/32 0·0807
7¾	1 9/32 0·0179	1 23/32 0·0238	2 5/32 0·0298	2 19/32 0·0357	3 0·0417	3 7/16 0·0476	**3 7/8** **0·0536**	4 5/16 0·0596	4 3/4 0·0655	5 3/16 0·0715	5 19/32 0·0774	6 1/32 0·0834
8	1 11/32 0·0184	1 25/32 0·0246	2 7/32 0·0307	2 11/16 0·0369	3 1/8 0·0430	3 9/16 0·0492	**4** **0·0553**	4 7/16 0·0615	4 7/8 0·0676	5 11/32 0·0738	5 25/32 0·0799	6 7/32 0·0861
8¼	1 3/8 0·0190	1 27/32 0·0254	2 5/16 0·0317	2 3/4 0·0380	3 7/32 0·0444	3 21/32 0·0507	**4 1/8** **0·0571**	4 19/32 0·0634	5 1/32 0·0697	5 1/2 0·0761	5 31/32 0·0824	6 13/32 0·0888
8½	1 13/32 0·0196	1 7/8 0·0261	2 3/8 0·0327	2 27/32 0·0392	3 5/16 0·0457	3 25/32 0·0523	**4 1/4** **0·0588**	4 23/32 0·0653	5 3/16 0·0719	5 11/16 0·0784	6 1/8 0·0849	6 5/8 0·0915
8¾	1 15/32 0·0202	1 15/16 0·0269	2 7/16 0·0336	2 29/32 0·0403	3 13/32 0·0471	3 7/8 0·0538	**4 3/8** **0·0605**	4 7/8 0·0672	5 11/32 0·0740	5 27/32 0·0807	6 5/16 0·0874	6 13/16 0·0941
9	1 1/2 0·0207	2 0·0277	2 1/2 0·0346	3 0·0415	3 1/2 0·0484	4 0·0553	**4 1/2** **0·0622**	5 0·0692	5 1/2 0·0761	6 0·0830	6 1/2 0·0899	7 0·0968
9¼	1 17/32 0·0213	2 1/16 0·0284	2 9/16 0·0355	3 3/32 0·0427	3 19/32 0·0498	4 1/8 0·0569	**4 5/8** **0·0640**	5 5/32 0·0711	5 21/32 0·0782	6 5/32 0·0853	6 11/16 0·0924	7 3/16 0·0995
9½	1 19/32 0·0219	2 1/8 0·0292	2 21/32 0·0365	3 5/32 0·0438	3 11/16 0·0511	4 7/32 0·0584	**4 3/4** **0·0657**	5 9/32 0·0730	5 13/16 0·0803	6 11/32 0·0876	6 7/8 0·0949	7 13/32 0·1022
9¾	1 5/8 0·0225	2 3/16 0·0300	2 23/32 0·0375	3 1/4 0·0450	3 13/16 0·0525	4 11/32 0·0599	**4 7/8** **0·0674**	5 13/32 0·0749	5 31/32 0·0824	6 1/2 0·0899	7 1/32 0·0974	7 19/32 0·1049

For composition matrices – 5 set to 9¾ set – 15 units to 26 units

Set	Units											
	15	16	17	18	19	20	21	22	23	24	25	26
5	4 5/32 0·0576	4 7/16 0·0615	4 23/32 0·0653	**5** **0·0692**	5 9/32 0·0730	5 9/16 0·0769	5 27/32 0·0807	6 1/8 0·0845	6 3/8 0·0884	6 21/32 0·0922	6 15/16 0·0961	7 7/32 0·0999
5¼	4 3/8 0·0605	4 11/16 0·0646	4 31/32 0·0686	**5¼** **0·0726**	5 9/16 0·0767	5 27/32 0·0807	6 1/8 0·0847	6 13/32 0·0888	6 23/32 0·0928	7 0·0968	7 9/32 0·1009	7 19/32 0·1049
5½	4 19/32 0·0634	4 7/8 0·0676	5 3/16 0·0719	**5½** **0·0761**	5 13/16 0·0803	6 1/8 0·0845	6 13/32 0·0888	6 23/32 0·0930	7 1/32 0·0972	7 11/32 0·1014	7 21/32 0·1057	7 15/16 0·1099
5¾	4 13/16 0·0663	5 1/8 0·0707	5 7/16 0·0751	**5¾** **0·0795**	6 1/16 0·0840	6 13/32 0·0884	6 23/32 0·0928	7 1/32 0·0972	7 11/32 0·1016	7 21/32 0·1060	8 0·1105	8 5/16 0·1149
6	5 0·0692	5 11/32 0·0738	5 11/16 0·0784	**6** **0·0830**	6 11/32 0·0876	6 21/32 0·0922	7 0·0968	7 11/32 0·1014	7 21/32 0·1061	8 0·1106	8 11/32 0·1153	8 11/16 0·1199
6¼	5 7/32 0·0720	5 9/16 0·0769	5 29/32 0·0817	**6¼** **0·0865**	6 19/32 0·0913	6 15/16 0·0961	7 5/16 0·1009	7 21/32 0·1057	8 0·1105	8 11/32 0·1152	8 11/16 0·1201	9 1/32 0·1249
6½	5 13/32 0·0749	5 25/32 0·0799	6 1/8 0·0849	**6½** **0·0899**	6 7/8 0·0949	7 7/32 0·0999	7 19/32 0·1049	7 15/16 0·1099	8 5/16 0·1149	8 21/32 0·1198	9 1/32 0·1249	9 3/8 0·1299
6¾	5 5/8 0·0778	6 0·0830	6 3/8 0·0882	**6¾** **0·0934**	7 1/8 0·0986	7 1/2 0·1037	7 7/8 0·1089	8 1/4 0·1141	8 5/8 0·1193	9 0·1244	9 3/8 0·1297	9 3/4 0·1349
7	5 27/32 0·0807	6 7/32 0·0861	6 5/8 0·0915	**7** **0·0968**	7 13/32 0·1022	7 25/32 0·1076	8 5/32 0·1130	8 9/16 0·1184	8 15/16 0·1237	9 11/32 0·1291	9 23/32 0·1345	10 1/8 0·1399
7¼	6 1/32 0·0836	6 7/16 0·0892	6 27/32 0·0947	**7¼** **0·1003**	7 21/32 0·1059	8 1/16 0·1114	8 15/32 0·1170	8 7/8 0·1226	9 1/4 0·1281	9 21/32 0·1337	10 1/16 0·1393	10 15/32 0·1449
7½	6 1/4 0·0865	6 21/32 0·0922	7 3/32 0·0980	**7½** **0·1038**	7 29/32 0·1095	8 11/32 0·1153	8 3/4 0·1210	9 5/32 0·1268	9 13/32 0·1325	10 0·1383	10 13/32 0·1441	10 27/32 0·1499
7¾	6 15/32 0·0893	6 7/8 0·0953	7 5/16 0·1013	**7¾** **0·1072**	8 3/16 0·1132	8 5/8 0·1191	9 1/32 0·1251	9 15/32 0·1310	9 29/32 0·1369	10 11/32 0·1429	10 3/4 0·1489	11 3/16 0·1549
8	6 21/32 0·0922	7 1/8 0·0984	7 9/16 0·1045	**8** **0·1107**	8 7/16 0·1168	8 7/8 0·1230	9 11/32 0·1291	9 25/32 0·1353	10 7/32 0·1414	10 21/32 0·1475	11 1/8 0·1537	11 9/16 0·1599
8¼	6 7/8 0·0951	7 11/32 0·1014	7 13/16 0·1078	**8¼** **0·1141**	8 23/32 0·1205	9 5/32 0·1268	9 5/8 0·1331	10 3/32 0·1395	10 17/32 0·1458	11 0·1521	11 15/32 0·1585	11 29/32 0·1648
8½	7 3/32 0·0980	7 9/16 0·1045	8 1/32 0·1111	**8½** **0·1176**	8 31/32 0·1241	9 7/16 0·1307	9 29/32 0·1372	10 13/32 0·1437	10 7/8 0·1502	11 11/32 0·1567	11 13/16 0·1633	12 9/32 0·1698
8¾	7 5/16 0·1009	7 25/32 0·1076	8 1/4 0·1143	**8¾** **0·1210**	9 1/4 0·1278	9 23/32 0·1345	10 7/32 0·1412	10 11/16 0·1479	11 3/16 0·1546	11 21/32 0·1613	12 5/32 0·1681	12 5/8 0·1748
9	7½ 0·1037	8 0·1107	8½ 0·1176	**9** **0·1245**	9½ 0·1314	10 0·1383	10½ 0·1452	11 0·1522	11½ 0·1591	12 0·1660	12½ 0·1729	13 0·1798
9¼	7 23/32 0·1066	8 7/32 0·1137	8¾ 0·1208	**9¼** **0·1280**	9 25/32 0·1351	10 9/32 0·1422	10 13/16 0·1493	11 5/16 0·1564	11 13/16 0·1635	12 11/32 0·1706	12 27/32 0·1777	13 3/8 0·1848
9½	7 29/32 0·1095	8 7/16 0·1168	8 31/32 0·1241	**9½** **0·1314**	10 1/32 0·1387	10 9/16 0·1460	11 3/32 0·1533	11 5/8 0·1606	12 1/8 0·1679	12 21/32 0·1752	13 3/16 0·1825	13 23/32 0·1898
9¾	8 1/8 0·1124	8 21/32 0·1199	9 7/32 0·1274	**9¾** **0·1349**	10 5/16 0·1424	10 27/32 0·1499	11 3/8 0·1574	11 29/32 0·1648	12 15/32 0·1723	13 0·1798	13 17/32 0·1873	14 3/32 0·1948

Micrometer head settings (continued)

For composition matrices – 10 set to 14 set – 3 units to 14 units

Upper figures show adjustment in points and fractions of a point of wedge screw handwheel scale; lower figures show resultant sizes in thousandths of an inch.

	Units											
Set	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
10	$1\frac{11}{16}$ 0·0231	$2\frac{7}{32}$ 0·0307	$2\frac{25}{32}$ 0·0384	$3\frac{11}{32}$ 0·0461	$3\frac{7}{8}$ 0·0538	$4\frac{7}{16}$ 0·0615	**5** **0·0692**	$5\frac{9}{16}$ 0·0769	$6\frac{1}{8}$ 0·0845	$6\frac{21}{32}$ 0·0922	$7\frac{7}{32}$ 0·0999	$7\frac{25}{32}$ 0·1076
10¼	$1\frac{23}{32}$ 0·0236	$2\frac{9}{32}$ 0·0315	$2\frac{27}{32}$ 0·0394	$3\frac{13}{32}$ 0·0473	4 0·0551	$4\frac{9}{16}$ 0·0630	$5\frac{1}{8}$ **0·0709**	$5\frac{23}{32}$ 0·0788	$6\frac{9}{32}$ 0·0867	$6\frac{27}{32}$ 0·0945	$7\frac{13}{32}$ 0·1024	$7\frac{31}{32}$ 0·1103
10½	$1\frac{3}{4}$ 0·0242	$2\frac{11}{32}$ 0·0323	$2\frac{29}{32}$ 0·0403	$3\frac{1}{2}$ 0·0484	$4\frac{3}{32}$ 0·0565	$4\frac{11}{16}$ 0·0646	$5\frac{1}{4}$ **0·0726**	$5\frac{27}{32}$ 0·0807	$6\frac{13}{32}$ 0·0888	7 0·0968	$7\frac{19}{32}$ 0·1049	$8\frac{5}{32}$ 0·1130
10¾	$1\frac{13}{16}$ 0·0248	$2\frac{13}{32}$ 0·0330	3 0·0413	$3\frac{19}{32}$ 0·0496	$4\frac{3}{16}$ 0·0578	$4\frac{25}{32}$ 0·0661	$5\frac{3}{8}$ **0·0744**	$5\frac{31}{32}$ 0·0826	$6\frac{9}{16}$ 0·0909	$7\frac{5}{32}$ 0·0991	$7\frac{25}{32}$ 0·1074	$8\frac{3}{8}$ 0·1157
11	$1\frac{27}{32}$ 0·0254	$2\frac{7}{16}$ 0·0338	$3\frac{1}{16}$ 0·0423	$3\frac{21}{32}$ 0·0507	$4\frac{9}{32}$ 0·0592	$4\frac{7}{8}$ 0·0676	$5\frac{1}{2}$ **0·0761**	$6\frac{1}{8}$ 0·0845	$6\frac{23}{32}$ 0·0930	$7\frac{11}{32}$ 0·1014	$7\frac{15}{16}$ 0·1099	$8\frac{9}{16}$ 0·1184
11¼	$1\frac{7}{8}$ 0·0259	$2\frac{1}{2}$ 0·0346	$3\frac{1}{8}$ 0·0432	$3\frac{3}{4}$ 0·0519	$4\frac{3}{8}$ 0·0605	5 0·0692	$5\frac{5}{8}$ **0·0778**	$6\frac{1}{4}$ 0·0865	$6\frac{7}{8}$ 0·0951	$7\frac{1}{2}$ 0·1037	$8\frac{1}{8}$ 0·1124	$8\frac{3}{4}$ 0·1210
11½	$1\frac{29}{32}$ 0·0265	$2\frac{9}{16}$ 0·0354	$3\frac{3}{16}$ 0·0442	$3\frac{27}{32}$ 0·0530	$4\frac{15}{32}$ 0·0619	$5\frac{1}{8}$ 0·0707	$5\frac{3}{4}$ **0·0795**	$6\frac{13}{32}$ 0·0884	$7\frac{1}{32}$ 0·0972	$7\frac{11}{16}$ 0·1061	$8\frac{5}{16}$ 0·1149	$8\frac{15}{16}$ 0·1237
11¾	$1\frac{31}{32}$ 0·0271	$2\frac{5}{8}$ 0·0361	$3\frac{1}{4}$ 0·0452	$3\frac{29}{32}$ 0·0542	$4\frac{9}{16}$ 0·0632	$5\frac{7}{32}$ 0·0722	$5\frac{7}{8}$ **0·0813**	$6\frac{17}{32}$ 0·0903	$7\frac{3}{16}$ 0·0993	$7\frac{27}{32}$ 0·1084	$8\frac{1}{2}$ 0·1174	$9\frac{1}{8}$ 0·1264
12	2 0·0277	$2\frac{11}{16}$ 0·0369	$3\frac{11}{32}$ 0·0461	4 0·0553	$4\frac{11}{16}$ 0·0646	$5\frac{11}{32}$ 0·0738	**6** **0·0830**	$6\frac{21}{32}$ 0·0922	$7\frac{11}{32}$ 0·1014	8 0·1107	$8\frac{21}{32}$ 0·1199	$9\frac{11}{32}$ 0·1291
12¼	$2\frac{1}{32}$ 0·0282	$2\frac{23}{32}$ 0·0377	$3\frac{13}{32}$ 0·0471	$4\frac{3}{32}$ 0·0565	$4\frac{25}{32}$ 0·0659	$5\frac{7}{16}$ 0·0753	$6\frac{1}{8}$ **0·0847**	$6\frac{13}{16}$ 0·0941	$7\frac{1}{2}$ 0·1036	$8\frac{5}{32}$ 0·1130	$8\frac{27}{32}$ 0·1224	$9\frac{17}{32}$ 0·1318
12½	$2\frac{3}{32}$ 0·0288	$2\frac{25}{32}$ 0·0384	$3\frac{15}{32}$ 0·0480	$4\frac{5}{32}$ 0·0576	$4\frac{7}{8}$ 0·0672	$5\frac{9}{16}$ 0·0769	$6\frac{1}{4}$ **0·0865**	$6\frac{15}{16}$ 0·0961	$7\frac{21}{32}$ 0·1057	$8\frac{11}{32}$ 0·1153	$9\frac{1}{32}$ 0·1249	$9\frac{23}{32}$ 0·1345
12¾	$2\frac{1}{8}$ 0·0294	$2\frac{27}{32}$ 0·0392	$3\frac{17}{32}$ 0·0490	$4\frac{1}{4}$ 0·0587	$4\frac{31}{32}$ 0·0685	$5\frac{21}{32}$ 0·0784	$6\frac{3}{8}$ **0·0882**	$7\frac{3}{32}$ 0·0980	$7\frac{25}{32}$ 0·1078	$8\frac{1}{2}$ 0·1176	$9\frac{7}{32}$ 0·1274	$9\frac{29}{32}$ 0·1372
13	$2\frac{5}{32}$ 0·0300	$2\frac{7}{8}$ 0·0400	$3\frac{5}{8}$ 0·0500	$4\frac{11}{32}$ 0·0599	$5\frac{1}{16}$ 0·0699	$5\frac{25}{32}$ 0·0799	$6\frac{1}{2}$ **0·0899**	$7\frac{7}{32}$ 0·0999	$7\frac{15}{16}$ 0·1099	$8\frac{21}{32}$ 0·1199	$9\frac{3}{8}$ 0·1299	$10\frac{1}{8}$ 0·1399
13¼	$2\frac{7}{32}$ 0·0305	$2\frac{15}{16}$ 0·0407	$3\frac{11}{16}$ 0·0509	$4\frac{13}{32}$ 0·0610	$5\frac{5}{32}$ 0·0712	$5\frac{7}{8}$ 0·0815	$6\frac{5}{8}$ **0·0916**	$7\frac{3}{8}$ 0·1018	$8\frac{3}{32}$ 0·1120	$8\frac{27}{32}$ 0·1222	$9\frac{9}{16}$ 0·1324	$10\frac{5}{16}$ 0·1426
13½	$2\frac{1}{4}$ 0·0311	3 0·0415	$3\frac{3}{4}$ 0·0519	$4\frac{1}{2}$ 0·0622	$5\frac{1}{4}$ 0·0726	6 0·0830	$6\frac{3}{4}$ **0·0934**	$7\frac{1}{2}$ 0·1037	$8\frac{1}{4}$ 0·1141	9 0·1245	$9\frac{3}{4}$ 0·1349	$10\frac{1}{2}$ 0·1453
13¾	$2\frac{9}{32}$ 0·0317	$3\frac{1}{16}$ 0·0423	$3\frac{13}{16}$ 0·0528	$4\frac{19}{32}$ 0·0633	$5\frac{11}{32}$ 0·0739	$6\frac{3}{32}$ 0·0845	$6\frac{7}{8}$ **0·0951**	$7\frac{21}{32}$ 0·1057	$8\frac{13}{32}$ 0·1162	$9\frac{5}{32}$ 0·1268	$9\frac{15}{16}$ 0·1374	$10\frac{11}{16}$ 0·1479
14	$2\frac{11}{32}$ 0·0323	$3\frac{3}{32}$ 0·0430	$3\frac{7}{8}$ 0·0538	$4\frac{21}{32}$ 0·0645	$5\frac{7}{16}$ 0·0753	$6\frac{7}{32}$ 0·0861	**7** **0·0968**	$7\frac{25}{32}$ 0·1076	$8\frac{9}{16}$ 0·1184	$9\frac{11}{32}$ 0·1291	$10\frac{1}{8}$ 0·1399	$10\frac{7}{8}$ 0·1506

For composition matrices – 10 set to 14 set – 15 units to 26 units

Set	Units											
	15	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
10	$8\frac{11}{32}$ 0·1153	$8\frac{7}{8}$ 0·1230	$9\frac{7}{16}$ 0·1306	**10** **0·1383**	$10\frac{9}{16}$ 0·1460	$11\frac{1}{8}$ 0·1537	$11\frac{21}{32}$ 0·1614	$12\frac{7}{32}$ 0·1691	$12\frac{25}{32}$ 0·1767	$13\frac{11}{32}$ 0·1844	$13\frac{7}{8}$ 0·1921	$14\frac{7}{16}$ 0·1998
10¼	$8\frac{17}{32}$ 0·1182	$9\frac{1}{8}$ 0·1260	$9\frac{11}{16}$ 0·1339	**10¼** **0·1418**	$10\frac{13}{16}$ 0·1497	$11\frac{13}{32}$ 0·1576	$11\frac{31}{32}$ 0·1654	$12\frac{17}{32}$ 0·1733	$13\frac{3}{32}$ 0·1811	$13\frac{21}{32}$ 0·1890	$14\frac{1}{4}$ 0·1969	$14\frac{13}{16}$ 0·2048
10½	$8\frac{3}{4}$ 0·1210	$9\frac{11}{32}$ 0·1291	$9\frac{29}{32}$ 0·1372	**10½** **0·1453**	$11\frac{3}{32}$ 0·1533	$11\frac{21}{32}$ 0·1614	$12\frac{1}{4}$ 0·1695	$12\frac{27}{32}$ 0·1775	$13\frac{13}{32}$ 0·1855	14 0·1936	$14\frac{19}{32}$ 0·2017	$15\frac{5}{32}$ 0·2098
10¾	$8\frac{31}{32}$ 0·1239	$9\frac{9}{16}$ 0·1322	$10\frac{5}{32}$ 0·1404	**10¾** **0·1487**	$11\frac{11}{32}$ 0·1570	$11\frac{15}{16}$ 0·1652	$12\frac{17}{32}$ 0·1735	$13\frac{5}{32}$ 0·1818	$13\frac{3}{4}$ 0·1899	$14\frac{11}{32}$ 0·1982	$14\frac{15}{16}$ 0·2065	$15\frac{17}{32}$ 0·2148
11	$9\frac{5}{32}$ 0·1268	$9\frac{25}{32}$ 0·1353	$10\frac{13}{32}$ 0·1437	**11** **0·1522**	$11\frac{5}{8}$ 0·1606	$12\frac{7}{32}$ 0·1691	$12\frac{27}{32}$ 0·1775	$13\frac{7}{16}$ 0·1860	$14\frac{1}{16}$ 0·1944	$14\frac{21}{32}$ 0·2029	$15\frac{9}{32}$ 0·2113	$15\frac{7}{8}$ 0·2198
11¼	$9\frac{3}{8}$ 0·1297	10 0·1383	$10\frac{5}{8}$ 0·1470	**11¼** **0·1556**	$11\frac{7}{8}$ 0·1643	$12\frac{1}{2}$ 0·1729	$13\frac{1}{8}$ 0·1816	$13\frac{3}{4}$ 0·1902	$14\frac{3}{8}$ 0·1988	15 0·2075	$15\frac{5}{8}$ 0·2161	$16\frac{1}{4}$ 0·2248
11½	$9\frac{19}{32}$ 0·1326	$10\frac{7}{32}$ 0·1414	$10\frac{7}{8}$ 0·1502	**11½** **0·1591**	$12\frac{1}{8}$ 0·1679	$12\frac{25}{32}$ 0·1768	$13\frac{13}{32}$ 0·1856	$14\frac{1}{16}$ 0·1944	$14\frac{11}{16}$ 0·2032	$15\frac{11}{32}$ 0·2121	$15\frac{31}{32}$ 0·2209	$16\frac{5}{8}$ 0·2298
11¾	$9\frac{13}{16}$ 0·1355	$10\frac{7}{16}$ 0·1445	$11\frac{9}{32}$ 0·1535	**11¾** **0·1625**	$12\frac{13}{32}$ 0·1716	$13\frac{1}{16}$ 0·1806	$13\frac{23}{32}$ 0·1896	$14\frac{3}{8}$ 0·1987	$15\frac{1}{32}$ 0·2076	$15\frac{21}{32}$ 0·2167	$16\frac{5}{16}$ 0·2257	$16\frac{31}{32}$ 0·2348
12	10 0·1383	$10\frac{11}{16}$ 0·1476	$11\frac{11}{32}$ 0·1568	**12** **0·1660**	$12\frac{21}{32}$ 0·1752	$13\frac{11}{32}$ 0·1844	14 0·1937	$14\frac{11}{16}$ 0·2029	$15\frac{11}{32}$ 0·2121	16 0·2213	$16\frac{11}{16}$ 0·2306	$17\frac{11}{32}$ 0·2398
12¼	$10\frac{7}{32}$ 0·1412	$10\frac{7}{8}$ 0·1506	$11\frac{9}{16}$ 0·1600	**12¼** **0·1695**	$12\frac{15}{16}$ 0·1789	$13\frac{5}{8}$ 0·1883	$14\frac{5}{16}$ 0·1977	$14\frac{31}{32}$ 0·2071	$15\frac{21}{32}$ 0·2165	$16\frac{11}{32}$ 0·2259	17 0·2354	$17\frac{11}{16}$ 0·2448
12½	$10\frac{13}{32}$ 0·1441	$11\frac{1}{8}$ 0·1537	$11\frac{13}{16}$ 0·1633	**12½** **0·1729**	$13\frac{3}{16}$ 0·1825	$13\frac{7}{8}$ 0·1921	$14\frac{19}{32}$ 0·2017	$15\frac{9}{32}$ 0·2113	$15\frac{31}{32}$ 0·2209	$16\frac{11}{16}$ 0·2305	$17\frac{3}{8}$ 0·2402	$18\frac{1}{16}$ 0·2498
12¾	$10\frac{5}{8}$ 0·1470	$11\frac{11}{32}$ 0·1568	$12\frac{1}{32}$ 0·1666	**12¾** **0·1764**	$13\frac{15}{32}$ 0·1862	$14\frac{5}{32}$ 0·1960	$14\frac{7}{8}$ 0·2058	$15\frac{19}{32}$ 0·2156	$16\frac{9}{32}$ 0·2253	17 0·2351	$17\frac{23}{32}$ 0·2450	$18\frac{13}{32}$ 0·2548
13	$10\frac{27}{32}$ 0·1499	$11\frac{9}{16}$ 0·1599	$12\frac{9}{32}$ 0·1698	**13** **0·1798**	$13\frac{23}{32}$ 0·1898	$14\frac{7}{16}$ 0·1998	$15\frac{5}{32}$ 0·2098	$15\frac{7}{8}$ 0·2198	$16\frac{5}{8}$ 0·2298	$17\frac{11}{32}$ 0·2398	$18\frac{1}{16}$ 0·2498	$18\frac{25}{32}$ 0·2598
13¼	$11\frac{1}{32}$ 0·1528	$11\frac{25}{32}$ 0·1629	$12\frac{1}{2}$ 0·1731	**13¼** **0·1833**	14 0·1935	$14\frac{23}{32}$ 0·2037	$15\frac{15}{32}$ 0·2138	$16\frac{3}{16}$ 0·2240	$16\frac{15}{16}$ 0·2342	$17\frac{21}{32}$ 0·2444	$18\frac{13}{32}$ 0·2546	$19\frac{1}{8}$ 0·2647
13½	$11\frac{1}{4}$ 0·1556	12 0·1660	$12\frac{3}{4}$ 0·1764	**13½** **0·1868**	$14\frac{1}{4}$ 0·1971	15 0·2075	$15\frac{3}{4}$ 0·2179	$16\frac{1}{2}$ 0·2282	$17\frac{1}{4}$ 0·2386	18 0·2490	$18\frac{3}{4}$ 0·2594	$19\frac{1}{2}$ 0·2697
13¾	$11\frac{15}{32}$ 0·1585	$12\frac{7}{32}$ 0·1691	13 0·1796	**13¾** **0·1902**	$14\frac{1}{2}$ 0·2008	$15\frac{9}{32}$ 0·2113	$16\frac{1}{32}$ 0·2219	$16\frac{13}{16}$ 0·2325	$17\frac{9}{16}$ 0·2430	$18\frac{11}{32}$ 0·2536	$19\frac{3}{32}$ 0·2642	$19\frac{7}{8}$ 0·2747
14	$11\frac{21}{32}$ 0·1614	$12\frac{7}{16}$ 0·1722	$13\frac{7}{32}$ 0·1829	**14** **0·1937**	$14\frac{25}{32}$ 0·2044	$15\frac{9}{16}$ 0·2152	$16\frac{11}{32}$ 0·2259	$17\frac{1}{8}$ 0·2367	$17\frac{7}{8}$ 0·2474	$18\frac{21}{32}$ 0·2582	$19\frac{7}{16}$ 0·2690	$20\frac{7}{32}$ 0·2797

Micrometer head settings (continued)

For large composition matrices – 14 set to 18¾ set –3 units to 14 units

Upper figures show adjustment in points and fractions of a point of wedge screw handwheel scale; lower figures show resultant sizes in thousandths of an inch.

	Units											
Set	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
14	2 11/32 0·0323	3 3/32 0·0430	3 7/8 0·0538	4 21/32 0·0645	5 7/16 0·0753	6 7/32 0·0861	**7** **0·0968**	7 25/32 0·1076	8 9/16 0·1184	9 11/32 0·1291	10 1/8 0·1399	10 7/8 0·1506
14¼	2 3/8 0·0328	3 5/32 0·0438	3 31/32 0·0547	4 3/4 0·0657	5 17/32 0·0766	6 11/32 0·0876	**7 1/8** **0·0985**	7 29/32 0·1095	8 11/16 0·1204	9 1/2 0·1314	10 9/32 0·1423	11 3/32 0·1533
14½	2 13/32 0·0334	3 7/32 0·0446	4 1/32 0·0557	4 27/32 0·0668	5 5/8 0·0780	6 7/16 0·0891	**7 1/4** **0·1003**	8 1/16 0·1114	8 7/8 0·1226	9 21/32 0·1337	10 15/32 0·1449	11 9/32 0·1560
14¾	2 15/32 0·0340	3 9/32 0·0453	4 3/32 0·0567	4 29/32 0·0680	5 23/32 0·0793	6 9/16 0·0907	**7 3/8** **0·1020**	8 3/16 0·1133	9 0·1247	9 27/32 0·1360	10 21/32 0·1473	11 15/32 0·1587
15	2 1/2 0·0346	3 11/32 0·0461	4 5/32 0·0576	5 0·0692	5 27/32 0·0807	6 21/32 0·0922	**7 1/2** **0·1037**	8 11/32 0·1153	9 5/32 0·1268	10 0·1383	10 27/32 0·1499	11 21/32 0·1614
15¼	2 17/32 0·0351	3 3/8 0·0469	4 1/4 0·0586	5 3/32 0·0703	5 15/16 0·0820	6 25/32 0·0938	**7 5/8** **0·1055**	8 15/32 0·1172	9 5/16 0·1289	10 5/32 0·1406	11 0·1523	11 7/8 0·1641
15½	2 19/32 0·0357	3 7/16 0·0476	4 5/16 0·0596	5 5/32 0·0715	6 1/32 0·0834	6 7/8 0·0953	**7 3/4** **0·1072**	8 19/32 0·1191	9 15/32 0·1310	10 11/32 0·1429	11 3/16 0·1548	12 1/16 0·1668
15¾	2 5/8 0·0363	3 1/2 0·0484	4 3/8 0·0605	5 1/4 0·0726	6 1/8 0·0847	7 0·0968	**7 7/8** **0·1089**	8 3/4 0·1210	9 5/8 0·1331	10 1/2 0·1452	11 3/8 0·1573	12 1/4 0·1694
16	2 21/32 0·0369	3 9/16 0·0492	4 7/16 0·0615	5 11/32 0·0738	6 1/4 0·0861	7 1/8 0·0984	**8** **0·1107**	8 7/8 0·1230	9 25/32 0·1352	10 21/32 0·1475	11 9/16 0·1598	12 7/16 0·1721
16¼	2 11/16 0·0374	3 19/32 0·0499	4 1/2 0·0624	5 13/32 0·0749	6 5/16 0·0874	7 7/32 0·0999	**8 1/8** **0·1124**	9 1/32 0·1249	9 15/16 0·1374	10 27/32 0·1498	11 3/4 0·1623	12 21/32 0·1748
16½	2 3/4 0·0380	3 21/32 0·0507	4 19/32 0·0634	5 1/2 0·0761	6 13/32 0·0888	7 11/32 0·1014	**8 1/4** **0·1141**	9 5/32 0·1268	10 3/32 0·1395	11 0·1522	11 29/32 0·1648	12 27/32 0·1775
16¾	2 25/32 0·0386	3 23/32 0·0515	4 21/32 0·0644	5 9/16 0·0772	6 1/2 0·0901	7 7/16 0·1030	**8 3/8** **0·1158**	9 5/16 0·1287	10 1/4 0·1416	11 5/32 0·1545	12 3/32 0·1673	13 1/32 0·1802
17	2 27/32 0·0392	3 25/32 0·0522	4 23/32 0·0653	5 21/32 0·0784	6 19/32 0·0914	7 9/16 0·1045	**8 1/2** **0·1176**	9 7/16 0·1306	10 3/8 0·1437	11 11/32 0·1568	12 9/32 0·1689	13 7/32 0·1829
17¼	2 7/8 0·0398	3 27/32 0·0530	4 25/32 0·0663	5 3/4 0·0795	6 23/32 0·0928	7 21/32 0·1060	**8 5/8** **0·1193**	9 19/32 0·1326	10 17/32 0·1458	11 1/2 0·1591	12 15/32 0·1723	13 13/32 0·1856
17½	2 29/32 0·0403	3 7/8 0·0538	4 7/8 0·0672	5 27/32 0·0807	6 13/16 0·0941	7 25/32 0·1076	**8 3/4** **0·1210**	9 23/32 0·1345	10 11/16 0·1479	11 21/32 0·1614	12 5/8 0·1748	13 5/8 0·1883
17¾	2 31/32 0·0409	3 15/16 0·0546	4 15/16 0·0682	5 29/32 0·0818	6 29/32 0·0955	7 7/8 0·1091	**8 7/8** **0·1228**	9 27/32 0·1364	10 27/32 0·1500	11 27/32 0·1637	12 13/16 0·1773	13 13/16 0·1910
18	3 0·0415	4 0·0553	5 0·0692	6 0·0830	7 0·0968	8 0·1107	**9** **0·1245**	10 0·1383	11 0·1522	12 0·1660	13 0·1798	14 0·1937
18¼	3 1/32 0·0421	4 1/16 0·0561	5 1/16 0·0701	6 3/32 0·0841	7 3/32 0·0982	8 1/8 0·1122	**9 1/8** **0·1262**	10 1/8 0·1402	11 5/32 0·1543	12 5/32 0·1683	13 3/16 0·1823	14 3/16 0·1963
18½	3 3/32 0·0426	4 3/32 0·0569	5 1/8 0·0711	6 5/32 0·0853	7 3/16 0·0995	8 7/32 0·1137	**9 1/4** **0·1280**	10 9/32 0·1422	11 5/16 0·1564	12 11/32 0·1706	13 3/8 0·1848	14 3/8 0·1990
18¾	3 1/8 0·0432	4 5/32 0·0576	5 3/16 0·0720	6 1/4 0·0865	7 9/32 0·1009	8 11/32 0·1153	**9 3/8** **0·1297**	10 13/32 0·1441	11 15/32 0·1585	12 1/2 0·1729	13 17/32 0·1873	14 19/32 0·2017

For large composition matrices – 14 set to 18¾ set – 15 units to 26 units

Set	Units											
	15	16	17	**18**	19	20	21	22	23	24	25	26
14	11 21/32 0·1614	12 7/16 0·1722	13 7/32 0·1829	**14** **0·1937**	14 25/32 0·2044	15 9/16 0·2152	16 11/32 0·2259	17 1/8 0·2367	17 7/8 0·2474	18 21/32 0·2582	19 7/16 0·2690	20 7/32 0·2797
14¼	11 7/8 0·1642	12 21/32 0·1752	13 7/16 0·1861	**14¼** **0·1971**	15 1/32 0·2080	15 27/32 0·2190	16 5/8 0·2299	17 13/32 0·2409	18 3/16 0·2518	19 0·2628	19 25/32 0·2737	20 19/32 0·2847
14½	12 3/32 0·1671	12 7/8 0·1783	13 11/16 0·1894	**14½** **0·2006**	15 5/16 0·2117	16 3/32 0·2228	16 29/32 0·2340	17 23/32 0·2451	18 17/32 0·2563	19 11/32 0·2674	20 1/8 0·2786	20 15/16 0·2897
14¾	12 9/32 0·1700	13 3/32 0·1813	13 15/16 0·1927	**14¾** **0·2040**	15 9/16 0·2154	16 13/32 0·2267	17 7/32 0·2380	18 1/32 0·2494	18 27/32 0·2607	19 21/32 0·2720	20 15/32 0·2834	21 5/16 0·2947
15	12 1/2 0·1729	13 11/32 0·1844	14 5/32 0·1960	**15** **0·2075**	15 27/32 0·2190	16 21/32 0·2305	17 1/2 0·2421	18 11/32 0·2536	19 5/32 0·2651	20 0·2767	20 27/32 0·2882	21 21/32 0·2997
15¼	12 23/32 0·1758	13 9/16 0·1875	14 13/32 0·1992	**15¼** **0·2110**	16 3/32 0·2227	16 15/16 0·2344	17 25/32 0·2461	18 5/8 0·2578	19 15/32 0·2695	20 5/16 0·2813	21 3/16 0·2930	22 1/32 0·3047
15½	12 29/32 0·1787	13 25/32 0·1906	14 5/8 0·2025	**15½** **0·2144**	16 3/8 0·2263	17 7/32 0·2382	18 3/32 0·2501	18 15/16 0·2621	19 13/16 0·2740	20 21/32 0·2859	21 17/32 0·2978	22 13/32 0·3097
15¾	13 1/8 0·1816	14 0·1937	14 7/8 0·2058	**15¾** **0·2179**	16 5/8 0·2300	17 1/2 0·2421	18 3/8 0·2542	19 1/4 0·2663	20 1/8 0·2784	21 0·2905	21 7/8 0·3026	22 3/4 0·3147
16	13 11/32 0·1844	14 7/32 0·1967	15 3/32 0·2090	**16** **0·2213**	16 7/8 0·2336	17 25/32 0·2459	18 21/32 0·2582	19 9/16 0·2705	20 7/16 0·2828	21 11/32 0·2951	22 7/32 0·3074	23 3/32 0·3197
16¼	13 17/32 0·1873	14 7/16 0·1998	15 11/32 0·2123	**16¼** **0·2248**	17 5/32 0·2373	18 1/16 0·2498	18 31/32 0·2622	19 7/8 0·2747	20 3/4 0·2872	21 21/32 0·2997	22 9/16 0·3122	23 15/32 0·3247
16½	13 3/4 0·1902	14 21/32 0·2029	15 19/32 0·2156	**16½** **0·2282**	17 13/32 0·2409	18 11/32 0·2536	19 1/4 0·2663	20 5/32 0·2790	21 3/32 0·2916	22 0·3043	22 29/32 0·3170	23 27/32 0·3297
16¾	13 31/32 0·1931	14 7/8 0·2060	15 13/16 0·2188	**16¾** **0·2317**	17 11/16 0·2446	18 19/32 0·2574	19 17/32 0·2703	20 15/32 0·2832	21 13/32 0·2961	22 5/16 0·3089	23 1/4 0·3218	24 3/16 0·3347
17	14 5/32 0·1960	15 1/8 0·2090	16 1/16 0·2221	**17** **0·2351**	17 15/16 0·2482	18 29/32 0·2613	19 27/32 0·2744	20 25/32 0·2874	21 23/32 0·3005	22 11/16 0·3136	23 5/8 0·3266	24 9/16 0·3397
17¼	14 3/8 0·1988	15 11/32 0·2121	16 9/32 0·2254	**17¼** **0·2386**	18 7/32 0·2519	19 5/32 0·2651	20 1/8 0·2784	21 3/32 0·2916	22 1/32 0·3049	23 0·3182	23 31/32 0·3314	24 29/32 0·3447
17½	14 19/32 0·2017	15 9/16 0·2152	16 17/32 0·2286	**17½** **0·2421**	18 15/32 0·2555	19 7/16 0·2690	20 13/32 0·2824	21 3/8 0·2959	22 3/8 0·3093	23 11/32 0·3228	24 5/16 0·3362	25 9/32 0·3497
17¾	14 13/16 0·2046	15 25/32 0·2182	16 25/32 0·2319	**17¾** **0·2455**	18 3/4 0·2592	19 23/32 0·2728	20 23/32 0·2865	22 1/16 0·3001	22 1/16 0·3137	23 21/32 0·3274	24 21/32 0·3410	25 21/32 0·3547
18	15 0·2075	16 0·2213	17 0·2352	**18** **0·2490**	19 0·2628	20 0·2767	21 0·2905	22 0·3043	23 0·3182	24 0·3320	25 0·3458	26 0·3596
18¼	15 7/32 0·2104	16 7/32 0·2244	17 1/4 0·2384	**18¼** **0·2524**	19 9/32 0·2665	20 9/32 0·2805	21 9/32 0·2945	22 5/16 0·3086	23 5/16 0·3226	24 11/32 0·3366	25 11/32 0·3506	26 3/8 0·3647
18½	15 13/32 0·2133	16 7/16 0·2275	17 15/32 0·2417	**18½** **0·2559**	19 17/32 0·2701	20 9/16 0·2843	21 19/32 0·2986	22 5/8 0·3128	23 21/32 0·3270	24 21/32 0·3412	25 11/16 0·3554	26 23/32 0·3697
18¾	15 5/8 0·2161	16 11/16 0·2306	17 23/32 0·2450	**18¾** **0·2594**	19 13/16 0·2738	20 27/32 0·2882	21 7/8 0·3026	22 29/32 0·3170	23 31/32 0·3314	25 0·3458	26 1/32 0·3602	27 3/32 0·3746

Micrometer head settings (continued)

For large composition matrices –19 set to 23¾ set – 3 units to 14 units

Upper figures show adjustment in points and fractions of a point of wedge screw handwheel scale; lower figures show resultant sizes in thousandths of an inch.

	Units											
Set	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
19	3 5/32 0·0438	4 7/32 0·0584	5 9/32 0·0730	6 11/32 0·0876	7 3/8 0·1022	8 7/16 0·1168	**9 1/2** **0·1314**	10 9/16 0·1460	11 19/32 0·1606	12 21/32 0·1752	13 23/32 0·1898	14 25/32 0·2044
19¼	3 7/32 0·0444	4 9/32 0·0592	5 11/32 0·0740	6 13/32 0·0888	7 15/32 0·1036	8 9/16 0·1184	**9 5/8** **0·1331**	10 11/16 0·1479	11 3/4 0·1627	12 27/32 0·1775	13 29/32 0·1923	14 31/32 0·2071
19½	3 1/4 0·0450	4 11/32 0·0599	5 13/32 0·0749	6 1/2 0·0899	7 19/32 0·1049	8 21/32 0·1199	**9 3/4** **0·1349**	10 27/32 0·1499	11 29/32 0·1648	13 0·1798	14 3/32 0·1948	15 5/32 0·2098
19¾	3 9/32 0·0455	4 3/8 0·0607	5 15/32 0·0759	6 19/32 0·0911	7 11/16 0·1062	8 25/32 0·1214	**9 7/8** **0·1366**	10 31/32 0·1518	12 1/16 0·1670	13 5/32 0·1821	14 1/4 0·1973	15 3/8 0·2125
20	3 11/32 0·0461	4 7/16 0·0615	5 9/16 0·0769	6 21/32 0·0922	7 25/32 0·1076	8 7/8 0·1230	**10** **0·1383**	11 3/32 0·1537	12 7/32 0·1691	13 11/32 0·1844	14 7/16 0·1998	15 9/16 0·2152
20¼	3 3/8 0·0467	4 1/2 0·0622	5 5/8 0·0778	6 3/4 0·0934	7 7/8 0·1089	9 0·1245	**10 1/8** **0·1401**	11 1/4 0·1556	12 3/8 0·1712	13 1/2 0·1867	14 5/8 0·2023	15 3/4 0·2179
20½	3 13/32 0·0473	4 9/16 0·0630	5 11/16 0·0788	6 27/32 0·0945	7 31/32 0·1103	9 3/32 0·1260	**10 1/4** **0·1418**	11 3/8 0·1575	12 17/32 0·1733	13 21/32 0·1891	14 13/16 0·2048	15 15/16 0·2206
20¾	3 15/32 0·0478	4 5/8 0·0638	5 3/4 0·0797	6 29/32 0·0957	8 1/16 0·1116	9 7/32 0·1276	**10 3/8** **0·1435**	11 17/32 0·1595	12 11/16 0·1754	13 27/32 0·1914	15 0·2073	16 5/32 0·2233
21	3½ 0·0484	4 21/32 0·0646	5 27/32 0·0807	7 0·0968	8 5/32 0·1130	9 11/32 0·1291	**10½** **0·1452**	11 21/32 0·1614	12 27/32 0·1775	14 0·1937	15 5/32 0·2098	16 11/32 0·2259
21¼	3 17/32 0·0490	4 23/32 0·0653	5 29/32 0·0817	7 3/32 0·0980	8¼ 0·1143	9 7/16 0·1306	**10 5/8** **0·1470**	11 13/16 0·1633	13 0·1796	14 3/16 0·1960	15 11/32 0·2123	16 17/32 0·2286
21½	3 19/32 0·0496	4 25/32 0·0661	5 31/32 0·0826	7 5/32 0·0991	8 3/8 0·1157	9 9/16 0·1322	**10¾** **0·1487**	11 15/16 0·1652	13 5/32 0·1818	14 11/32 0·1983	15 17/32 0·2148	16 23/32 0·2313
21¾	3 5/8 0·0501	4 27/32 0·0669	6 1/32 0·0836	7¼ 0·1003	8 15/32 0·1170	9 21/32 0·1337	**10 7/8** **0·1504**	12 3/32 0·1672	13 9/32 0·1839	14½ 0·2006	15 23/32 0·2173	16 29/32 0·2340
22	3 21/32 0·0507	4 7/8 0·0676	6 3/32 0·0845	7 11/32 0·1014	8 9/16 0·1183	9 25/32 0·1353	**11** **0·1522**	12 7/32 0·1691	13 7/16 0·1860	14 21/32 0·2029	15 7/8 0·2198	17 3/32 0·2367
22¼	3 23/32 0·0513	4 15/16 0·0684	6 3/16 0·0855	7 13/32 0·1026	8 21/32 0·1197	9 7/8 0·1368	**11 1/8** **0·1539**	12 3/8 0·1710	13 19/32 0·1881	14 27/32 0·2052	16 1/16 0·2223	17 5/16 0·2394
22½	3¾ 0·0519	5 0·0692	6¼ 0·0865	7½ 0·1038	8¾ 0·1210	10 0·1383	**11¼** **0·1556**	12½ 0·1729	13¾ 0·1902	15 0·2075	16¼ 0·2248	17½ 0·2421
22¾	3 25/32 0·0524	4 1/16 0·0699	6 5/16 0·0874	7 19/32 0·1049	8 27/32 0·1224	10 1/8 0·1399	**11 3/8** **0·1574**	12 21/32 0·1748	13 29/32 0·1923	15 5/32 0·2098	16 7/16 0·2273	17 11/16 0·2448
23	3 27/32 0·0530	5 3/32 0·0707	6 3/8 0·0884	7 21/32 0·1061	8 15/16 0·1237	10 7/32 0·1414	**11½** **0·1591**	12 25/32 0·1768	14 1/16 0·1944	15 11/32 0·2121	16⅝ 0·2298	17 29/32 0·2475
23¼	3 7/8 0·0536	5 5/32 0·0715	6 15/32 0·0893	7¾ 0·1072	9 1/32 0·1251	10 11/32 0·1429	**11 5/8** **0·1608**	12 29/32 0·1787	14 7/32 0·1965	15½ 0·2144	16 25/32 0·2323	18 3/32 0·2502
23½	3 29/32 0·0542	5 7/32 0·0722	6 17/32 0·0903	7 27/32 0·1084	9⅛ 0·1264	10 7/16 0·1445	**11¾** **0·1625**	13 1/16 0·1806	14⅜ 0·1987	15 21/32 0·2167	16 31/32 0·2348	18 9/32 0·2528
23¾	3 31/32 0·0548	5 9/32 0·0730	6 19/32 0·0913	7 29/32 0·1095	9¼ 0·1278	10 9/16 0·1460	**11 7/8** **0·1643**	13 3/16 0·1825	14½ 0·2008	15 27/32 0·2190	17 5/32 0·2373	18 15/32 0·2555

For large composition matrices – 19 set to 23¾ set – 15 units to 26 units

Set	Units											
	15	16	17	18	19	20	21	22	23	24	25	26
19	15 27/32 0·2190	16 7/8 0·2336	17 15/16 0·2482	**19** **0·2628**	20 1/16 0·2774	21 3/32 0·2920	22 5/32 0·3066	23 7/32 0·3212	24 9/32 0·3358	25 11/32 0·3504	26 3/8 0·3650	27 7/16 0·3796
19¼	16 1/32 0·2219	17 3/32 0·2367	18 3/16 0·2515	**19¼** **0·2663**	20 5/16 0·2811	21 3/8 0·2959	22 15/32 0·3107	23 17/32 0·3255	24 19/32 0·3403	25 21/32 0·3551	26 3/4 0·3700	27 13/16 0·3856
19½	16 1/4 0·2248	17 11/32 0·2398	18 13/32 0·2548	**19½** **0·2697**	20 9/32 0·2847	21 21/32 0·2997	22 3/4 0·3147	23 27/32 0·3297	24 29/32 0·3447	26 0·3597	27 3/32 0·3747	28 5/32 0·3896
19¾	16 15/32 0·2277	17 9/16 0·2429	18 21/32 0·2580	**19¾** **0·2732**	20 27/32 0·2884	21 15/16 0·3036	23 1/32 0·3187	24 5/32 0·3339	25 1/4 0·3491	26 11/32 0·3643	27 7/16 0·3795	
20	16 11/16 0·2306	17 25/32 0·2459	18 29/32 0·2613	**20** **0·2767**	21 1/8 0·2920	22 7/32 0·3074	23 11/32 0·3228	24 7/16 0·3381	25 9/16 0·3535	26 21/32 0·3689	27 25/32 0·3843	
20¼	16 7/8 0·2334	18 0·2490	19 1/8 0·2646	**20¼** **0·2801**	21 3/8 0·2957	22 1/2 0·3112	23 5/8 0·3268	24 3/4 0·3424	25 7/8 0·3579	27 0·3735	28 1/8 0·3891	
20½	17 3/32 0·2363	18 7/32 0·2521	19 3/8 0·2678	**20½** **0·2836**	21 21/32 0·2993	22 25/32 0·3151	23 29/32 0·3308	25 1/16 0·3466	26 3/16 0·3624	27 11/32 0·3781		
20¾	17 9/32 0·2392	18 7/16 0·2551	19 19/32 0·2711	**20¾** **0·2870**	21 29/32 0·3030	23 1/16 0·3189	24 7/32 0·3349	25 3/8 0·3509	26 1/2 0·3668	27 21/32 0·3827		
21	17 1/2 0·2421	18 21/32 0·2582	19 27/32 0·2744	**21** **0·2905**	22 5/32 0·3066	23 11/32 0·3228	24 1/2 0·3389	25 21/32 0·3551	26 27/32 0·3712	28 0·3873		
21¼	17 23/32 0·2450	18 29/32 0·2613	20 1/16 0·2776	**21¼** **0·2940**	22 7/16 0·3103	23 5/8 0·3266	24 25/32 0·3430	25 31/32 0·3593	27 5/32 0·3756			
21½	17 29/32 0·2478	19 1/8 0·2644	20 5/16 0·2809	**21½** **0·2974**	22 11/16 0·3139	23 7/8 0·3305	25 3/32 0·3470	26 9/32 0·3635	27 15/32 0·3800			
21¾	18 1/8 0·2507	19 11/32 0·2674	20 17/32 0·2842	**21¾** **0·3009**	22 31/32 0·3176	24 5/32 0·3343	25 3/8 0·3510	26 13/32 0·3677	27 25/32 0·3845			
22	18 11/32 0·2536	19 9/16 0·2705	20 25/32 0·2874	**22** **0·3043**	23 7/32 0·3212	24 7/16 0·3381	25 21/32 0·3550	26 7/8 0·3720				
22¼	18 17/32 0·2565	19 25/32 0·2736	21 0·2907	**22¼** **0·3078**	23 15/32 0·3249	24 23/32 0·3420	25 31/32 0·3591	27 3/16 0·3762				
22½	18 3/4 0·2594	20 0·2767	21 1/4 0·2940	**22½** **0·3112**	23 1/4 0·3285	25 0·3458	26 1/4 0·3631	27 1/2 0·3804				
22¾	18 31/32 0·2662	20 7/32 0·2797	21 15/32 0·2972	**22¾** **0·3147**	24 0·3322	25 9/32 0·3497	26 17/32 0·3672	27 13/16 0·3846				
23	19 5/32 0·2651	20 7/16 0·2828	21 23/32 0·3005	**23** **0·3182**	24 9/32 0·3358	25 9/16 0·3535	26 27/32 0·3712	28 1/8 0·3889				
23¼	19 3/8 0·2680	20 21/32 0·2859	21 31/32 0·3038	**23¼** **0·3216**	24 17/32 0·3395	25 27/32 0·3574	27 1/8 0·3752					
23½	19 19/32 0·2709	20 7/8 0·2890	22 3/16 0·3070	**23½** **0·3251**	24 13/16 0·3431	26 3/32 0·3612	27 13/32 0·3793					
23¾	19 25/32 0·2738	21 3/32 0·2920	22 7/16 0·3103	**23¾** **0·3285**	25 1/16 0·3468	26 3/8 0·3650	27 23/32 0·3833					

Micrometer head settings

For display matrices

Width in points denotes the micrometer head setting

Matrix marking			Matrix marking			Matrix marking			Matrix marking								
Width in points	*Old style*	*Width in inches*	*Width in points*	*Old style*	*Width in inches*	*Width in points*	*Old style*	*Width in inches*	*Width in points*	*Old style*	*Width in inches*	*Width in points*	*Width in inches*	*Width in points*	*Width in inches*	*Width in points*	*Width in inches*
2		0·0277	15	* 14 8	0·2075	28	10 8	0·3873	41	** 6 8	0·5671	54	0·7470	67	0·9268	80	1·1066
2¼	* 2 2	0·0311	15¼	* 15 2	0·2110	28¼	11 2	0·3908	41¼	** 7 2	0·5706	54¼	0·7505	67¼	0·9303	80¼	1·1101
2½	* 2 4	0·0346	15½	* 15 4	0·2144	28½	11 4	0·3943	41½	** 7 4	0·5741	54½	0·7539	67½	0·9337	80½	1·1136
2¾	* 2 6	0·0380	15¾	* 15 6	0·2179	28¾	11 6	0·3977	41¾	** 7 6	0·5775	54¾	0·7574	67¾	0·9372	80¾	1·1170
3	* 2 8	0·0415	16	* 15 8	0·2213	29	11 8	0·4012	42	** 7 8	0·5810	55	0·7608	68	0·9406	81	1·1205
3¼	* 3 2	0·0450	16¼	* 16 2	0·2248	29¼	12 2	0·4046	42¼	** 8 2	0·5844	55¼	0·7643	68¼	0·9441	81¼	1·1240
3½	* 3 4	0·0484	16½	* 16 4	0·2283	29½	12 4	0·4081	42½	** 8 4	0·5879	55½	0·7677	68½	0·9476	81½	1·1274
3¾	* 3 6	0·0519	16¾	* 16 6	0·2317	29¾	12 6	0·4115	42¾	** 8 6	0·5913	55¾	0·7712	68¾	0·9510	81¾	1·1309
4	* 3 8	0·0553	17	* 16 8	0·2352	30	12 8	0·4150	43	** 8 8	0·5948	56	0·7746	69	0·9545	82	1·1343
4¼	* 4 2	0·0588	17¼	* 17 2	0·2386	30¼	13 2	0·4185	43¼	** 9 2	0·5983	56¼	0·7781	69¼	0·9579	82¼	1·1378
4½	* 4 4	0·0623	17½	* 17 4	0·2421	30½	13 4	0·4219	43½	** 9 4	0·6017	56½	0·7816	69½	0·9614	82½	1·1412
4¾	* 4 6	0·0657	17¾	* 17 6	0·2455	30¾	13 6	0·4254	43¾	** 9 6	0·6052	56¾	0·7850	69¾	0·9649	82¾	1·1447
5	* 4 8	0·0692	18	* 17 8	0·2490	31	13 8	0·4288	44	** 9 8	0·6086	57	0·7885	70	0·9683	83	1·1481
5¼	* 5 2	0·0726	18¼	* 18 2	0·2525	31¼	14 2	0·4323	44¼	** 10 2	0·6121	57¼	0·7919	70¼	0·9718	83¼	1·1516
5½	* 5 4	0·0761	18½	* 18 4	0·2559	31½	14 4	0·4358	44½	** 10 4	0·6156	57½	0·7954	70½	0·9752	83½	1·1551
5¾	* 5 6	0·0795	18¾	* 18 6	0·2594	31¾	14 6	0·4392	44¾	** 10 6	0·6190	57¾	0·7989	70¾	0·9787	83¾	1·1585
6	* 5 8	0·0830	19	* 18 8	0·2628	32	14 8	0·4427	45	** 10 8	0·6225	58	0·8023	71	0·9821	84	1·1620
6¼	* 6 2	0·0865	19¼	2 2	0·2663	32¼	15 2	0·4461	45¼	** 11 2	0·6259	58¼	0·8058	71¼	0·9856	84¼	1·1655
6½	* 6 4	0·0899	19½	2 4	0·2698	32½	15 4	0·4496	45½	** 11 4	0·6294	58½	0·8092	71½	0·9891	84½	1·1689
6¾	* 6 6	0·0934	19¾	2 6	0·2732	32¾	15 6	0·4530	45¾	** 11 6	0·6328	58¾	0·8127	71¾	0·9925	84¾	1·1724
7	* 6 8	0·0968	20	2 8	0·2767	33	15 8	0·4565	46	** 11 8	0·6363	59	0·8161	72	0·9960	85	1·1758
7¼	* 7 2	0·1003	20¼	3 2	0·2801	33¼	16 2	0·4600	46¼	** 12 2	0·6398	59¼	0·8196	72¼	0·9994	85¼	1·1793
7½	* 7 4	0·1038	20½	3 4	0·2836	33½	16 4	0·4634	46½	** 12 4	0·6432	59½	0·8231	72½	1·0029	85½	1·1827
7¾	* 7 6	0·1072	20¾	3 6	0·2870	33¾	16 6	0·4669	46¾	** 12 6	0·6467	59¾	0·8265	72¾	1·0064	85¾	1·1862
8	* 7 8	0·1107	21	3 8	0·2905	34	16 8	0·4703	47	** 12 8	0·6501	60	0·8300	73	1·0098	86	1·1896
8¼	* 8 2	0·1141	21¼	4 2	0·2940	34¼	17 2	0·4738	47¼	** 13 2	0·6536	60¼	0·8335	73¼	1·0133	86¼	1·1931
8½	* 8 4	0·1176	21½	4 4	0·2974	34½	17 4	0·4773	47½	** 13 4	0·6571	60½	0·8369	73½	1·0167	86½	1·1966
8¾	* 8 6	0·1210	21¾	4 6	0·3009	34¾	17 6	0·4807	47¾	** 13 6	0·6605	60¾	0·8404	73¾	1·0202	86¾	1·2000
9	* 8 8	0·1245	22	4 8	0·3043	35	17 8	0·4842	48	** 13 8	0·6640	61	0·8438	74	1·0236	87	1·2035
9¼	* 9 2	0·1280	22¼	5 2	0·3078	35¼	18 2	0·4876	48¼		0·6674	61¼	0·8473	74¼	1·0271	87¼	1·2069
9½	* 9 4	0·1314	22½	5 4	0·3113	35½	18 4	0·4911	48½		0·6709	61½	0·8507	74½	1·0306	87½	1·2104
9¾	* 9 6	0·1349	22¾	5 6	0·3147	35¾	18 6	0·4945	48¾		0·6743	61¾	0·8542	74¾	1·0340	87¾	1·2139
10	* 9 8	0·1383	23	5 8	0·3182	36	18 8	0·4980	49		0·6778	62	0·8576	75	1·0375	88	1·2173
10¼	* 10 2	0·1418	23¼	6 2	0·3216	36¼	** 2 2	0·5014	49¼		0·6813	62¼	0·8611	75¼	1·0409	88¼	1·2208
10½	* 10 4	0·1453	23½	6 4	0·3251	36½	** 2 4	0·5049	49½		0·6847	62½	0·8646	75½	1·0444	88½	1·2242
10¾	* 10 6	0·1487	23¾	6 6	0·3285	36¾	** 2 6	0·5083	49¾		0·6882	62¾	0·8680	75¾	1·0479	88¾	1·2277
11	* 10 8	0·1522	24	6 8	0·3320	37	** 2 8	0·5118	50		0·6916	63	0·8715	76	1·0513	89	1·2311
11¼	* 11 2	0·1556	24¼	7 2	0·3355	37¼	** 3 2	0·5153	50¼		0·6952	63¼	0·8749	76¼	1·0548	89¼	1·2346
11½	* 11 4	0·1591	24½	7 4	0·3389	37½	** 3 4	0·5187	50½		0·6986	63½	0·8784	76½	1·0582	89½	1·2381
11¾	* 11 6	0·1625	24¾	7 6	0·3424	37¾	** 3 6	0·5222	50¾		0·7021	63¾	0·8819	76¾	1·0617	89¾	1·2415
12	* 11 8	0·1660	25	7 8	0·3458	38	** 3 8	0·5256	51		0·7055	64	0·8853	77	1·0651	90	1·2450
12¼	* 12 2	0·1695	25¼	8 2	0·3493	38¼	** 4 2	0·5291	51¼		0·7090	64¼	0·8888	77¼	1·0686	90¼	1·2484
12½	* 12 4	0·1729	25½	8 4	0·3528	38½	** 4 4	0·5326	51½		0·7125	64½	0·8922	77½	1·0721	90½	1·2519
12¾	* 12 6	0·1764	25¾	8 6	0·3562	38¾	** 4 6	0·5360	51¾		0·7159	64¾	0·8957	77¾	1·0755	90¾	1·2554
13	* 12 8	0·1798	26	8 8	0·3597	39	** 4 8	0·5395	52		0·7194	65	0·8991	78	1·0790		
13¼	* 13 2	0·1833	26¼	9 2	0·3631	39¼	** 5 2	0·5429	52¼		0·7228	65¼	0·9026	78¼	1·0824		
13½	* 13 4	0·1868	26½	9 4	0·3666	39½	** 5 4	0·5464	52½		0·7263	65½	0·9061	78½	1·0859		
13¾	* 13 6	0·1902	26¾	9 6	0·3700	39¾	** 5 6	0·5498	52¾		0·7297	65¾	0·9095	78¾	1·0894		
14	* 13 8	0·1937	27	9 8	0·3735	40	** 5 8	0·5533	53		0·7332	66	0·9130	79	1·0928		
14¼	* 14 2	0·1971	27¼	10 2	0·3770	40¼	** 6 2	0·5568	53¼		0·7366	66¼	0·9164	79¼	1·0963		
14½	* 14 4	0·2006	27½	10 4	0·3804	40½	** 6 4	0·5602	53½		0·7401	66½	0·9199	79½	1·0997		
14¾	* 14 6	0·2040	27¾	10 6	0·3839	40¾	** 6 6	0·5637	53¾		0·7435	66¾	0·9234	79¾	1·1032		

Moulds and matrix holders

For use when casting type

	Size			
	5 pt to 12 pt	5 pt to 12 pt	14 pt to 24 pt	14 pt to 48 pt
Moulds	Composition. Use adaptor plate	Composition. Use adaptor plate	Composition (large type) with interchangeable insets. Use adaptor plate	Display, 14 pt to 36 pt and 42 pt to 48 pt. Either kind fitted with interchangeable insets. Use adaptor plate
Mould high space height	0·868″	0·868″	0·868″	0·868″
Matrix	Composition (0·2″×0·2″)	Composition (0·2″ extended)	Composition (large type, 0·4″×0·2″ and 0·4″×0·4″)	Display (1″×1″, 1″×1⅛″, 1″×1·35″)
Matrix drive	0·050″	0·050″	0·050″	0·050″
Matrix holder	Xa3SL	Xa4SL	Xa5SL	Xa6SL
Mould blade fork*	12SL assd	12SL assd	12SL assd	14 pt to 36 pt 12SL assd 42 pt to 48 pt X32SL
Water block	30SLL	30SLL	30SLL	30SLL
Oiler	a29SL1	a29SL1	a15SL1	a15SL1
Head	Composition	Composition	Display	Display

*When casting type from 5 point to 36 point with the old-style low quad arrangement, use Mould blade fork, X26SL

	Size		
	14 pt to 36 pt	14 pt to 36 pt	42 pt to 72 pt
Moulds	Display. Fitted with interchangeable insets. Use adaptor plate	Super type. Fitted with interchangeable insets	Super type. Fitted with interchangeable insets
Mould high space height	0·868″	0·868″	0·853″
Matrix	Display. American Electrotype (1⅛″×¾″)	Display (1″×1″)	Display (1⅛″×1⅛″, 1⅛″×1·35″)
Matrix drive	0·050″	0·050″	0·065″
Matrix holder	X33SL	Xa6SL	Xa7SL
Mould blade fork*	12SL assd	12SL assd	13SL assd
Water block	30SLL	19SLL	20SLL
Oiler	a15SL1	a15SL1	16SL1
Head	Display	Display	Display

*When casting type from 5 point to 36 point with the old-style low quad arrangement, use Mould blade fork, X26SL

Strip casting correction

Adjustment figures per cast

Overall difference in points	Total number of casts in strip											
	2	3	4	5	6	7	8	9	10	11	12	13
½	¼ 0·0035	5/32 0·0023	⅛ 0·0017	3/32 0·0014	3/32 0·0012	1/16 0·0010	1/16 **0·0009**	1/16 0·0008	1/16 0·0007	1/32 0·0006	1/32 0·0006	1/32 0·0005
1	½ 0·0069	11/32 0·0046	¼ 0·0034	7/32 0·0028	5/32 0·0023	5/32 0·0020	⅛ **0·0017**	3/32 0·0015	3/32 0·0014	3/32 0·0012	3/32 0·0011	1/16 0·0010
2	1 0·0138	21/32 0·0092	½ 0·0069	13/32 0·0056	11/32 0·0046	9/32 0·0040	¼ **0·0035**	7/32 0·0030	7/32 0·0028	3/16 0·0025	5/32 0·0023	5/32 0·0021
3	1½ 0·0207	1 0·0138	¾ 0·0103	19/32 0·0084	½ 0·0069	7/16 0·0059	⅜ **0·0052**	11/32 0·0046	5/16 0·0042	9/32 0·0037	¼ 0·0035	7/32 0·0032
4	2 0·0276	1 14/32 0·0184	1 0·0138	13/16 0·0112	21/32 0·0092	9/16 0·0079	½ **0·0069**	7/16 0·0061	13/32 0·0056	11/32 0·0049	11/32 0·0046	5/16 0·0043
5	2½ 0·0345	1 21/32 0·0230	1¼ 0·0172	1 0·0138	27/32 0·0115	23/32 0·0099	⅝ **0·0086**	9/16 0·0076	½ 0·0069	7/16 0·0062	13/32 0·0058	⅜ 0·0054
6	3 0·0414	2 0·0276	1½ 0·0207	1 3/16 0·0166	1 0·0138	27/32 0·0118	¾ **0·0103**	21/32 0·0092	19/32 0·0083	17/32 0·0075	½ 0·0069	15/32 0·0064
7	3½ 0·0484	2 11/32 0·0323	1¾ 0·0242	1 13/32 0·0194	1 5/32 0·0161	1 0·0138	⅞ **0·0121**	25/32 0·0108	11/16 0·0097	⅝ 0·0088	19/32 0·0081	17/32 0·0074
8	4 0·0553	2 21/32 0·0369	2 0·0277	1 19/32 0·0221	1 11/32 0·0184	1 5/32 0·0158	**1** **0·0138**	⅞ 0·0123	13/16 0·0111	23/32 0·0101	21/32 0·0092	⅝ 0·0085
9	4½ 0·0622	3 0·0415	2¼ 0·0311	1 13/16 0·0249	1½ 0·0207	1 9/32 0·0178	1⅛ **0·0156**	1 0·0138	29/32 0·0124	13/16 0·0113	¾ 0·0104	11/16 0·0096
10	5 0·0691	3 11/32 0·0461	2½ 0·0345	2 0·0277	1 21/32 0·0230	1 7/16 0·0198	1¼ **0·0173**	1 3/16 0·0154	1 0·0138	29/32 0·0126	27/32 0·0115	25/32 0·0106
11	5½ 0·0761	3 11/16 0·0507	2¾ 0·0380	2 3/16 0·0304	1 27/32 0·0254	1 19/32 0·0219	1⅜ **0·0190**	1 7/32 0·0169	1 3/32 0·0152	1 0·0138	29/32 0·0127	27/32 0·0117
12	6 0·0830	4 0·0553	3 0·0415	2 13/32 0·0332	2 0·0277	1 23/32 0·0237	1½ **0·0207**	1 11/32 0·0184	1 3/16 0·0166	1 3/32 0·0151	1 0·0138	15/16 0·0128

Overall difference in points	Total number of casts in strip											
	14	15	16	17	18	19	20	21	22	23	24	25
½	1/32 0·0005	1/32 0·0005	1/32 **0·0004**	1/32 0·0004	1/32 0·0004	1/32 0·0004	1/32 0·0004	1/32 0·0003	1/32 0·0003	1/32 0·0003	1/32 0·0003	1/32 0·0003
1	1/16 0·0010	1/16 0·0009	1/16 **0·0009**	1/16 0·0008	1/16 0·0008	1/16 0·0007	1/16 0·0007	1/32 0·0006	1/32 0·0006	1/32 0·0006	1/32 0·0006	1/32 0·0006
2	5/32 0·0020	1/8 0·0019	1/8 **0·0017**	1/8 0·0016	3/32 0·0015	3/32 0·0014	3/32 0·0014	3/32 0·0013	3/32 0·0012	3/32 0·0012	3/32 0·0011	3/32 0·0011
3	7/32 0·0030	7/32 0·0028	3/16 **0·0026**	3/16 0·0025	5/32 0·0023	5/32 0·0022	5/32 0·0021	5/32 0·0020	1/8 0·0019	1/8 0·0018	1/8 0·0017	1/8 0·0017
4	9/32 0·0039	9/32 0·0037	1/4 **0·0035**	1/4 0·0033	7/32 0·0031	7/32 0·0029	3/16 0·0027	3/16 0·0026	3/16 0·0025	3/16 0·0024	5/32 0·0023	5/32 0·0022
5	11/32 0·0049	11/32 0·0046	5/16 **0·0043**	9/32 0·0041	9/32 0·0038	1/4 0·0036	1/4 0·0034	1/4 0·0033	7/32 0·0031	7/32 0·0030	7/32 0·0028	7/32 0·0028
6	7/16 0·0059	13/32 0·0055	3/8 **0·0052**	11/32 0·0049	11/32 0·0046	5/16 0·0043	9/32 0·0041	9/32 0·0039	9/32 0·0038	1/4 0·0036	1/4 0·0034	1/4 0·0033
7	1/2 0·0069	15/32 0·0065	7/16 **0·0061**	13/32 0·0057	13/32 0·0054	3/8 0·0051	11/32 0·0048	11/32 0·0046	5/16 0·0044	5/16 0·0042	9/32 0·0040	9/32 0·0039
8	9/16 0·0079	17/32 0·0074	1/2 **0·0069**	15/32 0·0065	7/16 0·0061	13/32 0·0058	13/32 0·0055	3/8 0·0053	3/8 0·0052	11/32 0·0048	11/32 0·0046	5/16 0·0044
9	21/32 0·0089	19/32 0·0083	9/16 **0·0078**	17/32 0·0073	1/2 0·0069	15/32 0·0065	7/16 0·0062	7/16 0·0059	13/32 0·0056	13/32 0·0054	3/8 0·0052	3/8 0·0050
10	23/32 0·0099	21/32 0·0092	5/8 **0·0086**	19/32 0·0081	9/16 0·0077	17/32 0·0073	1/2 0·0069	15/32 0·0066	15/32 0·0063	7/16 0·0060	13/32 0·0058	13/32 0·0055
11	25/32 0·0109	23/32 0·0101	11/16 **0·0095**	21/32 0·0089	5/8 0·0085	19/32 0·0080	9/16 0·0076	17/32 0·0072	1/2 0·0069	15/32 0·0066	7/16 0·0063	7/16 0·0061
12	27/32 0·0119	13/16 0·0111	3/4 **0·0104**	23/32 0·0098	21/32 0·0092	5/8 0·0087	19/32 0·0083	9/16 0·0079	17/32 0·0075	17/32 0·0072	1/2 0·0069	15/32 0·0066

Product information table

For 'Monotype' Super Casters equipped with Varigear

	Leads and rules				Leads, rules and borders				
	1pt	1½pt	2pt	3pt	4pt	6pt	8pt	12pt	18pt
Speed r.p.m.	130	125	100	85	70	55	40	25	20
Temperature °F	720	700	675	625	700	650	650	625	625
Temperature °C	382	371	357	329	371	343	343	329	329
Water flow	small	small	small	small	medium	medium	medium	medium	medium
Cam lever extension	12/1/1½	12/1/1½	12/2/4	12/2/4	12/2/4	12/6	12/6	12/12	12/18
Mould blade connecting tube	leads	leads	leads	leads	leads	leads	leads	leads	leads
Fulcrum eccentric pin	1–3L/R	1–3L/R	1–3L/R	1–3L/R	42–72	42–72	42–72	42–72	42–72
Plunger spring pressure	zero	zero	zero	zero	slight	slight	slight	slight	fair
Stop lever handle	leads	leads	leads	leads	leads	leads	leads	leads	leads
Latch trip plates (upper)	—	—	—	—	6	4	4	4	2
Spring rod stop plates (lower)	—	—	—	—	1	2	2	3	4
Latch spring	out	out	out	out	in	in	in	in	in
Nozzle number	10	10	10	10	11	11	11	8	8
Clearing drill diam. (top)	1/16"	1/16"	1/16"	1/16"	0·082	0·082	0·082	0·120	0·120
Clearing drill diam. (bottom)	0·180	0·180	0·180	0·180	0·152	0·152	0·152	0·120	0·120
Nozzle seating and timing	out	out	out	out	out	out	out	out	in
Pump body	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1¼"	1¼"
Piston required 7/8"	long	long	long	long	long	short	short	—	—
Pump body lifting spring plate hole	bottom	bottom	bottom	bottom	top	top	top	top	top
Duplex spring compression	2¾"	2½"	1½"	1½"	2"	2"	2"	2"	2"
Air	no	no	no	no	no	no	no	no	no
Type channel block	no	no	no	no	no	no	no	no	no
Matrix head locating key	—	—	—	—	—	—	—	—	—
Mould water way	leads, rules & furniture				leads, rules & furniture				

The value of some of the information in this table represents only recommended averages: variations in local conditions and requirements significantly affect the factors upon which it is based.

For 'Monotype' Super Casters equipped with Varigear

	†Duplex			†Triplex	†Composition type				
	14pt	**16pt**	**18pt**	**24pt**	**6,7,8pt**	**9,10,11pt**	**12pt**	**13pt**	**14pt**
Speed r.p.m.	130	125	110	90	160	150	130	130	130
Temperature °F	700	700	700	700	700	700	675	675	675
Temperature °C	371	371	371	371	371	371	357	357	357
Water flow	medium	medium	medium	medium	small	small	small	medium	medium
Cam lever extension	24	24	24	24	12	12	12	12	12
Mould blade connecting tube	42	42	42	42	42	42	42	42	42
Fulcrum eccentric pin	5/36	5/36	5/36	5/36	5/36	5/36	5/36	5/36	5/36
Plunger spring pressure	slight	slight	slight	slight	zero	zero	zero	zero	slight
Stop lever handle	16	16	16	16	16	16	16	16	16
Latch trip plates (upper)	6	6	6	6	—	—	—	—	—
Spring rod stop plates (lower)	1	1	1	1	—	—	—	—	—
Latch spring	in	in	in	in	out	out	out	out	out
Nozzle number	2	2	2	2	16	1	1	1	1
Clearing drill diam. (top)	0·120	0·120	0·120	0·120	0·062	0·062	0·062	0·062	0·062
Clearing drill diam. (bottom)	0·120	0·120	0·120	0·120	0·093	0·120	0·120	0·120	0·120
Nozzle seating and timing	out	out	out	out	out	out	out	out	out
Pump body	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″
Piston required $\frac{7}{8}$″	short	short	short	short	long	long	long	long	long
Pump body lifting spring plate hole	top	top	top	top	bottom	bottom	bottom	bottom	bottom
Duplex spring compression	$\frac{3}{4}$″	$\frac{3}{4}$″	$\frac{3}{4}$″	1″	nil	$\frac{1}{4}$″	$\frac{1}{2}$″	$\frac{1}{2}$″	$\frac{1}{2}$″
Air	yes	yes	yes	yes	yes	yes	yes	yes	yes
Type channel block	14–72 solid type			14–72 solid type	5–13	5–13	5–13	5–13	5–13
Matrix head locating key	5½–36	5½–36	5½–36	5½–36	5½–36	5½–36	5½–36	5½–36	5½–36
Mould water way	AB	AB	AB	AB	AB	AB	AB	AB	AB

†*Based on the half em body*

The value of some of the information in this table represents only recommended averages: variations in local conditions and requirements significantly affect the factors upon which it is based.

Product information table (continued)

For 'Monotype' Super Casters equipped with Varigear

	†Display type										
	14pt	**16pt**	**18pt**	**24pt**	**28pt**	**30pt**	**36pt**	**42pt**	**48pt**	**60pt**	**72pt**
Speed r.p.m.	125	110	100	55	45	35	25	20	15	10	8
Temperature °F	670	650	645	640	640	635	630	625	615	610	610
Temperature °C	354	343	340	337	337	335	332	329	323	321	321
Water flow	medium	medium	medium	medium	medium	medium	medium	large	large	large	large
Cam lever extension	24	24	24	24	24	36	36	48	48	60	72
Mould blade connecting tube	42	42	42	42	42	42	42	according to set			
Fulcrum eccentric pin	5/36	5/36	5/36	5/36	5/36	5/36	5/36	42/72	42/72	42/72	42/72
Plunger spring pressure	slight	slight	slight	slight	slight	slight	slight	fair	fair	fair	fair
Stop lever handle	16	16	16	16	16	16	16	16	16	16	16
Latch trip plates (upper)	6	6	6	6	6	6	5	6	4	3	3
Spring rod stop plates (lower)	1	1	1	1	1	1	2	2	2	3	4
Latch spring	in	in	in	in	in	in	in	in	in	in	in
Nozzle number	2	2	2	2	2	2	2	5‡	5‡	5‡	5‡
Clearing drill diam. (top)	0·120	0·120	0·120	0·120	0·120	0·120	0·120	0·213	0·213	0·213	0·213
Clearing drill diam. (bottom)	0·120	0·120	0·120	0·120	0·120	0·120	0·120	0·302	0·302	0·302	0·302
Nozzle seating and timing	out	out	out	out	out	out	out	in	in	in	in
Pump body	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$1\frac{1}{4}$″	$1\frac{1}{4}$″	$1\frac{1}{4}$″	$1\frac{1}{4}$″
Piston required $\frac{7}{8}$″	short	short	short	short	short	short	short	—	—	—	—
Pump body lifting spring plate hole	top	top	top	top	top	top	top	top	top	top	top
Duplex spring compression	$\frac{3}{4}$″	$\frac{3}{4}$″	$\frac{3}{4}$″	1″	1″	$1\frac{1}{4}$″	$1\frac{1}{2}$″	2″	2″	$2\frac{1}{4}$″	3″
Air	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Type channel block	14–72 solid type							40–72 light type			
Matrix head locating key	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	42–72	42–72	42–72	42–72
Mould water way	14–36	14–36	14–36	14–36	14–36	14–36	14–36	42–72	42–72	42–72	42–72

†*Based on the half em body*

‡*For thin spaces use No. 6 Nozzle*

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For 'Monotype' Super Casters equipped with Varigear

	Dashes 16 em (15 cicero ems)				Furniture				
	4pt	**6pt**	**12pt**	**18pt**	**24pt**	**36pt**	**48pt**	**60pt**	**72pt**
Speed r.p.m.	40	30	15	8	12	10	10	9	8
Temperature °F	675	625	600	600	630	630	630	630	630
Temperature °C	357	329	315	315	332	332	332	332	332
Water flow	medium	medium	medium	medium	large	large	large	large	large
Cam lever extension	12/2/4	12/6	12/12	12/18	12/12	12/12	12/12	12/12	12/12
Mould blade connecting tube	dashes	dashes	dashes	dashes	furniture	furniture	furniture	furniture	furniture
Fulcrum eccentric pin	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72
Plunger spring pressure	slight	slight	slight	fair	fair	fair	fair	fair	fair
Stop lever handle	16	16	16	16	13*	13*	13*	13*	13*
Latch trip plates (upper)	6	4	4	2	4	4	3	3	2
Spring rod stop plates (lower)	1	2	3	4	3	3	4	4	4
Latch spring	in	in	in	in	in	in	in	in	in
Nozzle number	11	11	8	8	5	5	5	5	5
Clearing drill diam. (top)	0·082	0·082	0·082	0·120	0·213	0·213	0·213	0·213	0·213
Clearing drill diam. (bottom)	0·152	0·152	0·152	0·120	0·302	0·302	0·302	0·302	0·302
Nozzle seating and timing	out	out	in	in	in	in	in	in	in
Pump body	$\frac{7}{8}$"	$\frac{7}{8}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"
Piston required $\frac{7}{8}$"	short	short	—	—	—	—	—	—	—
Pump body lifting spring plate hole	top	top	top	top	top	top	top	top	top
Duplex spring compression	2"	2"	2"	2"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"
Air	no	no	no	no	no	no	no	no	no
Type channel block	no	no	no	no	no	no	no	no	no
Matrix head locating key	—	—	—	—	—	—	—	—	—
Mould water way	leads, rules & furniture				leads, rules & furniture				

**When using predetermined length furniture mould place stop lever handle at top position*

The value of some of the information in this table represents only recommended averages: variations in local conditions and requirements significantly affect the factors upon which it is based.

Product information table (continued)

For 'Monotype' Super Casters equipped with Varigear

	Foundry furniture (top section)				Mounting material			Two-way mounting material
	36pt	48pt	60pt	72pt	24pt	36pt	48pt	
Speed r.p.m.	12	12	12	10	12	10	10	$5\frac{1}{2}$
Temperature °F	630	630	630	630	630	630	630	585
Temperature °C	332	332	332	332	332	332	332	307
Water flow	large	large	large	large	large	large	large	large
Cam lever extension	12/12	12/12	12/12	12/12	12/12	12/12	12/12	12/12
Mould blade connecting tube	furniture	furniture	furniture	furniture	furniture	furniture	furniture	furniture
Fulcrum eccentric pin	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72
Plunger spring pressure	fair	fair	fair	fair	fair	fair	fair	fair
Stop lever handle	13*	13*	13*	13*	13*	13*	13*	13*
Latch trip plates (upper)	2	2	2	2	2	2	2	1
Spring rod stop plates (lower)	4	4	4	4	4	4	4	4
Latch spring	in	in	in	in	in	in	in	in
Nozzle number	5	5	5	5	5	5	5	5
Clearing drill diam. (top)	0·213	0·213	0·213	0·213	0·213	0·213	0·213	0·213
Clearing drill diam. (bottom)	0·302	0·302	0·302	0·302	0·302	0·302	0·302	0·302
Nozzle seating and timing	in	in	in	in	in	in	in	in
Pump body	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"
Piston required $\frac{7}{8}$"	—	—	—	—	—	—	—	—
Pump body lifting spring plate hole	top	top	top	top	top	top	top	top
Duplex spring compression	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$2\frac{1}{4}$"	$3\frac{3}{4}$"
Air	no	no	no	no	no	no	no	no
Type channel block	no	no	no	no	no	no	no	no
Matrix head locating key	—	—	—	—	—	—	—	—
Mould water way	leads, rules & furniture				leads, rules & furniture			

When using predetermined length furniture mould place stop lever handle at top position

The value of some of the information in this table represents only recommended averages: variations in local conditions and requirements significantly affect the factors upon which it is based.

For 'Monotype' Super Casters equipped with Varigear

	Quotations											
	6×6ems	6×5ems	6×4ems	6×3ems	6×2ems	5×5ems	5×4ems	5×3ems	5×2ems	4×4ems	4×3ems	4×2ems
Speed r.p.m.	4	5	6	8	8	5	6	8	10	8	10	12
Temperature °F	600	600	600	600	600	600	600	600	600	600	600	600
Temperature °C	315	315	315	315	315	315	315	315	315	315	315	315
Water flow	large	large	large	large	large	large	large	large	large	large	large	large
Cam lever extension	72	72	72	72	72	60	60	60	60	48	48	48
Mould blade connecting tube	72–90	48–60	48–60	42	42	48–60	48–60	42	42	48–60	42	42
Fulcrum eccentric pin	42–72	42–72	42–72	5–36	5–36	42–72	42–72	5–36	5–36	42–72	5–36	5–36
Plunger spring pressure	fair	fair	fair	fair	slight	fair	fair	fair	slight	fair	fair	slight
Stop lever handle	16	16	16	16	16	16	16	16	16	16	16	16
Latch trip plates (upper)	3	4	3	4	4	3	4	4	4	4	5	6
Spring rod stop plates (lower)	4	4	3	3	2	4	3	2	2	1	1	1
Latch spring	in	in	in	in	in	in	in	in	in	in	in	in
Nozzle number	5	5	6	6	6	6	6	6	6	4	4	4
Clearing drill diam. (top)	0·213	0·213	0·120	0·120	0·120	0·120	0·120	0·120	0·120	0·213	0·213	0·213
Clearing drill diam. (bottom)	0·302	0·302	0·120	0·120	0·120	0·120	0·120	0·120	0·120	0·213	0·213	0·213
Nozzle seating and timing	in	in	in	in	in	in	in	in	in	in	in	in
Pump body	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$1\frac{1}{4}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"
Piston required $\frac{7}{8}$"	—	—	—	—	—	—	—	—	—	short	short	short
Pump body lifting spring plate hole	top	top	top	top	top	top	top	top	top	top	top	top
Duplex spring compression	$2\frac{1}{2}$"	$2\frac{1}{4}$"	$2\frac{1}{2}$"	$2\frac{1}{4}$"	2"	$2\frac{1}{2}$"	$2\frac{1}{2}$"	$2\frac{1}{4}$"	2"	$1\frac{3}{4}$"	$1\frac{1}{2}$"	$1\frac{1}{2}$"
Air	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Type channel block	36–72	36–72	36–72	36–72	36–72	36–72	36–72	36–72	36–72	36–72	36–72	36–72
Matrix head locating key	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72
Mould water way	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72	42–72

The value of some of the information in this table represents only recommended averages: variations in local conditions and requirements significantly affect the factors upon which it is based.

Product information table (continued)

For 'Monotype' Super Casters equipped with Varigear

	Quad and space									
	5, 6pt§	7, 8pt§	9, 10pt§	11, 12pt§	13, 14pt§	5, 6ptt†	7, 8ptt†	9, 10ptt†	11, 12ptt†	13, 14ptt†
Speed r.p.m.	150	145	140	125	110	75	70	55	45	35
Temperature °F	700	700	700	700	700	700	700	700	675	675
Temperature °C	371	371	371	371	371	371	371	371	357	357
Water flow	medium	medium	medium	medium	medium	medium	medium	medium	medium	medium
Cam lever extension	12	12	12	12	12	12	12	12	12	24
Mould blade connecting tube	42	42	42	42	42	42	42	42	42	42
Fulcrum eccentric pin	5–36	5–36	5–36	5–36	5–36	5–36	5–36	5–36	5–36	5–36
Plunger spring pressure	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero
Stop lever handle	16	16	16	16	16	16	16	16	16	16
Latch trip plates (upper)	—	—	—	—	—	—	—	—	6	6
Spring rod stop plates (lower)	—	—	—	—	—	—	—	—	1	1
Latch spring	out	out	out	out	out	out	out	out	in	in
Nozzle number	16	16	1	1	1	1	1	1	1	1
Clearing drill diam. (top)	0·062	0·062	0·062	0·062	0·062	0·062	0·062	0·062	0·062	0·062
Clearing drill diam. (bottom)	0·093	0·093	0·120	0·120	0·120	0·120	0·120	0·120	0·120	0·120
Nozzle seating and timing	out	out	out	out	out	out	out	out	out	out
Pump body	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"	$\frac{7}{8}$"
Piston required $\frac{7}{8}$"	short	short	short	short	short	short	short	short	short	short
Pump body lifting spring plate hole	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom	bottom
Duplex spring compression	nil	nil	$\frac{1}{4}$"	$\frac{1}{4}$"	$\frac{1}{4}$"	$\frac{1}{4}$"	$\frac{1}{2}$"	$\frac{1}{2}$"	$\frac{1}{2}$"	$\frac{1}{2}$"
Air	no	no	no	no	no	no	no	no	no	no
Type channel block	5–13	5–13	5–13	5–13	5–13	5–13	5–13	5–13	5–13	5–13
Matrix head locating key	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36
Meuld water way	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB

§*Quad* †† *Maximum opening*

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For 'Monotype' Super Casters equipped with Varigear

	†Palace Script and Italic					
	14pt	**18pt**	**24pt**	**30pt**	**36pt**	**42pt**
Speed r.p.m.	95	75	45	25	18	15
Temperature °F	675	670	660	660	650	640
Temperature °C	357	354	349	349	343	337
Water flow	medium	medium	medium	medium	medium	large
Cam lever extension	24	24	24	36	36	48
Mould blade connecting tube	48–60	48–60	48–60	48–60	48–60	48–60‡‡
Fulcrum eccentric pin	5-36	5–36	5–36	5–36	5–36	42–72
Plunger spring pressure	slight	slight	slight	slight	slight	fair
Stop lever handle	16	16	16	16	16	16
Latch trip plates (upper)	6	6	6	6	5	5
Spring rod stop plates (lower)	1	1	1	1	2	2
Latch spring	in	in	in	in	in	in
Nozzle number	2	2	2	2	2	2
Clearing drill diam. (top)	0·120	0·120	0·120	0·120	0·120	0·120
Clearing drill diam. (bottom)	0·120	0·120	0·120	0·120	0·120	0·120
Nozzle seating and timing	out	out	out	out	in	in
Pump body	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″	$\frac{7}{8}$″
Piston required $\frac{7}{8}$″	short	short	short	short	short	short
Pump body lifting spring plate hole	top	top	top	top	top	top
Duplex spring compression	$\frac{3}{4}$″	$\frac{3}{4}$″	$\frac{3}{4}$″	1″	$1\frac{1}{4}$″	$1\frac{1}{2}$″
Air	no	no	no	no	no	no
Type channel block	14–72	14–72	14–72	14–72	14–72	42–72
Matrix head locating key	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36	$5\frac{1}{2}$–36
Mould water way	14–36	14–36	14–36	14–36	14–36	14–36

†Based on the half em body *‡‡72pt hole for blade openings greater than 0·5″*

The value of some of the information in this table represents only recommended averages: variations in local conditions and requirements significantly affect the factors upon which it is based.

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GLOSSARY

The following brief glossary has been compiled to explain the meaning of some unfamiliar words that you may come across in this book, some of which are peculiar to the printing industry.

Capitals — Large form of characters, (sometimes referred to as *upper case*), technically described as majuscule.

Character — Any letter, figure or punctuation mark, including special symbols such as those used in cartography, mathematics, etc.

Cicero — Traditional printer's unit of measure, commonly used in Europe. 1 cicero = 0·1776in (4·511mm) = 12 Didot points.

Clumps — Metal spacing material 6 points and 12 points in thickness.

Composition — Setting up matter, with spaces between the words.

Copy — All manuscript, and other material, supplied to a printer for typesetting.

Didot — A unit of linear measure. It is one twelfth part of a cicero and measures 0·0148in (0·376mm).

Electro (abbr.) — A hard-wearing printing plate made by depositing a film of copper electrolytically on a wax mould taken from type or an original plate. The copper shell is filled with a lead alloy.

Em — A standard of typographic measurement based on a quad 12 points deep by 12 points wide (0·166in × 0·166in), approximately six quads to the inch. When the term refers to overall measure, a 12-set em (1 pica) is inferred.

En — Half an em.

Fount — The complete assortment of type characters of the same design and size. (Generally pronounced *font*.)

Full point — A full stop (punctuation mark).

Furniture — Spacing material of less than type height, used in making margins, etc. for a printed sheet.

Galley — A metal tray on which type is made up, or stored.

Justification — The spacing of words to a given width of line when setting type matter. Purpose: to align type matter at the right-hand margin of a page.

Leaders — A sequence of dots, or dashes, used to direct the eye across the printed page. Generally appearing two, three or more to the em.

Leads — Strips of type alloy (of less than type height) used to increase space between lines of type.

Ligature — Two or more letters joined together, and cast on one body.

Line of a character — An imaginary base-line, running setwise, on (or about) which the character is positioned.

Lower case — The small form of letters, technically described as miniscule where capitals are referred to as majuscule.

Matrix — A metal die from which a single type is cast.

Glossary *(continued)*

Matrix line — The measurement from the line of a character to the opposite edge of a matrix. This applies to 0·2in × 0·2in matrices, and the line for each point size in a typeface is shown on the specimen sheets of 'Monotype' typefaces.

Mould — The cavity into which molten metal is injected to produce the body or shank of the type. The face of the type is produced by a matrix (q.v.) which is individual to the character, and which acts as a temporary part of the mould.

Pica — The traditional printer's unit of measure, it is equal to 12 points and measures 0·166in. Line-lengths are normally expressed as so many picas long.

Point — A unit of measurement for type body size. Seventy-two points very approximately equal one inch, and one point measures 0·0138333in. Abbreviation *pt.*

Quads — Blank type (of less than type height) for use as spaces.

Quotations — Large metal spaces ranging in size from 2 × 4ems to 6 × 6ems. They are usually hollow, and are used for filling blank areas in pages or formes.

Rules — Strips of brass or type alloy (of type height) cast in various point-sizes and lengths.

Set (set width) — The measurement, in points, of the width of an *em* quad.

Setwise (direction) — Horizontally, across the text.

Small capitals — Characters which have the same form as capitals, but are smaller, being produced to the same x-height as the lower-case characters.

Stereo (abbr.) — A lead-based metal plate cast from a papier-mâché matrix (flong) produced from a type forme or original plate.

Tie-up slugs — Metal strips of less than type height, measuring 12 points at top and bottom, but deeply recessed on one side. Placed around the type page, they provide an unbroken external recess in which the pagecord lies without projecting beyond the 12-point metal.

Typeface — A type design which is given a name and series number – e.g. Times New Roman, Series 327.

Type line — The measurement from the line of the character to the top of the type body. This applies to type larger than 14 point, or 14-point type from large-type composition matrices.

Units — A unit of set is a variable dimension, dependent on the set of the fount. The basic unit of set is one eighteenth of 1 point = 0·0007685in, a figure that is used only as a foundation for calculations. One unit of an 8-set fount is therefore 8 × 0·0007685in = 0·006148in. When referring to units, it is essential to stipulate *basic units* or the set of the fount concerned – the expression *10 units* (unspecified) has no meaning, but *10 units of 6 set* (for example) is 0·04611. Note that 6 units of 10 set have the same total width as 10 units of 6 set, as, in each case, 60 basic units are required.

x-height — The height of the lower-case alphabet excluding ascenders and descenders, with x as the standard in any given fount.

FURTHER READING

History

A Chronology of Printing *by Colin Clair*
Cassell

Five Hundred Years of Printing *by S. H. Steinberg*
Penguin

Printing Types: their history, forms and use *by Daniel B. Updike*
Oxford University Press

The Printed Book *by Harry G. Aldis*
Third edition revised by John Carter and Brooke Crutchley
Cambridge University Press

Composing and Typography

Advanced Typography for Students *by E. G. Shepherd,* FRSA
Macdonald and Evans

An Encyclopaedia of Type Faces *by W. Turner Berry, A. F. Johnson and W. P. Jaspert*
Blandford Press

Compositors' Equipment *by Charles L. Pickering*
Pitman

Compositors' Work *by Charles L. Pickering*
Pitman

Compositors' Work in Printing *by H. W. Larken*
Staples

Factors in the Choice of Type Faces *by Geoffrey Dowding*
Wace

Finer Points in the Spacing and Arrangement of Type *by Geoffrey Dowding*
Wace

Introduction to Typography *by Oliver Simon*
Penguin

Letterpress: Composition and Machine Work *by C. A. Hurst and F. R. Lawrence*
Benn

Methods of Book Design *by Hugh Williamson*
Oxford University Press

Modern Printing *by John Southward* (Volume 1)
Charles Skilton Ltd

Typography for Students *by E. G. Shepherd,* FRSA
Macdonald and Evans

Further reading *(continued)*

Style

Authors' and Printers' Dictionary *by F. Howard Collins*
Oxford University Press

Concise Oxford Dictionary
Oxford University Press

Division of Words in Foreign Languages
The Monotype Corporation Ltd

Modern English Usage *by H. W. Fowler*
Oxford University Press

Printed English *by Henry Jacob*
Sylvan Press

Printing Style *by James Jarrett*
Allen and Unwin

Punctuation *by G. V. Carey* with an appendix *by P. G. Burbidge*
Cambridge University Press

Rules for Compositors and Readers at the University Press, Oxford *by Horace Hart*
Oxford University Press

Style for Print and Proof Correction *by R. A. Hewitt*
Blandford Press

'Monotype' Machines

(The following are obtainable from The Monotype Corporation Ltd)

Attachments Booklet; A 'Monotype' Composing Machine Described; 'Monotype' Keyboard Manual; Book of Information; 'Monotype' Composition Caster Manual

Type Metals

An Introduction to Science for Printers *by G. R. Marshall*
Heinemann

Efficient Remelting
Fry's Metal Foundries Ltd

Printing Metals
Fry's Metal Foundries Ltd

Printing Metals: their production, nature and use
Capper Pass, and Son Ltd

Organisation

Organisation and Management: Works *by F. Shackleton*
Pitman

Organisation and Management: Office *by F. Shackleton*
Pitman