



Marking times (reference value) for marking unit 313

Scribe- and dot matrix marking

The following max. marking cycle times were achieved with a marking unit 313 with marking controller EK2-box.

Figure set A:	Figure set B:	Figure set C:
DIN 1451 or OCR-A Scribe marking	HS (High speed = slightly angled figure design) Scribe marking	7 x 5 (dot matrix) Dot matrix marking

Font height	1,8 mm			2 mm			2,5 mm			3 mm			4 mm			5 mm			6 mm			7 mm		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Figure set	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
2 figures	0,43	0,30	0,60	0,42	0,31	0,62	0,43	0,34	0,65	0,49	0,37	0,70	0,53	0,43	0,81	0,62	0,46	0,88	0,67	0,54	0,98	0,71	0,62	1,06
5 figures	1,12	0,79	1,46	1,06	0,82	1,48	1,18	0,92	1,63	1,27	0,99	1,79	1,45	1,17	1,99	1,54	1,29	2,18	1,71	1,46	2,35	1,85	1,59	2,54
10 figures	2,16	1,71	3,23	2,16	1,79	3,30	2,41	1,96	3,58	2,65	2,16	3,94	3,05	2,51	4,40	3,32	2,87	4,85	3,69	3,15	5,22	4,01	3,51	5,58
15 figures single-spaced	3,29	2,48	4,68	3,19	2,60	4,80	3,52	2,88	5,22	3,85	3,16	5,69	4,44	3,66	6,34	4,85	4,11	7,03	5,36	4,58	7,56	5,83	4,97	8,09
30 figures single-spaced	6,50	5,05	9,68	6,45	5,30	9,85	7,09	5,92	10,81	7,83	6,47	11,76	9,00	7,53	13,15									
40 figures single-spaced	8,68	6,72	12,93	8,58	7,06	13,19	9,43	7,87	14,40															
Max. figures / second	4,65	6,67	3,33	4,76	6,45	3,23	4,65	5,88	3,08	4,08	5,41	2,86	3,77	4,65	2,47	3,23	4,35	2,27	2,99	3,70	2,04	2,82	3,23	1,89

Testing environment:

Marking head	Distance (in mm)	Marking pressure (in bar)	Material
Figure set A + B: R12 Figure set C: PD16LS	0,5 1 (1,8 – 3mm FH) & 3 (4 – 7mm FH)	3,0	Steel panel 1mm

Information:

All descriptions are purely marking times –in-feed movements of the marking unit or marking head as well as intermediate movements and movements towards the marking position or return to Home position are not included. Possibly these values cannot be achieved because of the font parameters, distance of the needle and/or large marking depth. The marking times are reference values. Binding time specifications are only made by marking trial with an original workpiece. The marking speed can have a significant impact on the marking. The quality of the marking depends also on the built-in situation, rigidity of the marking unit parts, marking position, workpiece geometry and surface of the workpiece.