

- APPENDIX 11 -

PRINTABILITY GAUGE - DETERMINING THE MAGNIFICATION FACTOR AND BAR-WIDTH REDUCTION ON THE BASIS OF THE PRINTABILITY RANGE

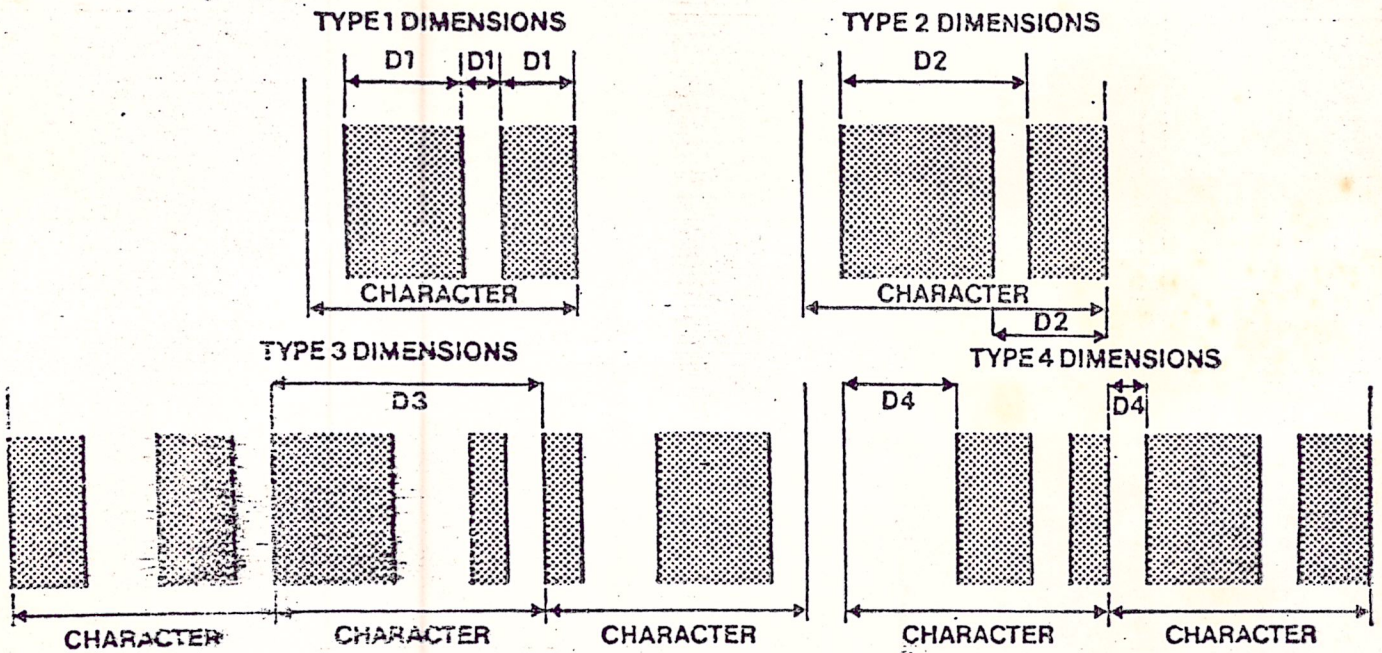
**TABLE 2
FLEXOGRAPHY**

**TABLE 1
PRINTING TECHNIQUES
OTHER THAN FLEXOGRAPHY**

PRINTABILITY RANGE	MAGNIFICATION FACTOR	BAR-WIDTH REDUCTION mm
E-F	1.00	0.28 (+ 0 - 0.08)
E-G	1.00	0.25 (+ 0.02 - 0.05)
E-H	1.20	0.23 (+ 0.05 - 0.02)
E-I	1.30	0.2 (+ 0.05)
E-J	1.40	0.18 (± 0.02)
E-K	1.50	0.16 (+ 0.05 - 0.02)
F-G	0.90	0.23 (+ 0.01 - 0.05)
F-H	1.00	0.2 (± 0.05)
F-I	1.20	0.18 (+ 0.05 - 0.02)
F-J	1.25	0.15 (± 0.02)
F-K	1.30	0.14 (± 0.02)
G-H	0.90	0.18 (+ 0.02 - 0.05)
G-I	1.00	0.15 (± 0.05)
G-J	1.10	0.13 (+ 0.02 - 0.05)
G-K	1.20	0.11 (+ 0.05 - 0.02)
H-I	0.90	0.13 (+ 0.02 - 0.05)
H-J	0.95	0.10 (± 0.02)
H-K	1.00	0.09 (± 0.02)
I-J	0.90	0.08 (+ 0.02)
I-K	0.90	0.06 (± 0.02)
J-K	0.80	0.04 (± 0.02)

PRINTABILITY RANGE	BAR-WIDTH REDUCTION mm	MAGNIFICATION FACTOR
A-B	0.2 (± 0.05)	2.00
A-C	0.2 (± 0.05)	1.90
A-D	0.2 (± 0.05)	1.85
A-E	0.2 (± 0.05)	1.80
A-F	0.23 (± 0.02)	1.70
A-G	0.2 (± 0.02)	1.60
A-H	0.18 (± 0.02)	1.80
A-I	0.15 (± 0.02)	2.00
B-C	0.2 (± 0.05)	1.85
B-D	0.2 (± 0.05)	1.80
B-E	0.2 (± 0.05)	1.70
B-F	0.2 (± 0.02)	1.60
B-G	0.2 (± 0.02)	1.55
B-H	0.18 (± 0.02)	1.60
B-I	0.15 (± 0.02)	1.80
C-D	0.2 (± 0.05)	1.70
C-E	0.18 (± 0.05)	1.60
C-F	0.18 (± 0.05)	1.55
C-G	0.18 (± 0.05)	1.45
C-H	0.18 (± 0.02)	1.45
C-I	0.15 (± 0.02)	1.60
D-E	0.18 (± 0.05)	1.55
D-F	0.18 (± 0.05)	1.45
D-G	0.18 (± 0.05)	1.40
D-H	0.2 (± 0.02)	1.30
D-I	0.15 (± 0.02)	1.45
E-F	0.18 (± 0.05)	1.40
E-G	0.18 (± 0.05)	1.30
E-H	0.18 (± 0.02)	1.20
E-I	0.15 (± 0.02)	1.30
F-G	0.15 (± 0.05)	1.20
F-H	0.15 (± 0.05)	1.15
F-I	0.15 (± 0.02)	1.15
G-H	0.15 (± 0.05)	1.10
G-I	0.15 (± 0.05)	1.00
H-I	0.15 (± 0.02)	0.90

TOLERANCES TO BE RESPECTED BY IN-STORE MARKING EQUIPMENT

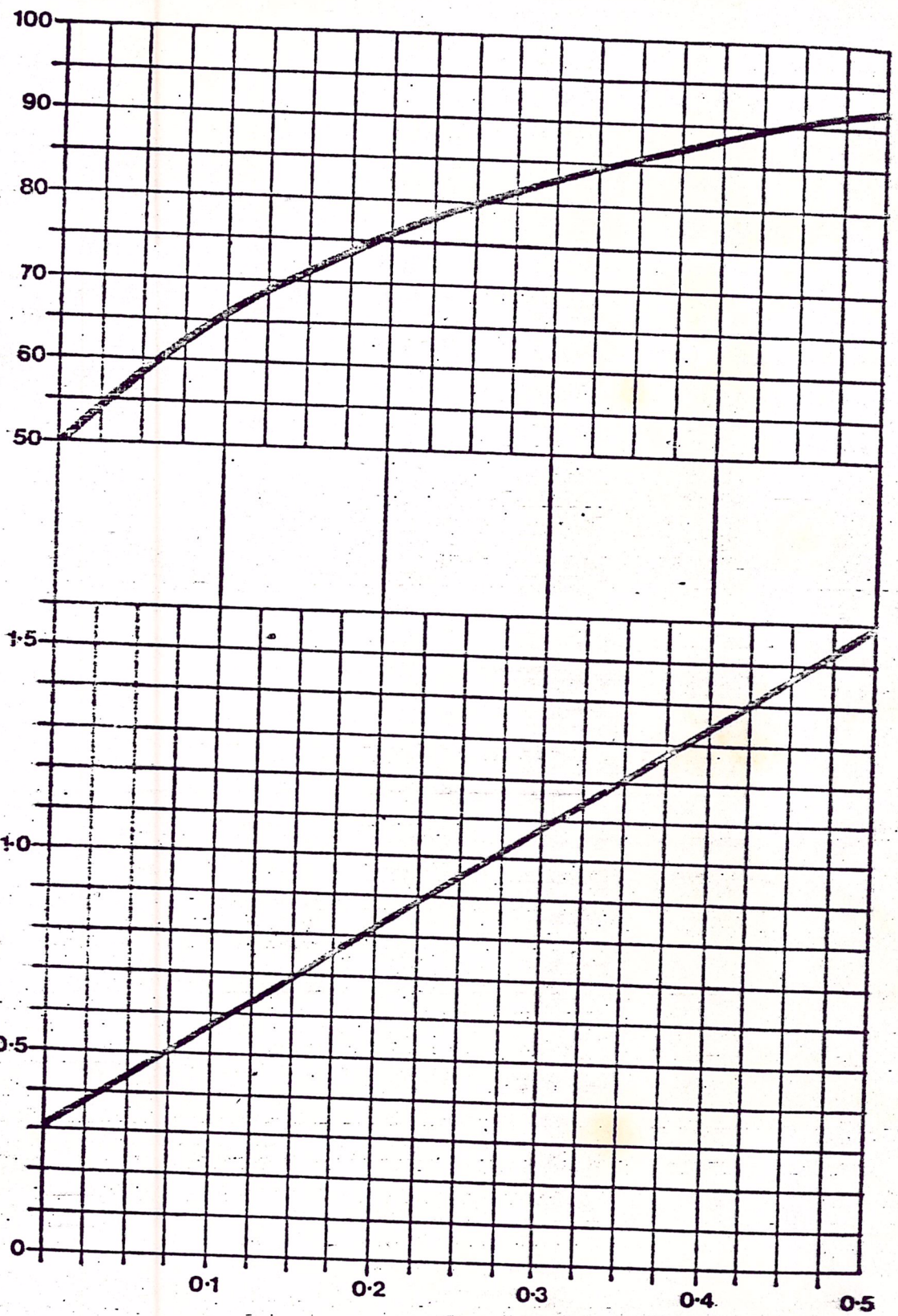


DIMENSION TOLERANCES - TYPES 1, 2 AND 3

MAGNIFICATION FACTOR	MODULE WIDTH (MM)	TOLERANCE D1 (MM)	TOLERANCE D2 (MM)	TOLERANCE D3 (MM)
0.80	0.26	± 0.032	± 0.038	± 0.075
0.85	0.28	± 0.052	± 0.041	± 0.081
0.91	0.30	± 0.072	± 0.044	± 0.087
0.97	0.32	± 0.092	± 0.047	± 0.093
1.00	0.33	± 0.101	± 0.049	± 0.096
1.03	0.34	± 0.105	± 0.050	± 0.099
1.09	0.36	± 0.115	± 0.053	± 0.104
1.15	0.38	± 0.124	± 0.056	± 0.110
1.21	0.40	± 0.134	± 0.059	± 0.116
1.27	0.42	± 0.143	± 0.062	± 0.122
1.33	0.44	± 0.152	± 0.065	± 0.128
1.39	0.46	± 0.162	± 0.068	± 0.133
1.45	0.48	± 0.171	± 0.071	± 0.139
1.51	0.50	± 0.181	± 0.073	± 0.145
1.58	0.52	± 0.190	± 0.076	± 0.151
1.64	0.54	± 0.199	± 0.079	± 0.157
1.70	0.56	± 0.209	± 0.082	± 0.162
1.76	0.58	± 0.218	± 0.085	± 0.168
1.81	0.60	± 0.228	± 0.088	± 0.174
1.88	0.62	± 0.237	± 0.091	± 0.180
1.94	0.64	± 0.246	± 0.094	± 0.186

DENSITY AND PCS

MINIMUM
PCS



MINIMUM
"DARK BAR"
DENSITY

"LIGHT" BACKGROUND DENSITY

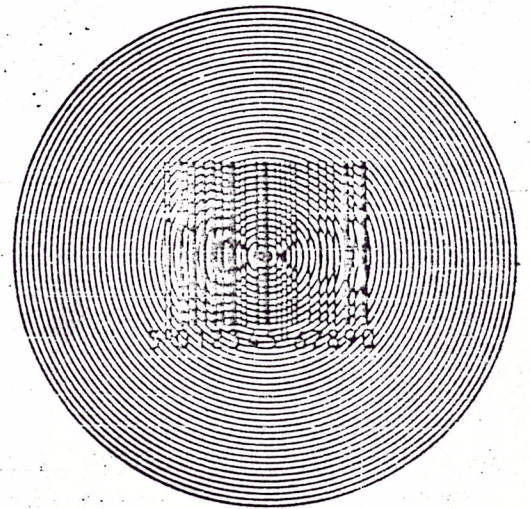
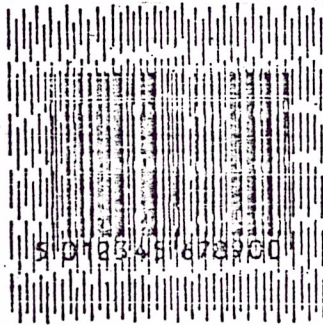
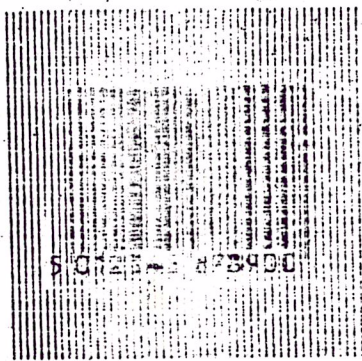
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DENSITY, REFLECTANCE FACTOR AND PCS

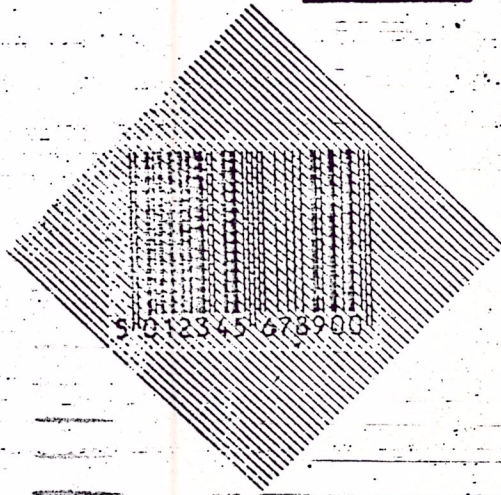
LIGHT BACKGROUND		DARK BARS		MINIMUM PCS $\frac{R_L - R_D}{R_L}$
D	R _L	D	R _D	
0	100.0	.300	50.1	.499
.025	94.4	.365	43.1	.543
.050	89.1	.430	37.1	.583
.075	84.1	.495	32.0	.619
.100	79.4	.560	27.6	.653
.125	74.9	.625	23.7	.683
.150	70.8	.690	20.4	.712
.175	66.8	.755	17.6	.737
.200	63.1	.820	15.1	.760
.250	56.2	.950	11.2	.801
.275	53.1	1.015	9.6	.818
.300	50.1	1.080	8.3	.834
.325	47.3	1.145	7.2	.849
.350	44.7	1.210	6.2	.862
.375	42.2	1.275	5.3	.874
.400	39.9	1.340	4.6	.886
.425	37.5	1.405	3.9	.896
.450	35.5	1.470	3.4	.904
.475	33.5	1.535	2.9	.914
.500	31.6	1.600	2.5	.921

APPENDIX 15

PATTERNS WHICH DO OBSCURE THE SYMBOL



PATTERNS WHICH DO NOT OBSCURE THE SYMBOL



- APPENDIX 16 -

**POSITIONING THE SYMBOL ON PACKAGES
- CONSTRAINTS REGARDING CURVE DIAMETER**

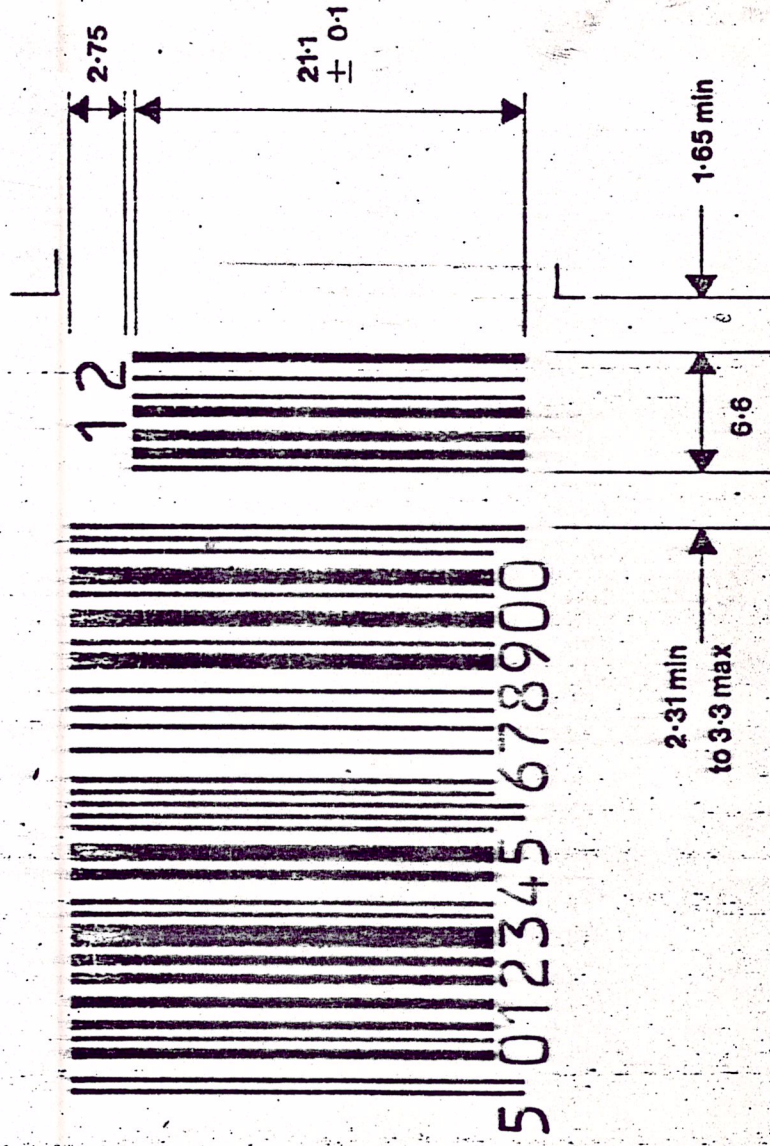
CURVE DIAMETER OF CONTAINER (cm)	MAXIMUM VALUE OF MAGNIFICATION FACTOR	
	FULL-SIZE SYMBOL EAN-13	SHORT-SIZE SYMBOL EAN-8
3 cm and -	*	*
3.5 cm	*	0.83
4 cm	*	0.95
4.5 cm	*	1.07
5 cm	0.83	1.18
5.5 cm	0.92	1.30
6 cm	1	1.42
6.5 cm	1.08	1.54
7 cm	1.17	1.66
7.5 cm	1.25	1.78
8 cm	1.34	1.90
8.5 cm	1.42	2
9 cm	1.5	2
9.5 cm	1.59	2
10 cm	1.67	2
10.5 cm	1.75	2
11 cm	1.84	2
11.5 cm	1.92	2
12 cm and +	2	2

* The magnification factor necessary for the 30° constraint to be respected is smaller than acceptable standards permit (less than 0.8).

Hence the symbol will have to be pivoted through an angle of 90° or be printed in another location.

— APPENDIX 17 —

DIMENSIONS OF 2-DIGIT ADD-ON SYMBOL
NOMINAL SIZE
MINIMUMS
(1 MODULE = 0.33mm WIDE)



(For dimensions only, Number sets incorrect)

— APPENDIX 18 —

DIMENSIONS OF 3-DIGIT ADD-ON SYMBOL

NOMINAL SIZE

in millimetres

(1 MODULE = 0.33mm wide)

