

Printing capabilities of small character inkjet printers



9000 Series ■ ■ ■



Marking and coding ■ ■ ■

The continuous inkjet technology prints best before dates, logos, alphanumeric text and 1D and 2D barcodes for food, beverage, pharmaceutical, cosmetic, electronic, cable and extrusion industries.

Performance ■ ■ ■

Printhead – Single or twin-jet printhead. Single or dual printhead systems. Three printing resolutions: G head (71 dpi), M head (115 dpi) and P head (178 dpi).

Message – Up to 8 lines of text. Font sizes from 5 dots to two 24-dot lines. Character height from 0.7 mm to 18.2 mm.

Print speed – Up to 5.5 m/s (1,090 ft/min)

Alphabets – Wide selection of characters (Latin, Eastern Europe, Arabic, Cyrillic, Greek, Japanese, Chinese, Hebrew, Korean, etc.)

Substrates – Printing on several types of substrates like plastics, glass, metal, cardboard and directly onto food.

Inks – Wide choice of black and colored inks (ketone/alcohol/water-based) designed for general purposes as well as very specific applications.



markem·image

the team to trust ■ ■ ■

How to read the chart ■ ■ ■

Speed modes

The chart presents 2 modes:

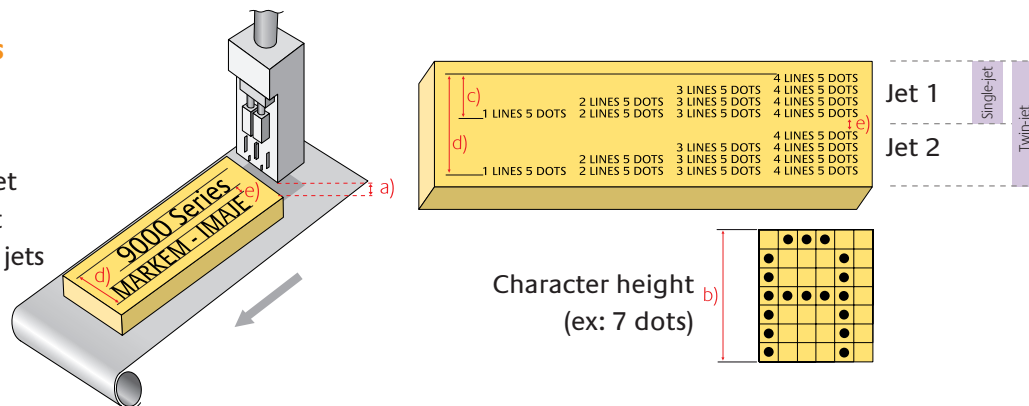
- Standard speed mode for the best balance between printing quality and printing speed
- High speed mode for the best printing speed

Other printing speeds available on demand. Please contact your local sales representative.

Message characteristics

- a) Head / Object distance
- b) Character height (dot)
- c) Message height, single-jet
- d) Message height, twin-jet
- e) Minimum space between jets

Example: twin-jet



G head – Printing resolution: 2.8 dots/mm (71 dpi) ■ ■ ■

Speed mode	Head / Object distance (a)	Character height (dot) (b)	No. of lines per jet	Message height (mm)		Max printing speed		Algorithm no.	9020 **	9030 9030 IP65	9040 9040 IP65 9040 Contrast
				Single-jet (c)	Twin-jet * (d)	m/s	feet/min				
Standard speed	10 mm	5	1	1.8	11.3	1.860	366.14	93	•	•	•
		5	2	3.9	13.4	0.930	183.07	94	•	•	•
		5	3	6.5	16	0.558	109.84	212	•	•	•
		5	4	8.7	18.2	0.372	73.23	12	•	•	•
		7	1	2.6	12.1	1.395	274.61	4	•	•	•
		7	2	5.8	15.3	0.657	129.33	96	•	•	•
		7	3	8.7	18.2	0.372	73.23	12	•	•	•
		9	1	3.2	12.7	1.116	219.69	19	•	•	•
		9	2	7.9	17.4	0.429	84.45	97	•	•	•
		11	1	3.9	13.4	0.930	183.07	20	•	•	•
		11	2	8.7	18.2	0.372	73.23	12	•	•	•
		16	1	5.8	15.3	0.603	118.70	5	•	•	•
		16	1	5.8	15.3	0.698	137.40	294	•	•	•
		24	1	8.7	18.2	0.372	73.23	12	•	•	•
		24	1	8.7	18.2	0.465	91.54	280	•	•	•
	30 mm	5	1	1.8	11.3	0.970	190.94	13	•	•	•
		7	1	2.6	12.1	0.970	190.94	13	•	•	•
		7	2	5.8	15.3	0.392	77.17	14	•	•	•
		11	1	3.9	13.4	0.392	77.17	14	•	•	•
		16	1	5.8	15.3	0.392	77.17	14	•	•	•
High speed	10 mm	24	1	8.7	18.2	0.372	73.23	51	•	•	•
		5 ⁽¹⁾	1	1.8	11.3	5.580	1098.43	32	•	•	•
		5 ⁽³⁾	1	1.8	11.3	4.464	878.74	1	•	•	•
		5	2	3.9	13.4	2.029	399.41	48	•	•	•
		5	3	6.8	16.3	1.395	274.61	30	•	•	•
		5	4	8.7	18.2	0.930	183.07	41	•	•	•
		7 ⁽²⁾	1	2.6	12.1	3.720	732.28	31	•	•	•
		7 ⁽³⁾	1	2.6	12.1	3.189	627.76	2	•	•	•
		7	2	5	14.5	1.488	292.91	47	•	•	•
		7	3	8.7	18.2	1.015	199.80	40	•	•	•
		7	4	9	-	0.603	118.70	50	•	•	•
		9	1	3.2	12.7	2.232	439.37	46	•	•	•
		9	2	7.9	17.4	1.116	219.69	86	•	•	•
		11	1	3.9	13.4	1.860	366.14	11	•	•	•
		11	2	8.7	18.2	0.797	156.89	43	•	•	•
		16	1	5.8	15.3	1.313	258.46	3	•	•	•
		18	1	6.5	16	1.175	231.30	208	•	•	•
		20	1	7.2	15.2	0.893	175.79	216	•	•	•
		24	1	8.7	18.2	0.797	156.89	43	•	•	•

(1) 4-dot full raster

(2) 6-dot full raster

(3) Recommended for pigmented inks

* Minimum space between jets: 0.8 mm (e)

** Available on single-jet only

M head - Printing resolution: 4.5 dots/mm (115 dpi) ■ ■ ■

Speed mode	Head/ Object distance (a)	Character height (dot) (b)	No. of lines per jet	Message height (mm)		Max printing speed		Algorithm no.	9030 9030 IP65	9040 9040 IP65 9040 Contrast	9040 S**
				Single-jet (c)	Twin-jet * (d)	m/s	feet/min				
Standard speed	8 mm	5	1	1.1	10.6	1.684	331.50	61	•	•	
		5	2	2.6	12.1	0.529	104.13	200	•	•	
		5	3	3.8	13.3	0.349	68.70	227	•	•	
		5	4	5.3	14.9	0.237	46.65	16	•	•	
		7	1	1.6	11.1	0.805	158.46	8	•	•	
		7	2	3.6	13.1	0.394	77.56	201		•	
		7	3	5.3	14.9	0.237	46.65	16	•	•	
		9	1	2	11.5	0.639	125.79	21		•	
		9	2	5.3	14.9	0.237	46.65	16	•	•	
		11	1	2.5	12	0.529	104.13	22	•	•	
		11	2	5.3	14.9	0.237	46.65	16	•	•	
		16	1	3.6	13.1	0.370	72.83	9	•	•	
		24	1	5.3	14.9	0.237	46.65	16	•	•	
	20 mm	5	1	1.1	10.6	0.579	113.98	17	•	•	
		7	1	1.6	11.1	0.579	113.98	17	•	•	
		7	2	3.6	13.1	0.237	46.65	23	•	•	
		11	1	2.5	12	0.386	75.98	18	•	•	
		16	1	3.6	13.1	0.237	46.65	23	•	•	
		24	1	5.3	14.9	0.237	46.65	23	•	•	
High speed	8 mm	5 ⁽¹⁾	1	1.8	11.3	5.952	1171.65	45	•	•	
		5 ⁽⁵⁾	1	1.2	10.7	3.703	728.94	42	•	•	
		5 ⁽⁴⁾	1	1.2	10.7	3.086	607.48	6	•	•	
		5 ⁽¹⁾	2	1.8	11.3	2.289	450.59	49	•	•	
		5	3	3.8	13.3	0.926	182.28	35	•	•	
		5	4	5.3	14.9	0.712	140.16	37	•	•	
		7 ⁽¹⁾	1	2.6	12.1	3.720	732.28	44	•	•	
		7 ⁽¹⁾	1	2.6	12.1	4.252	837.01	79		•	
		7 ⁽²⁾	1	1.6	11.1	2.646	520.87	33	•	•	
		7 ⁽⁴⁾	1	1.6	11.1	2.315	455.71	7	•	•	
		7 ⁽³⁾	1	2.4	5.8	2.778	546.85	87			•
		7 ⁽¹⁾	2	5.3	14.9	1.750	344.48	204		•	
		7	3	5.3	14.9	0.712	140.16	36	•	•	
		7	4	6	-	0.378	74.41	53		•	
		9	1	2.5	12	1.425	280.51	15	•	•	
		9	2	5.3	14.9	0.597	117.52	38	•	•	
		11	1	2.5	12	1.425	280.51	15	•	•	
		11 ⁽¹⁾	1	3.9	13.4	1.860	366.14	81		•	
		11	2	5.3	14.9	0.597	117.52	38	•	•	
		16	1	3.6	13.1	0.975	191.93	10	•	•	
		16 ⁽¹⁾	1	5.8	15.3	1.098	216.14	82		•	
		18	1	4	13.5	0.926	182.28	214		•	
		24	1	5.3	14.9	0.597	117.52	38	•	•	

(1) Vertical resolution: 2.8 dots/mm

(2) 6-dot full raster

(3) Head-object distance: 14 mm

(4) Recommended for pigmented inks

(5) 4-dot full raster

* Minimum space between jets: 4.2 mm (e)

** Available on twin-jet only

P head - Printing resolution: 7 dots/mm (178 dpi) ■ ■ ■

Speed mode	Head/ Object distance (a)	Character height (dot) (b)	No. of lines per jet	Message height (mm) (c)	Max printing speed		Algorithm no.	9040
					m/s	feet/min		
Standard speed	6 mm	5	1	0.7	1.05	206.69	88	•
		5	2	1.6	0.51	100.39	91	•
		5	3	3.5	0.39	76.38	274	•
		5	4	3.5	0.29	57.68	275	•
		7	1	1	0.78	152.76	89	•
		7	2	2.3	0.36	70.28	92	•
		7	3	3.5	0.28	54.92	273	•
		9	1	1.3	0.62	121.26	90	•
		9	2	3.5	0.23	45.08	72	•
		11	1	1.6	0.51	100.39	91	•
		11	2	3.5	0.23	45.08	72	•
		16	1	2.3	0.36	70.28	92	•
High speed	6 mm	24	1	3.5	0.23	45.08	72	•
		5	1	0.7	1.79	351.57	62	•
		5	2	1.6	0.89	175.79	67	•
		5	3	2.4	0.60	117.13	68	•
		5	4	3.7	0.45	87.80	69	•
		7	1	1	1.28	251.18	63	•
		7	2	2.3	0.64	125.59	70	•
		7	3	3.7	0.43	83.66	71	•
		9	1	1.3	0.99	195.28	64	•
		11	1	1.6	0.81	159.84	65	•
		16	1	2.3	0.56	109.84	66	•
		24	1	3.4	0.23	45.08	72	•

P head, available on 9040 single-jet version only

Printing examples of G, M and P heads ■ ■ ■

G head

1 cm (0,39")

0.5 cm (0,19")

0

24 DOTS 16 DOTS 11 DOTS 9 DOTS 7 DOTS 5 DOTS

M head

0.5 cm (0,19")

0

24 DOTS 16 DOTS 11 DOTS 9 DOTS 7 DOTS 5 DOTS

P head

0.5 cm (0,19")

0

24 DOTS 16 DOTS 11 DOTS 7 DOTS 5 DOTS

Alphabets ■ ■ ■

Character height in dots

	5	7	9	11	16	24
Latin	•	•	•	•	•	•
Arabic	•	•	•	•	•	•
Chinese	•	•	•	•	•	•
Russian	•	•	•	•	•	•
Greek	•	•	•	•	•	•
Hebrew	•	•	•	•	•	•
Japanese	•	•	•	•	•	•
Korean	•	•	•	•	•	•
Thai	•	•	•	•	•	•

Japanese

-----原材料名-----

米粉・砂糖・卵黄

賞味期限 08.09.30

製造年月 08.02.15

製造所固有記号 BM36/4

Chinese

生产日期 2012-01-21

保质期 2012-07-20

(LFJ) FOOD 合格

Korean

산책민: 전성진 반장

책임인: 정용마 소장

제조인: 정용마 소장

제조일자: 12.01.21

유통기간: 12.01.20

Arabic

انتاج: ٢٠١٢/٠٩/٠٨

انتهاء: ٢٠١٢/٠٧/٢٠

السعر ٣٢٠ فلس

حليب

Russian

АТА МБГ. 1452

ГОАЕВ АО 12.05.

Hebrew

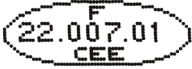
תאריך יצור: 24/1/2010

תוקף עד: 08/3/2010

986536 : מנה ומ

חלב

Printing capabilities ■ ■ ■

2 printing modes	STANDARD SPEED MODE MAX SPEED: 0.60 m/s Standard speed mode, G Head HIGH SPEED MODE MAX SPEED: 1.48 m/s High speed mode, G Head		
3 printing resolutions	2 LINES - 7 DOTS G HEAD - 2.8 DOTS/MM G Head	2 LINES - 7 DOTS M HEAD - 4.5 DOTS/MM M Head	2 LINES - 7 DOTS P HEAD - 7 DOTS/MM P Head
Multi-line	9000 SERIES CIJ PRINTERS 4 LINES - 7 DOTS G HEAD Single-jet, G Head	MANUFACTURED LE 08/09 LE 08/12 BEST BEFORE AVANT LE 08/12 MINDENSTENS HALTBAR BIS 08/12 CONSUMIR ANTES DE Twin-jet, G Head	
Capability to mix different character heights	28/07 16H59 Single-jet	L12 Twin-jet	EXTREME ICE CREAM CHOCOLATE USE BY FEB 13 Twin-jet
Bold characters	7 DOTS BOLD1 7 DOTS BOLD2 7 DOTS BOLD3		
Chimney characters	16 DOTS DIN NID SLOD 2 DIN characters YN3RAA92NART 2TOD 11 11 DOTS INVERSE Transparent message 11 DOTS INVERSE Inversed message		
Reversed characters	16 DOTS DIN NID SLOD 2 DIN characters YN3RAA92NART 2TOD 11 11 DOTS INVERSE Transparent message 11 DOTS INVERSE Inversed message		
Logos	 markem-ima 24 dots / 9 dots, twin-jet	 24 dots, single-jet	 48 dots, twin-jet
Barcodes 2/5 interleaved, Code 39, Code 128, EAN 8, EAN 13, GS1 128, UPCA, UPCE, HIBC, HIBC LIC, ITF 6, ITF 14	 16 dots, 2/5 interleaved  16 dots, code 39  11 dots / 7 dots, EAN 13	 7 dots, 2/5 interleaved  9 dots / 5 dots, UPCA  16 dots / 5 dots GS1 128	
Datamatrix	 16 dots	 24 dots	CIP: 1234567890123 LOT: 876543210 EXP: 09/01/2011 MAN: 09/01/2008

Markem-Imaje offers a wide range of consumables developed to print on all types of substrates. The Markem-Imaje consumables' offering includes a wide choice of RoHS compliant inks: water based, ketone based and alcohol based (methanol free) inks to meet a wide variety of applications from general to very specific printing operations.

Food



Specific applications:
Thermochromic marking
Printing directly on food (FDA)

Beverages



Specific applications:
Washable marking for returnable bottles
High contrast marking on opaque surface

Hygiene and Cosmetics



Specific applications:
Water- and alcohol-resistant marking
Adhesion onto PE packaging without any pre-treatment

Cable and extrusion industries



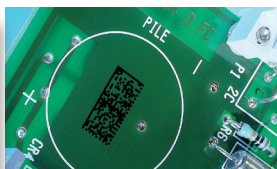
Specific applications:
High contrast marking
Water- and alcohol-resistant marking
Resistant to thermal variations
Non migrating and light fast marking

Pharmaceuticals



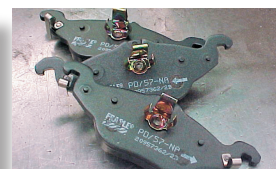
Specific applications:
Non migrating and light fast marking
Marking directly onto tablets

Electronics



Specific applications:
Alcohol-resistant marking
High temperature resistance

Automotive and aerospace industries



Specific applications:
Certified by the leading companies in the sector
Vulcanizing marking

To learn more, visit www.markem-imaje.com