

Uncompromised micro  
print quality for more  
content in less space

Continuous Inkjet

# Videojet® 1620 and 1650 High Resolution Micro Printers



# Videojet High Resolution Continuous Inkjet for micro print applications



When print size is everything and clarity is critical, the Videojet High Resolution (HR) inkjet is built to perform. By delivering uncompromised quality down to the smallest 0.6mm (1/32") print height and speeds of up to 348m/min (1,142fpm), the printer helps guarantee legible codes on even the smallest print areas. Capable of printing up to three lines of print, 2D and linear bar codes, our HR micro printers address demands for more content in less space.

Available in two options; the 1650 HR features our exclusive CLARiTY™ touchscreen interface offering built-in productivity tools to boost OEE. The 1620 HR offers a simple keypad interface that is robust and easy to use.

## Uptime Advantage

- CleanFlow™ technology together, with auto-cleaning printhead, delivers up to 300 hours of operation between printhead cleanings.
- 14,000 hours of run time between planned printer maintenance
- Dynamic Calibration™ adjusts jetting parameters automatically for optimal print quality

## Built-in productivity

- High speed printing of quality codes up to 348m/min (for single line alphanumeric code)
- On-board access to standard OEE metrics backed by actionable data\*
- Recover faster with CLARiTY™ interface one touch fault information\*

## Code Assurance

- High resolution nozzle helps ensure industry's smallest print down to 0.6mm text height
- Precision Ink Drop™ technology provides precise character formation
- CLARiTY™ based user interface helps prevent costly coding mistakes\*

## Simple usability

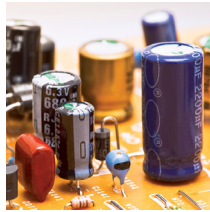
- Modular service core and printhead design make wear parts replacements quick and easy
- Smart Cartridge™ fluid delivery system eliminates mess and ensures correct fluids are used
- Large, responsive 10.4" touchscreen is easy to operate and visible from a distance\*

\*Available on 1650 HR model only

### Advanced Inks for special requirements

Videojet Ink chemists have formulated halogen-free electronics inks to meet stringent standards expected in this industry, while fast drying and other specialist inks provide durability for abrasion, temperature and chemical resistance.

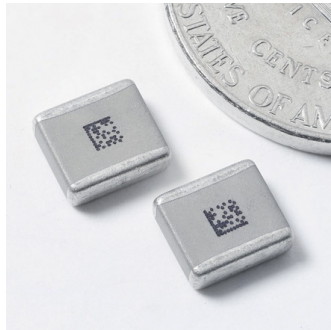
All HR inks can be used on RoHS compliant products (EC 2011/65/EU Annex II) suiting a host of applications including printing on heat sinks, capacitors, connectors and high insulation tapes.



CleanFlow™ technology reduces ink build-up and cleanings



## Micro print nozzle innovation



Our new HR printers feature Videojet Precision Ink Drop™ technology which allows the nozzle to operate at over 100,000 drops per second via the advanced high frequency printhead design. Together with sophisticated software algorithms, this technology modifies the flight path of individual ink drops for optimal code quality.








These printhead enhancements, plus specialized rasters, overcome the print quality challenges inherent in shortened character heights and fast line speeds.

The HR micro printer can print more data with better legibility, at faster line speeds, often in the same, limited print area when compared to traditional micro printing systems.

CleanFlow™ technology reduces ink build-up on nozzle ends, enabling printers to run longer between cleaning intervals.



# High resolution micro print sample guide

Description	Print sample
Single line 4x5	ABCDEFGH abcdefgh 12345 5X4 SINGLE LINE
Single line 5x5	ABCDEFGH abcdefgh 12345 5X5 SINGLE LINE
Single line 5x7	ABCDEFGH abcdefgh 12345 5X7 SINGLE LINE
Single line 7x9	ABCDEFGH abcdefgh 12345 7X9 SINGLE LINE
Single line 10x16	ABCDEFGH abcdefgh 12345 10X16 SINGLE LINE
Single line 16x24	ABCDEFGH abcdefgh 12345 16X24 SINGLE LINE
Twin line 5x5	ABCDEFGHIJKLMN OP 1234567890 5X5 TL
Twin line 5x7	ABCDEFGHIJKLMN OP 1234567890 5X7 TL
Three line 5x5	ABCDEFGHIJKL MN 1234567890 5X5 TRI LINE
16x24 with bar code	 24HIGH
All fonts, all heights	5 DOTS HIGH 7 DOTS HIGH 9 DOTS HIGH 16 DOTS HIGH 24 DOTS HIGH
<b>Inverted/reversed characters</b> Accommodates product lines going any direction and products in various orientations on the production line	INVERTED TEXT      TEXT REVERSE
<b>2D DataMatrix</b> Wide range of standard 2D and rectangular 2D DataMatrix, including GS1	 QR CODE  24HIGH  2D DATAMATRIX
Horizontal DPI comparison (180, 90, 60)	VJ1620HR VJ1650HR HIGH RESOLUTION
Unique-character languages	ج ت ث ب ا      合格年月日期生产保质      アカサタナハマヤラワ Arabic      Chinese      Japanese
Graphics and logos	   RECYCLE

All images printed at 90dpi with the exception of the dpi comparison samples

# Videojet® 1620 and 1650 High Resolution

## Continuous Inkjet micro printers

### Line speed capability

Can print 1 to 3 lines of print at speeds of up to:  
Single line max speed = 348 m/min (1142ft/min)  
Dual line max speed = 124 m/min (408 ft/min)  
Tri-line max speed = 72 m/min (235 ft/min)  
(15 characters per inch, single line of print)

### Font matrix configuration

Single-line: 4x5, 5x5, 4x7, 5x7, 7x9, 9x12, 10x16, 16x24  
Twin-line: 4x5, 5x5, 4x7, 5x7, 7x9  
Tri-line: 4x5, 5x5, 4x7, 5x7, 24 Drop Mixed Raster

### Linear bar codes

UPC A&E; EAN 8 & 13; Code 128 A, B & C; UCC/EAN 128;  
Code 39; Interleaved 2 of 5; 2D DataMatrix; GS1; QR Code

### DataMatrix codes

Square Form up to 24x24; Rectangular Form up to 16x48

### Nominal character height

Selectable from 0.6mm to 7mm (0.024" - 0.276"), depending on font

### Throw distance

Optimal: 6mm (0.236")  
Range: 2mm to 12mm (0.079" to 0.472")

### User interface options:

1. CLARiTY™ 10.4" high-response TFT-LCD touch screen (available with 1650 HR)
  2. 320x240 bright blue backlit 5.7" LCD display (available with 1620 HR)
- Both offer WYSIWYG onscreen message editing

### Custom logo/graphics

Can be created by individual user on printer or PC with optional Videojet Logo Creator software

### Character sets

Chinese, Russian/Bulgarian, Turkish/Scandinavian, Greek, Arabic, Japanese/Kanji, Hebrew, Korean, East European and European/American

### Languages and interface options

English, Arabic, Bulgarian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Simple Chinese, Spanish, Swedish, Thai, Traditional Chinese, Turkish and Vietnamese  
All languages available with 1650 HR only

### Data interface

RS232, RS485 and ethernet (standard)  
CLARiSOFT™/CLARiNET™ via RS232 and ethernet  
Message management via USB

### Message storage

250 complex messages (250+ on 1650 HR model)

### Environmental protection

IP65 standard; no plant air required; stainless steel cabinet

### Printhead

Heated printhead  
Positive air (standard)  
Nozzle size: 40 micron  
Diameter: 41.3 mm (1.63")  
Length: 269.8 mm (10.62")

### Printhead umbilical

Ultra flexible  
Length: 3 m (9.84') optional 6m (19.69')  
Diameter: 21 mm (0.83")  
Bend radius: 101.6 mm (4.0")

### Make-up fluid consumption

As low as 2.4 ml/hour

### Fluids containers

Ink Smart Cartridge™ 750 ml (0.793 qt.)  
Make-up Smart Cartridge™ 750 ml (0.793 qt.)  
Ink bulk system 5 liters (5.28 qts.)\*\*  
Make-up bulk system 5 liters (5.28 qts.)\*\*

### Temperature/humidity range

5°C to 45°C (41°F to 113°F)  
0% to 90% RH non-condensing  
With selected inks, actual installation may require additional hardware based on production environment conditions

### Electrical requirements

Nominal supply power 100-120 / 200-240 VAC at 50/60 Hz.,  
120W peak maximum, 60W nominal

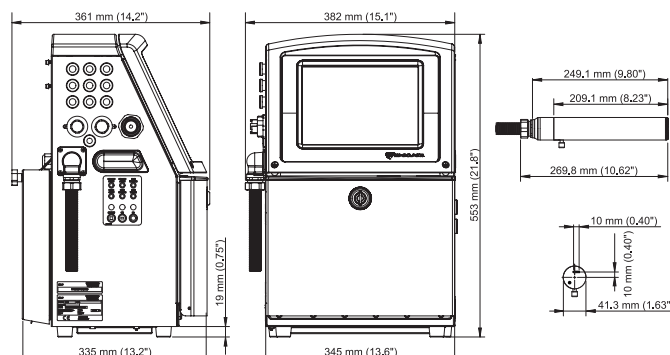
### Approximate weight

Unpacked and dry: 21 kg (46.2 lbs).

### Options

Dry air kit for high humidity (requires plant air)  
Wide range of accessories

\*\* Optional; 1650 HR only

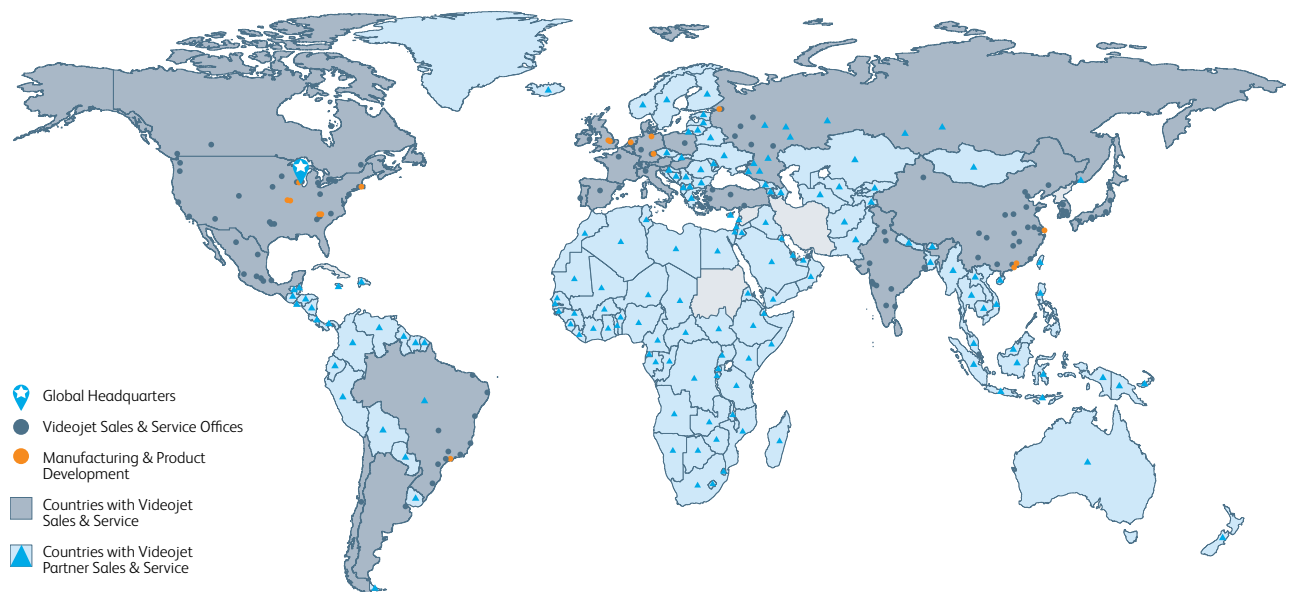


# Peace of mind comes as standard

Videojet Technologies is a world-leader in the product identification market, providing in-line printing, coding, and marking products, application specific fluids, and product life cycle services.

Our goal is to partner with our customers in the consumer packaged goods, pharmaceutical, and industrial goods industries to improve their productivity, to protect and grow their brands, and to stay ahead of industry trends and regulations. With our customer application experts and technology leadership in Continuous Inkjet (CIJ), Thermal Inkjet (TIJ), Laser Marking, Thermal Transfer Overprinting (TTO), case coding and labeling, and wide array printing, Videojet has more than 325,000 printers installed worldwide.

Our customers rely on Videojet products to print on over ten billion products daily. Customer sales, application, service and training support is provided by direct operations with over 3,000 team members in 26 countries worldwide. In addition, Videojet's distribution network includes more than 400 distributors and OEMs, serving 135 countries.



Phone: **+47 9041 8340**  
e-mail: **post.no@videojet.com**  
**www.videojet.no**

Videojet Technologies Norway  
Kirkegårdsveien 45  
3616 Kongsberg

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