

# BSP61 - Print and Apply System



# Complete labelling solution to obtain 100% traceability

The BSP61 Print and Apply System offers a fully automatic labelling solution anywhere along the production line. It combines a thermal transfer label printer with an automatic applicator and is designed to consistently print and accurately position and apply labels in almost all manufacturing applications. The BSP61 combines precision, versatility and high print quality and offers best value for money.



## Increase your productivity

The use of high-performance equipment for labelling in a production environment maximises efficiency by enabling first-time clean, clear and accurate labelling, streamlined traceability, reducing material wastage, maintaining uptime and measuring WIP. The result? A reduction of each unit's total production cost.

Tier 1 automotive suppliers have reported up to 70% labour cost savings and an increase in production efficiency and quality.

## Meets the demands of your environment

The BSP™61 Print and Apply System is developed for applications such as PCB marking, component and product marking in high quality demanding industries like automotive, electronics, manufacturing and laboratory. Designed for optimum, easy integration into existing production lines, the BSP61 has a compact footprint and offers a software that is compatible with your host system.

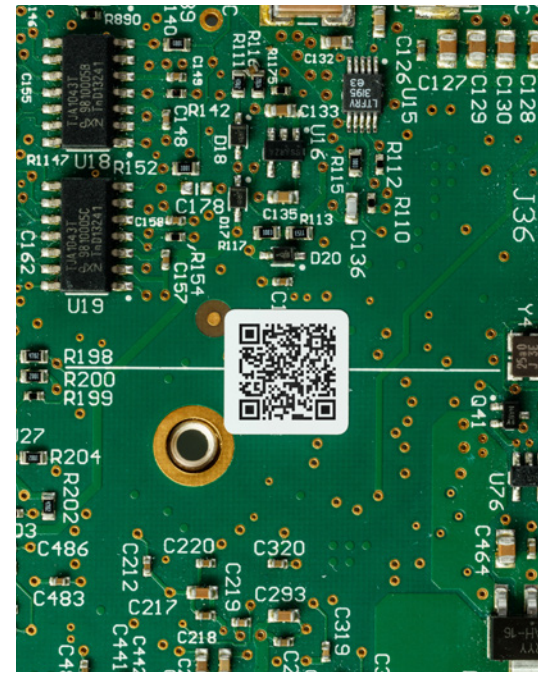
## Your benefits

<b>Real time processing and tracking</b>		<b>Maximum efficiency in production line integration</b>	
Zero queue print and apply	Follows real time processing and tracking eliminating the potential for error	Manual or automatic feeding by adding a foot switch or interfacing to a PLC	With a choice of how to control the print and apply cycle, it maximises efficiency in production line integration
<b>Printing and labelling at the same time</b>		<b>One system for many applications</b>	
Multi-tasking capability	Allows printing and labelling at the same time to maximise efficiency in the production process, reducing production time and therefore total unit cost	3 standard applicators: 1 or 2 axis placement and rotation 90° or 180°	Brings both efficiency and flexibility. Use the same print & apply machine to label different components on same surface or product i.e. PCB even if components are positioned differently on surface
<b>A specially developed Auto Apply labelling material</b>		<b>Accurate label positioning</b>	
Brady tailored label materials for Auto Apply	Best print quality and dispensability. Materials available for every harsh environment, such as, chemical washes, abrasion, temperature and weathering including UV. Specially developed ROHS PCB labelling material.	Very high placement accuracy +/- 0.3 mm	Best quality labelling, to ensure content is in the right place on the label and also the label is correctly positioned in situ. Ensures 100% accurate traceability
<b>Ensure correct traceability with crisp printing</b>		<b>Easy integration into existing production lines</b>	
300 and 600 dpi printing capability	Maximum flexibility for labelling. With the quality of 600 dpi, small, legible labels are guaranteed. Capable of printing 2D codes (DataMatrix, QR, ...) on the smallest of labels.	Compact size	A small footprint and overall size allows fast, easy integration into existing production lines and work areas.
<b>Label sizes for every application</b>		<b>Seamless software integration</b>	
Prints and applies a range of labels sized from 4 mm to 60 mm height, and 4 mm to 115 mm width	Label sizing to suit every application. Ideal for labelling small components or surfaces to ensure correct traceability.	Direct programming with J-Script, printer language is easy to integrate into your host (manufacturing / ERP) system	No data duplication, error and risk reduction, ensure correct traceability
		<b>ESD safe working</b>	
		Anti-static brush	Ensures optimal functionality in ESD production environments



# Why Brady labelling solutions?

- Brady runs one of the world's largest R&D programmes on the design and production of industrial-grade labels. Our expertise in the application of specialist inks, adhesives, plastics and other materials used in labels is unrivalled.
- Brady products and services are focused on its industrial customer base. We have a team of qualified engineering consultants who know how to implement a lineside labelling system for maximum efficiency.
- Brady labels are manufactured in facilities with ISO/TS 16949 certification. You can rest assured that your production process will not be hindered by failures in our products.
- Brady supplies via specialised integrators a complete labelling system that includes the means to print and apply labels within your production process and link the printing software into your production software system, quickly and easily.



## Problem free automatic labelling

Brady have developed unique solutions that remove the problems of automating label application to ensure reliable tracking and tracing.

- **No Cutting into the liner** – custom developed Clean Liner Technology (CLT) prevents over cutting into the liner and ensures a perfect result from the outset.
- **Clean pick up** – our applicator head will pick up every label without exception
- **No Adhesive bleeding** – CLT eradicates any problems with the adhesive
- **No Label curling** – our labelling materials are developed specifically for automatic application with a no-curl guarantee
- **Accuracy** – correct placement first time, every time

## High performance identification materials for demanding applications require:

- A label material and material top coat that is carefully matched with an ink to create the most durable print for your application
- An adhesive selected to adhere to the application surface and stay applied for the product's lifetime
- Production expertise to ensure that however the product is applied, it can be dispensed and/or handled efficiently

Whatever your application, our carefully developed material combinations withstand nearly any chemical that is found in use in the industry, often without the need to laminate.

Our label materials are extensively tested in our world-class laboratories for resistance to chemicals, abrasion, temperature on one line and weathering, including UV. In many cases it is possible to test specific material combinations to specifications defined by you.

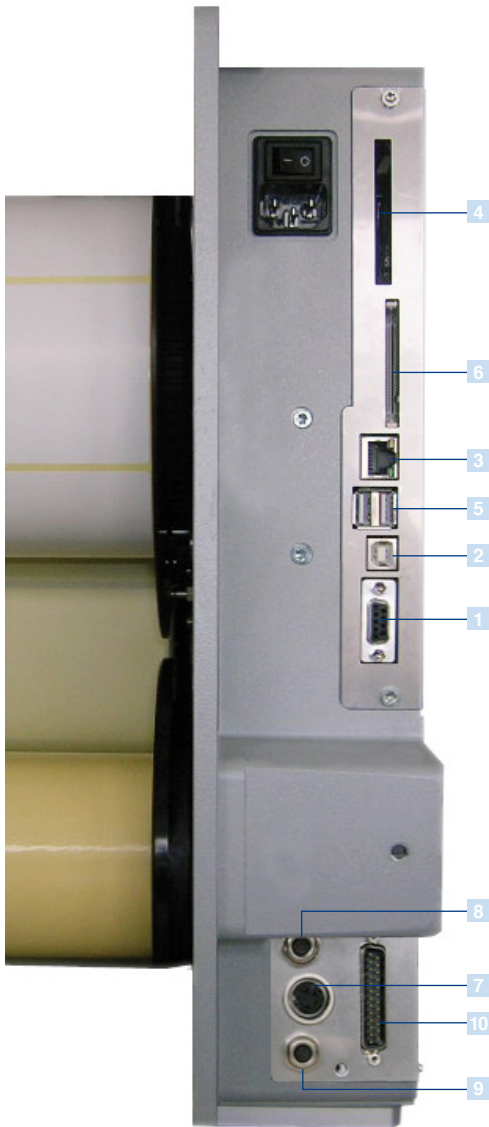


# Technical details



- 1 Large graphic display**  
White backlight guarantees clarity of display.  
Depending on the installation position the display can be rotated in 90° steps.
- 2 Navigator pad**  
Simple, interactive menu control. Applicable functions are illuminated. Menu handling is easy to comprehend.
- 3 Ribbon retainer**  
The three part tightening axles allow a fast and easy ribbon exchange.
- 4 Solid, buckling resistant metal chassis**  
Manufactured from die cast aluminium.  
All components are fixed to the body.
- 5 Assembly applicator**  
The applicator is attached by hinges and can be changed easily.
- 6 Printing offset**  
After changing the label roll the printing position is set up automatically after a few printed labels. This label position is then stored, even if the machine is turned off.
- 7 Printhead**  
The printhead can be replaced easily.  
Adjustments and set-ups are not necessary.
- 8 Ribbon saver**  
It is used for labels which are to be only partially printed.  
The printhead is lifted off in the plain area and the ribbon is stopped during label feed.
- 9 Transport system**  
The ball bearing transport rollers ensure a highly accurate printing and the precise feeding of labels.
- 10 Label unwinder**  
The swing lever and the integrated brake make sure that the labels are unwound with constant tension.
- 11 Rewinder**  
The liner of a label roll is rewound after the labels have been peeled off. The clamping shafts enable an easy exchange of the roll.
- 12 Print direction**  
All BSP61 label printers with applicators are available in left and right orientation.

# Interfaces



- 1 RS232C- Interface
- 2 USB 2.0 Slave interface
- 3 Ethernet 10/100 Base T-interface with TCP/IP
- 4 Slot for Wireless LAN-card
- 5 Two USB-Master-interfaces to connect an external operation panel, keyboard, scanner or service key
- 6 Slot for memory card CompactFlash Type I
- 7 Connection for warning light  
Indicates the display and the printer status  
**Green** Ready for operation  
**Yellow** Pre-warning: end of label, end of ribbon  
**Red** Printing or applying error
- 8 Connection main valve for air pressure:  
On / off signal for compressed air supply
- 9 Connection external E-stop  
In connection with a main valve this interface allows to cut off the compressed air supply in case of an emergency
- 10 Digital I/O interface  
25-pin SUB-D socket.  
All 24V in- and outputs are optically isolated

## Inputs

Start printing and applying  
Reprint  
Label feed  
Delete print job  
Pause  
Label dispensed  
Reset  
Stop printing and applying  
Print first label  
Rotation 4200

## Outputs

Ready to operate  
Print data available  
Paper feed on  
Pre-warning end of ribbon  
Pre-warning end of label  
Error end of ribbon  
Error end of label  
Label in dispensing position  
Basic position / upper end position  
Applying position / lower end position  
Common alarm

## Options



Interface Centronics bi-directional acc. IEEE 1284.  
Interface RS422/RS485 1.200 up to 230.400 Baud/8 Bit.  
The interfaces are connected to the PC.  
Connection to the printer via mini USB-connection cable.



Label selection box-I/O-box. Via SPS up to 16 different labels can be loaded from a memory card.  
Operation of four in-/outputs via Basic Interpreter.



WLAN card 802.11 b/g.

# Technical data

1. Printhead		BSP61-62	BSP61-34
Print method	Thermal transfer/Direct thermal		
Print resolution dpi	600		300
Print speed up to mm/s	100		250
Print width up to mm	57		105.60
2. Material			
Labels on rolls	Paper, cardboard, textiles, synthetics PEI, PE, PP, PVC, PU, acrylate, PI		
Thickness mm / weight g/m <sup>2</sup>	0.055 - 0.35 / 60 - 160		
Width Labels <sup>1)</sup> mm	4 - 58		10 - 114
Width of liner Spool / Roll	10 - 62 / 25 - 62		- / 25 - 118
Label height <sup>1)</sup> when dispensing mm	4 - 200		8 - 250
Media roll: Total Ø up to mm	205 / 305		
Core Ø mm for BSP61	40		-
Roll / Adapter	40 / 50		40 / 50
Roll	76		76
Winding direction	outside or inside		
3. Ribbon			
Ink	outside or inside		
Roll diameter up to mm	80		80
Core diameter mm	25		25
Ribbon length variable up to m	500		500
Width <sup>2)</sup> mm	60		114
4. Internal rewinder			
Total diameter up to mm	155 / 210		
Core diameter mm	76		76
5. Dimensions of the printer			
Height mm	Label roll Ø 205 mm	400	
	Label roll Ø 305 mm	538	
Depth mm	Label roll Ø 205 mm	400	
	Label roll Ø 305 mm	518	
Width mm	200		255
Weight kg	15		16
6. Label sensor			
See-through sensor	for leading edge of the label or punching marks and end of material		
Reflective sensor from the bottom / from the top	for printing marks		
Distance from center to shoulder middle wall	2 - 26		2 - 47
7. Electronics			
Processor high speed 32 Bit Clock rate MHz	266		
(RAM) MB	64		
Memory IFFS MB Flash	8		
Slot for memory CompactFlash-card Type I	■		
Slot for Wireless LAN-card	■		
Battery buffer for	Real-time clock, printout of time and date storage of data with shut-down		
Warning signal	Acoustic signal when error		
8. Interfaces			
Centronics bi-directional acc. IEEE 1284	□		
RS232 C 1.200 up to 230.400 Baud/8 Bit	■		
USB 2.0 High Speed Slave for PC-connection	■		
Ethernet 10/100 Base T, LPD, RawIP-Printing, ftp-Printing, DHCP, HTTP, FTP, SMTP, SNMP, TIME, Zeroconf, mDNS, SOAP	■		
RS422, RS485 1.200 up to 230.400 Baud/8 Bit	□		
WLAN card 802.11b/g WEP/WPA PSK (TKIP)	□		
2x USB Master for	external operation panel, keyboard, scanner or service key		
Connection warning light	■		
Digital I/O-Interface	■		
cab applicator connection	■		
Connection for external emergency stop	■		
Connection compressed air	■		
9. Operation data			
Power supply	100 - 240 V ~ 50/60 Hz, PFC		
Power consumption	max. 300 W		
Temperature / Humidity:	Operation	+ 5 - 40°C / 10 - 85% not condensing	
	Storage	+ 0 - 60°C / 20 - 85% not condensing	
	Transport	-25 - 60°C / 20 - 85% not condensing	
Approvals	CE, FCC class A CB*, CCC*, UL*		

10. Operation panel	
Buttons / LED-display:	Pause, Feed, Cancel, Menu, Enter, 4 x Cursor
LCD-graphic display:	Width 60, Height 40 mm Text 4 lines, 20 characters per line
11. Settings	
	Digital or analogue clock time System settings date Print parameters interfaces 25 language settings security
12. Monitoring	
Warning if:	End of ribbon ■ End of labels ■
Stop printing if:	End of ribbon ■ End of labels ■ Printhead open ■
On the display	Data reception Clock WLAN field intensity Date sheet Ethernet state abc debug Used memory Input buffer Temperature printhead Remaining quantity of ribbon Access to memory card
13. Test routines	
System diagnosis	When switched on with testing of printhead
Short Status, Status print	Font list, device list, WLAN state, profile of label, test grid, monitor mode, PPP state
Status reports	Extensive status print with information about setting, e.g. print length counter, runtime counter etc. Request of machine state via software command. Detailed status messages on the display, e.g. network error-no link, barcode error etc..
14. Fonts	
Font types	5 Bitmap fonts incl. OCR-A, OCR-B and 3 Vector fonts Swiss 721, Swiss 721 Bold and Monospace 821 available internally, loadable TrueType fonts. Optional Chinese (simplified Chinese), Optional Thai
Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBC DIC 500, ISO 8859-1 up to -10 and -13 up to -16, WinOEM 720, UTF-8, Macintosh Roman, DEC MCS, KOI8-R. All West and East European latin, cyrillic, greek, hebrew and arabic characters are supported. Optional Thai and Chinese.
Bitmap fonts	Size of width and height 1 - 3 mm Zoom 2-10 Orientation 0°, 90°, 180°, 270°
Vector- / TrueType fonts	Size of width and height 0.9 - 128 mm variable zoom, Orientation 360° in steps of 1°
Font formats	Bold, italic, underlined, outline, negative, grey, vertical, depending on character fonts
Font width	Variable
15. Graphics	
Graphic elements	Line, arrow, box, circle, ellipse, filled and filled with fading
Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG
16. Barcodes	
Linear barcodes	Code 39, Code 93 Interleaved 2 / 5 Code 39 Full ASCII Ident- and lead Code 128 A, B, C code of Deutsche Codabar Post AG EAN 8, 13 JAN 8, 13 EAN / UCC 128 MSI EAN / UPC Appendix 2 Plessey EAN / UPC Appendix 5 Postnet FIM RSS 14 HIBC UPC A, E, E0
2D-Codes	Aztec, Codablock F, Data Matrix, PDF 417, Micro PDF 417, UPS Maxicode, QR-Code, RSS 14 truncated, limited, stacked and stacked omnidirectional, EAN-Datamatrix, GS1 Data Bar
	All codes variable in height, module width and ratio. Orientation 0°, 90°, 180°, 270°. Optionally with check digit, printed characters and Start/Stop code, depending on code type.
17. Software	
Programming	J-Script direct programming ■ abc-Basic Compiler ■ Database Connector □
System diagnosis / administration	Printer monitoring ■ Network Manager □
Accredited for Windows driver	32 / 64 bit for Windows XP Server 2003 Windows Vista Server 2008 Windows 7 Server 2008 R2 ■
Stand-alone operation	■

<sup>1)</sup> The label size is additionally defined through the type of the applicator. Depending on label size, material and adhesive limitations are possible. Critical material or applications have to be tested and cleared.



<sup>2)</sup> For best print performance the width of the ribbon should be approximately the same width as the labels.

\*pending



■ Standard □ Option



# Ordering Options


	Order Reference	Description
	BSP61-62L	BSP61 for up to 50 mm wide consumables - 600 dpi - to be combined with left applicator
	BSP61-34L	BSP61 for up to 101 mm wide consumables - 300 dpi - to be combined with left applicator
	BSP61-62R	BSP61 for up to 50 mm wide consumables - 600 dpi - to be combined with right applicator
	BSP61-34R	BSP61 for up to 101 mm wide consumables - 300 dpi - to be combined with right applicator

Product Supplied
Label printer, Power cable Type E+F, length 1.8 m, Connecting cables USB, length 1.8 m, Operation manual in English and German


	Order Reference	Description
	Applic. 4114L-200	Left applicator - cylinder stroke 200 mm - horizontal precision guide in feed direction
	Applic. 4114L-300	Left applicator - cylinder stroke 300 mm - horizontal precision guide in feed direction
	Applic. 4214L-200	Left applicator - cylinder stroke 200 mm - horizontal rotary cylinder (angle of rotation 90 other 180°)
	Applic. 4214L-300	Left applicator - cylinder stroke 300 mm - horizontal rotary cylinder (angle of rotation 90 other 180°)
	Applic. 4414L-200	Left applicator - cylinder stroke 200 mm - adjustable horizontal precision guides in X and Y direction (up to Y = 13 mm, X = 5 mm)
	Applic. 4414L-300	Left applicator - cylinder stroke 300 mm - adjustable horizontal precision guides in X and Y direction (up to Y = 13 mm, X = 5 mm)
	Applic. 4114R-200	Right applicator - cylinder stroke 200 mm - horizontal precision guide in feed direction
	Applic. 4114R-300	Right applicator - cylinder stroke 300 mm - horizontal precision guide in feed direction
	Applic. 4214R-200	Right applicator - cylinder stroke 200 mm - horizontal rotary cylinder (angle of rotation 90 other 180°)
	Applic. 4214R-300	Right applicator - cylinder stroke 300 mm - horizontal rotary cylinder (angle of rotation 90 other 180°)
	Applic. 4414R-200	Right applicator - cylinder stroke 200 mm - adjustable horizontal precision guides in X and Y direction (up to Y = 13 mm, X = 5 mm)
	Applic. 4414R-300	Right applicator - cylinder stroke 300 mm - adjustable horizontal precision guides in X and Y direction (up to Y = 13 mm, X = 5 mm)




**Cover**  
Protection against dirt and accidental contact.




**Sub-D plug**  
Connection of the control signals to the IO-interface with screw clamps.




**External operation panel**  
If the operation panel is not accessible after installation of the printer into a production plant it is possible to attach an external operation panel.




**Warning light**  
Indicates the display and the printer status.  
**Red:** Printing or applying failure  
**Yellow:** Pre-warning: end of label, end of ribbon  
**Green:** Ready for operation




**Compact keyboard**  
Connection: USB, number of keys: 86.  
L x W: 282 x 132 mm, Cherry G84-4100.



**Air pressure regulation unit**  
The unit can be assembled to the BSP61 or its brackets by using a mounting angle. Pre-adjustment to 4,5 bar.



**Product sensor**  
For automatic printing and applying after detection of a product, e.g. on a conveyor belt.



**Air pressure regulation unit with additional cut-in valve**  
In case of integration of the print & apply system into a production line the air-pressure can be turned on or off externally. Pre-adjustment to 4.5 bar.

# Brady Corporation

Our mission is to identify and protect people, products and places



## COMPANY OVERVIEW

BRADY was founded in 1914 in Eau Claire, Wisconsin, as W.H. BRADY Co., and renamed BRADY Corporation in 1998. The company began selling products internationally in 1947. In 1984, BRADY went public, with stock trading on the Nasdaq Stock Market, and in 1999, moved trading of its stock to the New York Stock Exchange, where it trades under the symbol BRC. The company's global headquarters is in Milwaukee, Wisconsin.

## BRADY MANUFACTURES AND MARKETS:

- products for identification and safety applications such as signs and markers, printing systems and software to produce identification products on-site and on demand
- products for wire identification, including labelling materials and tools for wire and cable marking in the electrical, datacom and telecommunication markets
- high-performance identification products, including labels and signs that remain legible and highly adhesive even in harsh environments
- products that identify people and enhance security by ensuring the right persons are in the right places at the right time

## OPERATIONS – SOME FACTS:

- 6500 employees around the world
- Operations in 29 countries
- Distribution in more than 100 countries through more than 4,400 distributor partners



**Africa**  
Randburg, South Africa  
Tel.: +27 11 704 3295  
Email: africa@bradycorp.com

**Benelux**  
Zelev, Belgium  
Tel.: +32 (0) 52 45 78 11  
Email: benelux@bradycorp.com

**Central & Eastern Europe**  
Bratislava, Slovakia  
Tel.: +421 2 3300 4800  
Email: central\_europe@bradycorp.com

**Denmark**  
Odense  
Tel.: +45 66 14 44 00  
Email: denmark@bradycorp.com

**France**  
Roncq  
Tel.: +33 (0) 3 20 76 94 48  
Email: france@bradycorp.com

**Germany, Austria & Switzerland**  
Egelsbach, Germany  
Tel.: +49 (0) 6103 7598 660  
Email: germany@bradycorp.com

**Hungary**  
Budaörs  
Tel.: +36 23 500 275  
Email: central\_europe@bradycorp.com

**Italy**  
Gorgonzola  
Tel.: +39 02 26 00 00 22  
Email: italy@bradycorp.com

**Middle East FZE**  
Dubai, UAE  
Tel.: +971 4881 2524  
Email: me@bradycorp.com

**Norway**  
Kjeller  
Tel.: +47 70 13 40 00  
Email: norway@bradycorp.com

**Romania**  
Bucharest  
Tel.: +40 21 202 3032  
Email: central\_europe@bradycorp.com

**Russia**  
Moscow  
Tel.: +7 495 269 47 87  
Email: central\_europe@bradycorp.com

**Spain & Portugal**  
Madrid, Spain  
Tel.: +34 900 902 993  
Email: spain@bradycorp.com,  
portugal@bradycorp.com

**Sweden**  
Kista  
Tel.: +46 (0) 8 590 057 30  
Email: sweden@bradyeurope.com

**Turkey**  
Istanbul  
Tel.: +90 212 264 02 20 / 264 02 21  
Email: turkey@bradycorp.com

**UK & Ireland**  
Banbury, UK  
Tel.: +44 (0) 1295 228 288  
Email: uk@bradycorp.com



 To help minimise our impact on the environment, Brady limits its number of reprints. Updated versions are always available for download on [www.bradyeurope.com](http://www.bradyeurope.com).

 Search for:

© 2018 Brady Worldwide, Inc. All Rights Reserved.

### Your distributor

DYNAMIC Systems GmbH  
Inninger Straße 11  
82237 Wörthsee  
Tel.: +49 8153 9096-0  
[www.dynamic-systems.de](http://www.dynamic-systems.de)

30/10/2018