

BSP™61 - Print and Apply System



Complete labelling solution to obtain 100% traceability

The BSP™61 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.

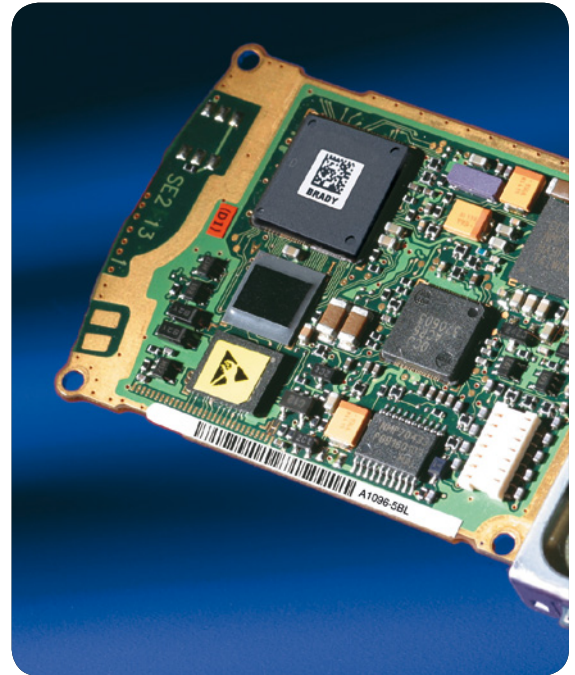


Your benefits

Real time processing and tracking	
Zero queue print and apply	Follows real time processing and tracking eliminating the potential for error
Printing and labelling at the same time	
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
A specially developed Auto Apply labelling material	
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.
Ensure correct traceability with crisp printing	
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.
Label sizes for every application	
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.
Maximum efficiency in production line integration	
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
One system for many applications	
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
Accurate label positioning	
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
Easy integration into existing production lines	
Compact size	A small footprint and overall size allows fast, easy integration into existing production lines and work areas.
Seamless software integration	
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
ESD safe working	
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 PET, PE, PP, PVC, PU, acrylate, PI	
Thickness mm / weight g/m²		0.055 - 0.35 / 60 - 160	
Width Labels¹) mm		4 - 58	10 - 114
Width of liner Spool / Roll		10 - 62 / 25 - 62	- / 25 - 118
Label height¹) 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
Width²) 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*	

*pending



■ Standard □ Option

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 System settings Print parameters 25 language settings	time date interfaces 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 WLAN field intensity Ethernet state Used memory Temperature printhead Access to memory card	Clock Date sheet abc debug Input buffer Remaining quantity of ribbon
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 Code 39 Full ASCII Code 128 A, B, C Codabar EAN 8, 13 EAN / UCC 128 EAN / UPC Appendix 2 EAN / UPC Appendix 5 FIM HIBC	Interleaved 2 / 5 Ident- and lead code of Deutsche Post AG JAN 8, 13 MSI Plessey Postnet RSS 14 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 Windows Vista Windows 7	Server 2003 Server 2008 Server 2008 R2 ■
Stand-alone operation		

¹⁾ 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.



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

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.
Pre-adjustment to 4.5 bar by using a mounting angle.



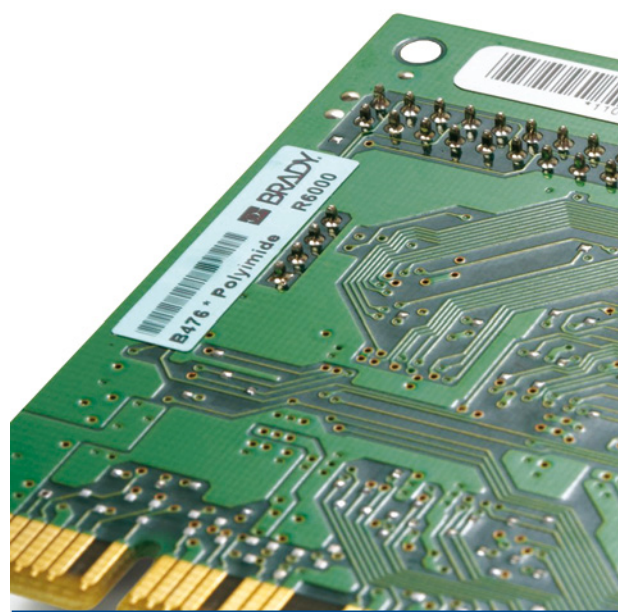
Product sensor

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.



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