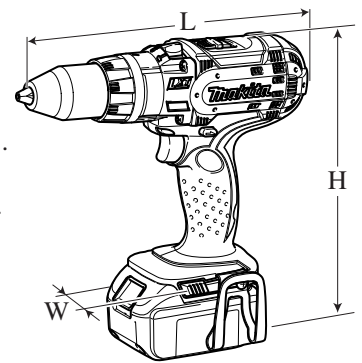


Models No. ▶ BHP454

Description ▶ 18V Cordless Percussion-Driver Drill



Dimensions: mm (")	
Length (L)	243 (9-9/16)
Width (W)	79 (3-1/8)
Height (H)	253 (10)

CONCEPT AND MAIN APPLICATIONS

Model BHP454 has been developed as the 2-speed version of 3-speed Model BHP451. While having the same maximum fastening torque as BHP451, BHP454 features more powerful motor, ensuring higher operation efficiency in heavy duty applications. Also features the same compact and lightweight design as BHP451, providing easy control and high maneuverability.

See next page for detailed information on benefits.

Note:

18V/1.5Ah Lithium-ion battery BL1815 cannot be used as a power unit for BHP454.

14.4V model is also available as Model BHP444.

(See Technical Information of BHP444 for detailed information.)

Model BHP454 is available in the following variations.

Model No.	Battery		Battery cover	Charger	Plastic carrying case	Offered to
	type	quantity				
BHP454	BL1830	2	1	DC18RA	Yes	USA, Canada, Mexico, Panama
BHP454RFE	(Li-ion 3.0Ah)					All countries except the four listed above

The models also include the accessory listed below in "Standard equipment".

► Specification

Battery	Voltage: V		18
	Capacity: Ah		3.0
	Cell		Li-ion
Max output: W			375
No load speed: min-1=rpm	2nd (High)		0 - 1,700
	1st (Low)		0 - 400
Impacts per minute: min-1=ipm	2nd (High)		0 - 25,500
	1st (Low)		0 - 6,000
Capacity of drill chuck: mm (")			1.5 - 13 (1/16 - 1/2)
Capacity: mm (")	Steel		13 (1/2)
	Wood		65 (2-9/16)
	Masonry		16 (5/8)
Torque setting			16 stage + drill mode
Clutch torque setting: N.m (kgf.cm) [in.lbs]			1.0 - 5.9 (10 - 60) [9 - 52]
Lock torque: N.m [in.lbs]			63 [560]
Max. fastening torque: N.m (kgf.cm) [in.lbs]	Hard joint		80 (815) [708]
	Soft joint		40 (408) [354]
Electric brake			Yes
Mechanical speed control			Yes (2 speed)
Variable speed control			Yes
Reverse switch			Yes
Net weight [with battery BL1830]: kg (lbs)			2.2 (4.9)

► Standard equipment

(+)(-) Bit 2-65 (double-end) 2 Belt clip..... 1 Grip assembly 1
 Bit holder..... 1 (+) Screw M4x12 2 Depth rod 1

Note: The standard equipment for the tool shown above may differ by country.

► Optional accessories

Battery BL1830 Charger DC24SA (for North America only) Drill bits for wood
 Fast charger DC18RA Charger DC24SC (for all countries except North America) Drill bits for steel
 Charger DC18SD Driver bits Drill bits for masonry

► **Features and benefits**

Compact and lightweight design provides easy control and high maneuverability.

- Compact design with an overall length 7mm shorter than Model BHP451
- As lightweight as Model BHP451.

Further increased durability

Drastically increased durability against impact obtained by "All metal gear construction" plus "Use of metal for all engagement portions"

Single sleeve keyless chuck *

allows for easy bit installation/removal with one hand.

Durable aluminum gear housing *

All metal gear construction *

ensures high transmission durability.

Mechanical 2-speed gearing

Compact and lightweight 4-pole motor *

Higher operation efficiency in heavy duty applications

obtained by using 4-pole motor more powerful than the one used for BHP451

Anti-slip rubberized side grip *

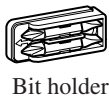
Ergonomically designed rubberized soft grip *

provides comfortable grip and more control while minimizing hand fatigue and pain.

Twin LED job light with afterglow function *

- Two LED's prevent the work surface from being obscured by the shadow of the bit.
- On pulling switch trigger, the light turns on automatically before motor starts turning: keeps on illuminating about 12-13 sec. after trigger release.

Hand strap can be attached. *



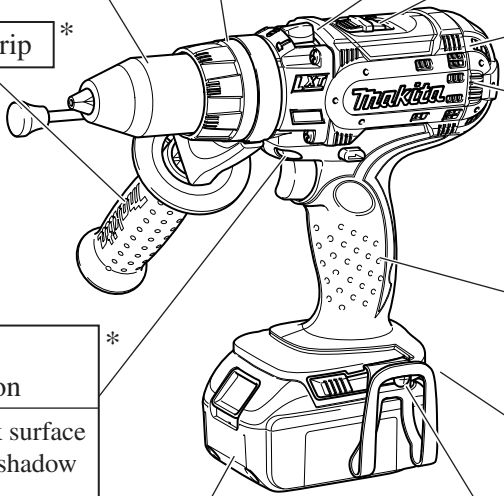
Bit holder

Powered by compact and lightweight 3.0Ah Li-ion battery BL1830 *

Belt clip and bit holder *

convenient for both right and lefthanded users

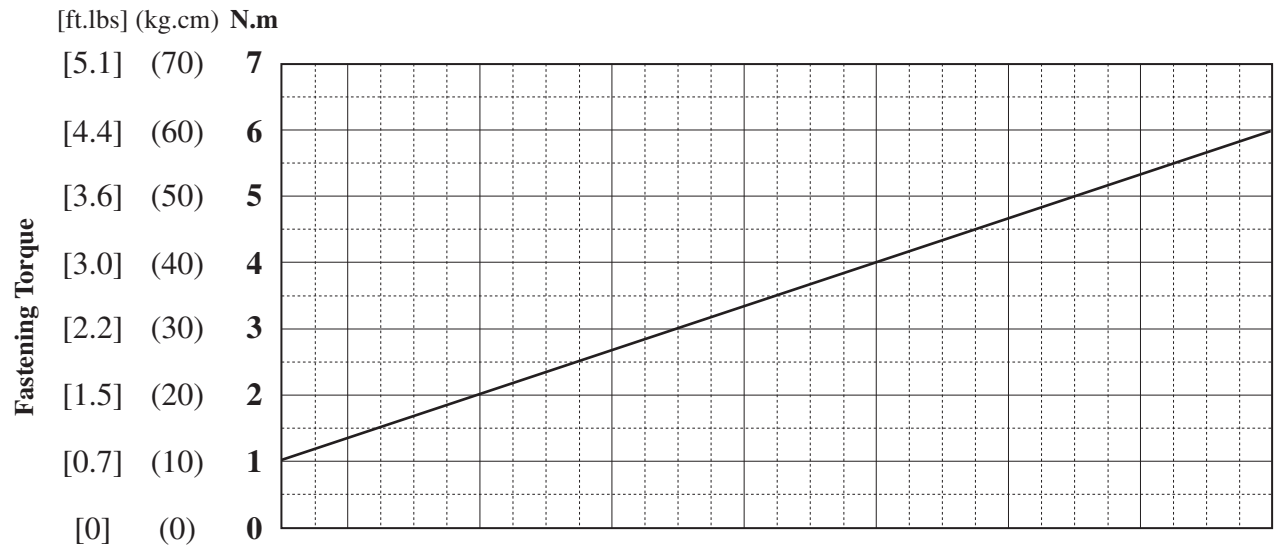
For right handed users, belt clip on left and bit holder on right; for left handed users, belt clip on right and bit holder on left; each standard accessory can be attached/removed simply by loosening/fastening a screw.



*The same advantages as Model BHP451

► **Features and benefits**

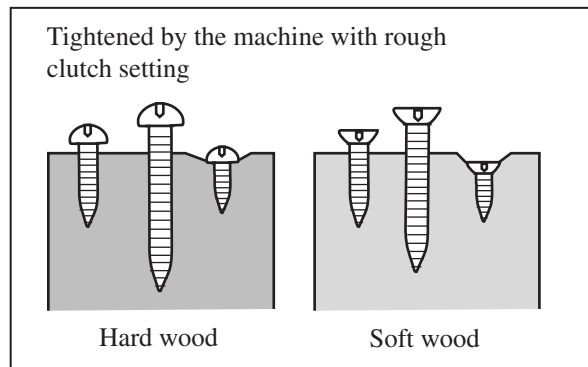
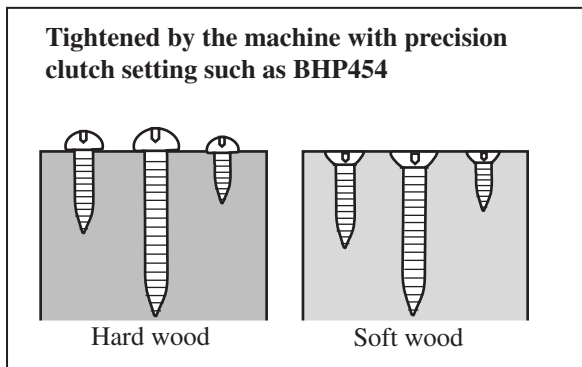
**The Graduation on Torque Adjusting Ring and Corresponding Fastening Torque
(The Torque When Clutch Is Disengaged=Max. clutch torque)**



Applicable screw	Machine screw	M4	M5	M6
	Wood screw			dia. 3.5x22mm dia. 4.1 x 38mm
	Soft wood (pine, etc.)			
	Hard wood (lauan, etc.)		dia. 3.5 x 22mm dia. 4.1 x 38mm	dia.5.1x50mm

16 Stage torque settings allows;

- 1) to perform appropriate torque setting in tightening M4 to M6 machine screws.
- 2) in tightening wood screws, to drive the screw heads to a uniform height regardless of the screw size or the hardness of wood. (See the figures below.)



► Comparison of products

Specification Comparison

Model No. Specifications		Makita		DEWALT		Milwaukee	HITACHI
		BHP454	BHP451	DC927KL	DC925KA	0824-24	DV18DL
Battery	Voltage: V	18	18	18	18	18	18
	Capacity: Ah	3.0	3.0	2.4	2.4	3.0	3.0
	Cell	Li-ion	Li-ion	Li-ion	Ni-Cd	Li-ion	Li-ion
	Charging time (approx.): min.	22 with DC18RA	22 with DC18RA	60	60	60	45
Max. output*1: W		475	410	425	510	410	N/A
Impacts per min: min-1= ipm	3rd	---	0 - 25,500	0 - 30,600	0 - 34,000	---	---
	2nd (High)	0 - 25,500	0 - 9,000	0 - 25,500	0 - 25,500	0 - 27,200	N/A
	1st (Low)	0 - 6,000	0 - 4,500	0 - 7,650	0 - 7,650	0 - 7,20	N/A
No load speed: min-1= rpm	3rd	---	0 - 1,700	0 - 1,800	0 - 2,000	---	---
	2nd (High)	0 - 1,700	0 - 600	0 - 1,500	0 - 1,500	0 - 1,700	0 - 1,800
	1st (Low)	0 - 400	0 - 300	0 - 450	0 - 450	0 - 450	0 - 400
Max. fastening torque: N.m	Hard joint	80	80	83*2	89*2	Impossible to measure	83*2
	Soft joint	40	40	36*2	36*2	34*2	36*2
Lock torque: N.m (in.lbs)		63 (560)	63 (560)	44*2 (390*2)	51*2 (450*2)	62 (550)	64 (570)
Chuck capacity: mm (")		13 (1/2)	13 (1/2)	13 (1/2)	13 (1/2)	13 (1/2)	13 (1/2)
Type of keyless drill chuck		Single sleeve	Single sleeve	Single sleeve	Single sleeve	Single sleeve	Single sleeve
Capacities: mm (")	Steel	13 (1/2)	13 (1/2)	13 (1/2)	13 (1/2)	13 (1/2)	13 (1/2)
	Wood	65 (2-9/16)	65 (2-9/16)	50 (2)	50 (2)	65 (2-9/16)	50 (2)
	Masonry	16 (5/8)	16 (5/8)	7 (1/4)	7 (1/4)	16 (5/8)	16 (5/8)
Torque setting		16 + Drill mode	16 + Drill mode	22 + Drill mode	22 + Drill mode	24 + Drill mode	22 + Drill mode
Metal gear housing		Yes	Yes	Yes	Yes	Yes	No
Replaceable carbon brush		Yes	Yes	Yes	No	No	Yes
Rubberized soft grip		Yes	Yes	Yes	Yes	Yes	Yes
Belt clip		Yes	Yes	No	No	No	Yes
Built-in job light		Yes (twin LED with afterglow function)	Yes (twin LED with afterglow function)	No	No	No	Yes
Dimensions: mm (")	Length	243 (9-9/16)	250 (9-7/8)	265 (10-3/8)	270 (10-5/8)	270 (10-5/8)	250 (9-7/8)
	Width	79 (3-1/8)	78 (3-1/16)	90 (3-1/2)	90 (3-1/2)	89 (3-1/2)	80 (3-1/8)
	Height	253 (10)	257 (10-1/8)	250 (9-7/8)	245 (9-5/8)	280 (11)	250 (9-7/8)
Net weight [with battery]: kg (lbs)		2.2 (4.9)	2.2 (4.9)	2.5 (5.5)	2.8 (6.1)	2.8 (6.1)	2.2 (4.9)

*1) DEWALT: catalog value

Makita, Milwaukee: value actually measured by Makita under the same conditions as DEWALT

*2) Value actually measured by Makita because of no catalog value

Comparison of products

Performance Comparison

Models Tested for Comparison:

See the table below.

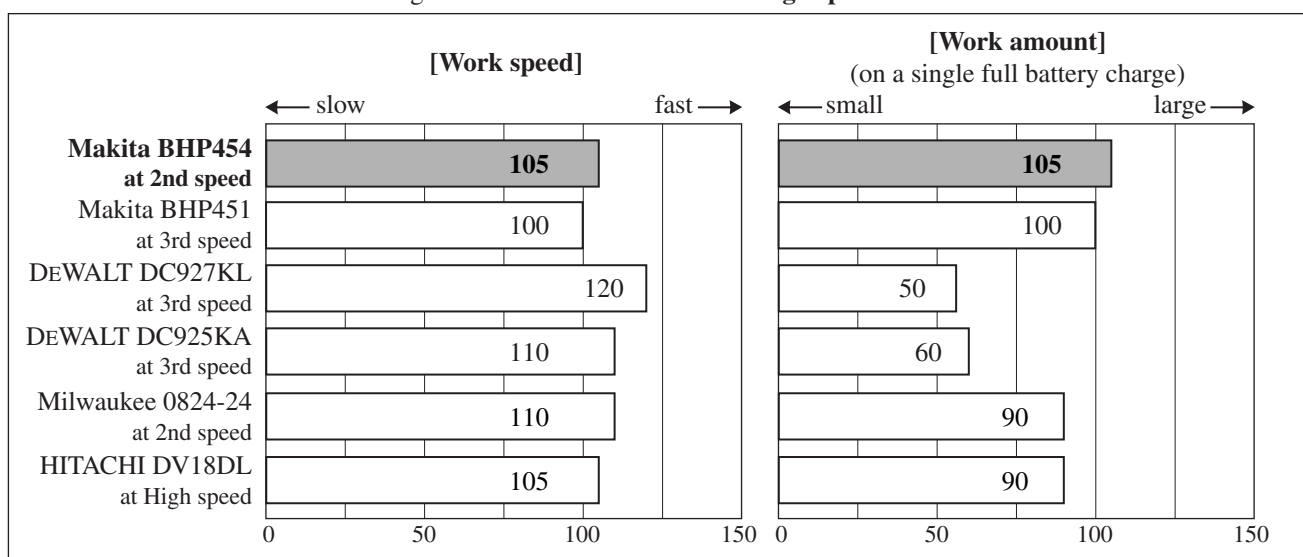
Model No.	Makita		DEWALT		Milwaukee	HITACHI
	BHP454 (Li-ion)	BHP451 (Li-ion)	DC927KL (Li-ion)	DC925KA (Ni-Cd)	0824-24 (Li-ion)	DV18DL (Li-ion)
Capacity of the battery used: Ah	3.0	3.0	2.4	2.4	3.0	3.0

Note: 1. The test results depend to a great extent on the hardness of materials, etc.

2. Except "Wood Drilling 2)", the numbers in the bar charts below are relative values when the capacities of Makita BHP451 are indexed at 100.

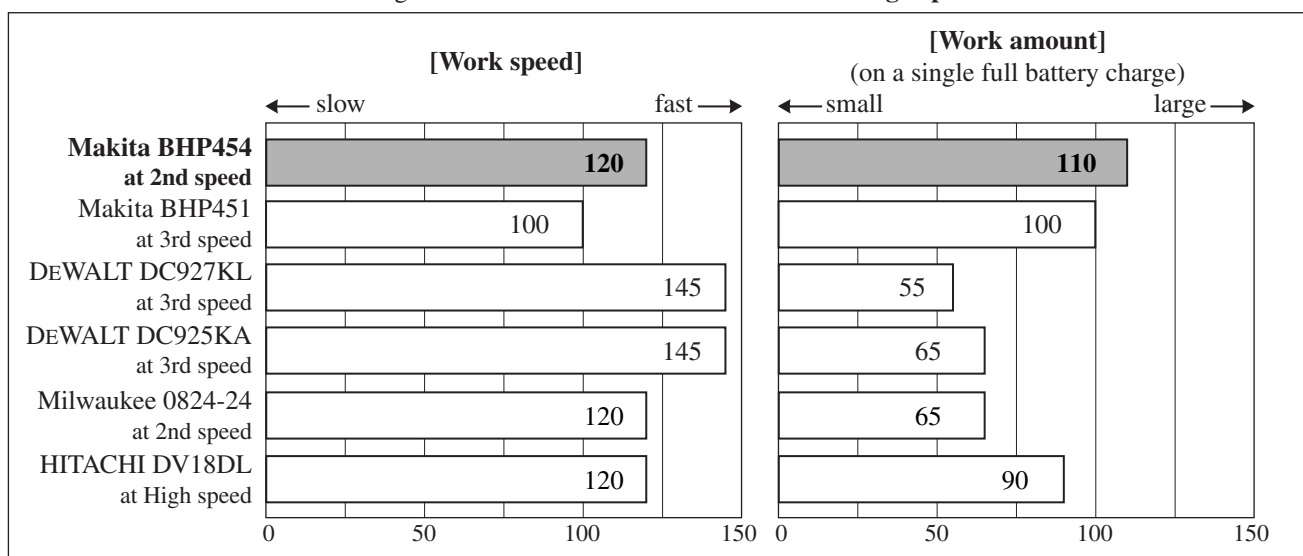
Fastening

Test conditions: Drove M6x75mm lag bolt into a 38mm thick SPF at high speed.



Wood Drilling 1)

Test conditions: Drilled holes through a 38mm thick SPF with 3" selfeed bit at high speed.

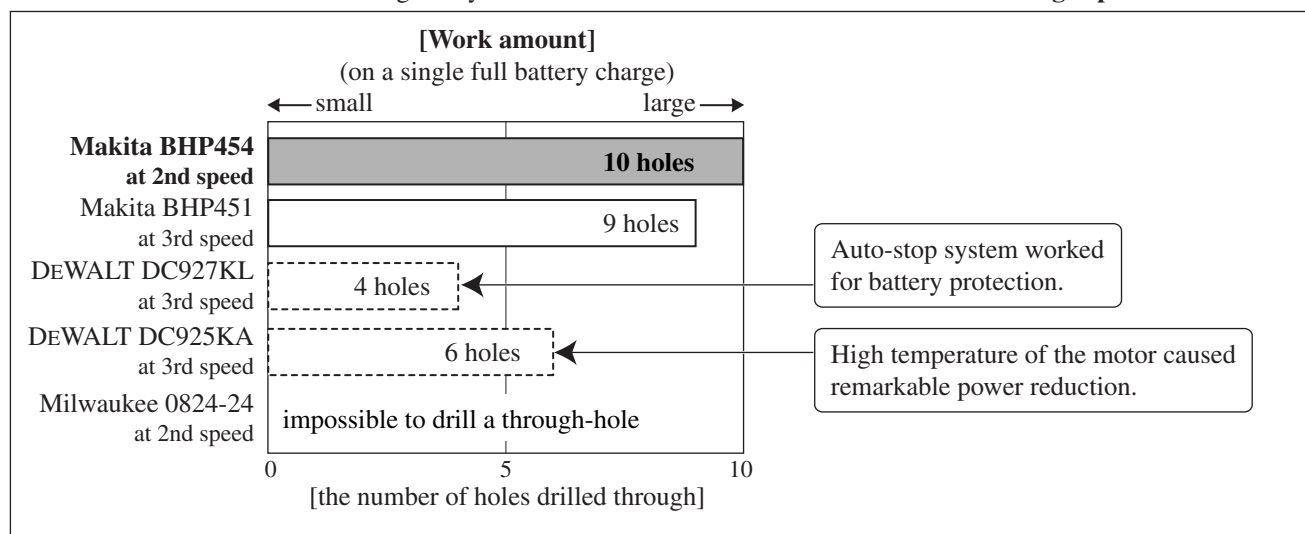


▶ Comparison of products

Performance Comparison

Wood Drilling 2) [Heavy duty application]

Test conditions: Drilled holes through a layer of three 38mm thick SPF's with 3" selffeed bit at high speed.



Masonry Drilling

Test conditions: Drilled 8mm diameter holes in brick to a depth of 40mm at high speed.

