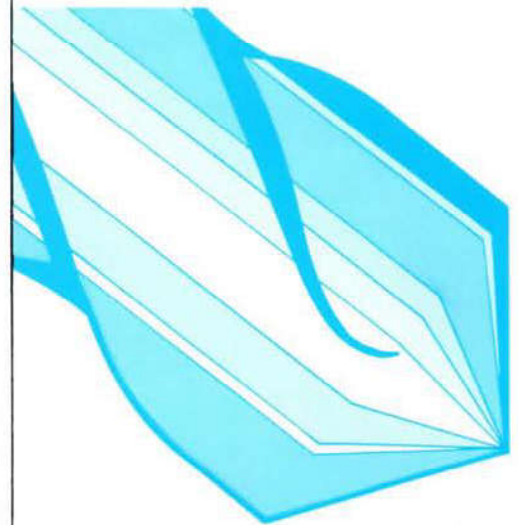


BUFFALO MODELS

15
AND
18

**Drilling
Machines**



BULLETIN 15-18-2

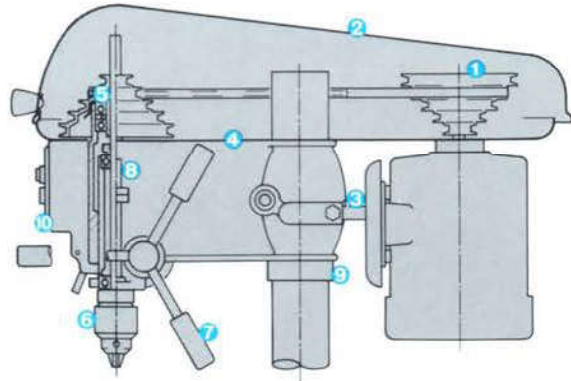
Standard Bench Drill
Model 15-B-20305

Standard Floor Drill
Model 15-F-20306

Production Bench Drill
Model 15-PB-20320

Head, Column & Adapter
Model 15-HCA-20314

Multiple Spindle
Bench Drill
Model 15-2SP-LEGS-20350



No. 15 Drilling Machine

for precision and general purpose applications

FEATURES:

- 1 Five-step V-belt pulley drive providing spindle speeds proportional to drilling capacity.
- 2 Complete belt enclosure of pressed steel, hinged at back and counterbalanced with torsion springs, for added operator safety.
- 3 Adjustable motor bracket controls belt tension.
- 4 Cast-iron machine frame with brass clamping bushing enables 360° frame rotation around column. Split frame quill provides controlled clearance, ensures constant accuracy, and compensates for wear.
- 5 For increased radial and thrust loads, the machine features full ball bearing construction, four permanently lubricated and sealed-for-life bearings, plus an extra large bearing at spindle nose.
- 6 One-piece, six-spline spindle of alloy steel incorporates: No. 33 Jacobs taper nose, and a maximum spindle runout of .001", measured at the nose; No 34-33C, 0 to 1/2" Jacobs chuck, with 1-1/16"- 20 TPI locking collar, as standard. (No. 2 M.T. spindle nose with locking collar available as an extra or alternative to chuck).
- 7 Three-spoke feed handle with non-slip hand grips. Full 4-1/2" feed travel and 476° handle rotation.
- 8 Calibrated positive depth stop with large, spin type, knurled double locking nuts.
- 9 Safety collar prevents head from dropping, permits 360° frame rotation around column.
- 10 Start-stop pushbutton mounted up front in frame cavity for convenience, eliminating need to reach beyond rotating spindle for controlling motor. Not available on 15-A-3, 15-A-5, 15-B-3, 15-B-5 motor packages.
- Clutch type-quill spring adjusts return speed and tension, compensates for tooling weight.
- Large slotted table on standard bench and floor models can be tilted or swiveled; indicated at 90°.
- Production floor drill has extra large 12" x 16" working surface non-tilt oil trough table with two 9/16" cross-type tee slots.
- Sturdy cast-iron base on standard bench and floor models has thru slots for clamping large workpieces.
- Special accessories, including tapping attachments, multiple drilling heads available through distributors.

GENERAL SPECIFICATIONS			No. 15	No. 18
CAPACITY	in mild steel	inches	1/2	3/4
	in cast iron	inches	5/8	1
MOTOR		H.P.	1/2	1
OVERHANG		inches	7 1/2	9
SPINDLE	feed travel or stroke	inches	4 1/2	5
	nose diameter	taper	33 J.T.	3 M.T.
QUILL	diameter	inches	5/8	15/16
COLUMN	diameter	inches	1 3/4	2 3/8
*SPINDLE SPEEDS (with 1725 RPM motor)	Pulley Step #1	RPM	2,750	3,906
	Pulley Step #2	RPM	500	460
	Pulley Step #3	RPM	950	710
	Pulley Step #4	RPM	1725	1110
	Pulley Step #5	RPM	3280	1800
		RPM	6000	2940

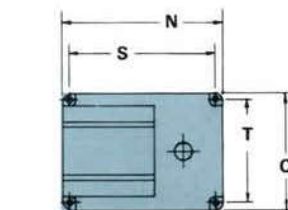
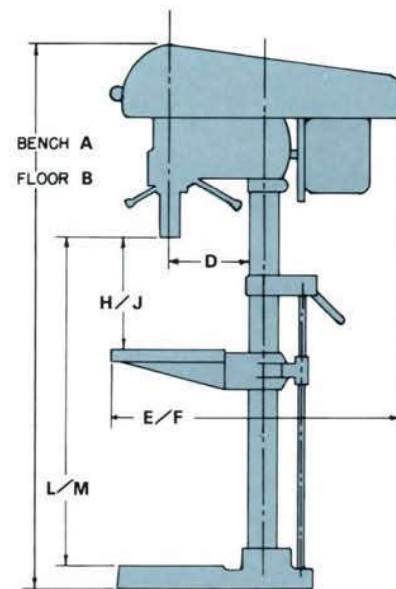
*For Spindle Speeds with 1425 RPM Motor multiply figures shown in table x .83; with 1140 RPM motor multiply x .66

MODEL DIMENSIONS (all dimensions in inches, all weights in lbs.)					
Drawing					
No. 1	No. 2	Description	Model Style	No. 15	No. 18
		Table Working Surface	Bench/Floor	11 x 11	14 x 14
		Tilting			
		Non-Tilting	Production Floor	12 x 16	14 x 18
			Production Bench (1 spindle)	14 x 14	14 x 14
			Production Bench (2 spindle)	14 x 26	14½ x 31
			Production Bench (3 spindle)	14 x 38¾	14½ x 46
			Production Bench (4 spindle)	14 x 50½	14½ x 60
			Production Bench (6 spindle)	14 x 74½	14½ x 91
		Table Slots			
		Thru	Bench/Floor	Four	Four
		Cross Tee	Production Floor	Two - 9/16	Two - 9/16
		Parallel Tee	Production Bench	Two - 9/16	Two - 9/16
		Table Adjustment	Floor/Production Floor	—	30
		Base Working Surface	Bench/Floor/Production Floor	10 x 10	12 x 10
A B	C	Overall Height	Bench	36½	49
			Floor	66½	73
D	D	Center Spindle to Column	Production Bench	39	49½
E F	G	Overall Length	Bench, Floor, Production Bench	7½	9
			Production Floor		
H J	K	Spindle Nose to Table (max.)	Bench/Floor	28	35½
			Production Floor	30½	37
			Production Bench	32	38
			Bench	10½	14¾
			Floor/Production Floor	40½	38¾
			Production Bench	19	24
L M		Spindle Nose to Base (max.)	Bench	16	22½
			Floor/Production Floor	46	46½
N	P	Length of Base	Bench/Floor/Production Floor	18	21
Q	R R2 R3 R4 R6	Width of Base	Production Bench	22⅞	22⅞
			Bench/Floor/Production Floor	13⅜	16
			Production Bench	17½	17½
			Production Bench 2	30⅜	35¾
			Production Bench 3	42½	50
			Production Bench 4	54¼	64¼
SxT	UxV	Foundation Bolt Pattern	Production Bench 6	78¼	95
			Bench/Floor/Production Floor	16½ x 11⅞	19½ x 14½
		Multiple Spindle Centers	Production Bench	20⅞ x 16	20⅞ x 16
		Bench Leg Height		12	15
		Shipping Weight Including Motors		30½	30½
			Bench	180	425
			Floor	190	450
			Production Bench	200	450
			Production Bench 2	600	900
			Production Bench 3	825	1300
			Production Bench 4	1300	1750
			Production Bench 6	1900	2700
		Production Floor	220	500	

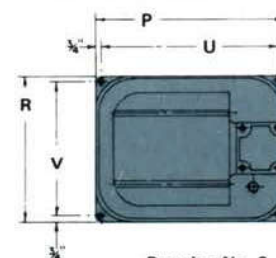
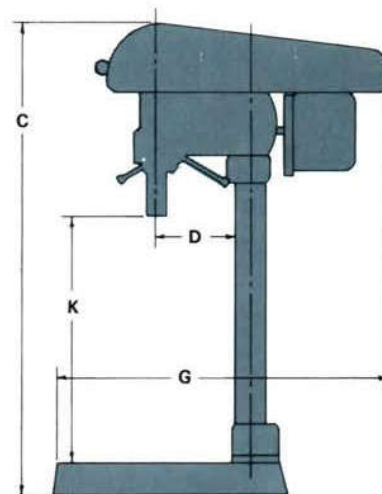
Canadian Blower/Canada Pumps Ltd. reserves the right to make changes and improvements in the design of its products without making replacements on existing Buffalo equipment and, in keeping with its policy of continuous product improvement, to alter design specifications published in this bulletin without notice or obligation.

How to Order

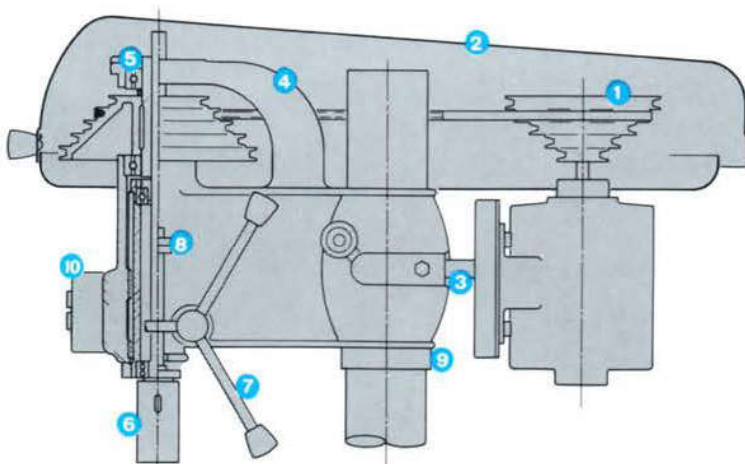
1. Use description and code number from bulletin.
2. Specify motor package and wiring voltage (single phase - 115 or 230 volt) (three phase - 208-230 460 or 575 volt) wiring and relay heaters used in starters can only be for one voltage.
3. If chuck and arbor required specify type and size.



Drawing No. 1
(Standard Bench Floor and
Production Floor Model Style)



Drawing No. 2
(Production Bench Model Style)



No. 18 Drilling Machine

for heavy-duty drilling applications

FEATURES:

- ① Five-step V-belt pulley drive providing spindle speeds proportional to drilling capacity.
- ② Complete belt enclosure of pressed steel, hinged at back and counterbalanced with torsion springs, for added operator safety.
- ③ Adjustable motor bracket controls belt tension.
- ④ Cast-iron machine frame with brass clamping bushing enables 360° frame rotation around column. Split frame quill provides controlled clearance, ensures constant accuracy, and compensates for wear. Heavy outboard arm for drive sleeve bearing prevents spindle whip.
- ⑤ For increased radial and thrust loads, the machine features full ball-bearing construction, four permanently lubricated and sealed-for-life bearings, plus an extra large double-row thrust bearing at spindle nose.
- ⑥ One-piece, six-spline spindle of alloy steel. Furnished with No. 3 Morse Taper spindle, maximum runout .002" measured at end of 6" test arbor.
- ⑦ Three-spoke feed handle. Full 5" quill travel with 441° handle rotation.
- ⑧ Calibrated positive depth stop with large, spin type, knurled double locking nuts.
- ⑨ Safety collar prevents head from dropping, permits 360° frame rotation around column.
- ⑩ Start-stop pushbutton mounted up front for convenience, eliminates need to reach beyond rotating spindle for controlling motor. Not available on 18-B-5 or 18-B-7 motor packages.
- Clutch-type quill spring adjusts return speed and tension, compensates for tooling weight.
- Large slotted table on standard bench and floor models can be tilted or swiveled; indicated at 90°.
- Production Floor Drill has extra large 14" x 18" working surface non-tilt oil trough table with two 9/16" cross-type tee slots.
- Screw-type, table-raising device is standard on floor drills.
- Sturdy cast-iron base on standard bench and floor models has thru slots for clamping large workpieces.
- Head raising device is standard on all multi-spindle and production bench models.
- Special accessories, including available through tapping attachments, multiple drilling heads available through distributors.

Production Head,
Column & Adapter
Model 18-P-HCA-20408



Production Bench Drill
Model 18-PB-20402



Standard Bench Drill
Model 18-B-20403



Standard Floor Drill
Model 18-F-20401



Multiple Spindle
Production Bench Drill
Model 18-2SP-PB-LEGS-20413

Motors and Controls for No. 15 Drill

The Motor-and-Control Packages listed below offer alternatives as to speed of motor and manual or magnetic control. All motors are continuous duty, ball bearing solid base type and drip proof or totally enclosed fan cooled, dependant on manufacturers standard design for particular rating.

Controls -

- (a) Control with Package 15-A-2 does not have overload protection. Motor used has manual overload device. Control front mounted for 115-volt operation only.
- (b) Manual type control has overload relays and is mounted on plate attached to motor bracket of machine.
- (c) Magnetic type control has overload and undervoltage protection. Start-stop push button is front mounted.

Motor-and-Control Packages are factory-mounted and wired and carry Canadian Standards Association approval.

CODE	DESCRIPTION
15-A-2	1/2 HP 1/60/115/1725 RPM capacitor Motor and Push Button Control.
15-A-3	1/2 HP 1/60/115-230/1725 RPM Motor and Manual Control.
15-A-4	1/2 HP 1/60/115-230/1725 RPM Motor and Magnetic Control.
15-A-5	1/2 HP 1/60/115-230/1140 RPM Motor and Manual Control.
15-A-6	1/2 HP 1/60/115-230/1140 RPM Motor and Magnetic Control.
15-B-3	1/2 HP 3/60/208-230-460 or 575/1725 RPM Motor and Manual Control.
15-B-4	1/2 HP 3/60/208-230-460 or 575/1725 RPM Motor and Magnetic Control.
15-B-5	1/2 HP 3/60/208-230-460 or 575/1140 RPM Motor and Manual Control.
15-B-6	1/2 HP 3/60/208-230-460 or 575/1140 RPM Motor and Magnetic Control.

Motors and Controls for No. 18 Drill

The Motor-and-Control Packages listed below offer alternatives as to speed of motor and manual or magnetic control. All motors are continuous duty, ball bearing solid base type and drip proof. Totally enclosed, fan cooled motors or other special types can be furnished on request.

Controls -

- (a) Manual type control has overload relays and is mounted on plate attached to motor bracket of machine. Starter for single phase motors front mounted.
- (b) Magnetic type control has overload and undervoltage protection. Start-stop push button mounted at front of machine.

Motor-and-Control Packages are factory-mounted and wired and carry Canadian Standards Association approval.

CODE	DESCRIPTION
18-A-5	1 HP 1/60/115-230/1725 RPM Motor and Manual Control.
18-A-6	1 HP 1/60/115-230/1725 RPM Motor and Magnetic Control.
18-A-7	1 HP 1/60/115-230/1140 RPM Motor and Manual Control.
18-A-8	1 HP 1/60/115-230/1140 RPM Motor and Magnetic Control.
18-B-5	1 HP 3/60/208-230-460 or 575/1725 RPM Motor and Manual Control.
18-B-6	1 HP 3/60/208-230-460 or 575/1725 RPM Motor and Magnetic Control.
18-B-7	1 HP 3/60/208-230-460 or 575/1140 RPM Motor and Manual Control.
18-B-8	1 HP 3/60/208-230-460 or 575/1140 RPM Motor and Magnetic Control.

- Note** (a) Specify voltage for which motor is to be wired - units can only be connected for one voltage.
 (b) Motor or control of other specifications than listed - on application.
 (c) 1725 RPM Motors carried in stock.

CODES FOR OTHER MODELS

(Not illustrated)

No. 15 Drill

Head only

15-H-20304 Head Only

Single spindle

15-PF-20419 Production Floor

Multi-spindle

15-2SP-B-20321 Two Spindle Bench
 15-3SP-B-20322 Three Spindle Bench
 15-3SP-B-LEGS-20351 Three Spindle Bench on Legs
 15-4SP-B-20323 Four Spindle Bench
 15-4SP-B-LEGS-20352 Four Spindle Bench on Legs
 15-6SP-B-20324 Six Spindle Bench
 15-6SP-B-LEGS-20353 Six Spindle Bench on Legs

Standard Equipment

No. 15 Drill

All models including head only, head, column and adapter, or multi-spindle are furnished with the 33 Jacobs Taper Spindle, 34-33C 0-1/2" chuck and key, motor pulley and V-Belt. Chucks and arbors with 2 M.T. nose adapters are extra. Motor and control packages are not included with standard equipment.

No. 18 Drill

Heads

18-H-20410 Standard Head Only
 18-HCA-20409 Standard Type Head, Column and Adapter

Multi-spindle

18-2SP-PB-20404 Two Spindle Bench
 18-3SP-PB-20405 Three Spindle Bench
 18-3SP-PB-LEGS-21414 Three Spindle Bench on Legs
 18-4SP-PB-20406 Four Spindle Bench
 18-4SP-PB-LEGS-20415 Four Spindle Bench on Legs
 18-6SP-PB-20407 Six Spindle Bench
 18-6SP-PB-LEGS-20416 Six Spindle Bench on Legs

Standard Equipment

No. 18 Drill

All models including head only, head, column and adapter, or multi-spindle are furnished with 3 M.T. spindle, motor pulley and V-Belt. Chucks, arbors and sleeves are extra. Motor and control packages are not included with standard equipment.

Attachments & Accessories

CODE -

15-MA-20289	MORTISING ATTACHMENT - 1/2" (15.9 mm) chisel capacity. Cannot be used with M.T. type spindle (Chisels and bits not supplied - Use chisel with 5/8" shank. (Not illustrated)
15-SS-20346 18-SS-20336	SLOW SPEED ATTACHMENT
15-2M.T.-NA 20425	No. 2 MORSE TAPER ADAPTER - fits on No. 33 taper spindle - available on all models with chucks and arbors extra. (Replace chuck with nose adapter to convert.)
130-J33	1/32" - 1/2" (.793 mm - 12.7 mm) KEYLESS TYPE CHUCK (not illustrated).



CHUCKS & ARBORS

STANDARD SPINDLE NOSE	15 33J.T.	18 3M.T.
0-1/2 Jacobs 34-33C chuck #33J.T.	*	
0-1/2 Jacobs 34-33 chuck #33J.T.	*	*
1/8-5/8 Jacobs 3A chuck #3J.T.		*
3/16-3/4 Jacobs 36 chuck #3J.T.		*
1/32-1/2 130-J33 Keyless chuck	*	*
2M.T. to 33J.T. arbor	*	
3M.T. to 33J.T. arbor		*
3M.T. to 3J.T. arbor		*
3M.T. to 2M.T. sleeve		*
2M.T. to 33J.T. Morse tape adapter	*	



SLO SPEED ATTACHMENT

Slo Speed Attachment, for applications requiring lower than normal speeds provides 5 normal spindle speeds and 5 reduced spindle speeds.

Buffalo slow speed attachments are designed to supply a fast and economical solution to drilling problems requiring lower speeds. The rigid cast iron bracket supports the intermediate shaft on two ball bearings for smooth trouble-free operation. Two-step pulleys provide a reduction on one step, and a direct ratio on the other, enabling a range of ten speeds to be available. These attachments are readily mounted on existing installations. Units are complete with pulleys and v-belts. Intermediate shaft designed to take 5/8" bore standard five-step motor pulley (not included). Motor shaft diameter should be indicated on orders, to ensure shipment of correct two-step slow speed pulley (5/8" bore standard).

Extra belt and motor bracket supplied with attachment on No. 15 Drill requiring motor to be re-mounted. Present bracket on No. 18 Drill mounts on slow speed support without any changes.

No. 15 DRILL

1725 RPM Motor		1140 RPM Motor	
Direct	With Attachment	Direct	With Attachment
500	135	330	90
950	255	615	165
1725	465	1140	310
3280	885	2165	585
6000	1620	3965	1070

No. 18 DRILL

1725 RPM Motor		1140 RPM Motor	
Direct	With Attachment	Direct	With Attachment
460	125	305	85
710	190	470	125
1110	300	735	200
1800	485	1190	325
2940	795	1945	525



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