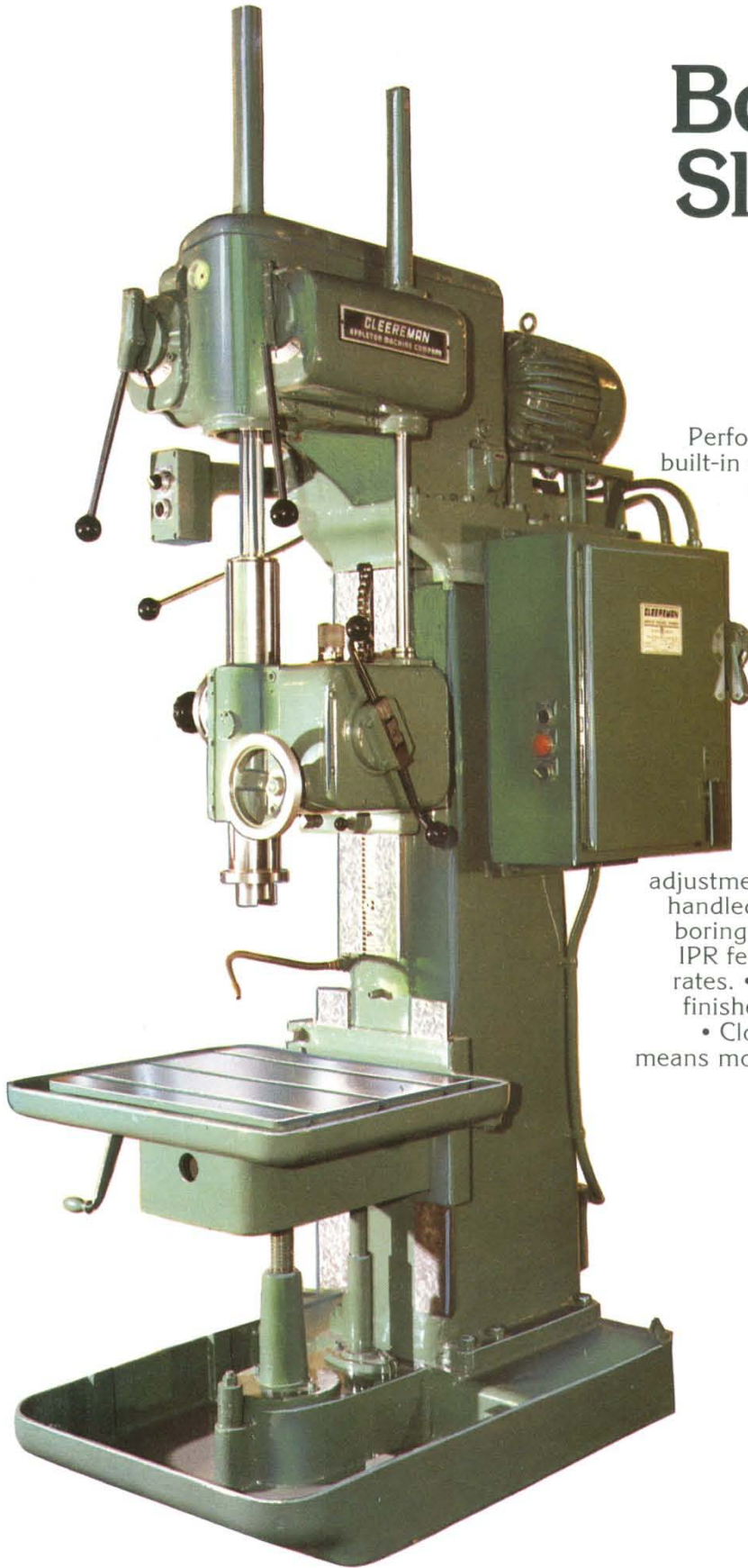


# Box Column Sliding Head Drilling Machine



Performance, accuracy and versatility are built-in characteristics of Cleereman Sliding Head Drilling Machines. A long and careful study of the application and operation of drilling machines on a wide range of difficult work has resulted in a modern design capable of the highest efficiency.

- Unit construction throughout provides simplified design and eliminates complicated mechanism.
- Carefully grouped operating controls, clamps, and positioning cranks give fast, easy operation.
- Quick positioning of table and sliding spindle head increase efficiency.
- The wide range of adjustment means a variety of work is easily handled.
- Spindle speeds range from slow boring to fast reaming rates.
- Gear driven IPR feed provides accurate control of feed rates.
- Generous way areas are accurately finished and lubricated to insure long life.
- Close-coupled, direct gear motor drive means more rugged, steady power to spindle.

For factory direct parts and service contact us at the address below.

Chas. G. Allen, Inc.  
25 Williamsville Road  
Barre, MA 01005  
Tel: (978) 355-2911  
Fax: (978) 355-2917

## SPEED, FEED AND MOTOR CONTROL

Single direct-acting levers control speeds, feeds and motor. Unique shifting of speeds and feeds is direct from any one to any other without passing intermediate points. A pointer indicates speeds and feeds engaged. The motor control lever operates a built-in pilot switch with "Start-Stop" position; on reversing motor controls "Start-Stop-Reverse".

## FEED GEARING

The feed transmission is also an individual unit and is removable as a complete assembly. Ground alloy involute splined shafts, shaved gears and anti-friction bearings are used.

Lubrication is provided from the main transmission case. Special feed gearing can be furnished to include a limited number of tap leads.

## SPINDLE AND SLIDING HEAD

Heat treated alloy steel spindle quill and removable full capped quill bearing in the sliding head give extra long life and allow compensating adjustment for what little wear does occur.

The alloy steel spindle shaft has 19 involute splines to give maximum bearing area in the drive bushing and provide increased torsional capacity. The spindle ball bearings are grease lubricated and mounted so temperature increase under extra heavy operation has minimum effect on preload.

The hardened steel drift slot insert in the spindle prevents damage from rough use of drifts.

The sturdy box section sliding head is mounted on generous, accurately scraped, dovetail column ways. Precision alignment allows full vertical movement without impairing accuracy. Accurate counter-balancing by a weight inside the column allows quick easy positioning of head and spindle. The combination of a positive lock latch, engaging the elevating rack and the sliding head binder, positively lock the head to the column, without putting undue strain on the head casting.

The powerful positive quick-acting feed clutch and gear mechanism, contained in the head, operate in a bath of oil. The feed worm and gear are in constant mesh. The feed depth dial is easily set to disengage the feed at any pre-selected point. Safety trip dogs automatically disengage the power feed at the extremes of spindle travel.

## TAPPING

The Cleereman automatic tapping reverse option is for high speed tapping of large or small run production in open or blind holes. The depth repeatability obtained at a reversing point is invaluable when blind hole tapping.

Complete controls for automatic or manual operation along with feed depth dial permit use of this attachment throughout the range of travel.

For close tolerance work a lead screw unit geared directly to the spindle can be furnished. A separate precision ground lead screw and bronze nut are needed for each thread pitch, and are known as a thread lead attachment.

Certain geared pitch leads can be obtained by using special gearing in the feed box or a combination of leads can be arranged by using the auxiliary feed gear box. All automatic tapping equipment is optional equipment.

## EQUIPMENT AND ACCESSORIES

Coolant Systems  
Chip Pans  
Special Spindle Noses  
Multiple Drill Head Flanges  
Multiple Drill Head Counterbalancing  
Increased Spindle Travel  
Machined and T-Slotted Base  
Automatic Tapping Reverse  
Thread Lead Attachment  
Increased Column Heights  
Compound Tables  
Special Boring Spindles

## SPECIFICATIONS:

### CLEEREMAN DC BOX COLUMN SLIDING HEAD DRILLING MACHINE

#### SINGLE SPINDLE MACHINES

	25" Swing Machine	30" Swing Machine
Center Spindle to Lower Column.....	12½	15
Center Spindle to Upper Column.....	11½	14
Swing in Plane of Table.....	23	27½
Maximum Distance Spindle to Base.....	46	48
Minimum Distance Spindle to Base.....	16	18
Maximum Distance Spindle to Table.....	33	33
Minimum Distance Table to Floor.....	17½	20½
*Spindle Travel by Power.....	12	12
*Spindle Travel by Hand.....	12½	12½
**Adjustment of Sliding Head.....	18	18
Vertical Adjustment of Table.....	12	12
Spindle Nose — Diameter and Length..	2⅞ x 5⅞	2⅞ x 5⅞
Morse Taper Hole in Spindle (Larger available).....	No. 4	No. 4
Spindle Spline Diameter.....	1.650"	1.650"
Spindle Sleeve Diameter.....	3⅞	3⅞
Working Surface of Table.....	19x24	24x28
Working Surface of Base.....	21x23½	23x24
Height of Base.....	4½	5½
Feeds in Thousandths per Revolution.....	5-7-9-13-15-17-20-32-45	
Special higher or lower feed ranges on application		
Standard Speeds		
2 Ranges Available, State Choice		
#1	50-62-85-110-150-190-265-345-440-550-775-1000	
#2	75-92-130-170-230-285-400-520-665-825-1160-1500	
Special higher or lower speed ranges on application		
Horsepower.....	5 or 7½	5 or 7½
Height Overall.....	9'-0"	9'-3"
Floor Space.....	28½x58	35x58
Net Weight, Lbs.....	3150	3750
Crated Weight, including Electrical		
Equipment, Lbs.....	3600	4250
Box Size — Export.....	38x60	42x60
	x96 high	x96 high
Cubic Feet — Boxed for Export.....	127	140
Gross Weight — Boxed for Export.....	3900	4550

\*Spindle Travel reduced 4½" when using lead screw tapping attachment.  
\*\*Sliding Head Travel reduced by 2½" when using an auxiliary feed gear box.

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