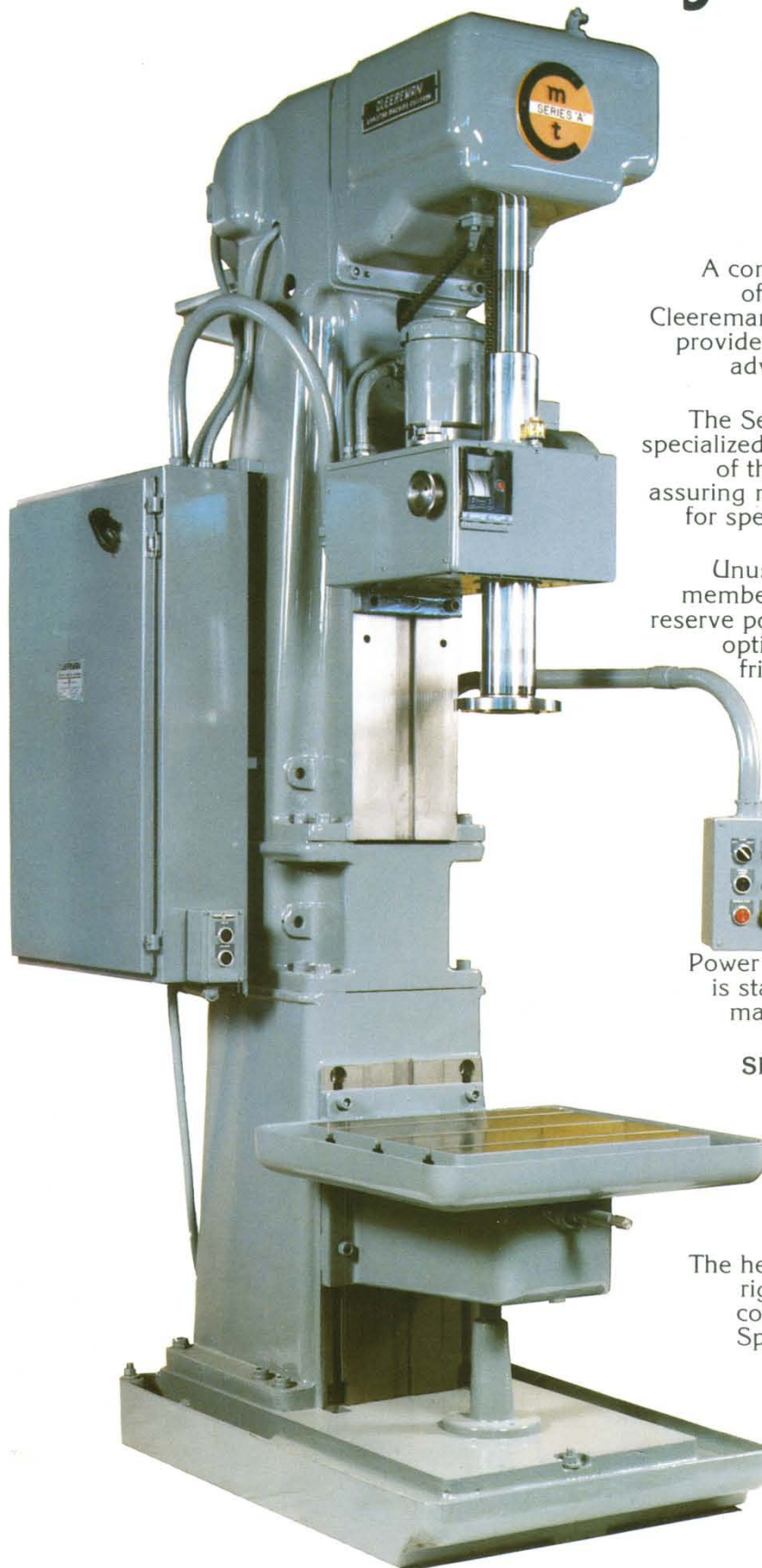


# Automatic Cycle Upright Drilling & Tapping Machine



A complete automatic cycle at the touch of a button — that is the heart of the Cleereman Series “A”. These machines have provided industry with the latest and most advanced design of automatic drilling and tapping equipment.

The Series “A” machine is truly the most specialized standard machine, using elements of the “building block” concept — thus assuring maximum economy in construction for special applications — and yet readily convertible from job to job.

Unusual rigidity in the heavy structural members, the heavy duty spindle and the reserve power, allow cutting tools to work at optimum efficiency. 100% use of anti-friction bearings with either life-time sealed lubrication or lubrication from reservoirs eliminates outmoded hand oiling. The simple electrical and mechanical design reduces maintenance cost.

## POWER TRAVERSE

Power rapid traverse approach and return is standard on all Cleereman Series “A” machines. An auxiliary traverse motor is used on all machines.

## SPEEDS, FEEDS & IPR TAP FEEDS

Easy set-up, quickly changed pick-off gears, broad ranges of speeds, feeds and IPR Tap Feeds make this high production machine ideal even for small lot production.

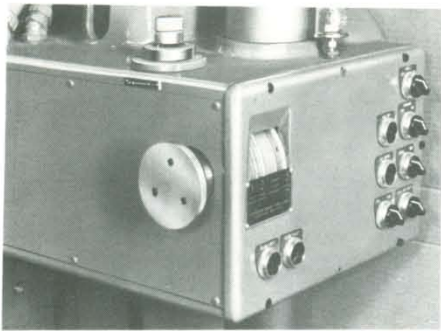
## SPINDLE HEAD

The heavy box section spindle head bolts rigidly to the face of the heavy upper column in any one of three positions. Spindle quill has 100% bearing in the head at all times.

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





**AUTOMATIC CYCLE CONTROL**

Adjustable dials control limit switches for operating spindle traverse motor and electric feed clutch on adjustable spindle head.

For adjustment requiring close depth tolerances, a built-in micrometer graduated in thousandths is provided on top of the head just above the depth dial. The built-in micrometer has a range of plus or minus .020 inch adjustment with a depth repeatability of .002 inch.



**FEED CLUTCH**

The heavy duty electric feed clutch is engaged to furnish feed to the cutting tool after rapid advance.



**SPEED-FEED BOX**

Shaved, heat treated pick-off gears are fast and simple to change. Each pair of speed pick-off gears is transposed to provide 2 spindle speeds. One pair of intermediate speed gears is furnished as standard equipment for either high or low range. Each pair of Feed pick off and Feed intermediate gears can be transposed to provide four IPR feedrates.

**DRILLING AND/OR TAPPING**

The Series "A" is built in two model classifications. The Model AD is the drilling machine and the Model ADT is the drilling and tapping machine. High cycle tapping operations are accomplished by using rapid reversal motors.

**LUBRICATION**

Lubrication to the transmission gears and bearings is distributed by a pump in the transmission head. The adjustable head transmission runs in oil. All isolated bearings are permanently sealed.

**T-SLOTTED TABLE**

A T-SLOTTED TABLE bolts solidly to a large pad on the lower column face. An extra capacity coolant trough and a heavy screw jack for auxiliary support are included.

**J.I.C. ELECTRICAL SPECIFICATIONS**

J.I.C. Electrical Specifications are standard.

**STANDARD EQUIPMENT**

Standard equipment includes pushbutton station, motor shelf and coupling for direct motor drive, sump type base, counterweight assembly, rectangular table with screw jack and No. 5 Morse Taper Spindle Nose or Flanged Quill for Multiple Spindle Drill Heads. One pair of Speed Pick-Off Gears, one pair of Feed Pick-Off Gears, one pair of Speed Intermediate Gears (high or low range) and one pair of Feed Intermediate Gears are provided as standard.

**OPTIONAL EQUIPMENT**

Straight Raising Blocks, Offset Raising Blocks, Special Slotted Spindle Nose, Special Spindle Nose Tapers, Increased Spindle Travel, Power Feed Dwell to Spindle, Coolant System, Chip Pans, Special Indexing Tables, Multiple Spindle Heads, Fixtures and Tooling, T-Slotted

Base, Left Hand Tapping and Skip Feed meet a wide range of machining requirements.

**VARIATIONS**

Increased clearance under the spindle can be obtained with raising blocks. Offset raising blocks also increase the spindle overhang.

Special oversize bases and tables, for large parts, fixtures, or indexing tables are available.

The upper column, spindle head, transmissions, motors and controls are a complete unit readily mounted on special machinery or fixtures.

Various gang drill arrangements are available.

**SPECIFICATIONS: CLEEREMAN SERIES "A"**

**Single Spindle**

Spindle to column.....	15"
Spindle to base, max., with No. 5 M.T. Spindle ..	50"
Spindle to base, max., with Flanged Quill.....	56"
Spindle to base, min., with No. 5 M.T. Spindle ..	32¾"
Spindle to base, min., with Flanged Quill.....	38¾"
Spindle to table, max., with No. 5 M.T. Spindle ..	36"
Spindle to table, max., with Flanged Quill.....	42"
Spindle to table, min., with No. 5 M.T. Spindle ..	6¾"
Spindle to table, min., with Flanged Quill.....	12¾"
Table to floor, max.....	32"
Table to floor, min.....	20"

**Spindle**

Head adjustment (3" Increments).....	6"
Spindle travel.....	11¼"
Morse Taper.....	No. 5
Spindle nose, #5 M.T.....	3-1/8" Dia.
Spindle quill diameter.....	4-7/16"
Thrust capacity-No. 5 M.T. Spindle.....	7,000 lbs
Flanged Quill.....	8,500 lbs

**Table and Base**

Table Working Surface.....	22" x 24"
Vertical Table Adjustment.....	12"
Height of Base.....	6"

**Floor Space**

R to L x F to B.....	33" x 60"
Height, Overall.....	102"

**Motors**

Main Drive 5, 7-1/2, 10 or 15 HP/1200 or 1800 RPM

**Weight**

Shipping..... Approximately 4,300 lbs

Spindle R.P.M.	Spindle R.P.M.
(Low Range)	(High Range)
64	193
77	230
90	270
103	315
123	369
141	423
162	486
185	555
202	606
231	693
265	793
304	912
355	1065
414	1242
486	1461
580	1740

Speeds based upon 1800 RPM motor

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**Available Spindle Feeds**

Thousandths per rev.	Feeds	Available Tap Leads
Feeds	Feeds	Threads per inch
.0029	.0204	
.0039	.0278	36
.0043	.0313	32
.0048	.0347	
.005	.0357	28
.0052	.037	27
.0059	.0417	24
.0068	.0485	
.0070	.050	20
.0078	.055	18
.0087	.0625	16
.0098	.069	
.0100	.0714	14
.0107	.076	
.0108	.0769	13
.0112	.0798	
.0117	.0833	12
.0122	.0868	11-1/2
.0126	.090	
.0127	.0909	11
.0137	.0973	
.0140	.100	10
.0156	.111	9
.0177	.125	8
.0195	.1385	
.0201	.1429	7
.0234	.1667	6
.0263	.1875	
.0273	.194	
.0280	.200	5
.0310	.222	4-1/2
.0350	.250	4