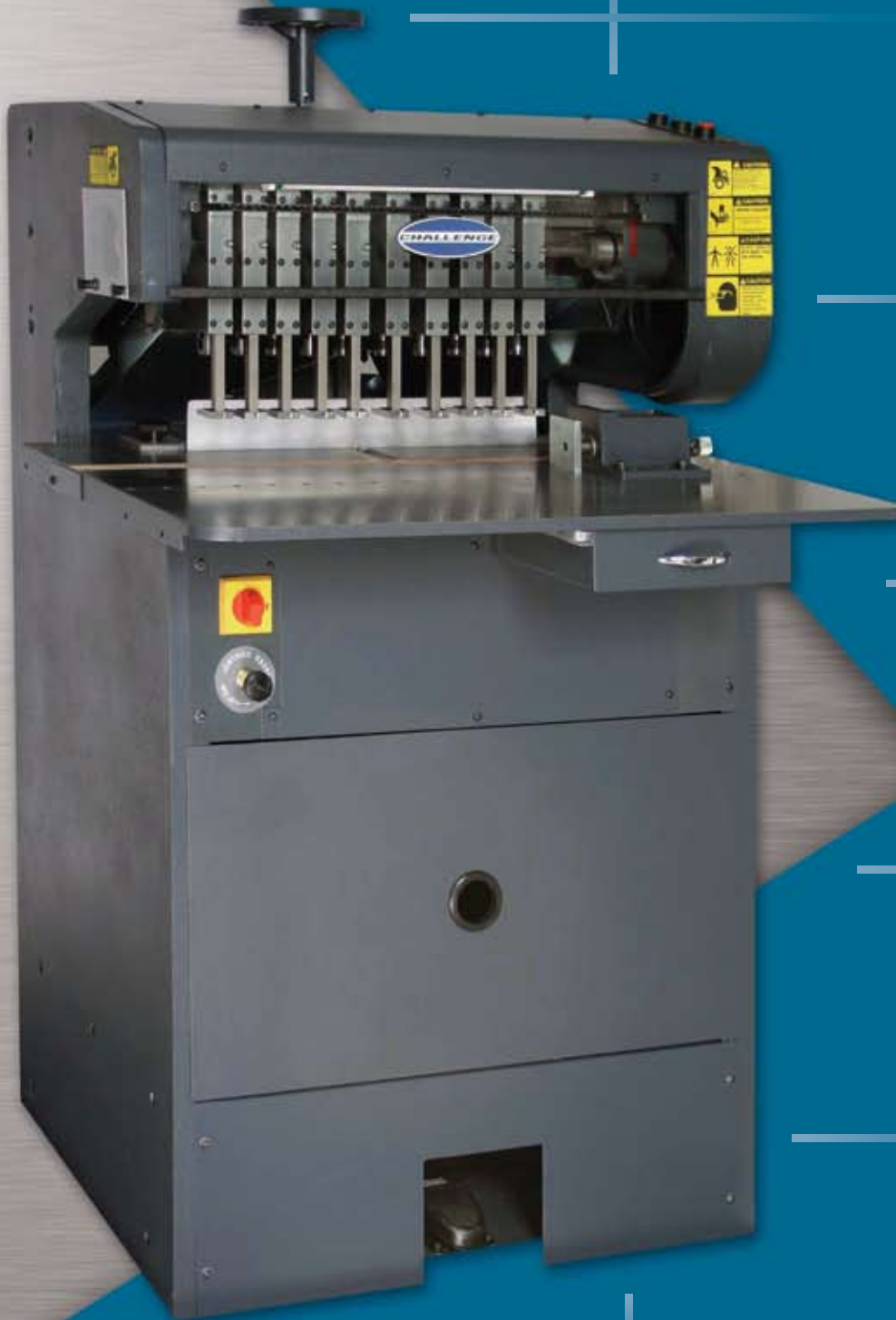




MS-10

# MULTI-SPINDLE DRILL



ASSURANCE YOU MADE THE RIGHT DECISION

# MS-10 MULTI-SPINDLE DRILL

Over 75 years ago, Challenge pioneered the industry's first paper drilling machines. Today, MS 10 is part of the Challenge team of cutters, drills, folders, and other bindery equipment. Challenge dealer for qualified service and original equipment Challenge parts.

## MS-10

### PRODUCTION DRILLING

The MS 10 is flexible. It quickly drills any job up to 10 holes in one stroke, so big drilling jobs can be completed quickly and economically. It's easy to adjust for a variety of multiple hole patterns — simply add and adjust drilling heads by sliding them along the splined shaft. A special three drill head is available with drill bits on 1" centers.

### POWERFUL HYDRAULIC DRILLING

A touch to the foot pedal brings the drilling heads down to the table under hydraulic power. The paper is drilled and the heads are released automatically and returned to the starting position. The speed of the heads on the downward stroke is adjustable, providing you with the most efficient drilling and production operations on all types of jobs and paper stocks.

### BUILT TO LAST

The MS 10 features cast iron and steel construction, and is quality built by highly trained technicians with years of experience. The MS 10 is designed and built to stand up to years of heavy duty drilling use. It is a drill you can depend on to get your jobs done productively and on time.

### FEATURES

- High Production Multi Hole Drilling
- Drills Up To 10 Holes In One Stroke
- Maximum Drill Bit Diameter 1/2" with standard heads
- 2 1/2" Drilling Capacity
- Powerful Hydraulic Operation
- Easy Head Adjustment
- Variable Speed Stroke Control
- Automatic Paper Chip Removal
- Rugged Cast Iron and Steel Construction
- Flexible Side Guide Adjustments
- Multi Splined Drive Shaft
- Adjustable Backgauge
- Lighted Work Surface

### STANDARD EQUIPMENT

- Two Backgauge Filler Blocks
- Twelve 1 1/4" x 6" Wood Drilling Blocks
- Hand Drill Sharpener
- Paper Chip Disposal Drawer
- Tool Drawer and Kit

## ACCESSORIES

### STANDARD DRILLING HEAD



The standard drilling head has a 2 1/2" lift capacity and comes with one 1/4" and one 5/16" hollow drill bit. (Additional bits and other sizes are available.) The MS 10 handles up to ten standard drilling heads, giving you top production speed.

### TRIPLE DRILLING HEAD



The triple drilling head has a 2 1/2" lift capacity. This special head comes with three 1/4" and three 5/16" hollow drill bits. Bits are mounted on fixed 1" centers. (Additional bits and other sizes are available.)

### LARGE HOLE DRILL HEAD



The large hole drill head is part of the large hole conversion kit, which allows drilling of 9/16" to 1 1/2" holes. The MS 10 handles up to two large hole heads with a center to center range of 5" to 17 3/4" and a back gauge range from 0 to 2 5/8".

Challenge builds on this experience with the latest drilling technology. The tools that have been crafted with pride in the U.S.A. since 1870. Count on your

## HOLLOW DRILL BITS



2" drilling capacity hollow drill bits come in 13 sizes from 1/8" to 1/2" in diameter. 2 1/2" drilling capacity hollow drill bits come in four sizes: 1/4", 5/16", 3/8", and 1/2" (shown as blue in chart below). Drill bit part numbers are listed below size in chart below.

## AUTO TRIP SIDE GUIDE



This side guide automatically releases after drilling, allowing the lift to be moved to the next position. Mostly used for closely spaced multi hole drilling, this guide accepts fixed gauges and comes with six adjustable stops.

## RIGHT HAND SIDE GUIDE



You can use this guide alone for single lift drilling, use it with another guide for drilling two lifts in one stroke, or use it for drilling a lift on the left and right side guides in two strokes.

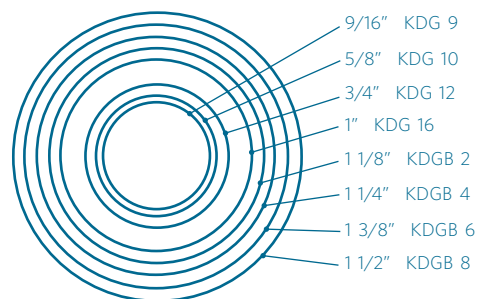
## PLASTIC DRILLING BLOCKS



Plastic drilling blocks (shown) are recommended for large hole drilling jobs. Wood blocks should be used with standard drill bits.

## LARGE HOLE DRILLING

Illustration below shows actual sizes of large hole drill bits available from Challenge. Drill bit part numbers are listed after sizes for easy reference.



## EXTRA SIDE GUIDE STOPS

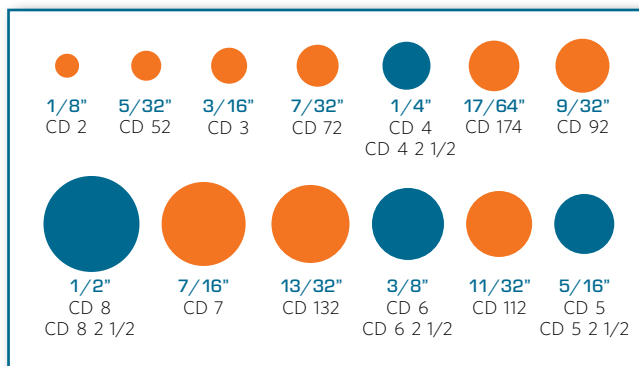
Additional side guide stops are used with the automatic trip side guide. They are easy to place in the guide slot and adjust with Allen screws.

## EXTENSION SIDE TABLES

Left and right side tables (22" x 48" each) provide additional working area. Order left table, right, or both.

## TWO-HAND CONTROLS

Dual hydraulic power buttons must be pressed simultaneously to activate drilling.



Holes are shown actual size; Blue indicates sizes available in 2 1/2" length.

# MS-10 MULTI-SPINDLE DRILL

## SPECIFICATIONS

- Maximum Number Of Drill Heads 10
- Drill Sizes Available\* (2" capacity) 1/8" to 1/2" / 3 13 mm
- Drill Sizes Available (2 1/2" capacity) 1/4" to 1/2" / 6 13 mm
- Center to Center Maximum 2 1/4" / 53 cm
- Distance of Heads Minimum\*\* 1 1/4" / 3.2 cm
- Minimum Distance Between Holes
  - With Adjustable Stops 3/8" / 9.5 mm
  - With Fixed Gauges 1/4" / 6 mm
- Maximum Drilling Capacity 2 1/2" / 6.35 cm
- Strokes Per Minute (adjustable) 18 to 26
- Backgauge Adjustment 0 to 9" / 0 23 cm
- Vertical Adjustment of Individual Heads 1/4" / 6 mm
- Table Size 24" x 36" / 61 x 91 cm
- Table Height 38" / 96.5 cm
- Overall Height 60" / 152 cm
- Floor Space Needed 35" x 40" / 89 x 102 cm
- Net Weight (approximate) 1350 lbs / 675 kg
- Shipping Weight (approximate) 1660 lbs / 830 kg

## ELECTRICAL

- Standard: 3 Phase, 60 Hz, AC.
- Pump: 3/4 HP;
- Spindle Motor: 3 HP.
- 208 Volts/14 Amps, 230 Volts/12.8 Amps (service size 20 Amps), or 460 Volts/6.6 Amps (service size 15 Amps).
- Optional: 1 Phase, 60 Hz, AC.
- Pump: 3/4 HP.
- Spindle Motor: 3 HP.
- 208 Volts/26.5 Amps or 230 Volts/24.2 Amps. Service size 40 Amps.

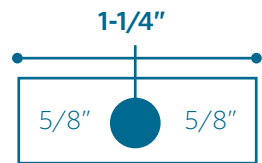
\* Special large hole drilling (up to 1 1/2" in diameter) is possible with the conversion kit.

\*\* Three hole drilling heads are available for drilling 3 holes on 1" centers.

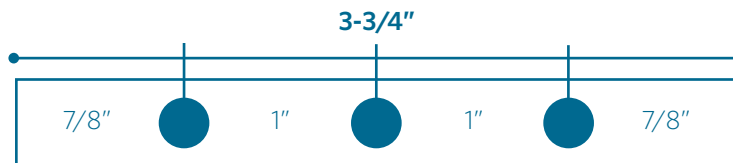
This machine must be wired to an individual line through a disconnect box with the proper voltage at the machine.

## DRILLING HEAD CONFIGURATIONS

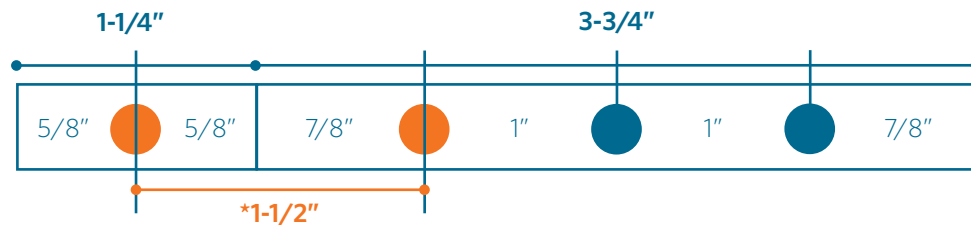
### STANDARD HEAD



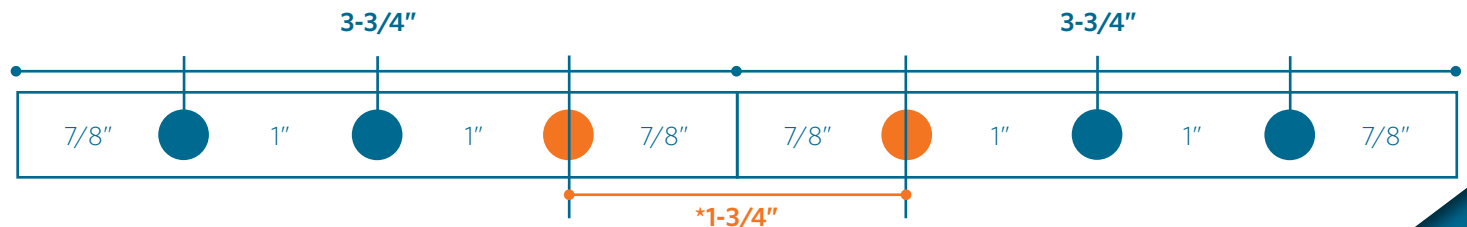
### TRIPLE HEAD



### STANDARD + TRIPLE HEAD COMBINATION



### TRIPLE + TRIPLE HEAD COMBINATION



**\* NOTICE:** When drill heads are used in combination, center to center hole dimensions of adjacent drill bits are greater than the center to center hole dimensions within each drill head.

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