

CHAMPION
CUTTERS

CHALLENGE PRODUCTS



CHAMPION® PAPER CUTTERS





CHAMPION® 305 & 370

A Tradition of Innovation and Reliability

- For well over a century, Challenge has manufactured quality paper cutters. In the 1940s, Challenge revolutionized the cutting industry with the introduction of the first hydraulically operated paper cutter. The Champion series, introduced in 1960, soon became one of the best-selling cutters in the industry. Today's Champions continue this tradition — they are the highest quality, most technically advanced machines Challenge has produced. They feature another industry first — electronically controlled clamping pressure. On programmable models, clamping force may be customized for each individual cut.
- Champion cutters have earned a reputation for quality and dependability. Purchasers of new Champion cutters have been rewarded with excellent resale value, because Champions are one of the most sought-after cutters in the used equipment market.
- Champion cutters are engineered solely by Challenge. Complete control of product development, engineering, and support enhances our ability to provide features designed specifically for your needs. This ensures a superior-quality machine and top-notch support. Challenge support technicians average over 25 years of experience.
- Your Challenge dealer is a key factor in your satisfaction with a Champion cutter. We carefully select the dealers that represent Challenge worldwide. Only organizations that are committed to meeting your needs with a high level of professionalism and integrity are awarded Challenge Dealer status.
- You can expect impressive productivity from a Champion cutter. User-friendly software streamlines the learning curve. Ease of operation,



Available in Two Cutting Widths

The expanded Champion line delivers large cutter features in **30½"/77.5cm and 37"/94cm** cutting widths. Programmable models (XT and XG) are available in both cutting widths. A single screen programmable power backgauge model (305 XD) and split backgauge, non-programmable model (305 X) are also available in the 30½" cutting width.

Programmable XT, XG & XD Models

- Menu-Driven Data/Graphic Color Touch-Screen (XT models)
- Menu-Driven LCD Data Screen (XG and XD models)
- Visually-Cued LCD Graphic Screen (XG models)
- Backgauge Position Indicator
- Electronic Clamp Pressure Control
- Alpha/Numeric Electronic Keypad
- Variable Mode Data Entry
- 99-Channel Non-Volatile Memory
- Program Lockout
- Patented Variable-Speed Pinpoint Backgauge Control
- Computer Diagnostics
- False Clamp Plate Position Monitoring

On programmable XT models, the **10.4"-diagonal color touch-screen display** provides a graphic display of the sheet division, clamp pressure settings, and backgauge position. User-friendly software menus assist the operator in project setup, and provides numeric displays of

backgauge position, cut dimensions, and clamp pressure control settings.



Windows®-based, upgradeable software further simplifies job setup. A **floppy disk drive** allows unlimited storage and backup of job information on 3.5" disks. A thorough Help function serves as an on-board operator's manual.

PAPER CUTTERS

Designed for Convenience . . .

Thanks to Challenge's innovative computer engineering, the programmable models offer a **total system memory of 47,000 cuts (XT models) and 9,801 cuts (XG & XD models)** that can be stored in **99 channels**. Standard computer programs feature automatic sheet division (XT & XG), label cutting (XT & XG), and manual programming (XT, XG & XD models).

Protection . . .

Occupied channels can be locked individually with memory lockout to protect job programs. The non-volatile memory protects stored information from power outages without the need for battery backup.

Speed . . .

The electronic control panel features our advanced **patented variable-speed pinpoint backgauge control** to quickly position stock. Depending on the portion of the control you touch, the backgauge moves forward or backward at varying speeds. Or, if you know the desired position, key it in and press "Send."

Flexibility . . .

Challenge's **electronic clamp pressure control** can be set from the "Send" screen. On XT & XG models, different clamp pressures can be programmed for each individual cut.

Simplicity . . .

Menu-driven set-up and a light touch **alpha/numeric electronic keypad** combine to simplify programming, editing, and naming specific jobs. Backgauge position, channels, cut dimensions, clamp pressure settings, and sheet division layouts are displayed on LCD screens.

Control . . .

Challenge's unique control system permits **variable mode data entry**. Enter data in inches (to 0.001"), fractions (to nearest 1/64"), or millimeters (to 0.1 mm). **Convert data** from one system to another with just the touch of a button!

Accuracy . . .

The computer quickly positions the backgauge to each dimension and alerts the operator when it is ready to cut. The backgauge position is measured independently from

the lead screw and is constantly computer-monitored to maintain consistent accuracy.

Safety . . .

Standard equipment includes the finest Category 4 **light curtain** to guard the cutter opening. These self-monitoring, self-checking beams insure the highest degree of safety for the operator. A **slot closure device** covers the opening in the table required for the movement of the backgauge. The **push-out key** moves stock forward, allowing the operator to turn or remove jobs without placing hands in the clamp and knife area. To assist in stock alignment and removal, a wooden jogging aid is supplied with each Champion cutter. **NOTE:** An operator should never place hands under the clamp or knife.

. . . and Logic

An advanced computer program monitors cutter operations. Sophisticated sensor arrays detect backgauge position and mechanical cutting sequences. If a problem is detected, the computer will shut down the machine, and display an error message to simplify troubleshooting.

On programmable XG models, the **LCD graphic screen** (left screen with soft keys A–D) provides a visual display of the sheet division, clamp pressure settings, and backgauge position.

The **LCD data screen** (right screen with soft keys E–H) uses straightforward menus to assist the user in project setup, and

provides numeric displays of backgauge position, cut dimensions, and clamp pressure control settings.

The **light touch electronic keypad** allows easy programming in decimals, fractions, or metric dimensions.



The **variable-speed pinpoint backgauge control** quickly moves the backgauge forward or back, in fast or slow speed with a single touch.

Choose the Leader

Champion cutters are just a portion of the Challenge team of cutters,

drills, folders, and other bindery equipment . . . all crafted with pride in the U.S.A. since 1870.



STANDARD FEATURES (XT, XG, XD & X models)

- 30½" Cutting Width, 4" Clamp Opening – 305 models
- 37" Cutting Width, 5⅞" Clamp Opening – 370 models
- Hydraulic Clamping and Cutting
- Adjustable Clamp Pressure
- Manual Foot Pedal Clamping
- Line-Light Cut Position Indicator
- Lighted Work Surface
- False Clamp Plate
- Cast Iron and Steel Construction
- Air Table
- Slot Closure
- Light Beams

The **line-light cut position indicator** projects a line of light onto the stock, to quickly position each cut and aid setup of multiple-cut jobs.

Pressing the cut buttons activates the hydraulic system. The system sequentially powers the clamp and then the knife, without any loss of power or accuracy. Hydraulic operation assures more power, less maintenance, greater reliability, with less stock spoilage.

After the motor has been inactive for two to 30 minutes (as set by the operator), the Champion switches into an **energy-conserving standby mode**. Pressing the cut buttons again instantly returns the machine to full power.

Clamp pressure is adjustable, so clamping force can be changed to match specific job requirements. For pre-cut clamping — to hold slick stocks or verify cut position — the mechanical foot pedal gives the operator complete control of the clamp. During a cut cycle, hydraulic clamp pressure is activated. After increasing to the selected setting, it is maintained throughout each cycle.

Knife changing is easy and quick, thanks to the slotted knife bar design. **False clamp plate** installation and removal is just as convenient, because it's handled from the front of the machine.

Each cutter includes two knives, four plastic cutting sticks, jogging aid, tool kit, and operator's manual.

OPTIONAL EQUIPMENT

Oversized Side Tables – The 30½" cutters offer 24" x 36"/61cm x 91cm side tables in place of the standard 18" x 24"/46cm x 61cm tables.

Air Side Tables – oversized (24" x 36"/61cm x 91cm) side tables equipped with air are available.

Experience the accuracy, speed, and versatility of Champion cutters — designed to save time and money on a wide range of jobs. They're part of the Challenge team of cutters, drills, folders, and bindery equipment . . . all crafted with pride in the U.S.A. since 1870.

Check out the complete line of Challenge products at **www.ChallengeMachinery.com**. Then contact your local Challenge dealer for detailed information and see them firsthand.



Jogging Aid

To assist in stock alignment and removal, a wooden jogging aid is supplied with each Champion cutter.

NOTE: An operator should never place hands under the clamp or knife.



Cutter Care Kit

Keep your new cutter in top condition. This kit provides everything necessary to clean and preserve cutter tables. Includes silicone release spray, rust remover, and table wax.



Mobile Waste Wagon

Six cubic foot capacity, impact-resistant polyethylene cart. Large casters for easy maneuvering helps reduce the potential of employee injury from wrestling with overloaded steel waste drums.

PAPER CUTTERS

305 & 370 XT

Maximize productivity by storing jobs on 99 channels — a 47,000 total cut memory! This Champion provides the ultimate in productivity, with 30½" or 37" cutting width, plus fully computerized operation and system monitoring. You are in complete control with our distinctive, touch-screen color display which visually diagrams cutting patterns and monitors job progress as well as cut dimensions. Designed and supported by Challenge with floppy disk port and Windows-based upgradeable software to keep you ahead of the competition.



305 & 370 XG

Our best-selling cutter just got better! With 30½" cut width/4" clamp opening or 37" cut width/5⅛" clamp opening, these cutters deliver rugged construction, hydraulic clamping and cutting, electronic clamp pressure control, and variable speed pinpoint backgauge control. Outfitted with dual LCD screens to efficiently position, program, and monitor all aspects of your cutting operation. 99 channel, 9,801 total cut memory. Boost your productivity with the addition of a Champion 305 or 370 XG!



305 XD

Digitally controlled programmable power backgauge model has a 99 channel, 9,801 total cut memory. The same rugged construction as the 305 XT and XG, but with a single LCD data screen for quick programming and reference of backgauge position.



Experience the accuracy, speed, and versatility of Champion cutters designed to save time and money on a wide range of jobs. They're part of the Challenge team of cutters, drills, folders, and bindery equipment ... all crafted with pride in the U.S.A. since 1870.




305 X

Our most economical model! Features rugged three-piece cast iron construction — arch, table, and base — plus a host of standard features. Handwheel-operated manually positioned split backgauge. The LED monitor displays backgauge position with an accuracy to ± 0.01" or ± 0.01mm.

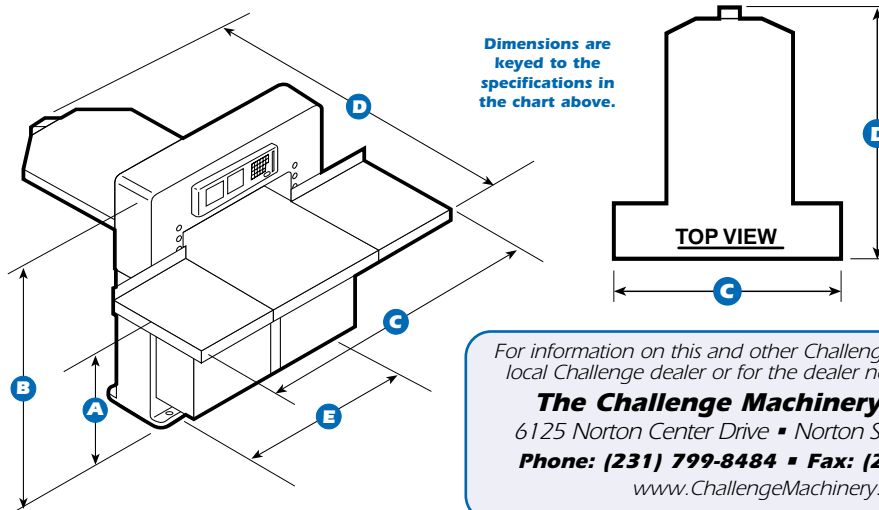




CHAMPION CUTTERS

| Specifications | 305 Models | 370 Models |
|---|---|---|
| CUTTING | | |
| Maximum Cutting Width | 30½"/77.5 cm | 37"/94 cm |
| Minimum Cut: without false clamp plate with false clamp plate | ¾"/19 mm 2"/5 cm | ¾"/19 mm 2½"/6.4 cm |
| Maximum Cut Depth | 30½"/77.5 cm | 40"/102 cm |
| Clamp Opening: without false clamp plate with false clamp plate | 4"/10.2 cm 3¾"/9.5 cm | 5½"/13 cm 4⅞"/12.4 cm |
| Clamping Method | Hydraulic & Manual | Hydraulic & Manual |
| Maximum Clamping Force | 5000 lbs/2200 daN | 7000 lbs/3100 daN |
| Backgauge Control | Power & Manual | Power |
| DIMENSIONS | | |
| Table Space: in front of knife behind knife | 25"/63.5 cm 30½"/77.5 cm | 25"/63.5 cm 40"/102 cm |
| A Table Height | 36½"/94 cm | 36"/92 cm |
| B Overall Height | 58½"/147 cm | 60"/153 cm |
| C Overall Width (with side tables) Overall Width (without side tables) | 78½"/200 cm 48½"/123 cm | 109"/277 cm 63½"/162 cm |
| D Overall Length | 70"/178 cm | 86¼"/219 cm |
| E Mounting Dimension | 41½"/105 cm | 60¼"/153 cm |
| Door Pass-through: assembled with table/treadle removed with table/treadle/power unit removed | 49"/124 cm 42"/106 cm 29"/74 cm | 63½"/162 cm 35"/89 cm — n/a — |
| Net Weight (approximate) | 2550 lbs/1157 kg | 3750 lbs/1701 kg |
| Shipping Weight (approximate) | 2750 lbs/1247 kg | 4400 lbs/2000 kg |
| ELECTRICAL | | |
| 305 Standard Motor |  | 5 H.P., Three Phase, 60 Hz, AC 208/230 Volts, 25 Amps (service size 40 Amps) or 460 Volts, 11.5 Amps (service size 20 Amps) |
| 305 Optional Motor |  | 5 H.P., Single Phase, 60 Hz, AC 208 Volts, 47 Amps (service size 60 Amps) or 230 Volts, 43 Amps (service size 60 Amps) |
| 370 Standard Motor |  | 10 H.P., Three Phase, 60 Hz, AC 208 Volts/38 Amps; 230 Volts/33 Amps, (service size 60 Amps) or 460 Volts/20 Amps (service size 40 Amps) |
| Challenge reserves the right to make changes to any product or specification without notice and without incurring responsibility to existing units. | | |

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For information on this and other Challenge products, call your local Challenge dealer or for the dealer nearest you contact:
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