



R&D TOOLS

by TECHNICAL INNOVATIONS

Manual Hole Punching Machine

TI uses the highest quality Arbor presses modified with hollow rams and hole plug ejector-pin systems to build our hole-punching machines. These machines feature adjustable depth stops and TI's quick change tooling base.

Manual hole-punching machines give precise oval and round holes in single and multi-lumen applications.

Features:

- Adjustable ejector pin
- Adjustable depth stop
- Choice of drill chuck capacities
- Quick change tooling base

Accessories:

- Custom fixturing
- Microscope with adjustable stand



Pin Vises for R&D Hand-Punching

A simple pin vise is a valuable tool for R&D, prototype and low-volume production. Spring-loaded hole-plug ejector pins clear the punch after each hole is made. TI pin vises are offered in four sizes with an ejector pin matched to the ID size range of the punches being used:

- A. .000 in. to .040 in.
- B. .030 in. to .062 in.
- C. .050 in. to .125 in.
- D. .115 in. to .187 in.



Technical Innovations
tools for the hole world

For ordering information, please contact us at:
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custserv@holes-inc.com • www.technicalinnovations.com

R&D Kits

TI's Developers Kit is an essential tool for all companies using TI machines.

Offered as an engineering tool and not as production tooling, these kits allow for the quick placement of holes in catheter tubing ranging in OD from 3Fr to 28Fr in order to test hole patterns, placement and/or resulting hole diameter using a specific drill or punch.

Each kit comes complete in a foam-lined box with the equipment required to use on machines with the TI Quick-Change Tooling Base.

Features:

- Line-up guide and pen
- Adjustable catheter guides for drilling or punching
- 2 catheter guide aligning screws
- Hex key

Options available:

- 3 balloon grasper inserts (small, medium and large) for 3Fr - 28Fr tubing range
- Drills and punches with associated ejector pins



At Technical Innovations we're ready to put our years for experience and expertise in medical device and catheter design and production to work eliminating your hole-making challenges. You'll get your own team of helpful customer service people, talented R&D specialists and skilled technicians. They're all ready to share their enthusiasm for solving problems and supplying quality productions.

Send us a copy of your medical tubing and your specifications and we'll return your tubing drilled or punched to your specifications. We will also send a review of our methodology, the tools we used and a recommendation and pricing for the best hole-making system to meet your needs. Free.

Visit us online now at
www.technicalinnovations.com
or call us at 888.463.4910



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