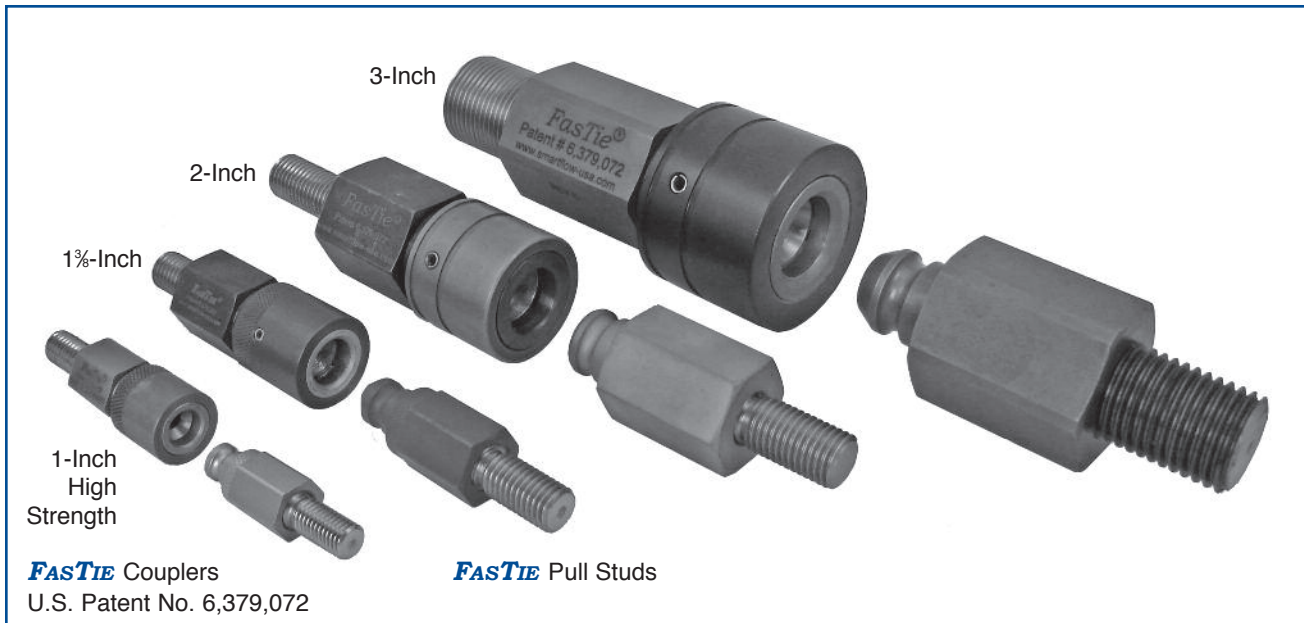




FASTIE® - Quick Ejector Tie-In System



Description & Use

In an injection molding press, the **FASTIE** system quickly “ties-in” the mold ejector plate to the press ejection system, dramatically reducing mold change time. The greatest savings are realized in presses where space is limited and the ejector system is difficult to tie in using solid knockout bars.

The **FASTIE** coupler may be permanently mounted to the press ejector plate. The quick-connect locking mechanism in the coupler snaps mechanically onto the mold-mounted pull stud during mold installation.

To release the knockouts, apply shop air to the coupler. The coupler opens to release the pull stud, disconnecting the press and tooling ejector plates. The coupler remains in the open position, ready for a new mold to be set.

For multiple knockout locations, an air manifold is recommended to release all couplers simultaneously. See inside catalog pages for installation examples.

The FasTie couplers and pull studs are available in 4 sizes to suit various press sizes: 1", 1-3/8", 2" and 3".

Features & Benefits

- ◆ **FASTIE** installs easily into existing tapped holes, no additional machining is required.
- ◆ **FASTIE** reduces mold setting time by quickly uncoupling, without loose parts to stow.
- ◆ **FASTIE** remains coupled during mold cycling for increased “tie-in” reliability and reduced wear.
- ◆ **SPEEDBAR®** adjustable knockout bar changes length quickly without tools [$\pm 1/2"$ (12.7mm) from nominal in .006" (.15mm) increments].*
- ◆ **SPEEDBAR** saves molders time and cost of machining individual knockout bars to fit different molds.*

* 1-inch only



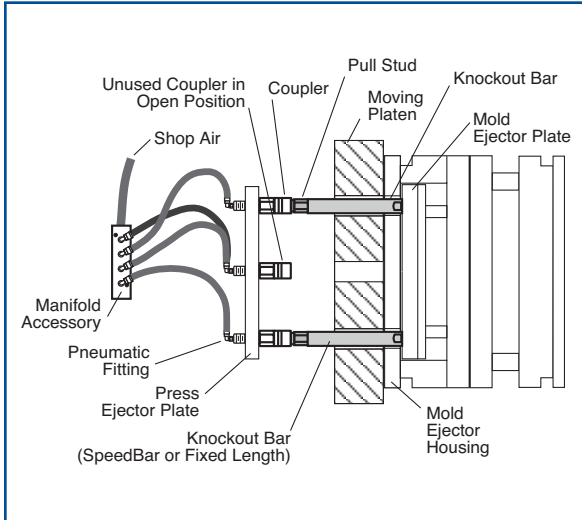
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Design and specifications are subject to change without notice.

FASTIE® Installation Examples

Typical Application - Couplers on Press Ejector Plate



This setup is designed for custom molders who use a variety of injection molds with different knockout patterns and ejector strokes.

Couplers are installed on the Press Ejector Plate. Pull Studs are placed at the end of the mold-mounted knockout bars for easy removal. Molds are changed quickly without accessing the back of the Press Ejector Plate.

For example, a press with 4 knockout positions may be running molds using only the horizontal positions, but the next mold may need the 2 vertical knockout positions. Ejector housing shown is 1.062" thick.

Air Manifold supplies air to each coupler for simultaneous release.

Parts List

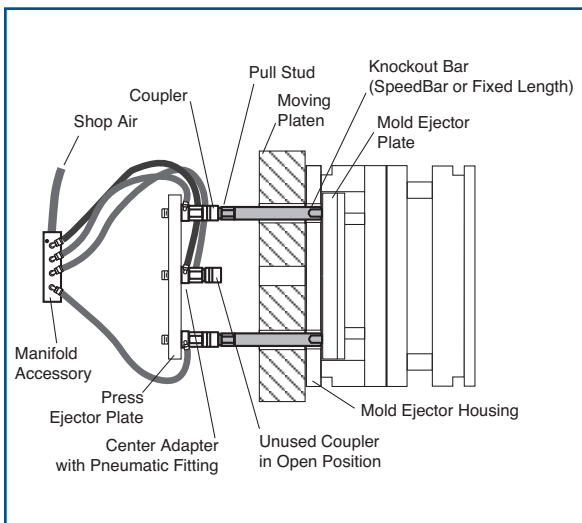
Qty	Part
2 or 4	FasTie Pull Stud
2 or 4	FasTie Coupler
2 or 4	Fixed Length Knockout Bars or SpeedBar Adjustable Length Bars
1	Air Manifold with tubing

Animated Installation Examples appear on



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Couplers and Center Adapters on Press Ejector Plate



This setup is used where there is limited access to the back of the Press Ejector Plate. Custom molders using smaller presses will benefit from this application.

Couplers and Center Adapters are installed on the Press Ejector Plate. Pull Studs are placed at the end of the mold-mounted knockout bars for easy removal. Molds are changed quickly without accessing the back of the Press Ejector Plate.

For example, a press with 4 knockout positions may be running molds using only the horizontal positions, but the next mold may need the 2 vertical knockout positions. Ejector housing shown is 1.062" thick.

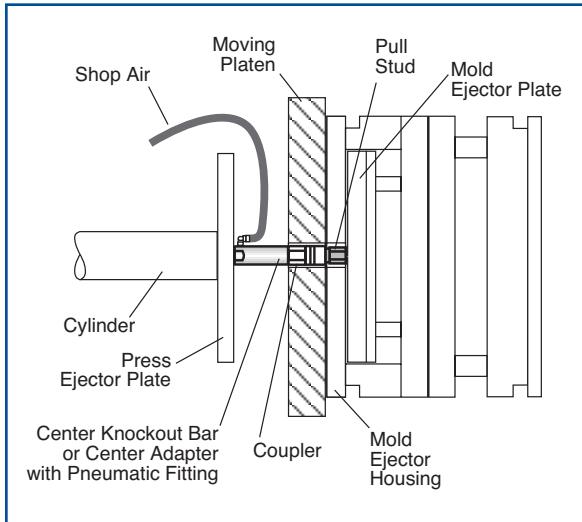
Air Manifold supplies air to the mold side of the Press Ejector Plate with the use of adapters.

Parts List

Qty	Part
2 or 4	FasTie Pull Stud
2 or 4	FasTie Coupler
2 or 4	Center Adapters
2 or 4	Fixed Length Knockout Bars or SpeedBar Adjustable Length Bars
1	Air Manifold with tubing

FASTIE® Installation Examples

Coupler in Center Ejector Position



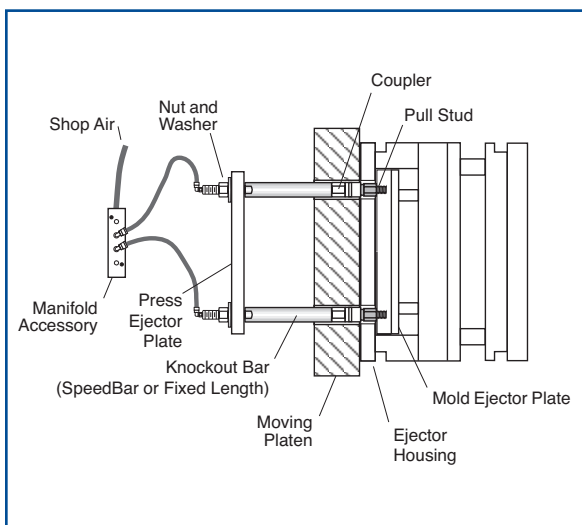
Center Knockout Bar and Coupler are installed into the Press Ejector Plate. Pull Stud is installed in the Mold Ejector Plate. Molds are changed quickly without accessing the back of the Press Ejector Plate. Ejector housing shown is 1.062" thick. Shop air is supplied to the side of the center adapter. No Air Manifold is needed. Fully-threaded Center Knockout Bar may be shortened to proper length on-site.

Parts List	
Qty	Part
1	FasTie Pull Stud
1	FasTie Coupler
1	Center Knockout Bar

The largest possible FasTie Coupler and Pull Stud set is recommended for use in the center ejector position.

For small presses with a center knockout, replace the cylinder bolt (if present) with a Center Knockout Bar and FasTie coupler.

Couplers at the End of Ejector Bars



Couplers are located at the end of the knockout bars mounted to the press ejector plate. Pull Studs are mounted to each mold in storage. Ejector connection is made without changing knockout bars. Ejector housing shown is 1.062" thick. Air Manifold supplies compressed air to the end of each knockout bar for simultaneous coupler release.

Parts List	
Qty	Part
2 or 4	FasTie Pull Stud
2 or 4	FasTie Coupler
2 or 4	Fixed Length Knockout Bars or SpeedBar® Adjustable Length Bars
1	Air Manifold with tubing

This setup is designed for captive molders, or shops with tools using a standard ejector stroke.

Burger & Brown fixed length bars are blank on one end to be cut to length and tapped with 1/2-13 female thread on site.

FASTIE® Specifications

Specifications

Maximum operating temp.300°F (149°C)
 Air pressure range80 - 100 psi
 Pull Stud materialHardened Steel (58-62 Rc)
 Knockout bar and coupler materialHigh Strength Steel
 Threaded StudsB7 Alloy or Comparable
 Air manifold materialAluminum
 Air tubing material1/8"OD Nylon

Press Requirements:

	Coupler Size			
	1-inch	1-3/8-inch	2-inch	3-inch
Platen thru hole min.	ø1.063"	ø1.45"	ø2.063"	ø3.063"
	ø27mm	ø36.8mm	ø52.4mm	ø77.8mm
Ejector plate thru hole min.	ø0.512"	ø0.641"	ø0.765"	ø1.015"
	ø14mm	ø16.5mm	ø19.4mm	ø25.8mm
Ejector force per coupler max.	2.5 tons	5.5 tons	7.5 tons	15 tons

Recommended FasTie Size per Press Size & Knockout Qty

Press Tonnage	Knockout Quantity		
	1 (Center)	2	4
0 - 250	1"HS	1"HS	1"HS
250 - 500	1-3/8"	1"HS or 1-3/8"	1"HS or 1-3/8"
500 - 750	2"	1-3/8" or 2"	1-3/8" or 2"
750 - 1000	2"	1-3/8" or 2"	1-3/8" or 2"
1000 +	3"	2" or 3"	2" or 3"

For best results, use the largest FasTie that will fit into the press.

Accessories

Additional parts to aid installation and use:

- ◆ **SPEEDBAR Adjustable Length Knockout Bar*** changes length without tools $\pm 1/2"$ in increments of .006". Air passes through the bar for air hook-up at the back of the press ejector plate.
- ◆ **Fixed Length Knockout Bar** provides an air passage to the back of the press ejector plate. Several lengths are stocked with one blank end for on-site finishing.
- ◆ **Center Knockout Bar and Center Adapter** provide an air passage in front of the press ejector plate for center knockout. Also use for multiple knockouts.
- ◆ **Air Manifold** splits single air supply into four circuits to aid air connection. Comes with 1/8" diameter tubing and pneumatic connectors.

* 1-inch, 1/2-13 threaded only

1-Inch High Strength FasTie Couplers and Pull Studs

Do not use HS FasTie Couplers in combination with original version. Damage to couplers will result.
 Maximum installed center line misalignment of coupler and pull stud is $\pm 3.5\text{mm}/0.138"$.

Model Number	Thread Size
FTFSHS-50	1/2-13
FTFSHS-63X	5/8-11(F)
FTFSHS-63	5/8-11
FTFSHS-M12	M12 x 1.75
FTFSHS-M16	M16 x 2
FTFSHS-M20	M20 x 2.5

FTFSHS-□□ FasTie High Strength Coupler

Model Number	Thread Size
FTMHS-38	3/8-16
FTMHS-50	1/2-13
FTMHS-63	5/8-11
FTMHS-M12	M12 x 1.75
FTMHS-M16	M16 x 2
FTMHS-M20	M20 x 2.5

FTMHS-□□ FasTie High Strength Pull Stud