# Quick Strip
## MAXIMIZING UPTIME AND COST SAVINGS



# Quick Strip is the new standard in part ejection

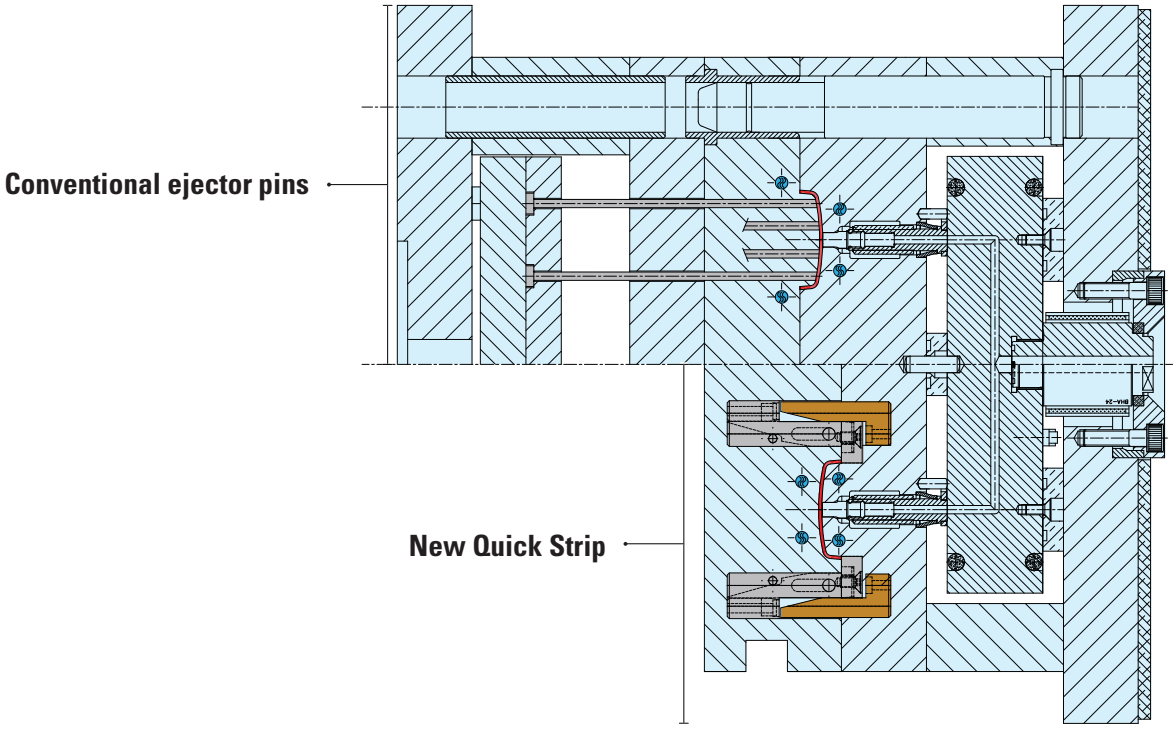
With its ability to cut up to half the time and cost required with traditional ejection, Quick Strip is the new standard for part ejection. Mold construction is simplified with Quick Strip because there is no need to focus on the design, machining and operation of ejector housings. No ejector retainer plate. No ejector plate. No ejector holes to be machined and reamed.

The elimination of ejector plate actuation results in faster mold cycle times. Elimination of the ejector plates and ejector risers significantly reduces material costs for the mold base and results in shorter mold heights, thus allowing molds to be run in smaller presses. Elimination of ejector pins allows for better placement of more cooling channels, resulting in improved cooling and dramatically shorter mold cycle times. Because Quick Strip uses fewer moving parts to achieve part ejection, mold maintenance requirements are reduced, resulting in maximized uptime of the mold. A highly innovative feature of Quick Strip is that the system is actuated by the opening of the mold. This provides the design freedom to install Quick Strip on the moving or stationary side of the mold.

Quick Strip's many benefits are further optimized when used in stack molds and tandem molds.

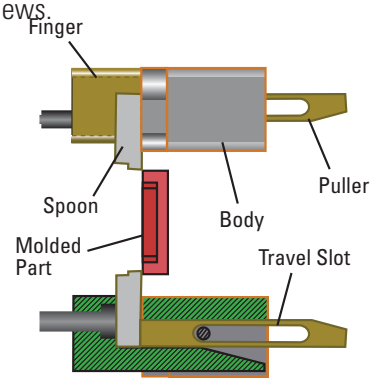
## Advantages of the Quick Strip Ejection System

- Eliminates ejector plates, ejector pins and risers
- Reduces mold height
- Shortens cycle time
- Optimizes cooling process
- Minimizes ejector marks on molded parts
- Minimizes maintenance costs
- Simplifies mold design and construction
- Suitable for use on either the fixed or stationary half
- Each Quick Strip unit can serve multiple cavities
- Multi-purpose design makes Quick Strip suitable for virtually any type of process, including injection molding, die casting and rubber molding

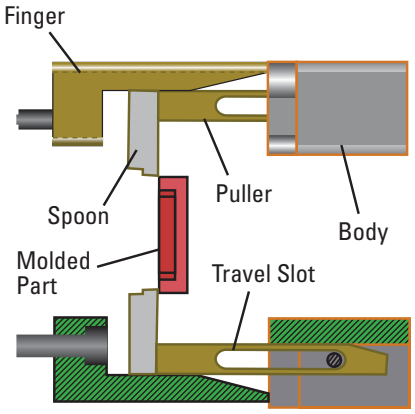


# Quick Strip: How it works

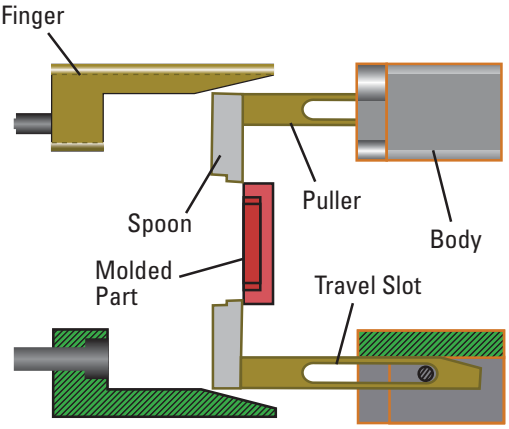
The Quick Strip is activated entirely by the opening and closing of the mold and does not rely upon machine strokes, such as the ejector stroke, for its actuation. Below, a four-step sequence shows the Quick Strip during the mold open sequence. The upper images show Quick Strip in its entirety and the lower images show Quick Strip via section views.



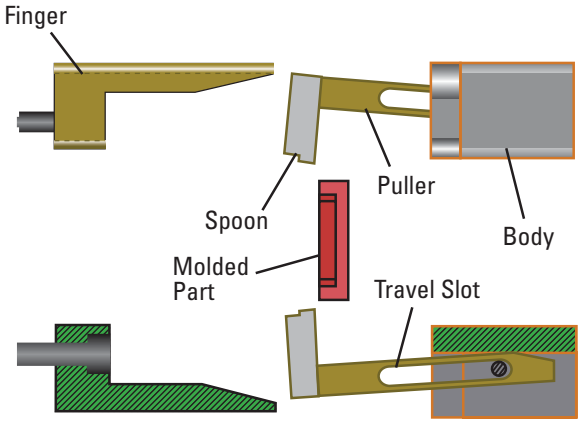

1) The Quick Strip Assembly consists of a Body, Puller and Spoon that are mounted on the cavity side of the mold, plus a Finger which is mounted on the core side. With the mold closed, the Spoon fits into a machined pocket on the core side, underneath the part cavity. On the parting line side, the Spoon is machined to form a portion of the parting line and part cavity.




2) As the mold opens, the molded part is stuck to the core side of the mold. The Spoon, which is sandwiched between the core side and the molded part, remains in the core side of the mold during the initial mold opening movement.




3) As the Puller reaches the end of its travel slot, it pulls the Spoon away from the core side. This action also pulls the molded part off the core side. Part ejection is achieved with a pulling motion along the perimeter of the molded part, rather than a pushing action at discrete points along the interior of the molded part. Furthermore, this pulling action occurs during the mold open sequence, rather than during a separate ejector stroke.




4) The final motion of the Spoon is a small rotation away from the part. This small rotation separates the Spoon from the molded part while ensuring that the Spoon is clear of any robotic action that may be necessary to grab the molded part. The rotating movement is defined by the cam angle at the base of the Puller.

5) During mold closing, the Finger ensures that the Spoon rotates back to its proper position and is reset into the machined pocket on the core side of the mold as the mold closes.

Since the motion of mold open and close actions are relative, the core side of the mold may be mounted on either the stationary or moving side of the platen.

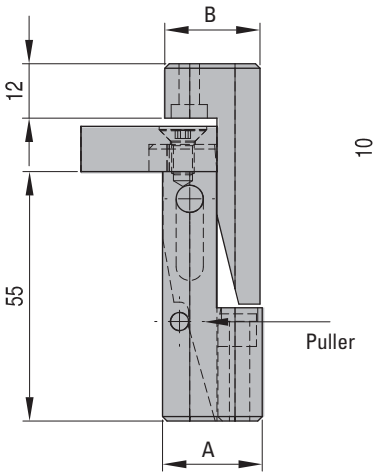
**Visit www.dme.net/quickstrip for a CAD animation**

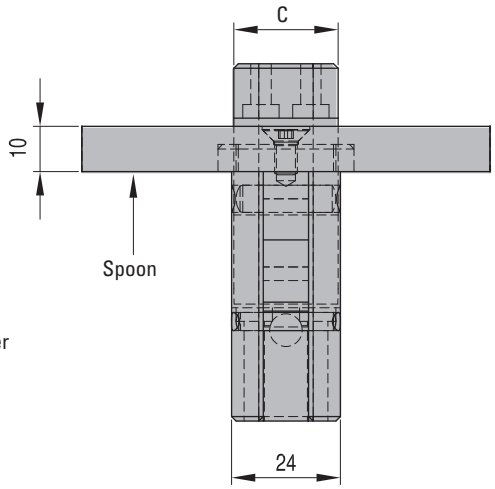
# Quick Strip Specifications

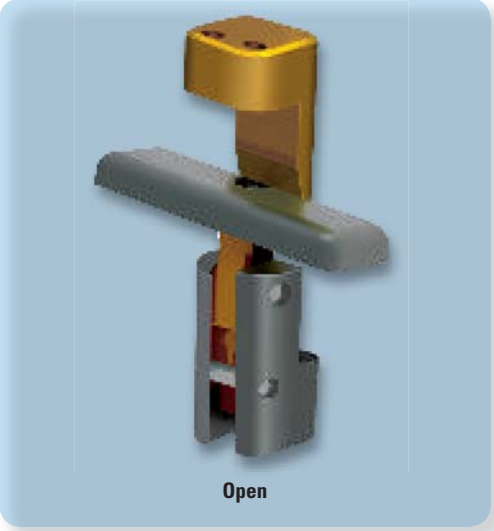


## Unit 24 x 22 mm, 24 x 30 mm - stroke = 15 mm

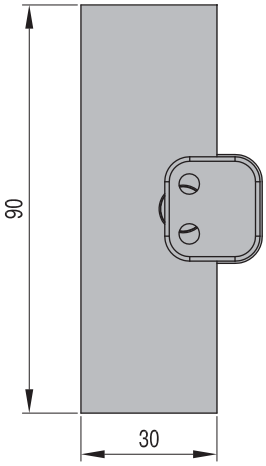
Closed

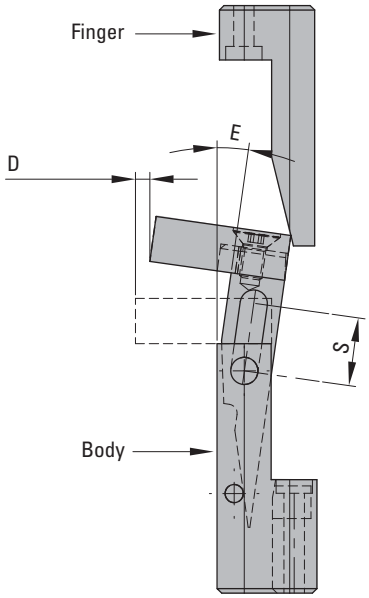


Open




Quick Strip patent pending

Spoon to be adjusted by moldmaker to fit mold and product contour.
Standard material type 1.2312 (comparable to P-20-modified); other steel types available upon request.

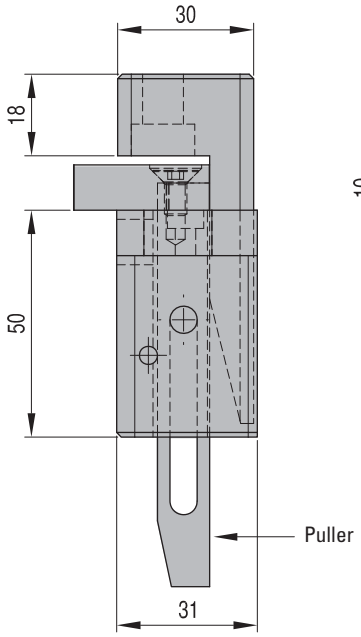
| Item Number | A | B | C | D | E | S |
|---|---|---|---|---|---|---|
| QS2422015 | 22 | 21 | 23 | 3.16 | 8° | 15 |
| QS2430015 | 30 | 28 | 22 | 6.25 | 15° | 15 |

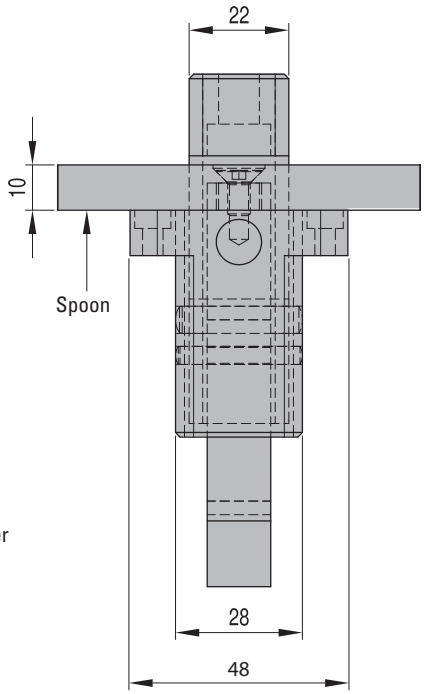
# Quick Strip Specifications

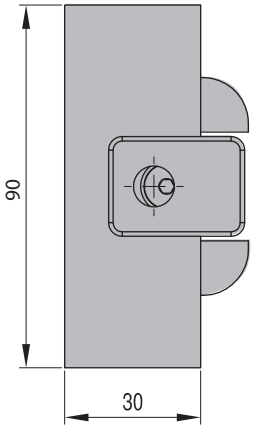
## Unit 28 x 31 mm - stroke 40-100 mm

Closed

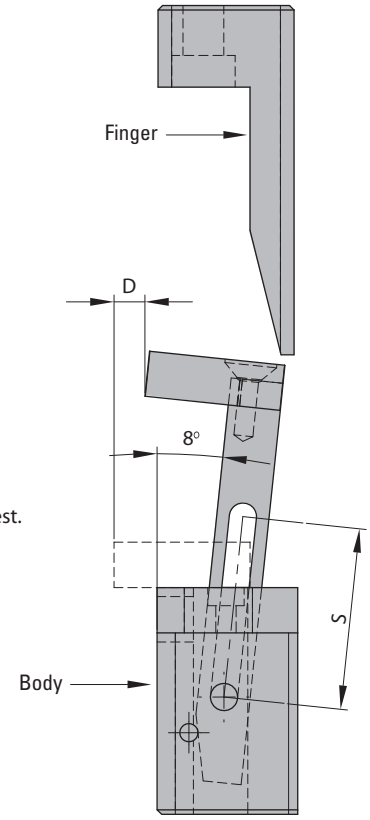
Open




Spoon to be adjusted by moldmaker to fit mold and product contour. Standard material type 1.2312 (comparable to P-20 modified), other steel types available upon request.




| REF | D | S |
|---|---|---|
| QS 28 31 040 | 6.84 | 40 |
| QS 28 31 060 | 5.93 | 60 |
| QS 28 31 080 | 5.48 | 80 |
| QS 28 31 100 | 4.35 | 100 |

Quick Strip patent pending

# Quick Strip/Traditional Ejection Cost Comparison



## Save up to 50% in time and cost with Quick Strip!

### Traditional Ejection

Traditional ejector stroke increases cycle time.

### Quick Strip Ejection System

Quick Strip is actuated by the opening of the mold; reset by the closing of the mold.

| MOLD WITH QUICK STRIP EJECTION SYSTEM | | | | | | |
|---|---|---|---|---|---|---|
| MACHINING (Milling/Drilling) | | | | | | |
| Make electrodes (rough/finish machining) | $7,005.60 | | | | | |
| Mold (fixed half) | $3,113.60 | | | QUANTITY: Quick Strip | **8** | |
| Mold (moving half) | $3,113.60 | | | | | |
| Machining Quick Strip "spoon" | $1,868.16 | QTY | **8** | Cost of machining "spoon" | **$233.52** | per piece |
| Assembly | $3,113.60 | | | | | |
| Purchase cost of Quick Strip | $9,340.80 | QTY | **8** | Purchase cost | **$1,167.60** | per unit |
| Plates (fixed half) | $3,113.60 | | | | | |
| Plates (moving half) | $3,113.60 | | | | | |
| **TOTAL** | $33,782.56 | | | | | |

| MOLD WITH TRADITIONAL EJECTION | | | | | | |
|---|---|---|---|---|---|---|
| Moving half with ejector plates | | | | | | |
| MACHINING (Milling/Drilling) | | | | | | |
| Make electrodes (rough/finish machining) | $7,005.60 | | | | | |
| Mold (fixed half) | $3,113.60 | | | | | |
| Mold (moving half, not including ejector plates) | $9,340.80 | | | QUANTITY: Ejector Pins | **40** | |
| Ejector plates | $2,335.20 | | | | | |
| Purchase ejector pins | $498.00 | QTY | **40** | Purchase cost | **$12.45** | per piece |
| Machining ejector pins: | | | | | | |
| 3D to match product contour and anti-rotation | $4,981.60 | QTY | **40** | Machining to match contour | **$124.54** | per piece |
| Plates (fixed half) | $3,113.60 | | | | | |
| Plates (moving half) | $3,113.60 | | | | | |
| Ejector base plate | $1,401.12 | | | | | |
| Ejector retainer plate | $1,401.12 | | | | | |
| Assembly | $6,227.20 | | | | | |
| **TOTAL** | $42,531.44 | | | | | |

# Quick Strip/Traditional Ejection Overview

## Quick Strip Cost Advantages

Quick Strip application cost = $33,782.56

Traditional Ejection application cost = $42,531.44

} Quick Strip is 21% less expensive than Traditional Ejection in this representative application comparison.

Quick Strip machining time: Quick Strip requires 46% less machining time than Traditional Ejection in this representative comparison.

In addition to the cost and machining time reductions that Quick Strip enables vs. Traditional Ejection, Quick Strip, on average requires almost 50% less maintenance because it uses fewer moving parts in the part ejection process.

# Cost Savings Realized with the Quick Strip Ejection System

## Material Cost Savings - *Quick Strip eliminates the entire Ejector Housing!*

- Eliminates the need for:
  - Ejector Housing Rails
  - Ejector Plate and Ejector Retainer Plate
  - Limit Switch
  - Guided Ejection Guide Pins and Bushings
  - Ejector Plate Knock-Out Rod and Quick Disconnect Coupling
  - Support Pillars and Support Plate
  - Ejector Pins, Ejector Sleeves, Ejector Blades

## Mold Design Cost Savings - *simplified mold design equals big savings!*

- Ejector System can be on either the "A" side or "B" side
- Simplified Ejector System design improves part removal
- Optimized cooling channel design means shorter mold cycle times
- Quick Strip Systems are highly effective in multi-cavity molds
- Quick Strip can be used in a variety of processes including:
  - Multi-shot molding
  - Compression molding
  - Rubber molding
  - Die casting
- Quick Strip is ideally suited for multi-parting line molds including:
  - Stack molds
  - Spin stacks, cube stacks, etc.
  - Tandem molds

## Machining Cost Savings - *fewer or no Ejector Components means less machining!*

- Eliminates machining for:
  - Ejector Plate and Ejector Retainer Plate drilling, boring, or counter-boring
  - Ejector Pin and Ejector Sleeve drilling and reaming
  - Ejector Blade wire EDM
  - Ejector Pin, Sleeve, and Blade part geometry contouring
  - Guided Ejection drilling, boring, or counter-boring
- Simplifies boring for Optimized Cooling Channels on "B" side

## Mold Cycle Time Savings - *cycle times are reduced!*

- Ejector Stroke is eliminated
- Mold Open Stroke can be shortened
- Part solidification time is reduced as ejector force is spread out
- Cooling is improved through optimized cooling channel design on "B" side

## Injection Machine Cost Savings!

- Mold height is reduced, possibly permitting the use of a smaller press

## Mold Maintenance Cost Savings!

- No Ejector Pins, Sleeves and Blades, and no Guided Ejection means no cleaning and no replacement of worn components