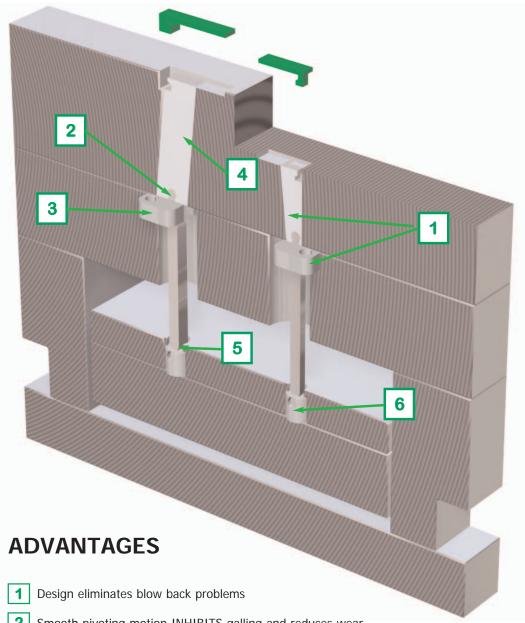


# E-Z LIFTER<sup>TM</sup> Undercut Relief System Patent No. 5,281,127



- Smooth pivoting motion INHIBITS galling and reduces wear
- 3 Heel plates stabilize actuator and ACT as a POSITIVE STOP for the Lifter Blank
- Pre-hardened Lifter Blanks, no heat treat necessary
- No moving parts in ejector plate (no wear plate assemblies OR SLIDING SHOES)
- Simple stationary retainer installed between the ejector plates saves time and machining costs

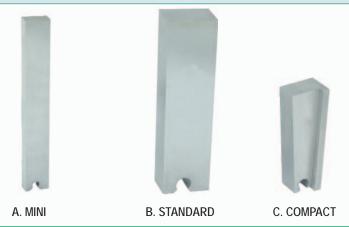
#### **Application Guidelines Available Upon Request**

# E-Z Lifter Application Guide

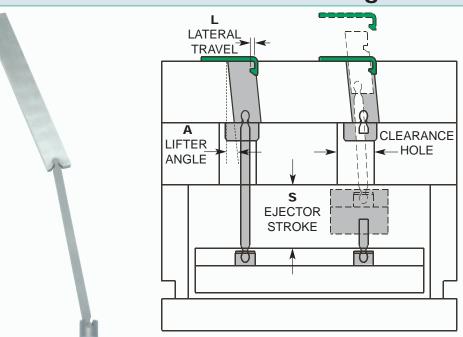
Choosing your E-Z Lifter System

Patent No. 5,281,127

#### 1. Determine a Lifter Blank Size



## 2. Determine / Calculate Angle



TYPICAL EXAMPLES							
EJECTION			GLE (A)	)			
STROKE <b>(S)</b>	5°	6°	7°	8°	9°	10°	11°
.813	.071	.085	.100	.114	.129	.143	.158
1.063	.093	.112	.131	.149	.168	.187	.207
1.563	.137	.164	.192	.220	.248	.276	.304
2.063	.180	.217	.253	.290	.327	.364	.401
2.563	.224	.269	.315	.360	.406	.452	.498
3.063	.268	.322	.376	.430	.485	.540	.595

TO DETERMINE ANGLE

L/S = Tan A

SEE CHART FOR REFERENCE



# E-Z Lifter Application Guide

## Choosing your E-Z Lifter System

Patent No. 5,281,127

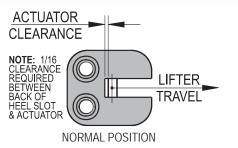
#### 3. Choose Heel Plate Size & Position

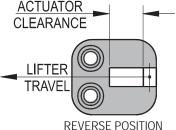
- A. Standard
- B. Mini / Compact





MINI / COMPACT





4. Determine Retainer Type

Α

Heeled

В

**Blind Pocket** 

С

Round







HEELED

**BLIND POCKET** 

ROUND

### 5. Determine Actuator Length

- A. Retainer type will determine the actuator length
- B. Determine distance between the knuckle centerline of the Lifter Blank to the knuckle centerline of the Retainer while the Lifter is in the retracted position



NOTE: Blank length, ejector plate thickness, or retainer position can be adjusted to accommodate standard actuator lengths.

# **E-Z Lifter** ™ Application Guide

Patent No. 5,281,127

#### **Retainer Pockets**

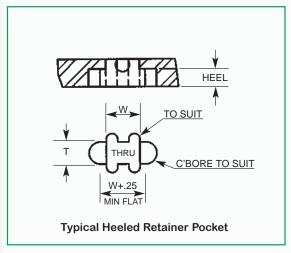
Retainers come in three styles:

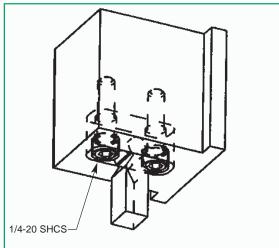
Heeled

Round

**Blind Pocket** 

Retainers secure the lower knuckle of the Actuator to the ejector assembly. Pocket machining details are shown for most standard mold base assemblies in the illustration below.



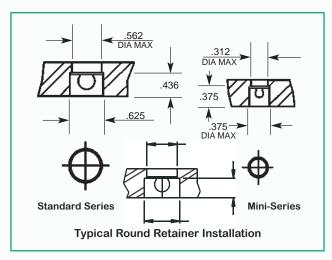


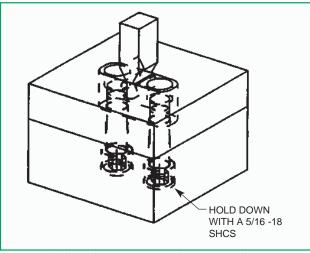
Blind Pocket Retainer used with a custom Lifter Blank

Blind Pocket Retainers are designed to be used at either end of the Actuator:

Pocket into the bottom of large custom made lifters for linkage to the ejector assembly.

Pocket into the pin plate or ejector plate for retrofit situations or as an alternate to the heeled and round retainers. See illustrations below for examples of these applications.





Blind Pocket Retainer in the Ejector Plates

#### **Centering Washer**

The centering washer with the round retainers is necessary to keep the axis of the Actuators centered in the round Retainer pocket. This washer in conjunction with the heel plate assures that the thrust will be along the axis of the Actuator. The illustration at the right is a typical installation of the round retainer with the centering washer.

When adjusting final height on the retainer, grind only the bottom surface of the retainer as shown below.

