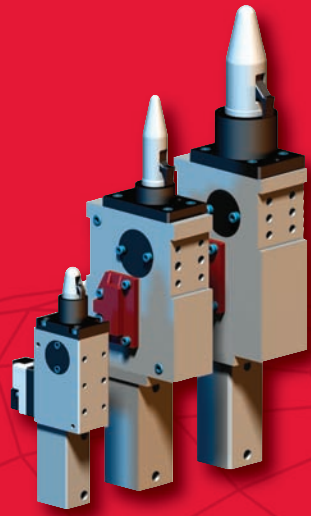


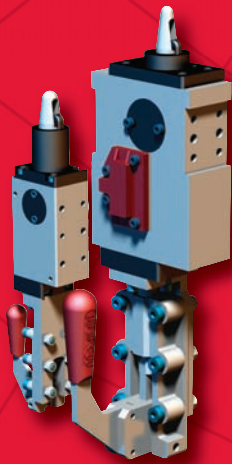


# DE-STA-CO PNEUMATIC PIN CLAMPS

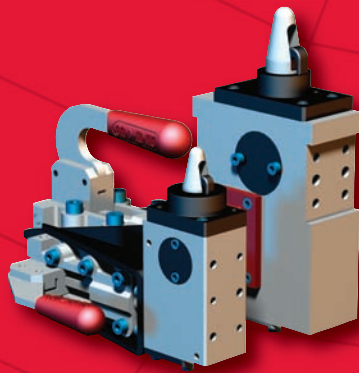
SEPTEMBER 2007



**82P SERIES**



**52F SERIES**



**52R SERIES**

[www.destaco.com](http://www.destaco.com)



**CAD FILES  
AVAILABLE  
ONLINE**



DE-STA-CO Locating Pin Clamps  
AT A GLANCE

Specifications and Table of Contents



82P25 Version 1 Inline Pneumatic . . . . . pg 8

Specifications

Pin Range Diameter: . . . . . Ø12mm to Ø28mm  
 Weight: . . . . . 1.3kg [2.87 lbs]  
 Clamp Force: . . . . . 780N [175 lbs]  
 Air Consumption . . . . . (Double Stroke @ 6bar) .3 liter



82P30 Version 5 Inline Pneumatic . . . . . pg 9

Specifications

Pin Range Diameter: . . . . . Ø15mm to Ø32mm  
 Weight: . . . . . 3.2kg [7.05 lbs]  
 Clamp Force: . . . . . 2001.7N [450 lbs]  
 Air Consumption . . . . . (Double Stroke @ 6bar) .8 liter



82P35 Version 5 Inline Pneumatic . . . . . pg 10

Specifications

Pin Range Diameter: . . . . . Ø28mm to Ø78mm  
 Weight: . . . . . 3.6kg [7.94 lbs]  
 Clamp Force: . . . . . 3425.1N [770 lbs]  
 Air Consumption . . . . . (Double Stroke @ 6bar) .8 liter

**IMPORTANT:** Due to very high exerting force, the hook cannot be used to clamp sheet metal. Adjust hook to allow a .1mm gap between hook and thickest material

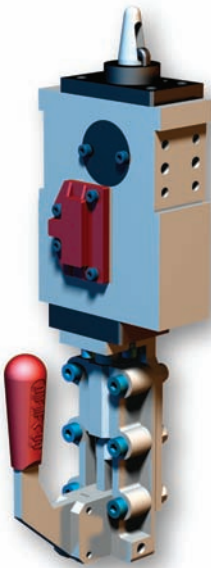
*While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.*



**52F25 Inline Manual** ..... pg 18

Specifications

Pin Range Diameter: ..... Ø12mm to Ø28mm  
 Weight: ..... 1.5kg [3.31 lbs]  
 Clamping Force: ..... 266.9 - 1245.5 N [60 - 280 lbs]

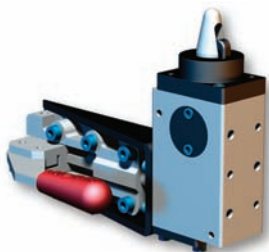


**52F30 Inline Manual** ..... pg 19

Specifications

Pin Range Diameter: ..... Ø15mm to Ø32mm  
 Weight: ..... 5.3kg [11.68 lbs]  
 Clamp Force: ..... 355.9 - 1556.8 N [80 - 350 lbs]

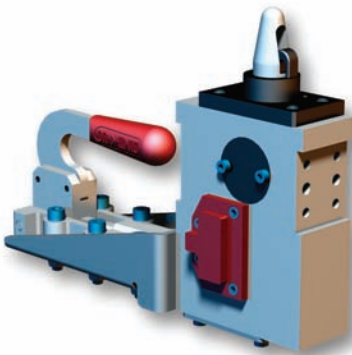
**IMPORTANT:** Due to very high exerting force, the hook cannot be used to clamp sheet metal. Adjust hook to allow a .1mm gap between hook and thickest material



**52R25 90° Manual** ..... pg 20

Specifications

Pin Range Diameter: ..... Ø12mm to Ø28mm  
 Weight: ..... 2.2kg [4.85 lbs]  
 Clamp Force: ..... 266.9 - 1245.5 N [60 - 280 lbs]



**52R30 90° Manual** ..... pg 21

Specifications

Pin Range Diameter: ..... Ø15mm to Ø32mm  
 Weight: ..... 5.5kg [12.13 lbs]  
 Clamp Force: ..... 355.9 - 1556.8 N [80 - 350 lbs]

**IMPORTANT:** Due to very high exerting force, the hook cannot be used to clamp sheet metal. Adjust hook to allow a .1mm gap between hook and thickest material

## 82P Series Locating Pin Clamp

### Features and Benefits

#### Introduction

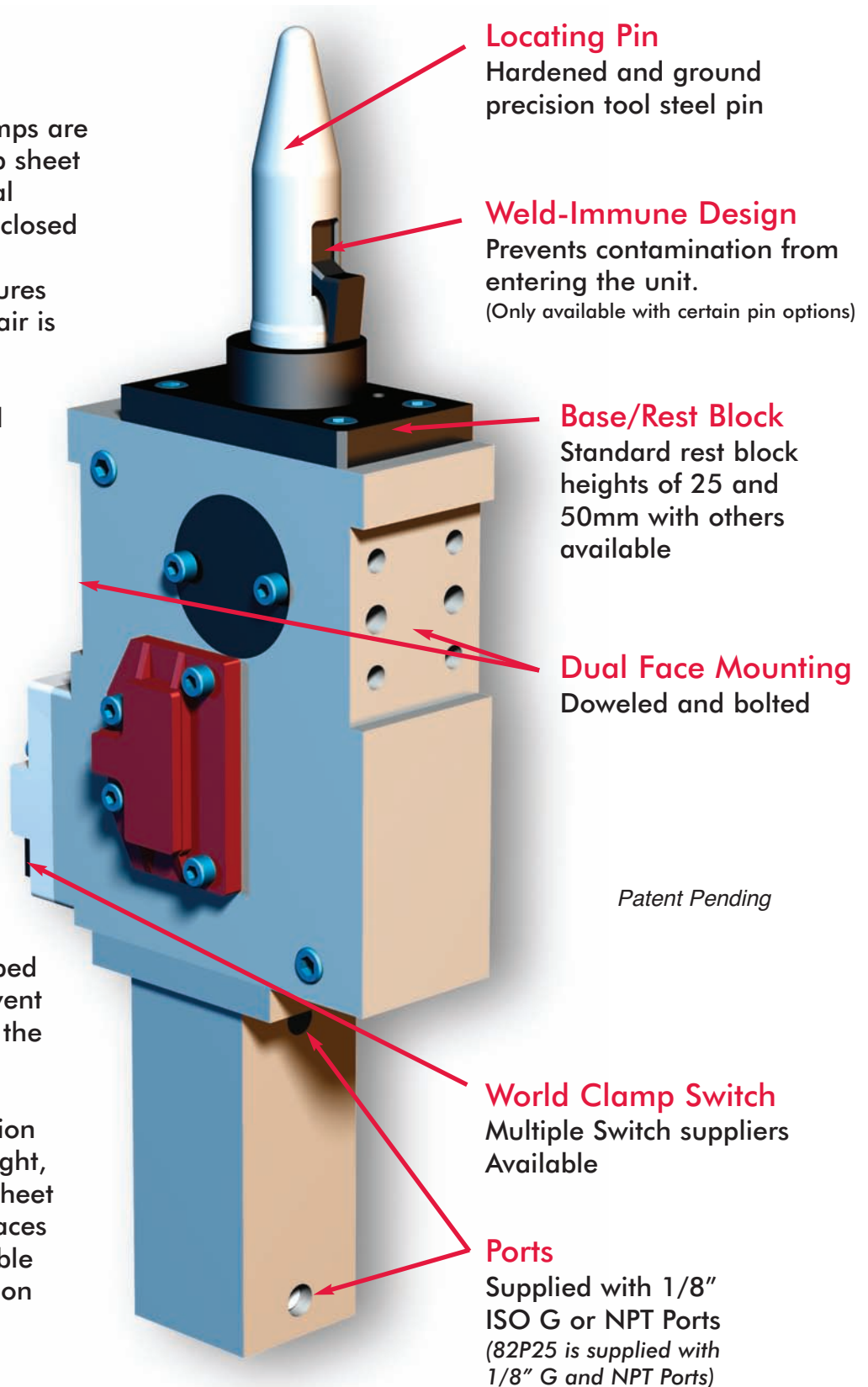
DE-STA-CO's Model 82P clamps are designed to locate and clamp sheet metal in welding and material transfer applications. The enclosed aluminum body houses a full toggling mechanism that secures the part in place even when air is removed from the tool.

These units are very powerful as a result of the mechanical advantage of the toggle mechanism so large cylinders are not needed.

82P Locating Pin Clamps can be used on a stationary tool as well as a moving pallet system and are available with either an enclosed LED Switch or a double ended cylinder for remote sensing.

Hardened tool steel pins have full 360° Geometric sheet metal contact with a closed off design when clamped and when unclamped to prevent contamination from entering the unit.

The diamond shaped pin option offers a much shorter pin height, which reaches over flanged sheet metal, angled rest block surfaces and long reaches are available through DE-STA-CO Automation specials engineering.



#### Locating Pin

Hardened and ground precision tool steel pin

#### Weld-Immune Design

Prevents contamination from entering the unit.  
(Only available with certain pin options)

#### Base/Rest Block

Standard rest block heights of 25 and 50mm with others available

#### Dual Face Mounting

Doweled and bolted

*Patent Pending*

#### World Clamp Switch

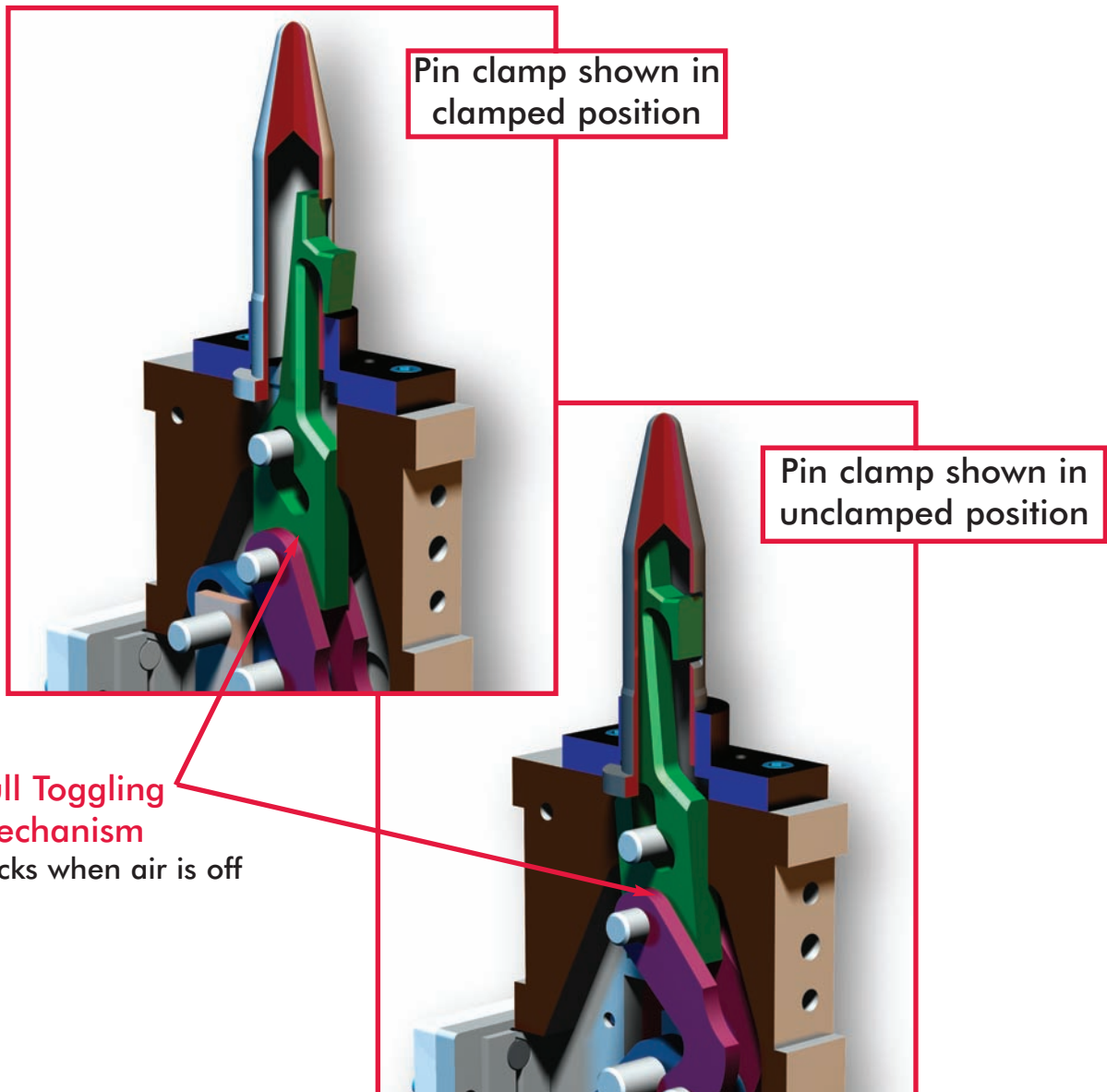
Multiple Switch suppliers Available

#### Ports

Supplied with 1/8" ISO G or NPT Ports  
(82P25 is supplied with 1/8" G and NPT Ports)

## 82P Series Locating Pin Clamp Operation Principle

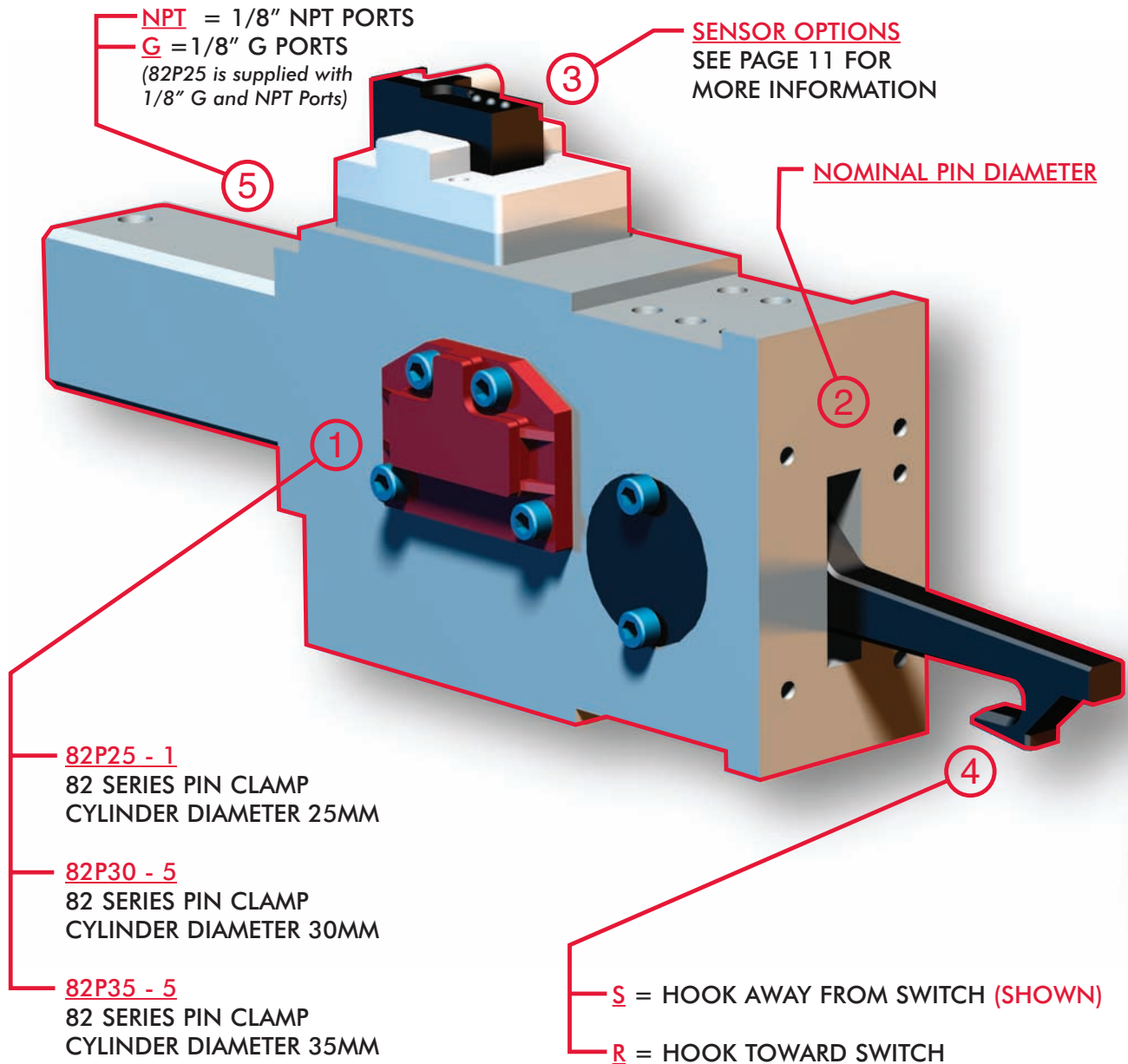
DE-STA-CO's 82P Locating Pin Clamps are made using a fully enclosed body with hardened steel wear surfaces for millions of cycles and long life. Sheet metal is captured with a hook that toggle locks when air actuates the cylinder and remains locked when air is removed.



## 82P Series Locating Pin Clamp

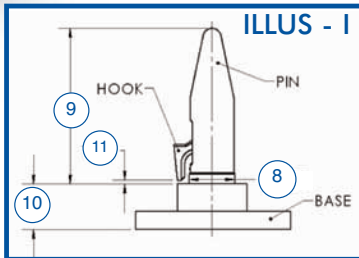
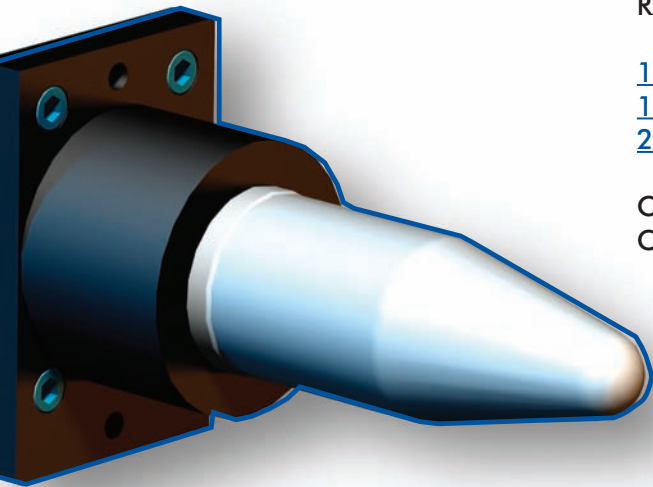
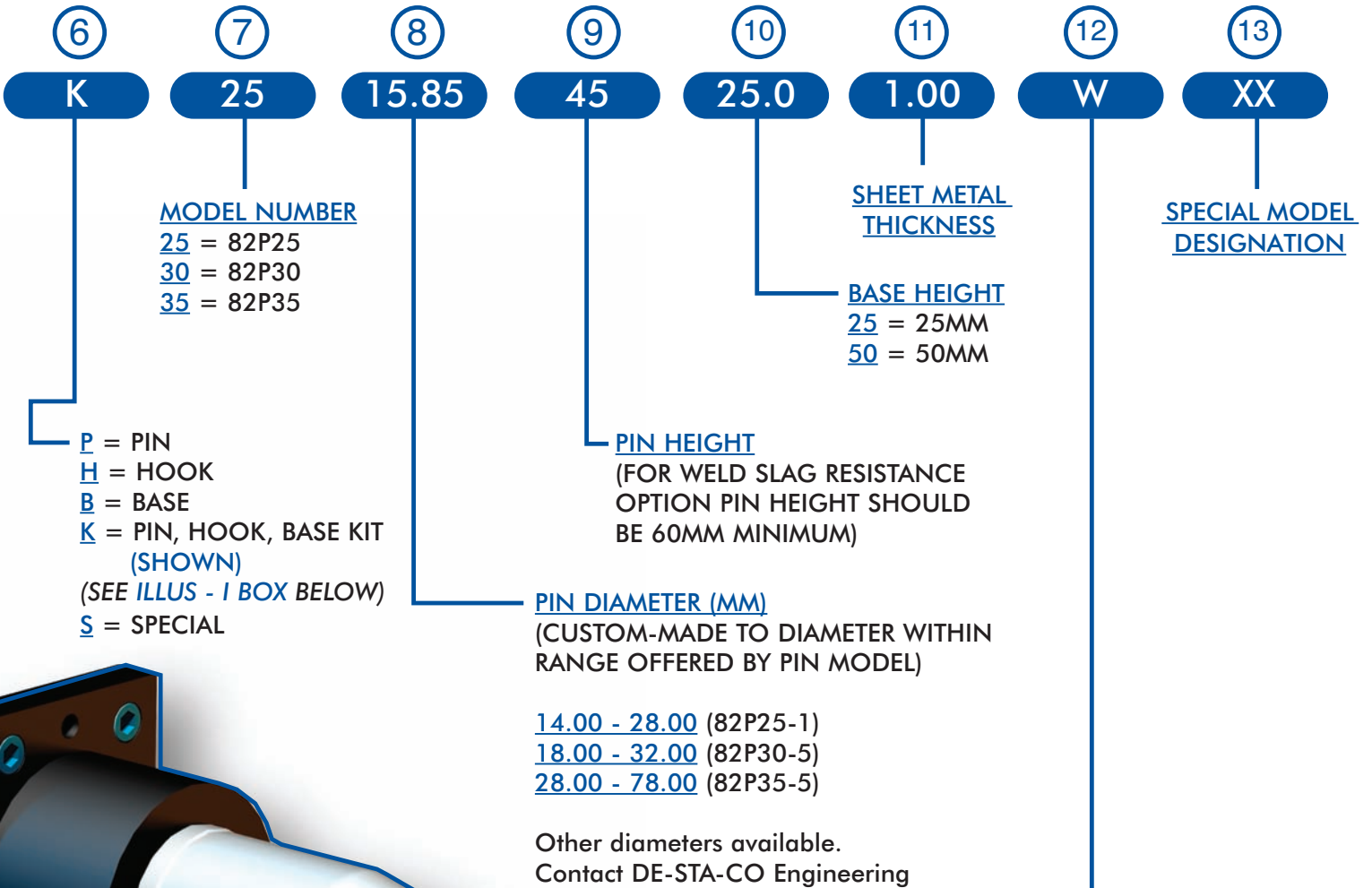
### Ordering Information

- ①  
**82P30 - 5**
- ②  
**16**
- ③  
**C8**
- ④  
**S**
- ⑤  
**NPT**



While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.

82P Series Locating Pin Clamp  
Features and Benefits



WELD IMMUNE OPTION



**W**  
WELD IMMUNE

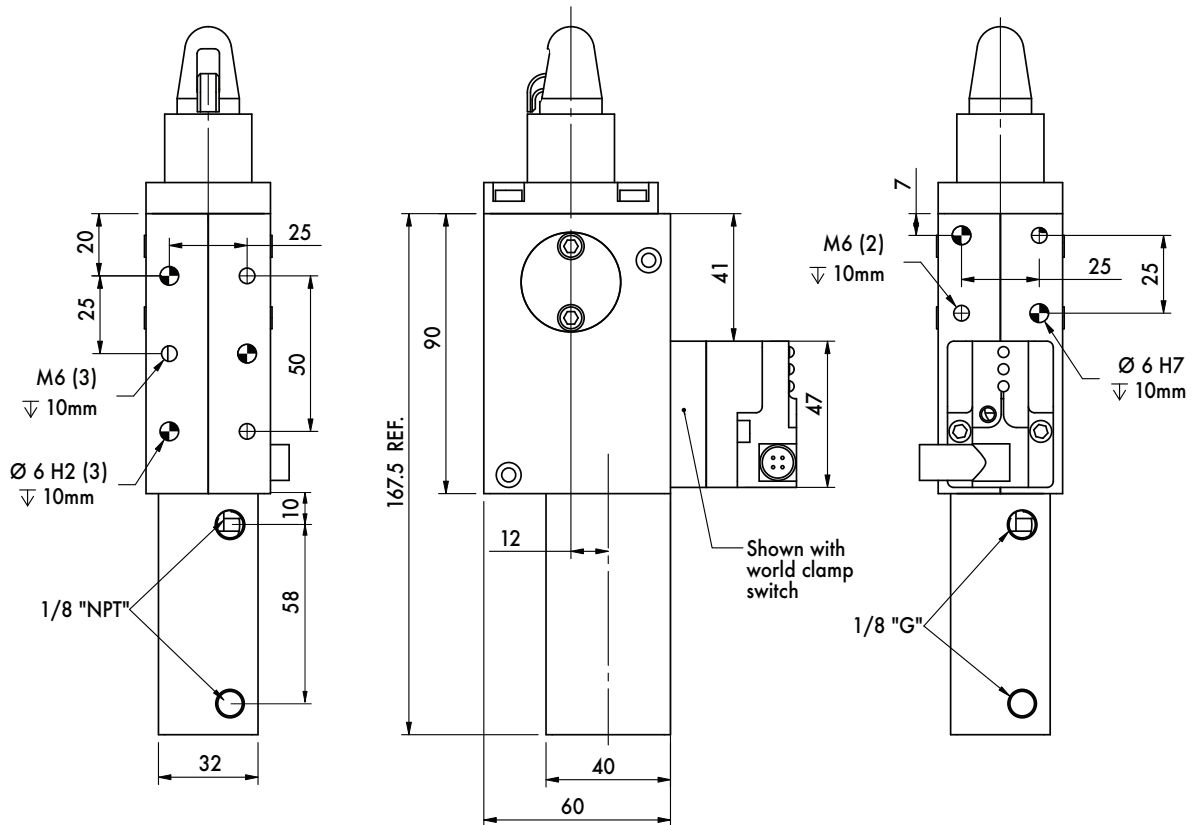
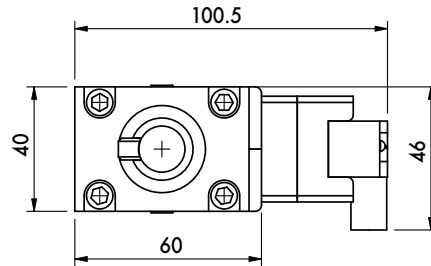


**0**  
STANDARD

**NOTE:** Special options are available including angled rest block, diamond pin and others. Please contact a sales engineer for availability

## 82P Series Pneumatic Locating Pin Clamp

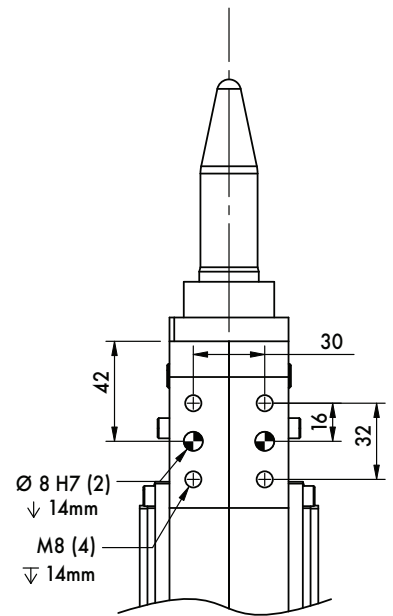
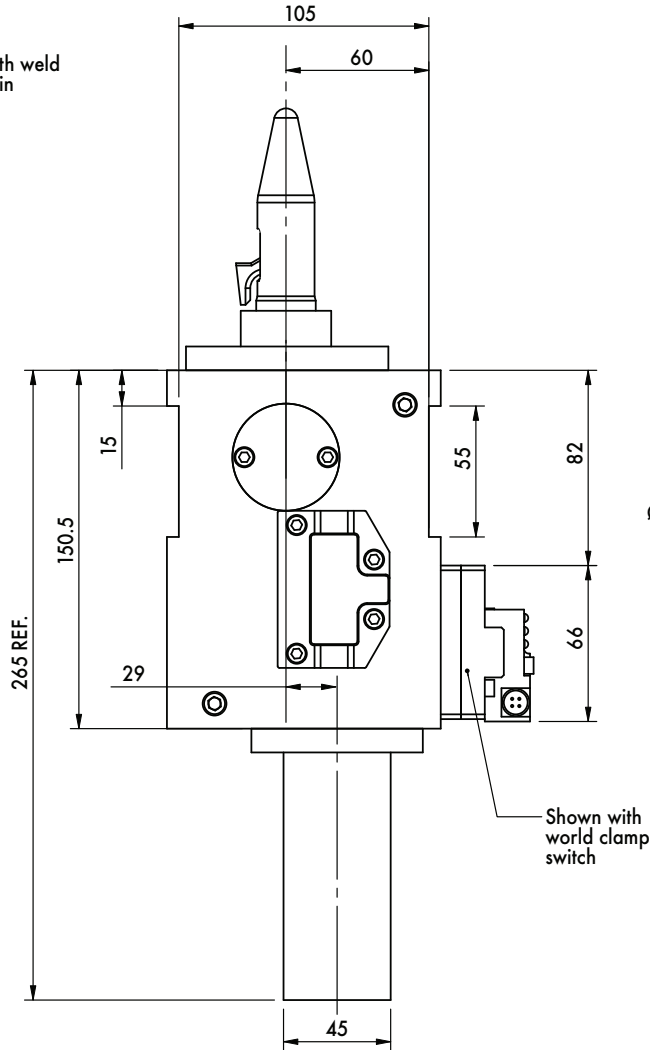
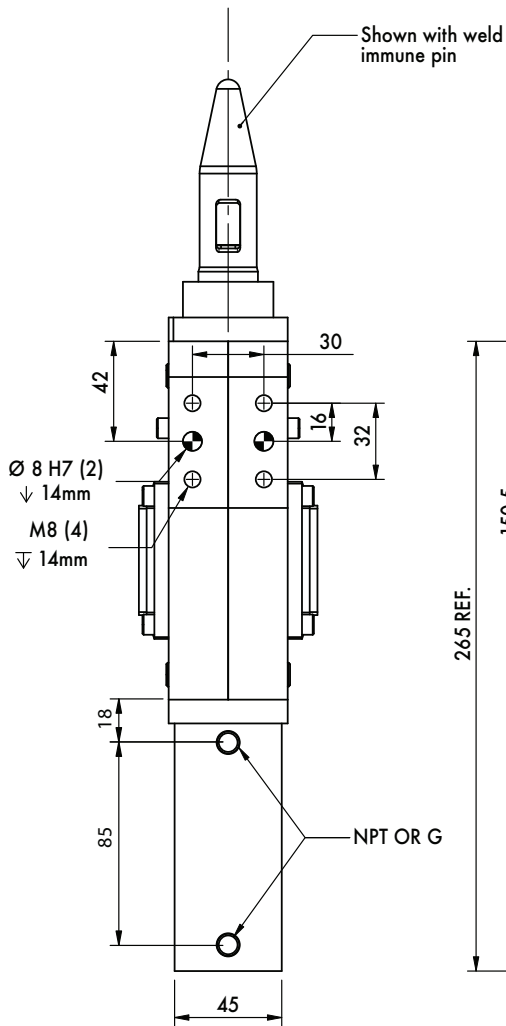
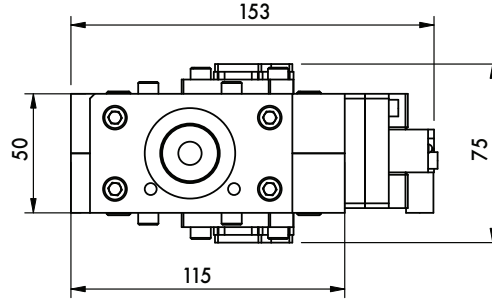
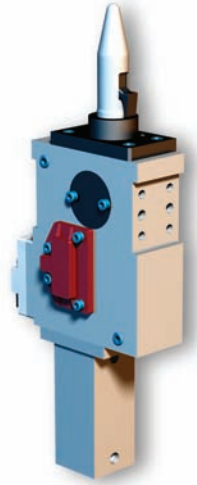
### 82P25 (25mm Cylinder) - General Dimensions



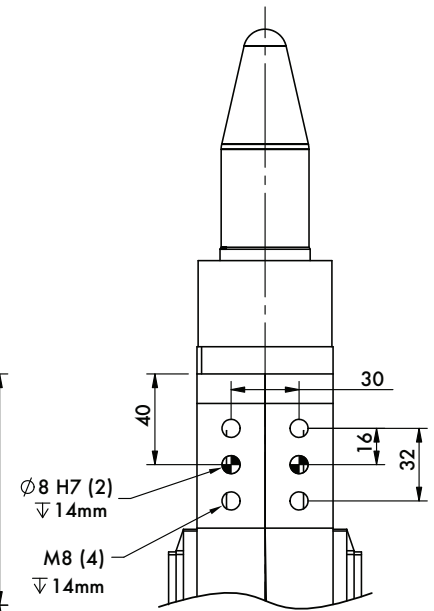
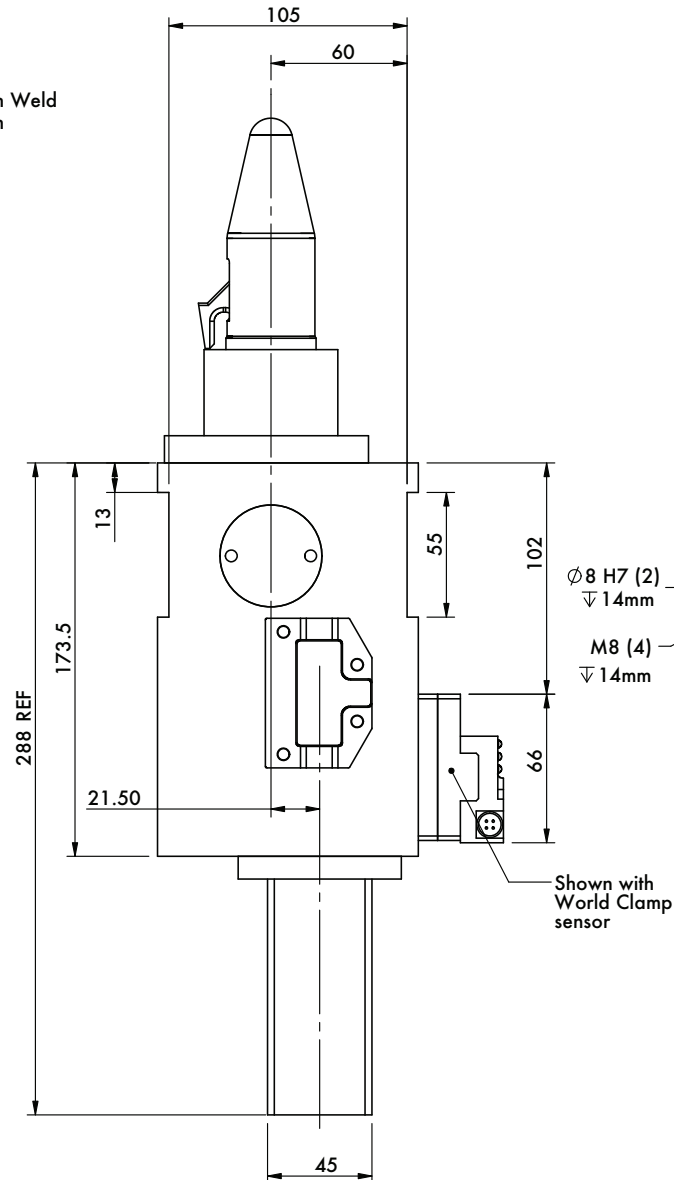
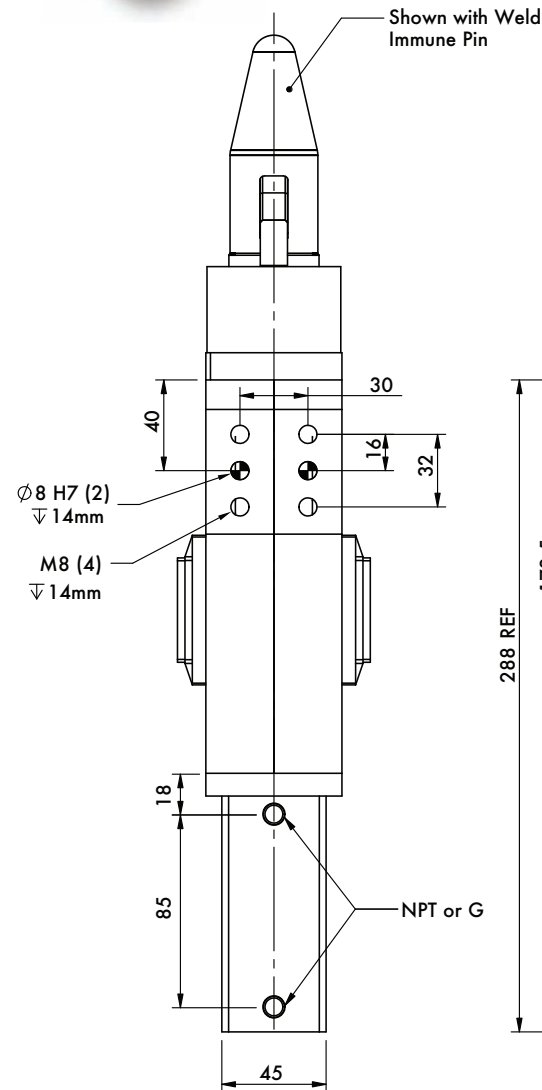
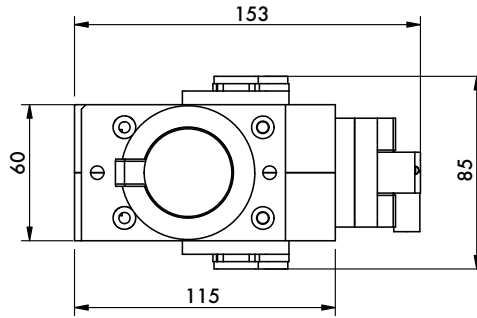
While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.



**82P Series Pneumatic Locating Pin Clamp**  
**82P30 (30mm Cylinder) - General Dimensions**



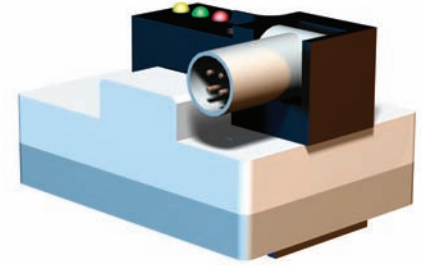
**82P Series Pneumatic Locating Pin Clamp**  
**82P35 (35mm Cylinder) - General Dimensions**



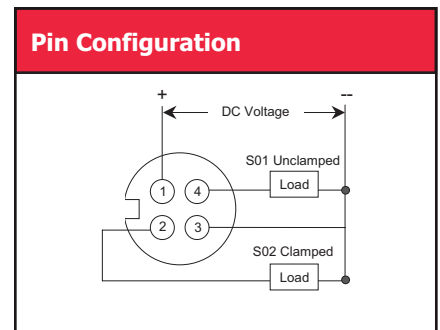
While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.

## 82P Series Locating Pin Clamp

### Sensor Information



Order Code	Supplier	Voltage	Connector
<b>C8</b>	Turck	10...30 VDC 150mA	4 Pin, M12, Eurofast
<b>E4</b>	Pepperl-Fuchs	10...30 VDC 100mA	4 Pin, M12, Eurofast
<b>E6</b>	Baluff	10...30 VDC 100mA	4 Pin, M12, Eurofast



## 52F and 52R Series Locating Pin Clamp

### Features and Benefits

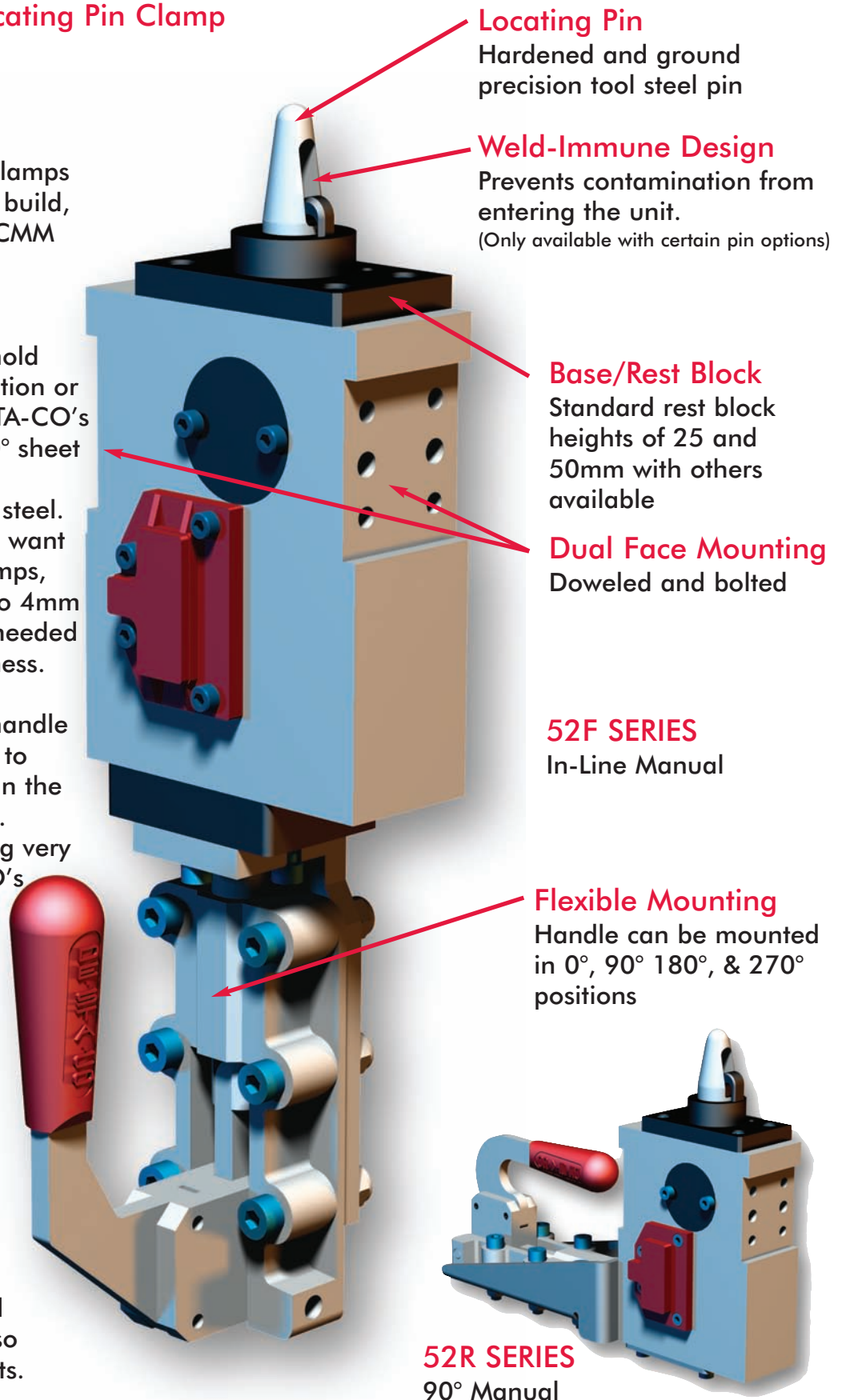
### Introduction

DE-STA-CO's manual pin clamps are designed for prototype build, short run production, and CMM manual pallet systems.

The manual clamp is fully toggling to give precision hold down for geometric fabrication or precision measuring. DE-STA-CO's geometric pins are full 360° sheet metal contact made from hardened and ground tool steel. For those tool builders that want to reuse the 52x series clamps, the hook is adjustable up to 4mm so that a new hook is not needed for each sheet metal thickness.

For flexibility, the manual handle clamp can be adjusted 90° to allow the handle to swing in the arc best for the application. For those situations needing very short units, use DE-STA-CO's 52R30 or 52R25 series. And for those applications needing remote actuation, use the 52C30 or 52C25 series.

The 52R Series manual pin clamp is typically used for fixtures and CMM systems where space doesn't allow for the 52F Series in-line model to be mounted. The clamping range is adjustable up to 4 mm and the direction of swing is also adjustable in 90° increments.



#### Locating Pin

Hardened and ground precision tool steel pin

#### Weld-Immune Design

Prevents contamination from entering the unit.  
(Only available with certain pin options)

#### Base/Rest Block

Standard rest block heights of 25 and 50mm with others available

#### Dual Face Mounting

Doweled and bolted

#### 52F SERIES

In-Line Manual

#### Flexible Mounting

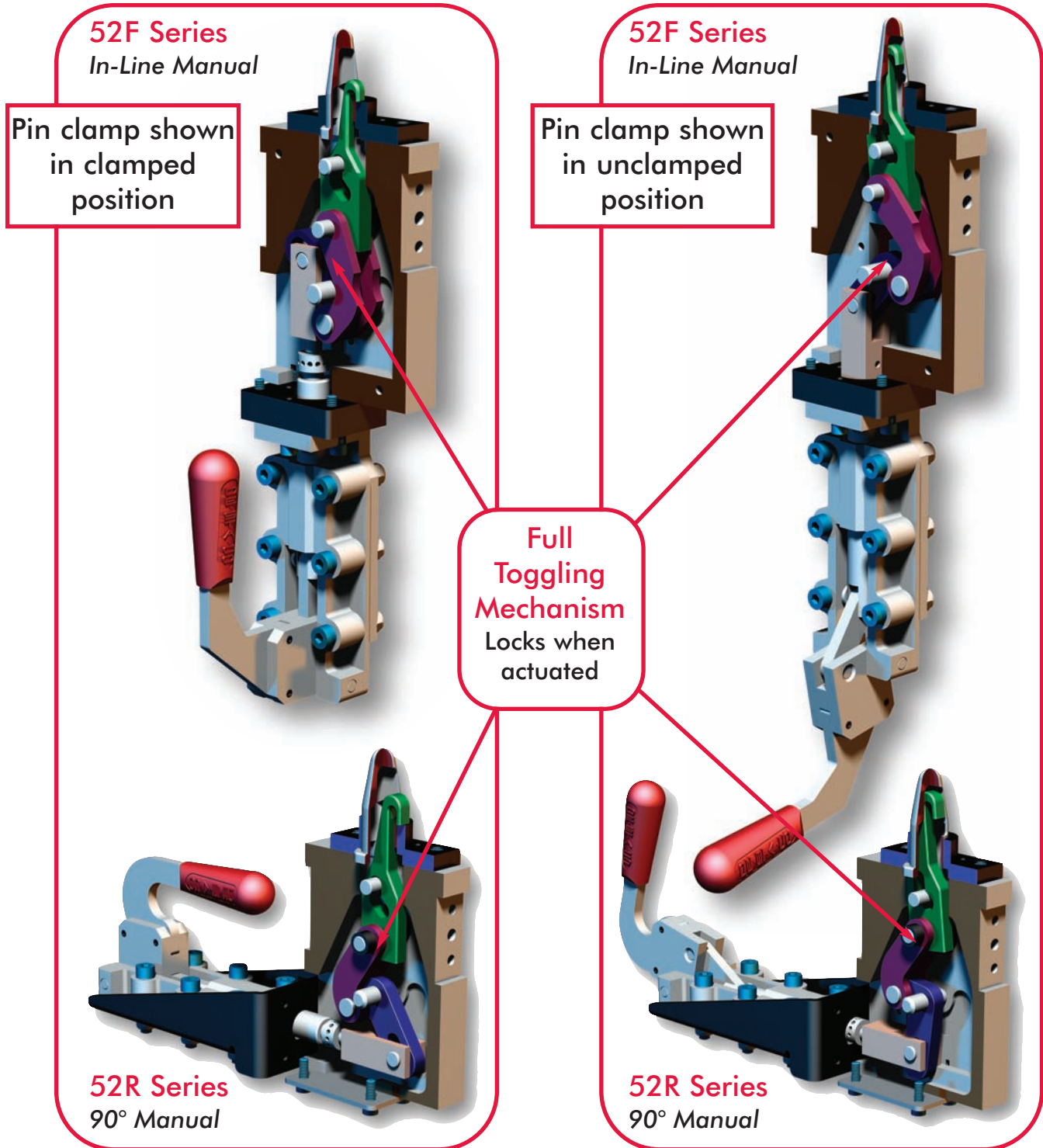
Handle can be mounted in 0°, 90°, 180°, & 270° positions

#### 52R SERIES

90° Manual

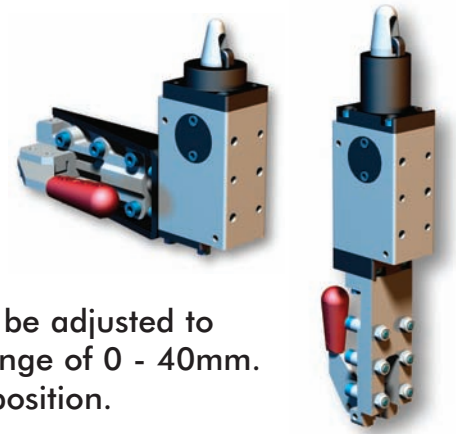
## 52F and 52R Series Locating Pin Clamp Operation Principle

DE-STA-CO's 52F and 52R Locating Pin Clamps are made using a fully enclosed body with hardened steel bushing wear surfaces for millions of cycles and long life. Sheet metal is captured with a hook that toggle locks when handle is manipulated into the closed position and remains in locked position until the handle is released.

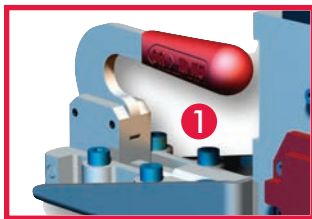


## 52F and 52R Series Manual Locating Pin Clamp

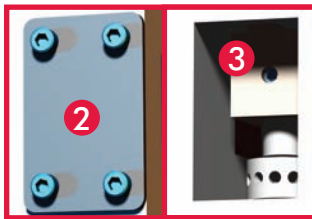
### Adjusting the clamping hook



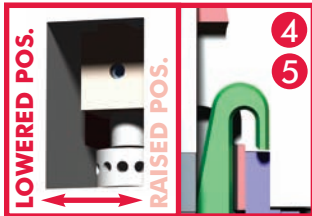
DE-STA-CO 52F and 52R Series manual Locating Pin Clamp can be adjusted to accept different sheet metal thicknesses, and has an adjusting range of 0 - 40mm. This is done by adjusting the height of the hook in the clamped position. Please follow the procedure below to adjust the hook.



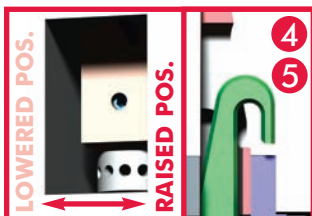
1) Close handle to bring hook to clamping position



2) Remove the back cover. The cover is located on the bottom of the 52R series and on the side of the 52F series.

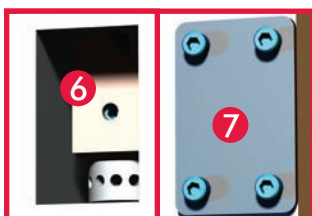


3) Loosen the set screw located in the clevis, using a 3mm Allen Wrench. This will release the clevis from the rod.



4) Raise or lower the hook height to the desired height by adjusting the wheel in either a clockwise or counterclockwise rotation. Rotating the wheel clockwise will raise the hook, while rotating the wheel counterclockwise will lower the wheel.

**IMPORTANT:** Due to very high exerting force, the hook cannot be used to clamp sheet metal. Adjust hook to allow a .1mm gap between hook and thickest material.



5) To adjust the pin clamp for different sheet metal thicknesses raise the hook from previous setting, place new sheet metal thickness between base and hook, then lower hook until it comes into contact with the sheet metal part.

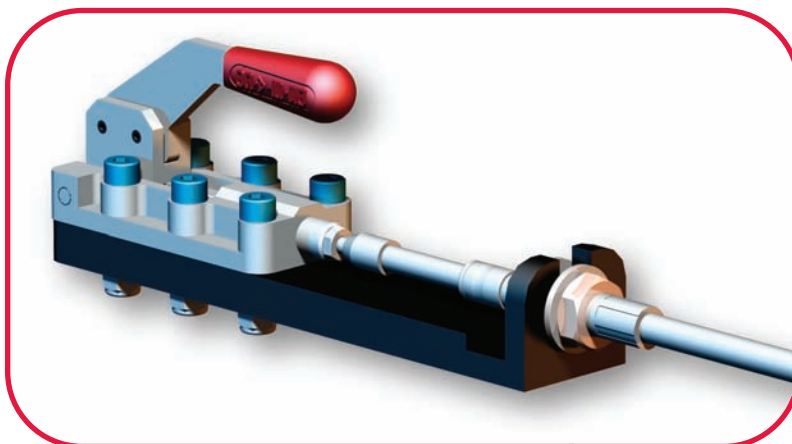
6) Tighten the set screw located in the clevis after adjusting the hook. using the 3mm Allen Wrench.

7) Replace the back cover.

## 52C Series Manual Locating Pin Clamp Features and Benefits

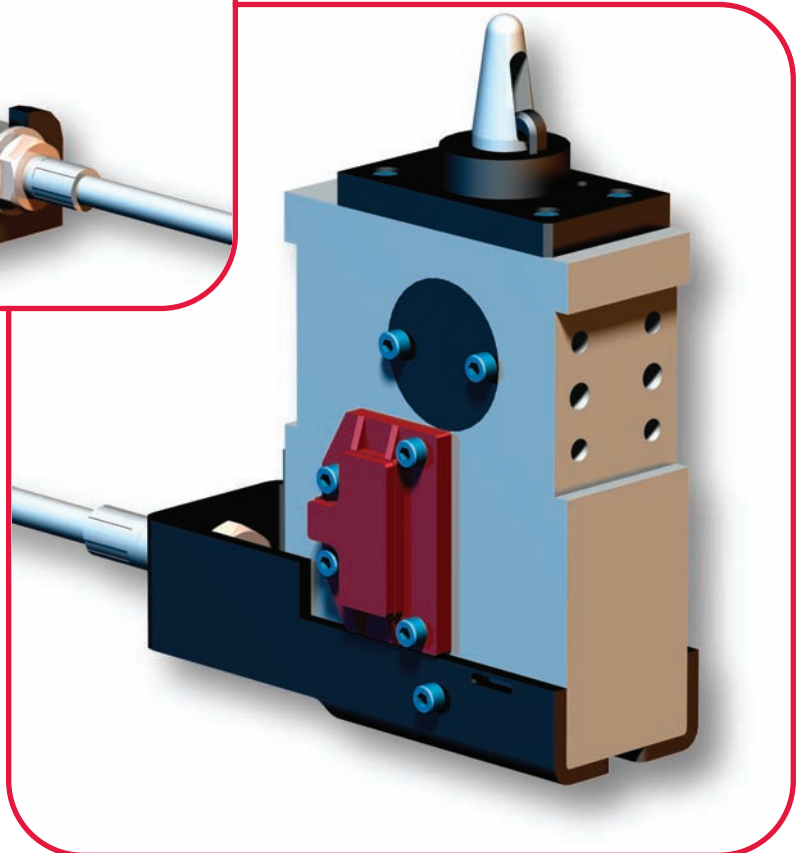


The 52C Series of the Manual Pin Clamps are cable operated clamps used on fixtures, CMM clamping systems and pallet applications where space or location of the clamp requires remote actuation. The heavy duty stainless steel cables are high-density polyethylene coated for smooth operation. The cable has a minimum bend radius of 6" with standard lengths of 3, 6, and 10 feet.



The 52C Series manual pin clamp operates the same as the 52F and 52R series, allowing for adjustment for different sheet metal thicknesses.

Please contact DE-STA-CO Sales and Engineering office for more information on how to order this product.



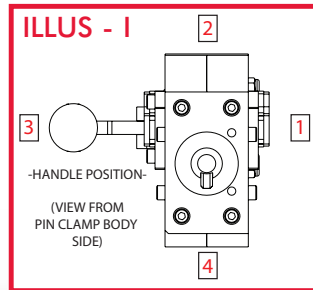
52F and 52R Series Manual Locating Pin Clamp  
Ordering Information

- ①  
**52F30 - 5**
- ②  
**16**
- ③  
**00**
- ④  
**S**
- ⑤  
**2**

**HANDLE POSITION**

- 1
- 2
- 3 (SHOWN)
- 4

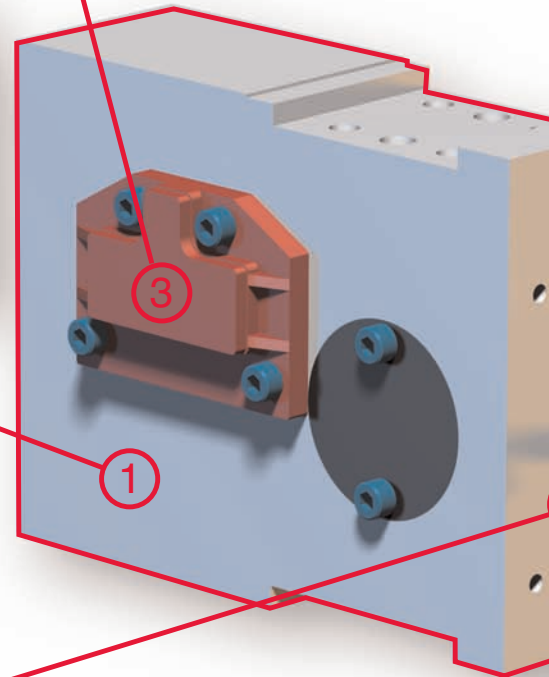
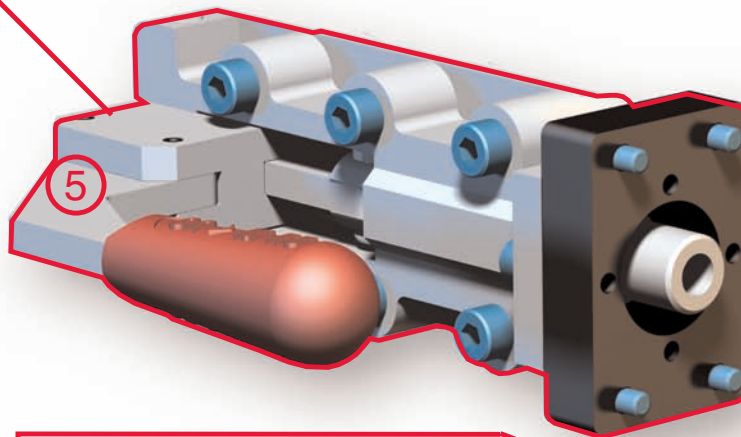
(SEE ILLUS - 1 BOX RIGHT)



**INTEGRATED SENSING SYSTEM**

**B8** = INDUCTIVE,  
PLUG CONNECTION M12 X 1

**00** = NO SENSING SYSTEM



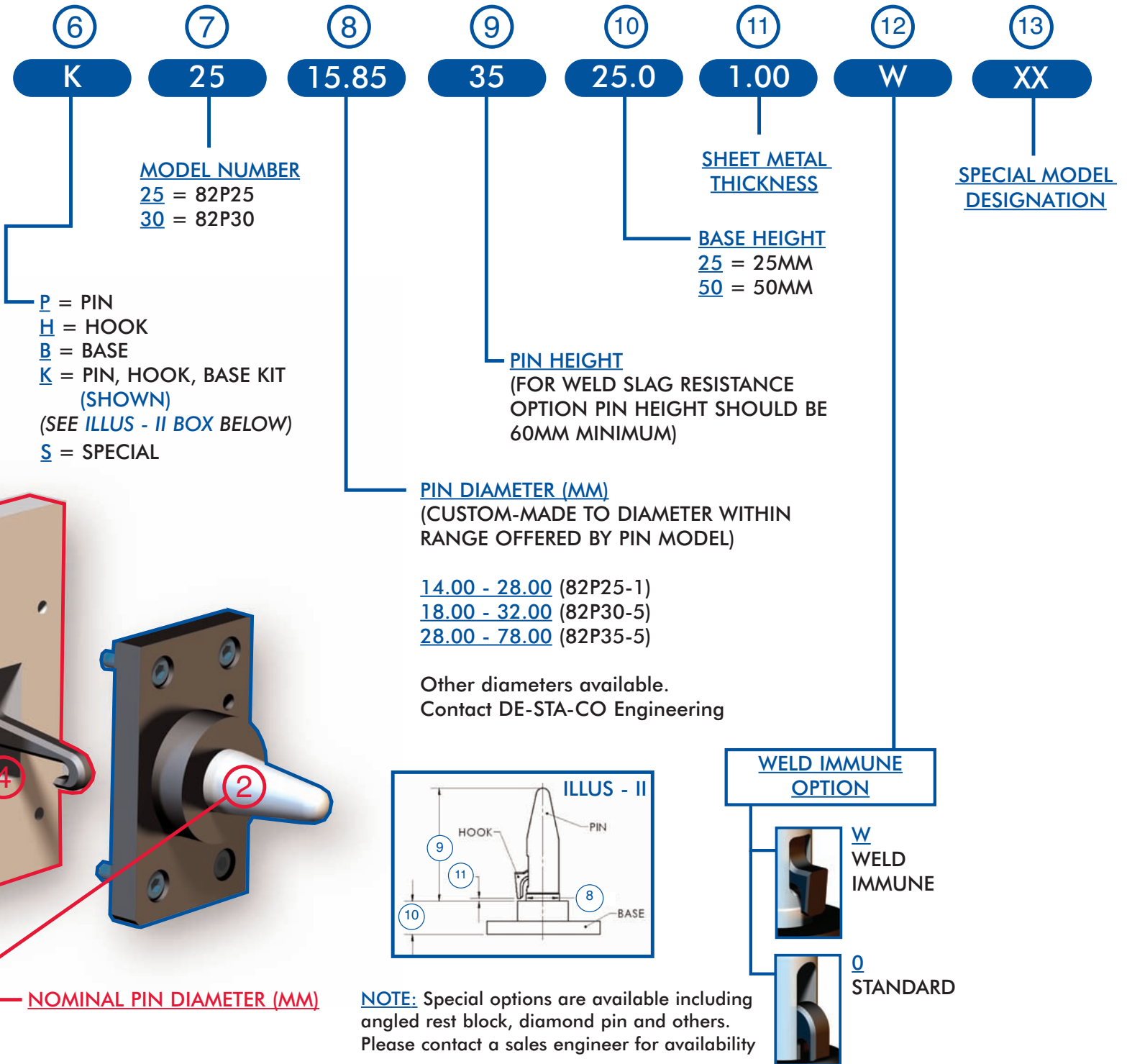
- **52F25 - 1**  
52F SERIES PIN CLAMP  
INLINE MANUAL
- **52F30 - 5**  
52 SERIES PIN CLAMP (SHOWN)  
INLINE MANUAL
- **52R25 - 1**  
52 SERIES PIN CLAMP  
90° MANUAL
- **52R30 - 5**  
52 SERIES PIN CLAMP  
90° MANUAL

- **S** = HOOK AWAY FROM SWITCH (SHOWN)
- **R** = HOOK TOWARD SWITCH

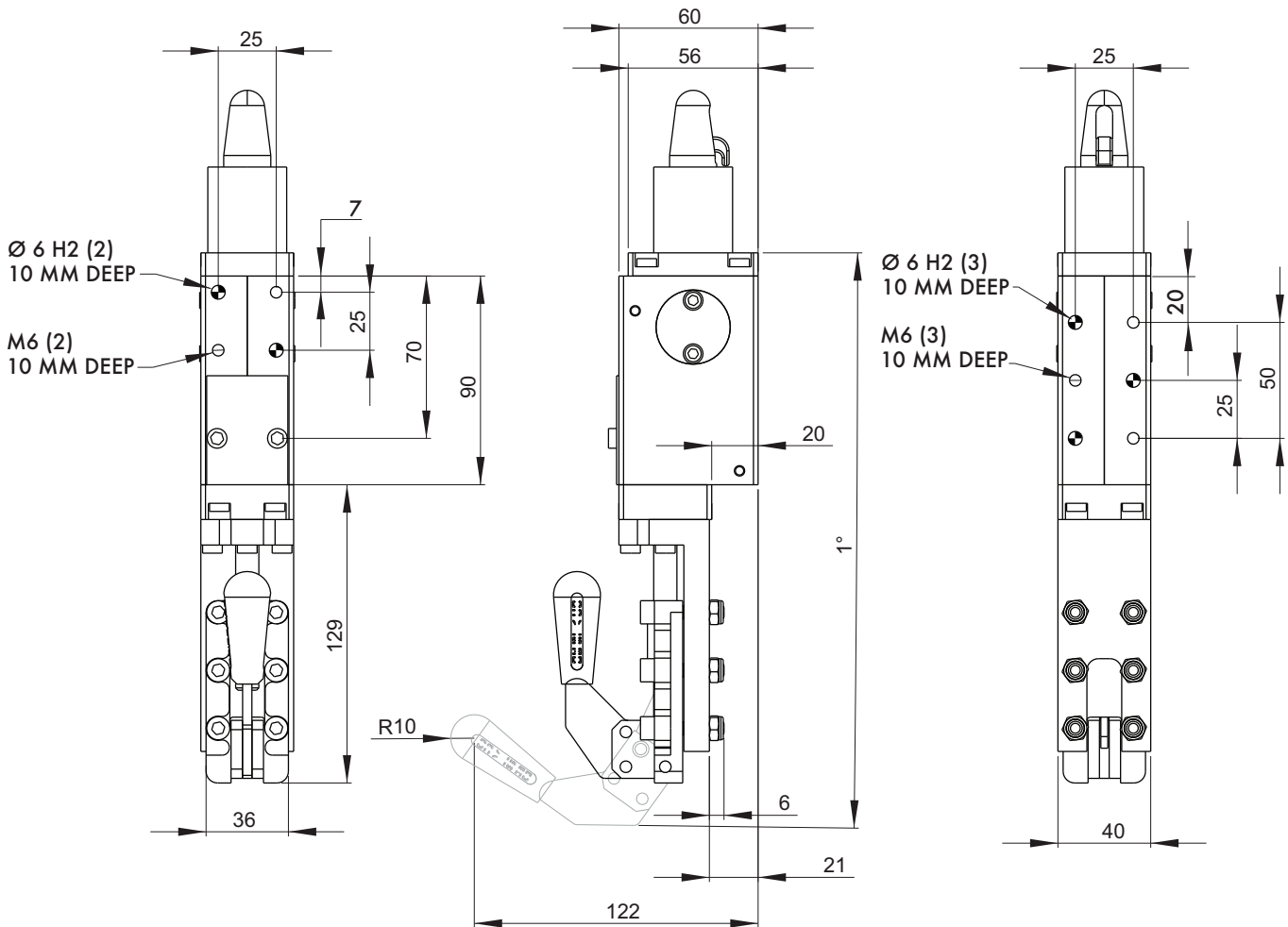
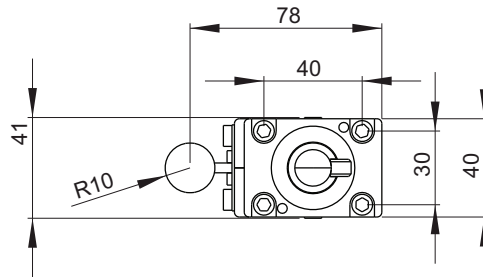
While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.



52F and 52R Series Manual Locating Pin Clamp  
Ordering Information



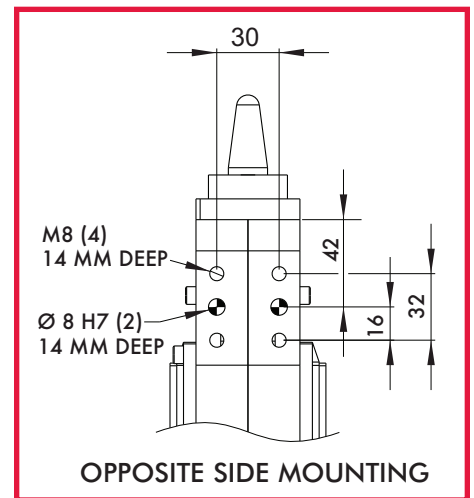
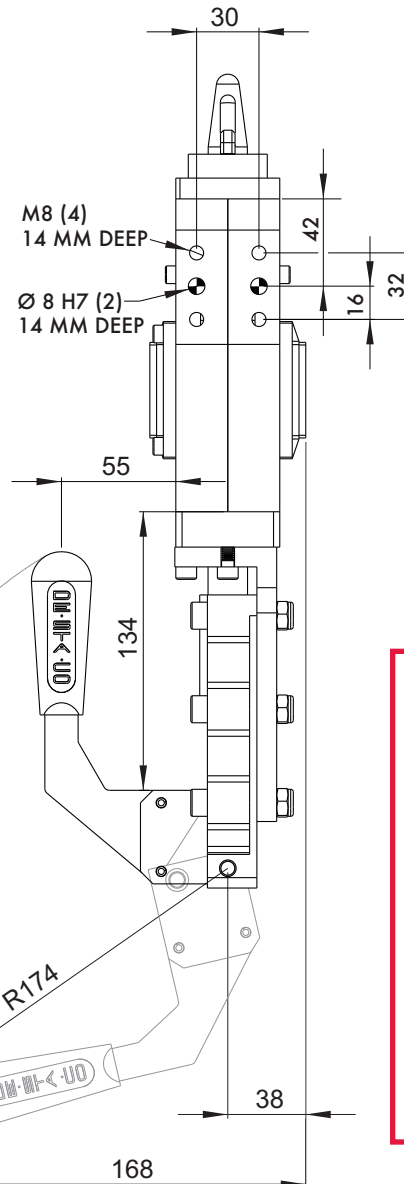
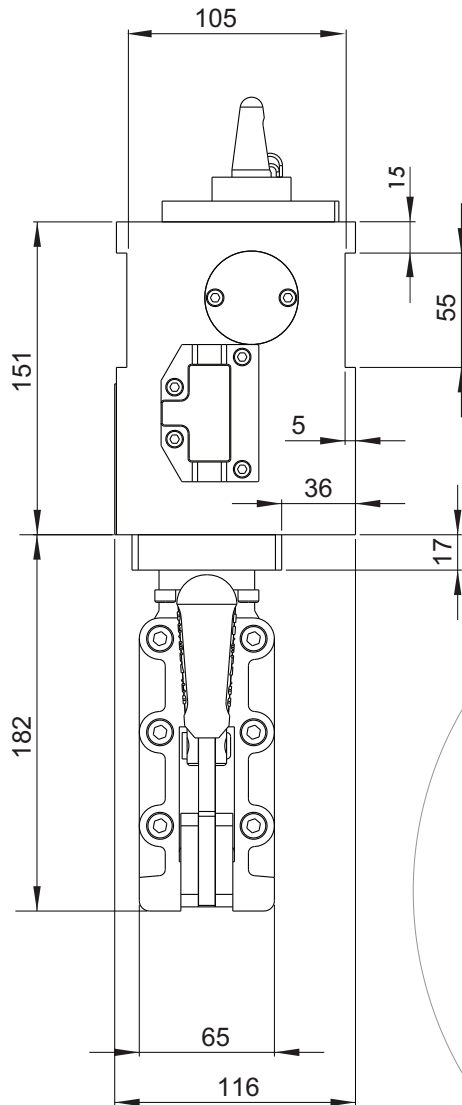
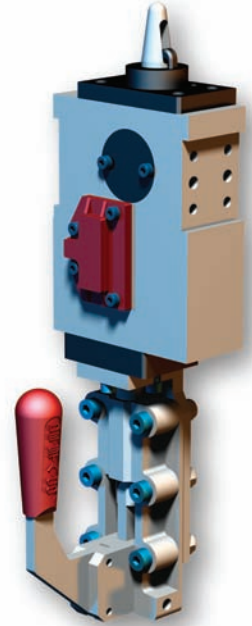
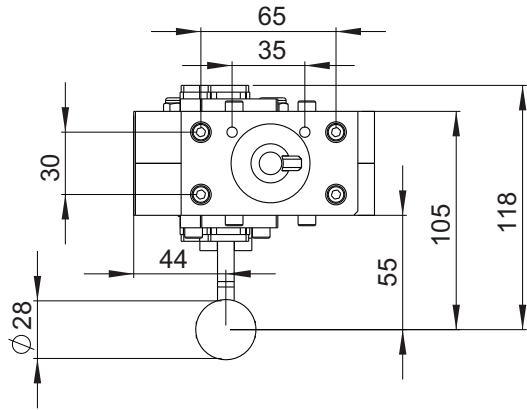
**52F Series Manual Locating Pin Clamp**  
**52F25 - General Dimensions**



(Handle shown in #2 position)

While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.

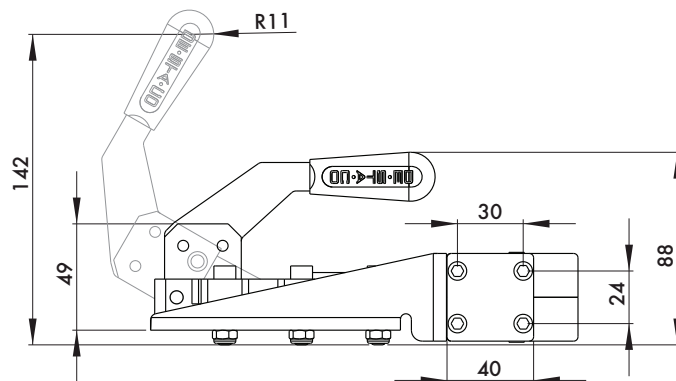
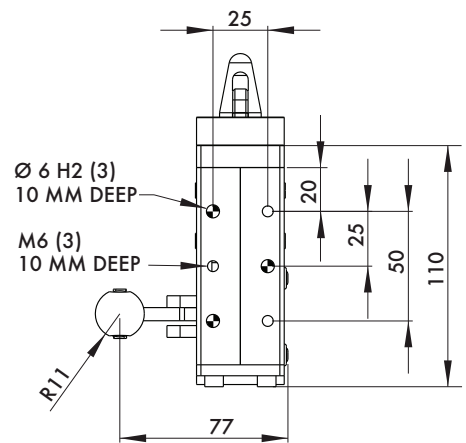
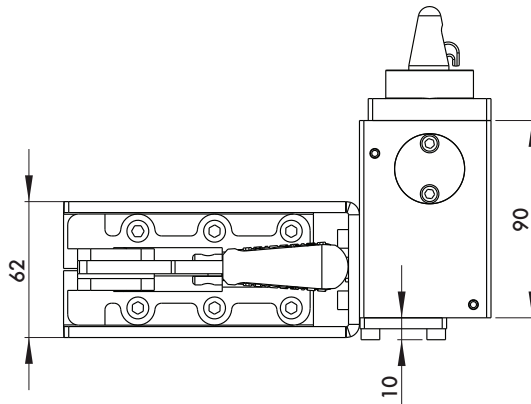
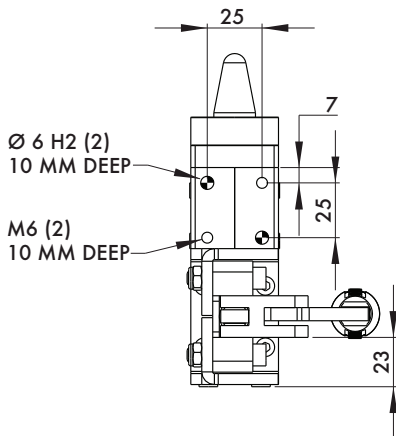
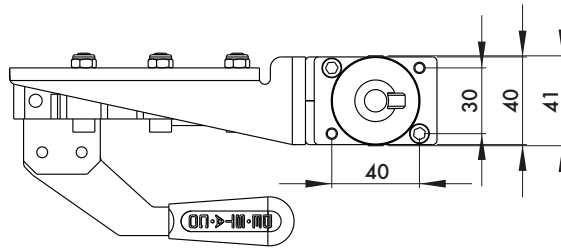
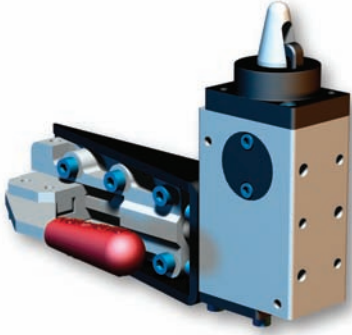
**52F Series Manual Locating Pin Clamp**  
**52F30 - General Dimensions**



(Handle shown in #3 position)

## 52R Series Manual Locating Pin Clamp

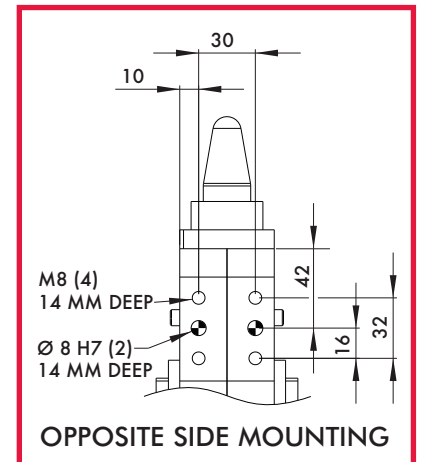
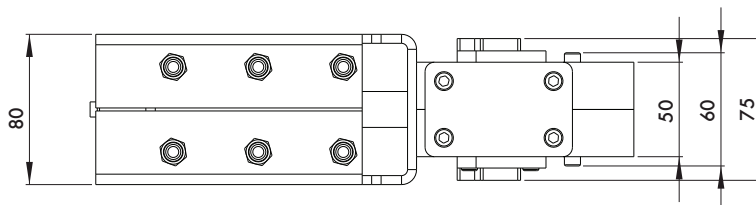
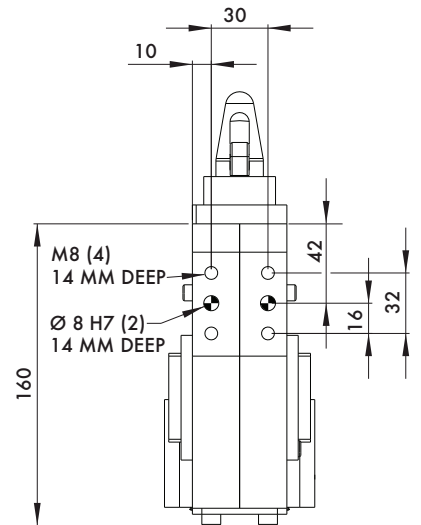
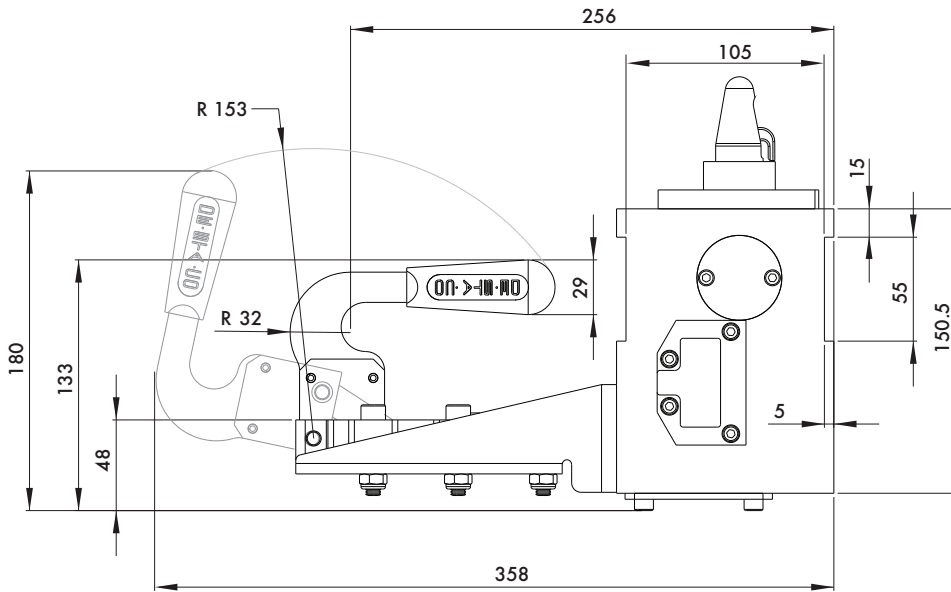
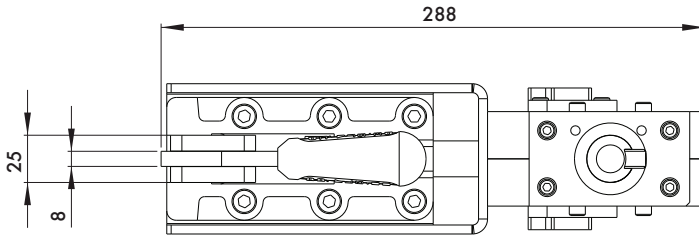
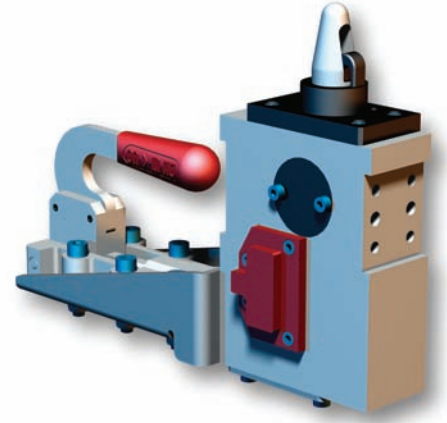
### 52R25 - General Dimensions



(Handle shown in #3 position)

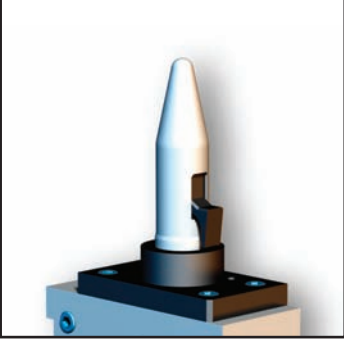
While we make every attempt to insure information given is correct, we reserve the right to amend without notice the specifications given in this document.

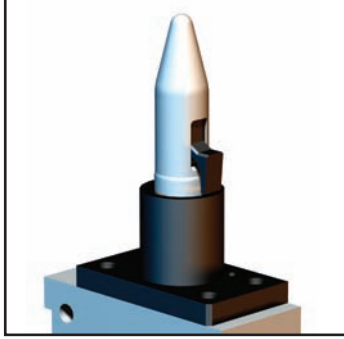
52R Series Manual Locating Pin Clamp  
52R30 - General Dimensions





(Handle shown in #2 position)

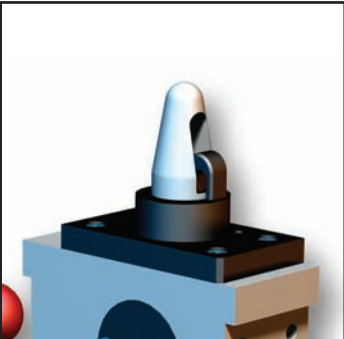
**82P, 52F, 52R, 52C Series Locating Pin Clamp**  
Standard Pin Offering

K3025.008525X.XX	Pin Application
	<p>Standard 82P30 showing: Ø25mm pin, 85mm pin height, 25mm stand off,</p> <p>Weld Immune Hook and Pin Design</p>

K3025.008550X.XX	Pin Application
	<p>Standard 82P30 showing: Ø25mm pin, 85mm pin height, 50mm stand off,</p>

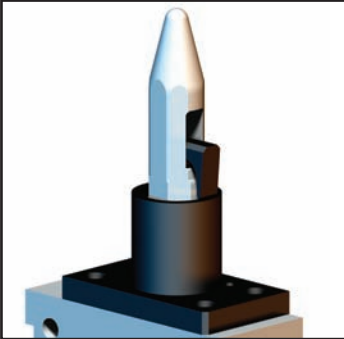
K2516.004525X.XX	Pin Application
	<p>Standard 82P25 showing: Ø16mm pin, 45mm pin height, 25mm stand off,</p> <p>Used for materials handling applications 3mm of sheet metal contact with 10mm of straight pull down</p>

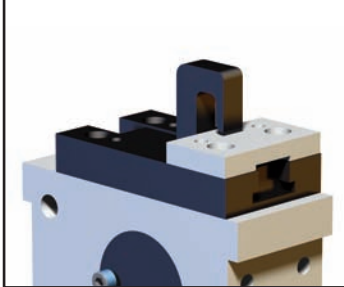
K2510.003235X.XX	Pin Application
	<p>Standard 82P25 showing: Ø10mm pin, 32mm pin height, 35mm stand off,</p> <p>Used for light weight, small parts</p>


K3015.853525X.XX0	Pin Application
	<p>Standard 52R30 showing: Ø15.85mm pin, 35mm pin height, 25mm stand off, Standard Hook</p>


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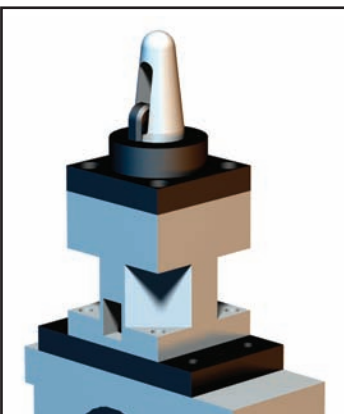
82P, 52F, 52R, 52C Series Locating Pin Clamp  
Special Pin Offering

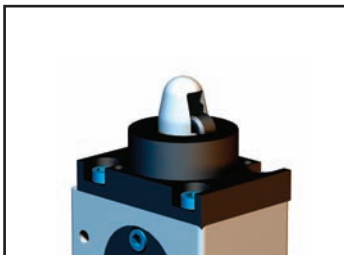
Diamond Pin Special	Pin Application
	<p>Standard 82P30 showing: Diamond Pin, 50mm stand off,</p> <p>Contact DE-STA-CO Engineering for more information</p>

Non-Pin Special	Pin Application
 <p>Contact DE-STA-CO Engineering for more information</p>	<p>Standard 82P30 showing: No Pin</p> <p>Important to close off large opening to prevent weld slag from entering clamp mechanism.</p>

Angled Base Special	Pin Application
	<p>Standard 82P25 showing: Ø16mm pin with relief cut for close fit or sloping rest block for angled surfaces</p> <p>Contact DE-STA-CO Engineering for more information</p>

Removable Rest block	Pin Application
 <p>Contact DE-STA-CO Engineering for more information</p>	<p>Standard 82P30 showing: Ø40mm pin, 50mm stand off, Removable rest block (per GM CC101 page D7),</p> <p>5 mm purchase with 13mm pull down</p>

Rotating Hook Special	Pin Application
 <p>Contact DE-STA-CO Engineering for more information</p>	<p>Standard 82P30 showing: Details which can be rotated in 90° increments, hook can be changed without disassembling the clamp. Hook is shimmable for sheet metal thickness changes</p>

Low-Profile Special	Pin Application
 <p>Contact DE-STA-CO Engineering for more information</p>	<p>Standard 82P25 showing: Ø16mm pin, 22mm pin height, 25mm stand off,</p> <p>Used for materials handling where two layers of sheet metal have a small gap between them</p>

## A TRUE GLOBAL PRESENCE

Through a constant commitment to the Team DE-STA-CO philosophy, we draw from our worldwide pool of information and resources to offer the highest levels of service to each of our customers, regardless of geographic location. Our status as a truly global company empowers us to improve the global competitiveness of your operations. Whatever your automation or workholding need, Team DE-STA-CO has the best possible solution.



## ABOUT DE-STA-CO

DE-STA-CO, a Dover Company, was founded in 1915. In 1936 the company designed and manufactured the first manual toggle clamp.

Innovations, quality and acquisitions have made DE-STA-CO the worldwide leader in the design, manufacture and support of clamping, gripping, transferring and robotic tooling solutions for workplace and flexible automation needs.

The family of brands has enabled DE-STA-CO to establish leading productivity improvement and cost-reduction manufacturing solutions for our customers using the breadth of products and value-added services we offer.

Our customer base covers a wide range of industries requiring a global customer service network offering consistent solutions and program support. With over 85 years of experience, DE-STA-CO brings a quality philosophy unsurpassed by its counterparts.

## DE-STA-CO LEAN INITIATIVE

The DE-STA-CO family of companies is committed to being a lean resource for its customers, providing ways to eliminate waste in manufacturing processes through the use of optimal clamping and automation solutions that eliminate bottlenecks.

DE-STA-CO's wide range of products allows the company to offer its customers an Automation Continuum™ providing solutions that increase profitability and efficiency, while reducing waste.

### PRODUCT WARRANTY

All DE-STA-CO Products are thoroughly inspected and tested. We fully guarantee all materials and workmanship to be free of defects. Any product that is found to be defective in design, material or workmanship in the course of its normal use will be promptly replaced.

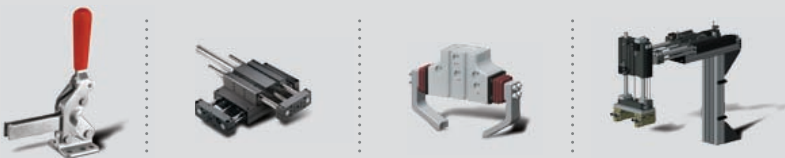
This Warranty does not apply to any product where the failure is a result of misapplication or abuse, nor is there any Warranty expressed or implied as to the merchantability or fitness for a particular purpose of the product and any warranty is limited to the above express warranty.

This Warranty is null and void if the product is repaired, modified or altered in any way.

DE-STA-CO is not liable for labor, special, direct, incidental, or consequential damages and under no circumstances any charges in excess of the invoice amount of the product proven to be defective.



A DOVER COMPANY



Positioning our customers for productivity.

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