



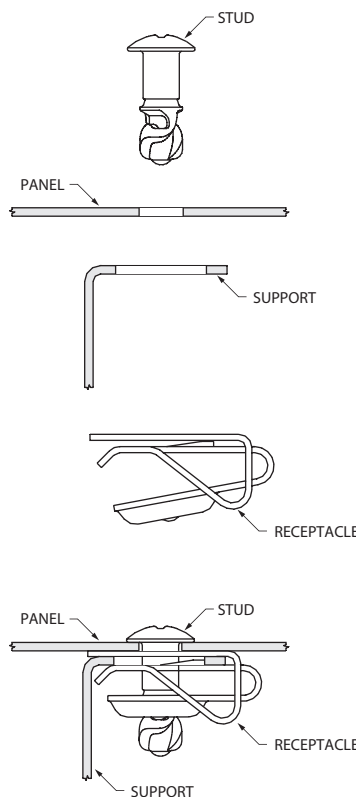
**Typical Applications:**

- Automotive Underbody Shields
- Engine Covers
- Access Panels

**Rapier Quarter-Turn Fasteners**

Rapier offers one of the most comprehensive ranges of quick release, quarter-turn fasteners in the industry. They provide a practical, low-cost fastening solution, particularly for high-volume users. Southco supplies a Rapier solution for the smallest to the most rugged application. Available as 3.5 mm, 5 mm, 7 mm and 9 mm studs, with a range of receptacles that include a Front Mount receptacle suitable for thermoplastic materials. Rapier is the first choice for many of the world's leading manufacturers.

**Rapier Assembly**



Rapier fastener components consist of a spiral-cam stud, an optional stud retainer (not shown) and a receptacle (clip-on shown).

Rapier receptacles typically snap-in or clip onto the support panel.

**Rapier Assemblies**

- Easy Quarter-turn fastening
- Positive stop
- Vibration resistant detent

## Rapier Line Selection Process

### Step 1 – Select Receptacle Style

Choice of a Rapier receptacle is a balance of load handling requirements and installation method. Select a preferred mounting style from those shown at right. Each style is not available in all sizes, so Step 2 is important.

### Step 2 – Select Receptacle Size

Use the Rapier Performance Chart to select the receptacle size that best meets your performance requirements.

### Step 3 – Select Stud Style

Rapier studs are shown following the receptacle pages in each size section. Performance is the same for each stud, so selection is based on head style. The length of the stud is determined by calculating Total Material Thickness (TMT) as defined on the receptacle pages.

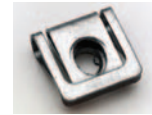
### Step 4 – Select an Optional Retainer

Choose either a plastic or metal retainer if you desire the stud to remain in the panel when disengaged from the receptacle.

### Receptacle Styles



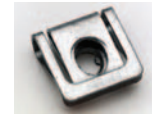
Clip-On



Long Reach Clip-On



Right Angle Bracket



Thick Panel Clip-On



Snap-In



Front Load Clip-In



Press-in Insert



Rivet Plate



Weld Plate

**Clip-On** – Clip-onto edge of support panel.

**Long Reach Clip-On** – Allows stud holes to be placed farther from edge of panel.

**Right Angle Bracket** – Used on support panels perpendicular to stud panel.

**Thick Panel Clip-On** – Used on support panels up to 5.5mm (Rapier 7mm only).

**Snap in** – Clip-into a prepared hole anywhere in the support panel.

**Front Load Clip-In** – Clip into a prepared hole anywhere in the support panel (9mm only).

**Press-in Insert** – Suitable for soft metals and thermoplastics. Press or ultrasonic installation.

**Rivet Plate** – Rivet mount onto support panel.

**Weld Plate** – Weld mount onto support panel.

### Rapier Performance Chart

Stud Size	Receptacle Style	Receptacle Strength <sup>1</sup>	Max. Total Material Thickness (TMT) <sup>2</sup>
3.5 mm	Mini Clip-On	27 lbs.	2.5 to 26.4 mm
5 mm	Mini Clip-On	31 lbs.	2.5 to 25.4 mm
	Long Reach Clip-On	31 lbs.	2.5 to 25.4 mm
	Front Load Clip-In	14 lbs.	2.5 to 25.4 mm
	Press-in Insert	—	0.5 to 27.4 mm
7 mm	Mini Clip-On	45 lbs.	2.5 to 25.4 mm
	Long Reach Clip-On	50 lbs.	1.5 to 28.4 mm
	Right Angle Bracket	50 lbs.	1.5 to 28.4 mm
	Thick Panel Clip-On	50 lbs.	3.5 to 30.4 mm
	Front Load Clip-In	32 lbs.	2.5 to 25.4 mm
9 mm	Press-in Insert	—	0.5 to 27.4 mm
	Clip-On	61 lbs.	2.0 to 28.9 mm
	Right Angle Bracket	61 lbs.	2.0 to 28.9 mm
	Front Load Clip-In	23 lbs.	2.5 to 17.4 mm
	Rivet Plate	65 lbs.	2.0 to 28.9 mm
	Weld Plate	65 lbs.	2.0 to 28.9 mm

#### Notes:

1. Maximum load without distortion.
2. See specific receptacle page for TMT specification.

All dimensions on this page are in millimeters.

Additional installation information is located at the end of this section.

### Stud



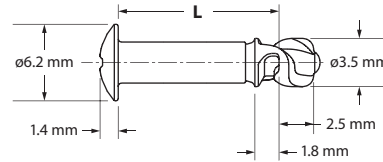
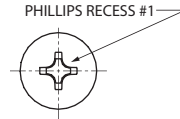
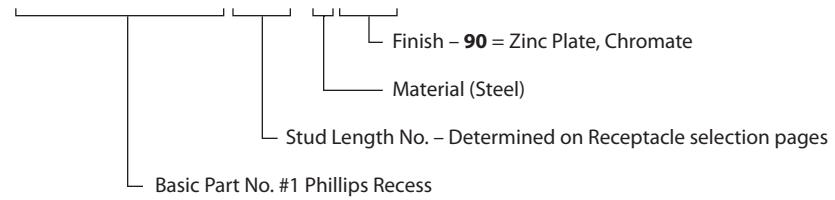
<b>Part Number</b>	D2-513-7(L)-190
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### Standard Material & Finish:

**Material:** Case hardened steel  
**Finish:** Zinc plate, chromate

### Rapier Stud Part Numbers:

## D2-513-7(L)-190



### Additional Stud Dimensions:

**L Dimension** - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

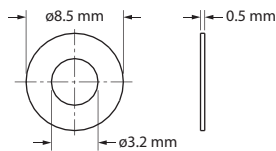
**Note:** Add 1 mm to TMT when using a plastic retainer.

Quick Access Fasteners

### Plastic Retainer



<b>Part Number</b>	D2-523-100-040
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### Standard Material & Finish:

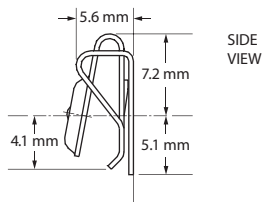
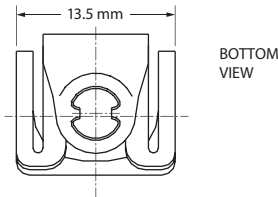
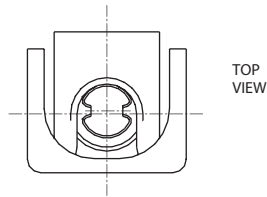
**Material:** High density polyethylene  
**Finish:** Natural color

All dimensions on this page are in millimeters.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Mini Clip-On - 3.5 mm



**Part Number** D2-533-300-190



## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate and chromate

## Mechanical

**Maximum Load without Distortion:** 27 lbs.  
**Maximum Torque:** 13.3 lbs.-in.

All dimensions on this page are in millimeters.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

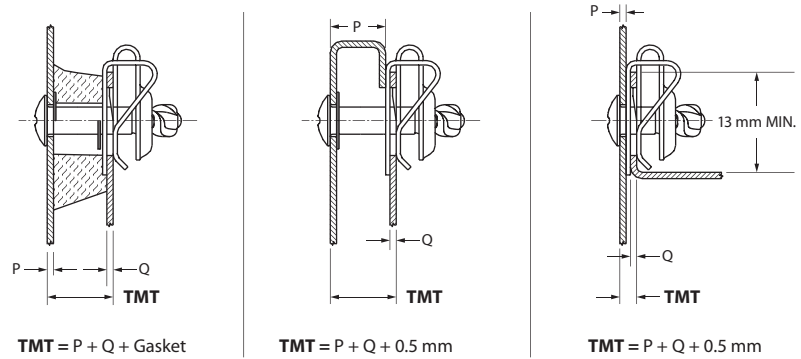


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	07
3.5 to 4.4 mm	08
4.5 to 5.4 mm	09
5.5 to 6.4 mm	10
6.5 to 7.4 mm	11
7.5 to 8.4 mm	12
8.5 to 9.4 mm	13
9.5 to 10.4 mm	14
10.5 to 11.4 mm	15
11.5 to 12.4 mm	16
12.5 to 13.4 mm	17
13.5 to 14.4 mm	18
14.5 to 15.4 mm	19
15.5 to 16.4 mm	20
16.5 to 17.4 mm	21
17.5 to 18.4 mm	22
18.5 to 19.4 mm	23
19.5 to 20.4 mm	24
20.5 to 21.4 mm	25
21.5 to 22.4 mm	26
22.5 to 23.4 mm	27
23.5 to 24.4 mm	28
24.5 to 25.4 mm	29
25.5 to 26.4 mm	30

### Note:

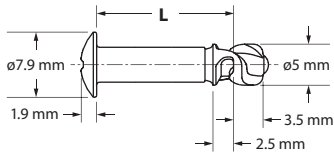
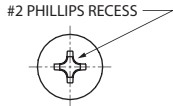
1. Equals (L) Dim on Stud Selection pages.

### Example:

When TMT = 24 mm;  
Stud Length No. is **28**;  
Stud Part Number is  
**D2-513-728-190**  
for a Phillips recess #1 stud.

Additional installation information is located at the end of this section.

### Stud



### Additional Stud Dimensions:

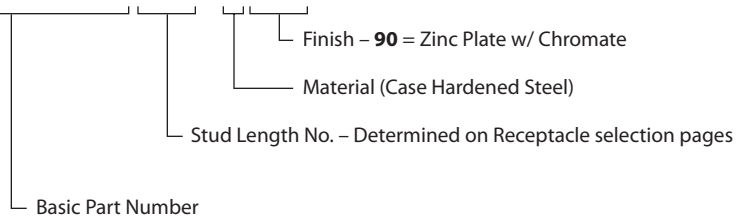
**L Dimension** - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

### Material & Finish:

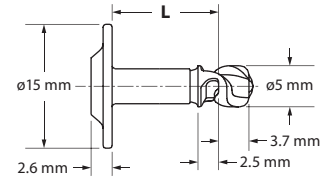
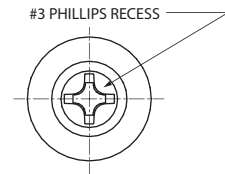
**Material:** Case hardened steel  
**Finish:** Zinc plate, chromate

### Rapier Stud Part Numbers:

## D2-515-7(L)-190



### Optional Stud (Washer Head)



**Part Number** D2-515-13(L)-190

*For minimum orders of 5,000 pieces*

### Standard Material & Finish:

**Material:** Case hardened steel  
**Finish:** Zinc plate, chromate

### Retainers

Plastic	Steel
<b>D2-525-100-040</b>	<b>D2-525-101-190</b>

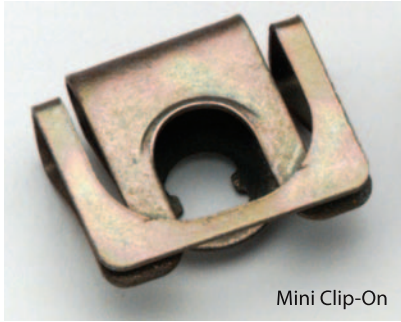
### Material & Finish:

**Plastic Retainer:** High density polyethylene, natural

**Steel Retainer:** Spring steel, zinc plate, chromate

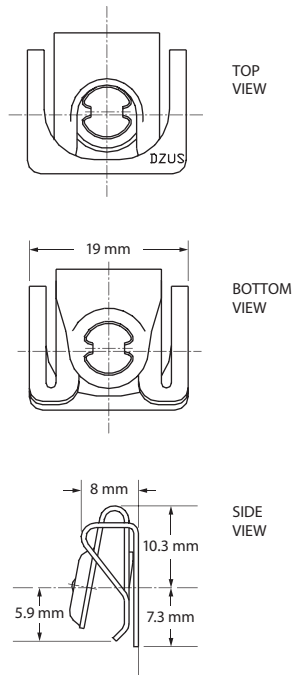
All dimensions on this page are in millimeters.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Mini Clip-On – 5 mm



Mini Clip-On

**Part Number** D2-535-330-190



## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate, chromate

## Mechanical

**Maximum Load without Distortion:** 31 lbs.  
**Maximum Torque:** 22 lbs.-in.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

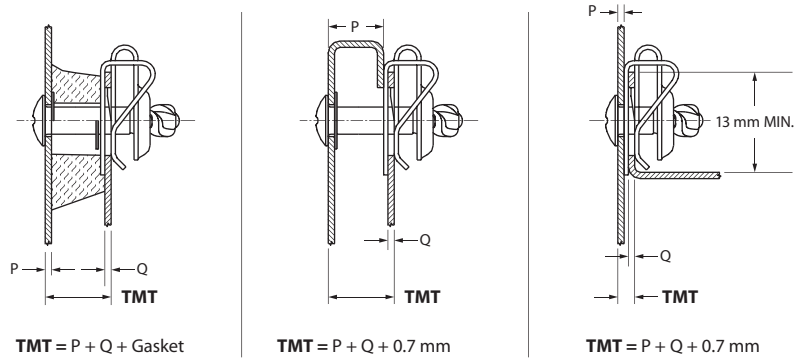


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	09
3.5 to 4.4 mm	10
4.5 to 5.4 mm	11
5.5 to 6.4 mm	12
6.5 to 7.4 mm	13
7.5 to 8.4 mm	14
8.5 to 9.4 mm	15
9.5 to 10.4 mm	16
10.5 to 11.4 mm	17
11.5 to 12.4 mm	18
12.5 to 13.4 mm	19
13.5 to 14.4 mm	20
14.5 to 15.4 mm	21
15.5 to 16.4 mm	22
16.5 to 17.4 mm	23
17.5 to 18.4 mm	24
18.5 to 19.4 mm	25
19.5 to 20.4 mm	26
20.5 to 21.4 mm	27
21.5 to 22.4 mm	28
22.5 to 23.4 mm	29
23.5 to 24.4 mm	30
24.5 to 25.4 mm	31

## Example:

When TMT = 24 mm;  
Stud Length Number is **30**;  
Stud Part Number is **D2-515-730-190** for a Phillips recess #2 stud.

## Note:

1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

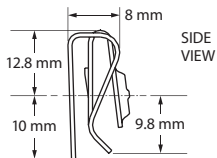
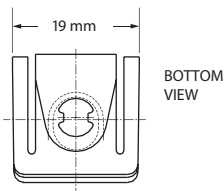
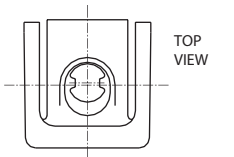
Additional installation information is located at the end of this section.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Long Reach Clip-On – 5 mm



**Part Number** D2-535-340-130\*

\* For minimum orders of 5,000 pieces



## Material & Finish

**Material:** Spring steel  
**Finish:** Organic silver

## Mechanical

**Installation Load:** 31 lbs.  
**Maximum Torque:** 22 lbs.-in.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

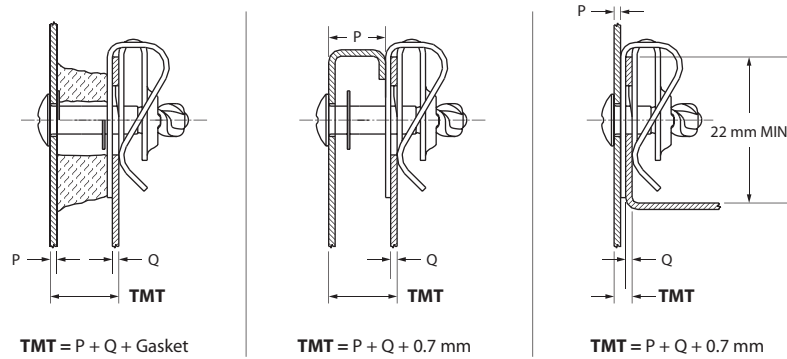


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	09
3.5 to 4.4 mm	10
4.5 to 5.4 mm	11
5.5 to 6.4 mm	12
6.5 to 7.4 mm	13
7.5 to 8.4 mm	14
8.5 to 9.4 mm	15
9.5 to 10.4 mm	16
10.5 to 11.4 mm	17
11.5 to 12.4 mm	18
12.5 to 13.4 mm	19
13.5 to 14.4 mm	20
14.5 to 15.4 mm	21
15.5 to 16.4 mm	22
16.5 to 17.4 mm	23
17.5 to 18.4 mm	24
18.5 to 19.4 mm	25
19.5 to 20.4 mm	26
20.5 to 21.4 mm	27
21.5 to 22.4 mm	28
22.5 to 23.4 mm	29
23.5 to 24.4 mm	30
24.5 to 25.4 mm	31

## Example:

When TMT = 24 mm;  
Stud Length Number is **30**;  
Stud Part Number is **D2-515-730-190** for a Phillips recess #2 stud.

## Note:

1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

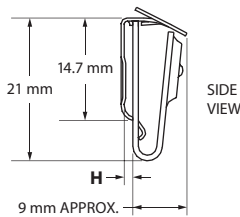
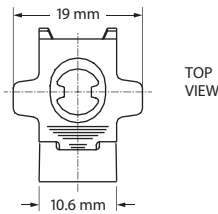
Additional installation information is located at the end of this section.



# DZUS® Rapier® D2 Quarter-Turn Receptacle Snap-In – 5 mm



Snap-In



Support Thickness Ranges	Snap-In Part Numbers	H Dim.
0.9 to 1.4 mm	D2-535-600-190	1.9 mm
1.5 to 2.0 mm	D2-535-601-190	2.5 mm

## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate, chromate

## Mechanical

**Maximum Load without Distortion:** 14 lbs.  
**Maximum Torque:** 22 lbs.-in.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

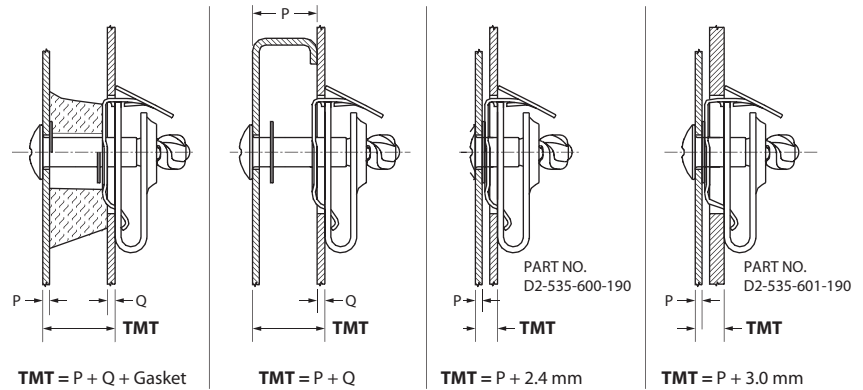


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	09
3.5 to 4.4 mm	10
4.5 to 5.4 mm	11
5.5 to 6.4 mm	12
6.5 to 7.4 mm	13
7.5 to 8.4 mm	14
8.5 to 9.4 mm	15
9.5 to 10.4 mm	16
10.5 to 11.4 mm	17
11.5 to 12.4 mm	18
12.5 to 13.4 mm	19
13.5 to 14.4 mm	20
14.5 to 15.4 mm	21
15.5 to 16.4 mm	22
16.5 to 17.4 mm	23
17.5 to 18.4 mm	24
18.5 to 19.4 mm	25
19.5 to 20.4 mm	26
20.5 to 21.4 mm	27
21.5 to 22.4 mm	28
22.5 to 23.4 mm	29
23.5 to 24.4 mm	30
24.5 to 25.4 mm	31

## Example:

When TMT = 24 mm;  
Stud Length Number is **30**;  
Stud Part Number is **D2-515-730-190** for a Phillips recess #2 stud.

## Note:

1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

Additional installation information is located at the end of this section.



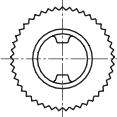
# DZUS® Rapier® D2 Quarter-Turn Receptacle Press-In Insert – 5 mm

**DZUS®**  
QUICK ACCESS

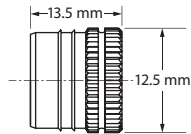


Press-In Insert

**Part Number** D2-535-100-969



TOP  
VIEW



SIDE  
VIEW

## Material

Brass and plated steel

## Mechanical

**Installation Load:** 2250 lbs. min.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

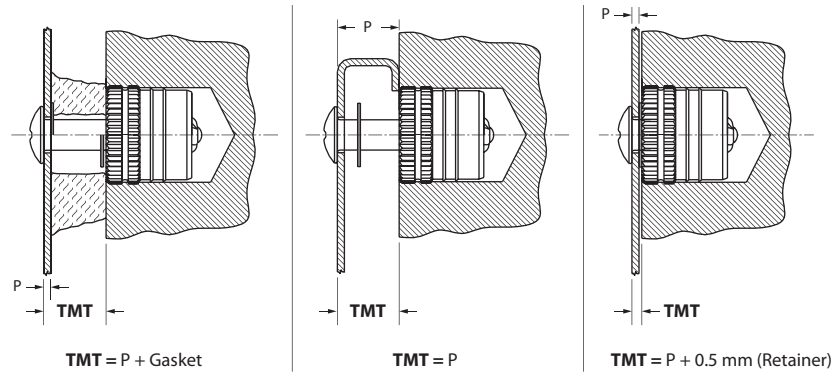


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
0.5 to 1.4 mm	11
1.5 to 2.4 mm	12
2.5 to 3.4 mm	13
3.5 to 4.4 mm	14
4.5 to 5.4 mm	15
5.5 to 6.4 mm	16
6.5 to 7.4 mm	17
7.5 to 8.4 mm	18
8.5 to 9.4 mm	19
9.5 to 10.4 mm	20
10.5 to 11.4 mm	21
11.5 to 12.4 mm	22
12.5 to 13.4 mm	23
13.5 to 14.4 mm	24
14.5 to 15.4 mm	25
15.5 to 16.4 mm	26
16.5 to 17.4 mm	27
17.5 to 18.4 mm	28
18.5 to 19.4 mm	29
19.5 to 20.4 mm	30
20.5 to 21.4 mm	31
21.5 to 22.4 mm	32
22.5 to 23.4 mm	33
23.5 to 24.4 mm	34
24.5 to 25.4 mm	35
25.5 to 26.4 mm	36
26.5 to 27.4 mm	37

## Example:

When TMT = 24 mm;  
Stud Length Number is **34**;  
Stud Part Number is **D2-515-734-190** for  
a Phillips recess #2 stud.

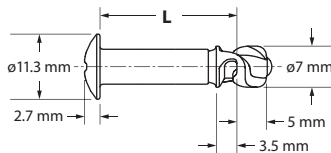
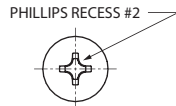
## Note:

1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

Additional installation information is  
located at the end of this section.

## Stud



### Additional Stud Dimensions:

**L Dimension** - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

### Material & Finish:

**Material:** Case hardened steel  
**Finish:** Zinc plate and chromate

## Rapier Stud Part Numbers:

# D2-517-7(L)-190

Finish - **90** = Zinc Plate with Chromate  
Material (Case Hardened Steel)  
Stud Length No. - Determined on Receptacle selection pages  
Basic Part Number - #2 Phillips Recess shown, optional Studs below

## Optional Studs

Slotted	Phillips Recess #3	Wing	Bail
<b>D2-517-11(L)-190</b>	<b>D2-517-13(L)-190</b>	<b>D2-517-14(L)-190</b>	<b>D2-517-4(L)-190</b>

For minimum orders of 5,000 pieces

## Retainers

Plastic	Steel
<b>D2-527-100-040</b>	<b>D2-527-101-190</b>

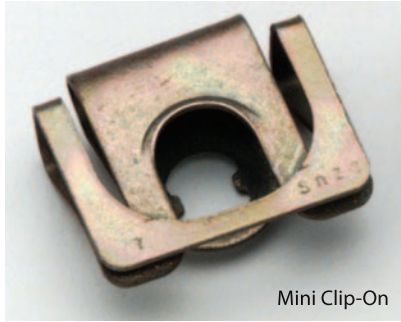
### Material & Finish:

**Plastic Retainer:** High density polyethylene, natural  
**Steel Retainer:** Spring steel, zinc plate and chromate

All dimensions on this page are in millimeters.

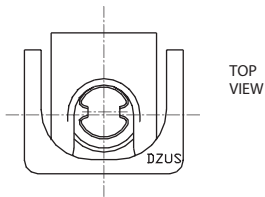
# DZUS® Rapier® D2 Quarter-Turn Receptacle Mini Clip-On – 7 mm

**DZUS®**  
QUICK ACCESS

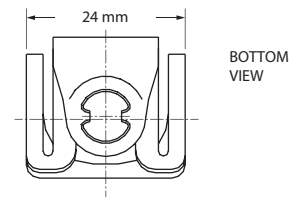


Mini Clip-On

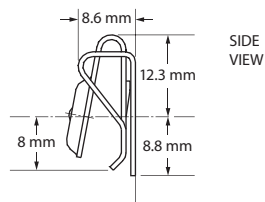
**Part Number** D2-537-330-190



TOP VIEW



BOTTOM VIEW



SIDE VIEW

## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate, chromate

## Mechanical

**Maximum Load without Distortion:** 45 lbs.  
**Maximum Torque:** 31 lbs.-in.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

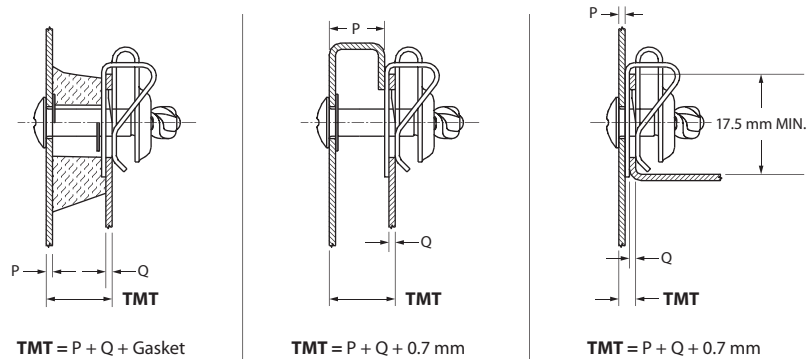


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	10
3.5 to 4.4 mm	11
4.5 to 5.4 mm	12
5.5 to 6.4 mm	13
6.5 to 7.4 mm	14
7.5 to 8.4 mm	15
8.5 to 9.4 mm	16
9.5 to 10.4 mm	17
10.5 to 11.4 mm	18
11.5 to 12.4 mm	19
12.5 to 13.4 mm	20
13.5 to 14.4 mm	21
14.5 to 15.4 mm	22
15.5 to 16.4 mm	23
16.5 to 17.4 mm	24
17.5 to 18.4 mm	25
18.5 to 19.4 mm	26
19.5 to 20.4 mm	27
20.5 to 21.4 mm	28
21.5 to 22.4 mm	29
22.5 to 23.4 mm	30
23.5 to 24.4 mm	31
24.5 to 25.4 mm	32

### Note:

1. Equals (L) Dim on Stud Selection pages.

### Example:

When TMT = 24 mm;  
Stud Length Number is **31**;  
Stud Part Number is **D2-517-731-190** for a Phillips recess #2 stud.

All dimensions on this page are in millimeters.

Additional installation information is located at the end of this section.

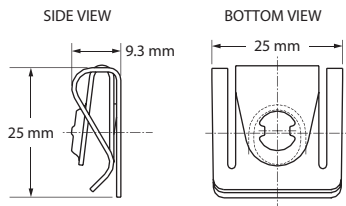
# DZUS® Rapier® D2 Quarter-Turn Receptacle Long Reach Clip-On & Right Angle Bracket – 7 mm



Long Reach Clip-On

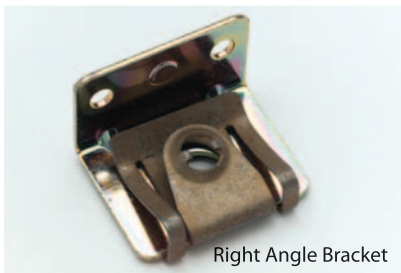
**Part Number** D2-537-300-130\*

\* For minimum orders of 10,000 pieces



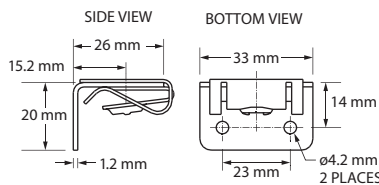
## Material & Finish

**Material:** Spring steel  
**Finish:** Organic silver



Right Angle Bracket

**Part Number** D2-537-310-130



## Material & Finish - Bracket

**Material:** Steel  
**Finish:** Zinc plate, chromate

## Material & Finish - Receptacle

**Material:** Spring steel  
**Finish:** Organic silver

## Mechanical

**Installation Load**  
**without distortion:** 50 lbs.  
**Maximum Torque:** 31 lbs.-in.

All dimensions on this page are in millimeters.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

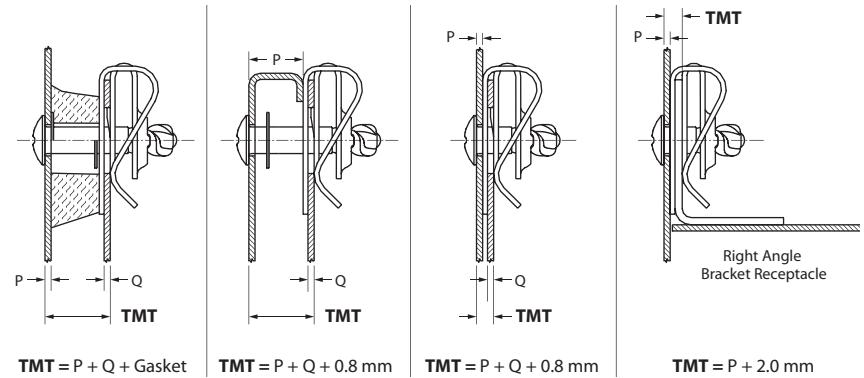


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
1.5 to 2.4 mm	09
2.5 to 3.4 mm	10
3.5 to 4.4 mm	11
4.5 to 5.4 mm	12
5.5 to 6.4 mm	13
6.5 to 7.4 mm	14
7.5 to 8.4 mm	15
8.5 to 9.4 mm	16
9.5 to 10.4 mm	17
10.5 to 11.4 mm	18
11.5 to 12.4 mm	19
12.5 to 13.4 mm	20
13.5 to 14.4 mm	21
14.5 to 15.4 mm	22
15.5 to 16.4 mm	23
16.5 to 17.4 mm	24
17.5 to 18.4 mm	25
18.5 to 19.4 mm	26
19.5 to 20.4 mm	27
20.5 to 21.4 mm	28
21.5 to 22.4 mm	29
22.5 to 23.4 mm	30
23.5 to 24.4 mm	31
24.5 to 25.4 mm	32
25.5 to 26.4 mm	33
26.5 to 27.4 mm	34
27.5 to 28.4 mm	35

## Example:

When TMT = 24 mm;  
Stud Length Number is 31;  
Stud Part Number is **D2-517-731-190** for a Phillips recess #2 stud.

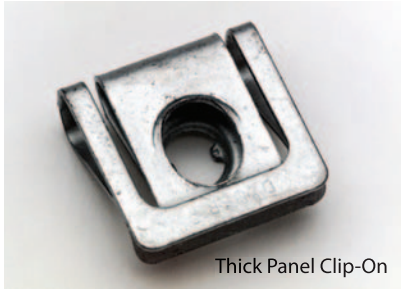
## Note:

1. Equals (L) Dim on Stud Selection pages.

Additional installation information is located at the end of this section.

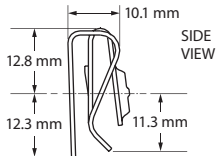
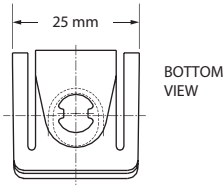
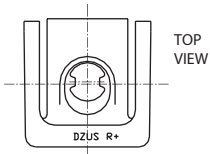
# DZUS® Rapier® D2 Quarter-Turn Receptacle Thick Panel, Clip-On – 7 mm

**DZUS®**  
QUICK ACCESS



**Part Number** D2-537-301-130\*

\* For minimum orders of 10,000 pieces



## Material & Finish

**Material:** Spring steel

**Finish:** Organic silver

## Mechanical

**Maximum Load Without Distortion:** 50 lbs.

**Maximum Torque:** 31 lbs.-in.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

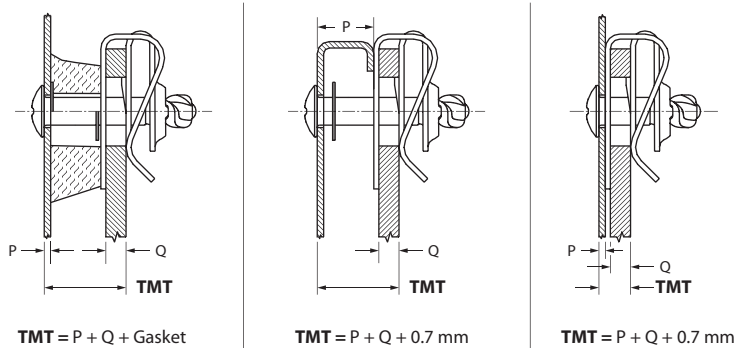


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
3.5 to 4.4 mm	11
4.5 to 5.4 mm	12
5.5 to 6.4 mm	13
6.5 to 7.4 mm	14
7.5 to 8.4 mm	15
8.5 to 9.4 mm	16
9.5 to 10.4 mm	17
10.5 to 11.4 mm	18
11.5 to 12.4 mm	19
12.5 to 13.4 mm	20
13.5 to 14.4 mm	21
14.5 to 15.4 mm	22
15.5 to 16.4 mm	23
16.5 to 17.4 mm	24
17.5 to 18.4 mm	25
18.5 to 19.4 mm	26
19.5 to 20.4 mm	27
20.5 to 21.4 mm	28
21.5 to 22.4 mm	29
22.5 to 23.4 mm	30
23.5 to 24.4 mm	31
24.5 to 25.4 mm	32
25.5 to 26.4 mm	33
26.5 to 27.4 mm	34
27.5 to 28.4 mm	35
28.5 to 29.4 mm	36
29.5 to 30.4 mm	37

## Example:

When TMT = 24 mm;

Stud Length Number is **31**;

Stud Part Number is **D2-517-731-190** for a #2 Phillips recess stud.

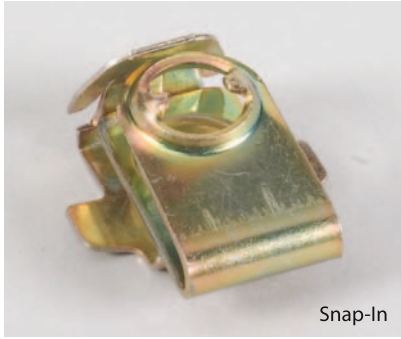
## Note:

1. Equals (L) Dim on Stud Selection pages.

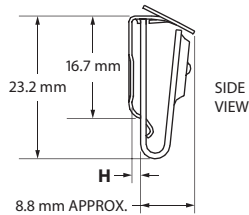
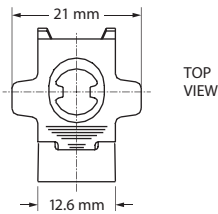
All dimensions on this page are in millimeters.

Additional installation information is located at the end of this section.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Snap-In – 7 mm



Snap-In



Support Thickness Ranges	Snap-In Part Numbers	H Dim.
0.9 to 1.4 mm	D2-537-600-190	1.9 mm
1.5 to 2.0 mm	D2-537-601-190	2.5 mm

## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate, chromate

## Mechanical

**Maximum Load without Distortion:** 32 lbs.  
**Maximum Torque:** 31 lbs.-in.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

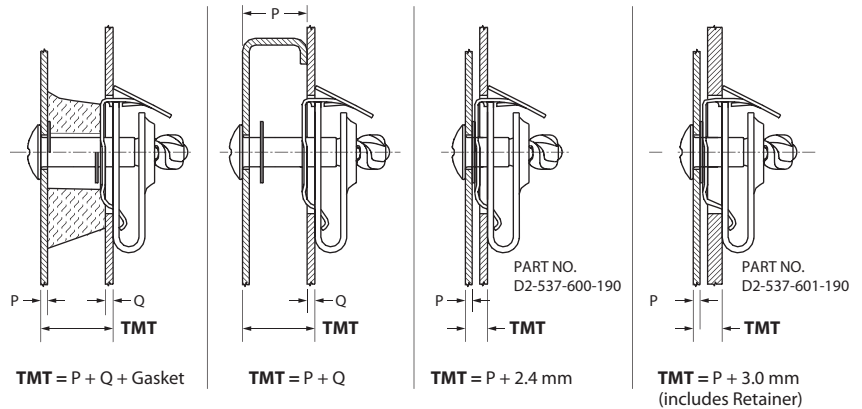


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	10
3.5 to 4.4 mm	11
4.5 to 5.4 mm	12
5.5 to 6.4 mm	13
6.5 to 7.4 mm	14
7.5 to 8.4 mm	15
8.5 to 9.4 mm	16
9.5 to 10.4 mm	17
10.5 to 11.4 mm	18
11.5 to 12.4 mm	19
12.5 to 13.4 mm	20
13.5 to 14.4 mm	21
14.5 to 15.4 mm	22
15.5 to 16.4 mm	23
16.5 to 17.4 mm	24
17.5 to 18.4 mm	25
18.5 to 19.4 mm	26
19.5 to 20.4 mm	27
20.5 to 21.4 mm	28
21.5 to 22.4 mm	29
22.5 to 23.4 mm	30
23.5 to 24.4 mm	31
24.5 to 25.4 mm	32

## Example:

When TMT = 24 mm;  
Stud Length Number is **31**;  
Stud Part Number is **D2-517-731-190** for a Phillips recess #2 stud.

## Note:

1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

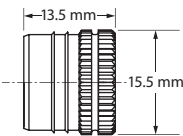
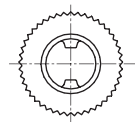
Additional installation information is located at the end of this section.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Press-In – 7 mm

**DZUS®**  
QUICK ACCESS



**Part Number** D2-537-100-969



## Material

Brass and plated steel

## Mechanical

**Installation Load:** 2250 lbs.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

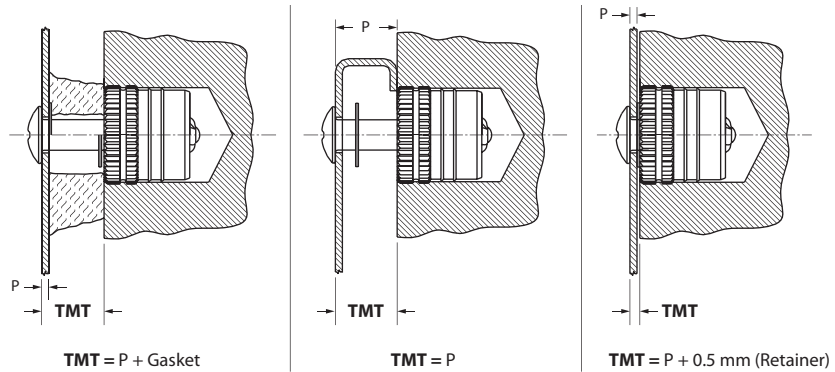


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
0.5 to 1.4 mm	11
1.5 to 2.4 mm	12
2.5 to 3.4 mm	13
3.5 to 4.4 mm	14
4.5 to 5.4 mm	15
5.5 to 6.4 mm	16
6.5 to 7.4 mm	17
7.5 to 8.4 mm	18
8.5 to 9.4 mm	19
9.5 to 10.4 mm	20
10.5 to 11.4 mm	21
11.5 to 12.4 mm	22
12.5 to 13.4 mm	23
13.5 to 14.4 mm	24
14.5 to 15.4 mm	25
15.5 to 16.4 mm	26
16.5 to 17.4 mm	27
17.5 to 18.4 mm	28
18.5 to 19.4 mm	29
19.5 to 20.4 mm	30
20.5 to 21.4 mm	31
21.5 to 22.4 mm	32
22.5 to 23.4 mm	33
23.5 to 24.4 mm	34
24.5 to 25.4 mm	35
25.5 to 26.4 mm	36
26.5 to 27.4 mm	37

## Example:

When TMT = 24 mm;

Stud Length Number is **34**;

Stud Part Number is **517-734-190** for a Phillips recess #2 stud.

## Note:

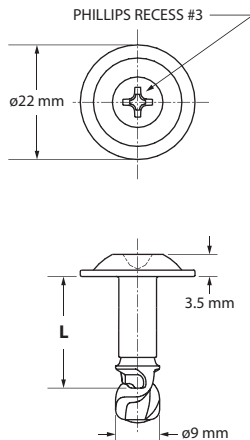
1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

Additional installation information is located at the end of this section.



### Stud (Washer Head)



### Additional Stud Dimensions:

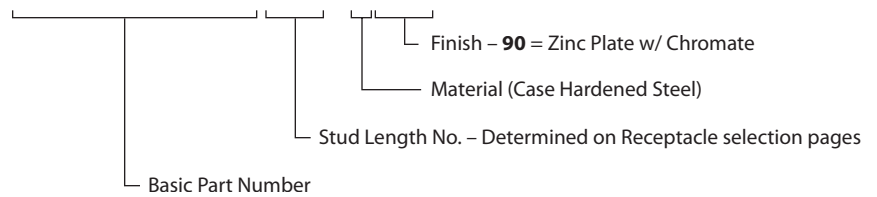
**L Dimension** - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

### Standard Material & Finish:

**Material:** Case hardened steel  
**Finish:** Zinc plate and chromate

### Rapier Stud Part Numbers:

## D2-519-17(L)-190



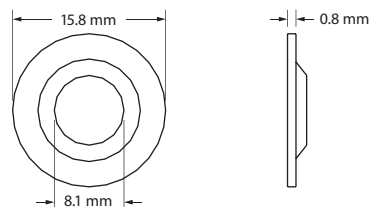
### Plastic Retainer



<b>Part Number</b>	D2-GP6B
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### Standard Material:

**Material:** Black thermoplastic



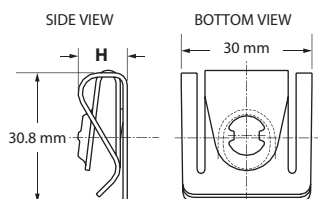
All dimensions on this page are in millimeters.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Clip-On & Right Angle Bracket – 9 mm



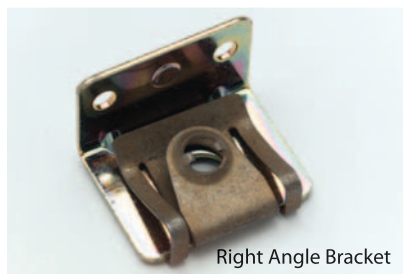
Clip-On

Support Thickness Ranges	Clip-On Part Numbers	H Dim.
0.7 to 3.2 mm	D2-339-300-190	10.7 mm
3.2 to 5.5 mm	D2-339-301-190	11.3 mm



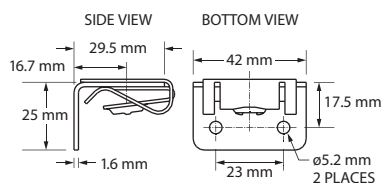
## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate, chromate



Right Angle Bracket

<b>Part Number</b>	D2-339-310-190
--------------------	----------------



## Material & Finish - Bracket

**Material:** Steel  
**Finish:** Zinc plate, chromate

## Material & Finish - Receptacle

**Material:** Spring steel  
**Finish:** Zinc plate, chromate

## Mechanical

**Maximum Load without Distortion:** 61 lbs.

All dimensions on this page are in millimeters.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

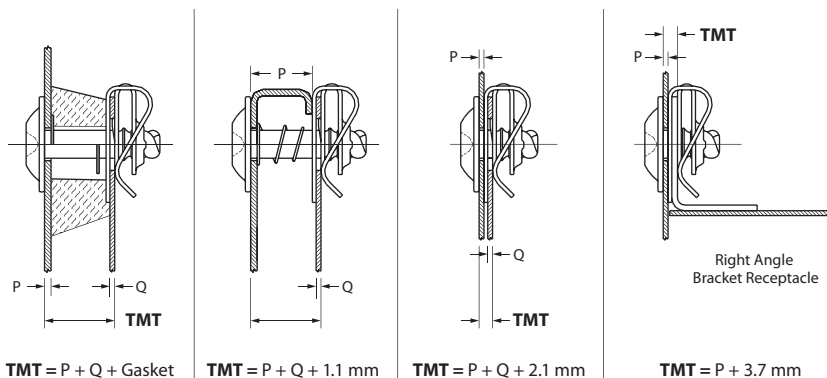


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.0 to 2.9 mm	10
3.0 to 3.9 mm	11
4.0 to 4.9 mm	12
5.0 to 5.9 mm	13
6.0 to 6.9 mm	14
7.0 to 7.9 mm	15
8.0 to 8.9 mm	16
9.0 to 9.9 mm	17
10.0 to 10.9 mm	18
11.0 to 11.9 mm	19
12.0 to 12.9 mm	20
13.0 to 13.9 mm	21
14.0 to 14.9 mm	22
15.0 to 15.9 mm	23
16.0 to 16.9 mm	24
17.0 to 17.9 mm	25
18.0 to 18.9 mm	26
19.0 to 19.9 mm	27
20.0 to 20.9 mm	28
21.0 to 21.9 mm	29
22.0 to 22.9 mm	30
23.0 to 23.9 mm	31
24.0 to 24.9 mm	32
25.0 to 25.9 mm	33
26.0 to 26.9 mm	34
27.0 to 27.9 mm	35
28.0 to 28.9 mm	36

## Example:

When TMT = 24 mm;  
Stud Length Number is **32**;  
Stud Part Number is **D2-519-1732-190**.

## Note:

1. Equals (L) Dim on Stud Selection pages.

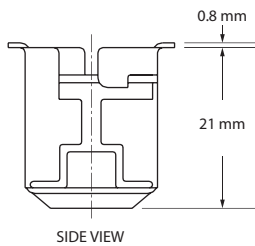
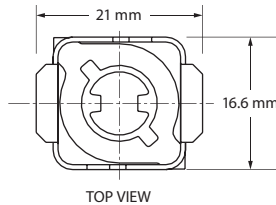
Additional installation information is located at the end of this section.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Front Load, Clip-In – 9 mm



Front Load,  
Clip-In

**Part Number** D2-339-200-190



## Material & Finish

**Material:** Spring steel

**Finish:** Zinc plate and chromate

## Mechanical

**Maximum Load Without Distortion:** 23 lbs.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

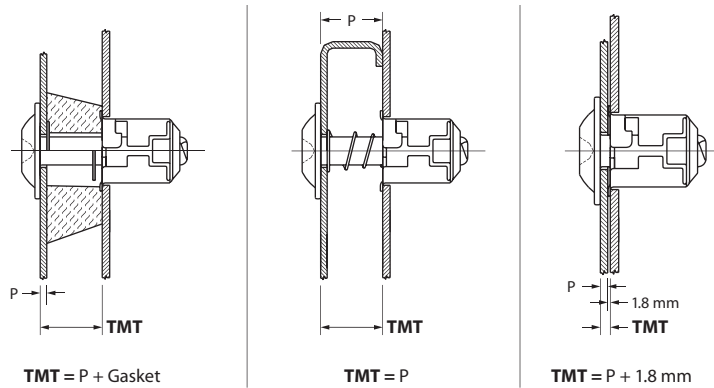


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.5 to 3.4 mm	22
3.5 to 4.4 mm	23
4.5 to 5.4 mm	24
5.5 to 6.4 mm	25
6.5 to 7.4 mm	26
7.5 to 8.4 mm	27
8.5 to 9.4 mm	28
9.5 to 10.4 mm	29
10.5 to 11.4 mm	30
11.5 to 12.4 mm	31
12.5 to 13.4 mm	32
13.5 to 14.4 mm	33
14.5 to 15.4 mm	34
15.5 to 16.4 mm	35
16.5 to 17.4 mm	36

## Example:

When TMT = 10 mm;  
Stud Length Number is **29**;  
Stud Part Number is **D2-519-1729-190**.

## Note:

1. Equals (L) Dim on Stud Selection pages.

All dimensions on this page are in millimeters.

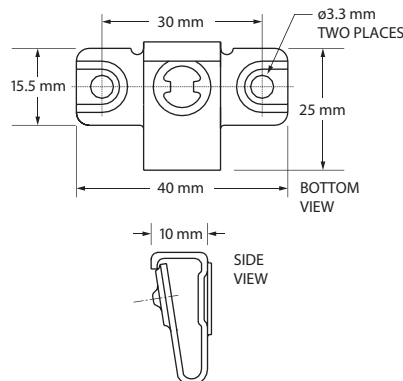
Additional installation information is located at the end of this section.

# DZUS® Rapier® D2 Quarter-Turn Receptacle Rivet Plate & Weld Plate – 9 mm



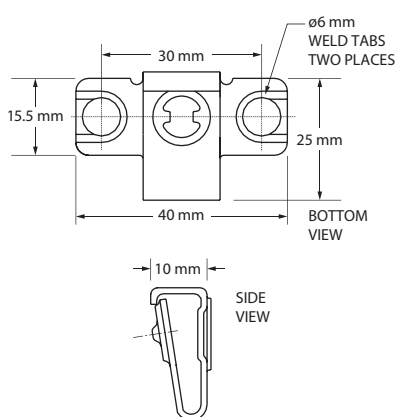
Rivet Plate

**Part Number** D2-339-400-190



Weld Plate

**Part Number** D2-339-500-190



## Material & Finish

**Material:** Spring steel  
**Finish:** Zinc plate and chromate

## Mechanical

**Maximum Load without Distortion:** 65 lbs.

All dimensions on this page are in millimeters.

## To Determine Stud Length Needed

1. Calculate the Total Material Thickness (TMT) using Figure 1 below.
2. Then, using the table, find the TMT Range that applies to your calculated TMT. Use the Stud Length Number to complete the Stud Part Number.

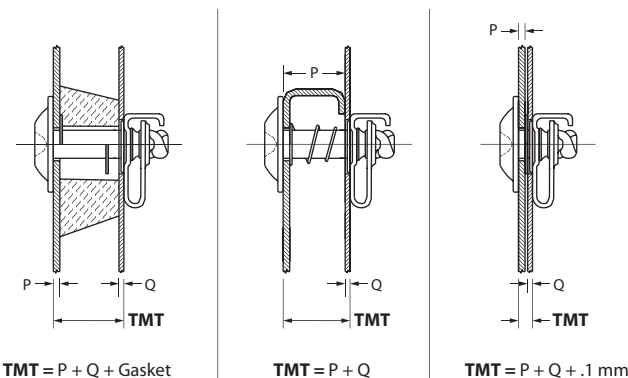


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) <sup>1</sup>
2.0 to 2.9 mm	10
3.0 to 3.9 mm	11
4.0 to 4.9 mm	12
5.0 to 5.9 mm	13
6.0 to 6.9 mm	14
7.0 to 7.9 mm	15
8.0 to 8.9 mm	16
9.0 to 9.9 mm	17
10.0 to 10.9 mm	18
11.0 to 11.9 mm	19
12.0 to 12.9 mm	20
13.0 to 13.9 mm	21
14.0 to 14.9 mm	22
15.0 to 15.9 mm	23
16.0 to 16.9 mm	24
17.0 to 17.9 mm	25
18.0 to 18.9 mm	26
19.0 to 19.9 mm	27
20.0 to 20.9 mm	28
21.0 to 21.9 mm	29
22.0 to 22.9 mm	30
23.0 to 23.9 mm	31
24.0 to 24.9 mm	32
25.0 to 25.9 mm	33
26.0 to 26.9 mm	34
27.0 to 27.9 mm	35
28.0 to 28.9 mm	36

**Note:**  
1. Equals (L) Dim on Stud Selection pages.

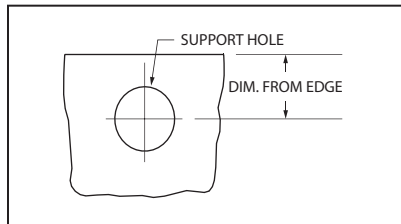
**Example:**  
When TMT = 24 mm;  
Stud Length Number is **32**;  
Stud Part Number is **D2-519-1732-190**.

Additional installation information is located at the end of this section.

## Stud Panel Preparation

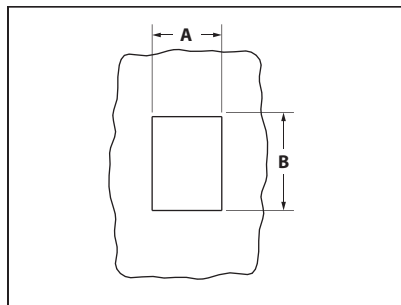
Standard Panel Hole	
Stud Size	Hole Diameter
3.5 mm	3.7 mm ±0.1
5 mm	5.1 mm ±0.1
7 mm	7.1 mm ±0.1
9 mm	9.4 mm ± 0.1

## Support Panel Preparation for Clip-On Receptacles



Receptacle Size	Support Range	Hole Diameter	Dim. From Edge
3.5 mini	0.5 to 1.8 mm	6.0 mm +0.2	4.5 mm ±0.2
5 mini	0.9 to 2.5 mm	8.5 mm +0.2	6.5 mm -0.5
5 long reach	0.9 to 2.5 mm	8.5 mm +0.2	11.0 mm -0.2
7 mini	0.9 to 2.5 mm	11.0 mm +0.2	8.0 mm ±0.5
7 long reach	0.7 to 3.2 mm	11.0 mm +0.2	11.0 mm -0.5
7 thick panel	3.2 to 5.5 mm	11.0 mm +0.2	11.0 mm -0.5
9 (2 models)	0.7 to 5.5 mm	14.0 mm +0.2	13.0 mm -0.5

## Support Panel Preparation for Snap-In

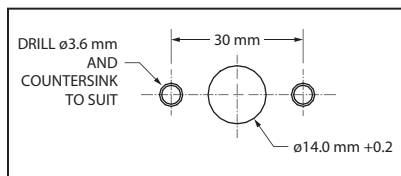


Receptacle Size	Support Range	Dimension A	Dimension B
5 (2 models)	0.9 to 2.0 mm	11 mm +0.2	15.5 mm +0.2
7 (2 models)	0.9 to 2.0 mm	13 mm +0.2	17.5 mm +0.2

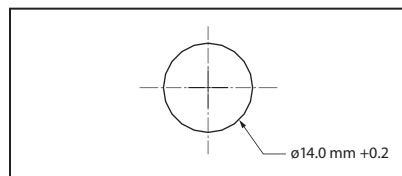
## Support Panel Preparation for Press-In Inserts

Receptacle Size	Hole Diameter Soft Metal Press-Insertion	Hole Diameter Thermoplastic Press or Ultrasonic Insertion
5	12.0 to 12.1 mm	11.5 to 11.6 mm
7	15.0 to 15.1 mm	14.5 to 14.6 mm

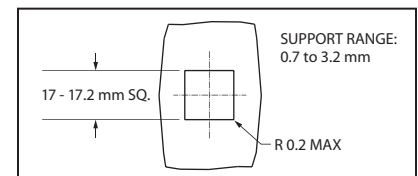
## Support Panel Preparation for Rivet Plate Receptacle - 9mm



## Support Panel Preparation for Weld Plate Receptacle - 9mm

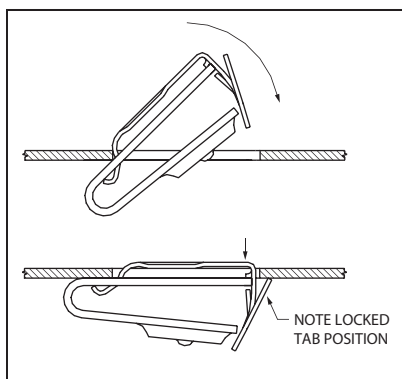


## Support Panel Preparation for Front Load Clip-In Receptacle - 9mm

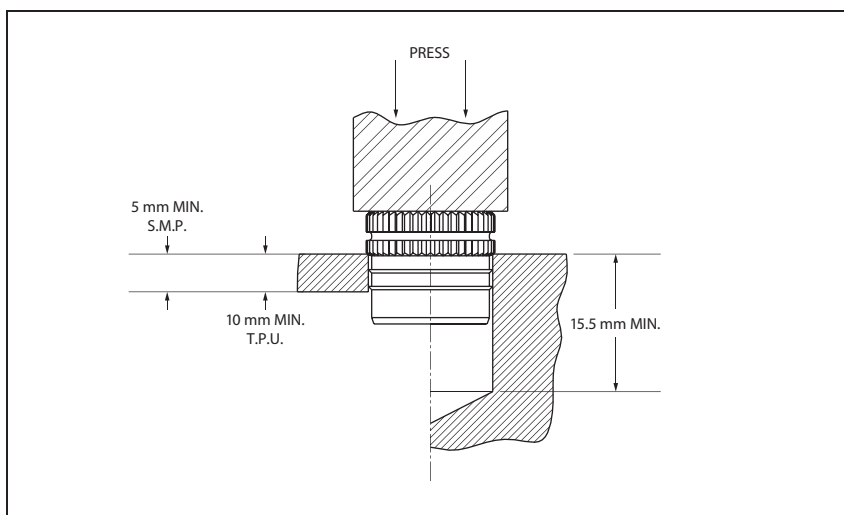


All dimensions on this page are in millimeters.

## Installation Procedure for Snap-In Receptacles



## Installation Procedure for Press-In Insert (5mm and 7mm only)

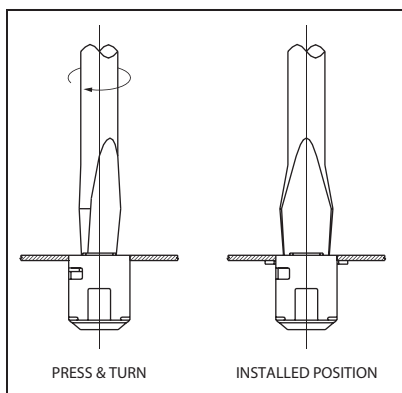


**Note:**

S.M.P. = Soft Metal Press-Insertion

T.P.U. = Thermoplastic Press or Ultrasonic Insertion

## Installation Procedure for Front Load, Clip-In Receptacles



All dimensions on this page are in millimeters.