



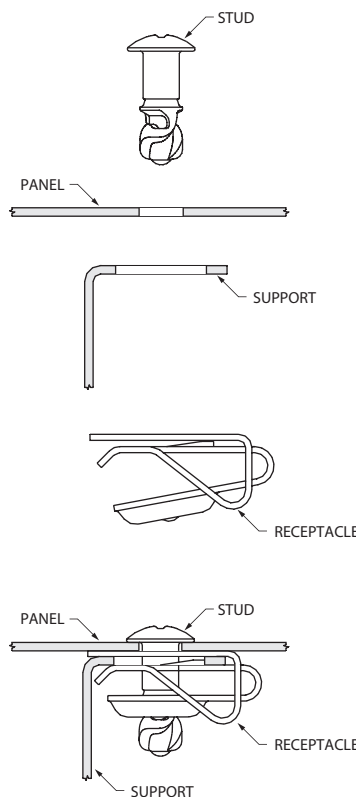
Typical Applications:

- 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.

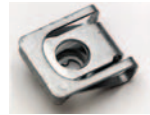
Step 3 – Select Stud Style

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.

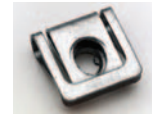
Step 4 – Select an Optional Retainer

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

Receptacle Styles



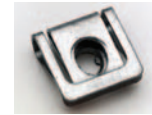
Clip-On



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 ¹	Max. Total Material Thickness (TMT) ²
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



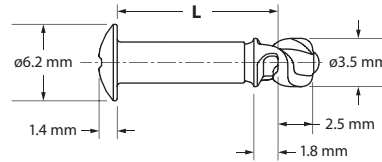
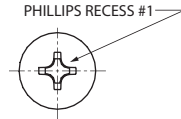
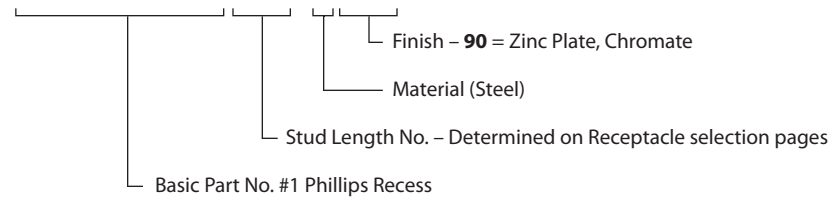
Part Number	D2-513-7(L)-190
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Standard Material & Finish:

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.

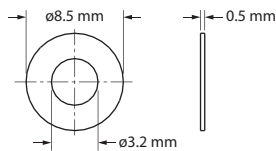
Note: Add 1 mm to TMT when using a plastic retainer.

Quick Access Fasteners

Plastic Retainer



Part Number	D2-523-100-040
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Standard Material & Finish:

Material: High density polyethylene
Finish: Natural color

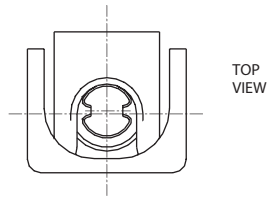
All dimensions on this page are in millimeters.

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

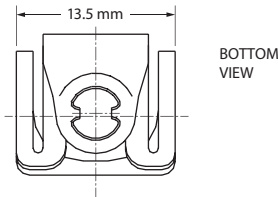


Mini Clip-On

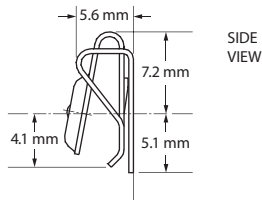
Part Number D2-533-300-190



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Material & Finish

Material: Spring steel

Finish: Zinc plate and chromate

Mechanical

Maximum Load without Distortion: 27 lbs.

Maximum Torque: 13.3 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.

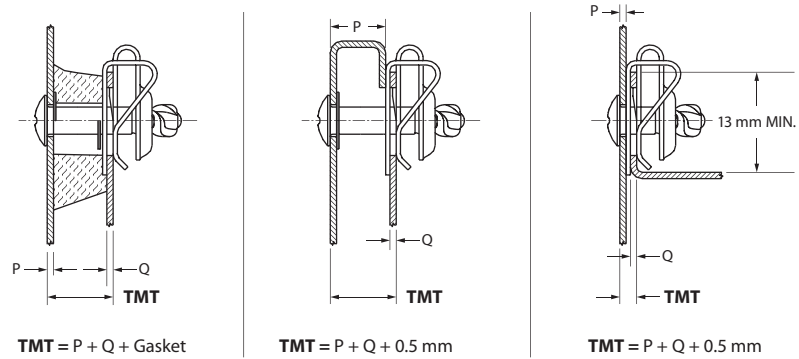


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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

Example:

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

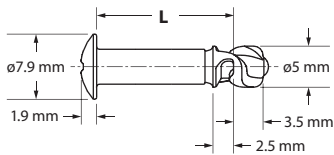
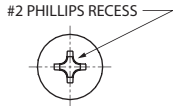
Note:

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:

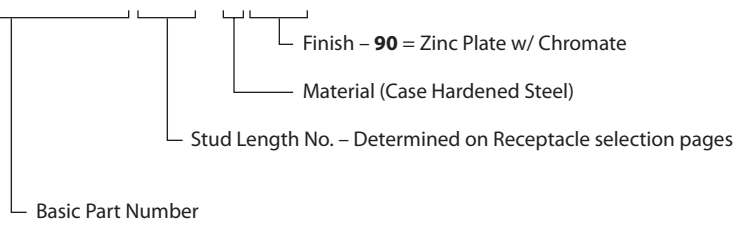
L Dimension - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

Material & Finish:

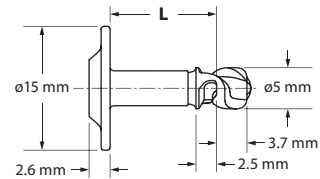
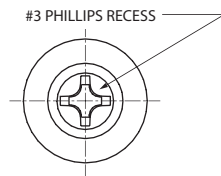
Material: Case hardened steel
Finish: Zinc plate, chromate

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
D2-525-100-040	D2-525-101-190

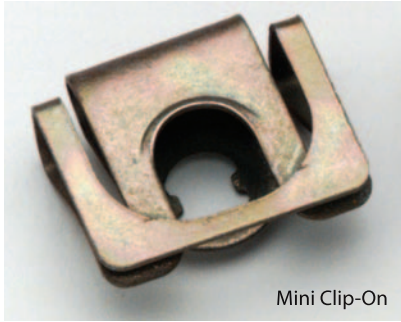
Material & Finish:

Plastic Retainer: High density polyethylene, natural

Steel Retainer: Spring steel, zinc plate, chromate

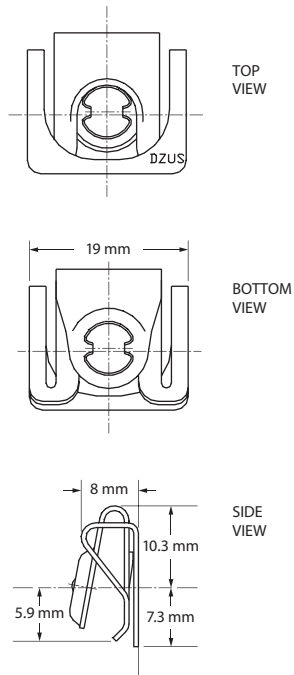
All dimensions on this page are in millimeters.

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.

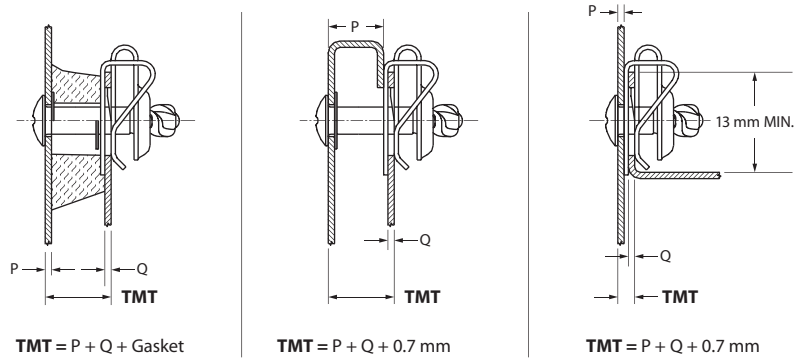


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

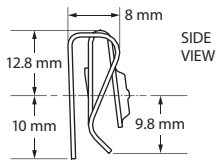
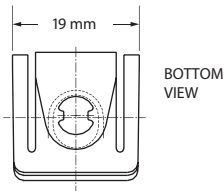
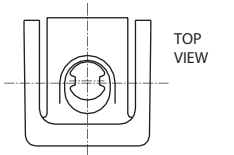
DZUS® Rapier® D2 Quarter-Turn Receptacle Long Reach Clip-On – 5 mm

DZUS®
QUICK ACCESS



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.

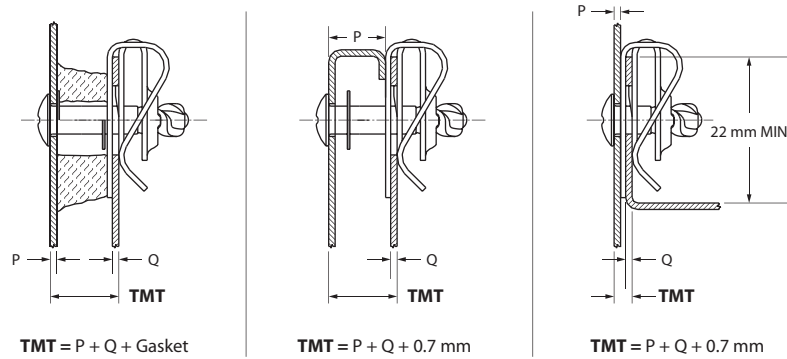


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

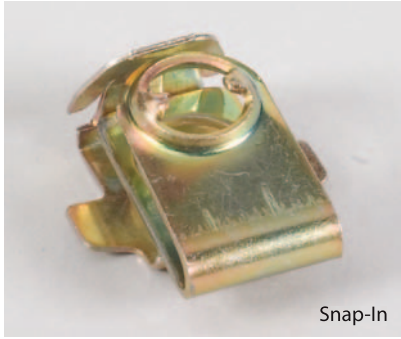
Note:

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

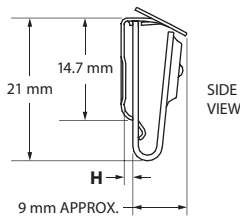
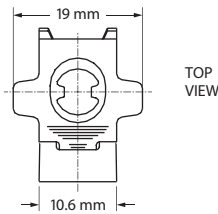
All dimensions on this page are in millimeters.

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.

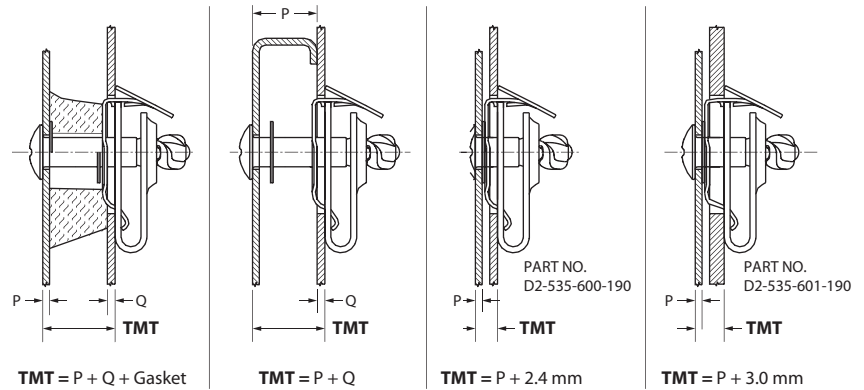


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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

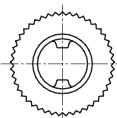
DZUS®
QUICK ACCESS



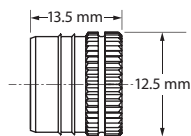
Press-In Insert

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.

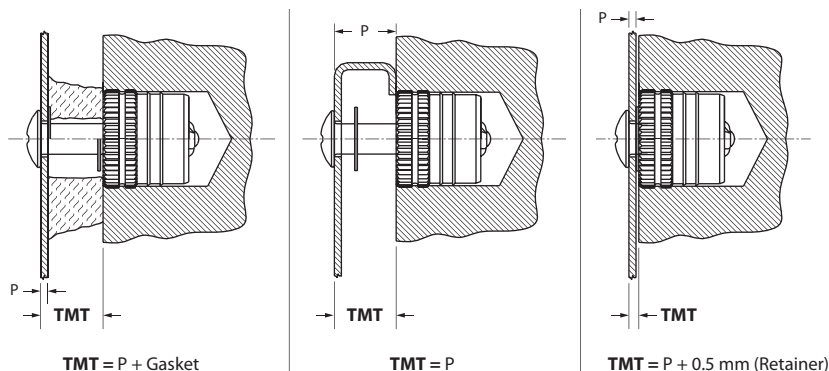


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

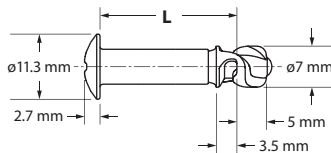
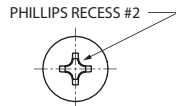
Note:

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
D2-517-11(L)-190	D2-517-13(L)-190	D2-517-14(L)-190	D2-517-4(L)-190

For minimum orders of 5,000 pieces

Retainers

Plastic	Steel
D2-527-100-040	D2-527-101-190

Material & Finish:

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

All dimensions on this page are in millimeters.

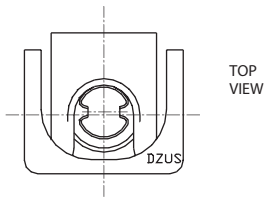
DZUS® Rapier® D2 Quarter-Turn Receptacle Mini Clip-On – 7 mm

DZUS®
QUICK ACCESS

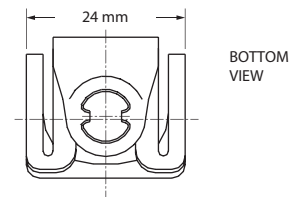


Mini Clip-On

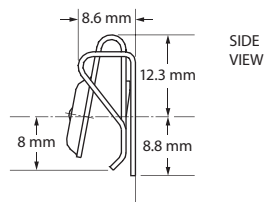
Part Number D2-537-330-190



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.

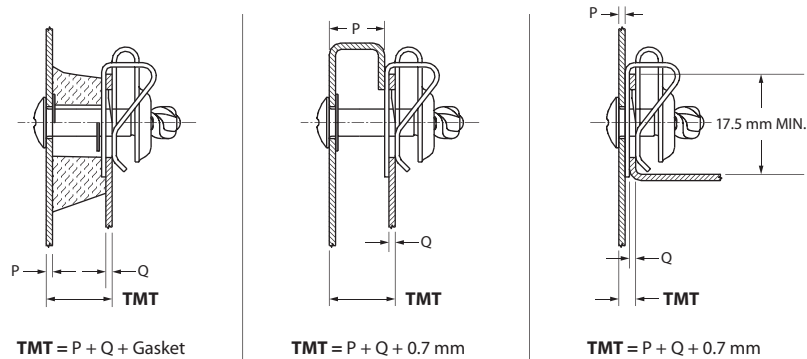


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

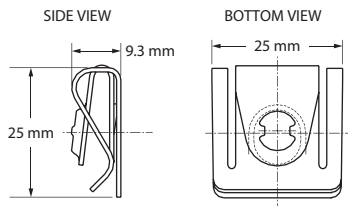
DZUS® Rapier® D2 Quarter-Turn Receptacle Long Reach Clip-On & Right Angle Bracket – 7 mm



Long Reach Clip-On

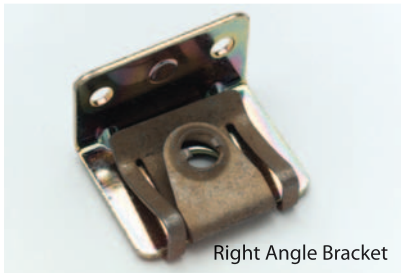
Part Number D2-537-300-130*

* For minimum orders of 10,000 pieces



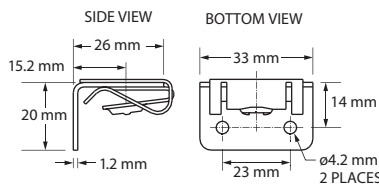
Material & Finish

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.

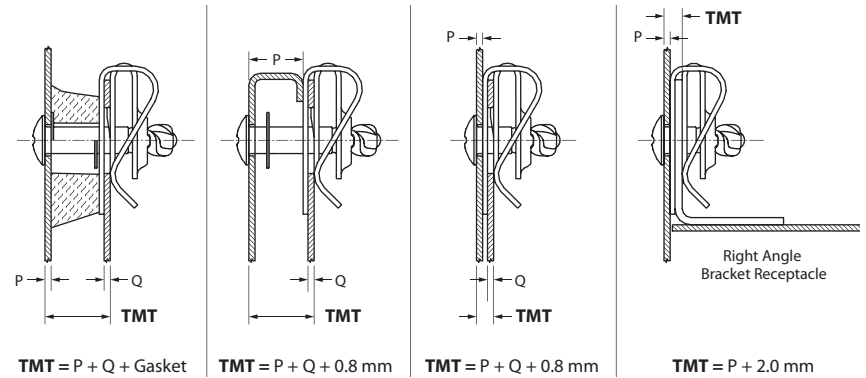


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

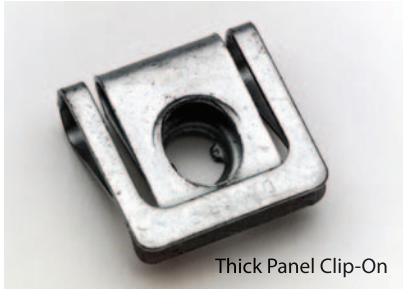
Note:

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

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

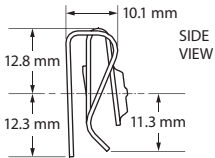
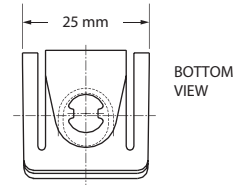
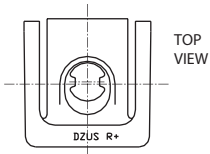
DZUS® Rapier® D2 Quarter-Turn Receptacle Thick Panel, Clip-On – 7 mm

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.

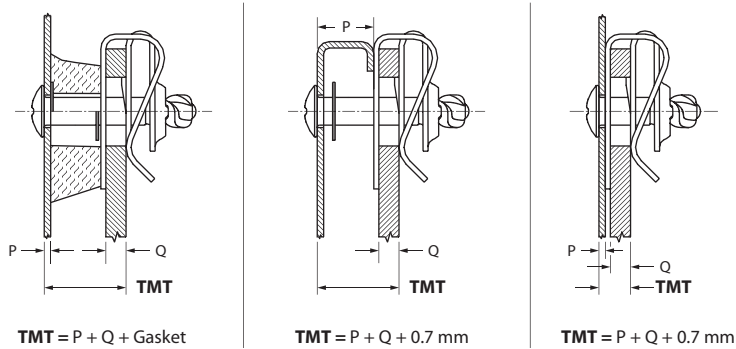


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

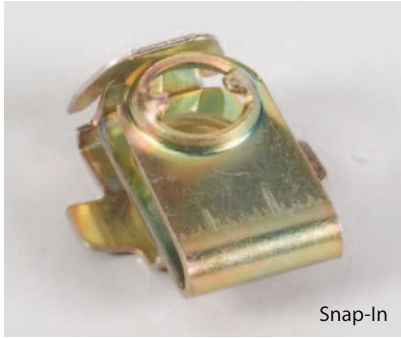
Note:

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

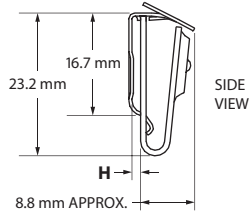
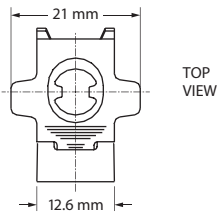
All dimensions on this page are in millimeters.

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.

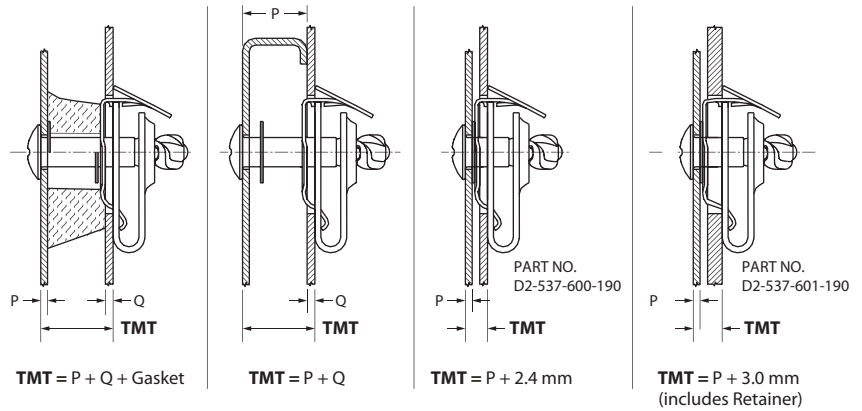


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

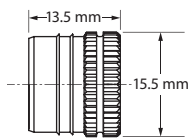
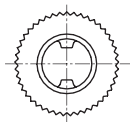
DZUS® Rapier® D2 Quarter-Turn Receptacle Press-In – 7 mm

DZUS®
QUICK ACCESS



Press-In Insert

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.

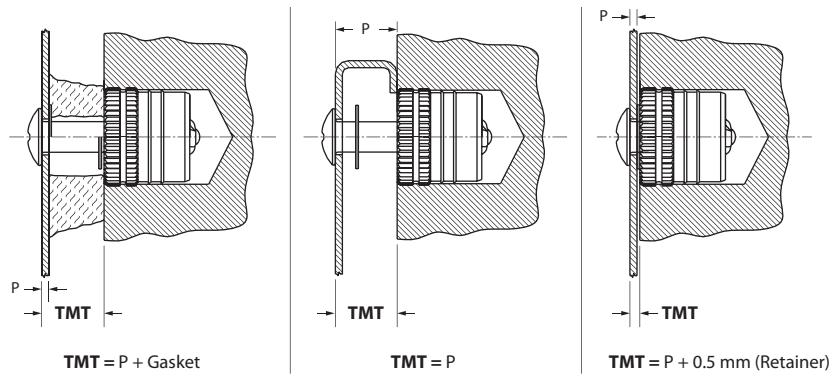


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

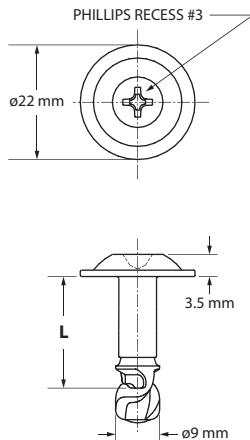
Note:

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:

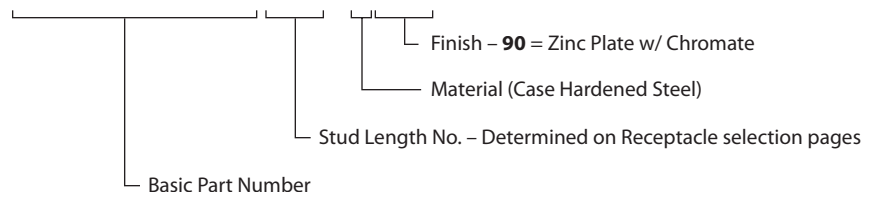
L Dimension - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

Standard Material & Finish:

Material: Case hardened steel
Finish: Zinc plate and chromate

Rapier Stud Part Numbers:

D2-519-17(L)-190



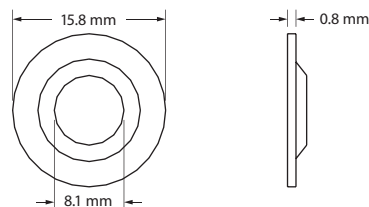
Plastic Retainer



Part Number	D2-GP6B
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Standard Material:

Material: Black thermoplastic



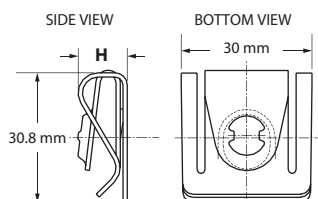
All dimensions on this page are in millimeters.

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



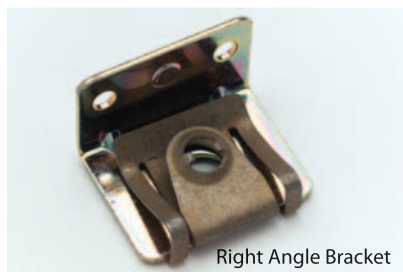
Clip-On

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



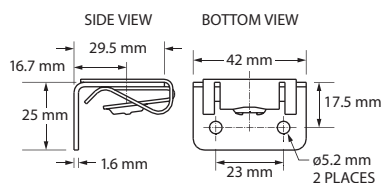
Material & Finish

Material: Spring steel
Finish: Zinc plate, chromate



Right Angle Bracket

Part Number	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.

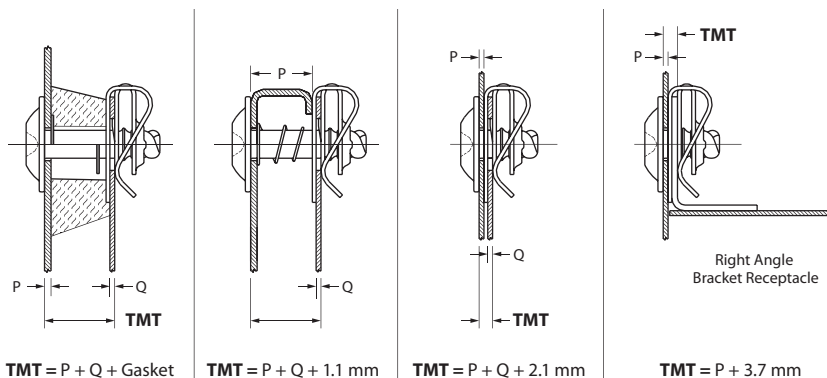


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

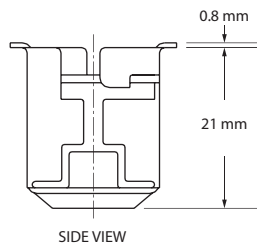
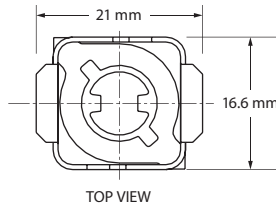
Additional installation information is located at the end of this section.

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.

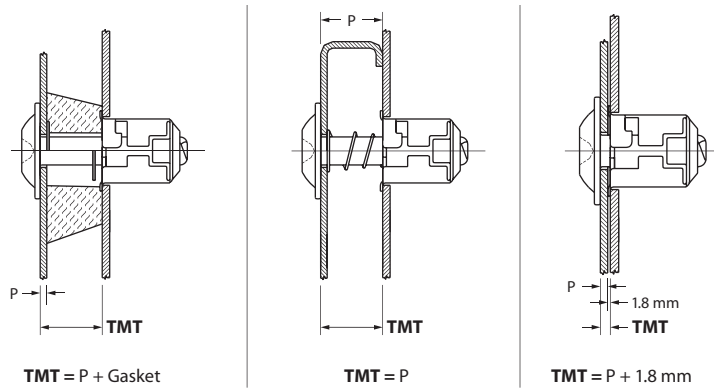


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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.

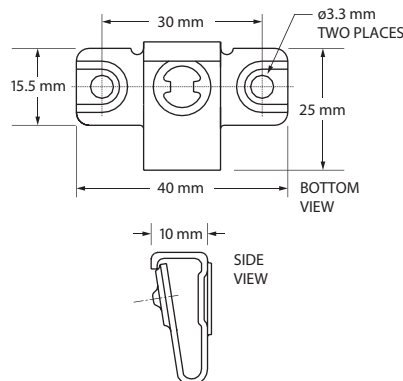
Additional installation information is located at the end of this section.

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



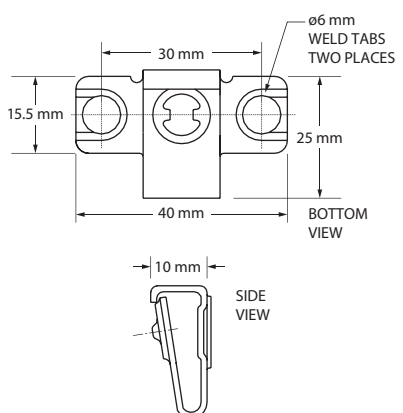
Rivet Plate

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.

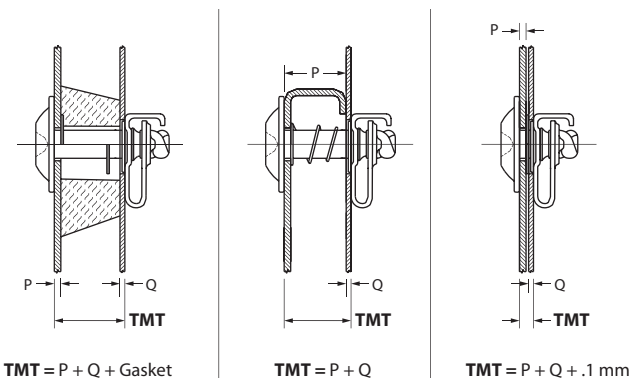


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim) ¹
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:

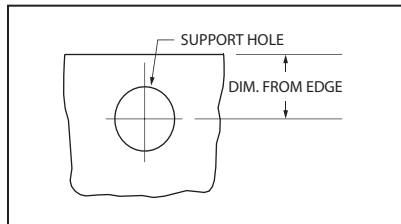
When TMT = 24 mm;
Stud Length Number is **32**;
Stud Part Number is **D2-519-1732-190**.

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

Stud Panel Preparation

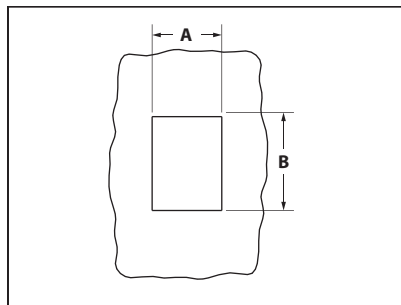
Standard Panel Hole	
Stud Size	Hole Diameter
3.5 mm	3.7 mm ±0.1
5 mm	5.1 mm ±0.1
7 mm	7.1 mm ±0.1
9 mm	9.4 mm ± 0.1

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

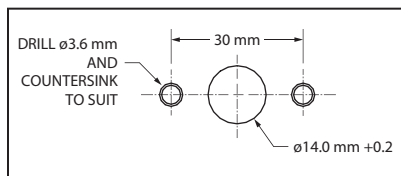


Receptacle Size	Support Range	Dimension A	Dimension B
5 (2 models)	0.9 to 2.0 mm	11 mm +0.2	15.5 mm +0.2
7 (2 models)	0.9 to 2.0 mm	13 mm +0.2	17.5 mm +0.2

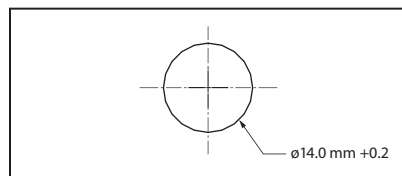
Support Panel Preparation for Press-In Inserts

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

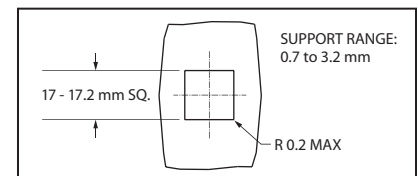
Support Panel Preparation for Rivet Plate Receptacle - 9mm



Support Panel Preparation for Weld Plate Receptacle - 9mm

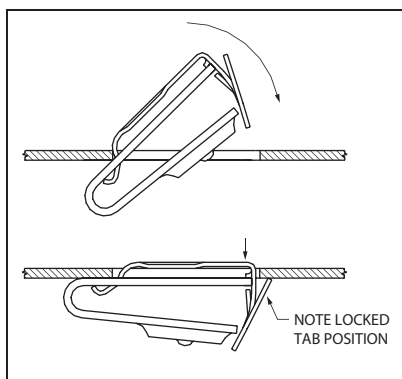


Support Panel Preparation for Front Load Clip-In Receptacle - 9mm

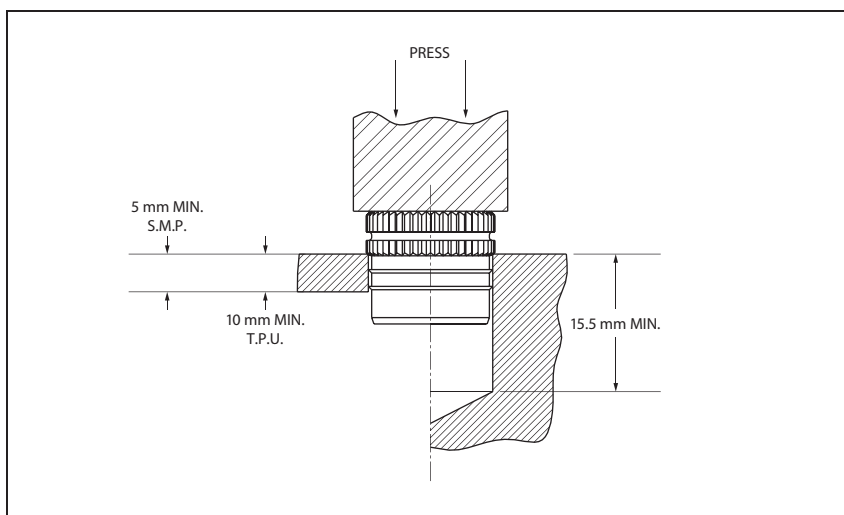


All dimensions on this page are in millimeters.

Installation Procedure for Snap-In Receptacles



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

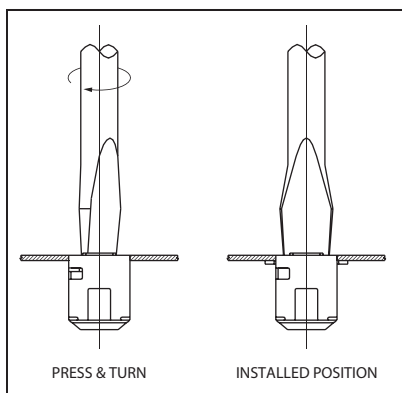


Note:

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.