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DZUS® Rapier® D2 Quarter-Turn Fasteners - Introduction

DZUS® QUICK ACCESS



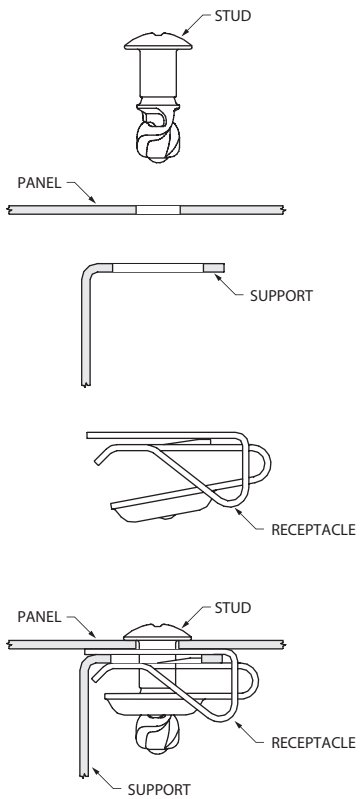
Typical Applications:

- 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

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DZUS® Rapier® D2 Quarter-Turn Fasteners - Introduction

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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

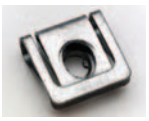
Rapier studs are shown following the receptacle pages in each size section. Performance is the same for each stud, so selection is based on head style. The length of the stud is determined by calculating Total Material Thickness (TMT) as defined on the receptacle pages.

Step 4 – Select an Optional Retainer

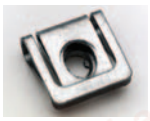
Choose either a plastic or metal retainer if you desire the stud to remain in the panel when disengaged from the receptacle.

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
	Press-in Insert	—	0.5 to 27.4 mm
9 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.

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DZUS® Rapier® D2 Quarter-Turn Stud & Retainer
3.5 mm

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Stud



Part Number	D2-513-7(L)-190

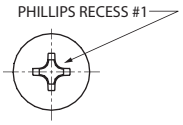
Standard Material & Finish:

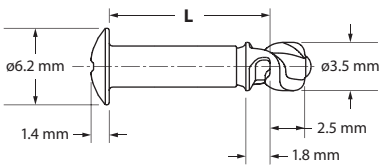
Material: Case hardened steel
Finish: Zinc plate, chromate

Rapier Stud Part Numbers:

D2-513-7(L)-190

- Finish – **90** = Zinc Plate, Chromate
- Material (Steel)
- Stud Length No. – Determined on Receptacle selection pages
- Basic Part No. #1 Phillips Recess





Additional Stud Dimensions:

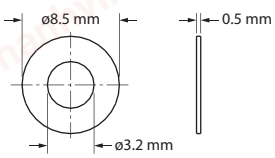
L Dimension - The stud length (L) depends on the type of receptacle chosen and the thickness of your materials. Use the table provided with each type of receptacle to determine the stud length needed for your application.

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

Plastic Retainer



Part Number	D2-523-100-040



Standard Material & Finish:

Material: High density polyethylene
Finish: Natural color

All dimensions on this page are in millimeters.

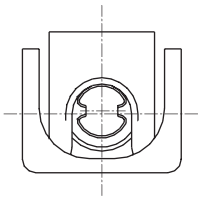
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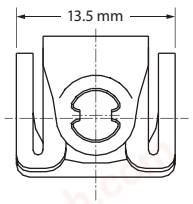
DZUS® Rapier® D2 Quarter-Turn Receptacle
Mini Clip-On - 3.5 mm

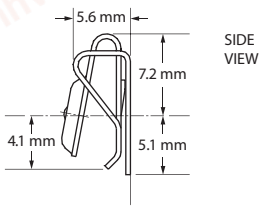
DZUS® QUICK ACCESS



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.

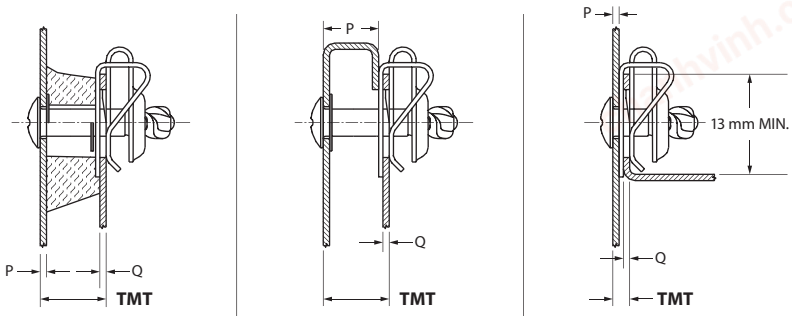


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim)[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

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.

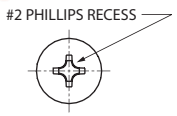
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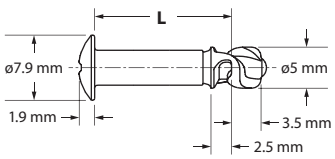
DZUS® Rapier® D2 Quarter-Turn Stud & Retainer
5 mm

DZUS® QUICK ACCESS

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

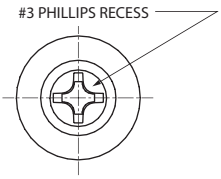
Rapier Stud Part Numbers:

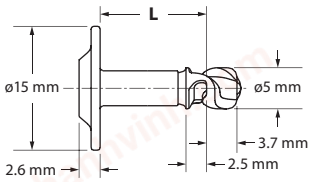
D2-515-7(L)-190

- Finish – **90** = Zinc Plate w/ Chromate
- Material (Case Hardened Steel)
- Stud Length No. – Determined on Receptacle selection pages
- Basic Part Number

Optional Stud (Washer Head)







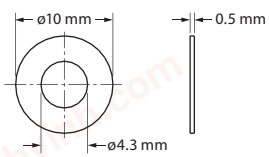
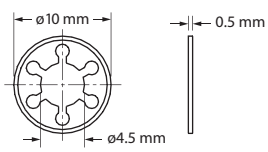
Part Number	D2-515-13(L)-190

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:

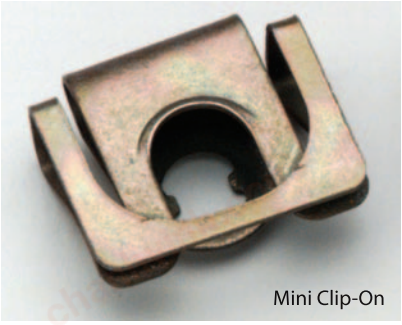
Plastic Retainer: High density polyethylene, natural
Steel Retainer: Spring steel, zinc plate, chromate

All dimensions on this page are in millimeters.

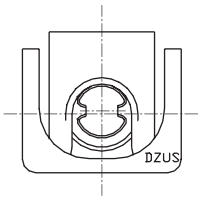
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Mini Clip-On – 5 mm

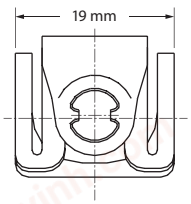
DZUS® QUICK ACCESS



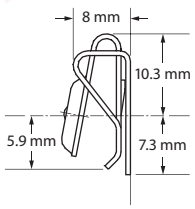
Part Number	D2-535-330-190



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Material & Finish

Material: Spring steel
Finish: Zinc plate, chromate

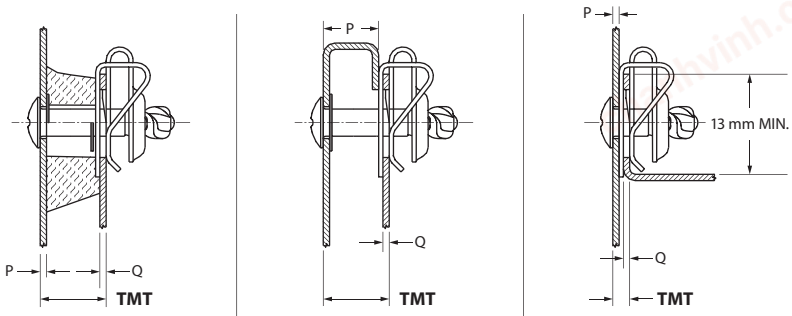
Mechanical

Maximum Load without Distortion: 31 lbs.
Maximum Torque: 22 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.



TMT = P + Q + Gasket | **TMT** = P + Q + 0.7 mm | **TMT** = P + Q + 0.7 mm

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

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

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

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

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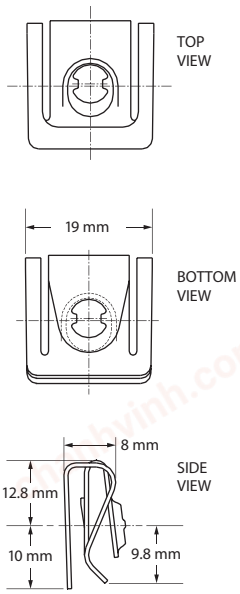
DZUS® Rapier® D2 Quarter-Turn Receptacle
Long Reach Clip-On – 5 mm

DZUS® QUICK ACCESS



Part Number	D2-535-340-130*

** For minimum orders of 5,000 pieces*



Material & Finish

Material: Spring steel
Finish: Organic silver

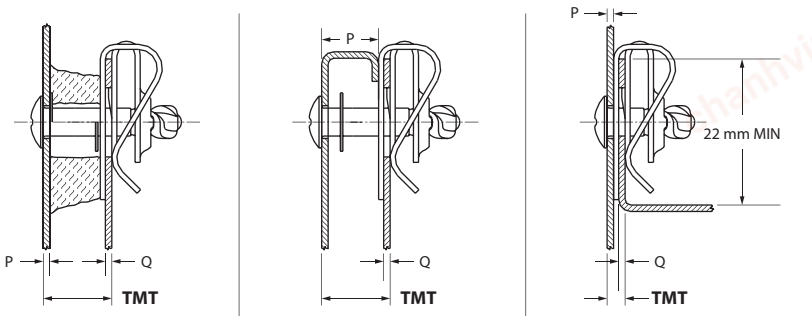
Mechanical

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

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.



TMT = P + Q + Gasket | **TMT** = P + Q + 0.7 mm | **TMT** = P + Q + 0.7 mm

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
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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

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

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

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

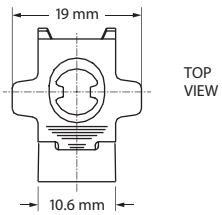
southco® CONNECT · CREATE · INNOVATE

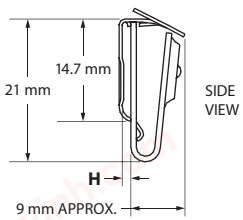
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Snap-In – 5 mm

DZUS® QUICK ACCESS







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.

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.

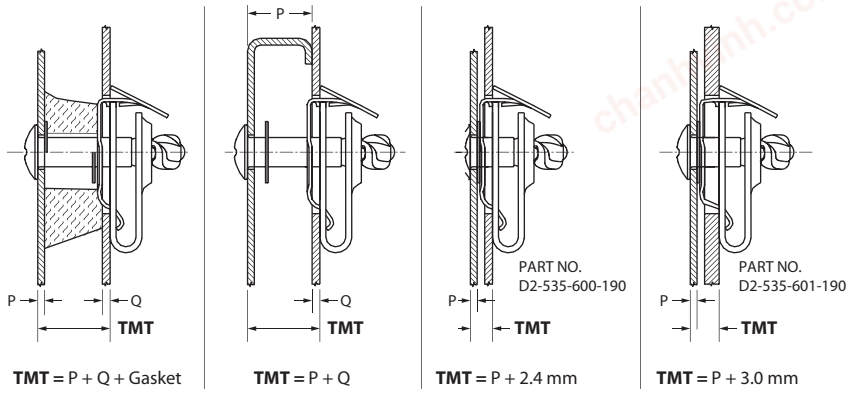


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim)[1]
2.5 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

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

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

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

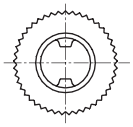
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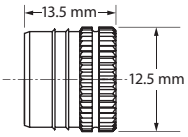
DZUS® Rapier® D2 Quarter-Turn Receptacle
Press-In Insert – 5 mm

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.

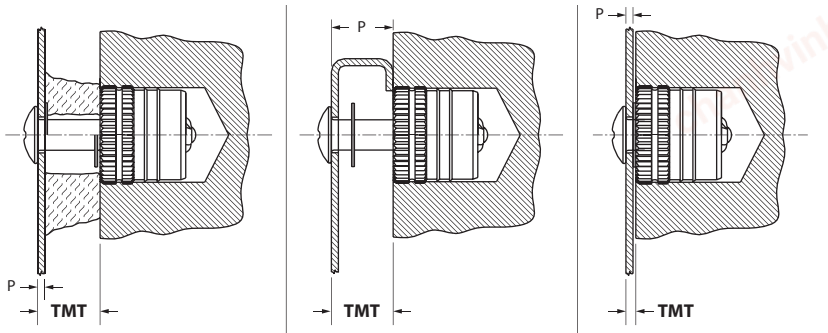


Figure 1: Total Material Thickness (TMT)

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.

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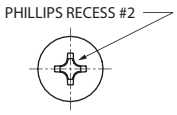
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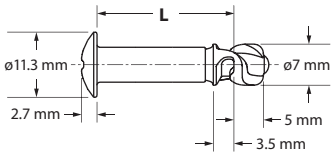
DZUS® Rapier® D2 Quarter-Turn Stud & Retainer 7 mm

DZUS® QUICK ACCESS

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:

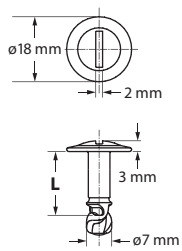
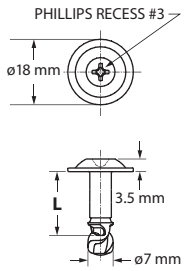
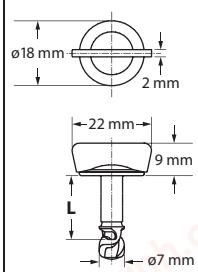
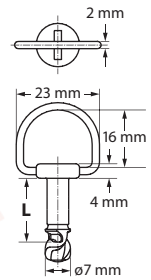
Material: Case hardened steel
Finish: Zinc plate and chromate

Rapier Stud Part Numbers:

D2-517-7(L)-190

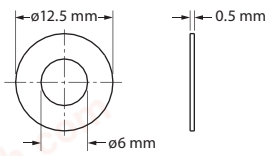
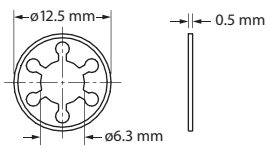
- Finish – **90** = Zinc Plate with Chromate
- Material (Case Hardened Steel)
- Stud Length No. – Determined on Receptacle selection pages
- Basic Part Number - #2 Phillips Recess shown, optional Studs below

Optional Studs

Slotted	Philips 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:

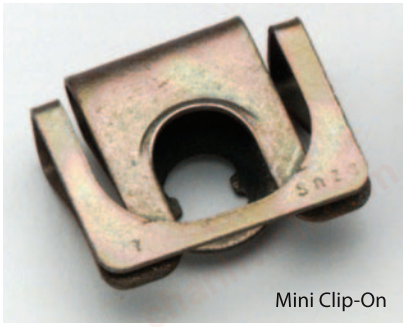
Plastic Retainer: High density polyethylenene, natural
Steel Retainer: Spring steel, zinc plate and chromate

All dimensions on this page are in millimeters.

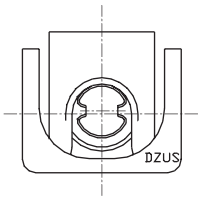
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Mini Clip-On – 7 mm

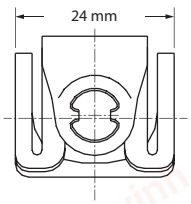
DZUS® QUICK ACCESS


Mini Clip-On

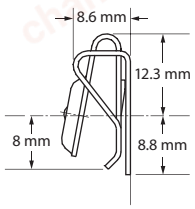
Part Number	D2-537-330-190



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Material & Finish

Material: Spring steel
Finish: Zinc plate, chromate

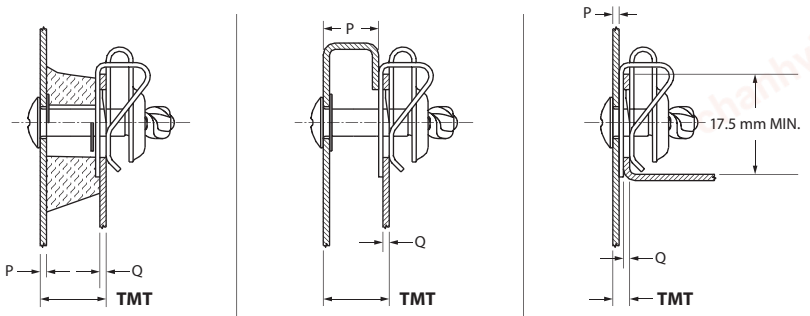
Mechanical

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

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.



TMT = P + Q + Gasket | **TMT** = P + Q + 0.7 mm | **TMT** = P + Q + 0.7 mm

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

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.*

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

Quick Access Fasteners

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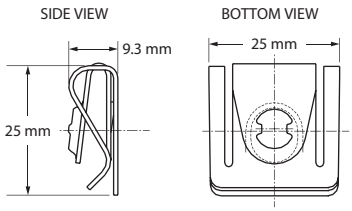
DZUS® Rapier® D2 Quarter-Turn Receptacle
Long Reach Clip-On & Right Angle Bracket – 7 mm

DZUS® QUICK ACCESS


Long Reach Clip-On

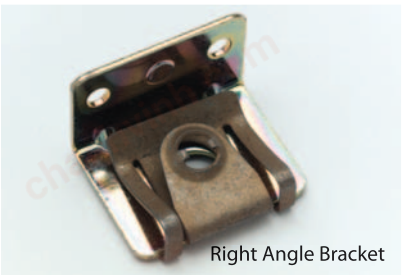
Part Number	D2-537-300-130*

** For minimum orders of 10,000 pieces*

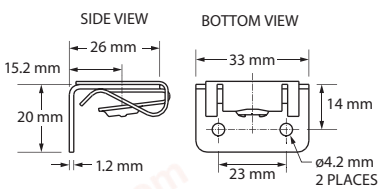


Material & Finish

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.

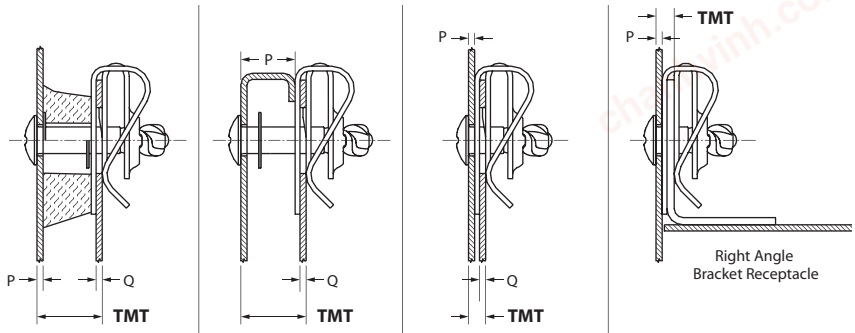


Figure 1: Total Material Thickness (TMT)

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

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

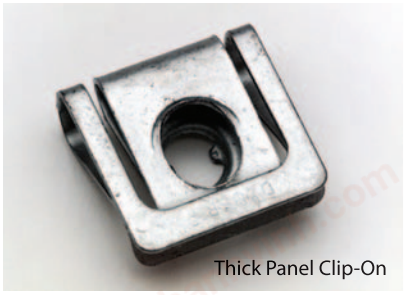
Example:
When TMT = 24 mm;
Stud Length Number is **31***;*
Stud Part Number is **D2-517-731-190** *for a Phillips recess #2 stud.*

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

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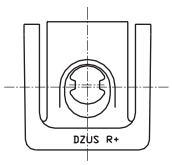
DZUS® Rapier® D2 Quarter-Turn Receptacle
Thick Panel, Clip-On – 7 mm

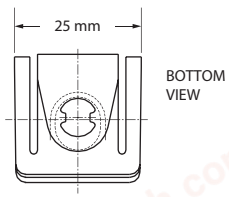
DZUS® QUICK ACCESS

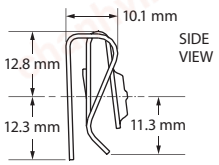


Part Number	D2-537-301-130*

** For minimum orders of 10,000 pieces*







Material & Finish

Material: Spring steel
Finish: Organic silver

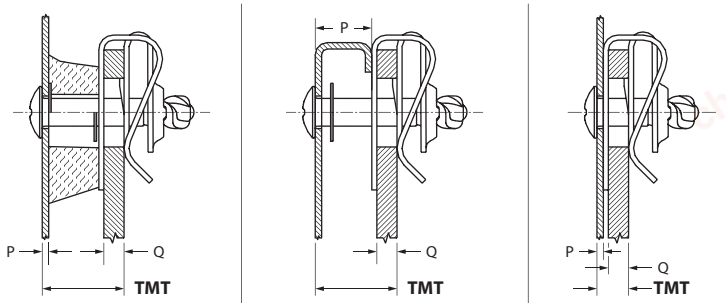
Mechanical

Maximum Load Without Distortion: 50 lbs.
Maximum Torque: 31 lbs.-in.

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.



TMT = P + Q + Gasket | **TMT** = P + Q + 0.7 mm | **TMT** = P + Q + 0.7 mm

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

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 #2 Phillips recess stud.*

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

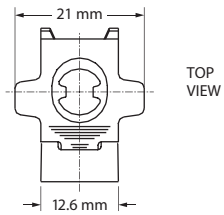
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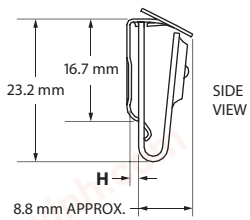
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Snap-In – 7 mm

DZUS® QUICK ACCESS







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.

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.

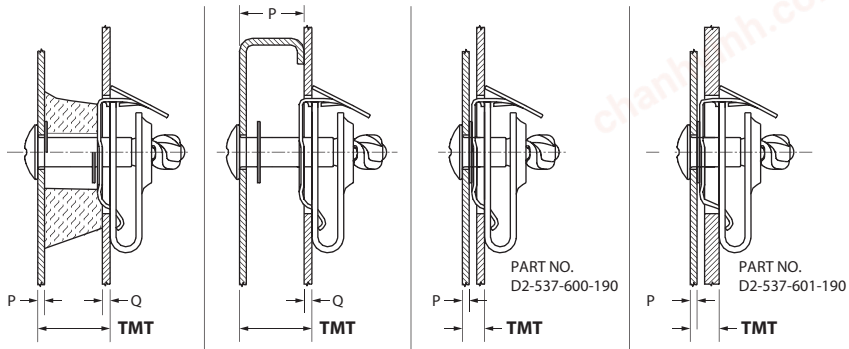


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim)[1]
2.5 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.*

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

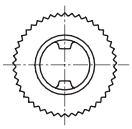
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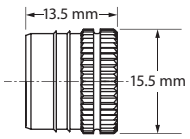
DZUS® Rapier® D2 Quarter-Turn Receptacle
Press-In – 7 mm

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.

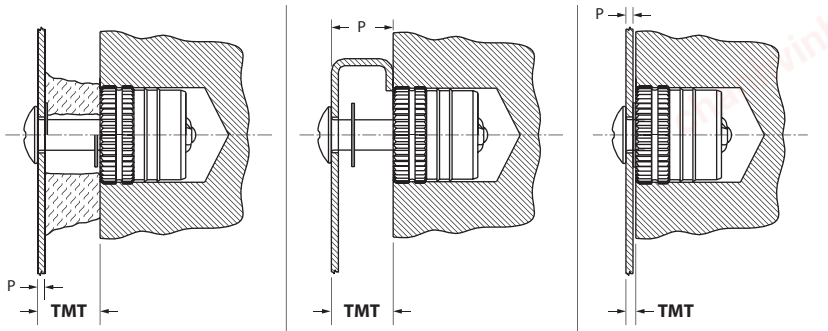


Figure 1: Total Material Thickness (TMT)

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.

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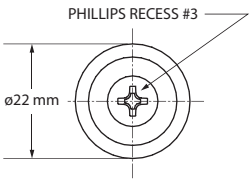
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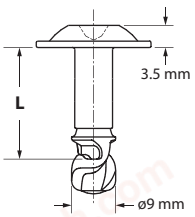
DZUS® Rapier® D2 Quarter-Turn Stud & Retainer
9 mm

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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

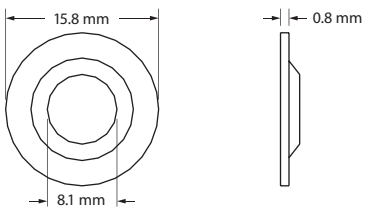
Rapier Stud Part Numbers:

D2-519-17(L)-190

- Finish – **90** = Zinc Plate w/ Chromate
- Material (Case Hardened Steel)
- Stud Length No. – Determined on Receptacle selection pages
- Basic Part Number

Plastic Retainer





Part Number	D2-GP6B

Standard Material:

Material: Black thermoplastic

All dimensions on this page are in millimeters.

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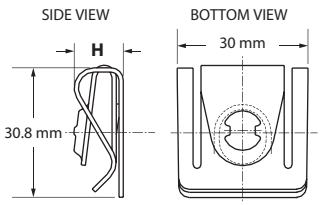
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Clip-On & Right Angle Bracket – 9 mm

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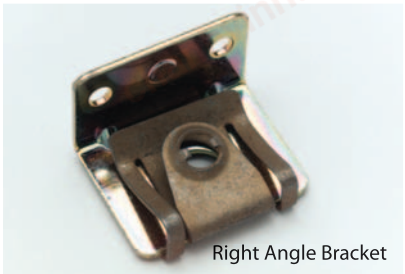

Clip-On

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

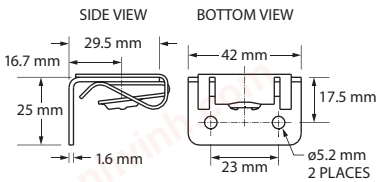


Material & Finish

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

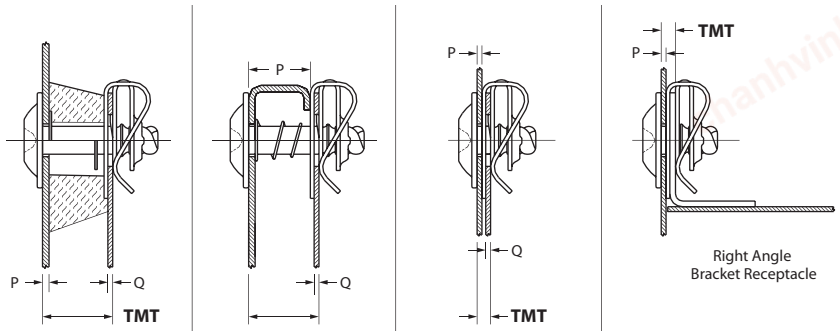
Mechanical

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.



TMT = P + Q + Gasket | **TMT** = P + Q + 1.1 mm | **TMT** = P + Q + 2.1 mm | **TMT** = P + 3.7 mm

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.

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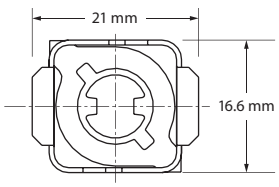
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Front Load, Clip-In – 9 mm

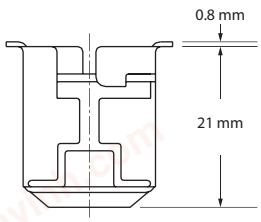
DZUS® QUICK ACCESS



Part Number	D2-339-200-190



TOP VIEW



SIDE VIEW

Material & Finish

Material: Spring steel
Finish: Zinc plate and chromate

Mechanical

Maximum Load Without Distortion: 23 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.

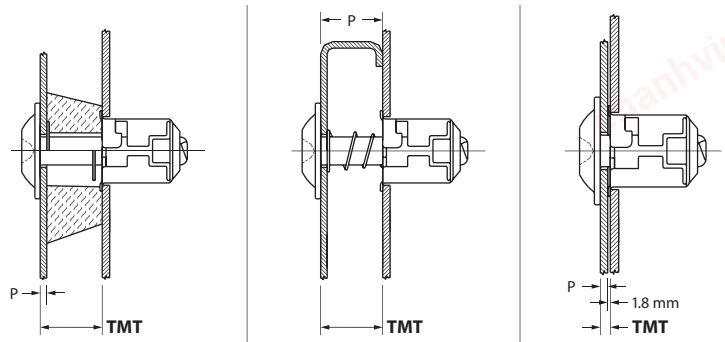


Figure 1: Total Material Thickness (TMT)

TMT	Stud Length No. (L Dim)[1]
2.5 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

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

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

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

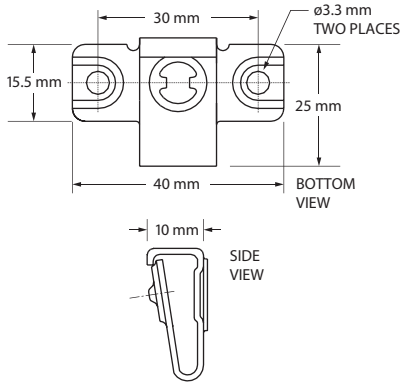
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DZUS® Rapier® D2 Quarter-Turn Receptacle
Rivet Plate & Weld Plate – 9 mm

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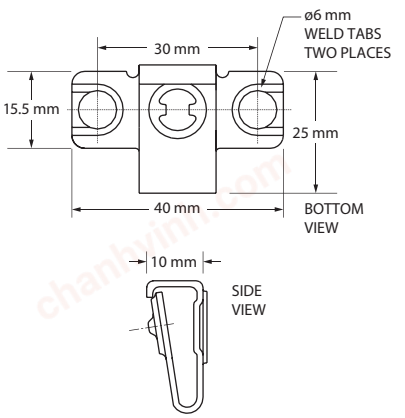

Rivet Plate

Part Number	D2-339-400-190




Weld Plate

Part Number	D2-339-500-190



Material & Finish

Material: Spring steel
Finish: Zinc plate and chromate

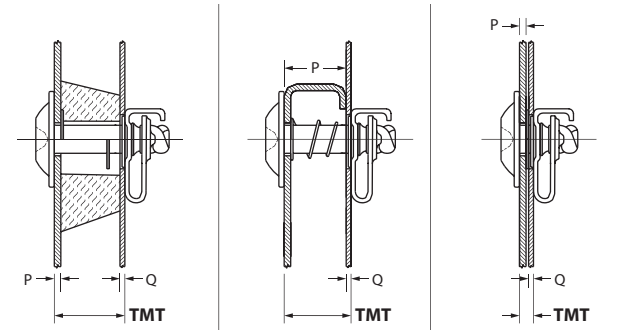
Mechanical

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.



TMT = P + Q + Gasket | **TMT** = P + Q | **TMT** = P + Q + .1 mm

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.

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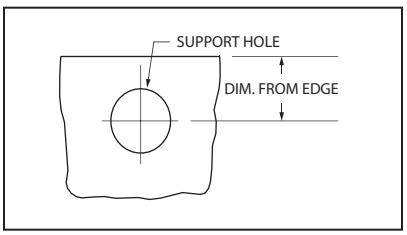
DZUS® Rapier® D2 Quarter-Turn Installation

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Stud Panel Preparation

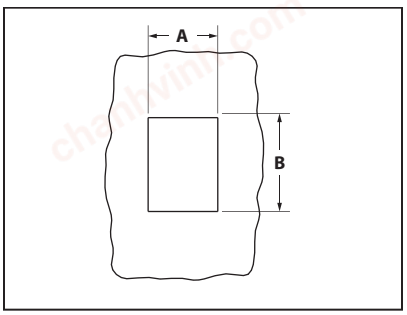
Standard Panel Hole	
Stud Size	Hole Diameter
3.5 mm	3.7 mm ±0.1
5 mm	5.1 mm ±0.1
7 mm	7.1 mm ±0.1
9 mm	9.4 mm ± 0.1

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

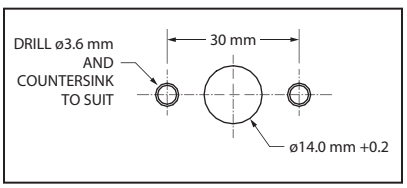


Receptacle Size	Support Range	Dimension A	Dimension B
5 (2 models)	0.9 to 2.0 mm	11 mm +0.2	15.5 mm +0.2
7 (2 models)	0.9 to 2.0 mm	13 mm +0.2	17.5 mm +0.2

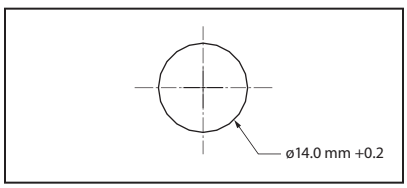
Support Panel Preparation for Press-In Inserts

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

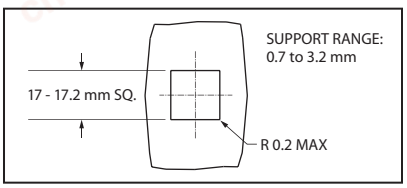
Support Panel Preparation for Rivet Plate Receptacle - 9mm



Support Panel Preparation for Weld Plate Receptacle - 9mm



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



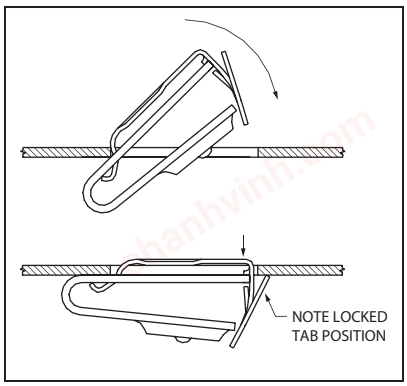
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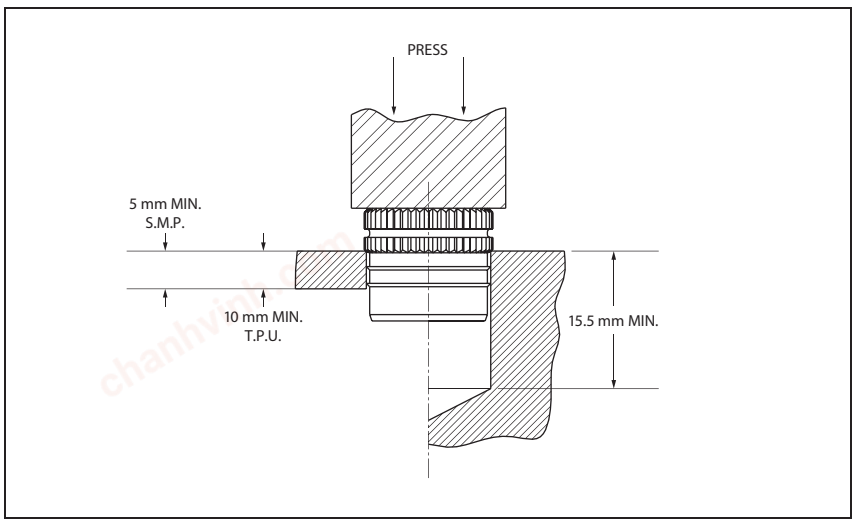
DZUS® Rapier® D2 Quarter-Turn Installation

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Installation Procedure for Snap-In Receptacles

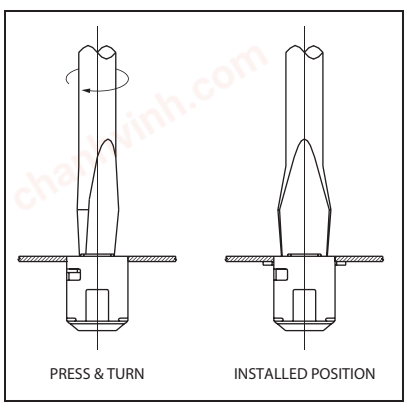


Installation Procedure for Press-In Insert (5mm and 7mm only)



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.