chanhvinh.com



82 *DZUS*® Performance Quarter-Turn Fasteners

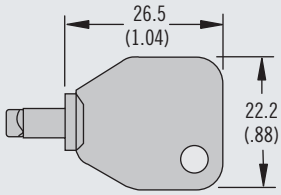
Studs

Material and Finish

Studs: Steel, zinc plated and chromate or stainless steel
Bail cover: ABS, black

Accessories

Tool head recess key:
Part number: 29-90-214-10



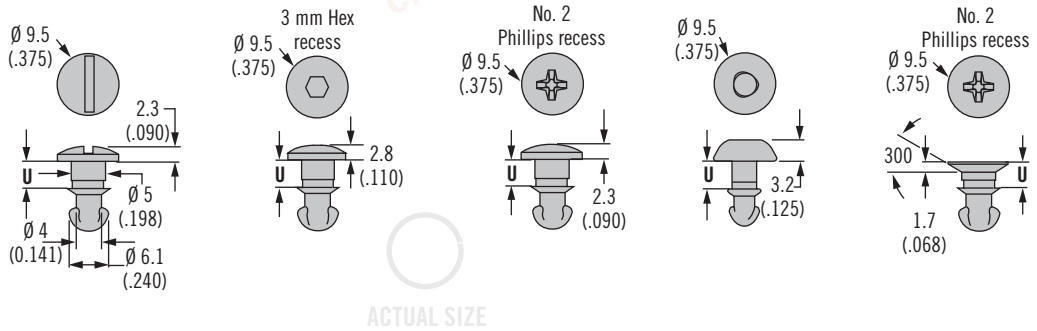
Installation Notes

Bail cover:
A retainer must be fitted under the stud head to fit flush with surface

Retainer part number 82-32-301-12 (see page 443)

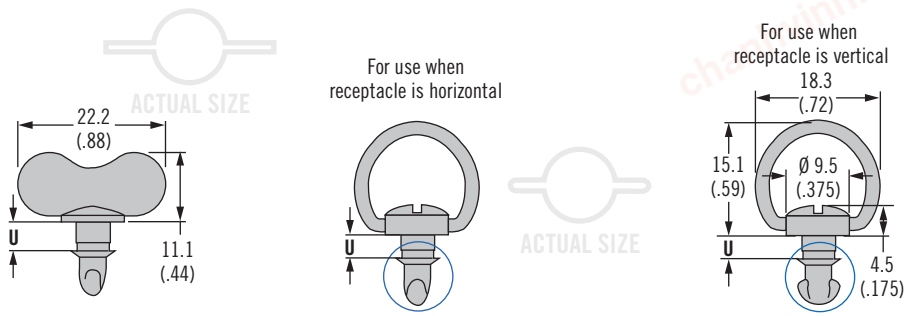
H Head Styles - Tool Actuated

Oval Slot | Hex Recess | Oval Recess | Tool Head Recess | Flush Recess

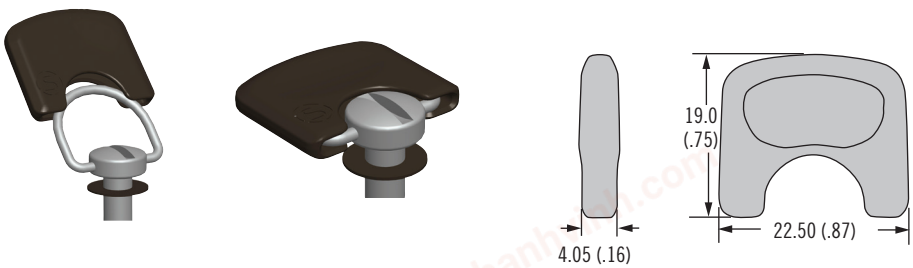


H Head Styles - Hand Actuated

Wing | Bail Style RA | Bail Style RB

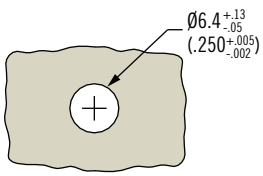


Optional Bail Cover



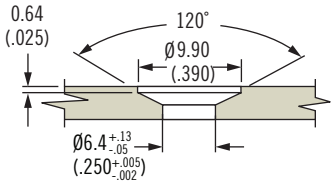
Bail Cover Part Number
82-2-B-000

Stud Panel Preparation



Flush Head Styles

(when outer panel is 1.3 (.050) or greater)



Dimensions in millimeters (inch) unless otherwise stated

DZUS® | southco®

chanhvinh.com

82 *DZUS*® Lion Quarter-Turn Fasteners

Stud selection



H Head style
- **11** Oval slot
- **12** Wing head
- **15** Bail RA
- **16** Bail RB
- **19** Oval Phillips recess
- **28** Flush Phillips recess
- **78** Hex recess
- **T** Tool head recess (not available in stainless steel)

K Length
Enter number from selection table below

82 - H - K - M

M Material
- **16** Steel, zinc plated
- **20** Stainless steel (not available in tool head recess head style)

Stud Length Table

A		B		C		D		K	U
TMT Range For: 82-35-306-10		TMT Range For: 82-35-308-55 82-35-310-55		TMT Range For: 82-35-315-55		TMT Range For: All Other Receptacles			
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
0.7 (.026)	1.2 (.045)	~	~	~	~	2.3 (.090)	2.8 (.110)	**100**	3.2 (.127)
1.2 (.045)	1.7 (.065)	~	~	~	~	2.8 (.110)	3.3 (.130)	**120**	3.7 (.147)
1.7 (.065)	2.2 (.085)	~	~	~	~	3.3 (.130)	3.8 (.150)	**140**	4.2 (.167)
2.2 (.085)	2.7 (.105)	0 (0)	0.5 (.019)	1.3 (.050)	1.8 (.070)	3.8 (.150)	4.3 (.170)	**160**	4.7 (.187)
2.7 (.105)	3.2 (.125)	0.5 (.019)	1 (.039)	1.8 (.070)	2.3 (.090)	4.3 (.170)	4.8 (.190)	**180**	5.3 (.207)
3.2 (.125)	3.7 (.145)	1 (.039)	1.5 (.059)	2.3 (.090)	2.8 (.110)	4.8 (.190)	5.3 (.210)	**200**	5.8 (.227)
3.7 (.145)	4.2 (.165)	1.5 (.059)	2 (.079)	2.8 (.110)	3.3 (.130)	5.3 (.210)	5.8 (.230)	**220**	6.3 (.247)
4.2 (.165)	4.7 (.185)	2 (.079)	2.5 (.099)	3.3 (.130)	3.8 (.150)	5.8 (.230)	6.3 (.250)	**240**	6.8 (.267)
4.7 (.185)	5.2 (.205)	2.5 (.099)	3 (.119)	3.8 (.150)	4.3 (.170)	6.4 (.250)	6.9 (.270)	**260**	7.3 (.287)
5.2 (.205)	5.7 (.225)	3 (.119)	3.5 (.139)	4.3 (.170)	4.8 (.190)	6.9 (.270)	7.4 (.290)	**280**	7.8 (.307)
5.7 (.225)	6.2 (.245)	3.5 (.139)	4.1 (.159)	4.8 (.190)	5.3 (.210)	7.4 (.290)	7.9 (.310)	**300**	8.3 (.327)
~	~	4.1 (.159)	4.6 (.179)	5.3 (.210)	5.8 (.230)	7.9 (.310)	8.4 (.330)	**320**	8.8 (.347)
~	~	4.6 (.179)	5.1 (.199)	5.8 (.230)	6.3 (.250)	8.4 (.330)	8.9 (.350)	**340**	9.3 (.367)
~	~	5.1 (.199)	5.6 (.219)	6.3 (.250)	6.8 (.270)	8.9 (.350)	9.4 (.370)	**360**	9.8 (.387)
~	~	5.6 (.219)	6.1 (.239)	6.8 (.270)	7.3 (.290)	9.4 (.370)	9.9 (.390)	**380**	10.3 (.407)
~	~	6.1 (.239)	6.6 (.259)	7.3 (.290)	7.8 (.310)	9.9 (.390)	10.4 (.410)	**400**	10.8 (.427)
~	~	6.6 (.259)	7.1 (.279)	7.8 (.310)	8.3 (.330)	10.4 (.410)	10.9 (.430)	**420**	11.4 (.447)
~	~	7.1 (.279)	7.6 (.299)	8.3 (.330)	8.8 (.350)	10.9 (.430)	11.4 (.450)	**440**	11.9 (.467)
~	~	7.6 (.299)	8.1 (.319)	8.8 (.350)	9.3 (.370)	11.4 (.450)	11.9 (.470)	**460**	12.4 (.487)
~	~	8.1 (.319)	8.6 (.339)	9.3 (.370)	9.8 (.390)	11.9 (.470)	12.4 (.490)	**480**	12.9 (.507)
~	~	8.6 (.339)	9.1 (.359)	9.8 (.390)	10.3 (.410)	12.5 (.490)	12.9 (.510)	**500**	13.4 (.527)
~	~	9.1 (.359)	9.6 (.379)	10.3 (.410)	10.8 (.430)	13 (.510)	13.5 (.530)	**520**	13.9 (.547)
~	~	9.6 (.379)	10.1 (.399)	10.8 (.430)	11.3 (.450)	13.5 (.530)	14 (.550)	**540**	14.4 (.567)
~	~	10.1 (.399)	10.6 (.419)	11.3 (.450)	11.8 (.470)	14 (.550)	14.5 (.570)	**560**	14.9 (.587)
~	~	10.6 (.419)	11.1 (.439)	11.8 (.470)	12.3 (.490)	14.5 (.570)	15 (.590)	**580**	15.4 (.607)

Part Number Selection

To select correct fastener:

1. Select receptacle
Choose a receptacle from pages 438-442

2. Select retainer and accessories
from page 443 and note any adjustment values

3. Specify stud length
Calculate the total material thickness (TMT) using the formula given for the receptacle selected. Find the range of TMT using the stud length selection table (left) using the column (A, B, C, or D) given for the receptacle selected, find K

4. Complete the stud part number
by specifying the head style H, stud length K, and material M

Example:
For rivet-on with base receptacle 82-35-302-15 use column D
For TMT value calculated as 5.2 (.206), K = 200
For slotted head style in steel material, completed part number: 82-11-200-16
A complete example can be found on page 435

Notes
Stainless steel material may require a higher minimum order quantity. Contact Southco for details.

chanhvinh.com



82 *DZUS*® Lion Quarter-Turn Fasteners

Receptacles

Material and Finish

Steel, zinc immersion coating

Installation Notes

Install with Ø 2.5 (3⁄32) rivets, spring plate must float freely after riveting

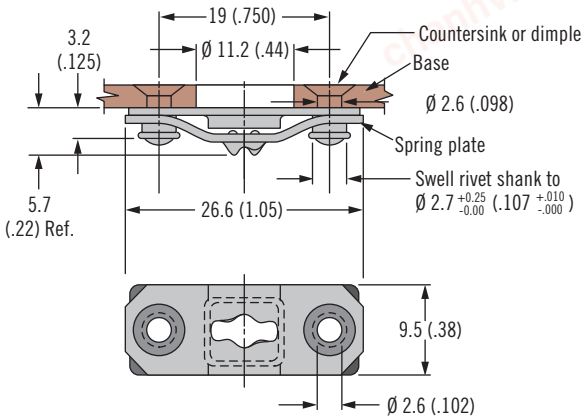
Part Number

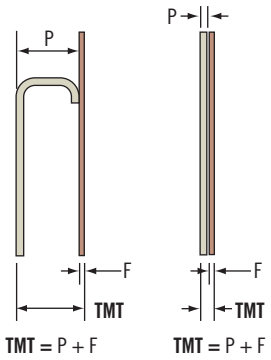
See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Rivet-On With Base





ACTUAL SIZE

Part Number	Stud Selection Column
82-35-302-15	D

Material and Finish

Steel, zinc immersion coating or stainless steel

Installation Notes

Install with Ø 2.5 (3⁄32) rivets, spring plate must float freely after riveting

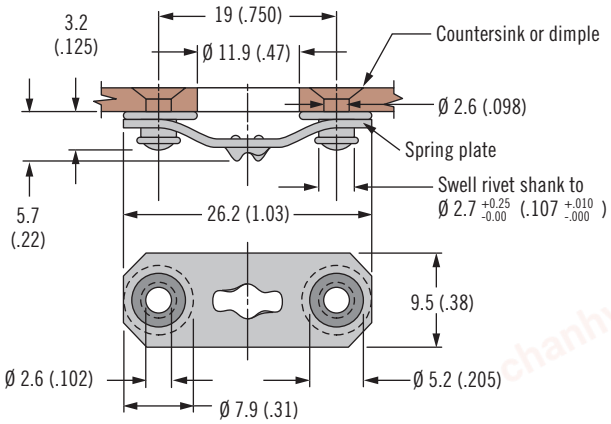
Part Number

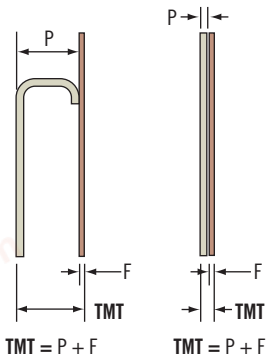
See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Rivet-On Without Base





ACTUAL SIZE

Material	Part Number	Stud Selection Column
Steel	82-35-295-15	D
Stainless steel	82-35-295-20	

Dimensions in millimeters (inch) unless otherwise stated

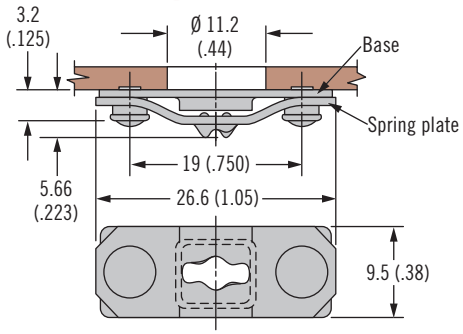
chanhvinh.com

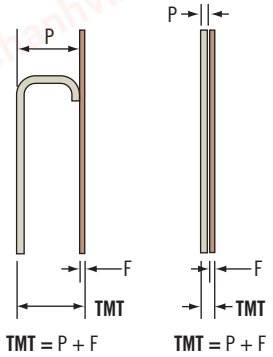
82 *DZUS*® Lion Quarter-Turn Fasteners

Receptacles



Weld-On





ACTUAL SIZE

Part Number	Stud Selection Column
82-35-303-15	D

Material and Finish

Steel, zinc immersion coating

Installation Notes

Spring plate must float freely after welding

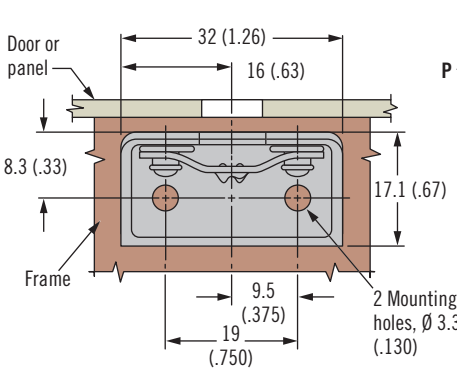
Part Number

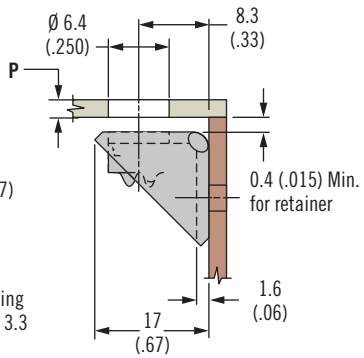
See table

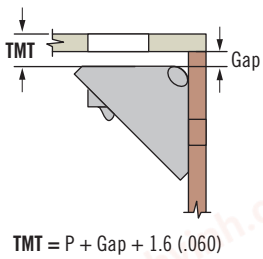
Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Side Mount







ACTUAL SIZE

Part Number	Stud Selection Column
82-45-101-15	D

Material and Finish

Steel, zinc immersion coating

Installation Notes

Install with Ø 2.5 (3/32) rivets

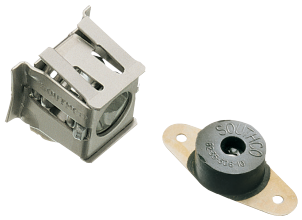
Part Number

See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

chanhvinh.com



82 *DZUS*® Lion Quarter-Turn Fasteners

Receptacles

Material and Finish

Steel, zinc plated and neoprene

Installation Notes

Install with Ø 2.5 (3/32) rivets

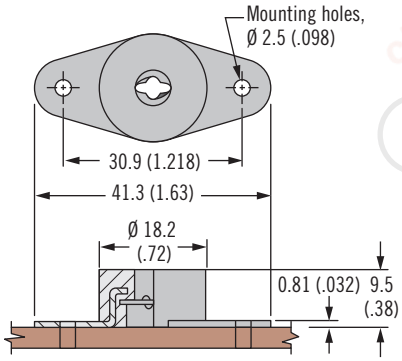
Part Number

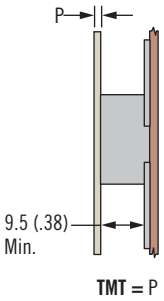
See table

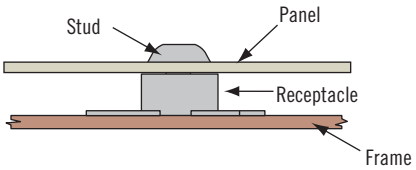
Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Vibration Isolating







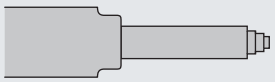
Part Number	Stud Selection Column
82-35-306-10	A

Material and Finish

Steel, zinc plated and stainless steel

Installation Notes

Installation Tool



Part Number: 29-8125-309

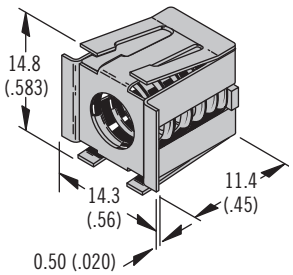
Part Number

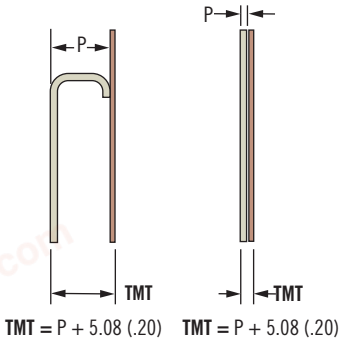
See table

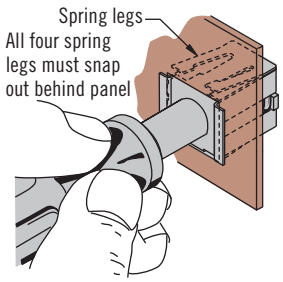
Notes

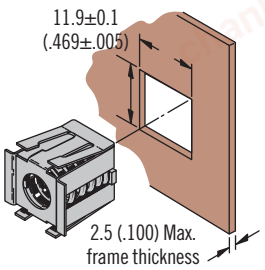
Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Snap-In - Front Mount









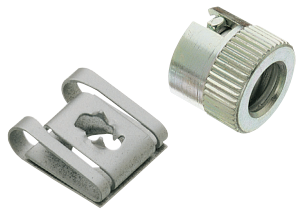
Part Number	Stud Selection Column
82-35-309-56	D

Dimensions in millimeters (inch) unless otherwise stated

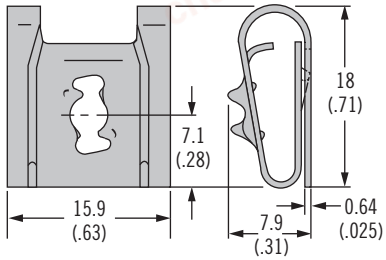
chanhvinh.com

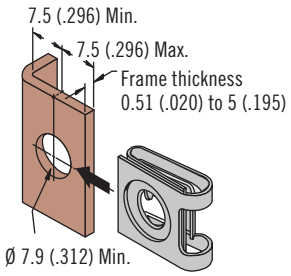
82 *DZUS*® Lion Quarter-Turn Fasteners

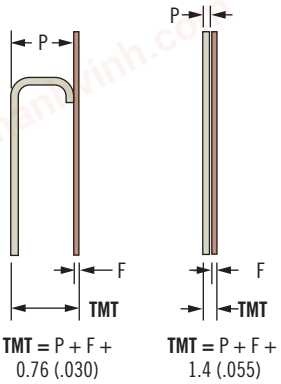
Receptacles



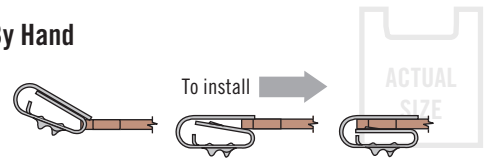
Clip-On







By Hand



With Screwdriver



Material	Part Number	Stud Selection Column
Steel	82-47-113-15	D
Stainless steel	82-47-113-20	

Material and Finish

Steel, zinc immersion coating or stainless steel

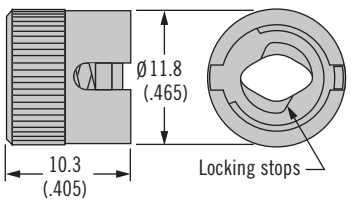
Part Number

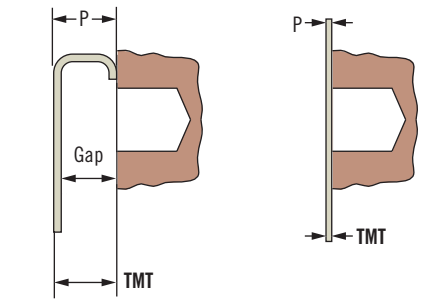
See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Press-In





Material and Finish

Steel, zinc plated and stainless steel

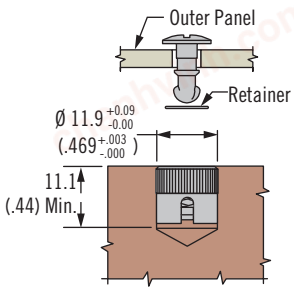
Installation Notes

Press receptacle flush to frame

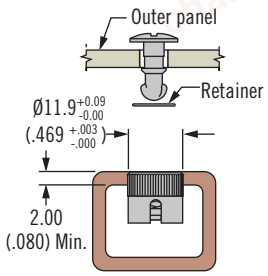
Notes

Receptacle shown installed flush to the frame. To eliminate the gap between the frame and outer panel, install to a depth ≥ the thickness of the selected retainer. This depth should be added to the TMT.

Solid Install



Blind Install



Part Number	Stud Selection Column
82-35-308-55	B

Part Number

See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

chanhvinh.com



82 *DZUS*® Lion Quarter-Turn Fasteners

Receptacles · Self-clinching

Material and Finish

Steel, zinc plated and stainless steel

Installation Notes

Press receptacle flush to frame

Notes

Receptacle shown installed flush to the frame. To eliminate the gap between the frame and outer panel, install to a depth ≥ the thickness of the selected retainer. This depth should be added to the TMT.

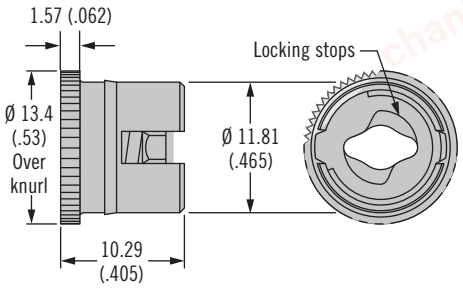
Part Number

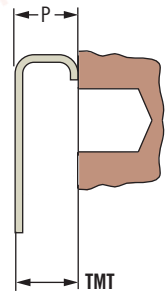
See table

Notes

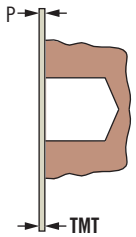
Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Ultrasonic For Thermoplastics



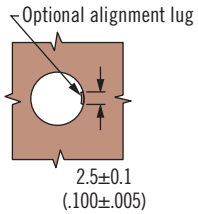


TMT = P - 0.5 (.020)

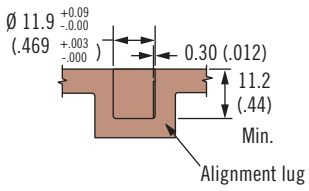


TMT = P + (Retainer adjustment value) - 0.5 (.020)

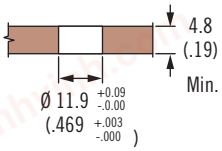
Installation



Blind Hole Installation



Thru Hole Installation



Part Number	Stud Selection Column
82-35-310-55	B

Material and Finish

Steel, zinc plated and stainless steel

Installation Notes

For use in low carbon steels, aluminum and stainless steels in the annealed condition that are RB85 or softer

See page 627 for installation guidelines

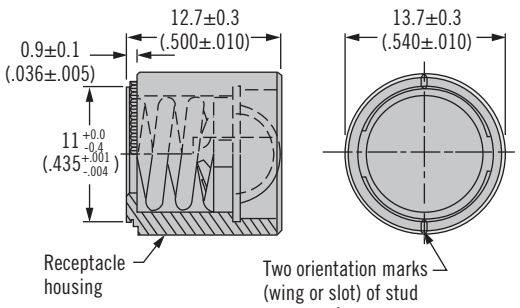
Part Number

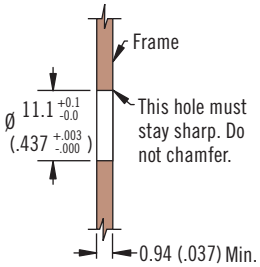
See table

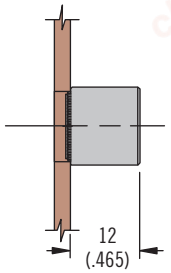
Notes

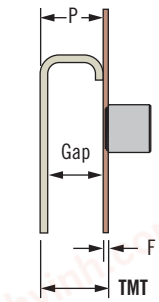
Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

Shielded – Self-Clinching

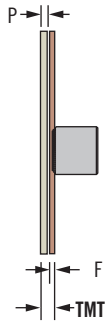








TMT = P + F (when gap is > retainer thickness)



Frame thickness (F) > 0.9 (.036) + Retainer thickness: **TMT** = P + F

Frame thickness (F) ≤ 0.9 (.036) + Retainer thickness: **TMT** = P + 0.9 (.036) + Retainer thickness

Part Number

See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 437

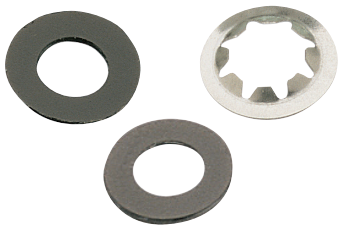
Part Number	Stud Selection Column
82-35-315-55	C

Dimensions in millimeters (inch) unless otherwise stated

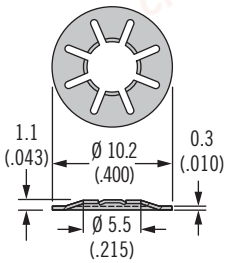
chanhvinh.com

82 *DZUS*® Lion Quarter-Turn Fasteners

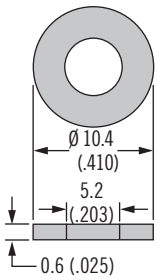
Retainers · Accessories



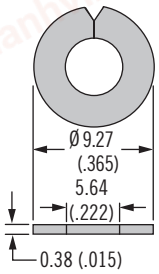
Retainer Push-On



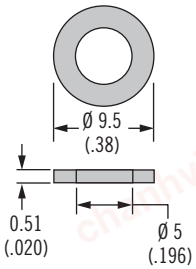
Retainer Push-On Plastic



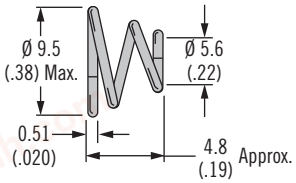
Retainer Split



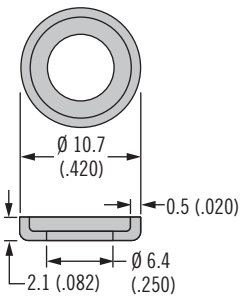
Sealing Washer



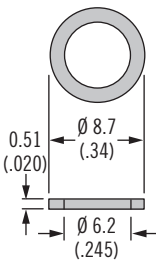
Ejector Spring



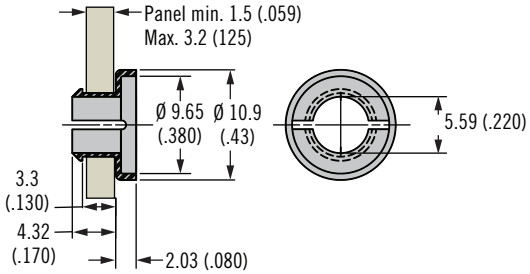
Cupped Washer

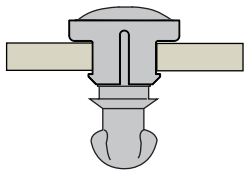


Flat Wear Washer



Snap-In Retainer





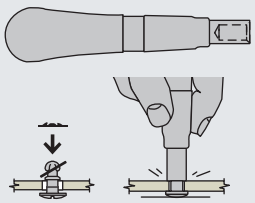
Type	Part Number	Material	Adjustment Value
Push-on retainer	82-32-201-20	Stainless steel	Add 0.25 (.010)
Push-on plastic retainer	82-32-301-12	Nylon, black	Add 0.64 (.025)
Split retainer	82-32-101-20	Stainless steel	Add 0.38 (.015)
Sealing washer	82-43-201-38	Neoprene nitrile rubber, black	Add 0.51 (.020)
Ejector spring	43-13-1-24	Stainless steel	Add 0.51 (.020)
Cupped washer	82-46-101-39	Nylon, white	Add 0.51 (.020)
	82-46-101-41	Nylon, black	
Flat wear washer	82-46-103-39	Nylon, white	Add 0.51 (.020)
Snap-in retainer	82-32-401-41	Nylon, black	Add 0.51 (.020)

Material and Finish

See table

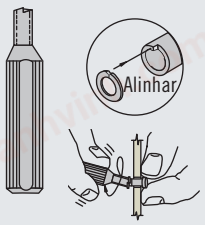
Installation Notes

For standard retainers:



Part Number: 82-0-22542-11

For split retainers:



Part Number: 82-0-7595-11

Notes

For snap-in retainer:
Min. stud K = 180 when using snap-in retainer (see page 437 for K reference).

Install stud into retainer before inserting into panel

Part Number

See table

Notes

Adjustment value:
When using accessories the components increase TMT

Add the adjustment value to your outer panel thickness (P) when calculating TMT (see page 435 for example)

chanhvinh.com



85 *DZUS*® Lion Quarter-Turn Fasteners

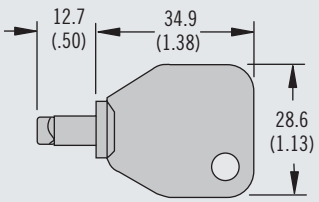
Studs

Material and Finish

Studs: Steel, zinc plated or stainless steel
Bail cover: ABS, black

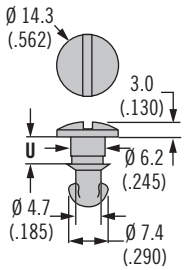
Accessories

Tool head recess key:
Part number: 29-90-215-10

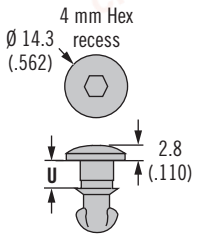


H Head Styles - Tool Actuated

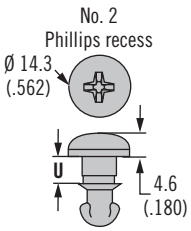
Oval Slot



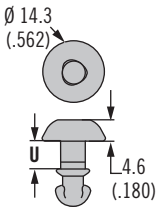
Hex Recess



Phillips Recess



Tool Head Recess

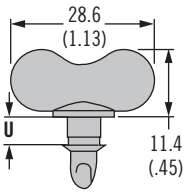


ACTUAL SIZE

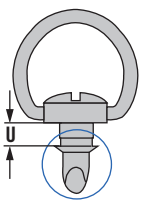
H Head Styles - Hand Actuated

Wing

ACTUAL SIZE

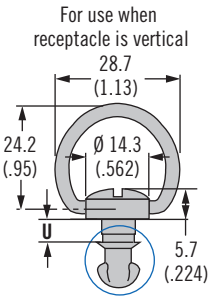


Bail Style RA



ACTUAL SIZE

Bail Style RB



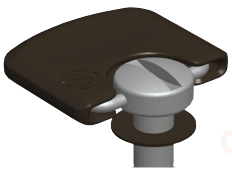
Installation Notes

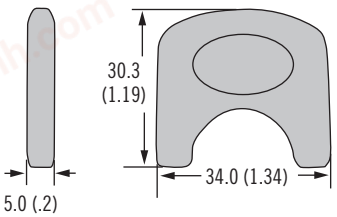
Bail cover:
A wear washer must be fitted under the stud head to fit flush with surface

Wear washer part number 85-34-301-12 (see page 449)

Optional Bail Cover



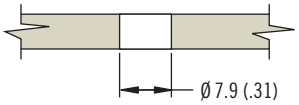




Bail Cover Part Number
85-5-B-000

Stud Panel Preparation

Prepare Hole



Dimensions in millimeters (inch) unless otherwise stated

chanhvinh.com

85 *DZUS*® Lion Quarter-Turn Fasteners

Stud selection



H Head style
- **11** Oval slot
- **12** Wing head
- **15** Bail RA
- **16** Bail RB
- **78** Hex recess
- **P** Oval Phillips recess
- **T** Tool head recess (not available in stainless steel)

K Length
Enter number from selection table below

85 - H - K - M

M Material
- **16** Steel, zinc plated
- **20** Stainless steel (not available in tool head recess head style)

Stud Length Table

A		B		C		K	U
TMT Range For: 85-35-308-55		TMT Range For: 85-35-311-55		TMT Range For: All other receptacles			
Min.	Max.	Min.	Max.	Min.	Max.		
~	~	~	~	2.3 (.090)	2.8 (.110)	**100**	5.2 (.205)
~	~	~	~	2.8 (.110)	3.3 (.130)	**120**	5.7 (.225)
~	~	~	~	3.3 (.130)	3.8 (.150)	**140**	6.2 (.245)
~	~	~	~	3.8 (.150)	4.3 (.170)	**160**	6.7 (.265)
~	~	~	~	4.3 (.170)	4.8 (.190)	**180**	7.2 (.285)
~	~	~	~	4.8 (.190)	5.3 (.210)	**200**	7.7 (.305)
~	~	~	~	5.3 (.210)	5.8 (.230)	**220**	8.3 (.325)
~	~	1.3 (.050)	1.8 (.070)	5.8 (.230)	6.3 (.250)	**240**	8.8 (.345)
0.4 (.015)	0.9 (.035)	1.8 (.070)	2.3 (.090)	6.4 (.250)	6.9 (.270)	**260**	9.3 (.365)
0.9 (.035)	1.4 (.055)	2.3 (.090)	2.8 (.110)	6.9 (.270)	7.4 (.290)	**280**	9.8 (.385)
1.4 (.055)	1.9 (.075)	2.8 (.110)	3.3 (.130)	7.4 (.290)	7.9 (.310)	**300**	10.3 (.405)
1.9 (.075)	2.4 (.095)	3.3 (.130)	3.8 (.150)	7.9 (.310)	8.4 (.330)	**320**	10.8 (.425)
2.4 (.095)	2.9 (.115)	3.8 (.150)	4.3 (.170)	8.4 (.330)	8.9 (.350)	**340**	11.3 (.445)
2.9 (.115)	3.4 (.135)	4.3 (.170)	4.8 (.190)	8.9 (.350)	9.4 (.370)	**360**	11.8 (.465)
3.4 (.135)	3.9 (.155)	4.8 (.190)	5.3 (.210)	9.4 (.370)	9.9 (.390)	**380**	12.3 (.485)
3.9 (.155)	4.4 (.175)	5.3 (.210)	5.8 (.230)	9.9 (.390)	10.4 (.410)	**400**	12.8 (.505)
4.4 (.175)	4.9 (.195)	5.8 (.230)	6.3 (.250)	10.4 (.410)	10.9 (.430)	**420**	13.3 (.525)
5 (.195)	5.5 (.215)	6.4 (.250)	6.9 (.270)	10.9 (.430)	11.4 (.450)	**440**	13.8 (.545)
5.5 (.215)	6 (.235)	6.9 (.270)	7.4 (.290)	11.4 (.450)	11.9 (.470)	**460**	14.4 (.565)
6 (.235)	6.5 (.255)	7.4 (.290)	7.9 (.310)	11.9 (.470)	12.4 (.490)	**480**	14.9 (.585)
6.5 (.255)	7 (.275)	7.9 (.310)	8.4 (.330)	12.5 (.490)	12.9 (.510)	**500**	15.4 (.605)
7 (.275)	7.5 (.295)	8.4 (.330)	8.9 (.350)	13 (.510)	13.5 (.530)	**520**	15.9 (.625)
7.5 (.295)	8 (.315)	8.9 (.350)	9.4 (.370)	13.5 (.530)	14 (.550)	**540**	16.4 (.645)
8 (.315)	8.5 (.335)	9.4 (.370)	9.9 (.390)	14 (.550)	14.5 (.570)	**560**	16.9 (.665)
8.5 (.335)	9 (.355)	9.9 (.390)	10.4 (.410)	14.5 (.570)	15 (.590)	**580**	17.4 (.685)

Part Number Selection

To select correct fastener:

1. Select receptacle
Choose a receptacle from page 446-448

2. Select retainer and accessories
from page 449 and note any adjustment values

3. Specify stud length
Calculate the total material thickness (TMT) using the formula given for the receptacle selected. Find the range of TMT using the stud length selection table (left) using the column (A, B or C) given for the receptacle selected, find K

4. Complete the stud part number
by specifying the head style H, stud length K, and material M

Example:
For rivet-on with base receptacle 85-35-295-15 use column C
For TMT value calculated as 5.2 (.206), K = 200
For slotted head style in steel material, completed part number: 85-11-200-16
A complete example can be found on page 435

Notes
Stainless steel material may require a higher minimum order quantity. Contact Southco for details.

chanhvinh.com



85 *DZUS*® Lion Quarter-Turn Fasteners

Receptacles

Material and Finish

Steel, zinc immersion coating or stainless steel

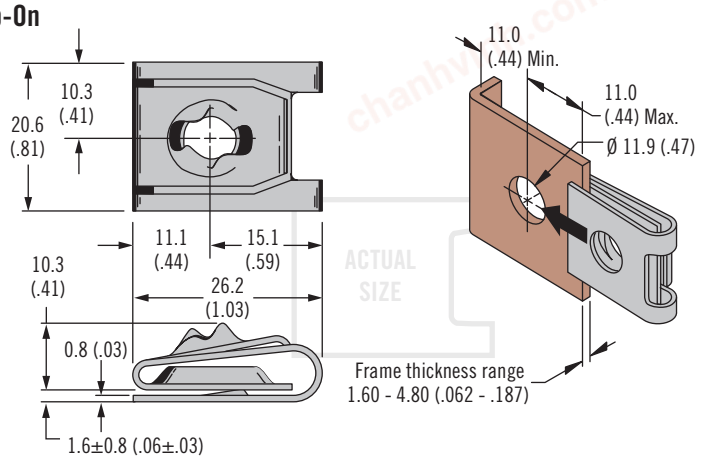
Part Number

See table

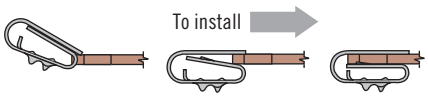
Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

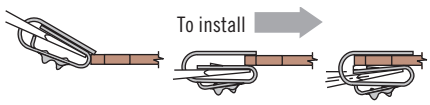
Clip-On



By Hand



With Screwdriver

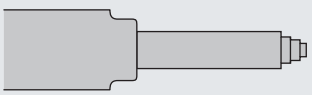


Material	Part Number	Stud Selection Column
Steel	85-47-101-15	C
Stainless steel	85-47-101-20	

Material and Finish

Steel, zinc plated and stainless steel

Installation Tool



Part Number: 29-8125-309

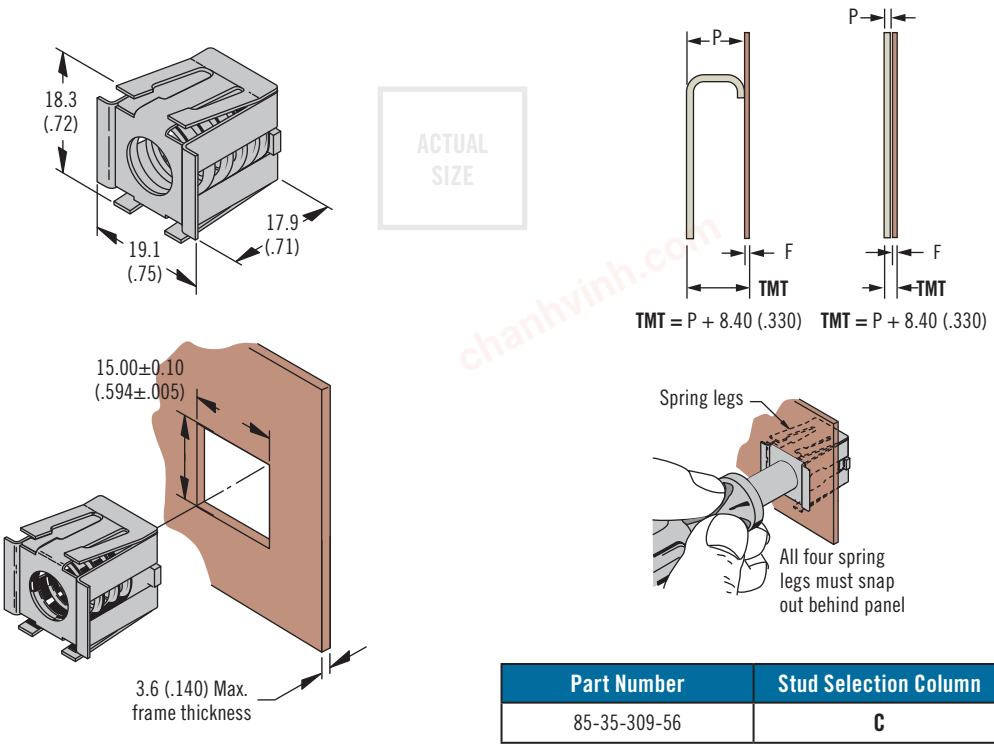
Part Number

See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

Snap-In – Front Mount



Part Number	Stud Selection Column
85-35-309-56	C

Dimensions in millimeters (inch) unless otherwise stated

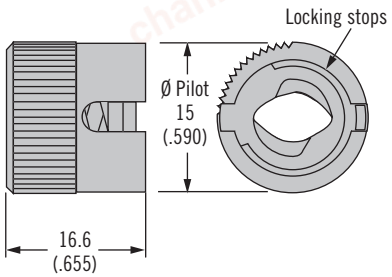
chanhvinh.com

85 *DZUS*® Lion Quarter-Turn Fasteners

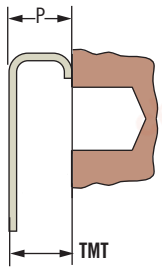
Receptacles



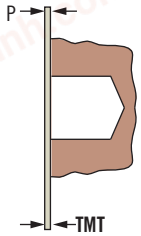
Press-In



ACTUAL SIZE

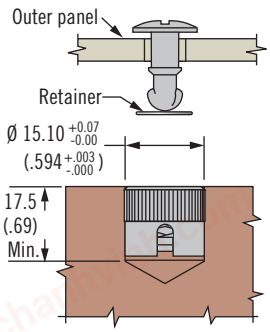


TMT = P + Gap - 0.6 (.025)
(when gap is > retainer thickness)

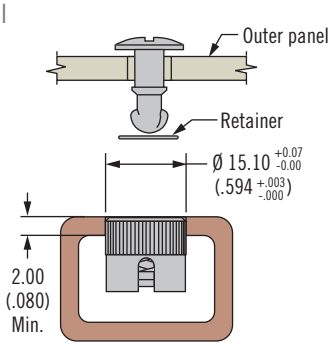


TMT = P +
(Retainer adjustment value)
- 0.6 (.025)

Solid Install



Blind Install



Part Number	Stud Selection Column
85-35-308-55	A

Material and Finish

Steel, zinc plated and stainless steel

Installation Notes

Press receptacle flush to frame

Notes

Receptacle shown installed flush to the frame. To eliminate the gap between the frame and outer panel, install to a depth ≥ the thickness of the selected retainer. This depth should be added to the TMT.

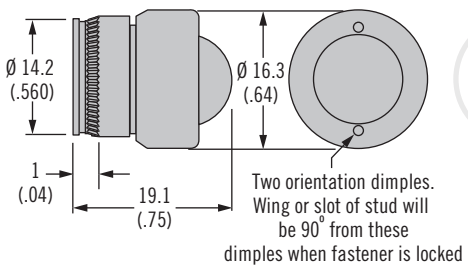
Part Number

See table

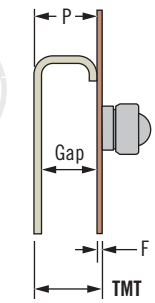
Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

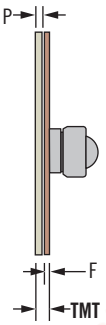
Shielded – Self-Clinching



ACTUAL SIZE

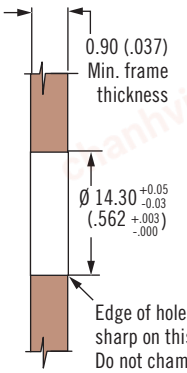


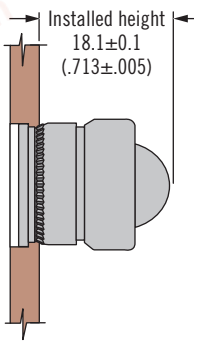
TMT = P + F
(when gap is >
retainer thickness)



Frame thickness (F) > 0.9 (.036)
+ Retainer thickness: **TMT** = P + F

Frame thickness (F) ≥ 0.9 (.036)
+ Retainer thickness:
TMT = P + 0.9 (.036) + Retainer thickness





Part Number	Stud Selection Column
85-35-311-55	B

Material and Finish

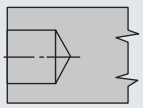
Steel, zinc plated and stainless steel

Installation Notes

For use in low carbon steels, aluminum and stainless steels in the annealed condition that are R_B85 or softer.

See page 627 for installation guidelines

Installation Tool



Part number: 90-2825-11

Part Number

See table

Notes

Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

chanhvinh.com



85 *DZUS*® Lion Quarter-Turn Fasteners

Receptacles

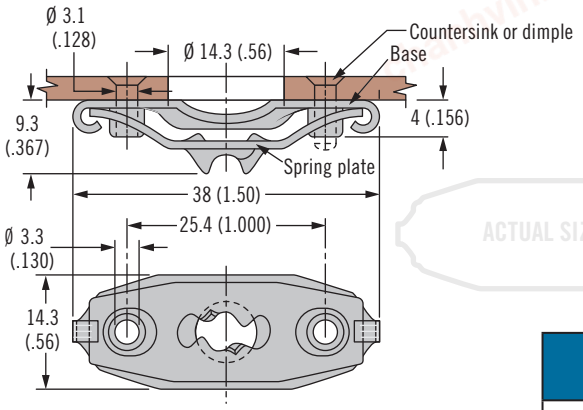
Material and Finish
Steel, zinc immersion coating or stainless steel

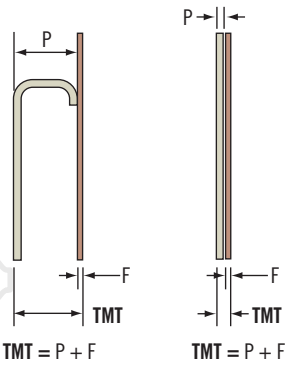
Installation Notes
Install with Ø 3 (.125) rivets, spring must float freely after riveting

Part Number
See table

Notes
Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

Rivet-On With Base





Material	Part Number	Stud Selection Column
Steel	85-35-295-15	C
Stainless steel	85-35-295-20	

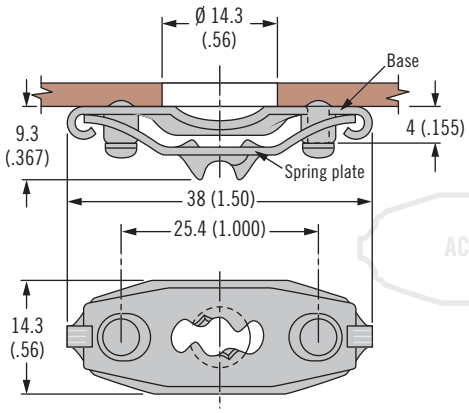
Material and Finish
Steel, zinc immersion coating

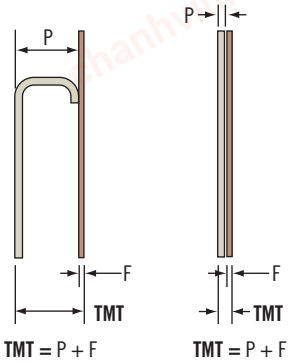
Installation Notes
Spring must float freely after welding

Part Number
See table

Notes
Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

Weld-On





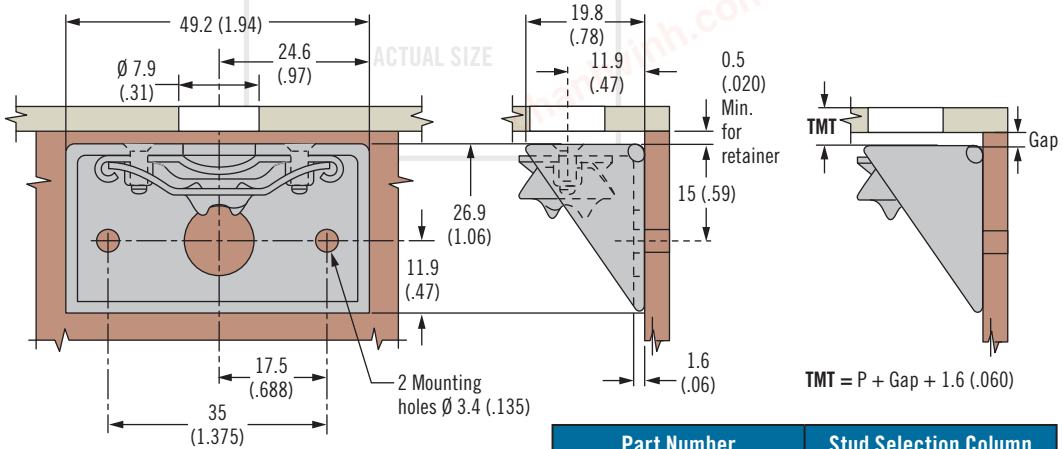
Part Number	Stud Selection Column
85-35-296-15	C

Material and Finish
Steel, zinc immersion coating

Part Number
See table

Notes
Utilize stud selection column indicated when choosing a stud length from the stud length table on page 445

Side Mount



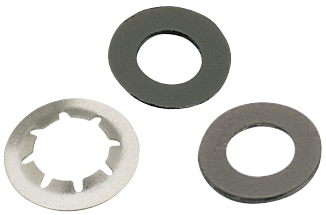
Part Number	Stud Selection Column
85-45-101-15	C

Dimensions in millimeters (inch) unless otherwise stated

chanhvinh.com

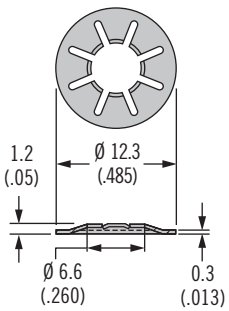
85 *DZUS*® Lion Quarter-Turn Fasteners

Retainers · Accessories

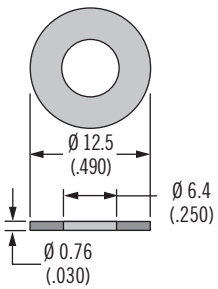


Retainers

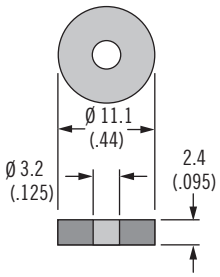
Push-On - Stainless Steel



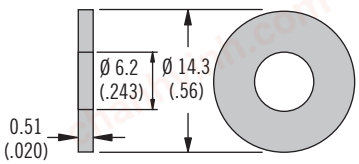
Push-On - Plastic



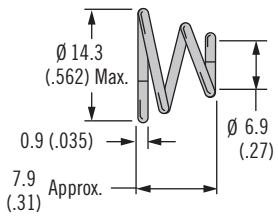
Push-On - Neoprene



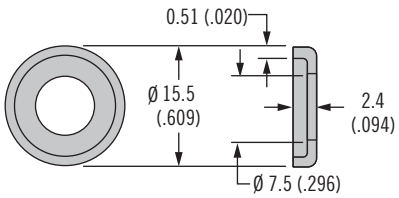
Sealing Washer



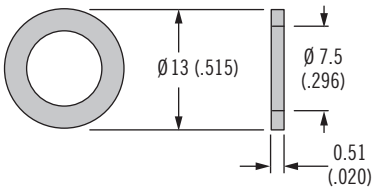
Ejector Spring



Cupped Washer



Flat Wear Washer



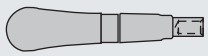
Type	Part Number	Material	Adjustment Value
Push-on - Stainless steel	85-34-201-20	Stainless steel	Add 0.33 (.013)
Push-on - Plastic	85-34-301-12	Nylon, black	Add 0.76 (.030)
Push-on - Neoprene	85-33-101-27	Neoprene, black	Add 1.22 (.048)
Sealing washer	85-43-201-38	Neoprene nitrile rubber, black	Add 0.51 (.020)
Ejector spring	14-18-150-24	Stainless steel	Add 1.00 (.039)
Cupped washer	85-46-101-39	Nylon, white	Add 0.51 (.020)
	85-46-101-41	Nylon, black	
Flat wear washer	85-46-103-39	Nylon, white	Add 0.51 (.020)

Material and Finish

See table

Installation Notes

For standard retainers use tool



Part number 85-0-22543-11

Part Number

See table

Adjustment value:

When using accessories the components add thickness

Add the adjustment value to your outer panel thickness (P) when calculating TMT (see page 435 for example)