

QUARTER-TURN FASTENER - Medium

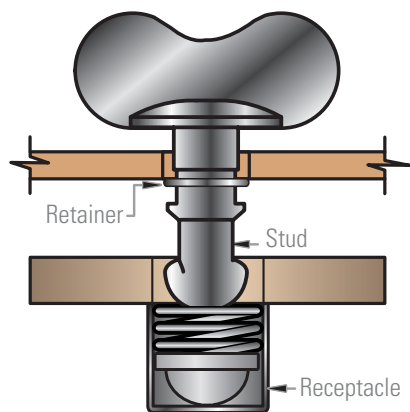
Features & Benefits

- Combines quick access with captive fastening
- Tool or hand-operated
- Available in materials suited for both indoor or outdoor environments

Choosing a Quarter-turn Fastener Assembly

1. Choose your receptacle (note any frame thickness limitations)
2. Choose your stud (or "headstyle" type)
 - Measure your Outer Panel Thickness or Total Material Thickness (chart on page 5 lists range of thickness by receptacle and will tell you to use either Outer Panel Thickness or Total Material Thickness)
 - Apply adjustment calculation to your measurement if listed next to receptacle drawings
 - Utilize measurement (or adjusted calculation) to locate stud part number in table
3. Choose your retainer

Typical Assembly



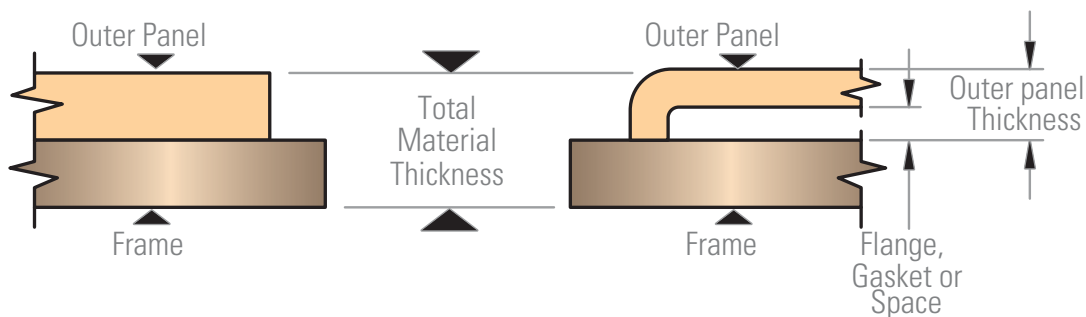
Component Shown Installed

In typical applications, an installed stud is used to fasten an outer panel with an inner panel (frame). An installed receptacle is permanently installed to the inner panel. The stud is held captive in the outer panel with a retainer.

To fasten, apply 1/4 turn to the stud. The stud now engages with the installed receptacle and secures both panels.

By applying a 1/4 turn to the stud in the opposite direction, the stud disengages with the receptacle, but remains captive for future use.

Material Thickness

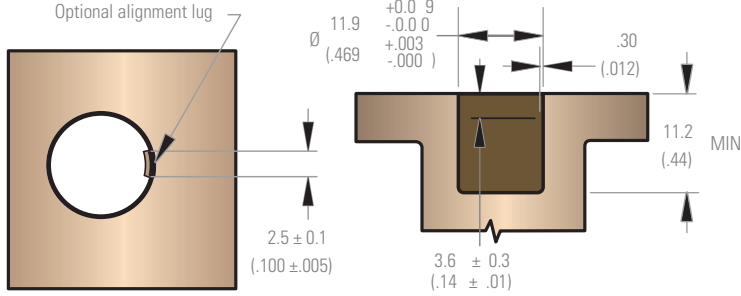


QUARTER-TURN RECEPTACLES - Medium

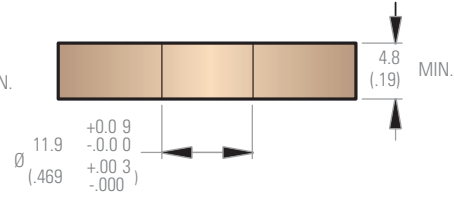
Ultrasonic (Installation into thermoplastics)

Installation

1. Prepare hole as shown

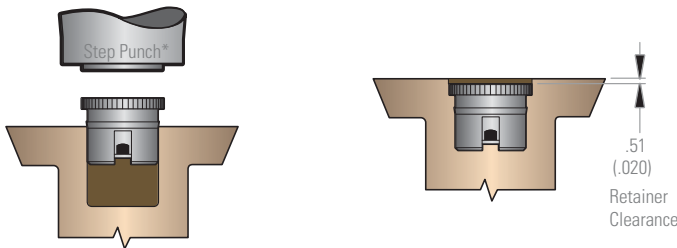


*Do not chamfer Installation hole



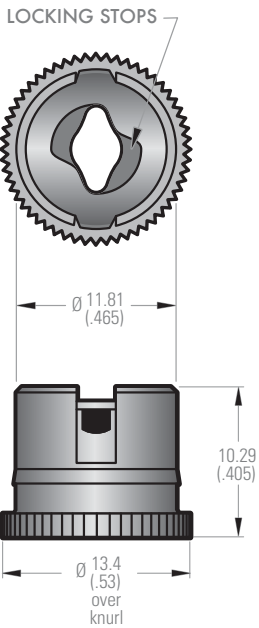
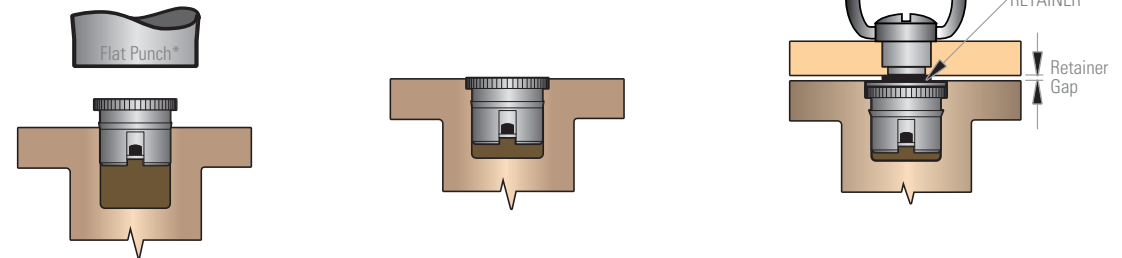
2. Choose one of the methods below:

A - Recessed to 0.5 (.020) depth



*Step Punch allows clearance for retainer.

B - Flush with surface



Material and Finish

Receptacle: 1010 Steel, case hardened, zinc plate, chromate plus sealer

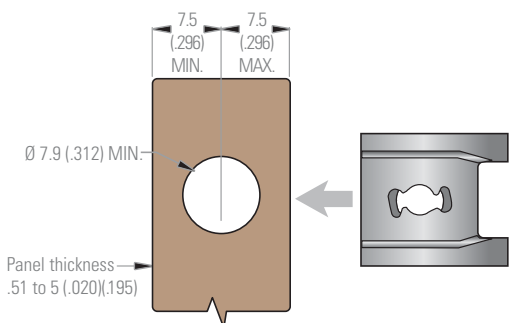
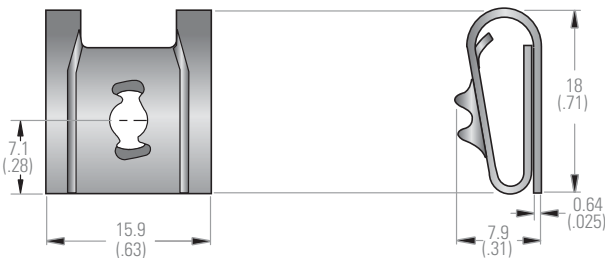
Shell: Low carbon steel, zinc plate, chromate plus sealer

Spring: 302 SS, zinc immersion coating

PART NUMBER

QR-MU-C

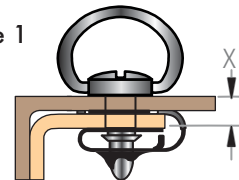
Clip-On



Adjustment Calculation:

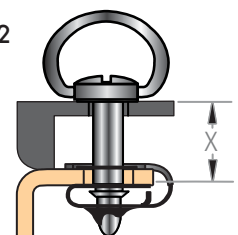
To determine your total material thickness for stud selection use:

Figure 1



$$X + 1.40 (.055) \text{ (constant)}$$

Figure 2



$$X + 0.76 (.030) \text{ (constant)}$$

Material and Finish

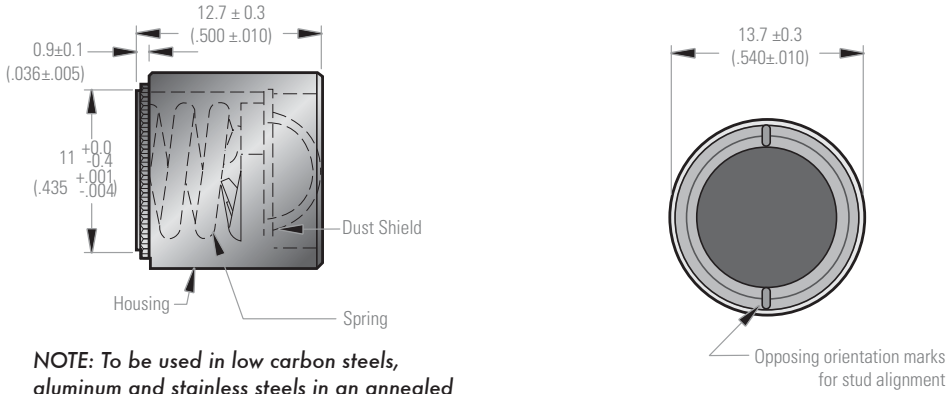
1064 Steel, zinc immersion coating or 17-7 SS, passivated

PART NUMBER

STEEL	QR-MC-C
STAINLESS	QR-MC-S

QUARTER-TURN RECEPTACLES - Medium

Press-in (Shielded Type)



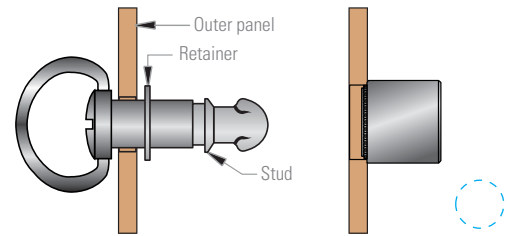
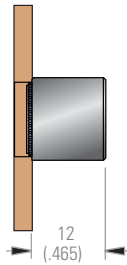
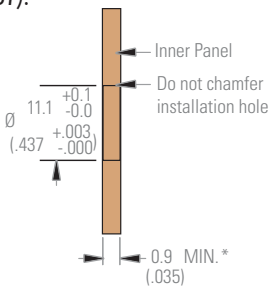
NOTE: To be used in low carbon steels, aluminum and stainless steels in an annealed condition R_p85 or softer.

Installation

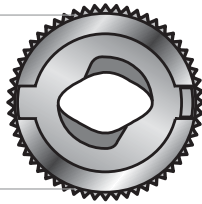
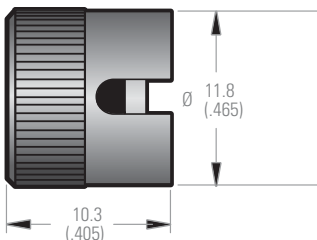
1. Drill or punch hole in panel as shown. **NOTE:** For inner panels less than 1.3 (.051) thick, the retainer will create a small gap. To select the proper stud, assume the inner panel thickness as 1.3 (.051).

2. Press receptacle into hole until shoulder meets panel surface.

3. To select proper stud grip, determine total panel thickness and select stud from corresponding stud selection table.



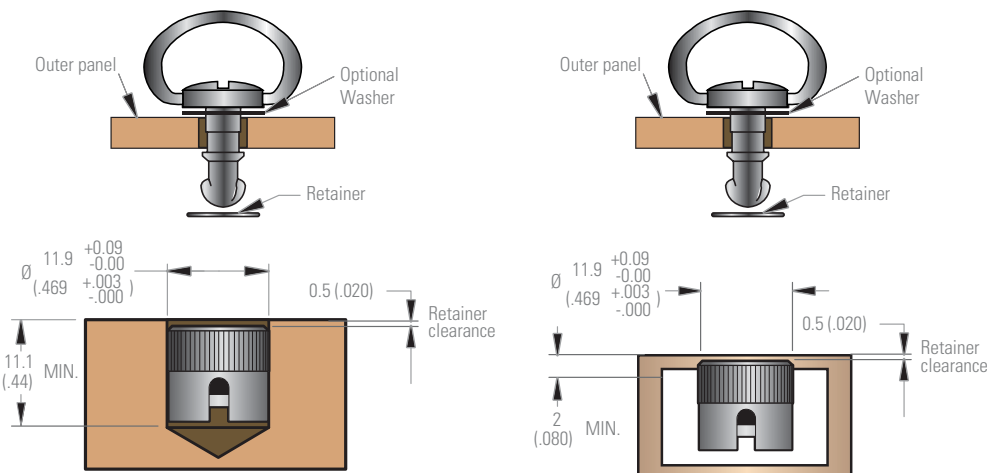
Press-in (Blind Applications & Solid Materials)



Material and Finish

Receptacle: 1010 Steel, hardened, zinc plate, chromate plus sealer
Shell: Low carbon Steel, hardened, zinc plate, chromate plus sealer
Retainer & Spring: 302 SS, zinc immersion

Installation



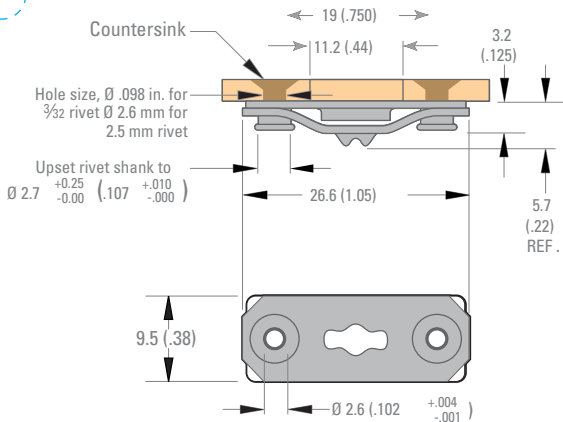
PART NUMBER

WITH 90° LOCKING STOPS	QR-MPBI-C
W/O 90° LOCKING STOPS	QR-MPB2-C

QUARTER-TURN RECEPTACLES - Medium

Leaf Spring

Riveting Type - with base



Material and Finish

Spring: 1065 Steel, zinc immersion coating

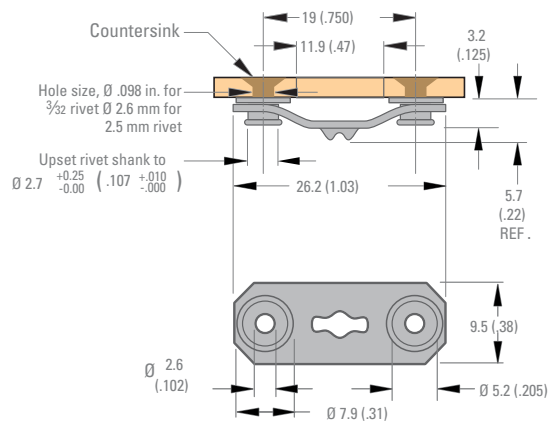
Base: 1010 Steel, zinc immersion coating

PART NUMBER

QR-MLB-C

NOTE: Spring must float freely before riveting.

Riveting Type - without base



Material and Finish

Spring: 1065 Steel, zinc immersion coating or 17-7 SS, passivated

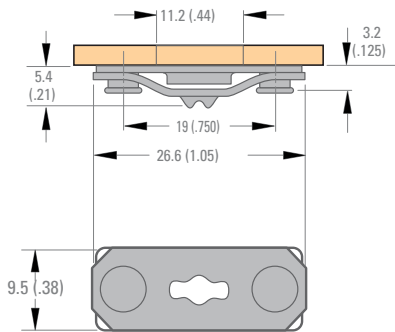
Eyellet: Steel, zinc immersion coating or 300 SS, passivated

PART NUMBER

STEEL	QR-MLO-C
STAINLESS	QR-MLO-S

NOTE: Spring must float freely before riveting.

Welding Type



Material and Finish

Spring: 1065 Steel, zinc immersion coating

Base: 1010 Steel, zinc immersion coating

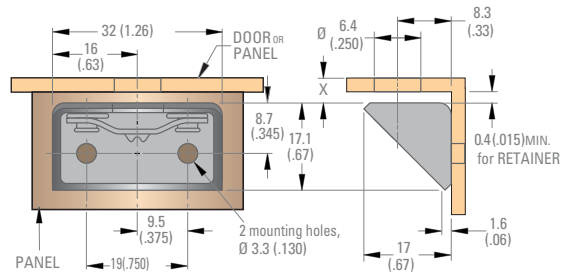
Welding studs: Steel, copper plate

PART NUMBER

QR-MLW-C

NOTE: Spring must float freely before riveting.

Side Mount Type



Material and Finish

Spring: 1065 Steel, zinc immersion coating

Angle Bracket: 1010 Steel, zinc plate, Chromate plus sealer

Eyellet: Steel, zinc immersion coating

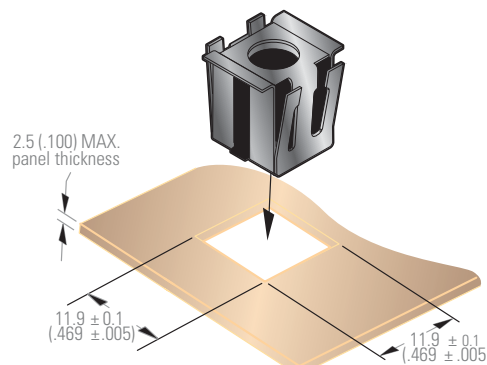
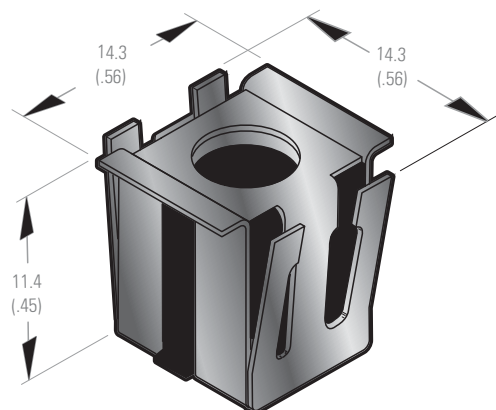
Adjustment Calculation

To determine your total material thickness calculate: $X + 1.5 (.060)$. Please use total material thickness column.

PART NUMBER

QR-LS-C

Snap-in



Material and Finish

Housing: 301 SS, natural

Receptacle: 1010 Steel, case hardened zinc plate, chromate plus sealer

Spring: 302 SS, passivated

Retainer: 301 SS, natural

PART NUMBER

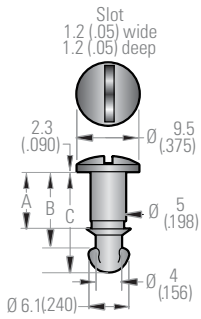
QR-MN-C

ADJUSTMENT CALCULATION

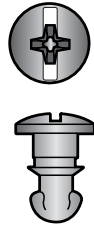
To determine your total material thickness calculate: outer panel thickness + 5.08 (.200) - please use total material thickness column.

QUARTER-TURN STUDS - Medium

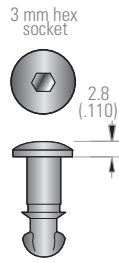
Oval Slotted



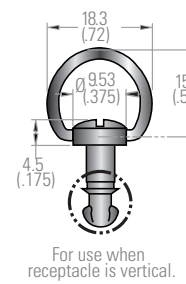
Combo



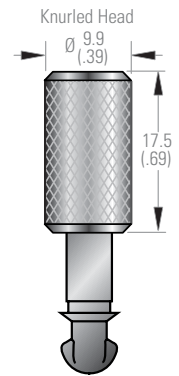
Hex



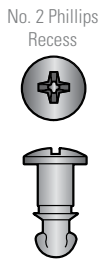
Bail Vertical



Knurled



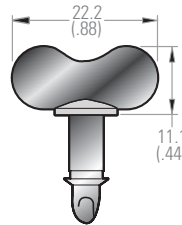
Oval Phillips



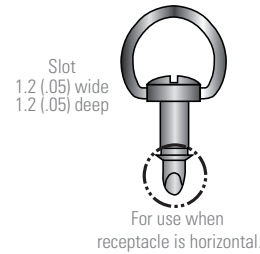
Six-lobe



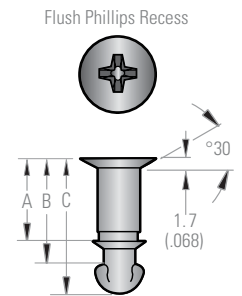
Wing



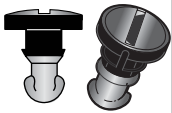
Bail Horizontal



Flush



OPTIONAL SNAP-IN ASSEMBLY



TO ORDER:
Change first 3 digits of part number to: QSS
Outer panel thickness:
1.5 (.060) Min. 3.2 (.125) Max
Minimum stud grip range:
4.5 (.180)

MATERIAL AND FINISH

Standard: Carbon Steel, Case Hardened, Zinc Plate, Chromate plus sealer
Optional: 300 Stainless Steel, Passivated

HEAD STYLE CODE

S: Oval Slotted	W: Wing
K: Knurled	H: Hex
PO: Oval #2 Phillips	PF: #2 Phillips Flush
C: Combo Phillips/Slot	BV: Bail Vertical
T: Six-Lobe	BH: Bail Horizontal

ORDERING NOTES:

- For stainless steel studs, replace last 2 digits of part number with SS.
- For black oxide finish - change last digit to B

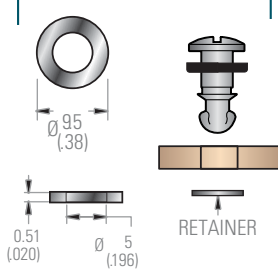
FOR PRESS-IN RECEPTACLES: QR-MU-C QR-MPB1-C QR-MPB2-C		FOR PRESS-IN RECEPTACLE: QR-MPS		FOR ALL OTHER RECEPTACLES: QR-MC-C / QR-MC-S QR-MLO-C / QR-MLO-S QR-MLW-C QR-MLB-C QR-MN-C QR-LS-C		STUD PART NUMBERS TO COMPLETE PART NUMBER IN () BELOW, SELECT HEAD STYLE	DIMENSIONS		
OUTER PANEL THICKNESS*		TOTAL MATERIAL THICKNESS*		TOTAL MATERIAL THICKNESS*			A	B	C
MIN.	MAX.	MIN.	MAX.	MIN.	MAX.				
---	---	---	---	2.3 (.090)	2.8 (.109)	QS-M (Drive) -395-CZ	3.2 (.127)	6.2 (.245)	10 (.395)
---	---	---	---	2.8 (.110)	3.3 (.129)	QS-M (Drive) -415-CZ	3.7 (.147)	6.7 (.265)	10.5 (.415)
---	---	---	---	3.3 (.130)	3.8 (.149)	QS-M (Drive) -435-CZ	4.2 (.167)	7.2 (.285)	11.1 (.435)
0 (.000)	0.5 (.019)	1.3 (.050)	1.8 (.069)	3.8 (.150)	4.3 (.169)	QS-M (Drive) -455-CZ	4.8 (.187)	7.8 (.305)	11.6 (.455)
0.5 (.020)	1 (.039)	1.8 (.070)	2.3 (.089)	4.3 (.170)	4.8 (.189)	QS-M (Drive) -475-CZ	5.3 (.207)	8.3 (.325)	12.1 (.475)
1 (.040)	1.5 (.059)	2.3 (.090)	2.8 (.109)	4.8 (.190)	5.3 (.209)	QS-M (Drive) -495-CZ	5.8 (.227)	8.8 (.345)	12.6 (.495)
1.5 (.060)	2 (.079)	2.8 (.110)	3.3 (.129)	5.3 (.210)	5.8 (.229)	QS-M (Drive) -515-CZ	6.3 (.247)	9.3 (.365)	13.1 (.515)
2 (.080)	2.5 (.099)	3.3 (.130)	3.8 (.149)	5.8 (.230)	6.3 (.249)	QS-M (Drive) -535-CZ	6.8 (.267)	9.8 (.385)	13.6 (.535)
2.5 (.100)	3 (.119)	3.8 (.150)	4.3 (.169)	6.4 (.250)	6.9 (.269)	QS-M (Drive) -555-CZ	7.3 (.287)	10.3 (.405)	14.1 (.555)
3 (.120)	3.5 (.139)	4.3 (.170)	4.8 (.189)	6.9 (.270)	7.4 (.289)	QS-M (Drive) -575-CZ	7.8 (.307)	10.8 (.425)	14.6 (.575)
3.6 (.140)	4.1 (.159)	4.8 (.190)	5.3 (.209)	7.4 (.290)	7.9 (.309)	QS-M (Drive) -595-CZ	8.3 (.327)	11.3 (.445)	15.1 (.595)
4.1 (.160)	4.6 (.179)	5.3 (.210)	5.8 (.229)	7.9 (.310)	8.4 (.329)	QS-M (Drive) -615-CZ	8.8 (.347)	11.8 (.465)	15.6 (.615)
4.6 (.180)	5.1 (.199)	5.8 (.230)	6.3 (.249)	8.4 (.330)	8.9 (.349)	QS-M (Drive) -635-CZ	9.3 (.367)	12.3 (.485)	16.1 (.635)
5.1 (.200)	5.6 (.219)	6.4 (.250)	6.9 (.269)	8.9 (.350)	9.4 (.369)	QS-M (Drive) -655-CZ	9.8 (.387)	12.8 (.505)	16.6 (.655)
5.6 (.220)	6.1 (.239)	6.9 (.270)	7.4 (.289)	9.4 (.370)	9.9 (.389)	QS-M (Drive) -675-CZ	10.3 (.407)	13.3 (.525)	17.2 (.675)
6.1 (.240)	6.6 (.259)	7.4 (.290)	7.9 (.309)	9.9 (.390)	10.4 (.409)	QS-M (Drive) -695-CZ	10.9 (.427)	13.8 (.545)	17.7 (.695)
6.6 (.260)	7.1 (.279)	7.9 (.310)	8.4 (.329)	10.4 (.410)	10.9 (.429)	QS-M (Drive) -715-CZ	11.4 (.447)	14.4 (.565)	18.2 (.715)
7.1 (.280)	7.6 (.299)	8.4 (.330)	8.9 (.349)	10.9 (.430)	11.4 (.449)	QS-M (Drive) -735-CZ	11.9 (.467)	14.9 (.585)	18.7 (.735)
7.6 (.300)	8.1 (.319)	8.9 (.350)	9.4 (.369)	11.4 (.450)	11.9 (.469)	QS-M (Drive) -755-CZ	12.4 (.487)	15.4 (.605)	19.2 (.755)
8.1 (.320)	8.6 (.339)	9.4 (.370)	9.9 (.389)	11.9 (.470)	12.4 (.489)	QS-M (Drive) -775-CZ	12.9 (.507)	15.9 (.625)	19.7 (.775)
8.6 (.340)	9.1 (.359)	9.9 (.390)	10.4 (.409)	12.5 (.490)	12.9 (.509)	QS-M (Drive) -795-CZ	13.4 (.527)	16.4 (.645)	20.2 (.795)
9.1 (.360)	9.6 (.379)	10.4 (.410)	10.9 (.429)	13 (.510)	13.5 (.529)	QS-M (Drive) -815-CZ	13.9 (.547)	16.9 (.665)	20.7 (.815)
9.6 (.380)	10.1 (.399)	10.9 (.430)	11.4 (.449)	13.5 (.530)	14 (.549)	QS-M (Drive) -835-CZ	14.4 (.567)	17.4 (.685)	21.2 (.835)
10.2 (.400)	10.7 (.419)	11.4 (.450)	11.9 (.469)	14 (.550)	14.5 (.569)	QS-M (Drive) -855-CZ	14.9 (.587)	17.9 (.705)	21.7 (.855)
10.7 (.420)	11.2 (.439)	11.9 (.470)	12.4 (.489)	14.5 (.570)	15 (.589)	QS-M (Drive) -875-CZ	15.4 (.607)	18.4 (.725)	22.2 (.875)

* Please see corresponding pages for potential adjustment calculation required on ejector spring, washers and on some receptacles and retainers. Additional sizes, and finishes available. Contact Matdan for assistance.

QUARTER-TURN MISCELLANEOUS - Medium

Washers

Sealing Washer



Material

Nitrite fibre core rubber, black

Adjustment Calculation:

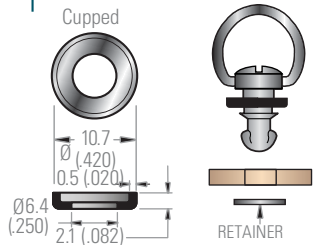
Add 0.51 (.020) to your outer panel thickness or total material thickness

PART NUMBER

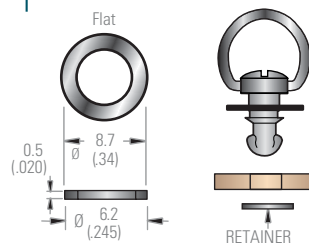
QW-MS

Nylon Wear Washers

Cupped



Flat



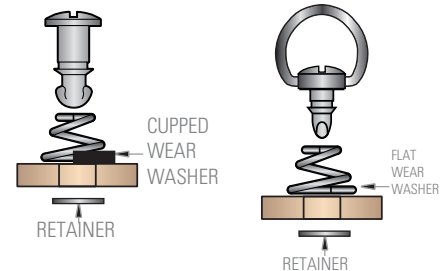
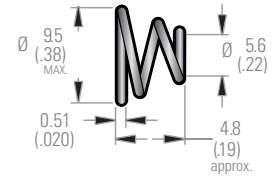
Adjustment Calculation

Add 0.50 (.020) to your outer panel thickness or total material thickness

PART NUMBER

FLAT	QW-MNF
CUPPED BLACK	QW-MNC-B
CUPPED WHITE	QW-MNC-W

Ejector Spring



Material

302 SS, passivated

Adjustment Calculation:

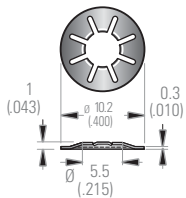
Add 1 (.040) to your outer panel thickness or total material thickness (ejector spring and wear washer)

PART NUMBER

QES-M

Retainers

Push-On

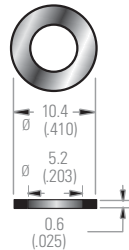


Material: 304 SS, passivated

PART NUMBER

QW-M-RSP

Oval-Nylon

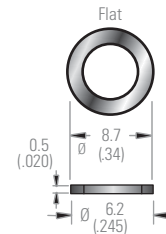


Material: Nylon, black

PART NUMBER

QW-M-ON

Split



Material: 302 SS, passivated

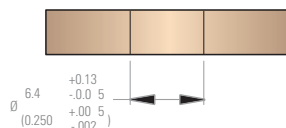
PART NUMBER

QW-M-RS

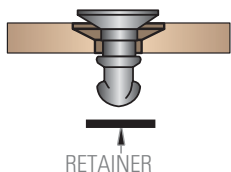
Stud Installation

Above surface studs (any panel thickness)

1. Prepare hole.

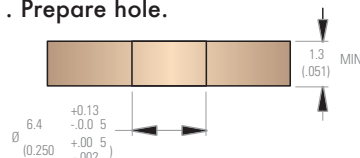


2. Insert stud and add retainer.

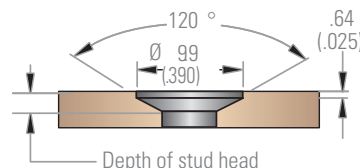


Flush surface studs (Panel must be 1.3 (.050) or greater)

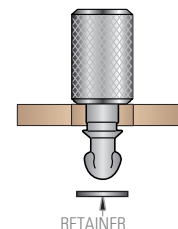
1. Prepare hole.



2. Countersink to depth of stud head.



3. Insert stud and add retainer.





Standard Products	Installation Styles				Replaces Southco®	Replaces PEM®
	Press-In	Flare-In	Floating	PC Board		
MC Series Retractable Captive Screws	MCP	MCF	MCL	MCB	47	PF11 PF12 PF13 PF14
MP Series Retractable Captive Screws	MPP	MPF	MPL	MPB	–	PF30 PF31 PF32 PF50 PF60
MM Series “Low Head” Miniature Retractable Screws	MMP	MMF	MML	MMB	52	PFS2 PFC2
MS Series “High Head” Miniature Retractable Screws	MSP	MSF	MSL	MSB	52	–
MF Series Flush Mount Captive Screws	√	–	–	–	F5	PF10
Spring Loaded Plungers	√	√	–	√	56	PTL2
MFL Product Series “Speed Lead” Captive Screws					09 12	–
SLS “Speed Latch” System					–	–
MTS Series “Snap-In” Captive Screws					–	–
Q Series Quarter-Turn Fasteners & Receptacles					81 82 85	–
MSI Series Threaded Inserts					71 72	–
BCS Series Knurled Captive Screws					58	–

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