

# Octolok<sup>®</sup> Fasteners

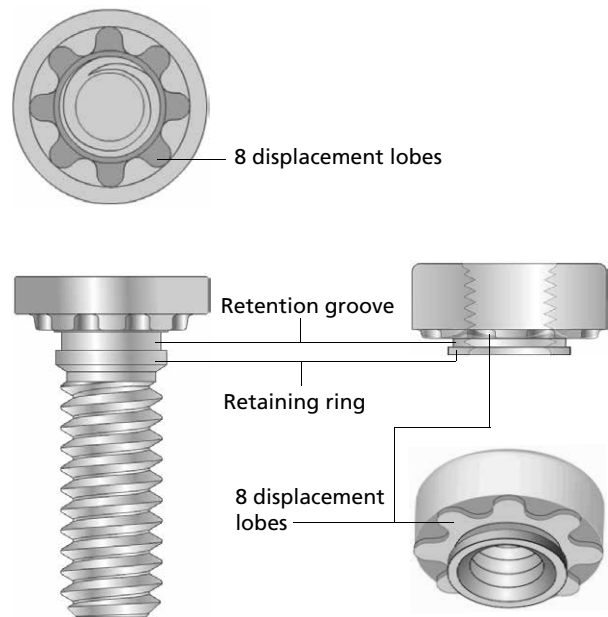
High Performance staking Studs and Nuts  
(Metric product range)

# Octolok® High Performance staking Studs and Nuts

Octolok® studs and nuts are Grade strength fasteners designed to provide external or internal threads in the most demanding applications including light gauge sheet materials.

Octolok® fasteners improve quality & reliability, simplify production processes and reduce the cost of assembly. Octolok® fasteners can replace weld-studs and eliminate painting/plating costs.

Octolok® fasteners are placed into drilled or pre-punched holes of a specific diameter recommended for each size fastener. A press applied force drives the 8 lobe forming feature into the application material forcing the material to flow into the fastener retention groove delivering excellent torque-to-turn performance whilst the retaining ring provides superior push-out values. Octolok® fasteners can be placed manually one at a time or the assembly process can be automated.



## Octolok® 8 lobe symmetrical configuration

- Superior torque-to-turn & vibration resistance
- Increased push-out value performance
- Utilize existing 6 lobe clinch stud press/tooling

## Installation can be automated

- High speed installation reduces assembly cost

## Heat treated to SAE standard/ISO class

- High strength can allow reduction in fastener diameter for lower cost assembly

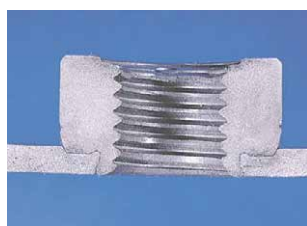
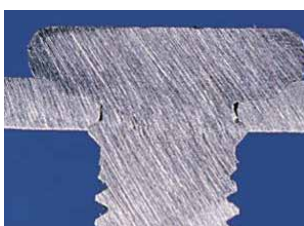
## Available in imperial and metric sizes

- Suitable for all markets - manufactured to customer requirements

## Available in assorted coatings/finishes

- Ready to use, no re-plating or painting required

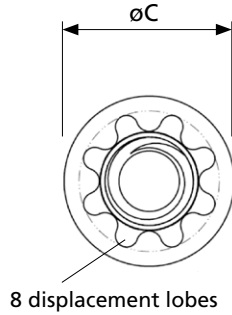
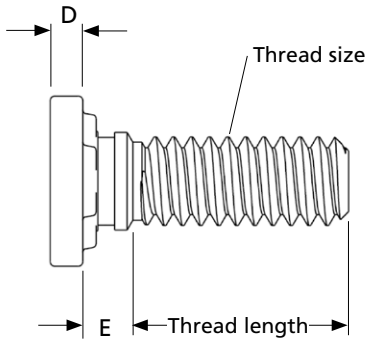
## Assembly Applications



Cross section of material flow after completed installation



# Octolok® Studs Dimensional & Performance Data



Material: Carbon steel ISO 898-1  
Surface: as required

Underhead shape and dimensions controlled by manufacturer to meet performance requirements.

Performance data shown are typical results obtained under laboratory conditions. Tests were conducted after staking studs into low carbon steel with a maximum hardness of Rockwell B70. It is recommended that each application be tested individually for precise values. For performance in materials other than steel, individual testing is a requirement. This data is not to be considered a specification.

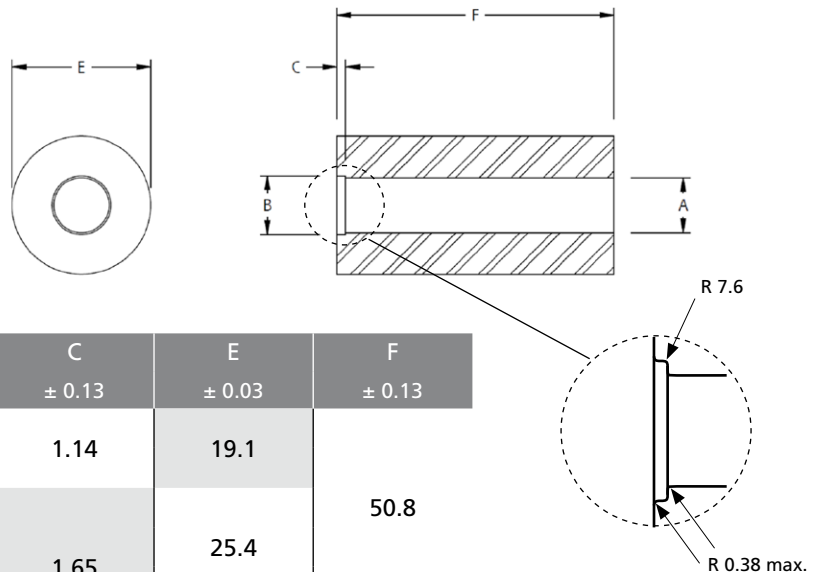
Contact a STANLEY Engineered Fastening application specialist for design assistance.

Thread Size*	$\phi C$	D	E	Material Thickness	Recommended Hole Size		Approx. Staking Force	Approx. Pushout	Approx. Unsupported Torsional Resistance
					min.	max.			
M4 x 0.7	7.75	1.40	1.5	1.0	4.68	4.78	13.3	1.07	4.80
			2.3	1.5			16.9	2.33	5.01
M5 x 0.8	8.75	1.75	1.5	1.0	5.68	5.78	13.3	1.12	4.00
			2.3	1.5			16.5	2.28	10.73
M6 x 1.0	11.00	2.10	1.5	1.0	6.68	6.78	20.2	1.46	7.69
			2.3	1.5			25.8	2.63	15.22
			3.4	2.3			26.7	4.92	15.22
M8 x 1.25	15.25	2.80	2.3	1.5	8.68	8.78	35.6	2.47	26.78
			3.4	2.3			42.3	6.27	40.06
			4.6	3.0			45.4	9.33	40.06
M10 x 1.5	19.75	3.50	3.4	2.3	10.68	10.78	66.7	6.09	60.49
			4.6	3.0			73.4	9.08	84.80
M12 x 1.75	20.00	3.80	3.4	2.3	12.68	12.78	73.4	7.47	81.14
			4.6	3.0			77.8	14.32	124.25

all dimensions in mm \*Other sizes not shown may be available on request.

## Octolok® Clinch Stud Staking Die - Dimensional Data

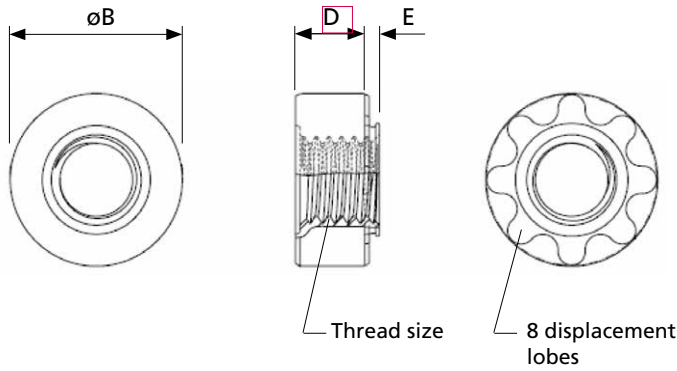
Material: D2 or equivalent  
Heat treat: Rc 56-60



Thread Size	A	B	C	E	F
	$\pm 0.03$	$\pm 0.03$	$\pm 0.13$	$\pm 0.03$	$\pm 0.13$
M4	4.11	4.78	1.14	19.1	50.8
M5	5.11	5.78		25.4	
M6	6.11	6.78	1.65	31.8	
M8	8.11	8.78		76.2	
M10	10.11	10.78			
M12	12.11	12.78			

all dimensions in mm

# Octolok® Nuts Dimensional & Performance Data



Material: Carbon steel ASTM A 583 M  
Surface: as required

Underhead shape and dimensions controlled by manufacturer to meet performance requirements.

Performance data shown are typical results obtained under laboratory conditions. Tests were conducted after staking nuts into low carbon steel with a maximum hardness of Rockwell B70. It is recommended that each application be tested individually for precise values. For performance in materials other than steel, individual testing is a requirement. This data is not to be considered a specification.

Contact a STANLEY Engineered Fastening application specialist for design assistance.

Thread Size*	øB ± 0.13	D ± 0.19	E max.	Material Thickness		Recommended Hole Size		Approx. Staking Force kN	Approx. Pushout kN	Approx. Unsupported Torsional Resistance Nm
				min.	min.	max.				
M4 x 0.7	10.16	3.19	1.5	1.5	7.20	7.30	13.3	0.92	6.31	
M5 x 0.8	11.30	4.19	1.5	1.5	7.68	7.78	26.7	1.07	12.35	
			1.9	1.9			30.2	1.73	21.95	
M6 x 1.0	14.10	4.71	1.5	1.5	8.68	8.78	38.7	1.43	19.40	
			1.9	1.9			40.0	2.54	21.65	
			2.3	2.3			42.3	3.30	33.40	
M8 x 1.25	16.64	5.93	1.5	1.5	10.68	10.78	44.5	1.57	21.80	
			1.9	1.9			48.9	2.46	43.10	
			2.3	2.3			57.8	4.70	55.55	
M10 x 1.5	18.42	7.20	2.3	2.3	13.16	13.26	53.4	4.27	58.81	
			3.4	3.4			57.8	4.38	67.49	
M12 x 1.75	23.88	9.61	2.3	2.3	15.68	15.78	108.3	4.88	77.61	
			3.4	3.4			109.0	7.86	127.69	

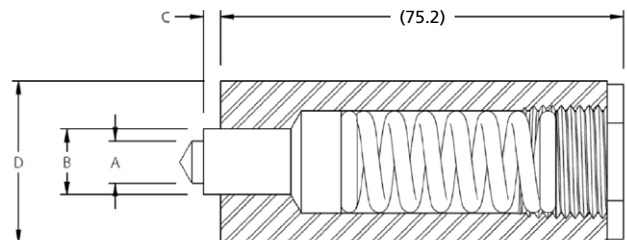
all dimensions in mm \*Other sizes not shown may be available on request.

## Octolok® Clinch Nut Staking Die - Dimensional Data

Material except for spring: D2 or equivalent  
Heat treat: Rc 56-60

Thread Size	A ref.	B ref.	C ± 0.13	D ± 0.03
M4	3.18	6.83	1.52	19.05
M5	4.06	7.37		
M6	4.85	8.33	2.29	31.75
M8	6.58	10.34		
M10	8.31	12.88	3.40	31.75
M12	10.03	15.34		

all dimensions in mm



**STANLEY**  
Engineered Fastening

www.StanleyEngineeredFastening.com

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