



Ring-Locked Inserts



Ring-Locked Studs



Lock Rings for Ring-Locked



Thin Wall/Swaged Inserts



Thin Wall/Swaged Tools



Ring-Locked Tools



Key-Locked/Staked Inserts



Key-Locked/Staked Studs



Key-Locked/Staked Tools



Key-Ring Inserts



Key-Ring Studs



Key-Ring Tools

ROSAN® TYPE FASTENERS

Fastener Dimensions Inc. is the largest distributor of Rosan® type fasteners in the world.
We are an authorized Shur-Lok® distributor with Boeing D1-4426 authorization.

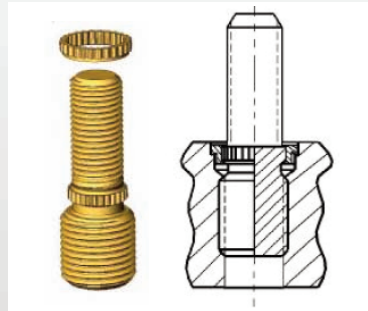
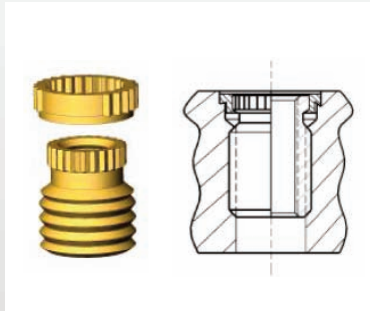
FASTENER DIMENSIONS, INC. ISO9001, AS9100 & AS9120 Certified

6850 River Road, Pennsauken, New Jersey 08110

WEB: WWW.FASTDIM.COM • PHONE: 718-847-6321 • FAX: 718-847-8414

Ring-locked Studs, Inserts and Lock-rings

Used in mated pairs, Ring Locked Inserts and Studs are ideal for use in gear boxes, engines, pumps and vehicles in general. They provide excellent performance in high fatigue/high vibration applications. Their superior torsional resistance combined with a serrated Lockring, prevent the stud from backing out, in either soft or hard parent materials.



Ring-locked Inserts

AS51991/MS51991
 AS51993/MS51993
 DOD-I-63276/1
 MS51498
 RDJ100-(X)
 RJ200-(X)
 RDJ200-(X)
 RJ300-(X)
 RJ900-(X)
 RDJ900-(X)
 R1000-(X)
 R1100-(X)
 RJ1200-(X)



Ring-locked Studs

AS1561
 AS1620
 AS3319-AS3322
 AS51989/MS51989
 AS51992/MS51992
 DOD-S-63275/1
 MS51497
 MS51551
 SHF-(X)
 SFC-(X)
 SFCH-(X)

RJ2000-(X)
 RJ1700-(X)
 RDJ3600-(X)
 05-13008

Lock Rings for Ring-locked Fasteners

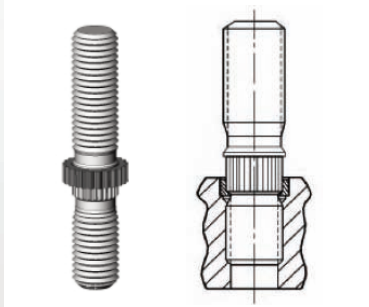
AS51990	RR-(X)
AS51997	RLRR-(X)
DOD-S-63276/2	RL-(X)
MS51990	RLRR1997-(X)
MS51997	RLH-(X)S3C-(X)



Ring-locked Inserts and Studs

- Standard and oversize styles available.
- Manufactured in both inch and metric threads.
- Solid configurations for plugs or special requirements.
- Hydraulic sealing configurations (low pressure)
- Produced in all common aerospace materials to MS, AN, NAS, SAE and other specifications.
- All styles available in standard configurations or with internal thread locking features.

Ring-locked Studs, Inserts and Lock-rings



Size-on-size Ring-locked Studs

AS3319	AS3321	SFC-(X)
AS3320	AS3322	SFCH-(X)



Size-on-size studs are similar to ring locked studs except that both threads have the same nominal diameter allowing the stud to be installed into minimum size bosses.

Ring-Locked Studs & Inserts	Ring-locked Inserts & Studs						
	Stud	Size-on-size Stud	Hydraulic Stud	Insert	Captive Locking Insert	Polymide Resin Lock Insert	Hydraulic Insert
<i>Features and Benefits</i>							
Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Includes Lock-ring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thread Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydraulic Applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Installation and Removal Tools

Ring-locked Inserts and Studs require special tooling for installation and removal. FDI stocks the entire line of tools for your applications. A small selection of drive tools and wrenches are shown below.



SPECIAL TOOLING REQUIRED

MS51497

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51497D502-8	SFR5902D502-8	SLR5902D502-8
MS51497D502-(9 thru 64)	SFR5902D502-(9 thru 64)	SLR5902D502-(9 thru 64)
MS51497D503-9	SFR5902D502-(9 thru 64)	SLR5902D502-(9 thru 64)
MS51497D503-10	SFR5902D503-10	SLR5902D503-10
MS51497D503-11	SFR9502D503-11	SLR9502D503-11
MS51497D503-(12 thru 64)	SFR5902D503-(12 thru 64)	SLR5902D503-(12 thru 64)
MS51497D504-11	SFR5902D504-11	SLR5902D504-11
MS51497D504-12	SFR5902D504-12	SLR5902D504-12
MS51497D504-(13 thru 64)	SFR59020504-(13 thru 64)	SLR59020504-(13 thru 64)
MS51497D505-12	SFR5902D505-12	SLR5902D505-12
MS51497D505-13	SFR5902D505-13	SLR5902D505-13
MS51497D505-(14 thru 64)	SFR9502D505-(14 thru 64)	SLR9502D505-(14 thru 64)
MS51497D506-15	SFR5902D506-15	SLR5902D506-15
MS51497D506-(16 thru 64)	SFR590D2506-(16 thru 64)	SLR590D2506-(16 thru 64)
MS51497D507-16	SFR5902D507-16	SLR5902D507-16
MS514970507-(17 thru 64)	SFR5902D507-(17 thru 64)	SLR5902D507-(17 thru 64)
MS51497D508-18	SFR5902D508-18	SLR5902D508-18
MSS14970508-(19 thru 64)	SFR5902D508-(19 thru 64)	SLR5902D508-(19 thru 64)
MS51497E502-8	SFR5902E502-8	SLR5902E502-8
MS51497E502-(9 thru 64)	SFR5902E502-(9 thru 64)	SLR5902E502-(9 thru 64)
MS51497E503-9	SFR5902E503-9	SLR5902E503-9
MS51497E503-10	SFR5902E503-10	SLR5902E503-10
MS51497E50113-11	SFR5902E503-11	SLR5902E503-11
MS5149E7503-(12 thru 64)	SFR5902E503-(12 thru 64)	SLR5902E503-(12 thru 64)
MS51497E504-11	SFR5902E504-11	SLR5902E504-11
MS51497E504-12	SFR5902E504-12	SLR5902E504-12
MS51497E504-(13 thru 64)	SFR9502E504-(13 thru 64)	SLR9502E504-(13 thru 64)
MS51497E505-12	SFR5902E505-12	SFL5902E505-12
MS51497E505-13	SFR5902E505-13	SLR5902E505-13
MS51497E505-(14 thru 64)	SFR5902E505-(14 thru 64)	SLR5902E505-(14 thru 64)
MS51497E506-15	SFR5902E506-15	SLR5902E506-15
MS51497E506-(16 thru 64)	SFR9502E506-(16 thru 64)	SLR9502E506-(16 thru 64)
MS51497E507-16	SFR5902E507-16	SLR5902E507-16
MS5149E7507-(17 thru 64)	SFR5902E507-(17 thru 64)	SLR5902E507-(17 thru 64)
MS51497E508-18	SFR5902E508-18	SLR5902E508-18
MS5149E7508-(19 thru 64)	SFR5902E508-(19 thru 64)	SLR5902E508-(19 thru 64)
MS51497E642-8	SFR5902E642-8	SLR5902E642-8
MS51497E642-(9 thru 64)	SFR5902E642-(9 thru 64)	SLR5902E642-(9 thru 64)

MS51497

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51497E643-9	SFR5902E643-9	SLR5902E643-9
MS51497E643-10	SFR5902E643-10	SLR5902E643-10
MS51497E643-11	SFR5902E643-11	SLR5902E643-11
MS5149E7643-(12 thru 64)	SFR5902E643-(12 thru 64)	SLR5902E643-(12 thru 64)
MS51497E644-11	SFR5902E644-11	SLR5902E644-11
MS5149E7644-12	SFR5902E644-12	SLR5902E644-12
MS51497E464-(13 thru 64)	SFR5902E644-(13 thru 64)	SLR5902E644-(13 thru 64)
MS5149E7645-12	SFR5902E645-12	SLR5902E645-12
MS51497E645-13	SFR5902E645-13	SLR5902E645-13
MS51497E645-(14 thru 64)	SFR5902E645-(14 thru 64)	SLR5902E645-(14 thru 64)
MS5149E7646-15	SFR5902E646-15	SLR5902E646-15
MS51497E646-(16 thru 64)	SFR5902E646-(16 thru 64)	SLR5902E646-(16 thru 64)
MS5149E7647-16	SFR5902E647-16	SLR5902E647-16
MS51497E647-(17 thru 64)	SFR590E2647-(17 thru 64)	SLR590E2647-(17 thru 64)
MS5149E7648-18	SFR5902E648-18	SLR5902E648-18
MS51497E648-(19 thru 64)	SFR5902E648-(19 thru 64))	SLR5902E648-(19 thru 64)
MS5149E7508-(19 thru 64)	SFR5902E508-(19 thru 64)	SLR5902E508-(19 thru 64)
MS51497E642-8	SFR5902E642-8	SLR5902E642-8
MS51497E642-(9 thru 64)	SFR5902E642-(9 thru 64)	SLR5902E642-(9 thru 64)
MS51497E643-9	SFR5902E643-9	SLR5902E643-9
MS51497E643-10	SFR5902E643-10	SLR5902E643-10
MS51497E643-11	SFR5902E643-11	SLR5902E643-11
MS5149E7643-(12 thru 64)	SFR5902E643-(12 thru 64)	SLR5902E643-(12 thru 64)
MS51497E644-11	SFR5902E644-11	SLR5902E644-11
MS5149E7644-12	SFR5902E644-12	SLR5902E644-12
MS51497E464-(13 thru 64)	SFR5902E644-(13 thru 64)	SLR5902E644-(13 thru 64)
MS5149E7645-12	SFR5902E645-12	SLR5902E645-12
MS51497E645-13	SFR5902E645-13	SLR5902E645-13
MS51497E645-(14 thru 64)	SFR5902E645-(14 thru 64)	SLR5902E645-(14 thru 64)
MS5149E7646-15	SFR5902E646-15	SLR5902E646-15
MS5149E7646-16	SFR5902E646-16	SLR5902E646-16
MS5149E7647-16	SFR5902E647-16	SLR5902E647-16
MS51497E647-(17 thru 64)	SFR590E2647-(17 thru 64)	SLR590E2647-(17 thru 64)
MS5149E7648-18	SFR5902E648-18	SLR5902E648-18
MS51497E648-(19 thru 64)	SFR5902E648-(19 thru 64)	SLR5902E648-(19 thru 64)
MS51497A642-8	SFR5902A642-8	SLR5902A642-8
MS51497A642-(9 thru 64)	SFR5902A642-(9 thru 64)	SLR5902A642-(9 thru 64)
MS51497A643-9	SFR5902A643-9	SLR5902A643-9

MS51497

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51497A643-10	SFR5902A643-10	SLR5902A643-10
MS51497A643-11	SFR5902A643-11	SLR5902A643-11
MS51497A643-(12 thru 64)	SFR5902A643-(12 thru 64)	SLR5902A643-(12 thru 64)
MS51497A644-11	SFR5902A644-11	SLR5902A644-11
MS51497A644-12	SFR5902A644-12	SLR5902A644-12
MS51497A644-(13 thru 64)	SFR5902A644-(13 thru 64)	SLR5902A644-(13 thru 64)
MS51497A645-12	SFR5902A645-12	SLR5902A645-12
MS51497A645-13	SFR5902A645-13	SLR5902A645-13
MS51497A645-(14 thru 64)	SFR5902A645-(14 thru 64)	SLR5902A645-(14 thru 64)
MS51497A646-15	SFR5902A646-15	SLR5902A646-15
MS51497A646-(16 thru 64)	SFR5902A646-(16 thru 64)	SLR5902A646-(16 thru 64)
MS51497A647-16	SFR5902A647-16	SLR5902A647-16
MS51497A647-(17 thru 64)	SFR5902A647-(17 thru 64)	SLR5902A647-(17 thru 64)
MS51497A648-18	SFR5902A648-18	SLR5902A648-18
MS51497A648-(19 thru 64)	SFR5902A648-(19 thru 64)	SLR5902A648-(19 thru 64)
MS51497A802-8	SFR5902A802-8	SLR5902A802-8
MS51497A802-(9 thru 64)	SFR5902A802-(9 thru 64)	SLR5902A802-(9 thru 64)
MS51497A803-9	SFR5902A803-9	SFL5902A803-9
MS51497A803-10	SFR5902A803-10	SLR5902A803-10
MS51497A803-11	SFR5902A803-11	SLR5902A803-11
MS51497A803-(12 thru 64)	SFR5902A803-(12 thru 64)	SLR5902A803-(12 thru 64)
MS51497A804-11	SFR5902A804-11	SLR5902A804-11
MS51497A804-12	SFR5902A804-12	SLR5902A804-12

MS51551

MILITARY PART NUMBER

MS51551D103-(11 thru 24)

MS51551D103A-(11 thru 24)

MS51551D103B-(11 thru 24)

MS51551D104-(11 thru 54)

MS51551D104A-(11 thru 54)

MS51551D104B-(11 thru 54)

MS51551D105-(12 thru 64)

MS51551D105A-(12 thru 64)

MS51551D105B-(12 thru 64)

MS51551D106-(13 thru 64)

MS51551D106A-(13 thru 64)

MS51551D106B-(13 thru 64)

MS51551D107-(14 thru 64)

MS51551D107A-(14 thru 64)

MS51551D107B-(14 thru 64)

MS51551D108-(15 thru 54)

MS51551D108A-(15 thru 54)

MS51551D108B-(15 thru 54)

MS51551D109-(17 thru 54)

MS51551D109A-(17 thru 54)

MS51551D109B-(17 thru 54)

ROSAN PART NUMBER

S10FJ81-6SA-(11 thru 24)A

S10FJ81-8SA-(11 thru 24)A

S10FJ81-10SA-(11 thru 24)A

S10FJ91-7SA-(11 thru 54)A

S10FJ91-9SA-(11 thru 54)A

S10FJ91-11SA-(11 thru 54)A

S11FJ101-9SA-(12 thru 64)A

S11FJ101-11SA-(12 thru 64)A

S11FJ101-13SA-(12 thru 64)A

S12FJ111-11SA-(13 thru 64)A

S12FJ111-14SA-(13 thru 64)A

S12FJ111-17SA-(13 thru 64)A

S13FJ121-12SA-(14 thru 64)A

S13FJ121-15SA-(14 thru 64)A

S13FJ121-18SA-(14 thru 64)A

S14FJ131-13SA-(15 thru 54)A

S13FJ131-16SA-(15 thru 54)A

S13FJ131-19SA-(15 thru 54)A

S14FJ141-14SA-(17 thru 54)A

S13FJ141-17SA-(17 thru 54)A

S13FJ141-21SA-(17 thru 54)A

SHUR-LOK PART NUMBER

SL10FJ81-6SA-(11 thru 24)A

SL10FJ81-8SA-(11 thru 24)A

SL10FJ81-10SA-(11 thru 24)A

SL10FJ91-7SA-(11 thru 54)A

SL10FJ91-9SA-(11 thru 54)A

SL10FJ91-11SA-(11 thru 54)A

SL11FJ101-9SA-(12 thru 64)A

SL11FJ101-11SA-(12 thru 64)A

SL11FJ101-13SA-(12 thru 64)A

SL12FJ111-11SA-(13 thru 64)A

SL12FJ111-14SA-(13 thru 64)A

SL12FJ111-17SA-(13 thru 64)A

SL13FJ121-12SA-(14 thru 64)A

SL13FJ121-15SA-(14 thru 64)A

SL13FJ121-18SA-(14 thru 64)A

SL14FJ131-13SA-(15 thru 54)A

SL14FJ131-16SA-(15 thru 54)A

SL14FJ131-19SA-(15 thru 54)A

SL16FJ141-14SA-(17 thru 54)A

SL16FJ141-17SA-(17 thru 54)A

SL16FJ141-21SA-(17 thru 54)A

MS51989

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51989-102- (L)	SF71-4SA(*A	SLF71-4SA(L)A
MS51989-103- (L)	SF81-6SA(*A	SLF81-6SA(L)A
MS51989-104- (L)	SF91-7SA(*A	SLF91-7SA(L)A
MS51989-105- (L)	SF101-9SA(*A	SLF101-9SA(L)A
MS51989-106- (L)	SF111-11SA(*A	SLF111-11SA(L)A
MS51989-107- (L)	SF121-12SA(*A	SLF121-12SA(L)A
MS51989-108- (L)	SF131-13SA(*A	SLF131-13SA(L)A
MS51989-109- (L)	SF141-14SA(*A	SLF141-14SA(L)A
MS51989-110- (L)	SF151-16SA(*A	SLF151-16SA(L)A
MS51989-111- (L)	SF161-18SA(*A	SLF161-18SA(L)A
MS51989-112- (L)	SF181-21SA(*A	SLF181-21SA(L)A
MS51989-202- (L)	SF72-4SA(*A	SLF72-4SA(L)A
MS51989-203- (L)	SF82-6SA(*A	SLF82-6SA(L)A
MS51989-204- (L)	SF92-7SA(*A	SLF92-7SA(L)A
MS51989-205- (L)	SF102-9SA(*A	SLF102-9SA(L)A
MS51989-206- (L)	SF112-11SA(*A	SLF112-11SA(L)A
MS51989-207- (L)	SF122-12SA(*A	SLF122-12SA(L)A
MS51989-208- (L)	SF132-13SA(*A	SLF132-13SA(L)A
MS51989-209- (L)	SF142-14SA(*A	SLF142-14SA(L)A
MS51989-210- (L)	SF152-16SA(*A	SLF152-16SA(L)A
MS51989-211- (L)	SF162-18SA(*A	SLF162-18SA(L)A
MS51989-212- (L)	SF182-21SA(*A	SLF182-21SA(L)A
MS51989-302- (L)	SC71-4SA(*A	SLC71-4SA(L)A
MS51989-303- (L)	SC81-6SA(*A	SLC81-6SA(L)A
MS51989-304- (L)	SC91-7SA(*A	SLC91-7SA(L)A
MS51989-305- (L)	SC101-9SA(*A	SLC101-9SA(L)A
MS51989-306- (L)	SC111-11SA(*A	SLC111-11SA(L)A
MS51989-307- (L)	SC121-12SA(*A	SLC121-12SA(L)A
MS51989-308- (L)	SC131-13SA(*A	SLC131-13SA(L)A
MS51989-309- (L)	SC141-14SA(*A	SLC141-14SA(L)A
MS51989-310- (L)	SC151-16SA(*A	SLC151-16SA(L)A
MS51989-311- (L)	SC161-18SA(*A	SLC161-18SA(L)A
MS51989-312- (L)	SC181-18SA(*A	SLC181-21SA(L)A
MS51989-402- (L)	SC72-4SA(*A	SLC72-4SA(L)A
MS51989-403- (L)	SC82-6SA(*A	SLC82-6SA(L)A
MS51989-404- (L)	SC92-7SA(*A	SLC92-7SA(L)A
MS51989-405- (L)	SC102-9SA(*A	SLC102-9SA(L)A
MS51989-406- (L)	SC112-11SA(*A	SLC112-11SA(L)A

MS51989

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51989-407- (L)	SC122-12SA(*)A	SLC122-12SA(L)A
MS51989-408- (L)	SC132-13SA(*)A	SLC132-13SA(L)A
MS51989-409- (L)	SC142-14SA(*)A	SLC142-14SA(L)A
MS51989-410- (L)	SC152-16SA(*)A	SLC152-16SA(L)A
MS51989-411- (L)	SC162-18SA(*)A	SLC162-18SA(L)A
MS51989-412- (L)	SC162-21SA(*)A	SLC182-21SA(L)A

MS51989

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51990-102P	RLRR16SB5	SLRR16SB5
MS51990-103P	RLRR18SB6	SLRR18SB6
MS51990-104P	RLRR21SB6	SLRR21SB6
MS51990-105P	RLRR24SB7	SLRR24SB7
MS51990-106P	RLRR28SB8	SLRR28SB8
MS51990-107P	RLRR33SB9	SLRR33SB9
MS51990-108P	RLRR38SB9	SLRR38SB9
MS51990-109P	RLRR47SB10	SLRR47SB10
MS51990-110P	RLRR56SB11	SLRR56SB11
MS51990-111P	RLRR64SB11	SLRR64SB11
MS51990-112P	RLRR72SB11	SLRR72SB11
MS51990-113P	RLRR82SB12	SLRR82SB12
MS51990-114P	RLRR90SB12	SLRR90SB12
MS51990E102P	RLRR16SU5	SLRR16SU5
MS51990E103P	RLRR18SU6	SLRR18SU6
MS51990E104P	RLRR21SU6	SLRR21SU6
MS51990E105P	RLRR24SU7	SLRR24SU7
MS51990E106P	RLRR28SU8	SLRR28SU8
MS51990E107P	RLRR33SU9	SLRR33SU9
MS51990E108P	RLRR38SU9	SLRR38SU9
MS51990E109P	RLRR47SU10	SLRR47SU10
MS51990E110P	RLRR56SU11	SLRR56SU11
MS51990E111P	RLRR64SU11	SLRR64SU11
MS51990E112P	RLRR72SU11	SLRR72SU11
MS51990E113P	RLRR82SU12	SLRR82SU12
MS51990E114P	RLRR90SU12	SLRR90SU12

MS51992

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51992C642- (9 thru 64)	SF5902C642- (9 thru 64)	SLF5902C642- (11 thru 64)
MS51992C643- (12 thru 64)	SF5902C643- (12 thru 64)	SLF5902C643- (13 thru 64)
MS51992C644- (13 thru 64)	SF5902C644- (13 thru 64)	SLF5902C644- (15 thru 64)
MS51992C645- (14 thru 64)	SF5902C645- (14 thru 64)	SLF5902C645- (16 thru 64)
MS51992C646- (17 thru 64)	SF5902C646- (16 thru 64)	SLF5902C646- (17 thru 64)
MS51992C647- (18 thru 64)	SF5902C647- (17 thru 64)	SLF5902C647- (18 thru 64)
MS51992C648- (19 thru 64)	SF5902C648- (19 thru 64)	SLF5902C648- (21 thru 64)
MS51992C802- (11 thru 64)	SF5902C802- (9 thru 64)	SLF5902C802- (11 thru 64)
MS51992C803- (13 thru 64)	SF5902C803- (12 thru 64)	SLF5902C803- (13 thru 64)
MS51992C804- (15 thru 64)	SF5902C804- (13 thru 64)	SLF5902C804- (15 thru 64)
MS51992C805- (16 thru 64)	SF5902C805- (14 thru 64)	SLF5902C805- (16 thru 64)
MS51992C806- (17 thru 64)	SF5902C805- (14 thru 64)	SLF5902C806- (17 thru 64)
MS51992C807- (18 thru 64)	SF5902C807- (17 thru 64)	SLF5902C807- (18 thru 64)
MS51992C808- (21 thru 64)	SF5902C808- (19 thru 64)	SLF5902C808- (21 thru 64)
MS51992C502- (11 thru 64)	SF59028052- (9 thru 64)	SLF5902C502- (11 thru 64)
MS51992C503- (13 thru 64)	SF5902B503- (12 thru 64)	SLF5902C503- (13 thru 64)
MS51992C504- (15 thru 64)	SF59028504- (13 thru 64)	SLF5902C504- (15 thru 64)
MS51992C505- (16 thru 64)	SF59028505- (14 thru 64)	SLF5902C505- (16 thru 64)
MS51992C506- (17 thru 64)	SF59028506- (16 thru 64)	SLF5902C506- (17 thru 64)
MS51992C507- (18 thru 64)	SF59028507- (17 thru 64)	SLF5902C507- (18 thru 64)
MS51992C508- (21 thru 64)	SF59028508- (19 thru 64)	SLF5902C508- (21 thru 64)
MS51992C502- (8 thru 10)	SF5902C502- (8 thru 10)	SLFT5902C502- (8 thru 10)
MS51992C503- (9 thru 12)	SF5902C502- (9 thru 12)	SLFT5902C503- (9 thru 12)
MS51992C504- (11 thru 14)	SF5902C504- (11 thru 14)	SLFT5902C504- (11 thru 15)
MS51992C505- (12 thru 15)	SF5902C505- (12 thru 15)	SLFT5902C505- (12 thru 15)
MS51992C506- (15 thru 18)	SF5902C506- (15 thru 18)	SLFT5902C506- (15 thru 18)
MS51992C507- (16 thru 17)	SF5902C507- (16 thru 17)	SLFT5902C507- (16 thru 17)
MS51992C508- (18 thru 20)	SF5902C508- (18 thru 20)	SLFT5902C508- (18 thru 20)
MS51992C642- (8 thru 10)	SF5902C642- (8 thru 10)	SLFT5902C642- (8 thru 10)
MS51992C643- (9 thru 12)	SF5902C643- (9 thru 12)	SLFT5902C643- (9 thru 12)
MS51992C644- (11 thru 14)	SF5902C644- (11 thru 14)	SLFT5902C644- (11 thru 14)
MS51992C645- (12 thru 15)	SF5902C645- (12 thru 15)	SLFT5902C645- (12 thru 15)
MS51992C646- (15 thru 18)	SF5902C646- (15 thru 18)	SLFT5902C646- (15 thru 18)
MS51992C647- (16 thru 17)	SF5902C647- (16 thru 17)	SLFT5902C647- (16 thru 17)
MS51992C648- (18 thru 20)	SF5902C648- (18 thru 20)	SLFT5902C648- (18 thru 20)
MS51992C802- (8 thru 10)	SF5902C802- (8 thru 10)	SLFT5902C802- (8 thru 10)
MS51992C803- (9 thru 12)	SF5902C803- (9 thru 12)	SLFT5902C803- (9 thru 12)
MS51992C804- (11 thru 14)	SF5902C804- (11 thru 14)	SLFT5902C804- (11 thru 14)

MS51992

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51992C805- (12 thru 15)	SF5902C805- (12 thru 15)	SLFT5902C805- (12 thru 15)
MS51992C806- (15 thru 18)	SF5902C806- (15 thru 18)	SLFT5902C806- (15 thru 18)
MS51992C807- (16 thru 17)	SF5902C807- (16 thru 17)	SLFT5902C807- (16 thru 17)
MS51992C808- (18 thru 20)	SF5902C808- (18 thru 20)	SLFT5902C808- (18 thru 20)
MS51992D502-8	SFT5902D502-8	SLT5902D502-8
MS51992D502- (9 thru 64)	SF5902D502- (9 thru 64)	SL5902D502- (9 thru 64)
MS51992D503-9	SFT5902D503-9	SLT5902D503-9
MS51992D503-10	SFT5902D503-10	SLT5902D503-10
MS51992D503-11	SFT5902D503-11	SLT5902D503-11
MS51992D504- (12 thru 64)	SF5902D503- (12 thru 64)	SL5902D503- (12 thru 64)
MS51992D504-11	SFT5902D504-11	SLT5902D504-11
MS51992D504-12	SFT5902D504-12	SLT5902D504-12
MS51992D504- (13 thru 64)	SF5902D504- (13 thru 64)	SL5902D504- (13 thru 64)
MS51992D505-12	SFT5902D505-12	SLT5902D505-12
MS51992D505-13	SFT5902D505-13	SLT5902D505-13
MS51992D505- (14 thru 64)	SF5902D505- (14 thru 64)	SL5902D505- (14 thru 64)
MS51992D506-15	SFT5902D506-15	SLT5902D506-15
MS51992D506- (16 thru 64)	SF5902D506- (16 thru 64)	SL5902D506- (16 thru 64)
MS51992D507-16	SFT5902D507-16	SLT5902D507-16
MS51992D507- (17 thru 64)	SF5902D507- (17 thru 64)	SL5902D507- (17 thru 64)
MS51992D508-18	SFT5902D508-18	SLT5902D508-18
MS51992D508- (19 thru 64)	SF5902D508- (19 thru 64)	SL5902D508- (19 thru 64)
MS51992E502-8	SFT5902E502-8	SLT5902E502-8
MS51992E502- (9 thru 64)	SF5902E502- (9 thru 64)	SL5902E502- (9 thru 64)
MS51992E503-9	SFT5902E503-9	SLT5902E503-9
MS51992E503-10	SFT5902E503-10	SLT5902E503-10
MS51992E503-11	SFT5902E503-11	SLT5902E503-11
MS51992E503- (12 thru 64)	SF5902E503- (12 thru 64)	SL5902E503- (12 thru 64)
MS51992E504-11	SFT5902E504-11	SLT5902E504-11
MS51992E504-12	SFT5902E504-12	SLT5902E504-12
MS51992E504- (13 thru 64)	SF5902E504- (13 thru 64)	SL5902E504- (13 thru 64)
MS51992E505-12	SFT5902E505-12	SLT5902E505-12
MS51992E505-13	SFT5902E505-13	SLT5902E505-13
MS51992E505- (14 thru 64)	SF5902E505- (14 thru 64)	SL5902E505- (14 thru 64)
MS51992E506-15	SFT5902E506-15	SLT5902E506-15
MS51992E506- (16 thru 64)	SF5902E506- (16 thru 64)	SL5902E506- (16 thru 64)
MS51992E507-16	SFT5902E507-16	SLT5902E507-16
MS51992E507- (17 thru 64)	SF5902E507- (17 thru 64)	SL5902E507- (17 thru 64)

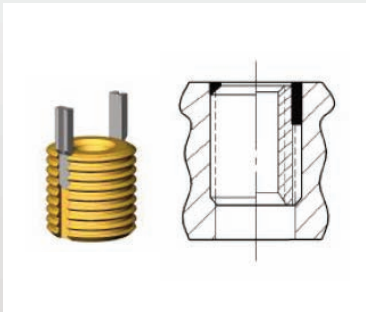
MS51992

MILITARY PART NUMBER	ROSAN PART NUMBER	SHUR-LOK PART NUMBER
MS51992E508-18	SFT5902E508-18	SLT5902E508-18
MS51992E508- (19 thru 64)	SF5902E508- (19 thru 64)	SL5902E508- (19 thru 64)
MS51992E642-8	SFT5902E642-8	SLT5902E642-8
MS51992E642- (9 thru 64)	SF5902E642- (9 thru 64)	SL5902E642- (9 thru 64)
MS51992E643-9	SFT5902E643-9	SLT5902E643-9
MS51992E643-10	SFT5902E643-10	SLT5902E643-10
MS51992E643-11	SFT5902E643-11	SLT5902E643-11
MS51992E643- (12 thru 64)	SF5902E643- (12 thru 64)	SL5902E643- (12 thru 64)
MS51992E644-11	SFT5902E644-11	SLT5902E644-11
MS51992E644-12	SFT5902E644-12	SLT5902E644-12
MS51992E644- (13 thru 64)	SF5902E644- (13 thru 64)	SL5902E644- (13 thru 64)
MS51992E645-12	SFT5902E645-12	SLT5902E645-12
MS51992E645-13	SFT5902E645-13	SLT5902E645-13
MS51992E645- (14 thru 64)	SF5902E645- (14 thru 64)	SL5902E645- (14 thru 64)
MS51992E646-15	SFT5902E646-15	SLT5902E646-15
MS51992E646- (16 thru 64)	SF5902E646- (16 thru 64)	SL5902E646- (16 thru 64)
MS51992E647-16	SFT5902E647-16	SLT5902E647-16
MS51992E647- (17 thru 64)	SF5902E647- (17 thru 64)	SL5902E647- (17 thru 64)
MS51992E648-18	SFT5902E648-18	SLT5902E648-18
MS51992E648- (19 thru 64)	SF5902E648- (19 thru 64)	SL5902E648- (19 thru 64)
MS51992E802-8	SFT5902E802-8	SLT5902E802-8
MS51992E802- (9 thru 64)	SF5902E802- (9 thru 64)	SL5902E802- (9 thru 64)
MS51992E803-9	SFT5902E803-9	SLT5902E803-9
MS51992E803-10	SFT5902E803-10	SLT5902E803-10
MS51992E803-11	SFT5902E803-11	SLT5902E803-11
MS51992E803- (12 thru 64)	SF5902E803- (12 thru 64)	SL5902E803- (12 thru 64)
MS51992E804-11	SFT5902E804-11	SLT5902E804-11
MS5199204-12	SFT5902E804-12	SLT5902E804-12
MS51992E804- (13 thru 64)	SF5902E804- (13 thru 64)	SL5902E804- (13 thru 64)
MS51992E805-12	SFT5902E805-12	SLT5902E805-12
MS51992E805-13	SFT5902E805-13	SLT5902E805-13
MS51992E805- (14 thru 64)	SF5902E805- (14 thru 64)	SL5902E805- (14 thru 64)
MS51992E806-15	SFT5902E806-15	SLT5902E806-15
MS51992E806- (16 thru 64)	SF5902E806- (16 thru 64)	SL5902E806- (16 thru 64)
MS51992E807-16	SFT5902E807-16	SLT5902E807-16
MS51992E80W- (17 thru 64)	SF5902E807- (17 thru 64)	SL5902E807- (17 thru 64)
MS51992E808-18	SFT5902E808-18	SLT5902E808-18
MS51992E808- (19 thru 64)	SF5902E808- (19 thru 64)	SL5902E808- (19 thru 64)

Key-locked/Staked Studs and Inserts

Solid, one piece key-locked inserts and studs provide high resistance to torque-out and pullout in applications. To prevent rotation due to torsion or vibration, preassembled keys are driven down through the threads of the parent material mechanically locking the fasteners into place.

These products are superior for use in soft materials such as aluminum or magnesium when extra strength, extended thread life and vibration resistance are required. They have the option of self-broaching keys for hard material applications and are available with a variety of locking devices.



Key-locked General Purpose Inserts

(Keensert®, K-sert®, Stake-lock)

Lightweight Inserts

MS51830/NAS1394 KN Series
KNM Series (metric)

Heavy Duty Inserts

MS51831/NAS1395 KNH Series
KNHM Series (metric)

Extra Heavy Duty Inserts

MS51832 KNHXX Series

Miniature Inserts

KNC Series
KNCC Series
KNCA Series
KNCM Series (metric)

Hydraulic 3000 psi Inserts

MS33649 + AS10050 KNYD Series

MIL-I- 45914/M 45914

NAS1394 – NAS1395

NAO146 – NAO151

TR29000-(X) Series

Special Purpose Inserts

High Strength Aluminum Inserts

KNCE Series

Cast-in Inserts

BX Series

Solid Inserts

KNJ Series

Floating Inserts

KNK Series
KNKD Series

Blind-end Inserts

KNCB Series *Miniature*
KNB Series *Lightweight*
KNHB Series *Heavy Duty*

Special Locking Features

TA24814-(XX)
TR26097-(XX)
TR29037-(XX)



Floating inserts automatically compensate for misalignment of mating holes and are particularly useful on curved surfaces.

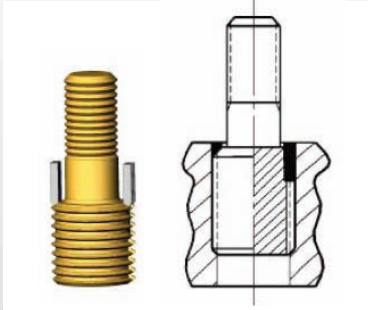
Fastener Dimensions Inc. is an independent distributor of the many brand name products that we sell and that appear in our literature.

* Keensert® is a registered trademark of Alcoa® (AFS).

** K-sert® is a registered trademark of Fastloc®.

Key-locked/Staked Studs and Inserts

Key-locked inserts and studs are perfect for when you can't use a through-bolt/nut combination or when you need to quickly repair stripped, damaged or worn out threads. Since the stud or keyed end is installed into the parent material there is no need for removing or replacing a bolt.



Key-locked Studs

(Keensert®, K-sert®, Stake-lock)

- MIL-S- 45915/M 45915
- TR28000-(XX) Series
- TR28001-(XX) Series
- TR28110-(X)



Sizes

#10 through 1 inch
5mm-12mm

Nut End Threads

- UNJF
- UNJC
- Metric



General Purpose (Self-Broaching) Studs

(Keensert®, K-sert®, Stake-lock)

Lightweight Studs

- MS51833/NASM51833 KNNS Series
- KNNMS Series (metric)

Heavy Duty Studs

- MS51834/NASM51834 KNHS Series
- KNHMS Series (metric)

Shear Load Studs

- KNS Series
- KNMS Series (metric)



SPECIAL TOOLING REQUIRED

FDI stocks kits and the entire line of tools for your applications.

Key-locked inserts and key-locked studs are available in miniature, lightweight, and heavy-duty versions and are manufactured in all common aerospace materials including A286, alloy steels, 303 Cres, etc. We offer a full range of Inch and Metric sizes in coarse or fine pitch threads.

Fastener Dimensions Inc. is an independent distributor of the many brand name products that we sell and that appear in our literature.

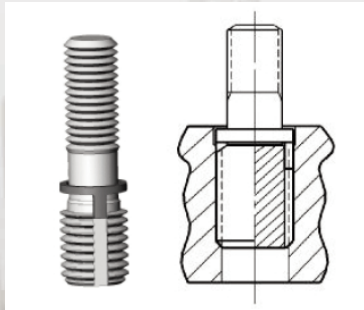
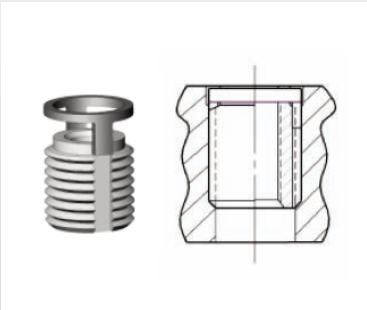
* Keensert® is a registered trademark of Alcoa® (AFS).

** K-sert® is a registered trademark of Fastloc®.

Key-ring Inserts and Key-ring Studs

Kelox® inserts and studs are high performance threaded products that typically require smaller diameter installation holes than other solid bushing inserts and studs. This translates into overall reduced boss sizes and weight savings. The Kelox® fasteners incorporate a pair of self-broaching keys joined by an integral ring that facilitates the driving of the keys into the structure.

While exhibiting the same features and benefits as standard key-locked inserts, Kelox® inserts and studs have internal ring attaching keys. This provides additional support while installing keys, but requires a small counterbore to allow the ring to sit flush with the top surface of parent material.



Key-ring Inserts (Kelox®)

NAS1839–NAS1840
 SL9202/4 SL9214/5
 SL9208 SL9325
 SL9211 69825-(XX)-(X)

Key-ring Studs (Kelox®)

MIL-S-45933/1-(XX)
 MIL-S-45933/2-(XX)
 NAS1841–NAS1854
 NAS1860–NAS1863

J1130P/31P-(XX) SL9324
 J1172P-(XX) SL9328
 J1179P-(XX) V:002 889-(XX)
 J1196P-(XX) 1798M81G
 J1206P/08P-(XX) 3020T29P-(XX)
 KL5510154-(XX)-(XX) 4031T42P-(XX)
 SL9301–SL9302 4058T30P-(XX)
 SL9304 5031T71P-(XX)
 SL9306 5046753P-(XX)
 SL9308–SL9316 69544P14-(XX)
 SL9320 9977013–249G-(XX)

Key-ring Features

- Products utilize high strength keys for self-broaching into harder materials
- Key-ring product is manufactured in a variety of materials including A286, Incone® and Titanium.
- The key-ring is made from 420 Cres material that will self-broach in materials upto 40 HRC nut end thread.
- Internal thread locking features are available in each material type.

Key-locked Assemblies

SLJ1216P04
 SLJ970P03
 SLJ970P04

Use Kelox® inserts and studs anywhere strong, long lasting threadforms are required in a variety of parent materials, such as magnesium and aluminum. Kelox® studs are an ideal solution when the use of standard bolts becomes impractical or impossible. Typical applications frequently include, but are not limited to, engine or power transmission components.

Fastener Dimensions Inc. is an independent distributor of the many brand name products that we sell and that appear in our literature.

* Kelox® is a registered trademark of Alcoa® (AFS). ** Incone® is a registered trademark of Incoalloys International.

Thinwall Swaged Inserts

Designed for applications requiring lightweight, high strength, compact spaces with a minimum boss. Swaged inserts' high performance benefits most applications requiring dependability in a lightweight solid wall insert. The locking knurl design is easy to install and provides high torque-out performance in soft and hard parent materials and are well-suited for electronics and aircraft engines.

Swaged Inserts

AS3504/5	MIL-I-45932/1-(XX)-L	SRM-(XXX)
AS52760/63	MIL-I-45932/1-(XX)	SRM-(XX)-L-(X)
AS52790/93	MIL-I-45932/2-(XX)-L	SRMW-(X)-(X)
DOD-I-63274/1	MIL-I-45932/2-(XX)	SRMW-(X)-L-(X)
EN3236/7	MIL-I-45932/3-(XX)-L	
NSA5054	MIL-I-45932/3-(XX)	



Insert Removal Tools

MIL-I-45932/1
MIL-I-45932/3

Clinch Nuts and Tools

MIL-N-45938/1
MIL-N-45938/3
MIL-N-45938/13
MIL-N-45938/14
DOD-N-70333/1
DOD-N-70333/2

Slimsert™ Tools

SRM-(X)-D SRPBTM-(X)
SRMW-(X)-D SRWPBTM-(X)
SRM-(X)-W SRPBTM-(X)-WB
SRM-(X)-W2 SRM-GSD-(X)
SRM-(X)-S SRMW-GSD-(X)
SRMW-(X)-S MK4SRM-(X)-AL (kits)
SRM-(X)-R MK5SRM-(X)-BL (kits)



Sizes

#4 through 1/2 inch
5mm-10mm

ID Threads

UNJF
UNJC
Metric

Materials

4130 Alloy Steel
A286
17-4 PH
Alloy 718
(Inconel® 718)

Finishes

Cadmium
per QQ-P-416 Type II, Class 2
Type III, Class 3
Molybdenum Disulfide solid film lubricant
per MIL-L-46010, Type I
Silver
per AMS2411 or QQ-S-365, Type II, Grade B

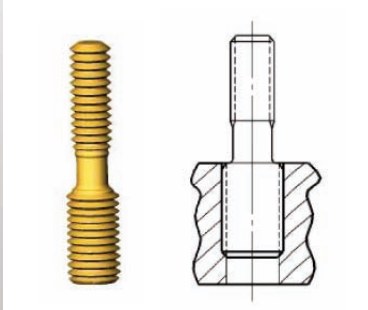
All of our Inserts are manufactured to **MS, MIL-I, EN, NA, NAS, NASM** and **NSA** standards or they can be modified to meet your specific requirements.

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* Slimsert™ is a trademark of Alcoa® (AFS). ** Inconel® is a registered trademark of Incoalloys International.

Straight and Stepped Studs

Straight and stepped studs are designed for minimum boss applications. The studs provide a lightweight, free running steel thread and are locked in place by an interference or tight fit with the tapped thread. Manufactured in alloy steel materials with cad plate finish. Some configurations are available with wrench flats on nut end thread area. Also available in various lengths of engagement.



(Interference or Tight-fit Studs)

Straight and Stepped Studs

AN151101 – AN152000

AN152301 – AN152600

AN153501 – AN153800

AN153801 – AN154100

AN154101 – AN154400

AN155601 – AN155900

AN156201 – AN156500

MS9827 – MS9840

MS17293 – MS17298



FASTENER DIMENSIONS, INC. ISO9001, AS9100 & AS9120 Certified

6850 River Road, Pennsauken, New Jersey 08110

WEB: WWW.FASTDIM.COM • PHONE: 718-847-6321 • FAX: 718-847-8414

McKinnon tools are used for many commercial and military aircraft programs. Fastener Dimensions offers the entire line of McKinnon Tools for Studs and Inserts, Ring Locked Fluid Adapters, Ring Locked Fluid Inserts, Thin-Wall Inserts, Key-Type Inserts and Studs and millions of other fasteners.

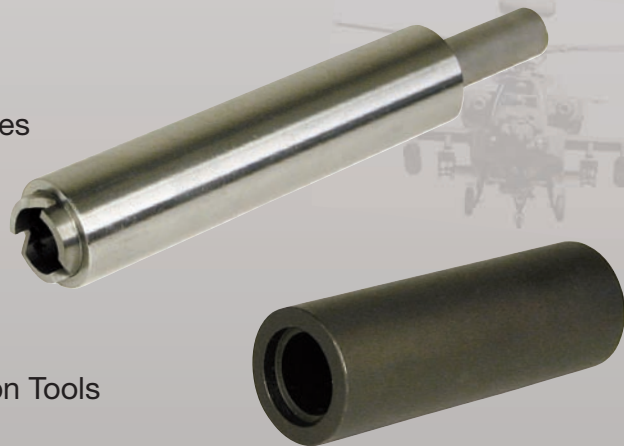
If you cannot find the tools you are looking for, or if the tool part number is unknown, please contact your sales representative with your ring locked fastener part number, and we will acquire any tools you need.



Ring locked fluid fittings require special tooling for installation and removal. FDI stocks the full line of tools for your applications.

SPECIAL TOOLING REQUIRED

- Tool Kits
- O-Ring Installation Tools
- Drive Wrenches
- Broaching Tools
- Porting Tools
- Chip Removal Tools
- Lock Ring Drive Tools
- Lock Ring Drive Tools and Wrenches
- Stud Removal Tools
- Stud Drive Tools
- Swage Tools
- Insert Gauges
- Step Drills
- Wrench and Drive Tool Combination Tools
- Shipping Caps for Fluid Fittings
- Insert Installation Tools
- Key Ring Insert Tools
- Key Ring Stud Tools
- Fluid Adapter Installation Tools



At Fastener Dimensions, the tool you are looking for is either in stock, or just a short lead time away.

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