

# Shur-Lok Sta-Lok Fluid Fittings



#### TABLE OF CONTENTS

Introduction	1
Features and Benefits	2
Port Preparation, Installation and Removal TSB references	3
Standard Cross References	4
Product Description and Pressure Systems	5
Beam Seal Adapters	
SLAS1986 – Port connection, Ring Locked to Beam Seal tube end	6 - 7
SLAS4383 – Port connection, Ring Locked to Beam Seal Reducer tube end	8 - 9
SLAS4200 – Port connection, Ring Locked to Beam Seal tube end	10 - 11
Flareless Adapters	
SLAS4099 – Port connection, Ring Locked to Flareless tube end	12 - 13
SLF2002 – Port connection, Ring Locked to Flareless Reducer tube end	14 - 15
Flared Adapters	
SLAS1985 – Port connection, Ring Locked to Flared tube end	16 - 17
SLF3004 – Port connection, Ring Locked to Flared Reducer tube end	18 - 19
SLAS5368 – Port connection, Ring Locked to Spherical Flared tube end	20 - 21
Plugs	
SLAS5103 – Port connection, Ring Locked to plug end	22 - 23
Metric Beam Seal Adapters	
SLMA2111 – Port connection, Ring Locked to Beam Seal tube end, Metric	24 - 25
SLMA2112 – Port connection, Ring Locked to 24° Flareless tube end, Metric	26 - 27
SLMA2113 – Port connection, Ring Locked to 60° Flareless tube end, Metric	28 - 29
SLMA2119 – Port connection, Ring Locked to Beam Seal Reducer tube end, Metric	30 - 31
Insert Lockring	
SLAS3077 – Fluid boss insert assembly component	32 - 33
Fluid Boss Insert	
SLAS3078 – Port connection, Ring Locked Fluid boss insert to adapter end	34 - 35
Port Dimensions	
SLAS1300 – Ring Locked Fluid connection	36 - 37
SLAS1300 – King Locked Fluid connection	38 - 39
SLMA2110 – Ring Locked Fluid connection, Metric	40 - 41
SLAS1958 – Ring Locked Fluid connection, Insert	42 - 43
	0
Appendix International Specifications for Stack	11 15
International Specifications for Steels	44 - 45 46
Other product groups	40

Please contact Shur-Lok Corporation at (949) 474-6000 for any special designs or other standards not listed above.

### Sta-Lok<sup>®</sup> Fluid Fittings







#### INTRODUCTION

### The Shur-Lok Corporation ... fastening the future for over 50 years

Our proven performance record has been a result of a customer oriented approach to meeting the increasingly complex requirements of the industry for over 50 years. Our affiliate, Shur-Lok International was formed over 20 years ago to serve the European aerospace and related industries. Like its U.S. counterpart, this operation has the capacity to design, manufacture and support the sale of Shur-Lok products worldwide.

Shur-Lok offers customers with special design or application problems the chance to utilize the special expertise of engineers with years of concentrated experience in the design of specialty fasteners. As a pioneer in the development of fastener components, we have logged an impressive record of successful solutions to the most complex problems. In fact, many of our products have become industry standards.

Fabrication is done at one of the most progressive and continuously evolving manufacturing facilities, where research and development are encouraged. This modern manufacturing facility provides Shur-Lok with a high degree of production flexibility in meeting both large and small volume production. By maximizing our resources, Shur-Lok has been able to invest in new equipment while satisfying the just-in-time delivery requirements of industry. From the latest in computer numerically controlled (CNC) milling and turning machines to building our own semi-automated assembly machines, Shur-Lok strives to take full advantage of new advancements in manufacturing technology.

Extensive quality control is fundamental to Shur-Lok's design and manufacturing groups. As a result, our fasteners and components have adhered to the highest industry standards. By qualifying to MIL-Q-9858A, Shur-Lok continues to meet the requirements of the most comprehensive inspection system in use today.

Whatever your fastener or component requirements, you'll find that Shur-Lok Corporation offers superior products, engineered for superior performance. Standing behind the products and services we offer, our sales personnel retain an active role from design to after sales service. For more information contact your nearest Shur-Lok Representative.

#### Shur-Lok International, S.A.

Centrally located to serve the growing requirements of the European community, Shur-Lok International's facility in Belgium is fully staffed and equipped to manufacture and distribute a full line of Shur-Lok products. Originally established in 1965, our European operation has enjoyed continual growth in their large headquarters pictured below.

Shur-Lok International is supported by sales representatives throughout Europe and beyond; additionally it is uniquely qualified to provide expertise in the marketing of products to many different countries. Our multi-lingual sales engineering personnel are qualified to assist in the design of products for the aerospace industry both in Europe and elsewhere.

Our international operations also provide a full range of management services that are available to firms desiring to enter the European market. Included are manufacturing and subassembly capability, bonded warehousing for duty-free storage, registration of patents, brand names, and trademarks. Further we are able to offer such services as banking and auditing that can provide assistance to U.S. firms seeking to establish themselves on the continent with minimum difficulty and expense.

#### McKinnon Industries, Inc.

McKinnon Industries has over twenty-five years experience in tool design and machining in both the private and government sectors. McKinnon has also been the primary installation and removal tool source for the Rosán products. Shur-Lok Corporation acquired McKinnon Industries in 2001 to complement their Ring Locked product lines.

McKinnon has provided product components and/or tools for most aerospace programs, including: Boeing Co. F/A-18 Hornet fighter, F-15 Eagle fighter, B-1B Lance bomber, C-17A Globemaster3, Lockheed Martin F-16 Fighting Falcon, F22 Raptor, F-117 Nighthawk, Northrop Grumman B-2 bomber.



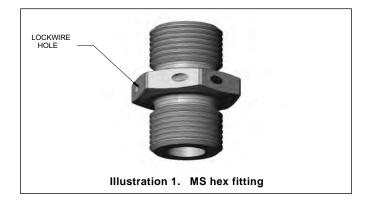
#### INTRODUCTION

#### Forward

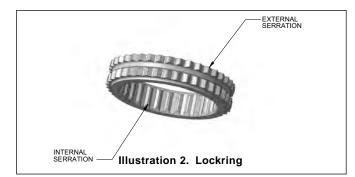
Shur-Lok has been a Leader in Fastener Solutions for over 50 years. This leadership position has been achieved not only by engineering unique problem-solving designs but also by manufacturing quality products on-time, backed by unsurpassed technical support. One of Shur-Lok's many successes has been the patented Sta-lok® system that provides positive locking without the use of pins or lockwires. The heart of the two piece Sta-Lok® locknut system is mating serrations that maintain precise preload. Few companies have the expertise and experience to manufacture serrated parts that mate and must be interchangeable with replacement hardware.

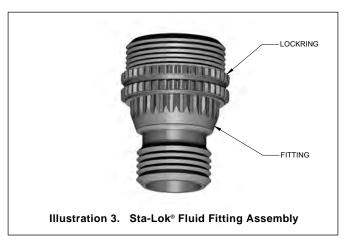
#### Sta-Lok® Fluid Fittings

Now Shur-Lok is applying its talents and Sta-Lok<sup>®</sup> brand name to the design and manufacture of serrated Fluid Fittings that will not rotate in a port connection or boss, unlike standard MS fittings (Illustration 1) that requires a lockwire to prevent rotation.



The Sta-Lok<sup>®</sup> Fluid Fittings are held in place by a lockring that is internally and externally serrated (Illustration 2). The lockring is pressed onto an externally serrated fitting and supplied as an assembly (Illustration 3).





The fitting assembly is installed in the boss by first threading the fitting into a tapped port. Next the lockring is pressed into the prebroached boss to secure the fitting assembly. The external lockring serrations prevent the fitting assembly from rotating in the boss and eliminate damage when applying torque to the B nut during installation (Illustration 4).

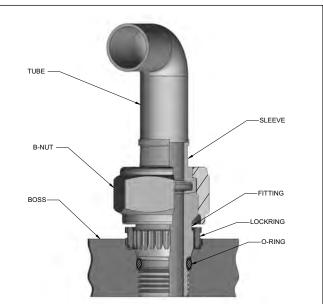


Illustration 4. Sta-Lok® Fluid Fitting Application

Sta-Lok<sup>®</sup> Fluid Fittings are designed for applications in hydraulic, pneumatic or fuel systems of aircraft, helicopter and engines. These fittings are certified to 3,000, 4,000, 5,000 or 8,000 psi systems.



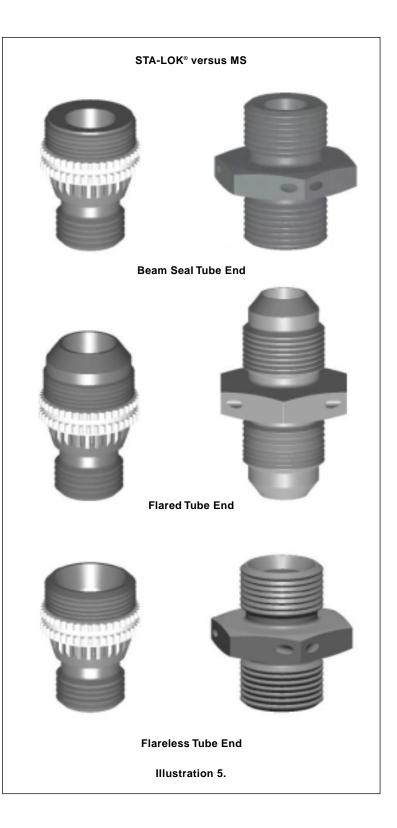
#### FEATURES AND BENEFITS

#### STA-LOK<sup>®</sup> FLUID FITTING versus MS HEX NUT FITTING

- Sta-Lok<sup>®</sup> Fluid Fittings offer tube end configurations in Beam Seal, Flared and Flareless in both inch and metric.
- Sta-Lok<sup>®</sup> Fluid Fittings are designed to fit standard B-nuts that are easily tightened or removed with only one wrench.
- The primary seal is metal to metal. A standard elastomeric O-ring, supplied by the user, provides a secondary seal.
- Sta-Lok<sup>®</sup> Fluid Fittings require no lockwires to prevent rotation under load.
- The serrated lockring prevents the fitting assembly from rotation under vibration. The fitting assembly can be easily removed from the boss for system maintenance or repair with simple tooling.
- Sta-Lok<sup>®</sup> Fluid Fittings are lighter weight. The port side threaded end is smaller to allow the design of a smaller boss diameter.
- Lower stand-off from the boss and smaller profile promotes the design of compact fluid systems.
- Manufactured from strong lightweight titanium, Sta-Lok<sup>®</sup> Fluid Fittings offer the high strength necessary to withstand extreme operating pressures.

#### SPECIAL DESIGNS

When operating conditions demand deviation from standard sealing configurations, pressures, or temperatures, Shur-Lok will design and fabricate special Sta-Lok<sup>®</sup> Fluid Fittings to meet the requirements of these special applications.





#### TSB (TECHNICAL SALES BULLETIN)

References for port preparation, installation and removal of Sta-Lok® Fluid Fittings

Shur-Lok Part Number	TSB Title	TSB #
SLAS1986, SLAS4099, SLAS1985, SLAS5368	SLAS1301 — Port preparation, installation & removal instructions of adapter	TSB 0022
SLAS4383, SLF2002, SLF3004	SLAS1301R — Port preparation, installation & removal instructions of adapter reducer	TSB 0023
SLAS4200	SLAS4202 — Port preparation, installation & removal instructions of adapter	TSB 0024
SLAS5103	SLAS5104 — Port preparation, installation & removal instructions of plug	TSB 0025
SLAS3078	SLAS1959 — Port preparation, installation & removal instructions of fluid boss insert	TSB 0026
SLMA2111, SLMA2112, SLMA2113	SLMA2114 — Port preparation, installation & removal instructions of metric adapter	TSB 0027
SLMA2119	SLMA2114R — Port preparation, installation & removal instructions of metric adapter reducer	TSB 0028

NOTE:

<sup>1.</sup> TSBs listed above can be viewed and printed from the Shur-Lok website www.shur-lok.com or you may contact our engineering department at (949) 474-6000.

<sup>2.</sup> All port preparation, installation and removal tools are referenced within the relevant TSB and are available through McKinnon Industries Inc, a Shur-Lok Company (949) 655-9231 Fax (949) 655-9254.

### Sta-Lok<sup>®</sup> Fluid Fittings



Shur-Lok <sup>®</sup> Part	Rosán Part	SAE Standard
Number Series	Number Series	Part Number Series
SLAS1986	RF5000-13	AS1986
SLAS4383	RF5000-00-13	AS4383-00-00
SLAS4200	RFH5000-13	AS4200
SLAS4099	RFK9900-13	AS4099
SLF2002	RF9900-00-13	N/A
SLAS1985	RFK9800-13	AS1985
SLF3004	RF9800-00-13	N/A
SLAS5368	RFGA9800-19	AS5368
SLAS5103	RF7500-13	AS5103
SLMA2111	7017-490000-00	MA2111
SLMA2112	6660-490000-00	MA2112
SLMA2113	6520-490000-00	MA2113
SLMA2119	7027-490000-00	MA2119
SLAS3077	RLT9500-24	AS3077
SLAS3078	RF9500-504	AS3078
MF5000C [1]	RF5000C <sup>[1]</sup>	AS4282
MF70CM <sup>[1]</sup>	RF70CM <sup>[1]</sup>	AS4300
MF9900C [1]	RF9900C <sup>[1]</sup>	MA4248

#### STA-LOK<sup>®</sup> FLUID FITTING CROSS REFERENCES

<sup>11]</sup> Fluid Fitting Caps are available through McKinnon Industries, a Shur-Lok Company. Rosán is a registered trademark of Alcoa.



		INCH		
Sta-Lok <sup>®</sup> Fluid				
Fitting Part				
Number Series	Product Description	Operating psi	Burst psi	Sizes
SLAS1986	Beam Seal Adapter	4,000	16,000	2, 3, 5, 14, 20 and 24
SLAS1986	Beam Seal Adapter	5,000	20,000	4, 6, 8, 10, 12 and 16
SLAS4383	Beam Seal	5,000	20,000	05-04, 06-04, 08-04, 08-06,
	Adapter Reducer			10-04, 10-06, 10-08, 12-06,
				12-08, 12-10, 16-10, and 16-12
SLAS4383	Beam Seal Adapter Reducer	4,000	16,000	20-12, 20-16, 24-12, 24-16
SLAS4200	Beam Seal Adapter	8,000	24,000	All
SLAS4099	Flareless Adapter	4,000	16,000	All
SLF2002	Flareless Adapter Reducer	3,000	12,000	All
SLAS1985	Flared Adapter	4,000	16,000	All
SLF3004	Flared Adapter Reducer	3,000	12,000	All
SLAS5368	Spherical Flared Adapter	3,000	12,000	All
SLAS5103	Plug	4,000	16,000	2, 3, 5, 14, 20, 24 and 32
SLAS5103	Plug	5,000	20,000	4, 6, 8, 10, 12 and 16
SLAS3078	Fluid Boss Insert	3,000	12,000	All

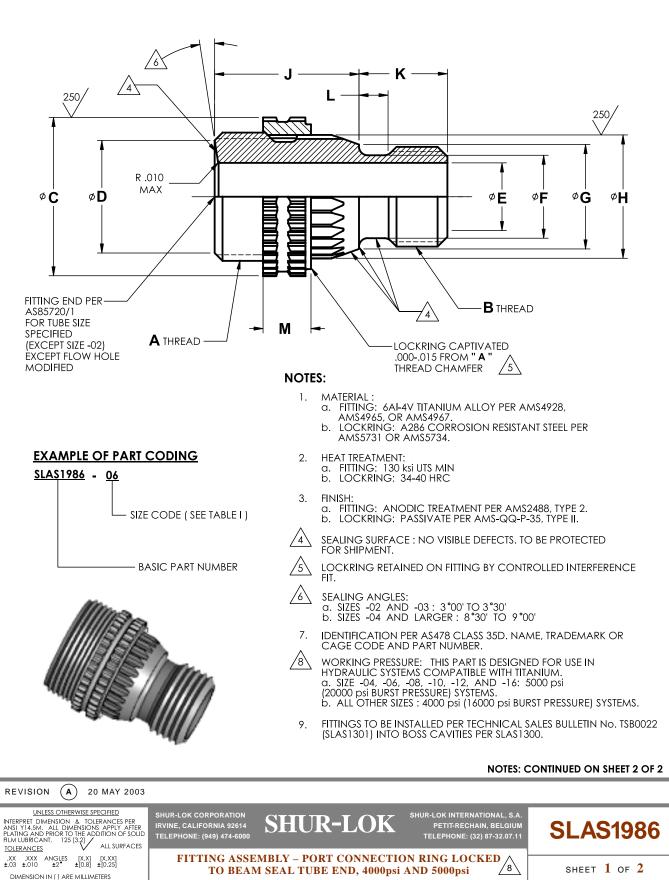
#### SYSTEM WORKING PRESSURE

METRIC	

Sta-Lok<sup>®</sup> Fluid

Fitting Part Number Series	Product Description	Operating kPa	Burst kPa	Sizes
SLMA2111	Poom Soal Adaptar	28.000	112.000	All
SLMA2111 SLMA2112	Beam Seal Adapter 24° Flareless Adapter	28,000	112,000	All
SLMA2113	60° Flareless Reducer	28,000	112,000	All
SLMA2119	Beam Seal Adapter Reducer	28,000	112,000	All







#### **NOTES:** CONTINUED

- 10. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36. REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICROINCHES Ra AND SEALING SURFACE TO BE 63 MICROINCHES Ra.
- 11. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 12. DIMENSIONS IN INCHES.

#### TABLE I

SIZE	A\$1986	NOMINAL	Α	В	¢C	øD	Φ <b>Ε</b>	ØF
CODE	PART NUMBER	TUBE SIZE REF	THREAD PER AS8879	THREAD PER AS8879	±.005	REF		+ .005 002
02	AS1986-02	.125	.3125-32UNJEF-3A	.2160-28UNJF-3A	.400	.265271	.090096	.154
03	AS1986-03	.188	.3750-28UNJS-3A	.2500-28UNJF-3A	.468	.323329	.122128	.186
04	AS1986-04	.250	.4375-24UNJS-3A	.3125-24UNJF-3A	.514	.377383	.169175	.239
05	AS1986-05	.312	.5000-24UNJS-3A	.3750-24UNJF-3A	.624	.440446	.231237	.301
06	AS1986-06	.375	.5625-20UNJS-3A	.4375-20UNJF-3A	.700	.490497	.294300	.364
08	AS1986-08	.500	.7188-20UNJS-3A	.5625-18UNJF-3A	.814	.646654	.398408	.482
10	AS1986-10	.625	.8438-18UNJS-3A	.6875-24UNJEF-3A	1.040	.763772	.493503	.625
12	AS1986-12	.750	1.0000-16UNJ-3A	.8125-20UNJEF-3A	1.170	.910919	.604614	.737
14	AS1986-14	.875	1.1250-16UNJ-3A	.9375-20UNJEF-3A	1.341	1.034-1.044	.729739	.868
16	AS1986-16	1.000	1.2500-14UNJS-3A	1.1250-18UNJEF-3A	1.456	1.148-1.158	.839851	1.000
20	A\$1986-20	1.250	1.5781-14UNJS-3A	1.3125-18UNJEF-3A	1.782	1.476-1.486	1.073-1.086	1.225
24	AS1986-24	1.500	1.8438-14UNJS-3A	1.6250-18UNJEF-3A	2.031	1.741-1.751	1.307-1.320	1.502

#### TABLE I CONT'D

SIZE CODE	Ø <b>G</b> MIN	Ø <b>H</b> REF	<b>J</b> + .010 005	<b>K</b> + .000 015	<b>L</b> + .010 005	<b>M</b> ± .007	WEIGHT LB/EA APPROX
02	.246	.317	.519	.300	.125	.192	.008
03	.278	.349	.550	.355	.125	.192	.012
04	.331	.400	.592	.355	.125	.192	.014
05	.393	.491	.592	.381	.125	.192	.020
06	.456	.544	.633	.395	.125	.210	.025
08	.574	.670	.646	.430	.125	.210	.035
10	.717	.824	.710	.465	.125	.210	.059
12	.891	.981	.760	.527	.157	.220	.079
14	1.022	1.118	.778	.572	.157	.220	.101
16	1.154	1.251	.808	.564	.157	.220	.125
20	1.379	1.466	.832	.569	.157	.240	.179
24	1.656	1.768	.917	.608	.157	.240	.257

REVISION (A) 20 MAY 2003

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER ANSI Y14.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 125 [3,2] TOLERANCES TOLERANCES .XX .XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2° ±[0.8] ±[0.25] DIMENSION IN [] ARE MILLIMETERS

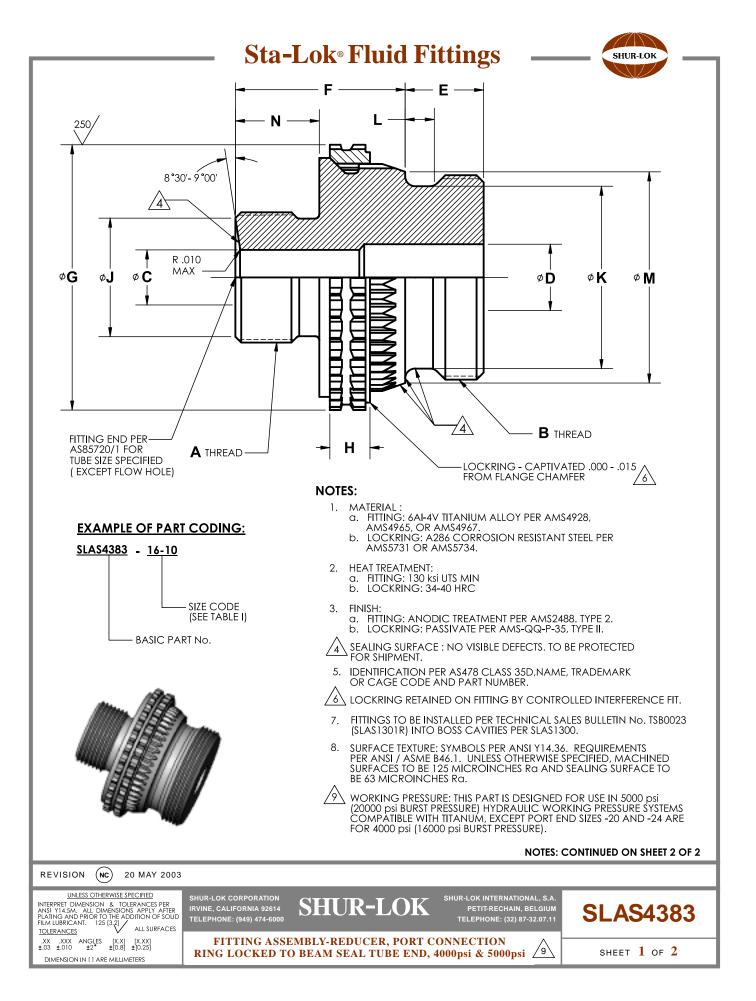
SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000 SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11 FITTING ASSEMBLY - PORT CONNECTION RING LOCKED TO BEAM SEAL TUBE END, 4000psi AND 5000psi

**SHUR-LOK** 

**SLAS1986** 

SHEET 2 OF 2

8





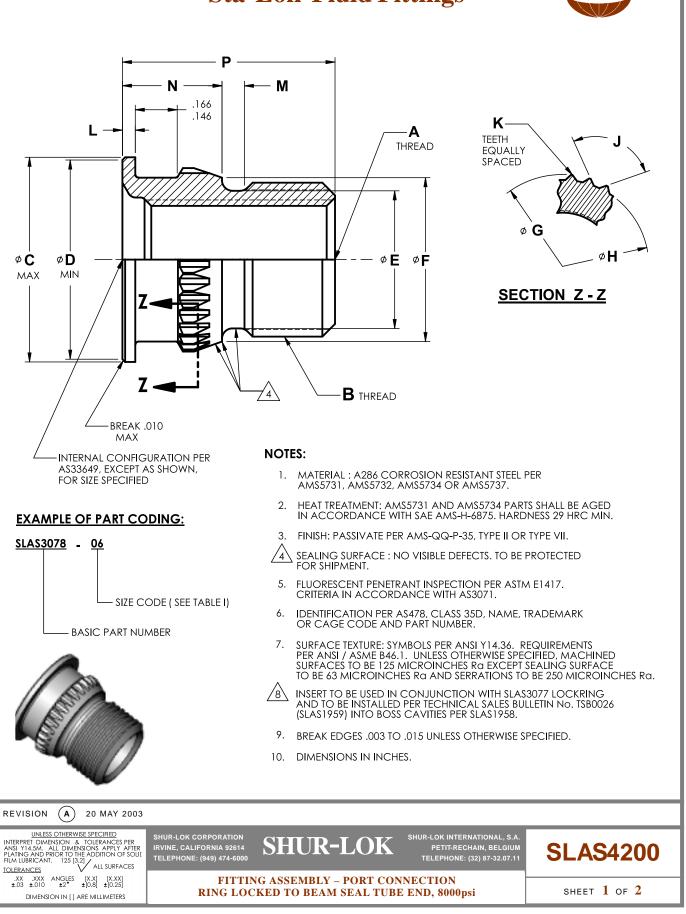
**NOTES:** CONTINUED

10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.

11. DIMENSIONS IN INCHES.

SIZE CODE	AS4383 PART NUMBER	1	PORT END SIZE	TUBE END SIZE	A THREAD AS8875		B THREAD AS887		ø <b>C</b>	ØD	<b>E</b> + .000 015
05-04	A\$4383-05	-04	05	04	.4375-24UN	JS-3A	.3750-24UI	NJF-3A	.184190	.232	.381
06-04	AS4383-06	-04	06	04	.4375 <b>-</b> 24UN	JS-3A	.4375-20UI	NJF-3A	.184190	.295	.395
08-04	AS4383-08	-04		04	.4375-24UN	JS-3A	5/05 100		.184190		100
08-06	AS4383-08	-06	08	06	.5625-20UN	JS-3A	.5625-18UI	NJF-3A	.294300	.412	.430
10-04	AS4383-10	-04		04	.4375-24UN	JS-3A			.184190		
10-06	AS4383-10	-06	10	06	.5625-20UN	JS-3A	.6875-24UN	JEF-3A	.294300	.498	.465
10-08	A\$4383-10	-08		08	.7188-20UN.	JS-3A			.398408		
12-06	AS4383-12	-06		06	.5625-20UN	JS-3A			.294300		
12-08	A\$4383-12	2-08	12	08	.7188-20UN	JS-3A	.8125-20UN	IJEF-3A	.398408	.633	.527
12-10	AS4383-12	-10		10	.8438-18UN	JS-3A			.493503		
16-10	A\$4383-16	-10	1.4	10	.8438-18UN	JS-3A	1.1250-180		.493503	0/1	E / A
16-12	A\$4383-16	-12	16	12	1.0000-1601	NJ-3A	1.1200-1001	NJEI - JA	.604614	.861	.564
20-12	AS4383-20	-12	20	12	1.0000-1601	NJ-3A	1.3125-180	N IFF-3A	.604614	1.057	.569
20-16	AS4383-20	-16	20	16	1.2500-14UN	IJS-3A	10120 1001	1021 071	.839851		
24-12	AS4383-24	-12	24	12	1.0000-16UN	IJ-3A	1.6250-18U	NJEF-3A	.604614	1.297	.608
24-16	A\$4383-24	-16	24	16	1.2500-14UN	IJS-3A	110200 1001	1021 071	.839851		
TABLE I CONT'	)	·					-				
SIZE CODE	<b>F</b> +.010 005		<b>G</b> 005	<b>H</b> ± .007	Ø J	<b>¢K</b> + .005 002	<b>L</b> + .010 005	Ø <b>M</b> Min	<b>N</b> ± .015		
05-04	.701		524	.192	.377383	.299	.125	.393	.275		
06-04	.733	.7	/00	.210	.377383	.362	.125	.456	.275		
08-04	.734	.8	314	.210	.377383	.480	.125	.574	.275		
08-06	.754				.490497		.120		.295		
10-04	.758			ļ	.377383	4			.275		
10-06		1.0	040	.210	.490497	.623	.125	.717	.295		
10-08	.771				.646654				.308		
12-06	.751				.490497	1			.295		
12-08	.764	1.1	70	.220	.646654	.735	.157	.891	.308		
12-10	.828				.763772				.372	_	
16-10	.841	1.4	156	.220	.763772	.998	.157	1.15	.372	_	
16-12	.881				.910919				.412	_	
20-12	.888	1.7	782	.240	.910919	1.223	.157	1.379	.412		
20-16	.936				1.148-1.158				.460	_	
24-12	.909	2.0	031	.240	.910919	1.500	.157	1.65	.412		
24-16	.957				1.148-1.158				.460		
ISION (NC) 20	MAY 2003										
UNLESS OTHERWISE SPE RET DIMENSION & TOLE 14.5M. ALL DIMENSIONS G AND PRIOR TO THE ADD DRICANT. 125 [3,2]	CIFIED RANCES PER APPLY AFTER ITION OF SOLID ALL SURFACES	IRVINE	LOK CORPOF , CALIFORNI/ HONE: (949) 4	92614	SHUR-	LO	F	ETIT-RECHA	TIONAL, S.A. IN, BELGIUM 2) 87-32.07.11	SL	AS438
.XXX ANGLES [X.X]	[X.XX] :[0.25]	RIN	FITTIN G LOCH	G ASSEMI	BLY-REDUCI EAM SEAL T	ER, POR TUBE EN	T CONNE ND, 4000psi	CTION & 5000	psi 9	SHE	EET 2 OF 2

SHUR-LOK





#### **NOTES:** CONTINUED

9. FITTINGS TO BE INSTALLED PER TECHNICAL SALES BULLETIN No. TSB0024 (SLAS4202) INTO BOSS CAVITIES PER SLAS4201.

- 10. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36. REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICROINCHES Ra AND SEALING SURFACE TO BE 63 MICROINCHES Ra.
- 11. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 12. DIMENSIONS IN INCHES.

TABLE I

SIZE CODE	AS4200 PART NUMBER	NOMINAL TUBE SIZE REF	A THREAD PER AS8879	<b>B</b> THREAD PER AS8879	Ø <b>C</b> ±.005	Ø <b>D</b> REF	Ø	Ø <b>F</b> + .005 002
02	A\$4200-02	.125	.3125-32UNJEF-3A	.2160-28UNJF-3A	.400	.076083	.058	.154
03	A\$4200-03	.188	.3750-28UNJS-3A	.2500-28UNJF-3A	.468	.154164	.092	.186
04	AS4200-04	.250	.4375-24UNJS-3A	.3125-24UNJF-3A	.514	.184194	.143	.239
05	AS4200-05	.312	.5000-24UNJS-3A	.3750-24UNJF-3A	.624	.232242	.199	.301
06	AS4200-06	.375	.5625-20UNJS-3A	.4375-20UNJF-3A	.700	.297307	.254	.364
07	AS4200-07	.438	.6562-20UNJS-3A	.5000-20UNJF-3A	.767	.360370	.304	.423
08	AS4200-08	.500	.7188-20UNJS-3A	.5625-18UNJF-3A	.814	.398408	.355	.482
09	AS4200-09	.562	.7812-18UNJS-3A	.6250-24UNJEF-3A	.890	.450460	.421	.560
10	A\$4200-10	.625	.8438-18UNJS-3A	.6875-24UNJEF-3A	1.040	.512523	.476	.625
11	AS4200-11	.688	.9375-16UNJ-3A	.7500-20UNJEF-3A	1.102	.591602	.517	.673

#### TABLE I CONT'D

SIZE CODE	Ø <b>G</b> MIN	Ø <b>H</b> REF	<b>J</b> + .010 005	<b>K</b> + .000 015	<b>L</b> + .010 005	<b>M</b> ± .007	WEIGHT LB/EA APPROX
02	.246	.317	.496	.339	.125	.192	.008
03	.278	.349	.527	.350	.125	.192	.011
04	.331	.400	.569	.378	.125	.192	.015
05	.393	.491	.569	.404	.125	.192	.020
06	.456	.544	.610	.434	.125	.210	.027
07	.515	.605	.623	.458	.125	.210	.035
08	.574	.670	.623	.485	.125	.210	.038
09	.652	.739	.687	.513	.125	.210	.049
10	.717	.824	.687	.538	.125	.210	.062
11	.765	.891	.737	.561	.125	.220	.074

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

REVISION (A) 20 MAY 2003

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER RAISI 141.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLII FILM LUBRICANT. 125 [3.2] IOLERANCES XX XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2° ±[0.8] ±[0.25] DIMENSION IN [] ARE MILLIMETERS

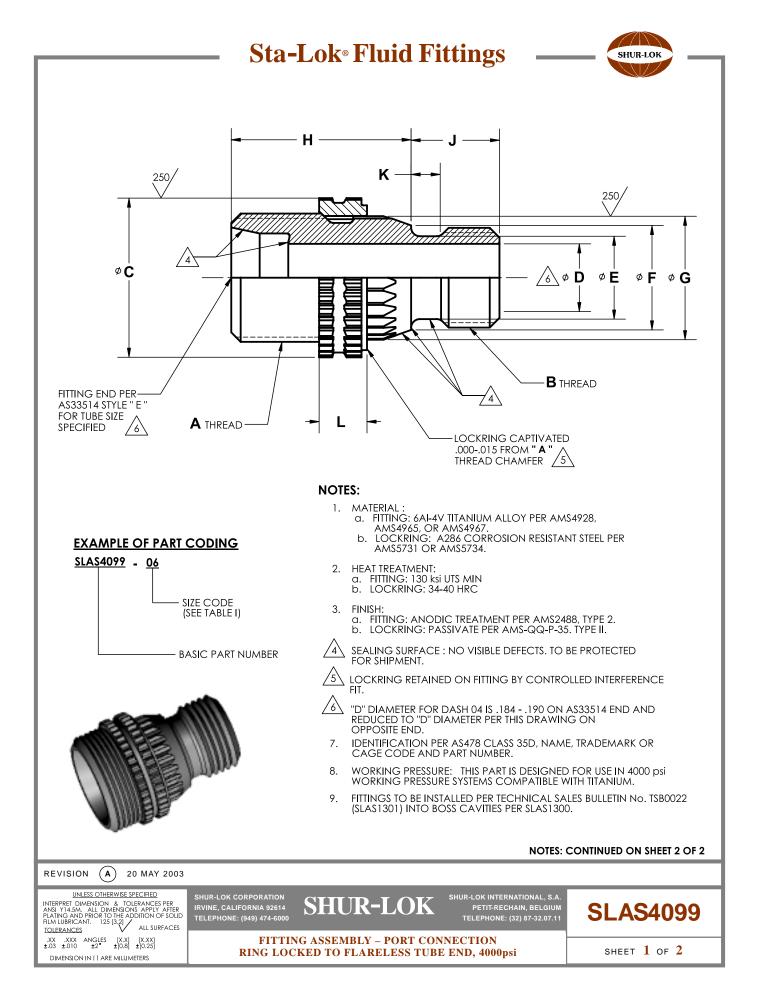
SHUR-LOK

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11



FITTING ASSEMBLY – PORT CONNECTION RING LOCKED TO BEAM SEAL TUBE END, 8000psi

SHEET 2 of 2





#### **NOTES:** CONTINUED

- 10. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36. REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICROINCHES Ra AND SEALING SURFACE TO BE 63 MICROINCHES Ra.
- 11. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 12. DIMENSIONS IN INCHES.

#### TABLE I

	A\$4099		А	В	ø C	ФD	ΦE	øF
SIZE CODE	PART NUMBER	SIZE REF	THREAD PER AS8879	THREAD PER AS8879	±.005	$\bigtriangleup$	+ .005 002	MIN
02	AS4099-02	.125	.3125-24UNJF-3A	.2160-28UNJF-3A	.400	.090096	.154	.246
03	AS4099-03	.188	.3750-24UNJF-3A	.2500-28UNJF-3A	.468	.122128	.186	.278
04	AS4099-04	.250	.4375-20UNJF-3A	.3125-24UNJF-3A	.514	.169175	.239	.331
05	AS4099-05	.312	.5000-20UNJF-3A	.3750-24UNJF-3A	.624	.231237	.301	.393
06	AS4099-06	.375	.5625-18UNJF-3A	.4375-20UNJF-3A	.700	.294300	.364	.456
08	AS4099-08	.500	.7500-16UNJF-3A	.5625-18UNJF-3A	.814	.419425	.482	.574
10	AS4099-10	.625	.8750-14UNJF-3A	.6875-24UNJEF-3A	1.040	.497503	.625	.717
12	AS4099-12	.750	1.0625-12UNJ-3A	.8125-20UNJEF-3A	1.170	.653659	.737	.891
16	AS4099-16	1.000	1.3125-12UNJ-3A	1.1250-18UNJEF-3A	1.456	.872878	1.000	1.154
20	AS4099-20	1.250	1.6250-12UNJ-3A	1.3125-18UNJEF-3A	1.782	1.090-1.096	1.225	1.379
24	AS4099-24	1.500	1.8750-12UNJ-3A	1.6250-18UNJEF-3A	2.031	1.341-1.347	1.502	1.656
32	AS4099-32	2.000	2.5000-12UNJ-3A	2.1250-16UNJ-3A	2.548	1.810-1.816	2.040	2.194

#### TABLEI CONT'D

SIZE CODE	Ø <b>G</b> REF	<b>H</b> + .010 005	<b>J</b> + .000 015	<b>K</b> + .010 005	<b>L</b> ± .007	WEIGHT LB/EA APPROX
02	.317	.674	.300	.125	.192	.009
03	.349	.721	.355	.125	.192	.013
04	.400	.752	.355	.125	.192	.015
05	.491	.752	.381	.125	.192	.022
06	.544	.789	.395	.125	.210	.026
08	.670	.882	.430	.125	.210	.039
10	.824	.945	.465	.125	.210	.064
12	.981	1.018	.527	.157	.220	.084
16	1.251	1.018	.564	.157	.220	.129
20	1.466	1.045	.569	.157	.240	.189
24	1.768	1.045	.608	.157	.240	.248
32	2.311	1.086	.730	.157	.240	.411

REVISION (A) 20 MAY 2003

.XX .XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2° ±[0.8] ±[0.25]

DIMENSION IN [] ARE MILLIMETERS

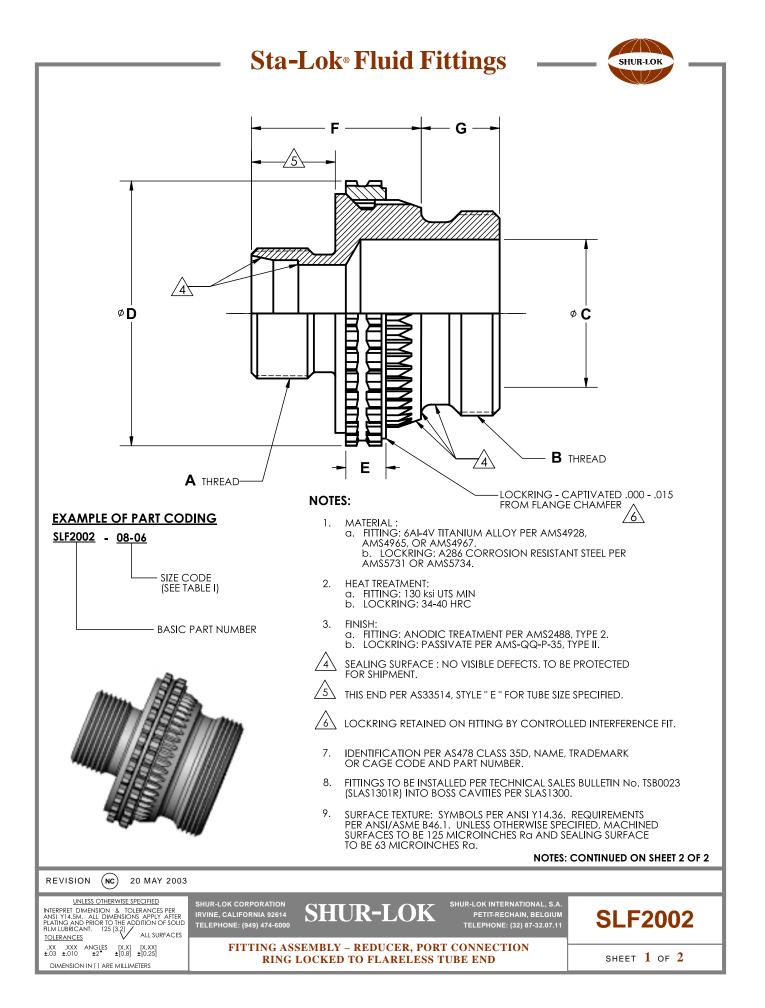
UNLESS OTHERWISE SPECIFIED INTERPET DIMENSION & TOLERANCES PER ANSI 114.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FLM LUBRICANT. 125 [3.2] ALL SURFACES

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000 SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

**SLAS4099** 

#### FITTING ASSEMBLY – PORT CONNECTION RING LOCKED TO FLARELESS TUBE END, 4000psi

SHEET 2 of 2



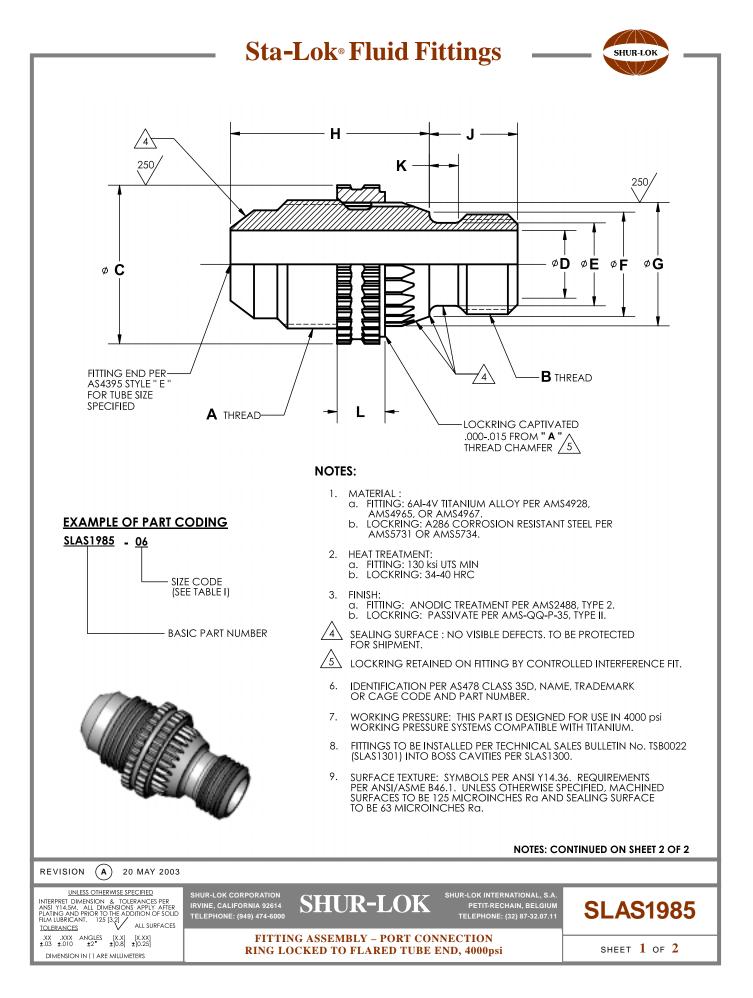


**NOTES:** CONTINUED

- 10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 11. DIMENSIONS IN INCHES.

#### TABLE I

SIZE CODE	PORT END SIZE	TUBE END SIZE	A THREAD PER AS8879	<b>B</b> THREAD PER AS8879	Ø <b>C</b> ± .005	Ø <b>D</b> ± .005	<b>E</b> ± .007	<b>F</b> + .010 005	<b>G</b> + .000 015	
04-02		02	.3125-24UNJF-3A					.793		
04-03	04	03	.3750-24UNJF-3A	.3125-24UNJF-3A	.185	.514	.192	.840	.355	
05-04	05	04	.4375-20UNJF-3A	.3750-24UNJF-3A	.232	.624	.192	.882	.381	
06-03		03	.3750-24UNJF-3A					.884		
06-04	06	04	.4375-20UNJF-3A	.4375-20UNJF-3A	.295	.700	.210	.915	.395	
06-05	1	05	.5000-20UNJF-3A	1				.915		
08-03		03	.3750-24UNJF-3A					.884		
08-04	1	04	.4375-20UNJF-3A	1				.915		
08-05	08	05	.5000-20UNJF-3A	.5625-18UNJF-3A	.412	.814	.210	.915	.430	
08-06	1	06	.5625-18UNJF-3A	1				.931	1	
10-04		04	.4375-20UNJF-3A					.915		
10-06	10	06	.5625-18UNJF-3A	.6875-24UNJEF-3A	.498	1.040	.210	.931	.465	
10-08	1	08	.7500-16UNJF-3A	1				1.025		
12-04		04	.4375-20UNJF-3A					.915		
12-05	1	05	.5000-20UNJF-3A	1				.915		
12-06	12	06	.5625-18UNJF-3A	.8125-20UNJEF-3A	.633	1.170	.220	.931	.527	
12-08	1	08	.7500-16UNJF-3A	1				1.025		
12-10		10	.8750-14UNJF-3A	1				1.084		
16-04		04	.4375-20UNJF-3A					.924		
16-10		10	.8750-14UNJF-3A	1				1.096		
16-12	16	12	1.0625-12UNJ-3A	1.1250-18UNJEF-3A	.861	1.456	.220	1.159	.564	
16-14		14	1.1875-12UNJ-3A	1				1.159		
20-04		04	.4375-20UNJF-3A					.931		
20-12	20	12	1.0625-12UNJ-3A	1.3125-18UNJEF-3A	1.057	1.782	.240	1.166	.569	
20-16		16	1.3125-2UNJ-3A	1				1.166		
24-16		16	1.3125-12UNJ-3A					1.187		
24-20	24	20	1.6250-12UNJ-3A	1.6250-18UNJEF-3A	1.297	2.031	.240	1.187	.608	
REVISION NC 20 MAY 2003										
INTERPRET DIMENSION ANSI Y14.5M. ALL D PLATING AND PRIOR 1 FILM LUBRICANT. 12	IERWISE SPECI N & TOLERA IMENSIONS A IO THE ADDITI- [5 [3.2] AL	FIED NCES PER PPLY AFTER ON OF SOLID L SURFACES	SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000	SHUR-LO	<b>)K</b>	IUR-LOK INTERNA PETIT-RECHA TELEPHONE: (32	IN, BELGIUM	SLF20	002	
IOLERANCES           .XX         .XXX         ANGLES           ±.03         ±.010         ±2°           DIMENSION IN [ ] AI	5 [X.X] [X. ±[0.8] ±[0	XX] .25]	FITTING AS	SEMBLY – REDUCER LOCKED TO FLAREI			N	SHEET 2 C	DF 2	





#### **NOTES:** CONTINUED

- 10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 11. DIMENSIONS IN INCHES.

#### TABLE I

	AS1985 PART	NOMINAL TUBE		B	ø <b>C</b>	ØD	φE	øF
SIZE CODE	NUMBER	SIZE REF	THREAD PER AS8879	THREAD PER AS8879	±.005	REF	+ .005 002	MIN
02	AS1985-02	.125	.3125-24UNJF-3A	.2160-28UNJF-3A	.400	.058065	.154	.246
03	AS1985-03	.188	.3750-24UNJF-3A	.2500-28UNJF-3A	.468	.121128	.186	.278
04	A\$1985-04	.250	.4375-20UNJF-3A	.3125-24UNJF-3A	.514	.168175	.239	.331
05	AS1985-05	.312	.5000-20UNJF-3A	.3750-24UNJF-3A	.624	.230237	.301	.393
06	A\$1985-06	.375	.5625-18UNJF-3A	.4375-20UNJF-3A	.700	.293301	.364	.456
08	AS1985-08	.500	.7500-16UNJF-3A	.5625-18UNJF-3A	.814	.387395	.482	.574
10	AS1985-10	.625	.8750-14UNJF-3A	.6875-24UNJEF-3A	1.040	.480488	.625	.717
12	A\$1985-12	.750	1.0625-12UNJ-3A	.8125-20UNJEF-3A	1.170	.604614	.737	.891
16	AS1985-16	1.000	1.3125-12UNJ-3A	1.1250-18UNJEF-3A	1.456	.839851	1.000	1.154
20	AS1985-20	1.250	1.6250-12UNJ-3A	1.3125-18UNJEF-3A	1.782	1.073-1.086	1.225	1.379
24	AS1985-24	1.500	1.8750-12UNJ-3A	1.6250-18UNJEF-3A	2.031	1.307-1.320	1.502	1.656
32	AS1985-32	2.000	2.5000-12UNJ-3A	2.1250-16UNJ-3A	2.548	1.776-1.791	2.040	2.194

#### TABLE I CONT'D

SIZE CODE	Ø <b>G</b> REF	<b>H</b> + .010 005	<b>J</b> + .000 015	<b>K</b> + .010 005	<b>L</b> ± .007	WEIGHT LB/EA APPROX
02	.317	.743	.300	.125	.192	.010
03	.349	.774	.355	.125	.192	.014
04	.400	.845	.355	.125	.192	.017
05	.491	.845	.381	.125	.192	.023
06	.544	.872	.395	.125	.210	.028
08	.670	.973	.430	.125	.210	.047
10	.824	1.074	.465	.125	.210	.077
12	.981	1.190	.527	.157	.220	.110
16	1.251	1.237	.564	.157	.220	.163
20	1.466	1.311	.569	.157	.240	.245
24	1.768	1.435	.608	.157	.240	.282
32	2.311	1.726	.730	.157	.240	.612

REVISION (A) 20 MAY 2003

UNLESS OTHERWISE SPECIFIED

INTERPRET DIMENSION & TOLERANCES PER ANSI Y14.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 125 [3,2] IOLERANCES .XX .XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2° ±[0.8] ±[0.25] DIMENSION IN [] ARE MILLIMETERS

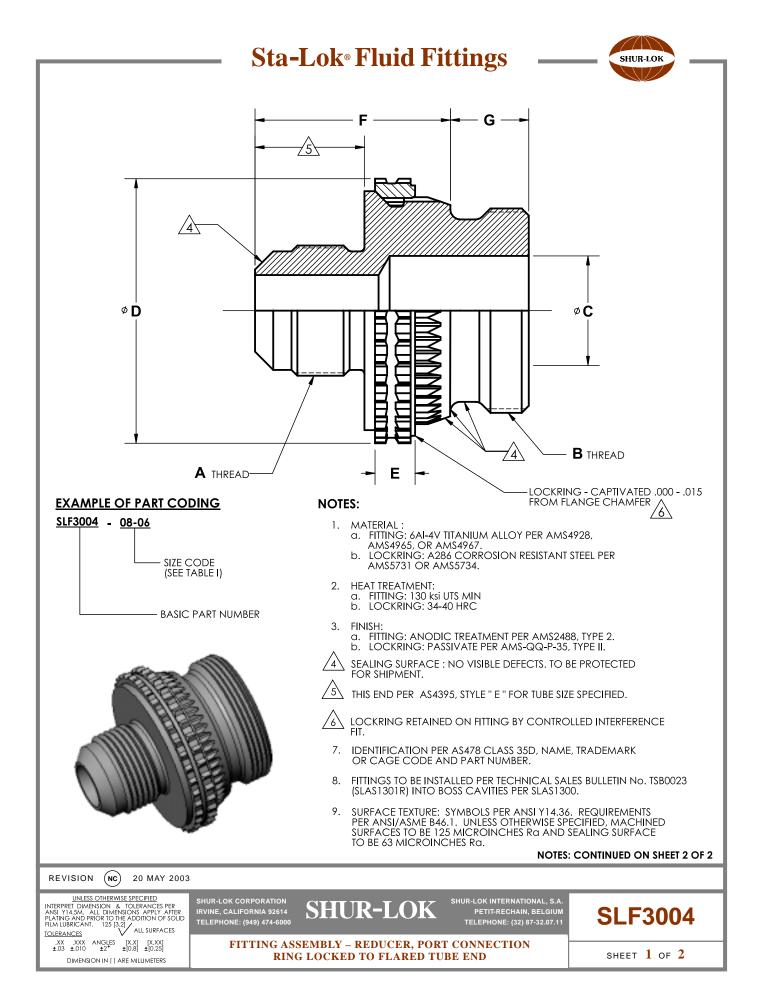
SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000 FITTING ASSEMBLY - PORT CONNECTION RING LOCKED TO FLARED TUBE END, 4000psi

SHUR-LOK

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

**SLAS1985** 

SHEET 2 of 2





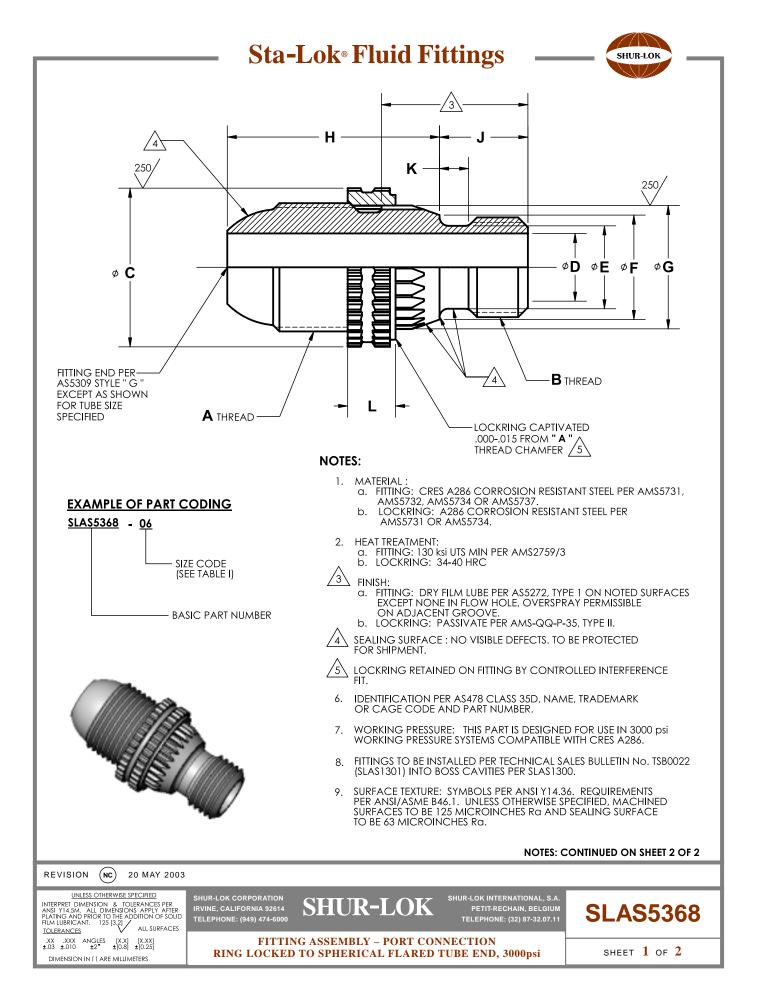
#### NOTES: CONTINUED

10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.

TABLE I

11. DIMENSIONS IN INCHES.

			Α	В	øC	øD	E	F	G	
SIZE CODE	PORT END SIZE	TUBE END SIZE	THREAD PER AS8879	D THREAD PER AS8879	پ <b>ر</b> ± .005	⊈ ± .005	<b>∟</b> ± .007	+ .010 005	+ .000 015	
04-02		02	.3125-24UNJF-3A					.866		
04-03	04	02	.3750-24UNJF-3A	.3125-24UNJF-3A	.185	.514	.192	.897	.355	
05-04	05	03	.4375-20UNJF-3A	.3750-24UNJF-3A	.232	.624	.192	.979	.381	
06-03	00	03	.3750-24UNJF-3A	.0/00 240101 0/1	.202	.024	.172	.941	.001	
06-04	06	00	.4375-20UNJF-3A	.4375-20UNJF-3A	.295	.700	.210	1.010	.395	
06-05		05	.5000-20UNJF-3A					1.010		
08-03		03	.3750-24UNJF-3A					.941		
08-04		04	.4375-20UNJF-3A					1.010		
08-05	08	05	.5000-20UNJF-3A	.5625-18UNJF-3A	.412	.814	.210	1.010	.430	
08-06		06	.5625-18UNJF-3A					1.018		
10-04		04	.4375-20UNJF-3A					1.010		
10-06	10	06	.5625-18UNJF-3A	.6875-24UNJEF-3A	.498	1.040	.210	1.018	.465	
10-08		08	.7500-16UNJF-3A					1.120		
12-04		04	.4375-20UNJF-3A					1.010		
12-05		05	.5000-20UNJF-3A					1.010		
12-06	12	06	.5625-18UNJF-3A	.8125-20UNJEF-3A	.633	1.170	.220	1.018	.527	
12-08		08	.7500-16UNJF-3A					1.120		
12-10		10	.8750-14UNJF-3A					1.217		
14-10	14	10	.8750-14UNJF-3A	.9375-20UNJEF-3A	.730	1.341	.220	1.200	.572	
16-04		04	.4375-20UNJF-3A					1.021		
16-10	16	10	.8750-14UNJF-3A	1.1250-18UNJEF-3A	.861	1.456	.220	1.229	.564	
16-12		12	1.0625-12UNJ-3A					1.335		
20-04		04	.4375-20UNJF-3A					1.028		
20-12	20	12	1.0625-12UNJ-3A	1.3125-18UNJEF-3A	1.057	1.782	.240	1.342	.569	
20-16		16	1.3125-12UNJ-3A					1.389		
24-16	0.4	16	1.3125-12UNJ-3A	1.6250-18UNJEF-3A	1.297	2.031	.240	1.410	.608	
24-20	24	20	1.6250-12UNJ-3A	1.0230-10011JEF-3A	1.27/	2.001	.240	1.457	.000	
REVISION (NC) 20 MAY 2003										
		IED	SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000	SHUR-LC	<b>ЭК</b> <sup>sн</sup>	UR-LOK INTERNAT PETIT-RECHAI TELEPHONE: (32)	N, BELGIUM	SLF30	004	
XX XXX ANGL ±.03 ±.010 ±2' DIMENSION IN	ES [X.X] ±[0.8] ±	[X.XX] [0.25]		SEMBLY – REDUCER G LOCKED TO FLARI	N	SHEET 2 OF 2				





#### **NOTES:** CONTINUED

10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.

11. DIMENSIONS IN INCHES.

#### TABLE I

SIZE CODE	AS5368 PART NUMBER	NOMINAL TUBE SIZE REF	A THREAD PER AS8879	<b>B</b> THREAD PER AS8879	Ø <b>C</b> ±.005	Ø <b>D</b> REF	Ø <b>E</b> + .005 002	ଡ <b>F</b> MIN
04	AS5368-04	.250	.4375-20UNJF-3A	.3125-24UNJF-3A	.514	.168175	.239	.331
05	AS5368-05	.312	.5000-20UNJF-3A	.3750-24UNJF-3A	.624	.230237	.301	.393
06	AS5368-06	.375	.5625-18UNJF-3A	.4375-20UNJF-3A	.700	.293301	.364	.456
08	AS5368-08	.500	.7500-16UNJF-3A	.5625-18UNJF-3A	.814	.387395	.482	.574
10	AS5368-10	.625	.8750-14UNJF-3A	.6875-24UNJEF-3A	1.040	.480488	.625	.717
12	AS5368-12	.750	1.0625-12UNJ-3A	.8125-20UNJEF-3A	1.170	.604614	.737	.891
16	A\$5368-16	1.000	1.3125-12UNJ-3A	1.1250-18UNJEF-3A	1.456	.839851	1.000	1.154

#### TABLE I CONT'D

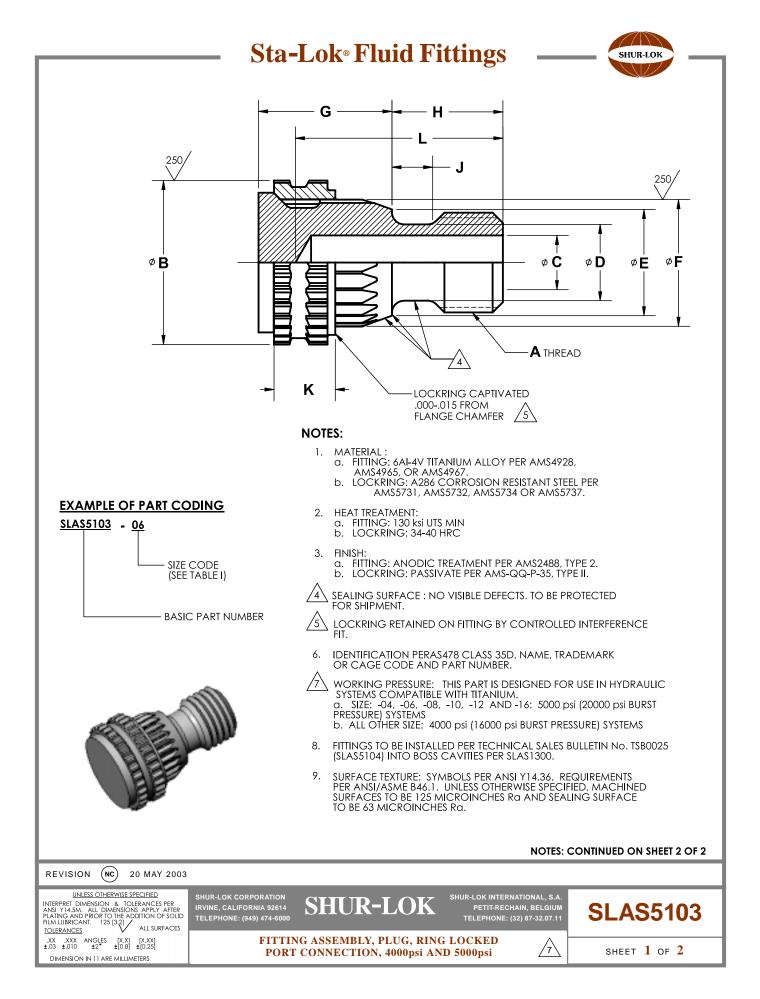
SIZE CODE	ØG	<b>H</b> + .010	<b>J</b> + .000	<b>K</b> + .010	L	WEIGHT LB/EA
	REF	005	015	+ .010 005	± .007	APPROX
04	.400	.856	.355	.125	.192	.0262
05	.491	.856	.381	.125	.192	.0363
06	.544	.931	.395	.125	.210	.0426
08	.670	1.091	.430	.125	.210	.0810
10	.824	1.191	.465	.125	.210	.1321
12	.981	1.301	.527	.157	.220	.1991
16	1.251	1.341	.564	.157	.220	.2953

 Intersert Dimension & Tolerances per NINTERSPECT
 Shur-Lok corporation invince, california 92614 Telephone: (949) 474-6000
 Shure-Lok international, s.a. Petit-rechain, belgium Telephone: (32) 87-32.07.11

 Intersert Intersert
 All SURFACES 100 ± 2<sup>2</sup> ± 10.8] ± 10.25
 Shur-Lok corporation invince, california 92614 Telephone: (949) 474-6000
 Shure-Lok international, s.a. Petit-rechain, belgium Telephone: (32) 87-32.07.11

 Intersert
 Internets
 FITTING ASSEMBLY – PORT CONNECTION RING LOCKED TO SPHERICAL FLARED TUBE END, 3000psi
 Sheet 2 of 2





**NOTES:** CONTINUED

- 10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 11. DIMENSIONS IN INCHES.

SIZE CODE	AS5103 PART			<b>A</b> READ	øВ	øC	Ø <b>D</b>	øE	ļ
	NUMBER			PER \$8879	±.005		+ .005 002	MIN	
02	A\$5103-02	2	.2160-2	28UNJF-3A	.400	.071096	.154	.246	<b>.</b>
03	AS5103-03	3	.2500-	28UNJF-3A	.468	.103128	.186	.278	
04	AS5103-04	ļ.	.3125-	24UNJF-3A	.514	.165175	.239	.331	<u> </u>
05	AS5103-05	5	.3750-	24UNJF-3A	.624	.212237	.301	.393	
06	AS5103-06	5	.4375-	20UNJF-3A	.700	.275300	.364	.456	
08	AS5103-08	3	.5625 <del>-</del>	18UNJF <b>-</b> 3A	.814	.392408	.482	.574	
10	AS5103-10	)	.6875-2	24UNJEF-3A	1.040	.478503	.625	.717	
12	AS5103-12	2	.8125 <b>-</b> 2	20UNJEF-3A	1.170	.604614	.737	.891	
14	AS5103-14	1	.9375-2	20UNJEF-3A	1.341	.714739	.868	1.022	1
16	AS5103-16	5	1.1250-	18UNJEF-3A	1.456	.841851	1.000	1.154	1
20	AS5103-20	)	1.3125-	18UNJEF-3A	1.782	1.037-1.062	1.225	1.379	1
24	A\$5103-24	1	1.6250-	18UNJEF-3A	2.031	1.277-1.302	1.502	1.656	1
32	A\$5103-32	2	2.1250	-16UNJ-3A	2.548	1.746-1.771	2.040	2.194	2
TABLE I CO	NT'D							_	
SIZE CODE	G		Н	J	Κ	L	WEIGHT LB/EA		
	+ .010 005		.000 .015	+ .010 005	± .007	МАХ	APPROX		
02	.418		300	.125	.192	.61	.007		
03	.418		355	.125	.192	.67	.010		
04	.418		355	.125	.192	.67	.012		
05	.426		381	.125	.192	.70	.017		
06	.459	.:	395	.125	.210	.75	.024		
08	.459		430	.125	.210	.78	.032		
10	.459		465	.125	.210	.82	.056		
12	.459		527	.157	.220	.88	.072		
14	.469		572	.157	.220	.88	.095		
16	.469		564	.157	.220	.87	.118		
	.476		569	.157	.240	.85	.179		
20					0.40	.90	0/1	1	
20 24	.497		608	.157	.240	.70	.261		

REVISION (NC) 20 MAY 2003

UNLESS OTHERWISE SPECIFIED

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

INTERPRET DIMENSION & TOLERANGES PER ANSI 1/4.5M, ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FLATING AND PRIOR TO THE ADDITION OF SOLID FLATING AND PRIOR TO THE ADDITION OF SOLID FLATING AND PRIOR TO THE ADDITION OF SOLID CLIERANCES XX XXX ANGLES [XX] [X.XX] 4.03 ±0.10 ±2° ±[0.8] ±[0.25] DIMENSION IN 11 ARE MILLIMETERS

FITTING ASSEMBLY, PLUG, RING LOCKED PORT CONNECTION, 4000psi AND 5000psi

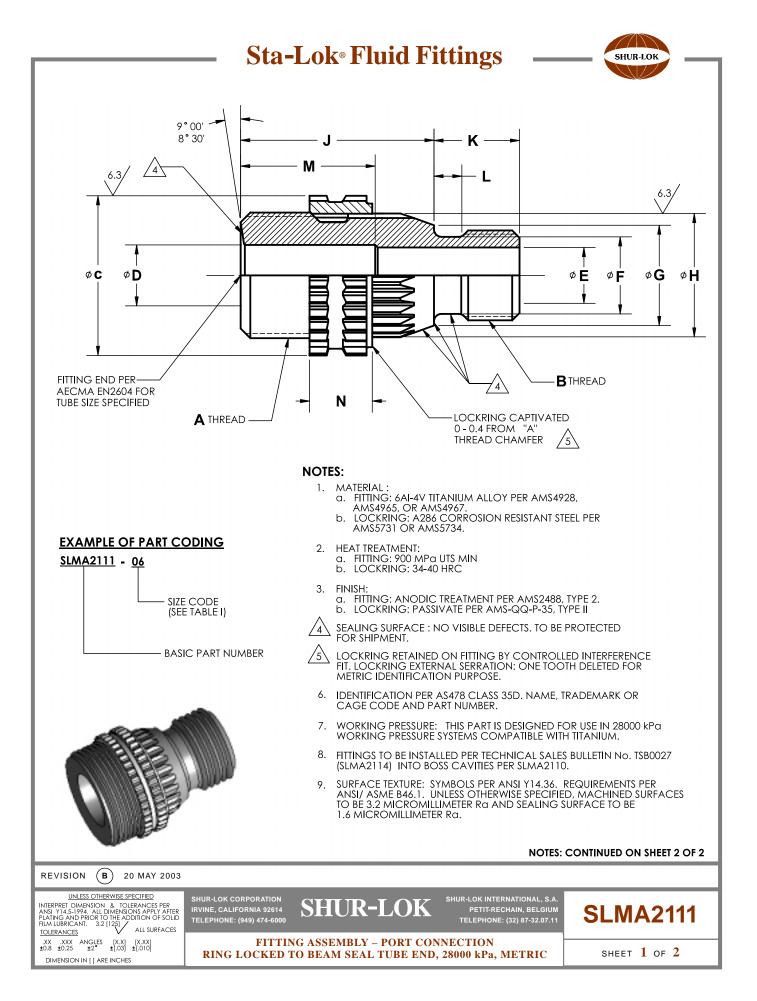
SHUR-LOK

**SLAS5103** 

SHEET 2 of 2

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

 $\sqrt{7}$ 





#### **NOTES:** CONTINUED

- 10. BREAK EDGES 0.08 TO 0.38 UNLESS OTHERWISE SPECIFIED.
- 11. DIMENSIONS IN MILLIMETERS.

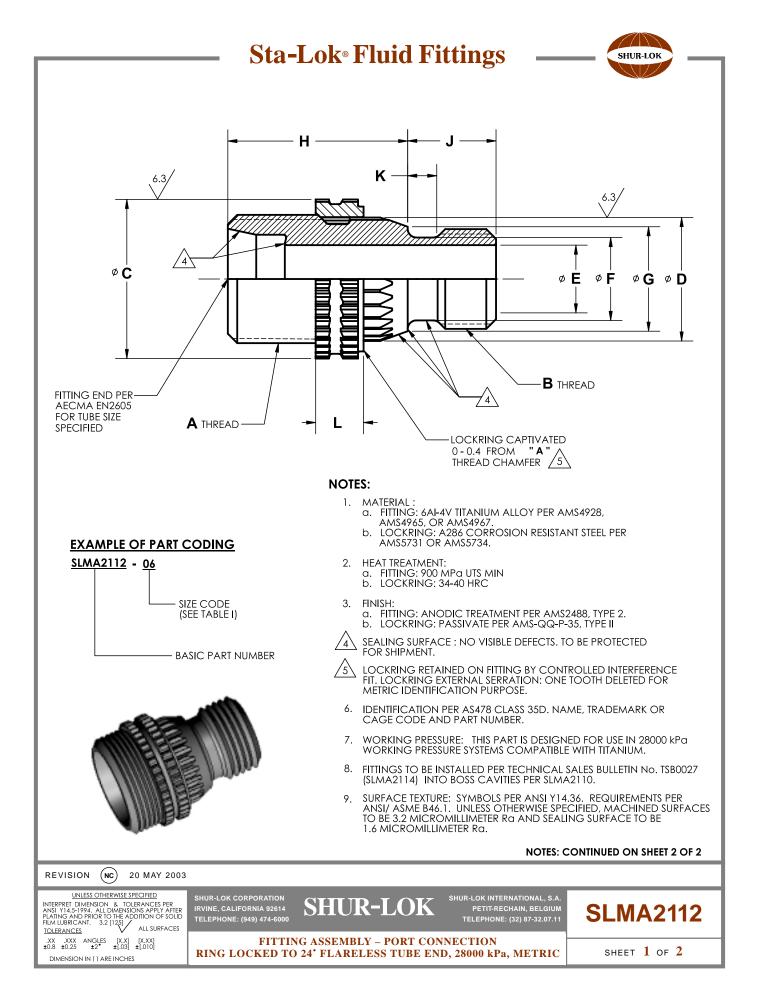
#### TABLE I

SIZE CODE	MA2111 PART NUMBER	AECMA PART NUMBE	<b>`</b>	OMINAL TUBE SIZE REF	A THREAI PER MA133			<b>B</b> THREAD PER MA1370		<b>Ø℃</b> ±0.09	Ø <b>D</b> REF		
05	MA2111-05	EN3566-0	605	5.0	MJ10 X 1-4	lg6g		MJ6 X 1-4ha	śh	12.90	4.20-4.	40	
06	MA2111-06	EN3566-0	806	6.0	MJ12 X 1.25	-4g6g		MJ8 X 1-4ha	śh	14.75	5.00-5.	20	
08	MA2111-08	EN3566-1	008	8.0	MJ14 X 1.5-	4g6g		MJ10 X 1-4h	6h	17.80	6.70-6.	90	
10	MA2111-10	EN3566-1	210	10.0	MJ16 X 1.5	4g6g	N	J12 X 1.25-4	h6h	19.50	8.70-8.	90	
12	MA2111-12	EN3566-1	412	12.0	MJ18 X 1.5-	4g6g	Ν	ЛJ14 X 1.5-4h	n6h	21.00	) 10.60-10	).80	
14	MA2111-14	EN3566-1	614	14.0	MJ20 X 1.5-	4g6g	Ν	ЛJ16 X 1.5-4h	n6h	22.60	) 11.45-11	.65	
16	MA2111-16	EN3566-1	816	16.0	MJ22 X 1.5-	4g6g	Ν	ЛJ18 X 1.5-4h	n6h	26.40	) 13.30-13	3.60	
18	MA2111-18	EN3566-2	2018	18.0	MJ24 X 1.5-	4g6g	Ν	ЛJ20 X 1.5-4h	n6h	28.00	) 15.30-15	5.60	
20	MA2111-20	EN3566-2	220	20.0	MJ27 X 1.5-	4g6g	Ν	ЛJ22 X 1.5-4h	n6h	30.20	) 18.00-18	3.30	
22	MA2111-22	EN3566-2	2422	22.0	MJ30 X 1.5-	4g6g	Ν	ЛJ24 X 1.5-4h	n6h	33.70	20.80-21	.10	
25	MA2111-25	EN3566-2	2725	25.0	MJ33 X 1.5	4g6g	N	ЛJ27 X 1.5-4ŀ	n6h	37.00	22.40-22	2.70	
28	MA2111-28	EN3566-3	8028	28.0	MJ36 X 1.5-	4g6g	Ν	ЛЈЗО X 1.5-4ŀ	n6h	40.95	5 25.60-25	5.90	
32	MA2111-32	EN3566-3	332	32.0	MJ39 X 1.5-	4g6g	Ν	ЛЈЗЗ X 1.5-4h	n6h	43.00	28.30-28	3.60	
ABLE I CO	NT'D												
	ФE	øF	ØG	ØH	J	ĸ		L		М	Ν	WEI KG/	
SIZE CODE	+ 0.20 - 0	+ 0.15 - 0.05	MIN	REF	±0.20	+ 0.5 - 0	60	+ 0.15 - 0.10	±(	0.4	± 0.2	APPI	
05	2.50	4.50	7.10	9.37	16.35	7.95		3.00	1	1.0	5.3	0.0	07
06	4.40	6.50	9.05	11.53	18.85	8.60		3.00	1;	3.0	6.1	0.0	09
08	6.10	8.50	11.06	13.87	21.60	9.30		3.00	1.	5.0	7.0	0.0	15
10	7.70	10.20	12.78	15.37	21.60	10.00	)	3.00	1.	5.0	7.0	0.0	18
12	9.00	11.90	14.38	17.12	21.65	10.65	5	3.00	1.	5.0	7.0	0.0	22
14	10.70	13.90	16.36	18.77	21.85	11.30	)	3.00	1.	5.0	7.0	0.0	26
16	12.50	15.90	18.37	20.93	21.85	12.00	)	3.00	1	5.0	7.0	0.0	33
18	14.20	17.90	20.37	23.85	22.65	12.70	)	3.00	1.	5.0	7.0	0.0	38
20	15.90	19.90	22.38	24.92	23.25	13.35	5	3.00	1.	5.5	7.0	0.0	44
22	17.65	21.90	24.35	27.41	23.25	14.00	)	3.00	1.	5.5	7.0	0.0	50
25	20.20	24.90	27.35	31.47	23.65	15.05	5	3.00	1.	5.5	7.0	0.0	65
28	22.80	27.90	30.37	33.60	23.65	16.05	5	3.00	1.	5.5	7.0	0.0	77
32	25.40	30.90	33.37	37.57	23.65	17.05	5	3.00	1.	5.5	7.0	0.0	86
VISION B	) 20 MAY 2003						-						
UNLESS OTHER RPRET DIMENSION I Y14.5-1994. ALL DI TING AND PRIOR TO 1 LUBRICANT. 3.2 [1	MISE SPECIFIED & TOLERANCES PER MENSIONS APPLY AFTER THE ADDITION OF SOLID 251 ALL SURFACES	SHUR-LOK COP IRVINE, CALIFC TELEPHONE: (\$	RNIA 92614	SHL	J <b>R-LO</b>	K si	F	OK INTERNATION PETIT-RECHAIN, B EPHONE: (32) 87-	ELGIUM		SLMA	21	11

INTERPRET DIMENSION & TOLERANCES PER PNTNS 171 (4-5)94 ALL DIMENSIONS AFPLY AFTER PNTNG AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 32, 2125 ALL SURFACES XX XXX ANGLES [XX] [XXX] ±0.8 ±0.25 ±2° ±1.03 ±[.010] DIMENSION IN 11 ARE INCHES

FITTING ASSEMBLY – PORT CONNECTION RING LOCKED TO BEAM SEAL TUBE END, 28000 kPa, METRIC

sheet 2 of 2





#### **NOTES:** CONTINUED

- 10. BREAK EDGES 0.08 TO 0.38 UNLESS OTHERWISE SPECIFIED.
- 11. DIMENSIONS IN MILLIMETERS.

#### TABLE I

SIZE CODE	MA2112 PART NUMBER	NOMINAL TUBE SIZE REF	A THREAD PER MA1370	B THREAD PER MA1370	Ø <b>C</b> ±0.09	Ø <b>D</b> REF
05	MA2112-05	5.0	MJ10 X 1-4g6g	MJ6 X 1-4h6h	12.90	9.37
06	MA2112-06	6.0	MJ12 X 1.25-4g6g	MJ8 X 1-4h6h	14.75	11.53
08	MA2112-08	8.0	MJ14 X 1.5-4g6g	MJ10 X 1-4h6h	17.80	13.87
10	MA2112-10	10.0	MJ16 X 1.5-4g6g	MJ12 X 1.25-4h6h	19.50	15.37
12	MA2112-12	12.0	MJ18 X 1.5-4g6g	MJ14 X 1.5-4h6h	21.00	17.12
14	MA2112-14	14.0	MJ20 X 1.5-4g6g	MJ16 X 1.5-4h6h	22.60	18.77
16	MA2112-16	16.0	MJ22 X 1.5-4g6g	MJ18 X 1.5-4h6h	26.40	20.93
20	MA2112-20	20.0	MJ27 X 1.5-4g6g	MJ22 X 1.5-4h6h	30.20	24.92
25	MA2112-25	25.0	MJ33 X 1.5-4g6g	MJ27 X 1.5-4h6h	37.00	31.47
32	MA2112-32	32.0	MJ42 X 2-4g6g	MJ36 X 1.5-4h6h	50.45	41.10
40	MA2112-40	40.0	MJ50 X 2-4g6g	MJ42 X 2-4h6h	59.05	49.45

#### TABLE I CONT'D

SIZE CODE	Ø <b>E</b> + 0.20 - 0	Ø <b>F</b> + 0.15 - 0.05	Ø <b>G</b> MIN	<b>H</b> ±.20	<b>J</b> + 0.50 - 0	<b>K</b> + 0.15 - 0.10	<b>L</b> ±0.2	WEIGHT KG/EA APPROX
05	2.50	4.50	7.10	18.15	7.95	3.00	5.3	.007
06	4.40	6.50	9.05	19.95	8.60	3.00	6.1	.010
08	6.10	8.50	11.06	21.95	9.30	3.00	7.0	.015
10	7.70	10.20	12.78	22.95	10.00	3.00	7.0	.018
12	9.00	11.90	14.38	22.95	10.65	3.00	7.0	.021
14	10.70	13.90	16.36	22.95	11.30	3.00	7.0	.025
16	12.50	15.90	18.37	22.95	12.00	3.00	7.0	.033
20	15.90	19.90	22.38	24.55	13.35	3.00	7.0	.045
25	20.20	24.90	27.35	25.65	15.05	3.00	7.0	.070
32	27.95	33.90	36.35	29.15	18.10	3.00	7.7	.145
40	32.55	39.25	41.73	32.05	20.00	3.00	7.7	.210

REVISION (NC) 20 MAY 2003

UNLESS OTHERWISE SPECIFIED INTERPET DIMENSION & TOLERANCES PER ANSI 114,5-194, ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 3.2,125 TOLERANCES

SHUR-LOK

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000 SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

### **SLMA2112**

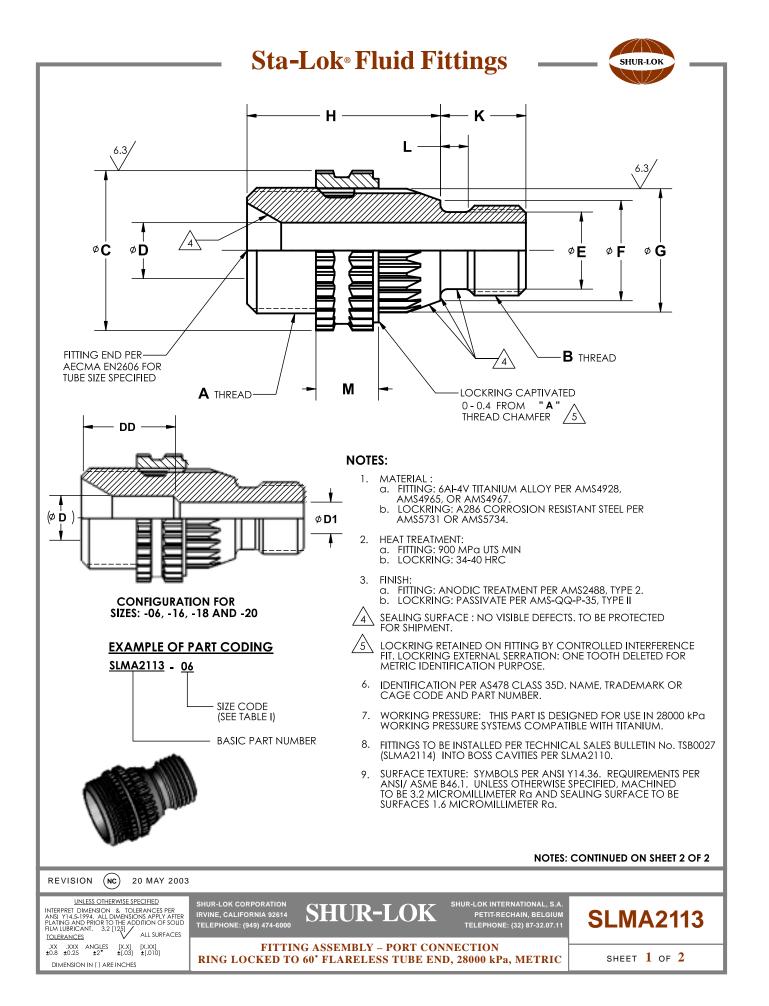
 TOLERANCES
 ALL SURFA

 .XX
 .XXX
 ANGLES
 [X.X]
 [X.XX]

 ±0.8
 ±0.25
 ±2°
 ±[.03]
 ±[.010]
 DIMENSION IN [] ARE INCHES

FITTING ASSEMBLY – PORT CONNECTION RING LOCKED TO 24<sup>•</sup> FLARELESS TUBE END, 28000 kPa, METRIC

sheet 2 of 2





#### **NOTES:** CONTINUED

10. BREAK EDGES 0.08 TO 0.38 UNLESS OTHERWISE SPECIFIED.

11. DIMENSIONS IN MILLIMETERS.

#### TABLE I

SIZE CODE	MA2113 PART NUMBER	NOMINAL TUBE SIZE REF	A THREAD PER MA1370	B THREAD PER MA1370	<b>∅ C</b> ±0.09	Ø <b>D</b> +0.20 -0	Ø <b>D1</b> +0.20 -0	<b>DD</b> ±0.20
04	MA2113-04	4.0	MJ10 X 1-4g6g	MJ6 X 1-4h6h	12.90	2.50	-	-
06	MA2113-06	6.0	MJ12 X 1.25-4g6g	MJ8 X 1-4h6h	14.75	4.50	4.40	12.85
08	MA2113-08	8.0	MJ16 X 1.5-4g6g	MJ12 X 1.25-4h6h	19.50	7.70	-	-
10	MA2113-10	10.0	MJ18 X 1.5-4g6g	MJ14 X 1.5-4h6h	21.00	9.00	-	-
12	MA2113-12	12.0	MJ20 X 1.5-4g6g	MJ16 X 1.5-4h6h	22.60	10.70	-	-
14	MA2113-14	14.0	MJ22 X 1.5-4g6g	MJ18 X 1.5-4h6h	26.40	12.50	-	-
16	MA2113-16	16.0	MJ24 X 1.5-4g6g	MJ20 X 1.5-4h6h	28.00	14.50	14.20	15.05
18	MA2113-18	18.0	MJ27 X 1.5-4g6g	MJ22 X 1.5-4h6h	30.20	16.50	15.90	16.00
20	MA2113-20	20.0	MJ30 X 1.5-4g6g	MJ24 X 1.5-4h6h	33.70	18.50	17.65	16.00

#### TABLE I CONT'D

SIZE CODE	Ø <b>E</b> + 0.15 - 0.05	Ø <b>F</b> MIN	Ø <b>G</b> Ref	<b>H</b> ±0.20	<b>K</b> + 0.50 - 0	<b>L</b> + 0.15 - 0.10	<b>M</b> ± 0.2	WEIGHT KG/EA APPROX
04	4.50	7.10	9.37	16.35	7.95	3.00	5.3	.007
06	6.50	9.05	11.53	18.85	8.60	3.00	6.1	.010
08	10.20	12.78	15.37	21.60	10.00	3.00	7.0	.019
10	11.90	14.38	17.12	21.65	10.65	3.00	7.0	.022
12	13.90	16.36	18.77	21.85	11.30	3.00	7.0	.029
14	15.90	18.37	20.93	21.85	12.00	3.00	7.0	.033
16	17.90	20.37	23.85	22.65	12.70	3.00	7.0	.037
18	19.90	22.38	24.92	23.25	13.35	3.00	7.0	.044
20	21.90	24.35	27.41	23.25	14.00	3.00	7.0	.050



SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER ANSI 114.5-1994. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM UBRICANT. 3.2.2.125/ ALL SURFACES XX XXX ANGLES [X,X] [X,XX] 0.8 ±0.2 ±2.2 ±1.03] ±[.0.10] DIMENSION IN [1 ARE INCHES

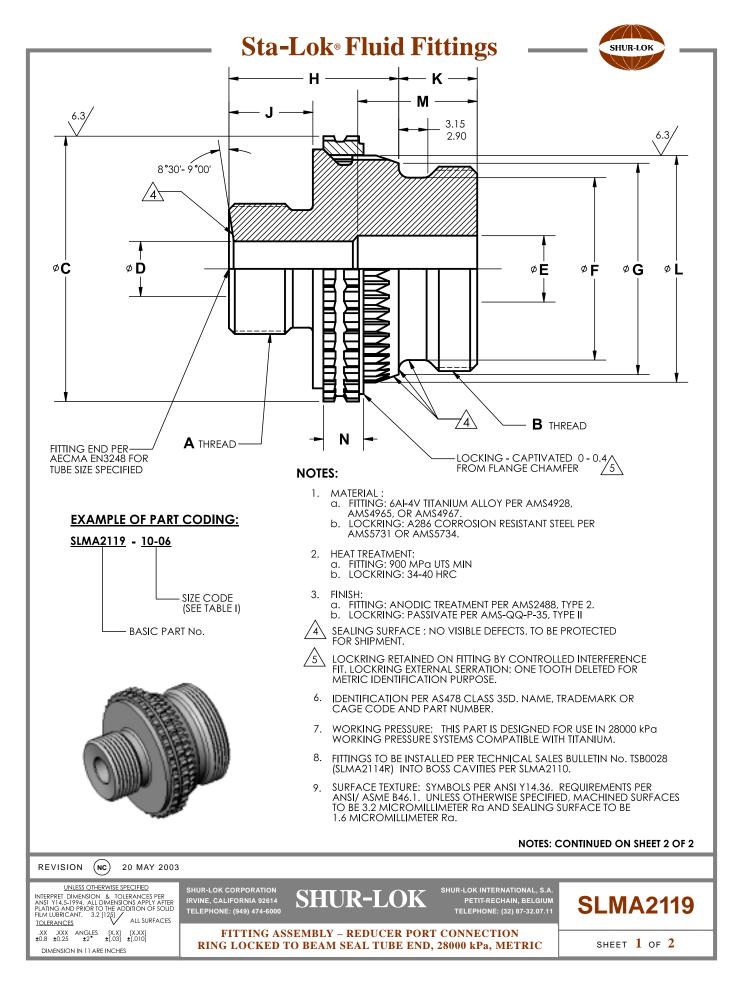
SHUR-LOK T

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

**SLMA2113** 

FITTING ASSEMBLY – PORT CONNECTION RING LOCKED TO 60° FLARELESS TUBE END, 28000 kPa, METRIC

sheet 2 of 2





#### **NOTES:** CONTINUED

- 10. BREAK EDGES 0.08 TO 0.38 UNLESS OTHERWISE SPECIFIED.
- 11. DIMENSIONS IN MILLIMETERS.

TABLE I

SIZE CODE	PORT SIZE END	TUBE SIZE END	MA2119 PART NUMBER		P.	CMA ART MBER		A HREA PER			B THREAD PER MA137	h	ø <b>C</b> ±0.09	Ø <b>D</b>
						MBER		MA1370 (ISO5855)		(ISO5855)		_0.07		
08-06	08	06	MA2119-08	-06	EN32	48-1006	MJ12 X 1.25-4g6g		M.	J10 X 1-4	h6h	17.80	5.00-5.20	
10-06	10	06	MA2119-10	-06	EN32	48-1206	MJ12 >	( 1.25	5-4g6g	MJ12 X 1.25-4h6h		10.50	5.00-5.20	
10-08	10	08	MA2119-10	-08	EN32	48-1208	MJ14 >	< 1.5-	4g6g			-4n6n	19.50	6.70-6.90
12-06		06	MA2119-12	2-06	EN32	48-1406	MJ12 >	( 1.25	5-4g6g				5.00-5.20	
12-08	12	08	MA2119-12	-08	EN3248-1408		MJ14 X 1.5-4g6g		MJ14 X 1.5-4h6h	21.00	6.70 <b>-</b> 6.90			
12-10		10	MA2119-12	-10	EN32	48-1410	MJ16 >	< 1.5-	4g6g				8.70-8.90	
14-06		06	MA2119-14	-06	EN32	48-1606	MJ12 >	( 1.25	5-4g6g				5.00-5.20	
14-08	14	08	MA2119-14	1-08	EN32	48-1608	MJ14 X 1.5-4g6g		MJ16 X 1.5-4h6h		22.60	6.70-6.90		
14-10	14	10	MA2119-14	-10	EN32	48-1610	MJ16 >	× 1.5-	4g6g	1013	10 × 1.5	411011	22.60	8.70-8.90
14-12		12	MA2119-1-	4-12	EN32	48-1612	MJ18 X 1.5-4g6g		]			10.60-10.80		
ABLE I CONT'D														
	Ø	E	øF	ø	G	н		J	к		øL	М	N	

	øЕ	øF	øG	н	J	к	øL	м	N
SIZE CODE	+ 0.20 - 0	+ 0.15 - 0.05	MIN	± 0.2	± 0.15	+ 0.50 - 0	REF	±0.40	±0.20
08-06	6.10	8.50	11.06	25.2	8.75	9.30	13.87	16.15	7.00
10-06	7.70	10.20	12.78	25.2	8.75	10.00	15.37	16.70	7.00
10-08	7.70	10.20	12.70	27.0	10.55				7.00
12-06				25.2	8.75				
12-08	9.00	11.90	14.38	27.0	10.55	10.65	17.12	17.45	7.00
12-10				27.0	10.55				
14-06				25.2	8.75				
14-08	10.70	13.90	16.36	27.0	10.55	11.30	18.77	17.90	7.00
14-10	10.70		. 5.66	27.0	10.55				1.00
14-12				27.0	10.55				

REVISION (NC) 20 MAY 2003

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER ANSI 114.5194. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 3.2 [12] ALL SURFACES XX XXX ANGLES [X,X] [X,XX] to.8 ±0.25 ±2° ±[.03] ±[.010] DIMENSION IN 11 ARE INCHES

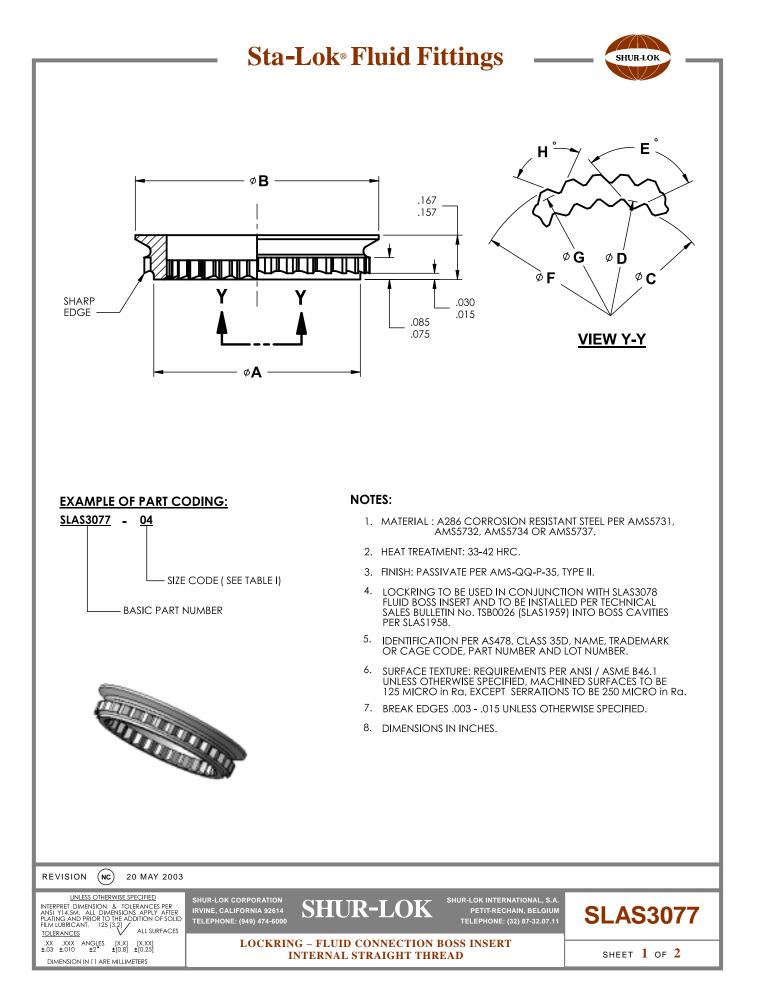
SHUR-LOK

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

**SLMA2119** 

FITTING ASSEMBLY – REDUCER PORT CONNECTION RING LOCKED TO BEAM SEAL TUBE END, 28000 kPa, METRIC

SHEET 2 of 2



# Sta-Lok<sup>®</sup> Fluid Fittings \_\_\_\_\_



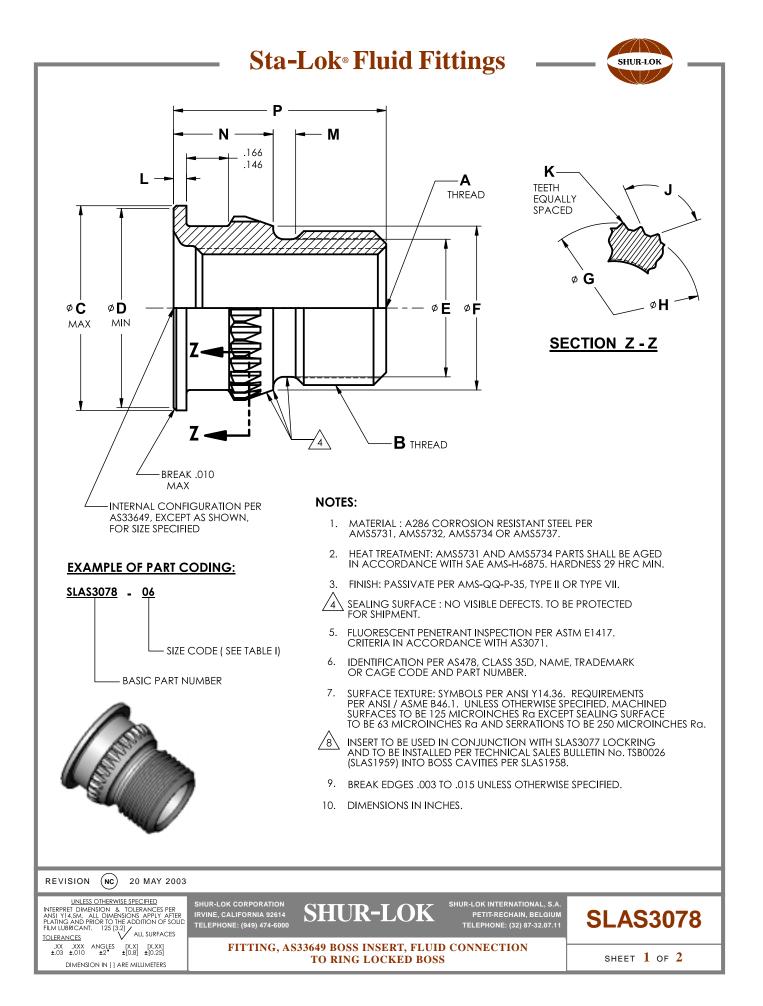
TABLE I

SIZE CODE	AS3077 PART NUMBER	ø <b>А</b> мах	Ø <b>B</b>	Ø <b>C</b>	ØD	E°	Ø <b>F</b>	ø G
02	AS3077-02	.630	.755775	.509516	.549559	95 - 98	.697706	.649658
03	AS3077-03	.693	.820840	.576583	.616626	94 - 97	.760769	.712721
04	AS3077-04	.755	.880900	.639646	.677687	93.5 <b>-</b> 96.5	.822831	.774783
05	AS3077-05	.818	.940960	.702709	.742752	93 - 96	.885894	.837846
06	AS3077-06	.865	.990 - 1.010	.764771	.806816	93 - 96	.932941	.884893
08	AS3077-08	1.113	1.240 - 1.260	.994 - 1.001	1.034 - 1.044	92 - 95	1.183 <b>-</b> 1.192	1.134 - 1.143
10	AS3077-10	1.238	1.370 - 1.390	1.129 - 1.136	1.177 - 1.187	92 - 95	1.308 - 1.317	1.259 - 1.268
12	AS3077-12	1.455	1.590 -1.610	1.317 -1.324	1.367 -1.377	91.5 <del>-</del> 94.5	1.527 -1.536	1.478 -1.487
16	AS3077-16	1.716	1.850 - 1.870	1.567 - 1.574	1.617 <del>-</del> 1.627	91 - 94	1.793 - 1.802	1.744 - 1.753
20	AS3077-20	2.111	2.240 - 2.260	1.973 - 1.980	2.022 - 2.032	90.5 - 93.5	2.183 <del>-</del> 2.192	2.134 <del>-</del> 2.143

#### TABLE I CONT'D

H°	WEIGHT LB/100 PIECES APPROX	INSERT SLAS3078 SIZE CODE	
92 <del>-</del> 96	.69	02	
92.5 - 96.5	.72	03	
92 - 96	.77	04	
92 - 96	.87	05	
92 - 96	.78	06	
91.5 - 95.5	1.12	08	
91 - 95	1.17	10	
90.5 - 94.5	1.61	12	
90 - 94	2.10	16	
90 - 94	2.39	20	

REVISION (NC) 20 MAY 2003										
UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER ANSI Y14.5M, ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 125 [3:2] ALL SURFACES	SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000	SHUR-LOK	SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11	SLAS3077						
.XX .XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2* ±[0.8] ±[0.25] DIMENSION IN [1] ARE MILLIMETERS		G – FLUID CONNECTION I NTERNAL STRAIGHT THR		SHEET 2 OF 2						





ABLE I								
	A\$3078	Α	В	ØC	ØD	øE	øF	ØG
SIZE CODE	AS3078 PART NUMBER	THREAD PER AS8879	THREAD PER AS8879	МАХ	MIN	+ .005 002	±.003	+ .005 004
02	AS3078-02	.3125-24UNJF-3B	.4375-28UNJEF-3A	.622	.602	.375	.469	.544
03	AS3078-03	.3750-24UNJF-3B	.5000-28UNJEF-3A	.685	.665	.440	.536	.611
04	AS3078-04	.4375-20UNJF-3B	.5625-24UNJEF-3A	.748	.728	.503	.599	.672
05	AS3078-05	.5000-20UNJF-3B	.6250-24UNJEF-3A	.810	.790	.566	.662	.737
06	AS3078-06	.5625-18UNJF-3B	.6875-24UNJEF-3A	.867	.852	.628	.724	.801
08	AS3078-08	.7500-16UNJF-3B	.9375-20UNJEF-3A	1.060	1.040	.858	.954	1.029
10	AS3078-10	.8750-14UNJF-3B	1.0625-18UNJEF-3A	1.185	1.165	.983	1.079	1.172
12	AS3078-12	1.0625-12UNJ-3B	1.2500-18UNJEF-3A	1.435	1.415	1.171	1.267	1.362
16	AS3078-16	1.3125-12UNJ-3B	1.5000-18UNJEF-3A	1.685	1.665	1.421	1.517	1.612
20	AS3078-20	1.6250-12UNJ-3B	1.8750-16UNJ-3A	2.020	1.978	1.760	1.918	2.012

#### TABLE I CONT'D

SIZE CODE	Ø <b>H</b> + .005 004	<b>J</b> ± 1.5°	К	<b>L</b> + .010 004	<b>M</b> + .010 005	<b>N</b> ±.015	Р	WEIGHT LB/EA APPROX	LOCKRING SLAS3077 SIZE CODE
02	.502	96.5	24	.047	.082	.364	.761	.0219	02
03	.569	95.5	28	.047	.082	.364	.729	.0286	03
04	.632	95.0	31	.047	.082	.364	.777	.0285	04
05	.695	94.5	34	.047	.082	.364	.802	.0358	05
06	.758	94.5	36	.047	.082	.364	.830	.0359	06
08	.988	93.5	48	.047	.082	.364	.955	.0757	08
10	1.122	93.5	46	.057	.082	.374	1.051	.0979	10
12	1.310	93.0	54	.072	.082	.389	1.185	.1219	12
16	1.560	92.5	64	.072	.082	.389	1.185	.1836	16
20	1.961	92.0	80	.072	.122	.389	1.237	.2796	20

REVISION (NC) 20 MAY 2003

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER ANSI 714.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 125 [3.2] IOLERANCES

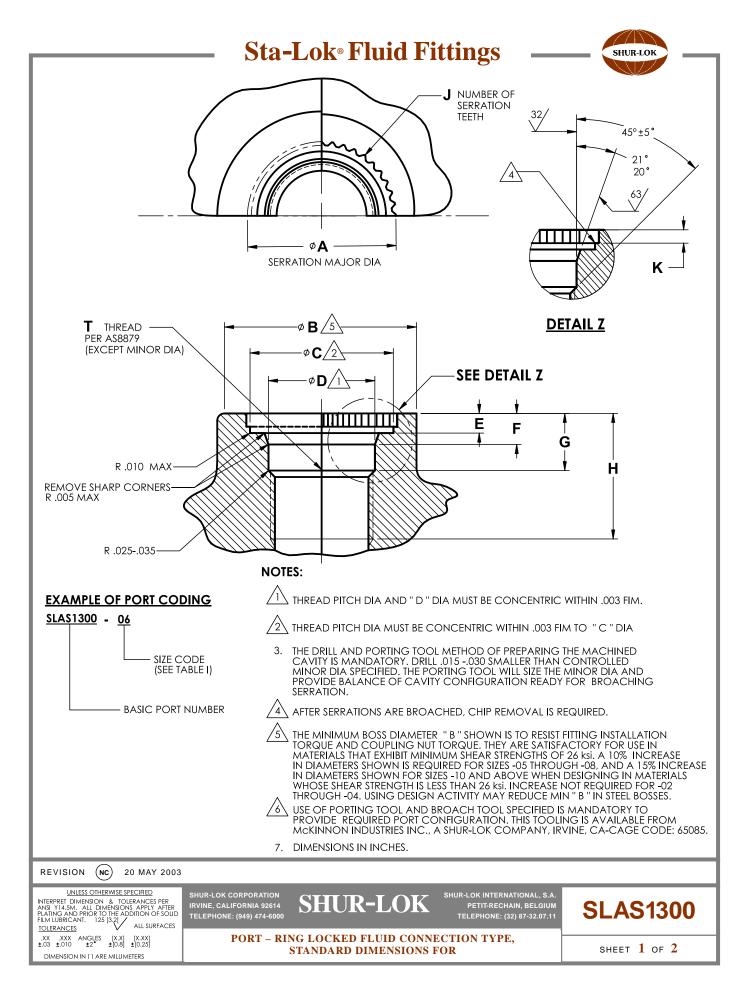
XX XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2° ±[0.8] ±[0.25] DIMENSION IN [] ARE MILLIMETERS SHUR-LOK

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

**SLAS3078** 

FITTING, AS33649 BOSS INSERT, FLUID CONNECTION TO RING LOCKED BOSS

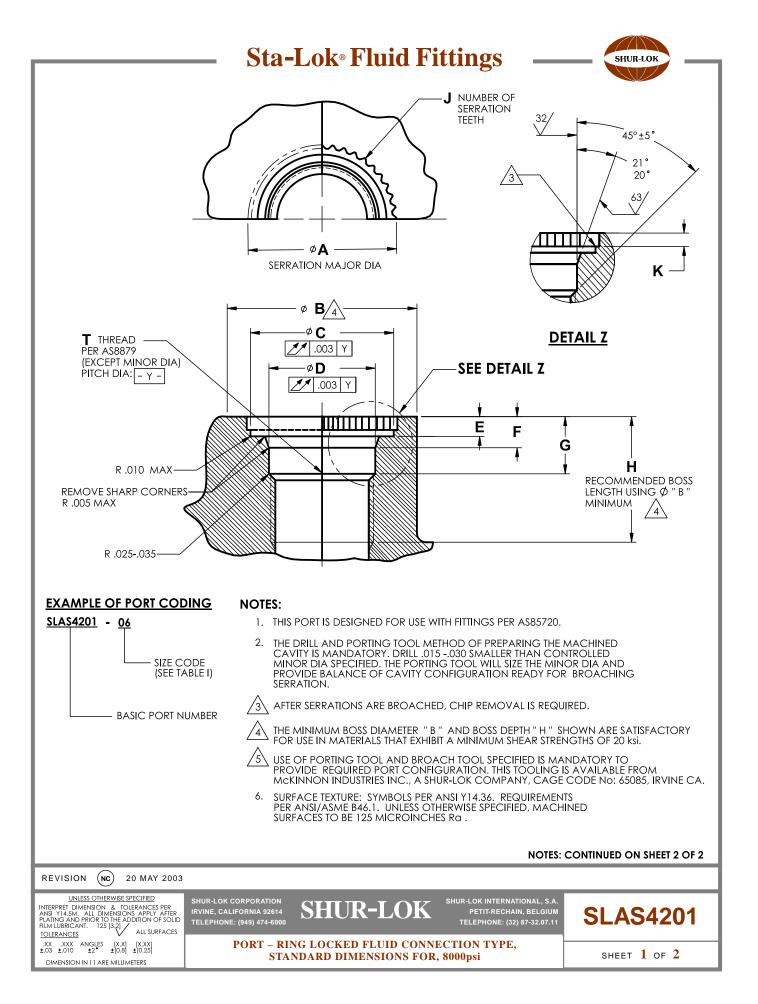
SHEET 2 of 2



## Sta-Lok<sup>®</sup> Fluid Fittings



SIZE	AS1300 PORT				т	THREAD		ØA	Ø <b>B</b>	Ø <b>C</b>	øD
CODE	NUMBER	SIZE REF		/	PER \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		NTROLLED NOR DIA	MIN	$\frac{MIN}{5}$	2	$\underline{\land}$
02	AS1300-02	.125	5	.2160	-28UNJF-3B	.182	271857	.408	.50	.381384	.254256
03	A\$1300-03	.188	3	.2500	-28UNJF-3B	.210	372197	.478	.62	.448451	.286288
04	AS1300-04	.250	)	.3125	-24UNJF-3B	.273	342764	.524	.68	.495498	.339341
05	AS1300-05	.312	2	.3750	-24UNJF-3B	.33	593389	.635	.79	.601604	.401403
06	AS1300-06	.375	5	.4375	-20UNJF-3B	.390	)33933	.710	.85	.675678	.464466
08	A\$1300-08	.500	)	.5625	-18UNJF-3B	.509	995129	.826	1.04	.784787	.582584
10	A\$1300-10	.625	5	.6875	-24UNJEF-3B	.648	346514	1.052	1.17	1.015-1.018	.725727
12	AS1300-12	.750	)	.8125	-20UNJEF-3B	.765	537683	1.182	1.42	1.139-1.142	.899901
14	AS1300-14	.875	5	.9375	-20UNJEF-3B	.890	)38933	1.354	1.54	1.311-1.314	1.030 - 1.03
16	AS1300-16	1.000	)	1.1250	-18UNJEF-3B	1.07	14-1.0744	1.471	1.67	1.427-1.430	1.162 - 1.164
20	A\$1300-20	1.250	)	1.3125	-18UNJEF-3B	1.259	99-1.2629	1.795	1.98	1.750-1.753	1.387 - 1.38
24	AS1300-24	1.500	)	1.6250	-18UNJEF-3B	1.572	24-1.5754	2.045	2.23	2.000-2.005	1.664 - 1.66
32	AS1300-32	2.000	)	2.1250	-16UNJ-3B	2.06	27-2.0657	2.561	2.86	2.516-2.521	2.202 - 2.20
SIZE CODE	E	F		G	<b>H</b> MIN FULL THREAD DEPTH	J No. OF TEETH	<b>K</b> MIN	PORTIN TOOL I REF	NO. TOC	DACH DL No.	
02	.088098	.153158	2	96301	.507	24	.061	REF MPT02		EF PB5002	
02	.088098	.153158	-	96301	.568	24	.061	MPTO:	_	PB5003	
03	.088098	.153158	-	96301	.568	30	.061	MPT04		PB5004	
05	.088098	.153158		96301	.594	36	.061	MPTO:	_	PB5005	
06	.103113	.168173	-	11316	.631	36	.073	MITO		PB5006	
			_					-			
08	.103113	.168173	-	11316	.672	40	.073	MPTO	·	PB5008	
10	.103113	.168173	-	11316	.693	38	.073	MPT10		PB5010	
12	.103113	.168173		43348	.763	40	.073	MPT12	2 MFO	PB5012	
14	.103113	.168173	.3	43348	.800	50	.073	MPT14	4 MFO	PB5014	
16	.103113	.168173	.3	43348	.806	36	.073	MPT10	6 MFO	PB5016	
20	.130140	.195200	.3	75380	.838	56	.093	MPT20	) MFO	PB5020	
24	.130140	.195200	.3	75380	.877	81	.093	MPT24	1 MFO	PB5024	
32	.130140	.236241	.4	16421	1.050	102	.093	MPT32	2 MFO	PB5032	
EVISION (	NC) 20 MAY 2	2003									
UNLESS OT	HERWISE SPECIFIED N & TOLERANCES PE DIMENSIONS APPLY AF TO THE ADDITION OF S 25 13.21	SHUR-LON R TER IRVINE, CA OLID TELEPHO	LIFOR		SHU	R-LC	JK	PETIT-RECH	ATIONAL, S.A. AIN, BELGIUM 32) 87-32.07.11	SLA	S1300
<u>lerances</u> k .xxx angl <u>e</u>	V ALL SURFA	CES	PO		IG LOCKED			ON TYPI	Ξ,		
	±[0.8] ±[0.25] ARE MILLIMETERS				STANDARD					SHEET	2 OF 2





#### **NOTES:** CONTINUED

- 7. DIMENSIONING AND TORANCING: ASME Y14.5M-1994.
- 8. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
- 9. DIMENSIONS IN INCHES.

#### TABLE I

SIZE CODE	AS4201 PORT	NOMINAL TUBE	Т	THREAD	ØA	ØB	ø <b>C</b>	ØD
CODE	NUMBER	SIZE REF	PER AS8879	CONTROLLED MINOR DIA	MIN			
02	A\$4201-02	.125	.2160-28UNJF-3B	.18271857	.408	.650	.381384	.254256
03	AS4201-03	.188	.2500-28UNJF-3B	.21672197	.478	.800	.448451	.286288
04	AS4201-04	.250	.3125-24UNJF-3B	.27342764	.524	.880	.495498	.339341
05	AS4201-05	.312	.3750-24UNJF-3B	.33593389	.635	1.030	.601604	.401403
06	AS4201-06	.375	.4375-20UNJF-3B	.39033933	.710	1.100	.675678	.464466
07	AS4201-07	.438	.5000-20UNJF-3B	.45284558	.778	1.250	.747750	.523525
08	AS4201-08	.500	.5625-18UNJF-3B	.50995129	.826	1.350	.784787	.582584
09	AS4201-09	.562	.6250-24UNJEF-3B	.58595889	.902	1.400	.860863	.660662
10	AS4201-10	.625	.6875-24UNJEF-3B	.64846514	1.052	1.520	1.015-1.018	.725727
11	AS4201-11	.688	.7500-20UNJEF-3B	.70287058	1.116	1.680	1.073-1.076	.773775

#### TABLE I CONT'D

0.75	_	_			_		TOO	ling $\int_{5}$
SIZE CODE	E	F	G	H MIN FULL THREAD DEPTH	J No. OF TEETH	<b>K</b> MIN	PORTING TOOL No. REF	BASIC BROACH TOOL No. REF
02	.088098	.153158	.296301	.514	24	.061	MPT02	MFOPB5002
03	.088098	.153158	.296301	.525	26	.061	MPT03	MFOPB5003
04	.088098	.153158	.296301	.553	30	.061	MPT04	MFOPB5004
05	.088098	.153158	.296301	.579	36	.061	MPT05	MFOPB5005
06	.103113	.168173	.311316	.624	36	.073	MPT06	MFOPB5006
07	.103113	.168173	.311316	.648	40	.073	MPT07	MFOPB5007
08	.103113	.168173	.311316	.675	40	.073	MPT08	MFOPB5008
09	.103113	.168173	.311316	.703	40	.073	MPT09	MFOPB5009
10	.103113	.168173	.311316	.728	38	.073	MPT10	MFOPB5010
11	.103113	.168173	.311316	.751	43	.073	MPT11	MFOPB5011

REVISION (NC) 20 MAY 2003

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSION & TOLERANCES PER ANSI 114.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TO THE ADDITION OF SOLID FILM LUBRICANT. 125 [3,2] TOLERANCES XX XXX ANGLES [X.X] [X.XX] ±.03 ±.010 ±2° ±[0.8] ±[0.25] DIMENSION IN 11 ARE MILLIMETERS

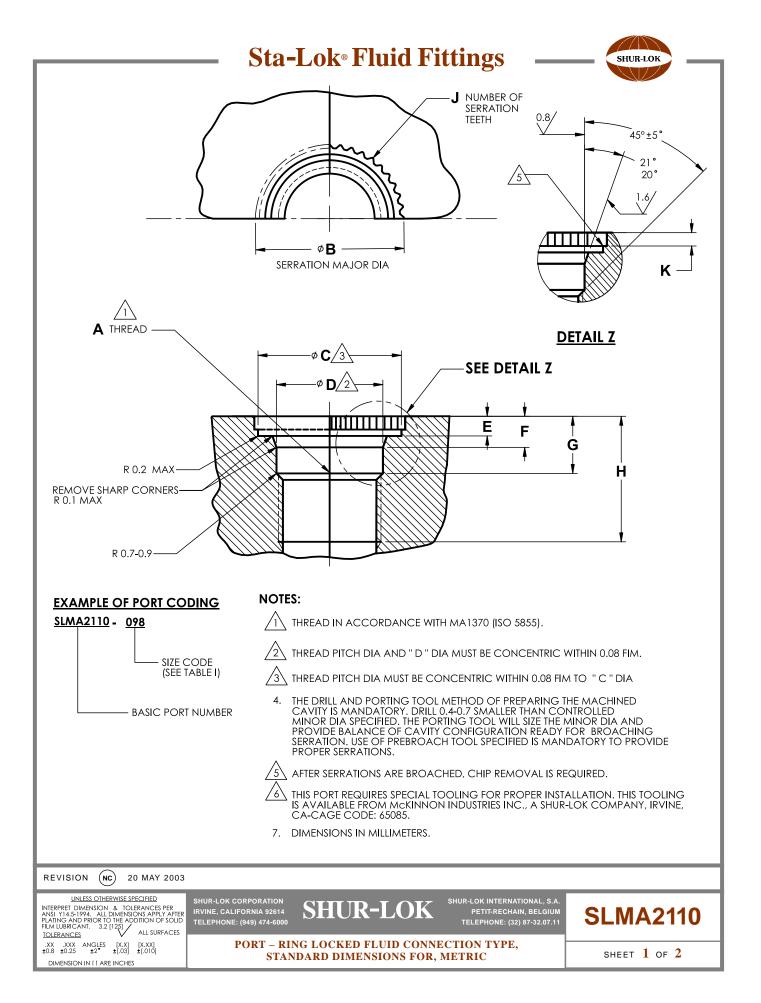
SHUR-LOK

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

**SLAS4201** 

PORT – RING LOCKED FLUID CONNECTION TYPE, STANDARD DIMENSIONS FOR, 8000psi

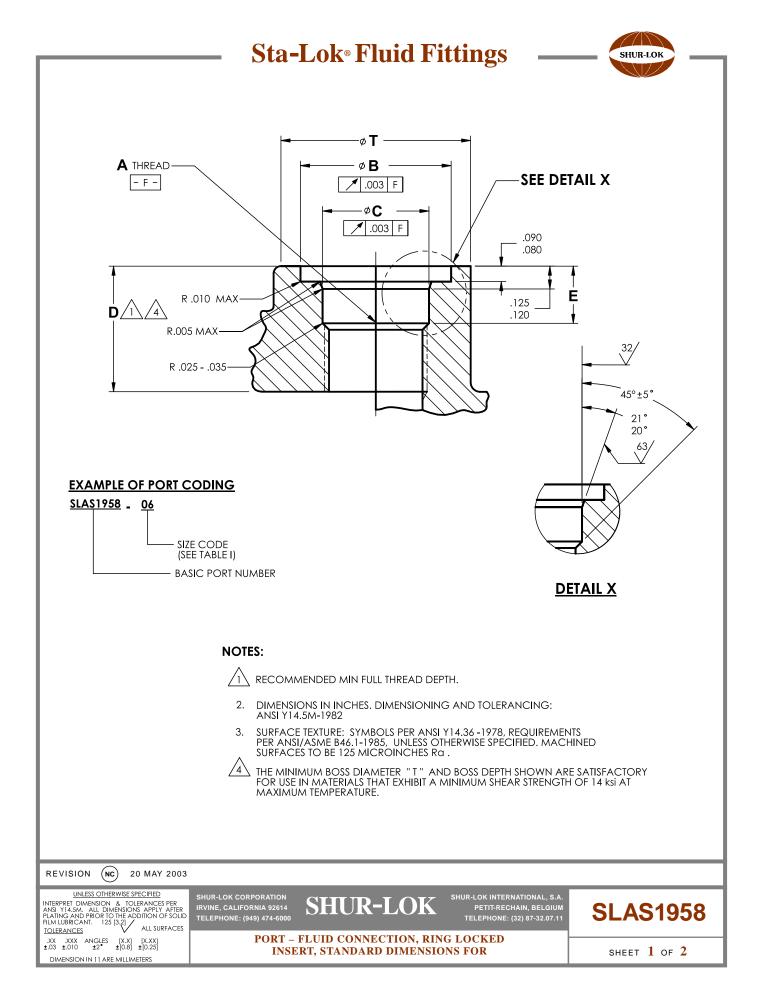
SHEET 2 of 2



# Sta-Lok<sup>®</sup> Fluid Fittings



SIZE         PC           077         MA21           098         MA21           125         MA21           136         MA21           136         MA21           170         MA21           170         MA21           214         MA21           231         MA21           253         MA21	2110 DRT MBER 110-077 110-098 110-125 110-136 110-153 110-153 110-170 110-214 110-214 110-231 110-253	TUBE SIZE REF           5.0           6.0           10.0           12.0           14.0           16.0           18.0	PER MA13 MJ6 X1-4 MJ8 X1-4 MJ10 X1- MJ12 X1. MJ14 X1. MJ16 X1.	870 H5H H5H	CONTROL MINOR E		SERRATION	¢ <b>C</b>	ØD
098         MA21           125         MA21           136         MA21           153         MA21           170         MA21           170         MA21           170         MA21           214         MA21           231         MA21           253         MA21           295         MA21	110-098 110-125 110-136 110-153 110-170 110-172 110-214 110-231	5.0 6.0 8.0 10.0 12.0 14.0 16.0	MJ6 X1-4 MJ8 X1-4 MJ10 X1- MJ12 X1. MJ14 X1.	H5H H5H			MAJOR DIA MIN	3	2
098         MA21           125         MA21           136         MA21           153         MA21           170         MA21           170         MA21           192         MA21           214         MA21           231         MA21           253         MA21           295         MA21	110-098 110-125 110-136 110-153 110-170 110-172 110-214 110-231	8.0 10.0 12.0 14.0 16.0	MJ10 X1- MJ12 X1. MJ14 X1.		5.065-5.1		13.13	12.01-12.09	7.37-7.42
136         MA21           153         MA21           170         MA21           170         MA21           192         MA21           214         MA21           231         MA21           253         MA21           295         MA21	110-136 110-153 110-170 110-192 110-214 110-231	10.0 12.0 14.0 16.0	MJ12 X1. MJ14 X1.	411511	7.065-7.1	41	15.01	14.02-14.10	9.33-9.38
153         MA21           170         MA21           192         MA21           214         MA21           231         MA21           253         MA21           295         MA21	110-153 110-170 110-192 110-214 110-231	12.0 14.0 16.0	MJ14 X1.	4H5H	9.065-9.1	41	18.08	17.04-17.12	11.34-11.39
170         MA21           192         MA21           214         MA21           231         MA21           253         MA21           295         MA21	110-170 110-192 110-214 110-231	14.0		25-4H5H	10.821-10	.898	19.76	18.64-18.72	13.06-13.1
192         MA21           214         MA21           231         MA21           253         MA21           295         MA21	110-192 110-214 110-231	16.0	MJ16 X1.	5-4H5H	12.576-12	.652	21.29	20.22-20.30	14.66-14.7
214         MA21           231         MA21           253         MA21           295         MA21	110-214 110-231			5-4H5H	14.576-14	.652	22.89	21.82-21.90	16.64-16.69
231 MA21 253 MA21 295 MA21	110-231	18.0	MJ18 X1.	5-4H5H	16.576-16	.652	26.72	25.40-25.48	18.65-18.70
253 MA21 295 MA21			MJ20 X1.	5-4H5H	18.576-18	.652	28.30	27.05-27.13	20.66-20.7
295 MA21	110-253	20.0	MJ22 X1.	5-4H5H	20.576-20	.652	30.45	29.36-29.44	22.68-22.73
		22.0	MJ24 X1.	5-4H5H	22.576-22	.652	34.01	32.54-32.62	24.66-24.7
220 144.21	110-295	25.0	MJ27 X1.	5-4H5H	25.576-25	.652	37.34	36.04-36.12	27.66-27.7
320 IMAZI	110-320	28.0	MJ30 X1.	5-4H5H	28.576-28	.652	41.25	39.67-39.75	30.68-30.73
350 MA21	110-350	32.0	MJ33 X1.	5-4H5H	31.576-31	.652	43.33	42.06-42.14	33.68-33.73
381 MA21	110-381	TBD	MJ36 X1.	5-4H5H	34.576-34	.652	50.82	49.20-49.28	36.66-36.7
452 MA21	110-452	40.0	MJ42 X2-	4H5H	40.088-40	.164	59.44	57.93-58.01	42.04-42.09
		F	G	<b>H</b> MIN FULL	<b>J</b> No. OF	к	TOO		
CODE				THREAD DEPTH	TEETH	MIN	TOOL No. REF	TOOL No. REF	
077 2.90-3	3.15	5.26-5.39	8.40-8.53	14.20	23	1.9	MPTM077	MFMOPB077	
098 3.30-3	3.55	5.82-5.95	9.00-9.13	15.40	27	2.3	MPTM098	MFMOPB098	
125 3.80-4	4.05	6.36-6.49	9.50-9.63	16.65	31	2.7			
136 3.80-4							MPTM125	MFMOPB125	
		6.36-6.49	9.50-9.63	17.35	40	2.7	MPTM136	MFMOPB136	
153 3.80-4	4.05	6.36-6.49	9.50-9.63	18.00	38	2.7	MPTM136 MPTM153	MFMOPB136 MFMOPB153	
153         3.80-4           170         3.80-4	4.05 4.05	6.36-6.49 6.36-6.49	9.50-9.63 9.50-9.63	18.00 18.65	38 40	2.7 2.7	MPTM136 MPTM153 MPTM170	MFMOPB136 MFMOPB153 MFMOPB170	
153         3.80-4           170         3.80-4           192         3.80-4	4.05 4.05 4.05	6.36-6.49 6.36-6.49 6.36-6.49	9.50-9.63 9.50-9.63 9.50-9.63	18.00 18.65 19.30	38 40 38	2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192	
153         3.80-4           170         3.80-4           192         3.80-4           214         3.80-4	4.05 4.05 4.05 4.05	6.36-6.49 6.36-6.49 6.36-6.49 7.36-7.49	9.50-9.63 9.50-9.63 9.50-9.63 10.50-10.63	18.00 18.65 19.30 21.00	38 40 38 43	2.7 2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192 MPTM214	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192 MFMOPB214	- - - -
153         3.80-4           170         3.80-4           192         3.80-4           214         3.80-4           231         3.80-4	4.05 4.05 4.05 4.05 4.05	6.36-6.49 6.36-6.49 6.36-6.49 7.36-7.49 7.36-7.49	9.50-9.63 9.50-9.63 9.50-9.63 10.50-10.63 10.50-10.63	18.00 18.65 19.30 21.00 21.70	38 40 38 43 46	2.7 2.7 2.7 2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192 MPTM214 MPTM231	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192 MFMOPB214 MFMOPB231	
153         3.80-4           170         3.80-4           192         3.80-4           214         3.80-4           231         3.80-4           253         3.80-4	4.05       4.05       4.05       4.05       4.05       4.05       4.05	6.36-6.49 6.36-6.49 6.36-6.49 7.36-7.49 7.36-7.49 7.36-7.49	9.50-9.63         9.50-9.63         9.50-9.63         10.50-10.63         10.50-10.63         10.50-10.63	18.00 18.65 19.30 21.00 21.70 22.35	38 40 38 43 46 36	2.7 2.7 2.7 2.7 2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192 MPTM214 MPTM231 MPTM253	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192 MFMOPB214 MFMOPB231 MFMOPB253	· · ·
153         3.80-4           170         3.80-4           192         3.80-4           214         3.80-4           231         3.80-4           253         3.80-4           295         3.80-4	4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05	6.36-6.49 6.36-6.49 7.36-7.49 7.36-7.49 7.36-7.49 7.36-7.49 7.36-7.49	9.50-9.63         9.50-9.63         9.50-9.63         10.50-10.63         10.50-10.63         10.50-10.63         10.50-10.63	18.00         18.65         19.30         21.00         21.70         22.35         23.40	38 40 38 43 43 46 36 47	2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192 MPTM214 MPTM231 MPTM253 MPTM295	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192 MFMOPB214 MFMOPB231 MFMOPB253 MFMOPB295	· · · ·
153       3.80-4         170       3.80-4         192       3.80-4         214       3.80-4         231       3.80-4         253       3.80-4         295       3.80-4         320       3.80-4	4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05	6.36-6.49 6.36-6.49 6.36-6.49 7.36-7.49 7.36-7.49 7.36-7.49 7.36-7.49 7.36-7.49	9.50-9.63 9.50-9.63 9.50-9.63 10.50-10.63 10.50-10.63 10.50-10.63 10.50-10.63	18.00         18.65         19.30         21.00         21.70         22.35         23.40         24.40	38 40 38 43 46 36 47 32	2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192 MPTM214 MPTM231 MPTM253 MPTM295 MPTM320	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192 MFMOPB214 MFMOPB231 MFMOPB253 MFMOPB295 MFMOPB320	· · · · ·
153         3.80-4           170         3.80-4           192         3.80-4           214         3.80-4           231         3.80-4           253         3.80-4           295         3.80-4	4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05       4.05	6.36-6.49 6.36-6.49 7.36-7.49 7.36-7.49 7.36-7.49 7.36-7.49 7.36-7.49	9.50-9.63         9.50-9.63         9.50-9.63         10.50-10.63         10.50-10.63         10.50-10.63         10.50-10.63	18.00         18.65         19.30         21.00         21.70         22.35         23.40	38 40 38 43 43 46 36 47	2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	MPTM136 MPTM153 MPTM170 MPTM192 MPTM214 MPTM231 MPTM253 MPTM295	MFMOPB136 MFMOPB153 MFMOPB170 MFMOPB192 MFMOPB214 MFMOPB231 MFMOPB253 MFMOPB295	





#### TABLE I

SIZE CODE	AS1958 PORT NUMBER	NOMINAL TUBE SIZE REF	A THREAD PER AS8879	Ø <b>B</b> +.005 000	<b>¢℃</b> +.002 000	<b>D</b> MIN	<b>E</b> ±.005	Ø <b>T</b> BOSS DIA MIN 4
02	A\$1958-02	.125	.4375-28UNJEF-3B	.670	.473	.550	.225	.80
03	AS1958-03	.188	.5000-28UNJEF-3B	.733	.540	.520	.225	.84
04	AS1958-04	.250	.5625-24UNJEF-3B	.795	.603	.565	.225	.92
05	AS1958-05	.312	.6250-24UNJEF-3B	.858	.666	.590	.225	.98
06	AS1958-06	.375	.6875-24UNJEF-3B	.905	.728	.620	.225	1.03
08	AS1958-08	.500	.9375-20UNJEF-3B	1.155	.958	.745	.225	1.40
10	AS1958-10	.625	1.0625-18UNJEF-3B	1.280	1.083	.830	.225	1.60
12	AS1958-12	.750	1.2500-18UNJEF-3B	1.499	1.271	.950	.225	1.83
16	AS1958-16	1.000	1.5000-18UNJEF-3B	1.765	1.521	.950	.225	2.20
20	AS1958-20	1.250	1.8750-16UNJ-3B	2.155	1.922	1.000	.265	2.80

REVISION (NC) 20 MAY 2003

UNLESS OTHERWISE SPECIFIED

SHUR-LOK CORPORATION IRVINE, CALIFORNIA 92614 TELEPHONE: (949) 474-6000

INTERPRET DIMONITANTICS TOLERANCES PER ANSI 114.5M. ALL DIMENSIONS APPLY AFTER PLATING AND PRIOR TOTHE ADDITION OF SOLID FILM LUBRICANT. 125 [3,2] ALL SURFACES XX XXX ANGLES [X,X] [X,XX] LO3 ±.01 ±2\* ±[0.8] ±[0.25]

DIMENSION IN [] ARE MILLIMETERS

SHUR-LOK P

SHUR-LOK INTERNATIONAL, S.A. PETIT-RECHAIN, BELGIUM TELEPHONE: (32) 87-32.07.11

### **SLAS1958**

PORT – FLUID CONNECTION, RING LOCKED INSERT, STANDARD DIMENSIONS FOR

SHEET 2 of 2



#### APPENDIX A INTERNATIONAL SPECIFICATIONS FOR STEELS

STAINLESS STEE	ELS					
		Eu	irope			Commercial
USA	France	AECMA	EN	Germany	Great Britain	Specification
303	Z10CNF18.09			1.4305		
304	Z6CN18.09			1.4301		
(AISI 431)	Z15CND17-04	FE-PM 42	2136	1.4044	5\$80	A.P.X.
MIL-S-18732	AIR9160					
Z8CND17-04						A.P.X.4
AIR 9160						
15-5 PH		FE-PM 64		1.4546		
AMS5659						
17-4 PH	Z6CNU17-04			1.4548		X 17 U 4
AMS 5643	AIR 9160					
17-7 PH						
MIL-S-25043						
13-8 Mo			1.4534			
AMS5629						
		FE-PM 66	prEN 2506		2 S 145	
A 286	E-Z6NCT25	FE-PA 92 HT	prEN 2303	1.4944 (Bars)	BS HR 51	
AMS5737 (Bars)	AIR 9165		pr EN 2304		DTD 5076	
AMS 5525 (Tubes)						
INCONEL 718	NC19FeNb	NI-P 100 HT	prEN 2404	2.4668		
AMS 5662	AIR 9165		prEN 2405			

Sta-Lok<sup>®</sup> Fluid Fittings



#### APPENDIX A INTERNATIONAL SPECIFICATIONS FOR STEELS

STRUCTURAL ST	EELS					
	30NCD16					
	AIR 9160					
	E30NCD16					
	AIR 9160					
(SAE 4135)	35CD4					
	AIR 9160	FE-PL 45		1.7220	708H37*	
	35NCD16					
	AIR 9160					
	E35NCD16					
	AIR 9160					
SAE 4140	40CD4					
MIL-S-5626	AIR 9160					
SAE 4130	25CD4S	FE-PL 43S	2206	1.7214	S-142 (Bars)	
MIL-S-6758 (Bars)	AIR 9160				S-534 (Tubes)	
MIL-S-1872 9 (Tubes)						
SAE 4340	(40NCD7)			1.6944	817M40*	
MIL-S-8844	AIR 9160				3\$99*	
AMS 6414						

MACHINING STEE	MACHINING STEELS								
12L14				1.0737		9SMnPb36			
FED-STD66									
ASTM-A-108									
1117									
1137									
1140				1.0726		35S20			

\* For more information, please contact Shur-Lok Corporation at (949) 474-6000.



#### **OTHER SHUR-LOK PRODUCT GROUPS**



**SANDWICH FASTENERS** allow fabrication with sandwich structure material; types include threaded or non-threaded, through or blind, locking or non-locking. Blind inserts for sheet metal applications include: flush or plus flush heads, locking or non-locking. Thermally bonded studs and inserts, with adhesive disk, provide for attachment to composite materials.

**BARREL NUTS** minimize drilling and eliminate the need for long expensive bolts when attaching heavy structural members in high-tensile applications. This product family includes floating or non-floating, metallic lock or non-metallic lock ring, special designs such as tandem nuts.

**BEARING LOCKNUTS** are designed for shaft or spindle applications in aircraft engines, gearboxes, and transmissions. Types include the Sta-Lok<sup>®</sup> positive locking system that minimizes keyway stress and the loss of torque preload, and prevailing torque locknuts with either internal or external threads, metallic or non-metallic lock.

**EXPANDABLE DIAMETER FASTENERS** are quickoperating and reusable fasteners engineered to expand in the hole to prevent fretting. Typically these fasteners are custom designed for critical applications. Types include cam actuated pins, bolts, blind bolts, and shafts.

**RING LOCKED INSERTS & STUDS** were designed for resistance to high torque-out and pullout loads. These products utilizes a lockring that prevents the stud or insert from backing out. These products are ideal for high fatigue and vibration environments found in gearboxes, engines and vehicles.

**ISOLATOR MOUNTS** are designed to reduce vibration, noise and heat transfer. These neoprene or silicone rubber mount fasteners are available with thread lock or non-thread lock inserts. Special designs offer a quick-release turn receptacle when frequent removal is required.



www.Shur-Lok.com

#### SHUR-LOK CORPORATION

2541 White Road, Irvine, CA 92614 Tel: (949) 474-6000 Fax: (949) 660-8601

**SHUR-LOK INTERNATIONAL, S.A.** Parc Industriel de et á B-4800 Petit-Rechain, Belgium Tel: (32) 87-32.07.11 Fax: (32) 87-32.07.12