

STARLITE® NUT
Lightweight, 6AL-4V Titanium
Hexagonal, self-locking, up to 3rd pin
shank oversize (for use with HI-LITE®
pins)

STR320

Patent Pending

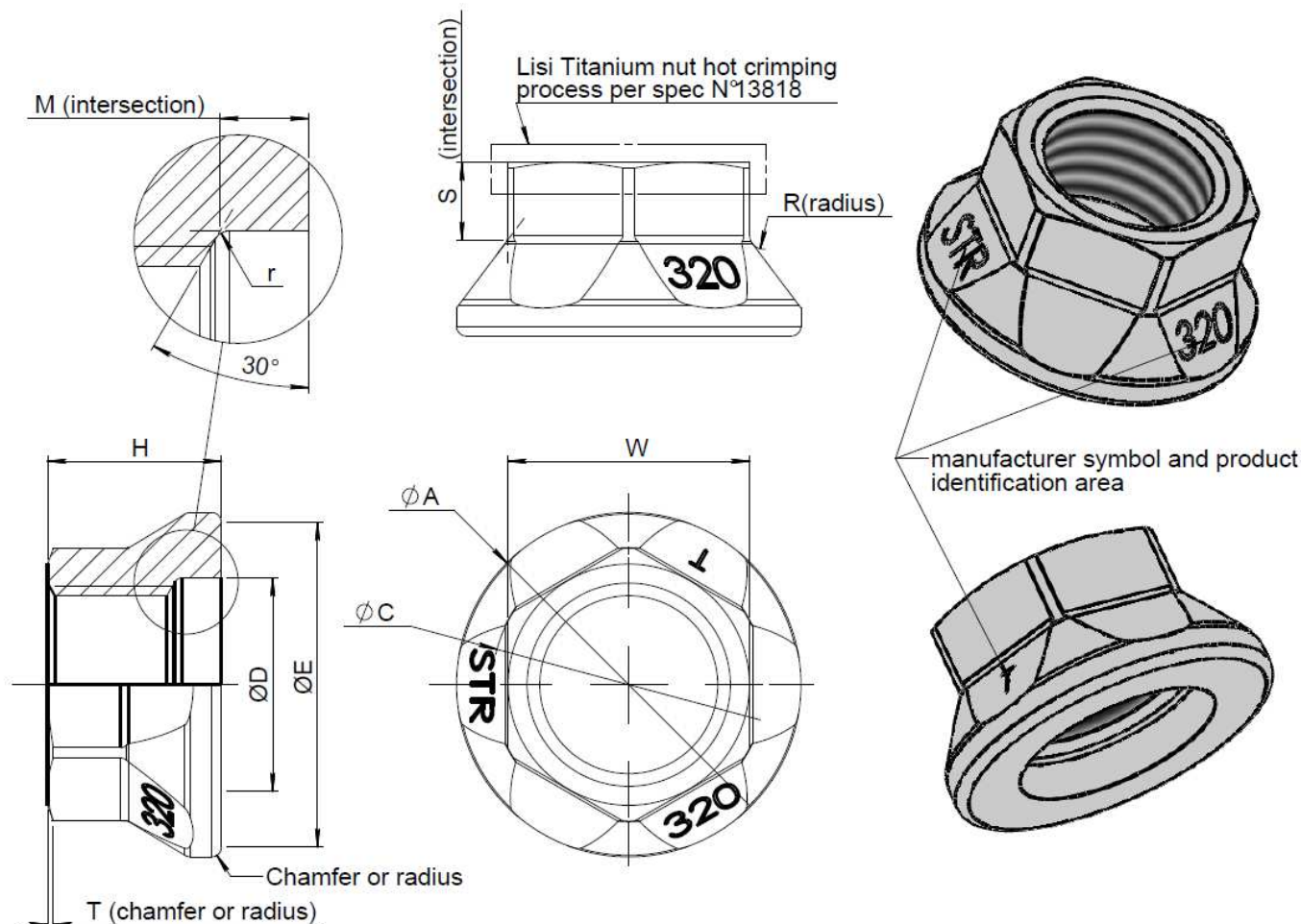


FIGURE 1: CONFIGURATION

NOTES:

UNLESS OTHERWISE SPECIFIED

- I. **Units**
Dimensions and tolerances are in millimeters (inches).
Reference unit for dimensions and tolerances is millimeter (Inches values are for information).
Reference unit for loads is Newton (Lbf values are for information).
Dimensions apply after finish.
- II. **Surface texture**
As per ASME B- before coating.
- $R_a \text{ max.} = 3,2\mu\text{m} \left(\sqrt[125]{\text{ }} \right)$.
- Tool mark or distortion permissible in the locking area.
- III. **Tread**
UNJF-3B as per SAE AS8879

Technical Center	Written by	Signature	Date	Approved by	Signature	Date	Issue
PAGE 1/5	A.MARANDON			B. REGNARD		11/07/12	A

STARLITE® NUT
Lightweight, 6AL-4V Titanium
Hexagonal, self-locking, up to 3rd pin
shank oversize (for use with HI-LITE®
pins)

STR320

Patent Pending

1. APPLICATION

This product standard specifies the dimensions, tolerances and properties of a titanium nut for use in aerospace application at a maximum operating temperature of 235°C (455°F).
 The STR320 nut of STARLITE® product line is designed to fit HI-LITE® pins (with short threads and cylindrical shank), nominal diameter, first, second and third oversizes.

2. REQUIREMENTS**Table 1: Material, finish and identification**

FINISH CODE	MATERIAL	FINISH
K	Titanium alloy 6AL-4V as per chemistry of AMS4928, AMS4965 or AMS4967, solution heat treated and aged. Min. shear strength : Rc min = 655 MPa (95 KSI) Min. tensile strength : Rm min = 1103 Mpa (160 KSI)	Non-chromated aluminum based coating: HI-KOTE® 4NC As per EN4473 type IV

 Technical
 Center

Issue

PAGE 2/5

A

STARLITE® NUT
Lightweight, 6AL-4V Titanium
Hexagonal, self-locking, up to 3rd pin
shank oversize (for use with HI-LITE®
pins)

STR320

Patent Pending

Table 2 : Dimensions and tolerances

Dia. Code	THREAD UNJF-3B	Ø A Max	Ø C ref	Ø D ±0,08 (±.003)	Ø E min	H Max	M min	r ref	R Max	S min	T Max	W ⁽¹⁾ ±0,05 (±.002)
20	.6250-18	27,08 (1.066)	22,43 (.883)	17,85 (.703)	25,65 (1.010)	13,10 (.516)	2,90 (.114)	0,51 (.020)	1,02 (.040)	6,55 (.258)	0,57 (.022)	19,63 (.773)
24	.7500-16	32,16 (1.266)	26,98 (1.062)	21,04 (.828)	30,74 (1.210)	15,21 (.599)	3,02 (.119)	0,51 (.020)	1,02 (.040)	8,03 (.316)	0,67 (.026)	23,62 (.930)
28	.8750-14	36,76 (1.447)	30,56 (1.203)	24,23 (.954)	35,33 (1.391)	17,10 (.673)	3,19 (.126)	0,51 (.020)	1,02 (.040)	8,58 (.338)	0,72 (.028)	26,77 (1.054)
32	1.0000-12	41,69 (1.641)	34,22 (1.347)	27,43 (1.080)	40,26 (1.585)	19,72 (.776)	3,40 (.134)	0,51 (.020)	1,02 (.040)	9,73 (.383)	0,79 (.031)	29,97 (1.180)
36	1.1250-12	46,73 (1.839)	37,70 (1.484)	30,63 (1.206)	45,30 (1.783)	22,64 (.891)	3,40 (.134)	0,51 (.020)	1,02 (.040)	11,14 (.439)	0,87 (.034)	33,02 (1.300)

(1) Dimensions apply before application of locking feature

Table 3: Tensile strength, mass and wrench size

Dia. Code	Thread UNJF-3B	Min. Axial Tensile Strength ⁽¹⁾ N (Lbf)	Mass Kg/1000 parts (Lb/1000parts)	Wrench Size (inch)
20	.6250-18	142 400 (32,013)	12,017 (26.527)	25/32
24	.7500-16	208 650 (46,906)	19,658 (43.395)	15/16
28	.8750-14	281 230 (63,223)	27,811 (61.393)	1-1/16
32	1.0000-12	381 010 (85,654)	39,776 (87.805)	1-3/16
36	1.1250-12	513 763 (115,499)	54,924 (121.245)	1-5/16

(1) Mechanical properties apply at room temperature.

Tensile value is valid for nut only.
See pin standards for pin strengths.
Lower strength (pin or nut) determine system strength.

Technical
Center

Issue

PAGE 3/5

A

STARLITE® NUT
Lightweight, 6AL-4V Titanium
Hexagonal, self-locking, up to 3rd pin
shank oversize (for use with HI-LITE®
pins)

Patent Pending

STR320

DESIGNATION

STR320 K ()

Dia. code number in 1/32nds inch

Finish code (table 1)

Basic part number

Example:

STR320K24: STR320 nut for HI-LITE® pins fastener systems, Titanium alloy 6AL-4V coated with non-chromated coating HI-KOTE® 4NC, dia. Code ¾ inch.

3. MARKING

Manufacturer symbol and basic part number “STR320” on the flange area.
 Marking shall be positioned as indicated on Figure 1.

4. QUALIFICATION AND ACCEPTANCE

The STR320 nuts shall meet all the inspection requirements of LISI AEROSPACE Qualification and Acceptance Specification STR-QA-03.

5. PRODUCT INSTALLATION

Recommendation for product installation are detailed in the Installation Specification STR-IS01.

Technical
Center

Issue



CENTRAL SEINE
46 – 50 Quai de la Rapée
75583 PARIS CEDEX 12
Phone 33 (0)1 40 19 82 00
Fax 33 (0)1 40 19 82 01

STARLITE® NUT
Lightweight, 6AL-4V Titanium
Hexagonal, self-locking, up to 3rd pin
shank oversize (for use with HI-LITE®
pins)

Patent Pending

STR320

Issue	Date	Modifications	Justification
A	1 st June 2012	New release	First release for serial production

Technical
Center

Issue