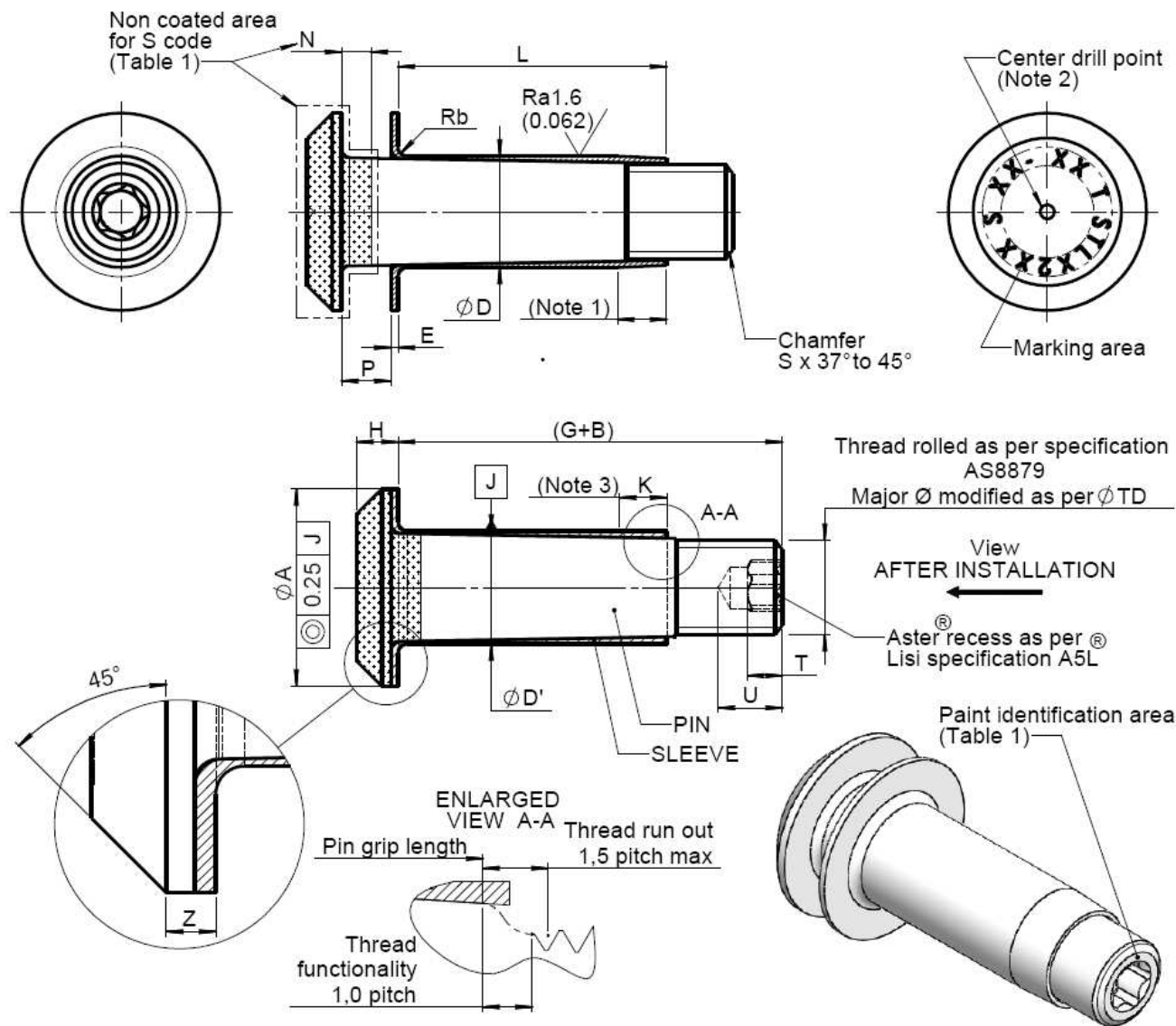




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**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
PROTRUDING HEAD  
INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**



Note 1: Ø D is not applicable on the non supported sleeve extremity on the length equal to K Max.

Note 2: Drill center dimple in top of head, Ø: 0.9mm (0.0354") Max. Depth: 0.254 mm (0.010") Max. Drill center concentric to ØA within 0.203mm (0.008").

Note 3: The expanded D' diameter shall be in accordance with values specified on table 2, except on sleeve extremity on the length equal to K max. In this area, max diameter may be 0.025mm (.001) greater than D'max, min diameter is identical to D'min.

**FIGURE 1**

**NOTES:**

UNLESS OTHERWISE SPECIFIED

**I. Units:**

**II. Surface Texture :**

**III. Break sharp edges:**

**IV. Thread:**

Dimensions and tolerances are in millimeters (inch). Dimensions to be met after finish

Ra3.2 (  $\sqrt{125}$  ) per ASME B46.1 before coating

0.05/0.2mm (.002/.008inch). Bolt and sleeve shall be free from burrs

Per AS8879 except reduced major Ø as tabulated

| Technical Center | Prepared by | Signature | Approved by | Signature | Date                       | Revision |
|------------------|-------------|-----------|-------------|-----------|----------------------------|----------|
| PAGE 1/12        | A. BERTHOU  |           | B.REGNARD   |           | 5 <sup>th</sup> – APR – 12 | C        |

**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
 PROTRUDING HEAD  
 INCONEL pin shear 125 ksi min  
 3/32 grip variation  
 2<sup>nd</sup> oversize**

**STL2250**

**1. APPLICATION**

This product standard specifies the dimensions, tolerances and properties of an Inconel SLEEVE TAPER-HI-LITE<sup>®</sup> fastener system designed to target 0,6% minimum interference fit for use in composite / composite or composite / aluminum aerospace structure.  
 It applies to the second oversize STL2250 (+1/32") only. The nominal size is STL250 and the first oversize is STL1250 (+1/64").  
 Maximum operating temperature is 235°C (455°F).

**2. REQUIREMENTS**

**Table 1: Material, finish and identification**

| FINISH<br>CODE | MATERIAL                                                                                                              |                                         | FINISH                                                                                                                                                                                                                    |                                                                    | IDENTIFICATION                 |
|----------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------|
|                | PIN                                                                                                                   | SLEEVE                                  | PIN                                                                                                                                                                                                                       | SLEEVE                                                             |                                |
| S              | Inconel 718 as per<br>AMS 5962 or 5662<br>+ cold working<br>Min. shear<br>strength :<br>Rc min = 862 MPa<br>(125 ksi) | 321 CRES per<br>AMS 5510 or<br>AMS 5645 | Non-chromated<br>aluminum based<br>coating:<br>HI-KOTE <sup>®</sup> 1NC as per<br>EN4473 type II<br><b>except specified<br/>area (see figure 1)</b><br>and<br>Cetyl Alcohol lube per<br>Hi-Shear spec 305<br>Solvent base | Passivate<br>per AMS 2700.<br>METHOD 1.<br>TYPE 6 or 8.<br>CLASS 3 | Blue paint on pin<br>extremity |
| P              | Min. tensile<br>strength :<br>Rm min = 1517<br>MPa (220 ksi)                                                          |                                         | Non-chromated<br>aluminum based<br>coating:<br>HI-KOTE <sup>®</sup> 1NC as per<br>EN4473 type II<br>and<br>Cetyl Alcohol lube per<br>Hi-Shear spec 305<br>Solvent base                                                    | and cetyl alcohol<br>lube per Hi-Shear<br>spec 305 Solvent<br>base |                                |

**SLEEVE TAPER-HI-LITE® ,  
PROTRUDING HEAD  
INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

**Table 2: Dimensions and Tolerances**

See figure 1

| Ø<br>code<br>(1/32") | Thread as<br>per AS8879<br>Ø TD<br>modified<br>UNJF 3A | Ø A<br>Max       | B<br>Max         | Ø D<br>± 0.0125<br>(±0.0005) | Ø D'<br>after installation |                    | E<br>ref        | Z<br>min        | H<br>ref         | P<br>Max         | N<br>min        | S<br>ref        | T<br>min        | U<br>Max         | Ø TD               |                    | Rb<br>Max       |
|----------------------|--------------------------------------------------------|------------------|------------------|------------------------------|----------------------------|--------------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|------------------|--------------------|--------------------|-----------------|
|                      |                                                        |                  |                  |                              | min                        | Max                |                 |                 |                  |                  |                 |                 |                 |                  | min                | Max                |                 |
| 7                    | .2160-28                                               | 13,10<br>(0.516) | 16,54<br>(0.651) | 7,913<br>(0.3115)            | 8,022<br>(0.3158)          | 8,057<br>(0.3172)  | 0,60<br>(0.024) | 1,05<br>(0.041) | 2,85<br>(0.112)  | 7,51<br>(0.296)  | 5,00<br>(0.197) | 0,79<br>(0.031) | 1,94<br>(0.076) | 7,83<br>(0.308)  | 5,258<br>(0.2070)  | 5,334<br>(0.2100)  | 1,25<br>(0.049) |
| 8                    | .2500-28                                               | 14,60<br>(0.575) | 17,43<br>(0.686) | 9,102<br>(0.3583)            | 9,218<br>(0.3629)          | 9,253<br>(0.3643)  | 0,80<br>(0.031) | 1,25<br>(0.049) | 3,45<br>(0.136)  | 8,05<br>(0.317)  | 5,00<br>(0.197) | 0,79<br>(0.031) | 2,14<br>(0.084) | 8,38<br>(0.330)  | 6,121<br>(0.2410)  | 6,197<br>(0.2440)  | 1,45<br>(0.057) |
| 10                   | .3125-24                                               | 17,30<br>(0.681) | 21,94<br>(0.864) | 10,690<br>(0.4208)           | 10,816<br>(0.4258)         | 10,852<br>(0.4272) | 0,80<br>(0.031) | 1,55<br>(0.061) | 4,15<br>(0.163)  | 11,84<br>(0.466) | 5,00<br>(0.197) | 1,19<br>(0.047) | 2,24<br>(0.088) | 12,40<br>(0.488) | 7,670<br>(0.3020)  | 7,772<br>(0.3060)  | 1,90<br>(0.075) |
| 12                   | .3750-24                                               | 20,00<br>(0.787) | 23,70<br>(0.933) | 12,675<br>(0.4990)           | 12,820<br>(0.5047)         | 12,857<br>(0.5062) | 1,00<br>(0.039) | 1,75<br>(0.069) | 5,25<br>(0.207)  | 13,40<br>(0.528) | 5,00<br>(0.197) | 1,19<br>(0.047) | 2,45<br>(0.096) | 13,59<br>(0.535) | 9,245<br>(0.3640)  | 9,347<br>(0.3680)  | 1,90<br>(0.075) |
| 14                   | .4375-20                                               | 22,30<br>(0.878) | 24,26<br>(0.955) | 14,646<br>(0.5766)           | 14,801<br>(0.5827)         | 14,838<br>(0.5842) | 1,00<br>(0.039) | 1,75<br>(0.069) | 5,75<br>(0.226)  | 13,50<br>(0.531) | 5,00<br>(0.197) | 1,19<br>(0.047) | 2,75<br>(0.108) | 13,92<br>(0.548) | 10,820<br>(0.4260) | 10,947<br>(0.4310) | 1,90<br>(0.075) |
| 16                   | .5000-20                                               | 25,20<br>(0.992) | 25,29<br>(0.996) | 16,234<br>(0.6391)           | 16,400<br>(0.6457)         | 16,438<br>(0.6472) | 1,00<br>(0.039) | 1,95<br>(0.077) | 6,55<br>(0.258)  | 14,24<br>(0.561) | 5,00<br>(0.197) | 1,19<br>(0.047) | 3,11<br>(0.122) | 14,11<br>(0.556) | 12,395<br>(0.4880) | 12,522<br>(0.4930) | 2,15<br>(0.085) |
| 18                   | .5625-18                                               | 27,40<br>(1.079) | 26,60<br>(1.047) | 17,821<br>(0.7016)           | 17,996<br>(0.7085)         | 18,034<br>(0.7100) | 1,10<br>(0.043) | 2,55<br>(0.100) | 7,45<br>(0.293)  | 14,96<br>(0.589) | 5,00<br>(0.197) | 1,59<br>(0.063) | 3,55<br>(0.140) | 14,23<br>(0.560) | 13,970<br>(0.5500) | 14,097<br>(0.5550) | 2,15<br>(0.085) |
| 20                   | .6250-18                                               | 29,90<br>(1.177) | 27,92<br>(1.099) | 19,412<br>(0.7642)           | 19,606<br>(0.7719)         | 19,645<br>(0.7734) | 1,10<br>(0.043) | 2,85<br>(0.112) | 8,25<br>(0.325)  | 16,21<br>(0.638) | 5,00<br>(0.197) | 1,59<br>(0.063) | 4,13<br>(0.163) | 14,09<br>(0.555) | 15,545<br>(0.6120) | 15,697<br>(0.6180) | 2,25<br>(0.089) |
| 24                   | .7500-16                                               | 34,70<br>(1.366) | 30,30<br>(1.193) | 22,980<br>(0.9047)           | 23,197<br>(0.9133)         | 23,237<br>(0.9148) | 1,30<br>(0.051) | 3,55<br>(0.140) | 9,55<br>(0.376)  | 17,86<br>(0.703) | 5,00<br>(0.197) | 1,59<br>(0.063) | 4,87<br>(0.192) | 13,40<br>(0.528) | 18,719<br>(0.7370) | 18,872<br>(0.7430) | 2,30<br>(0.091) |
| 28                   | .8750-14                                               | 39,80<br>(1.567) | 32,80<br>(1.291) | 26,552<br>(1.0453)           | 26,792<br>(1.0548)         | 26,833<br>(1.0564) | 1,30<br>(0.051) | 3,75<br>(0.148) | 10,55<br>(0.415) | 19,28<br>(0.759) | 5,00<br>(0.197) | 1,98<br>(0.078) | 5,46<br>(0.215) | 14,65<br>(0.577) | 21,869<br>(0.8610) | 22,047<br>(0.8680) | 2,55<br>(0.100) |
| 32                   | 1.0000-12                                              | 44,70<br>(1.760) | 34,59<br>(1.362) | 29,728<br>(1.1704)           | 29,987<br>(1.1806)         | 30,029<br>(1.1822) | 1,30<br>(0.051) | 4,65<br>(0.183) | 12,25<br>(0.482) | 20,49<br>(0.807) | 5,00<br>(0.197) | 1,98<br>(0.078) | 6,26<br>(0.246) | 15,97<br>(0.629) | 25,044<br>(0.9860) | 25,222<br>(0.9930) | 2,90<br>(0.114) |
| 36                   | 1.1250-12                                              | 49,50<br>(1.949) | 37,21<br>(1.465) | 32,900<br>(1.2953)           | 33,192<br>(1.3068)         | 33,235<br>(1.3085) | 1,30<br>(0.051) | 5,15<br>(0.203) | 13,55<br>(0.533) | 22,73<br>(0.895) | 5,00<br>(0.197) | 1,98<br>(0.078) | 7,14<br>(0.281) | 17,91<br>(0.705) | 28,194<br>(1.1100) | 28,372<br>(1.1170) | 3,15<br>(0.124) |

| Ø<br>code<br>(1/32") | Thread as<br>per AS8879<br>Ø TD modified<br>UNJF 3A | Recess size<br>code as per<br>LISI<br>specification<br>A5L® | K<br>Max         |
|----------------------|-----------------------------------------------------|-------------------------------------------------------------|------------------|
| 6                    | .1900-32                                            | A5L06                                                       | 7,86<br>(0.310)  |
| 7                    | .2160-28                                            | A5L07                                                       | 7,83<br>(0.308)  |
| 8                    | .2500-28                                            | A5L08                                                       | 8,55<br>(0.337)  |
| 10                   | .3125-24                                            | A5L10                                                       | 12,23<br>(0.482) |
| 12                   | .3750-24                                            | A5L12                                                       | 13,98<br>(0.551) |
| 14                   | .4375-20                                            | A5L14                                                       | 14,60<br>(0.575) |
| 16                   | .5000-20                                            | A5L16                                                       | 15,36<br>(0.605) |
| 18                   | .5625-18                                            | A5L18                                                       | 15,91<br>(0.627) |
| 20                   | .6250-18                                            | A5L20                                                       | 17,28<br>(0.680) |
| 24                   | .7500-16                                            | A5L24                                                       | 19,03<br>(0.749) |
| 28                   | .8750-14                                            | A5L28                                                       | 20,50<br>(0.807) |
| 32                   | 1.0000-12                                           | A5L32                                                       | 21,71<br>(0.855) |
| 36                   | 1.1250-12                                           | A5L36                                                       | 24,01<br>(0.945) |

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**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
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INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

**Table 3: Grip length limitations**

| -Ø | Grip length |     |
|----|-------------|-----|
|    | min         | Max |
| 7  | 5           | 14  |
| 8  | 5           | 20  |
| 10 | 6           | 25  |
| 12 | 7           | 30  |
| 14 | 8           | 31  |
| 16 | 9           | 37  |
| 18 | 10          | 41  |
| 20 | 11          | 42  |
| 24 | 14          | 53  |
| 28 | 15          | 59  |
| 32 | 16          | 65  |
| 36 | 18          | 69  |

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2<sup>nd</sup> oversize**

**STL2250**

**Table 4: Dimensions, grip, and sleeve length**

| Length<br>Code<br>1/16" | Assembly<br>Thickness |                  | L<br>ref         | Length<br>Code<br>1/16" | Assembly<br>Thickness |                   | L<br>ref          |
|-------------------------|-----------------------|------------------|------------------|-------------------------|-----------------------|-------------------|-------------------|
|                         | min                   | Max              |                  |                         | min                   | Max               |                   |
| 4                       |                       |                  |                  | 40                      | 61,12<br>(2.406)      | 63,50<br>(2.500)  | 63,50<br>(2.500)  |
| 5                       | 5,56<br>(0.219)       | 7,93<br>(0.312)  | 7,93<br>(0.312)  | 41                      | 62,71<br>(2.469)      | 65,08<br>(2.562)  | 65,08<br>(2.562)  |
| 6                       | 7,15<br>(0.281)       | 9,52<br>(0.375)  | 9,52<br>(0.375)  | 42                      | 64,30<br>(2.531)      | 66,67<br>(2.625)  | 66,67<br>(2.625)  |
| 7                       | 8,74<br>(0.344)       | 11,11<br>(0.437) | 11,11<br>(0.437) | 43                      | 65,89<br>(2.594)      | 68,26<br>(2.687)  | 68,26<br>(2.687)  |
| 8                       | 10,32<br>(0.406)      | 12,70<br>(0.500) | 12,70<br>(0.500) | 44                      | 67,47<br>(2.656)      | 69,85<br>(2.750)  | 69,85<br>(2.750)  |
| 9                       | 11,91<br>(0.469)      | 14,28<br>(0.562) | 14,28<br>(0.562) | 45                      | 69,06<br>(2.719)      | 71,43<br>(2.812)  | 71,43<br>(2.812)  |
| 10                      | 13,50<br>(0.531)      | 15,87<br>(0.625) | 15,87<br>(0.625) | 46                      | 70,65<br>(2.781)      | 73,02<br>(2.875)  | 73,02<br>(2.875)  |
| 11                      | 15,09<br>(0.594)      | 17,46<br>(0.687) | 17,46<br>(0.687) | 47                      | 72,24<br>(2.844)      | 74,61<br>(2.937)  | 74,61<br>(2.937)  |
| 12                      | 16,67<br>(0.656)      | 19,05<br>(0.750) | 19,05<br>(0.750) | 48                      | 73,82<br>(2.906)      | 76,20<br>(3.000)  | 76,20<br>(3.000)  |
| 13                      | 18,26<br>(0.719)      | 20,63<br>(0.812) | 20,63<br>(0.812) | 49                      | 75,41<br>(2.969)      | 77,78<br>(3.062)  | 77,78<br>(3.062)  |
| 14                      | 19,85<br>(0.781)      | 22,22<br>(0.875) | 22,22<br>(0.875) | 50                      | 77,00<br>(3.031)      | 79,37<br>(3.125)  | 79,37<br>(3.125)  |
| 15                      | 21,44<br>(0.844)      | 23,81<br>(0.937) | 23,81<br>(0.937) | 51                      | 78,59<br>(3.094)      | 80,96<br>(3.187)  | 80,96<br>(3.187)  |
| 16                      | 23,02<br>(0.906)      | 25,40<br>(1.000) | 25,40<br>(1.000) | 52                      | 80,17<br>(3.156)      | 82,55<br>(3.250)  | 82,55<br>(3.250)  |
| 17                      | 24,61<br>(0.969)      | 26,98<br>(1.062) | 26,98<br>(1.062) | 53                      | 81,76<br>(3.219)      | 84,13<br>(3.312)  | 84,13<br>(3.312)  |
| 18                      | 26,20<br>(1.031)      | 28,57<br>(1.125) | 28,57<br>(1.125) | 54                      | 83,35<br>(3.281)      | 85,72<br>(3.375)  | 85,72<br>(3.375)  |
| 19                      | 27,79<br>(1.094)      | 30,16<br>(1.187) | 30,16<br>(1.187) | 55                      | 84,94<br>(3.344)      | 87,31<br>(3.437)  | 87,31<br>(3.437)  |
| 20                      | 29,37<br>(1.156)      | 31,75<br>(1.250) | 31,75<br>(1.250) | 56                      | 86,52<br>(3.406)      | 88,90<br>(3.500)  | 88,90<br>(3.500)  |
| 21                      | 30,96<br>(1.219)      | 33,33<br>(1.312) | 33,33<br>(1.312) | 57                      | 88,11<br>(3.469)      | 90,48<br>(3.562)  | 90,48<br>(3.562)  |
| 22                      | 32,55<br>(1.281)      | 34,92<br>(1.375) | 34,92<br>(1.375) | 58                      | 89,70<br>(3.531)      | 92,07<br>(3.625)  | 92,07<br>(3.625)  |
| 23                      | 34,14<br>(1.344)      | 36,51<br>(1.437) | 36,51<br>(1.437) | 59                      | 91,29<br>(3.594)      | 93,66<br>(3.687)  | 93,66<br>(3.687)  |
| 24                      | 35,72<br>(1.406)      | 38,10<br>(1.500) | 38,10<br>(1.500) | 60                      | 92,87<br>(3.656)      | 95,25<br>(3.750)  | 95,25<br>(3.750)  |
| 25                      | 37,31<br>(1.469)      | 39,68<br>(1.562) | 39,68<br>(1.562) | 61                      | 94,46<br>(3.719)      | 96,83<br>(3.812)  | 96,83<br>(3.812)  |
| 26                      | 38,90<br>(1.531)      | 41,27<br>(1.625) | 41,27<br>(1.625) | 62                      | 96,05<br>(3.781)      | 98,42<br>(3.875)  | 98,42<br>(3.875)  |
| 27                      | 40,49<br>(1.594)      | 42,86<br>(1.687) | 42,86<br>(1.687) | 63                      | 97,64<br>(3.844)      | 100,01<br>(3.937) | 100,01<br>(3.937) |
| 28                      | 42,07<br>(1.656)      | 44,45<br>(1.750) | 44,45<br>(1.750) | 64                      | 99,22<br>(3.906)      | 101,60<br>(4.000) | 101,60<br>(4.000) |
| 29                      | 43,66<br>(1.719)      | 46,03<br>(1.812) | 46,03<br>(1.812) | 65                      | 100,81<br>(3.969)     | 103,18<br>(4.062) | 103,18<br>(4.062) |
| 30                      | 45,25<br>(1.781)      | 47,62<br>(1.875) | 47,62<br>(1.875) | 66                      | 102,40<br>(4.031)     | 104,77<br>(4.125) | 104,77<br>(4.125) |
| 31                      | 46,84<br>(1.844)      | 49,21<br>(1.937) | 49,21<br>(1.937) | 67                      | 103,99<br>(4.094)     | 106,36<br>(4.187) | 106,36<br>(4.187) |
| 32                      | 48,42<br>(1.906)      | 50,80<br>(2.000) | 50,80<br>(2.000) | 68                      | 105,57<br>(4.156)     | 107,95<br>(4.250) | 107,95<br>(4.250) |
| 33                      | 50,01<br>(1.969)      | 52,38<br>(2.062) | 52,38<br>(2.062) | 69                      | 107,16<br>(4.219)     | 109,53<br>(4.312) | 109,53<br>(4.312) |
| 34                      | 51,60<br>(2.031)      | 53,97<br>(2.125) | 53,97<br>(2.125) | 70                      |                       |                   |                   |
| 35                      | 53,19<br>(2.094)      | 55,56<br>(2.187) | 55,56<br>(2.187) | 71                      |                       |                   |                   |
| 36                      | 54,77<br>(2.156)      | 57,15<br>(2.250) | 57,15<br>(2.250) | 72                      |                       |                   |                   |
| 37                      | 56,36<br>(2.219)      | 58,73<br>(2.312) | 58,73<br>(2.312) | 73                      |                       |                   |                   |
| 38                      | 57,95<br>(2.281)      | 60,32<br>(2.375) | 60,32<br>(2.375) | 74                      |                       |                   |                   |
| 39                      | 59,54<br>(2.344)      | 61,91<br>(2.437) | 61,91<br>(2.437) | 75                      |                       |                   |                   |

Note: Given assembly thickness are the one compatible with the fastener system once installed. Structure creep if any shall be taken into account before fastener grip selection in the table.

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INCONEL pin shear 125 ksi min  
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2<sup>nd</sup> oversize**

**STL2250**

**Table 5: overall length**

| Length Code<br>(1/16") | (G+B) Max        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                        | Ø code (1/32")   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|                        | 7                | 8                | 10               | 12               | 14               | 16               | 18               | 20               | 24               | 28               | 32               | 36               |
| 4                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 5                      | 24,47<br>(0.963) | 25,36<br>(0.998) |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 6                      | 26,06<br>(1.026) | 26,95<br>(1.061) | 31,46<br>(1.239) |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| 7                      | 27,65<br>(1.089) | 28,54<br>(1.124) | 33,05<br>(1.301) | 34,81<br>(1.370) |                  |                  |                  |                  |                  |                  |                  |                  |
| 8                      | 29,24<br>(1.151) | 30,13<br>(1.186) | 34,64<br>(1.364) | 36,40<br>(1.433) | 36,96<br>(1.455) |                  |                  |                  |                  |                  |                  |                  |
| 9                      | 30,82<br>(1.213) | 31,71<br>(1.248) | 36,22<br>(1.426) | 37,98<br>(1.495) | 38,54<br>(1.517) | 39,57<br>(1.558) |                  |                  |                  |                  |                  |                  |
| 10                     | 32,41<br>(1.276) | 33,30<br>(1.311) | 37,81<br>(1.489) | 39,57<br>(1.558) | 40,13<br>(1.580) | 41,16<br>(1.620) | 42,47<br>(1.672) |                  |                  |                  |                  |                  |
| 11                     | 34,00<br>(1.339) | 34,89<br>(1.374) | 39,40<br>(1.551) | 41,16<br>(1.620) | 41,72<br>(1.643) | 42,75<br>(1.683) | 44,06<br>(1.735) | 45,38<br>(1.787) |                  |                  |                  |                  |
| 12                     | 35,59<br>(1.401) | 36,48<br>(1.436) | 40,99<br>(1.614) | 42,75<br>(1.683) | 43,31<br>(1.705) | 44,34<br>(1.746) | 45,65<br>(1.797) | 46,97<br>(1.849) |                  |                  |                  |                  |
| 13                     | 37,17<br>(1.463) | 38,06<br>(1.498) | 42,57<br>(1.676) | 44,33<br>(1.745) | 44,89<br>(1.767) | 45,92<br>(1.808) | 47,23<br>(1.859) | 48,55<br>(1.911) |                  |                  |                  |                  |
| 14                     | 38,76<br>(1.526) | 39,65<br>(1.561) | 44,16<br>(1.739) | 45,92<br>(1.808) | 46,48<br>(1.830) | 47,51<br>(1.870) | 48,82<br>(1.922) | 50,14<br>(1.974) | 52,52<br>(2.068) |                  |                  |                  |
| 15                     |                  | 41,24<br>(1.624) | 45,75<br>(1.801) | 47,51<br>(1.870) | 48,07<br>(1.893) | 49,10<br>(1.933) | 50,41<br>(1.985) | 51,73<br>(2.037) | 54,11<br>(2.130) | 56,61<br>(2.229) |                  |                  |
| 16                     |                  | 42,83<br>(1.686) | 47,34<br>(1.864) | 49,10<br>(1.933) | 49,66<br>(1.955) | 50,69<br>(1.996) | 52,00<br>(2.047) | 53,32<br>(2.099) | 55,70<br>(2.193) | 58,20<br>(2.291) | 59,99<br>(2.362) |                  |
| 17                     |                  | 44,41<br>(1.748) | 48,92<br>(1.926) | 50,68<br>(1.995) | 51,24<br>(2.017) | 52,27<br>(2.058) | 53,58<br>(2.109) | 54,90<br>(2.161) | 57,28<br>(2.255) | 59,78<br>(2.354) | 61,57<br>(2.424) |                  |
| 18                     |                  | 46,00<br>(1.811) | 50,51<br>(1.989) | 52,27<br>(2.058) | 52,83<br>(2.080) | 53,86<br>(2.120) | 55,17<br>(2.172) | 56,49<br>(2.224) | 58,87<br>(2.318) | 61,37<br>(2.416) | 63,16<br>(2.487) | 65,78<br>(2.590) |
| 19                     |                  | 47,59<br>(1.874) | 52,10<br>(2.051) | 53,86<br>(2.120) | 54,42<br>(2.143) | 55,45<br>(2.183) | 56,76<br>(2.235) | 58,08<br>(2.287) | 60,46<br>(2.380) | 62,96<br>(2.479) | 64,75<br>(2.549) | 67,37<br>(2.652) |
| 20                     |                  | 49,18<br>(1.936) | 53,69<br>(2.114) | 55,45<br>(2.183) | 56,01<br>(2.205) | 57,04<br>(2.246) | 58,35<br>(2.297) | 59,67<br>(2.349) | 62,05<br>(2.443) | 64,55<br>(2.541) | 66,34<br>(2.612) | 68,96<br>(2.715) |
| 21                     |                  |                  | 55,27<br>(2.176) | 57,03<br>(2.245) | 57,59<br>(2.267) | 58,62<br>(2.308) | 59,93<br>(2.359) | 61,25<br>(2.411) | 63,63<br>(2.505) | 66,13<br>(2.604) | 67,92<br>(2.674) | 70,54<br>(2.777) |
| 22                     |                  |                  | 56,86<br>(2.239) | 58,62<br>(2.308) | 59,18<br>(2.330) | 60,21<br>(2.370) | 61,52<br>(2.422) | 62,84<br>(2.474) | 65,22<br>(2.568) | 67,72<br>(2.666) | 69,51<br>(2.737) | 72,13<br>(2.840) |
| 23                     |                  |                  | 58,45<br>(2.301) | 60,21<br>(2.370) | 60,77<br>(2.393) | 61,80<br>(2.433) | 63,11<br>(2.485) | 64,43<br>(2.537) | 66,81<br>(2.630) | 69,31<br>(2.729) | 71,10<br>(2.799) | 73,72<br>(2.902) |
| 24                     |                  |                  | 60,04<br>(2.364) | 61,80<br>(2.433) | 62,36<br>(2.455) | 63,39<br>(2.496) | 64,70<br>(2.547) | 66,02<br>(2.599) | 68,40<br>(2.693) | 70,90<br>(2.791) | 72,69<br>(2.862) | 75,31<br>(2.965) |
| 25                     |                  |                  | 61,62<br>(2.426) | 63,38<br>(2.495) | 63,94<br>(2.517) | 64,97<br>(2.558) | 66,28<br>(2.609) | 67,60<br>(2.661) | 69,98<br>(2.755) | 72,48<br>(2.854) | 74,27<br>(2.924) | 76,89<br>(3.027) |
| 26                     |                  |                  |                  | 64,97<br>(2.558) | 65,53<br>(2.580) | 66,56<br>(2.620) | 67,87<br>(2.672) | 69,19<br>(2.724) | 71,57<br>(2.818) | 74,07<br>(2.916) | 75,86<br>(2.987) | 78,48<br>(3.090) |
| 27                     |                  |                  |                  | 66,56<br>(2.620) | 67,12<br>(2.643) | 68,15<br>(2.683) | 69,46<br>(2.735) | 70,78<br>(2.787) | 73,16<br>(2.880) | 75,66<br>(2.979) | 77,45<br>(3.049) | 80,07<br>(3.152) |
| 28                     |                  |                  |                  | 68,15<br>(2.683) | 68,71<br>(2.705) | 69,74<br>(2.746) | 71,05<br>(2.797) | 72,37<br>(2.849) | 74,75<br>(2.943) | 77,25<br>(3.041) | 79,04<br>(3.112) | 81,66<br>(3.215) |
| 29                     |                  |                  |                  | 69,73<br>(2.745) | 70,29<br>(2.767) | 71,32<br>(2.808) | 72,63<br>(2.859) | 73,95<br>(2.911) | 76,33<br>(3.005) | 78,83<br>(3.104) | 80,62<br>(3.174) | 83,24<br>(3.277) |
| 30                     |                  |                  |                  | 71,32<br>(2.808) | 71,88<br>(2.830) | 72,91<br>(2.870) | 74,22<br>(2.922) | 75,54<br>(2.974) | 77,92<br>(3.068) | 80,42<br>(3.166) | 82,21<br>(3.237) | 84,83<br>(3.340) |
| 31                     |                  |                  |                  | 73,47<br>(2.893) | 74,50<br>(2.933) | 75,81<br>(2.985) | 77,13<br>(3.037) | 79,51<br>(3.130) | 81,10<br>(3.193) | 83,60<br>(3.291) | 85,39<br>(3.362) | 88,01<br>(3.465) |
| 32                     |                  |                  |                  |                  | 76,09<br>(2.996) | 77,40<br>(3.047) | 78,72<br>(3.099) | 81,10<br>(3.193) | 83,60<br>(3.291) | 86,10<br>(3.385) | 88,01<br>(3.465) |                  |
| 33                     |                  |                  |                  |                  | 77,67<br>(3.058) | 78,98<br>(3.109) | 80,30<br>(3.161) | 82,68<br>(3.255) | 85,18<br>(3.354) | 87,68<br>(3.448) | 89,59<br>(3.527) |                  |
| 34                     |                  |                  |                  |                  | 79,26<br>(3.120) | 80,57<br>(3.172) | 81,89<br>(3.224) | 84,27<br>(3.318) | 86,77<br>(3.416) | 89,27<br>(3.510) | 91,18<br>(3.590) |                  |
| 35                     |                  |                  |                  |                  | 80,85<br>(3.183) | 82,16<br>(3.235) | 83,48<br>(3.287) | 85,86<br>(3.380) | 88,36<br>(3.479) | 90,86<br>(3.573) | 92,77<br>(3.652) |                  |
| 36                     |                  |                  |                  |                  | 82,44<br>(3.246) | 83,75<br>(3.297) | 85,07<br>(3.349) | 87,45<br>(3.443) | 89,95<br>(3.541) | 92,45<br>(3.635) | 94,36<br>(3.715) |                  |

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**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
PROTRUDING HEAD  
INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

**Table 5: overall length (continued)**

| Length Code<br>(1/16") | (G+B) Max      |   |    |    |    |                  |                  |                  |                   |                   |                   |                   |
|------------------------|----------------|---|----|----|----|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
|                        | Ø code (1/32") |   |    |    |    |                  |                  |                  |                   |                   |                   |                   |
|                        | 7              | 8 | 10 | 12 | 14 | 16               | 18               | 20               | 24                | 28                | 32                | 36                |
| 37                     |                |   |    |    |    | 84,02<br>(3.308) | 85,33<br>(3.359) | 86,65<br>(3.411) | 89,03<br>(3.505)  | 91,53<br>(3.604)  | 93,32<br>(3.674)  | 95,94<br>(3.777)  |
| 38                     |                |   |    |    |    |                  | 86,92<br>(3.422) | 88,24<br>(3.474) | 90,62<br>(3.568)  | 93,12<br>(3.666)  | 94,91<br>(3.737)  | 97,53<br>(3.840)  |
| 39                     |                |   |    |    |    |                  | 88,51<br>(3.485) | 89,83<br>(3.537) | 92,21<br>(3.630)  | 94,71<br>(3.729)  | 96,50<br>(3.799)  | 99,12<br>(3.902)  |
| 40                     |                |   |    |    |    |                  | 90,10<br>(3.547) | 91,42<br>(3.599) | 93,80<br>(3.693)  | 96,30<br>(3.791)  | 98,09<br>(3.862)  | 100,71<br>(3.965) |
| 41                     |                |   |    |    |    |                  | 91,68<br>(3.609) | 93,00<br>(3.661) | 95,38<br>(3.755)  | 97,88<br>(3.854)  | 99,67<br>(3.924)  | 102,29<br>(4.027) |
| 42                     |                |   |    |    |    |                  |                  | 94,59<br>(3.724) | 96,97<br>(3.818)  | 99,47<br>(3.916)  | 101,26<br>(3.987) | 103,88<br>(4.090) |
| 43                     |                |   |    |    |    |                  |                  |                  | 98,56<br>(3.880)  | 101,06<br>(3.979) | 102,85<br>(4.049) | 105,47<br>(4.152) |
| 44                     |                |   |    |    |    |                  |                  |                  | 100,15<br>(3.943) | 102,65<br>(4.041) | 104,44<br>(4.112) | 107,06<br>(4.215) |
| 45                     |                |   |    |    |    |                  |                  |                  | 101,73<br>(4.005) | 104,23<br>(4.104) | 106,02<br>(4.174) | 108,64<br>(4.277) |
| 46                     |                |   |    |    |    |                  |                  |                  | 103,32<br>(4.068) | 105,82<br>(4.166) | 107,61<br>(4.237) | 110,23<br>(4.340) |
| 47                     |                |   |    |    |    |                  |                  |                  | 104,91<br>(4.130) | 107,41<br>(4.229) | 109,20<br>(4.299) | 111,82<br>(4.402) |
| 48                     |                |   |    |    |    |                  |                  |                  | 106,50<br>(4.193) | 109,00<br>(4.291) | 110,79<br>(4.362) | 113,41<br>(4.465) |
| 49                     |                |   |    |    |    |                  |                  |                  | 108,08<br>(4.255) | 110,58<br>(4.354) | 112,37<br>(4.424) | 114,99<br>(4.527) |
| 50                     |                |   |    |    |    |                  |                  |                  | 109,67<br>(4.318) | 112,17<br>(4.416) | 113,96<br>(4.487) | 116,58<br>(4.590) |
| 51                     |                |   |    |    |    |                  |                  |                  | 111,26<br>(4.380) | 113,76<br>(4.479) | 115,55<br>(4.549) | 118,17<br>(4.652) |
| 52                     |                |   |    |    |    |                  |                  |                  | 112,85<br>(4.443) | 115,35<br>(4.541) | 117,14<br>(4.612) | 119,76<br>(4.715) |
| 53                     |                |   |    |    |    |                  |                  |                  | 114,43<br>(4.505) | 116,93<br>(4.604) | 118,72<br>(4.674) | 121,34<br>(4.777) |
| 54                     |                |   |    |    |    |                  |                  |                  |                   | 118,52<br>(4.666) | 120,31<br>(4.737) | 122,93<br>(4.840) |
| 55                     |                |   |    |    |    |                  |                  |                  |                   | 120,11<br>(4.729) | 121,90<br>(4.799) | 124,52<br>(4.902) |
| 56                     |                |   |    |    |    |                  |                  |                  |                   | 121,70<br>(4.791) | 123,49<br>(4.862) | 126,11<br>(4.965) |
| 57                     |                |   |    |    |    |                  |                  |                  |                   | 123,28<br>(4.854) | 125,07<br>(4.924) | 127,69<br>(5.027) |
| 58                     |                |   |    |    |    |                  |                  |                  |                   | 124,87<br>(4.916) | 126,66<br>(4.987) | 129,28<br>(5.090) |
| 59                     |                |   |    |    |    |                  |                  |                  |                   | 126,46<br>(4.979) | 128,25<br>(5.049) | 130,87<br>(5.152) |
| 60                     |                |   |    |    |    |                  |                  |                  |                   |                   | 129,84<br>(5.112) | 132,46<br>(5.215) |
| 61                     |                |   |    |    |    |                  |                  |                  |                   |                   | 131,42<br>(5.174) | 134,04<br>(5.277) |
| 62                     |                |   |    |    |    |                  |                  |                  |                   |                   | 133,01<br>(5.237) | 135,63<br>(5.340) |
| 63                     |                |   |    |    |    |                  |                  |                  |                   |                   | 134,60<br>(5.299) | 137,22<br>(5.402) |
| 64                     |                |   |    |    |    |                  |                  |                  |                   |                   | 136,19<br>(5.362) | 138,81<br>(5.465) |
| 65                     |                |   |    |    |    |                  |                  |                  |                   |                   | 137,77<br>(5.424) | 140,39<br>(5.527) |
| 66                     |                |   |    |    |    |                  |                  |                  |                   |                   |                   | 141,98<br>(5.590) |
| 67                     |                |   |    |    |    |                  |                  |                  |                   |                   |                   | 143,57<br>(5.652) |
| 68                     |                |   |    |    |    |                  |                  |                  |                   |                   |                   | 145,16<br>(5.715) |
| 69                     |                |   |    |    |    |                  |                  |                  |                   |                   |                   | 146,74<br>(5.777) |

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**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
PROTRUDING HEAD  
INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

**Table 6: Tensile strength, fatigue load, shear strength**

| Ø<br>code<br>(1/32") | Min. Axial<br>Tensile<br>Strength<br>N (lbf) | Max<br>Tension<br>Fatigue<br>Load<br>N (lbf) | Double<br>Shear<br>Strength<br>N (lbf) |
|----------------------|----------------------------------------------|----------------------------------------------|----------------------------------------|
| 7                    | 23 970<br>(5,389)                            | 8 390<br>(1,886)                             | 52 870<br>(11,886)                     |
| 8                    | 33 810<br>(7,601)                            | 11 834<br>(2,660)                            | 70 130<br>(15,766)                     |
| 10                   | 53 980<br>(12,135)                           | 18 893<br>(4,247)                            | 104 580<br>(23,511)                    |
| 12                   | 81 660<br>(18,358)                           | 28 581<br>(6,425)                            | 150 510<br>(33,836)                    |
| 14                   | 110 370<br>(24,812)                          | 38 630<br>(8,684)                            | 204 280<br>(45,924)                    |
| 16                   | 148 710<br>(33,431)                          | 52 049<br>(11,701)                           | 258 490<br>(58,111)                    |
| 18                   | 188 720<br>(42,426)                          | 66 052<br>(14,849)                           | 321 610<br>(72,301)                    |
| 20                   | 237 980<br>(53,500)                          | 83 293<br>(18,725)                           | 392 270<br>(88,186)                    |
| 24                   | 346 760<br>(77,955)                          | 121 366<br>(27,284)                          | 561 590<br>(126,251)                   |
| 28                   | 473 690<br>(106,490)                         | 165 792<br>(37,271)                          | 761 240<br>(171,134)                   |
| 32                   | 616 470<br>(138,588)                         | 215 765<br>(48,506)                          | 975 840<br>(219,378)                   |
| 36                   | 795 620<br>(178,863)                         | 278 467<br>(62,602)                          | 1 223 480<br>(275,049)                 |

Notes: - Mechanical properties applied at room temperature.  
- Tensile strength and fatigue load values are valid for fastener pin only. Global fastener performances depend on associated nut mechanical characteristics.

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 PROTRUDING HEAD  
 INCONEL pin shear 125 ksi min  
 3/32 grip variation  
 2<sup>nd</sup> oversize**

**STL2250**

**Table 7: mass**

| Length<br>Code<br>(1/16") | Mass (kg/1000 parts)For information only |                  |                  |                   |                   |                    |                    |                    |                    |                    |                      |                      |
|---------------------------|------------------------------------------|------------------|------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
|                           | Ø code (1/32")                           |                  |                  |                   |                   |                    |                    |                    |                    |                    |                      |                      |
|                           | 7                                        | 8                | 10               | 12                | 14                | 16                 | 18                 | 20                 | 24                 | 28                 | 32                   | 36                   |
| 4                         |                                          |                  |                  |                   |                   |                    |                    |                    |                    |                    |                      |                      |
| 5                         | 7,87<br>(17.36)                          | 11,19<br>(24.67) |                  |                   |                   |                    |                    |                    |                    |                    |                      |                      |
| 6                         | 8,62<br>(19.00)                          | 12,06<br>(26.59) | 18,79<br>(41.42) |                   |                   |                    |                    |                    |                    |                    |                      |                      |
| 7                         | 9,27<br>(20.44)                          | 12,92<br>(28.49) | 19,99<br>(44.06) | 30,31<br>(66.81)  |                   |                    |                    |                    |                    |                    |                      |                      |
| 8                         | 9,92<br>(21.88)                          | 13,79<br>(30.39) | 21,17<br>(46.68) | 31,99<br>(70.52)  | 43,59<br>(96.10)  |                    |                    |                    |                    |                    |                      |                      |
| 9                         | 10,92<br>(24.07)                         | 14,65<br>(32.29) | 22,36<br>(49.30) | 33,66<br>(74.20)  | 45,82<br>(101.02) | 61,64<br>(135.89)  |                    |                    |                    |                    |                      |                      |
| 10                        | 11,57<br>(25.51)                         | 16,00<br>(35.27) | 24,37<br>(53.72) | 35,33<br>(77.88)  | 48,06<br>(105.96) | 64,39<br>(141.95)  | 84,22<br>(185.66)  |                    |                    |                    |                      |                      |
| 11                        | 12,22<br>(26.94)                         | 16,87<br>(37.20) | 25,57<br>(56.37) | 37,00<br>(81.57)  | 50,30<br>(110.89) | 67,13<br>(147.99)  | 87,52<br>(192.95)  | 111,40<br>(245.59) |                    |                    |                      |                      |
| 12                        | 12,87<br>(28.38)                         | 17,73<br>(39.10) | 26,76<br>(58.98) | 38,68<br>(85.27)  | 52,53<br>(115.81) | 69,87<br>(154.05)  | 90,82<br>(200.21)  | 115,32<br>(254.23) |                    |                    |                      |                      |
| 13                        | 13,54<br>(29.85)                         | 18,60<br>(41.00) | 27,95<br>(61.63) | 41,69<br>(91.91)  | 54,76<br>(120.73) | 72,61<br>(160.08)  | 94,12<br>(207.50)  | 119,25<br>(262.90) |                    |                    |                      |                      |
| 14                        | 14,19<br>(31.29)                         | 19,47<br>(42.92) | 29,14<br>(64.24) | 43,37<br>(95.62)  | 56,99<br>(125.65) | 75,35<br>(166.12)  | 97,42<br>(214.78)  | 123,17<br>(271.54) | 189,69<br>(418.20) |                    |                      |                      |
| 15                        |                                          | 20,33<br>(44.82) | 30,34<br>(66.89) | 45,04<br>(99.30)  | 59,22<br>(130.55) | 78,09<br>(172.16)  | 100,72<br>(222.05) | 127,09<br>(280.18) | 195,18<br>(430.30) | 276,73<br>(610.09) |                      |                      |
| 16                        |                                          | 21,19<br>(46.72) | 31,53<br>(69.50) | 46,71<br>(102.98) | 61,45<br>(135.47) | 80,84<br>(178.22)  | 104,02<br>(229.33) | 131,00<br>(288.80) | 200,67<br>(442.40) | 284,07<br>(626.26) | 389,53<br>(858.76)   |                      |
| 17                        |                                          | 22,05<br>(48.62) | 32,71<br>(72.12) | 48,39<br>(106.69) | 65,34<br>(144.05) | 83,57<br>(184.24)  | 107,32<br>(236.60) | 134,92<br>(297.45) | 206,16<br>(454.49) | 291,39<br>(642.41) | 398,72<br>(879.04)   |                      |
| 18                        |                                          | 22,92<br>(50.52) | 33,90<br>(74.74) | 50,06<br>(110.37) | 67,57<br>(148.98) | 88,08<br>(194.17)  | 111,93<br>(246.77) | 138,84<br>(306.09) | 211,64<br>(466.59) | 298,73<br>(658.59) | 407,91<br>(899.30)   | 539,46<br>(1,189.30) |
| 19                        |                                          | 23,78<br>(52.42) | 35,10<br>(77.38) | 51,74<br>(114.06) | 69,81<br>(153.90) | 90,81<br>(200.21)  | 115,24<br>(254.06) | 142,75<br>(314.71) | 217,13<br>(478.69) | 306,06<br>(674.74) | 417,10<br>(919.55)   | 550,72<br>(1,214.12) |
| 20                        |                                          | 24,64<br>(54.32) | 36,29<br>(80.00) | 53,41<br>(117.74) | 72,04<br>(158.82) | 93,56<br>(206.27)  | 118,54<br>(261.34) | 147,49<br>(325.16) | 222,61<br>(490.77) | 313,38<br>(690.89) | 426,28<br>(939.79)   | 561,97<br>(1,238.93) |
| 21                        |                                          |                  | 37,48<br>(82.62) | 55,08<br>(121.42) | 74,27<br>(163.74) | 96,30<br>(212.31)  | 121,85<br>(268.63) | 151,42<br>(333.83) | 228,34<br>(503.40) | 320,71<br>(707.05) | 435,47<br>(960.05)   | 573,23<br>(1,263.75) |
| 22                        |                                          |                  | 39,67<br>(87.47) | 56,75<br>(125.11) | 76,50<br>(168.66) | 99,05<br>(218.37)  | 125,15<br>(275.91) | 155,34<br>(342.47) | 233,84<br>(515.52) | 328,03<br>(723.18) | 444,65<br>(980.29)   | 584,48<br>(1,288.56) |
| 23                        |                                          |                  | 40,87<br>(90.11) | 58,42<br>(128.79) | 78,74<br>(173.58) | 101,79<br>(224.41) | 128,46<br>(283.20) | 159,26<br>(351.12) | 239,33<br>(527.64) | 335,70<br>(740.10) | 453,84<br>(1,000.54) | 595,73<br>(1,313.36) |
| 24                        |                                          |                  | 42,06<br>(92.73) | 61,79<br>(136.22) | 80,96<br>(178.48) | 104,53<br>(230.45) | 131,75<br>(290.46) | 163,18<br>(359.76) | 244,82<br>(539.74) | 343,04<br>(756.28) | 463,02<br>(1,020.78) | 606,97<br>(1,338.14) |
| 25                        |                                          |                  | 43,25<br>(95.35) | 63,47<br>(139.93) | 83,19<br>(183.41) | 107,27<br>(236.48) | 135,06<br>(297.75) | 167,10<br>(368.40) | 250,32<br>(551.86) | 350,38<br>(772.45) | 472,63<br>(1,041.97) | 618,22<br>(1,362.95) |
| 26                        |                                          |                  |                  | 65,14<br>(143.61) | 85,42<br>(188.33) | 110,02<br>(242.54) | 138,35<br>(305.01) | 171,03<br>(377.05) | 255,81<br>(563.96) | 357,71<br>(788.62) | 481,83<br>(1,062.25) | 629,46<br>(1,387.73) |
| 27                        |                                          |                  |                  | 66,81<br>(147.29) | 87,65<br>(193.23) | 112,75<br>(248.58) | 141,65<br>(312.29) | 174,95<br>(385.69) | 261,29<br>(576.06) | 365,05<br>(804.80) | 491,03<br>(1,082.53) | 641,34<br>(1,413.92) |
| 28                        |                                          |                  |                  | 68,48<br>(150.98) | 89,88<br>(198.15) | 115,49<br>(254.62) | 144,95<br>(319.56) | 178,87<br>(394.33) | 266,78<br>(588.16) | 372,39<br>(820.97) | 500,21<br>(1,102.78) | 652,62<br>(1,438.77) |
| 29                        |                                          |                  |                  | 70,15<br>(154.66) | 92,10<br>(203.05) | 118,23<br>(260.66) | 148,25<br>(326.84) | 182,78<br>(402.95) | 272,28<br>(600.28) | 379,72<br>(837.15) | 509,40<br>(1,123.04) | 663,88<br>(1,463.60) |
| 30                        |                                          |                  |                  | 71,82<br>(158.34) | 94,33<br>(207.97) | 120,96<br>(266.67) | 151,55<br>(334.11) | 186,70<br>(411.60) | 277,77<br>(612.38) | 387,05<br>(853.30) | 518,60<br>(1,143.32) | 675,14<br>(1,488.42) |
| 31                        |                                          |                  |                  |                   | 96,56<br>(212.87) | 123,70<br>(272.71) | 154,84<br>(341.37) | 190,62<br>(420.24) | 283,26<br>(624.47) | 394,39<br>(869.48) | 527,79<br>(1,163.58) | 686,41<br>(1,513.27) |
| 32                        |                                          |                  |                  |                   |                   | 126,44<br>(278.75) | 158,15<br>(348.66) | 194,53<br>(428.86) | 288,73<br>(636.55) | 401,71<br>(885.63) | 536,98<br>(1,183.84) | 697,67<br>(1,538.10) |
| 33                        |                                          |                  |                  |                   |                   | 129,18<br>(284.79) | 161,44<br>(355.92) | 198,45<br>(437.51) | 294,22<br>(648.65) | 409,04<br>(901.78) | 546,17<br>(1,204.10) | 708,93<br>(1,562.92) |
| 34                        |                                          |                  |                  |                   |                   | 131,91<br>(290.80) | 164,74<br>(363.18) | 202,36<br>(446.13) | 299,71<br>(660.75) | 416,37<br>(917.93) | 555,36<br>(1,224.36) | 720,19<br>(1,587.75) |
| 35                        |                                          |                  |                  |                   |                   | 134,64<br>(296.84) | 168,03<br>(370.45) | 206,27<br>(454.75) | 305,19<br>(672.83) | 423,69<br>(934.09) | 564,54<br>(1,244.59) | 731,44<br>(1,612.55) |
| 36                        |                                          |                  |                  |                   |                   | 137,37<br>(302.85) | 175,69<br>(387.32) | 216,08<br>(476.38) | 310,68<br>(684.92) | 431,02<br>(950.24) | 573,73<br>(1,264.85) | 742,70<br>(1,637.38) |

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LISI AEROSPACE – Please refer to Central Documentation Website to check validity



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**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
PROTRUDING HEAD  
INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

**Table 7: mass (continued)**

| Length<br>Code<br>(1/16") | Mass (kg/1000 parts)For information only |   |    |    |    |                    |                    |                    |                      |                      |                      |                        |
|---------------------------|------------------------------------------|---|----|----|----|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|------------------------|
|                           | Ø code (1/32")                           |   |    |    |    |                    |                    |                    |                      |                      |                      |                        |
|                           | 7                                        | 8 | 10 | 12 | 14 | 16                 | 18                 | 20                 | 24                   | 28                   | 32                   | 36                     |
| 37                        |                                          |   |    |    |    | 143,27<br>(315.86) | 178,99<br>(394.61) | 220,00<br>(485.02) | 316,15<br>(697.00)   | 438,35<br>(966.39)   | 582,91<br>(1,285.09) | 753,95<br>(1,662.18)   |
| 38                        |                                          |   |    |    |    | 182,30<br>(401.89) | 223,92<br>(493.66) | 321,63<br>(709.08) | 445,66<br>(982.52)   | 592,10<br>(1,305.35) | 765,20<br>(1,686.99) |                        |
| 39                        |                                          |   |    |    |    | 185,59<br>(409.16) | 227,84<br>(502.31) | 327,12<br>(721.18) | 452,99<br>(998.67)   | 601,27<br>(1,325.58) | 776,47<br>(1,711.81) |                        |
| 40                        |                                          |   |    |    |    | 188,89<br>(416.44) | 231,76<br>(510.95) | 338,65<br>(746.59) | 460,31<br>(1,014.80) | 610,45<br>(1,345.82) | 787,72<br>(1,736.62) |                        |
| 41                        |                                          |   |    |    |    | 192,20<br>(423.73) | 235,68<br>(519.60) | 344,15<br>(758.71) | 467,63<br>(1,030.96) | 619,63<br>(1,366.06) | 798,97<br>(1,761.42) |                        |
| 42                        |                                          |   |    |    |    |                    |                    | 239,60<br>(528.24) | 349,63<br>(770.81)   | 474,95<br>(1,047.09) | 628,81<br>(1,386.29) | 810,21<br>(1,786.20)   |
| 43                        |                                          |   |    |    |    |                    |                    |                    | 355,12<br>(782.91)   | 482,27<br>(1,063.22) | 637,98<br>(1,406.51) | 821,46<br>(1,811.01)   |
| 44                        |                                          |   |    |    |    |                    |                    |                    | 360,62<br>(795.03)   | 489,58<br>(1,079.35) | 647,16<br>(1,426.74) | 832,70<br>(1,835.79)   |
| 45                        |                                          |   |    |    |    |                    |                    |                    | 366,11<br>(807.13)   | 496,90<br>(1,095.48) | 656,33<br>(1,446.96) | 843,95<br>(1,860.59)   |
| 46                        |                                          |   |    |    |    |                    |                    |                    | 371,60<br>(819.23)   | 504,22<br>(1,111.61) | 665,51<br>(1,467.20) | 855,19<br>(1,885.38)   |
| 47                        |                                          |   |    |    |    |                    |                    |                    | 377,08<br>(831.33)   | 511,53<br>(1,127.74) | 674,68<br>(1,487.41) | 866,43<br>(1,910.16)   |
| 48                        |                                          |   |    |    |    |                    |                    |                    | 382,57<br>(843.43)   | 518,84<br>(1,143.85) | 683,85<br>(1,507.62) | 877,67<br>(1,934.94)   |
| 49                        |                                          |   |    |    |    |                    |                    |                    | 388,06<br>(855.53)   | 526,16<br>(1,159.98) | 693,02<br>(1,527.84) | 888,91<br>(1,959.72)   |
| 50                        |                                          |   |    |    |    |                    |                    |                    | 393,55<br>(867.63)   | 540,27<br>(1,191.10) | 702,19<br>(1,548.05) | 900,15<br>(1,984.48)   |
| 51                        |                                          |   |    |    |    |                    |                    |                    | 399,03<br>(879.70)   | 547,60<br>(1,207.25) | 711,35<br>(1,568.27) | 912,45<br>(2,011.60)   |
| 52                        |                                          |   |    |    |    |                    |                    |                    | 404,51<br>(891.80)   | 554,93<br>(1,223.41) | 725,43<br>(1,599.31) | 923,71<br>(2,036.43)   |
| 53                        |                                          |   |    |    |    |                    |                    |                    | 410,00<br>(903.90)   | 562,25<br>(1,239.56) | 734,62<br>(1,619.57) | 934,97<br>(2,061.25)   |
| 54                        |                                          |   |    |    |    |                    |                    |                    |                      | 569,58<br>(1,255.71) | 743,80<br>(1,639.80) | 946,23<br>(2,086.08)   |
| 55                        |                                          |   |    |    |    |                    |                    |                    |                      | 576,91<br>(1,271.86) | 752,99<br>(1,660.06) | 957,49<br>(2,110.90)   |
| 56                        |                                          |   |    |    |    |                    |                    |                    |                      | 584,23<br>(1,288.02) | 762,18<br>(1,680.32) | 968,74<br>(2,135.71)   |
| 57                        |                                          |   |    |    |    |                    |                    |                    |                      | 591,56<br>(1,304.17) | 771,36<br>(1,700.56) | 980,00<br>(2,160.53)   |
| 58                        |                                          |   |    |    |    |                    |                    |                    |                      | 598,88<br>(1,320.30) | 780,54<br>(1,720.79) | 991,26<br>(2,185.36)   |
| 59                        |                                          |   |    |    |    |                    |                    |                    |                      | 606,20<br>(1,336.45) | 789,73<br>(1,741.05) | 1 002,51<br>(2,210.16) |
| 60                        |                                          |   |    |    |    |                    |                    |                    |                      |                      | 798,91<br>(1,761.29) | 1 013,76<br>(2,234.97) |
| 61                        |                                          |   |    |    |    |                    |                    |                    |                      |                      | 808,09<br>(1,781.52) | 1 025,03<br>(2,259.80) |
| 62                        |                                          |   |    |    |    |                    |                    |                    |                      |                      | 817,26<br>(1,801.76) | 1 036,28<br>(2,284.60) |
| 63                        |                                          |   |    |    |    |                    |                    |                    |                      |                      | 826,44<br>(1,822.00) | 1 047,53<br>(2,309.40) |
| 64                        |                                          |   |    |    |    |                    |                    |                    |                      |                      | 835,62<br>(1,842.23) | 1 058,78<br>(2,334.21) |
| 65                        |                                          |   |    |    |    |                    |                    |                    |                      |                      | 844,80<br>(1,862.47) | 1 070,03<br>(2,359.01) |
| 66                        |                                          |   |    |    |    |                    |                    |                    |                      |                      |                      | 1 081,28<br>(2,383.82) |
| 67                        |                                          |   |    |    |    |                    |                    |                    |                      |                      |                      | 1 092,53<br>(2,408.62) |
| 68                        |                                          |   |    |    |    |                    |                    |                    |                      |                      |                      | 1 103,77<br>(2,433.40) |
| 69                        |                                          |   |    |    |    |                    |                    |                    |                      |                      |                      | 1 115,02<br>(2,458.21) |

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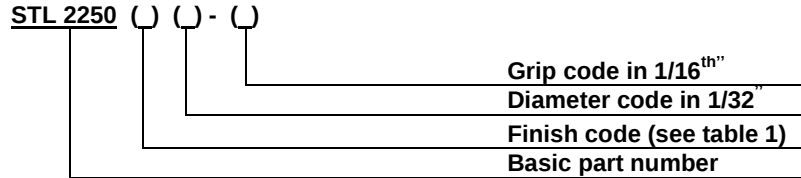


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**SLEEVE TAPER-HI-LITE<sup>®</sup>,  
PROTRUDING HEAD  
INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

### 3. DESIGNATION



#### Example:

STL2250P10 – 34 : SLEEVE TAPER-HI-LITE<sup>®</sup> fastener system protruding head 2<sup>nd</sup> oversize (+1/32" diameter), 0.6% minimum interference fit, Inconel pin with HK1NC + cetyl alcohol lube and stainless steel passivated sleeve, diameter code 10/32" and 34/16" length.

### 4. MARKING

Designation and manufacturer identification per EN2424 style B with 0.25 mm (.01 inch) max depth, bolt only. Marking location as specified on Figure 1.

### 5. QUALIFICATION AND ACCEPTANCE

The fastener shall meet all the inspection requirements of LISI AEROSPACE Product Specification STL-TS01.

### 6. INSTALLATION

Refer to STL-IS10;

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INCONEL pin shear 125 ksi min  
3/32 grip variation  
2<sup>nd</sup> oversize**

**STL2250**

| Issue | Date                       | Modifications                                                                                         | Justification                                                 |
|-------|----------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| A     | SEPT 21 <sup>st</sup> 2010 | First release                                                                                         |                                                               |
| B     | MAR 21 <sup>st</sup> 2011  | K added<br>L dim changed in ref<br>Modification of view A-A<br>H changed in ref.<br>table (G+B) added | Improvement for better<br>understanding<br>(no design change) |
| C     | APR 5 <sup>th</sup> 2012   | P dim corrected<br>ASTER <sup>®</sup> codification modified                                           | To be in accordance with<br>definition drawings               |
|       |                            |                                                                                                       |                                                               |
|       |                            |                                                                                                       |                                                               |
|       |                            |                                                                                                       |                                                               |
|       |                            |                                                                                                       |                                                               |
|       |                            |                                                                                                       |                                                               |

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