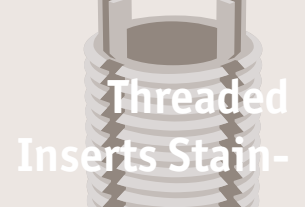
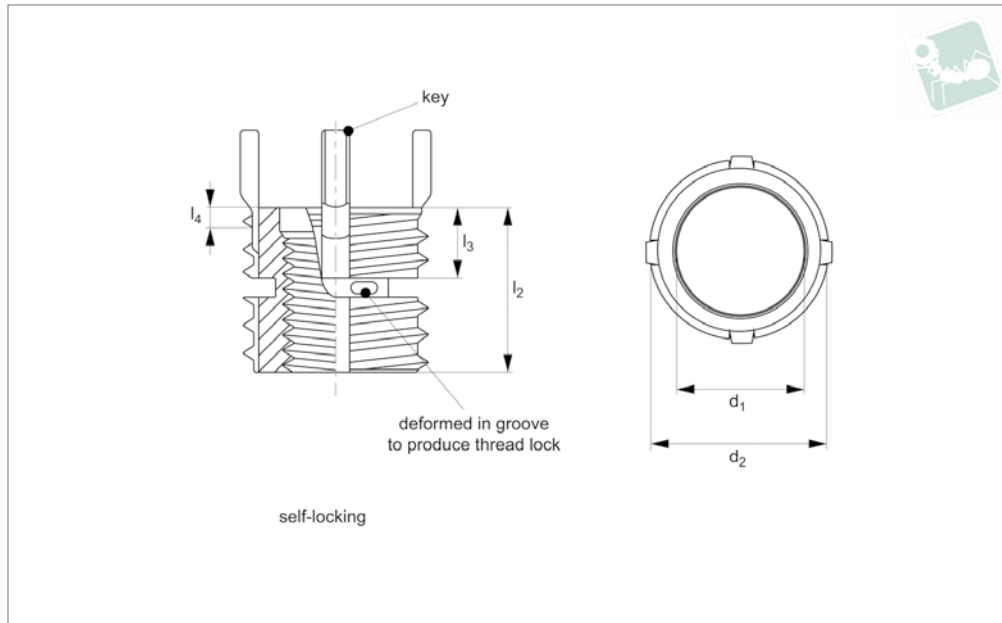




# Threaded Insert MS/NAS - Thinwall - 303 stainless steel - self-locking - MS/NAS grade



Threaded  
Inserts Stain-



**TR1653**

THREADED INSERTS STAINLESS

## Material

Inserts - 303 CRES.  
Keys - 302 CRES.  
Passivated. Dry film lubrication on self-locking inserts only.

## Technical Notes

All dimensions in inches.  
Internal threads: to SAE AS8879.  
General tolerances -  
+/- 0,010 unless specified.  
Tap drill hole tolerances -

0,234 to 0,500 = +0,004/-0,001

0,500 and over = +0,005/-0,001

**SL** = Self-Locking type, deliberate deformity in thread produces self-affect once installed (see technical diagram).

## Tips

Order installation tool separately, as identified by „Inst. Tool ref.“ in table.

## Important Notes

Four locking keys on internal threads 5/16

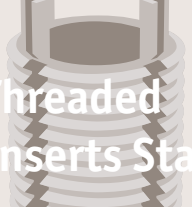
and over. Two locking keys on internal threads smaller than 5/16.

Installation (Inst.) drill size, counter sink, thread tap and thread depth as specified in table.

Removal (Rem.) drill size and drill depth as specified in table.

Perform to standards: MIL-I-45914A (MS51830 & NAS1394)

| Order No.    | Type | d <sub>1</sub><br>tol. 3B | Thre ad<br>type<br>d <sub>1</sub> | d <sub>2</sub><br>(mod.)<br>class<br>2A | Thre ad<br>type<br>d <sub>2</sub> | Inst. tap<br>drill size | l <sub>1</sub> | l <sub>3</sub><br>±0.30 c'bore | l <sub>4</sub><br>depth | C'sink<br>hole<br>size<br>+0.0<br>10 -<br>0.000 | Inst. thread<br>tap depth<br>min. | Inst. thread<br>tap size<br>tol. 2B | Inst. tool ref.<br>TR1702 | Removal<br>drill depth | Removal<br>drill size |
|--------------|------|---------------------------|-----------------------------------|---|-----------------------------------|-------------------------|----------------|--------------------------------|-------------------------|---|-----------------------------------|-------------------------------------|---------------------------|------------------------|-----------------------|
| TR1653.77321 | SL   | 10-24                     | UNC                               | 5/16-18                                 | UNC                               | ,272                    | ,312           | .22                            | ,07                     | ,323  | ,37                               | 5/16-18                             | .0210                     | 5/32                   | 7/32                  |
| TR1653.77521 | SL   | 10-32                     | UNF                               | 5/16-18                                 | UNC                               | ,272                    | ,312           | .22                            | ,07                     | ,323  | ,37                               | 5/16-18                             | .0211                     | 5/32                   | 7/32                  |
| TR1653.77322 | SL   | 1/4-20                    | UNC                               | 3/8-16                                  | UNC                               | ,332                    | ,375           | .22                            | ,07                     | ,385  | ,43                               | 3/8-16                              | .0220                     | 3/16                   | 9/32                  |
| TR1653.77522 | SL   | 1/4-28                    | UNF                               | 3/8-16                                  | UNC                               | ,332                    | ,375           | .22                            | ,07                     | ,385  | ,43                               | 3/8-16                              | .0221                     | 3/16                   | 9/32                  |
| TR1653.77323 | SL   | 5/16-18                   | UNC                               | 7/16-14                                 | UNC                               | ,397                    | ,437           | .22                            | ,07                     | ,447  | ,50                               | 7/16-14                             | .0230                     | 3/16                   | 11/32                 |
| TR1653.77523 | SL   | 5/16-24                   | UNF                               | 7/16-14                                 | UNC                               | ,397                    | ,437           | .22                            | ,07                     | ,447  | ,50                               | 7/16-14                             | .0231                     | 3/16                   | 11/32                 |
| TR1653.77324 | SL   | 3/8-16                    | UNC                               | 1/2-13                                  | UNC                               | ,453                    | ,500           | .24                            | ,07                     | ,510  | ,56                               | 1/2-13                              | .0240                     | 3/16                   | 13/32                 |
| TR1653.77524 | SL   | 3/8-24                    | UNF                               | 1/2-13                                  | UNC                               | ,453                    | ,500           | .24                            | ,07                     | ,510  | ,56                               | 1/2-13                              | .0241                     | 3/16                   | 13/32                 |
| TR1653.77325 | SL   | 7/16-14                   | UNC                               | 9/16-12                                 | UNC                               | ,516                    | ,562           | .27                            | ,07                     | ,572  | ,62                               | 9/16-12                             | .0250                     | 3/16                   | 15/32                 |



THREADED INSERTS STAINLESS

| Order No.           | Type | d <sub>1</sub><br>tol. 3B | Thre<br>ad<br>type<br>d <sub>1</sub> | d <sub>2</sub><br>(mod.)<br>class<br>2A | Thre<br>ad<br>type<br>d <sub>2</sub> | Inst. tap<br>drill size | l <sub>1</sub> | l <sub>3</sub><br>±0.30 | l <sub>4</sub><br>c'bore<br>depth | C'sink<br>hole<br>size<br>+0.0<br>10 -<br>0.000 | Inst. thread<br>tap depth<br>min. | Inst. thread<br>tap size<br>tol. 2B | Inst. tool ref.<br>TR1702 | Removal<br>drill depth | Removal<br>drill size |
|---------------------|------|---------------------------|--------------------------------------|---|--------------------------------------|-------------------------|----------------|-------------------------|-----------------------------------|---|-----------------------------------|-------------------------------------|---------------------------|------------------------|-----------------------|
| <b>TR1653.77525</b> | SL   | 7/<br>16-<br>20           | UNF                                  | 9/16-<br>12                             | UNC                                  | ,516                    | .562           | .27                     | ,07                               | ,572  | ,62                               | 9/16-12                             | .0251                     | 3/16                   | 15/32                 |
| <b>TR1653.77326</b> | SL   | 1/2-<br>13                | UNC                                  | 5/8-<br>11                              | UNC                                  | ,578                    | ,625           | .28                     | ,07                               | ,635  | ,68                               | 5/8-11                              | .0260                     | 3/16                   | 17/32                 |
| <b>TR1653.77526</b> | SL   | 1/2-<br>20                | UNF                                  | 5/8-<br>11                              | UNC                                  | ,578                    | ,625           | .28                     | ,07                               | ,635  | ,68                               | 5/8-11                              | .0261                     | 3/16                   | 17/32                 |