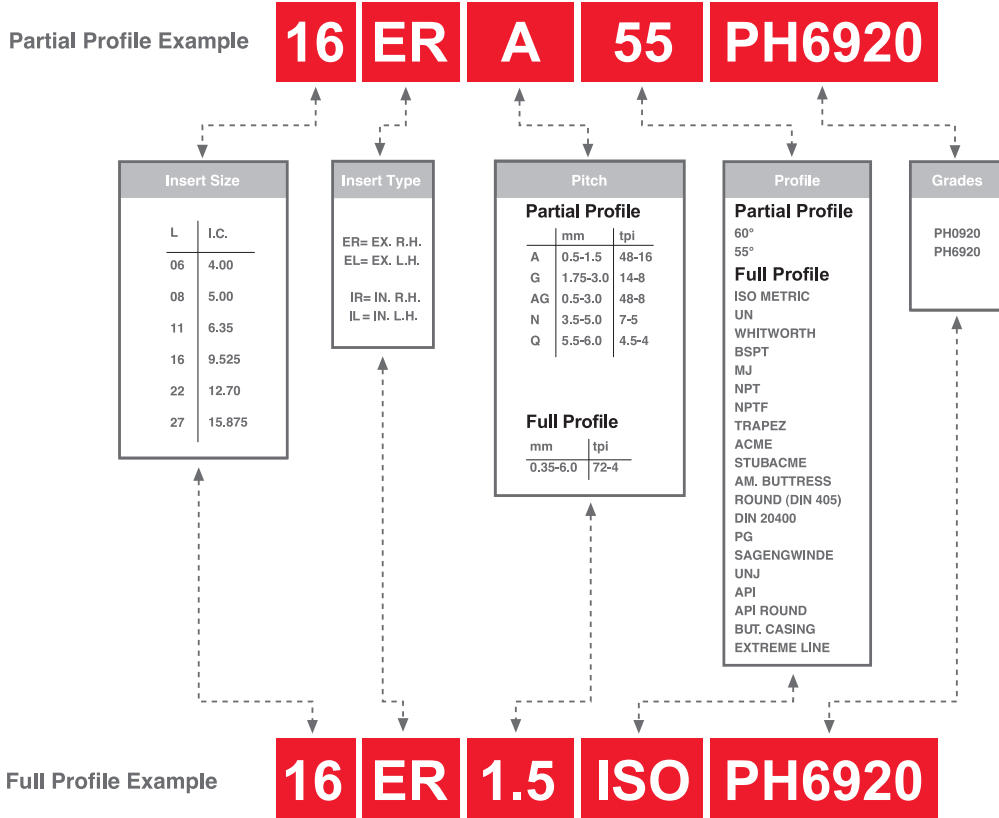


E - 01 Threading**E - 02** Code Key for Inserts**E - 03** Step by Step Thread Turning - Example**E - 05 Thread Inserts****E - 05** Partial Profile 60°**E - 06** Partial Profile 55°**E - 07** Iso Metric**E - 11** American UN**E - 16** Whitworth for BSW, BSF, BSP**E - 20** BSPT**E - 21** NPT**E - 22** NPTF**E - 23** Round (DIN 405)**E - 24** Round (DIN 20400)**E - 25** Trapez**E - 26** American ACME**E - 27** STUB ACME**E - 29** UNJ**E - 31** MJ**E - 32** American Buttress**E - 33** Metric Buttress Sagengewinde**E - 34** API**E - 35** API Buttress Casing**E - 35** API Round Casing & Tubing**E - 36** Extreme Line Casing**E - 37** PG**E - 38** TNMC**E - 38** TPMC**E - 39 Spare Parts****E - 40 Thread Holders****E - 40** Code Key for External Toolholders**E - 41** STCN 90°**E - 42** SXAN**E - 43** Code Key for Boring Bars**E - 44** STGN 90°**E - 45** STGP 90°**E - 46** SXFN**E - 47 Technical Data**

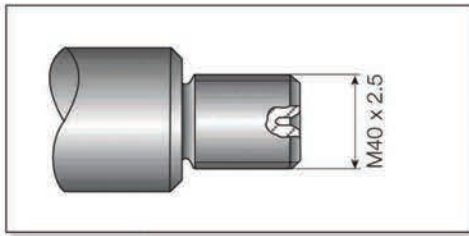
Code Key for Inserts | Chave de Codificação para Pastilhas Llave de Codificación para Plaquitas



Cutting Conditions Depends On

| | | |
|--------------------|---|--------------------|
| Workpiece | Material Type | |
| | Material Dimension: Diameter and Length | |
| | Chipflow Character | |
| | Material Hardness | |
| Thread Application | External or Internal | |
| | Profile Shape | |
| | Surface Finish | |
| Machine | Machine Stability | |
| | Max. RPM | |
| | Clamping System Stability | |
| Coolant | Coolant Type | |
| Holders | Holder Cross Section Area | |
| | Holder Overhang | |
| | Through Coolant Option | |
| | Shank Type: Carbide, Alloy, Carbide Implant | |
| Insert | Grade | P M K N S H |
| | Profile Shape: Pitch and Depth | |
| | Nose Radius | |
| | Chipbreaker Style | |

Step by Step Thread Turning - Example

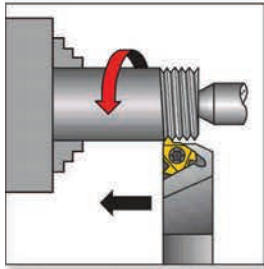


Application:

Thread: External Right Hand
ISO Metric M40x2.5

Material: 4140 (25 HRC)

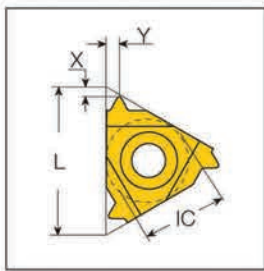
1 - Choose the Thread Turning Method



Feed **direction towards the chuck** was chosen.

Therefore, an external right hand insert and an external right hand holder will be used

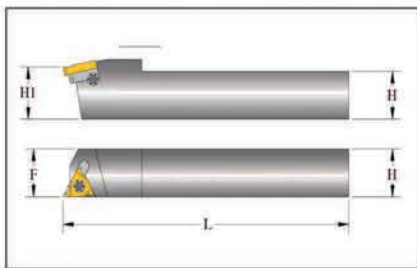
2 - Choose the Insert Size



Chosen insert: **16ER 2.50ISO**

| Insert Size | | Pitch | Reference | Anvil | Toolholder |
|-------------|------|-------|--------------|-------|----------------|
| IC | L mm | mm | | RH | |
| 9.525 | 16 | 2.50 | 16ER 2.50ISO | EA16 | STCNL 2525 M16 |

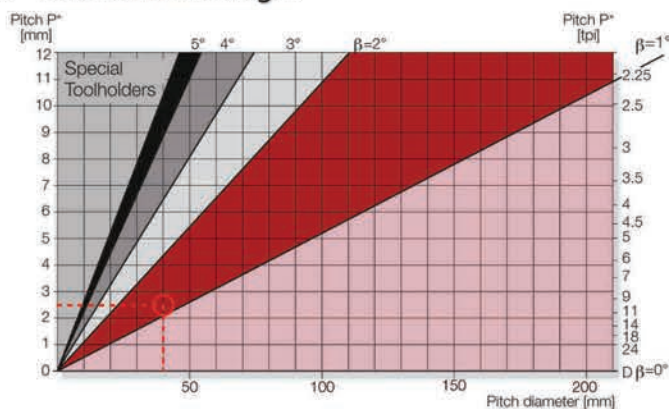
3 - Choose the Toolholder



Chosen toolholder: **SXANR 2525 M16**

| Insert Size | Reference | Dimensions mm | | |
|-------------|----------------|---------------|----|-----|
| IC | | H=H1=B | F | L |
| 9.525 | SXANR 2525 M16 | 25 | 25 | 150 |

4 - Find the Helix Angle



From the table, using a pitch of 2.5 mm (10 tpi) and a workpiece diameter of 40 mm (1.57"), we find the helix angle to be **1.5°**.

Step by Step Thread Turning - Example

5 - Choose the Correct Anvil

Anvil chosen: **EA16**

| Resultant Helix Angle | | 3.5 | 2.5 | 1.5 | 0.5 | |
|-----------------------|------|--------|----------|------------|-------------|----------|
| Insert Size | | Holder | | | | |
| IC | L mm | ER/IL | EA16+3.5 | EA16+2.5 | EA16 | EA16+0.5 |
| 9,525 | 16 | | | | | |

6 - Choose the Carbide Grade and Cutting Speed

Carbide grade chosen: **PH6920**

Cutting speed: **140 m /min**

| Material: | | Hardness Brinell HB | | PH6920 |
|-----------|---|---------------------|-----|---------------|
| P | Low alloy steel (alloying elements ≤ 5%) | Non hardened | 180 | 85-145 |
| | | Hardened | 275 | 75-140 |
| | | Hardened | 350 | 70-135 |

7 - Determine the Number of Passes

Number of passes: **10**

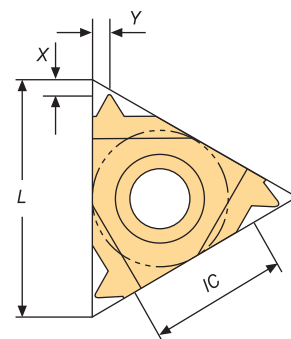
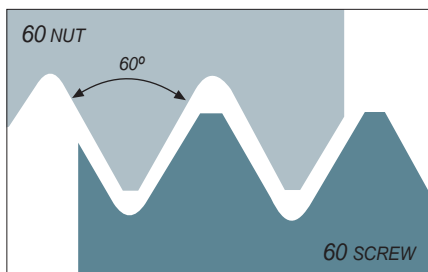
ISO External

| Pitch | mm | 1.50 | 1.75 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 |
|---------------|-----|------|------|------|-------------|------|-------|-------|
| | tpi | 16 | 14 | 12 | 10 | 8 | 7 | 6 |
| No. of passes | | 6-10 | 7-12 | 7-12 | 8-14 | 9-16 | 10-18 | 11-18 |

Summary

| | |
|----------------------------|---------------------------------|
| Thread Type | ISO M40x2.5 External Right Hand |
| 1 Feed Direction: | Towards the chuck |
| 2 Insert and Grade: | 16ER 2.50ISO PH6920 |
| 3 Toolholder: | SXANR 2525 M16 |
| 4 Helix Angle: | 1.5° |
| 5 Anvil: | EA16 |
| 6 Cutting Speed: | 140 m/min |
| 7 Number of Passes: | 14 |

Partial Profile 60° Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1880592 | 11ER A60 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880429 | 16ER A60 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880431 | 16ER G60 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880388 | 16ER AG60 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880046 | 22ER N60 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882486 | 27ER Q60 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.0 | 3.0 | ○ | ○ |
| 1881851 | 11EL A60 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880771 | 16EL A60 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880773 | 16EL G60 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880524 | 16EL AG60 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880853 | 22EL N60 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882155 | 27EL Q60 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.0 | 3.0 | ○ | ○ |

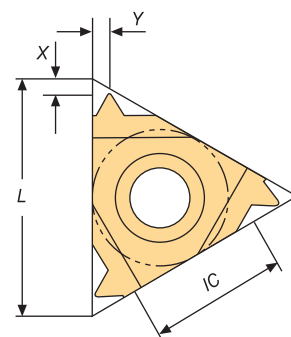
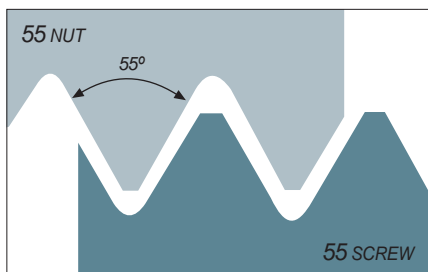
⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

| Order Code (1) | Reference | Pitch | | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881730 | 06IR A60 | 0.5-1.25 | 48-20 | 4.00 | 06 | 0.5 | 0.6 | ○ | ○ |
| 1881773 | 08IR A60 | 0.5-1.5 | 48-16 | 5.00 | 08 | 0.5 | 0.7 | ○ | ○ |
| 1880595 | 11IR A60 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880045 | 16IR A60 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880435 | 16IR G60 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880437 | 16IR AG60 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880769 | 22IR N60 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882487 | 27IR Q60 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.0 | 3.0 | ○ | ○ |
| 1881716 | 06IL A60 | 0.5-1.25 | 48-20 | 4.00 | 06 | 0.5 | 0.6 | ○ | ○ |
| 1882199 | 08IL A60 | 0.5-1.5 | 48-16 | 5.00 | 08 | 0.5 | 0.7 | ○ | ○ |
| 1880855 | 11IL A60 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880772 | 16IL A60 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880774 | 16IL G60 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880775 | 16IL AG60 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880854 | 22IL N60 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882179 | 27IL Q60 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.0 | 3.0 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Partial Profile 55° Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1880598 | 11ER A55 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880430 | 16ER A55 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880432 | 16ER G55 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880433 | 16ER AG55 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880770 | 22ER N55 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882167 | 27ER Q55 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.1 | 3.0 | ○ | ○ |
| 1881850 | 11EL A55 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1880776 | 16EL A55 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880778 | 16EL G55 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880780 | 16EL AG55 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880858 | 22EL N55 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882154 | 27EL Q55 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.1 | 3.0 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

| Order Code (1) | Reference | Pitch | | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881729 | 06IR A55 | 0.5-1.25 | 48-20 | 4.00 | 06 | 0.5 | 0.6 | ○ | ○ |
| 1881772 | 08IR A55 | 0.5-1.5 | 48-16 | 5.00 | 08 | 0.5 | 0.7 | ○ | ○ |
| 1880006 | 11IR A55 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880434 | 16IR A55 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880436 | 16IR G55 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880438 | 16IR AG55 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ⊗ | ○ |
| 1880047 | 22IR N55 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882189 | 27IR Q55 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.1 | 3.0 | ○ | ○ |
| 1881715 | 06IL A55 | 0.5-1.25 | 48-20 | 4.00 | 06 | 0.5 | 0.6 | ○ | ○ |
| 1881751 | 08IL A55 | 0.5-1.5 | 48-16 | 5.00 | 08 | 0.5 | 0.7 | ○ | ○ |
| 1880856 | 11IL A55 | 0.5-1.5 | 48-16 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1880777 | 16IL A55 | 0.5-1.5 | 48-16 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880779 | 16IL G55 | 1.75-3.0 | 14-8 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880781 | 16IL AG55 | 0.5-3.0 | 48-8 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880857 | 22IL N55 | 3.5-5.0 | 7-5 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882178 | 27IL Q55 | 5.5-6.0 | 4.5-4 | 15.875 | 27 | 2.1 | 3.0 | ○ | ○ |

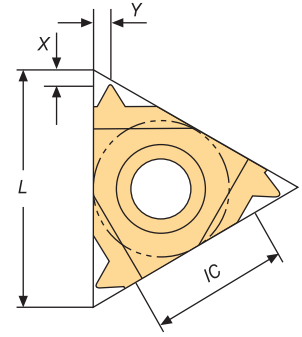
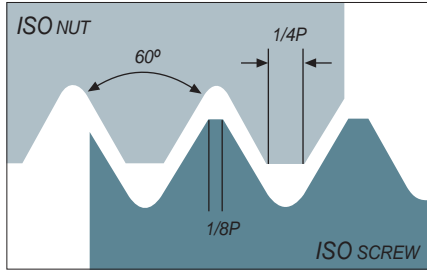
⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

ISO Metric

ISO 965-1: 1999-11

DIN 13: 2005-08

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|--------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881852 | 11ER 0.35ISO | 0.35 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1881853 | 11ER 0.40ISO | 0.40 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881854 | 11ER 0.45ISO | 0.45 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881855 | 11ER 0.50ISO | 0.50 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881856 | 11ER 0.60ISO | 0.60 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881857 | 11ER 0.70ISO | 0.70 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881858 | 11ER 0.75ISO | 0.75 | 6.35 | 11 | 0.6 | 0.6 | ⊗ | ○ |
| 1881859 | 11ER 0.80ISO | 0.80 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880602 | 11ER 1.00ISO | 1.00 | 6.35 | 11 | 0.7 | 0.7 | ⊗ | ○ |
| 1881861 | 11ER 1.25ISO | 1.25 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880603 | 11ER 1.50ISO | 1.50 | 6.35 | 11 | 0.8 | 1.0 | ⊗ | ○ |
| 1881864 | 11ER 1.75ISO | 1.75 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1881881 | 11ER 2.00ISO | 2.00 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1882030 | 16ER 0.35ISO | 0.35 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882031 | 16ER 0.40ISO | 0.40 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882032 | 16ER 0.45ISO | 0.45 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1880819 | 16ER 0.50ISO | 0.50 | 9.525 | 16 | 0.6 | 0.4 | ○ | ○ |
| 1882033 | 16ER 0.60ISO | 0.60 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882034 | 16ER 0.70ISO | 0.70 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880447 | 16ER 0.75ISO | 0.75 | 9.525 | 16 | 0.6 | 0.6 | ⊗ | ○ |
| 1880804 | 16ER 0.80ISO | 0.80 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880479 | 16ER 1.00ISO | 1.00 | 9.525 | 16 | 0.7 | 0.7 | ⊗ | ○ |
| 1880007 | 16ER 1.25ISO | 1.25 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880262 | 16ER 1.50ISO | 1.50 | 9.525 | 16 | 0.8 | 1.0 | ⊗ | ○ |
| 1880732 | 16ER 1.75ISO | 1.75 | 9.525 | 16 | 0.9 | 1.2 | ⊗ | ○ |
| 1880018 | 16ER 2.00ISO | 2.00 | 9.525 | 16 | 1.0 | 1.3 | ⊗ | ○ |
| 1880020 | 16ER 2.50ISO | 2.50 | 9.525 | 16 | 1.1 | 1.5 | ⊗ | ○ |
| 1880022 | 16ER 3.00ISO | 3.00 | 9.525 | 16 | 1.2 | 1.5 | ⊗ | ○ |
| 1880823 | 22ER 3.50ISO | 3.50 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880811 | 22ER 4.00ISO | 4.00 | 12.70 | 22 | 1.6 | 2.3 | ⊗ | ○ |
| 1880824 | 22ER 4.50ISO | 4.50 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1880649 | 22ER 5.00ISO | 5.00 | 12.70 | 22 | 1.7 | 2.5 | ⊗ | ○ |
| 1882163 | 27ER 5.50ISO | 5.50 | 15.875 | 27 | 1.8 | 2.6 | ○ | ○ |
| 1882164 | 27ER 6.00ISO | 6.00 | 15.875 | 27 | 1.9 | 2.7 | ○ | ○ |

ISO Metric

ISO 965-1: 1999-11

DIN 13: 2005-08

Threading Inserts | Pastilhas | Plaquetas

External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|--------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881794 | 11EL 0.35ISO | 0.35 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1881795 | 11EL 0.40ISO | 0.40 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881796 | 11EL 0.45ISO | 0.45 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881797 | 11EL 0.50ISO | 0.50 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881798 | 11EL 0.60ISO | 0.60 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881799 | 11EL 0.70ISO | 0.70 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881800 | 11EL 0.75ISO | 0.75 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881801 | 11EL 0.80ISO | 0.80 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881802 | 11EL 1.00ISO | 1.00 | 6.35 | 11 | 0.7 | 0.7 | ○ | ○ |
| 1881803 | 11EL 1.25ISO | 1.25 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881804 | 11EL 1.50ISO | 1.50 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881806 | 11EL 1.75ISO | 1.75 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1880654 | 11EL 2.00ISO | 2.00 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1881977 | 16EL 0.35ISO | 0.35 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1881978 | 16EL 0.40ISO | 0.40 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1881979 | 16EL 0.45ISO | 0.45 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1881980 | 16EL 0.50ISO | 0.50 | 9.525 | 16 | 0.6 | 0.4 | ○ | ○ |
| 1881981 | 16EL 0.60ISO | 0.60 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881982 | 16EL 0.70ISO | 0.70 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881983 | 16EL 0.75ISO | 0.75 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881984 | 16EL 0.80ISO | 0.80 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880782 | 16EL 1.00ISO | 1.00 | 9.525 | 16 | 0.7 | 0.7 | ○ | ○ |
| 1880651 | 16EL 1.25ISO | 1.25 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880652 | 16EL 1.50ISO | 1.50 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880653 | 16EL 1.75ISO | 1.75 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1882519 | 16EL 2.00ISO | 2.00 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1880788 | 16EL 2.50ISO | 2.50 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880488 | 16EL 3.00ISO | 3.00 | 9.525 | 16 | 1.2 | 1.5 | ○ | ○ |
| 1880844 | 22EL 3.50ISO | 3.50 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880845 | 22EL 4.00ISO | 4.00 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880846 | 22EL 4.50ISO | 4.50 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1880847 | 22EL 5.00ISO | 5.00 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882150 | 27EL 5.50ISO | 5.50 | 15.875 | 27 | 1.8 | 2.6 | ○ | ○ |
| 1882151 | 27EL 6.00ISO | 6.00 | 15.875 | 27 | 1.9 | 2.7 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Thread Inserts

Spare Parts

Thread Holders

Technical Data

E

Threading

ISO Metric
ISO 965-1: 1999-11
DIN 13: 2005-08

Threading Inserts | Pastilhas | Plaquetas

Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|--------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881717 | 06IR 0.50ISO | 0.50 | 4.00 | 06 | 0.8 | 0.4 | ○ | ○ |
| 1881718 | 06IR 0.75ISO | 0.75 | 4.00 | 06 | 0.7 | 0.4 | ○ | ○ |
| 1881719 | 06IR 1.00ISO | 1.00 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881720 | 06IR 1.25ISO | 1.25 | 4.00 | 06 | 0.7 | 0.6 | ○ | ○ |
| 1881752 | 08IR 0.35ISO | 0.35 | 5.00 | 08 | 0.7 | 0.4 | ○ | ○ |
| 1881753 | 08IR 0.50ISO | 0.50 | 5.00 | 08 | 0.7 | 0.4 | ○ | ○ |
| 1881754 | 08IR 0.75ISO | 0.75 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881755 | 08IR 1.00ISO | 1.00 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881756 | 08IR 1.25ISO | 1.25 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881757 | 08IR 1.50ISO | 1.50 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881758 | 08IR 1.75ISO | 1.75 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881937 | 11IR 0.35ISO | 0.35 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1881938 | 11IR 0.40ISO | 0.40 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1881939 | 11IR 0.45ISO | 0.45 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1880825 | 11IR 0.50ISO | 0.50 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881940 | 11IR 0.60ISO | 0.60 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881941 | 11IR 0.70ISO | 0.70 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880762 | 11IR 0.75ISO | 0.75 | 6.35 | 11 | 0.6 | 0.6 | ⊗ | ○ |
| 1881942 | 11IR 0.80ISO | 0.80 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880604 | 11IR 1.00ISO | 1.00 | 6.35 | 11 | 0.7 | 0.7 | ⊗ | ○ |
| 1880827 | 11IR 1.25ISO | 1.25 | 6.35 | 11 | 0.8 | 0.9 | ⊗ | ○ |
| 1880605 | 11IR 1.50ISO | 1.50 | 6.35 | 11 | 0.8 | 1.0 | ⊗ | ○ |
| 1880828 | 11IR 1.75ISO | 1.75 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1880829 | 11IR 2.00ISO | 2.00 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882108 | 16IR 0.35ISO | 0.35 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882109 | 16IR 0.40ISO | 0.40 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882110 | 16IR 0.45ISO | 0.45 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1880830 | 16IR 0.50ISO | 0.50 | 9.525 | 16 | 0.6 | 0.4 | ○ | ○ |
| 1882112 | 16IR 0.60ISO | 0.60 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882113 | 16IR 0.70ISO | 0.70 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880831 | 16IR 0.75ISO | 0.75 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880832 | 16IR 0.80ISO | 0.80 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880025 | 16IR 1.00ISO | 1.00 | 9.525 | 16 | 0.7 | 0.7 | ⊗ | ○ |
| 1880026 | 16IR 1.25ISO | 1.25 | 9.525 | 16 | 0.8 | 0.9 | ⊗ | ○ |
| 1880619 | 16IR 1.50ISO | 1.50 | 9.525 | 16 | 0.8 | 1.0 | ⊗ | ○ |
| 1880733 | 16IR 1.75ISO | 1.75 | 9.525 | 16 | 0.9 | 1.2 | ⊗ | ○ |
| 1880039 | 16IR 2.00ISO | 2.00 | 9.525 | 16 | 1.0 | 1.3 | ⊗ | ○ |
| 1880041 | 16IR 2.50ISO | 2.50 | 9.525 | 16 | 1.1 | 1.5 | ⊗ | ○ |
| 1880042 | 16IR 3.00ISO | 3.00 | 9.525 | 16 | 1.2 | 1.5 | ⊗ | ○ |
| 1880834 | 22IR 3.50ISO | 3.50 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880818 | 22IR 4.00ISO | 4.00 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880835 | 22IR 4.50ISO | 4.50 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1880650 | 22IR 5.00ISO | 5.00 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882185 | 27IR 5.50ISO | 5.50 | 15.875 | 27 | 1.8 | 2.4 | ○ | ○ |
| 1882186 | 27IR 6.00ISO | 6.00 | 15.875 | 27 | 1.9 | 2.6 | ○ | ○ |

Thread Inserts
 Spare Parts
 Thread Holders
 Technical Data
 E

ISO Metric

ISO 965-1: 1999-11

DIN 13: 2005-08

Threading Inserts | Pastilhas | Plaquetas

Internal

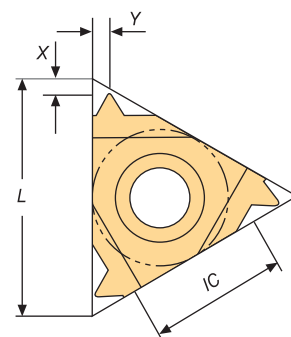
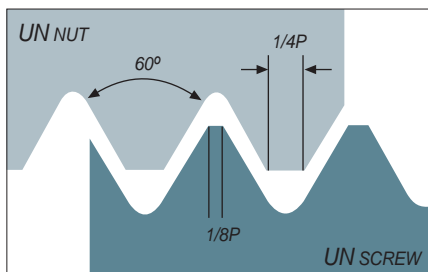
| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|--------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881703 | 06IL 0.50ISO | 0.50 | 4.00 | 06 | 0.8 | 0.4 | ○ | ○ |
| 1881704 | 06IL 0.75ISO | 0.75 | 4.00 | 06 | 0.7 | 0.4 | ○ | ○ |
| 1881705 | 06IL 1.00ISO | 1.00 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881706 | 06IL 1.25ISO | 1.25 | 4.00 | 06 | 0.7 | 0.6 | ○ | ○ |
| 1881731 | 08IL 0.35ISO | 0.35 | 5.00 | 08 | 0.7 | 0.4 | ○ | ○ |
| 1881732 | 08IL 0.50ISO | 0.50 | 5.00 | 08 | 0.7 | 0.4 | ○ | ○ |
| 1881733 | 08IL 0.75ISO | 0.75 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881734 | 08IL 1.00ISO | 1.00 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881735 | 08IL 1.25ISO | 1.25 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881736 | 08IL 1.50ISO | 1.50 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881737 | 08IL 1.75ISO | 1.75 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881911 | 11IL 0.35ISO | 0.35 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1881912 | 11IL 0.40ISO | 0.40 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1881913 | 11IL 0.45ISO | 0.45 | 6.35 | 11 | 0.7 | 0.4 | ○ | ○ |
| 1880837 | 11IL 0.50ISO | 0.50 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881914 | 11IL 0.60ISO | 0.60 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881915 | 11IL 0.70ISO | 0.70 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880838 | 11IL 0.75ISO | 0.75 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881916 | 11IL 0.80ISO | 0.80 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880839 | 11IL 1.00ISO | 1.00 | 6.35 | 11 | 0.7 | 0.7 | ○ | ○ |
| 1880840 | 11IL 1.25ISO | 1.25 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1880841 | 11IL 1.50ISO | 1.50 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1880842 | 11IL 1.75ISO | 1.75 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1880843 | 11IL 2.00ISO | 2.00 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882058 | 16IL 0.35ISO | 0.35 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882059 | 16IL 0.40ISO | 0.40 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882060 | 16IL 0.45ISO | 0.45 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882061 | 16IL 0.50ISO | 0.50 | 9.525 | 16 | 0.6 | 0.4 | ○ | ○ |
| 1882062 | 16IL 0.60ISO | 0.60 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882063 | 16IL 0.70ISO | 0.70 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882064 | 16IL 0.75ISO | 0.75 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882065 | 16IL 0.80ISO | 0.80 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880783 | 16IL 1.00ISO | 1.00 | 9.525 | 16 | 0.7 | 0.7 | ○ | ○ |
| 1880784 | 16IL 1.25ISO | 1.25 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880785 | 16IL 1.50ISO | 1.50 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880786 | 16IL 1.75ISO | 1.75 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1880787 | 16IL 2.00ISO | 2.00 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1880789 | 16IL 2.50ISO | 2.50 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880790 | 16IL 3.00ISO | 3.00 | 9.525 | 16 | 1.2 | 1.5 | ○ | ○ |
| 1880848 | 22IL 3.50ISO | 3.50 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880849 | 22IL 4.00ISO | 4.00 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880850 | 22IL 4.50ISO | 4.50 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1880851 | 22IL 5.00ISO | 5.00 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882174 | 27IL 5.50ISO | 5.50 | 15.875 | 27 | 1.8 | 2.4 | ○ | ○ |
| 1882175 | 27IL 6.00ISO | 6.00 | 15.875 | 27 | 1.9 | 2.6 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E

American UN
(UNC, UNF, UNEF)
ANSI B1.1-1982

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | | TPI | IC | L | X | Y | (68) PH6920 |
| 1881907 | 11ER 72UN | 72 | 6.35 | 11 | 0.8 | 0.4 | ○ | ○ |
| 1881906 | 11ER 64UN | 64 | 6.35 | 11 | 0.8 | 0.4 | ○ | ○ |
| 1881903 | 11ER 56UN | 56 | 6.35 | 11 | 0.8 | 0.4 | ○ | ○ |
| 1881901 | 11ER 48UN | 48 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881900 | 11ER 44UN | 44 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881898 | 11ER 40UN | 40 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881896 | 11ER 36UN | 36 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881894 | 11ER 32UN | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881892 | 11ER 28UN | 28 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881890 | 11ER 27UN | 27 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881885 | 11ER 24UN | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881882 | 11ER 20UN | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881877 | 11ER 18UN | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881873 | 11ER 16UN | 16 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1881869 | 11ER 14UN | 14 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1881865 | 11ER 13UN | 13 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1882055 | 16ER 72UN | 72 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882054 | 16ER 64UN | 64 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882051 | 16ER 56UN | 56 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882049 | 16ER 48UN | 48 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882048 | 16ER 44UN | 44 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882046 | 16ER 40UN | 40 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882044 | 16ER 36UN | 36 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880870 | 16ER 32UN | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880869 | 16ER 28UN | 28 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882041 | 16ER 27UN | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1880868 | 16ER 24UN | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1880021 | 16ER 20UN | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880867 | 16ER 18UN | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880616 | 16ER 16UN | 16 | 9.525 | 16 | 0.9 | 1.1 | ⊗ | ○ |
| 1880014 | 16ER 14UN | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1880866 | 16ER 13UN | 13 | 9525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1880865 | 16ER 12UN | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1880864 | 16ER 11UN | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880863 | 16ER 10UN | 10 | 9.525 | 16 | 1.1 | 1.5 | ⊗ | ○ |
| 1880862 | 16ER 9UN | 9 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880024 | 16ER 8UN | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1880861 | 22ER 7UN | 7 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880860 | 22ER 6UN | 6 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880859 | 22ER 5UN | 5 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882157 | 27ER 4.5UN | 4.5 | 15.875 | 27 | 1.8 | 2.6 | ○ | ○ |
| 1882161 | 27ER 4UN | 4 | 15.875 | 27 | 2.1 | 2.9 | ○ | ○ |

American UN
(UNC, UNF, UNEF)
ANSI B1.1-1982

Threading Inserts | Pastilhas | Plaquetas

External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881848 | 11EL 72UN | 72 | 6.35 | 11 | 0.8 | 0.4 | ○ | ○ |
| 1881847 | 11EL 64UN | 64 | 6.35 | 11 | 0.8 | 0.4 | ○ | ○ |
| 1882200 | 11EL 56UN | 56 | 6.35 | 11 | 0.8 | 0.4 | ○ | ○ |
| 1881843 | 11EL 48UN | 48 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881842 | 11EL 44UN | 44 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881840 | 11EL 40UN | 40 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881838 | 11EL 36UN | 36 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881836 | 11EL 32UN | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881834 | 11EL 28UN | 28 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881832 | 11EL 27UN | 27 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881827 | 11EL 24UN | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881824 | 11EL 20UN | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881819 | 11EL 18UN | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881815 | 11EL 16UN | 16 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1881811 | 11EL 14UN | 14 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1881807 | 11EL 13UN | 13 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1882022 | 16EL 72UN | 72 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882020 | 16EL 64UN | 64 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882017 | 16EL 56UN | 56 | 9.525 | 16 | 0.8 | 0.4 | ○ | ○ |
| 1882015 | 16EL 48UN | 48 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882014 | 16EL 44UN | 44 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882012 | 16EL 40UN | 40 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882010 | 16EL 36UN | 36 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880886 | 16EL 32UN | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880885 | 16EL 28UN | 28 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882007 | 16EL 27UN | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1880884 | 16EL 24UN | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1880883 | 16EL 20UN | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880882 | 16EL 18UN | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880881 | 16EL 16UN | 16 | 9.525 | 16 | 0.9 | 1.1 | ○ | ○ |
| 1880880 | 16EL 14UN | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1880879 | 16EL 13UN | 13 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1880878 | 16EL 12UN | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1880877 | 16EL 11UN | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880876 | 16EL 10UN | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880875 | 16EL 9UN | 9 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880874 | 16EL 8UN | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1880873 | 22EL 7UN | 7 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880872 | 22EL 6UN | 6 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880871 | 22EL 5UN | 5 | 12.70 | 22 | 1.7 | 2.5 | ○ | ○ |
| 1882144 | 27EL 4.5UN | 4.5 | 15.875 | 27 | 1.8 | 2.6 | ○ | ○ |
| 1882148 | 27EL 4UN | 4 | 15.875 | 27 | 2.1 | 2.9 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

E

Threading

American UN
(UNC, UNF, UNEF)
ANSI B1.1-1982

Threading Inserts | Pastilhas | Plaquetas

Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881728 | 06IR 40UN | 40 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881727 | 06IR 36UN | 36 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881726 | 06IR 32UN | 32 | 4.00 | 06 | 0.7 | 0.6 | ○ | ○ |
| 1881725 | 06IR 28UN | 28 | 4.00 | 06 | 0.7 | 0.7 | ○ | ○ |
| 1881722 | 06IR 24UN | 24 | 4.00 | 06 | 0.7 | 0.7 | ○ | ○ |
| 1881721 | 06IR 18UN | 18 | 4.00 | 06 | 0.7 | 0.7 | ○ | ○ |
| 1881771 | 08IR 40UN | 40 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881770 | 08IR 36UN | 36 | 5.00 | 08 | 0.7 | 0.5 | ○ | ○ |
| 1881769 | 08IR 32UN | 32 | 5.00 | 08 | 0.7 | 0.5 | ○ | ○ |
| 1881768 | 08IR 28UN | 28 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881765 | 08IR 24UN | 24 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881764 | 08IR 20UN | 20 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881762 | 08IR 18UN | 18 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881760 | 08IR 16UN | 16 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881759 | 08IR 14UN | 14 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881956 | 11IR 72UN | 72 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881955 | 11IR 64UN | 64 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881954 | 11IR 56UN | 56 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881953 | 11IR 48UN | 48 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881952 | 11IR 44UN | 44 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881951 | 11IR 40UN | 40 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881950 | 11IR 36UN | 36 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1880910 | 11IR 32UN | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880909 | 11IR 28UN | 28 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881948 | 11IR 27UN | 27 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1880908 | 11IR 24UN | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1880907 | 11IR 20UN | 20 | 6.35 | 11 | 0.8 | 0.6 | ○ | ○ |
| 1880906 | 11IR 18UN | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1880905 | 11IR 16UN | 16 | 6.35 | 11 | 0.6 | 1.1 | ○ | ○ |
| 1880904 | 11IR 14UN | 14 | 6.35 | 11 | 0.6 | 1.1 | ○ | ○ |
| 1880903 | 11IR 13UN | 13 | 6.35 | 11 | 0.6 | 1.0 | ○ | ○ |
| 1880902 | 11IR 12UN | 12 | 6.35 | 11 | 0.6 | 1.1 | ○ | ○ |
| 1880901 | 11IR 11UN | 11 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1882126 | 16IR 72UN | 72 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882124 | 16IR 64UN | 64 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882123 | 16IR 56UN | 56 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882122 | 16IR 48UN | 48 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882121 | 16IR 44UN | 44 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882120 | 16IR 40UN | 40 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882118 | 16IR 36UN | 36 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1880900 | 16IR 32UN | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880899 | 16IR 28UN | 28 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882117 | 16IR 27UN | 27 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1880898 | 16IR 24UN | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1880618 | 16IR 20UN | 20 | 9.525 | 16 | 0.8 | 0.6 | ○ | ○ |
| 1880897 | 16IR 18UN | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880037 | 16IR 16UN | 16 | 9.525 | 16 | 0.6 | 1.1 | ○ | ○ |
| 1880034 | 16IR 14UN | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1882116 | 16IR 13UN | 13 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1880894 | 16IR 12UN | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1880893 | 16IR 11UN | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

American UN
(UNC, UNF, UNEF)
ANSI B1.1-1982

Threading Inserts | Pastilhas | Plaquetas

Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1880892 | 16IR 10UN | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880891 | 16IR 9UN | 9 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880044 | 16IR 8UN | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1880889 | 22IR 7UN | 7 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880888 | 22IR 6UN | 6 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880887 | 22IR 5UN | 5 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1882181 | 27IR 4.5UN | 4.5 | 15.875 | 27 | 1.8 | 2.6 | ○ | ○ |
| 1882184 | 27IR 4UN | 4 | 15.875 | 27 | 2.0 | 2.8 | ○ | ○ |
| 1881714 | 06IL 40UN | 40 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881713 | 06IL 36UN | 36 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881712 | 06IL 32UN | 32 | 4.00 | 06 | 0.7 | 0.6 | ○ | ○ |
| 1881711 | 06IL 28UN | 28 | 4.00 | 06 | 0.7 | 0.7 | ○ | ○ |
| 1881708 | 06IL 24UN | 24 | 4.00 | 06 | 0.7 | 0.7 | ○ | ○ |
| 1881707 | 06IL 18UN | 18 | 4.00 | 06 | 0.7 | 0.7 | ○ | ○ |
| 1881750 | 08IL 40UN | 40 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881749 | 08IL 36UN | 36 | 5.00 | 08 | 0.7 | 0.5 | ○ | ○ |
| 1881748 | 08IL 32UN | 32 | 5.00 | 08 | 0.7 | 0.5 | ○ | ○ |
| 1881747 | 08IL 28UN | 28 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881744 | 08IL 24UN | 24 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881743 | 08IL 20UN | 20 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881741 | 08IL 18UN | 18 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881739 | 08IL 16UN | 16 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881738 | 08IL 14UN | 14 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881936 | 11IL 72UN | 72 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881935 | 11IL 64UN | 64 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881934 | 11IL 56UN | 56 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881933 | 11IL 48UN | 48 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881932 | 11IL 44UN | 44 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881931 | 11IL 40UN | 40 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881930 | 11IL 36UN | 36 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1880935 | 11IL 32UN | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1880934 | 11IL 28UN | 28 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881928 | 11IL 27UN | 27 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1880933 | 11IL 24UN | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1880932 | 11IL 20UN | 20 | 6.35 | 11 | 0.8 | 0.6 | ○ | ○ |
| 1880931 | 11IL 18UN | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1880930 | 11IL 16UN | 16 | 6.35 | 11 | 0.6 | 1.1 | ○ | ○ |
| 1880929 | 11IL 14UN | 14 | 6.35 | 11 | 0.6 | 1.1 | ○ | ○ |
| 1880928 | 11IL 13UN | 13 | 6.35 | 11 | 0.6 | 1.0 | ○ | ○ |
| 1880927 | 11IL 12UN | 12 | 6.35 | 11 | 0.6 | 1.1 | ○ | ○ |
| 1880926 | 11IL 11UN | 11 | 6.35 | 11 | 0.8 | 1.1 | ○ | ○ |
| 1882101 | 16IL 72UN | 72 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882098 | 16IL 64UN | 64 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882097 | 16IL 56UN | 56 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882096 | 16IL 48UN | 48 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882095 | 16IL 44UN | 44 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882094 | 16IL 40UN | 40 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882092 | 16IL 36UN | 36 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1880925 | 16IL 32UN | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880924 | 16IL 28UN | 28 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882089 | 16IL 27UN | 27 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |

Thread Inserts
 Spare Parts
 Thread Holders
 Technical Data
 E
 Threading

American UN
(UNC, UNF, UNEF)
ANSI B1.1-1982

Threading Inserts | Pastilhas | Plaquitass

Internal

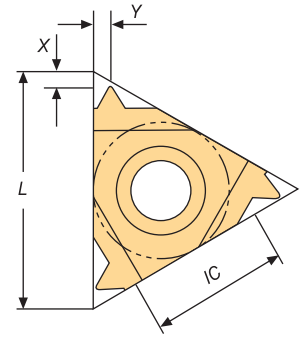
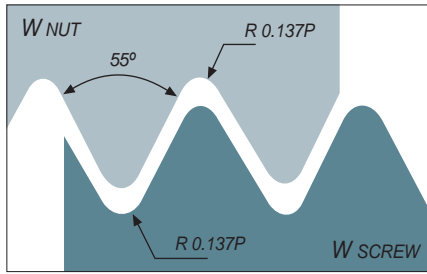
| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|----------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1880923 | 16IL 24UN | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1880922 | 16IL 20UN | 20 | 9.525 | 16 | 0.8 | 0.6 | ○ | ○ |
| 1880921 | 16IL 18UN | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880920 | 16IL 16UN | 16 | 9.525 | 16 | 0.6 | 1.1 | ○ | ○ |
| 1880919 | 16IL 14UN | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1882074 | 16IL 13UN | 13 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1880918 | 16IL 12UN | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1880917 | 16IL 11UN | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880916 | 16IL 10UN | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880915 | 16IL 9UN | 9 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880914 | 16IL 8UN | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1880913 | 22IL 7UN | 7 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880912 | 22IL 6UN | 6 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880911 | 22IL 5UN | 5 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1882170 | 27IL 4.5UN | 4.5 | 15.875 | 27 | 1.8 | 2.6 | ○ | ○ |
| 1882173 | 27IL 4UN | 4 | 15.875 | 27 | 2.0 | 2.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Whitworth for BSW, BSF, BSP

B.S.84:1956, DIN 259, ISO 228-1:1994

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|----|-----|-----|------------------------|----------------|
| | | | TPI | IC | L | X | Y | (68) PH6920 |
| 1881908 | 11ER 72W | 72 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881905 | 11ER 60W | 60 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881904 | 11ER 56W | 56 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881902 | 11ER 48W | 48 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881899 | 11ER 40W | 40 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881897 | 11ER 36W | 36 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881895 | 11ER 32W | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881893 | 11ER 28W | 28 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881887 | 11ER 26W | 26 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881886 | 11ER 24W | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881884 | 11ER 22W | 22 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881883 | 11ER 20W | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881880 | 11ER 19W | 19 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881878 | 11ER 18W | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881874 | 11ER 16W | 16 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1881870 | 11ER 14W | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1882056 | 16ER 72W | 72 | 9.525 | 16 | 0.7 | 0.4 | ○ | ○ |
| 1882053 | 16ER 60W | 60 | 9.525 | 16 | 0.7 | 0.4 | ○ | ○ |
| 1882052 | 16ER 56W | 56 | 9.525 | 16 | 0.7 | 0.4 | ○ | ○ |
| 1882050 | 16ER 48W | 48 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882047 | 16ER 40W | 40 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882045 | 16ER 36W | 36 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882043 | 16ER 32W | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880940 | 16ER 28W | 28 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882040 | 16ER 26W | 26 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1880939 | 16ER 24W | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1882039 | 16ER 22W | 22 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880938 | 16ER 20W | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880017 | 16ER 19W | 19 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880937 | 16ER 18W | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880609 | 16ER 16W | 16 | 9.525 | 16 | 0.9 | 1.1 | ⊗ | ○ |
| 1880015 | 16ER 14W | 14 | 9.525 | 16 | 1.0 | 1.2 | ⊗ | ○ |
| 1880611 | 16ER 12W | 12 | 9.525 | 16 | 1.1 | 1.4 | ⊗ | ○ |
| 1880613 | 16ER 11W | 11 | 9.525 | 16 | 1.1 | 1.5 | ⊗ | ○ |
| 1880614 | 16ER 10W | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880936 | 16ER 9W | 9 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880646 | 16ER 8W | 8 | 9.525 | 16 | 1.2 | 1.5 | ⊗ | ○ |
| 1880941 | 22ER 7W | 7 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880942 | 22ER 6W | 6 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880943 | 22ER 5W | 5 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1882518 | 27ER 4.5W | 4.5 | 15.875 | 27 | 1.7 | 2.5 | ○ | ○ |
| 1882162 | 27ER 4W | 4 | 15.875 | 27 | 1.9 | 2.8 | ○ | ○ |

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

Whitworth for BSW, BSF, BSP

B.S.84:1956, DIN 259, ISO 228-1:1994

Threading Inserts | Pastilhas | Plaquetas

External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881849 | 11EL 72W | 72 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881846 | 11EL 60W | 60 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881845 | 11EL 56W | 56 | 6.35 | 11 | 0.6 | 0.4 | ○ | ○ |
| 1881844 | 11EL 48W | 48 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881841 | 11EL 40W | 40 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881839 | 11EL 36W | 36 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881837 | 11EL 32W | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881835 | 11EL 28W | 28 | 6.35 | 11 | 0.6 | 0.7 | ○ | ○ |
| 1881829 | 11EL 26W | 26 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881828 | 11EL 24W | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881826 | 11EL 22W | 22 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881825 | 11EL 20W | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881822 | 11EL 19W | 19 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881820 | 11EL 18W | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881816 | 11EL 16W | 16 | 6.35 | 11 | 0.9 | 1.1 | ○ | ○ |
| 1881812 | 11EL 14W | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1882023 | 16EL 72W | 72 | 9.525 | 16 | 0.7 | 0.4 | ○ | ○ |
| 1882019 | 16EL 60W | 60 | 9.525 | 16 | 0.7 | 0.4 | ○ | ○ |
| 1882018 | 16EL 56W | 56 | 9.525 | 16 | 0.7 | 0.4 | ○ | ○ |
| 1882016 | 16EL 48W | 48 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882013 | 16EL 40W | 40 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882011 | 16EL 36W | 36 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882009 | 16EL 32W | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880955 | 16EL 28W | 28 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1882004 | 16EL 26W | 26 | 9.525 | 16 | 0.6 | 0.7 | ○ | ○ |
| 1880954 | 16EL 24W | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1882003 | 16EL 22W | 22 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880953 | 16EL 20W | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880952 | 16EL 19W | 19 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880951 | 16EL 18W | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880950 | 16EL 16W | 16 | 9.525 | 16 | 0.9 | 1.1 | ○ | ○ |
| 1880949 | 16EL 14W | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1880948 | 16EL 12W | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1880947 | 16EL 11W | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880946 | 16EL 10W | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880945 | 16EL 9W | 9 | 9.525 | 16 | 1.2 | 1.7 | ○ | ○ |
| 1880944 | 16EL 8W | 8 | 9.525 | 16 | 1.2 | 1.5 | ○ | ○ |
| 1880956 | 22EL 7W | 7 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880957 | 22EL 6W | 6 | 12.70 | 22 | 1.6 | 2.3 | ○ | ○ |
| 1880958 | 22EL 5W | 5 | 12.70 | 22 | 1.7 | 2.4 | ○ | ○ |
| 1882145 | 27EL 4.5W | 4.5 | 15.875 | 27 | 1.7 | 2.5 | ○ | ○ |
| 1882149 | 27EL 4W | 4 | 15.875 | 27 | 1.9 | 2.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Thread Inserts
Spare Parts
Thread Holders
Technical Data

E

Threading

Whitworth for BSW, BSF, BSP

B.S.84:1956, DIN 259, ISO 228-1:1994

Threading Inserts | Pastilhas | Plaquetas

Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|--------|-----|-----|------------------------|----------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882202 | 06IR 28W | 28 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882203 | 06IR 26W | 26 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882205 | 06IR 24W | 24 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882207 | 06IR 22W | 22 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882209 | 06IR 19W | 19 | 06 | 4.00 | 0.7 | 0.7 | ○ | ○ |
| 1882211 | 06IR 18W | 18 | 06 | 4.00 | 0.7 | 0.7 | ○ | ○ |
| 1882213 | 08IR 28W | 28 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882215 | 08IR 26W | 26 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882217 | 08IR 24W | 24 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882219 | 08IR 20W | 20 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882221 | 08IR 19W | 19 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882223 | 08IR 18W | 18 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882225 | 08IR 16W | 16 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882227 | 11IR 72W | 72 | 11 | 6.35 | 0.7 | 0.4 | ○ | ○ |
| 1882229 | 11IR 60W | 60 | 11 | 6.35 | 0.7 | 0.4 | ○ | ○ |
| 1882231 | 11IR 56W | 56 | 11 | 6.35 | 0.7 | 0.4 | ○ | ○ |
| 1882233 | 11IR 48W | 48 | 11 | 6.35 | 0.6 | 0.6 | ○ | ○ |
| 1882235 | 11IR 40W | 40 | 11 | 6.35 | 0.6 | 0.6 | ○ | ○ |
| 1882237 | 11IR 32W | 32 | 11 | 6.35 | 0.6 | 0.6 | ○ | ○ |
| 1880972 | 11IR 28W | 28 | 11 | 6.35 | 0.6 | 0.7 | ○ | ○ |
| 1882239 | 11IR 26W | 26 | 11 | 6.35 | 0.7 | 0.8 | ○ | ○ |
| 1880971 | 11IR 24W | 24 | 11 | 6.35 | 0.7 | 0.8 | ○ | ○ |
| 1880970 | 11IR 20W | 20 | 11 | 6.35 | 0.8 | 0.9 | ○ | ○ |
| 1880005 | 11IR 19W | 19 | 11 | 6.35 | 0.8 | 1.0 | ○ | ○ |
| 1880968 | 11IR 18W | 18 | 11 | 6.35 | 0.8 | 1.0 | ○ | ○ |
| 1880967 | 11IR 16W | 16 | 11 | 6.35 | 0.9 | 1.1 | ○ | ○ |
| 1880004 | 11IR 14W | 14 | 11 | 6.35 | 0.9 | 1.1 | ⊗ | ○ |
| 1882241 | 16IR 72W | 72 | 16 | 9.525 | 0.7 | 0.4 | ○ | ○ |
| 1882498 | 16IR 60W | 60 | 16 | 9.525 | 0.7 | 0.4 | ○ | ○ |
| 1882244 | 16IR 56W | 56 | 16 | 9.525 | 0.7 | 0.4 | ○ | ○ |
| 1882246 | 16IR 48W | 48 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1882248 | 16IR 40W | 40 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1882250 | 16IR 36W | 36 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1882252 | 16IR 32W | 32 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1880965 | 16IR 28W | 28 | 16 | 9.525 | 0.6 | 0.7 | ○ | ○ |
| 1882254 | 16IR 26W | 26 | 16 | 9.525 | 0.7 | 0.8 | ○ | ○ |
| 1880964 | 16IR 24W | 24 | 16 | 9.525 | 0.7 | 0.8 | ○ | ○ |
| 1882256 | 16IR 22W | 22 | 16 | 9.525 | 0.8 | 0.9 | ○ | ○ |
| 1880963 | 16IR 20W | 20 | 16 | 9.525 | 0.8 | 1.0 | ○ | ○ |
| 1880608 | 16IR 19W | 19 | 16 | 9.525 | 0.8 | 1.0 | ○ | ○ |
| 1880962 | 16IR 18W | 18 | 16 | 9.525 | 0.8 | 1.0 | ○ | ○ |
| 1880610 | 16IR 16W | 16 | 16 | 9.525 | 0.9 | 1.1 | ○ | ○ |
| 1880035 | 16IR 14W | 14 | 16 | 9.525 | 1.0 | 1.2 | ⊗ | ○ |
| 1880612 | 16IR 12W | 12 | 16 | 9.525 | 1.1 | 1.4 | ○ | ○ |
| 1880031 | 16IR 11W | 11 | 16 | 9.525 | 1.1 | 1.5 | ⊗ | ○ |
| 1880615 | 16IR 10W | 10 | 16 | 9.525 | 1.1 | 1.5 | ○ | ○ |
| 1882258 | 16IR 9W | 9 | 16 | 9.525 | 1.2 | 1.7 | ○ | ○ |
| 1880672 | 16IR 8W | 8 | 16 | 9.525 | 1.2 | 1.5 | ⊗ | ○ |
| 1880959 | 22IR 7W | 7 | 22 | 12.70 | 1.6 | 2.3 | ○ | ○ |
| 1880960 | 22IR 6W | 6 | 22 | 12.70 | 1.6 | 2.3 | ○ | ○ |
| 1880961 | 22IR 5W | 5 | 22 | 12.70 | 1.7 | 2.4 | ○ | ○ |
| 1882259 | 27IR 4.5W | 4.5 | 27 | 15.875 | 1.7 | 2.5 | ○ | ○ |
| 1882261 | 27IR 4W | 4 | 27 | 15.875 | 1.9 | 2.8 | ○ | ○ |

Thread Inserts
 Spare Parts
 Thread Holders
 Technical Data
 E
 Threading

Whitworth for BSW, BSF, BSP

B.S.84:1956, DIN 259, ISO 228-1:1994

Threading Inserts | Pastilhas | Plaquetas

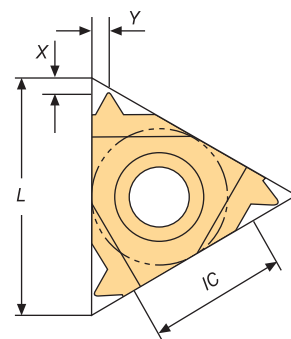
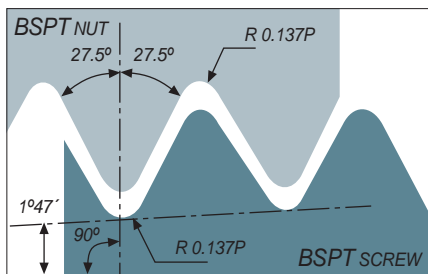
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|--------|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882201 | 06IL 28W | 28 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882204 | 06IL 26W | 26 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882206 | 06IL 24W | 24 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882208 | 06IL 22W | 22 | 06 | 4.00 | 0.7 | 0.6 | ○ | ○ |
| 1882210 | 06IL 19W | 19 | 06 | 4.00 | 0.7 | 0.7 | ○ | ○ |
| 1882212 | 06IL 18W | 18 | 06 | 4.00 | 0.7 | 0.7 | ○ | ○ |
| 1882214 | 08IL 28W | 28 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882216 | 08IL 26W | 26 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882218 | 08IL 24W | 24 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882220 | 08IL 20W | 20 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882222 | 08IL 19W | 19 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882224 | 08IL 18W | 18 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882226 | 08IL 16W | 16 | 08 | 5.00 | 0.7 | 0.7 | ○ | ○ |
| 1882228 | 11IL 72W | 72 | 11 | 6.35 | 0.7 | 0.4 | ○ | ○ |
| 1882230 | 11IL 60W | 60 | 11 | 6.35 | 0.7 | 0.4 | ○ | ○ |
| 1882232 | 11IL 56W | 56 | 11 | 6.35 | 0.7 | 0.4 | ○ | ○ |
| 1882234 | 11IL 48W | 48 | 11 | 6.35 | 0.6 | 0.6 | ○ | ○ |
| 1882236 | 11IL 40W | 40 | 11 | 6.35 | 0.6 | 0.6 | ○ | ○ |
| 1882238 | 11IL 32W | 32 | 11 | 6.35 | 0.6 | 0.6 | ○ | ○ |
| 1880994 | 11IL 28W | 28 | 11 | 6.35 | 0.6 | 0.7 | ○ | ○ |
| 1882240 | 11IL 26W | 26 | 11 | 6.35 | 0.7 | 0.8 | ○ | ○ |
| 1880993 | 11IL 24W | 24 | 11 | 6.35 | 0.7 | 0.8 | ○ | ○ |
| 1880992 | 11IL 20W | 20 | 11 | 6.35 | 0.8 | 0.9 | ○ | ○ |
| 1880991 | 11IL 19W | 19 | 11 | 6.35 | 0.8 | 1.0 | ○ | ○ |
| 1880990 | 11IL 18W | 18 | 11 | 6.35 | 0.8 | 1.0 | ○ | ○ |
| 1880989 | 11IL 16W | 16 | 11 | 6.35 | 0.9 | 1.1 | ○ | ○ |
| 1880988 | 11IL 14W | 14 | 11 | 6.35 | 0.9 | 1.1 | ○ | ○ |
| 1882242 | 16IL 72W | 72 | 16 | 9.525 | 0.7 | 0.4 | ○ | ○ |
| 1882243 | 16IL 60W | 60 | 16 | 9.525 | 0.7 | 0.4 | ○ | ○ |
| 1882245 | 16IL 56W | 56 | 16 | 9.525 | 0.7 | 0.4 | ○ | ○ |
| 1882247 | 16IL 48W | 48 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1882249 | 16IL 40W | 40 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1882251 | 16IL 36W | 36 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1882253 | 16IL 32W | 32 | 16 | 9.525 | 0.6 | 0.6 | ○ | ○ |
| 1880987 | 16IL 28W | 28 | 16 | 9.525 | 0.6 | 0.7 | ○ | ○ |
| 1882255 | 16IL 26W | 26 | 16 | 9.525 | 0.7 | 0.8 | ○ | ○ |
| 1880986 | 16IL 24W | 24 | 16 | 9.525 | 0.7 | 0.8 | ○ | ○ |
| 1882257 | 16IL 22W | 22 | 16 | 9.525 | 0.8 | 0.9 | ○ | ○ |
| 1880985 | 16IL 20W | 20 | 16 | 9.525 | 0.8 | 1.0 | ○ | ○ |
| 1880984 | 16IL 19W | 19 | 16 | 9.525 | 0.8 | 1.0 | ○ | ○ |
| 1880983 | 16IL 18W | 18 | 16 | 9.525 | 0.8 | 1.0 | ○ | ○ |
| 1880982 | 16IL 16W | 16 | 16 | 9.525 | 0.9 | 1.1 | ○ | ○ |
| 1880981 | 16IL 14W | 14 | 16 | 9.525 | 1.0 | 1.2 | ○ | ○ |
| 1880980 | 16IL 12W | 12 | 16 | 9.525 | 1.1 | 1.4 | ○ | ○ |
| 1880979 | 16IL 11W | 11 | 16 | 9.525 | 1.1 | 1.5 | ○ | ○ |
| 1880978 | 16IL 10W | 10 | 16 | 9.525 | 1.1 | 1.5 | ○ | ○ |
| 1880977 | 16IL 9W | 9 | 16 | 9.525 | 1.2 | 1.7 | ○ | ○ |
| 1880976 | 16IL 8W | 8 | 16 | 9.525 | 1.2 | 1.5 | ○ | ○ |
| 1880975 | 22IL 7W | 7 | 22 | 12.70 | 1.6 | 2.3 | ○ | ○ |
| 1880974 | 22IL 6W | 6 | 22 | 12.70 | 1.6 | 2.3 | ○ | ○ |
| 1880973 | 22IL 5W | 5 | 22 | 12.70 | 1.7 | 2.4 | ○ | ○ |
| 1882260 | 27IL 4.5W | 4.5 | 27 | 15.875 | 1.7 | 2.5 | ○ | ○ |
| 1882262 | 27IL 4W | 4 | 27 | 15.875 | 1.9 | 2.8 | ○ | ○ |

Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

BSPT

B.S.21:1985 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch TPI | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|--------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881891 | 11ER 28BSPT | 28 | 6.35 | 11 | 0.7 | 0.6 | ○ | ○ |
| 1881879 | 11ER 19BSPT | 19 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881866 | 11ER 14BSPT | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1880998 | 16ER 28BSPT | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1880997 | 16ER 19BSPT | 19 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1880996 | 16ER 14BSPT | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1880995 | 16ER 11BSPT | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881833 | 11EL 28BSPT | 28 | 6.35 | 11 | 0.7 | 0.6 | ○ | ○ |
| 1881821 | 11EL 19BSPT | 19 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881808 | 11EL 14BSPT | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1882008 | 16EL 28BSPT | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882001 | 16EL 19BSPT | 19 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881993 | 16EL 14BSPT | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881989 | 16EL 11BSPT | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

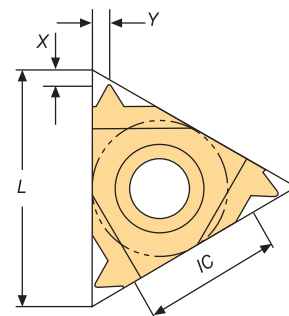
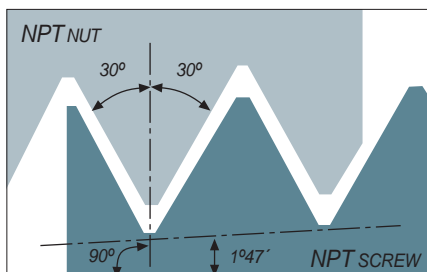
Internal

| Order Code (1) | Reference | Pitch TPI | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|--------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881724 | 06IR 28BSPT | 28 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881767 | 08IR 28BSPT | 28 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881763 | 08IR 19BSPT | 19 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881949 | 11IR 28BSPT | 28 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881004 | 11IR 19BSPT | 19 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881003 | 11IR 14BSPT | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1881002 | 16IR 28BSPT | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881001 | 16IR 19BSPT | 19 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881000 | 16IR 14BSPT | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1880999 | 16IR 11BSPT | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881710 | 06IL 28BSPT | 28 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881746 | 08IL 28BSPT | 28 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881742 | 08IL 19BSPT | 19 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881929 | 11IL 28BSPT | 28 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881925 | 11IL 19BSPT | 19 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881918 | 11IL 14BSPT | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1882090 | 16IL 28BSPT | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1882084 | 16IL 19BSPT | 19 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1882076 | 16IL 14BSPT | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1882071 | 16IL 11BSPT | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

NPT

ANSI/ASME B 1.20.1-1983 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|--------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881888 | 11ER 27NPT | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881875 | 11ER 18NPT | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881867 | 11ER 14NPT | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881017 | 16ER 27NPT | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881016 | 16ER 18NPT | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880013 | 16ER 14NPT | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1880009 | 16ER 11.5NPT | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880023 | 16ER 8NPT | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1881830 | 11EL 27NPT | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881817 | 11EL 18NPT | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881809 | 11EL 14NPT | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882005 | 16EL 27NPT | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881999 | 16EL 18NPT | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881994 | 16EL 14NPT | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1881987 | 16EL 11.5NPT | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882025 | 16EL 8NPT | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

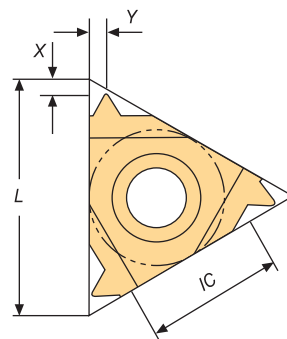
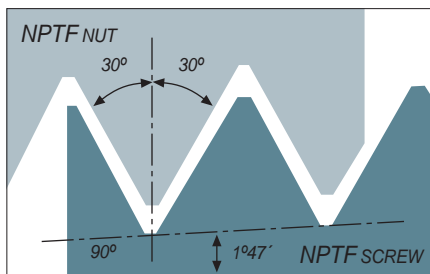
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|--------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881723 | 06IR 27NPT | 27 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881766 | 08IR 27NPT | 27 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881761 | 08IR 18NPT | 18 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881946 | 11IR 27NPT | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881020 | 11IR 18NPT | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1880003 | 11IR 14NPT | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881019 | 16IR 27NPT | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881018 | 16IR 18NPT | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1880033 | 16IR 14NPT | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1880029 | 16IR 11.5NPT | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1880043 | 16IR 8NPT | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1881709 | 06IL 27NPT | 27 | 4.00 | 06 | 0.7 | 0.5 | ○ | ○ |
| 1881745 | 08IL 27NPT | 27 | 5.00 | 08 | 0.7 | 0.6 | ○ | ○ |
| 1881740 | 08IL 18NPT | 18 | 5.00 | 08 | 0.7 | 0.7 | ○ | ○ |
| 1881926 | 11IL 27NPT | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881923 | 11IL 18NPT | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881919 | 11IL 14NPT | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882087 | 16IL 27NPT | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1882082 | 16IL 18NPT | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1882077 | 16IL 14NPT | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1882069 | 16IL 11.5NPT | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882103 | 16IL 8NPT | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

NPTF

ANSI B 1.20.3-1976 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881889 | 11ER 27NPTF | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881876 | 11ER 18NPTF | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881868 | 11ER 14NPTF | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881030 | 16ER 27NPTF | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881029 | 16ER 18NPTF | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881028 | 16ER 14NPTF | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1881027 | 16ER 11.5NPTF | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882057 | 16ER 8NPTF | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1881831 | 11EL 27NPTF | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881818 | 11EL 18NPTF | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881810 | 11EL 14NPTF | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882006 | 16EL 27NPTF | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1882000 | 16EL 18NPTF | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881995 | 16EL 14NPTF | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1881988 | 16EL 11.5NPTF | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882026 | 16EL 8NPTF | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

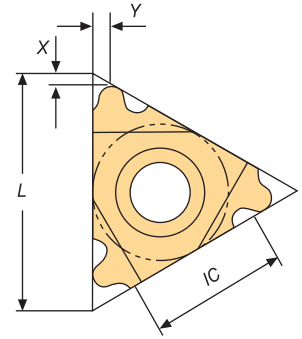
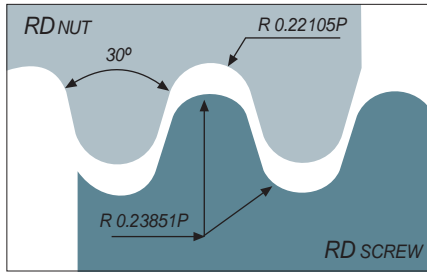
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881947 | 11IR 27NPTF | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881025 | 11IR 18NPTF | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881026 | 11IR 14NPTF | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881024 | 16IR 27NPTF | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881023 | 16IR 18NPTF | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881022 | 16IR 14NPTF | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1881021 | 16IR 11.5NPTF | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882127 | 16IR 8NPTF | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1881927 | 11IL 27NPTF | 27 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881924 | 11IL 18NPTF | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881920 | 11IL 14NPTF | 14 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882088 | 16IL 27NPTF | 27 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1882083 | 16IL 18NPTF | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1882078 | 16IL 14NPTF | 14 | 9.525 | 16 | 0.9 | 1.2 | ○ | ○ |
| 1882070 | 16IL 11.5NPTF | 11.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882104 | 16IL 8NPTF | 8 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Round (DIN 405) DIN 405:1997

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881031 | 16ER 10RD | 10 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881032 | 16ER 8RD | 8 | 9.525 | 16 | 1.4 | 1.4 | ○ | ○ |
| 1881033 | 16ER 6RD | 6 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1881034 | 22ER 6RD | 6 | 12.70 | 22 | 1.5 | 1.7 | ○ | ○ |
| 1881035 | 22ER 4RD | 4 | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |
| 1882332 | 27ER 4RD | 4 | 15.875 | 27 | 2.3 | 2.3 | ○ | ○ |
| 1882333 | 16EL 10RD | 10 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1882334 | 16EL 8RD | 8 | 9.525 | 16 | 1.4 | 1.4 | ○ | ○ |
| 1882335 | 16EL 6RD | 6 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882336 | 22EL 6RD | 6 | 12.70 | 22 | 1.5 | 1.7 | ○ | ○ |
| 1882337 | 22EL 4RD | 4 | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |
| 1882338 | 27EL 4RD | 4 | 15.875 | 27 | 2.3 | 2.3 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

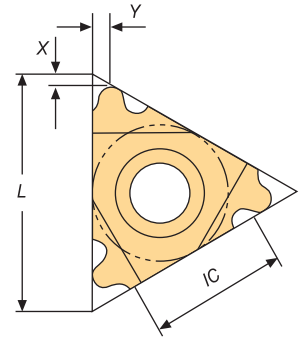
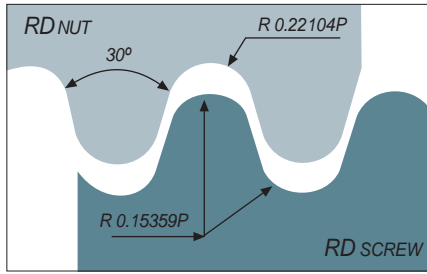
| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881039 | 16IR 10RD | 10 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881040 | 16IR 8RD | 8 | 9.525 | 16 | 1.4 | 1.4 | ○ | ○ |
| 1881041 | 16IR 6RD | 6 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1881042 | 22IR 6RD | 6 | 12.70 | 22 | 1.5 | 1.7 | ○ | ○ |
| 1881043 | 22IR 4RD | 4 | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |
| 1882339 | 27IR 4RD | 4 | 15.875 | 27 | 2.3 | 2.3 | ○ | ○ |
| 1882340 | 16IL 10RD | 10 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1882341 | 16IL 8RD | 8 | 9.525 | 16 | 1.4 | 1.4 | ○ | ○ |
| 1882342 | 16IL 6RD | 6 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882343 | 22IL 6RD | 6 | 12.70 | 22 | 1.5 | 1.7 | ○ | ○ |
| 1882344 | 22IL 4RD | 4 | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |
| 1882345 | 27IL 4RD | 4 | 15.875 | 27 | 2.3 | 2.3 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Round (DIN 20400)

DIN 20400:1990

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882346 | 16ER 3.0 RD20400 | 3.0 | 9.525 | 16 | 1.3 | 1.6 | ○ | ○ |
| 1882347 | 22ER 4.0 RD20400 | 4.0 | 12.70 | 22 | 1.6 | 1.5 | ○ | ○ |
| 1882348 | 22ER 5.0 RD20400 | 5.0 | 12.70 | 22 | 1.6 | 1.7 | ○ | ○ |
| 1882349 | 22ER 6.0 RD20400 | 6.0 | 12.70 | 22 | 1.7 | 2.1 | ○ | ○ |
| 1882350 | 16EL 3.0 RD20400 | 3.0 | 9.525 | 16 | 1.3 | 1.6 | ○ | ○ |
| 1882351 | 22EL 4.0 RD20400 | 4.0 | 12.70 | 22 | 1.6 | 1.5 | ○ | ○ |
| 1882352 | 22EL 5.0 RD20400 | 5.0 | 12.70 | 22 | 1.6 | 1.7 | ○ | ○ |
| 1882353 | 22EL 6.0 RD20400 | 6.0 | 12.70 | 22 | 1.7 | 2.1 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

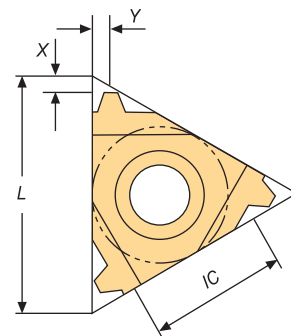
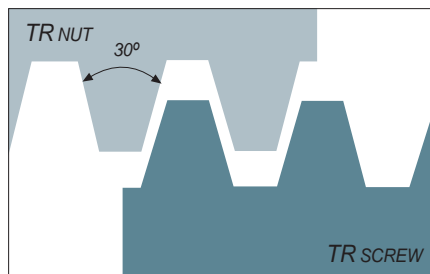
| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882354 | 16IR 3.0 RD20400 | 3.0 | 9.525 | 16 | 1.3 | 1.6 | ○ | ○ |
| 1882355 | 22IR 4.0 RD20400 | 4.0 | 12.70 | 22 | 1.6 | 1.5 | ○ | ○ |
| 1882356 | 22IR 5.0 RD20400 | 5.0 | 12.70 | 22 | 1.6 | 1.7 | ○ | ○ |
| 1882357 | 22IR 6.0 RD20400 | 6.0 | 12.70 | 22 | 1.7 | 2.1 | ○ | ○ |
| 1882358 | 16IL 3.0 RD20400 | 3.0 | 9.525 | 16 | 1.3 | 1.6 | ○ | ○ |
| 1882359 | 22IL 4.0 RD20400 | 4.0 | 12.70 | 22 | 1.6 | 1.5 | ○ | ○ |
| 1882360 | 22IL 5.0 RD20400 | 5.0 | 12.70 | 22 | 1.6 | 1.7 | ○ | ○ |
| 1882361 | 22IL 6.0 RD20400 | 6.0 | 12.70 | 22 | 1.7 | 2.1 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Trapez

DIN 103:1977

ISO 2901:1993 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881863 | 11ER 1.5TR | 1.5 | 6.35 | 11 | 0.8 | 0.8 | ○ | ○ |
| 1881044 | 16ER 1.5TR | 1.5 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881045 | 16ER 2.0TR | 2.0 | 9.525 | 16 | 1.1 | 1.3 | ○ | ○ |
| 1881046 | 16ER 3.0TR | 3.0 | 9.525 | 16 | 1.3 | 1.5 | ○ | ○ |
| 1881047 | 22ER 4.0TR | 4.0 | 12.70 | 22 | 1.7 | 1.9 | ○ | ○ |
| 1881049 | 22ER 5.0TR | 5.0 | 12.70 | 22 | 2.1 | 2.4 | ○ | ○ |
| 1882165 | 27ER 6.0TR | 6.0 | 15.875 | 27 | 2.3 | 2.6 | ○ | ○ |
| 1882166 | 27ER 7.0TR | 7.0 | 15.875 | 27 | 2.1 | 2.5 | ○ | ○ |
| 1881805 | 11EL 1.5TR | 1.5 | 6.35 | 11 | 0.8 | 0.8 | ○ | ○ |
| 1881050 | 16EL 1.5TR | 1.5 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881051 | 16EL 2.0TR | 2.0 | 9.525 | 16 | 1.1 | 1.3 | ○ | ○ |
| 1881052 | 16EL 3.0TR | 3.0 | 9.525 | 16 | 1.3 | 1.5 | ○ | ○ |
| 1881053 | 22EL 4.0TR | 4.0 | 12.70 | 22 | 1.7 | 1.9 | ○ | ○ |
| 1882130 | 22EL 5.0TR | 5.0 | 12.70 | 22 | 2.1 | 2.4 | ○ | ○ |
| 1882152 | 27EL 6.0TR | 6.0 | 15.875 | 27 | 2.3 | 2.6 | ○ | ○ |
| 1882153 | 27EL 7.0TR | 7.0 | 15.875 | 27 | 2.1 | 2.5 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

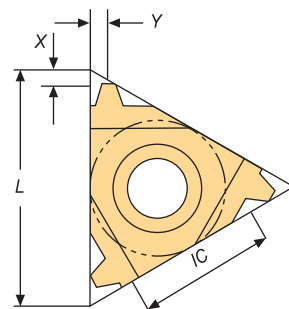
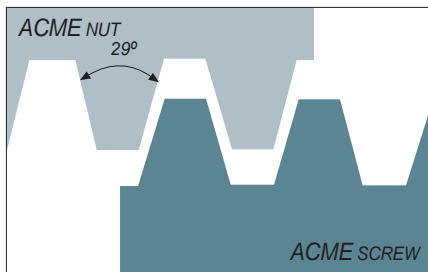
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | MM | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881943 | 11IR 1.5TR | 1.5 | 6.35 | 11 | 0.8 | 0.8 | ○ | ○ |
| 1881055 | 16IR 1.5TR | 1.5 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881056 | 16IR 2.0TR | 2.0 | 9.525 | 16 | 1.1 | 1.3 | ○ | ○ |
| 1881057 | 16IR 3.0TR | 3.0 | 9.525 | 16 | 1.3 | 1.5 | ○ | ○ |
| 1882119 | 16IR 4.0TR | 4.0 | 9.525 | 16 | 1.4 | 1.6 | ○ | ○ |
| 1881058 | 22IR 4.0TR | 4.0 | 12.70 | 22 | 1.7 | 1.9 | ○ | ○ |
| 1881059 | 22IR 5.0TR | 5.0 | 12.70 | 22 | 2.1 | 2.4 | ○ | ○ |
| 1881060 | 22IR 6.0TR | 6.0 | 12.70 | 22 | 2.1 | 2.5 | ○ | ○ |
| 1882187 | 27IR 6.0TR | 6.0 | 15.875 | 27 | 2.2 | 2.6 | ○ | ○ |
| 1882188 | 27IR 7.0TR | 7.0 | 15.875 | 27 | 2.1 | 2.5 | ○ | ○ |
| 1881917 | 11IL 1.5TR | 1.5 | 6.35 | 11 | 0.8 | 0.8 | ○ | ○ |
| 1881061 | 16IL 1.5TR | 1.5 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881062 | 16IL 2.0TR | 2.0 | 9.525 | 16 | 1.1 | 1.3 | ○ | ○ |
| 1881063 | 16IL 3.0TR | 3.0 | 9.525 | 16 | 1.3 | 1.5 | ○ | ○ |
| 1882093 | 16IL 4.0TR | 4.0 | 9.525 | 16 | 1.4 | 1.6 | ○ | ○ |
| 1881064 | 22IL 4.0TR | 4.0 | 12.70 | 22 | 1.7 | 1.9 | ○ | ○ |
| 1881065 | 22IL 5.0TR | 5.0 | 12.70 | 22 | 2.1 | 2.4 | ○ | ○ |
| 1881066 | 22IL 6.0TR | 6.0 | 12.70 | 22 | 2.1 | 2.5 | ○ | ○ |
| 1882176 | 27IL 6.0TR | 6.0 | 15.875 | 27 | 2.2 | 2.6 | ○ | ○ |
| 1882177 | 27IL 7.0TR | 7.0 | 15.875 | 27 | 2.1 | 2.5 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

American ACME

ANSI/ASME:1.5-1988 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881871 | 11ER 16ACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1881078 | 16ER 16ACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881077 | 16ER 14ACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881076 | 16ER 12ACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881075 | 16ER 10ACME | 10 | 9.525 | 16 | 1.3 | 1.4 | ○ | ○ |
| 1881079 | 16ER 8ACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1881080 | 22ER 6ACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1881081 | 22ER 5ACME | 5 | 12.70 | 22 | 2.0 | 2.3 | ○ | ○ |
| 1882159 | 27ER 4ACME | 4 | 15.875 | 27 | 2.4 | 2.6 | ○ | ○ |
| 1881813 | 11EL 16ACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1881997 | 16EL 16ACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881992 | 16EL 14ACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881990 | 16EL 12ACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881985 | 16EL 10ACME | 10 | 9.525 | 16 | 1.3 | 1.4 | ○ | ○ |
| 1882024 | 16EL 8ACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882133 | 22EL 6ACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1882131 | 22EL 5ACME | 5 | 12.70 | 22 | 2.0 | 2.3 | ○ | ○ |
| 1882146 | 27EL 4ACME | 4 | 15.875 | 27 | 2.4 | 2.6 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

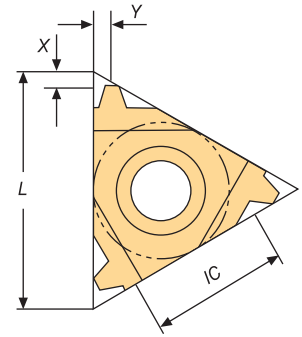
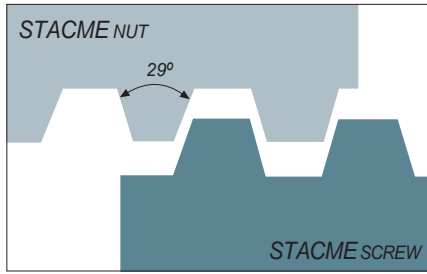
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881944 | 11IR 16ACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1881107 | 16IR 16ACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881106 | 16IR 14ACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881105 | 16IR 12ACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881104 | 16IR 10ACME | 10 | 9.525 | 16 | 1.3 | 1.4 | ○ | ○ |
| 1881103 | 16IR 8ACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882125 | 16IR 6ACME | 6 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1881083 | 22IR 6ACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1881082 | 22IR 5ACME | 5 | 12.70 | 22 | 2.0 | 2.3 | ○ | ○ |
| 1881102 | 22IR 4ACME | 4 | 12.70 | 22 | 2.1 | 2.4 | ○ | ○ |
| 1882182 | 27IR 4ACME | 4 | 15.875 | 27 | 2.4 | 2.6 | ○ | ○ |
| 1881921 | 11IL 16ACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1882080 | 16IL 16ACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1882075 | 16IL 14ACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1882072 | 16IL 12ACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1882067 | 16IL 10ACME | 10 | 9.525 | 16 | 1.3 | 1.4 | ○ | ○ |
| 1882102 | 16IL 8ACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882099 | 16IL 6ACME | 6 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882140 | 22IL 6ACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1882138 | 22IL 5ACME | 5 | 12.70 | 22 | 2.0 | 2.3 | ○ | ○ |
| 1882136 | 22IL 4ACME | 4 | 12.70 | 22 | 2.1 | 2.4 | ○ | ○ |
| 1882171 | 27IL 4ACME | 4 | 15.875 | 27 | 2.4 | 2.6 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

STUB ACME

ANSI/ASME:1.8-1988 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881872 | 11ER 16STACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1881116 | 16ER 16STACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881117 | 16ER 14STACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881118 | 16ER 12STACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881119 | 16ER 10STACME | 10 | 9.525 | 16 | 1.2 | 1.4 | ○ | ○ |
| 1881120 | 16ER 8STACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1881121 | 16ER 6STACME | 6 | 9.525 | 16 | 1.7 | 1.8 | ○ | ○ |
| 1882135 | 22ER 6STACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1881122 | 22ER 5STACME | 5 | 12.70 | 22 | 2.1 | 2.3 | ○ | ○ |
| 1881123 | 22ER 4STACME | 4 | 12.70 | 22 | 2.3 | 2.3 | ○ | ○ |
| 1882160 | 27ER 4STACME | 4 | 15.875 | 27 | 2.4 | 2.5 | ○ | ○ |
| 1882156 | 27ER 3STACME | 3 | 15.875 | 27 | 2.7 | 2.8 | ○ | ○ |
| 1881814 | 11EL 16STACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1881998 | 16EL 16STACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881996 | 16EL 14STACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881991 | 16EL 12STACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881986 | 16EL 10STACME | 10 | 9.525 | 16 | 1.2 | 1.4 | ○ | ○ |
| 1882027 | 16EL 8STACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882021 | 16EL 6STACME | 6 | 9.525 | 16 | 1.7 | 1.8 | ○ | ○ |
| 1882134 | 22EL 6STACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1882132 | 22EL 5STACME | 5 | 12.70 | 22 | 2.1 | 2.3 | ○ | ○ |
| 1882129 | 22EL 4STACME | 4 | 12.70 | 22 | 2.3 | 2.3 | ○ | ○ |
| 1882147 | 27EL 4STACME | 4 | 15.875 | 27 | 2.4 | 2.5 | ○ | ○ |
| 1882143 | 27EL 3STACME | 3 | 15.875 | 27 | 2.7 | 2.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

STUB ACME

ANSI/ASME:1.8-1988 Threading Inserts | Pastilhas | Plaquetas

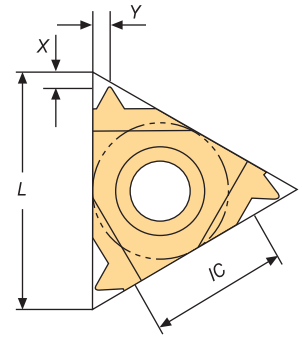
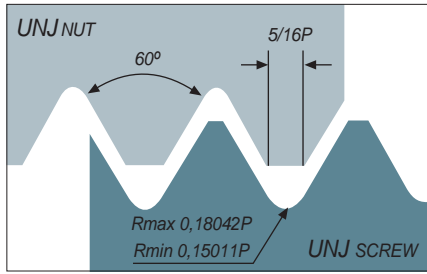
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881945 | 11IR 16STACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1881108 | 16IR 16STACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1881109 | 16IR 14STACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881110 | 16IR 12STACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1881111 | 16IR 10STACME | 10 | 9.525 | 16 | 1.2 | 1.4 | ○ | ○ |
| 1881112 | 16IR 8STACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1881113 | 16IR 6STACME | 6 | 9.525 | 16 | 1.7 | 1.8 | ○ | ○ |
| 1882142 | 22IR 6STACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1881114 | 22IR 5STACME | 5 | 12.70 | 22 | 2.1 | 2.3 | ○ | ○ |
| 1881115 | 22IR 4STACME | 4 | 12.70 | 22 | 2.3 | 2.3 | ○ | ○ |
| 1882183 | 27IR 4STACME | 4 | 15.875 | 27 | 2.4 | 2.5 | ○ | ○ |
| 1882180 | 27IR 3STACME | 3 | 15.875 | 27 | 2.7 | 2.8 | ○ | ○ |
| 1881922 | 11IL 16STACME | 16 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1882081 | 16IL 16STACME | 16 | 9.525 | 16 | 1.0 | 1.1 | ○ | ○ |
| 1882079 | 16IL 14STACME | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1882073 | 16IL 12STACME | 12 | 9.525 | 16 | 1.1 | 1.2 | ○ | ○ |
| 1882068 | 16IL 10STACME | 10 | 9.525 | 16 | 1.2 | 1.4 | ○ | ○ |
| 1882105 | 16IL 8STACME | 8 | 9.525 | 16 | 1.4 | 1.5 | ○ | ○ |
| 1882100 | 16IL 6STACME | 6 | 9.525 | 16 | 1.7 | 1.8 | ○ | ○ |
| 1882141 | 22IL 6STACME | 6 | 12.70 | 22 | 1.8 | 2.1 | ○ | ○ |
| 1882139 | 22IL 5STACME | 5 | 12.70 | 22 | 2.1 | 2.3 | ○ | ○ |
| 1882137 | 22IL 4STACME | 4 | 12.70 | 22 | 2.3 | 2.3 | ○ | ○ |
| 1882172 | 27IL 4STACME | 4 | 15.875 | 27 | 2.4 | 2.5 | ○ | ○ |
| 1882169 | 27IL 3STACME | 3 | 15.875 | 27 | 2.7 | 2.8 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

UNJ

MIL-S-8879A Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|----------------|
| | | | TPI | IC | L | X | Y | (68) PH6920 |
| 1882318 | 11ER 32UNJ | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1882319 | 11ER 28UNJ | 28 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1882320 | 11ER 24UNJ | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1882321 | 11ER 20UNJ | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882322 | 11ER 18UNJ | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882323 | 11ER 16UNJ | 16 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882324 | 11ER 14UNJ | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1881165 | 16ER 32UNJ | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881164 | 16ER 28UNJ | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881163 | 16ER 24UNJ | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881162 | 16ER 20UNJ | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881161 | 16ER 18UNJ | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881160 | 16ER 16UNJ | 16 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881159 | 16ER 14UNJ | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881158 | 16ER 13UNJ | 13 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1881157 | 16ER 12UNJ | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1881156 | 16ER 11UNJ | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881155 | 16ER 10UNJ | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881154 | 16ER 9UNJ | 9 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1881153 | 16ER 8UNJ | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1882325 | 11EL 32UNJ | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1882326 | 11EL 28UNJ | 28 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1882327 | 11EL 24UNJ | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1882328 | 11EL 20UNJ | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882329 | 11EL 18UNJ | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882330 | 11EL 16UNJ | 16 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1882331 | 11EL 14UNJ | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1881179 | 16EL 32UNJ | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881178 | 16EL 28UNJ | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881177 | 16EL 24UNJ | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881176 | 16EL 20UNJ | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881175 | 16EL 18UNJ | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881174 | 16EL 16UNJ | 16 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881173 | 16EL 14UNJ | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881172 | 16EL 13UNJ | 13 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1881170 | 16EL 12UNJ | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1881169 | 16EL 11UNJ | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881168 | 16EL 10UNJ | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881167 | 16EL 9UNJ | 9 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1881166 | 16EL 8UNJ | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |

Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

UNJ

MIL-S-8879A Threading Inserts | Pastilhas | Plaquetas

Internal

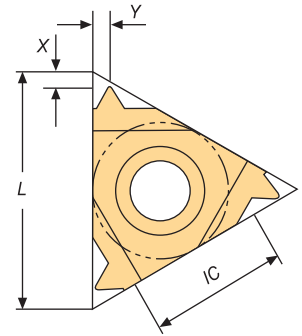
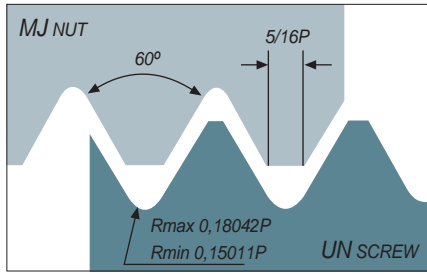
| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881198 | 11IR 32UNJ | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881197 | 11IR 28UNJ | 28 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881196 | 11IR 24UNJ | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881195 | 11IR 20UNJ | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881194 | 11IR 18UNJ | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881193 | 11IR 16UNJ | 16 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881192 | 11IR 14UNJ | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1881191 | 16IR 32UNJ | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881190 | 16IR 28UNJ | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881189 | 16IR 24UNJ | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881188 | 16IR 20UNJ | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881187 | 16IR 18UNJ | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881186 | 16IR 16UNJ | 16 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881185 | 16IR 14UNJ | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881184 | 16IR 12UNJ | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1881183 | 16IR 11UNJ | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881182 | 16IR 10UNJ | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881181 | 16IR 9UNJ | 9 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1881180 | 16IR 8UNJ | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1881217 | 11IL 32UNJ | 32 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881216 | 11IL 28UNJ | 28 | 6.35 | 11 | 0.6 | 0.6 | ○ | ○ |
| 1881215 | 11IL 24UNJ | 24 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1881214 | 11IL 20UNJ | 20 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1881213 | 11IL 18UNJ | 18 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881212 | 11IL 16UNJ | 16 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881211 | 11IL 14UNJ | 14 | 6.35 | 11 | 0.9 | 1.0 | ○ | ○ |
| 1881210 | 16IL 32UNJ | 32 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881209 | 16IL 28UNJ | 28 | 9.525 | 16 | 0.6 | 0.6 | ○ | ○ |
| 1881208 | 16IL 24UNJ | 24 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881207 | 16IL 20UNJ | 20 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881206 | 16IL 18UNJ | 18 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881205 | 16IL 16UNJ | 16 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881204 | 16IL 14UNJ | 14 | 9.525 | 16 | 1.0 | 1.2 | ○ | ○ |
| 1881203 | 16IL 12UNJ | 12 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |
| 1881202 | 16IL 11UNJ | 11 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881201 | 16IL 10UNJ | 10 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1881200 | 16IL 9UNJ | 9 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |
| 1881199 | 16IL 8UNJ | 8 | 9.525 | 16 | 1.2 | 1.6 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

MJ

ISO 5855-1:1989 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881067 | 16ER 1.0MJ | 1.0 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881068 | 16ER 1.25MJ | 1.25 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881069 | 16ER 1.5MJ | 1.5 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881070 | 16ER 2.0MJ | 2.0 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1882362 | 16ER 2.5MJ | 2.5 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |
| 1882363 | 16ER 3.0MJ | 3.0 | 9.525 | 16 | 1.1 | 1.5 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

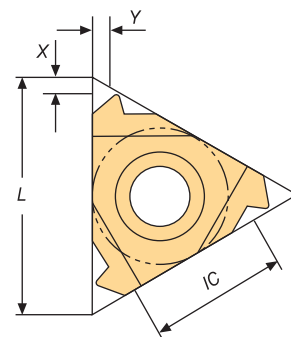
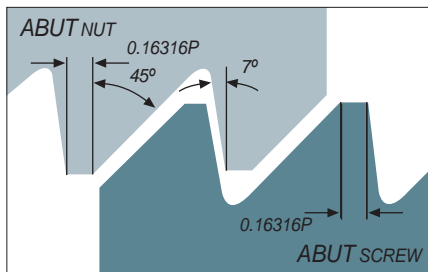
| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882370 | 11IR 1.0MJ | 1.0 | 6.35 | 11 | 0.7 | 0.8 | ○ | ○ |
| 1882371 | 11IR 1.25MJ | 1.25 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882372 | 11IR 1.5MJ | 1.5 | 6.35 | 11 | 0.8 | 1.0 | ○ | ○ |
| 1881071 | 16IR 1.0MJ | 1.0 | 9.525 | 16 | 0.7 | 0.8 | ○ | ○ |
| 1881072 | 16IR 1.25MJ | 1.25 | 9.525 | 16 | 0.8 | 0.9 | ○ | ○ |
| 1881073 | 16IR 1.5MJ | 1.5 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1881074 | 16IR 2.0MJ | 2.0 | 9.525 | 16 | 1.0 | 1.3 | ○ | ○ |
| 1882373 | 16IR 2.5MJ | 2.5 | 9.525 | 16 | 0.8 | 1.5 | ○ | ○ |
| 1882374 | 16IR 3.0MJ | 3.0 | 9.525 | 16 | 1.1 | 1.4 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

American Buttress

ANSI B1.9-1973

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882298 | 11ER 20ABUT | 20 | 6.35 | 11 | 1.0 | 1.4 | ○ | ○ |
| 1882299 | 11ER 16ABUT | 16 | 6.35 | 11 | 1.1 | 1.6 | ○ | ○ |
| 1881007 | 16ER 20ABUT | 20 | 9.525 | 16 | 1.0 | 1.4 | ○ | ○ |
| 1880754 | 16ER 16ABUT | 16 | 9.525 | 16 | 1.0 | 1.5 | ○ | ○ |
| 1881006 | 16ER 12ABUT | 12 | 9.525 | 16 | 1.4 | 2.0 | ○ | ○ |
| 1881005 | 16ER 10ABUT | 10 | 9.525 | 16 | 1.5 | 2.3 | ○ | ○ |
| 1881008 | 22ER 8ABUT | 8 | 12.70 | 22 | 2.0 | 3.2 | ○ | ○ |
| 1881009 | 22ER 6ABUT | 6 | 12.70 | 22 | 2.1 | 3.4 | ○ | ○ |
| 1882300 | 11EL 20ABUT | 20 | 6.35 | 11 | 1.0 | 1.4 | ○ | ○ |
| 1882301 | 11EL 16ABUT | 16 | 6.35 | 11 | 1.1 | 1.6 | ○ | ○ |
| 1882302 | 16EL 20ABUT | 20 | 9.525 | 16 | 1.0 | 1.4 | ○ | ○ |
| 1882303 | 16EL 16ABUT | 16 | 9.525 | 16 | 1.0 | 1.5 | ○ | ○ |
| 1882304 | 16EL 12ABUT | 12 | 9.525 | 16 | 1.4 | 2.0 | ○ | ○ |
| 1882305 | 16EL 10ABUT | 10 | 9.525 | 16 | 1.5 | 2.3 | ○ | ○ |
| 1882306 | 22EL 8ABUT | 8 | 12.70 | 22 | 2.0 | 3.2 | ○ | ○ |
| 1882307 | 22EL 6ABUT | 6 | 12.70 | 22 | 2.1 | 3.4 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

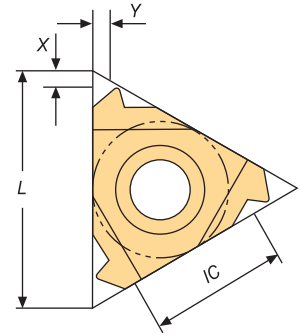
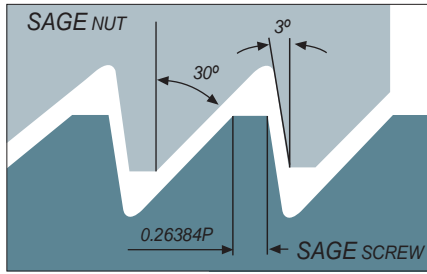
Internal

| Order Code (1) | Reference | Pitch | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882308 | 11IR 20ABUT | 20 | 6.35 | 11 | 1.0 | 1.4 | ○ | ○ |
| 1882309 | 11IR 16ABUT | 16 | 6.35 | 11 | 1.1 | 1.6 | ○ | ○ |
| 1881015 | 16IR 20ABUT | 20 | 9.525 | 16 | 1.0 | 1.4 | ○ | ○ |
| 1881014 | 16IR 16ABUT | 16 | 9.525 | 16 | 1.0 | 1.5 | ○ | ○ |
| 1881013 | 16IR 12ABUT | 12 | 9.525 | 16 | 1.4 | 2.0 | ○ | ○ |
| 1881012 | 16IR 10ABUT | 10 | 9.525 | 16 | 1.5 | 2.3 | ○ | ○ |
| 1881011 | 22IR 8ABUT | 8 | 12.70 | 22 | 2.0 | 3.2 | ○ | ○ |
| 1881010 | 22IR 6ABUT | 6 | 12.70 | 22 | 2.1 | 3.4 | ○ | ○ |
| 1882310 | 11IL 20ABUT | 20 | 6.35 | 11 | 1.0 | 1.4 | ○ | ○ |
| 1882311 | 11IL 16ABUT | 16 | 6.35 | 11 | 1.1 | 1.6 | ○ | ○ |
| 1882312 | 16IL 20ABUT | 20 | 9.525 | 16 | 1.0 | 1.4 | ○ | ○ |
| 1882313 | 16IL 16ABUT | 16 | 9.525 | 16 | 1.0 | 1.5 | ○ | ○ |
| 1882314 | 16IL 12ABUT | 12 | 9.525 | 16 | 1.4 | 2.0 | ○ | ○ |
| 1882315 | 16IL 10ABUT | 10 | 9.525 | 16 | 1.5 | 2.3 | ○ | ○ |
| 1882316 | 22IL 8ABUT | 8 | 12.70 | 22 | 2.0 | 3.2 | ○ | ○ |
| 1882317 | 22IL 6ABUT | 6 | 12.70 | 22 | 2.1 | 3.4 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Metric Buttress Sagengewinde (DIN 513:1985) Saw Thread

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882384 | 16ER 2.0 SAGE | 2.0 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1882385 | 22ER 3.0 SAGE | 3.0 | 12.70 | 22 | 1.8 | 2.7 | ○ | ○ |
| 1882386 | 22ER 4.0 SAGE | 4.0 | 12.70 | 22 | 2.1 | 3.3 | ○ | ○ |
| 1882387 | 16EL 2.0 SAGE | 2.0 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1882388 | 22EL 3.0 SAGE | 3.0 | 12.70 | 22 | 1.8 | 2.7 | ○ | ○ |
| 1882389 | 22EL 4.0 SAGE | 4.0 | 12.70 | 22 | 2.1 | 3.3 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

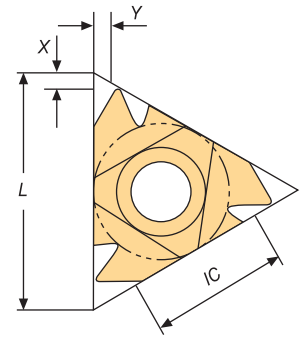
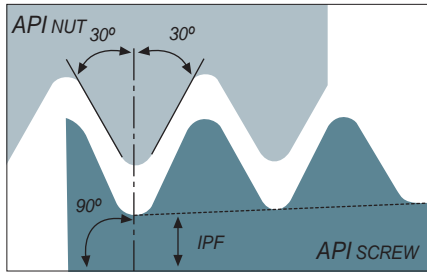
Internal

| Order Code (1) | Reference | Pitch MM | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------------|-----------------|----|-----|-----|------------------------|----------------|
| | | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882390 | 16IR 2.0 SAGE | 2.0 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1882391 | 22IR 3.0 SAGE | 3.0 | 12.70 | 22 | 1.8 | 2.7 | ○ | ○ |
| 1882392 | 22IR 4.0 SAGE | 4.0 | 12.70 | 22 | 2.1 | 3.3 | ○ | ○ |
| 1882393 | 16IL 2.0 SAGE | 2.0 | 9.525 | 16 | 1.3 | 1.8 | ○ | ○ |
| 1882394 | 22IL 3.0 SAGE | 3.0 | 12.70 | 22 | 1.8 | 2.7 | ○ | ○ |
| 1882395 | 22IL 4.0 SAGE | 4.0 | 12.70 | 22 | 2.1 | 3.3 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

API

API Spec 7:2001 (0.040|0.038R|0.050) Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Thread | Taper | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------------|-------|----------|-------|------------------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | | IPF | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881326 | 22ER 5.00 API 403 | 5 | V-0.040 | 3 | 2 3/8" - 4 1/2" REG | 12.70 | 22 | 1.8 | 2.6 | ○ | ○ |
| 1881322 | 22ER 4.00 API 382 | 4 | V-0.038R | 2 | NC23-NC50 | 12.70 | 22 | 2.0 | 2.6 | ○ | ○ |
| 1881323 | 22ER 4.00 API 383 | 4 | V-0.038R | 3 | NC56-NC77 | 12.70 | 22 | 2.0 | 2.6 | ○ | ○ |
| 1881324 | 22ER 4.00 API 502 | 4 | V-0.050 | 2 | 6 5/8" REG | 12.70 | 22 | 1.9 | 2.8 | ○ | ○ |
| 1881325 | 22ER 4.00 API 503 | 4 | V-0.050 | 3 | 5 1/2" , 7 5/8" , 8 5/8" REG | 12.70 | 22 | 1.9 | 2.8 | ○ | ○ |
| 1882396 | 27ER 5.00 API 403 | 5 | V-0.040 | 3 | 2 3/8" - 4 1/2" REG | 15.875 | 27 | 1.9 | 2.7 | ○ | ○ |
| 1882397 | 27ER 4.00 API 382 | 4 | V-0.038R | 2 | NC23-NC50 | 15.875 | 27 | 2.2 | 2.8 | ○ | ○ |
| 1882398 | 27ER 4.00 API 383 | 4 | V-0.038R | 3 | NC56-NC77 | 15.875 | 27 | 2.2 | 2.8 | ○ | ○ |
| 1882399 | 27ER 4.00 API 502 | 4 | V-0.050 | 2 | 6 5/8" REG | 15.875 | 27 | 2.2 | 3.0 | ○ | ○ |
| 1882400 | 27ER 4.00 API 503 | 4 | V-0.050 | 3 | 5 1/2" , 7 5/8" , 8 5/8" REG | 15.875 | 27 | 2.2 | 3.0 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

| Order Code (1) | Reference | Pitch | Thread | Taper | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-------------------|-------|----------|-------|------------------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | | IPF | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881335 | 22IR 5.00 API 403 | 5 | V-0.040 | 3 | 2 3/8" - 4 1/2" REG | 12.70 | 22 | 1.8 | 2.6 | ○ | ○ |
| 1881331 | 22IR 4.00 API 382 | 4 | V-0.038R | 2 | NC23-NC50 | 12.70 | 22 | 2.0 | 2.6 | ○ | ○ |
| 1881332 | 22IR 4.00 API 383 | 4 | V-0.038R | 3 | NC56-NC77 | 12.70 | 22 | 2.0 | 2.6 | ○ | ○ |
| 1881333 | 22IR 4.00 API 502 | 4 | V-0.050 | 2 | 6 5/8" REG | 12.70 | 22 | 1.9 | 2.8 | ○ | ○ |
| 1881334 | 22IR 4.00 API 503 | 4 | V-0.050 | 3 | 5 1/2" , 7 5/8" , 8 5/8" REG | 12.70 | 22 | 1.9 | 2.8 | ○ | ○ |
| 1882401 | 27IR 5.00 API 403 | 5 | V-0.040 | 3 | 2 3/8" - 4 1/2" REG | 15.875 | 27 | 1.9 | 2.7 | ○ | ○ |
| 1882402 | 27IR 4.00 API 382 | 4 | V-0.038R | 2 | NC23-NC50 | 15.875 | 27 | 2.2 | 2.8 | ○ | ○ |
| 1882403 | 27IR 4.00 API 383 | 4 | V-0.038R | 3 | NC56-NC77 | 15.875 | 27 | 2.2 | 2.8 | ○ | ○ |
| 1882404 | 27IR 4.00 API 502 | 4 | V-0.050 | 2 | 6 5/8" REG | 15.875 | 27 | 2.2 | 3.0 | ○ | ○ |
| 1882405 | 27IR 4.00 API 503 | 4 | V-0.050 | 3 | 5 1/2" , 7 5/8" , 8 5/8" REG | 15.875 | 27 | 2.2 | 3.0 | ○ | ○ |

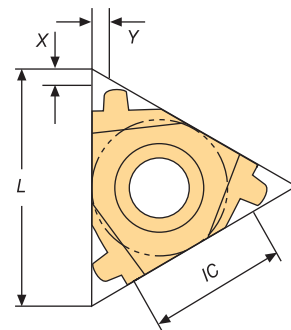
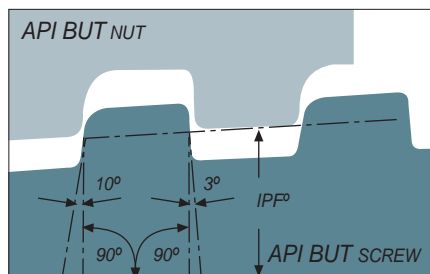
⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

API Buttress Casing

API Spec 5B:2008

Oil Threads

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Taper | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------------|-------|-------|------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IPF | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881327 | 22ER 5 BUT 0.75 | 5 | 0.75 | 4 1/2" - 13 3/8" | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |
| 1881328 | 22ER 5 BUT 1.00 | 5 | 1.00 | 16" - 20" | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

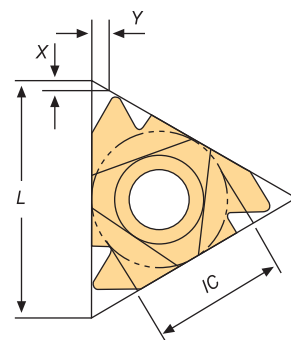
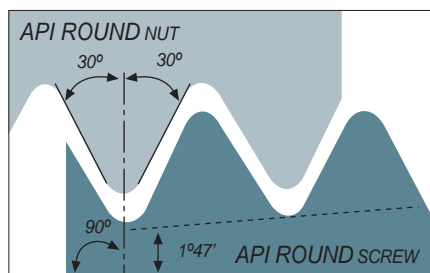
| Order Code (1) | Reference | Pitch | Taper | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------------|-------|-------|------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IPF | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881336 | 22IR 5 BUT 0.75 | 5 | 0.75 | 4 1/2" - 13 3/8" | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |
| 1881337 | 22IR 5 BUT 1.00 | 5 | 1.00 | 16" - 20" | 12.70 | 22 | 2.2 | 2.3 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

API Round Casing & Tubing

API Spec 5B:2008

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Taper | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|----------------|-------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IPF | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881318 | 16ER 10 API RD | 10 | 0.75 | 9.525 | 16 | 1.4 | 1.4 | ○ | ○ |
| 1881320 | 16ER 8 API RD | 8 | 0.75 | 9.525 | 16 | 1.3 | 1.5 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

| Order Code (1) | Reference | Pitch | Taper | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|----------------|-------|-------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IPF | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881319 | 16IR 10 API RD | 10 | 0.75 | 9.525 | 16 | 1.4 | 1.4 | ○ | ○ |
| 1881321 | 16IR 8 API RD | 8 | 0.75 | 9.525 | 16 | 1.3 | 1.5 | ○ | ○ |

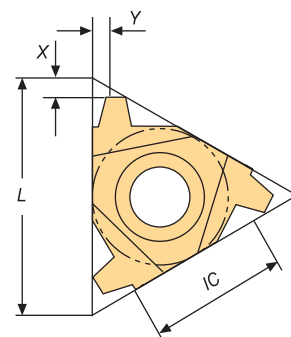
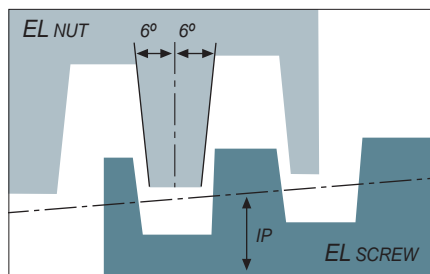
⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Extreme Line Casing

API Spec 5B:2008

Oil Threads

Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Taper | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|---------------|-------|-------|------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IPF | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881329 | 22ER 6EL 1.50 | 6 | 1.50 | 5" - 7 5/8" | 12.70 | 22 | 2.0 | 1.9 | ○ | ○ |
| 1881330 | 22ER 5EL 1.25 | 5 | 1.25 | 8 5/8" - 10 3/4" | 12.70 | 22 | 2.3 | 2.4 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

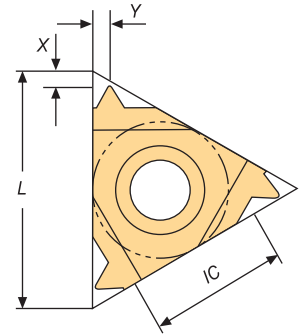
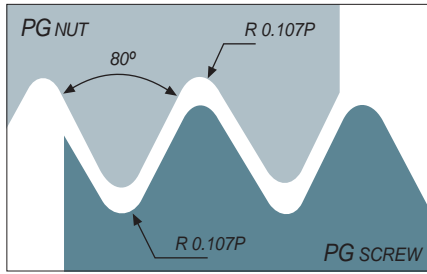
| Order Code (1) | Reference | Pitch | Taper | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|----------------|-------|-------|------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | IPF | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1881339 | 22IR 6 EL 1.50 | 6 | 1.50 | 5" - 7 5/8" | 12.70 | 22 | 2.0 | 1.9 | ○ | ○ |
| 1881338 | 22IR 5 EL 1.25 | 5 | 1.25 | 8 5/8" - 10 3/4" | 12.70 | 22 | 2.3 | 2.4 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

PG

DIN 40430:1971 Threading Inserts | Pastilhas | Plaquetas



External

| Order Code (1) | Reference | Pitch | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|------------------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882287 | 11ER 20PG | 20 | PG7 | 6.35 | 11 | 1.3 | 0.8 | ○ | ○ |
| 1882288 | 11ER 18PG | 18 | PG9, PG11, PG13.5, PG16 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882289 | 11ER 16PG | 16 | PG21, PG29, PG36, PG42, PG48 | 6.35 | 11 | 1.0 | 1.1 | ○ | ○ |
| 1882290 | 16ER 20PG | 20 | PG7 | 9.525 | 16 | 0.8 | 0.8 | ○ | ○ |
| 1882291 | 16ER 18PG | 18 | PG9, PG11, PG13.5, PG16 | 9.525 | 16 | 0.9 | 1.0 | ○ | ○ |
| 1882292 | 16ER 16PG | 16 | PG21, PG29, PG36, PG42, PG48 | 9.525 | 16 | 0.9 | 1.1 | ○ | ○ |

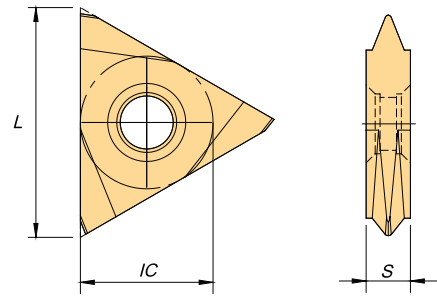
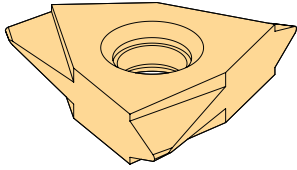
⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Internal

| Order Code (1) | Reference | Pitch | Size | Dimensions (mm) | | | | Stock - Grade Code (2) | |
|----------------|-----------|-------|------------------------------|-----------------|----|-----|-----|------------------------|-------------|
| | | TPI | | IC | L | X | Y | (68) PH6920 | (12) PH0920 |
| 1882293 | 11IR 20PG | 20 | PG7 | 6.35 | 11 | 1.3 | 0.8 | ○ | ○ |
| 1882294 | 11IR 18PG | 18 | PG9, PG11, PG13.5, PG16 | 6.35 | 11 | 0.8 | 0.9 | ○ | ○ |
| 1882295 | 16IR 20PG | 20 | PG7 | 9.525 | 16 | 0.8 | 0.8 | ○ | ○ |
| 1882296 | 16IR 18PG | 18 | PG9, PG11, PG13.5, PG16 | 9.525 | 16 | 0.8 | 1.0 | ○ | ○ |
| 1882297 | 16IR 16PG | 16 | PG21, PG29, PG36, PG42, PG48 | 9.525 | 16 | 0.9 | 1.1 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta | Note: Order Code = (1) + (2) - see page E - 48 for more detail information

TNMC (Tangencial Inserts) Threading Inserts | Pastilhas | Plaquetas

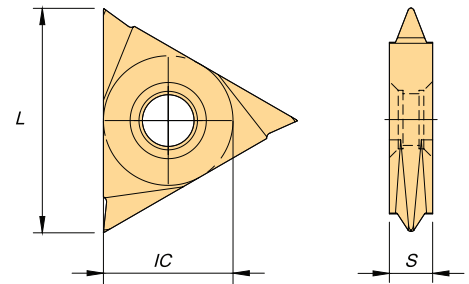
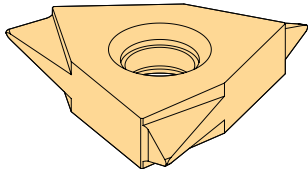


| Order Code (1) | Reference | Dimensions (mm) | | | Stock - Grade Code (2) | |
|----------------|--------------|-----------------|-------|------|------------------------|----------------|
| | | IC | L | S | (68) PH6920 | (12) PH0920 |
| 1110401 | TNMC 1603 55 | 9.525 | 16.50 | 3.18 | ○ | ○ |
| 1110402 | TNMC 1603 60 | 9.525 | 16.50 | 3.18 | ○ | ○ |
| 1110530 | TNMC 2204 55 | 12.70 | 22.00 | 4.76 | ○ | ○ |
| 1110404 | TNMC 2204 60 | 12.70 | 22.00 | 4.76 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Note: Order Code = (1) + (2) - see page E - 48 for more detail information

TPMC (Tangencial Inserts) Threading Inserts | Pastilhas | Plaquetas



| Order Code (1) | Reference | Dimensions (mm) | | | Stock - Grade Code (2) | |
|----------------|--------------|-----------------|-------|------|------------------------|----------------|
| | | IC | L | S | (68) PH6920 | (12) PH0920 |
| 1110481 | TPMC 1603 55 | 9.525 | 16.50 | 3.18 | ○ | ○ |
| 1110480 | TPMC 1603 60 | 9.525 | 16.50 | 3.18 | ○ | ○ |
| 1110541 | TPMC 2204 55 | 12.70 | 22.00 | 4.76 | ○ | ○ |
| 1110542 | TPMC 2204 60 | 12.70 | 22.00 | 4.76 | ○ | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Note: Order Code = (1) + (2) - see page E - 48 for more detail information

Spare Parts | Acessórios | Accesorios

Screws



| Order Code | Reference | Stock |
|------------|-----------|-------|
| 290044800 | P0260700 | ⊗ |
| 290027200 | P0351375 | ⊗ |
| 290027800 | P0501975 | ⊗ |
| 290045100 | P5000790 | ⊗ |
| 290044600 | P5401390 | ⊗ |
| 290044900 | P5401391 | ⊗ |
| 290045200 | P8000990 | ⊗ |
| 290044700 | P8001590 | ⊗ |
| 290045000 | P8001591 | ⊗ |

Shims



| Order Code | Reference | Stock |
|------------|-----------|-------|
| 212134400 | EA16 | ○ |
| 212134500 | EA16 1,5N | ○ |
| 212134600 | EA16 1N | ○ |
| 212134700 | EA16 1P | ○ |
| 212134800 | EA16 2N | ○ |
| 212134900 | EA16 2P | ○ |
| 212135000 | EA16 3N | ○ |
| 212135100 | EA16 3P | ○ |
| 212135200 | EA22 | ○ |
| 212135300 | EA22 1,5N | ○ |
| 212135400 | EA22 1N | ○ |
| 212135500 | EA22 1P | ○ |
| 212135600 | EA22 2N | ○ |
| 212135700 | EA22 2P | ○ |
| 212135800 | EA22 3N | ○ |
| 212135900 | EA22 3P | ○ |
| 212136000 | IA16 | ○ |
| 212136100 | IA16 1,5N | ○ |
| 212136200 | IA16 1N | ○ |
| 212136300 | IA16 1P | ○ |
| 212136400 | IA16 2N | ○ |
| 212136500 | IA16 2P | ○ |
| 212136600 | IA16 3N | ○ |
| 212136700 | IA16 3P | ○ |
| 212136800 | IA22 | ○ |
| 212136900 | IA22 1,5N | ○ |
| 212137000 | IA22 1N | ○ |
| 212137100 | IA22 1P | ○ |
| 212137200 | IA22 2N | ○ |
| 212137300 | IA22 2P | ○ |
| 212137400 | IA22 3N | ○ |
| 212137500 | IA22 3P | ○ |

Keys



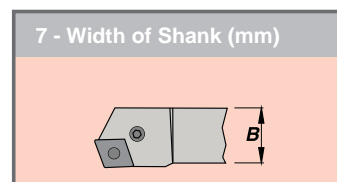
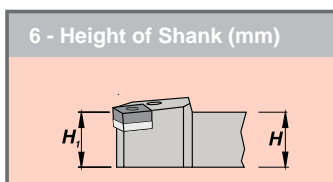
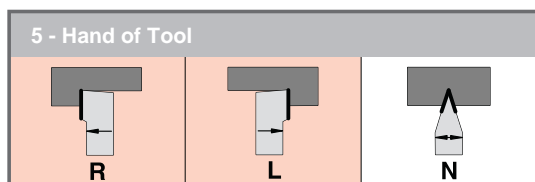
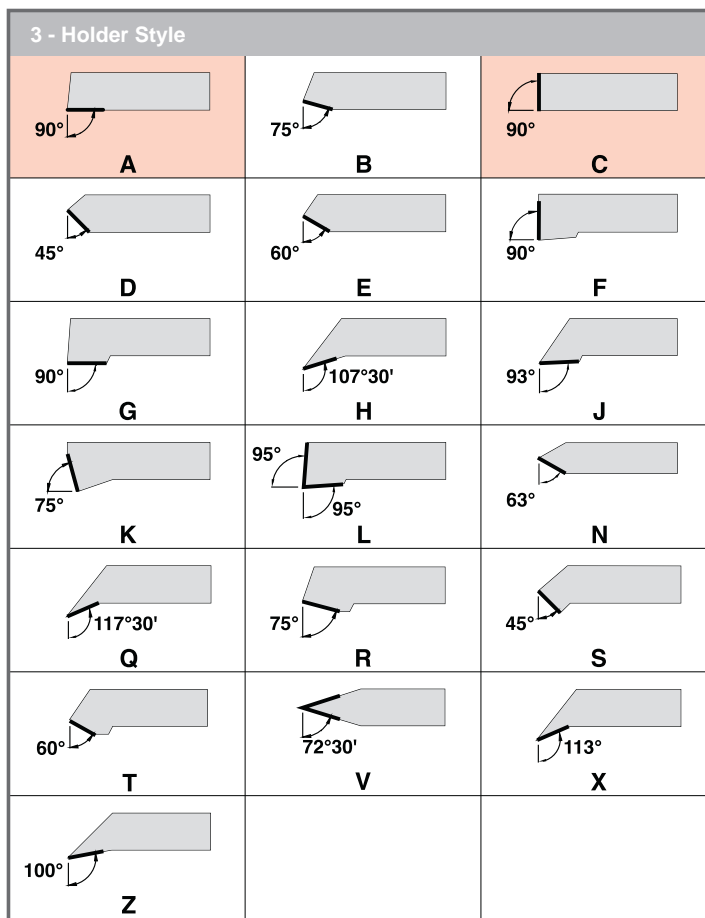
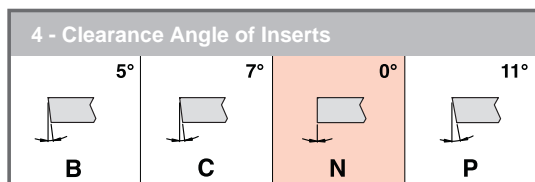
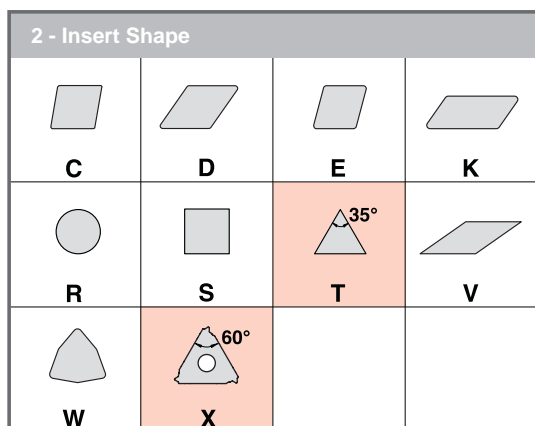
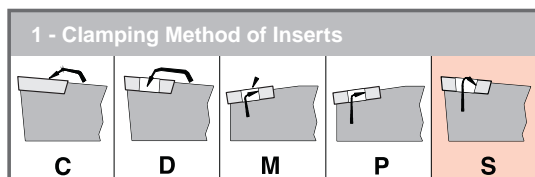
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|------------|-----------|-------|
| 290011400 | XT06 | ⊗ |
| 290013000 | XT08 | ⊗ |
| 290013100 | XT10 | ⊗ |
| 290013200 | XT20 | ⊗ |
| 290017400 | XT25 | ⊗ |
| 290020300 | SS20 | ○ |
| 290019800 | SS25 | ○ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

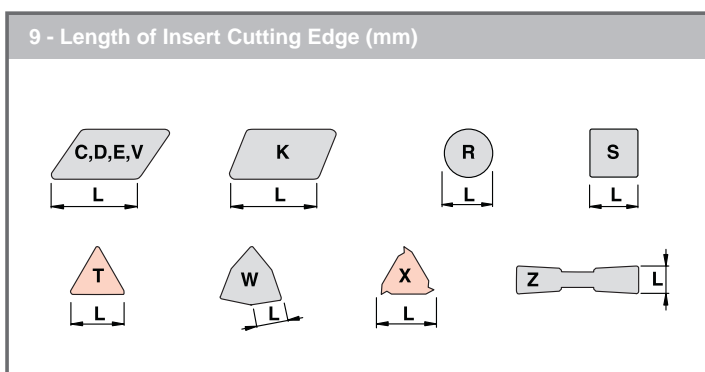
Code Key for External Toolholders | Chave de Codificação para Suportes Externos | Llase de Codificación para Roscado Exterior

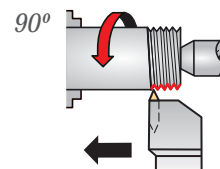
| | | | | | | | | |
|----------|----------|----------|----------|----------|-----------|-----------|----------|-----------|
| S | T | C | N | R | 25 | 25 | M | 16 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |



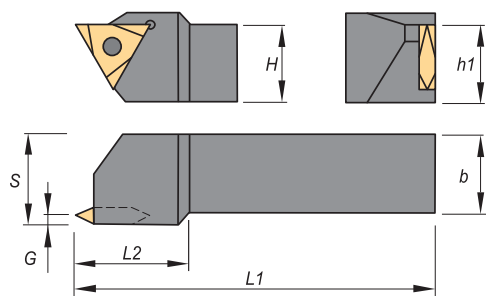
8 - Length of Holder (mm)

| | | |
|--|--------------|------------------|
| | D 60 | P 170 |
| | E 70 | R 200 |
| | F 80 | S 250 |
| | H 100 | T 300 |
| | K 125 | U 350 |
| | L 140 | V 400 |
| | M 150 | X Special |





STCN 90° Threading Tool | Ferramenta | Herramienta



External Left

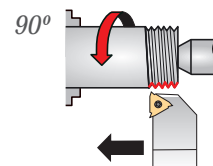
| Order Code | Reference | Insert Geometry | Dimensions | | | | | | Screw | Hex Key | Stock |
|------------|----------------|-----------------|------------|----|----|-----|----|------|----------|---------|-------|
| | | | H=h1 | b | S | L1 | L2 | G | | | |
| 212129800 | STCNL 1212 F16 | TNMC/TPMC 16.. | 12 | 12 | 16 | 80 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212129900 | STCNL 1616 H16 | TNMC/TPMC 16.. | 16 | 16 | 19 | 100 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212029900 | STCNL 2020 K16 | TNMC/TPMC 16.. | 20 | 20 | 22 | 125 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212130400 | STCNL 2020 K22 | TNMC/TPMC 22.. | 20 | 20 | 22 | 125 | 32 | 2.38 | P0501975 | SS25 | ⊗ |
| 212030100 | STCNL 2525 M16 | TNMC/TPMC 16.. | 25 | 25 | 32 | 150 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212030300 | STCNL 2525 M22 | TNMC/TPMC 22.. | 25 | 25 | 32 | 150 | 32 | 2.38 | P0501975 | SS25 | ⊗ |
| 212130600 | STCNL 3225 P22 | TNMC/TPMC 22.. | 32 | 25 | 32 | 170 | 32 | 2.38 | P0501975 | SS25 | ⊗ |
| 212130200 | STCNL 3232 P16 | TNMC/TPMC 16.. | 32 | 32 | 38 | 170 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212130800 | STCNL 3232 P22 | TNMC/TPMC 22.. | 32 | 32 | 38 | 170 | 32 | 2.38 | P0501975 | SS25 | ⊗ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

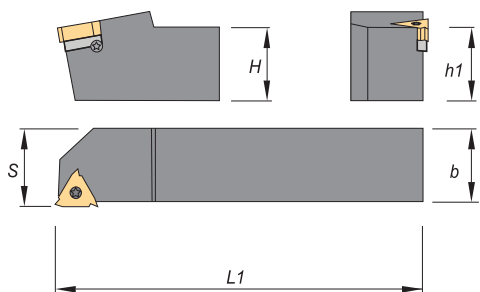
External Right

| Order Code | Reference | Insert Geometry | Dimensions | | | | | | Screw | Hex Key | Stock |
|------------|----------------|-----------------|------------|----|----|-----|----|------|----------|---------|-------|
| | | | H=h1 | b | S | L1 | L2 | G | | | |
| 212103600 | STCNR 1212 F16 | TNMC/TPMC 16.. | 12 | 12 | 16 | 80 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212103700 | STCNR 1616 H16 | TNMC/TPMC 16.. | 16 | 16 | 19 | 100 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212029800 | STCNR 2020 K16 | TNMC/TPMC 16.. | 20 | 20 | 22 | 125 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212130300 | STCNR 2020 K22 | TNMC/TPMC 22.. | 20 | 20 | 22 | 125 | 32 | 2.38 | P0501975 | SS25 | ⊗ |
| 212030000 | STCNR 2525 M16 | TNMC/TPMC 16.. | 25 | 25 | 32 | 150 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212030200 | STCNR 2525 M22 | TNMC/TPMC 22.. | 25 | 25 | 32 | 150 | 32 | 2.38 | P0501975 | SS25 | ⊗ |
| 212130500 | STCNR 3225 P22 | TNMC/TPMC 22.. | 32 | 25 | 32 | 170 | 32 | 2.38 | P0501975 | SS25 | ⊗ |
| 212130100 | STCNR 3232 P16 | TNMC/TPMC 16.. | 32 | 32 | 38 | 170 | 23 | 1.59 | P0351375 | SS20 | ⊗ |
| 212130700 | STCNR 3232 P22 | TNMC/TPMC 22.. | 32 | 32 | 38 | 170 | 32 | 2.38 | P0501975 | SS25 | ⊗ |

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta



SXAN Threading Tool | Ferramenta | Herramienta



External Left

| Order Code | Reference | Insert Type | Dimensions | | | | Anvil | Anvil Screw | Insert Screw | Torx Key | Stock |
|------------|----------------|-------------|------------|----|----|-----|-------|-------------|--------------|----------|-------|
| | | | H=h1 | b | S | L1 | | | | | |
| 212244300 | SXANL 0808 H11 | EL11 | 8 | 8 | 10 | 100 | - | - | P0260700 | XT08 | ○ |
| 212244400 | SXANL 1010 H11 | EL11 | 10 | 10 | 10 | 100 | - | - | P0260700 | XT08 | ⊗ |
| 212123200 | SXANL 1212 H16 | EL16 | 12 | 12 | 16 | 100 | IA16 | P5000790 | P5401390 | XT10 | ○ |
| 212123400 | SXANL 1616 H16 | EL16 | 16 | 16 | 16 | 100 | IA16 | P5000790 | P5401390 | XT10 | ○ |
| 212123500 | SXANL 2020 K16 | EL16 | 20 | 20 | 20 | 125 | IA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212123800 | SXANL 2525 M16 | EL16 | 25 | 25 | 25 | 150 | IA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212124400 | SXANL 3232 P16 | EL16 | 32 | 32 | 32 | 170 | IA16 | P5000790 | P5401390 | XT10 | ○ |
| 212123900 | SXANL 2525 M22 | EL22 | 25 | 25 | 25 | 150 | IA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212124200 | SXANL 3232 P22 | EL22 | 32 | 32 | 32 | 170 | IA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212244500 | SXANL 2525 M27 | EL27 | 25 | 25 | 32 | 150 | IA27 | P0500990 | P0502200 | XT25 | ○ |
| 212244600 | SXANL 3232 P27 | EL27 | 32 | 32 | 32 | 170 | IA27 | P0500990 | P0502200 | XT25 | ○ |

Note: All the toolholders are made with 1,5° helix angle. | Todos os ferros de torno são fornecidos com um ângulo de hélice de 1,5° | Todos los soportes se hacen con un ángulo de hélice de 1,5°.

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

External Right

| Order Code | Reference | Insert Type | Dimensions | | | | Anvil | Anvil Screw | Insert Screw | Torx Key | Stock |
|------------|----------------|-------------|------------|----|----|-----|-------|-------------|--------------|----------|-------|
| | | | H=h1 | b | S | L1 | | | | | |
| 212244700 | SXANR 0808 H11 | ER11 | 8 | 8 | 10 | 100 | - | - | P0260700 | XT08 | ○ |
| 212244800 | SXANR 1010 H11 | ER11 | 10 | 10 | 10 | 100 | - | - | P0260700 | XT08 | ⊗ |
| 212123100 | SXANR 1212 H16 | ER16 | 12 | 12 | 16 | 100 | EA16 | P5000790 | P5401390 | XT10 | ○ |
| 212053800 | SXANR 1616 H16 | ER16 | 16 | 16 | 16 | 100 | EA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212053100 | SXANR 2020 K16 | ER16 | 20 | 20 | 20 | 125 | EA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212053200 | SXANR 2525 M16 | ER16 | 25 | 25 | 25 | 150 | EA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212124300 | SXANR 3232 P16 | ER16 | 32 | 32 | 32 | 170 | EA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212053000 | SXANR 2525 M22 | ER22 | 25 | 25 | 25 | 150 | EA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212124100 | SXANR 3232 P22 | ER22 | 32 | 32 | 32 | 170 | EA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212244900 | SXANR 2525 M27 | ER27 | 25 | 25 | 32 | 150 | EA27 | P0500990 | P0502200 | XT25 | ○ |
| 212245000 | SXANR 3232 P27 | ER27 | 32 | 32 | 32 | 170 | EA27 | P0500990 | P0502200 | XT25 | ○ |




Note: All the toolholders are made with 1,5° helix angle. | Todos os ferros de torno são fornecidos com um ângulo de hélice de 1,5° | Todos los soportes se hacen con un ángulo de hélice de 1,5°.

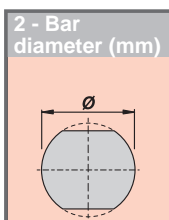
⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Code Key for Boring Bars | Chave de Codificação para Suportes Internos | Llave de Codificación para Roscado Interior

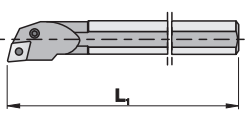
| | | | | | | | | |
|----------|-----------|----------|----------|----------|----------|----------|----------|-----------|
| S | 32 | U | S | T | G | N | R | 16 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

1 - Type of Bar

| | | |
|----------|--|---|
| A | Steel shank with internal coolant. |  |
| H | Anti-vibration shank (Heavy metal) |  |
| J | Anti-vibration shank (heavy metal) with internal coolant |  |
| S | Steel shank | |


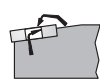
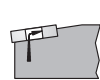



3 - Bar Length (mm)

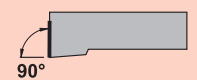
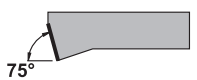



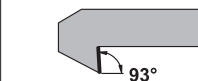
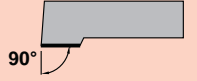


| | | | |
|----------|-----|----------|---------|
| H | 100 | S | 250 |
| J | 110 | T | 300 |
| K | 125 | U | 350 |
| L | 140 | V | 400 |
| M | 150 | W | 450 |
| P | 170 | Y | 500 |
| Q | 180 | X | Special |
| R | 200 | | |










4 - Method of Mounting Insert

| | | | |
|---|---|---|---|
|  |  |  |  |
| C | M | P | S |





6 - Lead Angle of Boring Bar

| | | |
|---|--|---|
|  |  |  |
| F | K | L |
|  |  |  |
| Q | U | U-BT |
|  | | |
| G | | |

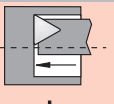
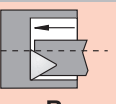
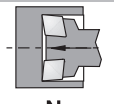
5 - Insert Shape

| | | | |
|---|---|---|---|
|  |  |  |  |
| C | D | E | K |
|  |  |  |  |
| S | T | V | W |
|  | | | |
| X | | | |

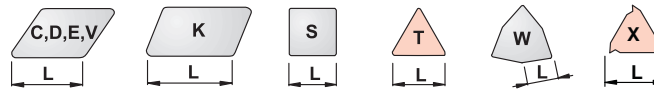
7 - Relief Angle of Insert

| | | | |
|---|---|---|---|
|  |  |  |  |
| B | C | N | P |

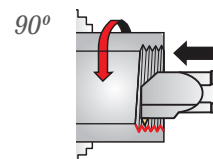
8 - Hand of Bar

| | | |
|---|---|---|
|  |  |  |
| L | R | N |

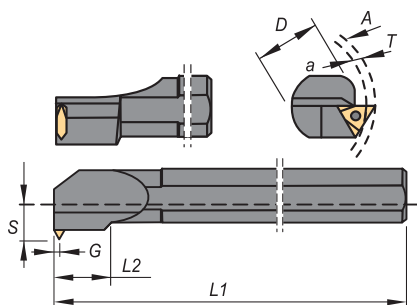
9 - Length of Cutting Edge (mm)



Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading



STGN 90° Threading Tool | Ferramenta | Herramienta



Internal Left

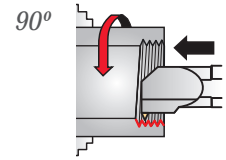
| Order Code | Reference | Insert | Dimensions | | | | | | | | Screw | Hex Key | Stock |
|------------|---------------|-------------|------------|-----|----|------|------|----|-----|------|----------|---------|-------|
| | | | D | L1 | L2 | S | A | a | T | G | | | |
| 212121900 | S32U STGNL 16 | TNMC 1603.. | 32 | 350 | 19 | 21,0 | 50,4 | 45 | 2,7 | 1,59 | P0351375 | SS20 | ☉ |
| 212122200 | S40V STGNL 16 | TNMC 1603.. | 40 | 400 | 19 | 25,0 | 60,4 | 55 | 2,7 | 1,59 | P0351375 | SS20 | ☉ |
| 212122300 | S32U STGNL 22 | TNMC 2204.. | 32 | 350 | 28 | 21,0 | 50,4 | 45 | 4,1 | 2,38 | P0501975 | SS25 | ☉ |
| 212122600 | S40V STGNL 22 | TNMC 2204.. | 40 | 400 | 28 | 25,0 | 60,4 | 55 | 4,1 | 2,38 | P0501975 | SS25 | ☉ |
| 212122800 | S50W STGNL 22 | TNMC 2204.. | 50 | 450 | 28 | 36,5 | 78,2 | 70 | 4,1 | 2,38 | P0501975 | SS25 | ☉ |

☉ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

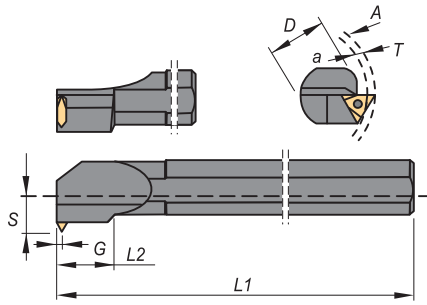
Internal Right

| Order Code | Reference | Insert | Dimensions | | | | | | | | Screw | Hex Key | Stock |
|------------|----------------|-------------|------------|-----|----|------|------|----|-----|------|----------|---------|-------|
| | | | D | L1 | L2 | S | A | a | T | G | | | |
| 212053700 | S32U STG NR 16 | TNMC 1603.. | 32 | 350 | 19 | 21,0 | 50,4 | 45 | 2,7 | 1,59 | P0351375 | SS20 | ☉ |
| 212122100 | S40V STG NR 16 | TNMC 1603.. | 40 | 400 | 19 | 25,0 | 60,4 | 55 | 2,7 | 1,59 | P0351375 | SS20 | ☉ |
| 212122400 | S32U STG NR 22 | TNMC 2204.. | 32 | 350 | 28 | 21,0 | 50,4 | 45 | 4,1 | 2,38 | P0501975 | SS25 | ☉ |
| 212122500 | S40V STG NR 22 | TNMC 2204.. | 40 | 400 | 28 | 25,0 | 60,4 | 55 | 4,1 | 2,38 | P0501975 | SS25 | ☉ |
| 212122700 | S50W STG NR 22 | TNMC 2204.. | 50 | 450 | 28 | 36,5 | 78,2 | 70 | 4,1 | 2,38 | P0501975 | SS25 | ☉ |

☉ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta



STGP 90° Threading Tool | Ferramenta | Herramienta



Internal Left

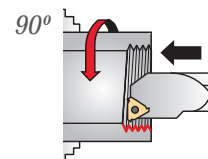
| Order Code | Reference | Insert | Dimensions | | | | | | | | Screw | Hex Key | Stock |
|------------|---------------|-------------|------------|-----|----|------|------|----|-----|------|----------|---------|-------|
| | | | D | L1 | L2 | S | A | a | T | G | | | |
| 212030500 | S25T STGPL 16 | TPMC 1603.. | 25 | 300 | 19 | 17,5 | 50,4 | 45 | 2,7 | 1,59 | P0351375 | SS20 | Ⓢ |
| 212030700 | S32U STGPL 16 | TPMC 1603.. | 32 | 350 | 19 | 20,5 | 50,4 | 45 | 2,7 | 1,59 | P0351375 | SS20 | Ⓢ |
| 212030900 | S40V STGPL 22 | TPMC 2204.. | 40 | 400 | 28 | 25,0 | 78,2 | 70 | 4,1 | 2,38 | P0501975 | SS25 | Ⓢ |
| 212123000 | S50W STGPL 22 | TPMC 2204.. | 50 | 450 | 28 | 36,5 | 78,2 | 70 | 4,1 | 2,38 | P0501975 | SS25 | Ⓢ |

Ⓢ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

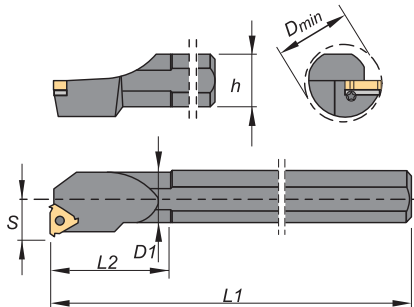
Internal Right

| Order Code | Reference | Insert | Dimensions | | | | | | | | Screw | Hex Key | Stock |
|------------|---------------|-------------|------------|-----|----|------|------|----|-----|------|----------|---------|-------|
| | | | D | L1 | L2 | S | A | a | T | G | | | |
| 212030400 | S25T STGPR 16 | TPMC 1603.. | 25 | 300 | 19 | 17,5 | 50,4 | 45 | 2,7 | 1,59 | P0351375 | SS20 | Ⓢ |
| 212030600 | S32U STGPR 16 | TPMC 1603.. | 32 | 350 | 19 | 20,5 | 50,4 | 45 | 2,7 | 1,59 | P0351375 | SS20 | Ⓢ |
| 212030800 | S40V STGPR 22 | TPMC 2204.. | 40 | 400 | 28 | 25,0 | 78,2 | 70 | 4,1 | 2,38 | P0501975 | SS25 | Ⓢ |
| 212122900 | S50W STGPR 22 | TPMC 2204.. | 50 | 450 | 28 | 36,5 | 78,2 | 70 | 4,1 | 2,38 | P0501975 | SS25 | Ⓢ |

Ⓢ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta



SXFN Threading Tool | Ferramenta | Herramienta



Internal Left

| Order Code | Reference | Insert Type | Dimensions | | | | | | Anvil | Anvil Screw | Insert Screw | Torx Key | Stock |
|------------|---------------|-------------|------------|------|------|-----|----|------|-------|-------------|--------------|----------|-------|
| | | | h | D1 | Dmin | L1 | L2 | S | | | | | |
| 212243500 | S12H SXFNL 06 | IL 06 | 12 | 5,0 | 6,1 | 100 | 12 | 4,4 | - | - | P0200400 | XT06 | ⊗ |
| 212243600 | S16K SXFNL 08 | IL 08 | 16 | 6,5 | 8,0 | 125 | 17 | 5,4 | - | - | P0200600 | XT06 | ⊗ |
| 212137600 | S10H SXFNL 11 | IL 11 | 10 | 10,0 | 12,5 | 100 | - | 7,3 | - | - | P0260700 | XT08 | ⊗ |
| 212137800 | S10K SXFNL 11 | IL 11 | 16 | 10,0 | 12,5 | 125 | 25 | 7,3 | - | - | P0260700 | XT08 | ○ |
| 212138000 | S13M SXFNL 16 | IL 16 | 16 | 13,0 | 16,5 | 150 | 32 | 10,4 | - | - | P5401391 | XT10 | ○ |
| 212127400 | S16P SXFNL 16 | IL 16 | 20 | 16,0 | 19,5 | 170 | 40 | 11,6 | - | - | P5401391 | XT10 | ⊗ |
| 212138200 | S20P SXFNL 16 | IL 16 | 20 | 20,0 | 23,5 | 170 | - | 13,6 | EA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212125500 | S25R SXFNL 16 | IL 16 | 25 | 25,0 | 28,5 | 200 | - | 16,3 | EA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212125700 | S32S SXFNL 16 | IL 16 | 32 | 32,0 | 35,5 | 250 | - | 19,6 | EA16 | P5000790 | P5401390 | XT10 | ○ |
| 212125900 | S40T SXFNL 16 | IL 16 | 40 | 40,0 | 43,5 | 300 | - | 23,6 | EA16 | P5000790 | P5401390 | XT10 | ○ |
| 212138300 | S20P SXFNL 22 | IL 22 | 20 | 20,0 | 25,0 | 170 | - | 15,5 | - | - | P8001591 | XT20 | ⊗ |
| 212126300 | S25R SXFNL 22 | IL 22 | 25 | 25,0 | 30,0 | 200 | - | 18,3 | EA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212126500 | S32S SXFNL 22 | IL 22 | 32 | 32,0 | 37,0 | 250 | - | 21,7 | EA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212126700 | S40T SXFNL 22 | IL 22 | 40 | 40,0 | 45,0 | 300 | - | 25,7 | EA22 | P8000990 | P8001590 | XT20 | ○ |
| 212243700 | S32S SXFNL 27 | IL 27 | 32 | 32,0 | 39,0 | 250 | - | 22,8 | EA27 | P0500990 | P0502200 | XT25 | ⊗ |
| 212243800 | S40T SXFNL 27 | IL 27 | 40 | 40,0 | 47,0 | 300 | - | 26,8 | EA27 | P0500990 | P0502200 | XT25 | ○ |

Note: All the toolholders are made with 1,5° helix angle. | Todos os ferros de torno são fornecidos com um ângulo de hélice de 1,5° | Todos los soportes se hacen con un ángulo de hélice de 1,5°.

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Internal Right

| Order Code | Reference | Insert Type | Dimensions | | | | | | Anvil | Anvil Screw | Insert Screw | Torx Key | Stock |
|------------|----------------|-------------|------------|------|------|-----|----|------|-------|-------------|--------------|----------|-------|
| | | | h | D1 | Dmin | L1 | L2 | S | | | | | |
| 212243900 | S12H SXFN R 06 | IR 06 | 12,0 | 5,0 | 6,1 | 100 | 12 | 4,4 | - | - | P0200400 | XT06 | ⊗ |
| 212244000 | S16K SXFN R 08 | IR 08 | 16,0 | 6,5 | 8,0 | 125 | 17 | 5,4 | - | - | P0200600 | XT06 | ⊗ |
| 212137700 | S10H SXFN R 11 | IR 11 | 10,0 | 10,0 | 12,5 | 100 | - | 7,3 | - | - | P0260700 | XT08 | ⊗ |
| 212137900 | S10K SXFN R 11 | IR 11 | 16,0 | 10,0 | 12,5 | 125 | 25 | 7,3 | - | - | P0260700 | XT08 | ○ |
| 212138100 | S13M SXFN R 16 | IR 16 | 16,0 | 13,0 | 16,5 | 150 | 32 | 10,4 | - | - | P5401391 | XT10 | ○ |
| 212127300 | S16P SXFN R 16 | IR 16 | 20,0 | 16,0 | 19,5 | 170 | 40 | 11,6 | - | - | P5401391 | XT10 | ⊗ |
| 212138400 | S20P SXFN R 16 | IR 16 | 20,0 | 20,0 | 23,5 | 170 | - | 13,6 | IA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212125400 | S25R SXFN R 16 | IR 16 | 25,0 | 25,0 | 28,5 | 200 | - | 16,3 | IA16 | P5000790 | P5401390 | XT10 | ⊗ |
| 212125600 | S32S SXFN R 16 | IR 16 | 32,0 | 32,0 | 35,5 | 250 | - | 19,6 | IA16 | P5000790 | P5401390 | XT10 | ○ |
| 212125800 | S40T SXFN R 16 | IR 16 | 40,0 | 40,0 | 43,5 | 300 | - | 23,6 | IA16 | P5000790 | P5401390 | XT10 | ○ |
| 212138500 | S20P SXFN R 22 | IR 22 | 20,0 | 20,0 | 25,0 | 170 | - | 15,5 | - | - | P8001591 | XT20 | ⊗ |
| 212126200 | S25R SXFN R 22 | IR 22 | 25,0 | 25,0 | 30,0 | 200 | - | 18,3 | IA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212126400 | S32S SXFN R 22 | IR 22 | 32,0 | 32,0 | 37,0 | 250 | - | 21,7 | IA22 | P8000990 | P8001590 | XT20 | ⊗ |
| 212126600 | S40T SXFN R 22 | IR 22 | 40,0 | 40,0 | 45,0 | 300 | - | 25,7 | IA22 | P8000990 | P8001590 | XT20 | ○ |
| 212244100 | S32S SXFN R 27 | IR 27 | 32,0 | 32,0 | 39,0 | 250 | - | 22,8 | IA27 | P0500990 | P0502200 | XT25 | ⊗ |
| 212244200 | S40T SXFN R 27 | IR 27 | 40,0 | 40,0 | 47,0 | 300 | - | 26,8 | IA27 | P0500990 | P0502200 | XT25 | ○ |

Note: All the toolholders are made with 1,5° helix angle. | Todos os ferros de torno são fornecidos com um ângulo de hélice de 1,5° | Todos los soportes se hacen con un ángulo de hélice de 1,5°.

⊗ Stock items / Itens de stock ○ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Threading Grades

| ISO/ANSI | | Grades | | |
|---------------------------------|----|--------|--|---|
| P | 01 | C8 | | <ul style="list-style-type: none"> • Wear Resistance • Resistència al desgast • Resistência ao desgaste • Resistencia al desgaste |
| | 10 | | | |
| | 20 | C7 | | |
| | 30 | C6 | | |
| | 40 | | | |
| | 50 | C5 | | |
| STAINLESS STEEL | 10 | | | <ul style="list-style-type: none"> • Toughness • Tenacidad • Tenacidade |
| | 20 | | | |
| | 30 | | | |
| | 40 | | | |
| K | 01 | C4 | | <ul style="list-style-type: none"> • Wear Resistance • Resistència al desgast • Resistência ao desgaste • Resistencia al desgaste |
| | 10 | C3 | | |
| | 20 | C2 | | |
| | 30 | C1 | | |
| | 40 | | | |
| ALUMINIUM AND NON FERROUS | 01 | C4 | | <ul style="list-style-type: none"> • Wear Resistance • Resistència al desgast • Resistência ao desgaste • Resistencia al desgaste |
| | 10 | C3 | | |
| | 20 | C2 | | |
| | 30 | C1 | | |
| HEAT RESISTENT/ TITANIUM ALLOYS | 10 | | | <ul style="list-style-type: none"> • Wear Resistance • Resistència al desgast • Resistência ao desgaste • Resistencia al desgaste |
| | 20 | | | |
| | 30 | | | |
| H | 01 | C4 | | <ul style="list-style-type: none"> • Toughness • Tenacidad • Tenacidade |
| | 10 | C3 | | |
| | 20 | C2 | | |
| | 30 | C1 | | |

The position and form of the grade symbols indicate the suitable field of application.

Centre of the field of application.

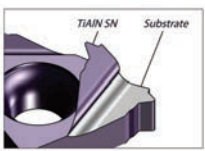


Recommended field of application.

Grades Description

PVD Grade

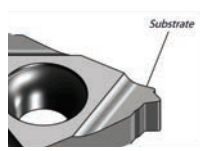
PH6920
(P10-P35)
(M10-M25)
(K10-K30)
(N05-N15)
(S10-S30)



An advance pvd TiAlN coated grade over a tough wear-resistant submicron substrate for general purpose machining of steel, stainless steel, superalloys.

Uncoated Grade

PH0920
(K20-K30)
(N15-N30)
(S15-S30)



Uncoated grade, for machining Cast Iron, Non-Ferrous materials, Aluminium and Super Alloys.

Order Code Information

The order code it's the combination between the geometry code of the insert plus the code of the grade.

- E.g. 2120035 (16IR 14W) + 68 (PH6920) = 212003568

Geometry Code + Grade Code = Order Code

Recommended Grades and Cutting Speeds Vc (m/min)

| ISO | Material | Hardness HB | Coated | Uncoated |
|----------|--|-------------|---------------------|----------|
| | | | PH6920 | PH0920 |
| | | | Cutting Speed m/min | |
| P | UNALLOYED STEEL | 130 | 120-200 | |
| | LOW-ALLOYED STEEL | 200 | 110-180 | |
| | HIGH-ALLOY STEEL | 240 | 100-170 | |
| | STEEL CASTINGS | 270 | 70-120 | |
| | HEAT TREATED STEEL | 400 | 50-90 | |
| M | 300 STAINLESS STEEL: (303,304,316) | 200 | 70-140 | |
| | 400 STAINLESS STEEL: (420,440) | 240 | 80-120 | |
| | 17-4 PH, 15-5 PH, 13-8MO PH | 400 | 50-110 | |
| K | GREY CAST IRON | 190 | 70-150 | 80-120 |
| | NODULAR CAST IRON | 180 | 100-140 | 90-130 |
| | MALLEABLE CAST IRON | 240 | 90-150 | 80-130 |
| N | WROUGHT ALUMINIUM: (2024, 6061, 7075...) | 80 | 100-400 | 100-300 |
| | CAST ALUMINIUM: | 90 | 150-400 | 100-250 |
| | COPPER & COPPER: BRASS, BRONZE, COPPER SILICON | 100 | 80-180 | 60-150 |
| | NON METALIC: Rubber, polypropylene, Thermoplastics (PVC), Thermoplastics Plastics (FIBERGLASS), Polyamides | | 200-500 | 200-500 |
| S | TITANIUM: | | | |
| | PURE TITANIUM: 99,0Ti | | 100-150 | 70-130 |
| | ALPHA ALLOYS: Ti5Al2.5Sn | | 40-60 | 30-50 |
| | BETA ALLOYS: Ti 13V11Cr3Al | | 30-50 | 25-40 |
| | ALPHA - BETA ALLOYS: Ti 6Al4V | | 30-50 | 25-40 |
| | COBALT BASE ALLOYS: STELLITE | | 20-40 | 20-30 |
| | NIKEL BASE ALLOYS: INCONEL, HASTELLOY,WASPALLOY, KOVAR | | 20-40 | 20-40 |
| | HIGH TEMPERATURE ALLOYS: IRON BASED: INCOLOY | | 30-60 | |
| H | HARDENED STEEL | 56 HRc | 30-50 | |
| | HARDENED CAST IRON | 50 HRc | 25-35 | |

Thread Terminology

External Thread
A thread on the external surface of a cylinder screw or cone.

Major Diameter
The largest diameter of a screw thread.

Pitch Diameter
On a straight thread, the diameter of an imaginary cylinder, the surface of which cuts the thread forms where the width of the thread and groove are equal.

Minor Diameter
The smallest diameter of a screw thread.

Helix Angle
For a straight thread, where the lead of the thread and the pitch diameter circle circumference form a right angled triangle, the helix angle is the angle opposite the lead.

Straight Thread
A thread formed on a cylinder.

Taper Thread
A thread formed on a cone.

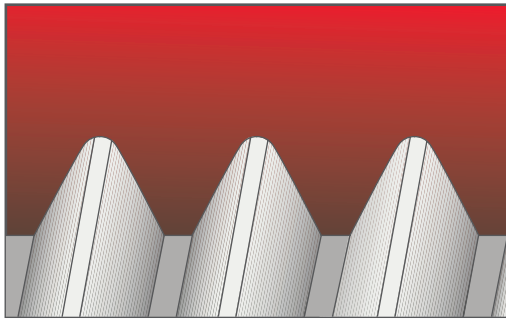
Internal Thread
A thread on the internal surface of a cylinder or cone.

Depth of Thread
The distance between crest and root measured normal to the axis.

Pitch
The distance between corresponding points on adjacent thread forms measured parallel to the axis. This distance can be defined in millimeters or by the tpi (threads per inch), which is the reciprocal of the pitch.

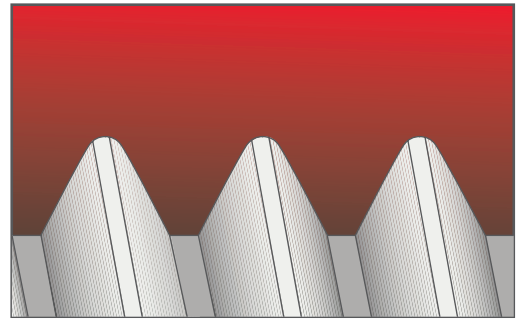
Nominal Diameter
The diameter from which the diameter limits are derived by the application of deviation allowances and tolerances.

Left-Hand Thread



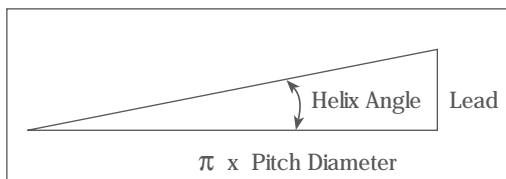
A thread which, when viewed axially, winds in a counter-clockwise and receding direction.
All left-hand threads are designated LH.

Right-Hand Thread



A thread which, when viewed axially, winds in a clockwise and receding direction.
Threads are always right hand unless otherwise specified.

The Helix Angle



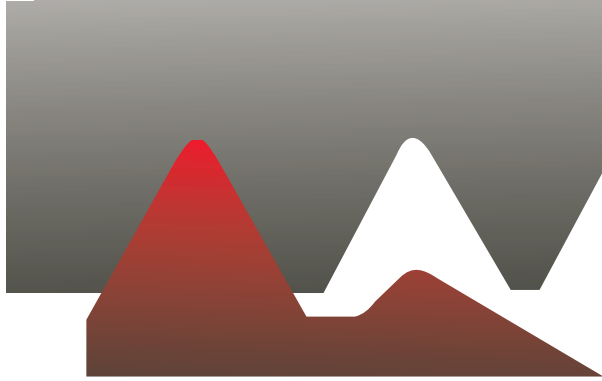
Lead

The distance a threaded part moves axially, with respect to a fixed mating part, in one complete revolution.

The lead is equal to the pitch multiplied by the number of thread starts.

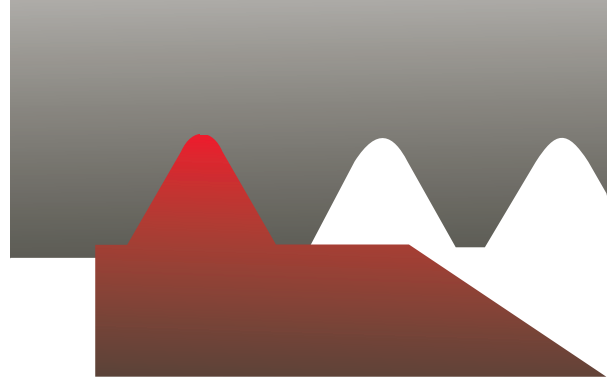
Insert Profile Styles

Partial Profile



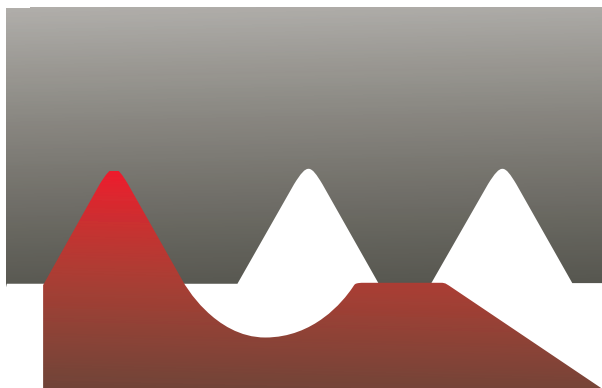
The V partial profile insert cuts without topping the outer diameter of the thread. The same insert can be used for a range of different thread pitches which have a common thread angle.

Full Profile



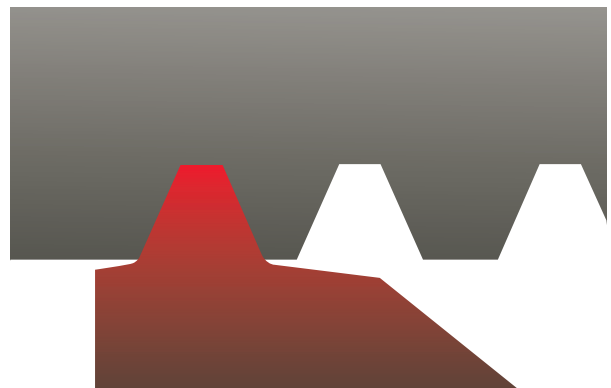
The full profile insert will form a complete thread profile including the crest. For every thread pitch and standard, a separate insert is required.

Full Profile for Fine Pitches



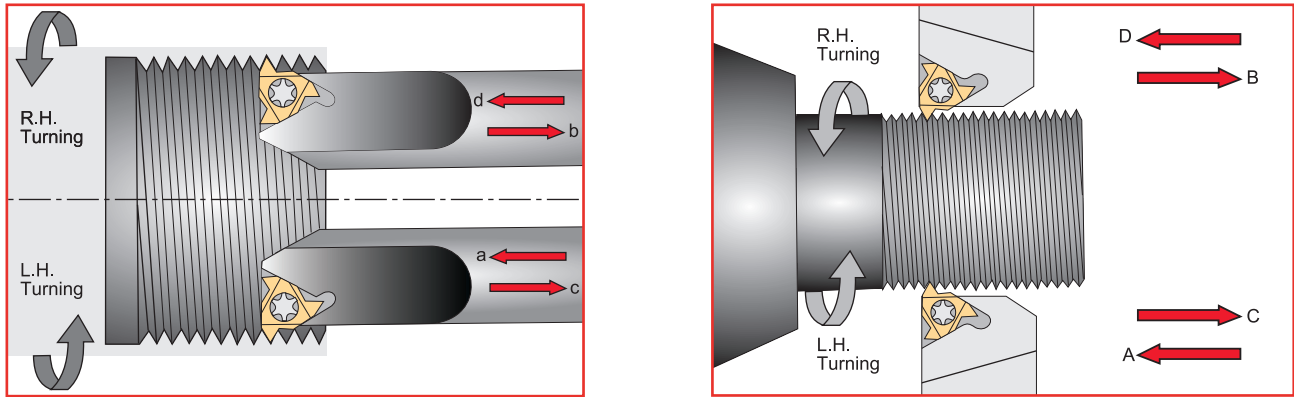
The full profile for Fine Pitches will form a complete thread. The topping of the outer diameter is generated by second tooth.

Semi Full



The Semi profile insert will form a complete thread including crest radius but without topping the outer diameter. Mainly used for trapezoidal profiles.

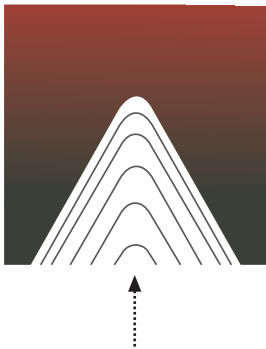
Thread Work Methods



| Thread | Inserts & Toolholders | Rotation | Feed Direction | Helix Method | Method |
|---------------------|-----------------------|---------------|----------------|--------------|--------|
| Right Hand external | EX RH | Anticlockwise | Towards chuck | Regular | A |
| | EX LH | Clockwise | From chuck | Reversed | B |
| Right Hand Internal | IN RH | Anticlockwise | Towards chuck | Regular | a |
| | IN LH | Clockwise | From chuck | Reversed | b |
| Left Hand External | EX LH | Clockwise | Towards chuck | Regular | D |
| | EX RH | Anticlockwise | From chuck | Reversed | C |
| Left Hand Internal | IN LH | Clockwise | Towards chuck | Regular | d |
| | IN RH | Anticlockwise | From chuck | Reversed | c |

Thread Infeed Methods

Radial Infeed



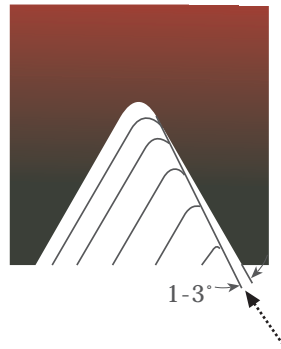
Radial infeed is the simplest and quickest method.

The feed is perpendicular to the turning axis, and both flanks of the insert perform the cutting operation.

Radial infeed is recommended in 3 cases:

- when the pitch is smaller than 16 tpi
- for material with short chips
- for work with hardened material

Flank Infeed (modified)



Flank infeed is recommended in the following cases:

- when the thread pitch is greater than 16 tpi., using the radial method, the effective cutting edge length is too large, resulting in chatter.
- for TRAPEZ and ACME. The radial method result in three cutting edges, making chip flow very difficult.

Alternate Flank Infeed

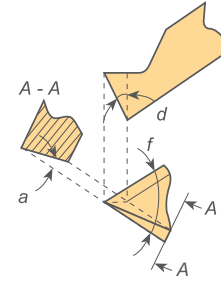
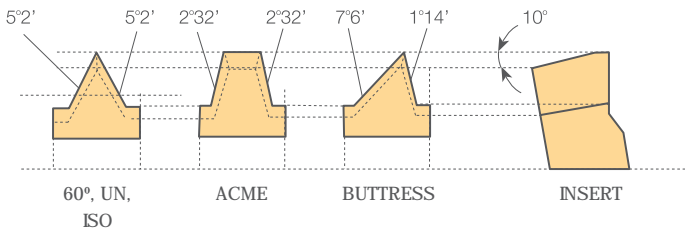


Use of the alternate flank method is recommended especially in large pitches and for materials with long chips.

This method divides the load equally on both flanks, resulting in equal wear along the cutting edges. Alternate flank infeed requires more complicated programming, and is not available on all lathes.

Calculating the Helix Angle and Choosing the Right Anvil

Flank Clearance Angle *a*



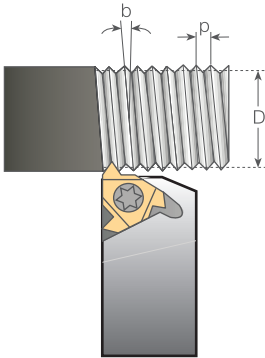
Palbit toolholders are designed to tilt the insert when seated in the toolholder (10° for external, 15° for internal tooling). This results in the differing flank clearance angles, based on the geometry of insert. To ensure that the side of the insert cutting edge will not rub on the workpiece, it is most important that the insert helix angle be correct - especially in profiles with small enclosed flank angles. This correction is provided by Palbit anvils.

$$a = \arctan(\tan \varnothing / 2 \times \tan d)$$

Where: **a** - flank clearance angle
d - Tilt angle
Ø - Enclosed flank angle

Calculating the Helix Angle *b*

FORMULA



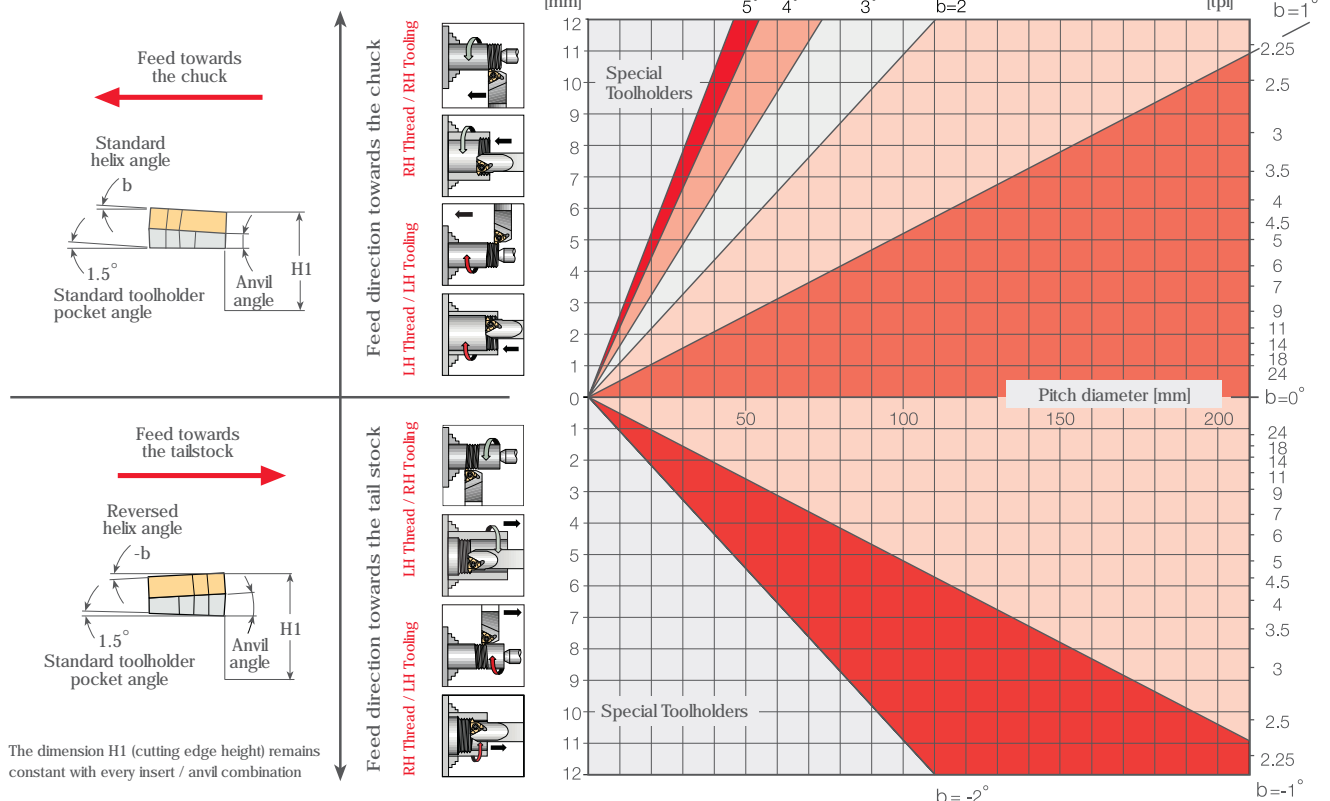
The helix angle is calculated by the following formula:

$$b = \arctan \frac{P \times N}{\pi \times D}$$

b - Helix angle (°)
 P - Pitch (mm)
 N - No. of starts
 D - Pitch diameter (mm)
 Lead = P x N

The helix angle can also be found using the diagram below

Helix Angle Diagram



The dimension H1 (cutting edge height) remains constant with every insert / anvil combination

*For Multi-start threads, use the lead value instead of the pitch

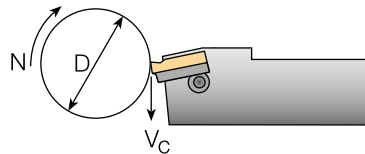
Number of Cutting Passes

| Pitch | MM TPI | 0.50 48 | 0.75 32 | 1.00 24 | 1.25 20 | 1.50 16 | 1.75 14 | 2.00 12 | 2.50 10 | 3.00 8 | 3.50 7 | 4.00 6 | 4.50 5.5 | 5.00 5 | 5.50 4.5 | 6.00 4 | 8.00 3 |
|---------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|-----------|-----------|-------------|-----------|-------------|-----------|-----------|
| No. of Passes | | 4 - 6 | 4 - 7 | 4 - 8 | 5 - 9 | 6 - 10 | 7 - 12 | 7 - 12 | 8 - 14 | 9 - 16 | 10 - 18 | 11 - 18 | 11 - 19 | 12 - 20 | 12 - 20 | 12 - 20 | 15 - 24 |

Calculation of N (RPM)

$$N = \frac{1000 \times V_C}{\pi \times D}$$

$$V_C = \frac{N \times \pi \times D}{1000}$$



N - Revolution Per Minute [RPM]
V_C - Cutting Speed [m/min]
D - Workpiece Diameter [mm]

Shims

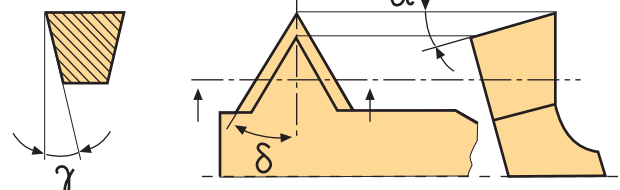
| Insert Size | | Holder Type | Resultant Helix Angle | | | | | | | |
|-------------|--------|-------------|-----------------------|---------|---------|------|---------|-----------|---------|---------|
| IC | L (mm) | | 4.5 | 3.5 | 2.5 | 1.5 | 0.5 | 0 | -0.5 | -1.5 |
| 3/8" | 16 | ER/IL | EA16 3P | EA16 2P | EA16 1P | EA16 | EA16 1N | EA16 1,5N | EA16 2N | EA16 3N |
| | | EL/IR | IA16 3P | IA16 2P | IA16 1P | IA16 | IA16 1N | IA16 1,5N | IA16 2N | IA16 3N |
| 1/2" | 22 | ER/IL | EA22 3P | EA22 2P | EA22 1P | EA22 | EA22 1N | EA22 1,5N | EA22 2N | EA22 3N |
| | | EL/IR | IA22 3P | IA22 2P | IA22 1P | IA22 | IA22 1N | IA22 1,5N | IA22 2N | IA22 3N |
| 5/8" | 27 | ER/IL | EA27 3P | EA27 2P | EA27 1P | EA27 | EA27 1N | EA27 1,5N | EA27 2N | EA27 3N |
| | | EL/IR | IA27 3P | IA27 2P | IA27 1P | IA27 | IA27 1N | IA27 1,5N | IA27 2N | IA27 3N |

FLANK CLEARANCE ANGLE - γ

$$\gamma = \text{tg}^{-1}[\text{tg}\alpha \times \text{tg}\delta]$$

$\alpha = 10^\circ$ for external

$\alpha = 15^\circ$ for internal



ISO Metric External Thread Recommended No. of Passes

| No. of Passes | Pitch (MM) | | | | | | | | | | | | | | | |
|---------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 6 | 5.5 | 5 | 4.5 | 4 | 3.5 | 3 | 2.5 | 2 | 1.75 | 1.5 | 1.25 | 1 | 0.75 | 0.5 | 0.35 |
| 1 | 0.45 | 0.43 | 0.42 | 0.39 | 0.34 | 0.34 | 0.27 | 0.26 | 0.24 | 0.23 | 0.23 | 0.20 | 0.19 | 0.17 | 0.11 | 0.10 |
| 2 | 0.37 | 0.36 | 0.37 | 0.33 | 0.30 | 0.31 | 0.23 | 0.22 | 0.23 | 0.21 | 0.21 | 0.18 | 0.16 | 0.15 | 0.09 | 0.08 |
| 3 | 0.33 | 0.31 | 0.31 | 0.29 | 0.25 | 0.24 | 0.20 | 0.20 | 0.19 | 0.16 | 0.18 | 0.14 | 0.13 | 0.11 | 0.08 | 0.06 |
| 4 | 0.28 | 0.27 | 0.28 | 0.25 | 0.21 | 0.20 | 0.18 | 0.17 | 0.17 | 0.14 | 0.16 | 0.12 | 0.10 | 0.06 | 0.06 | |
| 5 | 0.26 | 0.25 | 0.25 | 0.23 | 0.19 | 0.19 | 0.17 | 0.16 | 0.15 | 0.12 | 0.11 | 0.10 | 0.06 | | | |
| 6 | 0.24 | 0.23 | 0.23 | 0.20 | 0.18 | 0.17 | 0.16 | 0.14 | 0.12 | 0.10 | 0.06 | 0.06 | | | | |
| 7 | 0.23 | 0.22 | 0.21 | 0.19 | 0.16 | 0.16 | 0.15 | 0.13 | 0.10 | 0.08 | | | | | | |
| 8 | 0.22 | 0.20 | 0.20 | 0.18 | 0.15 | 0.15 | 0.13 | 0.12 | 0.06 | 0.06 | | | | | | |
| 9 | 0.20 | 0.19 | 0.19 | 0.16 | 0.15 | 0.14 | 0.12 | 0.10 | | | | | | | | |
| 10 | 0.19 | 0.18 | 0.18 | 0.15 | 0.14 | 0.12 | 0.11 | 0.06 | | | | | | | | |
| 11 | 0.18 | 0.17 | 0.16 | 0.14 | 0.13 | 0.10 | 0.09 | | | | | | | | | |
| 12 | 0.17 | 0.16 | 0.14 | 0.12 | 0.12 | 0.06 | 0.06 | | | | | | | | | |
| 13 | 0.16 | 0.15 | 0.10 | 0.10 | 0.10 | | | | | | | | | | | |
| 14 | 0.14 | 0.12 | 0.06 | 0.06 | 0.06 | | | | | | | | | | | |
| 15 | 0.13 | 0.10 | | | | | | | | | | | | | | |
| 16 | 0.10 | 0.06 | | | | | | | | | | | | | | |
| 17 | 0.06 | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | |
| Total | 3.71 | 3.40 | 3.10 | 2.79 | 2.48 | 2.18 | 1.87 | 1.56 | 1.26 | 1.10 | 0.95 | 0.80 | 0.64 | 0.49 | 0.34 | 0.24 |

ISO Metric Internal Thread Recommended No. of Passes

| No. of Passes | Pitch (MM) | | | | | | | | | | | | | | | |
|---------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 6 | 5.5 | 5 | 4.5 | 4 | 3.5 | 3 | 2.5 | 2 | 1.75 | 1.5 | 1.25 | 1 | 0.75 | 0.5 | 0.35 |
| 1 | 0.44 | 0.43 | 0.42 | 0.36 | 0.32 | 0.32 | 0.25 | 0.25 | 0.23 | 0.22 | 0.22 | 0.19 | 0.18 | 0.16 | 0.10 | 0.09 |
| 2 | 0.36 | 0.34 | 0.37 | 0.32 | 0.27 | 0.29 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.16 | 0.15 | 0.14 | 0.09 | 0.08 |
| 3 | 0.32 | 0.29 | 0.28 | 0.28 | 0.22 | 0.23 | 0.19 | 0.19 | 0.18 | 0.15 | 0.17 | 0.13 | 0.12 | 0.10 | 0.07 | 0.06 |
| 4 | 0.27 | 0.24 | 0.26 | 0.25 | 0.20 | 0.19 | 0.17 | 0.16 | 0.16 | 0.13 | 0.15 | 0.11 | 0.10 | 0.06 | 0.06 | |
| 5 | 0.25 | 0.23 | 0.24 | 0.22 | 0.19 | 0.18 | 0.16 | 0.15 | 0.14 | 0.11 | 0.10 | 0.10 | 0.06 | | | |
| 6 | 0.23 | 0.22 | 0.21 | 0.19 | 0.18 | 0.16 | 0.16 | 0.13 | 0.11 | 0.09 | 0.06 | 0.06 | | | | |
| 7 | 0.22 | 0.21 | 0.20 | 0.18 | 0.16 | 0.15 | 0.14 | 0.12 | 0.09 | 0.08 | | | | | | |
| 8 | 0.21 | 0.20 | 0.19 | 0.17 | 0.15 | 0.14 | 0.12 | 0.11 | 0.06 | 0.06 | | | | | | |
| 9 | 0.19 | 0.18 | 0.18 | 0.15 | 0.14 | 0.13 | 0.11 | 0.09 | | | | | | | | |
| 10 | 0.17 | 0.16 | 0.16 | 0.14 | 0.14 | 0.11 | 0.10 | 0.06 | | | | | | | | |
| 11 | 0.16 | 0.16 | 0.14 | 0.12 | 0.12 | 0.09 | 0.08 | | | | | | | | | |
| 12 | 0.15 | 0.15 | 0.12 | 0.10 | 0.10 | 0.06 | 0.06 | | | | | | | | | |
| 13 | 0.14 | 0.14 | 0.09 | 0.09 | 0.09 | | | | | | | | | | | |
| 14 | 0.13 | 0.11 | 0.06 | 0.06 | 0.06 | | | | | | | | | | | |
| 15 | 0.11 | 0.09 | | | | | | | | | | | | | | |
| 16 | 0.09 | 0.06 | | | | | | | | | | | | | | |
| 17 | 0.06 | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | |
| Total | 3.50 | 3.21 | 2.92 | 2.63 | 2.34 | 2.05 | 1.76 | 1.47 | 1.18 | 1.04 | 0.90 | 0.75 | 0.61 | 0.46 | 0.32 | 0.23 |

UN External Thread Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | | | | | | | | | | | | |
|---------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 18 | 20 | 24 | 28 | 32 | 48 |
| 1 | 0.44 | 0.43 | 0.42 | 0.37 | 0.33 | 0.29 | 0.29 | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.20 | 0.18 | 0.18 | 0.13 |
| 2 | 0.38 | 0.35 | 0.37 | 0.32 | 0.28 | 0.22 | 0.24 | 0.22 | 0.22 | 0.23 | 0.22 | 0.20 | 0.20 | 0.19 | 0.16 | 0.17 | 0.15 | 0.16 | 0.09 |
| 3 | 0.33 | 0.30 | 0.32 | 0.27 | 0.23 | 0.20 | 0.23 | 0.20 | 0.19 | 0.20 | 0.18 | 0.18 | 0.18 | 0.17 | 0.15 | 0.14 | 0.11 | 0.12 | 0.07 |
| 4 | 0.29 | 0.28 | 0.27 | 0.25 | 0.22 | 0.18 | 0.22 | 0.17 | 0.17 | 0.18 | 0.16 | 0.14 | 0.14 | 0.16 | 0.13 | 0.11 | 0.09 | 0.06 | 0.06 |
| 5 | 0.27 | 0.26 | 0.26 | 0.24 | 0.21 | 0.17 | 0.18 | 0.16 | 0.16 | 0.16 | 0.14 | 0.12 | 0.11 | 0.11 | 0.11 | 0.06 | 0.06 | | |
| 6 | 0.26 | 0.23 | 0.24 | 0.18 | 0.19 | 0.16 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.11 | 0.09 | 0.06 | 0.06 | | | | |
| 7 | 0.24 | 0.22 | 0.22 | 0.17 | 0.18 | 0.16 | 0.15 | 0.14 | 0.13 | 0.11 | 0.10 | 0.10 | 0.06 | | | | | | |
| 8 | 0.23 | 0.21 | 0.20 | 0.16 | 0.15 | 0.15 | 0.12 | 0.12 | 0.12 | 0.06 | 0.06 | 0.06 | | | | | | | |
| 9 | 0.21 | 0.20 | 0.19 | 0.15 | 0.14 | 0.14 | 0.11 | 0.11 | 0.06 | | | | | | | | | | |
| 10 | 0.20 | 0.19 | 0.18 | 0.13 | 0.14 | 0.14 | 0.06 | 0.06 | | | | | | | | | | | |
| 11 | 0.19 | 0.18 | 0.17 | 0.12 | 0.12 | 0.11 | | | | | | | | | | | | | |
| 12 | 0.18 | 0.17 | 0.14 | 0.10 | 0.06 | 0.06 | | | | | | | | | | | | | |
| 13 | 0.18 | 0.15 | 0.11 | 0.11 | | | | | | | | | | | | | | | |
| 14 | 0.17 | 0.14 | 0.06 | 0.06 | | | | | | | | | | | | | | | |
| 15 | 0.16 | 0.12 | | | | | | | | | | | | | | | | | |
| 16 | 0.13 | 0.06 | | | | | | | | | | | | | | | | | |
| 17 | 0.06 | | | | | | | | | | | | | | | | | | |
| Total | 3.92 | 3.49 | 3.15 | 2.63 | 2.25 | 1.98 | 1.76 | 1.59 | 1.45 | 1.33 | 1.23 | 1.14 | 1.00 | 0.90 | 0.81 | 0.68 | 0.59 | 0.52 | 0.35 |

UN Internal Thread Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | | | | | | | | | | | | |
|---------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 18 | 20 | 24 | 28 | 32 | 48 |
| 1 | 0.43 | 0.43 | 0.42 | 0.34 | 0.31 | 0.29 | 0.29 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.19 | 0.17 | 0.17 | 0.12 |
| 2 | 0.34 | 0.35 | 0.37 | 0.28 | 0.27 | 0.22 | 0.23 | 0.21 | 0.20 | 0.21 | 0.21 | 0.20 | 0.19 | 0.18 | 0.16 | 0.16 | 0.14 | 0.15 | 0.09 |
| 3 | 0.32 | 0.29 | 0.28 | 0.26 | 0.22 | 0.19 | 0.20 | 0.19 | 0.18 | 0.19 | 0.17 | 0.17 | 0.17 | 0.16 | 0.14 | 0.13 | 0.10 | 0.11 | 0.07 |
| 4 | 0.28 | 0.24 | 0.26 | 0.22 | 0.20 | 0.17 | 0.20 | 0.16 | 0.16 | 0.17 | 0.15 | 0.13 | 0.13 | 0.15 | 0.11 | 0.10 | 0.08 | 0.06 | 0.06 |
| 5 | 0.26 | 0.23 | 0.24 | 0.21 | 0.19 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.13 | 0.11 | 0.10 | 0.09 | 0.10 | 0.06 | 0.06 | | |
| 6 | 0.25 | 0.22 | 0.21 | 0.18 | 0.18 | 0.16 | 0.15 | 0.13 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | 0.06 | 0.06 | | | | |
| 7 | 0.23 | 0.21 | 0.20 | 0.17 | 0.16 | 0.14 | 0.14 | 0.12 | 0.12 | 0.10 | 0.09 | 0.09 | 0.06 | | | | | | |
| 8 | 0.21 | 0.20 | 0.19 | 0.16 | 0.15 | 0.14 | 0.13 | 0.12 | 0.10 | 0.06 | 0.06 | 0.06 | | | | | | | |
| 9 | 0.20 | 0.19 | 0.18 | 0.15 | 0.14 | 0.13 | 0.11 | 0.11 | 0.06 | | | | | | | | | | |
| 10 | 0.19 | 0.18 | 0.16 | 0.13 | 0.14 | 0.12 | 0.06 | 0.06 | | | | | | | | | | | |
| 11 | 0.18 | 0.17 | 0.16 | 0.12 | 0.10 | 0.08 | | | | | | | | | | | | | |
| 12 | 0.17 | 0.16 | 0.13 | 0.10 | 0.06 | 0.06 | | | | | | | | | | | | | |
| 13 | 0.16 | 0.14 | 0.10 | 0.09 | | | | | | | | | | | | | | | |
| 14 | 0.16 | 0.12 | 0.06 | 0.06 | | | | | | | | | | | | | | | |
| 15 | 0.14 | 0.10 | | | | | | | | | | | | | | | | | |
| 16 | 0.12 | 0.06 | | | | | | | | | | | | | | | | | |
| 17 | 0.06 | | | | | | | | | | | | | | | | | | |
| TOTAL | 3.70 | 3.29 | 2.96 | 2.47 | 2.12 | 1.86 | 1.67 | 1.50 | 1.35 | 1.25 | 1.16 | 1.08 | 0.95 | 0.84 | 0.76 | 0.64 | 0.55 | 0.49 | 0.34 |

Thread Inserts

Spare Parts

Thread Holders

Technical Data

E

Threading

W. External Thread Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | | | | | | | | | | | | |
|---------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 19 | 20 | 24 | 28 | 32 | 48 |
| 1 | 0.45 | 0.44 | 0.43 | 0.38 | 0.34 | 0.30 | 0.28 | 0.27 | 0.26 | 0.26 | 0.24 | 0.22 | 0.24 | 0.22 | 0.21 | 0.20 | 0.18 | 0.19 | 0.16 |
| 2 | 0.40 | 0.36 | 0.38 | 0.33 | 0.29 | 0.24 | 0.25 | 0.23 | 0.23 | 0.23 | 0.21 | 0.18 | 0.21 | 0.19 | 0.18 | 0.15 | 0.16 | 0.14 | 0.14 |
| 3 | 0.35 | 0.31 | 0.33 | 0.28 | 0.24 | 0.21 | 0.22 | 0.21 | 0.20 | 0.21 | 0.17 | 0.15 | 0.16 | 0.17 | 0.15 | 0.16 | 0.12 | 0.13 | 0.06 |
| 4 | 0.31 | 0.29 | 0.28 | 0.27 | 0.23 | 0.19 | 0.21 | 0.18 | 0.18 | 0.19 | 0.15 | 0.13 | 0.15 | 0.14 | 0.13 | 0.11 | 0.10 | 0.06 | |
| 5 | 0.28 | 0.27 | 0.27 | 0.25 | 0.22 | 0.18 | 0.20 | 0.17 | 0.17 | 0.17 | 0.14 | 0.12 | 0.11 | 0.11 | 0.10 | 0.06 | 0.06 | | |
| 6 | 0.27 | 0.24 | 0.25 | 0.19 | 0.20 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.12 | 0.10 | 0.06 | 0.06 | 0.06 | | | | |
| 7 | 0.25 | 0.23 | 0.23 | 0.18 | 0.19 | 0.17 | 0.17 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | | | | | | | |
| 8 | 0.24 | 0.22 | 0.21 | 0.17 | 0.16 | 0.16 | 0.15 | 0.13 | 0.12 | 0.06 | 0.06 | 0.06 | | | | | | | |
| 9 | 0.22 | 0.21 | 0.20 | 0.16 | 0.15 | 0.14 | 0.13 | 0.11 | 0.06 | | | | | | | | | | |
| 10 | 0.21 | 0.20 | 0.19 | 0.14 | 0.15 | 0.13 | 0.06 | 0.06 | | | | | | | | | | | |
| 11 | 0.20 | 0.19 | 0.18 | 0.12 | 0.12 | 0.11 | | | | | | | | | | | | | |
| 12 | 0.19 | 0.18 | 0.15 | 0.10 | 0.06 | 0.06 | | | | | | | | | | | | | |
| 13 | 0.18 | 0.16 | 0.12 | 0.11 | | | | | | | | | | | | | | | |
| 14 | 0.18 | 0.15 | 0.06 | 0.06 | | | | | | | | | | | | | | | |
| 15 | 0.17 | 0.13 | | | | | | | | | | | | | | | | | |
| 16 | 0.13 | 0.06 | | | | | | | | | | | | | | | | | |
| 17 | 0.06 | | | | | | | | | | | | | | | | | | |
| Total | 4.09 | 3.64 | 3.28 | 2.74 | 2.35 | 2.06 | 1.84 | 1.66 | 1.51 | 1.39 | 1.19 | 1.05 | 0.93 | 0.89 | 0.84 | 0.71 | 0.61 | 0.54 | 0.36 |

W. Internal Thread Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | | | | | | | | | | | | |
|---------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 19 | 20 | 24 | 28 | 32 | 48 |
| 1 | 0.45 | 0.44 | 0.43 | 0.38 | 0.34 | 0.30 | 0.28 | 0.27 | 0.26 | 0.26 | 0.24 | 0.22 | 0.24 | 0.22 | 0.21 | 0.20 | 0.18 | 0.19 | 0.16 |
| 2 | 0.40 | 0.36 | 0.38 | 0.33 | 0.29 | 0.24 | 0.25 | 0.23 | 0.23 | 0.23 | 0.21 | 0.18 | 0.21 | 0.19 | 0.19 | 0.18 | 0.15 | 0.16 | 0.14 |
| 3 | 0.35 | 0.31 | 0.33 | 0.28 | 0.24 | 0.21 | 0.22 | 0.21 | 0.20 | 0.21 | 0.17 | 0.15 | 0.16 | 0.17 | 0.15 | 0.16 | 0.12 | 0.13 | 0.06 |
| 4 | 0.31 | 0.29 | 0.28 | 0.27 | 0.23 | 0.19 | 0.21 | 0.18 | 0.18 | 0.19 | 0.15 | 0.13 | 0.15 | 0.14 | 0.13 | 0.11 | 0.10 | 0.06 | |
| 5 | 0.28 | 0.27 | 0.27 | 0.25 | 0.22 | 0.18 | 0.20 | 0.17 | 0.17 | 0.17 | 0.14 | 0.12 | 0.11 | 0.11 | 0.10 | 0.06 | 0.06 | | |
| 6 | 0.27 | 0.24 | 0.25 | 0.19 | 0.20 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.12 | 0.10 | 0.06 | 0.06 | 0.06 | | | | |
| 7 | 0.25 | 0.23 | 0.23 | 0.18 | 0.19 | 0.17 | 0.17 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | | | | | | | |
| 8 | 0.24 | 0.22 | 0.21 | 0.17 | 0.16 | 0.16 | 0.15 | 0.13 | 0.12 | 0.06 | 0.06 | 0.06 | | | | | | | |
| 9 | 0.22 | 0.21 | 0.20 | 0.16 | 0.15 | 0.14 | 0.13 | 0.11 | 0.06 | | | | | | | | | | |
| 10 | 0.21 | 0.20 | 0.19 | 0.14 | 0.15 | 0.13 | 0.06 | 0.06 | | | | | | | | | | | |
| 11 | 0.20 | 0.19 | 0.18 | 0.12 | 0.12 | 0.11 | | | | | | | | | | | | | |
| 12 | 0.19 | 0.18 | 0.15 | 0.10 | 0.06 | 0.06 | | | | | | | | | | | | | |
| 13 | 0.18 | 0.16 | 0.12 | 0.11 | | | | | | | | | | | | | | | |
| 14 | 0.18 | 0.15 | 0.06 | 0.06 | | | | | | | | | | | | | | | |
| 15 | 0.17 | 0.13 | | | | | | | | | | | | | | | | | |
| 16 | 0.13 | 0.06 | | | | | | | | | | | | | | | | | |
| 17 | 0.06 | | | | | | | | | | | | | | | | | | |
| TOTAL | 4.09 | 3.64 | 3.28 | 2.74 | 2.35 | 2.06 | 1.84 | 1.66 | 1.51 | 1.39 | 1.19 | 1.05 | 0.93 | 0.89 | 0.84 | 0.71 | 0.61 | 0.54 | 0.36 |

Threading

E

Technical Data

Thread Holders

Spare Parts

Thread Inserts

NPT External & Internal Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | |
|---------------|-------------|-------------|-------------|-------------|-------------|
| | 8 | 11.5 | 14 | 18 | 27 |
| 1 | 0.32 | 0.23 | 0.22 | 0.18 | 0.14 |
| 2 | 0.25 | 0.19 | 0.18 | 0.15 | 0.11 |
| 3 | 0.21 | 0.17 | 0.15 | 0.13 | 0.11 |
| 4 | 0.17 | 0.16 | 0.14 | 0.13 | 0.10 |
| 5 | 0.16 | 0.15 | 0.13 | 0.12 | 0.09 |
| 6 | 0.16 | 0.13 | 0.12 | 0.11 | 0.08 |
| 7 | 0.15 | 0.12 | 0.10 | 0.09 | 0.06 |
| 8 | 0.15 | 0.10 | 0.10 | 0.08 | |
| 9 | 0.14 | 0.10 | 0.09 | 0.06 | |
| 10 | 0.13 | 0.10 | 0.08 | | |
| 11 | 0.13 | 0.09 | 0.06 | | |
| 12 | 0.12 | 0.08 | | | |
| 13 | 0.12 | 0.06 | | | |
| 14 | 0.10 | | | | |
| 15 | 0.08 | | | | |
| 16 | 0.06 | | | | |
| Total | 2.45 | 1.68 | 1.37 | 1.05 | 0.69 |

NPTF External & Internal Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | |
|---------------|-------------|-------------|-------------|-------------|-------------|
| | 8 | 11.5 | 14 | 18 | 27 |
| 1 | 0.31 | 0.22 | 0.21 | 0.17 | 0.14 |
| 2 | 0.24 | 0.17 | 0.17 | 0.14 | 0.10 |
| 3 | 0.20 | 0.16 | 0.14 | 0.13 | 0.09 |
| 4 | 0.16 | 0.16 | 0.14 | 0.12 | 0.09 |
| 5 | 0.16 | 0.14 | 0.14 | 0.11 | 0.08 |
| 6 | 0.15 | 0.13 | 0.12 | 0.10 | 0.08 |
| 7 | 0.15 | 0.12 | 0.10 | 0.09 | 0.06 |
| 8 | 0.14 | 0.11 | 0.10 | 0.08 | |
| 9 | 0.14 | 0.10 | 0.09 | 0.06 | |
| 10 | 0.13 | 0.10 | 0.08 | | |
| 11 | 0.13 | 0.09 | 0.06 | | |
| 12 | 0.12 | 0.08 | | | |
| 13 | 0.12 | 0.06 | | | |
| 14 | 0.10 | | | | |
| 15 | 0.08 | | | | |
| 16 | 0.06 | | | | |
| Total | 2.39 | 1.64 | 1.35 | 1.00 | 0.64 |

TR External & Internal Recommended No. of Passes

| No. of Passes | Pitch (MM) | | | | | | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 7.0 | 6.0 | 5.0 | 4.0 | 3.0 | 2.0 | 1.5 |
| 1 | 0.38 | 0.36 | 0.34 | 0.32 | 0.31 | 0.30 | 0.24 |
| 2 | 0.34 | 0.32 | 0.30 | 0.28 | 0.26 | 0.26 | 0.22 |
| 3 | 0.28 | 0.28 | 0.25 | 0.23 | 0.23 | 0.22 | 0.17 |
| 4 | 0.26 | 0.25 | 0.23 | 0.20 | 0.19 | 0.18 | 0.14 |
| 5 | 0.25 | 0.24 | 0.22 | 0.19 | 0.19 | 0.16 | 0.12 |
| 6 | 0.23 | 0.23 | 0.21 | 0.18 | 0.18 | 0.12 | 0.06 |
| 7 | 0.22 | 0.22 | 0.19 | 0.17 | 0.15 | 0.06 | |
| 8 | 0.21 | 0.20 | 0.18 | 0.16 | 0.12 | | |
| 9 | 0.20 | 0.19 | 0.17 | 0.15 | 0.11 | | |
| 10 | 0.19 | 0.17 | 0.16 | 0.14 | 0.06 | | |
| 11 | 0.19 | 0.16 | 0.14 | 0.12 | | | |
| 12 | 0.18 | 0.15 | 0.13 | 0.10 | | | |
| 13 | 0.18 | 0.13 | 0.12 | 0.06 | | | |
| 14 | 0.16 | 0.13 | 0.10 | | | | |
| 15 | 0.16 | 0.12 | 0.06 | | | | |
| 16 | 0.15 | 0.12 | | | | | |
| 17 | 0.15 | 0.11 | | | | | |
| 18 | 0.14 | 0.11 | | | | | |
| 19 | 0.12 | 0.06 | | | | | |
| 20 | 0.06 | | | | | | |
| Total | 4.05 | 3.55 | 2.80 | 2.30 | 1.80 | 1.30 | 0.95 |

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

ACME External & Internal Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 |
| 1 | 0.36 | 0.34 | 0.31 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 |
| 2 | 0.32 | 0.30 | 0.29 | 0.23 | 0.23 | 0.22 | 0.21 | 0.22 |
| 3 | 0.28 | 0.25 | 0.25 | 0.19 | 0.20 | 0.18 | 0.18 | 0.18 |
| 4 | 0.25 | 0.23 | 0.21 | 0.18 | 0.19 | 0.16 | 0.15 | 0.15 |
| 5 | 0.24 | 0.22 | 0.18 | 0.17 | 0.16 | 0.14 | 0.13 | 0.12 |
| 6 | 0.23 | 0.21 | 0.17 | 0.16 | 0.14 | 0.12 | 0.10 | 0.06 |
| 7 | 0.22 | 0.19 | 0.16 | 0.15 | 0.12 | 0.10 | 0.06 | |
| 8 | 0.20 | 0.19 | 0.15 | 0.14 | 0.11 | 0.06 | | |
| 9 | 0.19 | 0.18 | 0.15 | 0.12 | 0.10 | | | |
| 10 | 0.17 | 0.17 | 0.14 | 0.12 | 0.06 | | | |
| 11 | 0.15 | 0.15 | 0.13 | 0.10 | | | | |
| 12 | 0.14 | 0.13 | 0.12 | 0.06 | | | | |
| 13 | 0.13 | 0.12 | 0.10 | | | | | |
| 14 | 0.12 | 0.10 | 0.06 | | | | | |
| 15 | 0.11 | 0.06 | | | | | | |
| 16 | 0.11 | | | | | | | |
| 17 | 0.10 | | | | | | | |
| 18 | 0.10 | | | | | | | |
| 19 | 0.06 | | | | | | | |
| Total | 3.48 | 2.84 | 2.42 | 1.89 | 1.57 | 1.24 | 1.08 | 0.97 |

STUB ACME External & Internal Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 |
| 1 | 0.31 | 0.30 | 0.27 | 0.23 | 0.23 | 0.22 | 0.21 | 0.18 |
| 2 | 0.26 | 0.26 | 0.23 | 0.19 | 0.17 | 0.17 | 0.18 | 0.16 |
| 3 | 0.21 | 0.21 | 0.20 | 0.16 | 0.14 | 0.14 | 0.15 | 0.13 |
| 4 | 0.19 | 0.18 | 0.16 | 0.15 | 0.13 | 0.12 | 0.12 | 0.12 |
| 5 | 0.17 | 0.16 | 0.15 | 0.13 | 0.12 | 0.10 | 0.06 | 0.06 |
| 6 | 0.17 | 0.15 | 0.14 | 0.12 | 0.11 | 0.06 | | |
| 7 | 0.16 | 0.15 | 0.13 | 0.11 | 0.10 | | | |
| 8 | 0.15 | 0.13 | 0.12 | 0.10 | 0.06 | | | |
| 9 | 0.15 | 0.12 | 0.10 | 0.06 | | | | |
| 10 | 0.14 | 0.10 | 0.06 | | | | | |
| 11 | 0.13 | 0.06 | | | | | | |
| 12 | 0.11 | | | | | | | |
| 13 | 0.06 | | | | | | | |
| Total | 2.21 | 1.82 | 1.56 | 1.25 | 1.06 | 0.81 | 0.72 | 0.65 |

UNJ External Thread Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | | | | | | |
|---------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 18 | 20 | 24 | 28 | 32 |
| 1 | 0.29 | 0.29 | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.20 | 0.18 | 0.18 |
| 2 | 0.22 | 0.24 | 0.22 | 0.22 | 0.23 | 0.22 | 0.20 | 0.20 | 0.19 | 0.16 | 0.17 | 0.14 | 0.15 |
| 3 | 0.20 | 0.22 | 0.19 | 0.19 | 0.19 | 0.18 | 0.17 | 0.17 | 0.16 | 0.14 | 0.13 | 0.10 | 0.11 |
| 4 | 0.18 | 0.20 | 0.17 | 0.16 | 0.17 | 0.15 | 0.14 | 0.13 | 0.15 | 0.12 | 0.10 | 0.09 | 0.06 |
| 5 | 0.16 | 0.17 | 0.15 | 0.15 | 0.15 | 0.13 | 0.11 | 0.10 | 0.10 | 0.10 | 0.06 | 0.06 | |
| 6 | 0.16 | 0.16 | 0.14 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | 0.06 | 0.06 | | | |
| 7 | 0.15 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | 0.09 | 0.06 | | | | | |
| 8 | 0.14 | 0.12 | 0.11 | 0.11 | 0.06 | 0.06 | 0.06 | | | | | | |
| 9 | 0.13 | 0.10 | 0.10 | 0.06 | | | | | | | | | |
| 10 | 0.12 | 0.06 | 0.06 | | | | | | | | | | |
| 11 | 0.10 | | | | | | | | | | | | |
| 12 | 0.06 | | | | | | | | | | | | |
| Total | 1.91 | 1.70 | 1.53 | 1.40 | 1.28 | 1.19 | 1.10 | 0.97 | 0.87 | 0.78 | 0.66 | 0.57 | 0.50 |

UNJ Internal Thread Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | | | | | | | | |
|---------------|-----------|------|------|------|------|------|------|------|------|--|------|--|------|
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 18 | | 24 | | 32 |
| 1 | 0.29 | 0.29 | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | | 0.20 | | 0.18 |
| 2 | 0.22 | 0.24 | 0.22 | 0.22 | 0.23 | 0.22 | 0.20 | 0.20 | 0.19 | | 0.17 | | 0.15 |
| 3 | 0.20 | 0.22 | 0.19 | 0.19 | 0.19 | 0.18 | 0.17 | 0.17 | 0.16 | | 0.13 | | 0.11 |
| 4 | 0.18 | 0.20 | 0.17 | 0.16 | 0.17 | 0.15 | 0.14 | 0.13 | 0.15 | | 0.10 | | 0.06 |
| 5 | 0.16 | 0.17 | 0.15 | 0.15 | 0.15 | 0.13 | 0.11 | 0.10 | 0.10 | | 0.06 | | |
| 6 | 0.16 | 0.16 | 0.14 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | 0.06 | | | | |
| 7 | 0.15 | 0.14 | 0.13 | 0.12 | 0.10 | 0.09 | 0.09 | 0.06 | | | | | |
| 8 | 0.14 | 0.12 | 0.11 | 0.11 | 0.06 | 0.06 | 0.06 | | | | | | |
| 9 | 0.13 | 0.10 | 0.10 | 0.06 | | | | | | | | | |
| 10 | 0.12 | 0.06 | 0.06 | | | | | | | | | | |
| 11 | 0.10 | | | | | | | | | | | | |
| 12 | 0.06 | | | | | | | | | | | | |
| Total | 1.91 | 1.70 | 1.53 | 1.40 | 1.28 | 1.19 | 1.10 | 0.97 | 0.87 | | 0.66 | | 0.50 |

MJ Internal Thread Recommended No. of Passes

| No. of Passes | Pitch (MM) | | | | | |
|---------------|------------|------|------|------|------|------|
| | 1.0 | 1.25 | 1.5 | 2.0 | 2.5 | 3.0 |
| 1 | 0.16 | 0.17 | 0.22 | 0.23 | 0.24 | 0.24 |
| 2 | 0.13 | 0.14 | 0.19 | 0.21 | 0.21 | 0.20 |
| 3 | 0.11 | 0.12 | 0.14 | 0.18 | 0.18 | 0.18 |
| 4 | 0.09 | 0.10 | 0.11 | 0.16 | 0.16 | 0.17 |
| 5 | 0.06 | 0.09 | 0.09 | 0.14 | 0.14 | 0.16 |
| 6 | | 0.06 | 0.06 | 0.10 | 0.13 | 0.15 |
| 7 | | | | 0.06 | 0.12 | 0.13 |
| 8 | | | | | 0.10 | 0.12 |
| 9 | | | | | 0.06 | 0.10 |
| 10 | | | | | | 0.09 |
| 11 | | | | | | 0.06 |
| 12 | | | | | | |
| Total | 0.55 | 0.68 | 0.81 | 1.08 | 1.34 | 1.60 |

MJ External Thread Recommended No. of Passes

| No. of Passes | Pitch (MM) | | | | | |
|---------------|------------|------|------|------|------|------|
| | 1.0 | 1.25 | 1.5 | 2.0 | 2.5 | 3.0 |
| 1 | 0.18 | 0.18 | 0.22 | 0.23 | 0.25 | 0.26 |
| 2 | 0.15 | 0.16 | 0.20 | 0.22 | 0.21 | 0.22 |
| 3 | 0.13 | 0.14 | 0.18 | 0.18 | 0.19 | 0.19 |
| 4 | 0.10 | 0.12 | 0.15 | 0.16 | 0.16 | 0.17 |
| 5 | 0.06 | 0.10 | 0.11 | 0.14 | 0.15 | 0.16 |
| 6 | | 0.06 | 0.06 | 0.12 | 0.14 | 0.15 |
| 7 | | | | 0.10 | 0.13 | 0.14 |
| 8 | | | | 0.06 | 0.12 | 0.13 |
| 9 | | | | | 0.10 | 0.12 |
| 10 | | | | | 0.06 | 0.11 |
| 11 | | | | | | 0.09 |
| 12 | | | | | | 0.06 |
| Total | 0.62 | 0.76 | 0.92 | 1.21 | 1.51 | 1.80 |

RD (DIN 20400) External & Internal Recommended No. of Passes

RD (DIN 405) External & Internal Recommended No. of Passes

| No. of Passes | Pitch (MM) | | | |
|---------------|-------------|-------------|-------------|-------------|
| | 6.0 | 5.0 | 4.0 | 3.0 |
| 1 | 0.35 | 0.32 | 0.25 | 0.24 |
| 2 | 0.33 | 0.28 | 0.24 | 0.23 |
| 3 | 0.32 | 0.27 | 0.23 | 0.21 |
| 4 | 0.31 | 0.26 | 0.22 | 0.20 |
| 5 | 0.30 | 0.25 | 0.21 | 0.19 |
| 6 | 0.29 | 0.24 | 0.20 | 0.18 |
| 7 | 0.26 | 0.22 | 0.19 | 0.14 |
| 8 | 0.23 | 0.20 | 0.18 | 0.11 |
| 9 | 0.22 | 0.19 | 0.16 | 0.10 |
| 10 | 0.19 | 0.16 | 0.14 | 0.09 |
| 11 | 0.17 | 0.15 | 0.12 | 0.06 |
| 12 | 0.15 | 0.13 | 0.10 | |
| 13 | 0.12 | 0.12 | 0.06 | |
| 14 | 0.10 | 0.06 | | |
| 15 | 0.06 | | | |
| Total | 3.40 | 2.85 | 2.30 | 1.75 |

| No. of Passes | Pitch TPI | | | |
|---------------|-------------|-------------|-------------|-------------|
| | 4 | 6 | 8 | 10 |
| 1 | 0.35 | 0.25 | 0.24 | 0.23 |
| 2 | 0.32 | 0.24 | 0.22 | 0.21 |
| 3 | 0.31 | 0.22 | 0.20 | 0.19 |
| 4 | 0.30 | 0.21 | 0.19 | 0.18 |
| 5 | 0.29 | 0.20 | 0.18 | 0.16 |
| 6 | 0.28 | 0.19 | 0.16 | 0.14 |
| 7 | 0.25 | 0.18 | 0.14 | 0.11 |
| 8 | 0.22 | 0.16 | 0.11 | 0.09 |
| 9 | 0.21 | 0.15 | 0.10 | 0.06 |
| 10 | 0.18 | 0.13 | 0.09 | |
| 11 | 0.16 | 0.12 | 0.06 | |
| 12 | 0.13 | 0.11 | | |
| 13 | 0.12 | 0.06 | | |
| 14 | 0.10 | | | |
| 15 | 0.06 | | | |
| Total | 3.28 | 2.22 | 1.69 | 1.37 |

PG External & Internal Recommended No. of Passes

| No. of Passes | Pitch TPI | | |
|---------------|-------------|-------------|-------------|
| | 20 | 18 | 16 |
| 1 | 0.17 | 0.18 | 0.19 |
| 2 | 0.15 | 0.14 | 0.16 |
| 3 | 0.14 | 0.12 | 0.13 |
| 4 | 0.10 | 0.10 | 0.11 |
| 5 | 0.06 | 0.09 | 0.10 |
| 6 | | 0.06 | 0.09 |
| 7 | | | 0.06 |
| Total | 0.62 | 0.69 | 0.78 |

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

American Buttress External & Internal Recommended No. of Passes

| No. of Passes | Pitch TPI | | | | | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 6 | 8 | 10 | 12 | 16 | 20 |
| 1 | 0.28 | 0.25 | 0.22 | 0.21 | 0.20 | 0.18 |
| 2 | 0.24 | 0.22 | 0.20 | 0.19 | 0.18 | 0.16 |
| 3 | 0.21 | 0.19 | 0.19 | 0.18 | 0.17 | 0.14 |
| 4 | 0.20 | 0.19 | 0.17 | 0.16 | 0.14 | 0.13 |
| 5 | 0.20 | 0.17 | 0.16 | 0.15 | 0.13 | 0.12 |
| 6 | 0.19 | 0.16 | 0.15 | 0.14 | 0.12 | 0.10 |
| 7 | 0.19 | 0.16 | 0.13 | 0.13 | 0.10 | 0.06 |
| 8 | 0.18 | 0.15 | 0.12 | 0.12 | 0.06 | |
| 9 | 0.17 | 0.14 | 0.12 | 0.11 | | |
| 10 | 0.16 | 0.13 | 0.11 | 0.06 | | |
| 11 | 0.15 | 0.12 | 0.10 | | | |
| 12 | 0.14 | 0.11 | 0.06 | | | |
| 13 | 0.14 | 0.10 | | | | |
| 14 | 0.13 | 0.06 | | | | |
| 15 | 0.12 | | | | | |
| 16 | 0.10 | | | | | |
| 17 | 0.06 | | | | | |
| Total | 2.86 | 2.15 | 1.73 | 1.45 | 1.10 | 0.89 |

Sagengewinde (DIN 513) External Recommended No. of Passes

| No. of Passes | Pitch (MM) | | |
|---------------|-------------|-------------|-------------|
| | 4.0 | 3.0 | 2.0 |
| 1 | 0.32 | 0.30 | 0.29 |
| 2 | 0.30 | 0.28 | 0.26 |
| 3 | 0.27 | 0.26 | 0.24 |
| 4 | 0.25 | 0.24 | 0.19 |
| 5 | 0.23 | 0.22 | 0.18 |
| 6 | 0.21 | 0.21 | 0.17 |
| 7 | 0.20 | 0.20 | 0.15 |
| 8 | 0.19 | 0.18 | 0.14 |
| 9 | 0.18 | 0.17 | 0.11 |
| 10 | 0.17 | 0.15 | 0.06 |
| 11 | 0.16 | 0.14 | |
| 12 | 0.15 | 0.13 | |
| 13 | 0.15 | 0.11 | |
| 14 | 0.15 | 0.06 | |
| 15 | 0.14 | | |
| 16 | 0.14 | | |
| 17 | 0.13 | | |
| 18 | 0.12 | | |
| 19 | 0.06 | | |
| Total | 3.52 | 2.65 | 1.79 |

Sagengewinde (DIN 513) Internal Recommended No. of Passes

| No. of Passes | Pitch (MM) | | |
|---------------|-------------|-------------|-------------|
| | 4.0 | 3.0 | 2.0 |
| 1 | 0.32 | 0.31 | 0.29 |
| 2 | 0.30 | 0.29 | 0.27 |
| 3 | 0.27 | 0.27 | 0.25 |
| 4 | 0.24 | 0.24 | 0.21 |
| 5 | 0.23 | 0.23 | 0.18 |
| 6 | 0.21 | 0.22 | 0.16 |
| 7 | 0.20 | 0.20 | 0.12 |
| 8 | 0.19 | 0.19 | 0.06 |
| 9 | 0.18 | 0.16 | |
| 10 | 0.17 | 0.13 | |
| 11 | 0.16 | 0.06 | |
| 12 | 0.15 | | |
| 13 | 0.14 | | |
| 14 | 0.13 | | |
| 15 | 0.10 | | |
| 16 | 0.06 | | |
| Total | 3.05 | 2.30 | 1.54 |

Thread Inserts

Spare Parts

Thread Holders

Technical Data

E

Threading

API External & Internal Recommended No. of Passes

| No. of Passes | VO.038R 4 TPI | | VO.050 4 TPI | | VO.040 5 TPI | Buttress casing 5 TPI | |
|---------------|---------------|-------|--------------|-------|--------------|-----------------------|---------|
| | 2 IPF | 3 IPF | 2 IPF | 3 IPF | 3 IPF | 0.75 IPF | 1.0 IPF |
| 1 | 0.45 | 0.45 | 0.44 | 0.44 | 0.41 | 0.24 | 0.24 |
| 2 | 0.38 | 0.38 | 0.39 | 0.39 | 0.36 | 0.22 | 0.22 |
| 3 | 0.33 | 0.33 | 0.34 | 0.34 | 0.32 | 0.18 | 0.18 |
| 4 | 0.30 | 0.30 | 0.31 | 0.31 | 0.28 | 0.14 | 0.14 |
| 5 | 0.28 | 0.28 | 0.28 | 0.28 | 0.26 | 0.12 | 0.12 |
| 6 | 0.24 | 0.24 | 0.26 | 0.26 | 0.24 | 0.12 | 0.12 |
| 7 | 0.22 | 0.22 | 0.24 | 0.24 | 0.22 | 0.12 | 0.12 |
| 8 | 0.20 | 0.20 | 0.23 | 0.23 | 0.20 | 0.10 | 0.10 |
| 9 | 0.18 | 0.18 | 0.21 | 0.21 | 0.18 | 0.10 | 0.10 |
| 10 | 0.14 | 0.14 | 0.19 | 0.19 | 0.14 | 0.10 | 0.10 |
| 11 | 0.13 | 0.13 | 0.18 | 0.18 | 0.13 | 0.10 | 0.10 |
| 12 | 0.12 | 0.12 | 0.16 | 0.16 | 0.12 | 0.06 | 0.06 |
| 13 | 0.11 | 0.10 | 0.14 | 0.14 | 0.11 | | |
| 14 | 0.06 | 0.06 | 0.13 | 0.13 | 0.06 | | |
| 15 | | | 0.12 | 0.12 | | | |
| 16 | | | 0.10 | 0.11 | | | |
| 17 | | | 0.06 | 0.06 | | | |
| Total | 3.14 | 3.13 | 3.79 | 3.78 | 3.03 | 1.60 | 1.60 |

API External & Internal Recommended No. of Passes

| No. of Passes | Extreme Line Casing 6 TPI 1.5 IPF | | Extreme Line Casing 5 TPI 1.5 IPF | | Round API 0.75 IPF 8 TPI | | Round API 0.75 IPF 10 TPI | |
|---------------|--------------------------------------|----------|--------------------------------------|----------|-----------------------------|----------|------------------------------|----------|
| | External | Internal | External | Internal | External | Internal | External | Internal |
| 1 | 0.23 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| 2 | 0.20 | 0.20 | 0.22 | 0.23 | 0.22 | 0.22 | 0.20 | 0.20 |
| 3 | 0.16 | 0.17 | 0.20 | 0.21 | 0.20 | 0.20 | 0.17 | 0.17 |
| 4 | 0.15 | 0.15 | 0.18 | 0.19 | 0.18 | 0.18 | 0.15 | 0.15 |
| 5 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.16 | 0.14 | 0.14 |
| 6 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.15 | 0.13 | 0.13 |
| 7 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.14 | 0.12 | 0.12 |
| 8 | 0.10 | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 |
| 9 | 0.06 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.10 | 0.10 |
| 10 | | 0.06 | 0.10 | 0.11 | 0.11 | 0.11 | 0.06 | 0.06 |
| 11 | | | 0.10 | 0.11 | 0.11 | 0.11 | | |
| 12 | | | 0.06 | 0.10 | 0.06 | 0.06 | | |
| 13 | | | | 0.06 | | | | |
| Total | 1.26 | 1.44 | 1.76 | 1.96 | 1.83 | 1.83 | 1.44 | 1.44 |

Thread Inserts
Spare Parts
Thread Holders
Technical Data
E
Threading

Taper Pipe Thread: NPT
ANSI/ASME B 1.20.1-1983
Internal Thread
American National Standard Taper Pipe Threads

| Thread Size | Pitch TPI | Pitch MM | Profile Depth | Recommended Tools | |
|-------------|-----------|----------|---------------|-------------------|---------------|
| | | | | Insert | Toolholder |
| NPT 1/16 | 27 | 0,941 | 0.69 | 06IR 27NPT | S12H SXFNR 06 |
| NPT 1/8 | 27 | 0,941 | 0.69 | 08IR 27NPT | S16K SXFNR 08 |
| NPT 1/4 | 18 | 1,411 | 1.05 | 08IR 18NPT | S16K SXFNR 08 |
| NPT 3/8 | 18 | 1,411 | 1.05 | 11IR 18NPT | S10K SXFNR 11 |
| NPT 1/2 | 14 | 1,814 | 1.37 | 16IR 14NPT | S13M SXFNR 16 |
| NPT 3/4 | 14 | 1,814 | 1.37 | 16IR 14NPT | S16P SXFNR 16 |
| NPT 1 | 11.5 | 2,209 | 1.68 | 16IR 11.5NPT | S20P SXFNR 16 |
| NPT 1 1/4 | 11.5 | 2,209 | 1.68 | 16IR 11.5NPT | S25R SXFNR 16 |
| NPT 1 1/2 | 11.5 | 2,209 | 1.68 | 16IR 11.5NPT | S32S SXFNR 16 |
| NPT 2 | 11.5 | 2,209 | 1.68 | 16IR 11.5NPT | S32S SXFNR 16 |
| NPT 2 1/2 | 8 | 3,175 | 2.45 | 16IR 8NPT | S40T SXFNR 16 |
| NPT 3 | 8 | 3,175 | 2.45 | 16IR 8NPT | S40T SXFNR 16 |
| NPT 3 1/2 | 8 | 3,175 | 2.45 | 16IR 8NPT | S40T SXFNR 16 |
| NPT 4 | 8 | 3,175 | 2.45 | 16IR 8NPT | S40T SXFNR 16 |
| NPT 5 | 8 | 3,175 | 2.45 | 16IR 8NPT | S40T SXFNR 16 |

Taper Pipe Thread: NPTF
ANSI B 1.20.3-1976
Internal Thread
American National Standard Dryseal Pipe Threads

| Thread Size | Pitch TPI | Pitch MM | Profile Depth | Recommended Tools | |
|-------------|-----------|----------|---------------|-------------------|---------------|
| | | | | Insert | Toolholder |
| NPTF 1/16 | 27 | 0,941 | 0.64 | 06IR 27NPTF | S12H SXFNR 06 |
| NPTF 1/8 | 27 | 0,941 | 0.64 | 08IR 27NPTF | S16K SXFNR 08 |
| NPTF 1/4 | 18 | 1,411 | 1.00 | 08IR 18NPTF | S16K SXFNR 08 |
| NPTF 3/8 | 18 | 1,411 | 1.00 | 11IR 18NPTF | S10K SXFNR 11 |
| NPTF 1/2 | 14 | 1,814 | 1.35 | 16IR 14NPTF | S13M SXFNR 16 |
| NPTF 3/4 | 14 | 1,814 | 1.35 | 16IR 14NPTF | S16P SXFNR 16 |
| NPTF 1 | 11.5 | 2,209 | 1.64 | 16IR 11.5NPTF | S20P SXFNR 16 |
| NPTF 1 1/4 | 11.5 | 2,209 | 1.64 | 16IR 11.5NPTF | S25R SXFNR 16 |
| NPTF 1 1/2 | 11.5 | 2,209 | 1.64 | 16IR 11.5NPTF | S32S SXFNR 16 |
| NPTF 2 | 11.5 | 2,209 | 1.64 | 16IR 11.5NPTF | S32S SXFNR 16 |
| NPTF 2 1/2 | 8 | 3,175 | 2.39 | 16IR 08NPTF | S40T SXFNR 16 |
| NPTF 3 | 8 | 3,175 | 2.39 | 16IR 08NPTF | S40T SXFNR 16 |

Thread Inserts
 Spare Parts
 Thread Holders
 Technical Data
 E
 Threading






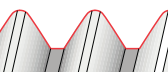
Parallel Pipe Threads BSP (G) Internal Thread

| Thread Size | Pitch TPI | Pitch MM | Profile Depth | Bore Diameter | Recommended Tools | |
|---------------|-----------|----------|---------------|---------------|-------------------|---------------|
| | | | | | Insert | Toolholder |
| G1/16 | 28 | 0.907 | 0.581 | 6,561 | 06IR 28W | S12H SXFNR 06 |
| G1/8 | 28 | 0.907 | 0.581 | 8,556 | 08IR 28W | S16K SXFNR 08 |
| G1/4 | 19 | 1,337 | 0.856 | 11,445 | 08IR 19W | S16K SXFNR 08 |
| G3/8 | 19 | 1,337 | 0.856 | 14,950 | 11IR 19W | S10K SXFNR 11 |
| G1/2 | 14 | 1,814 | 1,162 | 18,631 | 16IR 14W | S13M SXFNR 16 |
| G5/8 | 14 | 1,814 | 1,162 | 20,587 | 16IR 14W | S16P SXFNR 16 |
| G3/4 | 14 | 1,814 | 1,162 | 24,117 | 16IR 14W | S16P SXFNR 16 |
| G7/8 | 11 | 1,814 | 1,162 | 27,877 | 16IR 14W | S20P SXFNR 16 |
| G1 | 11 | 2,309 | 1,479 | 30,291 | 16IR 11W | S20P SXFNR 16 |
| G1 1/8 | 11 | 2,309 | 1,479 | 34,939 | 16IR 11W | S25R SXFNR 16 |
| G1 1/4 | 11 | 2,309 | 1,479 | 38,952 | 16IR 11W | S25R SXFNR 16 |
| G1 1/2 | 11 | 2,309 | 1,479 | 44,845 | 16IR 11W | S32S SXFNR 16 |
| G1 3/4 | 11 | 2,309 | 1,479 | 50,788 | 16IR 11W | S32S SXFNR 16 |
| G2 | 11 | 2,309 | 1,479 | 56,656 | 16IR 11W | S32S SXFNR 16 |

Taper Pipe Threads BSPT (Rc) Internal Thread

| Thread Size | Pitch TPI | Pitch MM | Profile Depth | Bore Diameter | Recommended tools | |
|-----------------|-----------|----------|---------------|---------------|-------------------|---------------|
| | | | | | Insert | Toolholder |
| Rc 1/16 | 28 | 0.907 | 0.581 | 6,561 | 06IR 28BSPT | S12H SXFNR 06 |
| Rc 1/8 | 28 | 0.907 | 0.581 | 8,556 | 08IR 28BSPT | S16K SXFNR 08 |
| Rc 1/4 | 19 | 1,337 | 0.856 | 11,445 | 08IR 19BSPT | S16K SXFNR 08 |
| Rc 3/8 | 19 | 1,337 | 0.856 | 14,950 | 11IR 19BSPT | S10K SXFNR 11 |
| Rc 1/2 | 14 | 1,814 | 1,162 | 18,631 | 16IR 14BSPT | S13M SXFNR 16 |
| Rc 5/8 | 14 | 1,814 | 1,162 | 20,587 | 16IR 14BSPT | S16P SXFNR 16 |
| Rc 3/4 | 14 | 1,814 | 1,162 | 24,117 | 16IR 14BSPT | S16P SXFNR 16 |
| Rc 7/8 | 14 | 1,814 | 1,162 | 27,877 | 16IR 14BSPT | S20P SXFNR 16 |
| Rc 1 | 11 | 2,309 | 1,479 | 30,291 | 16IR 11BSPT | S20P SXFNR 16 |
| Rc 1 1/8 | 11 | 2,309 | 1,479 | 34,939 | 16IR 11BSPT | S25R SXFNR 16 |
| Rc 1 1/4 | 11 | 2,309 | 1,479 | 38,952 | 16IR 11BSPT | S25R SXFNR 16 |
| Rc 1 1/2 | 11 | 2,309 | 1,479 | 44,845 | 16IR 11BSPT | S32S SXFNR 16 |
| Rc 1 3/4 | 11 | 2,309 | 1,479 | 50,788 | 16IR 11BSPT | S32S SXFNR 16 |
| Rc 2 | 11 | 2,309 | 1,479 | 56,656 | 16IR 11BSPT | S32S SXFNR 16 |

Troubleshooting

| Problem Problema | Possible Cause Causa Possible Causa Possível | Solution Solución Solução |
|---|--|---|
| <p>Increased flank wear Desgaste del flanco Desgaste da aresta</p>  | <ul style="list-style-type: none"> • Cutting speed too high • Alta velocidad de corte • Velocidade de corte alta • Depth of cut too low/ too many passes • Profundidad de corte demasiado baja / demasiados pasos • Profundidade de corte demasiado baixa / demasiados passos • Unsuitable carbide grade • Grado desajustado • Grau desajustado • Insufficient cooling • Insuficiente refrigeración • Refrigeração insuficiente | <ul style="list-style-type: none"> • Reduce cutting speed / Use coated insert • Reducir la velocidad de corte / Utilice un inserto recubierto • Reduza a velocidade de corte / Use uma pastilha revestida • Increase the depth of cut per pass • Aumento de la profundidad de corte por paso • Aumente a profundidade de corte por passo • Use a coated carbide grade • Utilice un grado recubierto • Use um grau revestido • Increase coolant flow rate • Aumentar el flujo de refrigeración • Aumente o fluxo de refrigeração |
| <p>Uneven cutting edge wear Deformación del flanco de corte Deformação da aresta de corte</p>  | <ul style="list-style-type: none"> • Incorrect helix angle • Ángulo de hélice incorrecta • Ângulo da hélice incorrecto • Wrong infeed method • Método incorrecto de avance • Método de avanço incorrecto | <ul style="list-style-type: none"> • Choose the correct anvil • Elija el ángulo correcto • Escolha o ângulo correcto • Use the Alternating Flank Infeed method • Utilizar un método alternativo de avance • Use um método alternativo de avanço |
| <p>Extreme plastic deformation Deformación plástica extrema Deformação plástica extrema</p>  | <ul style="list-style-type: none"> • Depth of cut too large • Profundidad de corte demasiado grande • Profundidade de corte demasiado larga • Insufficient cooling • Insuficiente refrigeración • Refrigeração insuficiente • Cutting speed too high • Alta velocidad de corte • Velocidade de corte alta • Unsuitable carbide grade • Grado no es aconsejable • Grau não aconselhável • Nose radius too small • Radio demasiado pequeño • Raio demasiado pequeno | <ul style="list-style-type: none"> • Decrease depth of cut / Increase number of passes • Reducir la profundidad de corte / Aumentar el número de pasos • Diminua a profundidade de corte / Aumente o número de passos • Increase coolant flow rate • Aumentar el flujo de refrigeración • Aumente o fluxo de refrigeração • Reduce cutting speed • Reducir la velocidad de corte • Reduza a velocidade de corte • Use a tougher carbide • Usar un grado más suave • Use um grau mais macio • Use an insert with a larger radius, if possible • Utilice un inserto con un radio más amplio, si es posible • Use uma pastilha com um raio mais largo, se possível |
| <p>Cutting edge breakage Rotura del flanco de corte Quebra da aresta de corte</p>  | <ul style="list-style-type: none"> • Depth of cut too large • Profundidad de corte demasiado grande • Profundidade de corte demasiado larga • Extreme plastic deformation • Deformación plástica extrema • Deformação plástica extrema • Insufficient cooling • Insuficiente refrigeración • Refrigeração insuficiente • Unstable carbide grade • Grado no es aconsejable • Grau não aconselhável • Instability • Inestabilidad • Instabilidade | <ul style="list-style-type: none"> • Decrease depth of cut / Increase number of passes • Reducir la profundidad de corte / Aumentar el número de pasos • Diminua a profundidade de corte / Aumente o número de passos • Use a tougher carbide • Usar un grado más suave • Use um grau mais macio • Increase flow rate and/ or correct flow direction • Aumentar o mejorar la dirección del flujo de la refrigeración • Aumento o fluxo ou melhore o direcionamento da refrigeração • Use a tougher carbide • Usar un grado más suave • Use um grau mais macio • Check stability of the system • Compruebe la estabilidad del sistema • Verifique a estabilidade do sistema |
| <p>Built-up edge Filos recrescidos Aresta postiza</p>  | <ul style="list-style-type: none"> • Incorrect cutting speed • Velocidad de corte incorrecta • Velocidade de corte incorrecta • Unstable carbide grade • Grado no es aconsejable • Grau não aconselhável | <ul style="list-style-type: none"> • Change the cutting speed • Cambiar la velocidad de corte • Altere a velocidade de corte • Use a coated carbide • Utilice un grado recubierto • Utilize um grau revestido |
| <p>Thread profile is too shallow Perfil de la rosca muy irregular Perfil da rosca muito irregular</p>  | <ul style="list-style-type: none"> • The tool is not at the workpiece axis height • El inserto no está mecanizando • A pastilha não está a maquinar a crista da rosca • Insert is not machining the thread crest • La herramienta no está colocada correctamente a cresta de la rosca • A ferramenta não está posicionada correctamente • Worn insert • Inserto pasado • Pastilha gasta | <ul style="list-style-type: none"> • Change tool height • Cambiar la posición en la altura de la herramienta • Altere o posicionamento em altura da ferramenta • Measure the workpiece diameter • Medir el diámetro de la pieza de trabajo • Medir o diámetro correcto da peça de trabalho • Change the cutting edge sooner • Cambiar el flanco de corte en anticipo • Mudar anticipadamente a aresta de corte |
| <p>Thread profile is too shallow Acabado de superficie malo Má qualidade superficie</p>  | <ul style="list-style-type: none"> • Cutting speed too low • Velocidad de corte baja • Velocidade de corte baixa • Wrong anvil • Colchón cambiado • Colchão errado • Flank infeed method is not appropriate • Posición de avance inadecuada • Posição de avanço inapropriada | <ul style="list-style-type: none"> • Increase cutting speed • Aumentar la velocidad de corte • Aumente a velocidade de corte • Choose correct anvil • Elija un colchón más apropiado • Escolha um colchão mais apropriado • Use the alternate flank or radial infeed method • Utilice un método flanqueamiento o radial alternativo • Use um método de flanqueamento ou radial alternativo |