

TIME-SERT®

PROFESSIONAL THREAD REPAIR SYSTEM SCREW THREAD INSERTS AMERICAN & METRIC SIZES

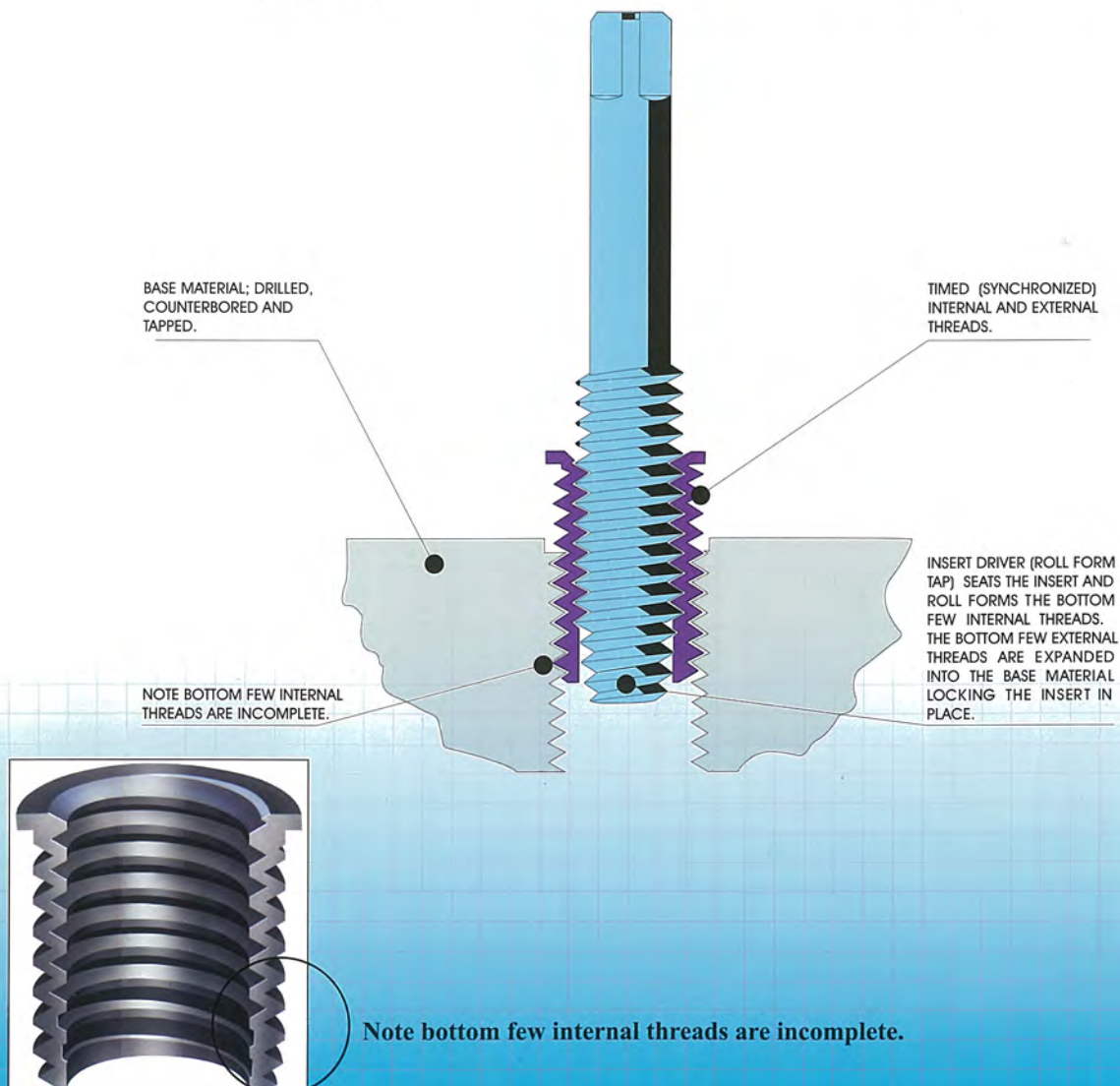
ADVANTAGES WHICH ARE CONVINCING:

TIME-SERT® is a solid bushing insert. This guarantees easy installation and allows for full load use of tapped hole, ensuring protection against stress and vibration.

TIME-SERT® is thin walled due to synchronized internal external threads. Thin cross sectional area allows for installation in areas of limited space and clearance material.

TIME-SERT® has **positive placement**. Having a flange on the top of the insert will insure that the insert will have positive placement and cannot wind down into the newly repaired hole.

TIME-SERT® is self locking. On installation the bottom internal threads of the insert are cold rolled to expand the mating external threads into the base material locking the insert in place. Locking mechanism is at the bottom of the insert.

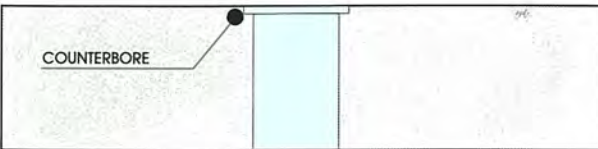


ENGINEERING DATA



INCH

| INSERT | DRILL | | C.BORE | | TAP |
|-----------|-------|------|-----------|------------|------------|
| SIZE | DRILL | SIZE | MIN. DIA. | MIN. DEPTH | MAJOR DIA. |
| 4 - 40 | #31 | .120 | .170 | .055 | .147 |
| 6 - 32 | #26 | .147 | .218 | .070 | .182 |
| 8 - 32 | #17 | .173 | .241 | .065 | .208 |
| 10 - 24 | 13/64 | .203 | .288 | .075 | .247 |
| 10 - 32 | 13/64 | .203 | .274 | .075 | .234 |
| 12 - 24 | #1 | .228 | .307 | .075 | .265 |
| 1/4 - 20 | 17/64 | .265 | .352 | .075 | .319 |
| 1/4 - 28 | G | .261 | .340 | .075 | .300 |
| 5/16 - 18 | 21/64 | .328 | .430 | .085 | .388 |
| 5/16 - 24 | P | .323 | .410 | .080 | .368 |
| 3/8 - 16 | X | .397 | .495 | .085 | .460 |
| 3/8 - 24 | W | .386 | .473 | .080 | .432 |
| 7/16 - 14 | 29/64 | .453 | .571 | .110 | .534 |
| 7/16 - 20 | 29/64 | .453 | .547 | .085 | .506 |
| 1/2 - 13 | 33/64 | .515 | .648 | .110 | .604 |
| 1/2 - 20 | 33/64 | .515 | .610 | .085 | .569 |
| 9/16 - 12 | 19/32 | .593 | .711 | .130 | .675 |
| 9/16 - 18 | 37/64 | .578 | .668 | .110 | .638 |
| 5/8 - 11 | 21/32 | .656 | .787 | .135 | .748 |
| 5/8 - 18 | 41/64 | .640 | .740 | .110 | .701 |
| 3/4 - 10 | 25/32 | .781 | .935 | .135 | .885 |
| 3/4 - 16 | 49/64 | .765 | .870 | .110 | .835 |



Counterbores are flat bottom. We recommend step drills for production applications.

Use of a cutting fluid is recommended for drilling, counterboring and tapping.

Oil must be used on the insert driver.

Tool kits are designed for a suitable tap wrench, or power tools such as: drill press, electric or air hand drills and tappers.

Carbon steel inserts are phosphate coated. Stainless steel inserts are 303 or equivalent.

METRIC

| INSERT | DRILL | | C.BORE | | TAP |
|------------|-------|------|-----------|------------|------------|
| SIZE | DRILL | SIZE | MIN. DIA. | MIN. DEPTH | MAJOR DIA. |
| M3 x 0.5 | 1/8 | .125 | .170 | .055 | .140 |
| M4 x 0.7 | # 19 | .166 | .226 | .065 | .194 |
| M5 x 0.8 | # 8 | .199 | .279 | .075 | .238 |
| M6 x 1.0 | D | .246 | .319 | .075 | .290 |
| M7 x 1.0 | L | .290 | .351 | .075 | .330 |
| M8 x 1.0 | P | .323 | .409 | .080 | .369 |
| M8 x 1.25 | P | .323 | .419 | .080 | .381 |
| M9 x 1.25 | U | .368 | .440 | .080 | .422 |
| M10 x 1.0 | 13/32 | .406 | .466 | .080 | .349 |
| M10 x 1.25 | 13/32 | .406 | .500 | .085 | .463 |
| M10 x 1.5 | 13/32 | .406 | .500 | .085 | .474 |
| M11 x 1.25 | 29/64 | .453 | .542 | .085 | .503 |
| M11 x 1.5 | 29/64 | .453 | .552 | .085 | .516 |
| M12 x 1.25 | 31/64 | .484 | .560 | .085 | .540 |
| M12 x 1.5 | 31/64 | .484 | .595 | .085 | .552 |
| M12 x 1.75 | 1/2 | .500 | .605 | .110 | .567 |
| M13 x 1.5 | 17/32 | .531 | .612 | .085 | .594 |
| M14 x 2.0 | 37/64 | .578 | .685 | .110 | .660 |
| M14 x 1.5 | 37/64 | .578 | .668 | .110 | .634 |
| M16 x 1.5 | 21/32 | .656 | .743 | .110 | .713 |
| M16 x 2.0 | 21/32 | .656 | .787 | .115 | .741 |
| M18 x 1.5 | 23/32 | .718 | .837 | .125 | .794 |
| M20 x 1.5 | 51/64 | .797 | .925 | .120 | .890 |
| M22 x 1.5 | 7/8 | .875 | .950 | .100 | .940 |
| M24 x 1.5 | 24.5 | .963 | 1.030 | .750 | 1.010 |

TAPER PIPE

| INSERT | DRILL | | C.BORE | | TAP |
|--------|--------|-------|-----------|------------|------------|
| SIZE | DRILL | SIZE | MIN. DIA. | MIN. DEPTH | MAJOR DIA. |
| 1/8-27 | 13/32 | .406 | .466 | .055 | .449 |
| 1/4-18 | 37/64 | .578 | .668 | .075 | .638 |
| 3/8-18 | 23/32 | .718 | .837 | .075 | .794 |
| 1/2-14 | 55/64 | .859 | 1.000 | 90° CSK | .942 |
| 3/4-14 | 1 3/32 | 1.093 | 1.300 | 90° CSK | 1.194 |