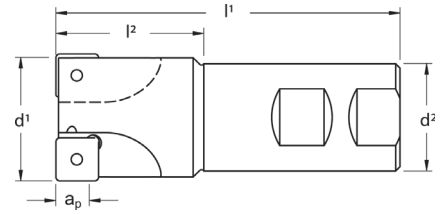
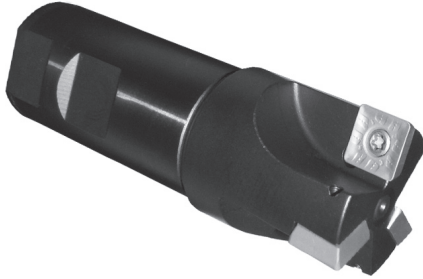


# TS90

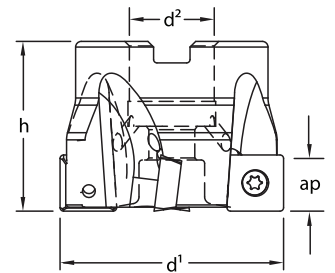
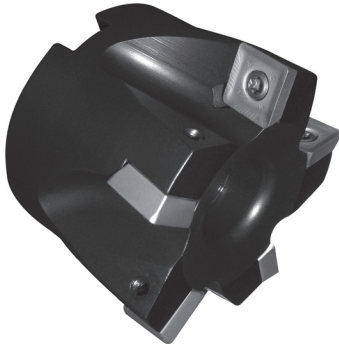
## Square Shoulder Milling Cutters



### End Mills using 1/2" I.C. Inserts

| Designation  | d <sup>1</sup> | d <sup>2</sup> | l <sup>1</sup> | l <sup>2</sup> | Max. ap | flutes | Insert        | Insert Screw | Wrench                               |
|--------------|----------------|----------------|----------------|----------------|---------|--------|---------------|--------------|--------------------------------------|
| TS90E-1.5SD4 | 1.500          | 1.250          | 4.00           | 1.72           | .40     | 3      | SDMT-1204 PDR | 214.80.388   | 214.80.824 (S/D)<br>214.80.012 (F/T) |
| TS90E-2SD4   | 2.000          | 1.250          | 4.00           | 1.72           | .40     | 4      |               |              |                                      |

Remember to use COPASLIP® anti-seize compound on all insert screws



### Face Mills using 1/2" I.C. Inserts

| Designation  | d <sup>1</sup> | d <sup>2</sup> | h    | Max. ap | flutes | lbs. | Insert        | Insert Screw | Wrench                               |
|--------------|----------------|----------------|------|---------|--------|------|---------------|--------------|--------------------------------------|
| TS90-2SD4    | 2.000          | .750           | 1.50 | .40     | 4      | .50  | SDMT-1204 PDR | 214.80.388   | 214.80.824 (S/D)<br>214.80.012 (F/T) |
| TS90-2SD4F   | 2.000          | .750           | 1.50 | .40     | 5      | .50  |               |              |                                      |
| TS90-2.5SD4  | 2.500          | 1.000          | 1.75 | .40     | 5      | 1.00 |               |              |                                      |
| TS90-2.5SD4F | 2.500          | 1.000          | 1.75 | .40     | 6      | 1.35 |               |              |                                      |
| TS90-3SD4    | 3.000          | 1.000          | 2.00 | .40     | 6      | 2.00 |               |              |                                      |
| TS90-4SD4    | 4.000          | 1.500          | 2.00 | .40     | 8      | 2.70 |               |              |                                      |
| TS90-5SD4F   | 5.000          | 1.500          | 2.00 | .40     | 9      | 5.25 |               |              |                                      |
| TS90-6SD4    | 6.000          | 2.000          | 2.50 | .40     | 10     | 8.15 |               |              |                                      |

Remember to use COPASLIP® anti-seize compound on all insert screws

### Face Mills using 5/8" I.C. Inserts

| Designation | d <sup>1</sup> | d <sup>2</sup> | h    | Max. ap | flutes | lbs.  | Insert        | Insert Screw | Wrench                               |
|-------------|----------------|----------------|------|---------|--------|-------|---------------|--------------|--------------------------------------|
| TS90-2SD5   | 2.000          | .750           | 1.50 | .50     | 4      | .50   | SDMT-1506 PDR | 214.80.073   | 214.80.994 (S/D)<br>214.80.076 (F/T) |
| TS90-2.5SD5 | 2.500          | 1.000          | 1.75 | .50     | 5      | 1.00  |               |              |                                      |
| TS90-3SD5   | 3.000          | 1.000          | 2.00 | .50     | 6      | 2.00  |               |              |                                      |
| TS90-4SD5   | 4.000          | 1.500          | 2.00 | .50     | 8      | 2.70  |               |              |                                      |
| TS90-5SD5   | 5.000          | 1.500          | 2.00 | .50     | 9      | 5.25  |               |              |                                      |
| TS90-6SD5   | 6.000          | 2.000          | 2.50 | .50     | 10     | 8.15  |               |              |                                      |
| TS90-8SD5*  | 8.000          | 2.500          | 2.50 | .50     | 13     | 14.40 |               |              |                                      |
| TS90-10SD5* | 10.000         | 2.500          | 2.50 | .50     | 16     | 22.70 |               |              |                                      |

\* Cutter supplied with 4 holes on a 4" bolt circle

Remember to use COPASLIP® anti-seize compound on all insert screws

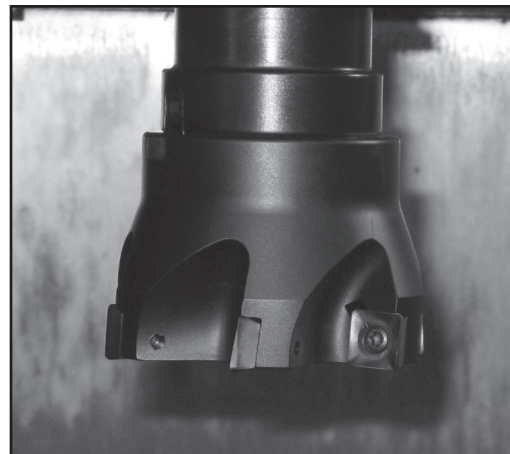
# TS90

## Inserts for TS90 Square Shoulder Milling Cutters

The TS90 Square Shoulder Milling Cutters are an ideal tool for 90° slot and shoulder milling. They are available in diameters from 1½" to 6", using ½" I.C. inserts, and 2" to 10" using 5/8" I.C. inserts.

The cutter bodies are manufactured with premium hardened steel for rigidity. The TS90s use indexable inserts with four effective cutting edges, which are securely clamped with Torx® screws.

The TS90 cutter delivers optimum milling performance with outstanding chip evacuation. The cutters operate smoothly with low power requirements. These cutters are ideal for slot milling, edge trimming, square shoulder milling and face milling, in materials ranging from low alloy steels to stainless and high alloy steels, as well as grey, ductile and nodular cast iron.



Positive geometries and strengthened cutting edges guarantee trouble-free machining of a wide range of materials. 4 usable cutting edges.

### SDMT

**ML** - For cast iron machining and finishing on non-rigid machines and setups.

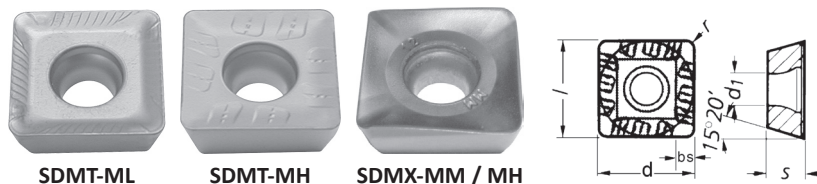
**MH** - For most applications.

### SDMX

**New Addition!**

**MM** - Positive pressed geometry engineered to reduce cutting forces enabling increased feed rates.

**MH** - Similar to the MM but with reinforced cutting edge for heavy duty milling.



### TS90 Inserts

| Designation      | l    | s    | r    | d   | d'   | bs   | TS90 Inserts |        |        |        |       |        |        |        |        |     |     |     |     |       |        |   |
|------------------|------|------|------|-----|------|------|--------------|--------|--------|--------|-------|--------|--------|--------|--------|-----|-----|-----|-----|-------|--------|---|
|                  |      |      |      |     |      |      | TN7525       | TN6525 | TN7535 | TN6540 | TN450 | TN5515 | TN6510 | TN6520 | TN2510 | TTM | TTR | THM | THR | THM-U | TTI-25 |   |
| SDMT-1204 PDR-ML | .500 | 3/16 | 3/64 | 1/2 | .173 | ---  | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMT-1506 PDR-ML | .625 | 1/4  | 3/64 | 5/8 | .217 | ---  | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMT-1204 PDR-MH | .500 | 3/16 | 3/64 | 1/2 | .173 | ---  | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMT-1506 PDR-MH | .625 | 1/4  | 3/64 | 5/8 | .217 | ---  | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-120408R-MM  | .500 | .188 | .031 | 1/2 | .173 | .076 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-120412R-MM  |      |      | .047 |     |      | .061 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-150612R-MM  | .625 | .250 | .047 | 5/8 | .217 | .057 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-120408R-MH  | .500 | .188 | .031 | 1/2 | .173 | .076 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-120412R-MH  |      |      | .047 |     |      | .061 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-120416R-MH  |      |      | .063 |     |      | .059 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-150612R-MH  | .625 | .250 | .047 | 5/8 | .217 | .057 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |
| SDMX-150616R-MH  |      |      | .063 |     |      | .059 | ●            | ●      | ●      | ●      | ●     | ●      | ●      | ●      | ●      | ●   | ●   | ●   | ●   | ●     | ●      | ● |