

ISOPLUS



Diameters:

2.00" - 6.00"

Depth of Cut:

.235" - .355"

Insert Style:

SNGU12

SNGQ12

Insert Grades:

IN2035

IN2505

IN2510

IN2530

IN2540

IN4015

IN4030

IN10K

IN71N

NEW

Materials:

Stainless Steel, Hi-temp Alloys,
Aluminum, Iron, Steel

45° & 75° Lead Face Mills with 8 Positive Cutting Edges

Two-Sided Technology is incorporated into ISO Quad inserts for an Ingersoll Exclusive product named ISO-Plus. Users benefit by doubling their cutting edges from 4 to 8 while also taking advantage of clean shearing pressed rake face performance for ideal machining efficiency.

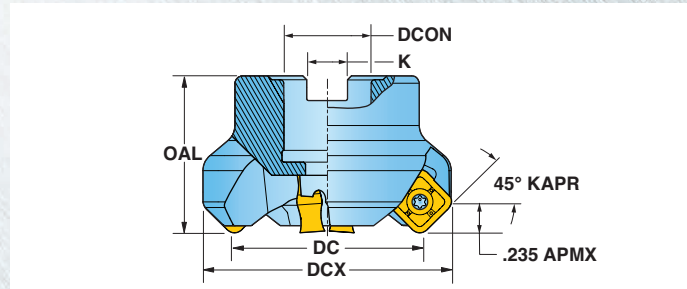
Features & Benefits

- New IN71N (SiNi) grade added for high-speed iron applications
- Thick and robust insert adds durability to demanding cutting conditions
- Strong corner configuration for heavy duty roughing
- .050" wiper flat for 32-63 Ra surface finishes
- Add 1 wiper in 1 station for finish as good as 8 Ra
- Same insert fits both 45° & 75° lead cutter



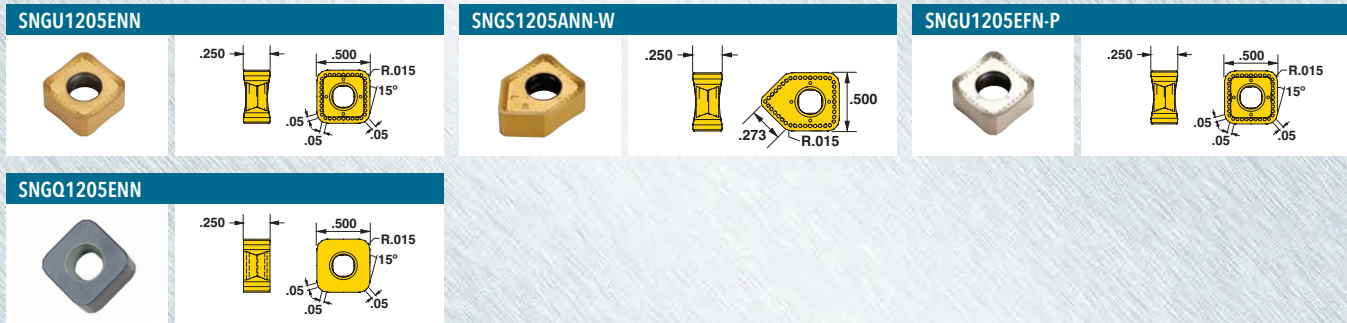
ISOPLUS SERIES DN6H/DN5H

45° FACE MILL WITH 8 CUTTING EDGES



| Designation | DC Cutting Dia | DCX Cutting Dia Max | OAL Overall Length | ZEFF Eff Teeth | DCON Bore Dia | K Keyway | CSP Coolant |
|-------------|----------------|---------------------|--------------------|----------------|---------------|----------|-------------|
| DN6H-20R01 | 2.000 | 2.57 | 1.750 | 4 | .750 | .312 | Yes |
| DN5H-20R01 | 2.000 | 2.57 | 1.750 | 6 | .750 | .312 | Yes |
| DN6H-25R01 | 2.500 | 3.07 | 1.750 | 6 | 1.000 | .375 | Yes |
| DN6H-30R01 | 3.000 | 3.57 | 1.750 | 7 | 1.000 | .375 | Yes |
| DN5H-30R01 | 3.000 | 3.57 | 1.750 | 10 | 1.000 | .375 | Yes |
| DN6H-40R01 | 4.000 | 4.57 | 2.375 | 8 | 1.500 | .625 | Yes |
| DN5H-40R01 | 4.000 | 4.57 | 2.375 | 12 | 1.500 | .625 | Yes |
| DN6H-50R01 | 5.000 | 5.57 | 2.375 | 9 | 1.500 | .625 | Yes |
| DN6H-60R01 | 6.000 | 6.57 | 2.000 | 12 | 1.500 | .625 | No |
| DN5H-60R01 | 6.000 | 6.57 | 2.000 | 20 | 1.500 | .625 | No |



ISOPLUS SERIES DN6H/DN5H INSERTS








| Insert Number | Application | Grade | | | | | | | | |
|------------------------|---------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| | | IN2035 | IN2505 | IN2510 | IN2530 | IN2540 | IN4030 | IN4015 | IN10K | IN71N |
| SNGU1205ENN | Multi-Purpose | • | • | • | • | • | • | • | | |
| SNGS1205ANN-W | Wiper | | • | • | | | | | | |
| SNGU1205EFN-P | Aluminum | | | | | | | | • | |
| NEW SNGQ1205ENN | SiNi | | | | | | | | | • |

** Faceted corner simulates R.093.

Cutter Body Hardware for Series DN6H/DN5H

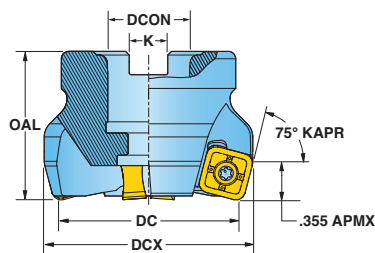
| Insert Number |  |  |
|---------------|---|---|
| | SHCS | Coolant Through SHCS (opt) |
| DN6H-20R01 | SD-06-46 | SD-06-89 |
| DN5H-20R01 | SD-06-46 | SD-06-89 |
| DN6H-25R01 | SD-08-46 | SD-08-92 |
| DN6H-30R01 | SD-08-46 | SD-08-92 |
| DN5H-30R01 | SD-08-46 | SD-08-92 |
| DN6H-40R01 | SD-12-82 | SD-12-99 |
| DN5H-40R01 | SD-12-82 | SD-12-99 |
| DN6H-50R01 | SD-12-82 | SD-12-99 |

Insert Hardware

| Insert Number | Substrate |  |  |  |  |  | Recommended Torque |
|---------------|-----------|---|---|---|---|---|--------------------|
| | | Insert Screw | Driver Handle | Insert Driver Blade | Optional Torque Wrench | Optional Insert Driver Blade | |
| SNGU1205ENN | carbide | SM40-100-R0 | DS-A00T | DS-T156B | DT-35-02 | DS-T15B1 | 30-35 in. lbs. |
| SNGS1205ANN-W | carbide | SM40-100-R0 | DS-A00T | DS-T156B | DT-35-02 | DS-T15B1 | 30-35 in. lbs. |
| SNGU1205EFN-P | carbide | SM40-100-R0 | DS-A00T | DS-T156B | DT-35-02 | DS-T15B1 | 30-35 in. lbs. |
| SNGQ1205ENN | SiNi | SM40-100-R0 | DS-A00T | DS-T156B | DT-28-01 | DS-T15B1 | 28 in. lbs. |

ISOPLUS SERIES DL6H

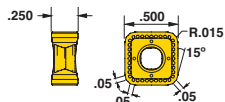
75° FACE MILL WITH 8 CUTTING EDGES



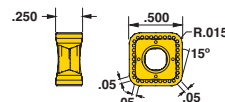
| Designation | DC Cutting Dia | DCX Cutting Dia Max | OAL Overall Length | ZEFF Eff Teeth | DCON Bore Dia | K Keyway | CSP Coolant |
|-------------|----------------|---------------------|--------------------|----------------|---------------|----------|-------------|
| DL6H-20R01 | 2.000 | 2.30 | 1.750 | 4 | .750 | .312 | Yes |
| DL6H-25R01 | 2.500 | 2.80 | 1.750 | 6 | 1.00 | .375 | Yes |
| DL6H-30R01 | 3.000 | 3.30 | 1.750 | 7 | 1.00 | .375 | No |
| DL6H-40R01 | 4.000 | 4.30 | 2.000 | 8 | 1.50 | .625 | No |
| DL6H-60R01 | 6.500 | 6.30 | 2.000 | 12 | 1.50 | .625 | No |

ISOPLUS SERIES DL6H INSERTS

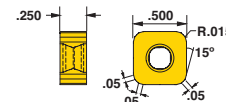
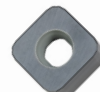
SNGU1205ENN



SNGU1205EFN-P



SNGQ1205ENN



| Insert Number | Application | Grade | | | | | | | | |
|---------------|---------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| | | IN2035 | IN2505 | IN2510 | IN2530 | IN2540 | IN4030 | IN6515 | IN10K | IN71N |
| SNGU1205ENN | Multi-Purpose | • | • | • | • | • | • | • | • | • |
| SNGU1205EFN-P | Aluminum | | | | | | | | | • |
| SNGQ1205ENN | SiNi | | | | | | | | | • |

NEW

** Faceted corner simulates R.093.

Cutter Body Hardware for Series DL6H

| Insert Number | SHCS | Coolant Through SHCS (opt) |
|---------------|----------|----------------------------|
| DL6H-20R01 | SD-06-46 | SD-06-89 |
| DL6H-25R01 | SD-08-46 | SD-08-92 |

Insert Hardware

| Insert Number | Substrate | Insert Screw | Driver Handle | Insert Driver Blade | Optional Torque Wrench | Optional Insert Driver Blade | Recommended Torque |
|---------------|-----------|--------------|---------------|---------------------|------------------------|------------------------------|--------------------|
| | | SM40-100-R0 | DS-A00T | DS-T156B | DT-35-02 | DS-T15B1 | |
| SNGU1205ENN | carbide | SM40-100-R0 | DS-A00T | DS-T156B | DT-35-02 | DS-T15B1 | 30-35 in. lbs. |
| SNGU1205EFN-P | carbide | SM40-100-R0 | DS-A00T | DS-T156B | DT-35-02 | DS-T15B1 | 30-35 in. lbs. |
| SNGQ1205ENN | SiNi | SM40-100-R0 | DS-A00T | DS-T156B | DT-28-01 | DS-T15B1 | 28 in. lbs. |

ISOPLUS OPERATING GUIDELINES



| Material | Brinell Hardness | SFM | Feed per Insert (inch) | Grade | | | | | | | | Coolant | | |
|-----------------|-------------------------------|-----------|------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|---------|------------------------------------|-----|
| | | | | IN10K | IN2035 | IN2505 | IN2510 | IN2530 | IN2540 | IN4015 | IN4030 | | IN71N | |
| Aluminum | 7075-T6, 6061-T6, 2024 | - | 1,000 - 8,000 | .004 - .015 | 1 | | | | | | | | | Yes |
| Cast Iron | Gray | 150 - 250 | 400 - 1,000 | .006 - .015 | | | 3 | 1 | | | 2 | 4 | | No |
| | | | 1800 - 3000 | .005 - .008 | | | | | | | | | 1 | |
| | Nodular | 150 - 250 | 400 - 800 | .005 - .012 | | | 3 | 2 | | | 1 | 4 | | |
| | | | 1500 - 2500 | .004 - .007 | | | | | | | | | 1 | |
| Steel | Low Carbon 1018, 8620 | 100 - 250 | 400 - 1000 | .006 - .015 | | | | | | | | | No | |
| | High Carbon F-6180 | 250 - 400 | 350 - 650 | | | | 3 | | 2 | 4 | | 1 | | |
| | Alloyed Steel 4140, 4340 | 150 - 300 | 300 - 700 | | | | | | | | | | | |
| | Tool Steel A-6, D-1, D-2 | Up to 300 | 300 - 600 | | | | | | | | | | | |
| Stainless Steel | 300 Series, 304, 316 | - | 300 - 700 | .005 - .010 | | | | | | | | | May not be required at high speeds | |
| | 400 Series 15-5 PH | Up to 320 | 400 - 700 | | | 1 | 4 | | 3 | 5 | | 2 | | |
| | 13-8 PH | - | 200 - 400 | | | | | | | | | | | Yes |
| Nickel Alloys | Inconel, Hastelloy, Waspalloy | - | 75-120 | .003 - .006 | | 1 | 3 | | 4 | | | 2 | Yes | |
| Titanium | 6AL-4V | - | 100 - 150 | .004 - .008 | | 1 | 4 | | 3 | | | 2 | Yes | |

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