

NEW

Member IMC Group
Ingersoll
Cutting Tools

WINSFEED

SOLID CARBIDE

NEW GRADE IN3305 WITH
TA-C-COATING

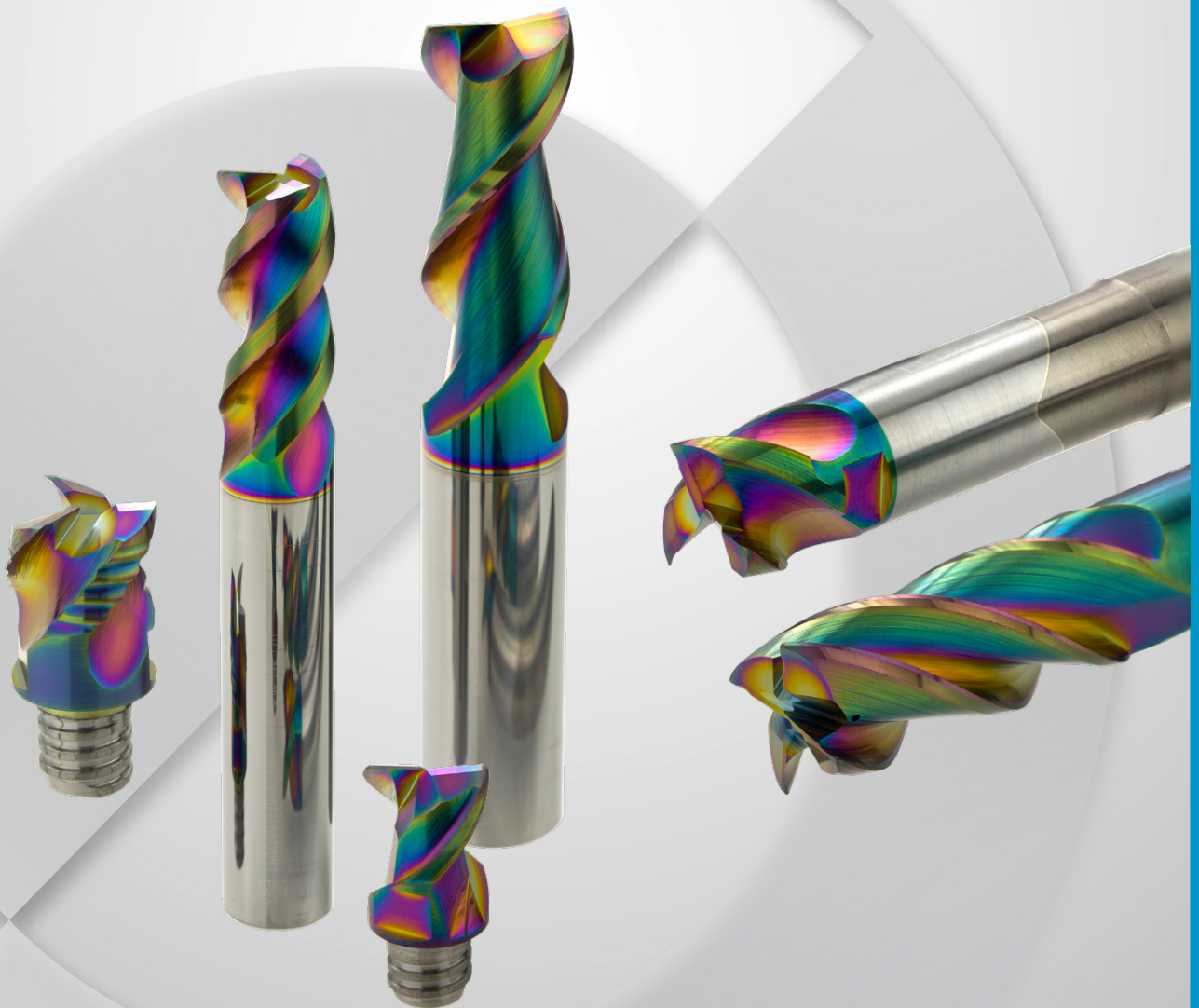
GRADE

IN3305

NEW

SOLID CARBIDE CUTTERS FOR ALUMINUM MACHINING

- High hardness of over 5000 HV
- Thin coating for sharp cutting edges < 1 μm
- Low coefficient of friction
- High oxidation resistance at high temperatures



Product Overview

Ingersoll's solid carbide tools offer cutting tool solutions for aluminum machining.

The new grade **IN3305** with **ta-C-coating** performs even better than the current aluminum machining options.

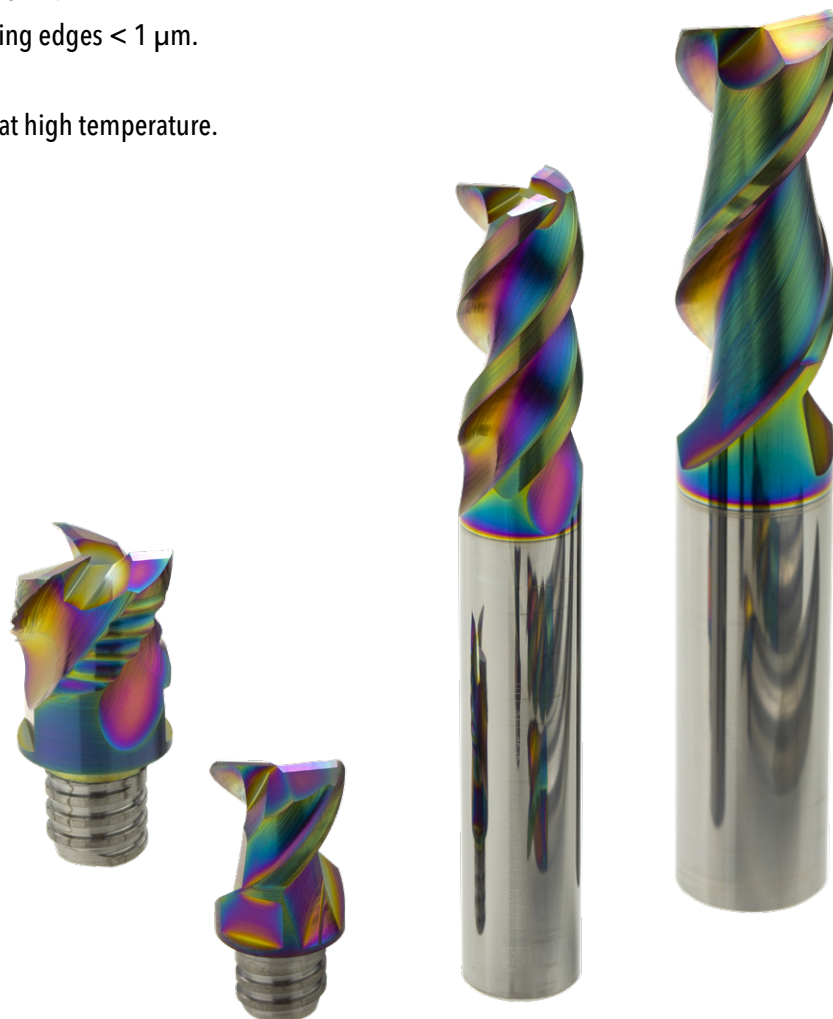
With a thin coating thickness of less than 1 μm , the cutters retain a sharp cutting edge and offer a low coefficient of friction, a hardness of over 5000 HV and resistance to oxidation at high temperatures.

The low friction coefficient minimizes the occurrence of built-up edges in non-ferrous metal machining and provides smoother chip evacuation, resulting in an excellent surface finish.

In addition, the extreme hardness of the coating and resistance to oxidation greatly improves tool life.


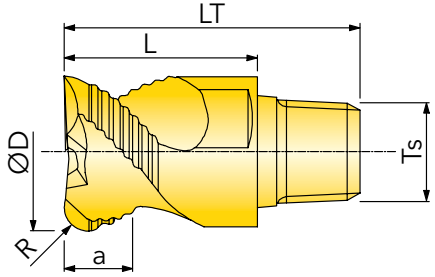
IN3305 Grade Features

- High hardness of over 5000 HV.
- Thin coating for sharp cutting edges < 1 μm .
- Low coefficient of friction.
- High oxidation resistance at high temperature.



CHIPSURFER ROUGH MILL NF-GEOMETRY (3305)

EXCHANGEABLE HEAD SYSTEM

Grade: IN3305

Material: P, M, K, N_(K), S_(M), H_(PK)

Coating: +

Material: ALU

Angle: 45°


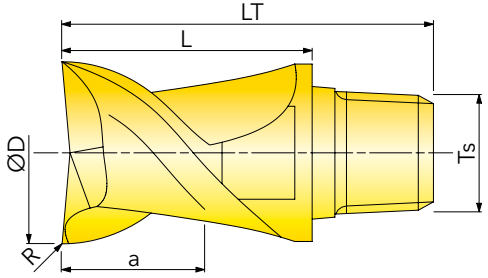
Temperature: 450°C

| Designation | D | LT | L | a | R | Ts | Z | kg | ① |
|----------------|----|-------|------|------|-----|-----|---|-------|---------|
| 46D08005TQRN02 | 8 | 17,1 | 10 | 5,5 | 0,2 | T5 | 3 | 0,006 | WS-0043 |
| 46D10006T6RN02 | 10 | 19,65 | 13 | 6,5 | 0,2 | T6 | 3 | 0,011 | WS-0029 |
| 46D12008T8RN02 | 12 | 24,5 | 16,5 | 8,5 | 0,2 | T8 | 3 | 0,021 | WS-0030 |
| 46D16010TRRN02 | 16 | 32,3 | 20,5 | 10,7 | 0,2 | T10 | 3 | 0,047 | WS-0044 |
| 46D20012TSRN02 | 20 | 39,3 | 25,5 | 12,7 | 0,2 | T12 | 3 | 0,085 | WS-0059 |

① = wrench

CHIPSURFER END MILL WITH CORNER RADIUS NF-GEOMETRY Z=2 (3305)

EXCHANGEABLE HEAD SYSTEM

Grade: IN3305

Material: P, M, K, N_(K), S_(M), H_(PK)

Coating: +

Material: ALU

Angle: 45°

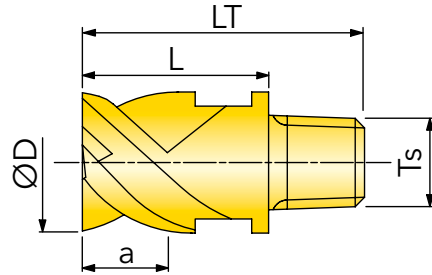
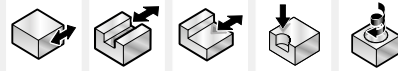
Temperature: 450°C

| Designation | D | LT | L | a | R | Ts | Z | kg | ① |
|----------------|----|-------|------|---|-----|----|---|-------|---------|
| 45D08005TQRD05 | 8 | 17,1 | 10 | 5 | 0,5 | T5 | 2 | 0,005 | WS-0043 |
| 45D10007T6RD05 | 10 | 19,65 | 13 | 7 | 0,5 | T6 | 2 | 0,010 | WS-0029 |
| 45D10007T6RD10 | 10 | 19,65 | 13 | 7 | 1 | T6 | 2 | 0,010 | WS-0029 |
| 45D12009T8RD05 | 12 | 24,5 | 16,5 | 9 | 0,5 | T8 | 2 | 0,020 | WS-0029 |
| 45D12009T8RD10 | 12 | 24,5 | 16,5 | 9 | 1 | T8 | 2 | 0,020 | WS-0029 |

① = wrench

CHIPSURFER END MILL WITH CORNER RADIUS NF-GEOMETRY Z=3 (3305)

EXCHANGEABLE HEAD SYSTEM



Grade

IN3305

| | | | | | |
|---|---|---|------------------|------------------|-------------------|
| P | M | K | N _(H) | S _(M) | H _(PK) |
| | | | + | | |

D e8



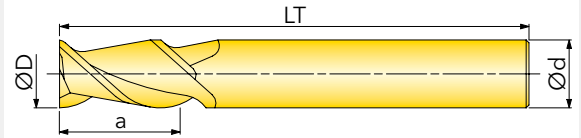
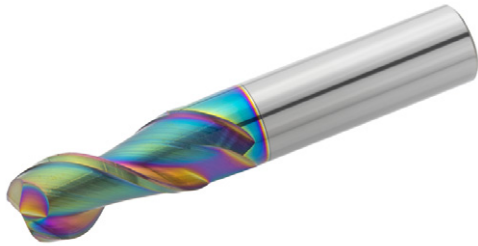
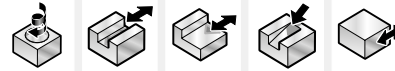
+ first choice ○ second choice

| Designation | D | LT | L | a | R | Ts | Z | kg | ^① |
|----------------|----|-------|------|----|-----|-----|---|-------|--------------|
| 46D08005TQRD05 | 8 | 17,1 | 10 | 5 | 0,5 | T5 | 3 | 0,006 | WS-0043 |
| 46D10007T6RD05 | 10 | 19,65 | 13 | 7 | 0,5 | T6 | 3 | 0,011 | WS-0029 |
| 46D10007T6RD10 | 10 | 19,65 | 13 | 7 | 1 | T6 | 3 | 0,011 | WS-0029 |
| 46D12008T8RD05 | 12 | 24,5 | 16,5 | 8 | 0,5 | T8 | 3 | 0,022 | WS-0030 |
| 46D12008T8RD10 | 12 | 24,5 | 16,5 | 8 | 1 | T8 | 3 | 0,022 | WS-0030 |
| 46D12008T8RD30 | 12 | 24,5 | 16,5 | 8 | 3 | T8 | 3 | 0,022 | WS-0030 |
| 46J16010TRRD21 | 16 | 32,3 | 20,5 | 10 | - | T10 | 3 | 0,047 | WS-0044 |
| 46D16010TRRD10 | 16 | 32,3 | 20,5 | 10 | 1 | T10 | 3 | 0,047 | WS-0044 |
| 46D16010TRRD20 | 16 | 32,3 | 20,5 | 10 | 2 | T10 | 3 | 0,047 | WS-0044 |
| 46D16010TRRD30 | 16 | 32,3 | 20,5 | 10 | 3 | T10 | 3 | 0,046 | WS-0044 |
| 46D16010TRRD40 | 16 | 32,3 | 20,5 | 10 | 4 | T10 | 3 | 0,047 | WS-0044 |
| 46D20012TSRD05 | 20 | 39,3 | 25,5 | 12 | 0,5 | T12 | 3 | 0,086 | WS-0059 |
| 46D20012TSRD10 | 20 | 39,3 | 25,5 | 12 | 1 | T12 | 3 | 0,085 | WS-0059 |
| 46D20012TSRD20 | 20 | 39,3 | 25,5 | 12 | 2 | T12 | 3 | 0,086 | WS-0059 |
| 46D20012TSRD30 | 20 | 39,3 | 25,5 | 12 | 3 | T12 | 3 | 0,085 | WS-0059 |
| 46D20012TSRD40 | 20 | 39,3 | 25,5 | 12 | 4 | T12 | 3 | 0,084 | WS-0059 |

① = wrench

SOLID CARBIDE END MILL Z=2 (3305)

ADAPTION ACC. TO DIN 6535 HA



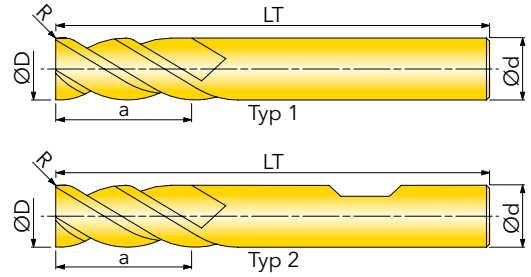
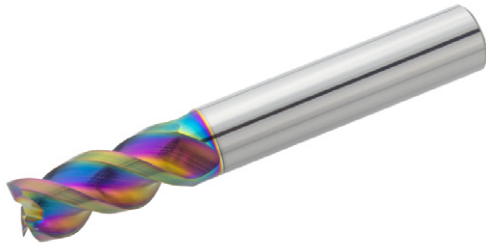
| | | | | | | | | | | | | | |
|--------|---|---|---|------------------|------------------|-------------------|---|----|--|--|--|--|--|
| Grade | P | M | K | N _(K) | S _(M) | H _(PK) | D | h6 | | | | | |
| IN3305 | | | | + | | | d | h6 | | | | | |

+ first choice ○ second choice

| Designation | D | d | LT | a | Z | kg |
|-----------------|----|----|-----|----|---|-------|
| 45J04012T7RD570 | 4 | 6 | 57 | 12 | 2 | 0,018 |
| 45J05014T7RD570 | 5 | 6 | 57 | 14 | 2 | 0,019 |
| 45J06016T7RD570 | 6 | 6 | 57 | 16 | 2 | 0,019 |
| 45J08020T0RD630 | 8 | 8 | 63 | 20 | 2 | 0,037 |
| 45J10022T1RD720 | 10 | 10 | 72 | 22 | 2 | 0,066 |
| 45J12025T2RD830 | 12 | 12 | 83 | 25 | 2 | 0,109 |
| 45J16032T3RD920 | 16 | 16 | 92 | 32 | 2 | 0,205 |
| 45J20038T4RD100 | 20 | 20 | 104 | 38 | 2 | 0,354 |

SOLID CARBIDE SLOT MILL DIN6535HA / DIN6535HB (3305)

ADAPTION ACC. TO DIN 6535 HA / 6535 HB



Grade

IN3305

| | | | | | |
|---|---|---|------------------|------------------|-------------------|
| P | M | K | N _(N) | S _(M) | H _(PK) |
| | | | + | | |

D

d

h6

h6



+ first choice ○ second choice

| Designation | D | d | LT | a | R | Typ | Z | kg |
|-------------------------------|----|----|-----|----|-----|-----|---|-------|
| 46D05014T7RD020 ¹⁾ | 5 | 6 | 57 | 14 | 0,2 | 1 | 3 | 0,019 |
| 46D05014WERD020 | 5 | 6 | 57 | 14 | 0,2 | 2 | 3 | 0,019 |
| 46D06016T7RD020 ¹⁾ | 6 | 6 | 57 | 16 | 0,2 | 1 | 3 | 0,020 |
| 46D06016WERD020 | 6 | 6 | 57 | 16 | 0,2 | 2 | 3 | 0,020 |
| 46D08020T0RD020 ¹⁾ | 8 | 8 | 63 | 20 | 0,2 | 1 | 3 | 0,038 |
| 46D08020W0RD020 | 8 | 8 | 63 | 20 | 0,2 | 2 | 3 | 0,037 |
| 46D10022T1RD020 ¹⁾ | 10 | 10 | 72 | 22 | 0,2 | 1 | 3 | 0,067 |
| 46D10022W1RD020 | 10 | 10 | 72 | 22 | 0,2 | 2 | 3 | 0,066 |
| 46D12025T2RD020 ¹⁾ | 12 | 12 | 83 | 25 | 0,2 | 1 | 3 | 0,111 |
| 46D12025W2RD020 | 12 | 12 | 83 | 25 | 0,2 | 2 | 3 | 0,110 |
| 46D14030U8RD020 ¹⁾ | 14 | 14 | 83 | 30 | 0,2 | 1 | 3 | 0,144 |
| 46D14030WFRD020 | 14 | 14 | 83 | 30 | 0,2 | 2 | 3 | 0,142 |
| 46D16032T3RD020 ¹⁾ | 16 | 16 | 92 | 32 | 0,2 | 1 | 3 | 0,211 |
| 46D16032W3RD020 | 16 | 16 | 92 | 32 | 0,2 | 2 | 3 | 0,208 |
| 46D20038T4RD020 ¹⁾ | 20 | 20 | 104 | 38 | 0,2 | 1 | 3 | 0,367 |
| 46D20038W4RD020 | 20 | 20 | 104 | 38 | 0,2 | 2 | 3 | 0,368 |

¹⁾ Cutter adaption acc. to DIN 6535 HA (cylindrical)

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