

# POWER ROUNDS™

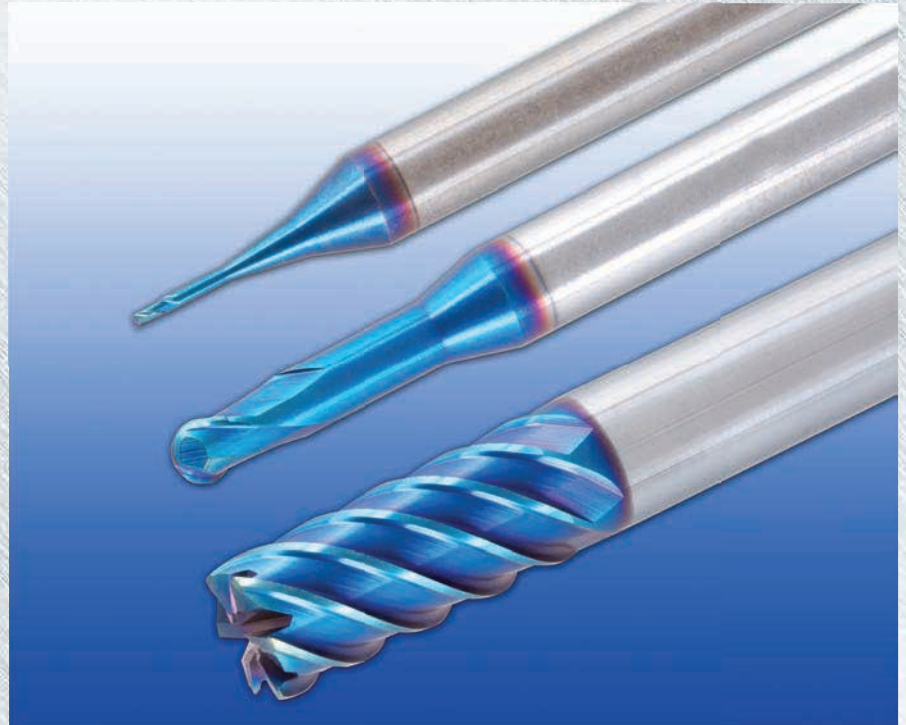
## PRO ROUNDS™



**Diameters:**  
0.10mm - 20mm

**Cutter Series:**  
45DRB  
45JRB  
45BRB  
48JRJ

**Grade:**  
IN2203



### Solid Carbide Endmills Made From New IN2203 High Performance PVD Coated Grade

Ingersoll Cutting Tools is introducing four new solid carbide endmills made from IN2203 - a new high performance grade for machining hardened steel.

Following the market's trend to use a growing number of hardened steel components, Ingersoll Cutting Tools has developed rib processing and regular square end endmills featuring an advanced cutting geometry, made from grade IN2203 - a very hard substrate and a new blue color PVD coating.

The new combination of geometry and carbide grade enables substantially reduced machining time and obtains high-machined surface quality.

#### Main Features

- A special design for machining up to 65 HRC hard materials
- A new blue PVD coating enables dry cutting and high speed machining
- Up to 20% improved tool life when compared with the current tools
- Super finish surface quality
- Highly wear resistant and long tool life

**NEW  
PRODUCT  
ANNOUNCEMENT  
2016**



**IN2203 (H01-H10) (P05-P15)**

IN2203 grade was developed for the production of solid carbide endmills with the aim to complement the existing PVD coated grades for machining hardened steels.

The new grade was tested and compared to the leading competitors' grades as well as Ingersoll's existing grades, with most advantageous results.

**Substrate**

The **NEW** hard submicron cemented carbide substrate -  
Improved deformation resistance

**Coating**

The **NEW** hard PVD coating -  
Improved oxidation, chipping and wear resistance

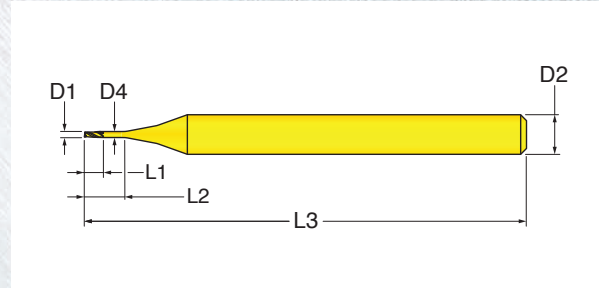
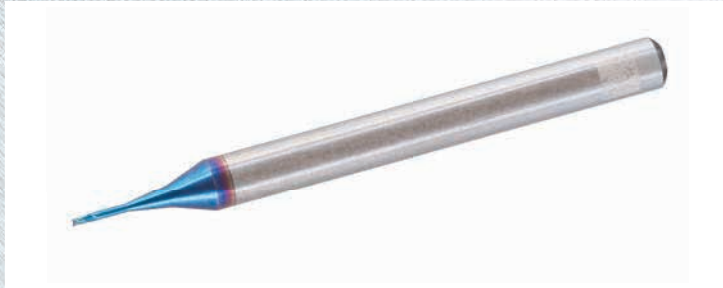
**Coating Color**

A bright blue color -  
Improved wear detection

The combination of the new substrate, new coating and bright blue color = **MORE RELIABLE RESULTS!**



**2 FLUTE, 30° HELIX AND CORNER RADII SCRM**

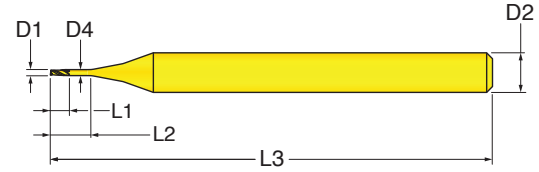


Cutter Number	D1 Diameter	Z Flutes	Radius	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45D00507U0RB00 IN2203	0.50mm	2	0.05	1.50mm	45.00mm	0.70mm	4mm Cylind.
45D00507U0RB001 IN2203	0.50mm	2	0.05	2.50mm	45.00mm	0.70mm	4mm Cylind.
45D00507U0RB002 IN2203	0.50mm	2	0.05	4.00mm	45.00mm	0.70mm	4mm Cylind.
45D00609U0RB002 IN2203	0.60mm	2	0.05	2.00mm	45.00mm	0.90mm	4mm Cylind.
45D00609U0RB01 IN2203	0.60mm	2	0.05	3.00mm	45.00mm	0.90mm	4mm Cylind.
45D00609U0RB00 IN2203	0.60mm	2	0.05	4.00mm	45.00mm	0.90mm	4mm Cylind.
45D00609U0RB001 IN2203	0.60mm	2	0.1	2.00mm	45.00mm	0.90mm	4mm Cylind.
45D00710U0RB01 IN2203	0.70mm	2	0.1	4.00mm	45.00mm	1.00mm	4mm Cylind.
45D00812U0RB011 IN2203	0.80mm	2	0.1	2.00mm	45.00mm	1.20mm	4mm Cylind.
45D00812U0RB012 IN2203	0.80mm	2	0.1	4.00mm	45.00mm	1.20mm	4mm Cylind.
45D00812U0RB013 IN2203	0.80mm	2	0.1	6.00mm	45.00mm	1.20mm	4mm Cylind.
45D01015T7RB01 IN2203	1.00mm	2	0.1	4.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB022 IN2203	1.00mm	2	0.1	6.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB021 IN2203	1.00mm	2	0.2	4.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB031 IN2203	1.00mm	2	0.2	6.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB03 IN2203	1.00mm	2	0.2	8.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB011 IN2203	1.00mm	2	0.3	4.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB02 IN2203	1.00mm	2	0.3	6.00mm	50.00mm	1.50mm	6mm Cylind.
45D01015T7RB032 IN2203	1.00mm	2	0.3	8.00mm	50.00mm	1.50mm	6mm Cylind.
45D01525T7RB02 IN2203	1.50mm	2	0.2	4.00mm	50.00mm	2.50mm	6mm Cylind.
45D00203T7RB503 IN2203	1.50mm	2	0.2	6.00mm	50.00mm	2.50mm	6mm Cylind.
45D00203T7RB505 IN2203	1.50mm	2	0.2	8.00mm	50.00mm	2.50mm	6mm Cylind.
45D01525T7RB021 IN2203	1.50mm	2	0.2	10.00mm	50.00mm	2.50mm	6mm Cylind.
45D01525T7RB022 IN2203	1.50mm	2	0.2	12.00mm	50.00mm	2.50mm	6mm Cylind.
45D02030T7RB03 IN2203	1.50mm	2	0.3	4.00mm	50.00mm	2.50mm	6mm Cylind.
45D00203T7RB504 IN2203	1.50mm	2	0.3	6.00mm	50.00mm	2.50mm	6mm Cylind.
45D00203T7RB506 IN2203	1.50mm	2	0.3	8.00mm	50.00mm	2.50mm	6mm Cylind.
45D00203T7RB506 IN2203	1.50mm	2	0.3	8.00mm	50.00mm	2.50mm	6mm Cylind.
45D02030T7RB031 IN2203	2.00mm	2	0.2	6.00mm	50.00mm	3.00mm	6mm Cylind.
45D02030T7RB033 IN2203	2.00mm	2	0.2	8.00mm	50.00mm	3.00mm	6mm Cylind.
45D00203T7RB507 IN2203	2.00mm	2	0.2	10.00mm	55.00mm	3.00mm	6mm Cylind.
45D02030T7RB034 IN2203	2.00mm	2	0.2	10.00mm	55.00mm	4.00mm	6mm Cylind.
45D04040T7RB02 IN2203	2.00mm	2	0.2	12.00mm	55.00mm	3.00mm	6mm Cylind.
45D02030T7RB051 IN2203	2.00mm	2	0.3	6.00mm	50.00mm	3.00mm	6mm Cylind.
45D02030T7RB052 IN2203	2.00mm	2	0.3	8.00mm	50.00mm	3.00mm	6mm Cylind.
45D00203T7RB508 IN2203	2.00mm	2	0.3	10.00mm	55.00mm	3.00mm	6mm Cylind.



# POWERROUNDS™ SERIES 45DRB (CONT.)

## 2 FLUTE, 30° HELIX AND CORNER RADII SCRM

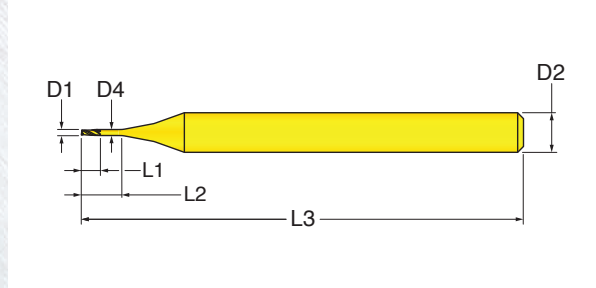


Cutter Number	D1 Diameter	Z Flutes	Radius	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45D02030T7RB05 IN2203	2.00mm	2	0.3	12.00mm	55.00mm	3.00mm	6mm Cylind.
45D02030T7RB02 IN2203	2.00mm	2	0.3	16.00mm	55.00mm	3.00mm	6mm Cylind.
45D02030T7RB021 IN2203	2.00mm	2	0.5	6.00mm	50.00mm	3.00mm	6mm Cylind.
45D00203T7RB509 IN2203	2.00mm	2	0.5	10.00mm	55.00mm	3.00mm	6mm Cylind.
45D02030T7RB032 IN2203	2.00mm	2	0.5	12.00mm	55.00mm	3.00mm	6mm Cylind.
45D03040T7RB022 IN2203	3.00mm	2	0	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB031 IN2203	3.00mm	2	0.2	8.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB02 IN2203	3.00mm	2	0.2	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB05 IN2203	3.00mm	2	0.3	8.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB052 IN2203	3.00mm	2	0.3	10.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB032 IN2203	3.00mm	2	0.3	12.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB03 IN2203	3.00mm	2	0.3	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB023 IN2203	3.00mm	2	0.5	10.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB053 IN2203	3.00mm	2	0.5	12.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB033 IN2203	3.00mm	2	0.5	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB021 IN2203	3.00mm	2	0.5	20.00mm	55.00mm	4.00mm	6mm Cylind.
45D04040T7RB03 IN2203	4.00mm	2	0.2	12.00mm	55.00mm	5.00mm	6mm Cylind.
45D04040T7RB10 IN2203	4.00mm	2	0.2	20.00mm	55.00mm	4.00mm	6mm Cylind.
45D03040T7RB051 IN2203	4.00mm	2	0.3	10.00mm	55.00mm	5.00mm	6mm Cylind.
45D04040T7RB051 IN2203	4.00mm	2	0.3	12.00mm	55.00mm	5.00mm	6mm Cylind.
45D04050T7RB10 IN2203	4.00mm	2	0.3	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D04050T7RB031 IN2203	4.00mm	2	0.3	20.00mm	55.00mm	4.00mm	6mm Cylind.
45D04050T7RB02 IN2203	4.00mm	2	0.5	12.00mm	55.00mm	5.00mm	6mm Cylind.
45D04050T7RB03 IN2203	4.00mm	2	0.5	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D04040T7RB05 IN2203	4.00mm	2	0.5	20.00mm	55.00mm	4.00mm	6mm Cylind.
45D04040T7RB021 IN2203	4.00mm	2	1	12.00mm	55.00mm	5.00mm	6mm Cylind.
45D04050T7RB05 IN2203	4.00mm	2	1	16.00mm	55.00mm	4.00mm	6mm Cylind.
45D00606T7RB601 IN2203	6.00mm	2	0.3	20.00mm	60.00mm	6.00mm	6mm Cylind.
45D06060T7RB05 IN2203	6.00mm	2	0.5	20.00mm	60.00mm	6.00mm	6mm Cylind.
45D06060T7RB10 IN2203	6.00mm	2	1	20.00mm	60.00mm	6.00mm	6mm Cylind.
45D06060T7RB15 IN2203	6.00mm	2	1.5	20.00mm	60.00mm	6.00mm	6mm Cylind.
45D06070T7RB20 IN2203	6.00mm	2	2	20.00mm	60.00mm	7.00mm	6mm Cylind.
45D08090TORB03 IN2203	8.00mm	2	0.3	25.00mm	60.00mm	9.00mm	8mm Cylind.
45D08090TORB20 IN2203	8.00mm	2	0.3	32.00mm	70.00mm	9.00mm	8mm Cylind.
45D08090TORB05 IN2203	8.00mm	2	0.5	25.00mm	60.00mm	9.00mm	8mm Cylind.
45D08090TORB10 IN2203	8.00mm	2	1	25.00mm	60.00mm	9.00mm	8mm Cylind.



# POWERROUNDS™ SERIES 45DRB (CONT.)

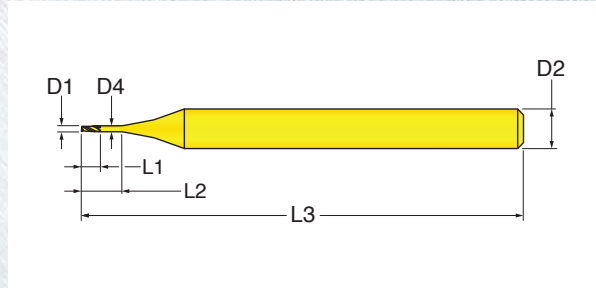
2 FLUTE, 30° HELIX AND CORNER RADII SCRM



Cutter Number	D1 Diameter	Z Flutes	Radius	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45D08090TORB15 IN2203	8.00mm	2	1.5	25.00mm	60.00mm	9.00mm	8mm Cylind.
45D01090T1RB03 IN2203	8.00mm	2	2	25.00mm	60.00mm	9.00mm	8mm Cylind.
45D01011T1RB10 IN2203	10.00mm	2	0.5	32.00mm	70.00mm	11.00mm	10mm Cylind.
45D01011T1RB15 IN2203	10.00mm	2	1	32.00mm	70.00mm	11.00mm	10mm Cylind.
45D01011T1RB05 IN2203	10.00mm	2	1.5	32.00mm	70.00mm	11.00mm	10mm Cylind.
45D01011T1RB20 IN2203	10.00mm	2	2	32.00mm	70.00mm	11.00mm	10mm Cylind.
45D01212T2RB10 IN2203	12.00mm	2	0.5	38.00mm	80.00mm	12.00mm	12mm Cylind.
45D01212T2RB15 IN2203	12.00mm	2	1	38.00mm	80.00mm	12.00mm	12mm Cylind.
45D01212T2RB05 IN2203	12.00mm	2	1.5	38.00mm	80.00mm	12.00mm	12mm Cylind.
45D01212T2RB20 IN2203	12.00mm	2	2	38.00mm	80.00mm	12.00mm	12mm Cylind.



**2 FLUTE, 30° HELIX SCYM**

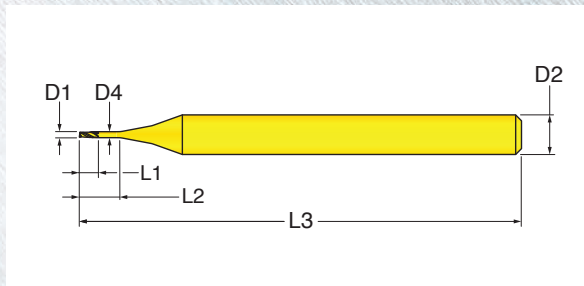


Cutter Number	D Diameter	Z Flutes	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45J00406UORB00 IN2203	0.400mm	2	2.00mm	45.00mm	0.60mm	4mm Cylind.
45J00506UORB00 IN2203	0.500mm	2	2.000mm	45.00mm	0.60mm	4mm Cylind.
45J00507UORB00 IN2203	0.500mm	2	4.000mm	45.00mm	0.70mm	4mm Cylind.
45J00507UORB001 IN2203	0.500mm	2	6.000mm	45.00mm	0.70mm	4mm Cylind.
45J00609UORB00 IN2203	0.600mm	2	2.000mm	45.00mm	0.90mm	4mm Cylind.
45J00812UORB00 IN2203	0.800mm	2	4.000mm	45.00mm	1.20mm	4mm Cylind.
45J00812UORB001 IN2203	0.800mm	2	6.000mm	45.00mm	1.20mm	4mm Cylind.
45J01015UORB00 IN2203	1.000mm	2	4.000mm	45.00mm	1.50mm	4mm Cylind.
45J01015UORB001 IN2203	1.000mm	2	6.000mm	45.00mm	1.50mm	4mm Cylind.
45J01015UORB002 IN2203	1.000mm	2	8.000mm	45.00mm	1.50mm	4mm Cylind.
45J01015UORB003 IN2203	1.000mm	2	10.000mm	45.00mm	1.50mm	4mm Cylind.
45J01015UORB004 IN2203	1.000mm	2	12.000mm	45.00mm	1.50mm	4mm Cylind.
45J01015UORB005 IN2203	1.000mm	2	20.000mm	55.00mm	1.50mm	4mm Cylind.
45J01218UORB00 IN2203	1.200mm	2	6.000mm	45.00mm	1.80mm	4mm Cylind.
45J01523UORB00 IN2203	1.500mm	2	6.000mm	45.00mm	2.30mm	4mm Cylind.
45J01523UORB001 IN2203	1.500mm	2	8.000mm	45.00mm	2.30mm	4mm Cylind.
45J01523UORB002 IN2203	1.500mm	2	10.000mm	45.00mm	2.30mm	4mm Cylind.
45J01523UORB003 IN2203	1.500mm	2	12.000mm	45.00mm	2.30mm	4mm Cylind.
45J01523UORB004 IN2203	1.500mm	2	16.000mm	50.00mm	2.30mm	4mm Cylind.
45J01523UORB005 IN2203	1.500mm	2	20.000mm	55.00mm	2.30mm	4mm Cylind.
45J02030UORB00 IN2203	2.000mm	2	6.000mm	45.00mm	3.00mm	4mm Cylind.
45J02030UORB001 IN2203	2.000mm	2	8.000mm	45.00mm	3.00mm	4mm Cylind.
45J02030UORB002 IN2203	2.000mm	2	10.000mm	45.00mm	3.00mm	4mm Cylind.
45J02030UORB003 IN2203	2.000mm	2	12.000mm	45.00mm	3.00mm	4mm Cylind.
45J02030UORB004 IN2203	2.000mm	2	14.000mm	50.00mm	3.00mm	4mm Cylind.
45J02030UORB005 IN2203	2.000mm	2	16.000mm	50.00mm	3.00mm	4mm Cylind.
45J02030UORB006 IN2203	2.000mm	2	20.000mm	55.00mm	3.00mm	4mm Cylind.
45J02030UORB007 IN2203	2.000mm	2	25.000mm	60.00mm	3.00mm	4mm Cylind.
45J02030UORB008 IN2203	2.000mm	2	30.000mm	70.00mm	3.00mm	4mm Cylind.
45J03045T7RB00 IN2203	3.000mm	2	12.000mm	45.00mm	4.50mm	4mm Cylind.
45J03045T7RB001 IN2203	3.000mm	2	16.000mm	55.00mm	4.50mm	4mm Cylind.
45J03045T7RB002 IN2203	3.000mm	2	20.000mm	60.00mm	4.50mm	4mm Cylind.
45J03045T7RB003 IN2203	3.000mm	2	25.000mm	65.00mm	4.50mm	4mm Cylind.
45J03045T7RB004 IN2203	3.000mm	2	30.000mm	70.00mm	4.50mm	4mm Cylind.
45J03045T7RB005 IN2203	3.000mm	2	35.000mm	80.00mm	4.50mm	4mm Cylind.
45J03045T7RB006 IN2203	3.000mm	2	40.000mm	90.00mm	4.50mm	4mm Cylind.



# POWERROUNDS™ SERIES 45JRB (CONT.)

2 FLUTE, 30° HELIX SCEM

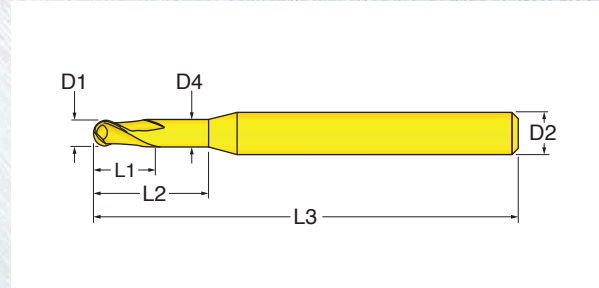


Cutter Number	D Diameter	Z Flutes	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45J04060T7RB00 IN2203	4.000mm	2	12.000mm	50.00mm	6.00mm	4mm Cylind.
45J04060T7RB001 IN2203	4.000mm	2	16.000mm	60.00mm	6.00mm	4mm Cylind.
45J04060T7RB002 IN2203	4.000mm	2	20.000mm	60.00mm	6.00mm	4mm Cylind.
45J04060T7RB003 IN2203	4.000mm	2	25.000mm	70.00mm	6.00mm	4mm Cylind.
45J04060T7RB004 IN2203	4.000mm	2	30.000mm	70.00mm	6.00mm	4mm Cylind.



# PRO<sup>o</sup>ROUNDS™ SERIES 45BRB

## 2 FLUTE, 30° HELIX RIB PROCESSING BALL NOSE

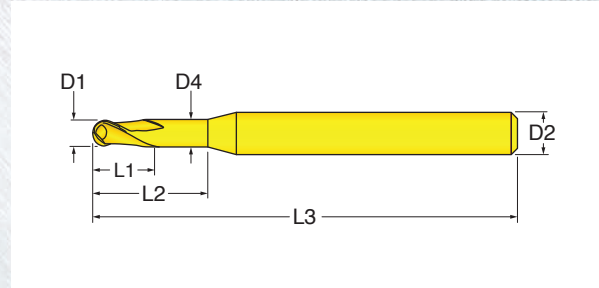


Cutter Number	D Diameter	Z Flutes	Radius	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45B00101UORB00 IN2203	0.10mm	2	0.05	0.50mm	45.00mm	0.10mm	4mm Cylind.
45B00101UORB001 IN2203	0.10mm	2	0.05	0.50mm	45.00mm	0.10mm	4mm Cylind.
45B00202UORB01 IN2203	0.20mm	2	0.1	0.50mm	45.00mm	0.20mm	4mm Cylind.
45B00202UORB011 IN2203	0.20mm	2	0.1	1.00mm	45.00mm	0.20mm	4mm Cylind.
45B00202UORB012 IN2203	0.20mm	2	0.1	1.50mm	45.00mm	0.20mm	4mm Cylind.
45B00303UORB01 IN2203	0.30mm	2	0.15	1.00mm	45.00mm	0.30mm	4mm Cylind.
45B00303UORB011 IN2203	0.30mm	2	0.15	2.00mm	45.00mm	0.30mm	4mm Cylind.
45B00303UORB012 IN2203	0.30mm	2	0.15	3.00mm	45.00mm	0.30mm	4mm Cylind.
45B00404UORB011 IN2203	0.40mm	2	0.2	3.00mm	45.00mm	0.40mm	4mm Cylind.
45B00504UORB02 IN2203	0.50mm	2	0.25	2.00mm	45.00mm	0.40mm	4mm Cylind.
45B00504UORB021 IN2203	0.50mm	2	0.25	4.00mm	45.00mm	0.40mm	4mm Cylind.
45B00504UORB022 IN2203	0.50mm	2	0.25	8.00mm	45.00mm	0.40mm	4mm Cylind.
45B00605UORB021 IN2203	0.60mm	2	0.3	2.00mm	45.00mm	0.50mm	4mm Cylind.
45B00605UORB03 IN2203	0.60mm	2	0.3	4.00mm	45.00mm	0.50mm	4mm Cylind.
45B00605UORB031 IN2203	0.60mm	2	0.3	8.00mm	45.00mm	0.50mm	4mm Cylind.
45B00806UORB04 IN2203	0.80mm	2	0.4	2.00mm	45.00mm	0.60mm	4mm Cylind.
45B00806UORB401 IN2203	0.80mm	2	0.4	4.00mm	45.00mm	0.60mm	4mm Cylind.
45B00806UORB042 IN2203	0.80mm	2	0.4	6.00mm	45.00mm	0.60mm	4mm Cylind.
45B00806UORB043 IN2203	0.80mm	2	0.4	10.00mm	45.00mm	0.60mm	4mm Cylind.
45B01008UORB50 IN2203	1.00mm	2	0.5	3.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB501 IN2203	1.00mm	2	0.5	4.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB052 IN2203	1.00mm	2	0.5	5.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB053 IN2203	1.00mm	2	0.5	6.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB054 IN2203	1.00mm	2	0.5	8.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB055 IN2203	1.00mm	2	0.5	10.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB056 IN2203	1.00mm	2	0.5	12.00mm	45.00mm	0.80mm	4mm Cylind.
45B01008UORB057 IN2203	1.00mm	2	0.5	16.00mm	50.00mm	0.80mm	4mm Cylind.
45B01008UORB058 IN2203	1.00mm	2	0.5	20.00mm	55.00mm	0.80mm	4mm Cylind.
45B01201UORB06 IN2203	1.20mm	2	0.6	8.00mm	45.00mm	1.00mm	4mm Cylind.
45B01512UORB07 IN2203	1.50mm	2	0.75	6.00mm	45.00mm	1.20mm	4mm Cylind.
45B01512UORB071 IN2203	1.50mm	2	0.75	8.00mm	45.00mm	1.20mm	4mm Cylind.
45B01512UORB072 IN2202	1.50mm	2	0.75	10.00mm	45.00mm	1.20mm	4mm Cylind.
45B01512UORB073 IN2203	1.50mm	2	0.75	12.00mm	45.00mm	1.20mm	4mm Cylind.
45B01512UORB074 IN2203	1.50mm	2	0.75	16.00mm	50.00mm	1.20mm	4mm Cylind.
45B01512UORB075 IN2203	1.50mm	2	0.75	20.00mm	55.00mm	1.20mm	4mm Cylind.
45B02016UORB10 IN2203	2.00mm	2	1	4.00mm	45.00mm	1.60mm	4mm Cylind.



# PRO•ROUNDS™ SERIES 45BRB

## 2 FLUTE, 30° HELIX RIB PROCESSING BALL NOSE

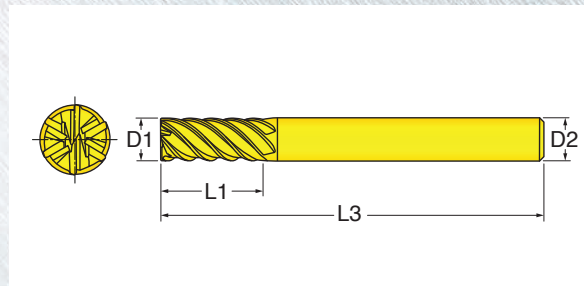


Cutter Number	D Diameter	Z Flutes	Radius	L2 Extension Length	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
45B02016U0RB101 IN2203	2.00mm	2	1	6.00mm	45.00mm	1.60mm	4mm Cylind.
45B02016U0RB102 IN2003	2.00mm	2	1	10.00mm	45.00mm	1.60mm	4mm Cylind.
45B02016U0RB103 IN2203	2.00mm	2	1	12.00mm	50.00mm	1.60mm	4mm Cylind.
45B02016U0RB104 IN2203	2.00mm	2	1	14.00mm	50.00mm	1.60mm	4mm Cylind.
45B02016U0RB105 IN2203	2.00mm	2	1	16.00mm	50.00mm	1.60mm	4mm Cylind.
45B02016U0RB106 IN2203	2.00mm	2	1	20.00mm	55.00mm	1.60mm	4mm Cylind.
45B02016U0RB107 IN2203	2.00mm	2	1	25.00mm	60.00mm	1.60mm	4mm Cylind.
45B02016U0RB108 IN2203	2.00mm	2	1	30.00mm	70.00mm	1.60mm	4mm Cylind.
45B03024T7RB15 IN2203	3.00mm	2	1.5	12.00mm	50.00mm	2.40mm	6mm Cylind.
45B03024T7RB151 IN2203	3.00mm	2	1.5	16.00mm	55.00mm	2.40mm	6mm Cylind.
45B03024T7RB152 IN2203	3.00mm	2	1.5	20.00mm	60.00mm	2.40mm	6mm Cylind.
45B03024T7RB153 IN2203	3.00mm	2	1.5	25.00mm	65.00mm	2.40mm	6mm Cylind.
45B03024T7RB154 IN2203	3.00mm	2	1.5	30.00mm	70.00mm	2.40mm	6mm Cylind.
45B03024T7RB156 IN2203	3.00mm	2	1.5	35.00mm	80.00mm	2.40mm	6mm Cylind.
45B04032T7RB20 IN2203	4.00mm	2	2	16.00mm	60.00mm	3.20mm	6mm Cylind.
45B04032T7RB201 IN2203	4.00mm	2	2	20.00mm	65.00mm	3.20mm	6mm Cylind.
45B04032T7RB202 IN2203	4.00mm	2	2	25.00mm	70.00mm	3.20mm	6mm Cylind.



# POWERROUNDS™ SERIES 48JRJ

6 FLUTE, 45° HELIX, EXTRA LONG SCFM



Cutter Number	Helix (deg)	D1 Diameter	Z Flutes	C Corner	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
48J00606T7RJ03 IN2203	45	6mm	6	.25	50.00mm	6.00mm	6mm Cylind.
48J00606T7RJ05 IN2203	45	6mm	6	.50	50.00mm	6.00mm	6mm Cylind.
48J00613T7RJ05 IN2203	45	6mm	6	.50	70.00mm	13.00mm	6mm Cylind.
48J00626T7RJ05 IN2203	45	6mm	6	.50	70.00mm	26.00mm	6mm Cylind.
48J00808T0RJ05 IN2203	45	8mm	6	.05	60.00mm	8.00mm	8mm Cylind.
48J00819T0RJ05 IN2203	45	8mm	6	.05	90.00mm	19.00mm	8mm Cylind.
48J00836T0RJ05 IN2203	45	8mm	6	.50	90.00mm	36.00mm	8mm Cylind.
48J01010T1RJ10 IN2203	45	10mm	6	.10	70.00mm	10.00mm	10mm Cylind.
48J01022T1RJ10 IN2203	45	10mm	6	.10	100.00mm	22.00mm	10mm Cylind.
48J01046T1RJ10 IN2203	45	10mm	6	.10	100.00mm	46.00mm	10mm Cylind.
48J01022T1RJ05 IN2203	45	10mm	6	.50	100.00mm	22.00mm	10mm Cylind.
48J01212T2RJ10 IN2203	45	12mm	6	.10	75.00mm	12.00mm	12mm Cylind.
48J01226T2RJ05 IN2203	45	12mm	6	.50	110.00mm	26.00mm	12mm Cylind.
48J01226T2RJ10 IN2203	45	12mm	6	1.0	110.00mm	26.00mm	12mm Cylind.
48J01256T2RJ10 IN2203	45	12mm	6	1.0	110.00mm	56.00mm	12mm Cylind.
48J01632T3RJ10 IN2203	45	16mm	6	1.0	130.00mm	32.00mm	16mm Cylind.
48J01632T3RJ15 IN2203	45	16mm	6	1.5	130.00mm	32.00mm	16mm Cylind.
48J01666T3RJ15 IN2203	45	16mm	6	1.5	130.00mm	66.00mm	16mm Cylind.
48J02076T4RJ20 IN2203	45	20mm	6	.20	140.00mm	76.00mm	20mm Cylind.
48J02038T4RJ10 IN2203	45	20mm	6	1.0	140.00mm	38.00mm	20mm Cylind.
48J02038T4RJ15 IN2203	45	20mm	6	1.5	140.00mm	38.00mm	20mm Cylind.
48J02038T4RJ20 IN2203	45	20mm	6	2.0	140.00mm	38.00mm	20mm Cylind.