

TURNING

18-2023

MAY 2023

METRIC

NPA

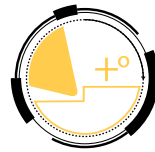
New Product Announcement



Rough Applications



R3P Chipformer



Positive Rake Geometry



ISOTURN

Expanded Range of Double-Sided Inserts for Roughing Applications with the R3P Chipformer



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New Product Announcement

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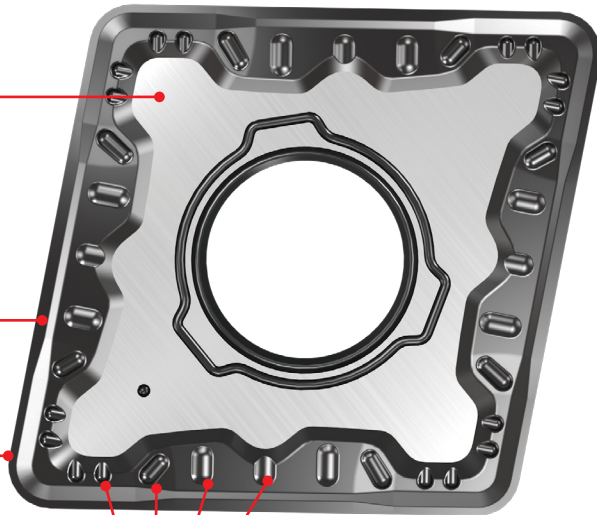
Highlights CNMG and SMNG 16 and 19 with R3P Chipformer for Roughing

Chipformer features and advantages:

1. Ground surface for optimal adherence to the pocket, dissipates heat in the machining process

2. Low cutting resistance due to positive rake geometry

3. Reinforced cutting edge with a negative land



4. Unique deflector geometry for improved chip control, reduces friction and heat

The new inserts are offered with ISCAR's advanced grades: CVD - IC8150, IC8250, IC5005, IC5010 and PVD - IC807 and IC830.

[Click for Short Videos](#)

METRIC



Rough Applications



R3P Chipformer



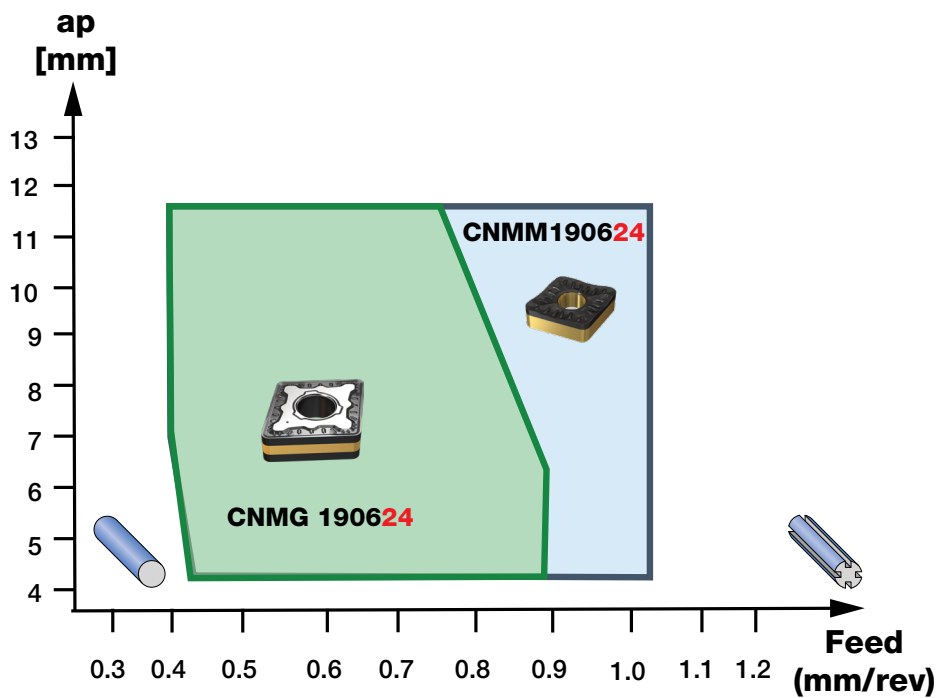
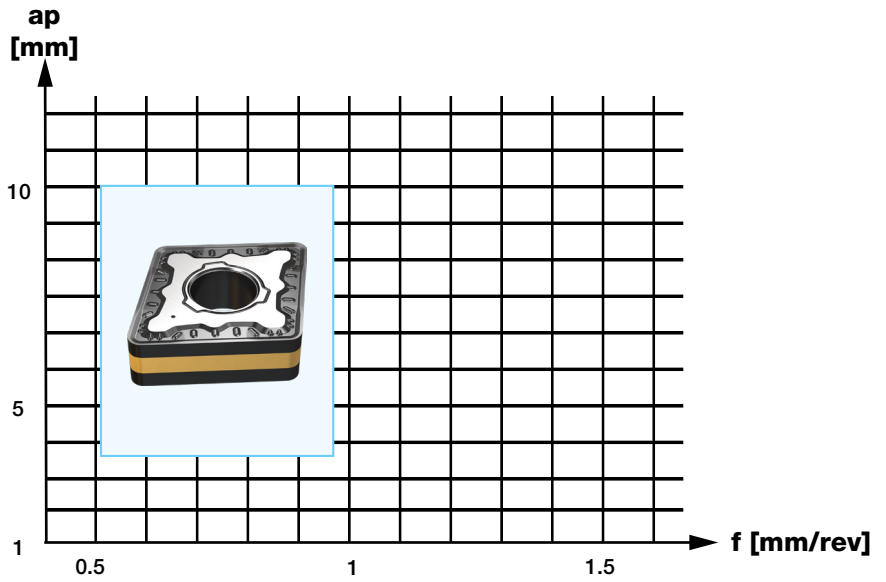
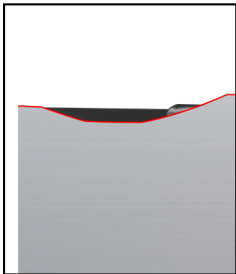
Positive Rake Geometry

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Chipbreaking Range



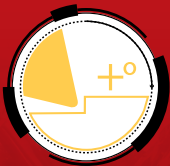
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Rough Applications



R3P Chipformer



Positive Rake Geometry

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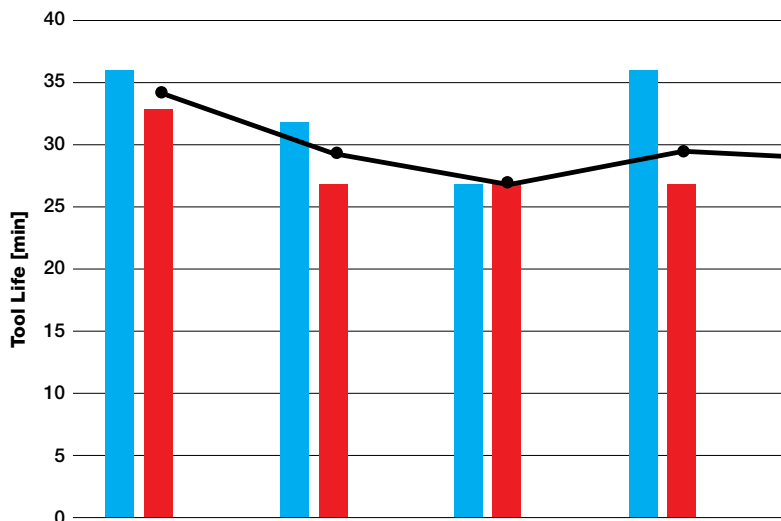
TEC CENTER 65631 – Test No. 1

Chip Breaking Range

Workpiece AISI 4340

Vc= 150m/min

Machine : OKUMA LB45-II



TEC CENTER 65631
 Insert Tool Life
 Workpiece AISI4340
 Vc=150 m/min
 ap=4mm
 f=0.5mm/rev
 Machine : OKUMA LB45-II

Chipbreaker	R3P	competitor
Average Tool Life	34.5	29.5
RANK %	100%	85.5%

NPA New Product Announcement

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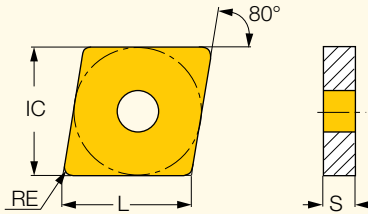
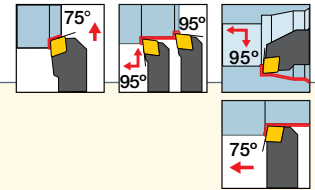
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CNMG-R3P

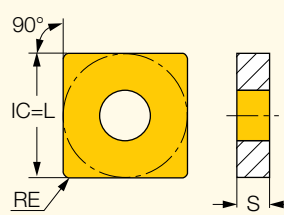
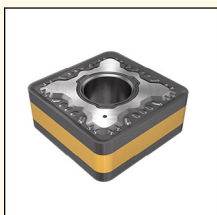
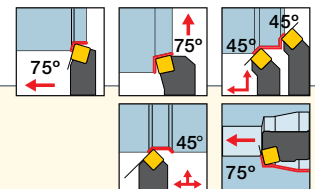
Double-Sided 80° Rhombic Inserts with a Chipformer for Rough Machining



Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC5010	IC5005	IC807	a_p (mm)	f (mm/rev)
CNMG 160608-R3P	16.12	15.88	6.35	0.80	•			•	•		1.50-6.00	0.25-0.50
CNMG 160612-R3P	16.12	15.88	6.35	1.20				•	•		2.00-7.00	0.30-0.60
CNMG 160616-R3P	16.12	15.88	6.35	1.60		•	•	•			2.50-7.00	0.30-0.70
CNMG 160624-R3P	16.12	15.88	6.35	2.40	•	•	•				2.50-7.00	0.30-0.70
CNMG 150616-R3P	16.12	15.88	6.35	1.60	•					•	2.50-7.00	0.30-0.70
CNMG 190612-R3P	19.30	19.05	6.35	1.20			•				3.50-8.00	0.30-0.80
CNMG 190616-R3P	19.30	19.05	6.35	1.60		•	•	•	•		4.00-10.00	0.40-0.85
CNMG 190624-R3P	19.30	19.05	6.35	2.40					•		4.00-10.00	0.40-0.85

SNMG-R3P

Double-Sided Square Inserts with Chipformer for rough Machining



Designation	Dimensions			Tough ↔ Hard						Recommended Machining Data	
	IC	S	RE	IC830	IC8250	IC8150	IC5010	IC5005	IC807	a_p (mm)	f (mm/rev)
SNMG 150608-R3P	15.88	6.35	0.80	•	•	•	•	•	•	2.50-8.00	0.30-0.70
SNMG 150612-R3P	15.88	6.35	1.20	•	•	•	•	•	•	2.50-8.00	0.30-0.70
SNMG 150616-R3P	15.88	6.35	1.20	•	•	•	•	•	•	2.50-8.00	0.30-0.70
SNMG 190612-R3P	19.05	6.35	1.20	•	•	•	•	•	•	3.00-8.00	0.40-0.70
SNMG 190616-R3P	19.05	6.35	1.60		•	•	•	•	•	3.50-10.00	0.40-0.70