

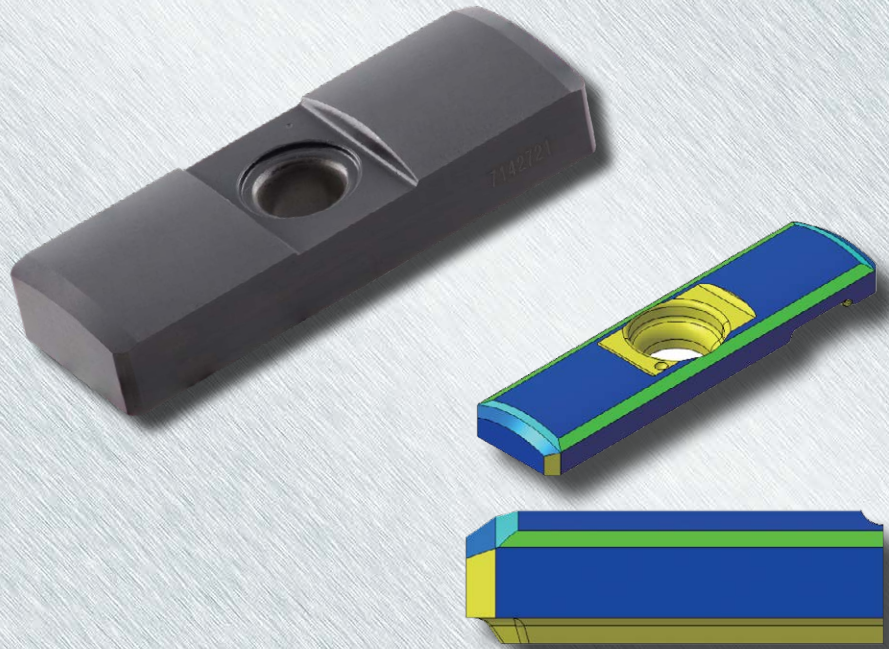


## Product Range

Deep Trio  
TBTA-H  
Indexable Cartridge Heads

## Grades

CD: Brazed Carbide Pad -  
being phased out  
IN2040: Solid Carbide -  
High Wear Resistance  
IN2005: Solid Carbide -  
Combo of Wear & Toughness  
IN2030: Solid Carbide -  
Higher Toughness



DC - "Double Chamfer" Guide Pad

## Solid Carbide Guide Pads NEW Names, Grades & Features

Ingersoll is pleased to introduce changes to the solid guide pads used across eight of its deep-hole drilling product lines, including Deep Trio and BTA Heads.

New Grade IN2030 is a very tough grade for difficult applications, including those in water-soluble coolant environments.

New double-chamfer solid carbide guide pads provide a smoother entry into the pilot or bushing, reducing chipping and in many cases extending pad life more than two times. These pads are available in grades IN2005 and IN2030, making them an ideal choice for virtually all applications. As a result, Ingersoll will eventually phase out the comparable single-chamfer guide pads.

These new guide pad developments have created a need to use a new naming convention which is described on page 2.



## SOLID CARBIDE GUIDE PADS - DESIGNATION CODE KEY

The addition of the new guide pad grade and double chamfer has made it necessary to rename the guide pads to account for the various features. The new descriptions will be as follows;

New description: **PAD-GP06-020-120 IN2040**      Old description: PAD-G006-SB

In the above example, the components of the description represent the following;

# PAD - GP06 - 020 - 120DC      IN2040

**PAD-GP** = All guide pads for all BTA product lines will now have PAD-GP for the prefix as they are one family of solid carbide guide pads. Pads for each style of tool will be listed with that style of tool in the NPA's and the BTA catalog. Older brazed guide pads and the plus guide pads will not be updated to the new description at this time.

**06** = width in mm

**020** = length in mm

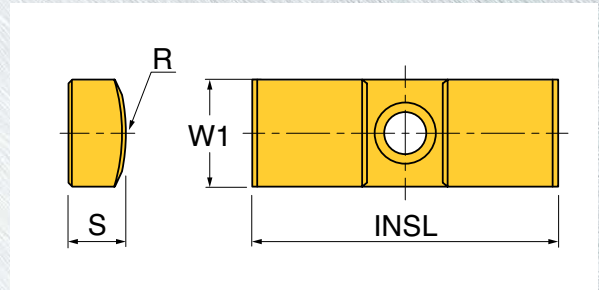
**120** = radius in mm

**DC** = Double Chamfer. Pads with the single chamfer will have no designation.

The grade is also included now in the description. Options are as follows;

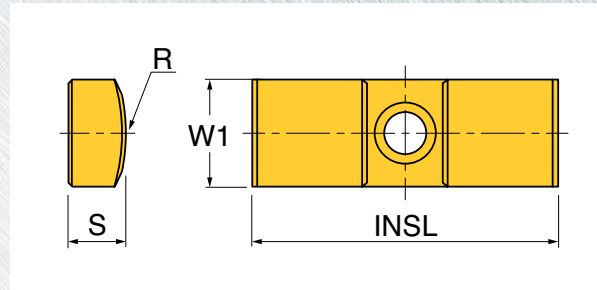
IN2040 (formerly SA): High Wear Resistance  
IN2005 (formerly SB): Combination of Wear & Toughness  
IN2030 (formerly SC): High Toughness

## SOLID CARBIDE GUIDE PADS - DEEP TRIO: GD, GDADP, MC, MCADP SERIES DEEP DRILLS



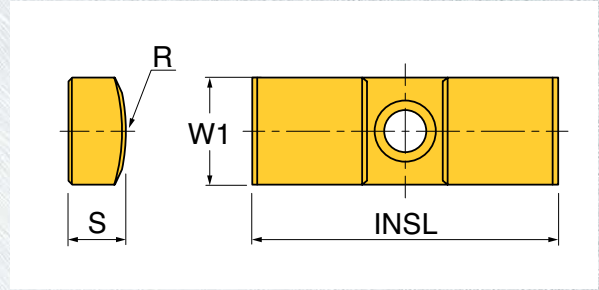
New Description	Old Description	W1 Width	S Thickness	INSL Length	R Radius
PAD-GP04-016-045DC IN2005	-	0.157	0.071	0.63	0.177
PAD-GP04-016-050DC IN2005	-				0.197
PAD-GP04-016-055 IN2040	PAD-GO04-055CD-SA	0.157	0.079	0.630	0.217
PAD-GP04-016-055 IN2005	PAD-GO04-055CD-SB				
<b>NEW</b> PAD-GP04-016-055-DC IN2005	PAD-GP04-16-055-DC IN2005	0.197	0.098	0.709	0.236
<b>NEW</b> PAD-GP04-016-055-DC IN2030	PAD-GO04-055CD-SC				
<b>NEW</b> PAD-GP05-018-060 IN2005	PAD-GO05-060CD-SB	0.197	0.098	0.709	0.295
<b>NEW</b> PAD-GP05-018-060-DC IN2005	PAD-GP05-18-060-DC IN2005				
<b>NEW</b> PAD-GP05-018-060-DC IN2030	PAD-GO05-060CD-SC	0.236	0.118	0.787	0.346
<b>NEW</b> PAD-GP05-018-075 IN2005	PAD-GO05-075CD-SB				
<b>NEW</b> PAD-GP05-018-075-DC IN2005	PAD-GP05-18-075-DC IN2005	0.236	0.118	0.787	0.394
<b>NEW</b> PAD-GP05-018-075-DC IN2030	PAD-GO05-075CD-SC				
PAD-GP06-020-075 IN2040	PAD-GO06-075CD-SA	0.236	0.118	0.787	0.472
PAD-GP06-020-075 IN2005	PAD-GO06-075CD-SB				
<b>NEW</b> PAD-GP06-020-075-DC IN2005	PAD-GP06-20-075-DC IN2005	0.276	0.138	0.787	0.472
<b>NEW</b> PAD-GP06-020-075-DC IN2030	PAD-GO06-075CD-SC				
PAD-GP06-020-085 IN2040	PAD-GO06-085CD-SA	0.315	0.177	0.984	0.610
PAD-GP06-020-085 IN2005	PAD-GO06-085CD-SB				
<b>NEW</b> PAD-GP06-020-085-DC IN2005	PAD-GP06-20-085-DC IN2005	-	-	-	-
<b>NEW</b> PAD-GP06-020-085-DC IN2030	PAD-GO06-085CD-SC				
PAD-GP06-020-100 IN2040	PAD-GO06-100CD-SA	-	-	-	-
PAD-GP06-020-100 IN2005	PAD-GO06-100CD-SB				
<b>NEW</b> PAD-GP06-020-100-DC IN2005	PAD-GP06-20-100-DC IN2005	-	-	-	-
<b>NEW</b> PAD-GP06-020-100-DC IN2030	PAD-GO06-100CD-SC				
PAD-GP06-020-120 IN2040	PAD-GO06CD-SA	-	-	-	-
PAD-GP06-020-120 IN2005	PAD-GO06CD-SB				
<b>NEW</b> PAD-GP06-020-120-DC IN2005	PAD-GP06-20-100-DC IN2005	-	-	-	-
<b>NEW</b> PAD-GP06-020-120-DC IN2030	PAD-GO06CD-SC				
PAD-GP07-020-120 IN2040	PAD-GO07CD-SA	-	-	-	-
PAD-GP07-020-120 IN2005	PAD-GO07CD-SB				
PAD-GP07-020-120-DC IN2005	-	-	-	-	-
PAD-GP07-020-120-DC IN2030	-				
PAD-GP08-025-155 IN2040	PAD-GO08CD-SA	-	-	-	-
PAD-GP08-025-155 IN2005	PAD-GO08CD-SB				
PAD-GP08-025-155-DC IN2005	-	-	-	-	-
PAD-GP08-025-155-DC IN2030	-				

## SOLID CARBIDE GUIDE PADS - TBTA-DT SERIES BTA HEADS



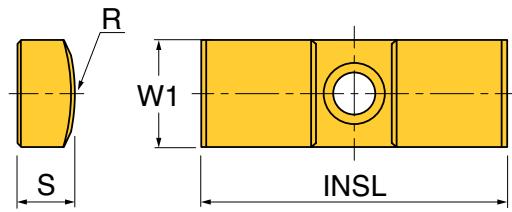
New Description		Old Description	W1 Width	S Thickness	INSL Length	R Radius
	PAD-GP06-20-075 IN2040	PAD-GO06-075CD-SA	0.236	0.118	0.787	0.295
	PAD-GP06-20-075 IN2005	PAD-GO06-075CD-SB				
<b>NEW</b>	PAD-GP06-20-075DC IN2005	PAD-GP06-20-075-DC IN2005				
<b>NEW</b>	PAD-GP06-20-075DC IN2030	PAD-GO06-075CD-SC	0.236	0.118	0.787	0.346
	PAD-GP06-20-085 IN2040	PAD-GO06-085CD-SA				
	PAD-GP06-20-085 IN2005	PAD-GO06-085CD-SB				
<b>NEW</b>	PAD-GP06-20-085DC IN2005	PAD-GP06-20-085-DC IN2005	0.236	0.118	0.787	0.394
<b>NEW</b>	PAD-GP06-20-085DC IN2030	PAD-GO06-085CD-SC				
	PAD-GP06-20-100 IN2040	PAD-GO06-100CD-SA				
	PAD-GP06-20-100 IN2005	PAD-GO06-100CD-SB	0.236	0.118	0.787	0.394
<b>NEW</b>	PAD-GP06-20-100DC IN2005	PAD-GP06-20-100-DC IN2005				
<b>NEW</b>	PAD-GP06-20-100DC IN2030	PAD-GO06-100CD-SC				
	PAD-GP06-20-120 IN2040	PAD-GO06CD-SA	0.236	0.118	0.787	0.472
	PAD-GP06-20-120 IN2005	PAD-GO06CD-SB				
<b>NEW</b>	PAD-GP06-20-120DC IN2005	PAD-GP06-20-100-DC IN2005				
<b>NEW</b>	PAD-GP06-20-120DC IN2030	PAD-GO06CD-SC	0.276	0.138	0.787	0.472
	PAD-GP07-20-120 IN2040	PAD-GO07CD-SA				
	PAD-GP07-20-120 IN2005	PAD-GO07CD-SB				
<b>NEW</b>	PAD-GP07-20-120DC IN2005	PAD-GP07-20-120-DC IN2005	0.276	0.138	0.787	0.472
<b>NEW</b>	PAD-GP07-20-120DC IN2030	PAD-GO07CD-SC				
	PAD-GP08-25-155 IN2040	PAD-GO08CD-SA				
	PAD-GP08-25-155 IN2005	PAD-GO08CD-SB	0.315	0.177	0.984	0.610
<b>NEW</b>	PAD-GP08-25-155DC IN2005	PAD-GP08-20-155-DC IN2005				
<b>NEW</b>	PAD-GP08-25-155DC IN2030	PAD-GO08CD-SC				

## SOLID CARBIDE GUIDE PADS - TBTA-H SERIES BTA HEADS



	New Description	Old Description	W1 Width	S Thickness	INSL Length	R Radius
	PAD-GP06-020-120 IN2040	PAD-GO06CD-SA	0.236	0.118	0.787	0.472
	PAD-GP06-020-120 IN2005	PAD-GO06CD-SB				
<b>NEW</b>	PAD-GP06-020-120-DC IN2005	-				
<b>NEW</b>	PAD-GP06-020-120-DC IN2030	-	0.276	0.138	0.787	0.472
	PAD-GP07-020-120 IN2040	PAD-GO07CD-SA				
	PAD-GP07-020-120 IN2005	PAD-GO07CD-SB				
<b>NEW</b>	PAD-GP07-020-120-DC IN2005	-	0.315	0.177	0.984	0.610
<b>NEW</b>	PAD-GP07-020-120-DC IN2030	-				
	PAD-GP08-025-155 IN2040	PAD-GO08CD-SA				
	PAD-GP08-025-155 IN2005	PAD-GO08CD-SB	0.394	0.177	1.181	0.787
<b>NEW</b>	PAD-GP08-025-155-DC IN2005	-				
<b>NEW</b>	PAD-GP08-025-155-DC IN2030	-				
	PAD-GP10-030-200 IN2040	PAD-GO10CD-SA	0.472	0.217	0.1.378	0.984
	PAD-GP10-030-200 IN2005	PAD-GO10CD-SB				
<b>NEW</b>	PAD-GP10-030-200-DC IN2005	-				
<b>NEW</b>	PAD-GP10-030-200-DC IN2030	-				
	PAD-GP12-035-250 IN2040	PAD-GO12CD-SA				
	PAD-GP12-035-250 IN2005	PAD-GO12CD-SB				
<b>NEW</b>	PAD-GP12-035-250-DC IN2005	-				
<b>NEW</b>	PAD-GP12-035-250-DC IN2030	-				

## SOLID CARBIDE GUIDE PADS - TBTA3, TBTA5, TBTA7, TBTA-R & TBTA-T SERIES BTA HEADS



New Description	Old Description	W1 Width	S Thickness	INSL Length	R Radius
PAD-GP08-025-155 IN2040	PAD-G008CD-SA	0.315	0.177	0.984	0.610
PAD-GP08-25-155 IN2005	PAD-G008CD-SB				
<b>NEW</b> PAD-GP08-025-155-DC IN2005	PAD-GP08-20-155-DC IN2005				
<b>NEW</b> PAD-GP08-025-155-DC IN2030	PAD-G008CD-SC	0.394	0.236	1.378	.787
PAD-GP10-035-200 IN2040	PAD-GC10CD-SA				
PAD-GP10-035-200 IN2005	PAD-GC10CD-SB				
<b>NEW</b> PAD-GP10-035-200-DC IN2005	PAD-GP10-30-200-DC IN2005	0.551	0.295	1.575	.984
<b>NEW</b> PAD-GP10-035-200-DC IN2030	PAD-GC10CD-SC				
PAD-GP14-040-250 IN2040	PAD-GC14CD-SA				
PAD-GP14-040-250 IN2005	PAD-GC14CD-SB	0.709	0.234	1.575	1.181
<b>NEW</b> PAD-GP14-040-250-DC IN2005	PAD-GP14-40-250-DC IN2005				
<b>NEW</b> PAD-GP14-040-250-DC IN2030	PAD-GC14CD-SC				
<b>NEW</b> PAD-GP18-040-300 IN2005	PAD-GC18CD-SB	0.709	0.234	1.575	1.181
<b>NEW</b> PAD-GP18-040-300-DC IN2005	PAD-GP18-40-300-DC IN2005				
<b>NEW</b> PAD-GP18-040-300-DC IN2030	PAD-GC18CD-SC				

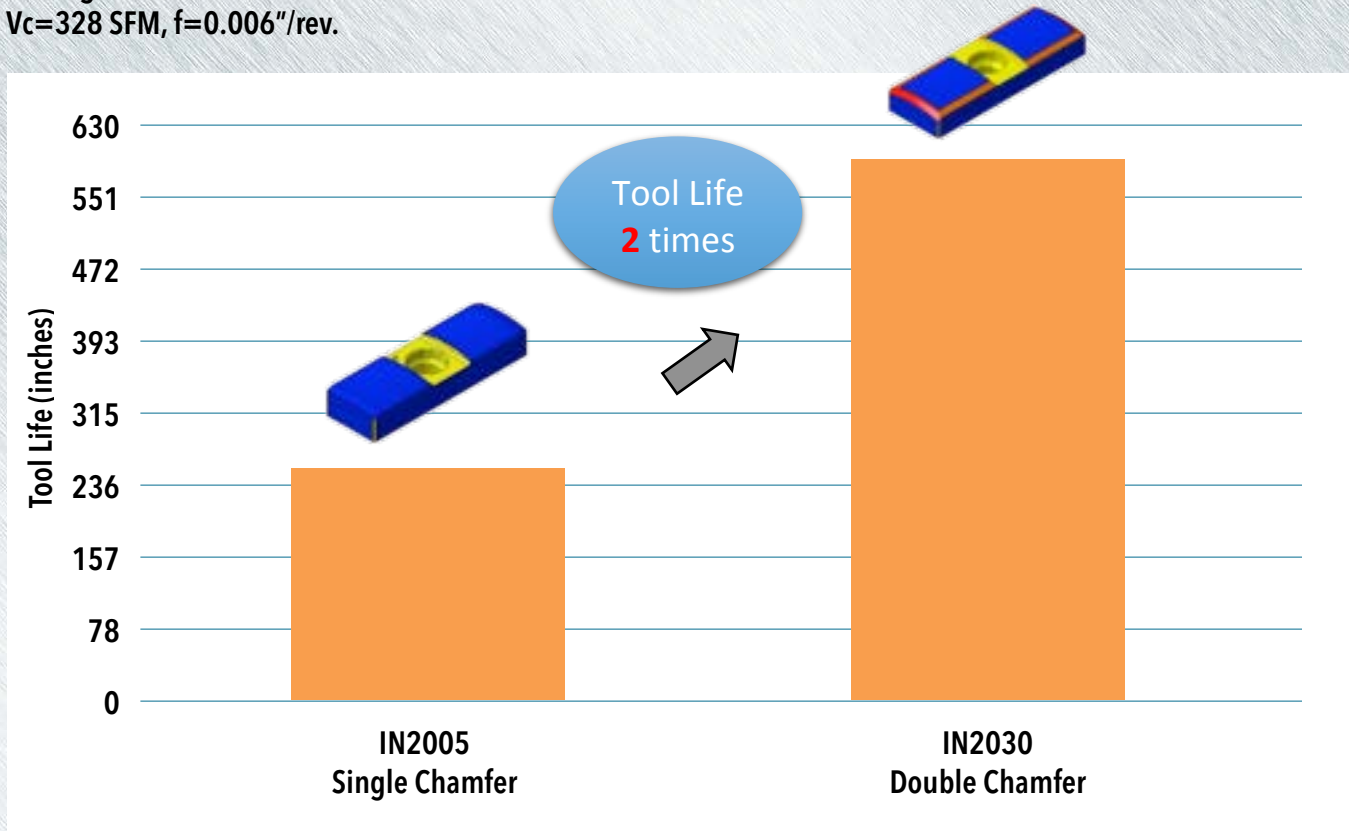
**NEW**

## SOLID CARBIDE PLUS GUIDE PADS - TBTA3, TBTA5, TBTA7, TBTA-R & TBTA-T SERIES BTA HEADS

New Description	Old Description	W1 Width	S Thickness	INSL Length	R Radius
PAD-GP08-025-160DC1 IN2005	PAD-GC08+1CD	0.315	0.197	0.984	0.630
PAD-GP08-025-165DC2 IN2005	PAD-GC08+2CD		0.217		0.650
PAD-GP08-025-170DC3 IN2005	PAD-GC08+3CD		0.236		0.669
PAD-GP10-035-205DC1 IN2005	PAD-GC10+1CD	0.394	0.256	1.378	0.807
PAD-GP10-035-210DC2 IN2005	PAD-GC10+2CD		0.276		0.827
PAD-GP10-035-215DC3 IN2005	PAD-GC10+3CD		0.295		0.847
PAD-GP10-035-220DC4 IN2005	PAD-GC10+4CD	0.551	0.315	1.575	0.866
PAD-GP14-040-255DC1 IN2005	PAD-GC14+1CD		0.315		1.004
PAD-GP14-040-260DC2 IN2005	PAD-GC14+2CD		0.335		1.024
PAD-GP14-040-265DC3 IN2005	PAD-GC14+3CD	0.709	0.354	1.575	1.043
PAD-GP14-040-270DC4 IN2005	PAD-GC14+4CD		0.374		1.063
PAD-GP14-040-275DC5 IN2005	PAD-GC14+5CD		0.394		1.083
PAD-GP18-040-305DC1 IN2005	PAD-GC18+1CD	0.709	0.374	1.575	1.201
PAD-GP18-040-310DC2 IN2005	PAD-GC18+2CD		0.394		1.220
PAD-GP18-040-315DC3 IN2005	PAD-GC18+3CD		0.413		1.240
PAD-GP18-040-320DC4 IN2005	PAD-GC18+4CD	0.709	0.433	1.575	1.260
PAD-GP18-040-325DC5 IN2005	PAD-GC18+5CD		0.453		1.280

## DOUBLE CHAMFER CUTTING PERFORMANCE

Tool: GT2001200  
Material: 4340 steel  
Cutting Condition:  
 $V_c=328$  SFM,  $f=0.006$ "/rev.



Double chamfer significantly improved fracture resistance and has increased tool life by 2 times more than single chamfer.

## NEW GRADE CUTTING PERFORMANCE FIELD TEST

Drill Head: GT25400381

Guide Pad: GP06-20-100-DC

Material: 15-5 PH Stainless

Cutting Conditions:

Hole Dia.: 1.0"

Hole Depth: 305"

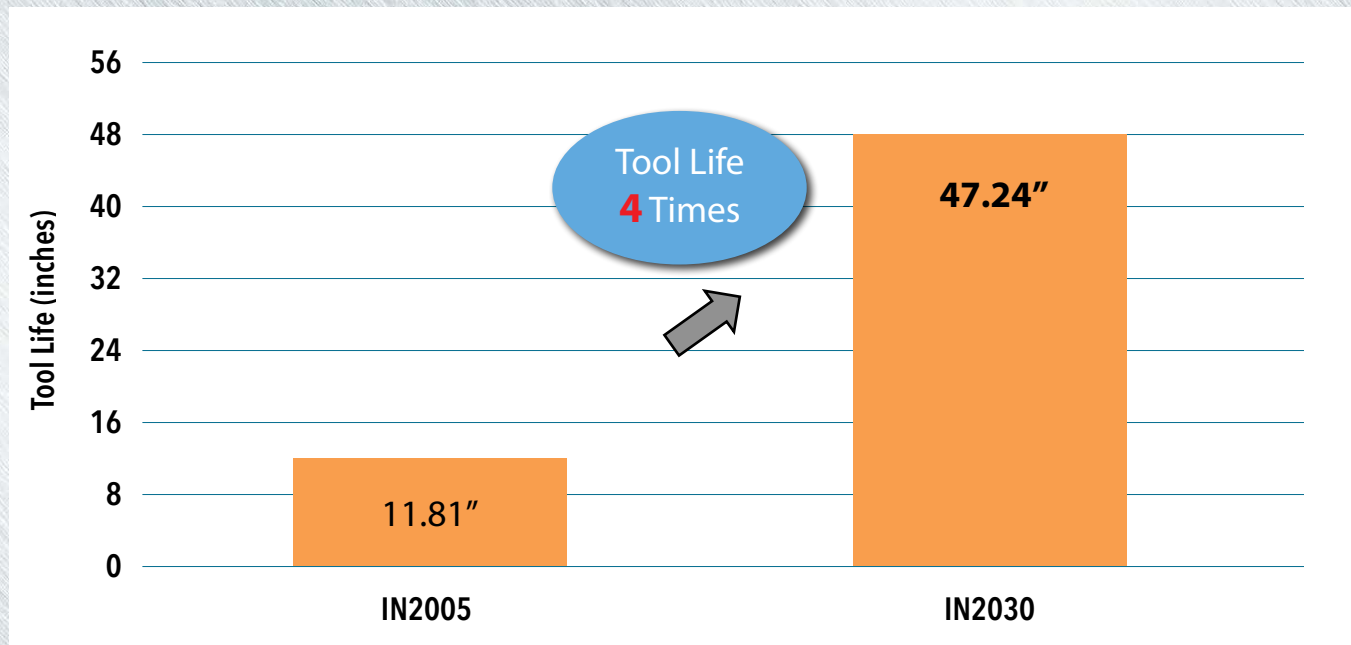
Cutting Speed: 1.02 ipm

Spindle Speed: 510 rpm

Feed: .002 in/rev

Coolant: Water Soluble

Tool Life per Corner:



New Guide Pad grade IN2030 significantly improved fracture resistance and has increased tool life by 4 times over our previous grade.