



DRV Magic Drill Kits

High Efficiency and High Speed Indexable Drill

2xD to 6xD drilling lineup with 4 chipbreakers for various machining applications

High speed and highly efficient machining with the combination of a CVD outer insert and PVD inner insert

Excellent hole accuracy with a highly rigid design for better chatter resistance



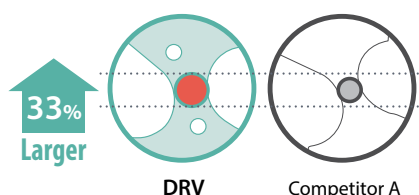
NEW

Expanded Lineup from Ø0.562"~Ø1.250"

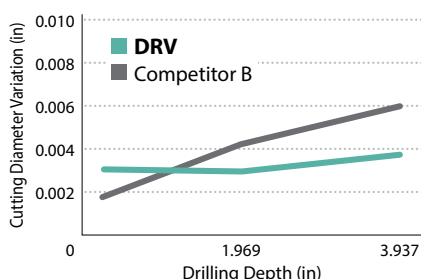
1 Excellent Drilling Precision with Less Variation in Cutting Diameter

Optimal Web Thickness and Low Cutting Force Design Reduces Chattering

Web Thickness Comparison
(Internal Evaluation)

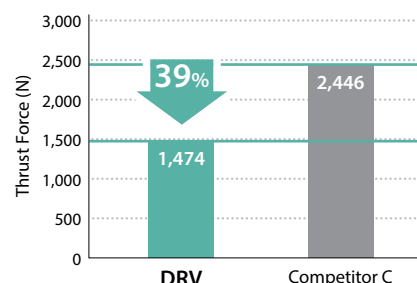


Cutting Diameter Variation Comparison
(Internal Evaluation)



Cutting Conditions : $V_c = 490$ sfm, $f = 0.0024$ ipr
Cutting Dia. Ø0.812" (5D), Wet, Workpiece : 1049

Cutting Force Comparison
(Internal Evaluation)



Cutting Conditions : $V_c = 660$ sfm, $f = 0.0047$ ipr
Cutting Dia. Ø0.812" (3D), Wet, Workpiece : 1049



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2 Unique Insert Design to Control Chip Flow

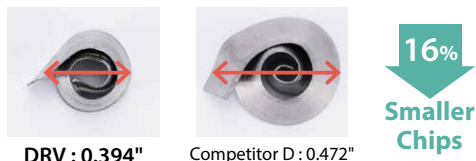
Outer Edge Insert

Unique Insert Pattern to Differentiate between Outside and Inside Inserts



Smooth Chip Evacuation with Compact Chips

Chip Shape Comparison of Outer Insert Cutting Edge (Internal Evaluation)



Cutting Conditions : $V_c = 490$ sfm, $f = 0.0024$ ipr, Cutting Dia. $\emptyset 0.812$ (3D), Wet Workpiece : 1049

Inner Edge Insert



Excellent Chip Evacuation with 6xD Maximum Deep-Hole Drilling

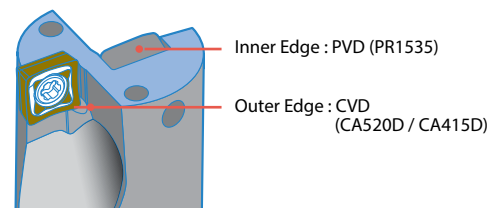
Weight per Unit of Length for Chips Generated by the Inner Insert (Internal Evaluation)



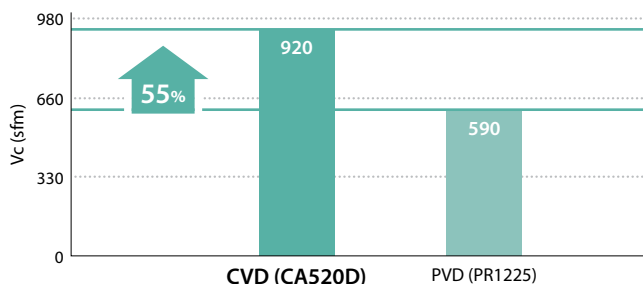
Cutting Conditions : $V_c = 820$ sfm, $f = 0.0031$ ipr, Cutting Dia. $\emptyset 0.812$ (5D), Wet, Workpiece : 304

3 New Insert Grades Developed for Drilling

High Speed and Highly Efficient Machining with the Combination of CVD (Outer Edge) and PVD (Inner Edge) Inserts

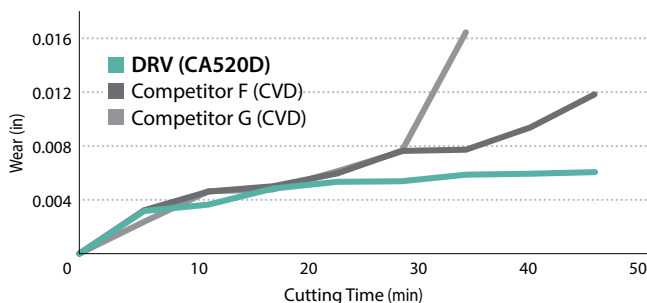


Recommended Cutting Conditions (Maximum Values)



Cutting Dia. $\emptyset 0.812$ (3D) Workpiece : 1049

Wear Resistance Comparison (Internal Evaluation)



Cutting Conditions : $V_c = 660$ sfm, $f = 0.0047$ ipr, Cutting Dia. $\emptyset 0.812$ (3D), Wet Workpiece : 4140H



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DRV Magic Drill - 2D Kits

Includes (1) Drill and (10) Inside Inserts and (10) Outside Inserts

Choose Your Drill Size and 1 of 2 Insert Combinations

Pick 1 Drill Body Part Number	Cutting Dia.	Shank Dia.	Pick 1 of 2 Combinations for Inside and Outside Inserts				Kit Part Number (Use when Ordering)	Kit Price \$CAD
			Inside Edge Insert	Insert Grade	Outside Edge Insert	Insert Grade		
NEW S075-DRV0562-2-04	0.562"	0.750"	SCMT040209-GM-I	PR1535	SCMT040205-GM-E	CA520D	S075DRV0562204GM KIT	\$430.00
			SCMT040209-SM-I	PR1535	SCMT040205-SM-E	PR1225	S075DRV0562204SM KIT	
S075-DRV0625-2-05	0.625"	0.750"	SCMT050210-GM-I	PR1535	SCMT050205-GM-E	CA520D	S075DRV0625205GM KIT	\$430.00
			SCMT050210-SM-I	PR1535	SCMT050205-SM-E	PR1225	S075DRV0625205SM KIT	
S075-DRV0656-2-05	0.656"	0.750"	SCMT050210-GM-I	PR1535	SCMT050205-GM-E	CA520D	S075DRV0656205GM KIT	\$430.00
			SCMT050210-SM-I	PR1535	SCMT050205-SM-E	PR1225	S075DRV0656205SM KIT	
S100-DRV0688-2-05	0.688"	1.000"	SCMT050210-GM-I	PR1535	SCMT050205-GM-E	CA520D	S100DRV0688205GM KIT	\$430.00
			SCMT050210-SM-I	PR1535	SCMT050205-SM-E	PR1225	S100DRV0688205SM KIT	
S100-DRV0750-2-06	0.750"	1.000"	SCMT060210-GM-I	PR1535	SCMT060205-GM-E	CA520D	S100DRV0750206GM KIT	\$430.00
			SCMT060210-SM-I	PR1535	SCMT060205-SM-E	PR1225	S100DRV0750206SM KIT	
S100-DRV0812-2-06	0.812"	1.000"	SCMT060210-GM-I	PR1535	SCMT060205-GM-E	CA520D	S100DRV0812206GM KIT	\$430.00
			SCMT060210-SM-I	PR1535	SCMT060205-SM-E	PR1225	S100DRV0812206SM KIT	
S100-DRV0875-2-06	0.875"	1.000"	SCMT060210-GM-I	PR1535	SCMT060205-GM-E	CA520D	S100DRV0875206GM KIT	\$430.00
			SCMT060210-SM-I	PR1535	SCMT060205-SM-E	PR1225	S100DRV0875206SM KIT	
S100-DRV0938-2-07	0.938"	1.000"	SCMT070310-GM-I	PR1535	SCMT070305-GM-E	CA520D	S100DRV0938207GM KIT	\$460.00
			SCMT070310-SM-I	PR1535	SCMT070305-SM-E	PR1225	S100DRV0938207SM KIT	
S100-DRV0984-2-07	0.984"	1.000"	SCMT070310-GM-I	PR1535	SCMT070305-GM-E	CA520D	S100DRV0984207GM KIT	\$460.00
			SCMT070310-SM-I	PR1535	SCMT070305-SM-E	PR1225	S100DRV0984207SM KIT	
S100-DRV1000-2-07	1.000"	1.000"	SCMT070310-GM-I	PR1535	SCMT070305-GM-E	CA520D	S100DRV1000207GM KIT	\$460.00
			SCMT070310-SM-I	PR1535	SCMT070305-SM-E	PR1225	S100DRV1000207SM KIT	
NEW S125DRV1062-2-09	1.062"	1.250"	SCMT090410-GM-I	PR1535	SCMT090405-GM-E	CA520D	S125DRV1062209GM KIT	\$520.00
			SCMT090410-SM-I	PR1535	SCMT090405-SM-E	PR1225	S125DRV1062209SM KIT	
NEW S125DRV1125-2-09	1.125"	1.250"	SCMT090410-GM-I	PR1535	SCMT090405-GM-E	CA520D	S125DRV1125209GM KIT	\$520.00
			SCMT090410-SM-I	PR1535	SCMT090405-SM-E	PR1225	S125DRV1125209SM KIT	
NEW S125DRV1188-2-09	1.188"	1.250"	SCMT090410-GM-I	PR1535	SCMT090405-GM-E	CA520D	S125DRV1188209GM KIT	\$520.00
			SCMT090410-SM-I	PR1535	SCMT090405-SM-E	PR1225	S125DRV1188209SM KIT	
NEW S150DRV1250-2-09	1.250"	1.500"	SCMT090410-GM-I	PR1535	SCMT090405-GM-E	CA520D	S150DRV1250209GM KIT	\$520.00
			SCMT090410-SM-I	PR1535	SCMT090405-SM-E	PR1225	S150DRV1250209SM KIT	

Estimated Cutting Tolerance (2D)

Applicable Insert Information [Page 19](#)

ØDc	Estimated Cutting Tolerance (in)
Ø0.562" - Ø1.250"	+0.012 0

The above values are estimates.

These values may change due to machine, workpiece, clamping power, and cutting conditions

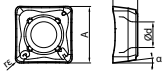
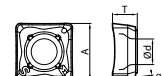
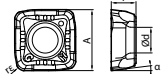
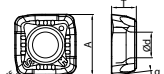
All 2019 Winter / Spring Offers Valid through June 30, 2019

All promotional items are available exclusively through Authorized North American Kyocera Precision Tool Distributors.

Please use specified Kit Part Number in product tables when placing orders. To locate a distributor visit www.kyoceraprecisiontools.com/locate. Prices shown valid in Canada only.

DRV Inserts

Choose (10) Inserts for the Outside Edge and (10) Inserts for the Inside Edge

Usage Classification										
★ : 1st Recommendation (High Speed and Highly Efficient Machining) ☆ : 2nd Recommendation (Stable Machining Oriented)				P	Carbon Steel / Alloy Steel			☆	★	★
					Tool Steel			☆	★	★
				M	Stainless Steel			☆	★	★
				K	Cast Iron			☆		★
Insert	Insert Pocket	Part Number	Dimensions (in)				Angle	MEGACOAT	CVD Coated Carbide	MEGACOAT NANO
			A	T	Ød	rε	α	PR1225	CA520D	PR1535
 General Purpose	 Outer Edge	SCMT 040205-GM-E	0.189	0.087	0.094	0.020	7°		●	
		050205-GM-E	0.207	0.102	0.094	0.020			●	
		060205-GM-E	0.252	0.110	0.114	0.020			●	
		070305-GM-E	0.301	0.126	0.138	0.020			●	
		090405-GM-E	0.358	0.161	0.157	0.020			●	
 Stainless Steel Machining	 Outer Edge	SCMT 040205-SM-E	0.189	0.087	0.094	0.020	7°	●		
		050205-SM-E	0.207	0.102	0.094	0.020		●		
		060205-SM-E	0.252	0.110	0.114	0.020		●		
		070305-SM-E	0.301	0.126	0.138	0.020		●		
		090405-SM-E	0.358	0.161	0.157	0.020		●		
 General Purpose	 Inner Edge	SCMT 040209-GM-I	0.197	0.087	0.094	0.035	7°			●
		050210-GM-I	0.224	0.102	0.094	0.039				●
		060210-GM-I	0.272	0.110	0.114	0.039				●
		070310-GM-I	0.323	0.126	0.138	0.039				●
		090410-GM-I	0.386	0.161	0.157	0.039				●
 Stainless Steel Machining	 Inner Edge	SCMT 040209-SM-I	0.197	0.087	0.094	0.035	7°			●
		050210-SM-I	0.224	0.102	0.094	0.039				●
		060210-SM-I	0.272	0.110	0.114	0.039				●
		070310-SM-I	0.323	0.126	0.138	0.039				●
		090410-SM-I	0.386	0.161	0.157	0.039				●

-E : Outer Edge Insert
-I : Inner Edge Insert

● : U.S. Stock

Insert Grade Selection Guide

Select CVD for the outer edge when performing high speed and high efficiency drilling and for abrasion resistance and long tool life.

Select PVD MEGACOAT for the outer edge for stable machining and a better surface finish.

PVD MEGACOAT is recommended for the outer edge if chattering occurs, machining with lathe, or if cutting conditions cannot be increased to the recommended speed for CVD.

1st Recommendation

(High Speed and High Efficiency Machining)

Outer Edge : CVD(CA520D)

Inner Edge : PVD (PR1535)



Stable Machining Oriented

(1st Recommendation for Lathe Machining)

Outer Edge : PVD (PR1225)

Inner Edge : PVD (PR1535)



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