

PCD & PCBN INSERT CATALOGUE



Nigel Precision Machiner(shanghai)Co.,Ltd





COMPANY PROFILE

Nigel Precision Machinery Co., Ltd. is located in Shanghai, China. We specialize in cutting tools and have more than 20 years' experience in this field. We always adhere to the principles of quality first, reputation first, and customer first to provide customers with the highest quality cutting tool solutions.

We are also one of the world's best supplier and manufacturer of cutting tools with full range of cutting tools. Products cover turning, grooving, milling, drilling and other processing methods. The main products are PCBN, PCD inserts, carbide inserts, gear cutting tools, and small boring tools, replaceable drills bits, BTA drills and so on, We have advanced fully automated production equipment, presses, sintering furnaces, coating equipment and Mazak 5-axis CNC machine , Switzerland STUDER grinding machine for internal and external cylindrical grinding, Zoller tool detector, Swiss Alicona passivation testing equipment, German Zeiss CMM. In the production process, we inspect each process of the product to ensure the precision and accuracy of each product. In addition, we can also provide customized services and OEM services according to customer needs.

Our products are favored by customers all over the world, especially in Europe, North America, Asia and other countries with developed manufacturing industries. In the future, our goal is to continuously improve our technical level and product quality and create new markets. We hope that NIGEL's products can create value and competitiveness for you.

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High performance CBN\PCD material introduction and scope of use

高性能CBN\PCD材质介绍和使用范围

Processing Materials 加工材料	Grade 刀片等级	Processing Condition 加工工况	Cutting Speed VC=M/Min 切削速度	Range Of Feeds F=mm/R 进给
High hardness steel, quenched steel HRC45-65 高硬度钢, 淬火钢	NHB10T	Continuous processing, with extremely high stability and wear resistance. 连续加工, 具有极高稳定性和耐磨性。	150-250	0.03-0.2
	NHB20T	Mild and moderate intermittent processing, with special treatment of the inserts edge, balances wear resistance and toughness, reducing the risk of inserts wear. 轻度、中度断续加工, 刃口特殊处理, 均衡了耐磨性和韧性, 降低刀片磨损的风险。	50-150	0.03-0.2
	NHB30T	Medium, heavy intermittent processing, with high toughness, improve the life of the blade. 中度、重度断续加工, 具有高度韧性, 提高刀片的寿命。	30-100	0.03-0.2
Cast iron, ductile iron 铸铁、球墨铸铁	NKB10	Continuous and slightly intermittent processing balances wear resistance and toughness, maximizing performance and greatly improving blade life. 连续、轻度断续加工, 均衡了耐磨性和韧性, 发挥到极致的性能, 大大提高了刀片寿命。	300-800	0.03-0.3
	NKB20	Moderate and heavy intermittent processing, with high toughness and anti-collapse. 中度、重度断续加工, 具有高度韧性, 抗崩刃性。	300-800	0.03-0.3
Hard to process materials, powder metallurgy materials 难加工材料、粉末冶金材料	NSB10	Continuous and slightly intermittent processing balances wear resistance and toughness, maximizing performance and greatly improving blade life. 连续、轻度断续加工, 均衡了耐磨性和韧性, 发挥到极致的性能, 大大提高了刀片寿命。	300-800	0.03-0.3
	NSB20	Moderate and heavy intermittent processing, with high toughness and anti-collapse. 中度、重度断续加工, 具有高度韧性, 抗崩刃性。	200-500	0.03-0.3
Non-ferrous metal, aluminum alloy, non-ferrous metal, graphite, hard rubber 有色金属、铝合金、非铁金属、石墨、硬质橡胶	NND10	Continuous processing, micro intermittent processing, ultra-fine particle size, with extremely high stability and wear resistance, produces excellent smoothness, suitable for processing aluminum alloys, non-ferrous metals, and woodworking wood materials. 连续加工、微断续加工, 超细微粒度, 具有极高稳定性和耐磨性, 所产生的光洁度极好, 适合铝合金、非铁金属、木工木质材料加工。	500-1000	0.03-0.56
	NND20	Mild and moderate intermittent processing, general grade, balance wear resistance and toughness, reduce the risk of blade wear, suitable for non-ferrous metal, hard alloys, FRP, rubber graphite, ceramic semi-sintered products. 轻度、中度断续加工, 通用等级, 均衡了耐磨性和韧性, 降低刀片磨损的风险, 适合非铁金属, 硬质合金、FRP、橡胶石墨、陶瓷半烧结品。	200-750	0.03-0.56
	NND30	Mild to moderate, moderate, heavy intermittent processing, with high toughness, anti-collapse edge, suitable for high silicon aluminum alloy and composite materials, stone, rock processing. 轻中度、中度、重度断续加工, 具有高度韧性, 抗崩刃性, 适合高硅铝合金和复合材料、石材、岩石加工。	100-500	0.03-0.56
	NNDD	Both continuous and intermittent have excellent performance. The main body is made of high resistance and wear-resistant diamond material, with higher hardness and thermal conductivity than PCD, smaller friction coefficient, and better chemical stability. It is suitable for processing high silicon aluminum alloy and composite materials, stone, and rock. 连续、断续均有优异的表现, 本体是高抗耐磨金刚石材料, 硬度和热导率比PCD更高、摩擦系数更小, 化学稳定更好, 适合高硅铝合金和复合材料、石材、岩石加工。	100-1000	0.03-0.56

Economical CBN\PCD material introduction and scope of use

经济型CBN\PCD材质介绍和使用范围

Processing Materials 加工材料	Grade 刀片等级	Processing Condition 加工工况	Cutting Speed VC=M/Min 切削速度	Range Of Feeds F=mm/R 进给
High hardness steel, quenched steel HRC45-65 高硬度钢, 淬火钢	NEHB100	- Continuous cutting and micro intermittent cutting have extremely high stability and wear resistance. - 连续切削、微断续切削, 具有极高稳定性和耐磨性。	150-250	0.03-0.2
	NEHB200	- Moderate intermittent processing and heavy intermittent processing balance wear resistance and toughness, reducing the risk of insert wear. - 中度断续加工, 重度断续加工, 均衡了耐磨性和韧性, 降低刀片磨损的风险。	30-150	0.03-0.2
Cast iron, gray iron cast iron 铸铁、灰铁铸铁	NEKB300	- Both continuous and intermittent machining are available, universal processing, balances wear resistance and toughness, greatly improving the life of the insert. - 连续、断续均可加工, 通用加工, 均衡了耐磨性和韧性, 大大提高了刀片寿命。	300-800	0.03-0.3
Difficult to process materials and powder metallurgy materials 难加工材料、粉末冶金材料	NEHB300	- Both continuous and intermittent machining are available, universal processing, balances wear resistance and toughness, greatly improving the life of the insert. - 连续、断续均可加工, 通用加工, 均衡了耐磨性和韧性, 大大提高了刀片寿命。	200-500	0.03-0.3
Non-ferrous metals, aluminum alloys 有色金属、铝合金	NED100	- Continuous and slightly intermittent cutting, suitable for die-casting aluminum processing, with excellent surface smoothness. - 连续、微断续切削, 适合压铸铝加工, 极好的表面光洁度。	500-1000	0.03-0.5
	NED200	- Mild, moderate intermittent cutting, suitable for forging aluminum processing, with excellent surface smoothness. - 轻度、中度断续切削, 适合锻造铝加工, 极好的表面光洁度。	100-800	0.03-0.5

Improved service life 261%
寿命提高 261%



Part Name: Heavy Truck Bearing
零件名称: 重型卡车轴承

Part material: Bearing steel
零件材料: 轴承钢

Processing requirements: precision machining
加工要求: 精加工

Material hardness: HRC60
材料硬度: HRC60

Insert Material 刀片材质	Competitors' CBN insert 竞争对手CBN刀片	NIGEL CBN insert-NHB10T NIGEL CBN刀片 -NHB10T
Insert type 刀片型号	WNGA 080408	WNGA080408-3F NHB10T
linear velocity 线速度VC(m/min)	100	100
Feed Speed 进给速度F(mm/r)	0.16	0.16
Depth Of Cut 切削深度Ap(mm)	0.2	0.2
Processing quantity 加工数量 (PCS)	71	186
Single blade life comparison 单刀寿命对比	100%	261%

Improved service life **165%**
寿命提高 **165%**



Part Name: Transmission gear hub
零件名称: 变速箱齿毂

Part material: Bearing steel
零件材料: 轴承钢

Processing requirements: precision machining
加工要求: 精加工

Material hardness:
材料硬度：HRC60

Insert Material 刀片材质	Competitors' CBN insert 竞争对手CBN刀片	NIGEL CBN insert-NHB10T NIGEL CBN刀片 -NHB10T
Insert type 刀片型号	DCGW 11T304	DCGW 11T304-2F NHB10T
linear velocity 线速度VC(m/min)	500	500
Feed Speed 进给速度F(mm/r)	0.1	0.1
Depth Of Cut 切削深度Ap(mm)	0.2	0.2
Processing quantity 加工数量 (PCS)	102	168
Single blade life comparison 单刀寿命对比	100%	165%

Improved service life **170%**
寿命提高 **170%**



Part Name: Car camshaft
零件名称: 汽车凸轮轴

Part material: Bearing steel
零件材料: 轴承钢

Processing requirements: precision machining
加工要求: 精加工

Material hardness: HRC60
材料硬度: HRC60

Insert Material 刀片材质	Competitors' CBN insert 竞争对手CBN刀片	NIGEL CBN insert-NHB10T NIGEL CBN刀片 -NHB10T
Insert type 刀片型号	VBGW 160408	VBGW 160408-2F NHB10T
linear velocity 线速度VC(m/min)	210	210
Feed Speed 进给速度F(mm/r)	0.15	0.15
Depth Of Cut 切削深度Ap(mm)	0.3	0.3
Processing quantity 加工数量 (PCS)	605	1027
Single blade life comparison 单刃寿命对比	100%	170%

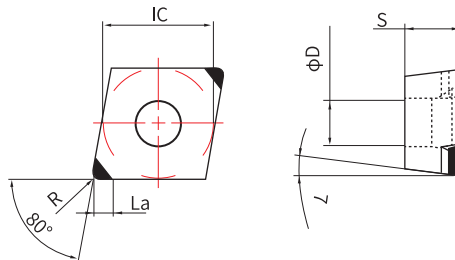
N-HIGH PERFORMANCE CBN INSERTS

NHP-高性能CBN刀片

N-High performance CBN inserts

NHP-高性能CBN刀片

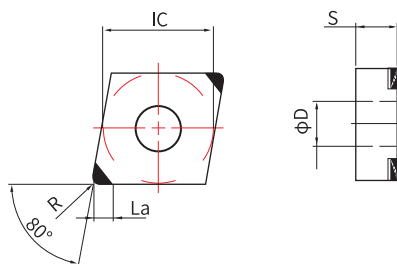
CC 80°



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
CCGW 060202	1F/2F	6.35	2.38	0.20	2.80	2.20	●	●	●	●	●	●	●
CCGW 060204	1F/2F	6.35	2.38	0.40	2.80	2.20	●	●	●	●	●	●	●
CCGW 060208	1F/2F	6.35	2.38	0.80	2.80	2.20	●	●	●	●	●	●	●
CCGW 09T302	1F/2F	9.53	3.97	0.20	4.40	2.20	●	●	●	●	●	●	●
CCGW 09T304	1F/2F	9.53	3.97	0.40	4.40	2.20	●	●	●	●	●	●	●
CCGW 09T308	1F/2F	9.53	3.97	0.80	4.40	2.20	●	●	●	●	●	●	●
CCGW 09T312	1F/2F	9.53	3.97	1.20	4.40	2.20	●	●	●	●	●	●	●
CCGW 120402	1F/2F	12.70	4.76	0.20	5.50	2.20	●	●	●	●	●	●	●
CCGW 120404	1F/2F	12.70	4.76	0.40	5.50	2.20	●	●	●	●	●	●	●
CCGW 120408	1F/2F	12.70	4.76	0.80	5.50	2.20	●	●	●	●	●	●	●
CCGW 120412	1F/2F	12.70	4.76	1.20	5.50	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

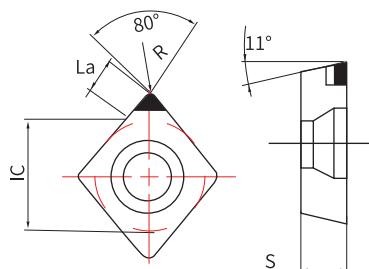
CN 80°



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
CNGA 120402	2F/4F	12.70	4.76	0.40	5.16	2.20	●	●	●	●	●	●	●
CNGA 120404	2F/4F	12.70	4.76	0.80	5.16	2.20	●	●	●	●	●	●	●
CNGA 120408	2F/4F	12.70	4.76	0.80	5.16	2.20	●	●	●	●	●	●	●
CNGA 120412	2F/4F	12.70	4.76	0.80	5.16	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

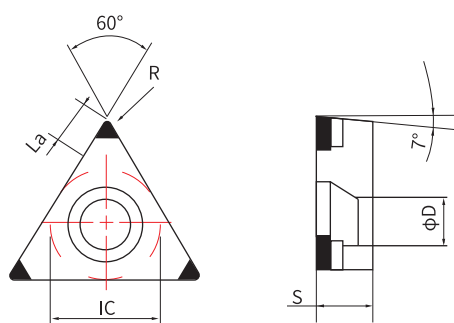
CP 80°



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
CPGW 060204	2F	6.35	2.38	0.40	2.80	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

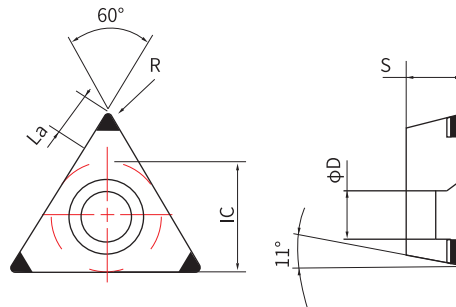
TC 60°



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
TCGW 090202	1F/3F	5.56	2.38	0.20	2.40	2.20	●	●	●	●	●	●	●
TCGW 090204	1F/3F	5.56	2.38	0.40	2.40	2.20	●	●	●	●	●	●	●
TCGW 090208	1F/3F	5.56	2.38	0.80	2.40	2.20	●	●	●	●	●	●	●
TCGW 110204	1F/3F	6.35	2.38	0.40	2.80	2.20	●	●	●	●	●	●	●
TCGW 110208	1F/3F	6.35	2.38	0.80	2.80	2.20	●	●	●	●	●	●	●
TCGW 110304	1F/3F	6.35	3.18	0.40	2.80	2.20	●	●	●	●	●	●	●
TCGW 110308	1F/3F	6.35	3.18	0.80	2.80	2.20	●	●	●	●	●	●	●
TCGW 16T304	1F/3F	9.525	3.97	0.40	4.40	2.20	●	●	●	●	●	●	●
TCGW 16T308	1F/3F	9.525	3.97	0.80	4.40	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

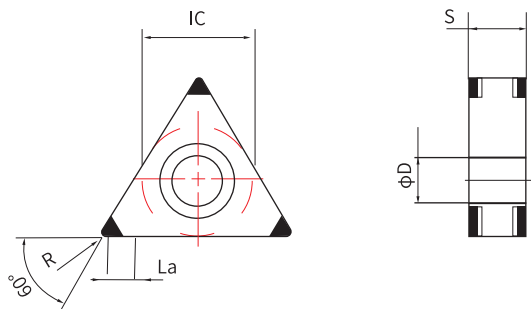
TP 60°



Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
TPGW 080202	1F/3F	4.76	2.38	0.20	2.40	2.20	●	●	●	●	●	●	●
TPGW 080204	1F/3F	4.76	2.38	0.40	2.40	2.20	●	●	●	●	●	●	●
TPGW 080208	1F/3F	4.76	2.38	0.80	2.40	2.20	●	●	●	●	●	●	●
TPGW 090202	1F/3F	5.56	2.38	0.20	2.80	2.20	●	●	●	●	●	●	●
TPGW 090204	1F/3F	5.56	2.38	0.40	2.80	2.20	●	●	●	●	●	●	●
TPGW 090208	1F/3F	5.56	2.38	0.80	2.80	2.20	●	●	●	●	●	●	●
TPGW 110204	1F/3F	6.35	2.38	0.40	2.80	2.20	●	●	●	●	●	●	●
TPGW 110208	1F/3F	6.35	2.38	0.80	2.80	2.20	●	●	●	●	●	●	●
TPGW 110302	1F/3F	6.35	3.18	0.20	3.30	2.20	●	●	●	●	●	●	●
TPGW 110304	1F/3F	6.35	3.18	0.40	3.30	2.20	●	●	●	●	●	●	●
TPGW 110308	1F/3F	6.35	3.18	0.80	3.30	2.20	●	●	●	●	●	●	●
TPGW 160302	1F/3F	9.525	3.18	0.20	4.40	2.20	●	●	●	●	●	●	●
TPGW 160304	1F/3F	9.525	3.18	0.40	4.40	2.20	●	●	●	●	●	●	●
TPGW 160308	1F/3F	9.525	3.18	0.80	4.40	2.20	●	●	●	●	●	●	●
TPGW 160402	1F/3F	9.525	4.76	0.20	4.40	2.20	●	●	●	●	●	●	●
TPGW 160404	1F/3F	9.525	4.76	0.40	4.40	2.20	●	●	●	●	●	●	●
TPGW 160408	1F/3F	9.525	4.76	0.80	4.40	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

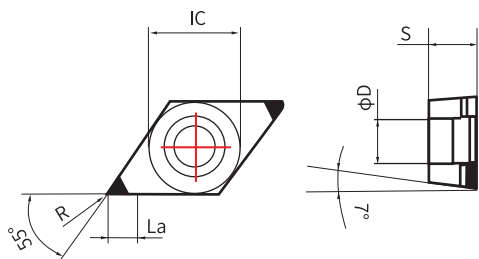
TN 60°



Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
		IC	S	R	D	La							
TNGA 160402	1F/3F/6F	9.525	4.76	0.20	3.81	2.20	●	●	●	●	●	●	●
TNGA 160404	1F/3F/6F	9.525	4.76	0.40	3.81	2.20	●	●	●	●	●	●	●
TNGA 160408	1F/3F/6F	9.525	4.76	0.80	3.81	2.20	●	●	●	●	●	●	●
TNGA 160412	1F/3F/6F	9.525	4.76	1.20	3.81	2.20	●	●	●	●	●	●	●
TNGA 160416	3F	9.525	4.76	1.60	3.81	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

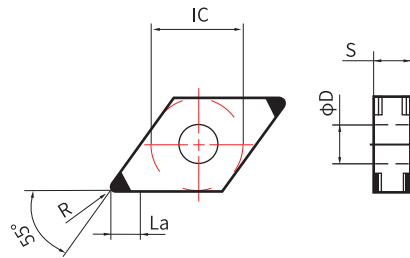
DC 55°



Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
DCGW 070202	1F/2F	6.35	2.38	0.20	2.80	2.20	●	●	●	●	●	●	●
DCGW 070204	1F/2F	6.35	2.38	0.40	2.80	2.20	●	●	●	●	●	●	●
DCGW 070208	1F/2F	6.35	2.38	0.80	2.80	2.20	●	●	●	●	●	●	●
DCGW 11T302	1F/2F	9.525	3.97	0.20	4.40	2.20	●	●	●	●	●	●	●
DCGW 11T304	1F/2F	9.525	3.97	0.40	4.40	2.20	●	●	●	●	●	●	●
DCGW 11T308	1F/2F	9.525	3.97	0.80	4.40	2.20	●	●	●	●	●	●	●
DCGW 11T312	1F/2F	9.525	3.97	1.20	4.40	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

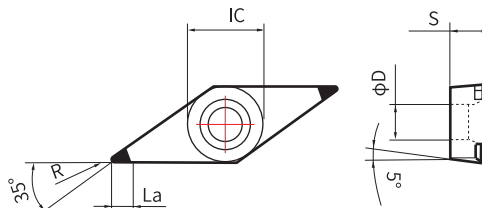
DN 55°



Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
DNGA 150402	1F/2F/4F	12.70	4.76	0.20	5.16	2.20	●	●	●	●	●	●	●
DNGA 150404	1F/2F/4F	12.70	4.76	0.40	5.16	2.20	●	●	●	●	●	●	●
DNGA 150408	1F/2F/4F	12.70	4.76	0.80	5.16	2.20	●	●	●	●	●	●	●
DNGA 150412	1F/2F/4F	12.70	4.76	1.20	5.16	2.20	●	●	●	●	●	●	●
DNGA 150602	1F/2F/4F	12.70	6.35	0.20	5.16	2.20	●	●	●	●	●	●	●
DNGA 150604	1F/2F/4F	12.70	6.35	0.40	5.16	2.20	●	●	●	●	●	●	●
DNGA 150608	1F/2F/4F	12.70	6.35	0.80	5.16	2.20	●	●	●	●	●	●	●
DNGA 150612	1F/2F/4F	12.70	6.35	1.20	5.16	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

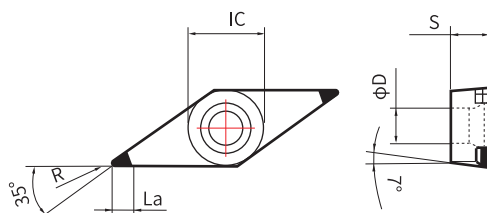
VB 35°



Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
VBGW 110302	1F/2F	6.35	3.18	0.20	2.80	2.20	●	●	●	●	●	●	
VBGW 110304	1F/2F	6.35	3.18	0.40	2.80	2.20	●	●	●	●	●	●	
VBGW 110308	1F/2F	6.35	3.18	0.80	2.80	2.20	●	●	●	●	●	●	
VBGW 160402	1F/2F	9.525	4.76	0.20	4.40	2.20	●	●	●	●	●	●	
VBGW 160404	1F/2F	9.525	4.76	0.40	4.40	2.20	●	●	●	●	●	●	
VBGW 160408	1F/2F	9.525	4.76	0.80	4.40	2.20	●	●	●	●	●	●	
VBGW 160412	1F/2F	9.525	4.76	1.20	4.40	2.20	●	●	●	●	●	●	

● 标准库存 ○ 订单生产

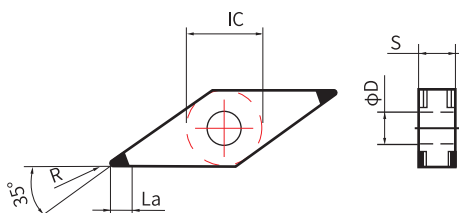
VC 35°



Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
VCGW 080202	1F/2F	4.76	2.38	0.20	2.20	2.20	●	●	●	●	●	●	●
VCGW 080204	1F/2F	4.76	2.38	0.40	2.20	2.20	●	●	●	●	●	●	●
VCGW 080208	1F/2F	4.76	2.38	0.80	2.20	2.20	●	●	●	●	●	●	●
VCGW 110302	1F/2F	6.35	3.18	0.20	2.80	2.20	●	●	●	●	●	●	●
VCGW 110304	1F/2F	6.35	3.18	0.40	2.80	2.20	●	●	●	●	●	●	●
VCGW 110308	1F/2F	6.35	3.18	0.80	2.80	2.20	●	●	●	●	●	●	●
VCGW 160402	1F/2F	9.525	4.76	0.20	4.40	2.20	●	●	●	●	●	●	●
VCGW 160404	1F/2F	9.525	4.76	0.40	4.40	2.20	●	●	●	●	●	●	●
VCGW 160408	1F/2F	9.525	4.76	0.80	4.40	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

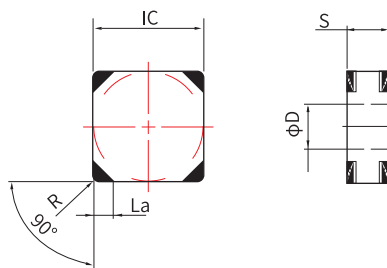
VN 35°



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
VNGA 160402	1F/2F/4F												
VNGA 160404	1F/2F/4F	9.525	4.76	0.40	3.81	2.20	●	●	●	●	●	●	●
VNGA 160408	1F/2F/4F	9.525	4.76	0.80	3.81	2.20	●	●	●	●	●	●	●
VNGA 160412	1F/2F/4F	9.525	4.76	1.20	3.81	2.20	●	●	●	●	●	●	●

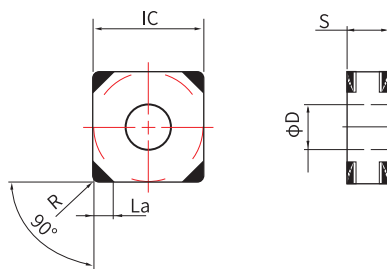
● 标准库存 ○ 订单生产

SN 90°



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
SNGN 090402	1F/4F/8F												
SNGN 090404	1F/4F/8F	9.525	4.76	0.40	-	2.20	●	●	●	●	●	●	●
SNGN 090408	1F/4F/8F	9.525	4.76	0.80	-	2.20	●	●	●	●	●	●	●
SNGN 090412	1F/4F/8F	9.525	4.76	1.20	-	2.20	●	●	●	●	●	●	●

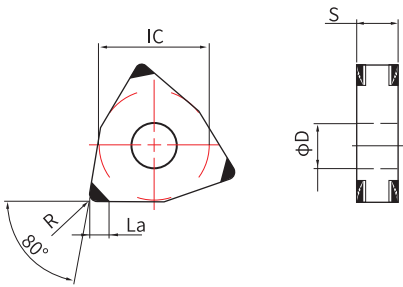
● 标准库存 ○ 订单生产



Designation	Tips	Dimensions(mm)					Grade						
		IC	S	R	D	La	NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
SNGA 120402	1F/4F/8F												
SNGA 120404	1F/4F/8F	12.70	4.76	0.40	5.16	2.20	●	●	●	●	●	●	●
SNGA 120408	1F/4F/8F	12.70	4.76	0.80	5.16	2.20	●	●	●	●	●	●	●
SNGA 120412	1F/4F/8F	12.70	4.76	1.20	5.16	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

WN 80°



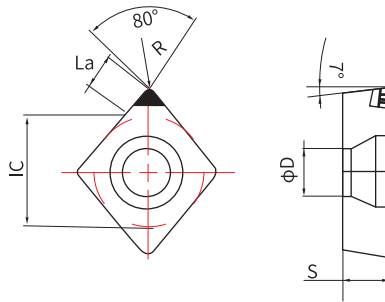
Designation	Tips	Dimensions(mm)					Grade						
							NHB10T	NHB20T	NHB30T	NKB10	NKB20	NSB10	NSB20
		IC	S	R	D	La							
WNGA 080402	1F/3F/6F	12.70	4.76	0.20	5.16	2.20	●	●	●	●	●	●	●
WNGA 080404	1F/3F/6F	12.70	4.76	0.40	5.16	2.20	●	●	●	●	●	●	●
WNGA 080408	1F/3F/6F	12.70	4.76	0.80	5.16	2.20	●	●	●	●	●	●	●
WNGA 080412	1F/3F/6F	12.70	4.76	1.20	5.16	2.20	●	●	●	●	●	●	●

● 标准库存 ○ 订单生产

N-High performance PCD inserts

NHP-高性能PCD刀片

CC 80°



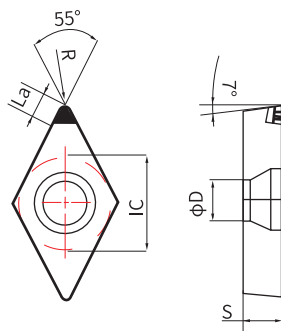
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NND
CCGW 060202	1F	6.35	2.38	0.20	2.80	2.20	○	●	○	○
CCGW 060204	1F	6.35	2.38	0.40	2.80	2.20	○	●	○	○
CCGW 09T302	1F	9.525	3.97	0.20	4.40	2.20	○	●	○	○
CCGW 09T304	1F	9.525	3.97	0.40	4.40	2.20	○	●	○	○
CCGW 09T308	1F	9.525	3.97	0.80	4.40	2.20	○	●	○	○
CCGW 120402	1F	12.70	4.76	0.20	5.50	2.20	○	●	○	○
CCGW 120404	1F	12.70	4.76	0.40	5.50	2.20	○	●	○	○
CCGW 120408	1F	12.70	4.76	0.80	5.50	2.20	○	●	○	○

● 标准库存 ○ 订单生产

Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NND
CCGT 060202	1F	6.35	2.38	0.20	2.80	2.20	○	●	○	○
CCGT 060204	1F	6.35	2.38	0.40	2.80	2.20	○	●	○	○
CCGT 09T302	1F	9.525	3.97	0.20	4.40	2.20	○	●	○	○
CCGT 09T304	1F	9.525	3.97	0.40	4.40	2.20	○	●	○	○
CCGT 09T308	1F	9.525	3.97	0.80	4.40	2.20	○	●	○	○
CCGT 120402	1F	12.70	4.76	0.20	5.50	2.20	○	●	○	○
CCGT 120404	1F	12.70	4.76	0.40	5.50	2.20	○	●	○	○
CCGT 120408	1F	12.70	4.76	0.80	5.50	2.20	○	●	○	○

● 标准库存 ○

DC 55°



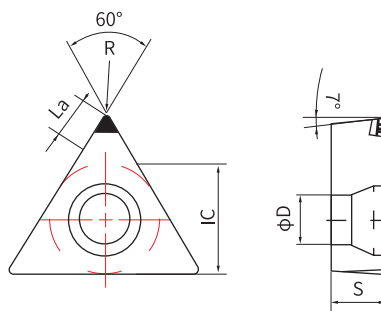
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NNDD
DCGW 070202	1F	6.35	2.38	0.20	2.80	2.20	○	●	○	○
DCGW 070204	1F	6.35	2.38	0.40	2.80	2.20	○	●	○	○
DCGW 070208	1F	6.35	2.38	0.80	2.80	2.20	○	●	○	○
DCGW 11T302	1F	9.525	3.97	0.20	4.40	2.20	○	●	○	○
DCGW 11T304	1F	9.525	3.97	0.40	4.40	2.20	○	●	○	○
DCGW 11T308	1F	9.525	3.97	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NNDD
DCGT 070202	1F	6.35	2.38	0.20	2.80	2.20	○	●	○	○
DCGT 070204	1F	6.35	2.38	0.40	2.80	2.20	○	●	○	○
DCGT 070208	1F	6.35	2.38	0.80	2.80	2.20	○	●	○	○
DCGT 11T302	1F	9.525	3.97	0.20	4.40	2.20	○	●	○	○
DCGT 11T304	1F	9.525	3.97	0.40	4.40	2.20	○	●	○	○
DCGT 11T308	1F	9.525	3.97	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

TC 60°



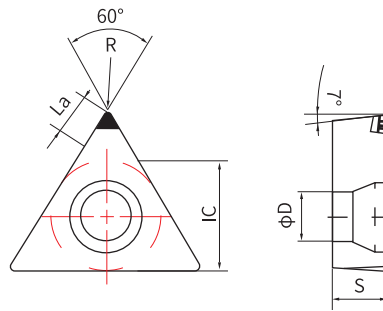
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NND
TCGW 080202	1F	4.76	2.38	0.20	2.40	2.20	○	●	○	○
TCGW 080204	1F	4.76	2.38	0.40	2.40	2.20	○	●	○	○
TCGW 080208	1F	4.76	2.38	0.80	2.40	2.20	○	●	○	○
TCGW 110302	1F	6.35	3.18	0.20	2.80	2.20	○	●	○	○
TCGW 110304	1F	6.35	3.18	0.40	2.80	2.20	○	●	○	○
TCGW 110308	1F	6.35	3.18	0.80	2.80	2.20	○	●	○	○
TCGW 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
TCGW 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
TCGW 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NND
TCGT 080202	1F	4.76	2.38	0.20	2.40	2.20	○	●	○	○
TCGT 080204	1F	4.76	2.38	0.40	2.40	2.20	○	●	○	○
TCGT 080208	1F	4.76	2.38	0.80	2.40	2.20	○	●	○	○
TCGT 110302	1F	6.35	3.18	0.20	2.80	2.20	○	●	○	○
TCGT 110304	1F	6.35	3.18	0.40	2.80	2.20	○	●	○	○
TCGT 110308	1F	6.35	3.18	0.80	2.80	2.20	○	●	○	○
TCGT 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
TCGT 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
TCGT 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

TP 60°



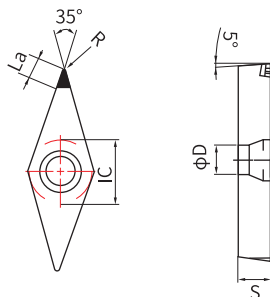
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NNDD
TPGW 080202	1F	4.76	2.38	0.20	2.40	2.20	○	●	○	○
TPGW 080204	1F	4.76	2.38	0.40	2.40	2.20	○	●	○	○
TPGW 080208	1F	4.76	2.38	0.80	2.40	2.20	○	●	○	○
TPGW 110302	1F	6.35	3.18	0.20	3.30	2.20	○	●	○	○
TPGW 110304	1F	6.35	3.18	0.40	3.30	2.20	○	●	○	○
TPGW 110308	1F	6.35	3.18	0.80	3.30	2.20	○	●	○	○
TPGW 160302	1F	9.525	3.18	0.20	4.40	2.20	○	●	○	○
TPGW 160304	1F	9.525	3.18	0.40	4.40	2.20	○	●	○	○
TPGW 160308	1F	9.525	3.18	0.80	4.40	2.20	○	●	○	○
TPGW 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
TPGW 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
TPGW 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NNDD
TPGT 080202	1F	4.76	2.38	0.20	2.40	2.20	○	●	○	○
TPGT 080204	1F	4.76	2.38	0.40	2.40	2.20	○	●	○	○
TPGT 080208	1F	4.76	2.38	0.80	2.40	2.20	○	●	○	○
TPGT 110302	1F	6.35	3.18	0.20	3.30	2.20	○	●	○	○
TPGT 110304	1F	6.35	3.18	0.40	3.30	2.20	○	●	○	○
TPGT 110308	1F	6.35	3.18	0.80	3.30	2.20	○	●	○	○
TPGT 160302	1F	9.525	3.18	0.20	4.40	2.20	○	●	○	○
TPGT 160304	1F	9.525	3.18	0.40	4.40	2.20	○	●	○	○
TPGT 160308	1F	9.525	3.18	0.80	4.40	2.20	○	●	○	○
TPGT 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
TPGT 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
TPGT 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

VB 35°



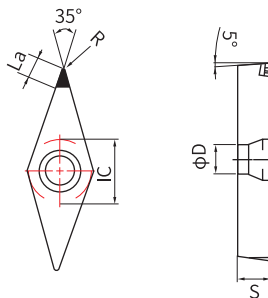
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NND
VBGW 110302	1F	6.35	3.18	0.20	2.80	2.20	○	●	○	○
VBGW 110304	1F	6.35	3.18	0.40	2.80	2.20	○	●	○	○
VBGW 110308	1F	6.35	3.18	0.80	2.80	2.20	○	●	○	○
VBGW 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
VBGW 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
VBGW 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NND
VBGT 110302	1F	6.35	3.18	0.20	2.80	2.20	○	●	○	○
VBGT 110304	1F	6.35	3.18	0.40	2.80	2.20	○	●	○	○
VBGT 110308	1F	6.35	3.18	0.80	2.80	2.20	○	●	○	○
VBGT 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
VBGT 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
VBGT 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

VC 35°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NNDD
VCGW 110302	1F	6.35	3.18	0.20	2.80	2.20	○	●	○	○
VCGW 110304	1F	6.35	3.18	0.40	2.80	2.20	○	●	○	○
VCGW 110308	1F	6.35	3.18	0.80	2.80	2.20	○	●	○	○
VCGW 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
VCGW 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
VCGW 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

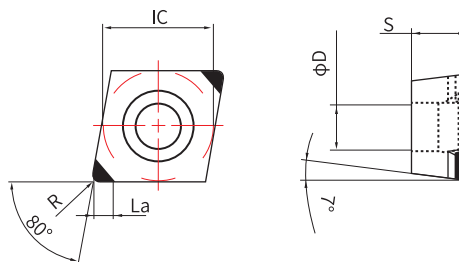
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NND10	NND20	NND30	NNDD
VCGT 110302	1F	6.35	3.18	0.20	2.80	2.20	○	●	○	○
VCGT 110304	1F	6.35	3.18	0.40	2.80	2.20	○	●	○	○
VCGT 110308	1F	6.35	3.18	0.80	2.80	2.20	○	●	○	○
VCGT 160402	1F	9.525	4.76	0.20	4.40	2.20	○	●	○	○
VCGT 160404	1F	9.525	4.76	0.40	4.40	2.20	○	●	○	○
VCGT 160408	1F	9.525	4.76	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

N-Economical CBN inserts

NE-经济型CBN刀片

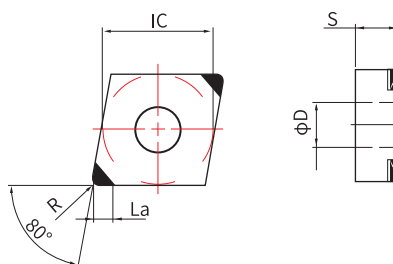
CC 80°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
CCGW 060202	2F	6.35	2.38	0.20	2.80	2.20	●	●	●	●
CCGW 060204	2F	6.35	2.38	0.40	2.80	2.20	●	●	●	●
CCGW 060208	2F	6.35	2.38	0.80	2.80	2.20	●	●	●	●
CCGW 060212	2F	6.35	2.38	1.20	2.80	2.20	○	○	○	○
CCGW 09T302	2F	9.525	3.97	0.20	4.40	2.20	●	●	●	○
CCGW 09T304	2F	9.525	3.97	0.40	4.40	2.20	●	●	●	●
CCGW 09T308	2F	9.525	3.97	0.80	4.40	2.20	●	●	●	●
CCGW 09T312	2F	9.525	3.97	1.20	4.40	2.20	●	●	○	○
CCGW 120404	2F	12.70	4.76	0.40	5.50	2.20	●	●	●	●
CCGW 120408	2F	12.70	4.76	0.80	5.50	2.20	○	○	○	○

● 标准库存 ○ 订单生产

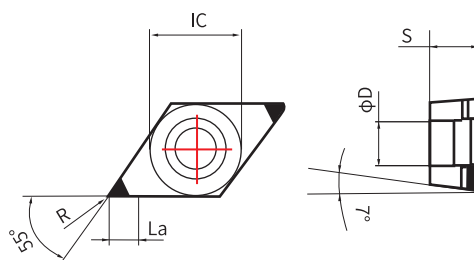
CN 80°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
CNGA 120402	2F	12.70	4.76	0.20	5.16	2.20	●	●	○	○
CNGA 120404	2F/4F	12.70	4.76	0.40	5.16	2.20	●	●	●	●
CNGA 120408	2F/4F	12.70	4.76	0.80	5.16	2.20	●	●	●	●
CNGA 120412	2F/4F	12.70	4.76	1.20	5.16	2.20	●	●	●	●

● 标准库存 ○ 订单生产

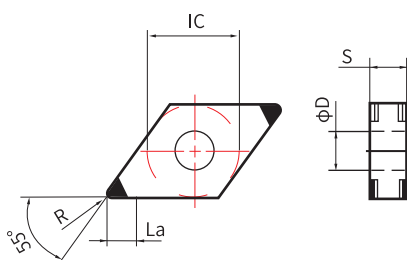
DC 55°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
DCGW 070202	2F	6.35	2.38	0.20	2.80	2.20	○	●	○	○
DCGW 070204	2F	6.35	2.38	0.40	2.80	2.20	○	●	○	○
DCGW 070208	2F	6.35	2.38	0.80	2.80	2.20	○	●	○	○
DCGW 11T302	2F	9.525	3.97	0.20	4.40	2.20	○	●	○	○
DCGW 11T304	2F	9.525	3.97	0.40	4.40	2.20	○	●	○	○
DCGW 11T308	2F	9.525	3.97	0.80	4.40	2.20	○	●	○	○

● 标准库存 ○ 订单生产

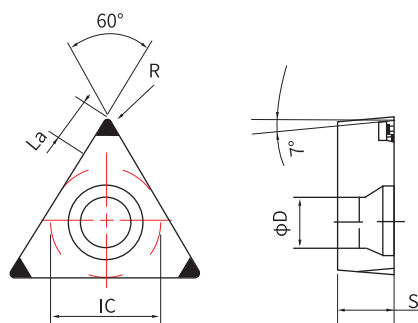
DN 55°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
DNGA 110404	2F/4F	9.525	4.76	0.40	5.16	2.20	○	●	○	○
DNGA 110408	2F/4F	9.525	4.76	0.80	5.16	2.20	○	●	○	○
DNGA 150404	2F/4F	12.70	4.76	0.40	5.16	2.20	○	●	○	○
DNGA 150408	2F/4F	12.70	4.76	0.80	5.16	2.20	○	●	○	○
DNGA 150412	2F/4F	12.70	4.76	1.20	5.16	2.20	○	●	○	○
DNGA 150604	2F/4F	12.70	6.35	0.40	5.16	2.20	○	●	○	○
DNGA 150608	2F/4F	12.70	6.35	0.80	5.16	2.20	○	●	○	○
DNGA 150612	2F/4F	12.70	6.35	1.20	5.16	2.20	○	●	○	○

● 标准库存 ○ 订单生产

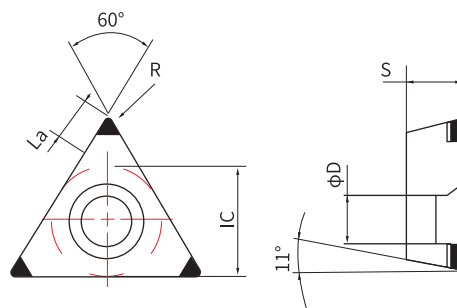
TC 60°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
TCGW 090202	3F	5.56	2.38	0.20	2.40	2.20	●	●	●	○
TCGW 090204	3F	5.56	2.38	0.40	2.40	2.20	●	●	●	○
TCGW 090208	3F	5.56	2.38	0.80	2.40	2.20	●	●	●	○
TCGW 110204	3F	6.35	2.38	0.40	2.80	2.20	●	●	●	●
TCGW 110208	3F	6.35	2.38	0.80	2.80	2.20	●	●	●	○
TCGW 110304	3F	6.35	3.18	0.40	2.80	2.20	●	●	●	○
TCGW 110308	3F	6.35	3.18	0.80	2.80	2.20	●	●	●	○

● 标准库存 ○ 订单生产

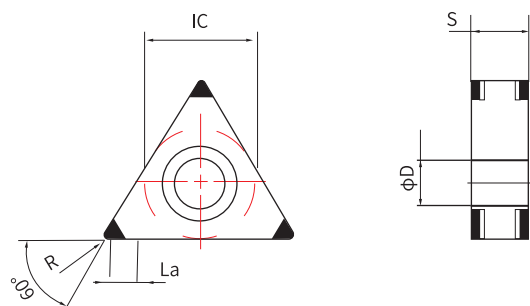
TP 60°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
TPGW 080202	3F	4.76	2.38	0.20	2.40	2.20	●	○	●	○
TPGW 080204	3F	4.76	2.38	0.40	2.40	2.20	●	○	●	○
TPGW 080208	3F	4.76	2.38	0.80	2.40	2.20	●	○	●	○
TPGW 090202	3F	5.56	2.38	0.20	2.80	2.20	●	○	○	○
TPGW 090204	3F	5.56	2.38	0.40	2.80	2.20	●	●	●	●
TPGW 090208	3F	5.56	2.38	0.80	2.80	2.20	●	●	●	○
TPGW 110204	3F	6.35	2.38	0.40	2.80	2.20	●	○	○	○
TPGW 110208	3F	6.35	2.38	0.80	2.80	2.20	●	○	○	○
TPGW 110302	3F	6.35	3.18	0.20	3.30	2.20	●	○	○	○
TPGW 110304	3F	6.35	3.18	0.40	3.30	2.20	●	●	●	○
TPGW 110308	3F	6.35	3.18	0.80	3.30	2.20	●	●	●	○

● 标准库存 ○ 订单生产

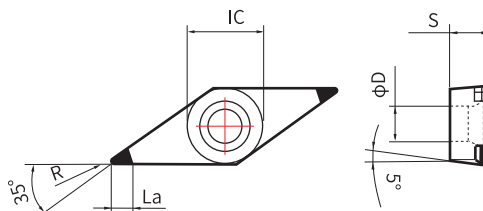
TN 60°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
TNGA 160402	3F	9.525	4.76	0.20	3.81	2.20	●	○	○	○
TNGA 160404	3F/6F	9.525	4.76	0.40	3.81	2.20	●	●	●	●
TNGA 160408	3F/6F	9.525	4.76	0.80	3.81	2.20	●	●	●	●
TNGA 160412	3F/6F	9.525	4.76	1.20	3.81	2.20	●	●	●	●
TNGA 160416	3F/6F	9.525	4.76	1.60	3.81	2.20	●	●	●	●

● 标准库存 ○ 订单生产

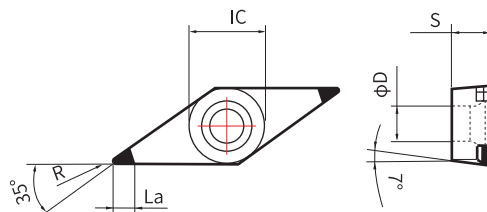
VB 35°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
VBGW 110302	2F	6.35	3.18	0.20	2.80	2.20	●	○	○	○
VBGW 110304	2F	6.35	3.18	0.40	2.80	2.20	●	●	●	○
VBGW 110308	2F	6.35	3.18	0.80	2.80	2.20	●	●	●	○
VBGW 160402	1F/2F	9.525	4.76	0.20	4.40	2.20	●	○	●	○
VBGW 160404	1F/2F	9.525	4.76	0.40	4.40	2.20	●	●	●	●
VBGW 160408	1F/2F	9.525	4.76	0.80	4.40	2.20	●	●	●	●
VBGW 160412	1F/2F	9.525	4.76	1.20	4.40	2.20	●	○	○	○

● 标准库存 ○ 订单生产

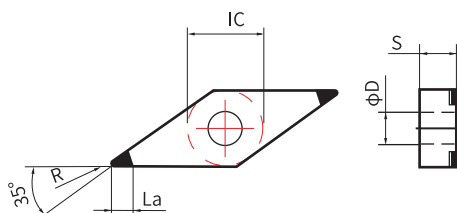
VC 35°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
VCGW 110304	2F	6.35	3.18	0.40	2.80	2.20	●	○	○	○
VCGW 110308	2F	6.35	3.18	0.80	2.80	2.20	●	○	○	○
VCGW 160402	1F/2F	9.525	4.76	0.20	4.40	2.20	●	○	○	○
VCGW 160404	1F/2F	9.525	4.76	0.40	4.40	2.20	●	●	●	○
VCGW 160408	1F/2F	9.525	4.76	0.80	4.40	2.20	●	●	●	○

● 标准库存 ○ 订单生产

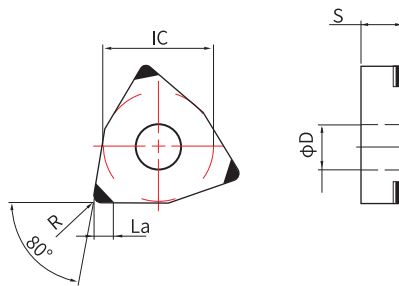
VN 35°



Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
VNGA 160402	2F	9.525	4.76	0.20	3.81	2.20	●	○	○	○
VNGA 160404	2F/4F	9.525	4.76	0.40	3.81	2.20	●	●	●	●
VNGA 160408	2F/4F	9.525	4.76	0.80	3.81	2.20	●	●	●	●
VNGA 160412	2F/4F	9.525	4.76	1.20	3.81	2.20	●	●	●	○

● 标准库存 ○ 订单生产

WN 80°



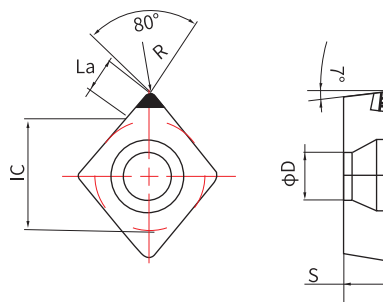
Designation	Tips	Dimensions(mm)					Grade			
		IC	S	R	D	La	NEHB100	NEHB200	NEKB300	NESB300
WNGA 080402	3F	12.70	4.76	0.20	5.16	2.20	●	○	●	○
WNGA 080404	3F/6F	12.70	4.76	0.40	5.16	2.20	●	●	●	○
WNGA 080408	3F/6F	12.70	4.76	0.80	5.16	2.20	●	●	●	○

● 标准库存 ○ 订单生产

N-Economical PCD inserts

NE-经济型PCD刀片

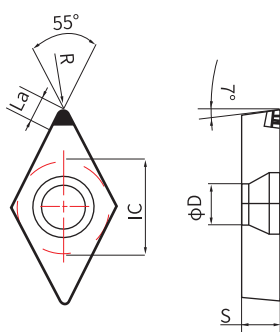
CC 80°



Designation	Tips	Dimensions(mm)					Grade	
		IC	S	R	D	La	NED100	NED200
CCGT 060202	1F	6.35	2.38	0.20	2.80	2.20	●	●
CCGT 060204	1F	6.35	2.38	0.40	2.80	2.20	●	●
CCGT 060208	1F	6.35	2.38	0.80	2.80	2.20	●	●
CCGT 09T302	1F	9.525	3.97	0.20	4.40	2.20	●	●
CCGT 09T304	1F	9.525	3.97	0.40	4.40	2.20	●	●
CCGT 09T308	1F	9.525	3.97	0.80	4.40	2.20	●	●
CCGT 120404	1F	12.70	4.76	0.40	5.50	2.20	○	○
CCGT 120408	1F	12.70	4.76	0.80	5.50	2.20	○	○

● 标准库存 ○ 订单生产

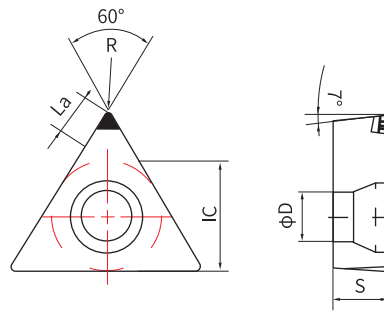
DC 55°



Designation	Tips	Dimensions(mm)					Grade	
		IC	S	R	D	La	NED100	NED200
DCGT 070202	1F	6.35	2.38	0.20	2.80	2.20	○	○
DCGT 070204	1F	6.35	2.38	0.40	2.80	2.20	●	●
DCGT 070208	1F	6.35	2.38	0.80	2.80	2.20	●	●
DCGT 11T302	1F	9.525	3.97	0.20	4.40	2.20	●	●
DCGT 11T304	1F	9.525	3.97	0.40	4.40	2.20	●	●
DCGT 11T308	1F	9.525	3.97	0.80	4.40	2.20	●	●

● 标准库存 ○ 订单生产

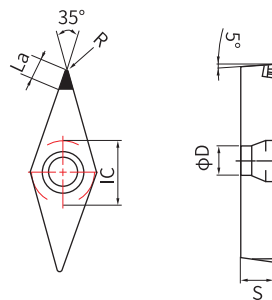
TC 60°



Designation	Tips	Dimensions(mm)					Grade	
		IC	S	R	D	La	NED100	NED200
TCGT 090202	1F	5.56	2.38	0.20	2.40	2.20	●	●
TCGT 090204	1F	5.56	2.38	0.40	2.40	2.20	●	●
TCGT 090208	1F	5.56	2.38	0.80	2.40	2.20	●	●
TCGT 110204	1F	6.35	2.38	0.40	2.80	2.20	●	●
TCGT 110208	1F	6.35	2.38	0.80	2.80	2.20	●	●
TCGT 110304	1F	6.35	3.18	0.40	2.80	2.20	●	●
TCGT 110308	1F	6.35	3.18	0.80	2.80	2.20	●	●

● 标准库存 ○ 订单生产

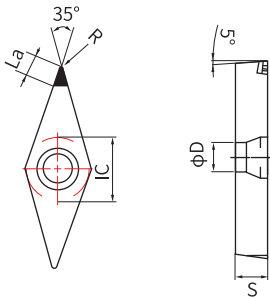
VB 35°



Designation	Tips	Dimensions(mm)					Grade	
		IC	S	R	D	La	NED100	NED200
VBGT 110302	1F	6.35	3.18	0.20	2.80	2.20	●	●
VBGT 110304	1F	6.35	3.18	0.40	2.80	2.20	●	●
VBGT 110308	1F	6.35	3.18	0.80	2.80	2.20	●	●
VBGT 160402	1F	9.525	4.76	0.20	4.40	2.20	●	●
VBGT 160404	1F	9.525	4.76	0.40	4.40	2.20	●	●
VBGT 160408	1F	9.525	4.76	0.80	4.40	2.20	●	●

● 标准库存 ○ 订单生产

VC 35°



Designation	Tips	Dimensions(mm)					Grade	
		IC	S	R	D	La	NED100	NED200
VCGT 110304	1F	6.35	3.18	0.40	2.80	2.20	●	●
VCGT 110308	1F	6.35	3.18	0.80	2.80	2.20	●	●
VCGT 160402	1F	9.525	4.76	0.20	4.40	2.20	●	●
VCGT 160404	1F	9.525	4.76	0.40	4.40	2.20	●	●
VCGT 160408	1F	9.525	4.76	0.80	4.40	2.20	●	●

● 标准库存 ○ 订单生产

PCD & PCBN INSERT CATALOGUE

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