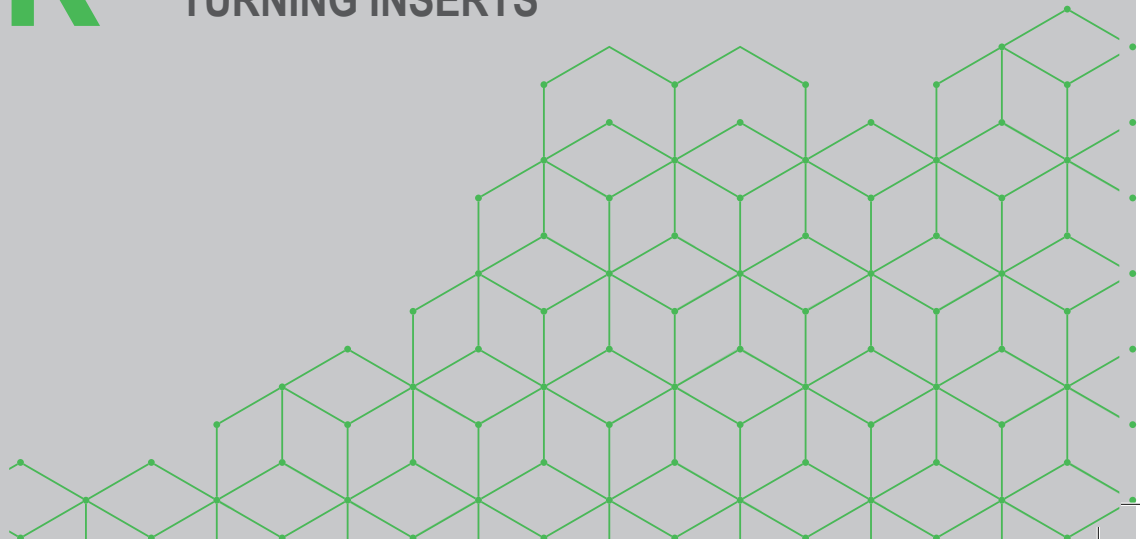
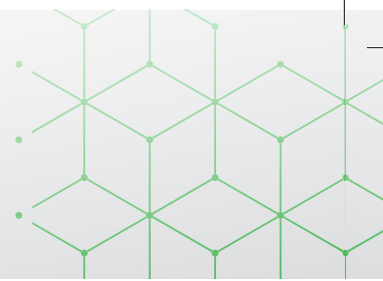




QBER

**INSERTI PER TORNITURA
TURNING INSERTS**





INDICE INDEX

IDENTIFICAZIONE (ISO) CODE SYSTEM (ISO).....	3 - 4
PARAMETRI DI TAGLIO STANDARD CUTTING CONDITIONS	5 - 6
ROMPITRUCIOLI CHIPBREAKERS	7 - 10
INSERTI NEGATIVI NEGATIVE INSERTS	11 - 21
INSERTI POSITIVI POSITIVE INSERTS	22 - 30

C **N** **M** **G** **12**

1 **2** **3** **4** **5**

Insert Shape Relief Angle Tolerance Cross Section Type Cutting Edge Length Diameter of Inscribed Circle

1 Insert Shape

C **N** **M** **G** **12** **04** **08** - **MP**

C D E K L
R S T V W

2 Relief Angle

C **N** **M** **G** **12** **04** **08** - **MP**

B C D E
F N P O

3 Tolerance

C **N** **M** **G** **12** **04** **08** - **MP**

d : Inscribed circle
t : Thickness
m : Refer to figure

Class	d	m	t
A	± 0.025	± 0.005	± 0.025
C	± 0.025	± 0.013	± 0.025
H	± 0.013	± 0.013	± 0.025
E	± 0.025	± 0.025	± 0.025
G	± 0.025	± 0.025	± 0.13
J *	± 0.05 ~ ± 0.15	± 0.005	± 0.025
K *	± 0.05 ~ ± 0.15	± 0.013	± 0.025
L *	± 0.05 ~ ± 0.15	± 0.025	± 0.025
M *	± 0.05 ~ ± 0.15	± 0.08 ~ ± 0.20	± 0.13
N *	± 0.05 ~ ± 0.15	± 0.08 ~ ± 0.18	± 0.025
U *	± 0.08 ~ ± 0.25	± 0.13 ~ ± 0.38	± 0.13

4 Cross Section Type

C **N** **M** **G** **12** **04** **08** - **MP**

A B C
F G H
J M N
Q R T
U W X

* Sides are based on unground insert
Tolerance on C, E, H, M, O, P, R, S, T, W Insert Shape (Exceptional case)

d	Tolerance on d			Tolerance on m		
	J, K, L, M, N	U		M, N	U	
6.35	± 0.05	± 0.08		± 0.08	± 0.13	
9.525	± 0.05	± 0.08		± 0.08	± 0.13	
12.7	± 0.08	± 0.13		± 0.13	± 0.20	
15.875	± 0.10	± 0.18		± 0.15	± 0.27	
19.05	± 0.10	± 0.18		± 0.15	± 0.27	
25.4	± 0.13	± 0.25		± 0.18	± 0.38	

Tolerance on D Insert Shape (Exceptional case)

d	Tolerance on d		Tolerance on m	
6.35	± 0.05		± 0.11	
9.525	± 0.05		± 0.11	
12.7	± 0.08		± 0.15	
15.875	± 0.10		± 0.18	
19.05	± 0.10		± 0.18	



04 **08** **MP**

⑥ ⑦ ⑧

Thickness of Cutting Edge

Nose Radius (Nose R)

Chipbreaker for Turning

5 Cutting Edge Length, Diameter of Incribed Circle

C N M G 12 04 08 - MP

Symbol							Inch	IC d (mm)
C	d	S	T	R	V	W		
03	04	03	06	03	-	02	1.2(5)	3.97
04	05	04	08	04	08	S3	1.5(6)	4.76
05	06	05	09	05	09	03	1.8(7)	5.56
-	-	-	-	06	-	-	-	6.00
06	07	06	11	06	11	04	2	6.35
08	09	07	13	07	13	05	2.5	7.94
-	-	-	-	08	-	-	-	8.00
09	11	09	16	09	16	06	3	9.525
-	-	-	-	10	-	-	-	10.00
11	13	11	19	11	19	07	3.5	11.11
-	-	-	-	12	-	-	-	12.00
12	15	12	22	12	22	08	4	12.70
14	17	14	24	14	24	09	4.5	14.29
16	19	15	27	15	27	10	5	15.875
-	-	-	-	16	-	-	-	16.00
17	21	17	30	17	30	11	5.5	17.46
19	23	19	33	19	33	13	6	19.05
-	-	-	-	20	-	-	-	20.00
22	27	22	38	22	38	15	7	22.225
-	-	-	-	25	-	-	-	25.00
25	31	25	44	25	44	17	8	25.40
32	38	31	54	31	54	21	10	31.75
-	-	-	-	32	-	-	-	32.00

() Symbol for small size insert

7 Nose Radius (Nose R)

C N M G 12 04 08 - MP

Symbol		Corner Radius	
Metric	Inch	Metric	Inch
01	0	0.1	0.004
02	0.5	0.2	0.008
04	1	0.4	1/64
08	2	0.8	1/32
12	3	1.2	3/64
16	4	1.6	1/16
20	5	2.0	5/64
24	6	2.4	3/32
28	7	2.8	7/64
32	8	3.2	1/8
00	-	Round insert (Inch)	
M0	-	Round insert (Metric)	

6 Thickness of Cutting Edge

C N M G 12 04 08 - MP

Symbol		Thickness of Cutting Edge (t)	
Metric	Inch	mm	Inch
01	1(2)	1.59	1/16
T0	1.125	1.79	9/128
T1	1.2	1.98	5/64
02	1.5(3)	2.38	3/32
T2	1.75	2.78	7/64
03	2	3.18	1/8
T3	2.5	3.97	5/32
04	3	4.76	3/16
05	3.5	5.56	7/32
06	4	6.35	1/4
07	5	7.94	5/16
09	6	9.52	3/8
11	7	11.11	7/16
12	8	12.70	1/2

() Symbol for small size insert

8 Chipbreaker for Turning

C N M G 12 04 08 - MP

PF PM GM MP MK No Chipbreaker

FM SF US UG PU TQ

LR 25UL 15D 15M 24UL PS

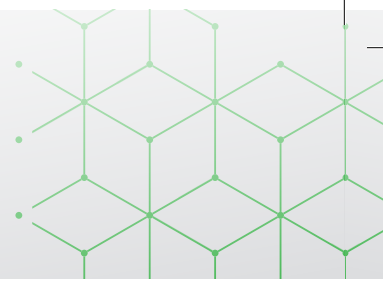
MM KS UA UT 13U 15V

15U 12U 16X 15K 14VI AL

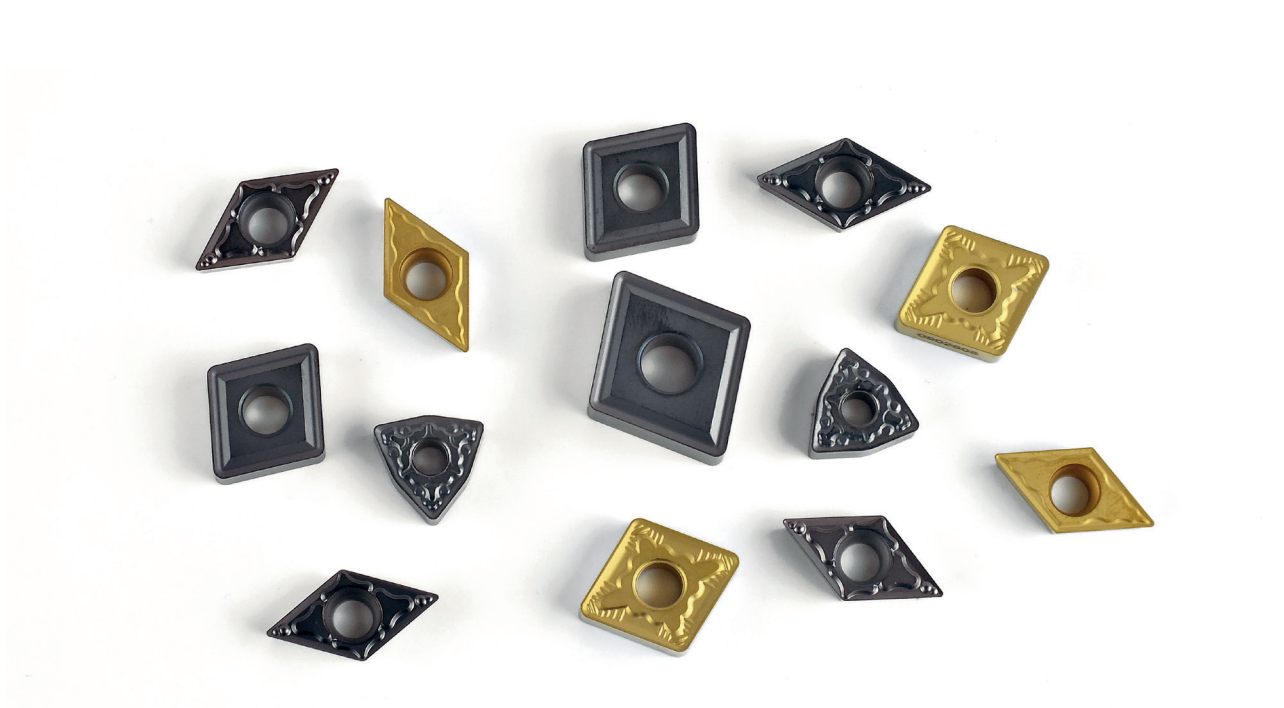
STANDARD CUTTING CONDITIONS COATED GRADE



Work Materials	Work Condition	Grade	Cutting Speed (m/min)	ISO	Cutting Performance
P Steel	Continuous	QP710	150-360	P01	
		QP7110	150-360	P10	
		QC580	100-250	P20	
		QC230	100-250	P30	
		GQ301	100-250	P40	
		GQ601	100-250	P50	
	Interrupted	QP720	120-280		
		QP7220	120-280		
M Stainless Steel	Continuous	QM810	100-220	M01	
		QM8110	100-220	M10	
		QJ15	50-180	M20	
		QJ20U	50-180	M30	
	Interrupted	QM820	100-220	M40	
		QM8220	100-220	M50	
K Cast Iron	Continuous	QK910	200-400	K01	
	Interrupted	QK920	150-300	K10	
				K20	
				K30	
N Non-ferrous Metal	Continuous	QN320	100-1000	N10	
				N20	
S Superalloys Titanium	Continuous	QMS3115	40-70	S01	
				S10	
	Interrupted	QMS3125	45-65	S20	
				S30	
H Hard Materials	Continuous	QH510	60-150	H10	
				H20	



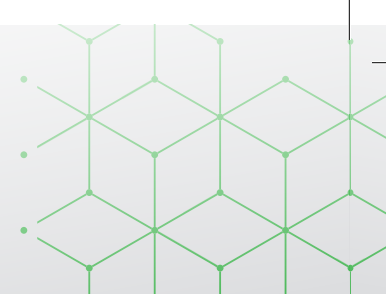
Work Materials	ISO	Coated Carbide			Cermet	Coated Cermet
		CVD	PVD	No Coated		
P Steel	P01				QC580	GQ301
	P10	QP710			QC230	GQ601
	P20	QP710				
	P30	QP720				
	P40	QP720				
	P50					
M Stainless Steel	M01					
	M10					
	M20					
	M30					
	M40					
	M50					
K Cast Iron	K01				QC580	GQ301
	K10	QK910			QC230	GQ601
	K20					
	K30					
N Non-ferrous Metal	N10					
	N20				QN320	
S Superalloys Titanium	S01					
	S10					
	S20					
	S30					
H Hard Materials	N10					
	N20					

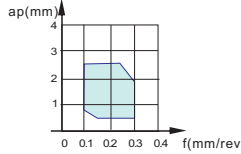
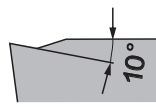
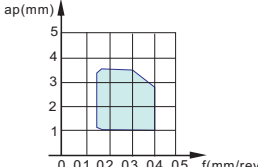
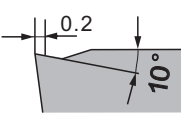
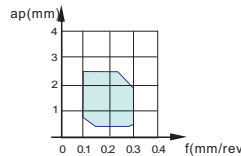
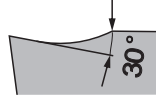
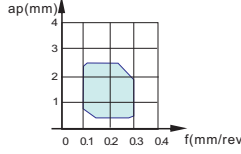
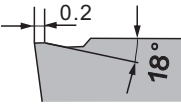
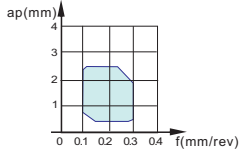
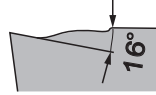
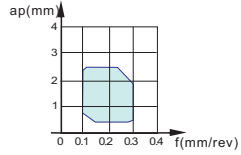
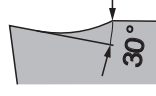
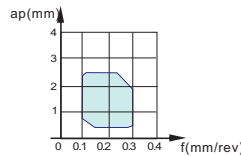
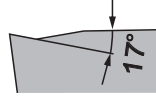
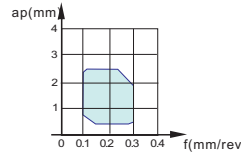
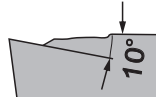


TURNLINE CHIPBREAKER OVERVIEW



Chipbreaker	Features	Application	Cutting Edge
PF	First choice chipbreaker for finishing steels. The dimple structure decreases the contact area between the insert surface and chips, resulting in significant reduction of heat occurrence.		
PM	General purpose chipbreaker used for medium cutting. Unique chipbreaker geometry with sharp edges and large rake angle assures free cutting action in a wide range of cutting conditions.		
MP	Excellent chip control when finish cutting. Outstanding chip control when high feed turning at small depth of cut.		
GM	Applicable to a wide range of cutting condition with sharp edge. Recommended chipbreaker for stainless steel turning.		
MK	Highly reliable chipbreaker for medium cutting under a wide range of conditions from continuous to interrupted cutting. Recommended chipbreaker for cast iron turning.		
No Chipbreaker	Can cover a wide range of applications from finishing to roughing of cast iron. Excellent in cutting edge strength.		
PS	3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency in a wide range of applications.		



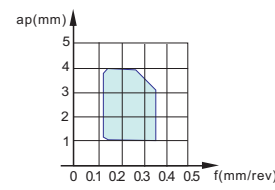
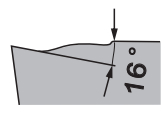
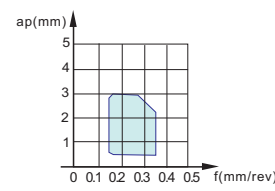
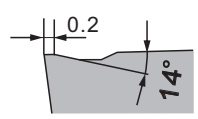
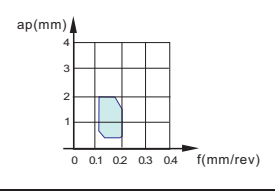
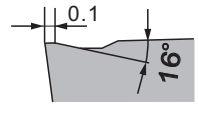
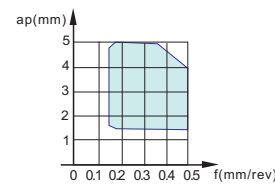
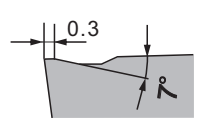
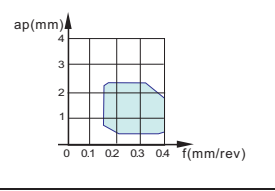
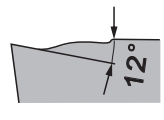
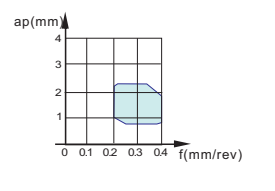
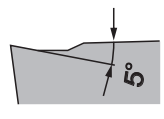
Chipbreaker	Features	Application	Cutting Edge
MM	Developed chipbreaker for medium cutting. Excellent chip control due to wide, positive chip flow zone.		
KS	Highly reliable chipbreaker for medium cutting under a wide range of conditions from continuous to interrupted cutting.		
25UL	High positive cutting edge reduces chip contact. Minimized temperature while machining ensures longer tool life. Stable machining with superior chip evacuation in high depth of cut.		
15D	Excellent chip control at wide range of cutting conditions. Suitable for stainless steel cutting.		
15M	Shallow depth of cut with sharp edge. Longer tool life at high speed cutting due to low cutting force. Good finishing surface.		
24UL	High positive cutting edge reduces chip contact. Minimized temperature while machining ensures longer tool life. Stable machining with superior chip evacuation in high depths of cut.		
15V	Longer tool life due to minimizing chip contact and reducing cutting heat while machining.		
12U/13U/15U	Improved chip control makes tool life longer and better machining.		

TURNLINE CHIPBREAKER OVERVIEW



Chipbreaker	Features	Application	Cutting Edge
16X	Stable machinability in interrupted machining toughness. Stable chip evacuation and machining in machining with high depth of cut.		
15K	Excellent chip control in application with micro depth of cut and low feed. Low cutting load and super finishing surface. Excellent for both internal and external machining		
14VI	Longer tool life due to minimizing chip contact and reducing cutting heat while machining.		
AL	Extremely sharp cutting edge. Polished surface. Excellent chip forming at high cutting feeds. Low power consumption.		
FM	Suitable for finishing to medium cutting. Excellent chip control.		
SF	Large rake angle reduces cutting force. Less burring achieved by diminishing damage from notching.		
US	Superior cutting edge sharpness and strength achieved by a positive land. Extra strength of cutting edge inhibits damage from wall shouldering.		



Chipbreaker	Features	Application	Cutting Edge
UG	Large rake angle reduces cutting force. Less burring achieved by diminishing damage from notching.		
PU	General purpose chipbreaker. Excellent chip control at machining of low carbon steel.		
TQ	Sharp cutting performance with 3-D rake angle and double projection design.		
LR	Smooth chipbreaker geometry improves chip flow with less adhesion. Large curled chips.		
UA	Enables machining over a wide range of conditions by using the optimum chipbreaker width according to the cutting depth.		
UT	Strong edge chipbreaker for medium machining range.		

TURNLINE INSERT NEGATIVE TYPE

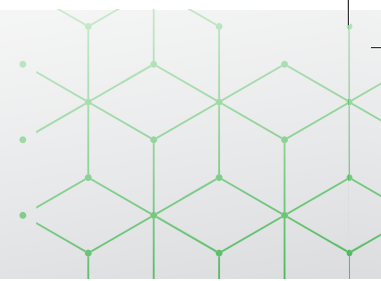


● :Continuous Cutting ● :Light Interrupted Cutting







Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets				
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15		QJ20U	QN320	QC580	QC230	GQ601	GQ301	
CN	Rhombic 80° Negative with Hole	P Steel		●	●	●	●											●	●	●	●	●	●		
		M Stainless					●	●	●	●									●	●					
		K Cast Iron																			●	●	●	●	
		N Non-ferrous																							
		S Superalloys																							
		H Hard Materials																							
Finishing		CNMG090304-PF 0.4	●																						
		CNMG090308-PF 0.8	●																						
		CNMG120404-PF 0.4	●	●																					
		CNMG120408-PF 0.8	●	●																					
Medium Cutting		CNMG090304-PM 0.4	●	●																					
		CNMG090308-PM 0.8	●	●																					
		CNMG120404-PM 0.4	●	●																					
		CNMG120408-PM 0.8	●	●																					
		CNMG120412-PM 1.2	●	●																					
		CNMG120416-PM 1.6	●	●																					
		CNMG160608-PM 0.8	●	●																					
		CNMG160612-PM 1.2	●	●																					
		CNMG190608-PM 0.8	●	●																					
		CNMG190612-PM 1.2	●	●																					
		CNMG190616-PM 1.6	●																						
			CNMG120404-FM 0.4			●	●																		
	CNMG120408-FM 0.8				●	●																			
	CNMG120404-SF 0.4																								
	CNMG120408-SF 0.8																								
	CNMG120404-GM 0.4								●	●	○														
	CNMG120408-GM 0.8								●	●	○														
		CNMG120412-GM 1.2							●	●	○														
		CNMG090304-MP 0.4									●														
		CNMG090308-MP 0.8									●														
		CNMG120404-MP 0.4							●	●	○														
		CNMG120408-MP 0.8							●	●	○														
		CNMG120412-MP 1.2								●	●														
		CNMG120416-MP 1.6									●														
		CNMG160608-MP 0.8									●														
		CNMG160612-MP 1.2									●														
		CNMG190608-MP 0.8									●														
		CNMG190612-MP 1.2									●														
		CNMG120404-MK 0.4									●	●													
		CNMG120408-MK 0.8									●	●													
		CNMG120412-MK 1.2									●	●													
	CNMG120416-MK 1.6									●	●														
	CNMG160608-MK 0.8									●	●														
	CNMG160612-MK 1.2									●	●														

● In Stock ○ Inquiry Each Time

External Toolholders:P39
Internal Toolholders:P51,P59



● : Continuous Cutting ● : Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating																No Coated	Cermets		Coated Cermet							
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15	QJ20U	QN320		QC580	QC230		GQ601	GQ301					
																											Cermets				
Medium Cutting			CNMG160616-MK	1.6														●	●				●	●	●	●	●	●			
			CNMG190612-MK	1.2																●	●										
			CNMG190616-MK	1.6																	●	●									
			CNMA120404	0.4																											
			CNMA120408	0.8																											
			CNMA120412	1.2																											
CNMA120416	1.6																														
CNMA160612	1.2																														
CNMA160616	1.6																														
CNMA160620	2.0																														
CNMA190612	1.2																														
CNMA190616	1.6																														
CNMA190624	2.4																														
	CNMG120404-US		0.4																												
	CNMG120408-US	0.8																													
	CNMG120404-UG	0.4																													
	CNMG120408-UG	0.8																													
	CNMG120404-PU	0.4																													
	CNMG120408-PU	0.8																													
	CNMG120404-TQ	0.4																													
	CNMG120408-TQ	0.8																													

● In Stock ○ Inquiry Each Time

External Toolholders: P39
Internal Toolholders: P51, P59

TURNLINE INSERT NEGATIVE TYPE

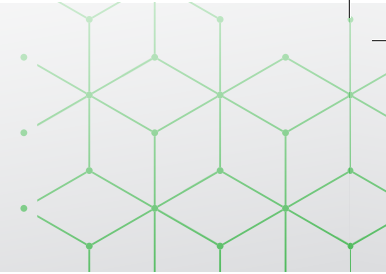


● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating													No Coated	Cermets		Coated Cermets				
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510		QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301
DN Rhombic 55° Negative with Hole	P	Steel	●	●	●	●												●	●	●	●	●	●		
	M	Stainless					●	●	●	●								●	●						
	K	Cast Iron									●	●								●	●	●	●		
	N	Non-ferrous																	●						
	S	Superalloys																							
	H	Hard Materials																	●						
Finishing		DNMG110404-PF	0.4	●	●																				
		DNMG110408-PF	0.8	●	●																				
		DNMG150404-PF	0.4	●	●																				
		DNMG150408-PF	0.8	●	●																				
		DNMG150604-PF	0.4	●	●																				
		DNMG150608-PF	0.8	●	●																				
	Medium Cutting		DNMG110404-PM	0.4	●	●																			
			DNMG110408-PM	0.8	●	●																			
DNMG110412-PM			1.2	●																					
DNMG150404-PM			0.4		●																				
DNMG150408-PM			0.8	●	●																				
DNMG150412-PM			1.2	●	●																				
DNMG150608-PM			0.8	●	●																				
DNMG150612-PM			1.2	●	●																				
		DNMG110404-SF	0.4																						
		DNMG110408-SF	0.8																						
		DNMG150404-SF	0.4																						
		DNMG150408-SF	0.8																						
		DNMG150604-SF	0.4																						
		DNMG150608-SF	0.8																						
			DNMG110404-GM	0.4								●	●												
			DNMG110408-GM	0.8								●	●												
DNMG150404-GM	0.4									●	●														
DNMG150408-GM	0.8									●	●														
DNMG150412-GM	1.2									●	●														
DNMG150604-GM	0.4									●	●														
DNMG150608-GM	0.8									●	●														
DNMG150612-GM	1.2									●	●														
	DNMG110404-MP	0.4									●														
	DNMG110408-MP	0.8								●	●														
	DNMG110412-MP	1.2									●														
	DNMG150404-MP	0.4								●	●	○													
	DNMG150408-MP	0.8								●	●														
	DNMG150412-MP	1.2									●														
	DNMG150604-MP	0.4								●	●														
	DNMG150608-MP	0.8								●	●														
DNMG150612-MP	1.2									●															

● In Stock ○ Inquiry Each Time

External Toolholders:P40
Internal Toolholders:P51,P59



● :Continuous Cutting ● :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets															
																			QC580	QC230	Coated Cermets													
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15				QJ20U	QN320	GQ601	GQ301										
Medium Cutting		DNMG150608-LR	0.8	●	●	●	●													●	●	●	●	●	●									
		DNMG150612-LR	1.2																															
		DNMG150404-MK	0.4								●	●																						
		DNMG150408-MK	0.8								●	●																						
		DNMG150412-MK	1.2								●	●																						
		DNMG150604-MK	0.4								●	●																						
		DNMG150608-MK	0.8								●	●																						
		DNMG150612-MK	1.2								●	●																						
		DNMG150616-MK	1.6								●	●																						
		DNMA150404	0.4								●	●																						
		DNMA150408	0.8								●	●																						
		DNMA150412	1.2								●	●																						
		DNMA150604	0.4								●	●																						
		DNMA150608	0.8								●	●																						
		DNMA150612	1.2								●	●																						
		DNMG150404-US	0.4																			○												
		DNMG150408-US	0.8																			○												
		DNMG150404-PU	0.4																															●
		DNMG150408-PU	0.8																															●
		DNMG150408-TQ	0.8																															●

● In Stock ○ Inquiry Each Time

External Toolholders:P40
Internal Toolholders:P51,P59

TURNLINE INSERT NEGATIVE TYPE



● :Continuous Cutting ● :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets						
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15		QJ20U	QN320	QC580	QC230	GQ601	GQ301			
SN	Square 90°	P Steel		●	●	●	●											●	●	●	●	●	●	●			
		M Stainless						●	●	●								●	●								
	Negative	K Cast Iron																		●	●	●	●	●			
		N Non-ferrous																				●					
	with Hole	S Superalloys																									
		H Hard Materials																									
Finishing		SNMG090304-PF	0.4	●	●																						
		SNMG090308-PF	0.8	●	●																						
		SNMG120404-PF	0.4	●	●																						
		SNMG120408-PF	0.8	●	●																						
Medium Cutting		SNMG090304-PM	0.4	●	●																						
		SNMG090308-PM	0.8	●	●																						
		SNMG120404-PM	0.4	●	●																						
		SNMG120408-PM	0.8	●	●																						
		SNMG120412-PM	1.2	●	●																						
		SNMG120416-PM	1.6	●	●																						
		SNMG150608-PM	0.8	●	●																						
		SNMG150612-PM	1.2	●	●																						
		SNMG120404-SF	0.4																								
		SNMG120408-SF	0.8																								
		SNMG120404-GM	0.4						●	●	○																
		SNMG120408-GM	0.8						●	●	○																
		SNMG120412-GM	1.2							●	●																
		SNMG120404-MP	0.4						●	●																	
		SNMG120408-MP	0.8						●	●																	
		SNMG120412-MP	1.2						●	●																	
		SNMG150612-MP	1.2																								
		SNMG190612-MP	1.2																								
		SNMG190612-MP	1.2																								
		SNMG120408-MK	0.8																								
		SNMG120412-MK	1.2																								
		SNMG150412-MK	1.2																								
		SNMG150612-MK	1.2																								
		SNMG150616-MK	1.6																								
		SNMG190612-MK	1.2																								
		SNMG190616-MK	1.6																								
		SNMA090304	0.4																								
		SNMA090308	0.8																								
SNMA090312		1.2																									
SNMA120404		0.4																									
SNMA120408		0.8																									
	SNMA120412	1.2																									

● In Stock ○ Inquiry Each Time

External Toolholders:P40
Internal Toolholders:P51

TURNLINE INSERT NEGATIVE TYPE



● :Continuous Cutting ● :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets					
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15		QJ20U	QN320		QC580	QC230	GQ601	GQ301	
Medium Cutting		P Steel		●	●	●	●											●	●	●	●	●				
		M Stainless					●	●	●	●									●	●						
		K Cast Iron																			●	●	●	●	●	
		N Non-ferrous																		●						
		S Superalloys																								
		H Hard Materials																	●							
		SNMA120416	1.6																							
		SNMA190612	1.2																							
		SNMA190616	1.6																							

● In Stock ○ Inquiry Each Time

External Toolholders:P40
Internal Toolholders:P51

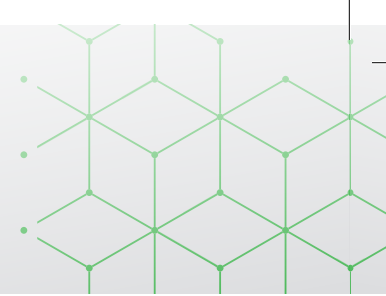
● :Continuous Cutting ● :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets				
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15		QJ20U	QN320		QC580	QC230	GQ601	GQ301
Finishing		TNMG160404-PF	0.4	●	●																				
		TNMG160408-PF	0.8	●	●																				
		TNMG220404-PF	0.4	●	●																				
		TNMG220408-PF	0.8	●	●																				
Medium Cutting		TNMG110304-PM	0.4	●	●																				
		TNMG110308-PM	0.8	●	●																				
		TNMG160404-PM	0.4	●	●																				
		TNMG160408-PM	0.8	●	●																				
		TNMG160412-PM	1.2	●	●																				
		TNMG220408-PM	0.8	●	●																				
		TNMG220412-PM	1.2	●	●																				
		TNMG220416-PM	1.6	●	●																				
		TNMG160404-FM	0.4			●	●																		
		TNMG160408-FM	0.8			●	●																		
		TNMG160404-SF	0.4																						
		TNMG160408-SF	0.8																						
		TNMG160404-GM	0.4						●	●	○														
		TNMG160408-GM	0.8						●	●	○														
		TNMG160412-GM	1.2						●	●															

● In Stock ○ Inquiry Each Time

External Toolholders:P42
Internal Toolholders:P52,P59

TURNLINE INSERT NEGATIVE TYPE



● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets	Coated Cermets			
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15				QJ20U	QN320	QC580
Medium Cutting		TNGG160401R/L-25UL	0.1	●	●	●	●											●	●	●	●	●	●	
		TNGG160402R/L-25UL	0.2					●	●	●	●								●	●				
		TNGG160404R/L-25UL	0.4																●	●				
		TNGG160402R/L-24UL	0.2																	●				
		TNGG160404R/L-24UL	0.4																	●				
		TNGG160401R/L-15D	0.1																	●				
		TNGG160402R/L-15D	0.2																	●				
		TNGG160404R/L-15D	0.4																	●				
		TNGG160408R/L-15D	0.8																	●				
		TNGG160402R/L-15M	0.2																	●				
		TNGG160404R/L-15M	0.4																	●				
		TNGG160408R/L-15M	0.8																	●				

● In Stock ○ Inquiry Each Time

External Toolholders:P42
Internal Toolholders:P52,P59

● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets	Coated Cermets				
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15				QJ20U	QN320	QC580	QC230
Finishing		VNMG160404-PF	0.4	●	●														●	●	●	●	●		
		VNMG160408-PF	0.8	●	●															●	●	●	●	●	
		VNMG220404-PF	0.4	●	●																●	●	●	●	●
		VNMG220408-PF	0.8	●	●																●	●	●	●	●
Medium Cutting		VNMG160404-PM	0.4	●	●																				
		VNMG160408-PM	0.8	●	●																				
		VNMG160412-PM	1.2	●	●																				
		VNMG160404-FM	0.4			●	●																		
		VNMG160408-FM	0.8			●	●																		
		VNMG160404-SF	0.4																		●				
VNMG160408-SF	0.8																		●						

● In Stock ○ Inquiry Each Time

External Toolholders:P43
Internal Toolholders:P52,P60

TURNLINE INSERT NEGATIVE TYPE



● :Continuous Cutting ● :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets				
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15		QJ20U	QN320	QC580	QC230	GQ601	GQ301	
Medium Cutting		WNMG080404-UG	0.4	●	●	●	●												●	●	●	●	●	●	
		WNMG080408-UG	0.8					●	●	●	●									●	●				
		WNMG080404-PU	0.4																						●
		WNMG080408-PU	0.8																						●
		WNMG080412-PU	1.2																						●
		WNMG080404-TQ	0.4																						●
		WNMG080408-TQ	0.8																						●
		WNMG080412-TQ	1.2																						●

● In Stock ○ Inquiry Each Time

External Toolholders:P44
Internal Toolholders:P52,P60

● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating													No Coated	Cermets	Coated Cermets										
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510			QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301				
					●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●			
CC		Rhombic 80°	P Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
			M Stainless	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
			Positive 7°	K Cast Iron	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
			N Non-ferrous	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
			S Superalloys	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
with Hole			H Hard Materials	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
Finishing to Medium Cutting			CCMT060202-PS	0.2	●									●	●															
			CCMT060204-PS	0.4	●	●										●	●									●				
			CCMT060208-PS	0.8		●																					●			
			CCMT09T302-PS	0.2	●	●											●	●									●			
			CCMT09T304-PS	0.4	●	●											●	●									●			
			CCMT09T308-PS	0.8	●	●											●	●									●			
			CCMT120404-PS	0.4	●	●											●	●									●			
			CCMT120408-PS	0.8	●	●											●	●									●			
			CCMT060202-MM	0.2								●	●				●									●				
			CCMT060204-MM	0.4								●	●				●									●				
			CCMT060208-MM	0.8							●	●	○													●				
			CCMT09T302-MM	0.2									●				●	●								●				
			CCMT09T304-MM	0.4								●	●	○			●	●								●				
			CCMT09T308-MM	0.8								●	●	○			●	●								●				
			CCMT09T304-KS	0.4		●										●	●													
			CCMT09T308-KS	0.8		●										●	●													
			CCMT120408-KS	0.8		●										●	●													
			CCMT120412-KS	1.2		●										●	●													
			CCMT060202-UA	0.2														○												
			CCMT060204-UA	0.4														○												
			CCMT09T302-UA	0.2														○												
			CCMT09T304-UA	0.4														○												
			CCMT060202-UT	0.2														○												
			CCMT060204-UT	0.4														○												
			CCMT09T302-UT	0.2														○												
			CCMT09T304-UT	0.4														○												
			CCGT0602005R/L-13U	0.05															●											
			CCGT060201R/L-13U	0.1															●											
			CCGT060202R/L-13U	0.2																●										
			CCGT060204R/L-13U	0.4																	●									
			CCGT09T301R/L-15V	0.1															●											
			CCGT09T302R/L-15V	0.2																●										
			CCGT09T304R/L-15V	0.4																	●									
			CCGT09T3003R/L-15U	0.03															●											
			CCGT09T3005R/L-15U	0.05															●											
			CCGT09T301R/L-15U	0.1															●											
			CCGT09T302R/L-15U	0.2																●										
			CCGT09T304R/L-15U	0.4																	●									
			CCGT060201R/L-12U	0.1																						●				
CCGT060202R/L-12U	0.2																							●						
CCGT060204R/L-12U	0.4																							●						

● In Stock ○ Inquiry Each Time

External Toolholders: P45
Internal Toolholders: P53, P61

TURNLINE INSERT POSITIVE TYPE



● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating													No Coated	Cermets	Coated Cermets														
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510				QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301							
Finishing to Medium Cutting			CCGT09T301R/L-15U	0.1	●	●	●	●																●	●	●	●	●	●					
			CCGT09T302R/L-15U	0.2					●	●	●	●														●	●	●	●	●	●			
			CCGT09T304R/L-15U	0.4																							●	●	●	●	●	●		
				CCGT09T302-AL	0.2																				●									
				CCGT09T304-AL	0.4																						●							
				CCGT09T308-AL	0.8																							●						
				CCGT120402-AL	0.2																							●						
				CCGT120404-AL	0.4																							●						
				CCGT120408-AL	0.8																							●						

● In Stock ○ Inquiry Each Time

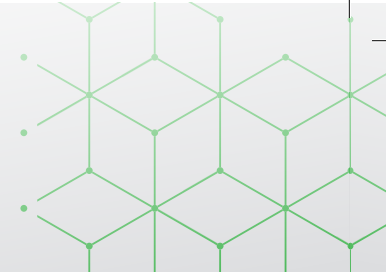
External Toolholders: P45
Internal Toolholders: P53, P61

● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating													No Coated	Cermets	Coated Cermets														
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510				QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301							
Finishing to Medium Cutting			DCMT070204-PS	0.4		●																												
			DCMT070208-PS	0.8		●																												
			DCMT11T304-PS	0.4	●	●																												
			DCMT11T308-PS	0.8	●	●																												
			DCMT150408-PS	0.8																														
				DCMT070202-MM	0.2																													
				DCMT070204-MM	0.4																													
				DCMT070208-MM	0.8																													
				DCMT11T302-MM	0.2																													
				DCMT11T304-MM	0.4					●	●	○																						
				DCMT11T308-MM	0.8						●	●	○																					
				DCMT11T304-KS	0.4		●																											
				DCMT11T308-KS	0.8		●																											
				DCMT070202-UA	0.2																													
				DCMT070204-UA	0.4																													
				DCMT11T302-UA	0.2																													
				DCMT11T304-UA	0.4																													

● In Stock ○ Inquiry Each Time

External Toolholders: P45
Internal Toolholders: P53, P61



● :Continuous Cutting ◐ :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating													No Coated	Cermets		Coated Cermets							
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510		QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301			
Finishing to Medium Cutting		DCMT070202-UT	0.2	●	◐	●	◐														●	●	●	●	●	●	
		DCMT070204-UT	0.4																			●	●				
		DCMT11T302-UT	0.2																								
		DCMT11T304-UT	0.4																								
		DCGT070201R/L-15V	0.1																			●					
		DCGT070202R/L-15V	0.2																				●				
		DCGT070204R/L-15V	0.4																					●			
		DCGT11T3003R/L-15V	0.03																				●				
		DCGT11T3005R/L-15V	0.05																				●				
		DCGT11T301R/L-15V	0.1																				●				
		DCGT11T302R/L-15V	0.2																				●				
		DCGT11T304R/L-15V	0.4																				●				
		DCGT070201R/L-12U	0.1																			●					
		DCGT070202R/L-12U	0.2																				●				
		DCGT070204R/L-12U	0.4																				●				
		DCGT11T3005R/L-15U	0.05																				●				
		DCGT11T301R/L-15U	0.1																				●				
		DCGT11T302R/L-15U	0.2																				●				
		DCGT11T304R/L-15U	0.4																				●				
		DCGT11T3005R/L-16X	0.05																				●				
		DCGT11T301R/L-16X	0.1																				●				
		DCGT11T302R/L-16X	0.2																				●				
		DCGT11T304R/L-16X	0.4																				●				
		DCGT070201R/L-12U	0.1																				●				
		DCGT070202R/L-12U	0.2																				●				
		DCGT070204R/L-12U	0.4																				●				
		DCGT0702005R/L-15V	0.05																				●				
		DCGT070201R/L-15V	0.1																				●				
		DCGT070202R/L-15V	0.2																				●				
		DCGT070204R/L-15V	0.4																				●				
		DCGT11T302R/L-15V	0.2																				●				
		DCGT11T304R/L-15V	0.4																				●				
		DCGT070201R/L-15M	0.1																				●				
		DCGT070202R/L-15M	0.2																				●				
		DCGT070204R/L-15M	0.4																				●				
		DCGT11T301R/L-15M	0.1																				●				
		DCGT11T302R/L-15M	0.2																				●				
		DCGT11T304R/L-15M	0.4																				●				

● In Stock ○ Inquiry Each Time

External Toolholders:P45
Internal Toolholders:P53,P61

TURNLINE INSERT POSITIVE TYPE



● :Continuous Cutting ◐ :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating																			
																					No Coated	Cermet	Coated Cermet	
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15	QJ20U	QN320	QC580	QC230	GQ601	GT301
Finishing to Medium Cutting		DCGT11T3005R/L-15U	0.05																●					
		DCGT11T301R/L-15U	0.1																	●				
		DCGT11T302R/L-15U	0.2																	●				
		DCGT11T304R/L-15U	0.4																	●				
		DCGT070204-AL	0.4																●					
		DCGT070208-AL	0.8																●					
		DCGT11T302-AL	0.2																●					
		DCGT11T304-AL	0.4																●					
		DCGT11T308-AL	0.8																●					
		DCGT11T312-AL	1.2																●					

● In Stock ◐ Inquiry Each Time

External Toolholders: P45
Internal Toolholders: P53, P61

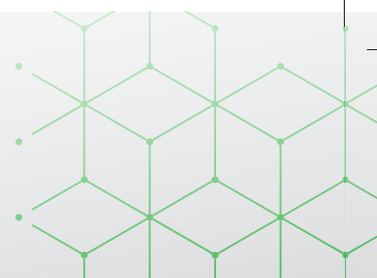
● :Continuous Cutting ◐ :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating																			
																					No Coated	Cermet	Coated Cermet	
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15	QJ20U	QN320	QC580	QC230	GQ601	GT301
Finishing to Medium Cutting		SCMT09T304-PS	0.4																					
		SCMT09T308-PS	0.8	●	●								●	●										
		SCMT120404-PS	0.4		●																			
		SCMT120408-PS	0.8		●																			
		SCMT09T308-MM	0.8								●													
		SCMT09T308-KS	0.8		●																			
		SCMT120408-KS	0.8		●																			

● In Stock ◐ Inquiry Each Time

External Toolholders: P46

TURNLINE INSERT
POSITIVE TYPE



● :Continuous Cutting ● :Light Interrupted Cutting

Application		Chipbreaker	Designation	Corner Radius	Coating															No Coated	Cermets	Coated Cermet									
					QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15	QJ20U			QN320	QC580	QC230	GQ601	GQ301					
Finishing to Medium Cutting		TCMT090204-PS TCMT110202-PS TCMT110204-PS TCMT110208-PS TCMT16T304-PS TCMT16T308-PS	0.4	●	●							●	●								●	●	●	●	●	●					
			0.2		●							●	●															●			
			0.4	●	●								●	●										●	●	●	●				
			0.8	●									●	●											●	●	●	●			
			0.4	●										●	●											●	●	●	●		
			0.8	●	●									●	●																
		TCMT110202-MM TCMT110204-MM TCMT110208-MM TCMT16T304-MM TCMT16T308-MM	0.2							●																			●		
			0.4							●	●					●														●	
			0.8							●	●																				
			0.4							●	●	○																			
			0.8							●	●	○																			
		TCMT110204-KS TCMT16T304-KS TCMT16T308-KS	0.4		●							●	●																		
			0.4		●								●	●																	
			0.8		●								●	●																	
		TCMT110202-UA TCMT110204-UA	0.2														○														
			0.4															○													
		TCMT110202-UT TCMT110204-UT	0.2														○														
			0.4															○													
		TCGT0902005R/L-15V TCGT090201R/L-15V TCGT090202R/L-15V TCGT090204R/L-15V TCGT1102005R/L-15V TCGT110201R/L-15V TCGT110202R/L-15V TCGT110204R/L-15V	0.05																●												
			0.1																	●											
			0.2																	●											
			0.4																	●											
0.05																			●												
0.1																			●												
0.2																			●												
0.4																			●												
	TCGT110301R/L-10U TCGT110302R/L-10U	0.1																										●			
		0.2																											●		
	TCGT090204-AL TCGT110204-AL TCGT16T302-AL TCGT16T304-AL TCGT16T308-AL	0.4																			●										
		0.4																				●									
		0.2																				●									
		0.4																				●									
		0.8																				●									

● In Stock ○ Inquiry Each Time

External Toolholders: P48
Internal Toolholders: P55, P63

TURNLINE INSERT POSITIVE TYPE



TP		Triangular 60°	P	Steel	●	●	●	●																			
		Positive 11°	M	Stainless				●	●	●																	
			K	Cast Iron							●	●															
with Hole	N	Non-ferrous																									
	S	Superalloys																									
		H	Hard Materials																								
Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets						
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301				
Finishing to Medium Cutting		TPMT110202-MM	0.2																								
		TPMT110204-MM	0.4								●			●													
		TPGH080202R/L-15K	0.2																								
		TPGH080204R/L-15K	0.4																								
		TPGH090201R/L-15K	0.1																								
		TPGH090202R/L-15K	0.2																								
		TPGH090204R/L-15K	0.4																								
		TPGH110302R/L-15K	0.2																								
		TPGH110304R/L-15K	0.4																								
		TPGH080201R/L-15K	0.1																								
		TPGH080202R/L-15K	0.2																								
		TPGH080204R/L-15K	0.4																								
		TPGH090201R/L-15K	0.1																								
		TPGH090202R/L-15K	0.2																								
		TPGH090204R/L-15K	0.4																								
		TPGH110302R/L-15K	0.2																								
TPGH110304R/L-15K		0.4																									
TPGH110202R/L-15K		0.2																									
TPGH110204R/L-15K	0.4																										

● In Stock ○ Inquiry Each Time

Internal Toolholders: P56, P63



VB		Rhombic 35°	P	Steel	●	●	●	●																		
		Positive 5°	M	Stainless				●	●	●																
			K	Cast Iron							●	●														
with Hole	N	Non-ferrous																								
	S	Superalloys																								
		H	Hard Materials																							
Application	Chipbreaker	Designation	Corner Radius	Coating														No Coated	Cermets		Coated Cermets					
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QH510	QJ15	QJ20U	QN320	QC580	QC230	GQ601	GQ301			
Medium Cutting		VBMT160404-PS	0.4	●	●																					
		VBMT160408-PS	0.8	●	●																					

● In Stock ○ Inquiry Each Time

External Toolholders: P48
Internal Toolholders: P57, P64

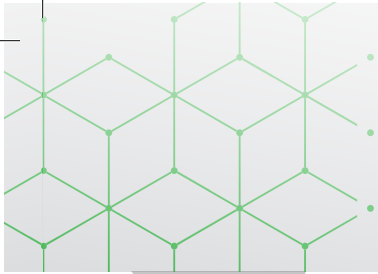


● :Continuous Cutting ● :Light Interrupted Cutting

Application	Chipbreaker	Designation	Corner Radius	Coating															No Coated	Cermets		Coated Cermets				
				QP710	QP720	QP7110	QP7220	QM810	QM820	QM8110	QM8220	QK910	QK920	QMS3115	QMS3125	QI620	QJ15	QJ20U		QN200	QC580		QC230	GQ601	GQ301	
				Finishing to Medium Cutting		WCMT06T304-PS	0.4	●	●																	
WCMT06T308-PS	0.8	●	●																							
	WCMX030208	0.8															●									
	WCMX040208	0.8															●									
	WCMX050308	0.8															●									
	WCMX06T308	0.8															●									
	WCMX080412	1.2															●									
	WCGX030208	0.8																●								
WCGX040208	0.8																●									
WCGX050308	0.8																●									
WCGX06T308	0.8																●									
WCGX080412	1.2																●									

● In Stock ○ Inquiry Each Time







QBER

QBER SRL

Via G. Bravi 25 - 24030 Mapello (BG) - Italy

Tel. +39 035 908128 - info@qber.it

WWW.QBER.IT