NPA

April 2015
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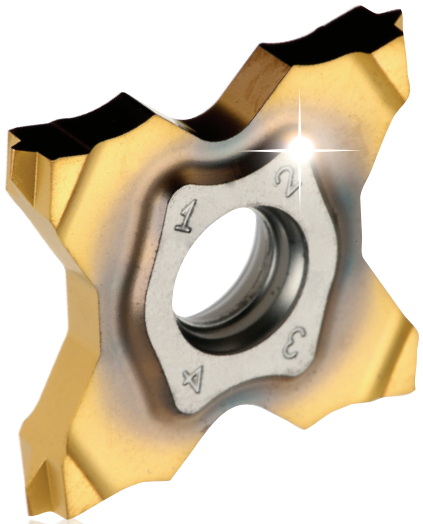
New Product Announcement No. 2015-11

expansion

QUAD·RUSH

Full Profile Threading Inserts Now Available



TaeguTec
Member IMC Group

New Product Announcement No. 2015-11

QUAD•RUSH

TaeguTec is pleased to announce the addition of full profile threading inserts to the QUADRUSH line.

The inserts are available in ISO metric, UN and W types making QUADRUSH inserts capable of full profile threading according to both pitch and TPI (Thread/Inch).

Moreover, as the QUADRUSH is a 4-cutting edges insert, it promotes economy and productivity as well as high accuracy and surface quality; all aspects that are credited to its fully ground threading profile.

The new full profile threading lines come in the latest TT9080 GOLDRUSH grade and are interchangeable with standard QUADRUSH holders.

With this addition to the QUADRUSH threading line, TaeguTec is providing end-users the highest productivity and economical tools for threading applications.

FEATURES

- **Three new full profile threading types (ISO metric, UN and W) in addition to the partial profile threading types (MT, WT) released in September 2014 make the QUADRUSH line both a partial and a full profile threading line.**
- **Three new types:**
  - **ISO metric thread pitch: 0.5mm-2.0mm**
  - **Unified (UN) type: 12-24 TPI**
  - **Whitworth (W) type: 12-28 TPI**
- **New line of inserts are fully ground profiles for higher accuracy and better surface quality.**
- **New QUADRUSH full profile types share the same characteristics as the rest of the line such as 4-corner inserts and a robust clamping design for better rigidity.**
- **Available in the versatile PVD TT9080 GOLDRUSH grade.**
- **New line is interchangeable with all standard QUADRUSH holders.**

Availability
In stock

Price
Available in the GAL system

Sincerely,
TaeguTec

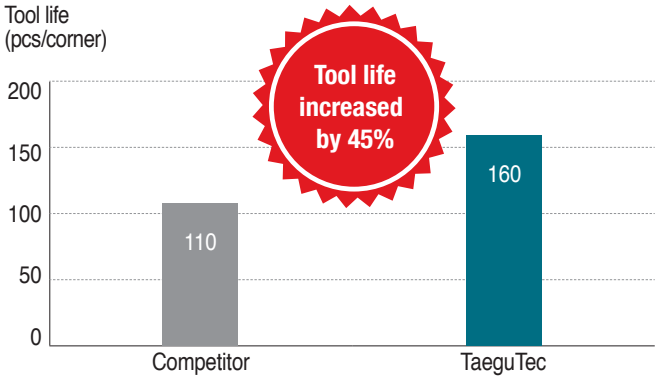
Park Hong-sik
Rotating & Non-Rotating Product Manager

Sincerely,
TaeguTec

Cha Byung-jae
T-Clamp & Threading Product Manager

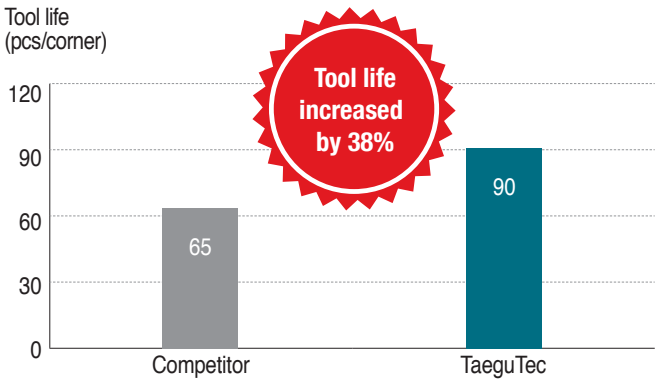
Case study 1

		Competitor	TaeguTec
Workpiece material		Alloy steel (AISI 4140, SCM440)	
Insert		3 corner lay-down type	TQS 27-1.5-ISO
Grade		PVD coating grade	TT9080
Thread type		M42x1.5, external	M42x1.5, external
Cutting speed	V (m/min)	160	160
Feed rate	F (mm/rev)	1.5	1.5
No. of passes		8	8
Coolant		Yes	Yes
Tool life (pcs/corner)		110	160



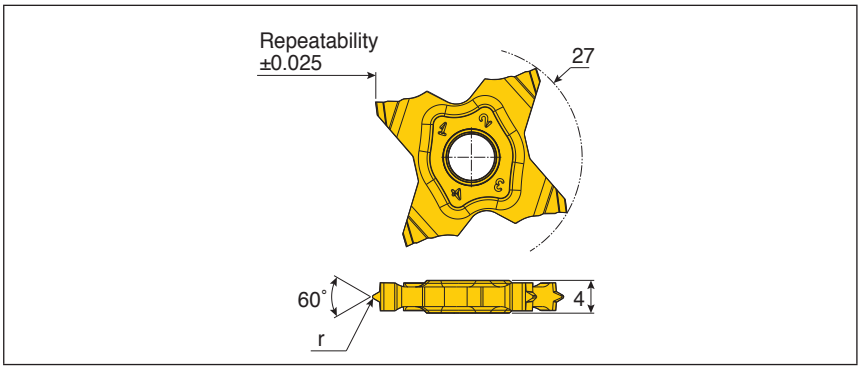
Case study 2

		Competitor	TaeguTec
Workpiece material		Stainless steel (AISI 304, SUS 304)	
Insert		3 corner lay-down type	TQS 27-1.5-ISO
Grade		PVD coating grade	TT9080
Thread type		M16x1.5, external	M16x1.5, external
Cutting speed	V (m/min)	100	100
Feed rate	F (mm/rev)	1.5	1.5
No. of passes		10	10
Coolant		Yes	Yes
Tool life (pcs/insert)		65	90



TQS 27-ISO

ISO metric full profile, external threading

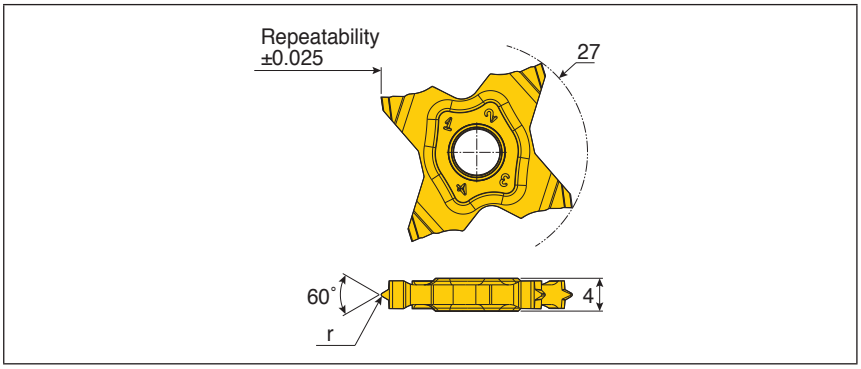


Designation	r	Pitch	Grade
			TT9080
TQS 27-0.5-ISO	0.08	0.50	●
27-0.75-ISO	0.11	0.75	●
27-0.8-ISO	0.12	0.80	●
27-1.0-ISO	0.14	1.00	●
27-1.25-ISO	0.18	1.25	●
27-1.5-ISO	0.22	1.50	●
27-1.75-ISO	0.25	1.75	●
27-2.0-ISO	0.28	2.00	●

● : Standard items

TQS 27-UN

American UN (UNC, UNF, UNEF) full profile, external threading



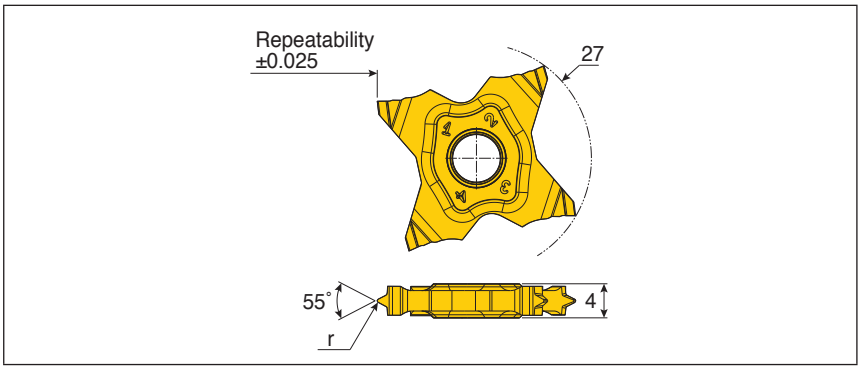
Designation	r	TPI	Grade
			TT9080
TQS 27-24-UN	0.13	24	●
27-20-UN	0.16	20	●
27-18-UN	0.18	18	●
27-16-UN	0.21	16	●
27-14-UN	0.23	14	●
27-12-UN	0.27	12	●

• TPI: Thread / Inch

● : Standard items

TQS 27-W

Whitworth (BSW, BSF, BSP) full profile, external threading



Designation		r	TPI	Grade
				TT9080
TQS	27-28-W	0.09	28	●
	27-19-W	0.15	19	●
	27-18-W	0.16	18	●
	27-16-W	0.19	16	●
	27-14-W	0.21	14	●
	27-12-W	0.25	12	●

• TPI: Thread / Inch

● : Standard items

Recommended Cutting Conditions

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc(m/min)
							TT9080
P	Non-alloy steel, cast steel, free cutting steel	0.1-0.25 %C	Annealed	420	125	1	110-200
		0.25-0.25 %C	Annealed	650	190	2	100-180
		0.25-0.25 %C	Quenched and tempered	850	250	3	70-160
		0.55-0.80 %C	Annealed	750	220	4	80-180
		0.55-0.80 %C	Quenched and tempered	1000	300	5	60-140
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6	80-180
			Quenched and tempered	930	275	7	70-140
				1000	300	8	60-110
				1200	350	9	40-100
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-110
			Quenched and tempered	1100	325	11	40-100
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	60-140
			Martensitic	820	240	13	120-180
			Austenitic	600	180	14	70-140
K	Gray cast iron (GG)		Ferritic		160	15	120-180
			Pearlitic		250	16	70-140
	Cast iron nodular (GGG)		Ferritic		180	17	70-130
			Pearlitic		260	18	60-115
	Malleable cast iron		Ferritic		130	19	60-70
			Pearlitic		230	20	80-170
N	Aluminum - Wrought alloy		Not cureable		60	21	100-365
			Cured		100	22	80-220
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23	200-400
			Cured		90	24	200-280
		>12% Si	High temp.		130	25	200-280
	Copper alloys	>1% Pb	Free cutting		110	26	80-255
			Brass		90	27	80-255
			Electrolitic copper		100	28	80-255
	Non-metallic		Duroplastics, fiber plastics			29	80-250
			Hard rubber			30	80-250
S	High temp. alloys	Fe based	Annealed		200	31	30-60
			Cured		280	32	25-40
		Ni or Co based	Annealed		250	33	25-35
			Cured		350	34	15-25
			Cast		320	35	15-30
	Titanium, Ti alloys			Rm 400		36	70-150
			Alpha+beta alloys cured	Rm 1050		37	25-50
H	Hardened steel		Hardened		55HRC	38	45-60
			Hardened		60HRC	39	45-60
	Chilled cast iron		Cast		400	40	45-60
	Cast iron nodular		Hardened		55HRC	41	45-60

Steel Stainless steel Cast iron Nonferrous High temp. alloys Hardened steel

Number of cutting passes

Pitch (mm)	0.5	1.0	1.5	2.0	2.5	3.0	4.0	6.0
TPI	48	24	16	12	10	8	6	4
Number of passes	4-6	5-9	5-12	6-14	7-15	8-17	10-20	11-22