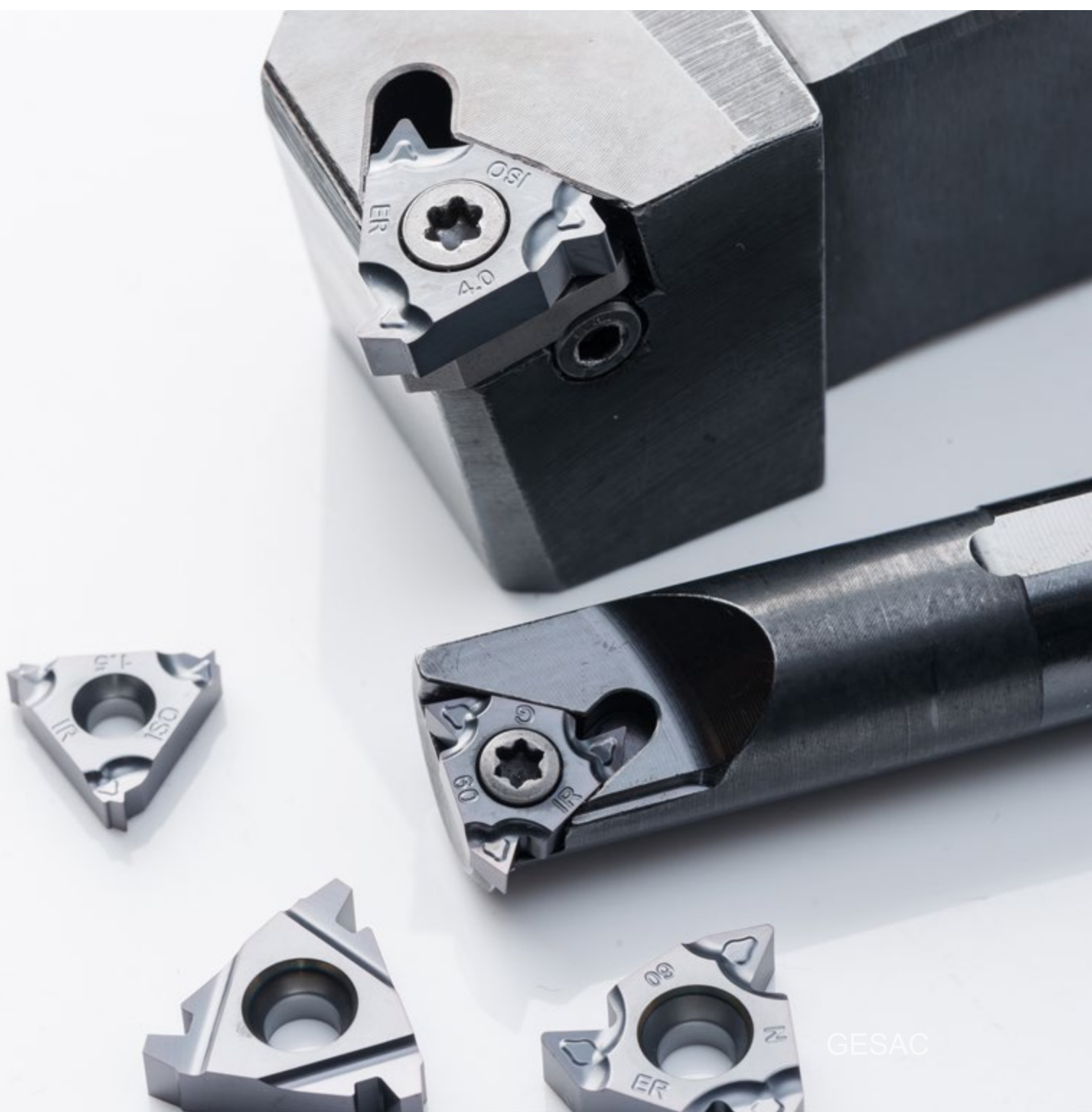


E

Threading Tools



Threading Insert Identification System

16 E R 1.50 ISO - TC

①
②
③
④
⑤
⑥

① Insert Size	
Size	IC(mm)
08	5
11	6.35
16	9.525
22	12.7
27	15.875

③ Hand of Insert
R=Right
L= Left
<input type="checkbox"/> =R&L

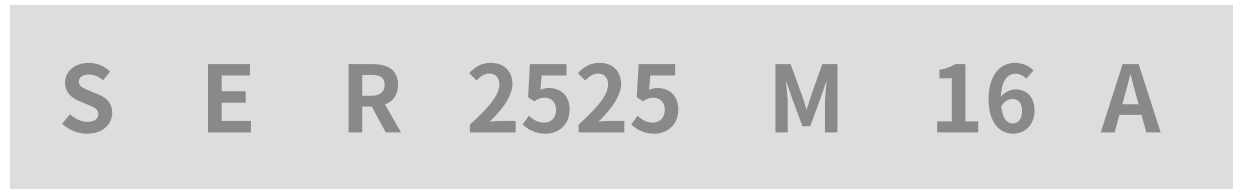
⑤ Thread Standard
60=Partial Profile 60°
55=Partial Profile 55°
ISO=ISO Metric
UN=American UN
W=Whitworth
NPT=National Pipe Thread
BSPT=British BSPT
ACME=American ACME
STACME=American Stub ACME
ABUT=
API=API Thread
UNJ=American Aerospace Thread

⑥ Additional Information
Geometry or Teeth

② Thread Style
E=External
I=Internal
<input type="checkbox"/> =E&I

④ Pitch		
Full Profile		
mm	TPI	
0.35-5.0	72-5	
Partial Profile		
Size	mm	TPI
A	0.5-1.5	48-16
AG	0.5-3.0	48-8
G	1.75-3.0	14-8
N	3.5-5.0	7-5

Threading Holder Identification System



①

②

③

④

⑤

⑥

⑦

①Clamping System	
S=Screw	
C=Clamp	

②Process Type	
E=External	
I=Internal	

③Cutting Direction	
R=Right hand	
L=Left hand	
N=None	

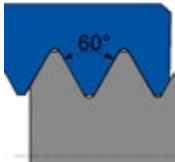
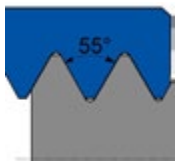
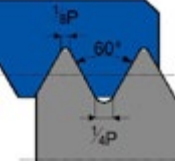
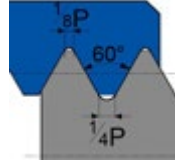
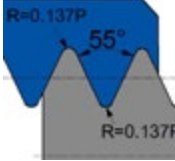
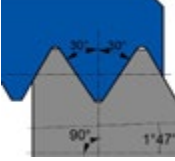
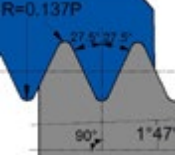

④Shank Size	
External Holder	
Shank Size	hxb
2525	25x25mm
Internal Bar	
Shank Size	Diameter
0025	Diameter 25mm

⑤Thread	
Type	Length
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300
U	350
V	400

⑥Insert Size	
Type	IC(mm)
08	5
11	6.35
16	9.525
22	12.7
27	15.875

⑦Additional	
A=Steel holder with inner coolant	
C=Carbide holder	
E=Carbide holder with inner coolant	
□=steel holder without inner coolant	

Overview of Threading Tools

Application	Thread Type	Thread Sketch	ThreadCode	Pitch	Page
For general industry	Partial Profile 60° Thread		60°	0.5-5.0 (mm)	P146
	Partial Profile 55° Thread		55°	48-5 (TPI)	P147
	ISO Metric Thread		ISO	1.0-5.0 (mm)	P148
	UN Thread		UN	24-8 (TPI)	P150
Thread for pipe fittings and couplings for gas, water and sewage.	Whitworth Thread		W	19-11 (TPI)	P151
	NPT Thread		NPT	27-8 (TPI)	P152
Thread for pipe fittings and couplings for gas, steam and water lines.	BSPT Thread		BSPT	28-11 (TPI)	P153
Thread for pipe couplings in food and fire fighting industry.	Round Thread(DIN 405)		RD	10-4 (TPI)	P154

TC — Special Geometry

Raised platform

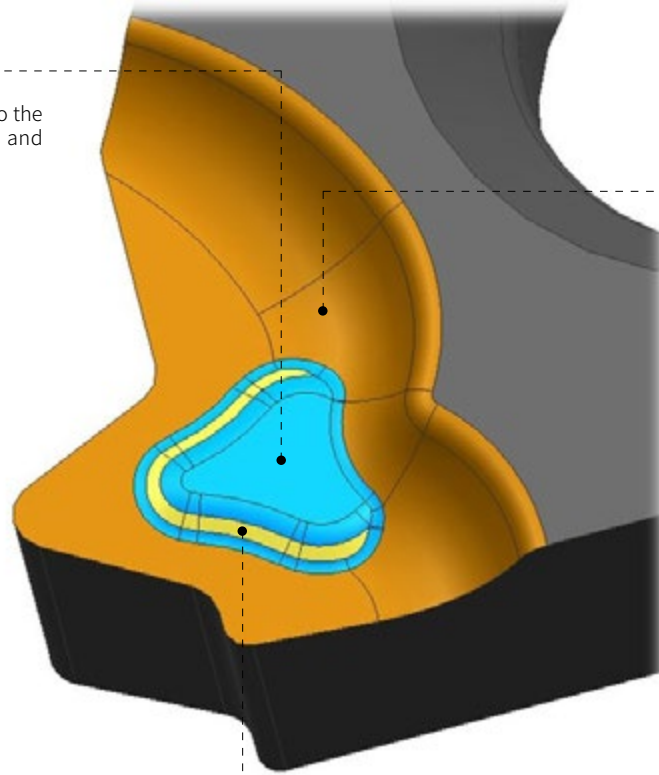
Good chip control, apply to the radial infeed, flank infeed and incremental infeed

Wide chip room

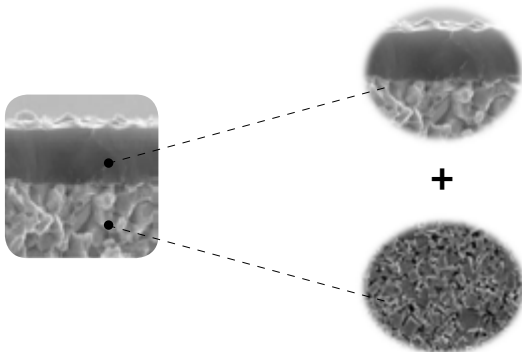
Smooth chip discharge due to wide chip room

Curved surface

Increase the cooling area to avoid the carter wear



GM3225 — General grade for thread turning



New TiAlN nano-structure coating

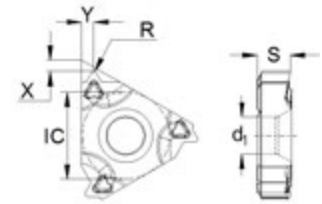
New TiAlN nano-structure coating with excellent heat resistance and bonding resistance.


Micro-grain carbide substrate

Micro-grain carbide substrate with high wear resistance and good roughness, suitable for thread turning of general material.

Partial Profile 60°

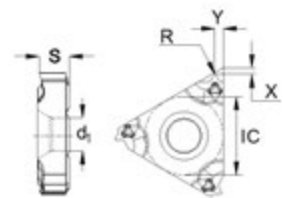
► External




Ordering Code	Pitch (mm)	Dimensions (mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	16 ERA60-TC	0.5-1.5	0.8	0.9	0.08	9.525	3.47	4	●
	16 ERAG60-TC	0.5-3.0	1.1	1.5	0.08	9.525	3.47	4	●
	16 ERG60-TC	1.75-3.0	1.2	1.7	0.25	9.525	3.47	4	●
	22 ERN60-TC	3.5-5.0	1.7	2.5	0.51	12.7	4.71	5	●

● Stock ○ Available Up Order

► Internal

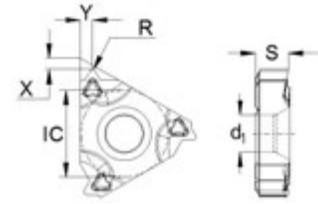



Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	08 IRA60-TC	0.5-1.5	0.6	0.7	0.08	5.00	2.25	2.68	●
	11 IRA60-TC	0.5-1.5	0.8	0.9	0.08	6.35	3.00	3.2	●
	16 IRA60-TC	0.5-1.5	0.8	0.9	0.08	9.525	3.47	4	●
	16 IRAG60-TC	0.5-3.0	1.1	1.5	0.08	9.525	3.47	4	●
	16 IRG60-TC	1.75-3.0	1.2	1.7	0.13	9.525	3.47	4	●
	22 IRN60-TC	3.5-5.0	1.7	2.5	0.25	12.7	4.71	5	●

● Stock ○ Available Up Order

Partial Profile 55°

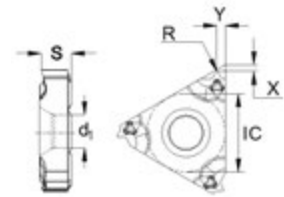
► External




Ordering Code	Pitch (TPI)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	16 ERA55-TC	48-16	0.8	0.9	0.08	9.525	3.47	4	●
	16 ERAG55-TC	48-8	1.1	1.5	0.08	9.525	3.47	4	●
	16 ERG55-TC	14-8	1.2	1.7	0.21	9.525	3.47	4	●
	22 ERN55-TC	7-5	1.7	2.5	0.44	12.7	4.71	5	●

● Stock ○ Available Up Order

► Internal

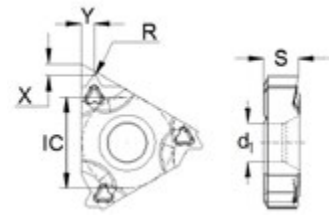


Ordering Code	Pitch (TPI)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	11 IRA55-TC	48-16	0.8	0.9	0.08	6.35	3	3.2	●
	16 IRA55-TC	48-16	0.8	0.9	0.08	9.525	3.47	4	●
	16 IRAG55-TC	48-8	1.1	1.5	0.08	9.525	3.47	4	●
	16 IRG55-TC	14-8	1.2	1.7	0.21	9.525	3.47	4	●
	22 IRN55-TC	7-5	1.7	2.5	0.44	12.7	4.71	5	●

● Stock ○ Available Up Order

Metric 60°

► External

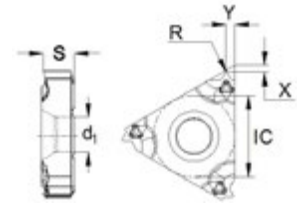


Ordering Code	Pitch (mm)	Dimensions(mm)						Availability
		X	Y	R	IC	S	d1	GM3225
16 ER1.00ISO-TC	1.00	0.8	0.7	0.14	9.525	3.47	4	●
16 ER1.25ISO-TC	1.25	0.8	0.9	0.18	9.525	3.47	4	●
16 ER1.50ISO-TC	1.50	0.8	1.0	0.22	9.525	3.47	4	●
16 ER1.75ISO-TC	1.75	1.2	1.2	0.25	9.525	3.47	4	●
16 ER2.00ISO-TC	2.00	1.2	1.3	0.29	9.525	3.47	4	●
16 ER2.50ISO-TC	2.50	1.2	1.5	0.36	9.525	3.47	4	●
16 ER3.00ISO-TC	3.00	1.2	1.5	0.43	9.525	3.47	4	●
22 ER3.50ISO-TC	3.50	1.6	2.3	0.45	12.7	4.71	5	●
22 ER4.00ISO-TC	4.00	1.6	2.3	0.52	12.7	4.71	5	●
22 ER4.50ISO-TC	4.50	1.7	2.4	0.58	12.7	4.71	5	●
22 ER5.00ISO-TC	5.00	1.7	2.5	0.63	12.7	4.71	5	●
22 ER5.50ISO-TC	5.50	1.9	2.7	0.72	12.7	4.71	5	●
22 ER6.00ISO-TC	6.00	1.9	2.7	0.78	12.7	4.71	5	●



●Stock ○Available Up Order

► Internal



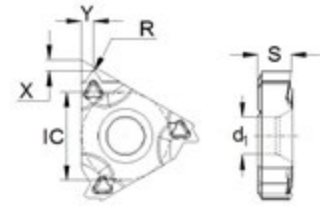
Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
11 IR1.00ISO-TC	1.00	0.8	0.7	0.07	6.35	3.00	3.2	●	
11 IR1.25ISO-TC	1.25	0.8	0.9	0.09	6.35	3.00	3.2	●	
11 IR1.50ISO-TC	1.50	0.8	1.0	0.11	6.35	3.00	3.2	●	
11 IR1.75ISO-TC	1.75	0.9	1.1	0.13	6.35	3.00	3.2	●	
11 IR2.00ISO-TC	2.00	0.9	1.1	0.15	6.35	3.00	3.2	●	
16 IR1.00ISO-TC	1.00	0.8	0.7	0.07	9.525	3.47	4	●	
16 IR1.25ISO-TC	1.25	0.8	0.9	0.09	9.525	3.47	4	●	
16 IR1.50ISO-TC	1.50	0.8	1.0	0.11	9.525	3.47	4	●	
16 IR1.75ISO-TC	1.75	1.2	1.2	0.13	9.525	3.47	4	●	
16 IR2.00ISO-TC	2.00	1.2	1.3	0.15	9.525	3.47	4	●	
16 IR2.50ISO-TC	2.50	1.2	1.5	0.18	9.525	3.47	4	●	
16 IR3.00ISO-TC	3.00	1.2	1.5	0.22	9.525	3.47	4	●	
22 IR3.50ISO-TC	3.50	1.6	2.3	0.22	12.7	4.71	5	●	
22 IR4.00ISO-TC	4.00	1.6	2.3	0.25	12.7	4.71	5	●	
22 IR4.50ISO-TC	4.50	1.6	2.4	0.28	12.7	4.71	5	●	
22 IR5.00ISO-TC	5.00	1.6	2.3	0.32	12.7	4.71	5	●	
22 IR5.50ISO-TC	5.50	1.6	2.3	0.36	12.7	4.71	5	●	
22 IR6.00ISO-TC	6.00	1.6	2.4	0.39	12.7	4.71	5	●	



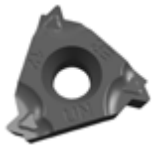
● Stock ○ Available Up Order

UN 60°

► External

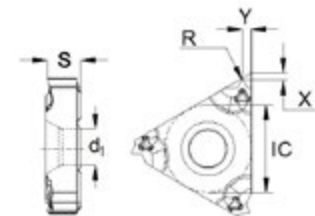


Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
16 ER24UN-TC	24	0.8	0.8	0.15	9.525	3.47	4	●	
16 ER20UN-TC	20	0.8	0.9	0.18	9.525	3.47	4	●	
16 ER18UN-TC	18	0.8	1.0	0.20	9.525	3.47	4	●	
16 ER16UN-TC	16	0.9	1.1	0.23	9.525	3.47	4	●	
16 ER14UN-TC	14	1.2	1.5	0.26	9.525	3.47	4	●	
16 ER12UN-TC	12	1.2	1.5	0.31	9.525	3.47	4	●	
16 ER10UN-TC	10	1.2	1.5	0.37	9.525	3.47	4	○	
16 ER8UN-TC	8	1.3	1.7	0.46	9.525	3.47	4	●	

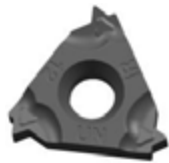


● Stock ○ Available Up Order

► Internal



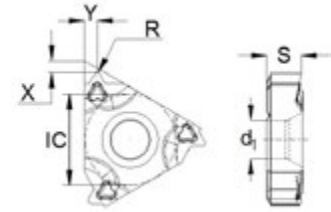
Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
11 IR20UN-TC	20	0.8	0.9	0.09	6.35	3.00	3.2	●	
11 IR18UN-TC	18	0.8	1.0	0.10	6.35	3.00	3.2	●	
16 IR24UN-TC	24	0.8	0.8	0.08	9.525	3.47	4	●	
16 IR20UN-TC	20	0.8	0.9	0.09	9.525	3.47	4	●	
16 IR18UN-TC	18	0.8	1.0	0.10	9.525	3.47	4	●	
16 IR16UN-TC	16	0.9	1.1	0.12	9.525	3.47	4	●	
16 IR14UN-TC	14	1.2	1.5	0.13	9.525	3.47	4	●	
16 IR12UN-TC	12	1.2	1.5	0.16	9.525	3.47	4	●	
16 IR10UN-TC	10	1.2	1.5	0.19	9.525	3.47	4	○	
16 IR8UN-TC	8	1.3	1.7	0.23	9.525	3.47	4	●	




● Stock ○ Available Up Order

Whitworth 55°

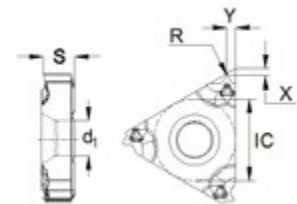
► External




Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	16 ER19W-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 ER18W-TC	18	0.8	1.0	0.18	9.525	3.47	4	●
	16 ER16W-TC	16	0.9	1.1	0.20	9.525	3.47	4	●
	16 ER14W-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 ER12W-TC	12	1.2	1.5	0.28	9.525	3.47	4	●
	16 ER11W-TC	11	1.2	1.5	0.30	9.525	3.47	4	●
	16 ER10W-TC	10	1.1	1.5	0.34	9.525	3.47	4	●

● Stock ○ Available Up Order

► Internal

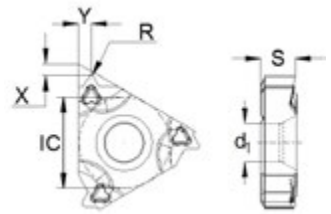



Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	11 IR19W-TC	19	0.9	1.1	0.19	6.35	3.00	3.2	●
	11 IR14W-TC	14	0.9	1.1	0.27	6.35	3.00	3.2	●
	16 IR19W-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 IR18W-TC	18	0.8	1.0	0.18	9.525	3.47	4	●
	16 IR16W-TC	16	0.9	1.1	0.2	9.525	3.47	4	●
	16 IR14W-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 IR12W-TC	12	1.2	1.5	0.28	9.525	3.47	4	●
	16 IR11W-TC	11	1.2	1.5	0.30	9.525	3.47	4	●
	16 IR8W-TC	8	1.2	1.5	0.41	9.525	3.47	4	●

● Stock ○ Available Up Order

NPT 60°

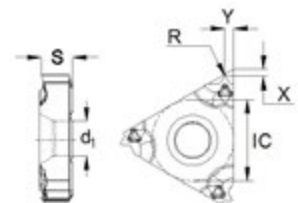
► External

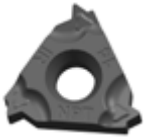


Ordering Code	Pitch (mm)	Dimensions(mm)							Availability
		X	Y	R	IC	S	d1	GM3225	
	16 ER27NPT-TC	27	0.7	0.8	0.13	9.525	3.47	4	●
	16 ER18NPT-TC	18	0.8	1.0	0.20	9.525	3.47	4	●
	16 ER14NPT-TC	14	1.2	1.5	0.22	9.525	3.47	4	●
	16 ER11.5NPT-TC	11.5	1.2	1.5	0.25	9.525	3.47	4	●
	16 ER8NPT-TC	8	1.3	1.8	0.30	9.525	3.47	4	●

● Stock ○ Available Up Order

► Internal

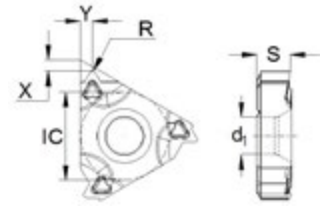



Ordering Code	Pitch (mm)	Dimensions(mm)							Availability
		X	Y	R	IC	S	d1	GM3225	
	11 IR18NPT-TC	18	0.8	1.0	0.20	6.35	3.00	3.2	●
	16 IR27NPT-TC	27	0.7	0.8	0.13	9.525	3.47	4	●
	16 IR18NPT-TC	18	0.8	1.0	0.20	9.525	3.47	4	●
	16 IR14NPT-TC	14	1.2	1.5	0.22	9.525	3.47	4	●
	16 IR11.5NPT-TC	11.5	1.2	1.5	0.25	9.525	3.47	4	●
	16 IR8NPT-TC	8	1.3	1.8	0.30	9.525	3.47	4	●

● Stock ○ Available Up Order

BSPT 55°

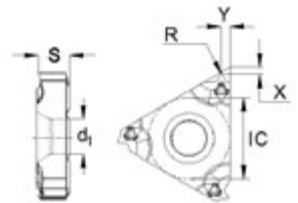
► External




Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	16 ER28BSPT-TC	28	0.7	0.8	0.11	9.525	3.47	4	●
	16 ER19BSPT-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 ER14BSPT-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 ER11BSPT-TC	11	1.2	1.5	0.30	9.525	3.47	4	●

● Stock ○ Available Up Order

► Internal

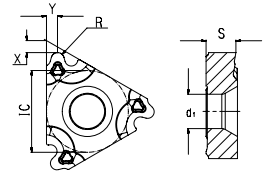



Ordering Code	Pitch (mm)	Dimensions(mm)						Availability	
		X	Y	R	IC	S	d1	GM3225	
	11 IR19BSPT-TC	19	0.8	1.0	0.18	6.35	3.00	3.2	●
	11 IR14BSPT-TC	14	0.9	1.1	0.24	6.35	3.00	3.2	●
	16 IR28BSPT-TC	28	0.7	0.8	0.11	9.525	3.47	4	●
	16 IR19BSPT-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 IR14BSPT-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 IR11BSPT-TC	11	1.2	1.5	0.30	9.525	3.47	4	●

● Stock ○ Available Up Order

Round 30°

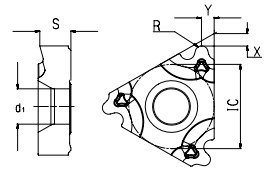
► External




Ordering Code	Pitch (mm)	Dimensions(mm)							Availability
		X	Y	R	IC	S	d1	GM3225	
	16 ER10RD-TC	10	1.1	1.2	0.60	9.525	3.47	4	○
	16 ER8RD-TC	8	1.4	1.3	0.75	9.525	3.47	4	●
	16 ER6RD-TC	6	1.4	1.5	1.00	9.525	3.47	4	●
	22 ER4RD-TC	4	2.2	2.3	1.51	12.7	4.71	5	○

● Stock ○ Available Up Order

► Internal



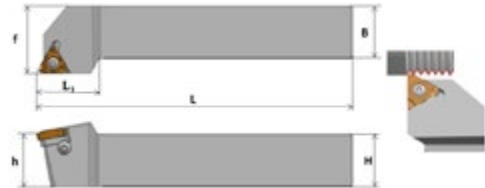
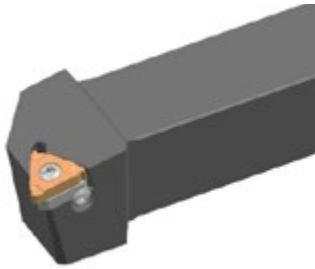
Ordering Code	Pitch (mm)	Dimensions(mm)							Availability
		X	Y	R	IC	S	d1	GM3225	
	16 IR10RD-TC	10	1.1	1.2	0.55	9.525	3.47	4	○
	16 IR8RD-TC	8	1.4	1.3	0.70	9.525	3.47	4	●
	16 IR6RD-TC	6	1.4	1.5	0.936	9.525	3.47	4	●
	22 IR4RD-TC	4	2.2	2.3	1.40	12.7	4.71	5	○





● Stock ○ Available Up Order

Thread Turning Toolholders

SER/L Series

External Toolholders



Ordering Code	Stocks		Insert	Dimensions(mm)						Shim	Insert Screw	ShimScrew	Wrench
	R	L		H	B	L	f	h	L1				
SER/L1212F11	○	○	11ER/L...	12	12	80	16	12	20.5	-	SI60M 025080...	-	TT08PH
SER/L1212F16	●	○	16ER/L...	12	12	80	16	12	22	-	SI60M 035090...	-	TT15PH
SER/L1616H16	●	○		16	16	100	20	16	20.5	DEN16..	SI60M 035120...	SSBM 030060H	TT15PH
SER/L2020K16	●	●		20	20	125	25	20	30				
SER/L2525M16	●	●	25	25	150	32	25	30					
SER/L3232P16	●	○		32	32	170	40	32	30				
SER/L2525M22	●	○	22ER/L...	25	25	150	32	25	36	DEN22..	SI60M 040160...	SSBM 040060H	TT15PH
SER/L3232P22	●	○		32	32	170	40	32	36				
SER/L4040R22	●	○		40	40	200	50	40	36				
SER/L3232P27	●	○	27ER/L...	32	32	170	40	32	40	DEN27..	SI60M 050200...	SSBM 040060H	TT20PH
SER/L4040R27	●	○		40	40	200	50	40	40				

※SI60M035090...is meaning of M3.5×9

●Stock ○Available Up Order

Thread Turning Toolholders

SIR/L Series

External Toolholders



Ordering Code	Pitch		Insert	Dimensions (mm)						Shim	Insert Screw	ShimScrew	Wrench				
	R	L		d _{min}	Φd	H	L	f	L ₁								
SIR/L0008K08	●	○	08IR/L...	9.9	08	7	125	5.5	20	-	SI60M 022050...	-	TT06PH				
SIR/L0010K11	●	○	11IR/L...	13	10	9	125	7.3	25	-	SI60M 025080...	-	TT08PH				
SIR/L0010K11-A16	●	○		13	16	15	125	7.3	30								
SIR/L0012K11	●	○		15	12	11	125	8.4	28								
SIR/L0012K11-A16	●	○		15	16	15	125	8.4	36								
SIR/L0013M16	●	○	16IR/L...	17	16	15	150	10.3	32	-	SI60M 035090...	-	TT15PH				
SIR/L0016Q16	●	○		20	16	15	180	11.5	40								
SIR/L0020Q16	●	○		24	20	18	180	13.4	40								
SIR/L0025R16	●	○		29	25	23	200	16.3	45								
SIR/L0032S16	●	○		36	32	30	250	19.6	50					DIN16..	SI60M 035120...	SSBM 030060H	TT15PH
SIR/L0040T16	●	○		44	40	38	300	23.8	55								
SIR/L0050U16	○	○	56	50	48	350	28.7	60	-	SI60M 040120...	-	TT15PH					
SIR/L0020Q22	○	○	27	20	18	180	14.9	40									
SIR/L0025R22	●	○	22IR/L...	32	25	23	200	18.1					45	DIN22..	SI60M 040160...	SSBM 040060H	TT15PH
SIR/L0032S22	●	○		39	32	30	250	21.5					50				
SIR/L0040T22	●	○		47	40	38	300	25.8	55								
SIR/L0050U22	○	○	57	50	48	350	29.8	70	DIN27..	SI60M 050200...	SSBM 040060H	TT20PH					
SIR/L0032S27	○	○	27IR/L...	40	32	30	250	22.4					60				
SIR/L0040T27	○	○		48	50	36	300	26.4					60				
SIR/L0050U27	○	○	58	60	45	350	31.4	75									

※SI60M035090...is meaning of M3.5×9

●Stock ○Available Up Order

Cutting Speed Recommendation Table

Workpiece Material			Material Hardness	Cutting Speed V _c (m/min)	
				Grade GM3225	
P	Carbon Steel	Low-carbon (C=0.1-0.25%)	HB125	160 (120-230)	
		Medium-carbon (C=0.25-0.55%)	HB150	150 (100-195)	
		High-carbon (C=0.55-0.80%)	HB170	140 (90-180)	
	Low-alloy Steel	Non-hardened	HB180	130 (100-180)	
		Hardened and tempered	HB275	100 (75-140)	
		Hardened and tempered	HB350	80 (60-130)	
	High-alloy Steel	Annealed	HB200	110 (80-140)	
		Hardened and tempered	HB325	90 (70-115)	
	Steel Castings	Unalloyed	HB180	200 (180-220)	
		Low-alloy	HB200	110 (70-150)	
High-alloy		HB225	100 (60-120)		
Manganese steel (12-14% Mn)		HB250	40 (40-50)		
M	Stainless Steel	Austenitic	HB180	120 (90-140)	
		Ferritic/Martensitic	HB200	140 (70-170)	
		Duplex stainless steel	HB230	90 (60-120)	
K	Malleable Cast Iron	Ferritic	HB130	130 (110-170)	
		Pearlitic	HB230	100 (85-145)	
	Gray Cast Iron	Low tensile strength	HB180	120 (100-160)	
		High tensile strength	HB260	100 (80-140)	
	Nodular Cast Iron	Ferritic	HB160	125 (110-160)	
Pearlitic		HB250	100 (80-120)		
N	Wrought Aluminum Alloys	Non aging	HB60	500 (350-700)	
		Aged	HB100	400 (300-500)	
	Cast Aluminum Alloys	Non aging	HB75	450 (300-500)	
		Aged	HB90	290 (200-400)	
	Copper and Copper Alloys	Containing silicon (13-22% Si)	HB130	200 (100-300)	
		Brass	HB90	220 (100-300)	
S	Heat-resistant Alloys	Iron base	Annealed	HB200	45 (35-60)
			Aged	HB280	35 (25-50)
		Nickel base and cobalt base	Annealed	HB250	25 (15-30)
			Aged	HB350	15 (10-25)
			Cast	HB320	13 (10-20)
	Titanium Alloys	Commercial pure (99.5% Ti)	400Rm	150 (140-170)	
		α+β alloys	1050Rm	60 (50-70)	
H	High Hardness Materials	Hardened steel	HRC55	45 (40-50)	
		Chilled cast iron	HB400	40 (30-50)	

Cutting Passes and Radial Infeed Recommendation Table

► ISO Metric / External

Pitch (mm)	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
Total infeed (mm)	0.65	0.79	0.95	1.11	1.26	1.56	1.88	2.18	2.49	2.79	3.10	3.39	3.70
Total passes	5	6	6	8	8	10	12	12	13	14	14	16	16
No. of infeed	Radial infeed per pass (mm)												
1	0.16	0.17	0.20	0.17	0.20	0.20	0.20	0.24	0.24	0.27	0.29	0.27	0.30
2	0.15	0.15	0.19	0.17	0.19	0.19	0.19	0.23	0.22	0.25	0.28	0.26	0.29
3	0.14	0.14	0.18	0.16	0.18	0.18	0.19	0.22	0.22	0.24	0.27	0.26	0.29
4	0.12	0.13	0.16	0.15	0.17	0.17	0.18	0.21	0.21	0.23	0.26	0.25	0.28
5	0.08	0.12	0.14	0.14	0.16	0.17	0.17	0.21	0.21	0.23	0.25	0.25	0.27
6		0.08	0.08	0.13	0.15	0.16	0.17	0.20	0.20	0.22	0.25	0.24	0.26
7				0.11	0.13	0.15	0.16	0.18	0.19	0.21	0.24	0.23	0.26
8				0.08	0.08	0.14	0.15	0.17	0.18	0.20	0.23	0.23	0.25
9						0.12	0.14	0.16	0.17	0.19	0.22	0.22	0.24
10						0.08	0.13	0.15	0.16	0.18	0.20	0.21	0.23
11							0.12	0.13	0.15	0.17	0.19	0.20	0.22
12							0.08	0.08	0.14	0.16	0.17	0.19	0.20
13									0.12	0.14	0.15	0.18	0.19
14									0.18	0.10	0.10	0.16	0.17
15												0.14	0.15
16												0.10	0.10

► ISO Metric/ Internal

Pitch (mm)	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
Total infeed (mm)	0.63	0.77	0.92	1.05	1.20	1.48	1.78	2.03	2.31	2.61	2.88	3.19	3.44
Total passes	5	6	6	8	8	10	12	12	13	14	14	16	16
No. of infeed	Radial infeed per pass (mm)												
1	0.15	0.16	0.20	0.16	0.19	0.19	0.19	0.22	0.21	0.23	0.26	0.25	0.28
2	0.14	0.15	0.18	0.15	0.18	0.18	0.18	0.21	0.21	0.23	0.26	0.25	0.27
3	0.13	0.14	0.17	0.15	0.17	0.17	0.18	0.20	0.20	0.22	0.25	0.24	0.26
4	0.12	0.13	0.15	0.14	0.16	0.17	0.17	0.20	0.19	0.22	0.24	0.24	0.26
5	0.08	0.11	0.13	0.13	0.15	0.16	0.16	0.19	0.19	0.21	0.24	0.23	0.26
6		0.08	0.08	0.12	0.14	0.15	0.16	0.18	0.18	0.20	0.23	0.22	0.24
7				0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.22	0.22	0.24
8				0.08	0.08	0.13	0.14	0.16	0.17	0.19	0.21	0.22	0.23
9						0.12	0.14	0.15	0.16	0.18	0.20	0.20	0.22
10						0.08	0.12	0.14	0.15	0.17	0.19	0.20	0.21
11							0.11	0.12	0.14	0.16	0.18	0.19	0.20
12							0.08	0.08	0.13	0.15	0.16	0.18	0.19
13									0.12	0.14	0.15	0.17	0.18
14									0.08	0.10	0.10	0.16	0.16
15												0.14	0.15
16												0.10	0.10

► UN / External

Pitch (mm)	24	20	18	16	14	12	10	8
Total infeed (mm)	0.70	0.84	0.92	1.04	1.17	1.35	1.62	2.02
Total passes	5	6	6	7	8	8	10	12
No. of infeed	Radial infeed per pass (mm)							
1	0.18	0.18	0.20	0.19	0.18	0.22	0.21	0.22
2	0.16	0.17	0.18	0.18	0.18	0.21	0.20	0.21
3	0.15	0.15	0.17	0.17	0.17	0.20	0.19	0.20
4	0.13	0.14	0.15	0.16	0.16	0.19	0.18	0.20
5	0.08	0.12	0.13	0.14	0.15	0.17	0.17	0.19
6		0.08	0.08	0.12	0.14	0.15	0.16	0.18
7				0.08	0.12	0.13	0.15	0.17
8					0.08	0.08	0.14	0.16
9							0.12	0.15
10							0.08	0.14
11								0.12
12								0.08

► UN / Internal

Pitch (mm)	24	20	18	16	14	12	10	8
Total infeed (mm)	0.66	0.78	0.86	0.96	1.07	1.25	1.48	2.03
Total passes	5	6	6	7	8	8	10	12
No. of infeed	Radial infeed per pass (mm)							
1	0.16	0.16	0.18	0.17	0.16	0.20	0.19	0.22
2	0.15	0.16	0.17	0.16	0.16	0.19	0.18	0.21
3	0.14	0.14	0.16	0.15	0.15	0.18	0.17	0.20
4	0.12	0.13	0.14	0.14	0.14	0.17	0.17	0.20
5	0.08	0.12	0.13	0.13	0.14	0.16	0.16	0.19
6		0.08	0.08	0.12	0.13	0.14	0.15	0.18
7				0.08	0.11	0.13	0.14	0.17
8					0.08	0.08	0.13	0.16
9							0.12	0.15
10							0.08	0.14
11								0.12
12								0.08

► Whitworth / External& Internal

Pitch (mm)	19	18	16	14	12	11	10	8
Total infeed (mm)	0.90	0.97	1.08	1.20	1.42	1.51	1.70	2.10
Total passes	6	7	8	8	8	9	10	12
No. of infeed	Radial infeed per pass (mm)							
1	0.19	0.17	0.17	0.19	0.23	0.22	0.22	0.23
2	0.18	0.16	0.16	0.18	0.22	0.21	0.21	0.22
3	0.17	0.16	0.15	0.17	0.21	0.20	0.20	0.21
4	0.15	0.15	0.15	0.16	0.19	0.19	0.19	0.21
5	0.13	0.13	0.14	0.15	0.18	0.18	0.18	0.20
6	0.08	0.12	0.13	0.14	0.16	0.16	0.17	0.19
7		0.08	0.11	0.12	0.14	0.15	0.16	0.18
8			0.08	0.08	0.08	0.13	0.15	0.17
9						0.08	0.13	0.16
10							0.08	0.14
11								0.12
12								0.08

► BSPT / External& Internal

Pitch (mm)	28	19	14	11
Total infeed (mm)	0.62	0.90	1.20	1.51
Total passes	5	6	8	9
No. of infeed	Radial infeed per pass (mm)			
1	0.15	0.19	0.19	0.22
2	0.14	0.18	0.18	0.21
3	0.13	0.17	0.17	0.20
4	0.12	0.15	0.16	0.19
5	0.08	0.13	0.15	0.18
6		0.08	0.14	0.16
7			0.12	0.15
8			0.08	0.13
9				0.08

► NPT / External& Internal

Pitch (mm)	27	18	14	11.5	8
Total infeed (mm)	0.76	1.11	1.42	1.73	2.48
Total passes	6	8	10	12	15
No. of infeed	Radial infeed per pass (mm)				
1	0.15	0.17	0.18	0.18	0.21
2	0.15	0.17	0.17	0.17	0.21
3	0.14	0.16	0.16	0.17	0.20
4	0.13	0.15	0.16	0.16	0.20
5	0.11	0.14	0.15	0.16	0.19
6	0.08	0.13	0.14	0.15	0.18
7		0.11	0.14	0.15	0.18
8		0.08	0.13	0.14	0.17
9			0.11	0.13	0.17
10			0.08	0.12	0.16
11				0.11	0.15
12				0.08	0.14
13					0.13
14					0.11
15					0.08

► Round / External

Pitch (mm)	10	8	6	4
Total infeed (mm)	1.30	1.63	2.17	2.95
Total passes	8	10	12	14
No. of infeed	Radial infeed per pass (mm)			
1	0.21	0.21	0.24	0.30
2	0.20	0.20	0.23	0.29
3	0.19	0.19	0.22	0.28
4	0.18	0.19	0.21	0.27
5	0.16	0.18	0.20	0.26
6	0.15	0.17	0.19	0.25
7	0.13	0.15	0.18	0.24
8	0.08	0.14	0.17	0.23
9		0.12	0.16	0.22
10		0.08	0.15	0.21
11			0.13	0.19
12			0.08	0.18
13				0.15
14				0.10

► Round / Internal

Pitch (mm)	10	8	6	4
Total infeed (mm)	1.34	1.64	2.18	2.98
Total passes	8	10	12	14
No. of infeed	Radial infeed per pass (mm)			
1	0.22	0.21	0.24	0.30
2	0.21	0.20	0.23	0.29
3	0.20	0.20	0.22	0.29
4	0.18	0.19	0.21	0.28
5	0.17	0.18	0.21	0.27
6	0.15	0.17	0.20	0.26
7	0.13	0.16	0.19	0.25
8	0.08	0.14	0.17	0.24
9		0.12	0.16	0.23
10		0.08	0.15	0.21
11			0.13	0.20
12			0.08	0.18
13				0.16
14				0.10

Attention: Infeeds of less than 0.05mm should be avoided, for austenitic stainless steels not less than 0.08mm.

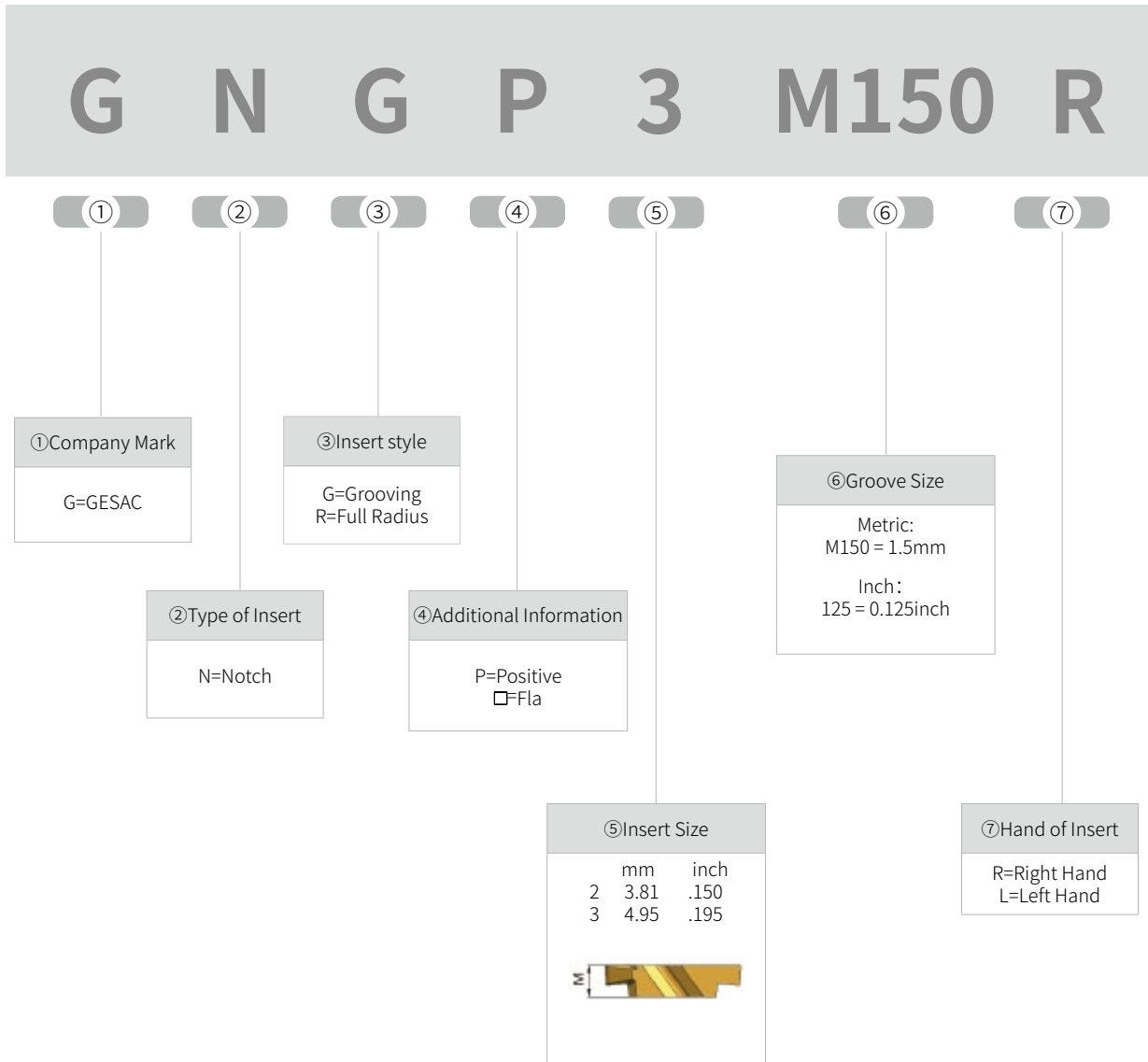
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G-NotchSeries Tools

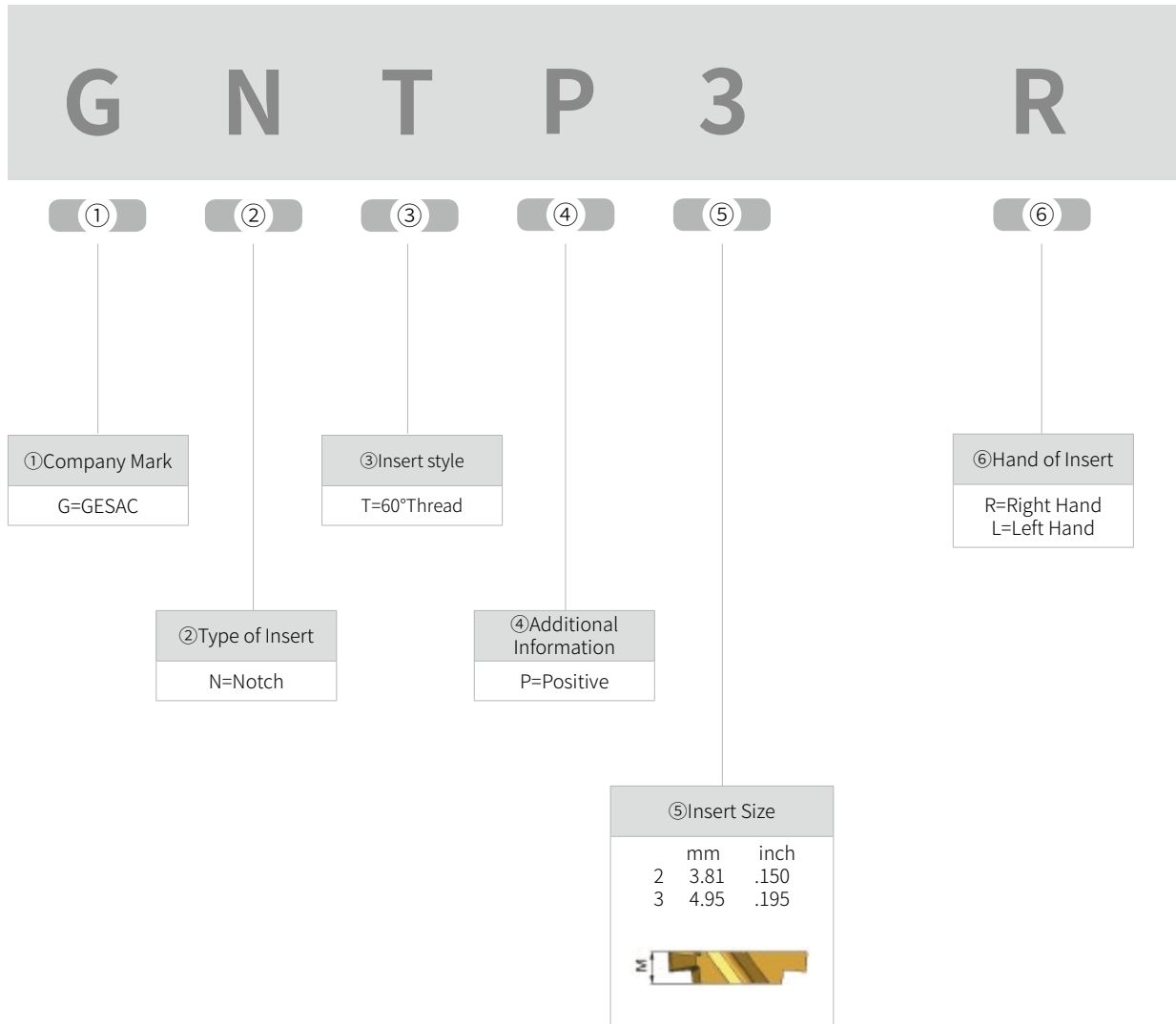


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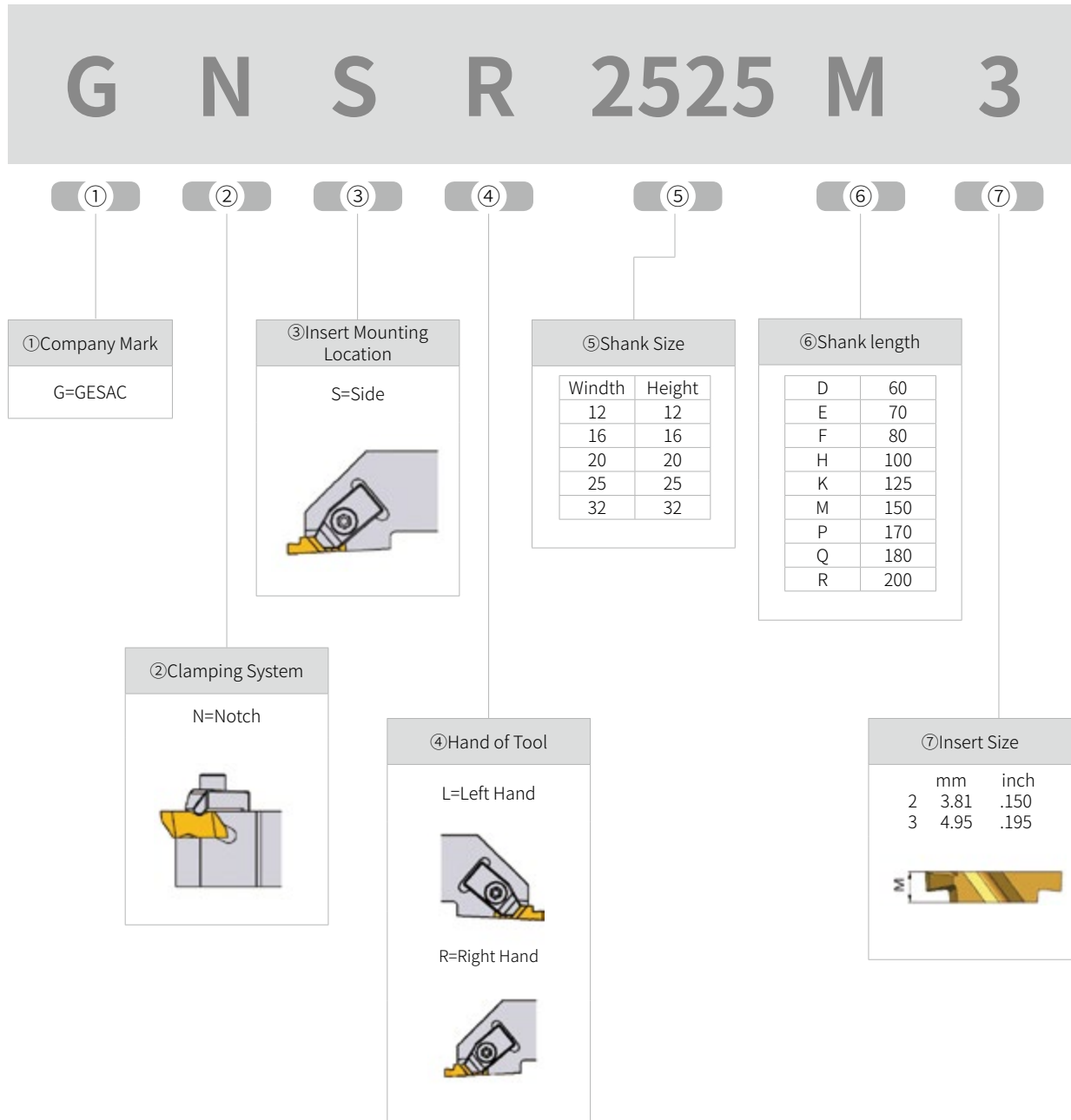
G-Notch Series Grooving Inserts Identification System



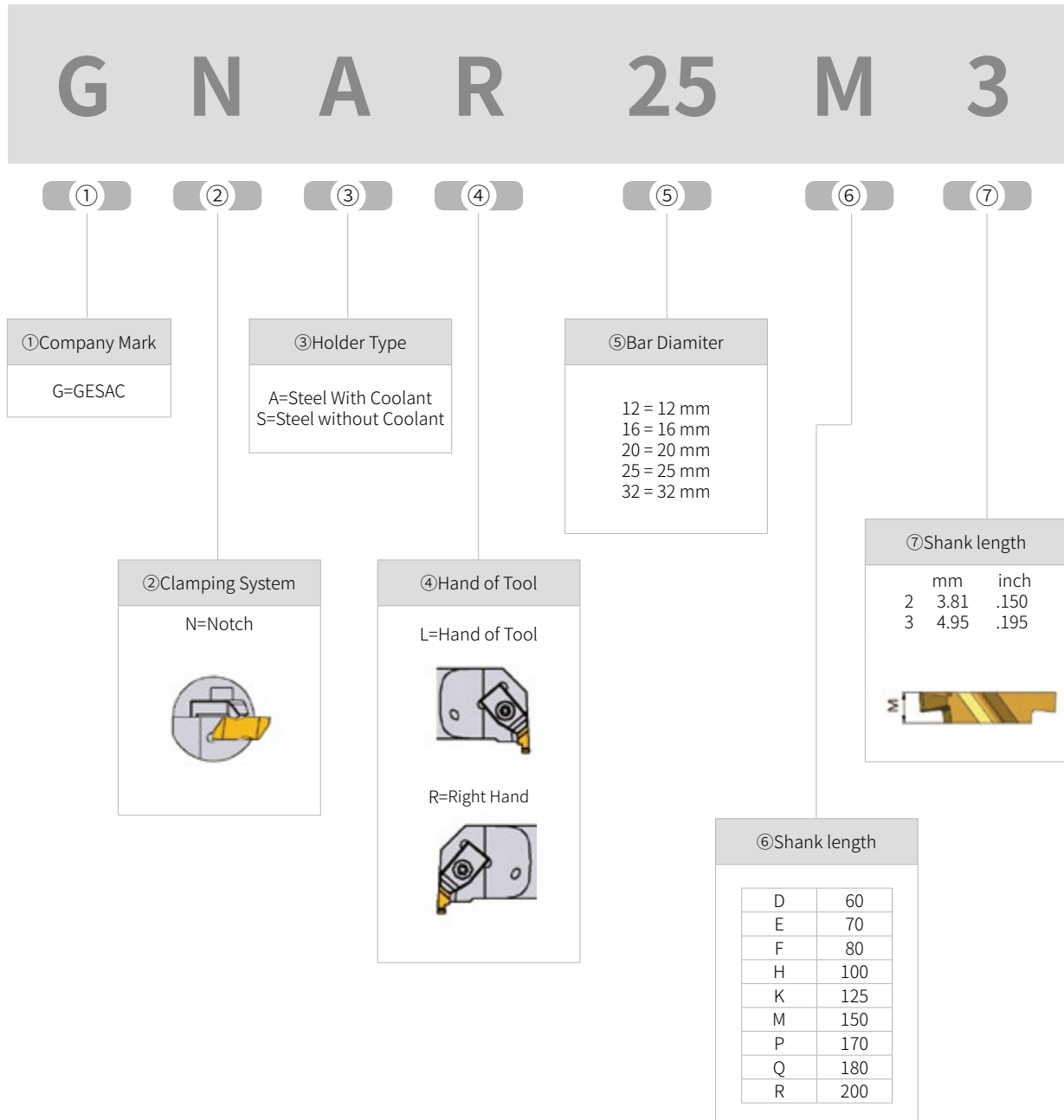
G-Notch Series Threading Inserts Identification System



G-Notch External Holder Identification System



G-Notch Internal Bar Identification System

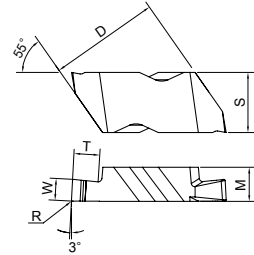


Note: Left hand bars use right hand inserts, Right hand bars use left hand inserts.

Precision Grooving Inserts

GNGP

Grooving Positive Rake Insert



Ordering Code	Dimensions(mm)						Insert Size	Stock
	W	R	T	S	M	D		GM3225
GNGP2M100L	1.00	0.09	1.27	5.56	3.81	8.74	2	○
GNGP2M100R	1.00	0.09	1.27	5.56	3.81	8.74	2	○
GNGP2047L	1.19	0.09	1.27	5.56	3.81	8.74	2	●
GNGP2047R	1.19	0.09	1.27	5.56	3.81	8.74	2	●
GNGP2M150L	1.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M150R	1.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2062L	1.57	0.19	2.79	5.56	3.81	8.74	2	●
GNGP2062R	1.57	0.19	2.79	5.56	3.81	8.74	2	●
GNGP2M170L	1.70	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M170R	1.70	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2070L	1.78	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2078L	1.98	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2078R	1.98	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M200L	2.00	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M200R	2.00	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M220L	2.20	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M220R	2.20	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2094L	2.38	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2094R	2.38	0.19	2.79	5.56	3.81	8.74	2	●
GNGP2M250L	2.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M250R	2.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2125L	3.18	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2125R	3.18	0.19	2.79	5.56	3.81	8.74	2	●
GNGP3031L	0.79	0.09	1.27	8.74	4.95	16.1	3	○
GNGP3031R	0.79	0.09	1.27	8.74	4.95	16.1	3	○
GNGP3M100L	1.00	0.19	1.91	8.74	4.95	16.1	3	○
GNGP3M100R	1.00	0.19	1.91	8.74	4.95	16.1	3	○
GNGP3047L	1.19	0.19	1.91	8.74	4.95	16.1	3	●
GNGP3047R	1.19	0.19	1.91	8.74	4.95	16.1	3	●



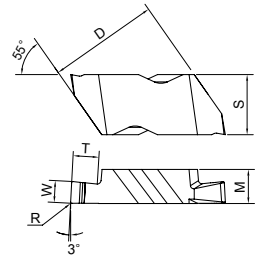
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● Stock ○ Available upon Order

Precision Grooving Inserts

GNGP

Grooving Positive Rake Inserts



Ordering Code	Dimensions(mm)						Insert Size	Stock
	W	R	T	S	M	D		GM3225
GNGP3M150L	1.50	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3M150R	1.50	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3062L	1.58	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3062R	1.58	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3070L	1.78	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3078L	1.98	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3078R	1.98	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3M200L	2.00	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3M200R	2.00	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3094L	2.39	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3094R	2.39	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M250L	2.50	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M250R	2.50	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M300L	3.00	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M300R	3.00	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3125L	3.18	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3125R	3.18	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M350L	3.50	0.19	3.81	8.74	4.95	16.1	3	○
GNGP3M350R	3.50	0.19	3.81	8.74	4.95	16.1	3	○

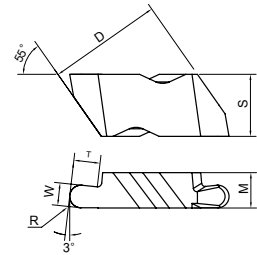


● Stock ○ Available upon Order

Precision Grooving Inserts

GNR

Full Radius Inserts



Ordering Code	Dimensions(mm)							Insert Size	Stock
	W	R	T	S	M	D	GM3225		
GNR3M100L	2.00	1.00	2.39	8.74	4.95	16.10	3	○	
GNR3M100R	2.00	1.00	2.39	8.74	4.95	16.10	3	○	
GNR3M150L	3.00	1.50	3.81	8.74	4.95	16.10	3	○	
GNR3M150R	3.00	1.50	3.81	8.74	4.95	16.10	3	○	
GNR3047L	2.39	1.19	3.81	8.74	4.95	16.1	3	●	
GNR3047R	2.39	1.19	3.81	8.74	4.95	16.1	3	●	
GNR3062L	3.18	1.59	3.81	8.74	4.95	16.10	3	○	
GNR3062R	3.18	1.59	3.81	8.74	4.95	16.10	3	○	

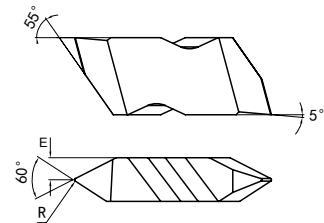


● Stock ○ Available upon Order

Threading Inserts

GNTP

60° Partial Profile Threading Inserts With Positive Top Rake



Ordering Code	Dimensions						Insert Size	Stock
	R	E	Pitch					GM3225
			External	Internal	External	Internal		
GNT2L	0.10	1.91	0.70-3.00	1.25-3.50	8-36	7-20	2	●
GNT2R	0.10	1.91	0.70-3.00	1.25-3.50	8-36	7-20	2	●
GNT3L	0.17	2.49	1.25-4.00	2.00-5.00	4-20	5-12	3	●
GNT3R	0.17	2.49	1.25-4.00	2.00-5.00	4-20	5-12	3	●
GNT3004L	0.10	2.49	1.25-4.00	2.00-5.00	5-36	5-12	3	○
GNT3004R	0.10	2.49	1.25-4.00	2.00-5.00	5-36	5-12	3	○

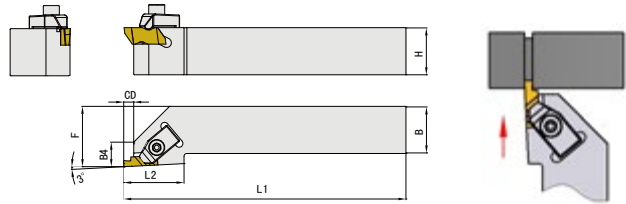


● Stock ○ Available upon Order

External Holders

G-Notch Series

GNSR/L



The Picture is Right Hand Holder

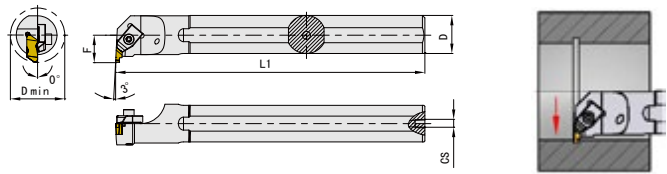
Ordering Code	Dimensions(mm)							Insert	Spare Parts			Stock
	H	B	F	L1	L2	B4	CD		Clamp	Screw	Wrench	
GNSR1616H2	16	16	20	100	19	9	3.5	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNSR2020K2	20	20	25	125	19	9	3.5	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNSR2525M2	25	25	32	150	19	9	3.5	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNSR2020K3	20	20	25	125	32	13	5.3	GN.3R	CAN03RH	SCAM050200H	TH40LH	●
GNSR2525M3	25	25	32	150	32	13	5.3	GN.3R	CAN03RH	SCAM050200H	TH40LH	●
GNSL1616H2	16	16	20	100	19	9	3.5	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNSL2020K2	20	20	25	125	19	9	3.5	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNSL2525M2	25	25	32	150	19	9	3.5	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNSL2020K3	25	20	25	125	32	13	5.3	GN.3L	CAN03LH	SCAM050200H	TH40LH	●
GNSL2525M3	25	25	32	150	32	13	5.3	GN.3L	CAN03LH	SCAM050200H	TH40LH	●

● Stock ○ Available upon Order

Internal Bars

G-Notch Series

GNAR/L



The Picture is Right Hand Holder

Ordering Code	Dimensions(mm)					Insert	Spare Parts			Stock
	D	D min	L1	F	CS		Clamp	Screw	Wrench	
GNAR20Q2	20	26	180	13	1/8-27 NPT	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNAR25R2	25	34	200	17	1/4-18 NPT	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNAR25R3	25	34	200	17	1/4-18 NPT	GN.3L	CAN03LH	SCAM050200H	TH40LH	●
GNAL20Q2	20	26	180	13	1/8-27 NPT	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNAL25R2	25	34	200	17	1/4-18 NPT	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNAL25R3	25	34	200	17	1/4-18 NPT	GN.3R	CAN03RH	SCAM050200H	TH40LH	●

Note: Left hand bars use right hand inserts, Right hand bars use left hand inserts.

● Stock ○ Available upon Order

Recommended Feed

Width(mm)	Feed(mm/r)
0.79-1.50	0.08 (0.03-0.12)
1.50-2.50	0.10 (0.04-0.16)
2.50-3.50	0.12 (0.05-0.20)
3.50-4.50	0.14 (0.05-0.25)

Recommended Cutting Speed

Workpiece Material	Hardness (HB)	Cutting Speed V _c (m/min)			
		GM3125	GA4230	GS3115	
P	Low Carbon Steel	80 – 170	105 (60-170)	110 (70-180)	
	High Carbon Steel	170 – 250	105 (60-160)	110 (70-160)	
	Low-alloy Steel	140- 260	105 (50-160)	110 (60-160)	
	High-alloy Steel	180- 300	105 (50-160)	110 (60-160)	
M	Ferritic/Martensitic	150- 270	90 (40-140)	100 (40-180)	90 (50-150)
	Austenitic	150- 270	90 (40-140)	100 (40-180)	90 (50-150)
K	Malleable Cast Iron	150- 230	160 (60-300)	180 (70-300)	
	Gray Cast Iron	150- 230	160 (60-300)	180 (70-300)	
	Nodular Cast Iron	160- 260	140 (50-250)	160 (60-300)	
S	Heat-resistant Alloy	130- 400			35 (15-60)
	Titanium Alloys	130- 400			35 (15-60)