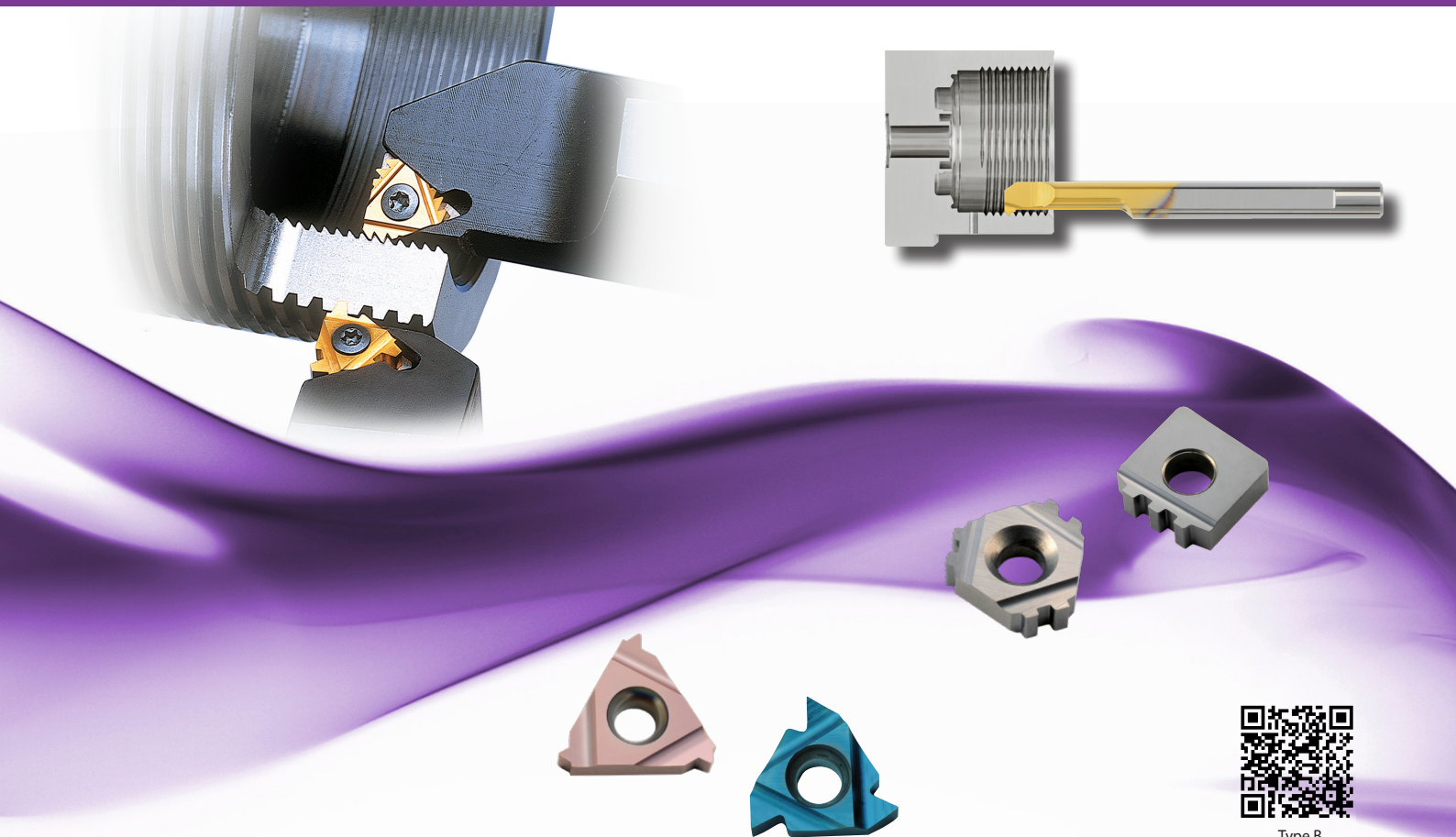




Type B
Demonstration

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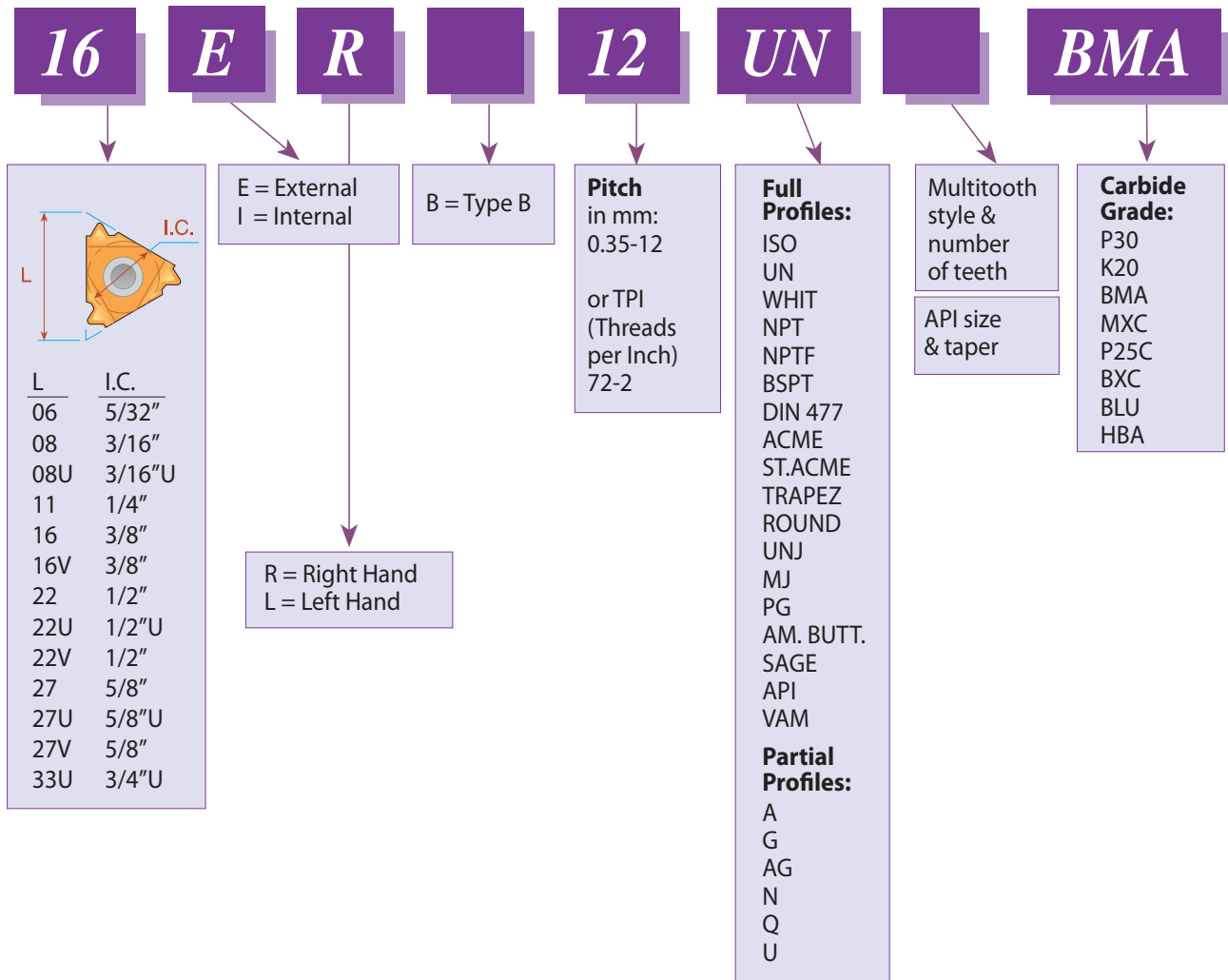
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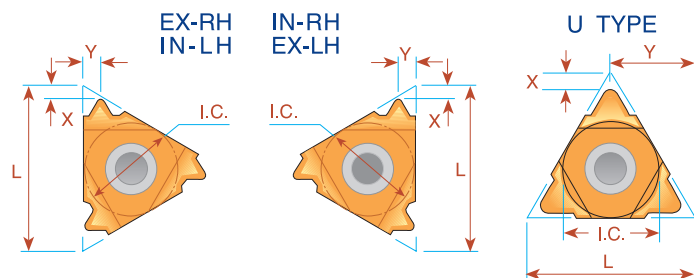
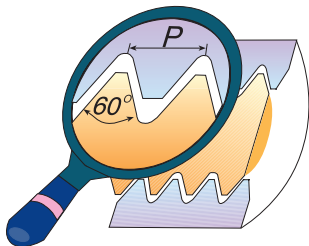
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Product Identification

Thread Turning Inserts Ordering Codes



Partial Profile 60°

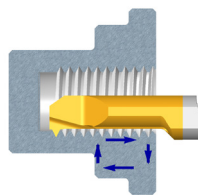


L	I.C. in	Pitch Range mm TPI	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
6	5/32	0.5 - 1.25 48 - 20	ULTRA MINIATURE →		*06 IR A60	*06 IL A60	0.6	0.6
8	3/16	0.5 - 1.5 48 - 16	MINIATURE →		*08 IR A60	*08 IL A60	0.6	0.7
8U	3/16U	1.75 - 2.0 14 - 11	"U" MINIATURE →		*08U IR/L U60		0.8	4.0
11	1/4	0.5 - 1.5 48 - 16	11 ER A60	11 EL A60	11 IR A60	11 IL A60	0.8	0.9
16	3/8	0.5 - 1.5 48 - 16	16 ER A60	16 EL A60	16 IR A60	16 IL A60	0.8	0.9
16	3/8	1.75 - 3.0 14 - 8	16 ER G60	16 EL G60	16 IR G60	16 IL G60	1.2	1.7
16	3/8	0.5 - 3.0 48 - 8	16 ER AG60	16 EL AG60	16 IR AG60	16 IL AG60	1.2	1.7
22	1/2	3.5 - 5.0 7 - 5	22 ER N60	22 EL N60	22 IR N60	22 IL N60	1.7	2.5
22U	1/2U	5.5 - 8.0 4.5 - 3.25	22U E/R/L U60				0.6	11.0
27	5/8	5.5 - 6.0 4.5 - 4	27 ER Q60	27 EL Q60	27 IR Q60	27 IL Q60	2.1	3.1
27U	5/8U	6.5 - 9.0 4 - 2.75	27U E/R/L U60				1.0	13.7

* Available only in BXC and BMA grades

Order example: 16 ER G60 MXC

For small bore threading see page A06-12



Type B

Ground profile with sintered chip-breaker

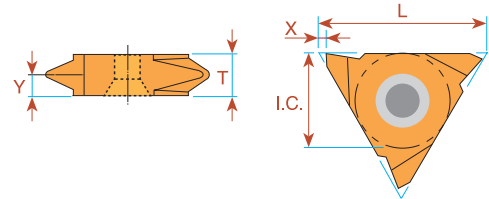


L	I.C. in	Pitch Range mm TPI		<i>EXTERNAL</i>	<i>INTERNAL</i>	X	Y
				Ordering Code Right Hand	Ordering Code Right Hand		
16	3/8	0.5 - 1.5	48 -16	16 ER B A60	16 IR B A60	0.8	0.9
16	3/8	1.75 - 3.0	14 - 8	16 ER B G60	16 IR B G60	1.2	1.7
16	3/8	0.5 - 3.0	48 - 8	16 ER B AG60	16 IR B AG60	1.2	1.7

Order example: 16 ER B G60 BMA

For carbide grade and cutting speed see page A04-2 and 3

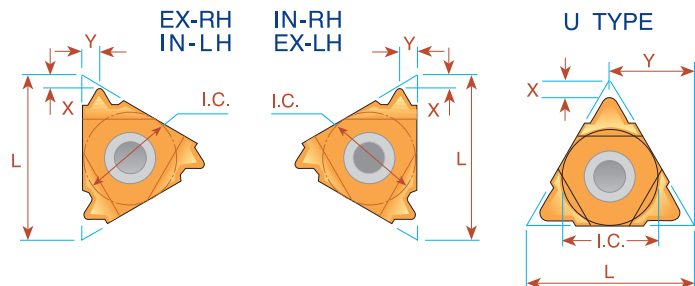
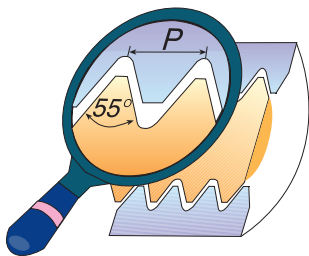
Partial Profile 60° Vertical



L	I.C. in	Pitch Range		EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y	T
		mm	TPI	Right Hand	Left Hand	Right Hand	Left Hand			
16	3/8	0.5 - 1.5	48 - 16	16V ER A60	16V EL A60			1.0	0.9	3.6
16	3/8	1.75 - 3.0	14 - 8	16V ER G60	16V EL G60			1.0	1.8	3.6
16	3/8	0.5 - 3.0	48 - 8	16V ER AG60	16V EL AG60			1.0	1.8	3.6
22	1/2	1.75 - 3.0	14 - 8	22V ER G60	22V EL G60			1.2	1.7	4.0
22	1/2	3.5 - 5.0	7 - 5	22V ER N60	22V EL N60			1.2	2.5	4.8
27	5/8	6.0 - 10.0	4 - 2.5	27V ER V60	27V EL V60	27V IR V60	27V IL V60	1.8	5.2	10.4

Order example: 16V ER G60 BMA

Partial Profile 55°

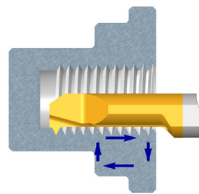


L	I.C. in	Pitch Range		EXTERNAL		INTERNAL		X	Y
		mm	TPI	Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand		
6	5/32	0.5 - 1.25	48 - 20	ULTRA MINIATURE →		*06 IR A55	*06 IL A55	0.5	0.6
8	3/16	0.5 - 1.5	48 - 16	MINIATURE →		*08 IR A55	*08 IL A55	0.6	0.7
8U	3/16U	1.75 - 2.0	14 - 11	"U" MINIATURE →		*08U IR/L U55		0.9	4.0
11	1/4	0.5 - 1.5	48 - 16	11 ER A55	11 EL A55	11 IR A55	11 IL A55	0.8	0.9
16	3/8	0.5 - 1.5	48 - 16	16 ER A55	16 EL A55	16 IR A55	16 IL A55	0.8	0.9
16	3/8	1.75 - 3.0	14 - 8	16 ER G55	16 EL G55	16 IR G55	16 IL G55	1.2	1.7
16	3/8	0.5 - 3.0	48 - 8	16 ER AG55	16 EL AG55	16 IR AG55	16 IL AG55	1.2	1.7
22	1/2	3.5 - 5.0	7 - 5	22 ER N55	22 EL N55	22 IR N55	22 IL N55	1.7	2.5
22U	1/2U	5.5 - 8.0	4.5 - 3.25	22U E/R/L U55				0.9	11.0
27	5/8	5.5 - 6.0	4.5 - 4	27 ER Q55	27 EL Q55	27 IR Q55	27 IL Q55	2.0	2.9
27U	5/8U	6.5 - 9.0	4 - 2.75	27U E/R/L U55				1.2	13.7

* Available only in BXC and BMA grades

Order example: 16 ER G55 MXC

For small bore threading see page A06-12



Type B

Ground profile with sintered chip-breaker

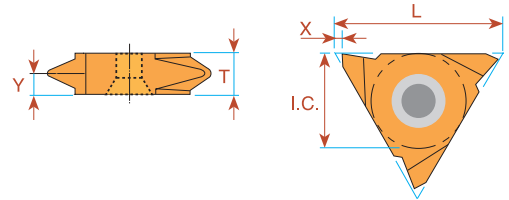


L	I.C. in	Pitch Range		EXTERNAL		INTERNAL		X	Y
		mm	TPI	Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand		
16	3/8	1.75 - 3.0	14 - 8	16 ER B G55		16 IR B G55		1.2	1.7
16	3/8	0.5 - 3.0	48 - 8	16 ER B AG55		16 IR B AG55		1.2	1.7

Order example: 16 ER B G55 BMA

For carbide grade and cutting speed see page A04-2 and 3

Partial Profile 55° Vertical

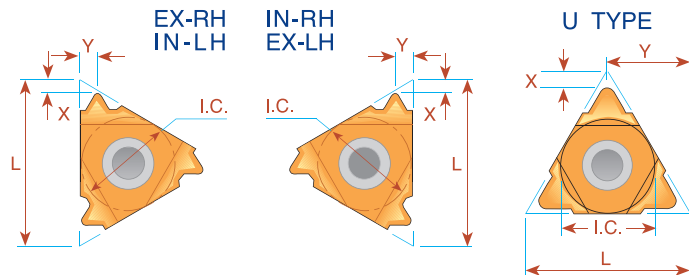
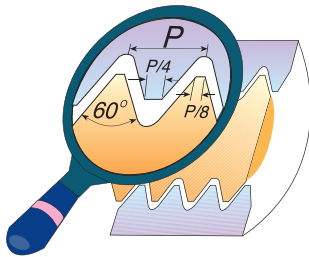


L	I.C. in	Pitch Range mm TPI	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y	T
			Right Hand	Left Hand	Right Hand	Left Hand			
16	3/8	0.5 - 1.5 48 - 16	16V ER A55	16V EL A55			1.0	0.9	3.6
16	3/8	1.75 - 3.0 14 - 8	16V ER G55	16V EL G55			1.0	1.7	3.6
16	3/8	0.5 - 3.0 48 - 8	16V ER AG55	16V EL AG55			1.0	1.8	3.6
22	1/2	3.5 - 5.0 7 - 5	22V ER N55	22V EL N55			1.2	2.5	4.8
27	5/8	6.0 - 10.0 4 - 2.5	27V ER V55	27V EL V55	27V IR V55	27V IL V55	1.8	5.2	10.4

Order example: 22V ER N55 BMA

Thread Turning Inserts

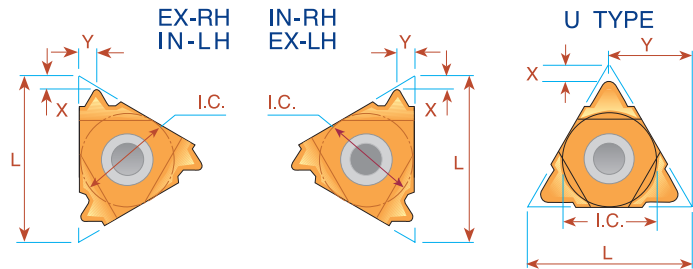
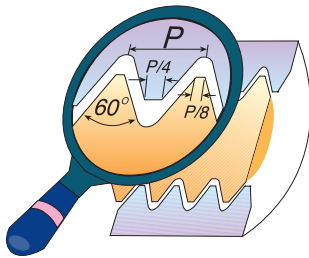
ISO - metric



Pitch mm	L	I.C. in	EXTERNAL				INTERNAL			
			Ordering Code		X	Y	Ordering Code		X	Y
			Right Hand	Left Hand			Right Hand	Left Hand		
0.25	6	5/32	ULTRA MINIATURE →				*06 IR 0.25 ISO	*06 IL 0.25 ISO	0.7	0.3
0.5	6	5/32					*06 IR 0.5 ISO	*06 IL 0.5 ISO	0.9	0.5
0.75	6	5/32					*06 IR 0.75 ISO	*06 IL 0.75 ISO	0.8	0.5
1.0	6	5/32					*06 IR 1.0 ISO	*06 IL 1.0 ISO	0.7	0.6
1.25	6	5/32					*06 IR 1.25 ISO	*06 IL 1.25 ISO	0.6	0.6
0.25	8	3/16	MINIATURE →				*08 IR 0.25 ISO	*08 IL 0.25 ISO	0.7	0.3
0.5	8	3/16					*08 IR 0.5 ISO	*08 IL 0.5 ISO	0.6	0.5
0.75	8	3/16					*08 IR 0.75 ISO	*08 IL 0.75 ISO	0.6	0.5
1.0	8	3/16					*08 IR 1.0 ISO	*08 IL 1.0 ISO	0.6	0.6
1.25	8	3/16					*08 IR 1.25 ISO	*08 IL 1.25 ISO	0.6	0.7
1.5	8	3/16					*08 IR 1.5 ISO	*08 IL 1.5 ISO	0.6	0.7
1.75	8	3/16					*08 IR 1.75 ISO	*08 IL 1.75 ISO	0.6	0.8
2.0	8U	3/16U	"U" MINIATURE →				*08U IR/L 2.0 ISO		0.9	4.0
0.25	11	1/4	11 ER 0.25 ISO	11 EL 0.25 ISO	0.6	0.2	11 IR 0.35 ISO	11 IL 0.35 ISO	0.8	0.3
0.3	11	1/4	11 ER 0.3 ISO	11 EL 0.3 ISO	0.8	0.3				
0.35	11	1/4	11 ER 0.35 ISO	11 EL 0.35 ISO	0.8	0.4				
0.4	11	1/4	11 ER 0.4 ISO	11 EL 0.4 ISO	0.7	0.4				
0.45	11	1/4	11 ER 0.45 ISO	11 EL 0.45 ISO	0.7	0.4				
0.5	11	1/4	11 ER 0.5 ISO	11 EL 0.5 ISO	0.6	0.6				
0.6	11	1/4	11 ER 0.6 ISO	11 EL 0.6 ISO	0.6	0.6				
0.7	11	1/4	11 ER 0.7 ISO	11 EL 0.7 ISO	0.6	0.6				
0.75	11	1/4	11 ER 0.75 ISO	11 EL 0.75 ISO	0.6	0.6				
0.8	11	1/4	11 ER 0.8 ISO	11 EL 0.8 ISO	0.6	0.6				
1.0	11	1/4	11 ER 1.0 ISO	11 EL 1.0 ISO	0.7	0.7				
1.25	11	1/4	11 ER 1.25 ISO	11 EL 1.25 ISO	0.8	0.9				
1.5	11	1/4	11 ER 1.5 ISO	11 EL 1.5 ISO	0.8	1.0				
1.75	11	1/4	11 ER 1.75 ISO	11 EL 1.75 ISO	0.8	1.1				
2.0	11	1/4	11 ER 2.0 ISO	11 EL 2.0 ISO	0.8	1.1				
2.5	11	1/4					11 IR 2.5 ISO	11 IL 2.5 ISO	0.8	1.2
0.25	16	3/8	16 ER 0.25 ISO	16 EL 0.25 ISO	0.6	0.2	16 IR 0.35 ISO	16 IL 0.35 ISO	0.8	0.3
0.3	16	3/8	16 ER 0.3 ISO	16 EL 0.3 ISO	0.8	0.3				
0.35	16	3/8	16 ER 0.35 ISO	16 EL 0.35 ISO	0.8	0.4				
0.4	16	3/8	16 ER 0.4 ISO	16 EL 0.4 ISO	0.7	0.4				
0.45	16	3/8	16 ER 0.45 ISO	16 EL 0.45 ISO	0.7	0.4				
0.5	16	3/8	16 ER 0.5 ISO	16 EL 0.5 ISO	0.6	0.6				
0.6	16	3/8	16 ER 0.6 ISO	16 EL 0.6 ISO	0.6	0.6				
0.7	16	3/8	16 ER 0.7 ISO	16 EL 0.7 ISO	0.6	0.6				
0.75	16	3/8	16 ER 0.75 ISO	16 EL 0.75 ISO	0.6	0.6				
0.8	16	3/8	16 ER 0.8 ISO	16 EL 0.8 ISO	0.6	0.6				
1.0	16	3/8	16 ER 1.0 ISO	16 EL 1.0 ISO	0.7	0.7				
1.25	16	3/8	16 ER 1.25 ISO	16 EL 1.25 ISO	0.8	0.9				
1.5	16	3/8	16 ER 1.5 ISO	16 EL 1.5 ISO	0.8	1.0				
1.75	16	3/8	16 ER 1.75 ISO	16 EL 1.75 ISO	0.9	1.2				
2.0	16	3/8	16 ER 2.0 ISO	16 EL 2.0 ISO	1.0	1.3				
2.5	16	3/8	16 ER 2.5 ISO	16 EL 2.5 ISO	1.1	1.5				
3.0	16	3/8	16 ER 3.0 ISO	16 EL 3.0 ISO	1.2	1.6				
3.5	16	3/8	16 ER 3.5 ISO	16 EL 3.5 ISO	1.2	1.7	16 IR 3.5 ISO	16 IL 3.5 ISO	1.2	1.7

* Available only in BXC and BMA grades

ISO - metric

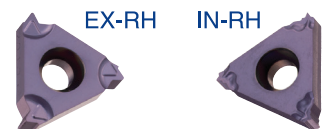
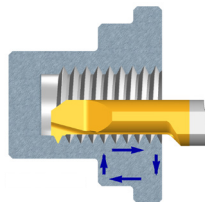


Pitch mm	L	I.C. in	EXTERNAL		X	Y	INTERNAL		X	Y
			Ordering Code Right Hand	Ordering Code Left Hand			Ordering Code Right Hand	Ordering Code Left Hand		
3.5	22	1/2	22 ER 3.5 ISO	22 EL 3.5 ISO	1.6	2.3	22 IR 3.5 ISO	22 IL 3.5 ISO	1.6	2.3
4.0	22	1/2	22 ER 4.0 ISO	22 EL 4.0 ISO	1.6	2.3	22 IR 4.0 ISO	22 IL 4.0 ISO	1.6	2.3
4.5	22	1/2	22 ER 4.5 ISO	22 EL 4.5 ISO	1.7	2.4	22 IR 4.5 ISO	22 IL 4.5 ISO	1.6	2.4
5.0	22	1/2	22 ER 5.0 ISO	22 EL 5.0 ISO	1.7	2.5	22 IR 5.0 ISO	22 IL 5.0 ISO	1.6	2.3
5.5	22	1/2	22 ER 5.5 ISO	22 EL 5.5 ISO	1.7	2.6	22 IR 5.5 ISO	22 IL 5.5 ISO	1.6	2.3
6.0	22	1/2	**22 ER 6.0 ISO	**22 EL 6.0 ISO	1.9	2.7	22 IR 6.0 ISO	22 IL 6.0 ISO	1.6	2.4
5.5	22U	1/2U	22U ER/L 5.5 ISO		2.3	11.0	22U IR/L 5.5 ISO		2.4	11.0
6.0	22U	1/2U	22U ER/L 6.0 ISO		2.6	11.0	22U IR/L 6.0 ISO		2.1	11.0
5.5	27	5/8	27 ER 5.5 ISO	27 EL 5.5 ISO	1.9	2.7	27 IR 5.5 ISO	27 IL 5.5 ISO	1.6	2.3
6.0	27	5/8	27 ER 6.0 ISO	27 EL 6.0 ISO	2.0	2.9	27 IR 6.0 ISO	27 IL 6.0 ISO	1.8	2.5
8.0	27U	5/8U	27U ER/L 8.0 ISO		2.4	13.7	27U IR/L 8.0 ISO		2.4	13.7
12.0	33U	3/4U	33U ER/L 12.0 ISO		2.5	16.5	33U IR/L 12.0 ISO		3.5	16.9

** Special holder required

Order example: 22 IR 3.5 ISO BMA

For small bore threading see page A06-13



Type B

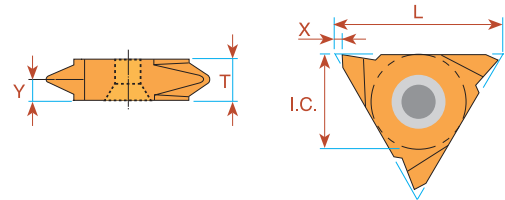
Ground profile with sintered chip-breaker

Pitch mm	L	I.C. in	EXTERNAL	X	Y	INTERNAL	X	Y
			Ordering Code Right Hand			Ordering Code Right Hand		
0.5	11	1/4				11 IR B 0.5 ISO	0.6	0.6
0.75	11	1/4				11 IR B 0.75 ISO	0.6	0.6
0.8	11	1/4				11 IR B 0.8 ISO	0.6	0.6
1.0	11	1/4				11 IR B 1.0 ISO	0.6	0.6
1.25	11	1/4				11 IR B 1.25 ISO	0.8	0.9
1.5	11	1/4				11 IR B 1.5 ISO	0.8	0.9
1.75	11	1/4				11 IR B 1.75 ISO	0.8	0.9
2.0	11	1/4				11 IR B 2.0 ISO	0.8	0.9
0.8	16	3/8	16 ER B 0.8 ISO	0.6	0.6			
1.0	16	3/8	16 ER B 1.0 ISO	0.7	0.7	16 IR B 1.0 ISO	0.6	0.7
1.25	16	3/8	16 ER B 1.25 ISO	0.8	0.9	16 IR B 1.25 ISO	0.8	0.9
1.5	16	3/8	16 ER B 1.5 ISO	0.8	1.0	16 IR B 1.5 ISO	0.8	1.0
1.75	16	3/8	16 ER B 1.75 ISO	0.9	1.2	16 IR B 1.75 ISO	0.9	1.2
2.0	16	3/8	16 ER B 2.0 ISO	1.0	1.3	16 IR B 2.0 ISO	1.0	1.3
2.5	16	3/8	16 ER B 2.5 ISO	1.1	1.5	16 IR B 2.5 ISO	1.1	1.5
3.0	16	3/8	16 ER B 3.0 ISO	1.2	1.6	16 IR B 3.0 ISO	1.1	1.5

Order example: 16 IR B 1.5 ISO BMA

For carbide grade and cutting speed see page A04-2 and 3

ISO - metric Vertical



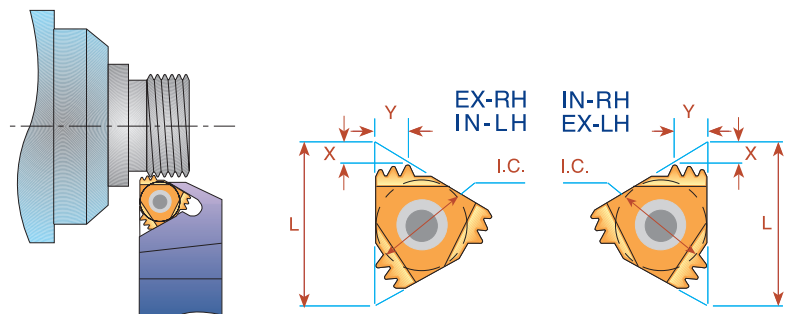
Pitch mm	L	I.C. in	EXTERNAL		INTERNAL		X	Y	T
			Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand			
0.5	16	3/8	16V ER 0.5 ISO	16V EL 0.5 ISO			1.0	0.6	3.6
0.75	16	3/8	16V ER 0.75 ISO	16V EL 0.75 ISO			1.0	0.6	3.6
0.8	16	3/8	16V ER 0.8 ISO	16V EL 0.8 ISO			1.0	0.6	3.6
1.0	16	3/8	16V ER 1.0 ISO	16V EL 1.0 ISO			1.0	0.7	3.6
1.25	16	3/8	16V ER 1.25 ISO	16V EL 1.25 ISO			1.0	0.9	3.6
1.5	16	3/8	16V ER 1.5 ISO	16V EL 1.5 ISO			1.0	0.9	3.6
1.75	16	3/8	16V ER 1.75 ISO	16V EL 1.75 ISO			1.0	1.2	3.6
2.0	16	3/8	16V ER 2.0 ISO	16V EL 2.0 ISO			1.0	1.3	3.6
2.5	16	3/8	16V ER 2.5 ISO	16V EL 2.5 ISO			1.0	1.5	3.6
3.0	16	3/8	16V ER 3.0 ISO	16V EL 3.0 ISO			1.0	1.7	3.6
* 8.0	27	5/8	27V ER 8.0 ISO	27V EL 8.0 ISO	27V IR 8.0 ISO	27V IL 8.0 ISO	1.8	5.2	10.4
** 10.0	27	5/8	27V ER 10.0 ISO	27V EL 10.0 ISO	27V IR 10.0 ISO	27V IL 10.0 ISO	1.8	5.2	10.4

Order example: 16V ER 1.5 ISO BMA

* Minimum bore: Ø60 mm

** Minimum bore: Ø72 mm

Multitooth



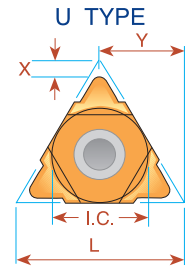
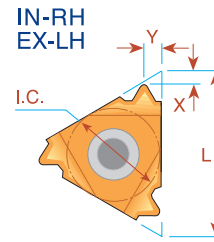
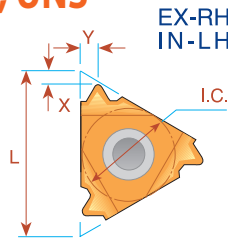
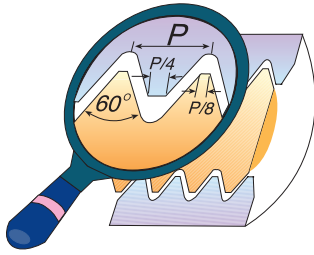
Pitch mm	L	I.C. in	Number of Teeth	EXTERNAL	Anvil	INTERNAL	Anvil	X	Y
				Ordering Code		Ordering Code			
1.0	16	3/8	3	16 ER 1.0 ISO 3M	AE16M	16 IR 1.0 ISO 3M	AI16M	1.7	2.5
1.5	16	3/8	2	16 ER 1.5 ISO 2M	AE16M	16 IR 1.5 ISO 2M	AI16M	1.5	2.3
2.0	16	3/8	2	16 ER 2.0 ISO 2M	AE16M	16 IR 2.0 ISO 2M	AI16M	2.0	3.0
1.5	22	1/2	3	22 ER 1.5 ISO 3M	AE22M	22 IR 1.5 ISO 3M	AI22M	2.3	3.7
2.0	22	1/2	2	22 ER 2.0 ISO 2M	AE22M	22 IR 2.0 ISO 2M	AI22M	2.0	3.0
2.0	22	1/2	3	22 ER 2.0 ISO 3M	AE22M	22 IR 2.0 ISO 3M	AI22M	3.1	5.0
2.5	22	1/2	2	22 ER 2.5 ISO 2M	AE22M	22 IR 2.5 ISO 2M	AI22M	2.4	3.7
2.5	22	1/2	3	22 ER 2.5 ISO 3M	AE22M	22 IR 2.5 ISO 3M	AI22M	3.8	6.2
3.0	27	5/8	2	27 ER 3.0 ISO 2M	AE27M	27 IR 3.0 ISO 2M	AI27M	2.9	4.6

Order example: 22 IR 2.0 ISO 2M BMA

For recommended number of passes see page A04-4

For carbide grade and cutting speed see page A04-2 and 3

UN - Unified UNC, UNF, UNEF, UNS

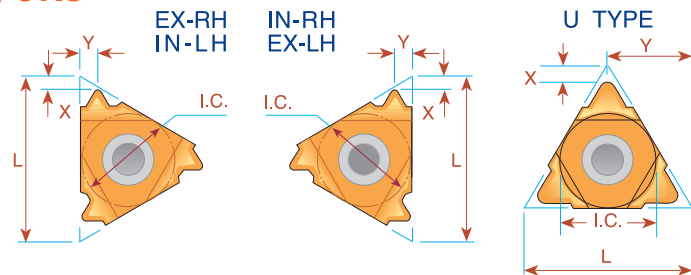
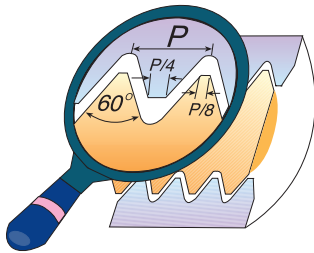


Pitch TPI	L	I.C. in	EXTERNAL				INTERNAL			
			Ordering Code		X	Y	Ordering Code		X	Y
			Right Hand	Left Hand			Right Hand	Left Hand		
32	6	5/32	ULTRA MINIATURE →				*06 IR 32 UN	*06 IL 32 UN	0.8	0.5
28	6	5/32					*06 IR 28 UN	*06 IL 28 UN	0.8	0.6
24	6	5/32					*06 IR 24 UN	*06 IL 24 UN	0.7	0.6
20	6	5/32					*06 IR 20 UN	*06 IL 20 UN	0.6	0.6
18	6	5/32					*06 IR 18 UN	*06 IL 18 UN	0.6	0.7
32	8	3/16	MINIATURE →				*08 IR 32 UN	*08 IL 32 UN	0.6	0.5
28	8	3/16					*08 IR 28 UN	*08 IL 28 UN	0.6	0.6
24	8	3/16					*08 IR 24 UN	*08 IL 24 UN	0.6	0.6
20	8	3/16					*08 IR 20 UN	*08 IL 20 UN	0.6	0.7
18	8	3/16					*08 IR 18 UN	*08 IL 18 UN	0.6	0.7
16	8	3/16					*08 IR 16 UN	*08 IL 16 UN	0.6	0.7
14	8	3/16					*08 IR 14 UN	*08 IL 14 UN	0.6	0.8
13	8	3/16					**08 IR 13 UN		0.8	0.9
13	8U	3/16U	“U” MINIATURE →				*08U IR/L 13 UN		1.0	4.0
12	8U	3/16U					*08U IR/L 12 UN		0.9	4.0
11	8U	3/16U					*08U IR/L 11 UN		0.9	4.0
80	11	1/4	11 ER 80 UN	11 EL 80 UN	0.8	0.4	11 IR 80 UN	11 IL 80 UN	0.8	0.4
72	11	1/4	11 ER 72 UN	11 EL 72 UN	0.8	0.4	11 IR 72 UN	11 IL 72 UN	0.8	0.3
64	11	1/4	11 ER 64 UN	11 EL 64 UN	0.8	0.4	11 IR 64 UN	11 IL 64 UN	0.8	0.4
56	11	1/4	11 ER 56 UN	11 EL 56 UN	0.7	0.4	11 IR 56 UN	11 IL 56 UN	0.7	0.4
48	11	1/4	11 ER 48 UN	11 EL 48 UN	0.6	0.6	11 IR 48 UN	11 IL 48 UN	0.6	0.6
44	11	1/4	11 ER 44 UN	11 EL 44 UN	0.6	0.6	11 IR 44 UN	11 IL 44 UN	0.6	0.6
40	11	1/4	11 ER 40 UN	11 EL 40 UN	0.6	0.6	11 IR 40 UN	11 IL 40 UN	0.6	0.6
36	11	1/4	11 ER 36 UN	11 EL 36 UN	0.6	0.6	11 IR 36 UN	11 IL 36 UN	0.6	0.6
32	11	1/4	11 ER 32 UN	11 EL 32 UN	0.6	0.6	11 IR 32 UN	11 IL 32 UN	0.6	0.6
28	11	1/4	11 ER 28 UN	11 EL 28 UN	0.6	0.7	11 IR 28 UN	11 IL 28 UN	0.6	0.7
27	11	1/4	11 ER 27 UN	11 EL 27 UN	0.7	0.8	11 IR 27 UN	11 IL 27 UN	0.7	0.8
24	11	1/4	11 ER 24 UN	11 EL 24 UN	0.7	0.8	11 IR 24 UN	11 IL 24 UN	0.7	0.8
20	11	1/4	11 ER 20 UN	11 EL 20 UN	0.8	0.9	11 IR 20 UN	11 IL 20 UN	0.8	0.9
18	11	1/4	11 ER 18 UN	11 EL 18 UN	0.8	1.0	11 IR 18 UN	11 IL 18 UN	0.8	1.0
16	11	1/4	11 ER 16 UN	11 EL 16 UN	0.9	1.1	11 IR 16 UN	11 IL 16 UN	0.9	1.1
14	11	1/4	11 ER 14 UN	11 EL 14 UN	0.9	1.1	11 IR 14 UN	11 IL 14 UN	0.9	1.1
13	11	1/4					11 IR 13 UN	11 IL 13 UN	0.8	1.0
12	11	1/4					11 IR 12 UN	11 IL 12 UN	0.9	1.1
11	11	1/4					11 IR 11 UN	11 IL 11 UN	0.8	1.1
80	16	3/8	16 ER 80 UN	16 EL 80 UN	0.8	0.4	16 IR 80 UN	16 IL 80 UN	0.8	0.4
72	16	3/8	16 ER 72 UN	16 EL 72 UN	0.8	0.4	16 IR 72 UN	16 IL 72 UN	0.8	0.3
64	16	3/8	16 ER 64 UN	16 EL 64 UN	0.8	0.4	16 IR 64 UN	16 IL 64 UN	0.8	0.4
56	16	3/8	16 ER 56 UN	16 EL 56 UN	0.7	0.4	16 IR 56 UN	16 IL 56 UN	0.7	0.4
48	16	3/8	16 ER 48 UN	16 EL 48 UN	0.6	0.6	16 IR 48 UN	16 IL 48 UN	0.6	0.6
44	16	3/8	16 ER 44 UN	16 EL 44 UN	0.6	0.6	16 IR 44 UN	16 IL 44 UN	0.6	0.6
40	16	3/8	16 ER 40 UN	16 EL 40 UN	0.6	0.6	16 IR 40 UN	16 IL 40 UN	0.6	0.6
36	16	3/8	16 ER 36 UN	16 EL 36 UN	0.6	0.6	16 IR 36 UN	16 IL 36 UN	0.6	0.6

* Available only in BXC and BMA grades

** To be used with Holder SIR 0009 K08 on page A02-10

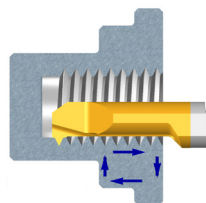
UN - Unified UNC, UNF, UNEF, UNS



Pitch TPI	L	I.C. in	EXTERNAL				X	Y	INTERNAL				X	Y
			Ordering Code		Right Hand	Left Hand			Ordering Code		Right Hand	Left Hand		
32	16	3/8	16 ER 32 UN	16 EL 32 UN	0.6	0.6	16 IR 32 UN	16 IL 32 UN	0.6	0.6				
28	16	3/8	16 ER 28 UN	16 EL 28 UN	0.6	0.7	16 IR 28 UN	16 IL 28 UN	0.6	0.7				
27	16	3/8	16 ER 27 UN	16 EL 27 UN	0.7	0.8	16 IR 27 UN	16 IL 27 UN	0.7	0.8				
24	16	3/8	16 ER 24 UN	16 EL 24 UN	0.7	0.8	16 IR 24 UN	16 IL 24 UN	0.7	0.8				
20	16	3/8	16 ER 20 UN	16 EL 20 UN	0.8	0.9	16 IR 20 UN	16 IL 20 UN	0.8	0.9				
18	16	3/8	16 ER 18 UN	16 EL 18 UN	0.8	1.0	16 IR 18 UN	16 IL 18 UN	0.8	1.0				
16	16	3/8	16 ER 16 UN	16 EL 16 UN	0.9	1.1	16 IR 16 UN	16 IL 16 UN	0.9	1.1				
14	16	3/8	16 ER 14 UN	16 EL 14 UN	1.0	1.2	16 IR 14 UN	16 IL 14 UN	0.9	1.2				
13	16	3/8	16 ER 13 UN	16 EL 13 UN	1.0	1.3	16 IR 13 UN	16 IL 13 UN	1.0	1.3				
12	16	3/8	16 ER 12 UN	16 EL 12 UN	1.1	1.4	16 IR 12 UN	16 IL 12 UN	1.1	1.4				
11.5	16	3/8	16 ER 11.5 UN	16 EL 11.5 UN	1.1	1.5	16 IR 11.5 UN	16 IL 11.5 UN	1.1	1.5				
11	16	3/8	16 ER 11 UN	16 EL 11 UN	1.1	1.5	16 IR 11 UN	16 IL 11 UN	1.1	1.5				
10	16	3/8	16 ER 10 UN	16 EL 10 UN	1.1	1.5	16 IR 10 UN	16 IL 10 UN	1.1	1.5				
9	16	3/8	16 ER 9 UN	16 EL 9 UN	1.2	1.7	16 IR 9 UN	16 IL 9 UN	1.2	1.7				
8	16	3/8	16 ER 8 UN	16 EL 8 UN	1.2	1.6	16 IR 8 UN	16 IL 8 UN	1.1	1.5				
7	22	1/2	22 ER 7 UN	22 EL 7 UN	1.6	2.3	22 IR 7 UN	22 IL 7 UN	1.6	2.3				
6	22	1/2	22 ER 6 UN	22 EL 6 UN	1.6	2.3	22 IR 6 UN	22 IL 6 UN	1.6	2.3				
5	22	1/2	22 ER 5 UN	22 EL 5 UN	1.7	2.5	22 IR 5 UN	22 IL 5 UN	1.6	2.3				
4.5	22U	1/2U	22U ER/L 4.5 UN		2.0	11.0	22U IR/L 4.5 UN		2.4	11.0				
4	22U	1/2U	22U ER/L 4 UN		2.0	11.0	22U IR/L 4 UN		2.4	11.0				
4.5	27	5/8	27 ER 4.5 UN	27 EL 4.5 UN	1.9	2.7	27 IR 4.5 UN	27 IL 4.5 UN	1.7	2.4				
4	27	5/8	27 ER 4 UN	27 EL 4 UN	2.1	3.0	27 IR 4 UN	27 IL 4 UN	1.8	2.7				
3	27U	5/8U	27U ER/L 3 UN		2.5	13.7	27U IR/L 3 UN		2.7	13.7				
2	33U	3/4U	33U ER/L 2 UN		2.8	16.5	33U IR/L 2 UN		3.6	16.9				

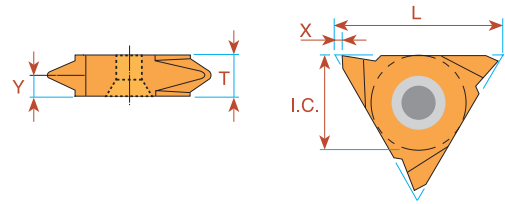
Order example: 22 ER 7 UN BMA

For small bore threading see page A06-13



For carbide grade and cutting speed see page A04-2 and 3

UN - Unified Vertical

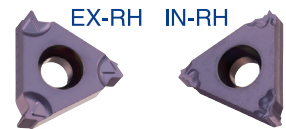


Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y	T
			Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand			
32	16	3/8	16V ER 32 UN	16V EL 32 UN			1.0	0.6	3.6
28	16	3/8	16V ER 28 UN	16V EL 28 UN			1.0	0.7	3.6
24	16	3/8	16V ER 24 UN	16V EL 24 UN			1.0	0.8	3.6
20	16	3/8	16V ER 20 UN	16V EL 20 UN			1.0	0.9	3.6
18	16	3/8	16V ER 18 UN	16V EL 18 UN			1.0	1.0	3.6
16	16	3/8	16V ER 16 UN	16V EL 16 UN			1.0	1.1	3.6
14	16	3/8	16V ER 14 UN	16V EL 14 UN			1.0	1.2	3.6
12	16	3/8	16V ER 12 UN	16V EL 12 UN			1.0	1.4	3.6
10	16	3/8	16V ER 10 UN	16V EL 10 UN			1.0	1.5	3.6
8	16	3/8	16V ER 8 UN	16V EL 8 UN			1.0	1.6	3.6
7	22	1/2	22V ER 7 UN	22V EL 7 UN			1.2	2.3	4.8
* 3	27	5/8	27V ER 3 UN	27V EL 3 UN	27V IR 3 UN	27V IL 3 UN	1.8	5.2	10.4

* Minimum bore: Ø65 mm

Order example: 22V ER 7 UN MXC

UN - Unified Type B **UNC, UNF, UNEF, UNS**

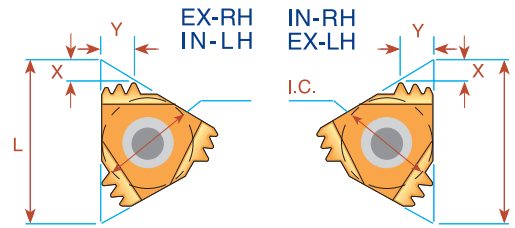
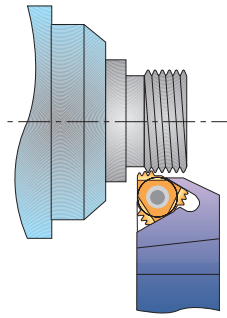


Ground profile with sintered chip-breaker

Pitch TPI	L	I.C. in	EXTERNAL	X	Y	INTERNAL	X	Y
			Ordering Code Right Hand			Ordering Code Right Hand		
32	11	1/4				11 IR B 32 UN	0.6	0.6
28	11	1/4				11 IR B 28 UN	0.6	0.6
24	11	1/4				11 IR B 24 UN	0.6	0.6
20	11	1/4				11 IR B 20 UN	0.8	0.9
18	11	1/4				11 IR B 18 UN	0.8	0.9
16	11	1/4				11 IR B 16 UN	0.8	0.9
14	11	1/4				11 IR B 14 UN	0.8	0.9
12	11	1/4				11 IR B 12 UN	0.8	0.9
24	16	3/8	16 ER B 24 UN	0.7	0.8	16 IR B 24 UN	0.7	0.8
20	16	3/8	16 ER B 20 UN	0.8	0.9	16 IR B 20 UN	0.8	0.9
18	16	3/8	16 ER B 18 UN	0.8	1.0	16 IR B 18 UN	0.8	1.0
16	16	3/8	16 ER B 16 UN	0.9	1.1	16 IR B 16 UN	0.9	1.1
14	16	3/8	16 ER B 14 UN	1.0	1.2	16 IR B 14 UN	0.9	1.2
13	16	3/8	16 ER B 13 UN	1.0	1.3			
12	16	3/8	16 ER B 12 UN	1.1	1.4	16 IR B 12 UN	1.1	1.4
11	16	3/8	16 ER B 11 UN	1.1	1.5			
10	16	3/8	16 ER B 10 UN	1.1	1.5	16 IR B 10 UN	1.1	1.5
9	16	3/8	16 ER B 9 UN	1.2	1.7			
8	16	3/8	16 ER B 8 UN	1.2	1.6	16 IR B 8 UN	1.1	1.1

Order example: 16 IR B 12 UN BMA

Multitooth

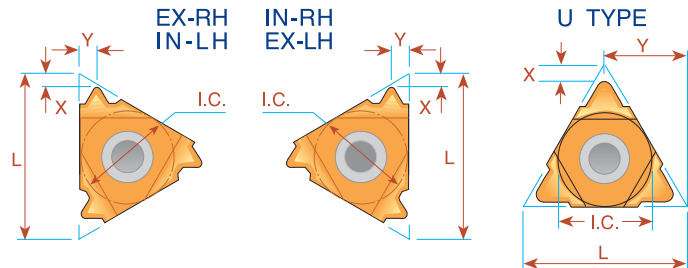
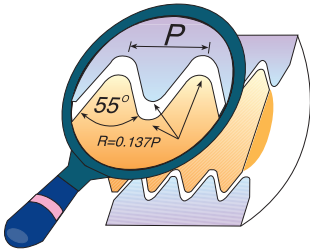


Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
24	16	3/8	2	16 ER 24 UN 2M	AE16M	16 IR 24 UN 2M	AI16M	1.1	1.7
20	16	3/8	2	16 ER 20 UN 2M	AE16M	16 IR 20 UN 2M	AI16M	1.4	2.0
18	16	3/8	2	16 ER 18 UN 2M	AE16M	16 IR 18 UN 2M	AI16M	1.5	2.2
16	16	3/8	2	16 ER 16 UN 2M	AE16M	16 IR 16 UN 2M	AI16M	1.5	2.3
14	16	3/8	2	16 ER 14 UN 2M	AE16M	16 IR 14 UN 2M	AI16M	1.7	2.7
12	16	3/8	2	16 ER 12 UN 2M	AE16M	16 IR 12 UN 2M	AI16M	2.0	3.1
16	22	1/2	3	22 ER 16 UN 3M	AE22M	22 IR 16 UN 3M	AI22M	2.5	4.0
13	22	1/2	3	22 ER 13 UN 3M	AE22M	-		3.0	4.9
12	22	1/2	2	22 ER 12 UN 2M	AE22M	22 IR 12 UN 2M	AI22M	2.2	3.4
12	22	1/2	3	22 ER 12 UN 3M	AE22M	22 IR 12 UN 3M	AI22M	3.3	5.3
8	27	5/8	2	27 ER 8 UN 2M	AE27M	27 IR 8 UN 2M	AI27M	3.1	4.9

Order example: 22 IR 16 UN 3M BMA

For recommended number of passes see page A04-4

Whitworth - 55° BSW, BSF, BSP, BSB

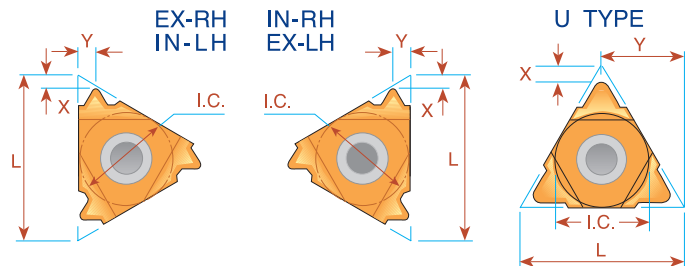
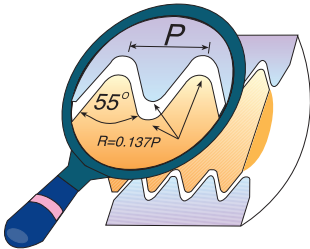


Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
26	6	5/32	ULTRA MINIATURE →		*06 IR 26 W	*06 IL 26 W	0.7	0.6
22	6	5/32			*06 IR 22 W	*06 IL 22 W	0.6	0.6
20	6	5/32			*06 IR 20 W	*06 IL 20 W	0.6	0.7
18	6	5/32			*06 IR 18 W	*06 IL 18 W	0.6	0.7
28	8	3/16	MINIATURE →		*08 IR 28 W	*08 IL 28 W	0.6	0.6
24	8	3/16			*08 IR 24 W	*08 IL 24 W	0.6	0.6
20	8	3/16			*08 IR 20 W	*08 IL 20 W	0.6	0.7
19	8	3/16			*08 IR 19 W	*08 IL 19 W	0.6	0.7
18	8	3/16			*08 IR 18 W	*08 IL 18 W	0.6	0.7
16	8	3/16			*08 IR 16 W	*08 IL 16 W	0.6	0.7
14	8U	3/16U	"U" MINIATURE →		*08U IR/L 14 W		1.0	4.0
12	8U	3/16U			*08U IR/L 12 W		0.9	4.0
11	8U	3/16U			*08U IR/L 11 W		0.9	4.0
72	11	1/4	11 ER 72 W	11 EL 72 W	11 IR 72 W	11 IL 72 W	0.7	0.4
60	11	1/4	11 ER 60 W	11 EL 60 W	11 IR 60 W	11 IL 60 W	0.7	0.4
56	11	1/4	11 ER 56 W	11 EL 56 W	11 IR 56 W	11 IL 56 W	0.7	0.4
48	11	1/4	11 ER 48 W	11 EL 48 W	11 IR 48 W	11 IL 48 W	0.6	0.6
40	11	1/4	11 ER 40 W	11 EL 40 W	11 IR 40 W	11 IL 40 W	0.6	0.6
36	11	1/4	11 ER 36 W	11 EL 36 W	11 IR 36 W	11 IL 36 W	0.6	0.6
32	11	1/4	11 ER 32 W	11 EL 32 W	11 IR 32 W	11 IL 32 W	0.6	0.6
28	11	1/4	11 ER 28 W	11 EL 28 W	11 IR 28 W	11 IL 28 W	0.6	0.7
26	11	1/4	11 ER 26 W	11 EL 26 W	11 IR 26 W	11 IL 26 W	0.7	0.7
24	11	1/4	11 ER 24 W	11 EL 24 W	11 IR 24 W	11 IL 24 W	0.7	0.8
22	11	1/4	11 ER 22 W	11 EL 22 W	11 IR 22 W	11 IL 22 W	0.8	0.9
20	11	1/4	11 ER 20 W	11 EL 20 W	11 IR 20 W	11 IL 20 W	0.8	0.9
19	11	1/4	11 ER 19 W	11 EL 19 W	11 IR 19 W	11 IL 19 W	0.8	1.0
18	11	1/4	11 ER 18 W	11 EL 18 W	11 IR 18 W	11 IL 18 W	0.8	1.0
16	11	1/4	11 ER 16 W	11 EL 16 W	11 IR 16 W	11 IL 16 W	0.9	1.1
14	11	1/4	11 ER 14 W	11 EL 14 W	11 IR 14 W	11 IL 14 W	0.9	1.1
12	11	1/4			11 IR 12 W	11 IL 12 W	0.1	1.1
11	11	1/4			(1) 11 IR 11 W	(1) 11 IL 11 W	0.9	1.2
72	16	3/8	16 ER 72 W	16 EL 72 W	16 IR 72 W	16 IL 72 W	0.7	0.4
60	16	3/8	16 ER 60 W	16 EL 60 W	16 IR 60 W	16 IL 60 W	0.7	0.4
56	16	3/8	16 ER 56 W	16 EL 56 W	16 IR 56 W	16 IL 56 W	0.7	0.4
48	16	3/8	16 ER 48 W	16 EL 48 W	16 IR 48 W	16 IL 48 W	0.6	0.6
40	16	3/8	16 ER 40 W	16 EL 40 W	16 IR 40 W	16 IL 40 W	0.6	0.6
36	16	3/8	16 ER 36 W	16 EL 36 W	16 IR 36 W	16 IL 36 W	0.6	0.6
32	16	3/8	16 ER 32 W	16 EL 32 W	16 IR 32 W	16 IL 32 W	0.6	0.6
28	16	3/8	16 ER 28 W	16 EL 28 W	16 IR 28 W	16 IL 28 W	0.6	0.7
26	16	3/8	16 ER 26 W	16 EL 26 W	16 IR 26 W	16 IL 26 W	0.7	0.7
24	16	3/8	16 ER 24 W	16 EL 24 W	16 IR 24 W	16 IL 24 W	0.7	0.8

* Available only in BXC and BMA grades

(1) Special holder is required or standard holder can be amended by customer.

Whitworth - 55° BSW, BSF, BSP, BSB



Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Ordering Code		Ordering Code			
			Right Hand	Left Hand	Right Hand	Left Hand		
22	16	3/8	16 ER 22 W	16 EL 22 W	16 IR 22 W	16 IL 22 W	0.8	0.9
20	16	3/8	16 ER 20 W	16 EL 20 W	16 IR 20 W	16 IL 20 W	0.8	0.9
19	16	3/8	16 ER 19 W	16 EL 19 W	16 IR 19 W	16 IL 19 W	0.8	1.0
18	16	3/8	16 ER 18 W	16 EL 18 W	16 IR 18 W	16 IL 18 W	0.8	1.0
16	16	3/8	16 ER 16 W	16 EL 16 W	16 IR 16 W	16 IL 16 W	0.9	1.1
14	16	3/8	16 ER 14 W	16 EL 14 W	16 IR 14 W	16 IL 14 W	1.0	1.2
12	16	3/8	16 ER 12 W	16 EL 12 W	16 IR 12 W	16 IL 12 W	1.1	1.4
11	16	3/8	16 ER 11 W	16 EL 11 W	16 IR 11 W	16 IL 11 W	1.1	1.5
10	16	3/8	16 ER 10 W	16 EL 10 W	16 IR 10 W	16 IL 10 W	1.1	1.5
9	16	3/8	16 ER 9 W	16 EL 9 W	16 IR 9 W	16 IL 9 W	1.2	1.7
8	16	3/8	16 ER 8 W	16 EL 8 W	16 IR 8 W	16 IL 8 W	1.2	1.5
7	22	1/2	22 ER 7 W	22 EL 7 W	22 IR 7 W	22 IL 7 W	1.6	2.3
6	22	1/2	22 ER 6 W	22 EL 6 W	22 IR 6 W	22 IL 6 W	1.6	2.3
5	22	1/2	22 ER 5 W	22 EL 5 W	22 IR 5 W	22 IL 5 W	1.7	2.4
4.5	22U	1/2U	22U E/R/L 4.5 W				2.3	11.0
4	22U	1/2U	22U E/R/L 4 W				2.8	11.0
4.5	27	5/8	27 ER 4.5 W	27 EL 4.5 W	27 IR 4.5 W	27 IL 4.5 W	1.8	2.6
4	27	5/8	27 ER 4 W	27 EL 4 W	27 IR 4 W	27 IL 4 W	2.0	2.9
3.5	27U	5/8U	27U E/R/L 3.5 W				2.1	13.7
3.25	27U	5/8U	27U E/R/L 3.25 W				2.0	13.7
3	27U	5/8U	27U E/R/L 3 W				2.3	13.7
2.75	27U	5/8U	27U E/R/L 2.75 W				2.4	13.7
*2.625	27U	5/8U	27U E/R/L 2.625 W				2.5	13.7
*2.5	27U	5/8U	27U E/R/L 2.5 W				2.8	13.7

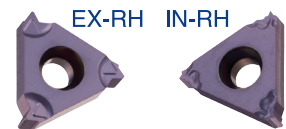
* One cutting edge

Order example: 16 IR 18 W BMA

Whitworth - 55° BSW, BSF, BSP, BSB

Type B

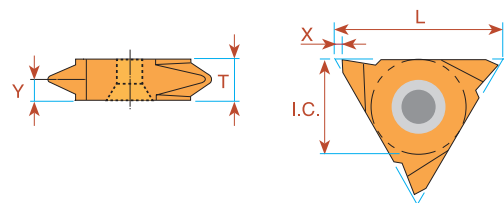
Ground profile with sintered chip-breaker



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
28	11	1/4		11 IR B 28 W	0.6	0.6
24	11	1/4		11 IR B 24 W	0.6	0.6
20	11	1/4		11 IR B 20 W	0.8	0.9
19	11	1/4		11 IR B 19 W	0.8	0.9
18	11	1/4		11 IR B 18 W	0.8	0.9
16	11	1/4		11 IR B 16 W	0.8	0.9
14	11	1/4		11 IR B 14 W	0.8	0.9
19	16	3/8	16 ER B 19 W	16 IR B 19 W	0.8	1.0
16	16	3/8	16 ER B 16 W	16 IR B 16 W	0.9	1.1
14	16	3/8	16 ER B 14 W	16 IR B 14 W	1.0	1.2
11	16	3/8	16 ER B 11 W	16 IR B 11 W	1.1	1.5
10	16	3/8	16 ER B 10 W	16 IR B 10 W	1.1	1.5

Order example: 16 IR B 10 W BMA

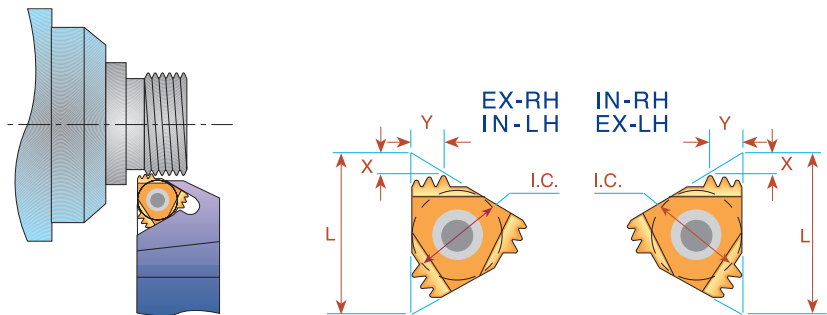
Vertical



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T
20	16	3/8	16V ER 20 W	16V EL 20 W	1.0	0.9	3.6
19	16	3/8	16V ER 19 W	16V EL 19 W	1.0	0.9	3.6
18	16	3/8	16V ER 18 W	16V EL 18 W	1.0	1.0	3.6
16	16	3/8	16V ER 16 W	16V EL 16 W	1.0	1.0	3.6
14	16	3/8	16V ER 14 W	16V EL 14 W	1.0	1.2	3.6
12	16	3/8	16V ER 12 W	16V EL 12 W	1.0	1.4	3.6
11	16	3/8	16V ER 11 W	16V EL 11 W	1.0	1.5	3.6

Order example: 16V ER 14 W MXC

Multitooth

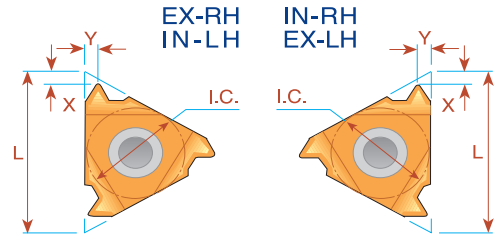
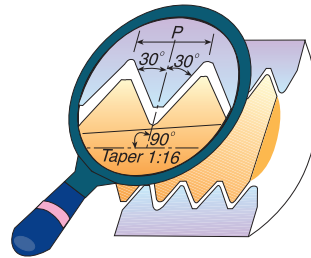


Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
14	16	3/8	2	16 ER 14 W 2M	AE16M	16 IR 14 W 2M	AI16M	1.7	2.7
11	16	3/8	2	16 ER 11 W 2M	AE16M	16 IR 11 W 2M	AI16M	2.1	3.4
14	22	1/2	3	22 ER 14 W 3M	AE22M	22 IR 14 W 3M	AI22M	2.8	4.5
11	22	1/2	2	22 ER 11 W 2M	AE22M	22 IR 11 W 2M	AI22M	2.1	3.4

Order example: 16 ER 14 W 2M MXC

For recommended number of passes see page A04-4

NPT

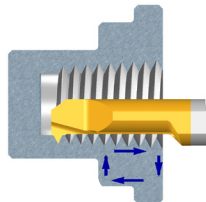


Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand		
27	6	5/32	<i>ULTRA MINIATURE</i> →		*06 IR 27 NPT	*06 IL 27 NPT	0.6	0.6
27	8	3/16	<i>MINIATURE</i> →		*08 IR 27 NPT	*08 IL 27 NPT	0.6	0.6
18	8	3/16			*08 IR 18 NPT	*08 IL 18 NPT	0.6	0.6
27	11	1/4	11 ER 27 NPT	11 EL 27 NPT	11 IR 27 NPT	11 IL 27 NPT	0.7	0.8
18	11	1/4	11 ER 18 NPT	11 EL 18 NPT	11 IR 18 NPT	11 IL 18 NPT	0.8	1.0
14	11	1/4	11 ER 14 NPT	11 EL 14 NPT	11 IR 14 NPT	11 IL 14 NPT	0.8	1.0
27	16	3/8	16 ER 27 NPT	16 EL 27 NPT	16 IR 27 NPT	16 IL 27 NPT	0.7	0.8
18	16	3/8	16 ER 18 NPT	16 EL 18 NPT	16 IR 18 NPT	16 IL 18 NPT	0.8	1.0
14	16	3/8	16 ER 14 NPT	16 EL 14 NPT	16 IR 14 NPT	16 IL 14 NPT	0.9	1.2
11.5	16	3/8	16 ER 11.5 NPT	16 EL 11.5 NPT	16 IR 11.5 NPT	16 IL 11.5 NPT	1.1	1.5
8	16	3/8	16 ER 8 NPT	16 EL 8 NPT	16 IR 8 NPT	16 IL 8 NPT	1.3	1.8

* Available only in BXC and BMA grades

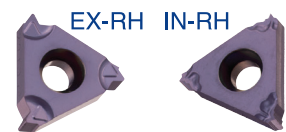
Order example: 16 ER 14 NPT MXC

For small bore threading see page A06-16



Type B

Ground profile with sintered chip-breaker

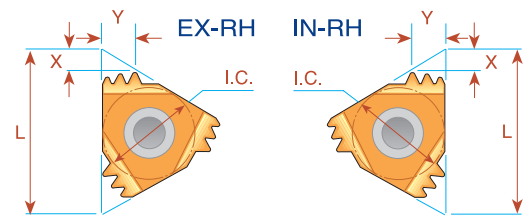
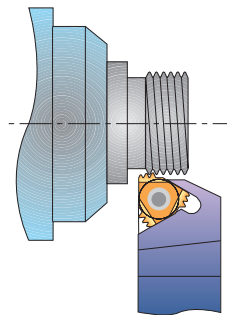


Pitch TPI	L	I.C. in	EXTERNAL	INTERNAL	X	Y
			Ordering Code Right Hand	Ordering Code Right Hand		
18	11	1/4		11 IR B 18 NPT	0.8	0.9
18	16	3/8	16 ER B 18 NPT	16 IR B 18 NPT	0.8	1.0
14	16	3/8	16 ER B 14 NPT	16 IR B 14 NPT	0.9	1.2
11.5	16	3/8	16 ER B 11.5 NPT	16 IR B 11.5 NPT	1.1	1.5
8	16	3/8	16 ER B 8 NPT	16 IR B 8 NPT	1.3	1.8

Order example: 16 IR B 11.5 NPT BMA

For carbide grade and cutting speed see page A04-2 and 3

NPT Multitooth

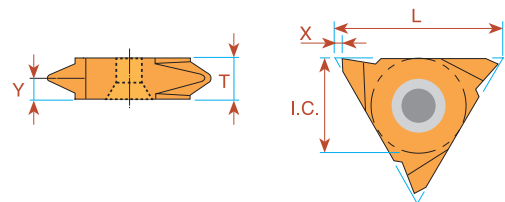


Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
14	16	3/8	2	16 ER 14 NPT 2M	AE16M	16 IR 14 NPT 2M	AI16M	1.7	2.8
11.5	22	1/2	2	22 ER 11.5 NPT 2M	AE22M	22 IR 11.5 NPT 2M	AI22M	2.3	3.5
11.5	27	5/8	3	27 ER 11.5 NPT 3M	AE27M	27 IR 11.5 NPT 3M	AI27M	3.3	5.5
8	27	5/8	2	27 ER 8 NPT 2M	AE27M	27 IR 8 NPT 2M	AI27M	3.1	5.0

Order example: 22 ER 11.5 NPT 2M MXC

For recommended number of passes see page A04-4

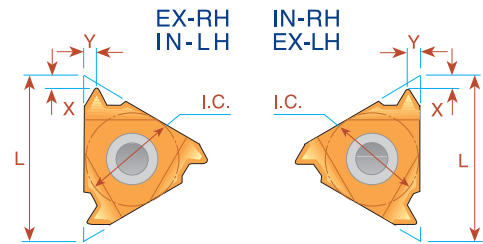
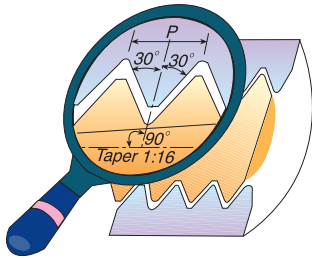
NPT Vertical



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T
27	16	3/8	16V ER 27 NPT	16V EL 27 NPT	1.0	0.8	3.6
18	16	3/8	16V ER 18 NPT	16V EL 18 NPT	1.0	1.0	3.6
14	16	3/8	16V ER 14 NPT	16V EL 14 NPT	1.0	1.2	3.6
11.5	16	3/8	16V ER 11.5 NPT	16V EL 11.5 NPT	1.0	1.5	3.6

Order example: 16V ER 14 NPT BMA

NPTF - Dryseal



Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand		
27	6	5/32	<i>ULTRA MINIATURE</i> →		*06 IR 27 NPTF	*06 IL 27 NPTF	0.7	0.6
27	8	3/16	<i>MINIATURE</i> →		*08 IR 27 NPTF	*08 IL 27 NPTF	0.6	0.6
18	8	3/16			*08 IR 18 NPTF	*08 IL 18 NPTF	0.6	0.6
27	11	1/4	11 ER 27 NPTF	11 EL 27 NPTF	11 IR 27 NPTF	11 IL 27 NPTF	0.7	0.7
18	11	1/4	11 ER 18 NPTF	11 EL 18 NPTF	11 IR 18 NPTF	11 IL 18 NPTF	0.8	1.0
14	11	1/4	11 ER 14 NPTF	11 EL 14 NPTF	11 IR 14 NPTF	11 IL 14 NPTF	0.8	1.0
27	16	3/8	16 ER 27 NPTF	16 EL 27 NPTF	16 IR 27 NPTF	16 IL 27 NPTF	0.7	0.7
18	16	3/8	16 ER 18 NPTF	16 EL 18 NPTF	16 IR 18 NPTF	16 IL 18 NPTF	0.8	1.0
14	16	3/8	16 ER 14 NPTF	16 EL 14 NPTF	16 IR 14 NPTF	16 IL 14 NPTF	0.9	1.2
11.5	16	3/8	16 ER 11.5 NPTF	16 EL 11.5 NPTF	16 IR 11.5 NPTF	16 IL 11.5 NPTF	1.1	1.5
8	16	3/8	16 ER 8 NPTF	16 EL 8 NPTF	16 IR 8 NPTF	16 IL 8 NPTF	1.3	1.8

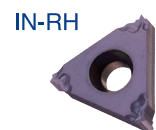
* Available only in BXC and BMA grades

Order example: 11 ER 27 NPTF MXC

Type B

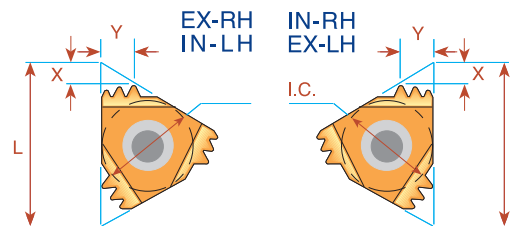
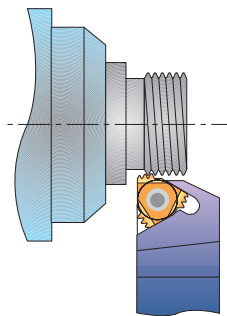
Ground profile with sintered chip-breaker

Pitch TPI	L	I.C. in	INTERNAL Ordering Code Right Hand	X	Y
18	11	1/4	11 IR B 18 NPTF	0.8	0.9



Order example: 11 IR B 18 NPTF BMA

Multitooth

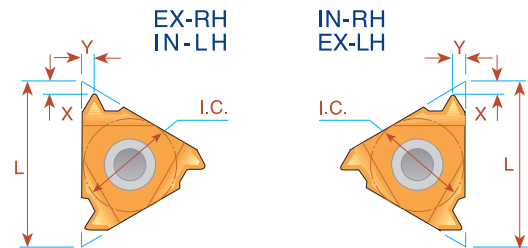
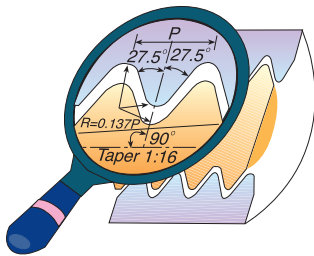


Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
11.5	22	1/2	2	22 ER 11.5 NPTF 2M	AE22M	22 IR 11.5 NPTF 2M	AI22M	2.3	3.5

Order example: 22 ER 11.5 NPTF 2M BMA

For carbide grade and cutting speed see page A04-2 and 3

BSPT



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
28	6	5/32	<i>ULTRA MINIATURE</i> →		*06 IR 28 BSPT	*06 IL 28 BSPT	0.7	0.6
28	8	3/16			*08 IR 28 BSPT	*08 IL 28 BSPT	0.6	0.6
19	8	3/16	<i>MINIATURE</i> →		*08 IR 19 BSPT	*08 IL 19 BSPT	0.6	0.6
28	11	1/4			11 IR 28 BSPT	11 IL 28 BSPT	0.6	0.6
19	11	1/4			11 IR 19 BSPT	11 IL 19 BSPT	0.8	0.9
14	11	1/4			11 IR 14 BSPT	11 IL 14 BSPT	0.9	1.0
11	11	1/4			⁽¹⁾ 11 IR 11 BSPT	⁽¹⁾ 11 IL 11 BSPT	0.9	1.2
28	16	3/8	16 ER 28 BSPT	16 EL 28 BSPT	16 IR 28 BSPT	16 IL 28 BSPT	0.6	0.6
19	16	3/8	16 ER 19 BSPT	16 EL 19 BSPT	16 IR 19 BSPT	16 IL 19 BSPT	0.8	0.9
14	16	3/8	16 ER 14 BSPT	16 EL 14 BSPT	16 IR 14 BSPT	16 IL 14 BSPT	1.0	1.2
11	16	3/8	16 ER 11 BSPT	16 EL 11 BSPT	16 IR 11 BSPT	16 IL 11 BSPT	1.1	1.5

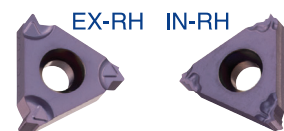
* Available only in BXC and BMA grades

Order example: 11 IR 14 BSPT BMA

(1) Special holder is required or standard holder can be amended by customer.

Type B

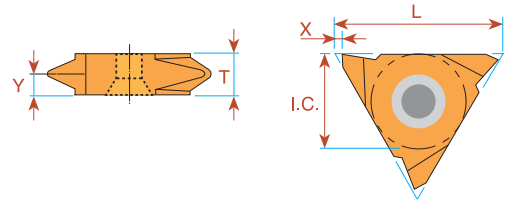
Ground profile with sintered chip-breaker



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
19	11	1/4			11 IR B 19 BSPT		0.8	0.9
19	16	3/8	16 ER B 19 BSPT				1.0	1.1
14	16	3/8	16 ER B 14 BSPT		16 IR B 14 BSPT		1.2	1.0
11	16	3/8	16 ER B 11 BSPT		16 IR B 11 BSPT		1.5	1.1

Order example: 16 ER B 11 BSPT BMA

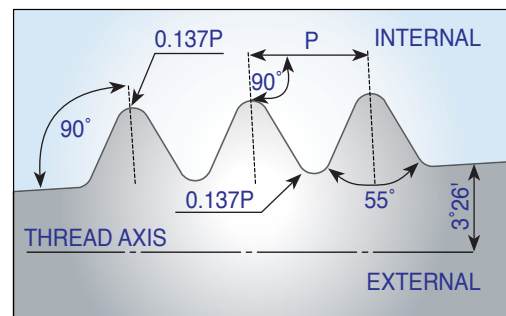
BSPT Vertical



Pitch TPI	L	I.C. in	EXTERNAL Ordering Code Right Hand	EXTERNAL Ordering Code Left Hand	X	Y	T
28	16	3/8	16V ER 28 BSPT	16V EL 28 BSPT	1.0	0.6	3.6
19	16	3/8	16V ER 19 BSPT	16V EL 19 BSPT	1.0	0.9	3.6
14	16	3/8	16V ER 14 BSPT	16V EL 14 BSPT	1.0	1.2	3.6
11	16	3/8	16V ER 11 BSPT	16V EL 11 BSPT	1.0	1.5	3.6

Order example: 16V ER 19 BSPT BMA

DIN 477



Pitch TPI	L	I.C. in	Taper Ratio	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Thread Designation
14	16	3/8	3/25	16 ER 14 DIN477	*11 IR 14 DIN477	1.0	1.2	W19.8x1/14 keg(Ext.)
14	11	1/4	3/25		**16 IR 14 DIN477	0.9	1.0	W19.8x1/14 keg(Int.)
14	16	3/8	3/25	16 ER 14 DIN477	***16 IR 14 DIN477	1.0	1.2	W28.8x1/14 keg
14	16	3/8	3/25	16 ER 14 DIN477		1.0	1.2	W31.3x1/14 keg

* Holder to use: SIR0010H11/SIR0010K11

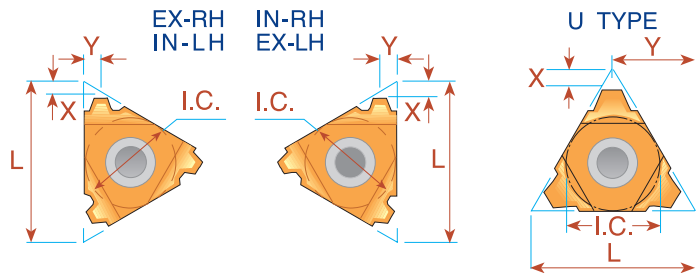
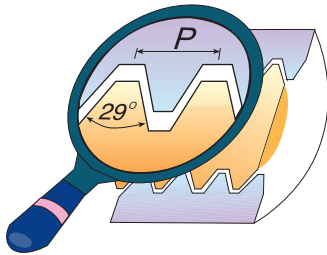
** Holder to use: SIR0016P16

*** Holder to use: SIR0020P16

Order example: 16 IR 14 DIN477 BMA

For carbide grade and cutting speed see page A04-2 and 3

Acme



Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
16	8	3/16	<i>MINIATURE</i> →		**08 IR 16 ACME	**08 IL 16 ACME	0.6	0.6
14	8U	3/16U	<i>"U" MINIATURE</i> →		*08U IR/L 14 ACME		0.8	4.0
12	8U	3/16U			*08U IR/L 12 ACME		0.8	4.0
10	8U	3/16U			*08U IR/L 10 ACME		0.8	4.0
16	11	1/4	11 ER 16 ACME	11 EL 16 ACME	11 IR 16 ACME	11 IL 16 ACME	0.9	1.0
16	16	3/8	16 ER 16 ACME	16 EL 16 ACME	16 IR 16 ACME	16 IL 16 ACME	0.9	1.0
14	16	3/8	16 ER 14 ACME	16 EL 14 ACME	16 IR 14 ACME	16 IL 14 ACME	1.0	1.2
12	16	3/8	16 ER 12 ACME	16 EL 12 ACME	16 IR 12 ACME	16 IL 12 ACME	1.1	1.2
10	16	3/8	16 ER 10 ACME	16 EL 10 ACME	16 IR 10 ACME	16 IL 10 ACME	1.3	1.3
8	16	3/8	16 ER 8 ACME	16 EL 8 ACME	16 IR 8 ACME	16 IL 8 ACME	1.5	1.5
6	16	3/8	(1) 16 ER 6 ACME	(1) 16 EL 6 ACME	(1) 16 IR 6 ACME	(1) 16 IL 6 ACME	1.7	1.8
6	22	1/2	22 ER 6 ACME	22 EL 6 ACME	22 IR 6 ACME	22 IL 6 ACME	1.8	2.1
5	22	1/2	22 ER 5 ACME	22 EL 5 ACME	22 IR 5 ACME	22 IL 5 ACME	2.0	2.3
4	22	1/2	(1) 22 ER 4 ACME	(1) 22 EL 4 ACME	(1) 22 IR 4 ACME	(1) 22 IL 4 ACME	2.1	2.2
4	22U	1/2U	22U ER/L 4 ACME		22U IR/L 4 ACME		2.3	11.0
4	27	5/8	27 ER 4 ACME	27 EL 4 ACME	27 IR 4 ACME	27 IL 4 ACME	2.3	2.7
3	27U	5/8U	27U ER/L 3 ACME		27U IR/L 3 ACME		2.8	13.7
2	33U	3/4U	33U ER/L 2 ACME		33U IR/L 2 ACME		4.3	16.9

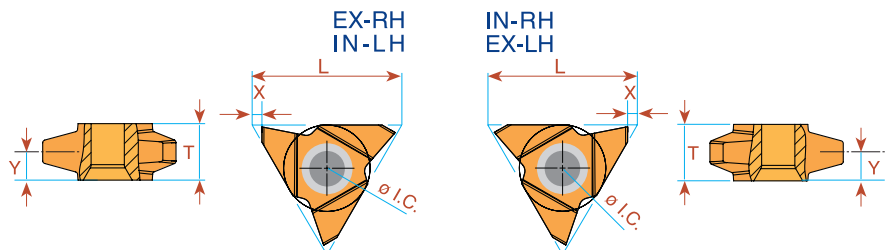
* Available only in BXC and BMA grades

** One cutting edge

Order example: 16 ER 16 ACME MXC

(1) Special holder is required or standard holder can be amended by customer.

Acme Vertical



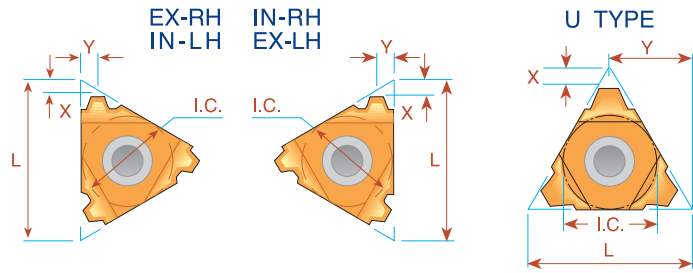
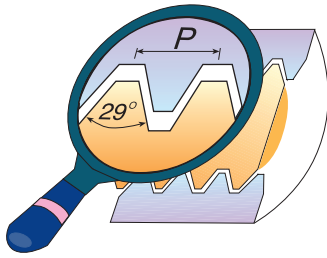
Pitch TPI	L	I.C. in	EXTERNAL		X	Y	T	INTERNAL		X	Y	T
			Right Hand	Left Hand				Right Hand	Left Hand			
* 3.5	27	5/8	27V ER 3.5 ACME	_____	1.8	5.0	10.4	27V IR 3.5 ACME	_____	1.8	4.0	10.4
* 3	27	5/8	27V ER 3 ACME	_____	1.8	5.0	10.4	27V IR 3 ACME	_____	1.8	4.6	10.4
** 2	27	5/8	27V ER 2 ACME	27V EL 2 ACME	1.8	5.0	10.4	27V IR 2 ACME	27V IL 2 ACME	1.8	5.0	10.4

* Minimum bore: Ø55 mm ** Minimum bore: Ø76 mm

Order example: 27V ER 2 ACME BMA

For carbide grade and cutting speed see page A04-2 and 3

Stub Acme



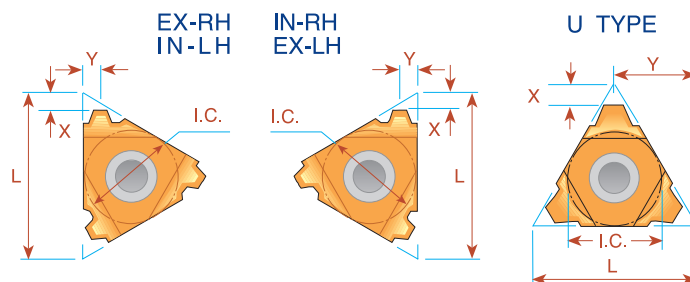
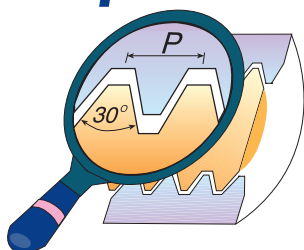
Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
16	8	3/16	<i>MINIATURE</i> →		**08 IR 16 STACME	**08 IL 16 STACME	0.6	0.6
14	8U	3/16U	<i>"U" MINIATURE</i> →		*08U IR/L 14 STACME		0.8	4.0
12	8U	3/16U			*08U IR/L 12 STACME		0.9	4.0
10	8U	3/16U			*08U IR/L 10 STACME		1.0	4.0
16	11	1/4	11 ER 16 STACME	11 EL 16 STACME			1.0	1.0
16	16	3/8	16 ER 16 STACME	16 EL 16 STACME	16 IR 16 STACME	16 IL 16 STACME	1.0	1.0
14	16	3/8	16 ER 14 STACME	16 EL 14 STACME	16 IR 14 STACME	16 IL 14 STACME	1.1	1.1
12	16	3/8	16 ER 12 STACME	16 EL 12 STACME	16 IR 12 STACME	16 IL 12 STACME	1.2	1.2
10	16	3/8	16 ER 10 STACME	16 EL 10 STACME	16 IR 10 STACME	16 IL 10 STACME	1.3	1.3
8	16	3/8	16 ER 8 STACME	16 EL 8 STACME	16 IR 8 STACME	16 IL 8 STACME	1.5	1.5
6	16	3/8	16 ER 6 STACME	16 EL 6 STACME	16 IR 6 STACME	16 IL 6 STACME	1.8	1.8
6	22	1/2	22 ER 6 STACME	22 EL 6 STACME	22 IR 6 STACME	22 IL 6 STACME	1.8	1.8
5	22	1/2	22 ER 5 STACME	22 EL 5 STACME	22 IR 5 STACME	22 IL 5 STACME	2.0	2.3
4	22	1/2	22 ER 4 STACME	22 EL 4 STACME	22 IR 4 STACME	22 IL 4 STACME	2.3	2.4
4	22U	1/2U	22U ER/L 4 STACME		22U IR/L 4 STACME		2.5	11.0
3	22U	1/2U	22U ER/L 3 STACME		22U IR/L 3 STACME		3.3	11.0
4	27	5/8	27 ER 4 STACME	27 EL 4 STACME	27 IR 4 STACME	27 IL 4 STACME	2.3	2.4
3	27	5/8	27 ER 3 STACME	27 EL 3 STACME	27 IR 3 STACME	27 IL 3 STACME	2.8	2.9
2	33U	3/4U	33U ER/L 2 STACME		33U IR/L 2 STACME		5.0	16.9

* Available only in BXC and BMA grades

** One cutting edge

Order example: 22 IR 5 STACME MXC

Trapez - DIN 103



Pitch mm	L	I.C. in	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
1.5	8	3/16	MINIATURE		**08 IR 1.5 TR	**08 IL 1.5 TR	0.6	0.6
2.0	8U	3/16U	"U" MINIATURE		*08U IR/L 2 TR		0.9	4.0
1.5	16	3/8	16 ER 1.5 TR	16 EL 1.5 TR	16 IR 2 TR	16 IL 2 TR	1.0	1.1
2.0	16	3/8	16 ER 2 TR	16 EL 2 TR	16 IR 3 TR	16 IL 3 TR	1.0	1.3
3.0	16	3/8	16 ER 3 TR	16 EL 3 TR	16 IR 4 TR	16 IL 4 TR	1.3	1.5
4.0	16	3/8	⁽¹⁾ 16 ER 4 TR	⁽¹⁾ 16 EL 4 TR	⁽²⁾ 16 IR 4 TR	⁽²⁾ 16 IL 4 TR	1.3	1.5
5.0	16U	3/8U			***16U IR/L 5 TR		2.3	8.2
4.0	22	1/2	22 ER 4 TR	22 EL 4 TR	22 IR 4 TR	22 IL 4 TR	1.8	1.9
5.0	22	1/2	22 ER 5 TR	22 EL 5 TR	22 IR 5 TR	22 IL 5 TR	2.0	2.4
6.0	22	1/2	⁽¹⁾ 22 ER 6 TR	⁽¹⁾ 22 EL 6 TR	⁽¹⁾ 22 IR 6 TR	⁽¹⁾ 22 IL 6 TR	2.0	2.4
6.0	22U	1/2U	22U ER/L 6 TR		22U IR/L 6 TR		2.0	11.0
7.0	22U	1/2U	22U ER/L 7 TR		22U IR/L 7 TR		2.3	11.0
⁽³⁾ 7.0	22U	1/2U			⁽³⁾22U IR/L 7 TR40		2.6	11.0
8.0	22U	1/2U	22U ER/L 8 TR		22U IR/L 8 TR		2.5	11.0
6.0	27	5/8	27 ER 6 TR	27 EL 6 TR	27 IR 6 TR	27 IL 6 TR	2.3	2.7
7.0	27	5/8	27 ER 7 TR	27 EL 7 TR	27 IR 7 TR	27 IL 7 TR	2.2	2.6
8.0	27U	5/8U	27U ER/L 8 TR		27U IR/L 8 TR		2.5	13.7
9.0	27U	5/8U	27U ER/L 9 TR		27U IR/L 9 TR		3.0	13.7
10.0	27U	5/8U	**27U ER/L 10 TR		**27U IR/L 10 TR		3.2	13.7
12.0	33U	3/4U	33U ER/L 12 TR		33U IR/L 12 TR		3.9	16.9

* Available only in BXC and BMA grades

** One cutting edge

*** To be used only with holder SIR/L0014M16UB on page A02-10

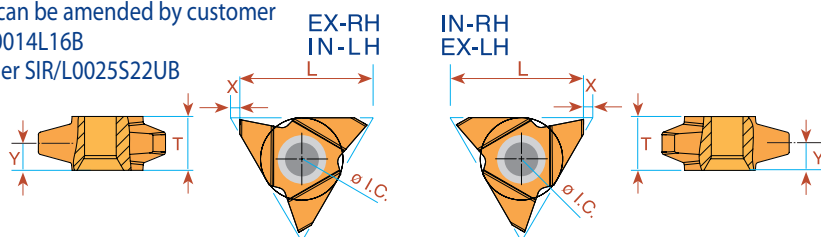
Order example: 22 IR 5 TR MXC

(1) Special holder is required or standard holder can be amended by customer.

(2) Special holder is required or standard holder can be amended by customer
or to be used with holders: SIR/L0012L16B; SIR/L0014L16B

(3) Only for Tr 40 x 7.0. To be used only with holder SIR/L0025S22UB

Trapez - DIN 103 Vertical



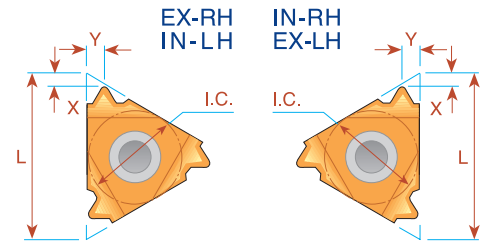
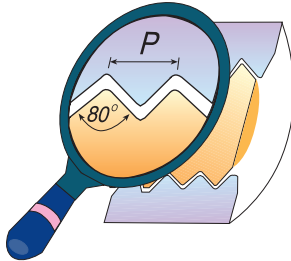
Pitch mm	L	I.C. in	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y	T
			Right Hand	Left Hand	Right Hand	Left Hand			
* 9	27	5/8	27V ER 9 TR	27V EL 9 TR	27V IR 9 TR	27V IL 9 TR	1.8	5.2	10.4
* 10	27	5/8	27V ER 10 TR	27V EL 10 TR	27V IR 10 TR	27V IL 10 TR	1.8	5.2	10.4
** 12	27	5/8	27V ER 12 TR	27V EL 12 TR	27V IR 12 TR	27V IL 12 TR	1.8	5.2	10.4

* Minimum bore: Ø65 mm ** Minimum bore: Ø73 mm

Order example: 27V ER 10 TR BMA

For carbide grade and cutting speed see page A04-2 and 3

PG - DIN 40430

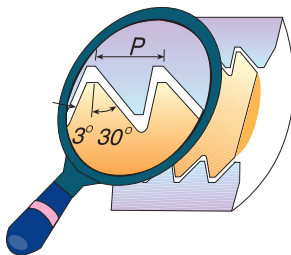


Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Right Hand	Standard	Right Hand	Standard		
20	8	3/16	<i>MINIATURE</i> →		*08 IR 20 PG	(PG 7)	0.6	0.7
18	11	1/4			11 IR 18 PG	(PG 9)	0.8	0.9
20	16	3/8	16 ER 20 PG	(PG 7)			0.7	0.8
18	16	3/8	16 ER 18 PG	(PG 9, 11, 13.5, 16)	16 IR 18 PG	(PG 11, 13.5, 16)	0.8	0.9
16	16	3/8	16 ER 16 PG	(PG 21, 29, 36, 42, 48)	16 IR 16 PG	(PG 21, 29, 36, 42, 48)	0.8	1.0

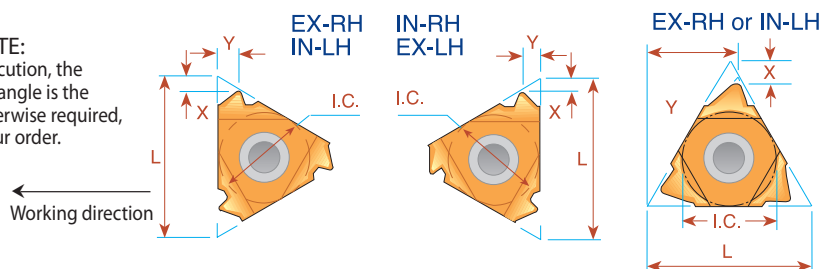
* Available only in BXC and BMA grades

Order example: 16 ER 16 PG BMA

Sagengewinde - DIN 513



IMPORTANT NOTE:
In CPT standard execution, the flank with the large angle is the leading edge. If otherwise required, please specify in your order.



Pitch mm	L	I.C. in	EXTERNAL		X	Y	INTERNAL		X	Y
			Right Hand	Left Hand			Right Hand	Left Hand		
2.0	16	3/8	16 ER 2 SAGE	16 EL 2 SAGE	1.1	1.6	16 IR 2 SAGE	16 IL 2 SAGE	1.2	1.7
**3.0	22	1/2	22 ER 3 SAGE	22 EL 3 SAGE	1.5	2.4	22 IR 3 SAGE	22 IL 3 SAGE	1.9	2.9
**4.0	22	1/2	22 ER 4 SAGE	22 EL 4 SAGE	1.9	3.1	22 IR 4 SAGE	22 IL 4 SAGE	2.3	3.5
*5.0	22U	1/2U	22U ER 5 SAGE	22U EL 5 SAGE	1.2	11.6	22U IR 5 SAGE	22U IL 5 SAGE	1.9	11.7
*6.0	22U	1/2U	22U ER 6 SAGE	22U EL 6 SAGE	1.2	11.7	22U IR 6 SAGE	22U IL 6 SAGE	2.1	11.9

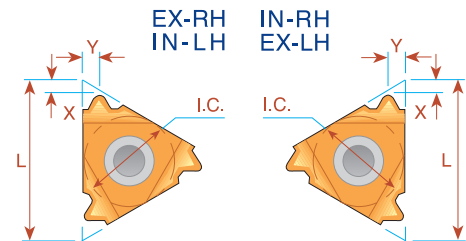
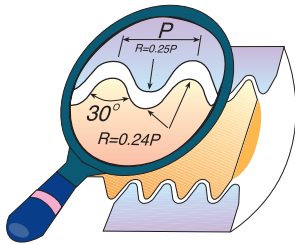
* Requires a special anvil AER 22U-1.5 SAGE 5/6, AEL 22U-1.5 SAGE 5/6, AIR 22U-1.5 SAGE 5/6, AIL 22U-1.5 SAGE 5/6

** Requires a special anvil AER 22-1.5 SAGE 3/4, AEL 22-1.5 SAGE 3/4, AIR 22-1.5 SAGE 3/4, AIL 22-1.5 SAGE 3/4

Order example: 22 IR 4 SAGE BMA

For carbide grade and cutting speed see page A04-2 and 3

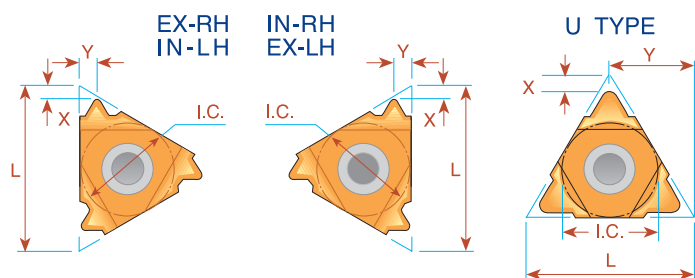
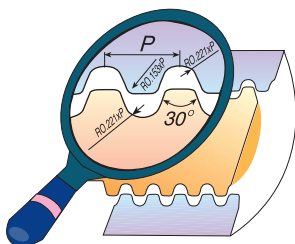
Round - DIN 405



Pitch TPI	L	I.C. in	EXTERNAL		X	Y	INTERNAL		X	Y
			Ordering Code Right Hand	Ordering Code Left Hand			Ordering Code Right Hand	Ordering Code Left Hand		
10	16	3/8	16 ER 10 RD	16 EL 10 RD	1.1	1.2	16 IR 10 RD	16 IL 10 RD	1.1	1.2
8	16	3/8	16 ER 8 RD	16 EL 8 RD	1.4	1.3	16 IR 8 RD	16 IL 8 RD	1.4	1.4
6	16	3/8	16 ER 6 RD	16 EL 6 RD	1.5	1.7	16 IR 6 RD	16 IL 6 RD	1.4	1.5
6	22	1/2	22 ER 6 RD	22 EL 6 RD	1.5	1.7	22 IR 6 RD	22 IL 6 RD	1.5	1.7
4	22	1/2	22 ER 4 RD	22 EL 4 RD	2.2	2.3	22 IR 4 RD	22 IL 4 RD	2.2	2.3
4	27	5/8	27 ER 4 RD	27 EL 4 RD	2.2	2.3	27 IR 4 RD	27 IL 4 RD	2.2	2.3

Order example: 27 IL 4 RD BMA

Round - DIN 20400



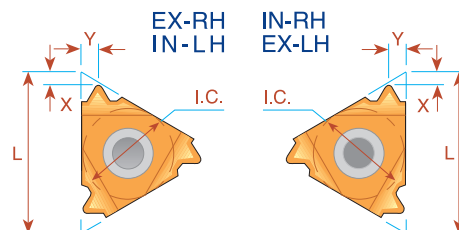
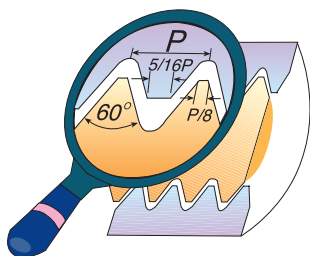
Pitch mm	L	I.C. in	EXTERNAL	INTERNAL	X	Y
			Ordering Code Right Hand	Ordering Code Right Hand		
4.0	22	1/2	22 ER 4.0 RD 20400	22 IR 4.0 RD 20400	1.4	1.4
5.0	22	1/2	22 ER 5.0 RD 20400	22 IR 5.0 RD 20400	1.7	1.8
6.0	22	1/2	22 ER 6.0 RD 20400	22 IR 6.0 RD 20400	1.7	2.0
8.0	27U	5/8U	*27U E/I/R/L 8.0 RD 20400		3.0	13.7
10.0	27U	5/8U	*27U E/I/R/L 10.0 RD 20400		3.4	13.7
12.0	33U	3/4U	*33U E/I/R/L 12.0 RD 20400		4.3	16.9

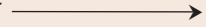
* Same insert for Internal and External Right Hand Thread

Order example: 22 ER 4.0 RD 20400 MXC

For carbide grade and cutting speed see page A04-2 and 3

UNJ UNJC, UNJF, UNJF, UNJS



Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Ordering Code		Ordering Code			
			Right Hand	Left Hand	Right Hand	Left Hand		
28	08	3/16	<i>MINIATURE</i> 		<i>*08 IR 28 UNJ</i>	<i>*08 IL 28 UNJ</i>	0.6	0.6
24	08	3/16			<i>*08 IR 24 UNJ</i>	<i>*08 IL 24 UNJ</i>	0.6	0.6
20	08	3/16			<i>*08 IR 20 UNJ</i>	<i>*08 IL 20 UNJ</i>	0.6	0.7
18	08	3/16			<i>*08 IR 18 UNJ</i>	<i>*08 IL 18 UNJ</i>	0.6	0.7
13	08U	3/16U	<i>"U" MINIATURE</i> 		<i>*08 UIR/L 13 UNJ</i>		0.9	4.0
48	11	1/4	<i>11 ER 48 UNJ</i>	<i>11 EL 48 UNJ</i>	<i>11 IR 48 UNJ</i>	<i>11 IL 48 UNJ</i>	0.6	0.6
44	11	1/4	<i>11 ER 44 UNJ</i>	<i>11 EL 44 UNJ</i>	<i>11 IR 44 UNJ</i>	<i>11 IL 44 UNJ</i>	0.6	0.6
40	11	1/4	<i>11 ER 40 UNJ</i>	<i>11 EL 40 UNJ</i>	<i>11 IR 40 UNJ</i>	<i>11 IL 40 UNJ</i>	0.6	0.6
36	11	1/4	<i>11 ER 36 UNJ</i>	<i>11 EL 36 UNJ</i>	<i>11 IR 36 UNJ</i>	<i>11 IL 36 UNJ</i>	0.6	0.6
32	11	1/4	<i>11 ER 32 UNJ</i>	<i>11 EL 32 UNJ</i>	<i>11 IR 32 UNJ</i>	<i>11 IL 32 UNJ</i>	0.6	0.6
28	11	1/4	<i>11 ER 28 UNJ</i>	<i>11 EL 28 UNJ</i>	<i>11 IR 28 UNJ</i>	<i>11 IL 28 UNJ</i>	0.6	0.6
24	11	1/4	<i>11 ER 24 UNJ</i>	<i>11 EL 24 UNJ</i>	<i>11 IR 24 UNJ</i>	<i>11 IL 24 UNJ</i>	0.7	0.8
20	11	1/4	<i>11 ER 20 UNJ</i>	<i>11 EL 20 UNJ</i>	<i>11 IR 20 UNJ</i>	<i>11 IL 20 UNJ</i>	0.8	0.9
18	11	1/4	<i>11 ER 18 UNJ</i>	<i>11 EL 18 UNJ</i>	<i>11 IR 18 UNJ</i>	<i>11 IL 18 UNJ</i>	0.8	1.0
16	11	1/4	<i>11 ER 16 UNJ</i>	<i>11 EL 16 UNJ</i>	<i>11 IR 16 UNJ</i>	<i>11 IL 16 UNJ</i>	0.8	1.0
14	11	1/4	<i>11 ER 14 UNJ</i>	<i>11 EL 14 UNJ</i>	<i>11 IR 14 UNJ</i>	<i>11 IL 14 UNJ</i>	0.9	1.0
48	16	3/8	<i>16 ER 48 UNJ</i>	<i>16 EL 48 UNJ</i>	<i>16 IR 48 UNJ</i>	<i>16 IL 48 UNJ</i>	0.6	0.6
44	16	3/8	<i>16 ER 44 UNJ</i>	<i>16 EL 44 UNJ</i>	<i>16 IR 44 UNJ</i>	<i>16 IL 44 UNJ</i>	0.6	0.6
40	16	3/8	<i>16 ER 40 UNJ</i>	<i>16 EL 40 UNJ</i>	<i>16 IR 40 UNJ</i>	<i>16 IL 40 UNJ</i>	0.6	0.6
36	16	3/8	<i>16 ER 36 UNJ</i>	<i>16 EL 36 UNJ</i>	<i>16 IR 36 UNJ</i>	<i>16 IL 36 UNJ</i>	0.6	0.6
32	16	3/8	<i>16 ER 32 UNJ</i>	<i>16 EL 32 UNJ</i>	<i>16 IR 32 UNJ</i>	<i>16 IL 32 UNJ</i>	0.6	0.6
28	16	3/8	<i>16 ER 28 UNJ</i>	<i>16 EL 28 UNJ</i>	<i>16 IR 28 UNJ</i>	<i>16 IL 28 UNJ</i>	0.6	0.6
24	16	3/8	<i>16 ER 24 UNJ</i>	<i>16 EL 24 UNJ</i>	<i>16 IR 24 UNJ</i>	<i>16 IL 24 UNJ</i>	0.7	0.8
20	16	3/8	<i>16 ER 20 UNJ</i>	<i>16 EL 20 UNJ</i>	<i>16 IR 20 UNJ</i>	<i>16 IL 20 UNJ</i>	0.8	0.9
18	16	3/8	<i>16 ER 18 UNJ</i>	<i>16 EL 18 UNJ</i>	<i>16 IR 18 UNJ</i>	<i>16 IL 18 UNJ</i>	0.8	1.0
16	16	3/8	<i>16 ER 16 UNJ</i>	<i>16 EL 16 UNJ</i>	<i>16 IR 16 UNJ</i>	<i>16 IL 16 UNJ</i>	0.8	1.0
14	16	3/8	<i>16 ER 14 UNJ</i>	<i>16 EL 14 UNJ</i>	<i>16 IR 14 UNJ</i>	<i>16 IL 14 UNJ</i>	1.0	1.2
13	16	3/8	<i>16 ER 13 UNJ</i>	<i>16 EL 13 UNJ</i>	<i>16 IR 13 UNJ</i>	<i>16 IL 13 UNJ</i>	1.0	1.3
12	16	3/8	<i>16 ER 12 UNJ</i>	<i>16 EL 12 UNJ</i>	<i>16 IR 12 UNJ</i>	<i>16 IL 12 UNJ</i>	1.1	1.4
11	16	3/8	<i>16 ER 11 UNJ</i>	<i>16 EL 11 UNJ</i>	<i>16 IR 11 UNJ</i>	<i>16 IL 11 UNJ</i>	1.1	1.5
10	16	3/8	<i>16 ER 10 UNJ</i>	<i>16 EL 10 UNJ</i>	<i>16 IR 10 UNJ</i>	<i>16 IL 10 UNJ</i>	1.1	1.5
9	16	3/8	<i>16 ER 9 UNJ</i>	<i>16 EL 9 UNJ</i>	<i>16 IR 9 UNJ</i>	<i>16 IL 9 UNJ</i>	1.2	1.6
8	16	3/8	<i>16 ER 8 UNJ</i>	<i>16 EL 8 UNJ</i>	<i>16 IR 8 UNJ</i>	<i>16 IL 8 UNJ</i>	1.2	1.6

* Available only in BXC and BMA grades

Order example: 16 IR 16 UNJ MXC

For carbide grade and cutting speed see page A04-2 and 3

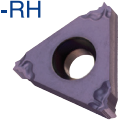
UNJ UNJC, UNJF, UNJEF, UNJS

Type B

Ground profile with sintered chip-breaker

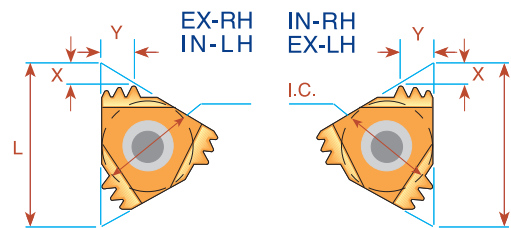
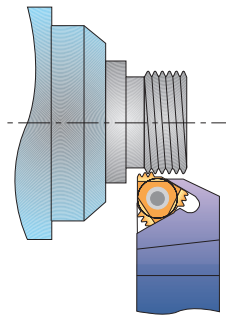
Pitch TPI	L	I.C. in	INTERNAL Ordering Code Right Hand	X	Y
32	11	1/4	11 IR B 32 UNJ	0.6	0.6
28	11	1/4	11 IR B 28 UNJ	0.6	0.6
24	11	1/4	11 IR B 24 UNJ	0.6	0.6
20	11	1/4	11 IR B 20 UNJ	0.8	0.9
18	11	1/4	11 IR B 18 UNJ	0.8	0.9
16	11	1/4	11 IR B 16 UNJ	0.8	0.9
14	11	1/4	11 IR B 14 UNJ	0.8	0.9

IN-RH



Order example: 11 IR B 20 UNJ BMA

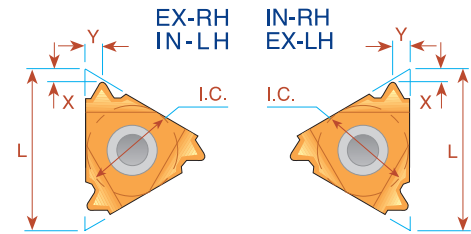
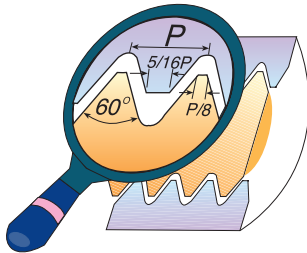
Multitooth



Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
16	16	3/8	2	16 ER 16 UNJ 2M	AE16M	-	-	1.6	2.4
16	22	1/2	3	22 ER 16 UNJ 3M	AE22M	-	-	2.3	3.8

Order example: 22 ER 16 UNJ 3M BMA

MJ - ISO 5855



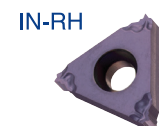
Pitch mm	L	I.C. in	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
0.5	11	1/4		11 IR 0.5 MJ	0.5	0.4
0.7	11	1/4		11 IR 0.7 MJ	0.6	0.5
0.75	11	1/4		11 IR 0.75 MJ	0.6	0.5
0.8	11	1/4		11 IR 0.8 MJ	0.6	0.6
1.0	11	1/4		11 IR 1.0 MJ	0.7	0.8
1.25	11	1/4		11 IR 1.25 MJ	0.8	0.9
1.5	11	1/4		11 IR 1.5 MJ	0.8	1.0
2.0	11	1/4		11 IR 2.0 MJ	0.9	1.0
0.5	16	3/8	16 ER 0.5 MJ		0.6	0.6
0.7	16	3/8	16 ER 0.7 MJ		0.6	0.6
0.75	16	3/8	16 ER 0.75 MJ		0.5	0.5
0.8	16	3/8	16 ER 0.8 MJ		0.6	0.6
1.0	16	3/8	16 ER 1.0 MJ		0.7	0.8
1.25	16	3/8	16 ER 1.25 MJ		0.8	0.9
1.5	16	3/8	16 ER 1.5 MJ		0.8	1.0
1.75	16	3/8	16 ER 1.75 MJ		0.9	1.1
2.0	16	3/8	16 ER 2.0 MJ		1.0	1.3
3.0	16	3/8	16 ER 3.0 MJ		1.2	1.6

Order example: 16 ER 1.5 MJ BMA

Type B

Ground profile with sintered chip-breaker

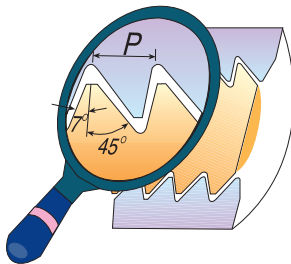
Pitch mm	L	I.C. in	INTERNAL Ordering Code Right Hand	X	Y
1.0	11	1/4	11 IR B 1.0 MJ	0.6	0.6
1.5			11 IR B 1.5 MJ	0.8	0.9



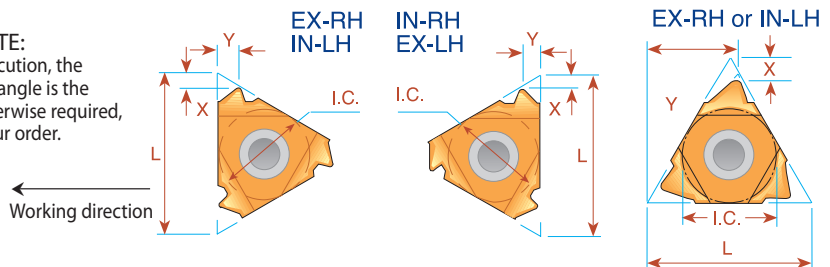
Order example: 11 IR B 1.5 MJ BMA

For carbide grade and cutting speed see page A04-2 and 3

American Buttress



IMPORTANT NOTE:
In CPT standard execution, the flank with the large angle is the leading edge. If otherwise required, please specify in your order.



Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL		X	Y
			Ordering Code Right Hand	Ordering Code Left Hand	Ordering Code Right Hand	Ordering Code Left Hand		
20	11	1/4	11 ER 20 ABUT	11 EL 20 ABUT	11 IR 20 ABUT	11 IL 20 ABUT	1.0	1.3
16	11	1/4	11 ER 16 ABUT	11 EL 16 ABUT	11 IR 16 ABUT	11 IL 16 ABUT	1.0	1.5
20	16	3/8	16 ER 20 ABUT	16 EL 20 ABUT	16 IR 20 ABUT	16 IL 20 ABUT	1.0	1.3
16	16	3/8	16 ER 16 ABUT	16 EL 16 ABUT	16 IR 16 ABUT	16 IL 16 ABUT	1.0	1.5
12	16	3/8	16 ER 12 ABUT	16 EL 12 ABUT	16 IR 12 ABUT	16 IL 12 ABUT	1.4	2.0
10	16	3/8	16 ER 10 ABUT	16 EL 10 ABUT	16 IR 10 ABUT	16 IL 10 ABUT	1.5	2.3
8	22	1/2	22 ER 8 ABUT	22 EL 8 ABUT	22 IR 8 ABUT	22 IL 8 ABUT	2.1	3.3
6	22	1/2	22 ER 6 ABUT	22 EL 6 ABUT	22 IR 6 ABUT	22 IL 6 ABUT	2.1	3.4
(1) 4	22U	1/2U	22UER 4 ABUT	22UEL 4 ABUT	22UIR 4 ABUT	22UIL 4 ABUT	2.3	9.5
(3) 5	27	5/8	27 ER 5 ABUT	27 EL 5 ABUT	27 IR 5 ABUT	27 IL 5 ABUT	2.75	4.5
(2) 3	27U	5/8U	27UER 3 ABUT	27UEL 3 ABUT	27UIR 3 ABUT	27UIL 3 ABUT	3.1	11.7

Order example: 16 IL 12 ABUT MXC

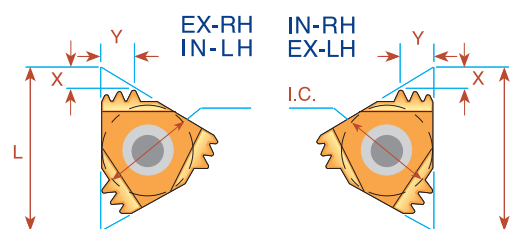
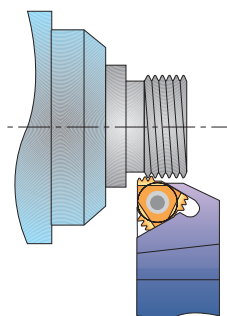
Most applications requires anvil change in toolholder see page A04-7

(1) Requires a special anvil AE 22U-1.5 ABUT4, AI22U-1.5 ABUT4

(2) Requires a special anvil AE 27U-1.5 ABUT3, AI27U-1.5 ABUT3

(3) Requires a special anvil AE 27-1.5 ABUT5, AI27-1.5 ABUT5

Multitooth



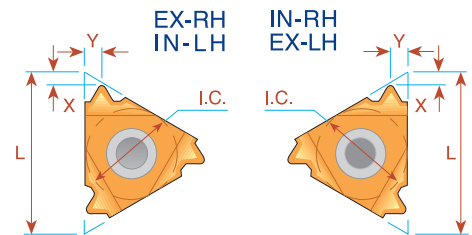
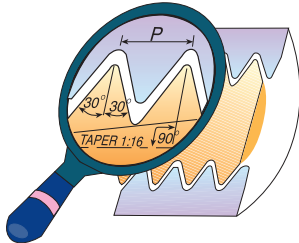
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL	Anvil	INTERNAL	Anvil	X	Y
				Ordering Code		Ordering Code			
12	22	1/2	2	22 ER 12 ABUT 2M	AE22M	22 IR 12 ABUT 2M	AI22M	2.5	4.0

Order example: 22 IR 12 ABUT 2M BMA

For carbide grade and cutting speed see page A04-2 and 3

Threading Tools for the Oil & Gas Industries

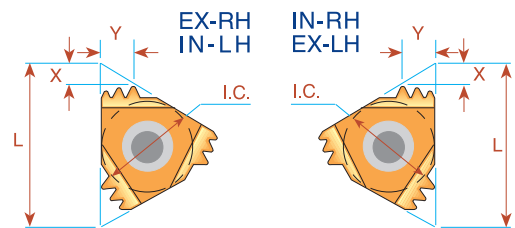
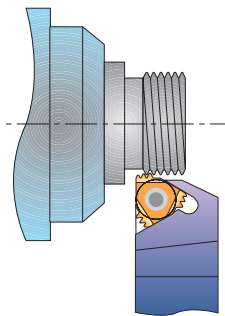
API Round



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y
10	16	3/8	0.75	16 ER 10 API RD	16 IR 10 API RD	1.5	1.4
8	16	3/8	0.75	16 ER 8 API RD	16 IR 8 API RD	1.3	1.6

Order example: 16 ER 10 API RD BMA

Multitooth



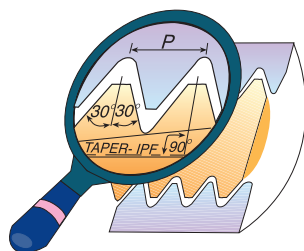
Pitch TPI	L	I.C. in	Number of Teeth	EXTERNAL Ordering Code	Anvil	INTERNAL Ordering Code	Anvil	X	Y
10	22	1/2	2	22 ER 10 API RD 2M	AE22M	22 IR 10 API RD 2M	AI22M	2.4	3.7
10	27	5/8	3	27 ER 10 API RD 3M	AE27M	27 IR 10 API RD 3M	AI27M	3.8	6.2
8	27	5/8	2	27 ER 8 API RD 2M	AE27M	27 IR 8 API RD 2M	AI27M	3.0	4.5

Order example: 27 IR 10 API RD 3M MXC

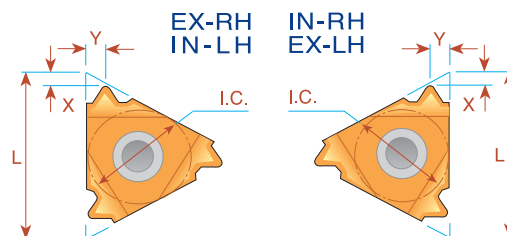
For recommended number of passes see page A04-4

For carbide grade and cutting speed see page A04-2 and 3

OIL Threads



V-0.040



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
5	22	1/2	3	22 ER 5 API 403	22 IR 5 API 403	1.8	2.5	23/8-4 1/2 REG

(1) V-0.038R

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
4	27	5/8	2	27 ER 4 API 382	27 IR 4 API 382	2.1	2.8	NC23-NC50
4	27	5/8	3	27 ER 4 API 383	27 IR 4 API 383	2.1	2.8	NC56-NC77
4	22	1/2	2	22 ER 4 API 382	22 IR 4 API 382	2.0	2.5	NC23-NC50
4	22	1/2	3	22 ER 4 API 383	22 IR 4 API 383	2.0	2.6	NC56-NC77

Order example: 27 ER 4 API 383 MXC

(1) V-0.050

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
4	27	5/8	2	27 ER 4 API 502	27 IR 4 API 502	2.0	3.0	65/8 REG
4	27	5/8	3	27 ER 4 API 503	27 IR 4 API 503	2.0	3.0	5 1/2, 75/8, 85/8 REG
4	22	1/2	2	22 ER 4 API 502	22 IR 4 API 502	1.9	2.7	65/8 REG
4	22	1/2	3	22 ER 4 API 503	22 IR 4 API 503	1.9	2.8	5 1/2, 75/8, 85/8 REG

Order example: 22 ER 4 API 502 BMA

V-0.055

Macaroni Tubing (MT)

American Macaroni Tubing (AMT)

American Mining Macaroni Tubing (AMMT)

Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
6	22	1/2	1.5	22 ER 6 API 551.5	-	2.0	1.7	NC10, NC12, NC13, NC16
6	16	3/8	1.5	-	16 IR 6 API 551.5	2.0	1.7	NC10, NC12, NC13 *
6	22	1/2	1.5	-	22 IR 6 API 551.5	2.0	1.7	NC16 **

* For NC10, NC12 use holder SIR0016P16CB

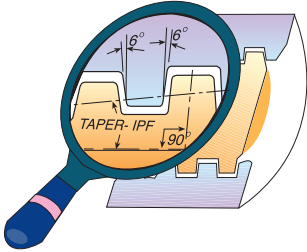
For NC13 use holders SIR0020P16/SIR0020P16B/SIR0020S16CB

** For NC16 use holder SIR0025R22

(1) For V-0.038R, V-0.050 we recommend to use size 27 for more stability.

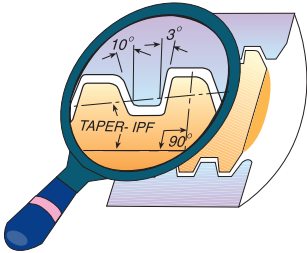
For carbide grade and cutting speed see page A04-2 and 3

OIL Threads Extreme - Line Casing



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
6	22	1/2	1.50	22 ER 6 EL 1.5	22 IR 6 EL 1.5	1.9	1.9	5 - 7 ⁵ / ₈
5	22	1/2	1.25	22 ER 5 EL 1.25	22 IR 5 EL 1.25	2.4	2.3	8 ⁵ / ₈ -10 ³ / ₄

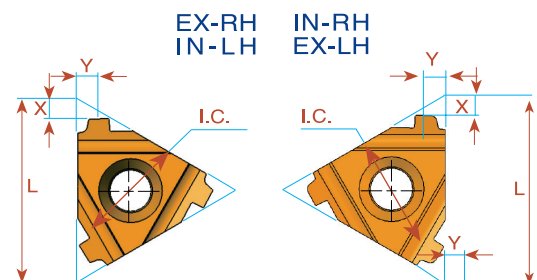
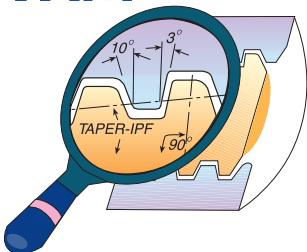
Buttress Casing



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
5	22	1/2	0.75	22 ER 5 BUT 0.75	22 IR 5 BUT 0.75	2.2	2.4	4 ¹ / ₂ - 13 ³ / ₈
5	22	1/2	1.00	22 ER 5 BUT 1.0	22 IR 5 BUT 1.0	2.3	2.4	16 - 20

Order example: 22 ER 5 BUT 0.75 MXC

VAM

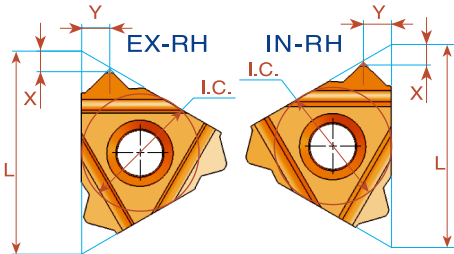
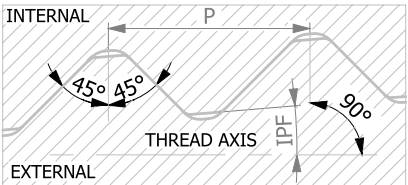


Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code Right Hand	X	Y	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
8	16	3/8	0.75	16 ER 8 VAM	1.7	1.8	16 IR 8 VAM	1.7	1.8	2 ³ / ₈ - 2 ⁷ / ₈
6	22	1/2	0.75	22 ER 6 VAM	2.4	2.4	22 IR 6 VAM	2.5	2.5	3 ¹ / ₂ - 4 ¹ / ₂
5	22	1/2	0.75	22 ER 5 VAM	2.4	2.7	22 IR 5 VAM	2.4	2.5	5 - 13 ³ / ₈

Order example: 16 ER 8 VAM BMA

For carbide grade and cutting speed see page A04-2 and 3

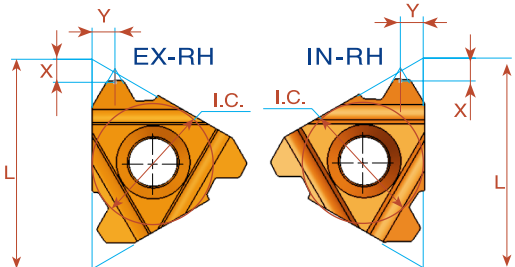
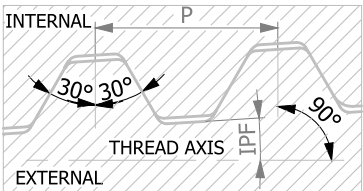
HUGHES



Pitch TPI	L mm	I.C.	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
3.5	27	5/8	2	27 ER 3.5 H-902	27 IR 3.5 H-902	2.8	3.8	31/2 - 65/8
3.5	27	5/8	3	27 ER 3.5 H-903	27 IR 3.5 H-903	2.8	3.8	7 - 85/8
3	27	5/8	1.25	27 ER 3 SLH-90	27 IR 3 SLH-90	3.3	4.6	23/8 - 31/2

Order example: 27 ER 3.5 H-903 BMA

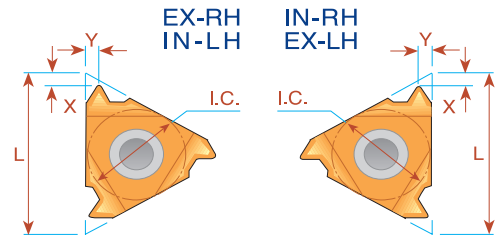
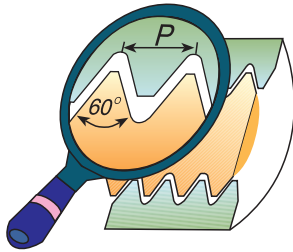
PAC



Pitch TPI	L mm	I.C.	Taper IPF	EXTERNAL Ordering Code Right Hand	INTERNAL Ordering Code Right Hand	X	Y	Connection No. or Size
4	22	1/2	1.5	22 ER 4 PAC	22 IR 4 PAC	2.3	2.3	21/2 - 27/8
4	27	5/8	1.5	27 ER 4 PAC	27 IR 4 PAC	2.3	2.3	21/2 - 27/8

Order example: 22 ER 4 PAC MXC

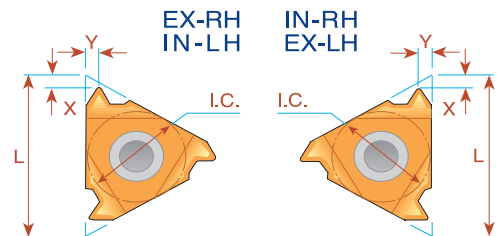
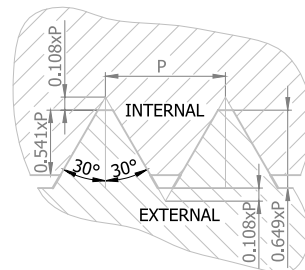
NPS



Pitch TPI	L mm	I.C.	<i>EXTERNAL</i>				<i>INTERNAL</i>				X	Y
			Ordering Code				Ordering Code					
			Right Hand		Left Hand		Right Hand		Left Hand			
18	16	3/8	16 ER 18 NPS	16 EL 18 NPS	16 IR 18 NPS	16 IL 18 NPS	0.8	1				
14	16	3/8	16 ER 14 NPS	16 EL 14 NPS	16 IR 14 NPS	16 IL 14 NPS	1	1.3				
11.5	16	3/8	16 ER 11.5 NPS	16 EL 11.5 NPS	16 IR 11.5 NPS	16 IL 11.5 NPS	1	1.5				
8	16	3/8	16 ER 8 NPS	16 EL 8 NPS	16 IR 8 NPS	16 IL 8 NPS	1.3	1.8				

Order example: 16 ER 18 NPS BMA

NPSM

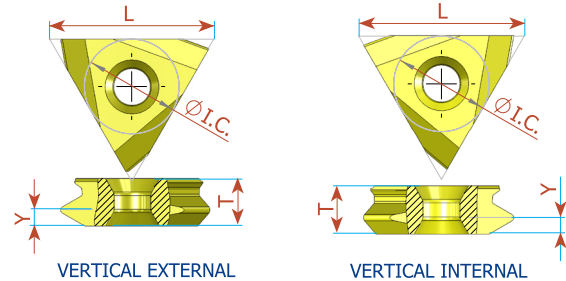
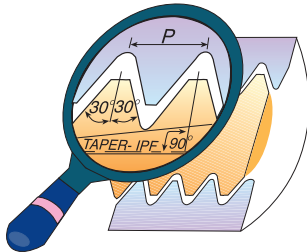


Pitch TPI	L mm	I.C.	EXTERNAL	X	Y	INTERNAL	X	Y
			Ordering Code Right Hand			Ordering Code Right Hand		
18	8	3/16				08 IR 18 NPSM	0.7	0.7
18	11	1/4				11 IR 18 NPSM	0.8	1.0
18	16	3/8	16 ER 18 NPSM	0.8	1.0			
14	16	3/8	16 ER 14 NPSM	1.0	1.2	16 IR 14 NPSM	1.0	1.2
11.5	16	3/8	16 ER 11.5 NPSM	1.2	1.5	16 IR 11.5 NPSM	1.2	1.5
8	16	3/8	16 ER 8 NPSM	1.3	1.6	16 IR 8 NPSM	1.2	1.5

Order example: 16 IR 14 NPSM MXC

For carbide grade and cutting speed see page A04-2 and 3

Vertical API



Thread Form	Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code	Y	T	Connection No. or Size
V-0.040	5	27	5/8	3	TNMB 54 ER 5 API 403	2.5	6.4	23/8-41/2 REG
V-0.038R	4	27	5/8	2	TNMC 55 ER 4 API 382	2.8	7.94	NC23-NC50
V-0.038R	4	27	5/8	3	TNMC 55 ER 4 API 383	2.8	7.94	NC56-NC77
V-0.050	4	27	5/8	2	TNMC 55 ER 4 API 502	3.0	7.94	65/8 REG
V-0.050	4	27	5/8	3	TNMC 55 ER 4 API 503	3.0	7.94	51/2, 75/8, 85/8 REG

Vertical inserts to be used with compatible holders on the market

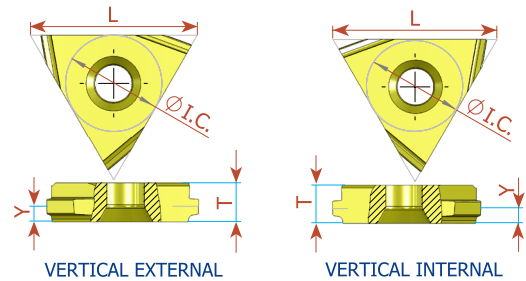
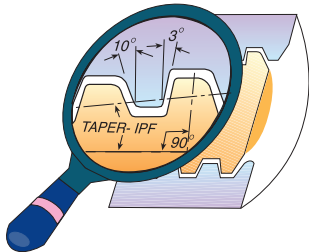
Order example: TNMC 55 ER 4 API 503 BMA

Thread Form	Pitch TPI	L	I.C. in	Taper IPF	INTERNAL Ordering Code	Y	T	Connection No. or Size
V-0.040	5	27	5/8	3	TNMB 54 IR 5 API 403	2.5	6.4	23/8-41/2 REG
V-0.038R	4	27	5/8	2	TNMC 55 IR 4 API 382	2.8	7.94	NC23-NC50
V-0.038R	4	27	5/8	3	TNMC 55 IR 4 API 383	2.8	7.94	NC56-NC77
V-0.050	4	27	5/8	2	TNMC 55 IR 4 API 502	3.0	7.94	65/8 REG
V-0.050	4	27	5/8	3	TNMC 55 IR 4 API 503	3.0	7.94	51/2, 75/8, 85/8 REG

Vertical inserts to be used with compatible holders on the market

Order example: TNMC 55 IR 4 API 502 BMA

Vertical API Buttress Casing



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code	Y	T	Connection No. or Size
5	27	5/8	0.75	TNMB 54 ER 5 BUT 0.75	2.4	6.4	4 1/2 -13 3/8
5	27	5/8	1.00	TNMB 54 ER 5 BUT 1.0	2.4	6.4	16 -20

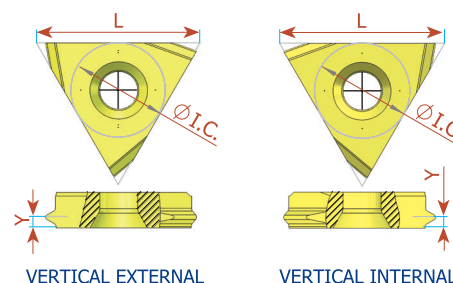
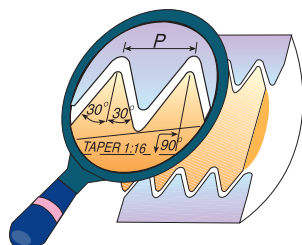
Order example: TNMB 54 ER 5 BUT 1.0 BMA

Pitch TPI	L	I.C. in	Taper IPF	INTERNAL Ordering Code	Y	T	Connection No. or Size
5	27	5/8	0.75	TNMB 54 IR 5 BUT 0.75	2.4	6.4	4 1/2 -13 3/8
5	27	5/8	1.00	TNMB 54 IR 5 BUT 1.0	2.4	6.4	16 -20

Vertical inserts to be used with compatible holders on the market

Order example: TNMB 54 IR 5 BUT 0.75 BMA

Vertical API Round



Pitch TPI	L	I.C. in	Taper IPF	EXTERNAL Ordering Code	Y	T
10	22	1/2	0.75	TNMB 43 ER 10 API RD	1.45	4.76
8	22	1/2	0.75	TNMB 43 ER 8 API RD	1.65	4.76

Order example: TNMB 43 ER 10 API RD BMA

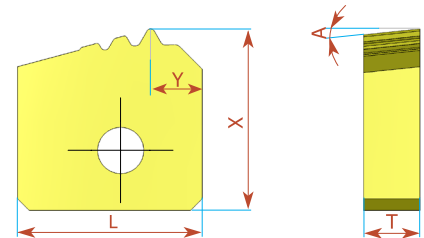
Pitch TPI	L	I.C. in	Taper IPF	INTERNAL Ordering Code	Y	T
10	22	1/2	0.75	TNMB 43 IR 10 API RD	1.45	4.76
8	22	1/2	0.75	TNMB 43 IR 8 API RD	1.65	4.76

Vertical inserts to be used with compatible holders on the market

Order example: TNMB 43 IR 8 API RD BMA

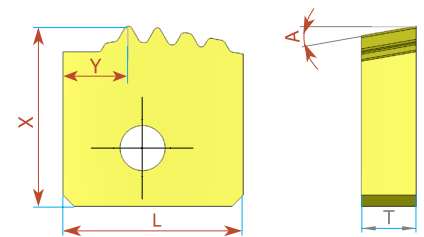
Chasers

API Round



Pitch TPI	L	Taper IPF	EXTERNAL Ordering Code	X	Y	T	A	No. of Teeth
10	15.75	0.75	15.75 ER 10 API RD 3T	15.435	4.4	4.76	6°	3
8	15.75	0.75	15.75 ER 8 API RD 3T	15.84	4.4	4.76	6°	3

Order example: 15.75 ER 10 API RD 3T BMA



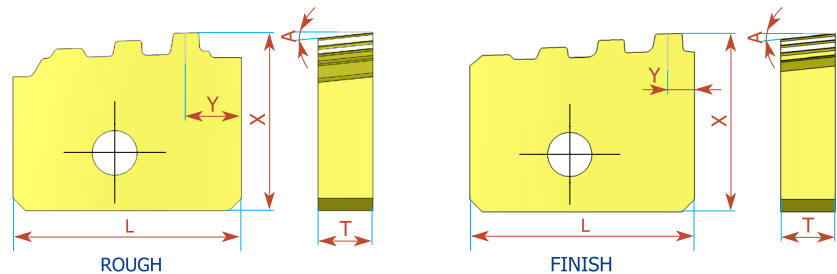
Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
10	15.75	0.75	15.75 IR 10 API RD 4T	15.75	5.7	4.76	10°	4
8	15.875	0.75	15.875 IR 8 API RD 4T	15.75	4.2	4.76	10°	4

Chasers to be used with compatible holders on the market

Order example: 15.75 IR 10 API RD 4T BMA

Chasers

API Buttress Casing



Pitch TPI	L	Taper IPF	EXTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	20	0.75	20 ER 5 BUT 0.75R	15.692	4.84	4.76	6°	3
5	20	0.75	20 ER 5 BUT 0.75F	15.875	2.3	4.76	6°	4

Order example: 20 ER 5 BUT 0.75F BMA

Chasers

OTTM Buttress Casing

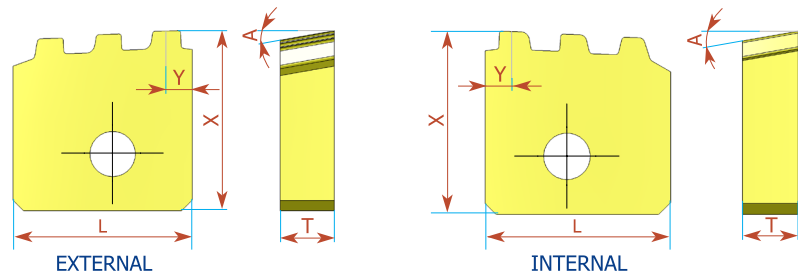
Pitch TPI	L	Taper IPF	EXTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	20	0.75	20 ER 5 OTTM 0.75R	15.692	4.79	4.76	6°	3
5	20	0.75	20 ER 5 OTTM 0.75F	15.909	2.25	4.76	6°	4

Chasers to be used with compatible holders on the market

Order example: 20 ER 5 OTTM 0.75F BMA

Chasers

API Buttress Casing



Pitch TPI	L	Taper IPF	EXTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	15.75	0.75	15.75 ER 5 BUT 0.75 3T	15.875	2.3	4.76	10°	3

Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	15.875	0.75	15.875 IR 5 BUT 0.75 3T	15.75	2.5	4.76	10°	3

Order example: 15.75 ER 5 BUT 0.75 3T BMA

Chasers

OTTM Buttress Casing

Pitch TPI	L	Taper IPF	EXTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	15.75	0.75	15.75 ER 5 OTTM 0.75 3T	15.75	3.0	4.76	6°	3

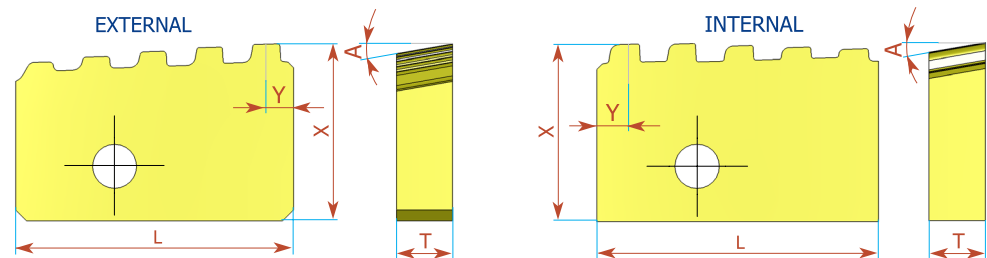
Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	15.875	0.75	15.875 IR 5 OTTM 0.75 3T	15.875	2.5	4.76	10°	3

Chasers to be used with compatible holders on the market

Order example: 15.75 ER 5 OTTM 0.75 3T BMA

Chasers

API Buttress Casing



Pitch TPI	L	Taper IPF	EXTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	25	0.75	25 ER 5 BUT 0.75 5T	15.871	2.5	5	10°	5

Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	25	0.75	25 IR 5 BUT 0.75 5T	15.875	2.5	5	10°	5

Order example: 25 IR 5 BUT 0.75 5T BMA

Chasers

OTTM Buttress Casing

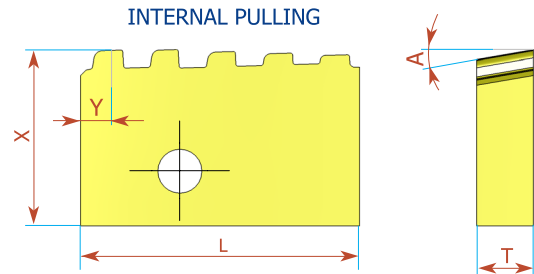
Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	25	0.75	25 IR 5 OTTM 0.75 5T	15.75	2.5	5	10°	5

Chasers to be used with compatible holders on the market

Order example: 25 IR 5 OTTM 0.75 5T BMA

Chasers

API Buttress Casing



Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	25	0.75	25 IRP 5 BUT 0.75 5T	15.75	2.5	5	10°	5

Order example: 25 IRP 5 BUT 0.75 5T BMA

Chasers

OTTM Buttress Casing

Pitch TPI	L	Taper IPF	INTERNAL Ordering Code	X	Y	T	A	No. of Teeth
5	25	0.75	25 IRP 5 OTTM 0.75 5T	15.75	2.5	5	10°	5

Chasers to be used with compatible holders on the market

Order example: 25 IRP 5 OTTM 0.75 5T BMA

Large Profile Inserts and Toolholders

- Wide range of pitches
- Rigid clamping
- Tailor made profiles according to customer's request are possible

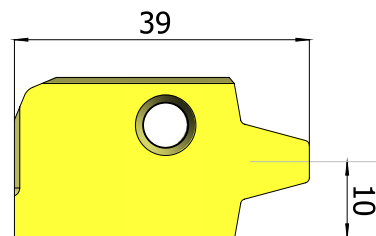
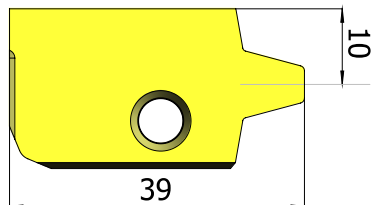


External

Internal

Large Profile Inserts

Trapez - DIN 103

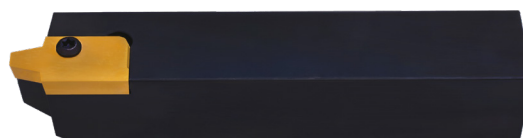
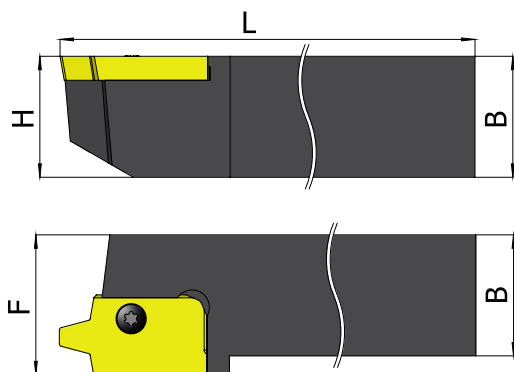


Pitch mm	Ordering Code EX RH	Holder Code	Ordering Code EX LH	Holder Code	Ordering Code IN RH	Holder Code	Ordering Code IN LH	Holder Code
14	40 ER 14 TR	H1	40 EL 14 TR	H2	40 IR 14 TR	H7, 6	40 IL 14 TR	H8, 5
16	40 ER 16 TR		40 EL 16 TR		40 IR 16 TR		40 IL 16 TR	
18	40 ER 18 TR		40 EL 18 TR		40 IR 18 TR		40 IL 18 TR	
20	40 ER 20 TR	H3	40 EL 20 TR	H4	40 IR 20 TR	H9	40 IL 20 TR	H10
22	40 ER 22 TR		40 EL 22 TR		40 IR 22 TR		40 IL 22 TR	
24	40 ER 24 TR		40 EL 24 TR		40 IR 24 TR		40 IL 24 TR	

Carbide grade: BMA or MXC

Order example: 40 ER 18 TR BMA

External Holders



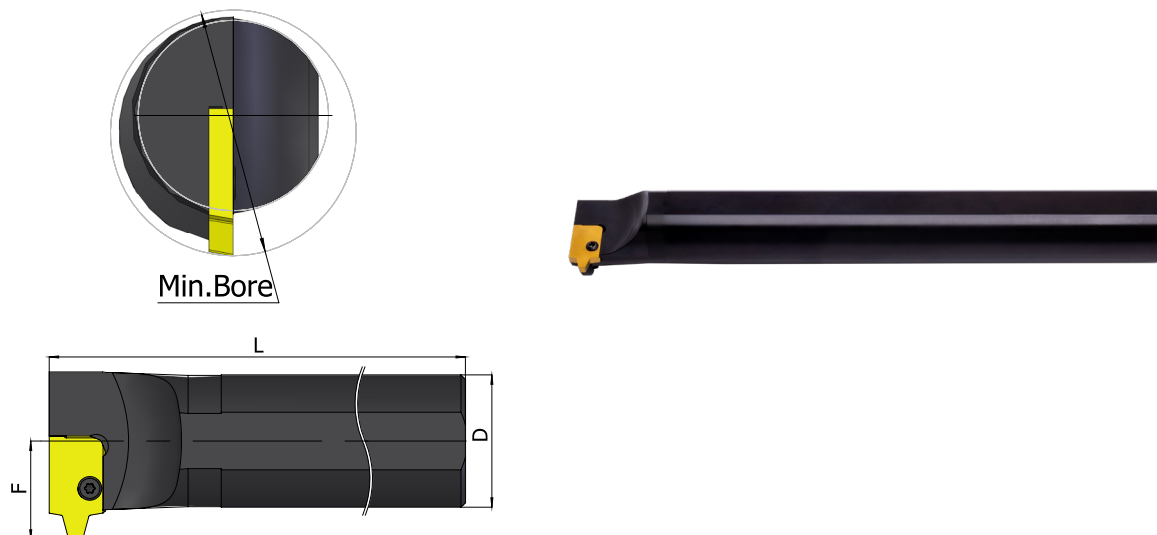
Pitch Range (mm) 14, 16, 18 Ordering Code		B=H	L	F	Insert Screw	Torx Screw	Holder No.
EX-RH	SER 3232 P40	32	170	32	S40	K40	H1
EX-LH	SEL 3232 P40	32	170	32	S40	K40	H2

Pitch Range (mm) 20, 22, 24 Ordering Code		B=H	L	F	Insert Screw	Side Screw	Torx Screw	Holder No.
EX-RH	SER 3232 P40T	32	170	32	S40	A27	K40	H3
EX-LH	SEL 3232 P40T	32	170	32	S40	A27	K40	H4

Pitch Range (mm) 14, 16, 18 Ordering Code		B=H	L	F	Insert Screw	Torx Screw	Holder No.
EX-RH	SER 2525 M40	25	150	32	S40	K40	*H5
EX-LH	SEL 2525 M40	25	150	32	S40	K40	*H6

* H5 and H6 toolholders to be used with toolbar provided by the customer

Internal Holders

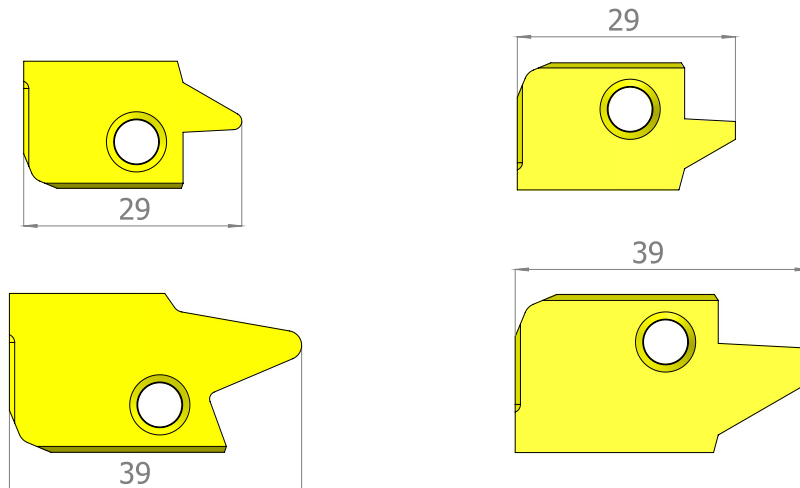


Pitch Range (mm) 14, 16, 18 Ordering Code		D	Min Bore Diam.	L	F	Insert Screw	Torx Screw	Holder No.
IN-RH	SIR 0050 V40	50	70	400	37	S40	K40	H7
IN-LH	SIL 0050 V40	50	70	400	37	S40	K40	H8

Pitch Range (mm) 20, 22, 24 Ordering Code		D	Min Bore Diam.	L	F	Insert Screw	Side Screw	Torx Screw	Holder No.
IN-RH	SIR 0050 V40T	50	70	400	37	S40	A27	K40	H9
IN-LH	SIL 0050 V40T	50	70	400	37	S40	A27	K40	H10

Large Profile Sagengewinde Inserts

DIN 513



Pitch mm	Ordering Code EX RH	Holder Code	Ordering Code IN RH	Holder Code
9	30 ER 9 SAGE	S1, 2	30 IR 9 SAGE	S7
10	40 ER 10 SAGE	S3, 4	40 IR 10 SAGE	S8
12	40 ER 12 SAGE	S3, 4	40 IR 12 SAGE	S9
14	40 ER 14 SAGE	S5	40 IR 14 SAGE	S10
16	40 ER 16 SAGE	S6	40 IR 16 SAGE	S11

Carbide grade: BMA or MXC

Order example: 40 ER 10 SAGE MXC

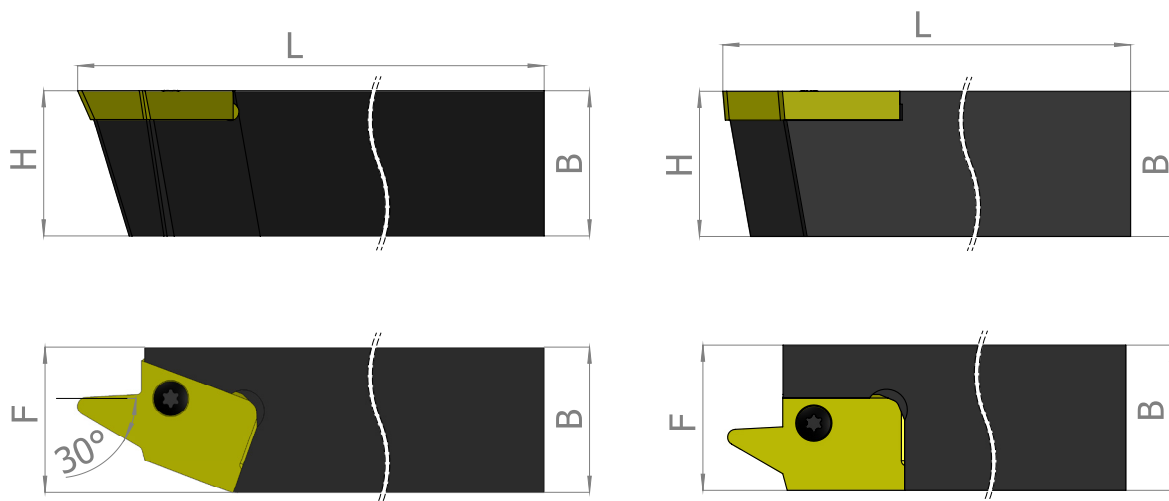
Additional profiles upon request

Round (DIN 20400)

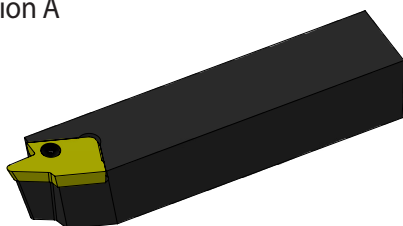
Acme, Stub Acme

American Buttress

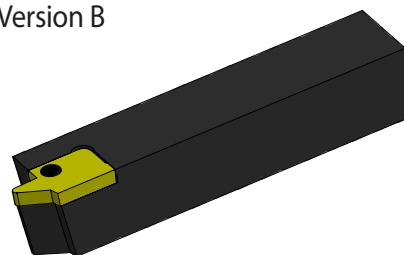
External Holders



Version A



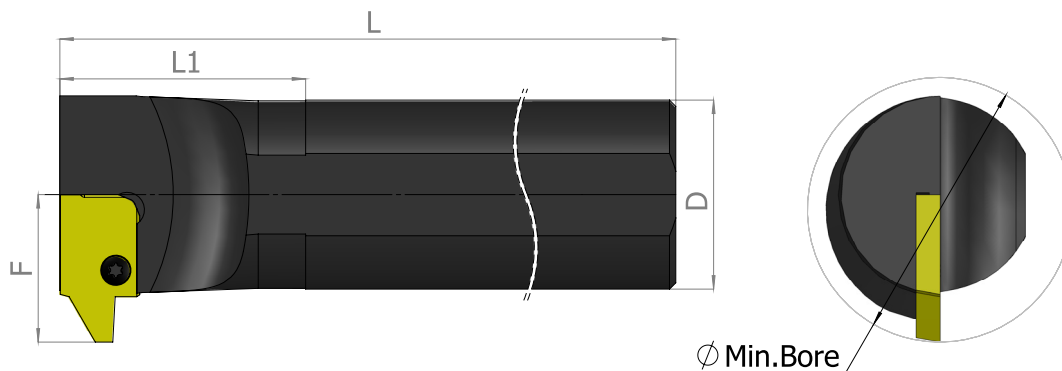
Version B



The flank with the large angle is the leading edge

Ordering Code		B=H	L	F	Insert Screw	Torx Screw	Version	Holder No.
EX-RH	SER 2525 M30	25	150	25	S30	K30	B	S1
	SER 3232 P30	32	170	32	S30	K30	B	S2
	SER 2525 M40T	25	150	32	S40	K40	B	S3
	SER 3232 P40S	32	170	32	S40	K40	B	S4
	SER 3232 P40W	32	170	32	S40	K40	B	S5
	SER 3232 P40Q	32	170	32	S40	K40	A	S6

Internal Holders



Ordering Code		D	Min Bore Diam.	L	L1	F	Insert Screw	Torx Screw	Holder No.
IN-RH	SIR 0032 S30	32	40.0	250	120	24.0	S30	K30	S7
	SIR 0040 T40	40	49.0	300	140	28.0	S40	K40	S8
	SIR 0050 U40	50	65.0	350	-	35.0	S40	K40	S9
	SIR 0060 V40	60	80.0	400	-	41.0	S40	K40	S10
	SIR 0060 V40T	60	80.0	400	-	43.0	S40	K40	S11