

Grooving Tools



A combination of ground profile and sintered chip - breaker

Advantages:

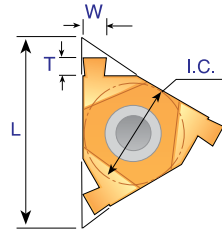
- Same Toolholder for Grooving and Threading
 - Minimum Investment in Tooling
 - Three cutting edges
 - Precision Ground

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Grooving Inserts



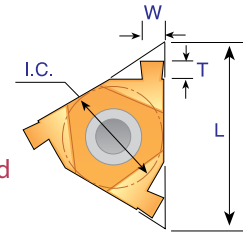
External & Internal

ER / IL

Same insert can be used for EX.RH and for IN.LH.

IR / EL

Same insert can be used for IN.RH and for EX.LH.



W ±.001	T	I.C.	L mm	Ordering Code		Ordering Code	
				ER/IL Inserts	Anvil	IR/EL Inserts	Anvil
.020	.055	1/4	11	11 ER/IL .020	-	11 IR/EL .020	-
.024	.055	1/4	11	11 ER/IL .024	-	11 IR/EL .024	-
.028	.055	1/4	11	11 ER/IL .028	-	11 IR/EL .028	-
.031	.055	1/4	11	11 ER/IL .031	-	11 IR/EL .031	-
.039	.051	1/4	11	11 ER/IL .039	-	11 IR/EL .039	-
.031	.055	3/8	16	16 ER/IL .031	AE 16-0	16 IR/EL .031	AI 16-0
.039	.055	3/8	16	16 ER/IL .039	AE 16-0	16 IR/EL .039	AI 16-0
.047	.063	3/8	16	16 ER/IL .047	AE 16-0	16 IR/EL .047	AI 16-0
.055	.071	3/8	16	16 ER/IL .055	AE 16-0	16 IR/EL .055	AI 16-0
.062	.075	3/8	16	16 ER/IL .062	AE 16-0	16 IR/EL .062	AI 16-0
.067	.079	3/8	16	16 ER/IL .067	AE 16-0	16 IR/EL .067	AI 16-0
.077	.079	3/8	16	16 ER/IL .077	AE 16-0	16 IR/EL .077	AI 16-0
.089	.089	3/8	16	16 ER/IL .089	AE 16-0	16 IR/EL .089	AI 16-0
.094	.089	3/8	16	16 ER/IL .094	AE 16-0	16 IR/EL .094	AI 16-0

Order example: 16 ER/IL .047 BXC

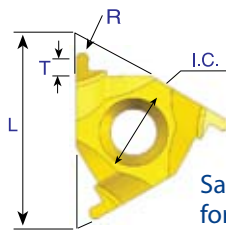
* The inserts should be used with our standard threading toolholders

* The anvil must be changed to AE 16-0 or AI 16-0 before using size 16mm (3/8") inserts

* Other available blank sizes: I.C. 5/8", 1/2", 3/16" & 5/32"

Grooving Inserts for Snap Ring

Carbide Grade: BXC



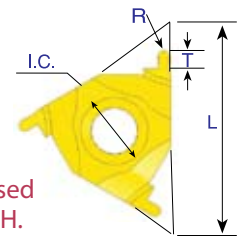
External & Internal Partial Profile Inserts

ER / IL

Same insert can be used for EX.RH and for IN.LH.

IR / EL

Same insert can be used for IN.RH and for EX.LH.



W ±.001	T	I.C.	L mm	Ordering Code		Ordering Code	
				ER/IL Inserts	Anvil	IR/EL Inserts	Anvil
.020	.055	3/8	16	16 ER/IL R0.50	AE 16 - 0	16 IR/EL R0.50	AI 16 - 0
.024	.063	3/8	16	16 ER/IL R0.60	AE 16 - 0	16 IR/EL R0.60	AI 16 - 0
.035	.079	3/8	16	16 ER/IL R0.90	AE 16 - 0	16 IR/EL R0.90	AI 16 - 0
.039	.079	3/8	16	16 ER/IL R1.00	AE 16 - 0	16 IR/EL R1.00	AI 16 - 0
.043	.087	3/8	16	16 ER/IL R1.10	AE 16 - 0	16 IR/EL R1.10	AI 16 - 0
.077	.089	3/8	16	16 ER/IL R1.20	AE 16 - 0	16 IR/EL R1.20	AI 16 - 0

Order example: 16ER/IL R1.20 BXC

* The inserts should be used with our standard threading toolholders

* The anvil must be changed to AE 16-0 or AI 16-0 before using size 16mm (3/8") inserts

* Other available blank sizes: I.C. 5/8", 1/2", 1/4", 3/16" & 5/32"

Grooving Kits



**ER / IL INSERT
KGROI - EXTERNAL**

16	ER / IL	.031	BXC	1 unit
16	ER / IL	.039	BXC	1 unit
16	ER / IL	.047	BXC	1 unit
16	ER / IL	.062	BXC	1 unit
16	ER / IL	.077	BXC	1 unit
16	ER / IL	.094	BXC	1 unit
ANVIL AE 16 - 0				1 unit

**IR / EL INSERT
KGROI - INTERNAL**

16	IR / EL	.031	BXC	1 unit
16	IR / EL	.039	BXC	1 unit
16	IR / EL	.047	BXC	1 unit
16	IR / EL	.062	BXC	1 unit
16	IR / EL	.077	BXC	1 unit
16	IR / EL	.094	BXC	1 unit
ANVIL AI 16 - 0				1 unit

Technical Section

Cutting Speeds for Grooving Tools

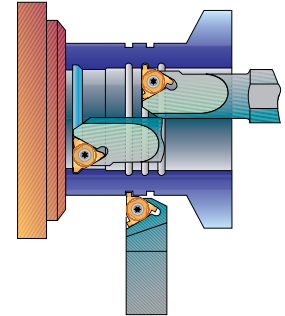
Carbide Grades:

BXC (P30 - P50, K25 - K40)

PVD TiN coated grade for low cutting speed. Works well with a wide range of stainless steels.

BMA (P20 - P40, K20 - K30)

PVD TiAlN coated sub-micrograin grade for stainless steels and exotic materials at medium to high cutting speeds.



ISO Standard	Materials	Cutting Speed ft/min
P	Low & Medium Carbon Steel	65-330
	High Carbon Steel	100-260
	Alloy Steels and Treated Steels	130-300
M	Stainless Steels	100-260
	Cast Steels	100-300
K	Cast Iron	100-300
N	Non-Ferrous & Aluminum	65-660

For grooving small bores see pages 191-196

