NEW

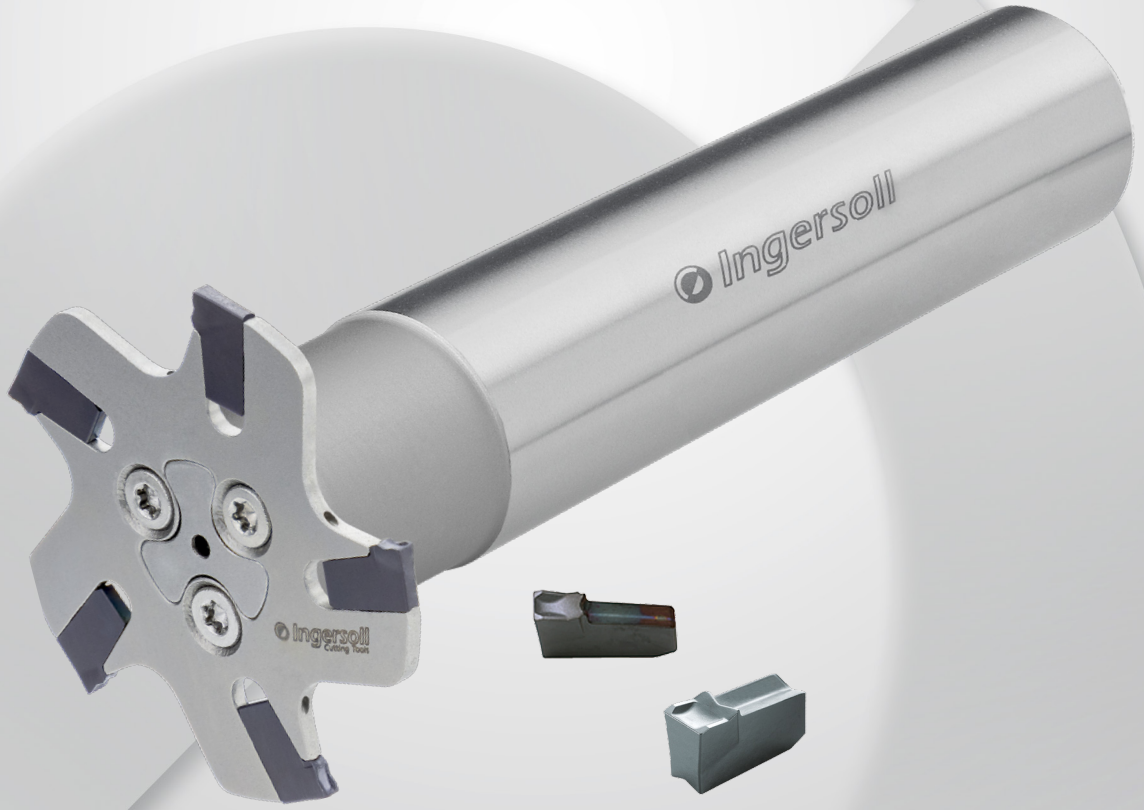
Member IMC Group
Ingersoll
Cutting Tools

WINSFEED

TCLAMP
TRILINK
SLOTTING CUTTERS

SLOTTING CUTTERS WITH NEW TRILINK CONNECTION

- *Ø40, Ø50 and Ø63 are now standard*
- *Precisely directed internal coolant supply*
- *Designed with flat front and free of interfering contours*
- *Modular system*



No.230 E / 5-2024 - V.2

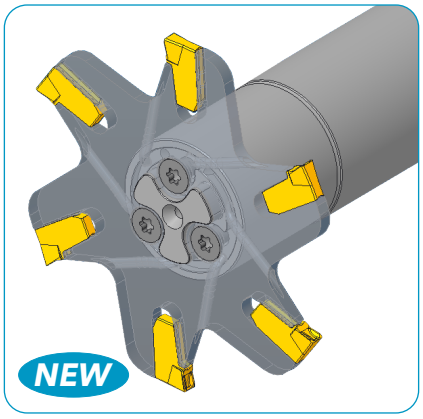
Product Overview

Our **T-Clamp** slotting cutters that have proven themselves since many years, have been given a comprehensive expansion of the application range with the introduction of the new, patented **TriLink** connection.

With Ø40, Ø50 and Ø63, three smaller diameters are included in standard range, each with the familiar cutting widths of 1.6 to 5.1 mm.

The new product line is particularly characterized by the internal coolant supply and the flexible, modular design.

The **TriLink** adaption with cylindrical shank or **TopOn** connection makes exchanging the slotting cutters - if necessary - very easy.



Technical Features & Advantage

Unique features of the new **TriLink** line are the targeted internal coolant supply and the design with flat front side and no interfering contours.

Thanks to the modular design, standard holders with a cylindrical shaft and those with a **TopOn** connection can be used flexibly.

Overall, the slotting cutters run much more reliably than conventional counterparts, produce better surfaces and can also be operated at higher cutting speeds thanks to better cooling - which significantly increases the cost-effectiveness of the process.

The advantages in terms of quality, tool life and costs are definitely worth the small additional cost for the additively manufactured holder.

- **Ø40, Ø50 and Ø63 are now standard**
- **Precisley directed internal coolant supply**
- **Designed with flat front and free of interfering contours**
- **Modular design for flexible use of the different adaptions**

Recommended Cutting Data

TCLAMP TIMC

Insert:	TIMC			
Cutting width:	1,6	2	3	4
Average chip thickness:	hm = 0,050 mm	hm = 0,055 mm	hm = 0,065 mm	hm = 0,075 mm

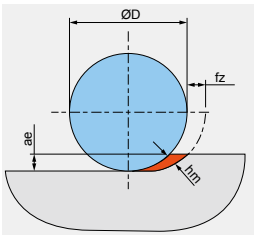
Recommended Cutting Data:

ISO	Material	Cutting speed Vc [m/min]				Feed per tooth fz [mm]
		1st choice dry machining resp. wear resistant carbide		1st choice wet machining resp. tough carbide		
P	unalloyed steel	IN2005	90 – 230	IN2005	80 – 210	–
P	alloyed steel 800 N/mm²	IN2005	100 – 180	IN2005	90 – 160	–
P	alloyed steel 1100 N/mm²	IN2005	70 – 110	IN2005	60 – 90	–
M	stainless steel	IN2005	70 – 150	IN2005	60 – 130	–
K	gray cast iron	IN2005	110 – 140	IN2005	90 – 120	–
K	nodular cast iron	IN2005	55 – 110	IN2005	45 – 90	–
N	aluminum	IN2005	250	IN2005	250	–
S	high temperature alloys	IN2005	20 – 40	IN2005	20 – 40	–
S	titanium alloys	IN2005	30 – 60	IN2005	30 – 60	–
H	hard machining < 54 HRC	–	–	–	–	–
H	hard machining < 63 HRC	–	–	–	–	–

Tips:

- Please ensure to use these tools only up to a max. cutting speed Vc = 250 m/min..
- The worse the material machinability, the smaller the tool engagement should be chosen.
- The smaller the cutting tool diameter, the higher the cutting speed can be.
- If tool engagement is less than 1/3 of cutting tool diameter, the feed per tooth should be calculated with the following formula:

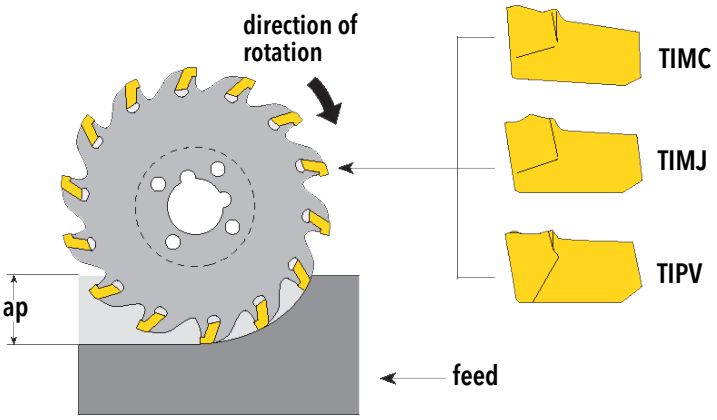
$$fz = hm \times \sqrt{\frac{D}{ae}}$$



Further Optional Insert Geometries

T-Clamp offers a wide portfolio of existing insert geometries.

Even full radii can be offered as an option.

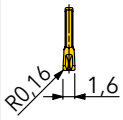


TCLAMP SLOTTING CUTTER TSC...PA

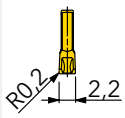
MODULAR TRILINK ADAPTION

Designation	D	LT	b	MOD	n max.	Z	insert-S	IK	kg	inserts
TSC 40 1.6 PAR00	40	1,4	1,6	TRI	1990	5	1	✓	0,01	A
TSC 40 2.4 PAR00	40	1,9	2,2	TRI	1990	5	2	✓	0,01	BC
TSC 50 1.6 PAR00	50	1,4	1,6	TRI	1590	6	1	✓	0,02	A
TSC 50 2.4 PAR00	50	1,9	2,2	TRI	1590	6	2	✓	0,03	BC
TSC 50 3 PAR00	50	2,4	3,1	TRI	1590	5	4	✓	0,03	DE
TSC 63 1.6 PAR00	63	1,4	1,6	TRI	1260	7	1	✓	0,03	A
TSC 63 2.4 PAR00	63	1,9	2,2	TRI	1260	7	2	✓	0,03	BC
TSC 63 3 PAR00	63	2,4	3,1	TRI	1260	6	4	✓	0,04	DE

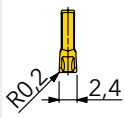
A TIMC 1.6



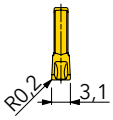
B TIMC 2



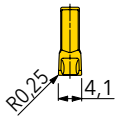
C TIMC 2.4



D TIMC 3



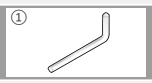
E TIMC 4



Designation	fz(min/max)	Design	Grade TT9030
TIMC 1.6	0,04/0,12	positive geometry R0,16	
TIMC 2	0,05/0,13	positive geometry R0,2	
TIMC 2.4	0,05/0,15	positive geometry R0,2	
TIMC 3	0,06/0,18	positive geometry R0,2	
TIMC 4	0,08/0,20	positive geometry R0,25	

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS



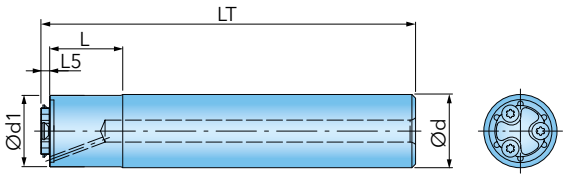
Cutting width	
1,6 - 2,2	ESG 0.5
3,1	ESG 1

① = ejector

TRILINK ADAPTION WITH CYLINDRICAL SHAFT

cylindrical shaft

TriLink



Designation	MOD1	d	d1	LT	L	L5	IK	kg
S20PA14SA100	TRI	20	19,5	101,4	20	1,4	✓	0,22
S20PA19SA100	TRI	20	19,5	101,9	20	1,9	✓	0,22
S20PA24SA100	TRI	20	19,5	102,4	20	2,4	✓	0,22

The suitable adaption can be found by "LT" dimension of the cutter to be mounted. This must correspond to dimension "L5" of the adaption.

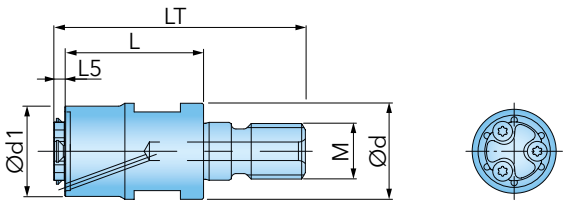
SPARE PARTS	①
	ISO 14581 M2,5X8-V2A SENK

① = Clamp screw - TriLink

TRILINK ADAPTION WITH TOPON CONNECTION

screw-in type connection

TriLink



Designation	MOD1	d	d1	LT	L	L5	M	IK	kg
MOD12PA14SA030	TRI	21	19,5	53,4	30	1,4	M12	✓	0,09
MOD12PA19SA030	TRI	21	19,5	53,9	30	1,9	M12	✓	0,09
MOD12PA24SA030	TRI	21	19,5	54,4	30	2,4	M12	✓	0,09

The suitable adaption can be found by "LT" dimension of the cutter to be mounted. This must correspond to dimension "L5" of the adaption.

SPARE PARTS	①
	ISO 14581 M2,5X8-V2A SENK

① = Clamp screw - TriLink

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