

NPA

New Product Announcement

MILLING

07-2024

MARCH 2024

METRIC



Added Variety



Indexable Inserts



High Productivity



T-SLOT

Expanded Range of T-SLOT Milling Heads



Added Variety



Indexable Inserts

High Productivity
Inserts

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T-SLOT

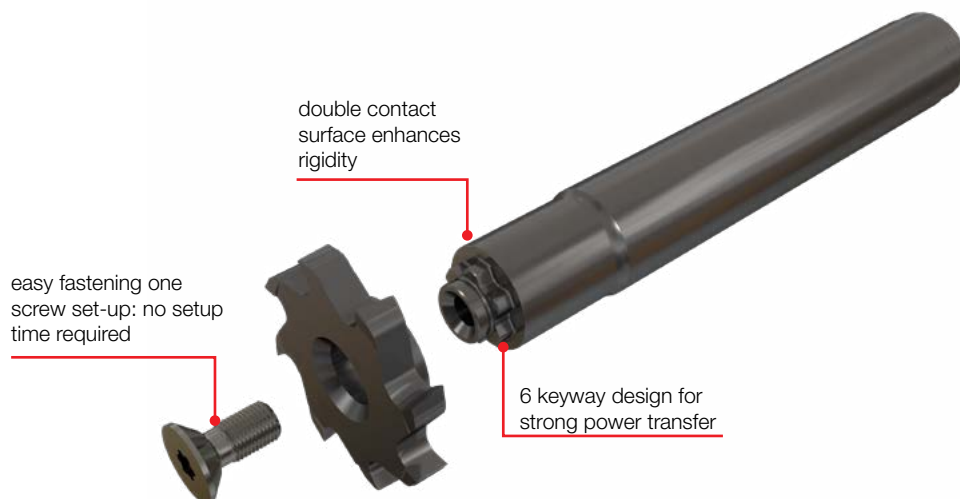
Highlights

New T-SLOT SD-SP Slot Milling Cutters

ISCAR is expanding the T-SLOT family of slot milling cutters with a new diameter of 25 mm for interchangeable solid carbide heads. These new heads reduce the lower limit of the T-SLOT head diameter range and have been designed to accommodate an extended width range, making them highly productive for narrow slot grooves on various workpiece materials.

Features

The new slot milling heads feature a diameter of 25 mm and have 6 effective teeth, allowing for a width range from 1 mm up to 8 mm. They are available in SP13 connection size. The solid heads are securely fastened to existing shanks using a central screw and 6 keyways, ensuring strong and precise power transfer. This design minimizes setup time by simplifying head exchange.



The introduction of the new interchangeable heads expands the application range of the T-SLOT milling family, with a particular emphasis on the miniature industry. By introducing these new heads, T-SLOT tools can now be applied to machining inner surfaces, such as holes, pockets, and cavities, with smaller dimensions compared to the existing dimensional limitations. These new T-SLOT heads decrease the head diameter and increase the range of application

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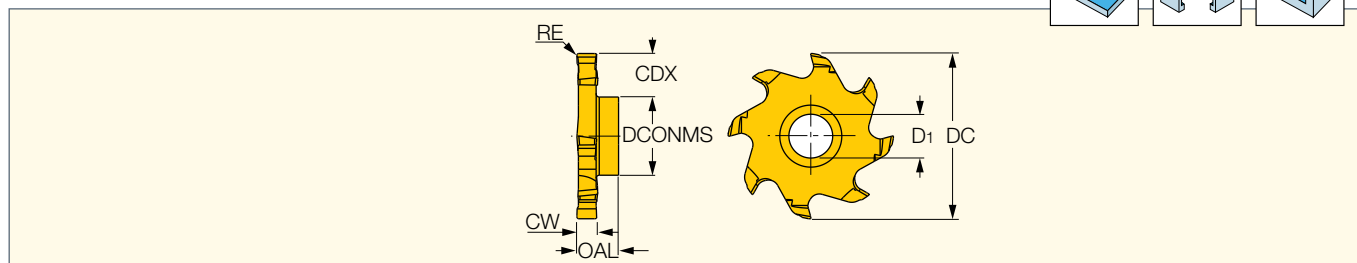
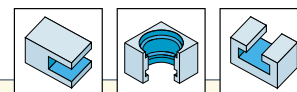
New Product Announcement

T-SLOT

SD-SP

Interchangeable Solid Carbide T-Slot Milling Heads

<https://www.iscar.com/eCatalog/Family.aspx?fnum=3328&mapp=ML&GFSTYP=M&srch=1>



Designation	Dimensions								IC908
	DC	CW	CDX ⁽²⁾	NOF ⁽³⁾	RE	D1	DCONMS	OAL	
SD D25-1.0-R0.2-SP13	24.70	1.00	5.50	6	0.20	7.50	13.00	7.15	●
SD D25-2.0-R0.2-SP13	24.70	2.00	5.50	6	0.20	7.50	13.00	7.30	●
SD D25-3.0-R0.4-SP13	24.70	3.00	5.50	6	0.40	7.50	13.00	7.30	●
SD D25-3.5-R0.4-SP13	24.70	3.50	5.50	6	0.40	7.50	13.00	7.30	●
SD D25-4.0-R0.4-SP13	24.70	4.00	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-4.5-R0.4-SP13	24.70	4.50	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-5.0-R0.4-SP13	24.70	5.00	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-5.5-R0.4-SP13	24.70	5.50	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-6.0-R0.4-SP13	24.70	6.00	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-6.5-R0.4-SP13	24.70	6.50	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-7.0-R0.4-SP13	24.70	7.00	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-7.5-R0.4-SP13	24.70	7.50	5.50	6	0.40	7.50	13.00	8.30	●
SD D25-8.0-R0.4-SP13	24.70	8.00	5.50	6	0.40	7.50	13.00	8.30	●

⁽¹⁾ Maximum feed: 0.1 mm/tooth

⁽²⁾ Cutting depth maximum

⁽³⁾ Number of flutes

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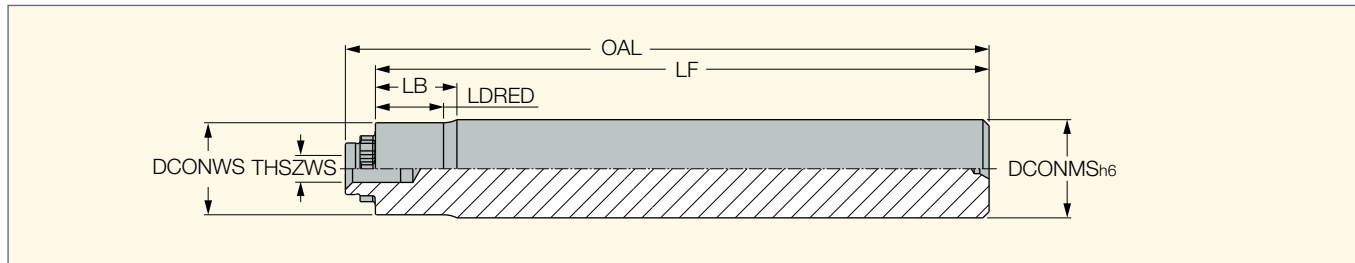
METRIC

T-SLOT

SD S-A-SP

Stepped Cylindrical Shanks for Interchangeable Solid Carbide Milling Heads




<https://www.iscar.com/eCatalog/Family.aspx?fnum=3330&mapp=ML&GFSTYP=M&srch=1>



Designation	DCONMS	DCONWS	THSZWS	LDRED	LB	LF	OAL	Shank m. ⁽¹⁾	
SD S-A-L100-C16 SP13	16.00	13.00	M4x0.5	13.00	16.6	100.00	104.00	S	0.15

- Apply lubricant to the clamping screw
- ⁽¹⁾ S-steel C-solid carbide

Spare Parts

Designation			
	Screw	Torx Blade	T-Handle
SD S-A-L100-C16 SP13	SR M4X0.5-SP13-IP15-HG	BLD IP15/S7	SW6-T-SH

* Optional, to be ordered separately

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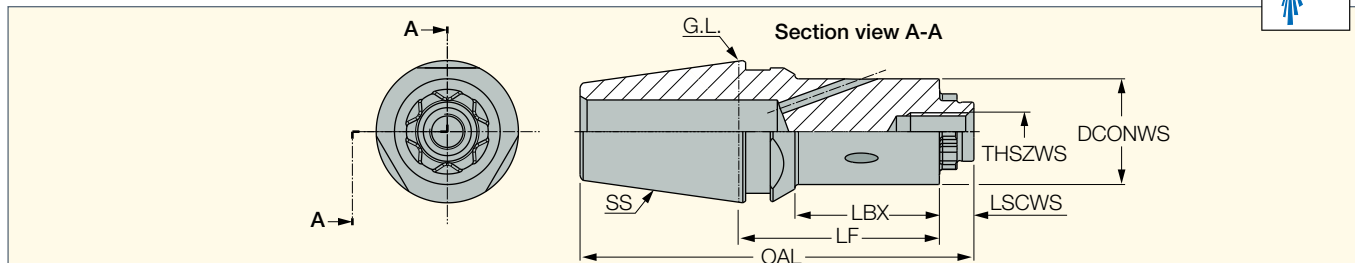
METRIC

T-SLOT

SD-S-A-ER-SP

Solid ER Collets with SD Spline Connection (SP)

<https://www.iscar.com/eCatalog/Family.aspx?fnum=4633&mapp=IT&GFSTYP=M&srch=1>



Designation	SS	LBX ⁽¹⁾	LF	DCONWS	THSZWS	LSCWS	OAL	kg
SD-S-A-H05-ER20-SP13-C	ER20	5.00	13.60	13.00	M4X0.5	4.35	40.35	0.05
SD-S-A-H20-ER20-SP13-C	ER20	20.00	28.60	13.00	M4X0.5	4.35	55.35	0.07
SD-S-A-H05-ER25-SP13-C	ER25	5.00	14.10	13.00	M4X0.5	4.35	43.35	0.09
SD-S-A-H20-ER25-SP13-C	ER25	20.00	29.10	13.00	M4X0.5	4.35	58.35	0.10
SD-S-A-H05-ER32-SP13-C	ER32	5.00	15.10	13.00	M4X0.5	4.35	49.35	0.14
SD-S-A-H20-ER32-SP13-C	ER32	20.00	30.10	13.00	M4X0.5	4.35	64.35	0.16

⁽¹⁾ After the nut is mounted

Spare Parts

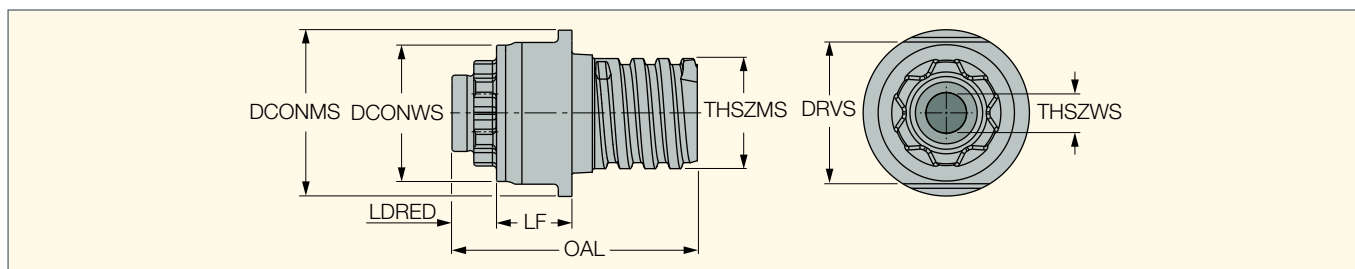
Designation	Screw	T-Handle	Torx Blade
SD-S-A-H05-ER20-SP13-C	SR M4X0.5-SP13-IP15-HG	SW6-T-SH	BLD IP15/S7
SD-S-A-H20-ER20-SP13-C	SR M4X0.5-SP13-IP15-HG	SW6-T-SH	BLD IP15/S7
SD-S-A-H05-ER25-SP13-C	SR M4X0.5-SP13-IP15-HG	SW6-T-SH	BLD IP15/S7
SD-S-A-H20-ER25-SP13-C	SR M4X0.5-SP13-IP15-HG	SW6-T-SH	BLD IP15/S7
SD-S-A-H05-ER32-SP13-C	SR M4X0.5-SP13-IP15-HG	SW6-T-SH	BLD IP15/S7
SD-S-A-H20-ER32-SP13-C	SR M4X0.5-SP13-IP15-HG	SW6-T-SH	BLD IP15/S7

^(a) Recommended tightening torque:10.0 N*m

SD CAB

Adapters for Connecting SD Solid Carbide T-Slot Milling Heads and MULTI-MASTER Shanks

<https://www.iscar.com/eCatalog/Family.aspx?fnum=3489&mapp=ML&GFSTYP=M&srch=1>



Designation	THSZWS	THSZMS	LF	LDRED	OAL	DCONWS	DCONMS	DRVS ⁽¹⁾	kg
SD CAB T12-14/0.55-SP13	M4x0.5	T12	14.00	4.3	31.65	13.00	18.30	16.0	0.04

• Note: Apply lubricant to the MULTI-MASTER threaded connection and to the slotting head clamping screw

⁽¹⁾ Clamping wrench size

Spare Parts

Designation	Screw	Torx Blade	T-Handle	Wrench
SD CAB T12-14/0.55-SP13	SR M4X0.5-SP13-IP15-HG	BLD IP15/S7	SW6-T-SH	MM KEY 16X9*

* Optional, to be ordered separately

^(a) Recommended tightening torque:10.0 N*m

T-SLOT

Cutting Data for SD-SP Milling Heads

ISO class DIN/ ISO 513	Description	ISCAR mat. group*	Workpiece Material			Cutting Speed V _c m/min	Feed for SP11	Feed for SP13	Feed for SP15	Feed for SP17	Feed for SP19
			Typical Representative		Hardness HB		f _z	f _z	f _z	f _z	f _z
			AISI/SAE/ ASTM	DIN W.-Nr.			mm/tooth	mm/tooth	mm/tooth	mm/tooth	mm/tooth
P	Non-alloy steel	1	1020	1.0402	130-180	130-200	0.06-0.12	0.06-0.12	0.07-0.15	0.07-0.15	0.07-0.15
	Low alloy steel	8	4340	1.6511	260-300	120-170	0.06-0.12	0.06-0.12	0.07-0.15	0.07-0.15	0.07-0.15
	Low alloy steel	9	3135	1.5710	HRC 35-40*	80-120	0.02-0.06	0.02-0.06	0.03-0.12	0.04-0.12	0.04-0.13
	High alloy steel	10	H13	1.2344	200-220	100-140	0.04-0.07	0.04-0.07	0.04-0.12	0.04-0.12	0.05-0.13
	Martensitic s.s.	12	420	1.4021	200	100-140	0.03-0.06	0.03-0.06	0.04-0.12	0.04-0.12	0.04-0.13
M	Austenitic s.s.	14	304L	1.4306	200	80-120	0.02-0.06	0.02-0.06	0.03-0.10	0.03-0.12	0.03-0.12
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	160-200	0.05-0.12	0.05-0.12	0.05-0.20	0.06-0.20	0.06-0.20
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200	140-180	0.05-0.11	0.05-0.11	0.05-0.18	0.06-0.18	0.06-0.20
S	High temperature alloys	34	Inconel 718	2.4668	HRC 36-40	20-30	0.02-0.12	0.02-0.12	0.02-0.12	0.02-0.12	0.02-0.13
		37	AMS R56400	3.7165 (Ti6Al4V)	HRC 40-45	35-45	0.02-0.06	0.02-0.06	0.02-0.12	0.02-0.12	0.02-0.13

* ISCAR material group in accordance with VDI 3323 standard

** Quenched and tempered

When machining in unstable conditions, the table values should be reduced by 20-30%.