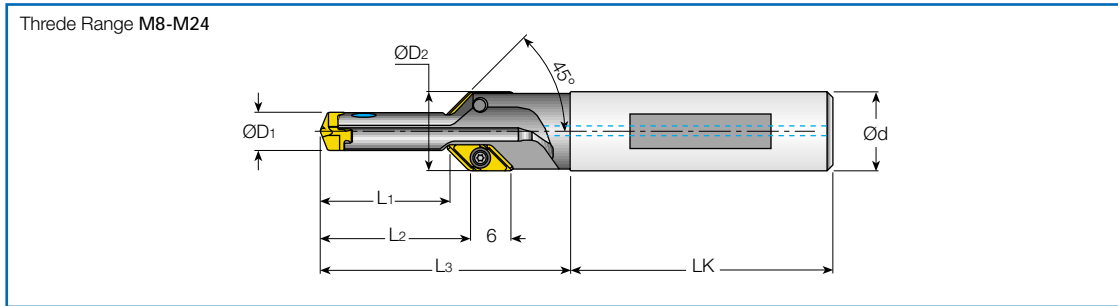


Drills for Prethread Holes



DCM

ISO Thread	Nominal Dia. ØD1	Designation	IDI Dia. Range	L1	L2	L3	LK	ØD2	d	IDI Key	Chamferig Inserts
M8	6.8	DCT 068-021-14B-M8	6.80-7.49	21	24.7	41.9	45	13.9	14	K	DCM-8
M10	8.5	DCT 085-026-14B-M10	8.30-8.99	26	28.9	46.5	45	14.0	14	K	DCM-8
M12	10.2	DCT 102-030-14B-M12	10.0-10.99	30	32.1	52.0	45	14.0	14	K	DCM-10
M14	12.0	DCT 120-035-16B-M14	12.0-12.99	35	37.2	58.0	48	16.0	16	K	DCM-12
M16	14.0	DCT 140-039-18B-M16	14.0-14.99	39	41.2	60.0	48	18.0	18	K	DCM-14
M20	17.5	DCT 175-042-20B-M20	17.3-17.99	42	43.4	63.0	50	21.0	20	K	DCM-17
M24	21.0	DCT 210-048-25B-M24	21.0-21.99	48	50.2	69.0	56	25.5	25	K	DCM-21

AOMT

Chamfering Insert screw: SR 34-508.

Chamfering insert screw key: TORX T-7/51.

Metric Threads

Drill Designation	Drilling Diameter Range	M Thread	Drilling Head Diameter	MF Thread	Drilling Head Diameter	TR Thread	Drilling Head Diameter	M Helicoil Thread	Drilling Head Diameter
DCT 068-021-14B-M8	6.80-7.49	M8	6.8	MF8X0.75	7.2	TR10X3	7.49		
				MF8X1	7.0				
DCT 085-026-14B-M10	8.30-8.99	M10	8.5	MF10X1	8.99	TR10X1.5	8.6	M8	8.4
				MF10X1.25	8.80				
DCT 102-030-14B-M12	10.0-10.99	M12	10.2	MF11X1	10.0	TR12X2	10.2	M10	10.5
				MF12X1	10.99	TR14X4	10.5		
				MF12X1.25	10.8				
				MF12X1.5	10.5				
DCT 120-035-16B-M14	12.0-12.99	M14	12.0	MF13X1	12.0	TR14X2	12.2	M12	12.5
				MF14X1	12.99	TR16X4	12.3		
				MF14X1.25	12.80				
				MF14X1.5	12.50				
DCT 140-039-18B-M16	14.0-14.99	M16	14.0	MF14X1	14.0	TR18X4	14.3	M14	14.99
				MF16X1	14.99				
				MF16X1.5	14.50				
DCT 175-042-20B-M20	17.3-17.99	M20	17.5			TR22X5	17.3		
				MF20X2	17.99				
DCT 210-048-25B-M24	21.0-21.99	M24	21.0	MF22X1	21.0				

Inch Threads

Drill Designation	Drilling Diameter Range	UNF Thread	Drilling Head Diameter	UNC Thread	Drilling Head Diameter	UNC Helicoil Thread	Drilling Head Diameter
DCT 085-026-14B-M10	8.30-8.99	UNF3/8-24	8.5			UNC5/16-18	8.4
DCT 102-030-14B-M12	10.0-10.99			UNC1/2-13	10.8		
DCT 120-035-16B-M14	12.0-12.99			UNC9/16-12	12.3		
DCT 140-039-18B-M16	14.0-14.99	UNF5/8-18	14.5				
DCT 175-042-20B-M20	17.3-17.99	UNF3/4-16	17.5				

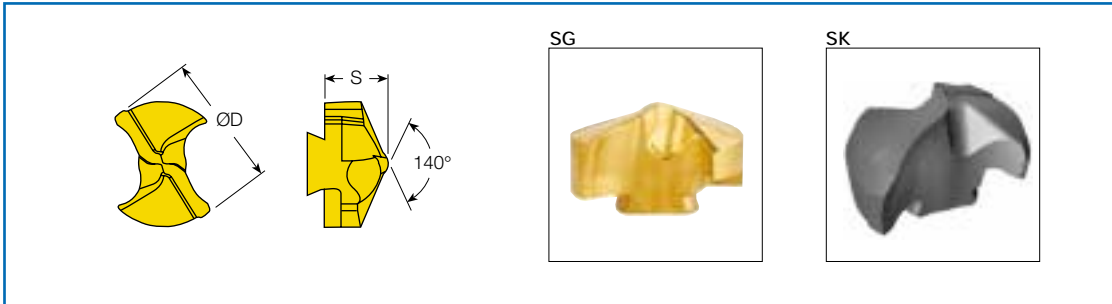
Drill Designation	Drilling Diameter Range	BSW Thread	Drilling Head Diameter	BSF Thread	Drilling Head Diameter
DCT 102-030-14B-M12	10.0-10.99	BSW1/2-12	10.5	BSF1/2-16	10.99
DCT 120-035-16B-M14	12.0-12.99			BSF9/16-16	12.5

Inch Threads

Drill Designation	Drilling Diameter Range	BSP Thread	Drilling Head Diameter	UNEF Thread	Drilling Head Diameter	UNJF Helicoil Thread	Drilling Head Diameter
DCT 085-026-14B-M10	8.30-8.99	G1/8-28	8.8	UNEF3/8-32	8.7	UNJF3/8-24	8.6
DCT 140-039-18B-M16	14.0-14.99			UNEF5/8-24	14.8	UNJF5/8-18	14.5
DCT 175-042-20B-M20	17.3-17.99			UNEF3/4-20	17.8		

Drill Designation	Drilling Diameter Range	NPT Thread	Drilling Head Diameter	BSF Thread	Drilling Head Diameter
DCT 085-026-14B-M10	8.30-8.99	NPT1/8-27	8.5		
DCT 102-030-14B-M12	10.0-10.99			BSF1/2-16	10.99
DCT 120-035-16B-M14	12.0-12.99			BSF9/16-16	12.5
DCT 140-039-18B-M16	14.0-14.99	NPT3/8-18	14.5		
DCT 175-042-20B-M20	17.3-17.99	NPT1/2-14	17.8		

Drilling Heads for DCM Drills



SOMT 16

Designation	D Range ⁽¹⁾	s	IC528	IC908
IDI _{####} -Sg IDI _{####} - SK ⁽²⁾	6.8	4.1		●
	7.5-7.9	4.1		●
	8.0-8.9	4.1		●
	9.0-9.9	4.3		●
	10.0-10.9	5.3		●
	11.0-11.9	5.5		●
	12.0-12.9	5.8	●	●
	13.0-13.9	6.0	●	●
	14.0-14.9	6.8	●	●
	15.0-15.9	7.4	●	●
	16.0-16.9	7.4	●	●
	17.0-17.9	7.9		●
	18.0-18.9	8.3		●
	19.0-19.9	8.5		●
	20.0-20.9	9.1		●
		21.0-21.9	9.3	

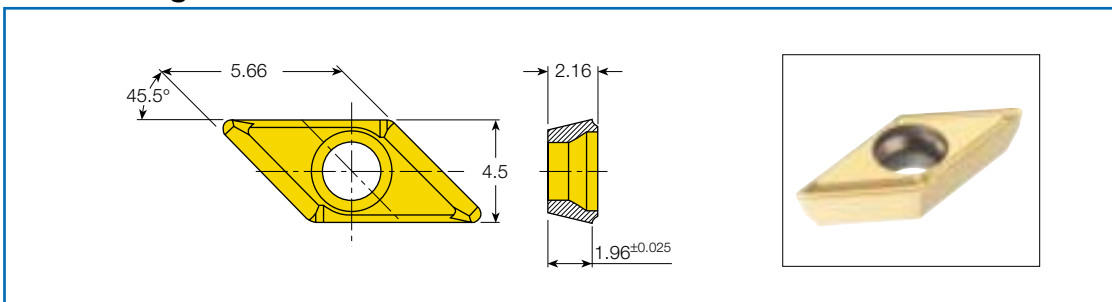
(1) Heads are available in increments of 1.0mm.

(2) SK heads for drilling cast iron available in IC 908.

Ordering examples for Ø13.3 drill head: IDI 133-SG IC528.

ISO P ■ ISO M ■ ISO K ■

Chamfering Insert for Prethread Hole Drills

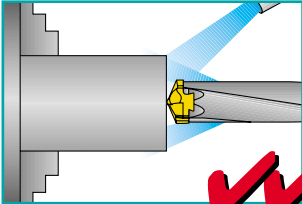


Available grade: IC508

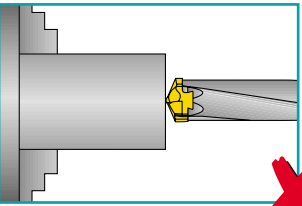
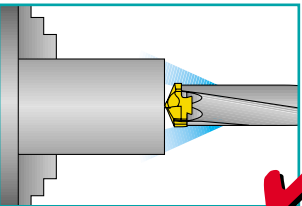
CHAMDRILL

User Guide

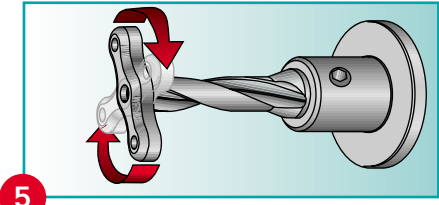
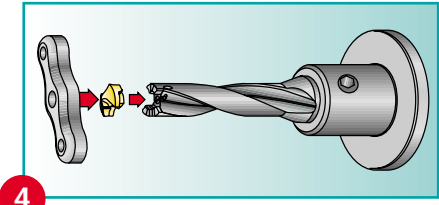
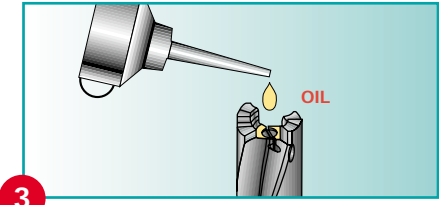
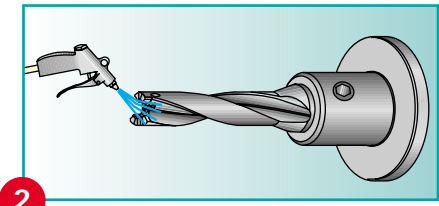
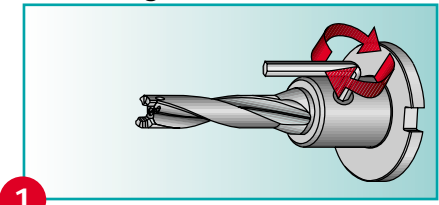
Coolant



In stationary drill applications both through tool and external coolant supply is recommended.



Drilling Heads Mounting Procedure



Machining Data

Following is machining data for the DCM / DCT drills.

ISO	Material	Condition	Hardness HB	Cutting Speed Vc m/min	Feed vs. Drill Diameter mm/rev						
					D=8-10	D=11-12	D=13-14	D=15-16	D=17-20	D=21-25	
P	Non-alloy steel and cast steel, free cutting steel	<0.25%	Annealed	125	50-130	0.12-0.2	0.15-0.25	0.2-0.3	0.25-0.35	0.25-0.45	0.25-0.45
		>=0.25%	Annealed	190	100-120						
		< 0.55%	Quenched and tempered	250	90-110						
		>=0.55%	Annealed	220	90-120						
	Low alloy steel and cast steel (less than 5% alloying elements)	Annealed	200	80-130	0.12-0.2	0.15-0.25	0.2-0.3	0.25-0.35	0.3-0.4	0.3-0.45	
			275	70-110							
		Quenched and tempered	300	60-90							
	High alloyed steel, cast steel, and tool steel	Annealed	200	50-80	0.12-0.2	0.12-0.22	0.15-0.25	0.2-0.28	0.25-0.33	0.25-0.35	
Quenched and tempered			325	40-70							
M	Stainless steel and cast steel	Ferritic/martensitic	200	20-50	0.08-0.14	0.1-0.16	0.12-0.18	0.14-0.2	0.16-0.24	0.15-0.28	
		Martensitic	240	20-50							
		Austenitic	180	20-50							
K	Cast iron nodular (GGG)	Ferritic/pearlitic	180	90-140	0.2-0.3	0.25-0.35	0.3-0.4	0.35-0.45	0.4-0.5	0.4-0.6	
		Pearlitic	260	80-130							
	Grey cast iron (GG)	Ferritic	160	100-180							
		Pearlitic	250								
	Malleable cast iron	Ferritic	130	90-160							
		Pearlitic	230								
N	Aluminum-wrought alloy	Not cureable	60	90-160	0.2-0.35	0.25-0.4	0.3-0.45	0.35-0.5	0.4-0.6	0.4-0.65	
		<=12% Si	Cured								100
		Not cureable	75								
	Aluminum-cast, alloyed	Cured	90	80-120							
		>12% Si	High temperature	130							
	Copper alloys	>1% Pb	Free cutting	110							90-160
		Brass	90								
			Electrolitic copper	100							
Non metallic	Duroplastics, fiber plastics										
	Hard rubber										
S	High temp. alloys Fe based	Annealed	200	30-50	0.05-0.1	0.08-0.13	0.1-0.15	0.12-0.18	0.12-0.2	0.12-0.22	
		Cured	280								
	Super alloys Ni or Co based	Annealed	250	20-40							
		Cured	350								
		Cast	320								
	Titanium Ti alloys			20-50							0.06-0.12
Alpha+beta alloys cured											
H	Hardened steel	Hardened	55 HRC	20-50	0.06-0.12	0.09-0.15	0.12-0.18	0.15-0.2	0.15-0.23	0.15-0.25	
		Hardened	60 HRC								
	Chilled cast iron	Cast	400								
Cast iron	Hardened	55 HRC									

* Grades: first choice IC908.

* For material group number please refer to our general catalog instructions.

* Chipformer should be selected based on our geometry range recommendations.

* When using external coolant supply only, reduce cutting speed by 10%.

* Use internal coolant supply when machining austenitic stainless steel.

* For Ø6.8-7.4mm diameters decrease the Ø8mm cutting data by 15%.