

THE NEW VALUE FRONTIER



High Efficiency Modular Drill

Magic Drill **DRA**
Chamfering Attachment

High Efficiency Modular Drill

MagicDrill **DRA** Chamfering Attachment



New Straight Shank DRA Chamfering Attachment

Excellent chip control in a wide range of drilling depths

4mm chamfer with an 8mm maximum chamfer depth

Compatible with $\varnothing 10\text{mm}$ to $\varnothing 20\text{mm}$ shank diameters in 3D, 5D, and 8D lengths
(Cutting Diameters from $\varnothing 8\text{mm}$ to $\varnothing 19.9\text{mm}$)



High Efficiency Modular Drill

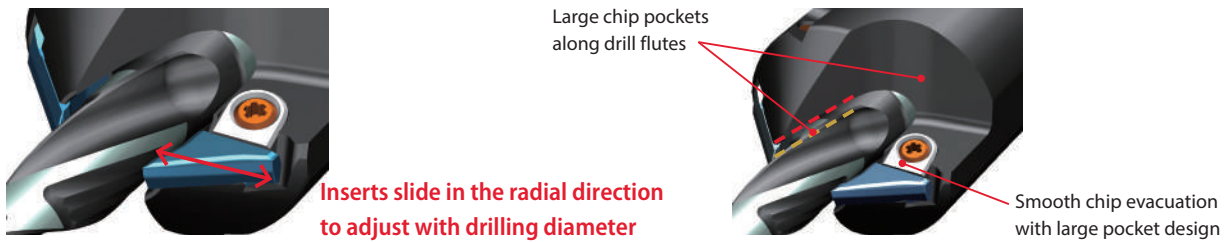
MagicDrill DRA Chamfering Attachment

New straight shank DRA chamfering attachment

Excellent chip control in a wide range of drilling depths

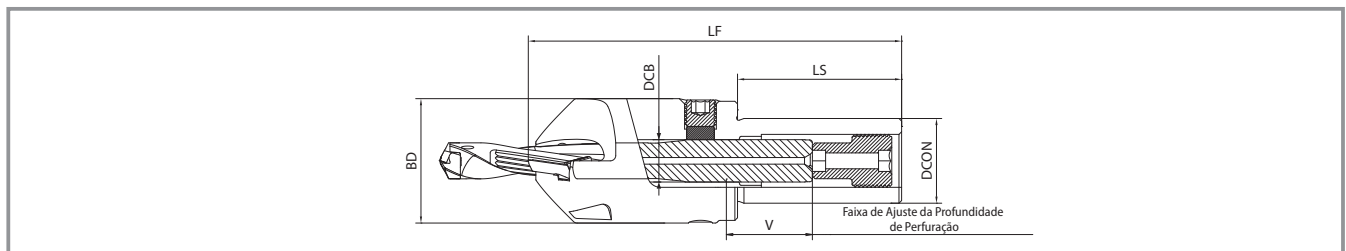
1 Excellent stability and chip evacuation

Easy-to-adjust chamfering insert slides in radial direction with a clamp structure that provides good chip evacuation



2 Fully adjustable for a wide range of drilling depths

Range of adjustable depths for a $\phi 14$ mm drilling diameter



Toolholder







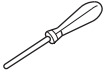
Description	Stock	Applicable Drill Shank Dia. DCB (ϕ)	Dimensions (mm)					Applicable Insert
			DCON	BD	LF	LS	V (Max)	
S20-CH10-DRA	●	10	20	39	110	52	18	CT12T3-45DA
S32-CH12-DRA	●	12	32	43	130	62	24	
S32-CH14-DRA	●	14	32	45	130	62	24	
S32-CH16-DRA	●	16	32	47	141	62	24	
S32-CH18-DRA	●	18	32	49	145	62	24	
S32-CH20-DRA	●	20	32	53	150	62	24.5	

● : Standard Stock

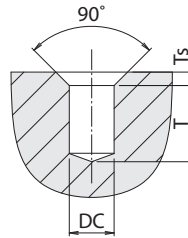
Applicable Insert

Shape	Description	MEGACOAT NANO	Dimensions (mm)	
		PR1535	W1	S
	CT12T3-45DA	●	13.54	3.97

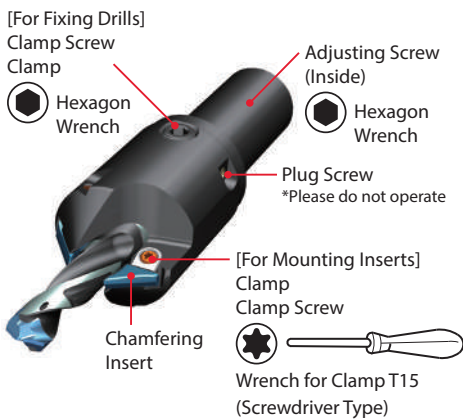
● : Standard Stock

Chamfering Attachment	Adjusting Screw		For Fixing Drills				For Mounting Inserts			
			Clamp	Clamp Screw		Plug Screw	Clamp	Clamp Screw	Wrench	
Description		Width Across Flat (mm)			Width Across Flat (mm)	Torque [N·m]				
S20-CH10-DRA	AJ-12X22	6	CP-CH10	HS8X8	4	12	BNP6	C09N	W6X18N	DTM-15
S32-CH12-DRA	AJ-16X30		CP-CH12			15				
S32-CH14-DRA	AJ-20X30	8	CP-CH14	HS10X10	5	20				
S32-CH16-DRA			CP-CH16			30				
S32-CH18-DRA	AJ-22x35	10	CP-CH18	HS12X10	6	30				
S32-CH20-DRA			CP-CH20			HS16X10				

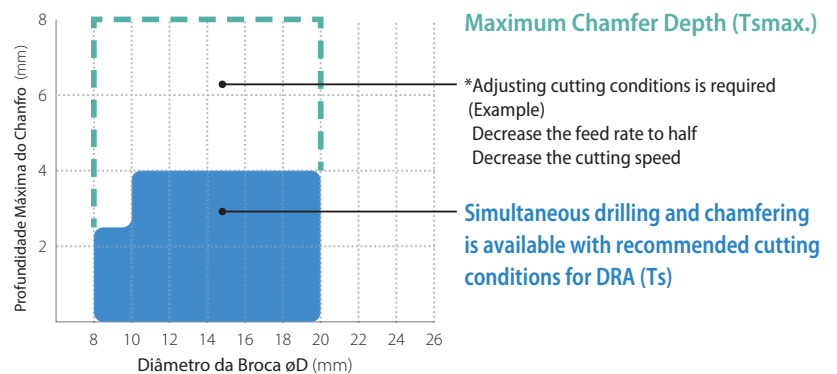
Drilling and Chamfering Depths



Cutting Dia. (mm) DC		Drilling Depth (mm)						Chamfering Dimension (mm)		Applicable Toolholder
min.	max.	T (3XD)		T (5XD)		T (8XD)		Ts	Tsmax.	
ø7.94	ø8.49	12.5	20	18	36	43	60	2.5	8	S20-CH10-DRA
ø8.50	ø8.99	12.5	21.5	21.5	38.5	48	64			
ø9.00	ø9.49	12.5	23	24	41	52	68			
ø9.50	ø9.99	12.5	24.5	27.5	43.5	57.5	72.5	4	8	S32-CH12-DRA
ø10.00	ø10.49	15.5	26	22	46	52	76			
ø10.50	ø10.99	16	27.5	24.5	48.5	56	80			
ø11.00	ø11.49	16.5	29	27	51	60	84	4	8	S32-CH14-DRA
ø11.50	ø11.99	17.5	30.5	29.5	53.5	64	88			
ø12.00	ø12.49	18	32	32	56	68	92			
ø12.50	ø12.99	19	34	35	59	72.5	96.5	4	8	S32-CH16-DRA
ø13.00	ø13.49	19.5	35.5	37.5	61.5	76	100			
ø13.50	ø13.99	20	36.5	39.5	63.5	80	104			
ø14.00	ø14.49	21	38.5	42.5	66.5	84.5	108.5	4	8	S32-CH18-DRA
ø14.50	ø14.99	21.5	40	45	69	88.5	112.5			
ø15.00	ø15.99	22.5	41.5	47.5	71.5	92.5	116.5			
ø16.00	ø16.99	24	44.5	52.5	76.5	100.5	124.5	4	8	S32-CH20-DRA
ø17.00	ø17.99	25.5	47.5	57.5	81.5	108.5	132.5			
ø18.00	ø18.99	27.5	51	64	87	121	141			
ø19.00	ø19.99	29.5	54	69	92	129	149	4	8	



Recommended Cutting Conditions (S50C)



How to Install Chamfering Attachment

[Remove]

1 Mount DRA drill into the chamfering attachment (Fig.1)



Fig.1 Install the DRA

2 Install an insert and tighten temporarily with clearance between the cutting edge and DRA body (Fig.2)

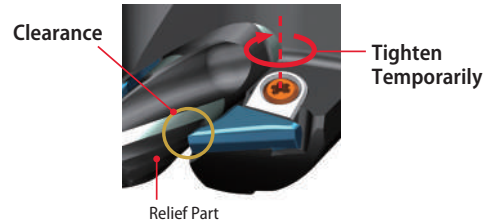


Fig.2 Install Inserts

3 Adjust drilling depth by turning adjustment screw with hexagon wrench (Fig.3)

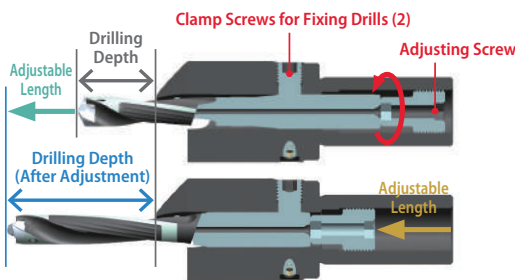


Fig.3 Adjustment of Drilling Depth

4 Align the flute edge and black relief part of the drill to the position shown in Fig.4 by rotating the DRA drill (Fig.4)

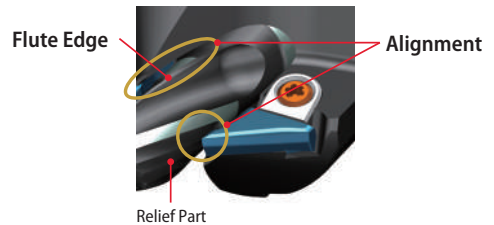


Fig.4 DRA Alignment

5 Fasten the two clamp screws for DRA (See table 1. for recommended torque)

Table1. Recommended Torque

Chamfering Attachment Description	Clamp Screw	
	Recommended Torque (N·m)	Width Across Flat (mm)
S20-CH10-DRA	12	4
S32-CH12-DRA	15	
S32-CH14-DRA	20	5
S32-CH16-DRA	30	6
S32-CH18-DRA	30	
S32-CH20-DRA	45	8

6 Tighten the inserts while lightly pressing the edge of insert against the relief part (Fig.5) (Recommended torque is 3.5N·m)

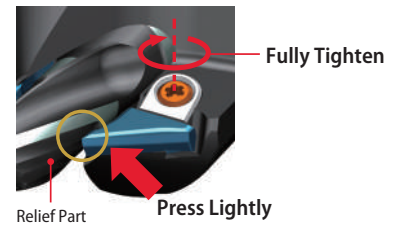


Fig.5 Fully Tighten

Cautions

- Chamfering attachment is compatible with straight shank SS-DRA. It cannot be used for flanged shank SF-DRA.
- Chamfering requires two chamfering inserts. Using one insert is not recommended.
- Only fully remove clamp screws when replacing them.

- Clamps and clamp screws for mounting inserts need to be replaced regularly.
- Screw locking adhesive is applied to adjustment screw. The effect will eventually wear off if the screws are used for a long time. Regular replacement is recommended.
- Please do not operate the plug screws.