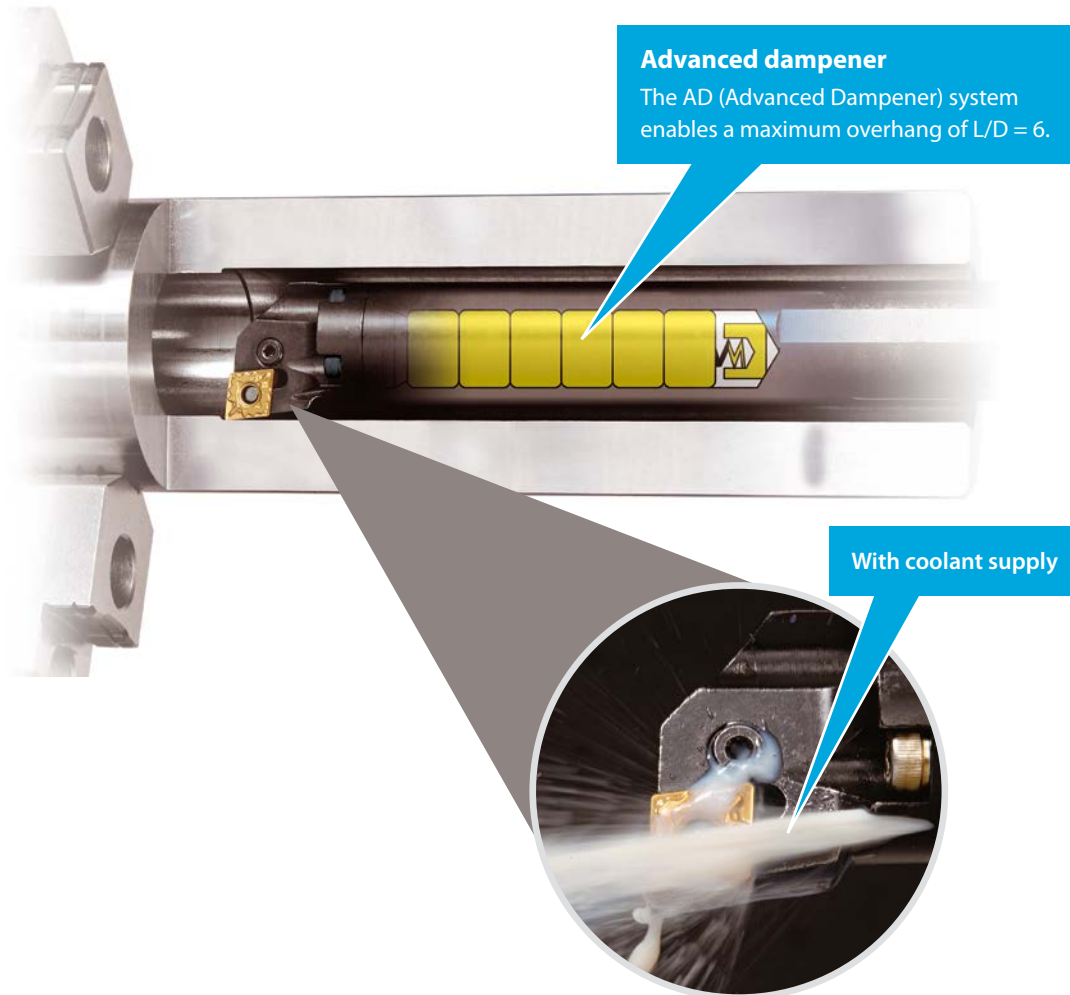


AD-bar

Anti-vibration boring bar with interchangeable head



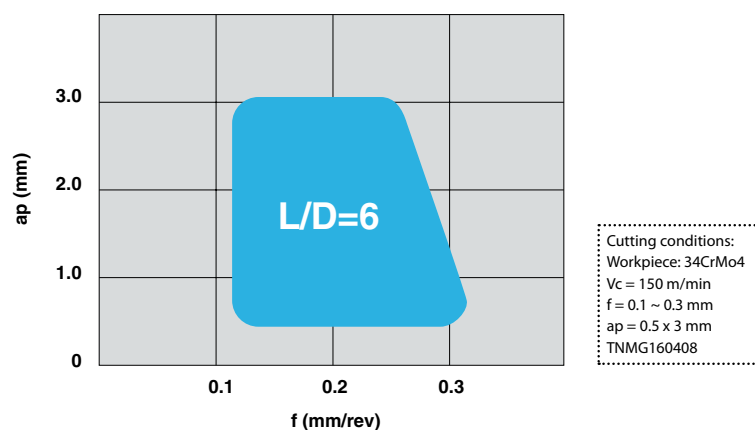
AD-bar – boring bar with interchangeable head and anti-vibration dampener system



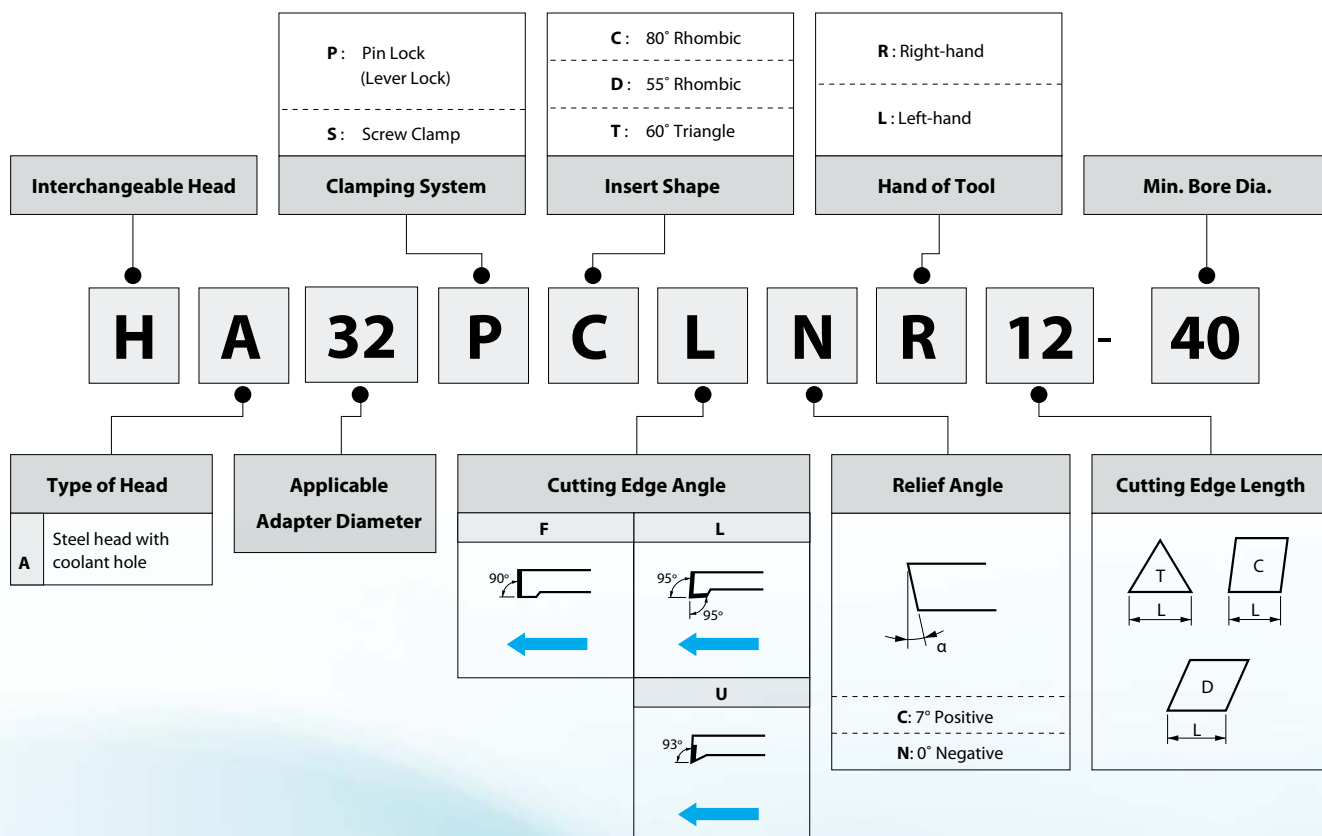
Highly efficient machining

The anti-vibration dampener effect enables large cutting-depths and high feed rates.

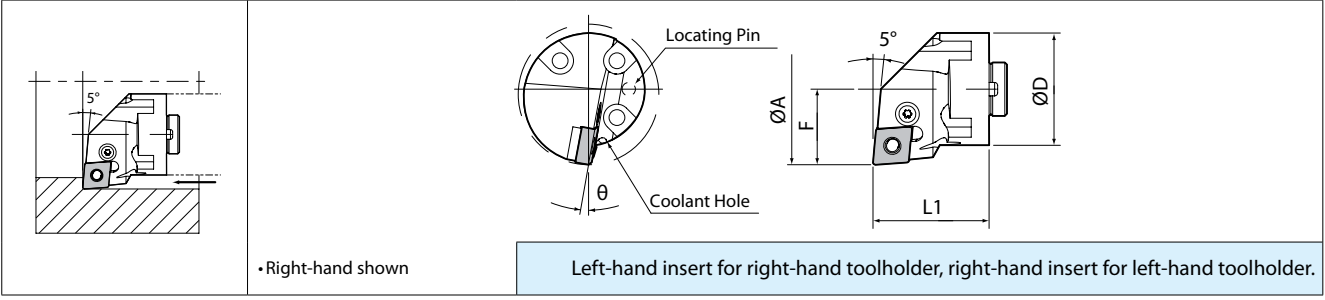
Possible machining area



■ Identification system for interchangeable heads



HA...PCLN12 (Boring / internal facing: with coolant hole)



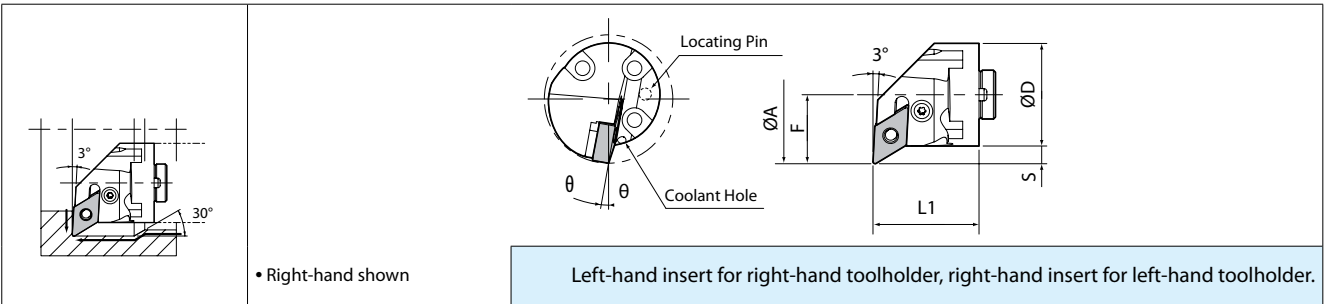
Toolholder dimensions

Description	Std.		Min. Bore Dia.	Dimension (mm)				θ	Standard Corner-R (°)	Spare Parts						Applicable Boring Adapter
	R	L		øA	øD	L1	F			Lever	Lock Screw	Shim	Shim Pin	*Punch	Wrench	
HA32PCLN [®] /L 12-40	●	●	40	32	41	22	10°	0.8							AD32U	
HA40PCLN [®] /L 12-50	●	●	50	40		27			LL-2K	LS-2P	LC-4K	LSP-3K	*PC-2K	LTP-15	AD40V	
HA50PCLN [®] /L 12-63	●	●	63	50		35									AD50W	

*Punch: Not included. Purchase separately.

Toolholder Description	Insert Description	
HA32PCLN [®] /L 12-40	CN○A	1204..
HA40PCLN [®] /L 12-50	CN○G	
HA50PCLN [®] /L 12-63	CN○M	

HA...PDUN15 (Copying: with coolant hole)



Toolholder dimensions

Description	Std.		Min. Bore Dia.	Dimension (mm)					θ	Standard Corner-R (°)	Spare Parts						Applicable boring Adapter		
	R	L		øA	øD	L1	F	S			Lever	Lock Screw	Shim	Shim Pin	*Punch	Wrench			
HA32PDUN [®] /L 15-43	●	●	43	32	41	25	9	12°	0.8			LD-4K43 (LD-4K)	LSP-3K	*PC-2K	LTP-15	AD32U			
HA40PDUN [®] /L 15-50	●	●	50	40		27	7	10°		LL-3K	LS-3P								AD40V
HA50PDUN [®] /L 15-63	●	●	63	50		35	10												AD50W

*Punch: Not included. Purchase separately.

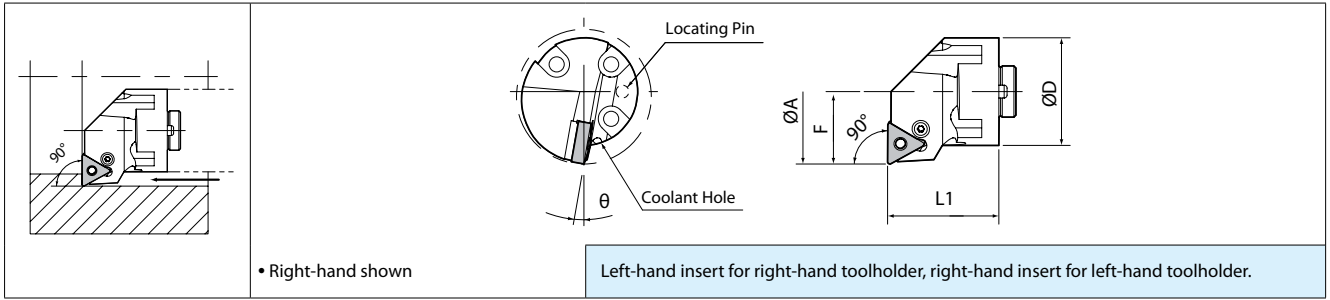
*Shim: LD-4K43 is attached to toolholder. When using DN □□ 1506 insert, purchase LD-4K separately.

Applicable inserts

Toolholder Description	Insert Description			
	Shim: LD-4K43		Shim: LD-4K	
HA32PDUN [®] /L 15-43	DN○A	1504..	DN○A	1506..
HA40PDUN [®] /L 15-50	DN○G		DN○G	
HA50PDUN [®] /L 15-63	DN○M		DN○M	

● : Std. Item

HA...PTFN16 (Internal: with coolant hole)



Toolholder dimensions

Description	Std.		Min. Bore Dia.	Dimension (mm)			θ	Standard Corner-R (r€)	Spare Parts						Applicable Boring Adapter
	R	L		ϕA	ϕD	L1			F	Lever	Lock Screw	Shim	Shim Pin	*Punch	
HA32PTFN [®] /L 16-40	●	●	40	32	41	22	10°	0.8							AD32U
HA40PTFN [®] /L 16-50	●	●	50	40		27									AD40V
HA50PTFN [®] /L 16-63	●	●	63	50	35	8°	AD50W								

*Punch: Not included. Purchase separately.

Applicable inserts

Toolholder Description	Insert Description	
HA32PTFN [®] /L 16-40	TN○A	1604..
HA40PTFN [®] /L 16-50	TN○G	
HA50PTFN [®] /L 16-63	TN○M	

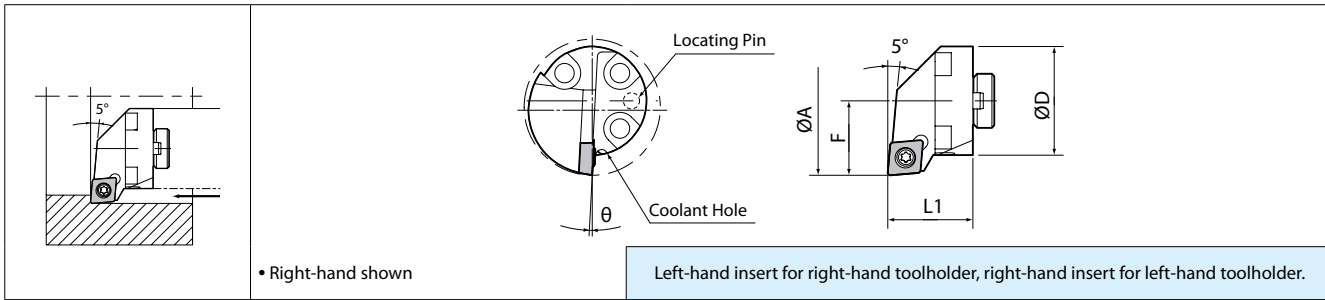
Reference

Wrenches (LTP-10, LTP-15) are Torx Plus.

The size of Torx Plus is engraved on the long shaft.

Wrench Description	LTP-10	LTP-15
Engraved Size	10IP	15IP

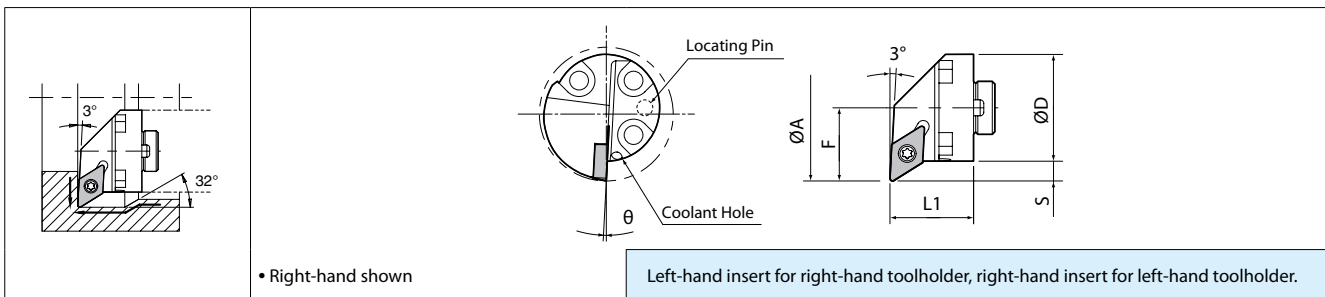
HA...SCLC09 (Boring / internal facing: with coolant hole)



Toolholder dimensions

Description	Std.		Min. Bore Dia.	Dimension (mm)				θ	Standard Corner-R (r ϵ)	Spare Parts		Applicable Boring Adapter	Applicable Inserts
	R	L		ϕA	ϕD	L1	F			S	Clamp Screw		
	HA32SCLC^{R/L}09-40	●	●	40	32	25	22	-	3°	0.8			AD32U

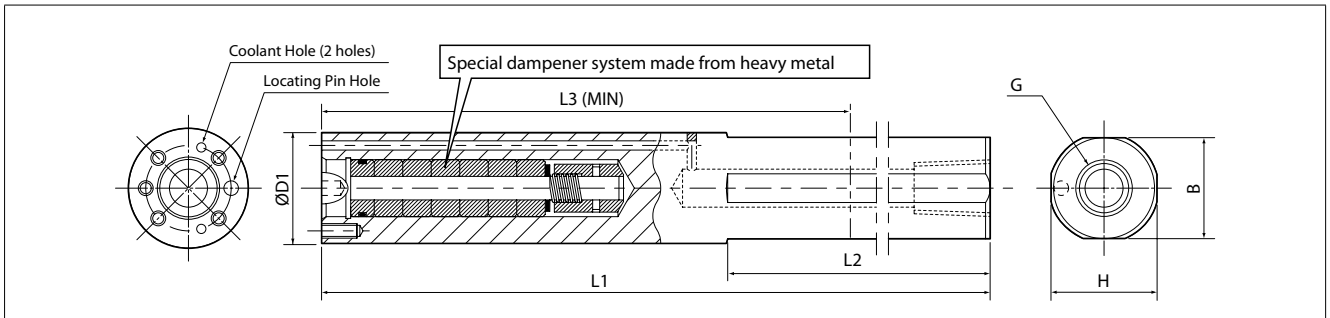
HA...SDUC11 (Copying: with coolant hole)





Toolholder dimensions

Description	Std.		Min. Bore Dia.	Dimension (mm)				θ	Standard Corner-R (r ϵ)	Spare Parts		Applicable Boring Adapter	Applicable Inserts
	R	L		ϕA	ϕD	L1	F			S	Clamp Screw		
	HA32SDUC^{R/L}11-40	●	●	40	32	25	22	6	3°	0.8			AD32U

Boring adapter (with coolant hole / anti-vibration dampener system)



Dimensions

Description	Std.	Dimension (mm)							Spare Parts				
		∅D1	H	B	L1	L2	L3 (MIN)	G	Clamp Bolt		Wrench		
AD 32U	●	32	31	29	310	200	200	Rp3/8			HH5×20 (3 pcs)	HH5×30 (1 pc)	LW-4
AD 40V	●	40	39	37	360	248	228				HH6×20 (3 pcs)	HH6×30 (1 pc)	LW-5
AD 50W	●	50	47	47	410	280	276						

Note) L3 (MIN) dimension indicates the minimum length in case of the back end of boring adapter is cut for use.
Do not shorten it to less than L3 (MIN).

Combination of boring adapter and interchangeable head

Interchangeable Head Description			Boring Adapter			
			Base Description	Clamp Bolt		Wrench
HA32	PCLN [®] /L	12-40	AD32U	HH5×20	HH5×30	LW-4
	PDUN [®] /L	15-43				
	PTFN [®] /L	16-40		HH5×20		
	SCLC [®] /L	09-40				
	SDUC [®] /L	11-40				
HA40	PCLN [®] /L	12-50	AD40V	HH5×20	HH5×30	
	PDUN [®] /L	15-50				
	PTFN [®] /L	16-50				
HA50	PCLN [®] /L	12-63	AD50W	HH6×20	HH6×30	LW-5
	PDUN [®] /L	15-63				
	PTFN [®] /L	16-63				

How to exchange heads



1. No head attached



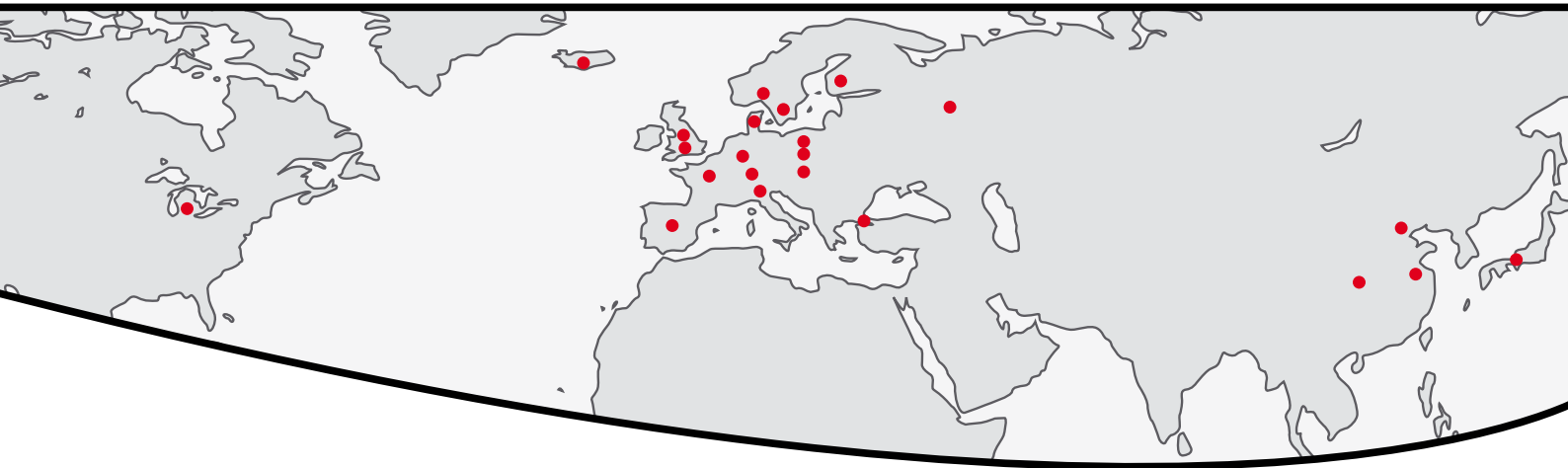
2. Align hole positions



3. Tighten 3 bolts to attach the head

For lever lock type interchangeable head, use 2 short bolts for upper side and 1 long bolt for lower side.
HA32 SCLC&09-40 and HA32 SDUC&11-40 use HH X 20 for all 3 bolts.

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