

Internal Toolholder



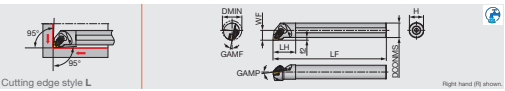
Internal Toolholder - Content structure

- Indexable toolholders are listed by cutting edge shape.
- In the same cutting edge shape, the inserts are sorted alphabetically.
The order of the list: CN□□ insert → DN□□ insert → RN□□ insert → SN□□ insert →
TN□□ insert → VN□□ insert → WN□□ insert
- Toolholders in the catalog are our standard stock items.

How to use the page

- Method ①** Select the cutting edge shape described at the left end of each page, jump to the page on the left index, and choose a designation you need (④) in the dimension table (③). Applicable inserts are shown in (⑥) and (⑧).
- Method ②** Select the cutting edge on **D003** and check the details on the product page.
- Method ③** Select the series name of a toolholder on **D003** and check the details on each page.
- Method ④** Select an item from Quick Guide on **D006-D011**.

2 **ISO TURN**
A-ACLNRL/L-Eco
Double-clamp boring bar, for negative 80° rhombic inserts



Cutting edge style L

1 **4** **3** **6**

Designation	Material	DMIN	DCOMB	WF	LF	LH	H	I2	GAMP	GAMP	RE	Insert	Torque*
A2SR-ACLNRL0904-D030	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.1	CN*1004L	3
A2SR-ACLNRL0904-D400	Steel	40	32	23	250	50	29	6	-6°	-10°	0.1	CN*1004L	3

*Torque: Recommended clamping torque (N m)
*RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Locking pin	Shim	Clamp screw	Wrench
A*-ACLNRL0904L...	ACF03-E	ACS-SW	BP-7	BP-2.5	AS032	CSTB-3.5	T-15F

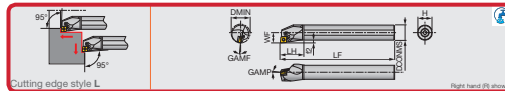
INSERT SELECTION

Application	Finishing	Medium cutting	Application	Finishing	Medium cutting
Grade	T910	T910	Grade	T910	T910
Breaker Shape	BD10	BD10	Breaker Shape	BD10	BD10
Cutting conditions	BD10	BD10	Cutting conditions	BD10	BD10

Reference pages: A-ACLNRL/L-Eco: Insert → B054

D020 www.tungaloy.com

STREAMJET BAR
A-PCNRL/L
Lever-lock boring bar, for negative 80° rhombic inserts



Cutting edge style L

5 **7** **8** **9**

Designation	Material	DMIN	DCOMB	WF	LF	LH	H	I2	GAMP	GAMP	RE	Insert	Torque*
A18M-PCNRL09-D030	Steel	20	16	11	150	32	15	3	-6°	-14°	0.8	CN*1004L	1.7
A2SR-PCNRL09-D030	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN*1004L	1.7
A2SR-PCNRL09-D030	Steel	32	25	17	200	45	23	4.5	-6°	-11°	0.8	CN*1004L	1.7
A2SR-PCNRL12-D030	Steel	32	25	17	200	45	23	4.5	-6°	-11°	0.8	CN*1004L	2.7
A2SR-PCNRL12-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	CN*1004L	4.8
A4ST-PCNRL12-D030	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	CN*1004L	4.8
A5SU-PCNRL12-D030	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	CN*1004L	4.8

*Torque: Recommended clamping torque (N m)
*RE: Standard corner radius

Note: Use right-hand toolholders (PCNRL*) with left-hand inserts (L) and left-hand toolholders (PCNRL*) with right-hand inserts (R).

SPARE PARTS

Designation	Steel	Clamping screw	Clamp	Method 1	Method 2	Spring	Lever	DR support	Screw for all hand
A*-PCNRL09-D030	-	LCS2A	-	P-2F	-	-	LCL3N	EA-25	SSHMS-6
A2SR-PCNRL12-D030	-	LCS4	-	P-3.5	-	-	LCL4N	EA-32	SSHMS-6
A2SR-PCNRL12-D400	LSC4BR	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHMS-6
A2SR-PCNRL12-D030	LSC4BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHMS-6
A4ST-PCNRL12-D030	LSC4BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHMS-6
A4ST-PCNRL12-D030	LSC4BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHMS-6
A5SU-PCNRL12-D030	LSC4BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHMS-6

INSERT SELECTION

Application	Finishing	Medium cutting	Application	Finishing	Medium cutting
Grade	T910	T910	Grade	T910	T910
Breaker Shape	BD10	BD10	Breaker Shape	BD10	BD10
Cutting conditions	BD10	BD10	Cutting conditions	BD10	BD10

Reference pages: A-PCNRL/L: Insert → B054 -, CBN → B170 -, PCD → B188 -

Tungaloy D021

- 1** : Cutting edge shape
- 2** : Series name of indexable boring bars
- 3** : Dimension table
- 4** : Toolholder designation
e.g. To select right-handed steel shank for minimum machining diameter $\phi 13$
→ **A10K-SDXXR07-D130**

- 5** : Dimension drawing (conforming to ISO13399)
- 6** : Applicable insert
- 7** : Spare parts
- 8** : Insert selection
- 9** : Reference pages

When ordering

- Please specify the designation and quantity.
e.g. **A12M-SDZXRL07-D140 ... 1** (one boring bar per package)
- * Inserts are not included. Please order those separately.

Main products

L		D014
X		D033
J		D036
K		D038
F		D042
U		D048
Q		D077
Z		D085
OTHERS		D091



BOREMEISTER

Boring head suitable for L/D=10



Shank $\varnothing 16$ - 60 mm

D012



MINIFORCE

Economical double-sided inserts with excellent sharpness



Shank $\varnothing 10$ - 20 mm

D028, D035, D085



ISOETURN

Small-sized "Eco" insert series for maximized profits



Shank $\varnothing 16$ - 32 mm

D021 - D022
D029 - D030, D045
D054, D061, D072



STREAMJETBAR

Highly rigid toolholders providing good chip evacuation



Shank $\varnothing 4$ - 50 mm

D013



Y-PRO SERIES

Inserts with 25° corner angle for profiling



Shank $\varnothing 12$ - 16 mm

D076, D084



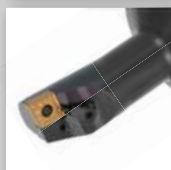
TURNINGA

Highly rigid clamping system with excellent repeatability



Shank $\varnothing 25$ - 50 mm

D025, D032, D041
D047, D057, D074



TUNG TJET

Toolholders for high pressure coolant supply

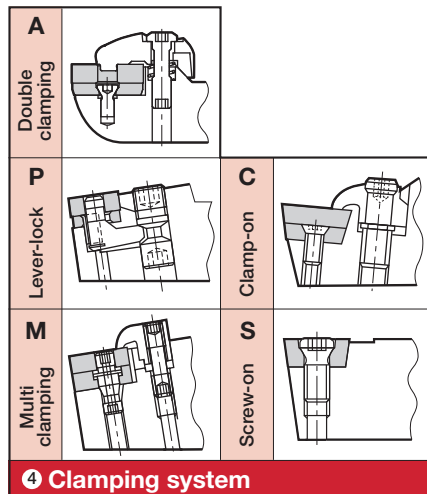


D025, D057

Sleeve

D092 - D094

Designation system for Toolholders



C		80° Rhombic
D		55° Rhombic
K		55° Parallelogram
R		Round
S		Square
T		Triangular
V		35° Rhombic
Y		25° Rhombic (Non ISO)
W		Trigon

5 Insert shape



1 Bar composition	
A	Steel shank with oil hole
E	Carbide shank with steel head & oil hole
C	Carbide shank with steel head
S	Steel shank
T	Steel shank reinforced with carbide plates ("Tsuppari-Ichiban")
JS	J series Steel shank

2 Bar diameter
Bar diameter is shown in mm.

3 Toolholder length (mm)	
F	80
G	90
H	100
J	110
K	125
L	130
M	150
P	170
Q	180
R	200
S	250
T	300
U	350

Symbol	Style	Offset					
A		Without	G		With	S	
			J		Without	V	
B		Without	K		With	U	
C		Without	L		With	X*	
D		Without	N		With	Y	
E		Without	P*		Without	Z	
F		With	Q*		With	Note *mark: Tungaloy standard No mark: ISO standard	

6 Cutting edge style

C	
B	
N	
P	
X	Special

7 Relief angle of insert

6 U 7 P 8 R 9 11 02 10 C 11 D140

8 Hand of tool	
R	
L	

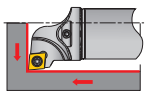
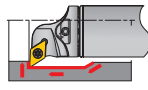
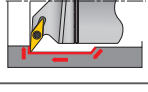
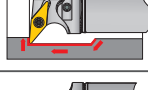
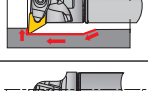
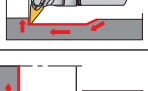
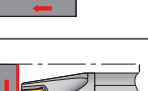
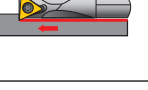
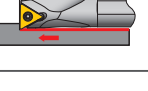
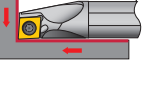
9 Insert size	
For M, S, & C types conformed to ISO	
"In ISO metric system, a two digit number indicates the edge length (L) of the insert to be used in mm. If the insert thickness is different for the same edge length, add the thickness symbol (S) (two digit number). In above example, TP□□□1102□□"	

10 Oil hole
Only "Tsuppari-Ichiban" holder

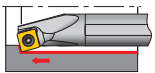
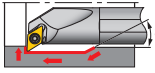
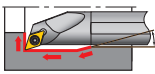
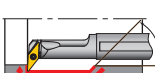
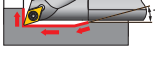
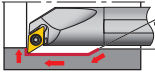
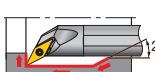
11 Min. bore diameter (mm)			
Stream Jet Bar		Tsuppari-Ichiban	
D140	ø14.0	D14	ø14.0

Internal Toolholder - Quick Guide

Positive type

Positive type														
Style	Designation & Application	ISO Insert	Y-PRO SERIES	Material	BOREMEISTER	STREAMJETBAR	MINIFURN	Min. bore diameter DMIN (mm)						Page
								0	10	20	30	40	50	
	S-SCLCR/L-H Boring & internal facing Insert : CC□□	✓		Steel	✓			ø20	ø50				D014	
	S-SDUCR/L-H Boring & internal profiling Insert : DC□□	✓		Steel	✓			ø20	ø50				D048	
	S-SVUCR/L-H Boring & internal profiling Insert : VC□□	✓		Steel	✓			ø27	ø31				D066	
	S-SVLCR/L-H Boring & internal profiling Insert : VC□□	✓		Steel	✓				ø40	ø50		D026		
	S-DDUNR/L-H Boring & internal profiling Insert : DN□□	✓		Steel	✓				ø40	ø50		D052		
	S-DVUNR/L-H Boring & internal profiling Insert : VN□□	✓		Steel	✓					ø52		D070		
	SEXPR/L Boring & internal facing Insert : EP□□	✓		Steel Carbide	✓			ø4.5 ø4.5	ø7 ø7				D033 D034	
	SCLCR/L Boring & internal facing Insert : Cc□□	✓		Steel Carbide Reinforced	✓			ø5 ø5	ø27 ø27		ø16 ø32		D016 - D018	
	SWUBR/L Boring Insert : WB□□	✓		Steel Carbide	✓			ø6 ø6	ø8 ø8				D075	
	STUPR/L Boring Insert : TP□□	✓		Steel Carbide Reinforced	✓			ø8 ø8 ø14	ø34 ø27 ø31				D058 - D060	
	STFPR/L Blind hole boring Insert : TP□□	✓		Steel Carbide	✓			ø10 ø10	ø27 ø22				D043	
	SCLPR/L Boring & internal facing Insert : CP□□	✓		Steel Carbide Reinforced	✓			ø10 ø10 ø14	ø27 ø20 ø32				D019 D020	
	STFCR/L Blind hole boring Insert : TC□□	✓		Steel Carbide	✓			ø12 ø12	ø18 ø18				D042	

Positive type

Style	Designation & Application	ISO Insert	Material	Min. bore diameter DMIN (mm)	Page
	SSKPR Through boring Insert : SP□□	✓	Steel	0 10 20 30 40 50 ø20 ø31	D038
	SDUCR/L Boring & internal profiling Insert : DC□□	✓	Steel Carbide	0 10 20 30 40 50 ø13 ø32 ø13 ø27	D050
	SDUPR/L Boring & internal profiling Insert : DPMT□□		Steel Carbide	0 10 20 30 40 50 ø15 ø22 ø15 ø22	D051
	SVUCR/L Boring & internal profiling Insert : VC□□	✓	Steel Carbide Reinforced	0 10 20 30 40 50 ø16 ø32 ø18 ø32 ø32	D068 D069
	SVUBR/L Boring & internal profiling Insert : VB□□	✓	Steel Carbide Reinforced	0 10 20 30 40 50 ø20 ø32 ø24.5 ø34 ø25	D064 D065
	SDQCR/L Boring & internal profiling Insert : DC□□	✓	Steel Carbide Reinforced	0 10 20 30 40 50 ø13 ø30 ø13 ø25 ø20 ø32	D077 D078
	SDQPR/L Boring & internal profiling Insert : DPMT□□		Steel Carbide	0 10 20 30 40 50 ø15 ø22 ø15 ø22	D079
	SVQCR/L Boring & internal profiling Insert : VC□□	✓	Steel Carbide Reinforced	0 10 20 30 40 50 ø13.5 ø21.5 ø13.5 ø21.5 ø32	D082 D083
	SVQBR/L Boring & internal profiling Insert : VB□□	✓	Steel Carbide Reinforced	0 10 20 30 40 50 ø17 ø30.5 ø17 ø30.5 ø25	D080 D081
	SDZCR/L Back boring Insert : DC□□	✓	Steel Carbide	0 10 20 30 40 50 ø14 ø25 ø18 ø22	D086
	SVZCR/L Back boring Insert : VC□□	✓	Steel	0 10 20 30 40 50 ø16	D090
	SVZBR/L Back boring Insert : VB□□	✓	Steel	0 10 20 30 40 50 ø20 ø40	D089

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

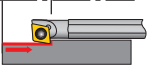
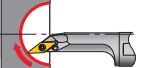
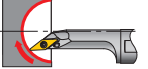
Tooling System

User's Guide

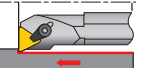
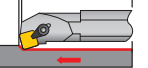
Index

Internal Toolholder - Quick Guide

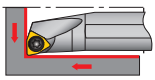
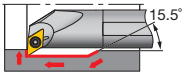
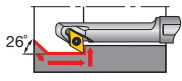
Positive type

Style	Designation & Application	ISO Insert	Material	BOREMEISTER STREAMJETBAR MINIFÜRN	Min. bore diameter DMIN (mm)						Page
					0	10	20	30	40	50	
	SEZPR/L Back boring Insert : EP□□	✓	Steel Carbide	✓	ø5.5	ø6.5					D088
	SVJCR/L Internal sphere cutting Insert : VC□□	✓	Steel	✓			ø16	ø20			D037
	SVJBR/L Internal sphere cutting Insert : VB□□	✓	Steel	✓			ø25	ø30			D036
	SYQBR/L Boring, undercutting & profiling Insert : YW□□	✓	Steel Carbide	✓	ø17	ø21.5					D084
	SYUBR/L Boring & internal profiling Insert : YW□□	✓	Steel Carbide	✓	ø20						D076

Clamp on

Style	Designation & Application	ISO Insert	Material	BOREMEISTER STREAMJETBAR MINIFÜRN	Min. bore diameter DMIN (mm)						Page
					0	10	20	30	40	50	
	CTFPR/L Blind hole boring Insert : TP□□ (without hole)	✓	Steel Carbide		ø16				ø40		D044
	CSKPR/L Through boring Insert : SP□□ (without hole)	✓	Steel		ø20			ø32			D039

Positive double side

Style	Designation & Application	ISO Insert	MINIFURN	Material	MINIFURN	Min. bore diameter DMIN (mm)						Page
						0	10	20	30	40	50	
	SWLXR/L Boring & internal facing Insert : WXGU		✓	Steel Carbide	✓	ø12		ø22				D028
	SDXXR/L Boring & internal profiling Insert : DXGU		✓	Steel Carbide	✓	ø13		ø24				D035
	SDZXR/L Back boring Insert : DXGU		✓	Steel Carbide	✓	ø14		ø20				D085
						ø18		ø22				

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

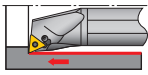
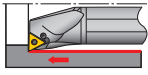
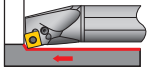
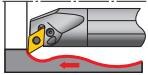
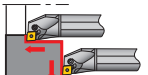
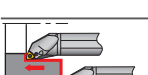
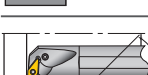
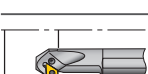
User's Guide

Index

Internal Toolholder - Quick Guide

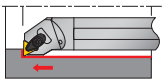
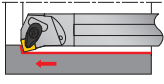
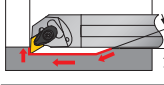
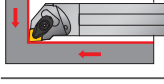
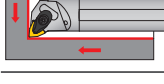
Negative type

Lever lock

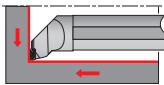
Style	Designation & Application	ISO Insert	ISO TURN	Material	STREAMJET BAR	TUNGJET	Min. bore diameter DMIN (mm)						Page
							20	30	40	50	60	70	
	PTUNR/L Boring Insert : TN□□	✓	✓	Steel Reinforced	✓		ø20		ø40				D061 - D063
	PTFNR/L Boring Insert : TN□□	✓	✓	Steel	✓			ø32			ø63		D045 D046
	PSKNR/L Through boring Insert : SN□□	✓		Steel	✓				ø40		ø63		D040
	PDUNR/L Boring & internal profiling Insert : DN□□	✓	✓	Steel Reinforced	✓	✓	ø25				ø63		D054 - D057
	PCLNR/L Boring & internal facing Insert : CN□□	✓	✓	Steel Reinforced	✓	✓	ø20				ø63		D021 D023- D025
	PWLNR/L Boring & internal facing Insert : WN□□	✓	✓	Steel	✓		ø20				ø50		D029 D031 D032
	PVUNR/L Boring & internal profiling Insert : V/YN□□	✓	✓	Steel	✓				ø37		ø50		D072 D073
	PDZNR/L Back boring Insert : DN□□	✓		Steel	✓				ø40		ø63		D087

Negative type

Double clamp

Style	Designation & Application	ISO Insert	ISO TURN	Material	STREAMJET BAR	TURNING A	Min. bore diameter DMIN (mm)						Page
							20	30	40	50	60	70	
	ATFNR/L Boring Insert : TN□□	✓		Steel		✓	ø32		ø40				D047
	ASKNR/L Boring Insert : SN□□	✓		Steel		✓	ø32		ø40				D041
	ADUNR/L Boring & internal profiling Insert : DN□□	✓	✓	Steel		✓	ø32				ø63		D054 D057
	ACLNR/L Boring & internal facing Insert : CN□□, GN□□	✓	✓	Steel		✓	ø32				ø63		D022 D025
	AWLNR/L Boring & internal facing Insert : WN□□	✓	✓	Steel		✓	ø32				ø63		D030 D032
	AVUNR/L Boring & internal profiling Insert : VN□□	✓		Steel		✓			ø40		ø50		D074

Screw-on

Style	Designation & Application	ISO Insert	TURNTEC	Material	TURNTEC	Min. bore diameter DMIN (mm)						Page
						40	50	60	70	80	90	
	S-TLANR/L Boring & internal facing Insert : LNMX□□		✓	Steel	✓		ø53				ø85	D091

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

Index

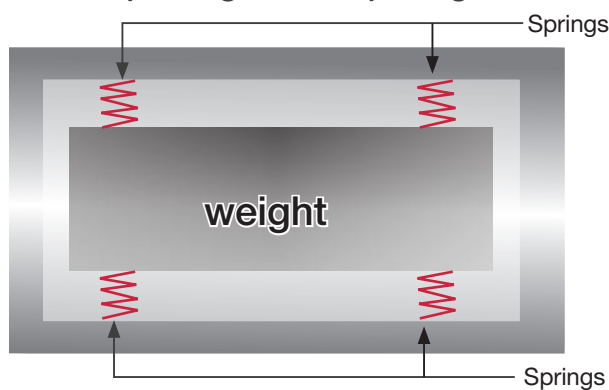


Unique anti-vibration mechanism in the tool body reduces vibration during deep hole boring with long overhangs of up to **L/D = 10**

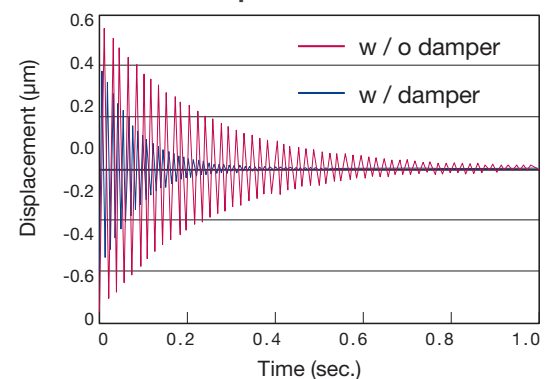
Vibration Dampening Mechanism

When cutting forces create vibration on boring bar set up with long overhangs, the bar's dampening mechanism counters the tool's motion and cancels the vibration. The dampening mechanism consists of a weight supported by spring elements. The vibrations die out quickly eliminating noise and chatter marks.

- Concept image of dampening



- Tool vibrations with and without vibration damper



Standard Lineup

BoreMeister is comprised of the anti-vibration bar and interchangeable boring head, featuring serrated interfaces for high precision indexing. They are connected by screws, allowing the fitting of a wide range of cutting heads for great flexibility.

- Minimum bore diameter : ø20 mm

Anti-vibration bar

Boring head

Serration



Reference pages: **D014 - D015, D026 - D027, D048 - D049, D052 - D053, D066 - D067, D070 - D071**



Engineered for tool strength and optimal chip evacuation

■ Tool body of special alloy steel, designed to reduce chatter !



Competitor

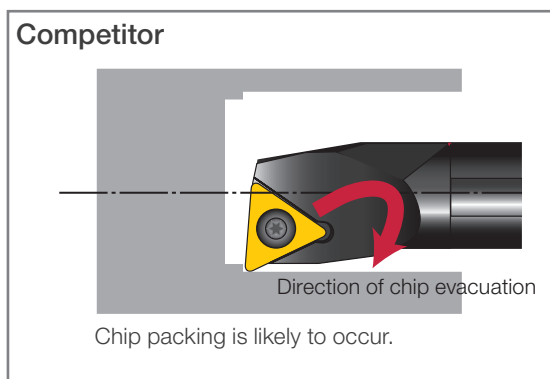
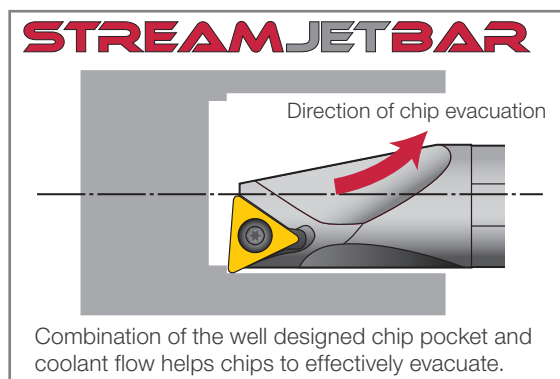


STREAMJETBAR

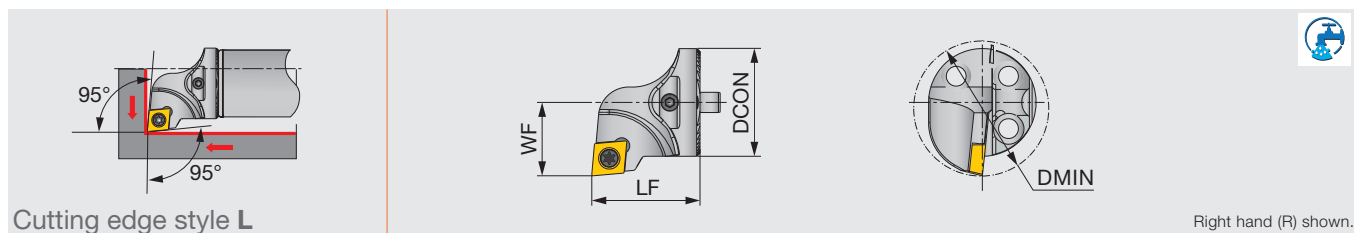
- Minimum bore diameter from $\varnothing 4.5$ mm
- Steel and carbide shank available
- New pocket design for excellent chip evacuation

Cutting performance

The excellent chip evacuation minimizes tool failure caused by recutting chips and poor chip control. Damage to the work surface from chips is also eliminated.



Reference pages: **D016 - D020, D023 - D024, D031 - D034, D036 - D040, D042 - D044, D046, D050 - D051, D055 - D056, D058 - D060, D062 - D065, D068 - D069, D073, D075, D077 - D083, D086 - D090**



Designation	DMIN	DCON	WF	LF	Shank	Insert
S16-SCLCR/L06-H	20	16	11	20	D16	CC**0602...
S20-SCLCR/L09-H	25	20	13	20	D20	CC**09T3...
S25-SCLCR/L09-H	32	25	17	22	D25	CC**09T3...
S32-SCLCR/L09-H	40	32	22	32	D32	CC**09T3...
S40-SCLCR/L12T-H	50	40	27	38	D40, D50, D60	CC**1204...

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S16-SCLCR/L06-H	SR14-548	T-7/5	-	-
S20-SCLCR/L09-H	SR16-236	T-15/5	-	-
S25-SCLCR/L09-H	SR16-236	T-15/5	-	-
S32-SCLCR/L09-H	SR16-236	T-15/5	-	-
S40-SCLCR/L12T-H	SR16-212	T-20/5	TCC4-2	SRTC-4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	NS9530	T9215	T9215
	Breaker Shape	01	PSS	PS	PM
	Cutting conditions	B018			

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH725	AH630	T6130
	Breaker Shape	W**	PSF	PSS	PM
	Cutting conditions	B020			

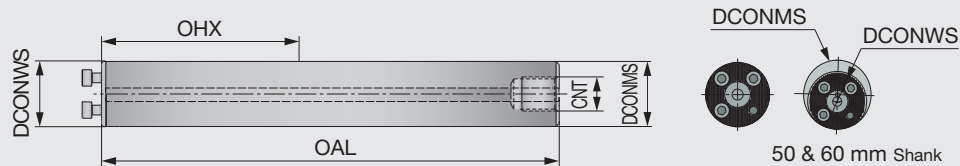
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

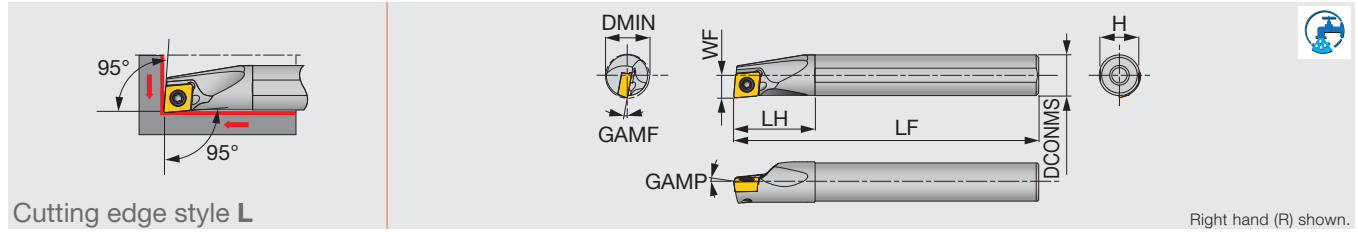
Reference pages: S-SCLCR/L-H: Insert → **B109 -**, CBN → **B180**, PCD → **B194 -**



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156	92	G1/8
G16-L204-10D-E	Carbide	16	16	204	140	-
D20-L200-7D-C	Steel	20	20	200	120	G1/4
G20-L260-10D-E	Carbide	20	20	260	180	-
D25-L255-7D-C	Steel	25	25	255	155	G1/4
D25-L330-10D-C	Steel	25	25	330	230	G1/4
D32-L320-7D-C	Steel	32	32	320	192	G3/8
D32-L416-10D-C	Steel	32	32	416	288	G3/8
D40-L408-7D-C	Steel	40	40	408	248	G1/2
D40-L528-10D-C	Steel	40	40	528	368	G1/2
D50-L518-7D-C	Steel	40	50	518	318	G1/2
D50-L668-10D-C	Steel	40	50	668	468	G1/2
D60-L628-7D-C	Steel	40	60	628	388	G3/4
D60-L808-10D-C	Steel	40	60	808	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SRM3.5X10DIN912	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A04F-SCLCR/L03-D050	Steel	5	4	2.5	80	8	3.8	0°	-15°	0.2	CC**03X1...	0.6
A05F-SCLCR/L03-D060	Steel	6	5	3	80	9	4.8	0°	-13°	0.2	CC**03X1...	0.6
A06G-SCLCR/L04-D070	Steel	7	6	3.5	90	11	5.75	0°	-13°	0.2	CC**04T1...	0.6
A07G-SCLCR/L04-D080	Steel	8	7	4	90	12	6.75	0°	-11°	0.2	CC**04T1...	0.6
A08H-SCLCR/L06-D100	Steel	10	8	5.5	100	16	7.5	0°	-13°	0.4	CC**0602...	1.2
A10F-SCLCR06-D120	Steel	12	10	6	80	20	9	0°	-10°	0.4	CC**0602...	1.2
A10K-SCLCR/L06-D120	Steel	12	10	6	125	20	9	0°	-10°	0.4	CC**0602...	1.2
A12H-SCLCR06-D140	Steel	14	12	7	100	24	11	0°	-8°	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D140	Steel	14	12	7	150	24	11	0°	-8°	0.4	CC**0602...	1.2
A12H-SCLCR06-D160	Steel	16	12	9	100	24	11	0°	-7°	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D160	Steel	16	12	9	150	24	11	0°	-7°	0.4	CC**0602...	1.2
A16K-SCLCR09-D180	Steel	18	16	9	125	32	15	0°	-9°	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D180	Steel	18	16	9	180	32	15	0°	-10°	0.8	CC**09T3...	3
A16K-SCLCR09-D200	Steel	20	16	11	125	32	15	0°	-9°	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D200	Steel	20	16	11	180	32	15	0°	-9°	0.8	CC**09T3...	3
A20R-SCLCR/L09-D220	Steel	22	20	11	200	32	18	0°	-8°	0.8	CC**09T3...	3
A25S-SCLCR/L09-D270	Steel	27	25	13.5	250	45	23	0°	-6°	0.8	CC**09T3...	3
E04G-SCLCR/L03-D050	Carbide	5	4	2.5	90	9	3.8	0°	-15°	0.2	CC**03X1...	0.6
E05G-SCLCR/L03-D060	Carbide	6	5	3	90	10	4.8	0°	-13°	0.2	CC**03X1...	0.6
E06H-SCLCR/L04-D070	Carbide	7	6	3.5	100	12	5.75	0°	-13°	0.2	CC**04T1...	0.6
E07H-SCLCR/L04-D080	Carbide	8	7	4	100	14	6.75	0°	-11°	0.2	CC**04T1...	0.6
E08G-SCLCR06-D100	Carbide	10	8	5.5	90	22	7.5	0°	-13°	0.4	CC**0602...	1.2
E08K-SCLCR/L06-D100	Carbide	10	8	5.5	125	22	7.5	0°	-13°	0.4	CC**0602...	1.2
E10F-SCLCR06-D120	Carbide	12	10	6	80	25	9	0°	-10°	0.4	CC**0602...	1.2
E10H-SCLCR06-D120	Carbide	12	10	6	100	25	9	0°	-10°	0.4	CC**0602...	1.2
E10M-SCLCR/L06-D120	Carbide	12	10	6	150	25	9	0°	-10°	0.4	CC**0602...	1.2
E12G-SCLCR06-D140	Carbide	14	12	7	90	27	11	0°	-8°	0.4	CC**0602...	1.2
E12J-SCLCR06-D140	Carbide	14	12	7	110	27	11	0°	-8°	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D140	Carbide	14	12	7	180	27	11	0°	-8°	0.4	CC**0602...	1.2
E12G-SCLCR06-D160	Carbide	16	12	9	90	27	11	0°	-7°	0.4	CC**0602...	1.2
E12J-SCLCR06-D160	Carbide	16	12	9	110	27	11	0°	-7°	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D160	Carbide	16	12	9	180	27	11	0°	-7°	0.4	CC**0602...	1.2
E16H-SCLCR09-D180	Carbide	18	16	9	100	32	15	0°	-10°	0.8	CC**09T3...	3
E16L-SCLCR09-D180	Carbide	18	16	9	130	32	15	0°	-10°	0.8	CC**09T3...	3
E16R-SCLCR/L09-D180	Carbide	18	16	9	200	32	15	0°	-10°	0.8	CC**09T3...	3
E16H-SCLCR09-D200	Carbide	20	16	11	100	32	15	0°	-9°	0.8	CC**09T3...	3
E16L-SCLCR09-D200	Carbide	20	16	11	130	32	15	0°	-9°	0.8	CC**09T3...	3
E16R-SCLCR/L09-D200	Carbide	20	16	11	200	32	15	0°	-9°	0.8	CC**09T3...	3
E20S-SCLCR09-D220	Carbide	22	20	11	250	36	18	0°	-8°	0.8	CC**09T3...	3
E25T-SCLCR09-D270	Carbide	27	25	13.5	300	45	23	0°	-6°	0.8	CC**09T3...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS



Designation	Clamping screw	Wrench
A**-SCLCR/L03-D...	CSTA-1.6	T-6F
A**-SCLCR/L04-D...	CSTB-2	T-6F
A**-SCLCR/L06-D...	CSTB-2.5S	T-8F
A**-SCLCR/L09-D...	CSTB-4S	T-15F
E**-SCLCR/L03-D...	CSTA-1.6	T-6F
E**-SCLCR/L04-D...	CSTB-2	T-6F
E**-SCLCR/L06-D...	CSTB-2.5S	T-8F
E16*-SCLCR/L09-D...	CSTB-4L060	T-15F
E2*-SCLCR/L09-D...	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	NS9530	T9215	T9215
	Breaker Shape	01	PSS	PS	PM
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

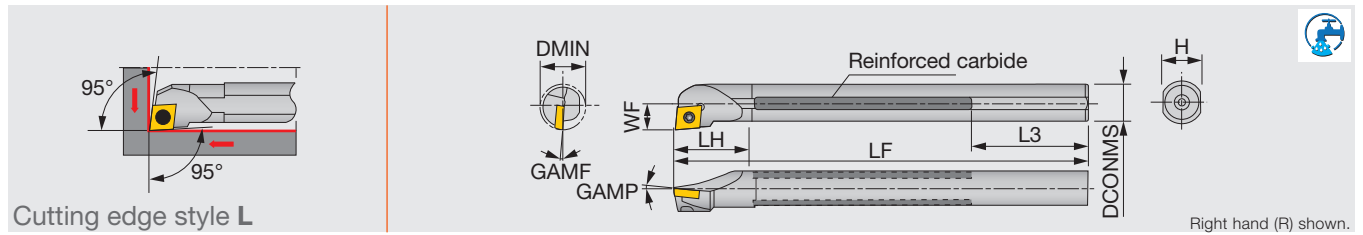
M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH725	AH630	T6130
	Breaker Shape	W**	PSF	PSS	PM
	Cutting conditions	B020			

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

T-SCLCR/L

Screw-on boring bar, for positive 80° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	GAMP	RE**	Insert	Torque*
T12M-SCLCR/L06	Reinforced	16	—	12	9	150	22	59	11	-10°	0°	0.4	CC**0602...	1.2
T16Q-SCLCR/L09	Reinforced	20	—	16	11	180	27	59	15	-10°	0°	0.8	CC**09T3...	3
T20R-SCLCR/L09C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-8°	0°	0.8	CC**09T3...	3
T25S-SCLCR/L09C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-6°	0°	0.8	CC**09T3...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLCR/L06	CSTB-2.5	T-8F
T16Q-SCLCR/L09	CSTB-4S	T-15F
T20R-SCLCR/L09C	CSTB-4S	T-15F
T25S-SCLCR/L09C	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

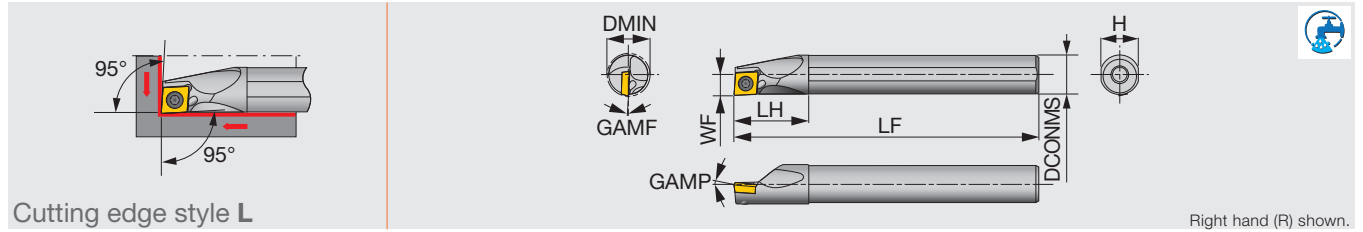
S	Application	Precision finishing	Finishing to medium cutting
	Grade	BX470	AH8005
	Breaker Shape	T-CBN	PS
	Cutting conditions	B026	

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B020			

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	TH10	KS05F
	Breaker Shape	T-DIA with rake	W20	AL
	Cutting conditions	B024		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: T-SCLCR/L: Insert → **B109 -**, CBN → **B180**, PCD → **B194 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A08H-SCLPR/L06-D100	Steel	10	8	5.5	100	16	7.5	5°	-8°	0.4	CP**0602...	1.2
A10K-SCLPR/L06-D120	Steel	12	10	6	125	20	9	5°	-5°	0.4	CP**0602...	1.2
A10K-SCLPR/L08-D120	Steel	12	10	6	125	20	9	5°	-5°	0.4	CP**0802...	1.4
A12M-SCLPR/L06-D140	Steel	14	12	7	150	24	11	5°	-4°	0.4	CP**0602...	1.2
A12M-SCLPR/L08-D140	Steel	14	12	7	150	24	11	5°	-4°	0.4	CP**0802...	1.4
A12M-SCLPR/L08-D160	Steel	16	12	9	150	24	11	5°	-3°	0.4	CP**0802...	1.4
A16Q-SCLPR/L09-D180	Steel	18	16	9	180	32	15	5°	-3.5°	0.8	CP**0903...	3
A16Q-SCLPR/L09-D200	Steel	20	16	11	180	32	15	5°	-3°	0.8	CP**0903...	3
A20R-SCLPR/L09-D220	Steel	22	20	11	200	36	18	5°	-2°	0.8	CP**0903...	3
A25S-SCLPR/L09-D270	Steel	27	25	13.5	250	45	23	5°	-1°	0.8	CP**0903...	3
E08K-SCLPR/L06-D100	Carbide	10	8	5.5	125	22	7.5	5°	-8°	0.4	CP**0602...	1.2
E10M-SCLPR/L06-D120	Carbide	12	10	6	150	25	9	5°	-5°	0.4	CP**0602...	1.2
E10H-SCLPR/L08-D120	Carbide	12	10	6	100	25	9	5°	-5°	0.4	CP**0802...	1.4
E10M-SCLPR/L08-D120	Carbide	12	10	6	150	25	9	5°	-5°	0.4	CP**0802...	1.4
E12Q-SCLPR/L06-D140	Carbide	14	12	7	180	27	11	5°	-4°	0.4	CP**0602...	1.2
E12G-SCLPR/L08-D140	Carbide	14	12	7	90	27	11	5°	-4°	0.4	CP**0802...	1.4
E12J-SCLPR/L08-D140	Carbide	14	12	7	110	27	11	5°	-4°	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D140	Carbide	14	12	7	180	27	11	5°	-4°	0.4	CP**0802...	1.4
E12G-SCLPR/L08-D160	Carbide	16	12	9	90	27	11	5°	-3°	0.4	CP**0802...	1.4
E12J-SCLPR/L08-D160	Carbide	16	12	9	110	27	11	5°	-3°	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D160	Carbide	16	12	9	180	27	11	5°	-3°	0.4	CP**0802...	1.4
E16H-SCLPR/L09-D180	Carbide	18	16	9	100	32	15	5°	-3.5°	0.8	CP**0903...	3
E16L-SCLPR/L09-D180	Carbide	18	16	9	130	32	15	5°	-3.5°	0.8	CP**0903...	3
E16R-SCLPR/L09-D180	Carbide	18	16	9	200	32	15	5°	-3.5°	0.8	CP**0903...	3
E16H-SCLPR/L09-D200	Carbide	20	16	11	100	32	15	5°	-3°	0.8	CP**0903...	3
E16L-SCLPR/L09-D200	Carbide	20	16	11	130	32	15	5°	-3°	0.8	CP**0903...	3
E16R-SCLPR/L09-D200	Carbide	20	16	11	200	32	15	5°	-3°	0.8	CP**0903...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SCLPR/L06-D...	CSTB-2.5S	T-8F
A10K-SCLPR/L08-D120	CSTB-3L042	T-9F
A12M-SCLPR/L08-D...	CSTB-3L050	T-9F
A**-SCLPR/L09-D...	CSTB-4L060	T-15F
E**-SCLPR/L06-D...	CSTB-2.5S	T-8F
E10*-SCLPR/L08-D...	CSTB-3L042	T-9F
E12*-SCLPR/L08-D...	CSTB-3L050	T-9F
E16*-SCLPR/L09-D...	CSTB-4L060	T-15F

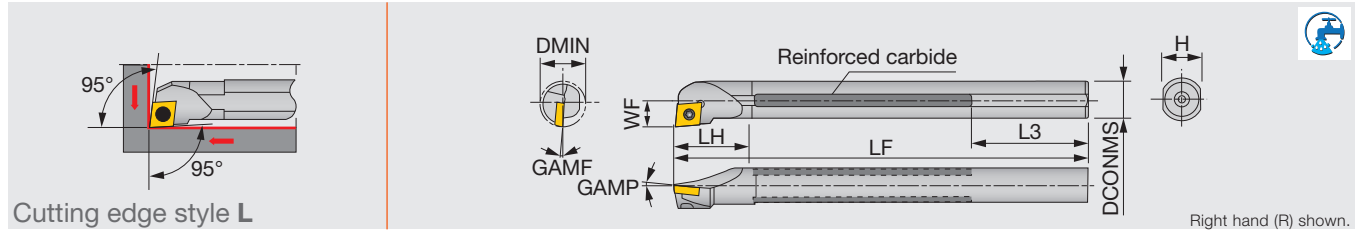
INSERT SELECTION

P	Application	Finishing to medium cutting	Medium cutting	M	Application	Finishing to medium cutting	Medium cutting	K	Application	Finishing to medium cutting
	Grade	T9215	T9215		Grade	T9215	T9215		Grade	T515
	Breaker Shape	PS	PM		Breaker Shape	PS	PM		Breaker Shape	CM
	Cutting conditions	B018			Cutting conditions	B020			Cutting conditions	B022

Reference pages: A/E-SCLPR/L: Insert → **B116** -

T-SCLPR/L

Screw-on boring bar, for positive 80° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	GAMP	RE**	Insert	Torque*
T12M-SCLPR08-D14	Reinforced	14	-	12	7	150	22	59	11	-4°	5°	0.4	CP**0802...	1.4
T12M-SCLPR/L08	Reinforced	16	-	12	9	150	25	59	11	-3°	5°	0.4	CP**0802...	1.4
T16Q-SCLPR09-D18	Reinforced	18	-	16	9	180	27	59	15	-3.5°	5°	0.8	CP**0903...	3
T16Q-SCLPR/L09	Reinforced	20	-	16	11	180	30	59	15	-4°	5°	0.8	CP**0903...	3
T20R-SCLPR09C-D22	Reinforced	22	Rc1/4	20	11	200	35	49	18	-2°	5°	0.8	CP**0903...	3
T20R-SCLPR/L09	Reinforced	25	-	20	13	200	35	49	18	-2°	5°	0.8	CP**0903...	3
T25S-SCLPR09C-D27	Reinforced	27	Rc1/4	25	13.5	250	40	64	23	-1°	5°	0.8	CP**0903...	3
T25S-SCLPR/L09	Reinforced	32	-	25	17	250	40	64	23	0°	5°	0.8	CP**0903...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLPR/L08...	CSTB-3L050	T-9F
T16Q-SCLPR09-D18	CSTB-4L060	T-15F
T16Q-SCLPR/L09	CSTB-4S	T-15F
T20R-SCLPR09C-D22	CSTB-4L060	T-15F
T20R-SCLPR/L09	CSTB-4S	T-15F
T25S-SCLPR09C-D27	CSTB-4L060	T-15F
T25S-SCLPR/L09	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		

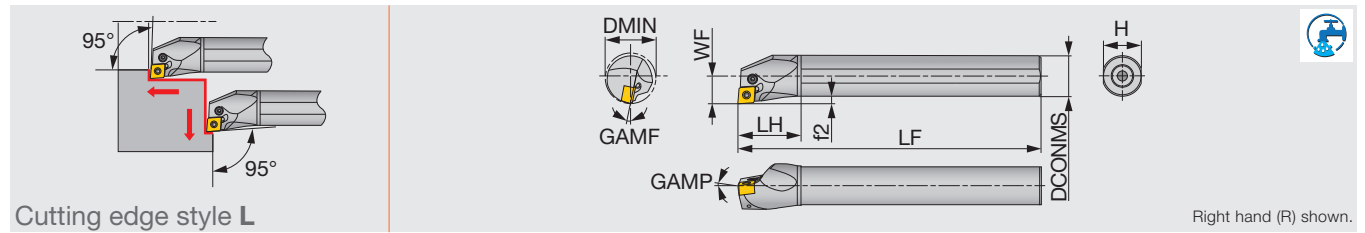
M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF	PSS	PM
	Cutting conditions	B020		

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

N	Application	Finishing
	Grade	DX140
	Breaker Shape	T-DIA
	Cutting conditions	B024

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

Reference pages: T-SCLPR/L: Insert → **B116** -



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PCLNR/L0904-D200	Steel	20	16	11	150	32	15	3	-6°	-16°	0.8	CN**0904...	1.7
A20Q-PCLNR/L0904-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**0904...	1.7

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PCLNR/L0904-D200	LCS33	P-2F	LCL33N	-	SSHM3-4
A20Q-PCLNR/L0904-D250	LCS33	P-2F	LCL33N	EA-20	SSHM3-4

*Optional

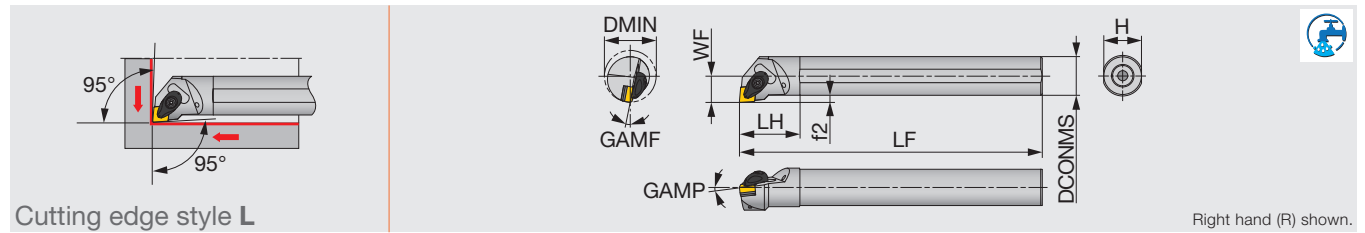
INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B018	

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SS	SM
	Cutting conditions	B020	

K	Application	Medium cutting
	Grade	T515
	Breaker Shape	TM
	Cutting conditions	B022

S	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TM
	Cutting conditions	B026



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ACLNR/L0904-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**0904...	3
A32S-ACLNR/L0904-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**0904...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L0904...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F

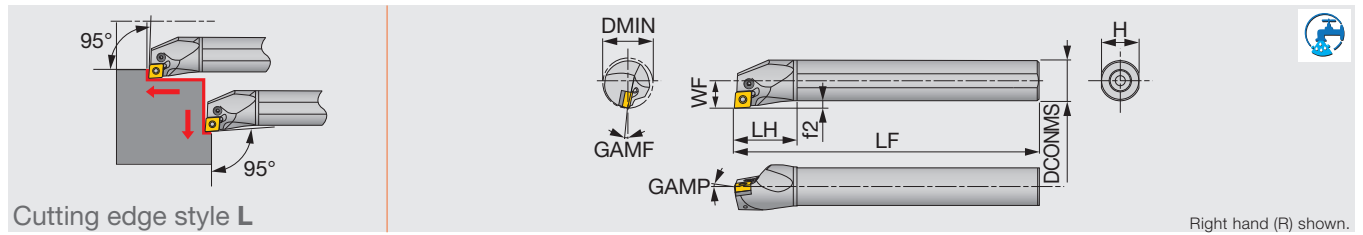
INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B018	

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SS	SM
	Cutting conditions	B020	

K	Application	Medium cutting
	Grade	T515
	Breaker Shape	TM
	Cutting conditions	B022

S	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TM
	Cutting conditions	B026



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PCLNR/L09-D200	Steel	20	16	11	150	32	15	3	-6°	-14°	0.8	CN**0903...	1.7
A20Q-PCLNR/L09-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**0903...	1.7
A25R-PCLNR/L09-D320	Steel	32	25	17	200	45	23	4.5	-6°	-11°	0.8	CN**0903...	1.7
A25R-PCLNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**1204...	2.7
A32S-PCLNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	CN**1204...	4.8
A40T-PCLNR/L12-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	CN**1204...	4.8
A50U-PCLNR/L12-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	CN**1204...	4.8

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

Note: Use right-hand toolholders (PCLNR**) with left-hand inserts (L); and left-hand toolholders (PCLNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A**-PCLNR/L09-D**0	-	LCS22A	-	P-2F	-	-	LCL32N	EA-25	SSHM5-6
A25R-PCLNR/L12-D320	-	LCS43	-	-	P-2.5	-	LCL43N	EA-32	SSHM5-6
A32S-PCLNR12-D400	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM5-6
A32S-PCLNL12-D400	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A40T-PCLNR12-D500	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A40T-PCLNL12-D500	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PCLNR12-D630	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PCLNL12-D630	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

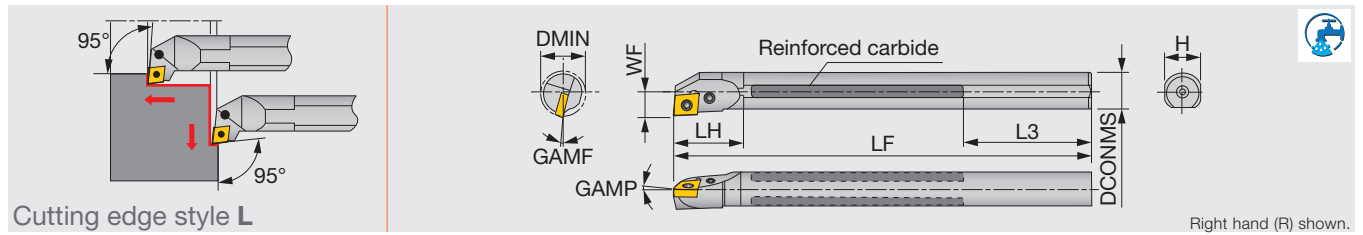
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA	with rake T-DIA	P
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: A-PCLNR/L: Insert → B054 -, CBN → B170 -, PCD → B192 -

T-PCLNR

Lever-lock boring bar, for negative 80° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMP	GAMF	RE**	Insert	Torque*
T16Q-PCLNR09	Reinforced	20	-	16	11	180	27	59	15	-6°	-14°	0.8	CN**0903...	1.7
T20R-PCLNR09C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-6°	-12°	0.8	CN**0903...	1.7
T25S-PCLNR09C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-6°	-11°	0.8	CN**0903...	1.7
T32U-PCLNR12C	Reinforced	40	Rc1/2	32	22	350	50	103	30	-6°	-11°	0.8	CN**1204...	4.8
T40V-PCLNR12C	Reinforced	50	Rc1/2	40	27	400	55	88	37	-6°	-10°	0.8	CN**1204...	4.8
T50W-PCLNR12C	Reinforced	63	Rc1/2	50	35	450	65	63	47	-6°	-8°	0.8	CN**1204...	4.8

*Torque: Recommended clamping torque (N-m)

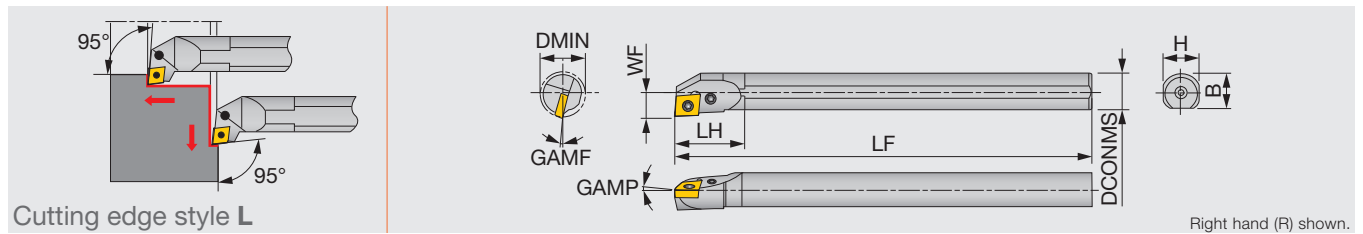
**RE: Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
T**-PCLNR09...	-	LCS22A	-	P-2F	-	-	LCL32N
T**-PCLNR12C	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4

S-PCLNR/L

Lever-lock boring bar, for negative 80° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMP	GAMF	RE**	Insert	Torque*
S16M-PCLNR/L09	Steel	20	16	11	150	30	15	15.5	-6°	-14°	0.8	CN**0903...	1.7
S20Q-PCLNR/L09	Steel	25	20	13	180	35	18	19	-6°	-12°	0.8	CN**0903...	1.7
S25R-PCLNR/L09	Steel	32	25	17	200	40	23	24	-6°	-11°	0.8	CN**0903...	1.7
S32S-PCLNR/L12	Steel	40	32	22	250	50	30	29.5	-6°	-11°	0.8	CN**1204...	4.8
S40T-PCLNR/L12	Steel	50	40	27	300	55	37	37.5	-6°	-10°	0.8	CN**1204...	4.8
S50U-PCLNR/L12	Steel	63	50	35	350	65	47	47.5	-6°	-8°	0.8	CN**1204...	4.8

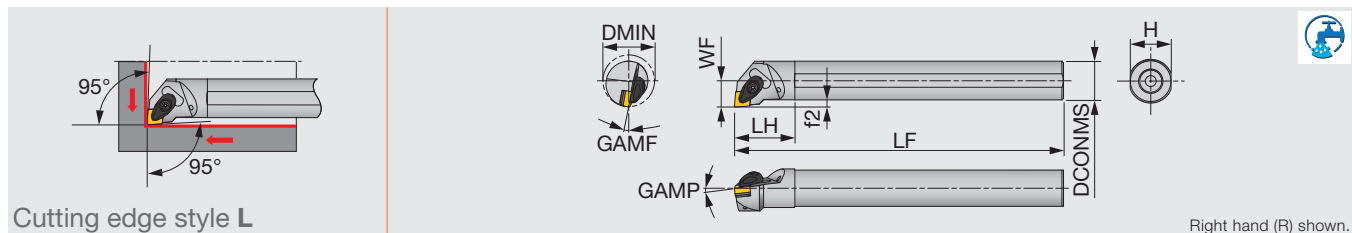
*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
S**-PCLNR/L09	-	LCS22A	-	P-2F	-	-	LCL32N
S32S-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S40T-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S50U-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4

Reference pages: T-PCLNR, S-PCLNR/L: Insert → **B054** -, CBN → **B170** -, PCD → **B192** -



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ACLNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**1204...	3
A32S-ACLNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**1204...	3
A40T-ACLNR/L12-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	CN**1204...	3
A50U-ACLNR12-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	0.8	CN**1204...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

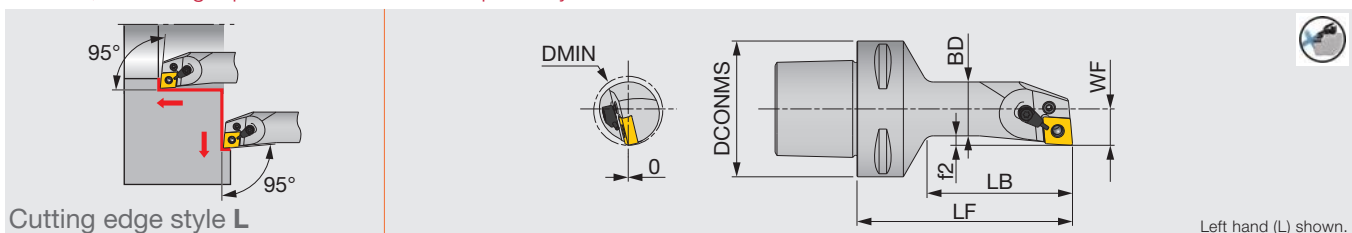
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F

TUNG TJET

C-PCLNL-CHP

Lever-lock boring bar with TungCap connection, with 95° approach angle, for negative 80° rhombic inserts, with high pressure coolant capability



Designation	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PCLNL17100-12-CHP	32	63	25	100	67.5	17	4.5	0.8	CN**1204...

Applicable for 14 MPa coolant

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Lever
C6PCLNL17100-12-CHP	LCS43	S-CU-CHP	P-2.5F	LCL43N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

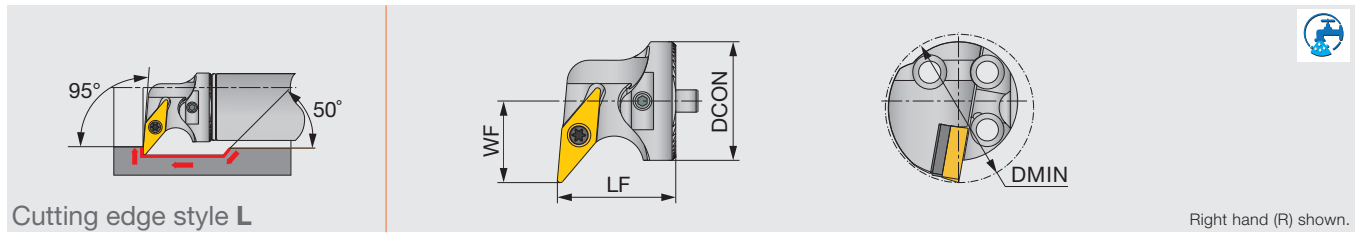
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA	with rake T-DIA	P
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: A-ACLNR/L, C-PCLNL-CHP: Insert → B054 -, CBN → B170 -, PCD → B192 -



Cutting edge style L

Right hand (R) shown.

Designation	DMIN	DCON	WF	LF	Shank	Insert
S32-SVLCR/L16T-H	40	32	22	32	D32	VC**1604...
S40-SVLCR/L16T-H	50	40	27	32	D40, D50, D60	VC**1604...

Note: Use right-hand toolholders (SVLCR**) with left-hand inserts (L); and left-hand toolholders (SVLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S32-SVLCR/L16T-H	SR16-236P	T-15/5	TVC 3-1P	SRTC-3P
S40-SVLCR/L16T-H	SR16-236P	T-15/5	TVC 3-1P	SRTC-3P

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

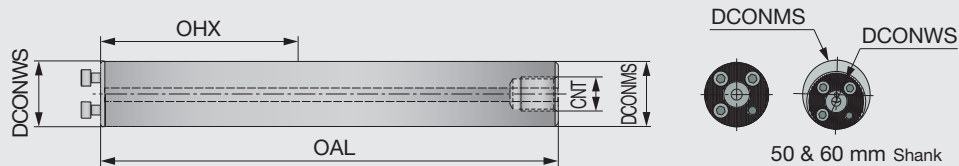
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF	PSS	PM
	Cutting conditions	B020		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

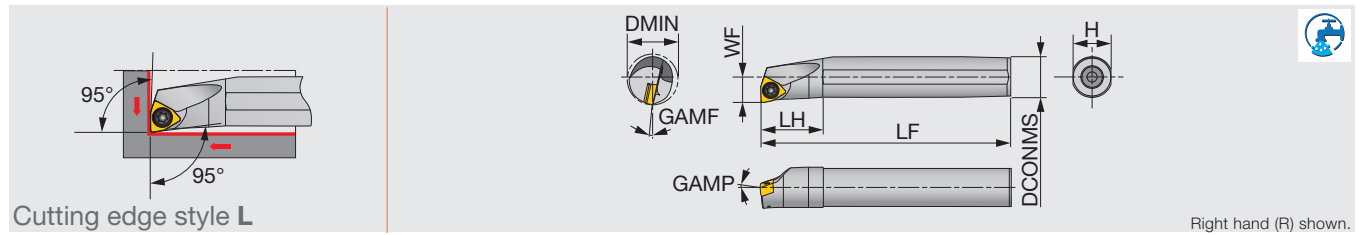
Reference pages: S-SVLCR/L-H: Insert → **B153** -, CBN → **B190**, PCD → **B194** -



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156	92	G1/8
G16-L204-10D-E	Carbide	16	16	204	140	-
D20-L200-7D-C	Steel	20	20	200	120	G1/4
G20-L260-10D-E	Carbide	20	20	260	180	-
D25-L255-7D-C	Steel	25	25	255	155	G1/4
D25-L330-10D-C	Steel	25	25	330	230	G1/4
D32-L320-7D-C	Steel	32	32	320	192	G3/8
D32-L416-10D-C	Steel	32	32	416	288	G3/8
D40-L408-7D-C	Steel	40	40	408	248	G1/2
D40-L528-10D-C	Steel	40	40	528	368	G1/2
D50-L518-7D-C	Steel	40	50	518	318	G1/2
D50-L668-10D-C	Steel	40	50	668	468	G1/2
D60-L628-7D-C	Steel	40	60	628	388	G3/4
D60-L808-10D-C	Steel	40	60	808	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SRM3.5X10DIN912	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A10K-SWLXR/L04-D120	Steel	12	10	6	125	20	9	-10°	-16°	0.4	WXGU0403**L/R...	0.9
A12M-SWLXR/L04-D140	Steel	14	12	7	150	24	11	-10°	-14°	0.4	WXGU0403**L/R...	0.9
A16Q-SWLXR/L04-D180	Steel	18	16	9	180	32	15	-10°	-11°	0.4	WXGU0403**L/R...	0.9
A20R-SWLXR/L04-D220	Steel	22	20	11	200	36	18	-10°	-10°	0.4	WXGU0403**L/R...	0.9
E10M-SWLXR/L04-D120	Carbide	12	10	6	150	25	9	-10°	-16°	0.4	WXGU0403**L/R...	0.9
E12Q-SWLXR/L04-D140	Carbide	14	12	7	180	27	11	-10°	-14°	0.4	WXGU0403**L/R...	0.9
E16R-SWLXR/L04-D180	Carbide	18	16	9	200	32	15	-10°	-11°	0.4	WXGU0403**L/R...	0.9
E20S-SWLXR/L04-D220	Carbide	22	20	11	250	36	18	-10°	-10°	0.4	WXGU0403**L/R...	0.9

*Torque: Recommended clamping torque (N-m) **RE: Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R)

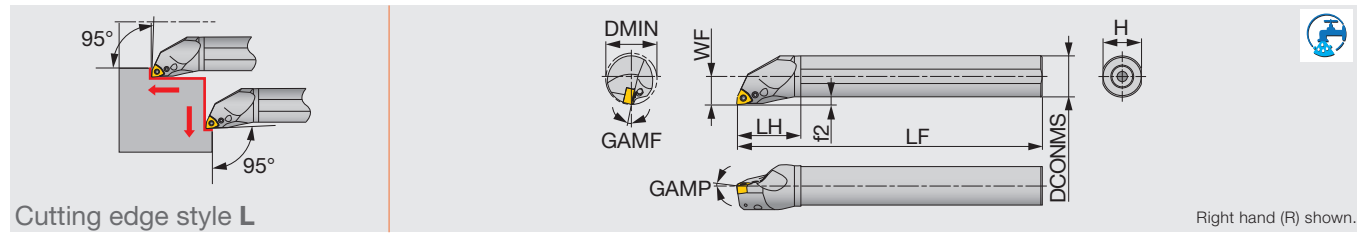
SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SWLXR/L...	SR34-514	T-7F

INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	NS9530	AH725
	Breaker Shape	SS	TS
	Cutting conditions	D095	
M	Application	Finishing	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS	TS
	Cutting conditions	D095	
K	Application	Finishing	Medium cutting
	Grade	NS9530	AH725
	Breaker Shape	SS	TS
	Cutting conditions	D095	
N	Application	Finishing	Medium cutting
	Grade	KS05F	KS05F
	Breaker Shape	SS	TS
	Cutting conditions	D095	

Reference pages: A/E-SWLXR/L: Insert → **B158** -
Standard cutting conditions → **D095**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PWLNLR/L0604-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNLR/L0604-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PWLNLR/L0604-D200	LCS33	P-2F	LCL33N	-	SSHM3-4
A20Q-PWLNLR/L0604-D250	LCS33	P-2F	LCL33N	EA-20	SSHM3-4

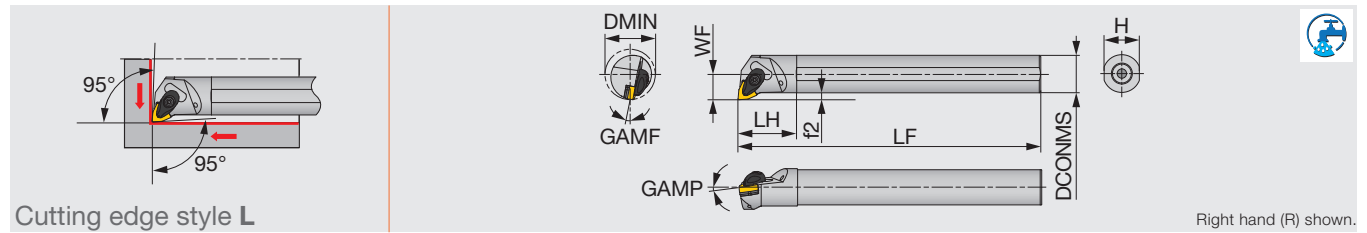
*Optional

INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B006	

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SS	SM
	Cutting conditions	B008	

K	Application	Medium cutting
	Grade	T515
	Breaker Shape	TM
	Cutting conditions	B010



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-AWLNR/L0604-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNR/L0604-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

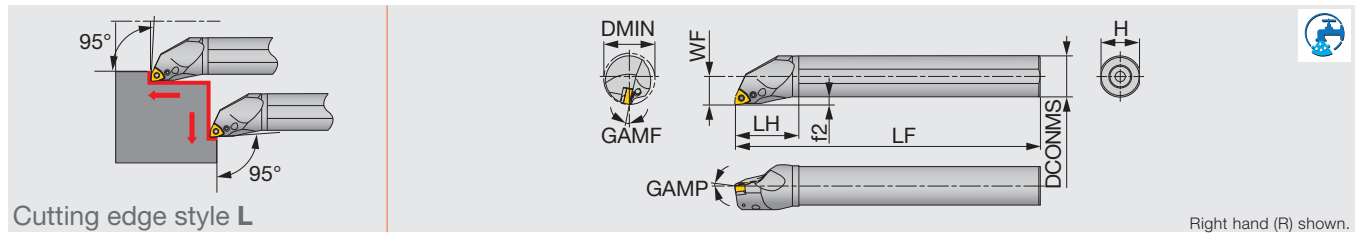
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNR/L...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B006	

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SS	SM
	Cutting conditions	B008	

K	Application	Medium cutting
	Grade	T515
	Breaker Shape	TM
	Cutting conditions	B010



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PWLNLR/L06-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNLR/L06-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7
A25R-PWLNLR/L06-D320	Steel	32	25	17	200	45	23	4.5	-6°	-12°	0.8	WN**0604...	2.7
A32S-PWLNLR/L06-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	WN**0604...	2.7
A25R-PWLNLR/L08-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0804...	2.7
A32S-PWLNLR/L08-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	WN**0804...	4.8
A40T-PWLNLR/L08-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	WN**0804...	4.8

*Torque: Recommended clamping torque (N·m) **RE: Standard corner radius

Note: Use right-hand toolholders (PWLNLR**) with left-hand inserts (L); and left-hand toolholders (PWLNLR**) with right-hand inserts (R).

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PWLNLR/L06-D200	-	LCS33	-	P-2F	-	-	LCL33N	-	SSHM3-4
A20Q-PWLNLR/L06-D250	-	LCS33	-	P-2F	-	-	LCL33N	EA-20	SSHM3-4
A25R-PWLNLR/L06-D320	LSW312BR/L	-	LCS3B	-	P-2.5	LSP3	LCL3	EA-25	SSHM4-5
A32S-PWLNLR/L06-D400	LSW312BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32	SSHM4-5
A25R-PWLNLR/L08-D320	-	LCS43	-	-	P-2.5	-	LCL43N	EA-25	SSHM4-5
A32S-PWLNLR/L08-D400	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM4-5
A40T-PWLNLR/L08-D500	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM4-5

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
					
Cutting conditions		B006			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
				
Cutting conditions		B008		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
				
Cutting conditions		B010		

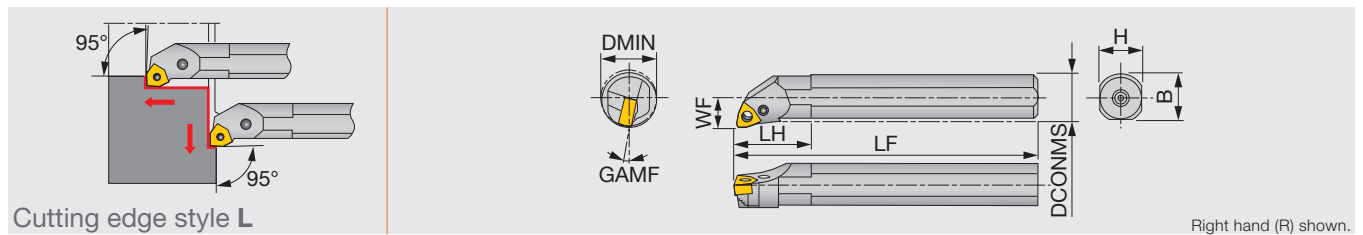
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
				
Cutting conditions		B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
			
Cutting conditions		B016	

Reference pages: A-PWLNLR/L: Insert → B099 -, CBN → B179

S-PWLNR/L

Lever-lock boring bar, for negative 80° trigon inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S16M-PWLNR/L06	Steel	20	16	11	150	30	15	15.5	-17°	0.8	WN**0604...
S20Q-PWLNR/L06	Steel	25	20	13	180	35	18	19	-14°	0.8	WN**0604...
S25R-PWLNR/L06	Steel	32	25	17	200	40	23	24	-12°	0.8	WN**0604...

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench	Spring pin	Lever
S**-PWLNR/L06	-	LCS33	-	P-2F	-	-	LCL33N
S25R-PWLNR06	LSW312BR	-	LCS3B	-	P-2.5	LSP3	LCL3
S25R-PWLNL06	LSW312BL	-	LCS3B	-	P-2.5	LSP3	LCL3

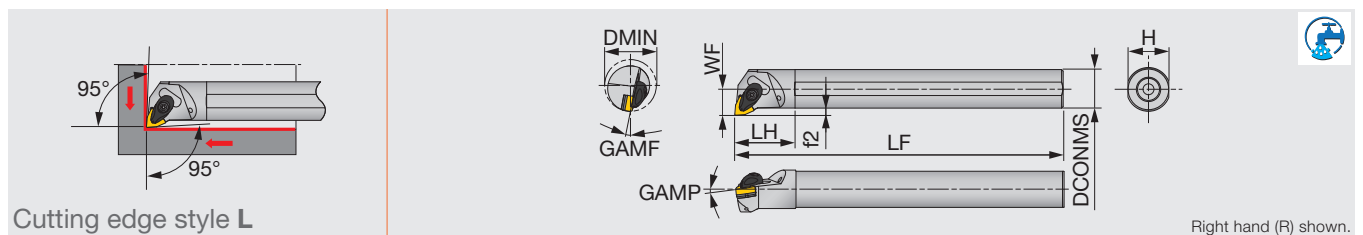
**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

TURNINGA

A-AWLNR/L

Double-clamp boring bar, for negative 80° trigon inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-AWLNR/L06-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNR/L06-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3
A25R-AWLNR/L08-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0804...	3
A32S-AWLNR/L08-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0804...	3
A40T-AWLNR/L08-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	WN**0804...	3
A50U-AWLNR/L08-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	0.8	WN**0804...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNR/L06-D...	ACP3S	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
A**-AWLNR/L08-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

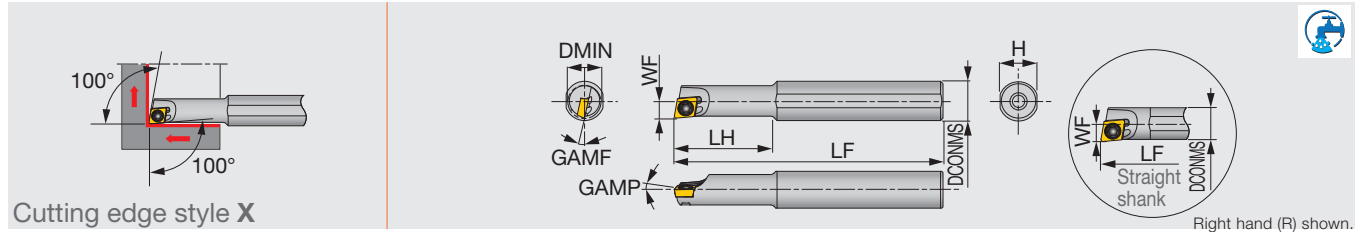
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: S-PWLNR/L, A-AWLNR/L:
Insert → B099 -, CBN → B179



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A04F-SEXPR/L03-D045	Steel	4.5	4	2.3	80	8	3.8	0°	-15°	0.2	EP**03X1...	0.6
A04F-SEXPR/L03-D050	Steel	5	4	2.5	80	8	3.8	0°	-13°	0.2	EP**03X1...	0.6
A05F-SEXPR/L04-D055	Steel	5.5	5	2.75	80	9	4.8	0°	-12°	0.4	EP**0401...	0.6
A06G-SEXPR/L04-D070	Steel	7	6	3.6	90	11	5.75	0°	-12°	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D055	Steel	5.5	8	2.75	100	16	7.5	0°	-12°	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D070	Steel	7	8	3.6	100	20	7.5	0°	-12°	0.4	EP**0401...	0.6
E04G-SEXPR/L03-D045	Carbide	4.5	4	2.3	90	9	3.8	0°	-15°	0.2	EP**03X1...	0.6
E04G-SEXPR/L03-D050	Carbide	5	4	2.5	90	9	3.8	0°	-13°	0.2	EP**03X1...	0.6
E05G-SEXPR/L04-D055	Carbide	5.5	5	2.75	90	10	4.8	0°	-12°	0.4	EP**0401...	0.6
E06H-SEXPR/L04-D070	Carbide	7	6	3.6	100	12	5.75	0°	-12°	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D055	Carbide	5.5	8	2.75	125	28	7.5	0°	-12°	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D070	Carbide	7	8	3.6	125	40	7.5	0°	-12°	0.4	EP**0401...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

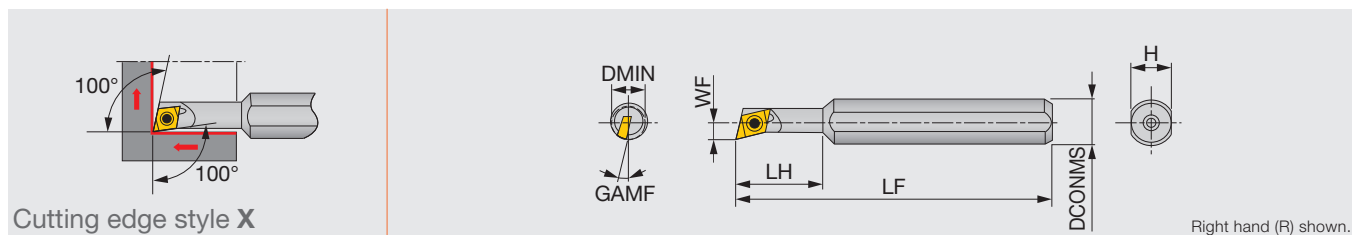
Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L); and left-hand toolholders (SEXPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SEXPR/L03-D...	CSTA-1.6	T-6F
A**-SEXPR/L04-D...	CSTB-2	T-6F
E**-SEXPR/L03-D...	CSTA-1.6	T-6F
E**-SEXPR/L04-D...	CSTB-2	T-6F

INSERT SELECTION

P	Application: Finishing Grade: JS Breaker Shape: Cutting conditions: B018	M	Application: Finishing Grade: JS Breaker Shape: Cutting conditions: B020	K	Application: Finishing Grade: JS Breaker Shape: Cutting conditions: B022
N	Application: Precision finishing Grade: DX140 Breaker Shape: Cutting conditions: B024		Application: Precision finishing Grade: GH110 Breaker Shape: Cutting conditions: B024	H	Application: Precision finishing Grade: BX310 Breaker Shape: Cutting conditions: B028



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMF	RE**	Insert	Torque*
JS08H-SEXPR045	Steel	5.5	8	2.7	100	16	7	12°	0.4	EP**0401...	0.6
JS08H-SEXPR047	Steel	7	8	3.6	100	20	7	12°	0.4	EP**0401...	0.6

SPARE PARTS

Designation	Clamping screw	Wrench
JS08H-SEXPR04...	CSTB-2	T-6F

*Torque: Recommended clamping torque (N·m)

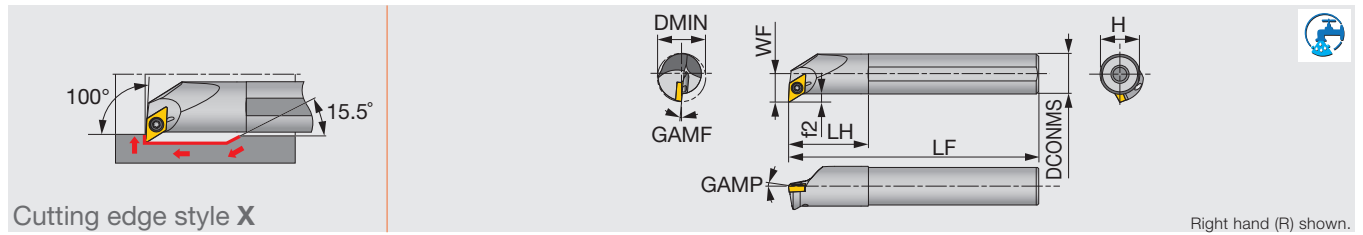
**RE : Standard corner radius

Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L); and left-hand toolholders (SEXPL**) with right-hand inserts (R).

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725
	Breaker Shape	JS 		Breaker Shape	JS 		Breaker Shape	JS 
	Cutting conditions	B018		Cutting conditions	B020		Cutting conditions	B022

N	Application	Precision finishing	H	Application	Precision finishing
	Grade	DX140		Grade	BX310
	Breaker Shape	T-DIA  W08 		Breaker Shape	T-CBN 
	Cutting conditions	B024		Cutting conditions	B028



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDXXR/L07-D130	Steel	13	10	7.6	125	20	9	2.6	-14°	-16°	0.4	DXGU0703**L/R...	0.9
A12M-SDXXR/L07-D160	Steel	16	12	8.6	150	24	11	2.6	-14°	-14°	0.4	DXGU0703**L/R...	0.9
A16Q-SDXXR/L07-D200	Steel	20	16	10.6	180	32	15	2.6	-13°	-13°	0.4	DXGU0703**L/R...	0.9
A20R-SDXXR/L07-D240	Steel	24	20	12.6	200	36	18	2.6	-13°	-12°	0.4	DXGU0703**L/R...	0.9
E10M-SDXXR/L07-D130	Carbide	13	10	7.6	150	25	9	2.6	-14°	-16°	0.4	DXGU0703**L/R...	0.9
E12Q-SDXXR/L07-D160	Carbide	16	12	8.6	180	27	11	2.6	-14°	-14°	0.4	DXGU0703**L/R...	0.9
E16R-SDXXR/L07-D200	Carbide	20	16	10.6	200	32	15	2.6	-13°	-13°	0.4	DXGU0703**L/R...	0.9
E20S-SDXXR/L07-D240	Carbide	24	20	12.6	250	36	18	2.6	-13°	-12°	0.4	DXGU0703**L/R...	0.9

*Torque: Recommended clamping torque (N-m) **RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDXXR/L...	SR34-514	T-7F

INSERT SELECTION

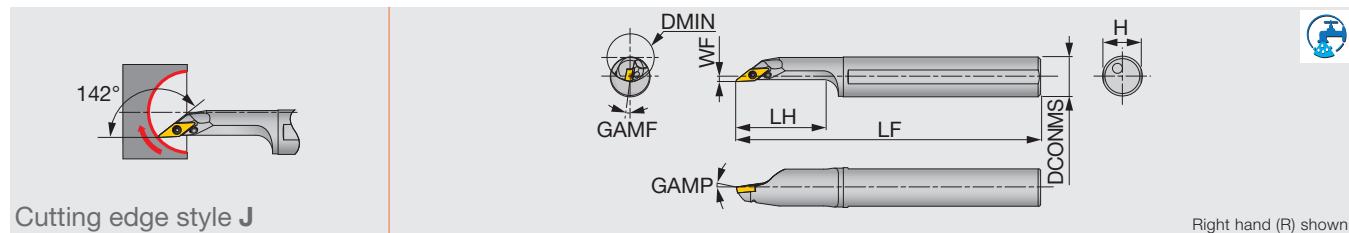
Swiss lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	SH725	AH725		Grade	SH725	AH725
	Breaker Shape	JSS	JTS		Breaker Shape	JSS	JTS
	Cutting conditions	D095			Cutting conditions	D095	

Small CNC lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	AH725	AH725		Grade	AH8015	AH8015
	Breaker Shape	SS	TS		Breaker Shape	SS	TS
	Cutting conditions	D095			Cutting conditions	D095	

Reference pages: A/E-SDXXR/L: Insert → **B125** -
Standard cutting conditions → **D095**



Cutting edge style J

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A20R-SVJBR/L11-D250	Steel	25	20	2	200	40	18	-5°	-5°	0.4	VB**1103...	1.2
A25S-SVJBR/L11-D300	Steel	30	25	3.5	250	50	23	-5°	-5°	0.4	VB**1103...	1.2

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVJBR**) with left-hand inserts (L); and left-hand toolholders (SVJBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVJB*11-D...	CSTB-2.5	T-8F

INSERT SELECTION

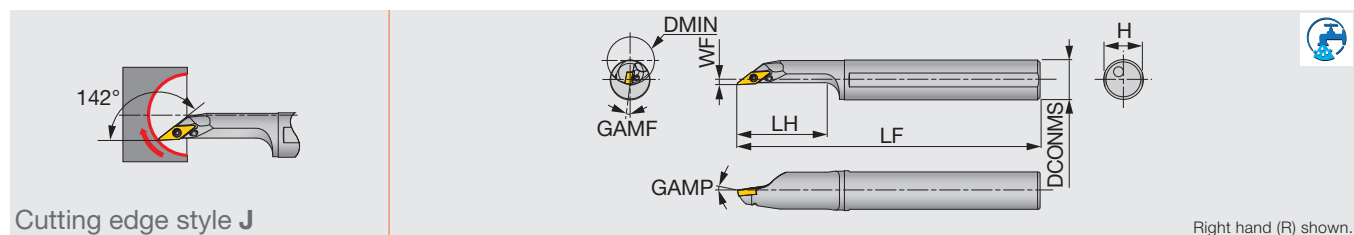
P	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B018	

M	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B020	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: A-SVJBR/L: Insert → **B150** -, CBN → **B189**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVJCR/L08-D160	Steel	16	12	2	150	28	11	-5°	-5°	0.4	VC**0802...	0.6
A16Q-SVJCR/L08-D200	Steel	20	16	2	180	35	15	-5°	-5°	0.4	VC**0802...	0.6

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

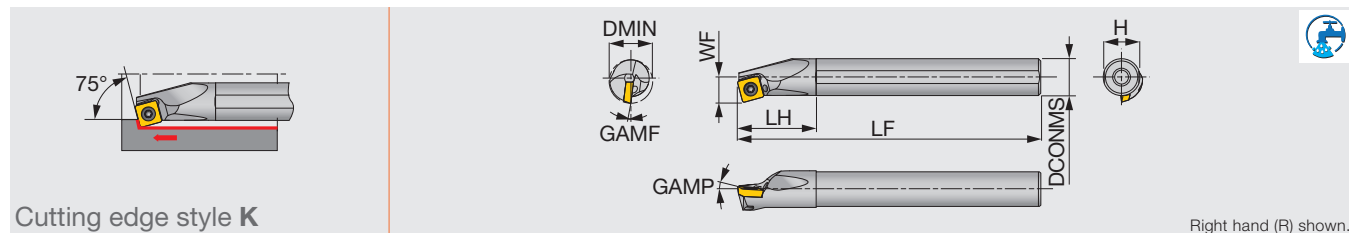
Note: Use right-hand toolholders (SVJCR**) with left-hand inserts (L); and left-hand toolholders (SVJCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVJC*08-D...	CSTB-2L	T-6F

INSERT SELECTION

P	Application	Finishing to medium cutting	M	Application	Finishing to medium cutting
	Grade	T9215		Grade	T9215
	Breaker Shape	PS		Breaker Shape	PS
	Cutting conditions	B018		Cutting conditions	B020
K	Application	Finishing to medium cutting	N	Application	Precision finishing
	Grade	T515		Grade	DX120
	Breaker Shape	CM		Breaker Shape	T-DIA with rake AL
	Cutting conditions	B022		Cutting conditions	B024
S	Application	Finishing to medium cutting	H	Application	Precision finishing
	Grade	AH8005		Grade	BXM10
	Breaker Shape	PS		Breaker Shape	T-CBN
	Cutting conditions	B026		Cutting conditions	B028



Cutting edge style K

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SSKPR09-D200	Steel	20	16	11	180	32	15	5°	-6°	0.8	SP**0903...	3
A20R-SSKPR09-D240	Steel	24	20	13	200	36	18	5°	-2°	0.8	SP**0903...	3
A25S-SSKPR12-D310	Steel	31	25	17	250	45	23	5°	-2°	0.8	SP**1204...	6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SSKPR**) with left-hand inserts (L); and left-hand toolholders (SSKPL**) with right-hand inserts (R).

SPARE PARTS

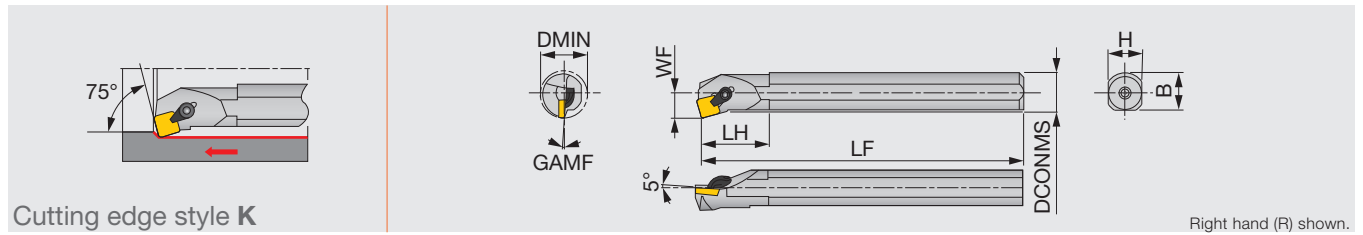
Designation	Clamping screw	Wrench
A**-SSKPR09-D2*0	CSTB-4L060	T-15F
A25S-SSKPR12-D310	CSTB-5S	T-20F

INSERT SELECTION

P	Application	Finishing to medium cutting
	Grade	T9215
	Breaker Shape	PS 
	Cutting conditions	B018
M	Application	Finishing to medium cutting
	Grade	T9215
	Breaker Shape	PS 
	Cutting conditions	B020
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM 
	Cutting conditions	B022

S/C-CSKPR/L

Clamp-on boring bar, for positive square inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S16Q-CSKPR09	Steel	20	16	11	180	30	15	15	-4°	0.8	SP**0903...
S20R-CSKPR/L09	Steel	25	20	13	200	40	18	18.5	-2°	0.8	SP**0903...
S25S-CSKPR12	Steel	32	25	17	250	45	23	22.5	0°	0.8	SP**1203...

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

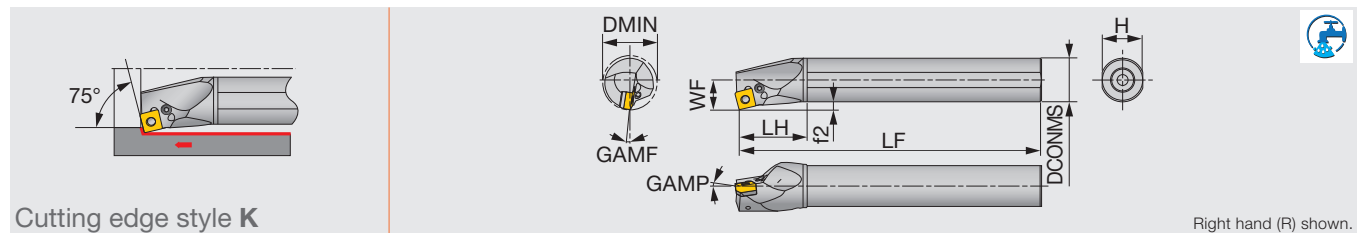
SPARE PARTS

Designation	Clamp set	Wrench
S16Q-CSKPR09	CSG-5S	P-2.5
S20R-CSKPR/L09	CSG-5	P-2.5
S25S-CSKPR12	CSG-6	P-3

INSERT SELECTION

P	Application	Finishing to medium cutting	M	Application	Medium cutting
	Grade	T9215		Grade	T6130
	Breaker Shape			Breaker Shape	
	Cutting conditions	B018		Cutting conditions	B020
K	Application	Finishing to medium cutting	N	Application	Finishing
	Grade	T515		Grade	DX140
	Breaker Shape			Breaker Shape	
	Cutting conditions	B022		Cutting conditions	B024

Reference pages: S/C-CSKPR/L: Insert → **B134 -**, CBN → **B184**, PCD → **B195**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A32S-PSKNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	SN**1204...	4.8
A40T-PSKNR/L12-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	SN**1204...	4.8
A50U-PSKNR/L12-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	SN**1204...	4.8

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (PSKNR**) with left-hand inserts (L); and left-hand toolholders (PSKNL**) with right-hand inserts (R).

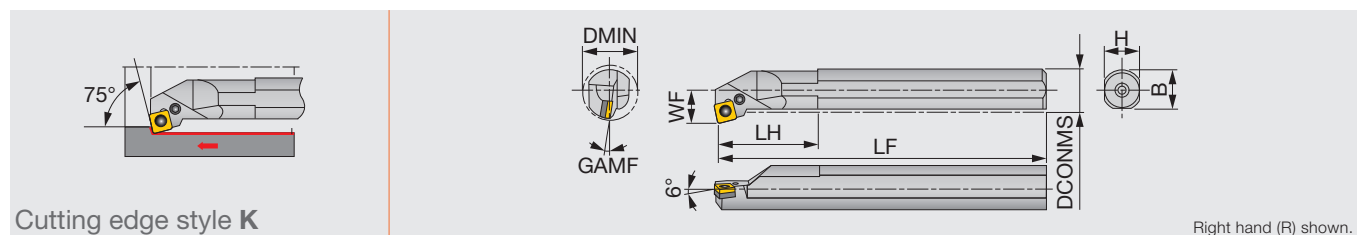
SPARE PARTS

Designation	Shim	Screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A32S-PSKNR/L12-D400	LSS42BR/L	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5
A40T-PSKNR/L12-D500	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PSKNR/L12-D630	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	SSHM6-6

*Optional

S-PSKNR

Lever-lock boring bar, for negative square inserts



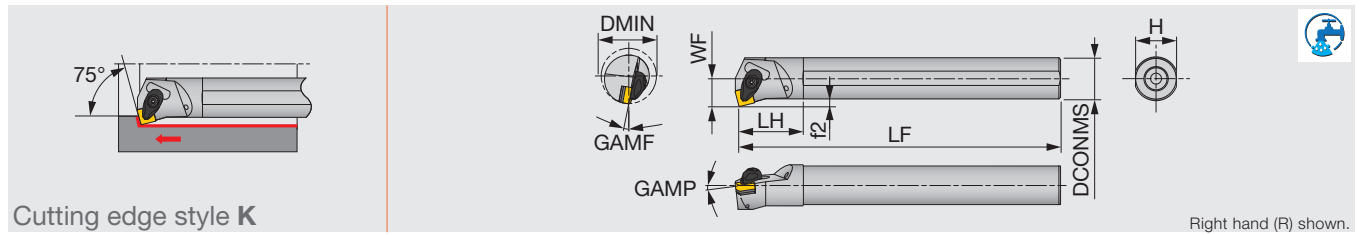
Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S32S-PSKNR12	Steel	40	32	22	250	50	30	29.5	-10°	0.8	SN**1204...
S40T-PSKNR12	Steel	50	40	27	300	55	37	37.5	-10°	0.8	SN**1204...
S50U-PSKNR12	Steel	63	50	35	350	65	47	47.5	-8°	0.8	SN**1204...

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S**-PSKNR12	LSS42BR	LCS4	P-3	LSP4	LCL4



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ASKNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	SN**1204...	3
A32S-ASKNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	SN**1204...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ASKN*12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

INSERT SELECTION

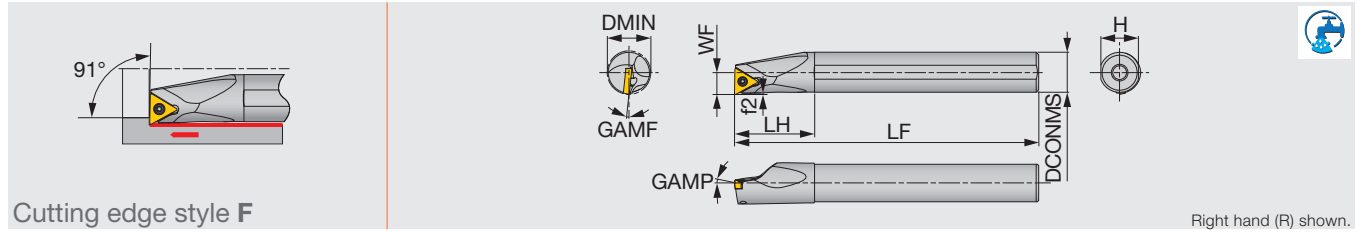
P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Breaker Shape	T-DIA	P
	Cutting conditions	B012	

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		



Cutting edge style F

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMF	GAMF	RE**	Insert	Torque*
A10K-STFCR/L1103-D120	Steel	12	10	6.5	125	20	9	0.6	0°	-13°	0.4	TC**1103...	1.2
A12M-STFCR/L1103-D140	Steel	14	12	7	150	24	11	0.5	0°	-10°	0.4	TC**1103...	1.2
A16Q-STFCR/L1103-D180	Steel	18	16	9	180	32	15	0.5	0°	-7°	0.4	TC**1103...	1.2
E10M-STFCR/L1103-D120	Carbide	12	10	6.5	150	25	9	0.7	0°	-13°	0.4	TC**1103...	1.2
E12Q-STFCR/L1103-D140	Carbide	14	12	7	180	27	11	0.5	0°	-10°	0.4	TC**1103...	1.2
E16R-STFCR/L1103-D180	Carbide	18	16	9	200	32	15	0.5	0°	-7°	0.4	TC**1103...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STFCR**) with left-hand inserts (L); and left-hand toolholders (STFCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-STFCR/L1103-D...	CSTB-2.5	T-8F
E**-STFCR/L1103-D...	CSTB-2.5	T-8F

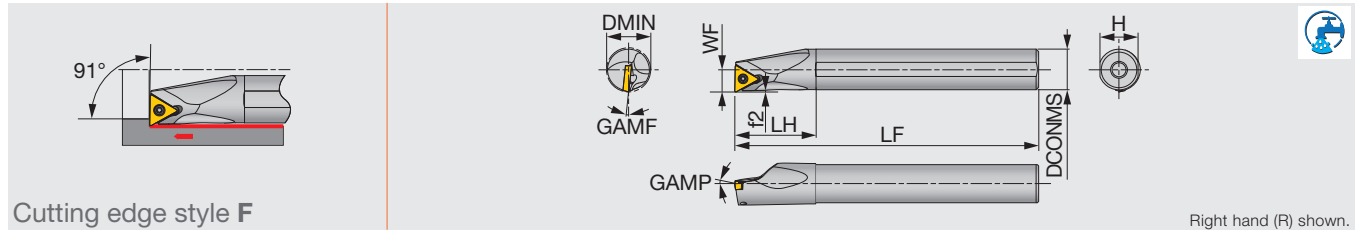
INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape				
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	
	Cutting conditions	B022

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape				
	Cutting conditions	B020			

N	Application	Precision finishing	Medium cutting
	Grade	DX120	KS05F
	Breaker Shape		
	Cutting conditions	B024	



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A08H-STFPR/L09-D100	Steel	10	8	5.5	100	16	7.5	0.7	5°	-8°	0.4	TP**0902...	0.9
A10K-STFPR/L1102-D120	Steel	12	10	6.5	125	20	9	0.7	5°	-6°	0.4	TP**1102...	1.2
A12M-STFPR/L1102-D140	Steel	14	12	7.0	150	24	11	0.6	5°	-4°	0.4	TP**1102...	1.2
A16Q-STFPR/L13-D180	Steel	18	16	9	180	32	15	0.7	5°	-2°	0.4	TP**1303...	1.4
A20R-STFPR13-D220	Steel	22	20	11	200	36	18	0.8	5°	-2°	0.4	TP**1303...	1.4
A25S-STFPR16-D270	Steel	27	25	13.5	250	45	23	0.6	5°	-1°	0.4	TP**16T3...	3
E08K-STFPR/L09-D100	Carbide	10	8	5.5	125	22	7.5	0.7	5°	-8°	0.4	TP**0902...	0.9
E10M-STFPR/L1102-D120	Carbide	12	10	6.5	150	25	9	0.7	5°	-6°	0.4	TP**1102...	1.2
E12Q-STFPR/L1102-D140	Carbide	14	12	7	180	27	11	0.6	5°	-4°	0.4	TP**1102...	1.2
E16R-STFPR13-D180	Carbide	18	16	9	200	32	15	0.7	5°	-2°	0.4	TP**1303...	1.4
E20S-STFPR13-D220	Carbide	22	20	11	250	36	18	0.8	5°	-2°	0.4	TP**1303...	1.4

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STFPR**) with left-hand inserts (L); and left-hand toolholders (STFPL**) with right-hand inserts (R).

(1) TPGH, TPGM, and TPGA inserts cannot be used.

SPARE PARTS

Designation	Clamping screw	Wrench
A08H-STFPR/L09-D100	CSTB-2.2S	T-7F
A10K-STFPR/L1102-D120	CSTB-2.5B	T-8F
A12M-STFPR/L1102-D140	CSTB-2.5	T-8F
A16Q-STFPR/L13-D180	CSTB-3S	T-9F
A20R-STFPR13-D220	CSTB-3	T-9F
A25S-STFPR16-D270	CSTB-4M	T-15F
E08K-STFPR/L09-D100	CSTB-2.2S	T-7F
E10M-STFPR/L1102-D120	CSTB-2.5B	T-8F
E12Q-STFPR/L1102-D140	CSTB-2.5	T-8F
E16R-STFPR13-D180	CSTB-3S	T-9F
E20S-STFPR13-D220	CSTB-3	T-9F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	T9215	T9215
	Breaker Shape	JS	PS	PM
	Cutting conditions	B018		

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

S	Application	Precision finishing
	Grade	BX470
	Breaker Shape	T-CBN
	Cutting conditions	B026

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	T9215	T9215
	Breaker Shape	JS	PS	PM
	Cutting conditions	B020		

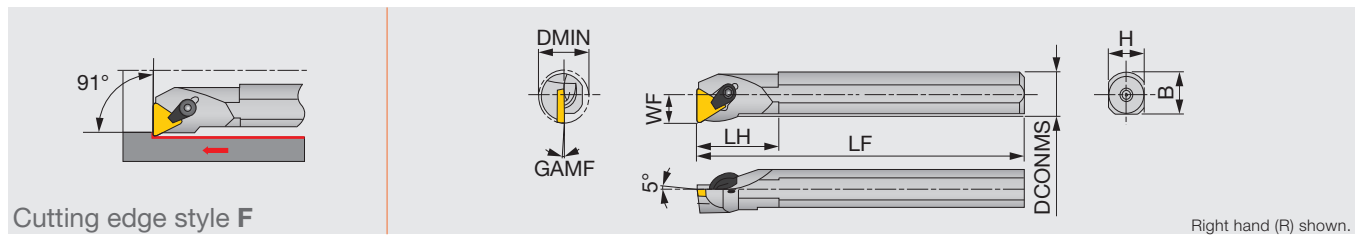
N	Application	Precision finishing
	Grade	DX120
	Breaker Shape	T-DIA with rake
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: A/E-STFPR/L: Insert → **B142** -, CBN → **B186** -, PCD → **B196**

S/C-CTFPR/L

Clamp-on boring bar, for positive 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S12M-CTFPR/L11	Steel	16	12	9	150	25	11	11.5	-6°	0.4	TP**1103...
S16Q-CTFPR/L11	Steel	20	16	11	180	30	15	15	-4°	0.4	TP**1103...
S20R-CTFPR/L16	Steel	25	20	13	200	40	18	18.5	-2°	0.8	TP**1603...
S25S-CTFPR/L16	Steel	32	25	17	250	45	23	22.5	0°	0.8	TP**1603...
S32T-CTFPR/L16	Steel	40	32	22	300	50	30	29.5	0°	0.8	TP**1603...
C12Q-CTFPR/L11	Carbide	16	12	9	180	-	11	-	-6°	0.4	TP**1103...
C16R-CTFPR/L11	Carbide	20	16	11	200	-	15	-	-4°	0.4	TP**1103...

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

Designation	Clamp set 1	Clamp set 2	Wrench	Shim	Shim screw
S12M-CTFPR/L11	CSW-00	-	P-2.5	-	-
S16Q-CTFPR/L11	-	CSG-5S	P-2.5	-	-
S20R-CTFPR/L16	-	CSG-6S	P-3	-	-
S25S-CTFPR/L16	-	CSG-6	P-3	-	-
S32T-CTFPR/L16	-	CSG-6	P-3	PAT-32	M3X0.5X6
C12Q-CTFPR/L11	CSW-00	-	P-2.5	-	-
C16R-CTFPR/L11	-	CSG-5S	P-2.5	-	-

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	NS9530	T9215	T9215
	Breaker Shape	01 	PSS 	PS 	PM 
	Cutting conditions	B018			

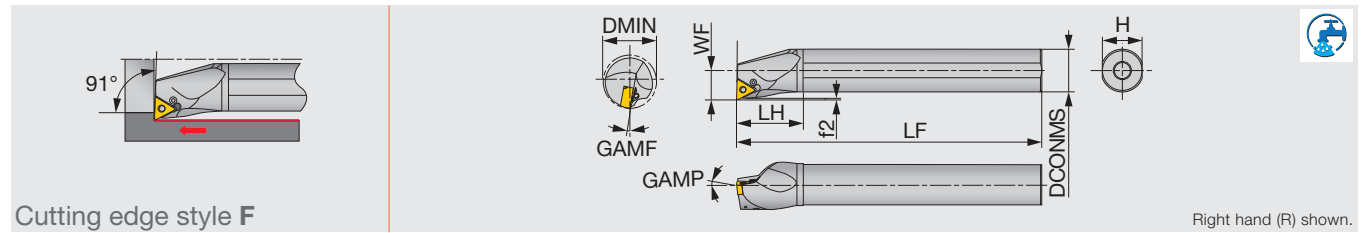
M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF 	PSS 	PM 
	Cutting conditions	B020		

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM 
	Cutting conditions	B022

N	Application	Finishing
	Grade	DX140
	Breaker Shape	T-DIA 
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN 	T-CBN 
	Cutting conditions	B028	

Reference pages: S/C-CTFPR/L: Insert → **B142** -, CBN → **B186** -, PCD → **B196**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTFNR/L1104-D320	Steel	32	25	17	200	45	23	1.31	-6°	-12°	0.8	TN**1104...	2
A32S-PTFNR/L1104-D400	Steel	40	32	22	250	50	30	1.25	-6°	-10°	0.8	TN**1104...	2

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTFNR/L...	LCS23A	P-2.5	LCL23	EA-25	SSHM4-5
A32S-PTFNR/L...	LCS23A	P-2.5	LCL23	EA-32	SSHM4-5

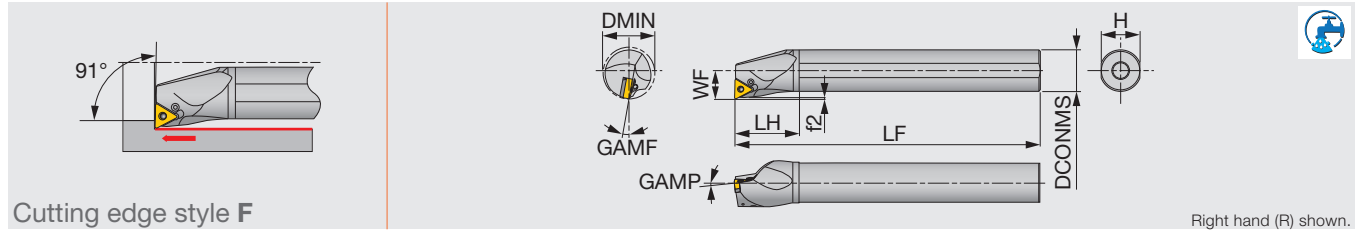
*Optional

INSERT SELECTION

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	T9215	T9215		Grade	T6120	T6130
	Breaker Shape	TSF	TM		Breaker Shape	SS	SM
	Cutting conditions	B006			Cutting conditions	B008	

A-PTFNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTFNR/L16-D320	Steel	32	25	17	200	45	23	1.2	-6°	-12°	0.8	TN**1604...	2.7
A32S-PTFNR/L16-D400	Steel	40	32	22	250	50	30	1.1	-6°	-10°	0.8	TN**1604...	2.7
A40T-PTFNR/L16-D500	Steel	50	40	27	300	60	37	1.1	-6°	-10°	0.8	TN**1604...	2.7
A50U-PTFNR/L16-D630	Steel	63	50	35	350	65	47	1.1	-6°	-8°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

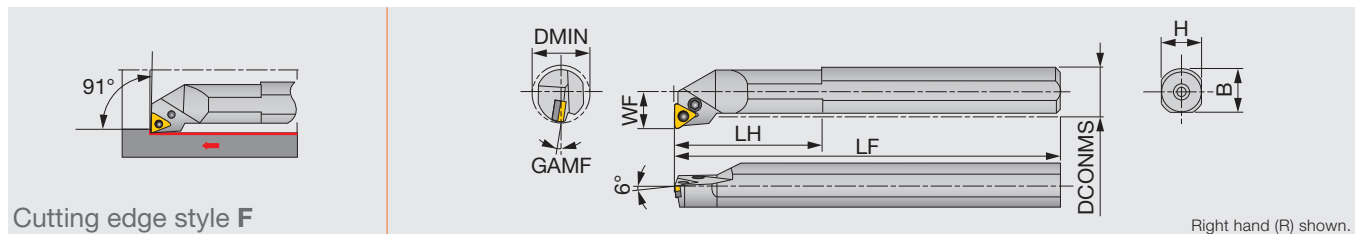
Note: Use right-hand toolholders (PTFNR**) with left-hand inserts (L); and left-hand toolholders (PTFNL**) with right-hand inserts (R).

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTFNR/L16-D320	ELST317BR/L	LCS3	P-2.5	LSP3	LCL33	EA-25	SSHM4-5
A32S-PTFNR/L16-D400	LST317BR/L	LCS3	P-2.5	LSP3	LCL3	EA-32	SSHM4-5
A40T-PTFNR/L16-D500	LST317BR/L	LCS3	P-2.5	LSP3	LCL3	-	SSHM6-6
A50U-PTFNR/L16-D630	LST317BR/L	LCS3	P-2.5	LSP3	LCL3	-	SSHM6-6

*Optional

S-PTFNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert	Torque*
S32S-PTFNR/L16	Steel	40	32	22	250	50	30	29.5	-10°	0.8	TN**1604...	2.7
S40T-PTFNR/L16	Steel	50	40	27	300	55	37	37.5	-10°	0.8	TN**1604...	2.7
S50U-PTFNR16	Steel	63	50	35	350	65	47	47.5	-8°	0.8	TN**1604...	2.7

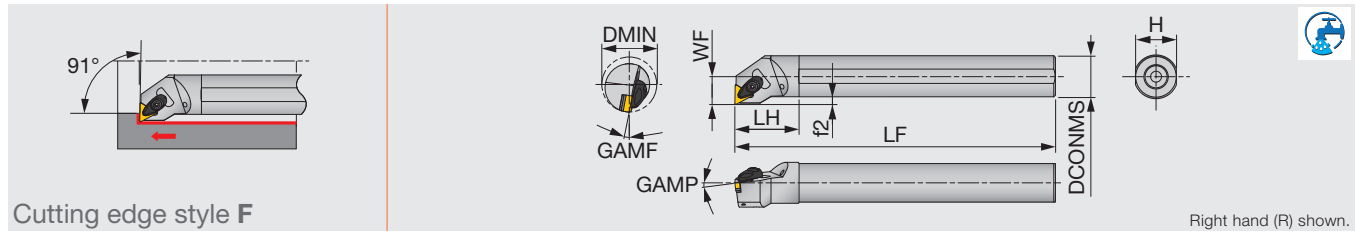
*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S32S-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S32S-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S50U-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3

Reference pages: A-PTFNR/L, S-PTFNR/L: Insert → **B084 -**, CBN → **B176 -**, PCD → **B192 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ATFNR/L16-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	TN**1604...	3
A32S-ATFNR/L16-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	TN**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A*-ATFNR/L16-D...	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SF	SM
	Cutting conditions	B008	

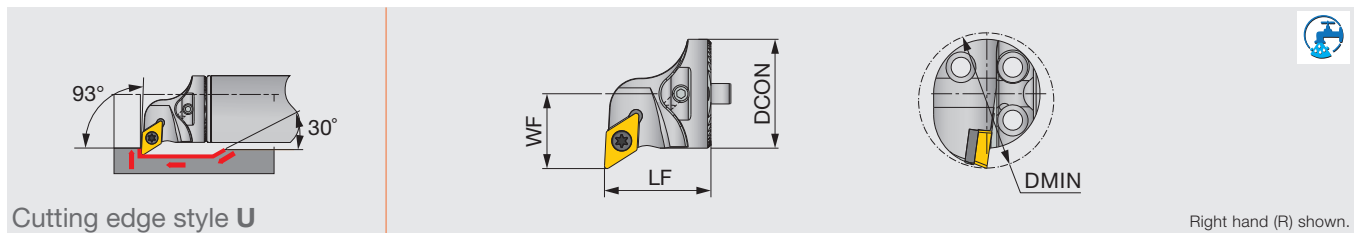
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA	with rake T-DIA	P
	Cutting conditions	B012		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: A-ATFNR/L: Insert → **B084 -**, CBN → **B176 -**, PCD → **B192 -**



Cutting edge style **U**

Right hand (R) shown.

Designation	DMIN	DCON	WF	LF	Shank	Insert
S16-SDUCR/L07-H	20	16	11	20	D16	DC**0702...
S20-SDUCR/L11-H	25	20	13	20	D20	DC**11T3...
S25-SDUCR/L11-H	32	25	17	20	D25	DC**11T3...
S32-SDUCR/L11T-H	40	32	22	32	D32	DC**11T3...
S40-SDUCR/L11T-H	50	40	27	32	D40, D50, D60	DC**11T3...

Note: Use right-hand toolholders (SDUCR**) with left-hand inserts (L); and left-hand toolholders (SDUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S16-SDUCR/L07-H	SR14-548	T-7/5	-	-
S20-SDUCR/L11-H	SR16-236P	T-15/5	-	-
S25-SDUCR/L11-H	SR16-236P	T-15/5	-	-
S32-SDUCR/L11T-H	SR16-236P	T-15/5	TDC3-1P	SRTC-3P
S40-SDUCR/L11T-H	SR16-236P	T-15/5	TDC3-1P	SRTC-3P

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH725	AH630	T6130
	Breaker Shape	W**	PSF	PSS	PM
	Cutting conditions	B020			

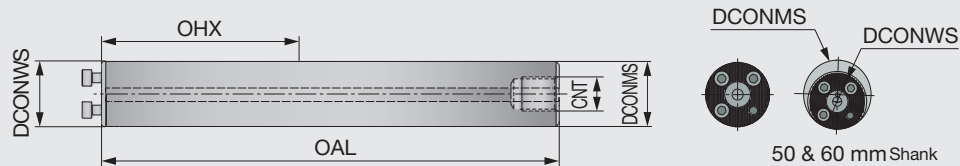
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

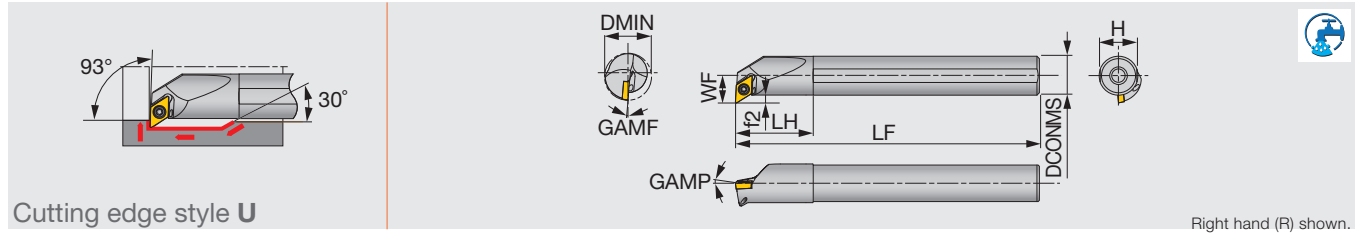
Reference pages: S-SDUCR/L-H: Insert → **B119 -**, CBN → **B182**, PCD → **B194 -**



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156	92	G1/8
G16-L204-10D-E	Carbide	16	16	204	140	-
D20-L200-7D-C	Steel	20	20	200	120	G1/4
G20-L260-10D-E	Carbide	20	20	260	180	-
D25-L255-7D-C	Steel	25	25	255	155	G1/4
D25-L330-10D-C	Steel	25	25	330	230	G1/4
D32-L320-7D-C	Steel	32	32	320	192	G3/8
D32-L416-10D-C	Steel	32	32	416	288	G3/8
D40-L408-7D-C	Steel	40	40	408	248	G1/2
D40-L528-10D-C	Steel	40	40	528	368	G1/2
D50-L518-7D-C	Steel	40	50	518	318	G1/2
D50-L668-10D-C	Steel	40	50	668	468	G1/2
D60-L628-7D-C	Steel	40	60	628	388	G3/4
D60-L808-10D-C	Steel	40	60	808	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SRM3.5X10DIN912	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDUCR/L07-D130	Steel	13	10	7	125	20	9	2	0°	-10°	0.4	DC**0702...	1.2
A12M-SDUCR/L07-D160	Steel	16	12	9.3	150	24	11	3.3	0°	-6°	0.4	DC**0702...	1.2
A16Q-SDUCR/L07-D200	Steel	20	16	11.3	180	32	15	3.3	0°	-5°	0.4	DC**0702...	1.2
A20R-SDUCR/L11-D270	Steel	27	20	16.1	200	36	18	6.1	0°	-5°	0.8	DC**11T3...	3
A25S-SDUCR/L11-D320	Steel	32	25	18.6	250	45	23	6.1	0°	-4°	0.8	DC**11T3...	3
E10H-SDUCR07-D130	Carbide	13	10	7	100	25	9	1.9	5°	-3.5°	0.4	DC**0702...	1.2
E10M-SDUCR/L07-D130	Carbide	13	10	7	150	25	9	2	0°	-10°	0.4	DC**0702...	1.2
E12J-SDUCR07-D160	Carbide	16	12	9.3	110	27	11	3.2	0°	-6°	0.4	DC**0702...	1.2
E12Q-SDUCR/L07-D160	Carbide	16	12	9.3	180	27	11	3.3	0°	-6°	0.4	DC**0702...	1.2
E16L-SDUCR07-D200	Carbide	20	16	11.3	130	32	15	3.2	0°	-5°	0.4	DC**0702...	1.2
E16R-SDUCR/L07-D200	Carbide	20	16	11.3	200	32	15	3.3	0°	-5°	0.4	DC**0702...	1.2
E20S-SDUCR11-D270	Carbide	27	20	16.1	250	36	18	6.1	0°	-5°	0.8	DC**11T3...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SDUCR**) with left-hand inserts (L); and left-hand toolholders (SDUCL**) with right-hand inserts (R).

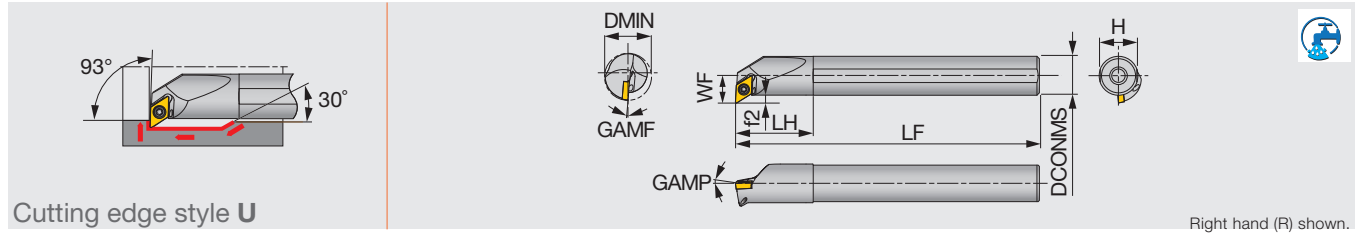
SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
A16Q-SDUCR/L07-D200	CSTB-2.5	T-8F
A2**-SDUCR/L11-D**0	CSTB-4S	T-15F
E1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
E16*-SDUCR/L07-D200	CSTB-2.5	T-8F
E20S-SDUCR11-D270	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B018			
K	Application	Finishing to medium cutting			
	Grade	T515			
	Breaker Shape	CM			
	Cutting conditions	B022			
S	Application	Precision finishing	Finishing to medium cutting		
	Grade	BX470	AH8005		
	Breaker Shape	T-CBN	PS		
	Cutting conditions	B026			
M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B020			
N	Application	Precision finishing	Medium cutting		
	Grade	DX120	KS05F		
	Breaker Shape	T-DIA	with rake AL		
	Cutting conditions	B024			
H	Application	Precision finishing	Finishing		
	Grade	BXM10	BXM20		
	Breaker Shape	T-CBN	T-CBN		
	Cutting conditions	B028			

Reference pages: A/E-SDUCR/L: Insert → **B119 -**, CBN → **B182**, PCD → **B194 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDUPR07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPL07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPR07-D180-P	Special alloy steel	18	12	10.3	150	24	11	4.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPL07-D180-P	Special alloy steel	18	12	10.3	150	24	11	4.3	5	0	0.4	DPMT0702...	1.2
A16Q-SDUPR07-D220-P	Special alloy steel	22	16	12.3	180	32	15	4.3	5	0	0.4	DPMT0702...	1.2
A16Q-SDUPL07-D220-P	Special alloy steel	22	16	12.3	180	32	15	4.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPR07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPL07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPR07-D180	Carbide	18	12	10.3	180	27	11	4.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPL07-D180	Carbide	18	12	10.3	180	27	11	4.3	5	0	0.4	DPMT0702...	1.2
E16R-SDUPR07-D220	Carbide	22	16	12.3	200	32	15	4.3	5	0	0.4	DPMT0702...	1.2
E16R-SDUPL07-D220	Carbide	22	16	12.3	200	32	15	4.3	5	0	0.4	DPMT0702...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

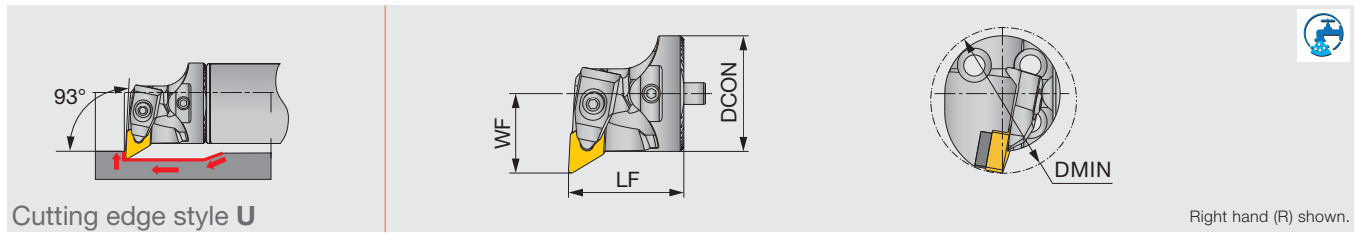
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SDUPR/L07-D**0-P	CSTB-2.5S	T-8F
E**-SDUPR/L07-D**0	CSTB-2.5S	T-8F

INSERT SELECTION

P	Application	Finishing to medium cutting
	Grade	T9225 NS9530
	PS	PS
	Breaker Shape	
	Cutting conditions	B018

S	Application	Finishing to medium cutting
	Grade	AH8015
	PS	
	Breaker Shape	
	Cutting conditions	B026



Cutting edge style **U**

Right hand (R) shown.

Designation	DMIN	DCON	WF	LF	Shank	Insert
S32-DDUNR/L11T-H	40	32	22	32	D32	DN**1104...
S40-DDUNR/L15T-H	50	40	27	32	D40, D50, D60	DN**1504/06...

Note: Use right-hand toolholders (DDUNR**) with left-hand inserts (L); and left-hand toolholders (DDUNL**) with right-hand inserts (R).

Designation	Shim	Shim screw	Clamp	Clamp Screw	Spring	Wrench
S32-DDUNR/L11T-H	RDT3-2	SR40085I	LCGR-3	SRRC3	KSP3	HW2.5
S40-DDUNR/L15T-H	RDT433	SR14-506	DLM4	DLS4	DSP4	HW3.0
S40-DDUNR/L15T-H	RDT443	SR14-506	DLM4	DLS4	DSP4	HW3.0

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

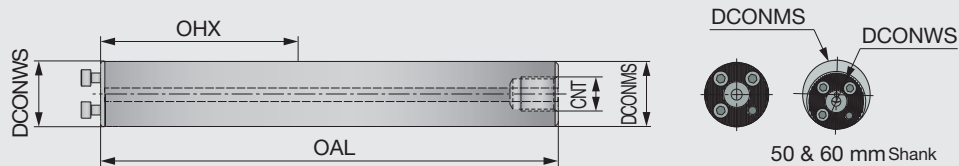
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA with rake	T-DIA	P
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

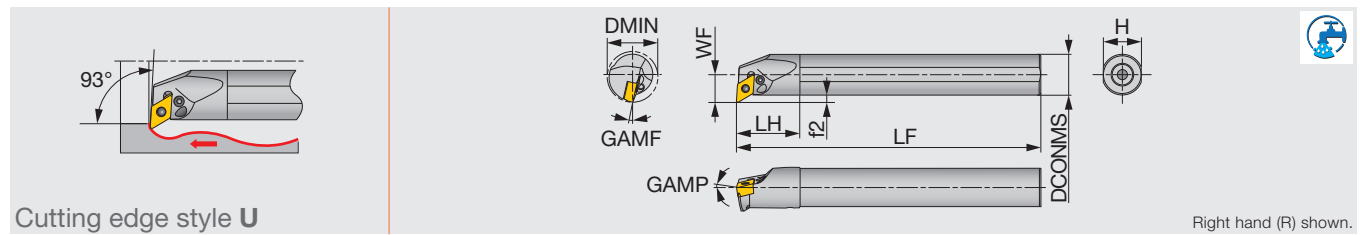
Reference pages: S-DDUNR/L-H: Insert → **B065 -**, CBN → **B172 -**, PCD → **B192 -**



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156	92	G1/8
G16-L204-10D-E	Carbide	16	16	204	140	-
D20-L200-7D-C	Steel	20	20	200	120	G1/4
G20-L260-10D-E	Carbide	20	20	260	180	-
D25-L255-7D-C	Steel	25	25	255	155	G1/4
D25-L330-10D-C	Steel	25	25	330	230	G1/4
D32-L320-7D-C	Steel	32	32	320	192	G3/8
D32-L416-10D-C	Steel	32	32	416	288	G3/8
D40-L408-7D-C	Steel	40	40	408	248	G1/2
D40-L528-10D-C	Steel	40	40	528	368	G1/2
D50-L518-7D-C	Steel	40	50	518	318	G1/2
D50-L668-10D-C	Steel	40	50	668	468	G1/2
D60-L628-7D-C	Steel	40	60	628	388	G3/4
D60-L808-10D-C	Steel	40	60	808	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SRM3.5X10DIN912	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A20Q-PDUNR/L1104-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**1104...	1.7

*Torque: Recommended clamping torque (N-m)

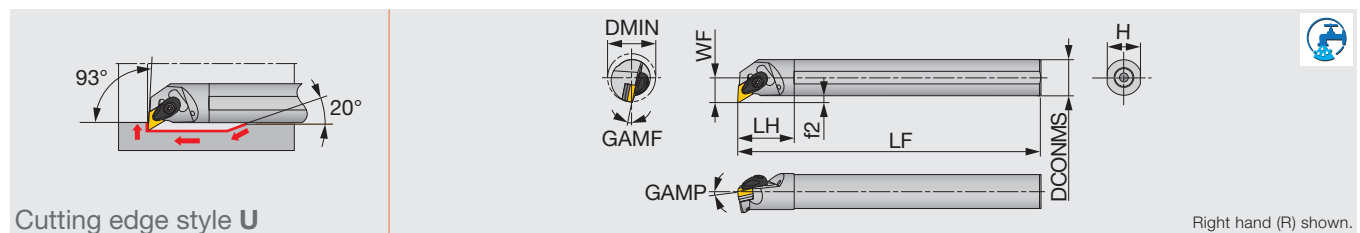
**RE : Standard corner radius

Note: Use right-hand toolholders (PDUNR**) with left-hand inserts (L); and left-hand toolholders (PDUNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A20Q-PDUNR/L1104-D250	LCS22A	P-2F	LCL33NL	EA-20	SSH2.5-3

*Optional



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ADUNR/L1104-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	DN**1104...	3
A32S-ADUNR/L1104-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	DN**1104...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

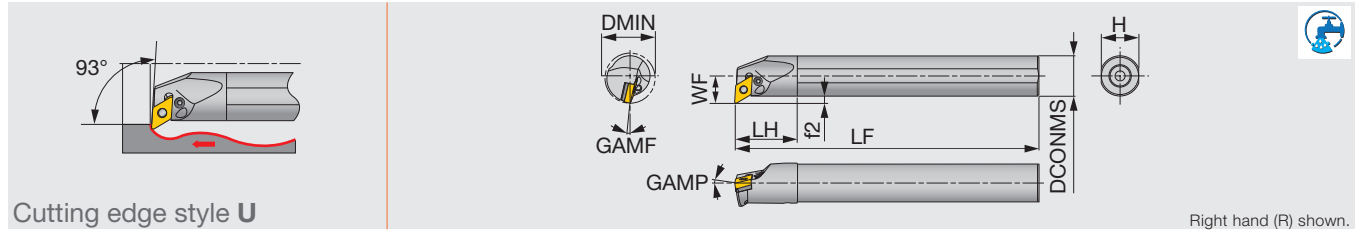
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ADUNR/L...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

INSERT SELECTION

Application	Finishing	Medium cutting
Grade	T9215	T9215
Breaker Shape	TSF	TM
Cutting conditions	B006	

Application	Finishing	Medium cutting
Grade	T6120	T6130
Breaker Shape	SS	SM
Cutting conditions	B008	

Application	Medium cutting
Grade	T515
Breaker Shape	TM
Cutting conditions	B010



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A20Q-PDUNR/L11-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**1104...	1.7
A25R-PDUNR/L11-D320	Steel	32	25	17	200	45	23	4.5	-6°	-12°	0.8	DN**1104...	2.7
A32S-PDUNR/L15-D400	Steel	40	32	22	250	50	30	6	-6°	-13°	0.8	DN**1504...	4.8
A40T-PDUNR/L15-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	DN**1504...	4.8
A50U-PDUNR/L15-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	DN**1504...	4.8
A32S-PDUNR/L1506-D400	Steel	40	32	22	250	50	30	6	-6°	-13°	0.8	DN**1506...	4.8
A40T-PDUNR/L1506-D500	Steel	50	40	27	300	60	37	7	-6°	-11°	0.8	DN**1506...	4.8
A50U-PDUNR/L1506-D630	Steel	63	50	35	350	65	47	10	-6°	-10°	0.8	DN**1506...	4.8

*Torque: Recommended clamping torque (N-m) **RE : Standard corner radius

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A20Q-PDUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL33NL	EA-20	SSHM2.5-3
A25R-PDUNR/L11-D320	ELSD317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33L	EA-25	SSHM3-4
A32S-PDUNR/L15-D400	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM5-6
A40T-PDUNR/L15-D500	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PDUNR/L15-D630	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A32S-PDUNR/L1506-D400	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	EA-20	SSHM5-6
A40T-PDUNR/L1506-D500	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	SSHM6-6
A50U-PDUNR/L1506-D630	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	SSHM6-6

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA with rake	T-DIA	P
	Cutting conditions	B012		

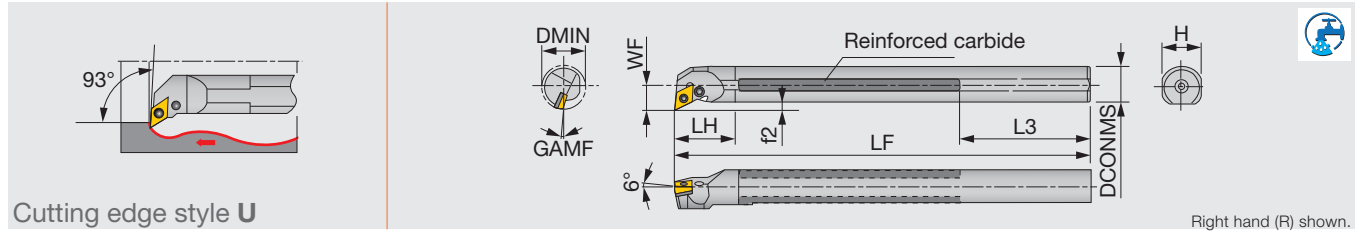
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: A-PDUNR/L: Insert → B065 -, CBN → B172 -, PCD → B192 -

T-PDUNR

Lever-lock boring bar, for negative 55° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMF	RE**	Insert
T32U-PDUNR15C	Reinforced	40	Rc1/2	32	22	350	50	103	30	6	-13°	0.8	DN**1504...
T40V-PDUNR15C	Reinforced	50	Rc1/2	40	27	400	55	88	37	7	-10°	0.8	DN**1504...
T50W-PDUNR15C	Reinforced	63	Rc1/2	50	35	450	65	63	47	10	-8°	0.8	DN**1504...

**RE : Standard corner radius

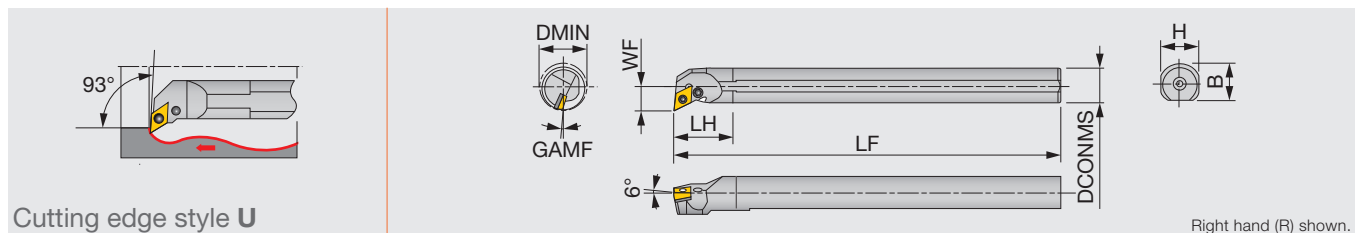
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
T**-PDUNR15C	LSD42BR	LCS4	P-3	LSP4	LCL4

S-PDUNR/L

Lever-lock boring bar, for negative 55° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S20Q-PDUNR/L11	Steel	25	20	13	180	35	18	19	-14°	0.8	DN**1104...
S25R-PDUNR/L11	Steel	32	25	17	200	40	23	24	-12°	0.8	DN**1104...
S32S-PDUNR/L15	Steel	40	32	22	250	50	30	29.5	-13°	0.8	DN**1504...
S40T-PDUNR/L15	Steel	50	40	27	300	55	37	37.5	-10°	0.8	DN**1504...
S50U-PDUNR/L15	Steel	63	50	35	350	65	47	47.5	-8°	0.8	DN**1504...

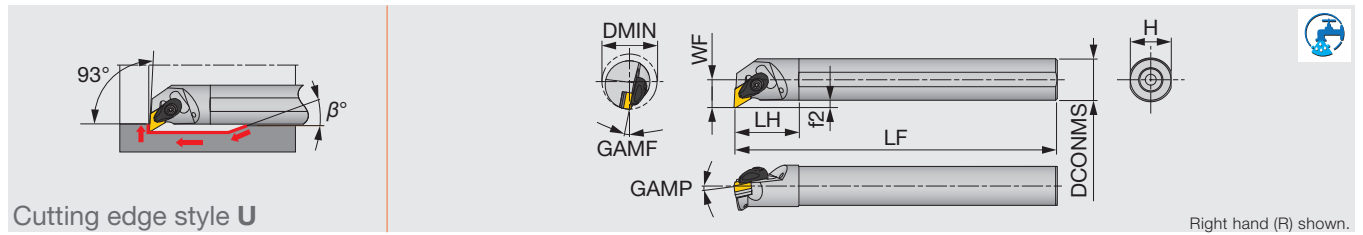
**RE : Standard corner radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
S20Q-PDUNR/L11	-	LCS22A	-	P-2F	-	-	LCL33NL
S25R-PDUNR11	ELSD317BR	-	LCS3	-	P-2.5	LSP3	LCL33L
S25R-PDUNL11	ELSD317BL	-	LCS3	-	P-2.5	LSP3	LCL33L
S32S-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S32S-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4

Reference pages: T-PDUNR, S-PDUNR/L: Insert → **B065 -**, CBN → **B172 -**, PCD → **B192 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	β°	RE**	Insert	Torque*
A25R-ADUNR/L15-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	30	0.8	DN**1504...	3
A32S-ADUNR/L15-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**1504...	3
A40T-ADUNR/L15-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	15	0.8	DN**1504...	3
A50U-ADUNR/L15-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	15	0.8	DN**1504...	3
A25R-ADUNR/L1506-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	15	0.8	DN**1506...	3
A32S-ADUNR/L1506-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**1506...	3

*Torque: Recommended clamping torque (N-m) **RE : Standard corner radius

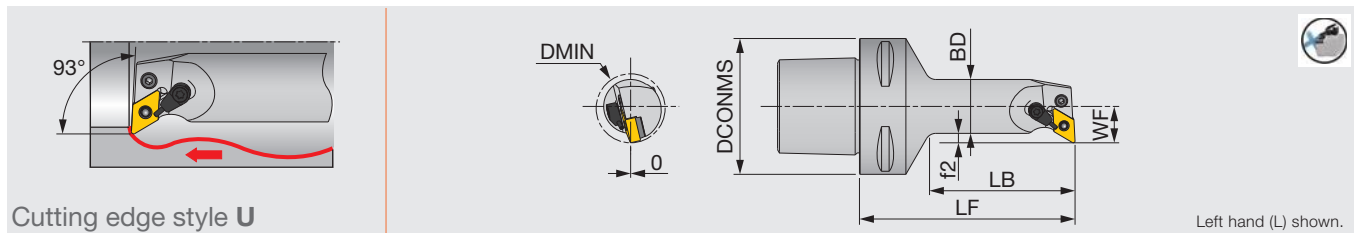
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ADUNR/L15-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
A**-ADUNR/L1506-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

TUNG TJET

C-PDUNL-CHP

Lever-lock boring bar with TungCap connection, with 93° approach angle, for negative 55° rhombic inserts, with high pressure coolant capability



Designation	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PDUNL17100-1104-CHP	32	63	25	100	67.5	17	4.5	0.8	DN**1104...

Applicable for 14 MPa coolant

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Coolant unit	Wrench	Spring pin	Lever
C6PDUNL17100-1104-CHP	ELSD317BL	LCS43	S-CU-CHP	P-2.5	LSP3	LCL33L

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF 	TSF 	TM 	TH 
	Cutting conditionsB006				

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round 	All-round 	All-round 
	Cutting conditionsB010			

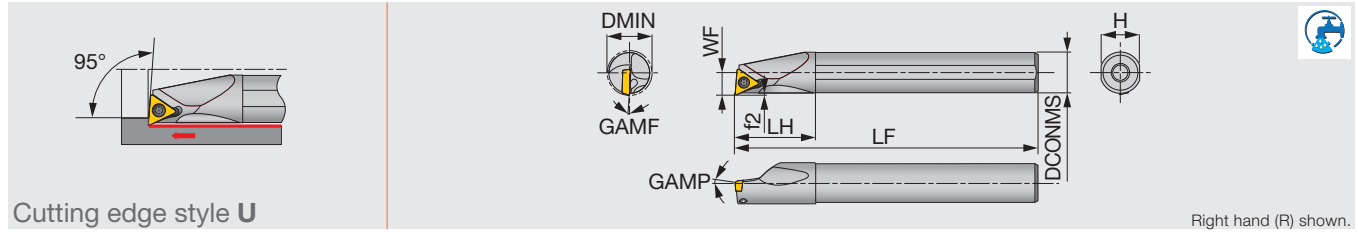
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN 	HRF 	HRM 
	Cutting conditionsB014			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF 	SM 	SH 
	Cutting conditionsB008			

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA  with rake	T-DIA 	P 
	Cutting conditionsB012			

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN 	T-CBN 
	Cutting conditionsB016		

Reference pages: A-ADUNR/L, C-PDUNR/L-CHP Insert → B065 -, CBN → B172 -, PCD → B192 -



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A07G-STUPR/L07-D080	Steel	8	7	4	90	12	6.75	0.4	5°	-10°	0.4	TP**0701...	0.9
A08H-STUPR/L07-D080	Steel	8	8	4	100	19.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
A08H-STUPR/L09-D100	Steel	10	8	5.5	100	16	7.5	0.6	5°	-8°	0.4	TP**0902... ⁽¹⁾	0.9
A10F-STUPR1102-D120	Steel	12	10	6.5	80	20	9	1.4	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
A10K-STUPR/L1102-D120	Steel	12	10	6.5	125	20	9	0.7	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
A10K-STUPR/L1103-D120	Steel	12	10	6.5	125	20	9	0.6	5°	-10°	0.4	TP**1103... ⁽¹⁾	1.4
A12H-STUPR1102-D140	Steel	14	12	7	100	24	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
A12M-STUPR/L1102-D140	Steel	14	12	7	150	24	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
A12M-STUPR/L1103-D140	Steel	14	12	7	150	24	11	0.6	5°	-6°	0.4	TP**1103... ⁽¹⁾	1.4
A12H-STUPR1102-D160	Steel	16	12	9	100	24	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
A12M-STUPR/L1102-D160	Steel	16	12	9	150	24	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
A16K-STUPR13-D180	Steel	18	16	9	125	32	15	0.8	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A16Q-STUPR/L1103-D180	Steel	18	16	9	180	32	15	0.8	5°	-4°	0.4	TP**1103... ⁽¹⁾	1.4
A16Q-STUPR/L13-D180	Steel	18	16	9	180	32	15	0.8	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A16K-STUPR13-D200	Steel	20	16	11	125	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A16Q-STUPR/L13-D200	Steel	20	16	11	180	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A20R-STUPR/L1103-D220	Steel	22	20	11	200	36	18	0.7	5°	-2°	0.4	TP**1103... ⁽¹⁾	1.4
A20R-STUPR/L13-D220	Steel	22	20	11	200	36	18	0.7	5°	-2°	0.4	TP**1303... ⁽¹⁾	1.4
A25S-STUPR/L16-D270	Steel	27	25	13.5	250	45	23	0.5	5°	-1°	0.8	TP**16T3...	3
A32T-STUPR/L16-D340	Steel	34	32	17	300	50	30	0.7	5°	0°	0.8	TP**16T3...	3
E07H-STUPR/L07-D080	Carbide	8	7	4	100	14	6.75	0.3	5°	-10°	0.4	TP**0701...	0.9
E08G-STUPR07-D080	Carbide	8	8	4	90	44.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
E08K-STUPR/L07-D080	Carbide	8	8	4	125	44.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
E08G-STUPR09-D100	Carbide	10	8	5.5	90	22	7	0.6	5°	-8°	0.4	TP**0902... ⁽¹⁾	0.9
E08K-STUPR/L09-D100	Carbide	10	8	5.5	125	22	7	0.6	5°	-8°	0.4	TP**0902... ⁽¹⁾	0.9
E10F-STUPR1102-D120	Carbide	12	10	6.5	80	25	9	0.5	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
E10H-STUPR1102-D120	Carbide	12	10	6.5	100	25	9	0.6	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
E10M-STUPR/L1102-D120	Carbide	12	10	6.5	150	25	9	0.6	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
E10M-STUPR/L1103-D120	Carbide	12	10	6.5	150	25	9	0.7	5°	-10°	0.4	TP**1103... ⁽¹⁾	1.4
E12G-STUPR1102-D140	Carbide	14	12	7	90	27	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
E12J-STUPR1102-D140	Carbide	14	12	7	110	27	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
E12Q-STUPR/L1102-D140	Carbide	14	12	7	180	27	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
E12Q-STUPR/L1103-D140	Carbide	14	12	7	180	27	11	0.7	5°	-6°	0.4	TP**1103... ⁽¹⁾	1.4
E12G-STUPR1102-D160	Carbide	16	12	9	90	27	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
E12J-STUPR1102-D160	Carbide	16	12	9	110	27	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
E12Q-STUPR/L1102-D160	Carbide	16	12	9	180	27	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
E16H-STUPR13-D180	Carbide	18	16	9	100	32	15	0.9	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16R-STUPR/L1103-D180	Carbide	18	16	9	200	32	15	0.8	5°	-3°	0.4	TP**1103... ⁽¹⁾	1.4
E16L-STUPR13-D180	Carbide	18	16	9	130	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16R-STUPR/L13-D180	Carbide	18	16	9	200	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16H-STUPR13-D200	Carbide	20	16	11	100	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16L-STUPR13-D200	Carbide	20	16	11	130	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16R-STUPR13-D200	Carbide	20	16	11	200	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E20S-STUPR1103-D220	Carbide	22	20	11	250	36	18	0.7	5°	-2°	0.4	TP**1103... ⁽¹⁾	1.4
E20S-STUPR13-D220	Carbide	22	20	11	250	36	18	0.6	5°	-2°	0.4	TP**1303... ⁽¹⁾	1.4
E25T-STUPR16-D270	Carbide	27	25	13.5	300	45	23	0.5	5°	-1°	0.8	TP**16T3...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STUPR**) with left-hand inserts (L); and left-hand toolholders (STUPL**) with right-hand inserts (R).

(1) TPGH, TPGM, and TPGA inserts cannot be used.

SPARE PARTS



Designation	Clamping screw	Wrench
A/E07*-STUPR/L07-...	CSTB-2.2L038	T-7F
A/E08*-STUPR/L07-...	CSTB-2.2L038	T-7F
A/E08*-STUPR/L09-...	CSTB-2.2L038	T-7F
A/E10*-STUPR/L1102-...	CSTB-2.5S	T-8F
A/E10*-STUPR/L1103-...	CSTB-3L050	T-9F
A/E12*-STUPR/L1102-...	CSTB-2.5B	T-8F
A/E12*-STUPR/L1103-...	CSTB-3L050	T-9F
A/E16*-STUPR/L1103-...	CSTB-3S	T-9F
A/E16*-STUPR/L13-...	CSTB-3S	T-9F
A/E20*-STUPR/L1103-...	CSTB-3S	T-9F
A/E20*-STUPR/L13-...	CSTB-3	T-9F
A/E25*-STUPR/L16-...	CSTB-4M	T-15F
A32*-STUPR/L16-...	CSTB-4M	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	T9215	T9215
	Breaker Shape	JS	PS	PM
	Cutting conditions	B018		

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

S	Application	Precision finishing
	Grade	BX470
	Breaker Shape	T-CBN
	Cutting conditions	B026

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	T9215	T9215
	Breaker Shape	JS	PS	PM
	Cutting conditions	B020		

N	Application	Precision finishing
	Grade	DX120
	Breaker Shape	T-DIA with rake
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

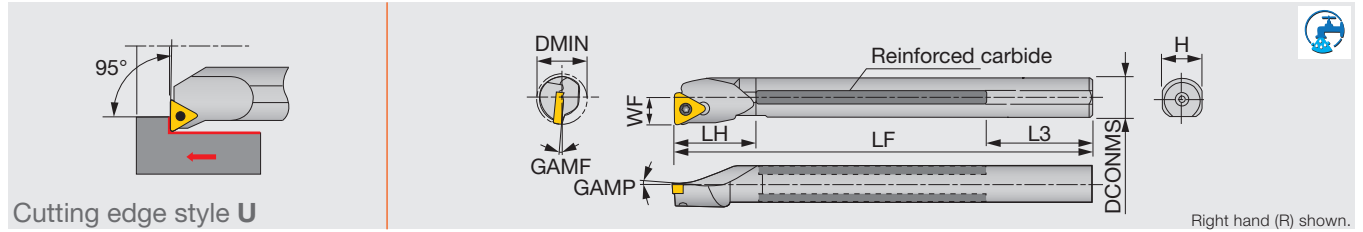
Tooling System

User's Guide

Index

T-STUPR/L

Screw-on boring bar, for positive 60° triangular inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMP	GAMF	RE**	Insert	Torque*
T12M-STUPR11-D14	Reinforced	14	-	12	7	150	24	59	11	5°	-4°	0.4	TP**1102...	1.2
T12M-STUPR/L11	Reinforced	16	-	12	9	150	25	58	11	5°	-4°	0.4	TP**1102...	1.2
T16Q-STUPR13-D18	Reinforced	18	-	16	9	180	30	59	15	5°	-3.5°	0.4	TP**1303...	1.4
T16Q-STUPR/L13	Reinforced	20	-	16	11	180	30	59	15	5°	-3°	0.4	TP**1303...	1.4
T20R-STUPR13C-D22	Reinforced	22	Rc1/4	20	11	200	35	49	18	5°	-2°	0.4	TP**1303...	1.4
T20R-STUPR/L13	Reinforced	24	-	20	13	200	40	49	18	5°	-2°	0.4	TP**1303...	1.4
T25S-STUPR16C-D27	Reinforced	27	Rc1/4	25	13.5	250	40	64	23	5°	-1°	0.8	TP**16T3...	3
T25S-STUPR/L16	Reinforced	31	-	25	17	250	45	64	23	5°	0°	0.8	TP**16T3...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STUPR**) with left-hand inserts (L); and left-hand toolholders (STUPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-STUPR11-D14	CSTB-2.5B	T-8F
T12M-STUPR/L11	CSTB-2.5	T-8F
T16Q-STUPR13-D18	CSTB-3S	T-9F
T16Q-STUPR/L13	CSTB-3	T-9F
T20R-STUPR13C-D22	CSTB-3S	T-9F
T20R-STUPR/L13	CSTB-3	T-9F
T25S-STUPR/L16...	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	NS9530	T9215	T9215
	Breaker Shape	01	PSS	PS	PM
	Cutting conditions	B018			

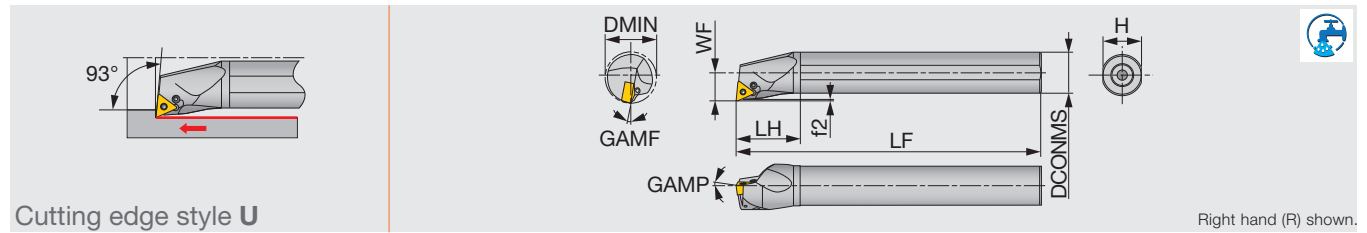
M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF	PSS	PM
	Cutting conditions	B020		

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

N	Application	Finishing
	Grade	DX140
	Breaker Shape	T-DIA
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: T-STUPR/L: Insert → **B142 -**, CBN → **B185 -**, PCD → **B196**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTUNR/L1104-D320	Steel	32	25	17	200	45	23	1.22	-6°	-12°	0.8	TN**1104...	2
A32S-PTUNR/L1104-D400	Steel	40	32	22	250	50	30	1.16	-6°	-10°	0.8	TN**1104...	2

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTUNR/L1104-D320	LCS23A	P-2.5	LCL23	EA-25	SSHM4-5
A32S-PTUNR/L1104-D400	LCS23A	P-2.5	LCL23	EA-32	SSHM4-5

*Optional

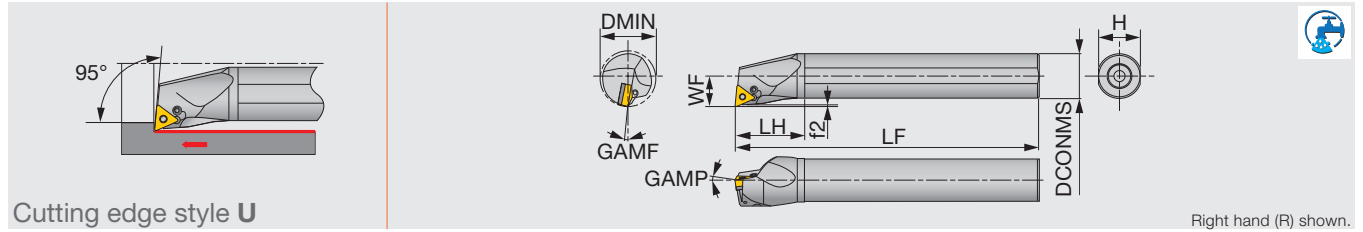
INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B006	

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SS	SM
	Cutting conditions	B008	

A-PTUNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PTUNR/L11-D200	Steel	20	16	11	150	32	15	1	-6°	-14°	0.4	TN**1103...	1.7
A20Q-PTUNR/L11-D250	Steel	25	20	13	180	36	18	1	-6°	-12°	0.4	TN**1103...	1.7
A25R-PTUNR/L16-D320	Steel	32	25	17	200	45	23	1.4	-6°	-12°	0.8	TN**1604...	2.7
A32S-PTUNR/L16-D400	Steel	40	32	22	250	50	30	1.3	-6°	-10°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Toolholder length may not conform to ISO standard.

Note: Use right-hand toolholders (PTUNR**) with left-hand inserts (L); and left-hand toolholders (PTUNL**) with right-hand inserts (R).

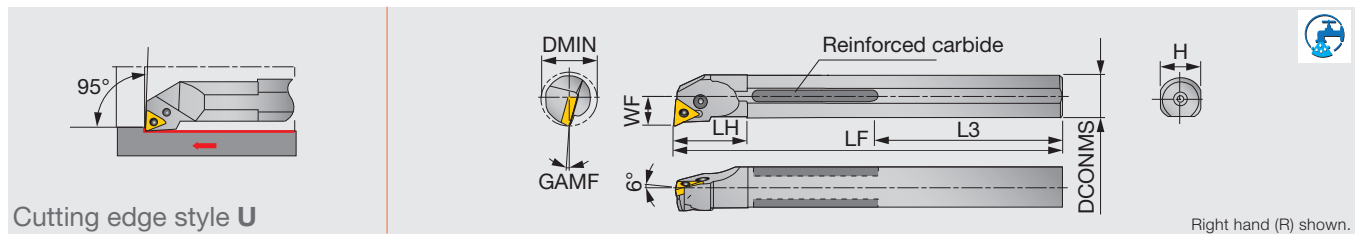
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PTUNR/L11-D200	-	LCS22A	-	P-2F	-	-	LCL22N	-	SSHM3-4
A20Q-PTUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL22N	EA-20	SSHM3-4
A25R-PTUNR/L16-D320	ELST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33	EA-25	SSHM4-5
A32S-PTUNR/L16-D400	LST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32	SSHM4-5

*Optional

T-PTUNR

Lever-lock boring bar, for negative 60° triangular inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	RE**	Insert	Torque*
T16Q-PTUNR11	Reinforced	20	-	16	11	180	27	59	15	-14°	0.4	TN**1103...	1.7
T20R-PTUNR11C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-12°	0.4	TN**1103...	1.7
T25S-PTUNR16C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-12°	0.8	TN**1604...	2.7
T32U-PTUNR16C	Reinforced	40	Rc1/2	32	22	350	50	103	30	-10°	0.8	TN**1604...	2.7
T40V-PTUNR16C	Reinforced	50	Rc1/2	40	27	400	55	88	37	-10°	0.8	TN**1604...	2.7
T50W-PTUNR16C	Reinforced	63	Rc1/2	50	35	450	65	63	47	-8°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Toolholder length may not conform to ISO standard.

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

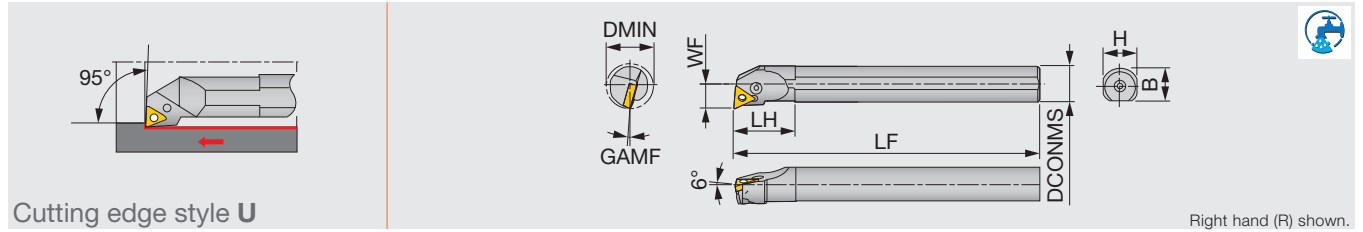
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
T**-PTUNR11...	-	LCS22A	-	P-2F	-	-	LCL22N
T25S-PTUNR16C	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33
T**-PTUNR16C	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3

Reference pages: A-PTUNR/L, T-PTUNR: Insert → **B084** -, CBN → **B176** -, PCD → **B192** -

A/S-PTUNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Cutting edge style U

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert	Torque*
S16M-PTUNR/L11	Steel	20	16	11	150	30	15	15.5	-14°	0.4	TN**1103...	1.7
S20Q-PTUNR/L11	Steel	25	20	13	180	35	18	19	-12°	0.4	TN**1103...	1.7
S25R-PTUNR/L16	Steel	32	25	17	200	40	23	24	-12°	0.8	TN**1604...	2.7
A32S-PTUNR/L16	Steel	40	32	22	250	50	30	29.5	-12°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Toolholder length may not conform to ISO standard.

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*
S**-PTUNR/L11	-	LCS22A	-	P-2F	-	-	LCL22N	-
S25R-PTUNR16	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33	-
S25R-PTUNL16	ELST317BL	-	LCS3	-	P-2.5	LSP3	LCL33	-
A32S-PTUNR16	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32
A32S-PTUNL16	LST317BL	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32

*Optional

INSERT SELECTION

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH
Cutting conditions	B006			

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round
Cutting conditions	B010		

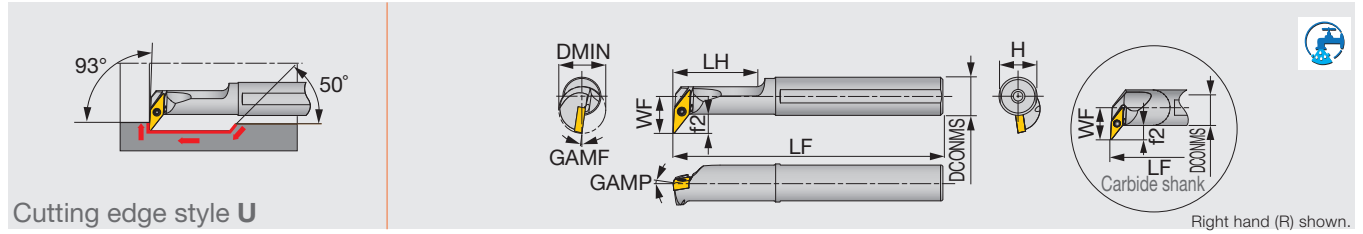
Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	T-CBN	HRF	HRM
Cutting conditions	B014		

Application	Finishing	Medium cutting
Grade	T6120	T6130
Breaker Shape	SF	SM
Cutting conditions	B008	

Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	T-DIA	with rake T-DIA	P
Cutting conditions	B012		

Application	Precision finishing	Finishing
Grade	BXM10	BXM20
Breaker Shape	T-CBN	T-CBN
Cutting conditions	B016	

Reference pages: A/S-PTUNR/L: Insert → **B084 -**, CBN → **B176 -**, PCD → **B192 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SVUBR/L11-D200	Steel	20	16	15.5	180	35	15	8	0°	-8°	0.4	VB**1103...	1.2
A20R-SVUBR/L11-D250	Steel	25	20	17.5	200	40	19	8	0°	-7°	0.4	VB**1103...	1.2
A25S-SVUBR/L16-D320	Steel	32	25	20.5	250	50	23	8.5	0°	-6°	0.8	VB**1604...	3
E16R-SVUBR/L11-D245	Carbide	24.5	16	16	200	-	15	8	0°	-8°	0.4	VB**1103...	1.2
E20S-SVUBR/L11-D285	Carbide	28.5	20	18	250	-	19	8	0°	-7°	0.4	VB**1103...	1.2
E25T-SVUBR/L16-D340	Carbide	34	25	21	300	-	23	8.5	0°	-6°	0.8	VB**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVUBR**) with left-hand inserts (L); and left-hand toolholders (SVUBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVUBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVUBR/L16-D320	CSTB-3.5	T-15F
E**-SVUBR/L11-D2*5	CSTB-2.5	T-8F
E25T-SVUBR/L16-D340	CSTB-3.5	T-15F

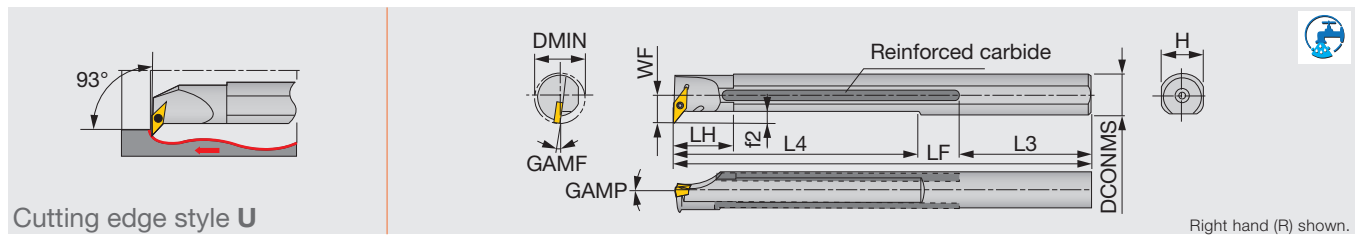
INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B018	
M	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B020	
K	Application	Finishing to medium cutting	
	Grade	T515	
	Breaker Shape	CM	
	Cutting conditions	B022	
H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: A/E-SVUBR/L: Insert → **B150 -**, CBN → **B189**

T-SVUBR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	L4	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T20R-SVUBR11C	Reinforced	25	Rc1/4	20	14	200	30	59	121	18	4	0°	-8°	0.4	VB**1103...	1.2

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVUBR**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
T20R-SVUBR11C	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B018	

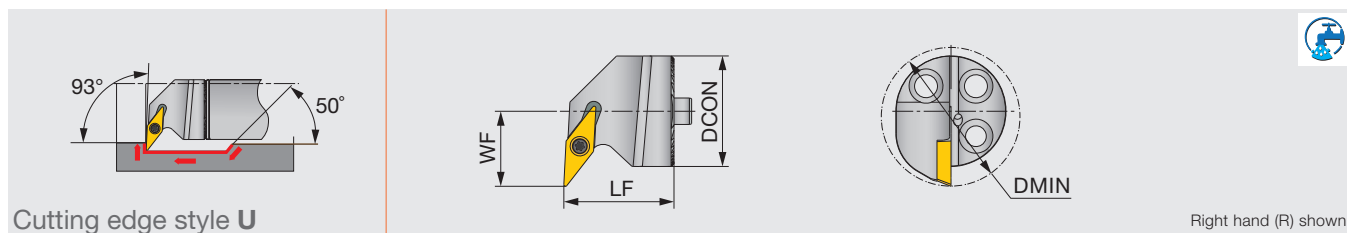
M	Application	Finishing	Finishing to medium cutting
	Grade	AH725	AH630
	Breaker Shape	PSF	PSS
	Cutting conditions	B020	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: T-SVUBR: Insert → **B150** -, CBN → **B189**



Cutting edge style U

Right hand (R) shown.

Designation	DMIN	DCON	WF	LF	Shank	Insert
S20-SVUCR/L11-H	27	20	16	20	D20	VC**1103...
S25-SVUCR/L11-H	31	25	17	25	D25	VC**1103...

Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L); and left-hand toolholders (SVUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S20-SVUCR/L11-H	SR14-560	T-8/5
S25-SVUCR/L11-H	SR14-560	T-8/5

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

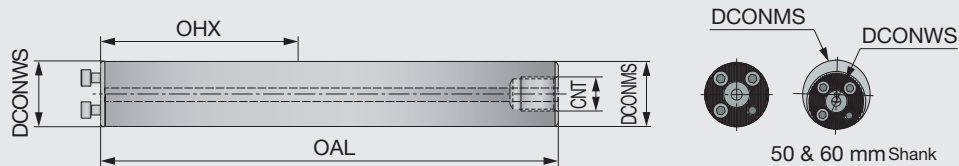
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF	PSS	PM
	Cutting conditions	B020		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

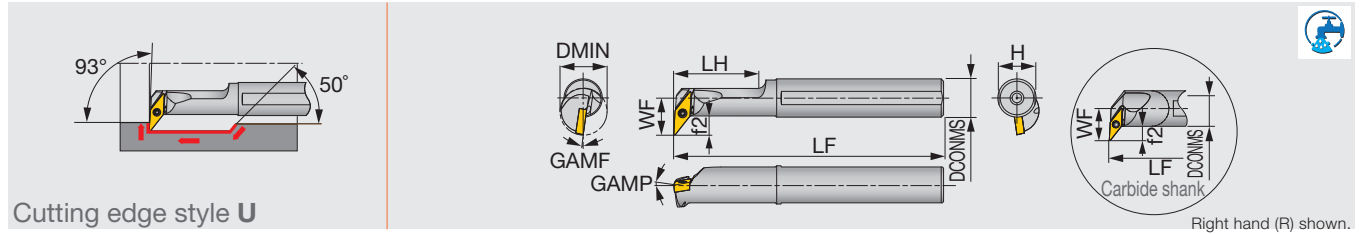
Reference pages: S-SVUCR/L-H: Insert → **B153** -



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156	92	G1/8
G16-L204-10D-E	Carbide	16	16	204	140	-
D20-L200-7D-C	Steel	20	20	200	120	G1/4
G20-L260-10D-E	Carbide	20	20	260	180	-
D25-L255-7D-C	Steel	25	25	255	155	G1/4
D25-L330-10D-C	Steel	25	25	330	230	G1/4
D32-L320-7D-C	Steel	32	32	320	192	G3/8
D32-L416-10D-C	Steel	32	32	416	288	G3/8
D40-L408-7D-C	Steel	40	40	408	248	G1/2
D40-L528-10D-C	Steel	40	40	528	368	G1/2
D50-L518-7D-C	Steel	40	50	518	318	G1/2
D50-L668-10D-C	Steel	40	50	668	468	G1/2
D60-L628-7D-C	Steel	40	60	628	388	G3/4
D60-L808-10D-C	Steel	40	60	808	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SRM3.5X10DIN912	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVUCR/L08-D160	Steel	16	12	11	150	30	11	5.5	0°	-8°	0.4	VC**0802...	0.6
A25S-SVUCR/L16-D320	Steel	32	25	19	250	45	23	6.5	0°	-5°	0.8	VC**1604...	3
E12Q-SVUCR/L08-D180	Carbide	18	12	11.5	180	-	11	5.5	0°	-8°	0.4	VC**0802...	0.6
E25T-SVUCR/L16-D320	Carbide	32	25	19	300	-	23	6.5	0°	-5°	0.8	VC**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L); and left-hand toolholders (SVUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A12M-SVUCR/L08-D160	CSTB-2L	T-6F
A25S-SVUCR/L16-D320	CSTB-3.5	T-15F
E12Q-SVUCR/L08-D180	CSTB-2L	T-6F
E25T-SVUCR/L16-D320	CSTB-3.5	T-15F

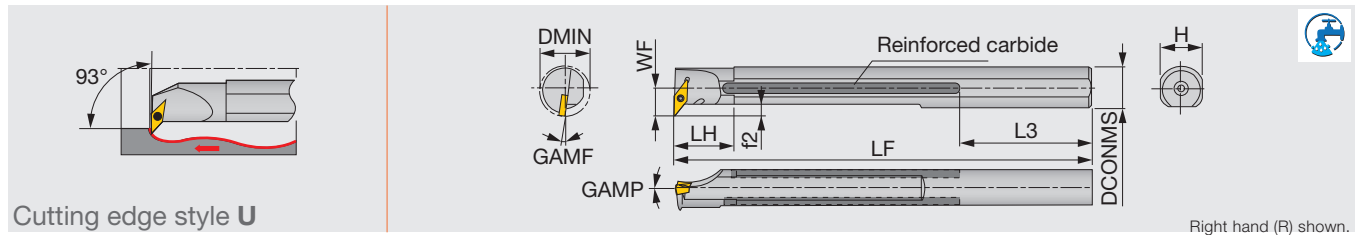
INSERT SELECTION

P	Application	Finishing to medium cutting	M	Application	Finishing to medium cutting
	Grade	T9215		Grade	T9215
	Breaker Shape	PS		Breaker Shape	PS
	Cutting conditions	B018		Cutting conditions	B020
K	Application	Finishing to medium cutting	N	Application	Precision finishing
	Grade	T515		Grade	DX120
	Breaker Shape	CM		Breaker Shape	T-DIA with rake AL
	Cutting conditions	B022		Cutting conditions	B024
S	Application	Finishing to medium cutting	H	Application	Precision finishing
	Grade	AH8005		Grade	BXM10
	Breaker Shape	PS		Breaker Shape	T-CBN
	Cutting conditions	B026		Cutting conditions	B028

Reference pages: A/E-SVUCR/L: Insert → **B153 -**, CBN → **B190**, PCD → **B194 -**

T-SVUCR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T25S-SVUCR16C	Reinforced	32	Rc1/4	25	19	250	40	64	23	6.5	0°	-5°	0.8	VC**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
T25S-SVUCR16C	CSTB-3.5L	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

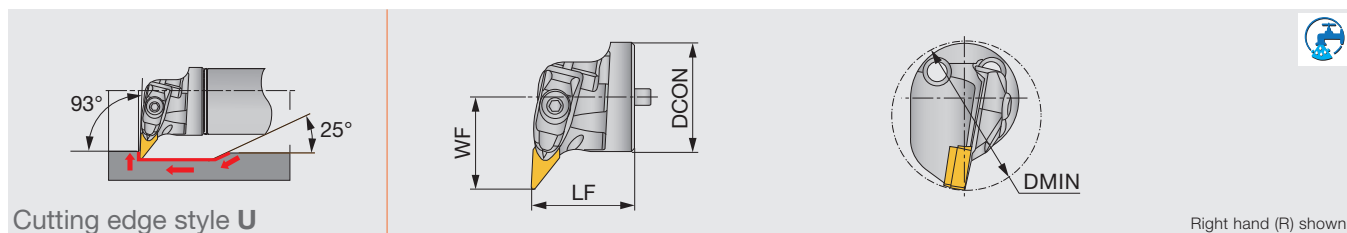
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF	PSS	PM
	Cutting conditions	B020		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: T-SVUCR: Insert → B153 -, CBN → B190, PCD → B194 -



Designation	DMIN	DCON	WF	LF	Shank	Insert
S40-DVUNR/L16T-H	52	40	30	36	D40, D50, D60	VN**1604...

SPARE PARTS

Designation	Shim	Shim screw	Clamp	Clamp screw	Spring	Wrench
S40-DVUNR/L16T-H	ASV322	SR35080I	DLM3V	SR10402267	KSP5	HW4.0

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Breaker Shape	TF	TSF	TM
	Cutting conditions	B006		

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SF	SM
	Cutting conditions	B008	

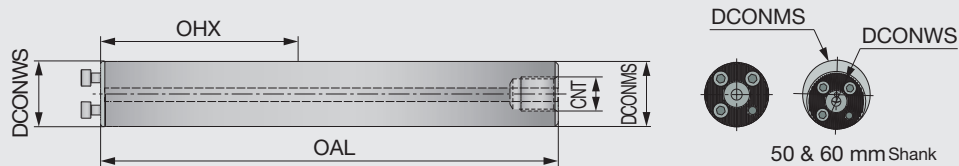
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

N	Application	Precision finishing
	Grade	DX120
	Breaker Shape	T-DIA with rake
	Cutting conditions	B012

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

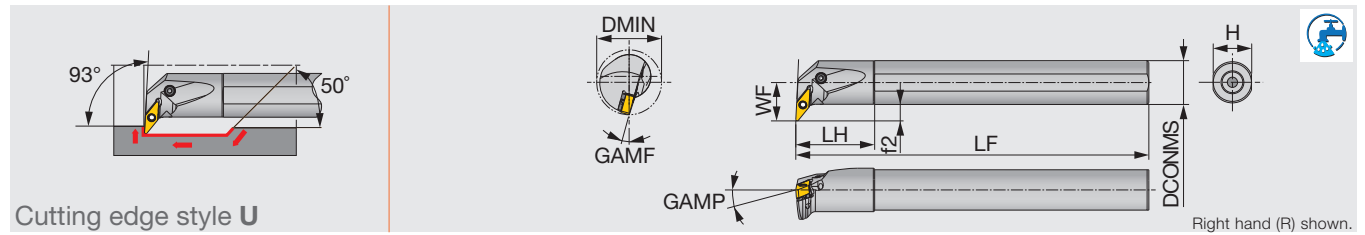
Reference pages: S-DVUNR/L-H: Insert → **B094** -, CBN → **B178**, PCD → **B192**



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156	92	G1/8
G16-L204-10D-E	Carbide	16	16	204	140	-
D20-L200-7D-C	Steel	20	20	200	120	G1/4
G20-L260-10D-E	Carbide	20	20	260	180	-
D25-L255-7D-C	Steel	25	25	255	155	G1/4
D25-L330-10D-C	Steel	25	25	330	230	G1/4
D32-L320-7D-C	Steel	32	32	320	192	G3/8
D32-L416-10D-C	Steel	32	32	416	288	G3/8
D40-L408-7D-C	Steel	40	40	408	248	G1/2
D40-L528-10D-C	Steel	40	40	528	368	G1/2
D50-L518-7D-C	Steel	40	50	518	318	G1/2
D50-L668-10D-C	Steel	40	50	668	468	G1/2
D60-L628-7D-C	Steel	40	60	628	388	G3/4
D60-L808-10D-C	Steel	40	60	808	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SRM3.5X10DIN912	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PVUNR/L1204-D320	Steel	32	25	18	200	45	23	5.0	-5°	-15°	0.8	VN**1204...	3
A25R-PVUNR/L1204-D370	Steel	37	25	22	200	45	23	8.0	-4°	-15°	0.8	VN**1204...	3
A32S-PVUNR/L1204-D400	Steel	40	32	22	250	50	30	5.5	-6°	-12°	0.8	VN**1204...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

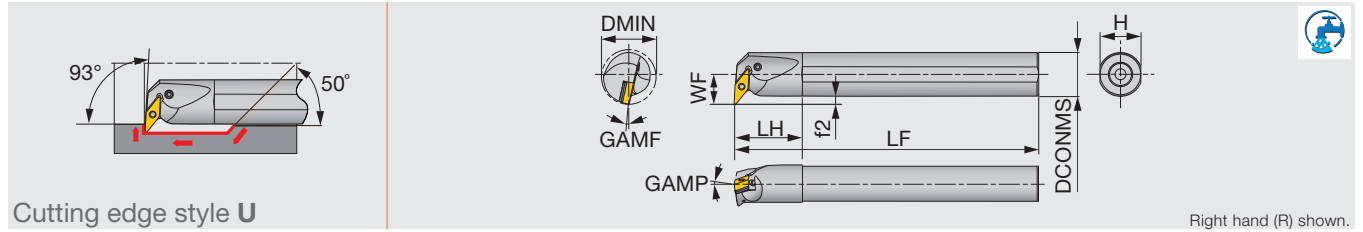
Designation	Clamping screw	Wrench	Lever	Shim	Spring pin	Oil supply attachment*	Screw for oil hole*
A25R-PVUNR/L1204-D...	LCS3V	P-2.5	LCL3V	LSV212	LSP3	EA-25	SSHM4-5
A32S-PVUNR/L1204-D400	LCS3V	P-2.5	LCL3V	LSV212	LSP3	EA-32	SSHM4-5

*Optional

INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B006	

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SS	SM
	Cutting conditions	B008	



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PVUNR/L16-D370	Steel	37	25	22	200	45	23	9.5	-5°	-14°	0.8	V/YN**1604...	2.7
A32S-PVUNR/L16-D400	Steel	40	32	22	250	50	30	6	-5°	-12°	0.8	V/YN**1604...	2.7
A40T-PVUNR/L16-D500	Steel	50	40	27	300	60	37	7	-5°	-10°	0.8	V/YN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PVUNR/L16-D370	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	EA-25	SSHM4-5
A32S-PVUNR/L16-D400	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	EA-32	SSHM4-5
A40T-PVUNR/L16-D500	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	-	SSHM5-6

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Breaker Shape	TF	TSF	TM
	Cutting conditions	B006		

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SF	SM
	Cutting conditions	B008	

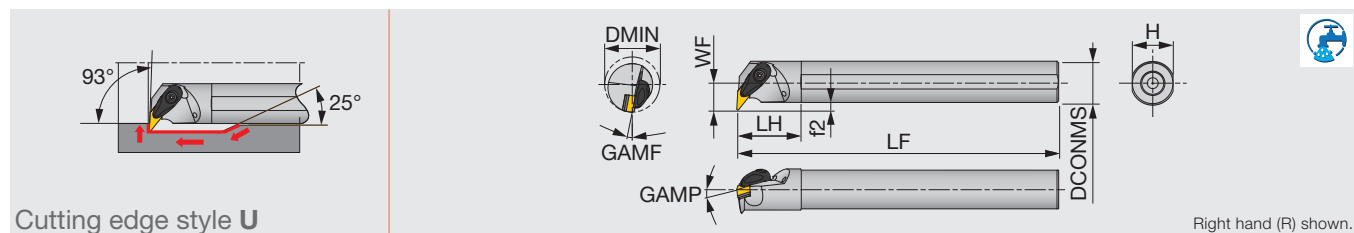
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

N	Application	Precision finishing
	Grade	DX120
	Breaker Shape	T-DIA with rake
	Cutting conditions	B012

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: A-PVUNR/L: Insert → **B094** -, **B107**, CBN → **B178**, PCD → **B192**



Cutting edge style **U**

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A32S-AVUNR/L16-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	V/YN**1604...	3
A40T-AVUNR/L16-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	V/YN**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AVUNR/L16-D...	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Breaker Shape	TF	TSF	TM
	Cutting conditions	B006		

M	Application	Finishing	Medium cutting
	Grade	T6120	T6130
	Breaker Shape	SF	SM
	Cutting conditions	B008	

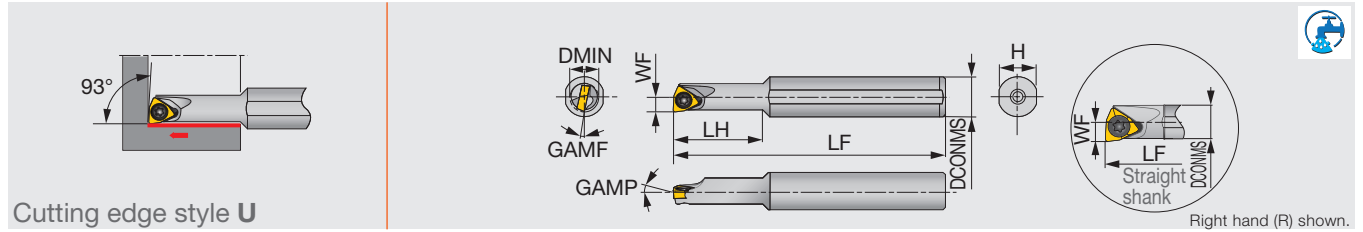
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

N	Application	Precision finishing
	Grade	DX120
	Breaker Shape	T-DIA with rake
	Cutting conditions	B012

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	

Reference pages: A-AVUNR/L: Insert → **B094 -**, **B107**, CBN → **B178**, PCD → **B192**



Cutting edge style U

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A05F-SWUBR/L03-D060	Steel	6	5	3	80	9	4.8	0°	-13°	0.4	WB**0301...	0.6
A06G-SWUBR/L03-D070	Steel	7	6	3.5	90	11	5.75	0°	-12°	0.4	WB**0301...	0.6
A07G-SWUBR/L03-D080	Steel	8	7	4	90	12	6.75	0°	-11°	0.4	WB**0301...	0.6
A08H-SWUBR03-D060	Steel	6	8	3.1	100	18	7.5	0°	-12°	0.4	WB**0301...	0.6
A08H-SWUBR03-D070	Steel	7	8	3.6	100	20	7.5	0°	-12°	0.4	WB**0301...	0.6
E05G-SWUBR/L03-D060	Carbide	6	5	3	90	10	4.8	0°	-13°	0.4	WB**0301...	0.6
E06H-SWUBR/L03-D070	Carbide	7	6	3.5	100	12	5.75	0°	-12°	0.4	WB**0301...	0.6
E07H-SWUBR/L03-D080	Carbide	8	7	4	100	14	6.75	0°	-11°	0.4	WB**0301...	0.6
E08K-SWUBR03-D060	Carbide	6	8	3.1	125	30	7.5	0°	-12°	0.4	WB**0301...	0.6
E08K-SWUBR03-D070	Carbide	7	8	3.6	125	40	7.5	0°	-12°	0.4	WB**0301...	0.6

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVUCR*) with left-hand inserts (L); and left-hand toolholders (SWUBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SWUBR/L...	CSTB-2	T-6F

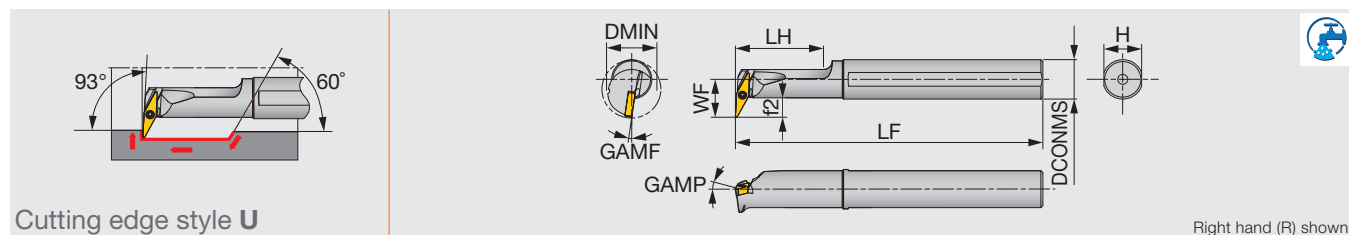
INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing	N	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	TH10		Grade	GH110
	Breaker Shape	W08		Breaker Shape	W08		Breaker Shape	W08		Breaker Shape	W08
	Cutting conditions	B006		Cutting conditions	B008		Cutting conditions	B010		Cutting conditions	B012

Y-PRO SERIES

A/E-SYUBR/L

Screw-on boring bar, for positive 25° rhombic inserts



Cutting edge style U

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SYUBR/L11-D200	Steel	20	16	15.5	180	35	15	8	0°	-8°	0.4	YW**11T2...	0.6
E12Q-SYUBR/L11-D200	Carbide	20	12	13.5	180	27	11	7.5	0°	-8°	0.4	YW**11T2...	0.6
E16R-SYUBR/L11-D245	Carbide	24.5	16	16	200	32	15	8	0°	-8°	0.4	YW**11T2...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

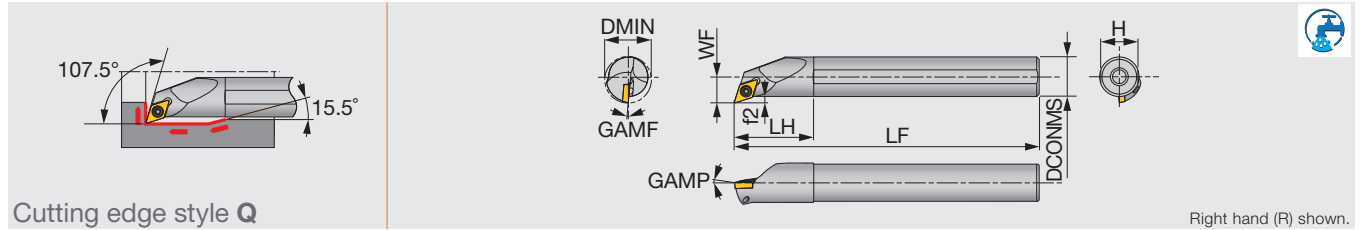
SPARE PARTS

Designation	Clamping screw	Wrench
A16Q-SYUBR/L11-D200	CSTB-2L	T-6F
E**SYUBR/L11-D...	CSTB-2L	T-6F

INSERT SELECTION

P	Application	Finishing to medium cutting	K	Application	Finishing to medium cutting
	Grade	T9225		Grade	GT9530
	Breaker Shape	ZM		Breaker Shape	ZM
	Cutting conditions	B018		Cutting conditions	B022

Reference pages: A/E-SYUBR/L: Insert → **B160**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDQCR/L07-D130	Steel	13	10	7.6	125	20	9	2.6	0°	-8°	0.4	DC**0702...	1.2
A12M-SDQCR/L07-D160	Steel	16	12	8.6	150	24	11	2.6	0°	-6°	0.4	DC**0702...	1.2
A16Q-SDQCR/L07-D200	Steel	20	16	10.6	180	32	15	2.6	0°	-5°	0.4	DC**0702...	1.2
A20R-SDQCR/L11-D250	Steel	25	20	13.7	200	36	18	3.7	0°	-7°	0.8	DC**11T3...	3
A25S-SDQCR/L11-D300	Steel	30	25	16.2	250	45	23	3.7	0°	-4°	0.8	DC**11T3...	3
E10H-SDQCR07-D130	Carbide	13	10	7.6	100	25	9	2.5	0°	-8°	0.4	DC**0702...	1.2
E10M-SDQCR/L07-D130	Carbide	13	10	7.6	150	25	9	2.6	0°	-8°	0.4	DC**0702...	1.2
E12J-SDQCR07-D160	Carbide	16	12	8.6	110	27	11	2.5	0°	-6°	0.4	DC**0702...	1.2
E12Q-SDQCR/L07-D160	Carbide	16	12	8.6	180	27	11	2.6	0°	-6°	0.4	DC**0702...	1.2
E16L-SDQCR07-D200	Carbide	20	16	10.6	130	32	15	2.5	0°	-5°	0.4	DC**0702...	1.2
E16R-SDQCR/L07-D200	Carbide	20	16	10.6	200	32	15	2.6	0°	-5°	0.4	DC**0702...	1.2
E20S-SDQCR/L11-D250	Carbide	25	20	13.7	250	36	18	3.7	0°	-7°	0.8	DC**11T3...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
A2**-SDQCR/L11-D**0	CSTB-4S	T-15F
E1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
E20S-SDQCR/L11-D250	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

S	Application	Precision finishing	Finishing to medium cutting
	Grade	BX470	AH8005
	Breaker Shape	T-CBN	PS
	Cutting conditions	B026	

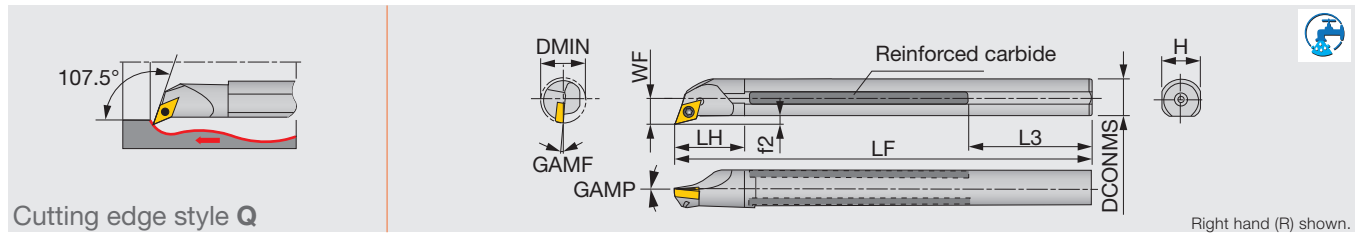
M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B020			

N	Application	Precision finishing	Medium cutting
	Grade	DX120	KS05F
	Breaker Shape	T-DIA with rake	AL
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

T-SDQCR/L

Screw-on boring bar, for positive 55° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T16Q-SDQCR/L07	Reinforced	20	-	16	11	180	27	59	15	3	0°	-6°	0.4	DC**0702...	1.2
T20R-SDQCR/L11C	Reinforced	25	Rc1/4	20	13	200	35	49	18	3	0°	-6°	0.8	DC**11T3...	3
T25S-SDQCR/L11C	Reinforced	32	Rc1/4	25	17	250	40	64	23	4.5	0°	-4°	0.8	DC**11T3...	3

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T16Q-SDQCR/L07	CSTB-2.5	T-8F
T20R-SDQCR/L11C	CSTB-4M	T-15F
T25S-SDQCR/L11C	CSTB-4	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH725	AH630	T6130
	Breaker Shape	W**	PSF	PSS	PM
	Cutting conditions	B020			

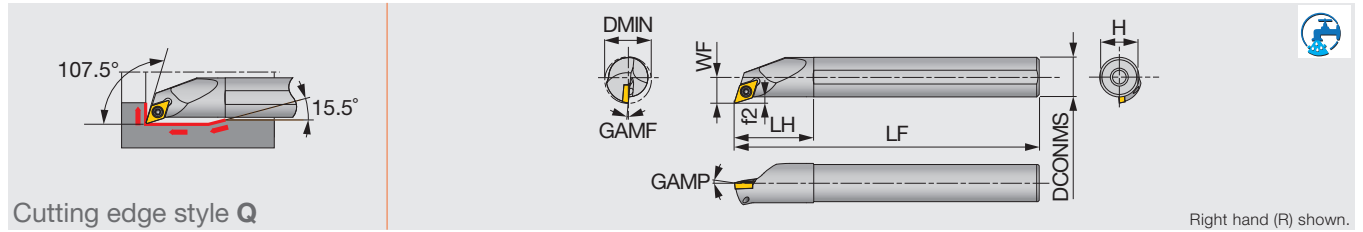
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: T-SDQCR/L: Insert → **B119 -**, CBN → **B182**, PCD → **B194 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDQPR07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.40	DPMT0702...	1.2
A12M-SDQPL07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.40	DPMT0702...	1.2
A12M-SDQPR07-D180-P	Special alloy steel	18	12	9.6	150	24	11	3.6	5	0	0.40	DPMT0702...	1.2
A12M-SDQPL07-D180-P	Special alloy steel	18	12	9.6	150	24	11	3.6	5	0	0.40	DPMT0702...	1.2
A16Q-SDQPR07-D220-P	Special alloy steel	22	16	11.6	180	32	15	3.6	5	0	0.40	DPMT0702...	1.2
A16Q-SDQPL07-D220-P	Special alloy steel	22	16	11.6	180	32	15	3.6	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPR07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPL07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPR07-D180	Carbide	18	12	9.6	180	27	11	3.6	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPL07-D180	Carbide	18	12	9.6	180	27	11	3.6	5	0	0.40	DPMT0702...	1.2
E16R-SDQPR07-D220	Carbide	22	16	11.6	200	32	15	3.6	5	0	0.40	DPMT0702...	1.2
E16R-SDQPL07-D220	Carbide	22	16	11.6	200	32	15	3.6	5	0	0.40	DPMT0702...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

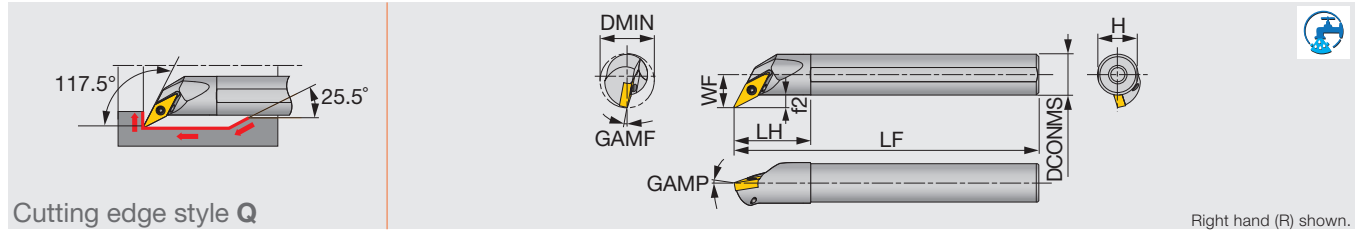
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SDQPR/L07-D**0-P	CSTB-2.5S	T-8F
E**-SDQPR/L07-D**0	CSTB-2.5S	T-8F

INSERT SELECTION

P	Application	Finishing to medium cutting
	Grade	T9225 NS9530
	PS	PS
	Breaker Shape	
	Cutting conditions	B018

S	Application	Finishing to medium cutting
	Grade	AH8015
	PS	PS
	Breaker Shape	
	Cutting conditions	B026



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVQBR/L11-D170	Steel	17	12	10.5	150	24	11	4.5	-5°	-10°	0.4	VB**1103...	1.2
A16Q-SVQBR/L11-D215	Steel	21.5	16	13	180	30	15	5	-5°	-8°	0.4	VB**1103...	1.2
A20R-SVQBR/L11-D255	Steel	25.5	20	15	200	36	18	5	-5°	-6°	0.4	VB**1103...	1.2
A25S-SVQBR/L16-D305	Steel	30.5	25	17.5	250	45	23	5	-5°	-8°	0.8	VB**1604...	3
E12Q-SVQBR/L11-D170	Carbide	17	12	10.5	180	27	11	4.5	-5°	-10°	0.4	VB**1103...	1.2
E16R-SVQBR/L11-D215	Carbide	21.5	16	13	200	32	15	5	-5°	-8°	0.4	VB**1103...	1.2
E20S-SVQBR/L11-D255	Carbide	25.5	20	15	250	36	18	5	-5°	-6°	0.4	VB**1103...	1.2
E25T-SVQBR/L16-D305	Carbide	30.5	25	17.5	300	45	23	5	-5°	-8°	0.8	VB**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVQBR**) with left-hand inserts (L); and left-hand toolholders (SVQBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVQBR/L11-D...	CSTB-2.5	T-8F
A25S-SVQBR/L16-D305	CSTB-3.5	T-15F
E**-SVQBR/L11-D...	CSTB-2.5	T-8F
E25T-SVQBR/L16-D305	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B018	

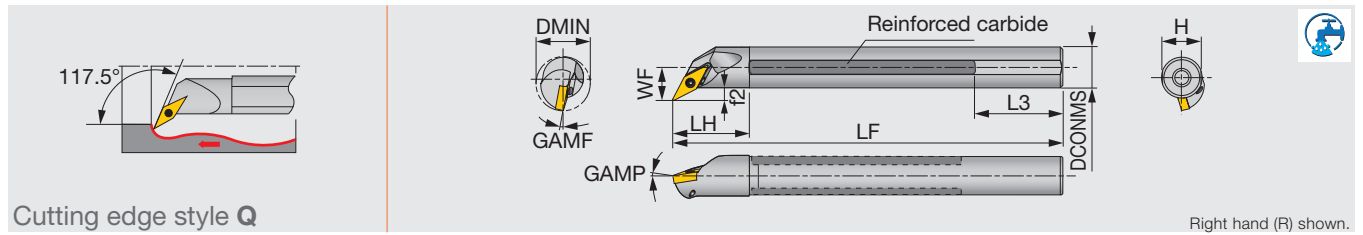
M	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B020	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

T-SVQBR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style Q

Right hand (R) shown.

Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T20R-SVQBR11C	Reinforced	25	Rc1/4	20	14	200	30	59	18	4	-5°	-7°	0.4	VB**1103...	1.2

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T20R-SVQBR11C	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS

Cutting conditions B018

M	Application	Finishing	Finishing to medium cutting
	Grade	AH725	AH630
	Breaker Shape	PSF	PSS

Cutting conditions B020

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM

Cutting conditions B022

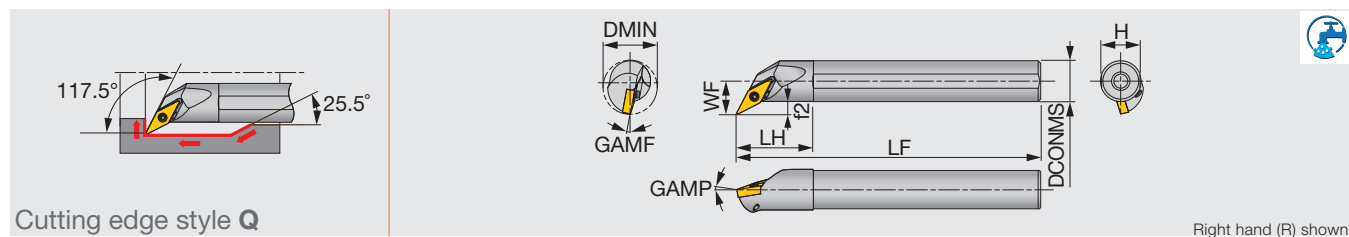
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS

Cutting conditions B026

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN

Cutting conditions B028

Reference pages: T-SVQBR: Insert → **B150** -, CBN → **B190**



Cutting edge style Q

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SVQCR/L08-D135	Steel	13.5	10	8	125	20	9	3	-5°	-8°	0.4	VC**0802...	0.6
A16Q-SVQCR/L11-D215	Steel	21.5	16	13	180	30	15	4.9	-5°	-8°	0.4	VC**1103...	1.2
E10M-SVQCR/L08-D135	Carbide	13.5	10	8	150	25	9	3	-5°	-8°	0.4	VC**0802...	0.6
E16R-SVQCR/L11-D215	Carbide	21.5	16	13	200	32	15	4.9	-5°	-8°	0.4	VC**1103...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVQCR**) with left-hand inserts (L); and left-hand toolholders (SVQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A10K-SVQCR/L08-D135	CSTB-2L	T-6F
A16Q-SVQCR/L11-D215	CSTB-2.5	T-8F
E10M-SVQCR/L08-D135	CSTB-2L	T-6F
E16R-SVQCR/L11-D215	CSTB-2.5	T-8F

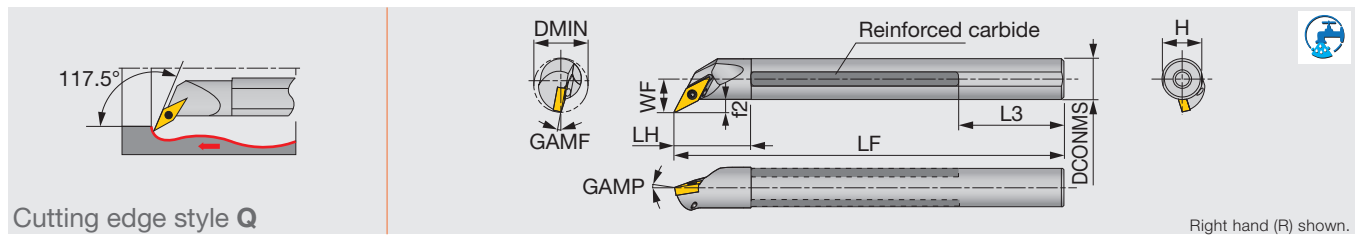
INSERT SELECTION

P	Application	Finishing to medium cutting	M	Application	Finishing to medium cutting
	Grade	T9215		Grade	T9215
	Breaker Shape	PS		Breaker Shape	PS
	Cutting conditions	B018		Cutting conditions	B020
K	Application	Finishing to medium cutting	N	Application	Precision finishing
	Grade	T515		Grade	DX120
	Breaker Shape	CM		Breaker Shape	T-DIA with rake AL
	Cutting conditions	B022		Cutting conditions	B024
S	Application	Finishing to medium cutting	H	Application	Precision finishing
	Grade	AH8005		Grade	BXM10
	Breaker Shape	PS		Breaker Shape	T-CBN
	Cutting conditions	B026		Cutting conditions	B028

Reference pages: A/E-SVQCR/L: Insert → **B153** -

T-SVQCR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T25S-SVQCR16C	Reinforced	32	Rc1/4	25	17	250	40	64	23	8	0°	-5°	0.8	VC**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T25S-SVQCR16C	CSTB-3.5L	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B022

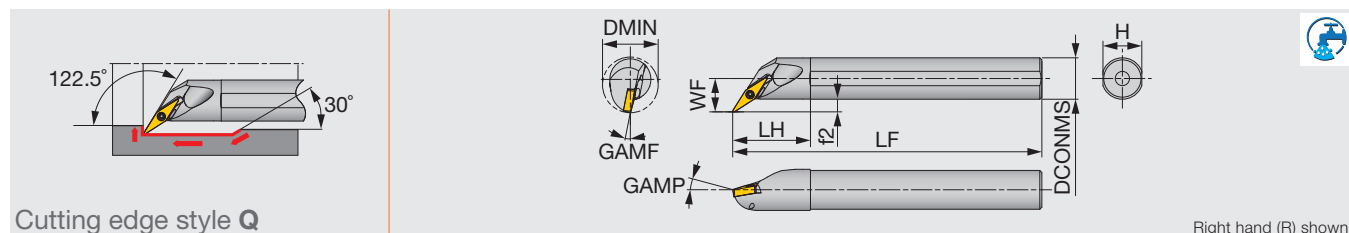
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PSS	PS
	Cutting conditions	B026	

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH725	AH630	T6130
	Breaker Shape	PSF	PSS	PM
	Cutting conditions	B020		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	T-DIA	with rake T-DIA	AL
	Cutting conditions	B024		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	

Reference pages: T-SVQCR: Insert → **B153** -, CBN → **B190**, PCD → **B194** -



Cutting edge style Q

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SYQBR/L11-D170	Steel	17	12	10.5	150	24	11	4.5	-5°	-10°	0.4	YW**11T2...	0.6
A16Q-SYQBR/L11-D215	Steel	21.5	16	13	180	30	15	5	-5°	-8°	0.4	YW**11T2...	0.6
E12Q-SYQBR/L11-D170	Carbide	17	12	10.5	180	27	11	4.5	-5°	-10°	0.4	YW**11T2...	0.6
E16R-SYQBR/L11-D215	Carbide	21.5	16	13	200	32	15	5	-5°	-8°	0.4	YW**11T2...	0.6

*Torque: Recommended clamping torque (N-m)

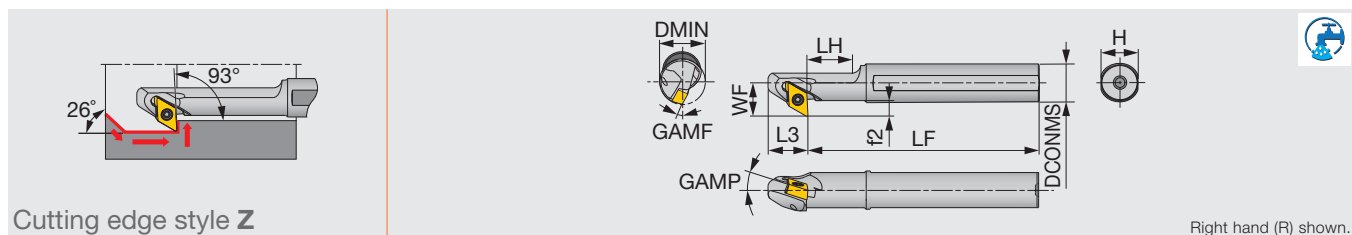
**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SYQBR/L11-D...	CSTB-2L	T-6F
E**-SYQBR/L11-D...	CSTB-2L	T-6F

INSERT SELECTION

P	Application	Finishing to medium cutting	K	Application	Finishing to medium cutting
	Grade	T9225		Grade	GT9530
	Breaker Shape	ZM		Breaker Shape	ZM
	Cutting conditions	B018		Cutting conditions	B022



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDZXR/L07-D140	Steel	14	12	10.5	150	30	13	11	4.5	-10°	-14°	0.4	DXGU0703**R/L...	0.9
A16Q-SDZXR/L07-D160	Steel	16	16	12.5	180	35	13	15	4.5	-10°	-12.5°	0.4	DXGU0703**R/L...	0.9
A20R-SDZXR/L07-D200	Steel	20	20	14.5	200	40	13	18	4.5	-10°	-10.5°	0.4	DXGU0703**R/L...	0.9
E12Q-SDZXR/L07-D180	Carbide	18	12	10.5	180	-	13	11	4.5	-11°	-11°	0.4	DXGU0703**R/L...	0.9
E16R-SDZXR/L07-D220	Carbide	22	16	12.5	200	-	13	15	4.5	-11°	-9°	0.4	DXGU0703**R/L...	0.9

*Torque: Recommended clamping torque (N-m) **RE : Standard corner radius

Note: Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E*-SDZXR/L...	SR34-514	T-7F

INSERT SELECTION

Application	Finishing	Medium cutting
Grade	NS9530	AH725
Breaker Shape	SS	TS

Cutting conditions D095

Application	Finishing	Medium cutting
Grade	AH8015	AH8015
Breaker Shape	SS	TS

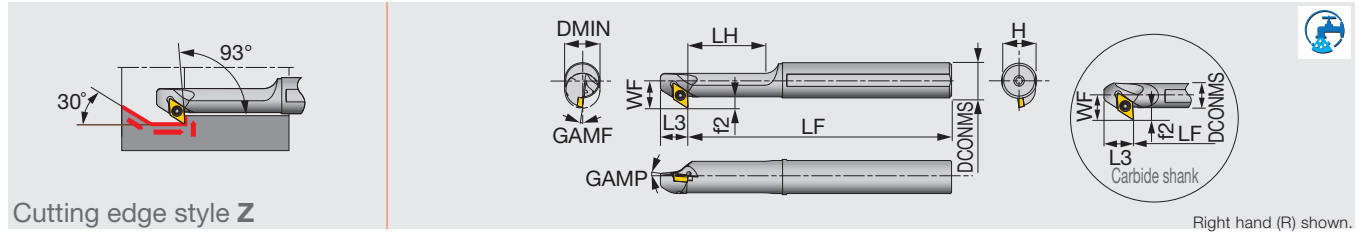
Cutting conditions D095

Application	Finishing	Medium cutting
Grade	NS9530	AH725
Breaker Shape	SS	TS

Cutting conditions D095

Application	Finishing	Medium cutting
Grade	KS05F	KS05F
Breaker Shape	SS	TS

Cutting conditions D095



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMF	GAMF	RE**	Insert	Torque*
A12M-SDZCR/L07-D140	Steel	14	12	10.5	150	30	12.5	11	4.5	0°	-9°	0.4	DC**0702...	1.2
A16Q-SDZCR/L07-D160	Steel	16	16	12.5	180	35	12.5	15	4.5	0°	-8°	0.4	DC**0702...	1.2
A20R-SDZCR/L11-D200	Steel	20	20	15.5	200	40	15.0	18	5.5	0°	-8°	0.8	DC**11T3...	3
A25S-SDZCR/L11-D250	Steel	25	25	18	250	50	15	23	5.5	0°	-6°	0.8	DC**11T3...	3
E12Q-SDZCR/L07-D180	Carbide	18	12	10.5	180	-	12.5	11	4.5	0°	-8°	0.4	DC**0702...	1.2
E16R-SDZCR/L07-D220	Carbide	22	16	12.5	200	-	12.5	15	4.5	0°	-6°	0.4	DC**0702...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SDZCR**) with right-hand inserts (R); and left-hand toolholders (SDZCL**) with left-hand inserts (L).

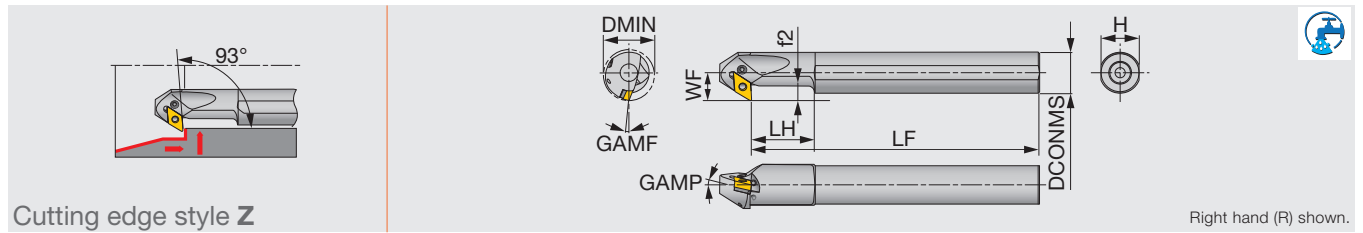
SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDZCR/L07-D1*0	CSTB-2.5	T-8F
A2**-SDZCR/L11-D2*0	CSTB-4S	T-15F
E1**-SDZCR/L07-D**0	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B018			
K	Application	Finishing to medium cutting			
	Grade	T515			
	Breaker Shape	CM			
	Cutting conditions	B022			
S	Application	Precision finishing	Finishing to medium cutting		
	Grade	BX470	AH8005		
	Breaker Shape	T-CBN	PS		
	Cutting conditions	B026			
M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	01	JS	PS	PM
	Cutting conditions	B020			
N	Application	Precision finishing	Medium cutting		
	Grade	DX120	KS05F		
	Breaker Shape	T-DIA with rake	AL		
	Cutting conditions	B024			
H	Application	Precision finishing	Finishing		
	Grade	BXM10	BXM20		
	Breaker Shape	T-CBN	T-CBN		
	Cutting conditions	B028			

Reference pages: A/E-SDZCR/L: Insert → **B119** -, CBN → **B182**, PCD → **B194** -

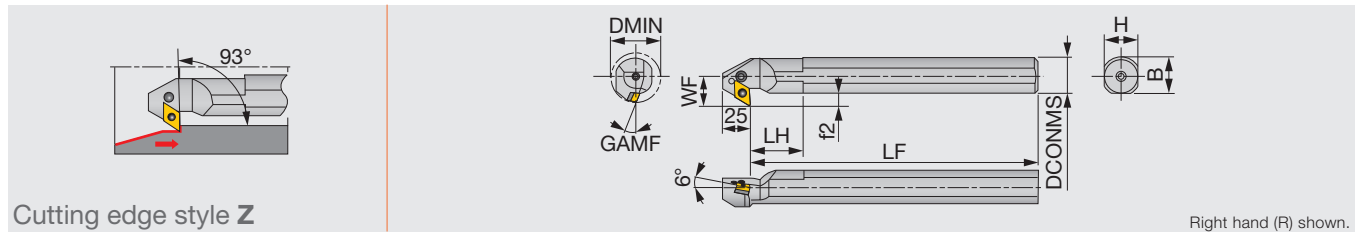


Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A32S-PDZNR/L15-D400	Steel	40	32	22	250	50	30	11.5	-6°	-13°	0.8	DN**1504...	4.8
A40T-PDZNR/L15-D500	Steel	50	40	27	300	60	37	14.5	-6°	-10°	0.8	DN**1504...	4.8
A50U-PDZNR/L15-D630	Steel	63	50	35	350	65	47	14.5	-6°	-8°	0.8	DN**1504...	4.8

SPARE PARTS								*Torque: Recommended clamping torque (N·m)		**RE : Standard corner radius	
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*	Note: Use right-hand toolholders (PDZNR**) with right-hand inserts (R); and left-hand toolholders (PDZNL**) with left-hand inserts (L).			
A32S-PDZNR/L15-D400	LSZ42BR	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5				
A32S-PDZNL/L15-D400	LSZ42BL	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5				
A40T-PDZNR/L15-D500	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	SSHM5-6				
A40T-PDZNL/L15-D500	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	SSHM5-6				
A50U-PDZNR/L15-D630	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	SSHM6-6				
A50U-PDZNL/L15-D630	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	SSHM6-6	*Optional			

S-PDZNR/L

Lever-lock boring bar, for negative 55° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	B	GAMP	RE**	Insert
S32S-PDZNR/L15	Steel	40	32	22	250	30	30	6	29.5	-13°	0.8	DN**1504...
S40T-PDZNR/L15	Steel	50	40	27	300	35	37	7	37.5	-10°	0.8	DN**1504...
S50U-PDZNR/L15	Steel	60	50	35	350	40	47	10	47.5	-8°	0.8	DN**1504...

SPARE PARTS						**RE : Standard corner radius	
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Note: Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L)	
S32S-PDZNR/L15	LSZ42BR	LCS4	P-3	LSP4	LCL4		
S32S-PDZNL/L15	LSZ42BL	LCS4	P-3	LSP4	LCL4		
S*0*-PDZNR/L15	LSZ42BR	LCS4	P-3	LSP4	LCL4		

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B006			

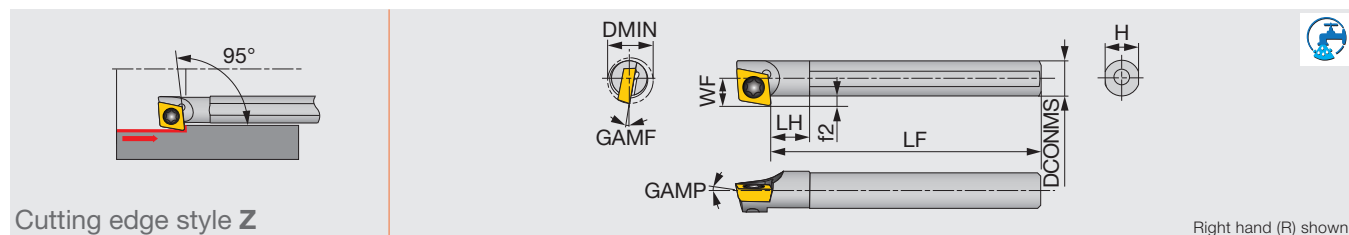
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B014		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130	T6130
	Breaker Shape	SF	SM	SH
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	T-DIA	with rake T-DIA	P
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B016	



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A04F-SEZPR/L03-D055	Steel	5.5	4	3.2	80	4	3.8	1.2	0°	-8°	0.2	EP**03X1...	0.6
A05F-SEZPR/L03-D065	Steel	6.5	5	3.7	80	5	4.8	1.2	0°	-6°	0.2	EP**03X1...	0.6
E04G-SEZPR/L03-D055	Carbide	5.5	4	3.2	90	5	3.8	1.2	0°	-8°	0.2	EP**03X1...	0.6
E05G-SEZPR/L03-D065	Carbide	6.5	5	3.7	90	6	4.8	1.2	0°	-6°	0.2	EP**03X1...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SEZPR**) with right-hand inserts (R); and left-hand toolholders (SEZPL**) with left-hand inserts (L).

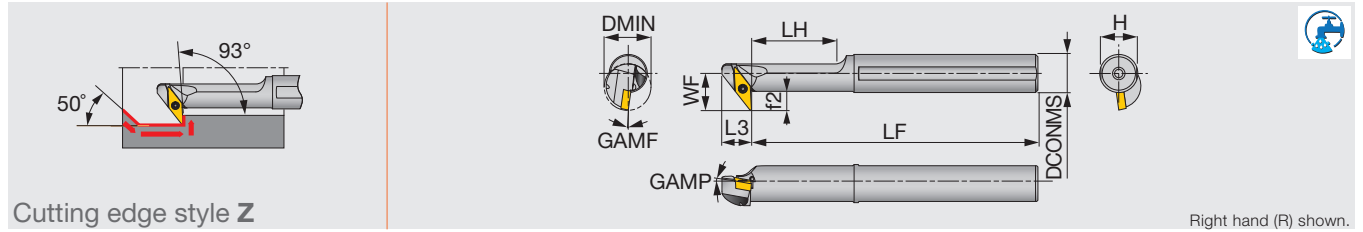
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SEZPR/L03-D...	CSTA-1.6	T-6F
E**-SEZPR/L03-D...	CSTA-1.6	T-6F

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725
	Breaker Shape	JS 		Breaker Shape	JS 		Breaker Shape	JS 
	Cutting conditions	B006		Cutting conditions	B008		Cutting conditions	B010

N	Application	Precision finishing	H	Application	Precision finishing
	Grade	DX140		Grade	BX310
	Breaker Shape	T-DIA  W08 		Breaker Shape	T-CBN 
	Cutting conditions	B012		Cutting conditions	B016



Cutting edge style Z

Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SVZBR/L11-D200	Steel	20	16	15.5	180	35	12.5	15	8	0°	-8°	0.4	VB**1103...	1.2
A20R-SVZBR/L11-D250	Steel	25	20	17.5	200	40	12.5	18	8	0°	-7°	0.4	VB**1103...	1.2
A25S-SVZBR/L16-D320	Steel	32	25	24	250	50	17.5	23	12	0°	-6°	0.8	VB**1604...	3
A32T-SVZBR/L16-D400	Steel	40	32	27.5	300	72	17.5	30	12	0°	-5°	0.8	VB**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

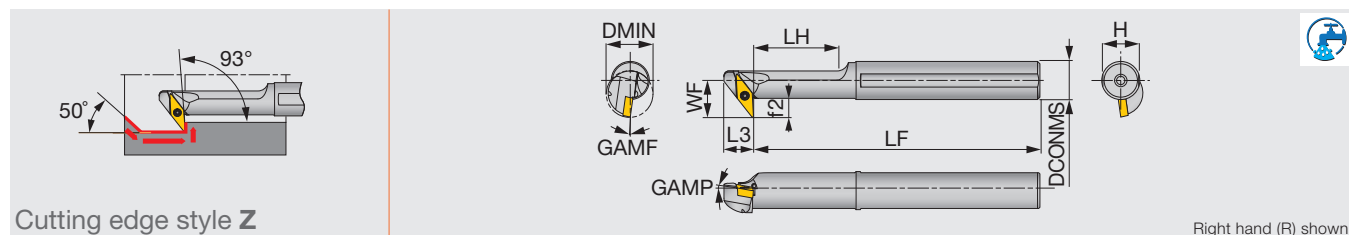
Note: Use right-hand toolholders (SVZBR**) with right-hand inserts (R); and left-hand toolholders (SVZBL**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVZBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVZBR/L16-D320	CSTB-3.5	T-15F
A32T-SVZBR/L16-D400	CSTB-3.5L	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B018	
M	Application	Finishing	Finishing to medium cutting
	Grade	SH725	T9215
	Breaker Shape	JS	PS
	Cutting conditions	B020	
K	Application	Finishing to medium cutting	
	Grade	T515	
	Breaker Shape	CM	
	Cutting conditions	B022	
H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN	T-CBN
	Cutting conditions	B028	



Cutting edge style Z

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVZCR/L08-D160	Steel	16	12	11	150	30	10	11	5.5	0°	-8°	0.4	VC**0802...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVZCR**) with right-hand inserts (R); and left-hand toolholders (SVZCL**) with left-hand inserts (L).

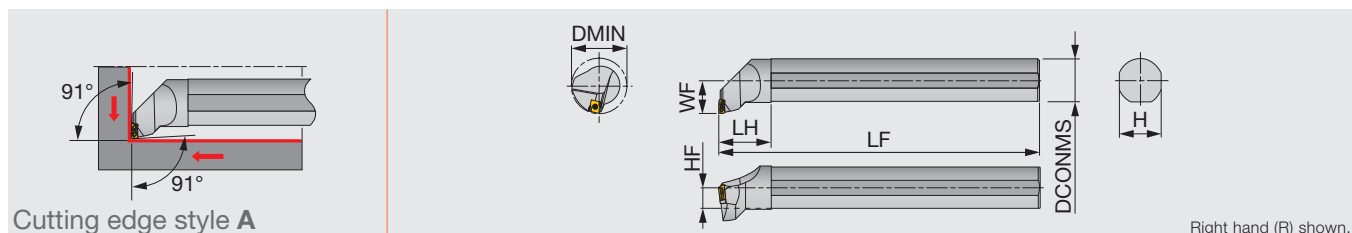
SPARE PARTS

Designation	Clamping screw	Wrench
A12M-SVZCR/L08-D160	CSTB-2L	T-6F

INSERT SELECTION

P	Application	Finishing to medium cutting	M	Application	Finishing to medium cutting
	Grade	T9215		Grade	T9215
	Breaker Shape	PS		Breaker Shape	PS
	Cutting conditions	B018		Cutting conditions	B020
K	Application	Finishing to medium cutting	N	Application	Precision finishing
	Grade	T515		Grade	DX120
	Breaker Shape	CM		Breaker Shape	T-DIA with rake AL
	Cutting conditions	B022		Cutting conditions	B024
S	Application	Finishing to medium cutting	H	Application	Precision finishing
	Grade	AH8005		Grade	BXM10
	Breaker Shape	PS		Breaker Shape	T-CBN
	Cutting conditions	B026		Cutting conditions	B028

Reference pages: A-SVZCR/L: Insert → **B153** -



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	HF	Insert
S25T-TLANR/L12-D530	Steel	53	25	17	300	40	23	11.5	LNMX1204**/L/R...
S32U-TLANR/L12-D530	Steel	53	32	22	350	45	30	15	LNMX1204**/L/R...
S40V-TLANR/L12-D530	Steel	53	40	27	400	53	37	18.5	LNMX1204**/L/R...
S50U-TLANR/L16-D850	Steel	85	50	37	350	63	47	23.5	LNMX1606**/L/R...

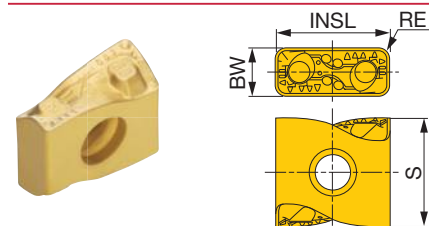
Note: Use right-hand toolholders (TLANR**) with left-hand inserts (L); and left-hand toolholders (TLANL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Spring pin	Wrench 1	Wrench 2
S**-TLANR/L12-D530	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L/RI	-	KEYV-T10	T-6F-S
S50U-TLANR16-D850	CSTB-4L115-S	-	TSL16LI	PSP-16	KEYV-T15	-
S50U-TLANL16-D850	CSTB-4L115-S	-	TSL16RI	PSP-16	KEYV-T15	-

■ INSERT

LNMX12/16/24



P	Steel	★	★	★			
M	Stainless			☆			
K	Cast iron	☆	☆	☆			
N	Non-ferrous						
S	Superalloys						
H	Hard materials						

★ : First choice
☆ : Second choice

Designation	HAND	RE	Coated				BW	INSL	S
			T9115	T9125	AH725				
LNMX120408R-TDR	R	0.8	●	●			4.8	12	11.6
LNMX120408L-TDR	L	0.8	●	●			4.8	12	11.6
LNMX120412R-TDR	R	1.2	●	●			4.8	12	11.6
LNMX120412L-TDR	L	1.2	●	●			4.8	12	11.6
LNMX160608R-TDR	R	0.8	●	●			6.4	16.2	13.5
LNMX160608L-TDR	L	0.8	●	●			6.4	16.2	13.5
LNMX160612R-TDR	R	1.2	●	●			6.4	16.2	13.5
LNMX160612L-TDR	L	1.2	●	●			6.4	16.2	13.5
LNMX160616R-TDR	R	1.6	●	●			6.4	16.2	13.5
LNMX160616L-TDR	L	1.6	●	●			6.4	16.2	13.5
LNMX241016R-TDR	R	1.6	●	●			9.4	24	20.5
LNMX241016L-TDR	L	1.6	●	●			9.4	24	20.5
LNMX241024R-TDR	R	2.4	●	●			9.4	24	20.5
LNMX241024L-TDR	L	2.4	●	●			9.4	24	20.5
LNMX160608R-MDR	R	0.8	●		●		6.4	16.2	13.5
LNMX160608L-MDR	L	0.8	●		●		6.4	16.2	13.5
LNMX160612R-MDR	R	1.2	●		●		6.4	16.2	13.5
LNMX160612L-MDR	L	1.2	●		●		6.4	16.2	13.5
LNMX160608R-TWR	R	0.8	●	●			6.4	16.2	13.5
LNMX160608L-TWR	L	0.8	●	●			6.4	16.2	13.5
LNMX160612R-TWR	R	1.2	●	●			6.4	16.2	13.5
LNMX160612L-TWR	L	1.2	●	●			6.4	16.2	13.5

●: Line up

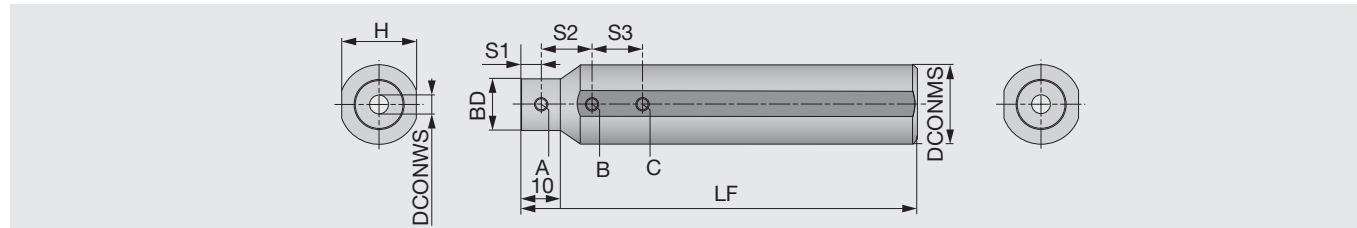
Reference pages: Standard cutting conditions → **D096**

Technical Guide

STREAMJETBAR

BLM sleeve

Round shank sleeve for StreamJetBar-Mini series



Designation	DCONMS	DCONWS	BD	LF	H	S1	S2	S3
BLM159-04	15.875	4	15	100	15	5	15	15
BLM159-05	15.875	5	15	100	15	5	15	15
BLM159-06	15.875	6	15	100	15	5	20	20
BLM159-07	15.875	7	15	100	15	5	20	20
BLM16-04	16	4	15	100	15	5	15	15
BLM16-05	16	5	15	100	15	5	15	15
BLM16-06	16	6	15	100	15	5	20	20
BLM16-07	16	7	15	100	15	5	20	20
BLM19-04	19.05	4	18	100	18	5	15	15
BLM19-05	19.05	5	18	100	18	5	15	15
BLM19-06	19.05	6	18	100	18	5	20	20
BLM19-07	19.05	7	18	100	18	5	20	20
BLM20-04	20	4	13	100	19	5	15	15
BLM20-05	20	5	14	100	19	5	15	15
BLM20-06	20	6	15	100	19	5	20	20
BLM20-07	20	7	16	100	19	5	20	20
BLM22-04	22	4	13	125	21	5	15	15
BLM22-05	22	5	14	125	21	5	15	15
BLM22-06	22	6	15	125	21	5	20	20
BLM22-07	22	7	16	125	21	5	20	20
BLM25-04	25	4	13	125	24	5	15	15
BLM25-05	25	5	14	125	24	5	15	15
BLM25-06	25	6	15	125	24	5	20	20
BLM25-07	25	7	16	125	24	5	20	20
BLM254-04	25.4	4	13	125	24	5	15	15
BLM254-05	25.4	5	14	125	24	5	15	15
BLM254-06	25.4	6	15	125	24	5	20	20
BLM254-07	25.4	7	16	125	24	5	20	20

SPARE PARTS

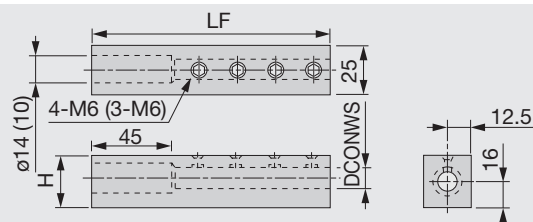


Designation	Clamping screw A	Clamping screw B, C	Wrench	Seal cap* (inner screw)
BLM159, 16...	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM19-04	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM19-05, 06, 07	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM20-04, 05	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM20-06, 07	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM22-...	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM25-04, 05	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM25-06	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM25-07	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM254-04, 05, 06	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM254-07	SSHM4-4	SSHM4-6	P-2	CA-16(M6)

*Optional

BLS sleeve

Square shank sleeve for boring bars (regular length)



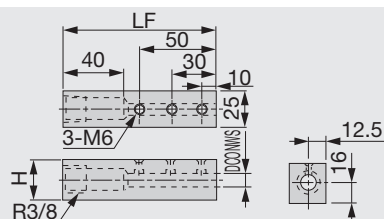
Designation	DCONWS	LF	H
BLS16-08	8	125	28
BLS16-10	10	125	28
BLS16-12	12	125	28

SPARE PARTS

Designation	Wrench
BLS16-...	P-3

BLS-C sleeve

Square shank sleeve for boring bars (short type)



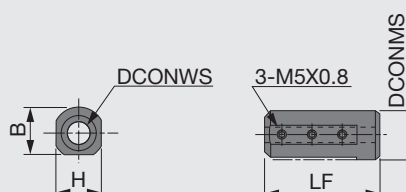
Designation	DCONWS	LF	H
BLS16-08C	8	100	28
BLS16-10C	10	100	28
BLS16-12C	12	100	28

SPARE PARTS

Designation	Wrench
BLS16-**C	P-3

BLM sleeve

Round shank sleeve for boring bars



Designation	DCONWS	DCONMS	LF	H	B
BLM19-08	8	19.05	100	18	18
BLM20-08	8	20	100	18	19
BLM22-08	8	22	125	21	21
BLM254-08	8	25.4	125	24	24
BLM25-08C	8	25	55	23	24
BLM25-10C	10	25	55	23	24
BLM25-12C	12	25	55	23	24

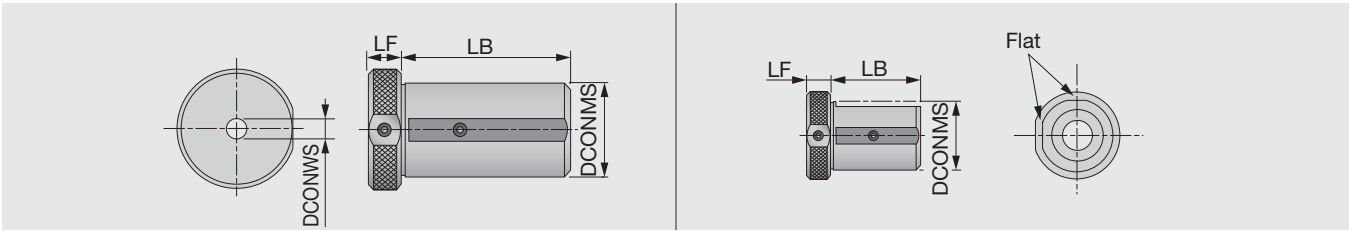
SPARE PARTS

Designation	Wrench
BLM...	P-2.5

Technical Guide

BLC sleeve

Round shank sleeve for boring bars



Designation	DCONWS	LB	LF	DCONMS
BLC40-8	8	73	13	40
BLC40-10	10	73	13	40
BLC40-12	12	73	13	40
BLC40-16	16	73	13	40
BLC32-8C	8	45	20	32
BLC32-10C	10	45	20	32
BLC32-12C	12	45	20	32
BLC40-8C	8	55	13	40
BLC40-10C	10	55	13	40
BLC40-12C	12	55	13	40
BLC40-16C	16	55	13	40

SPARE PARTS

Designation	Wrench
BLC40-8	P-3
BLC40-1...	P-4
BLC32-8C	P-3
BLC32-1*C	P-4
BLC40-8C	P-3
BLC40-1*C	P-4



MINIFORCE

STANDARD CUTTING CONDITIONS

Internal turning

ISO	Workpiece material	Grade			Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
		First Choice	For surface finish	For wear resistance (High speed)			
P	Low carbon steel SS400, S25C, etc. E275A, C25, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	-	80 - 300	0.3 - 2	0.08 - 0.3
	Carbon steel S45C, S55C, etc. C45, C55, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	-	80 - 300	0.3 - 2	0.08 - 0.3
	Low alloy steel SCM415, etc. 18CrMo4, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	-	80 - 300	0.3 - 2	0.08 - 0.3
	Alloy steel SCM440, SCr420, etc. 42CrMo4, 20Cr4, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	-	80 - 300	0.3 - 2	0.08 - 0.3
M	Stainless steel (Austenitic) SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH8015	-	-	50 - 150	0.3 - 2	0.08 - 0.3
	Stainless steel (Martensitic and ferritic) SUS430, SUS416, etc. X6Cr17, X20Cr13, etc.	AH8015	-	-	50 - 150	0.3 - 2	0.08 - 0.3
	Stainless steel (Precipitation hardening) SUS630, etc. X5CrNiCuNb16-4, etc.	AH8015	-	-	50 - 150	0.3 - 2	0.08 - 0.3
K	Grey cast iron FC250, etc. 250, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	-	80 - 300	0.3 - 2	0.08 - 0.3
	Ductile cast iron FCD700, etc. 600-3, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	-	80 - 300	0.3 - 2	0.08 - 0.3
N	Non ferrous Metal Aluminum alloy, etc.	KS05F	-	-	100 - 300	0.3 - 2	0.08 - 0.3
	Non ferrous Metal Copper Alloy, etc.	KS05F	-	-	100 - 300	0.3 - 2	0.08 - 0.3
S	Heat-resistant alloys Titanium alloys, etc.	AH8015	-	-	20 - 80	0.3 - 2	0.08 - 0.3
	Heat-resistant alloys (Nickel-base alloys)	AH8015	-	-	20 - 80	0.3 - 2	0.08 - 0.3

Reference pages: A/E-SWLXR/L → **D028**, A/E-SDXXR/L → **D035**
A/E-SDZXR/L → **D085**

Technical Guide

TURNTEC

STANDARD CUTTING CONDITIONS

LNMX1204

*Values in red are for facing.

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)		Feed: f (mm/rev)	
					RE : 0.8	RE : 1.2	RE : 0.8	RE : 1.2
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8

LNMX1606

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)			Feed: f (mm/rev)		
					RE : 0.8	RE : 1.2	RE : 1.6	RE : 0.8	RE : 1.2	RE : 1.6
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TWR	T9115	120 - 250	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		MDR	T9115	100 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		MDR	AH725	50 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		TWR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-

LNMX2410

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)		Feed: f (mm/rev)	
					RE : 1.6	RE : 2.4	RE : 1.6	RE : 2.4
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1

Reference pages: S-TLANR/L → **D091**