TaeguTec Parting & Grooving Line

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NPN

New Product News

expansion

Speed to Feed

HUSHBORE
ANTI VIBRATION BAR

New HUSH-BORE Heads for Improved Internal Grooving of Deep Holes

ADVANCE CUTTING
TaeguTec

TaeguTec
Member IMC Group

KEY POINT

HUSH-BORE Family expanded with T-CLAMP heads for internal grooving of deep holes.

The new grooving heads, using T-Clamp inserts, range between 2-6 mm and are mountable to the existing HUSH-BORE shanks as well as head changeable C-ADAPTERs. Although internal grooving negatively impacts surface finish due to the vibrations caused by long overhangs, using the newly launched HUSH-BORE grooving products results in good surface roughness, even in deep internal grooving of 5xD or higher, and offers improved tool life and excellent machining performance.

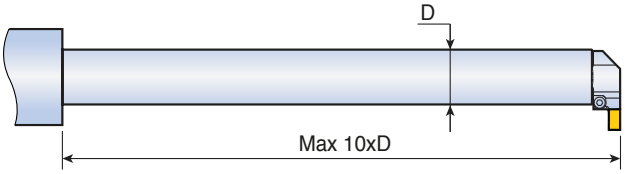
For further information, please contact the product manager.

Features

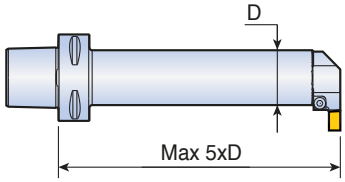
■ T-Clamp inserts' internal grooving heads range: 2-6 mm

■ Mountable to the current line HUSH-BORE shanks and head changeable C-ADAPTERs

- HUSH-BORE shank



- Head changeable C-ADAPTER



■ Pinpointed coolant supply to the insert's cutting edge for improved tool life and chip control

Head designation system

1: HUSH-BORE head
2: Shank connection sizes (DCONMS) Ø25, 32, 40 mm
3: Head type (same as standard boring bars)
4: Insert seat size 2, 3, …, 6 and maximum cutting depth (CDX)
5: Option code (TB : COOL-BURST)

Recommended cutting conditions

- Carbon steel: S45C

HUSH-BORE shank	Cutting conditions	HUSH-BORE head				
		QH25 TTIR-2T12-TB	QH25 TTIR-3T12-TB	QH32 TTIR-4T12-TB	QH32 TTIR-5T12-TB	QH40 TTIR-6T12-TB
QS…-7D	V (m/min)	80-100	60-80	60-80	40-50	40-50
	f(mm/rev)	0.10-0.12	0.10-0.12	0.08-0.10	0.08-0.10	0.08-0.10
QS…-10D	V (m/min)	40-50	40-50	40-50	40-50	25-30
	f(mm/rev)	0.08-0.10	0.08-0.10	0.08-0.10	0.08-0.10	0.08-0.10

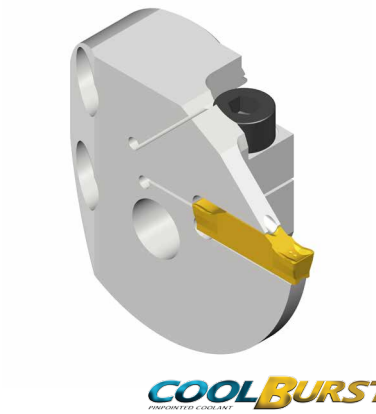
- Alloy steel: SCM440

HUSH-BORE shank	Cutting conditions	HUSH-BORE head				
		QH25 TTIR-2T12-TB	QH25 TTIR-3T12-TB	QH32 TTIR-4T12-TB	QH32 TTIR-5T12-TB	QH40 TTIR-6T12-TB
QS…-7D	V (m/min)	80-100	60-80	60-80	40-50	30-40
	f(mm/rev)	0.10-0.12	0.10-0.12	0.08-0.10	0.08-0.10	0.08-0.10
QS…-10D	V (m/min)	40-50	40-50	30-40	30-40	25-30
	f(mm/rev)	0.08-0.10	0.08-0.10	0.08-0.10	0.08-0.10	0.08-0.10

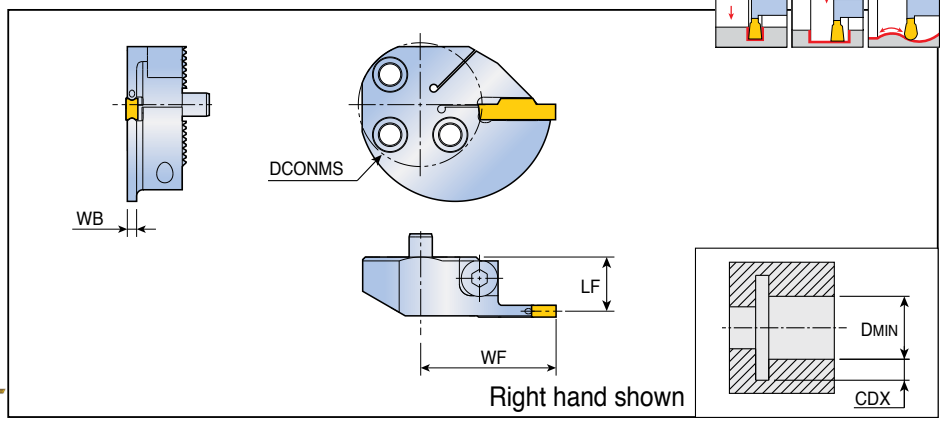
QH-TTIR/L-TB new

HUSHBORE ANTI VIBRATION BAR

Internal boring head for turning and grooving with high pressure coolant



COOLBURST FINPOINTED COOLANT



Designation	Insert seat size	Dimension (mm)						Insert
		DCONMS	LF	WF	WB	CDX	DMIN	
QH25 TTIR/L-2T12-TB	2	25	14.3	32.0	1.8	12	58	TDC / J / T TDXU / XT / XY TSC / J TDUF / TDV
QH32 TTIR/L-2T12-TB	2	32	14.3	35.0	1.8	12	58	
QH25 TTIR/L-3T12-TB	3	25	14.0	32.0	2.4	12	58	
QH32 TTIR/L-3T12-TB	3	32	14.0	35.0	2.4	12	58	
QH40 TTIR/L-3T12-TB *	3	40	14.0	38.5	2.4	12	60 *	
QH32 TTIR/L-4T12-TB	4	32	13.7	35.0	3.0	12	58	
QH40 TTIR/L-4T12-TB *	4	40	13.7	38.5	3.0	12	60 *	
QH32 TTIR/L-5T17-TB	5	32	15.1	40.0	3.9	17	58	
QH40 TTIR/L-5T17-TB *	5	40	15.1	43.0	3.9	17	64 *	
QH40 TTIR/L-6T17-TB *	6	40	14.6	43.0	4.9	17	64 *	

▸ * When applying Ø50 mm shanks, add +10 mm to the DMIN. When applying Ø60 mm shanks, add +20 mm to the DMIN.

Spare parts

Designation	Screw	Wrench		
				
QH-TTIR/L-TB	SH M5X0.8X16	L-W 4		

QS

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Anti-vibration shanks for boring

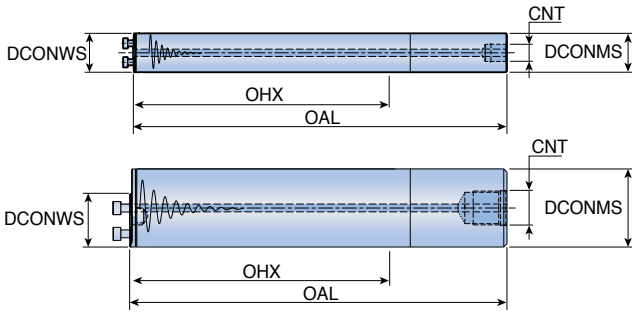

Fig.1

Fig.2

Designation	Dimension (mm)					Coolant	Fig.
	DCONMS	DCONWS	OAL	OHX	CNT		
QS25A-7D	25	25	257.5	155	G 1/4	●	1
QS25A-10D	25	25	332.5	230	G 1/4	●	1
QS32A-7D	32	32	323.0	192	G 3/8	●	1
QS32A-10D	32	32	419.0	288	G 3/8	●	1
QS40A-7D	40	40	411.0	251	G 1/2	●	1
QS40A-10D	40	40	531.0	368	G 1/2	●	1
QS50A-7D	50	40	523.0	318	G 1/2	●	2
QS50A-10D	50	40	673.0	468	G 1/2	●	2
QS60A-7D	60	40	633.0	388	G 3/4	●	2
QS60A-10D	60	40	813.0	568	G 3/4	●	2

▸ OHX: Maximum overhang

Spare parts

Designation	Screw	Wrench					
							
QS25	SH M4x0.7X12	L-W 3					
QS32	SH M5x0.8X12	L-W 4					
QS40/50/60	SH M6x1X16	L-W 5					

C...CS

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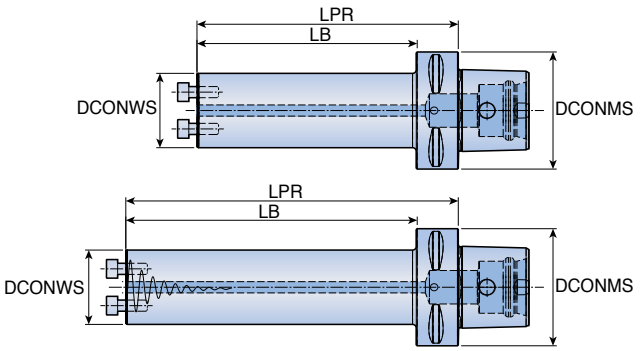
C-ADAPTERs with HUSH-BORE head connection



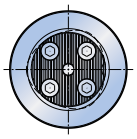


Fig.1

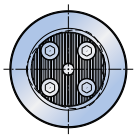


Fig.2

Designation	Dimension (mm)				Coolant	Fig.
	DCONMS	DCONWS	LPR	LB		
C4-CS25A-2.5D	40	25	55	35	●	1
C4-CS32A-2.5D	40	32	75	55	●	1
C4-CS40A-3D	40	40	80	80	●	1
C5-CS25A-2.5D	50	25	55	35	●	1
C5-CS32A-2.5D	50	32	75	55	●	1
C5-CS40A-3D	50	40	100	80	●	1
C6-CS25A-2.5D	63	25	65	43	●	1
C6-CS32A-3D	63	32	90	68	●	1
C6-CS32A-4D	63	32	125	103	●	1
C6-CS40A-3D	63	40	100	78	●	1
C6-CS40A-4D	63	40	140	118	●	1
C6-CS25E-5D	63	25	115	93	●	2
C6-CS32E-5D	63	32	150	128	●	2
C6-CS40E-5D	63	40	185	163	●	2

▸ 5D: Carbide core type

Spare parts

Designation	Screw	Wrench			
					
CS25	SH M4x0.7X12	L-W 3.0			
CS32	SH M5x0.8X12	L-W 4.0			
CS40	SH M6x1X16	L-W 5.0			