



# FLEXTURN™

TURNING PRODUCTS



### Shank Sizes

- Inch: .500 & .625"
- Metric: 12 & 16 mm

### Heads (Turning Inserts)

- SDJCR (DC\_T32.5...)
- SVJBR (VB\_T22...)
- SVJCR (VC\_T22...)
- SDJNR (DN\_X2.22...)
- SDJNR (DN\_\_3.53.5...)
- SFXCR (BTVC...)
- SDJCR - Y-Axis (DC\_T32.5...)

### Heads (Grooving Inserts)

- TTER/L (T-Clamp Ultra+)
- TQHR/L (GoldFlex20)
- TQHR - Y-Axis (GoldFlex20)

### Heads (All)


- With or without CoolBurst (thru coolant)

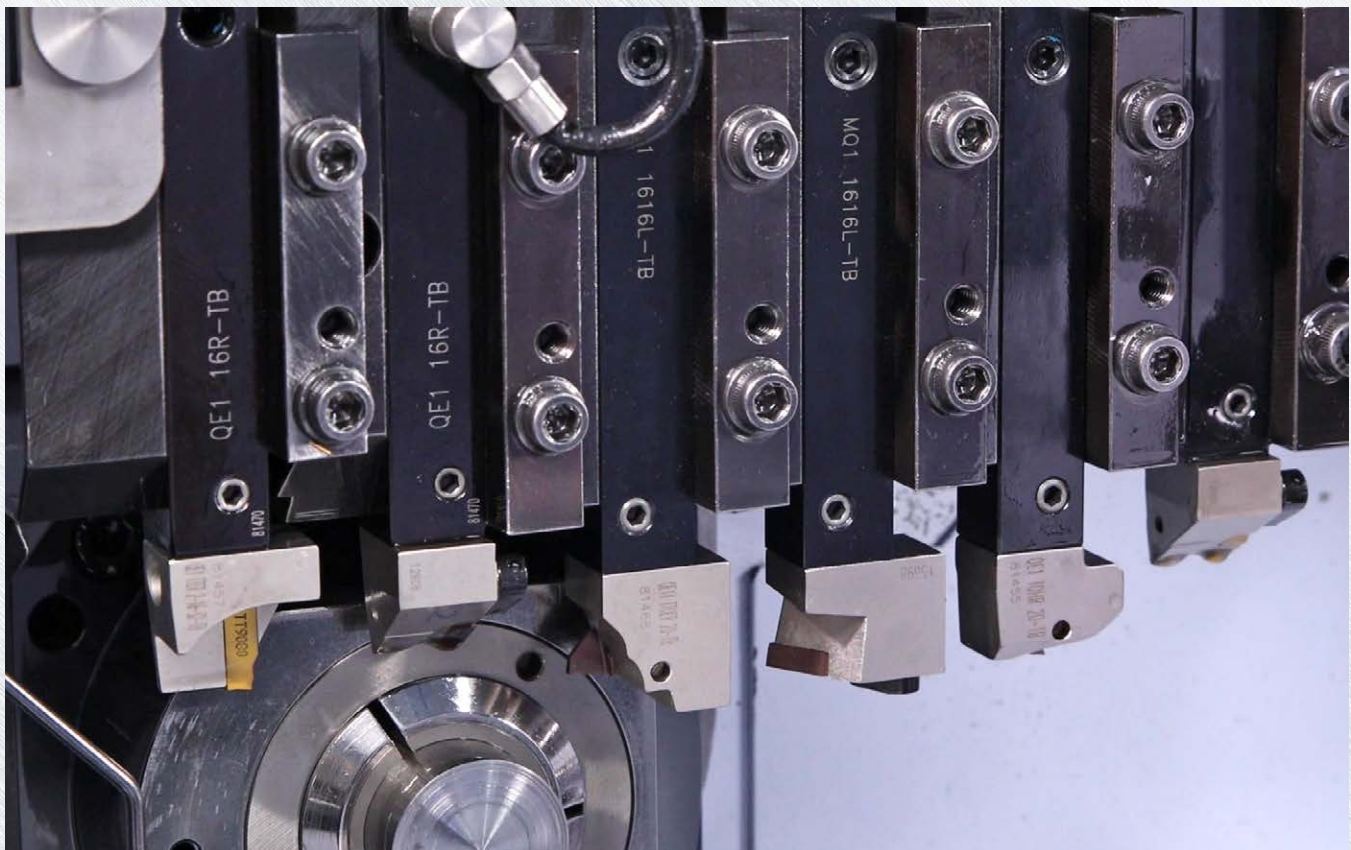
## Timesaving Modular Head and Holder System for Swiss Machines

In Swiss machines, some tool holders do not allow access to change inserts without removing the entire tool, which can be a time-consuming task. With Ingersoll's new FlexTurn modular head product line, inserts can be indexed outside the machine by quickly and easily removing and replacing the modular head. With the shank remaining in the tool post, downtime is minimized.

By indexing the inserts "off line", FlexTurn also provides a less obstructive and more accurate way to change the cutting edge, also eliminating the chance of dropping and losing screws and inserts inside the machine.

## **FLEXTURN™** FEATURES AND BENEFITS

- Modular head type holders for Swiss machines
- Easy replacement of modular heads and inserts
- Improved productivity due to reduced set-up time
- Rigid clamping between shanks and heads, and good repeatability
- Reduced inventory due to the ability to mount multiple heads on one shank
- A variety of modular heads available for turning, grooving and parting applications
- **COOLBURST™** system improves chip control and tool life (-TB holders) 
- Minimized risk of losing holder's spare parts and inserts
- An error proof modular head and shank assembly system










## FLEXTURN™ ASSEMBLY OVERVIEW

### ▶ Modular head and shank assembly for external machining applications

External coolant supply					 <b>QE1-S12N-TB</b> (Neutral type, 12x12 mm)
 QE1-SDJCR	 QE1-SVJB(C)R	 QE1-SDJNR	 QE1-SDJNR		
 QE1B-SVXCR	 QE1-TTER	 QE1-TTEL	 QE1-TQHR	 QE1-TQHL	
COOLBURST High-pressure internal coolant supply					
 QE1-SDJCR-TB	 QE1-SVJB(C)R-TB	 QE1-SDJNR-TB	 QE1-SDJNR-TB		
 QE1B-SVXCR-TB	 QE1-TTER-TB	 QE1-TTEL-TB	 QE1-TQHR-TB	 QE1-TQHL-TB	
					 <b>QE1-S12.7R-TB</b> (Right hand type, .500")
					16x16 mm) shank" data-bbox="675 485 850 585"/> <b>QE1-S15.9R-TB</b> <b>QE1-S16R-TB</b> (Right hand type, .625"/>16x16 mm)

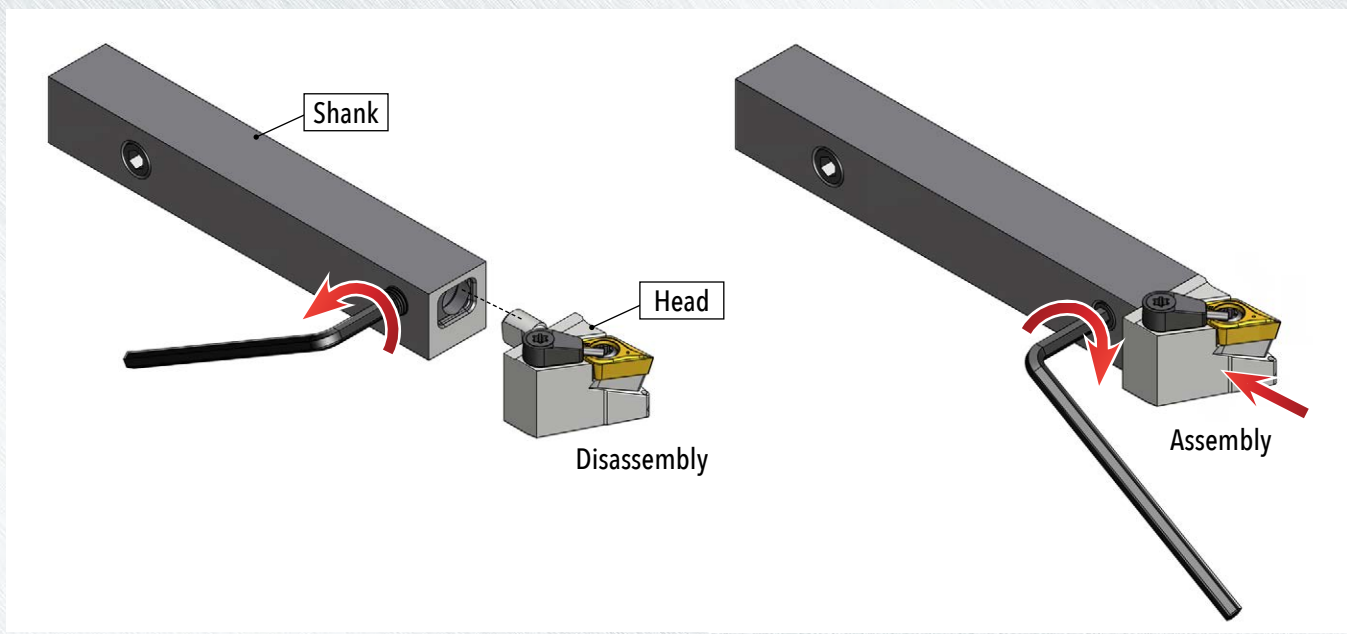
### ▶ Right hand head and shank assembly for Y-axis machining

External coolant supply		 <b>QE1-S12N-TB</b> (Neutral type, 12x12 mm)
 QE1Y-SDJCR	 QE1Y-TQHR	
COOLBURST High-pressure internal coolant supply		
 QE1Y-SDJCR-TB	 QE1Y-TQHR-TB	16x16 mm) shank" data-bbox="650 810 780 885"/> <b>QE1-S15.9L-TB</b> <b>QE1-S16L-TB</b> (Left hand type, .625"/>16x16 mm)

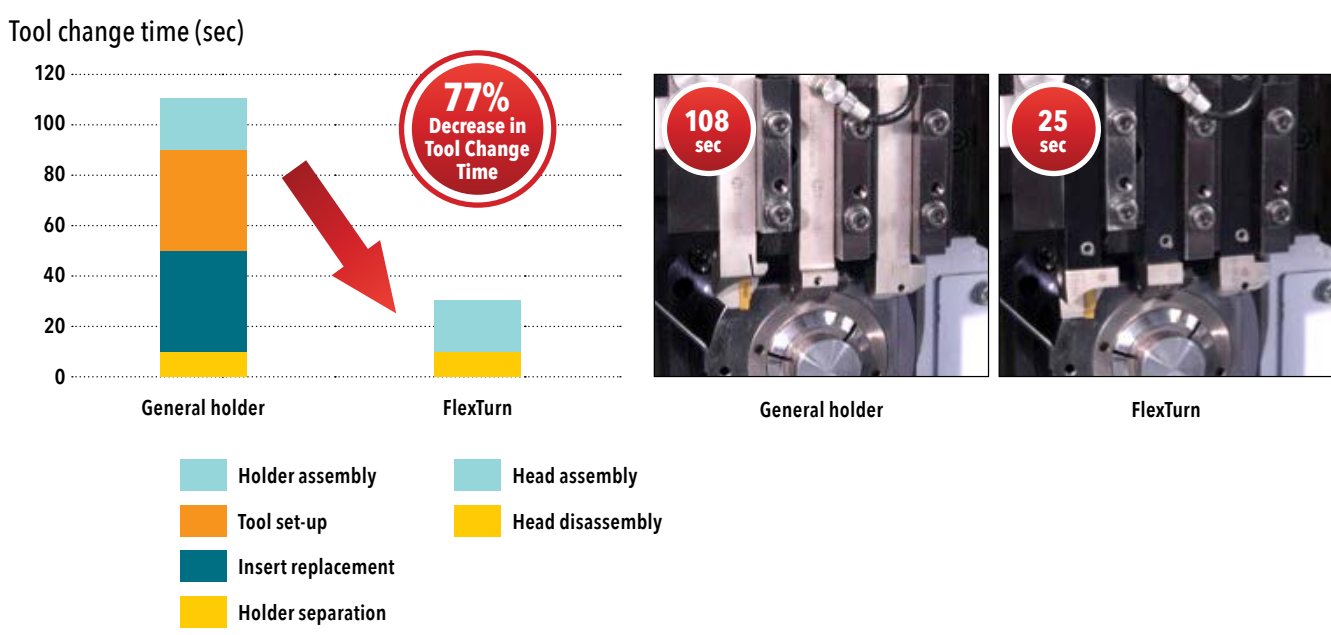
**FLEXTURN™ MODULAR HEADS**

**Easy modular head replacement**

- The shanks remain in the tool post
- Disassemble the head from the shank with two rotations of the screw
- Right-hand modular heads for turning can be assembled with neutral and right-hand shanks
- Right-hand modular heads for Y-axis machining can be assembled with neutral and left-hand shanks
- Modular heads for grooving can be assembled with neutral and right-hand shanks



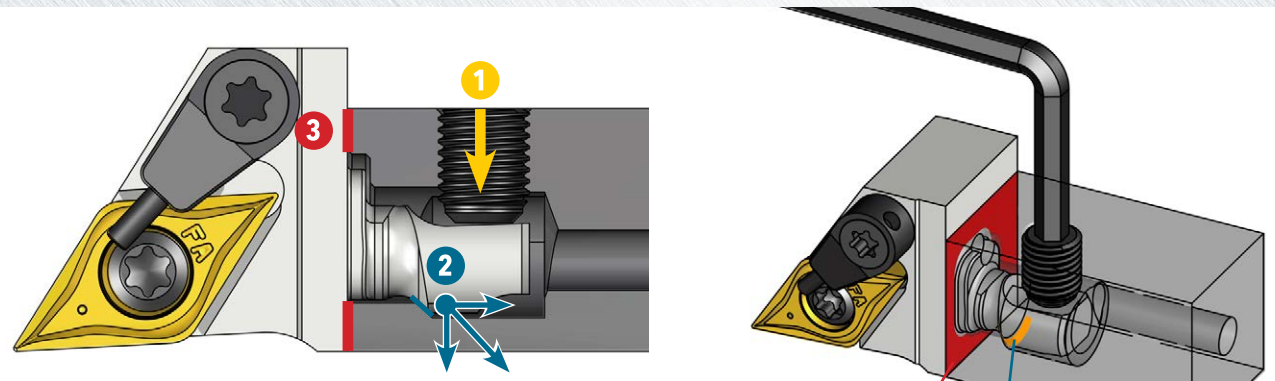
**Reduced downtime - changing only the head means no tool reset is necessary**



**FLEXTURN™ RIGIDITY AND STABILITY FEATURES**

**Rigid clamping and good repeatability**

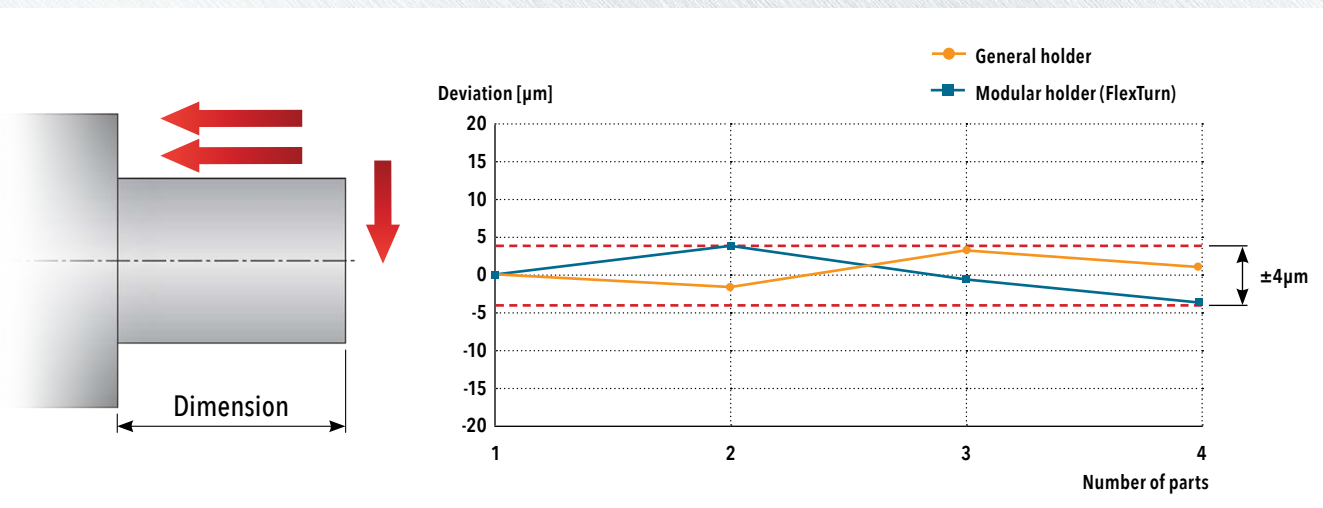
Ingersoll's unique assembly mechanism provides higher rigidity than the competitors' products. Combining the taper with the lever principle ensures a rigid assembly.



- 1 Screw clamping
- 2 Tapered face contact
- 3 Rigid clamping between the shanks and the heads

**Equivalent machining stability of a conventional holder**

Ingersoll's FlexTurn features a unique and robust fastening structure that provides a level of machining displacement equivalent to that of a conventional holder.



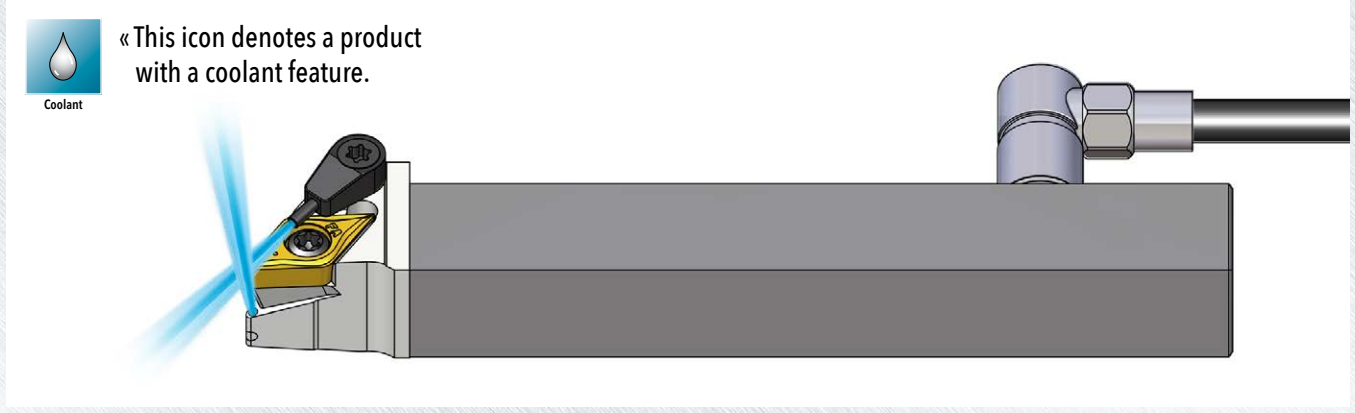
	Holder	Insert	Cutting Speed (sfm)	Feed (ipr)	Testing Procedure
General holder	SDJCR 1616 K11-SH	DCGT 11T302M SH-F TT4430	400	.002	Machining
Modular holder (FlexTurn)	QE1 SDJCR 11-TB + QE1 S16R-TB	DCGT 11T302M SH-F TT4430			

**FLEXTURN™ COOLANT FEATURE**



**COOLBURST™ High-pressure coolant system**

Improved chip control and tool life due to the focused high coolant pressure on the insert's cutting edge.



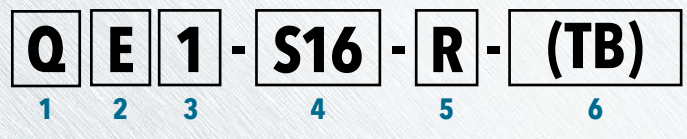
**FLEXTURN™ PART NUMBER DESIGNATION SYSTEM**

► **Modular head**



- 1 - Quick change system
- 2 - External holder
- 3 - Holder type (1: Swiss machines/2: ISO type)
- 4 - Option (Y: Y-axis machining/B: back turning)
- 5 - Head type (Identical to holder designation system)
- 6 - Cutting edge length (ISO)
- 7 - Option (TB: high-pressure coolant)

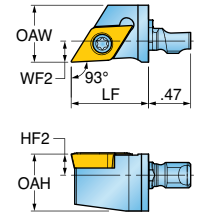
► **Shank**



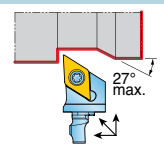
- 1 - Quick change system
- 2 - External holder
- 3 - Holder type (1: Swiss machines/2: ISO type)
- 4 - Shank size (12: 12 mm, 12.7: .500", 15.9: .625", 16: 16 mm)
- 5 - Hand type (R: right hand/L: left hand/N: neutral)
- 6 - Option (TB: high-pressure coolant)



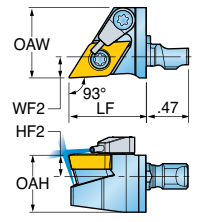
**QE1-SDJCR** • FOR EXTERNAL TURNING (DCMT INSERTS)



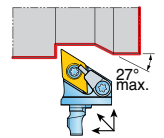
Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1-SDJCR-11	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	DC_32.5... (DC_11T3...)



**QE1-SDJCR-TB** • FOR EXTERNAL TURNING WITH HIGH-PRESSURE COOLANT (DC\_T INSERTS)



Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1-SDJCR-11-TB	0.638	0.866	0.787	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	DC_32.5... (DC_11T3...)



**SPARE PARTS**

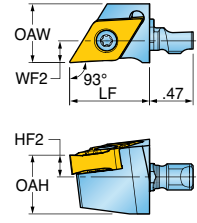
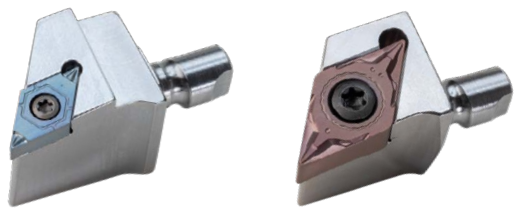
Part Number	Screw	Oil Supply Unit	Wrench
QE1-SDJCR	SO-350801	-	T15
QE1-SDJCR-TB	SO-350801	S-CU-TB	T15

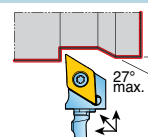


TURNING PRODUCTS

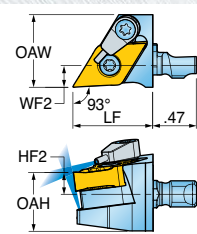


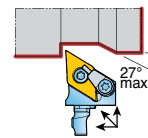
**QE1-SDJNR • FOR EXTERNAL TURNING (DN\_X INSERTS)**






Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93° 	QE1-SDJNR-0803	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB	DN_X2.22... (DN_X0803...) <b>RHINOTURN™</b>
	QE1-SDJNR-1305	0.638	0.866	0.638	0.236	0.276	QE1-S16R-TB	DN_3.53.5... (DN_1305...) <b>RHINOTURN™</b>

**QE1-SDJNR-TB • FOR EXTERNAL TURNING WITH HIGH-PRESSURE COOLANT (DN\_X INSERTS)**



Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93° 	QE1-SDJNR-0803-TB	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB	DN_X2.22... (DN_X0803...) <b>RHINOTURN™</b>
	QE1-SDJNR-1305-TB	0.638	0.866	0.787	0.236	0.276	QE1-S16R-TB	DN_3.53.5... (DN_1305...) <b>RHINOTURN™</b>

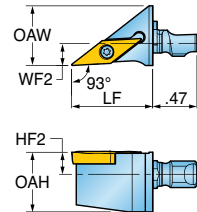
**SPARE PARTS**

Part Number	Screw	Oil Supply Unit	Wrench
QE1-SDJNR-0803	 TS-25D060/HG-P	 -	 T7P
QE1-SDJNR-0803-TB	TS-25D060/HG-P	S-CU-TB	T7P
QE1-SDJNR-1305	SE02-78	-	T15
QE1-SDJNR-1305-TB	SE02-78	S-CU-TB	T15

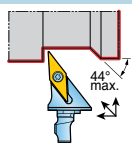




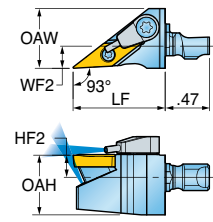
**QE1-SVJBR • FOR EXTERNAL TURNING (VB\_T INSERTS)**



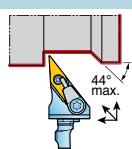
Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1-SVJBR-11	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VB_22... (VB_1103...)



**QE1-SVJBR-TB • FOR EXTERNAL TURNING WITH HIGH-PRESSURE COOLANT (VB\_T INSERTS)**



Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1-SVJBR-11-TB	0.638	0.984	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VB_22... (VB_1103...)

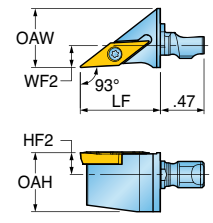


**SPARE PARTS**

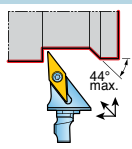
Part Number	Screw	Oil Supply Unit	Wrench
QE1-SVJBR-11	SO-25065I	-	T7
QE1-SVJBR-11-TB	SO-25065I	S-CU-TB	T7



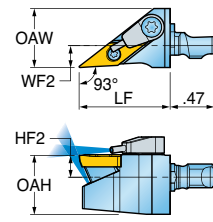
**QE1-SVJCR • FOR EXTERNAL TURNING (VC\_T INSERTS)**



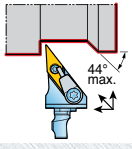
Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1-SVJCR-11	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VC_22... (VC_1103...)



**QE1-SVJCR-TB • FOR EXTERNAL TURNING WITH HIGH-PRESSURE COOLANT (VC\_T INSERTS)**



Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1-SVJCR-11-TB	0.638	0.984	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VC_22... (VC_1103...)

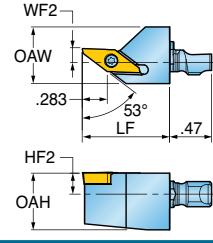


**SPARE PARTS**

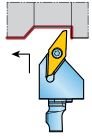
Part Number	Screw	Oil Supply Unit	Wrench
QE1-SVJCR-11	SO-25065I	-	T7
QE1-SVJCR-11-TB	SO-25065I	S-CU-TB	T7



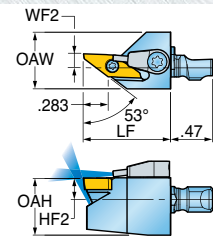
**QE1B-SVXCR • FOR EXTERNAL BACK TURNING (BTVC INSERTS)**



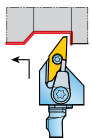
Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
53°	QE1B-SVXCR-11	0.638	0.984	0.638	0.236	0.118	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	BTVC22... (BTVC1103...)



**QE1B-SVXCR-TB • FOR EXTERNAL BACK TURNING WITH HIGH-PRESSURE COOLANT (BTVC INSERTS)**



Approach Angle	Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
		OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
53°	QE1B-SVXCR-11-TB	0.638	0.984	0.638	0.236	0.118	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	BTVC22... (BTVC1103...)



**SPARE PARTS**

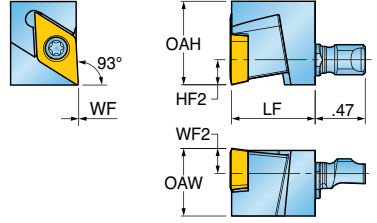
Part Number	Screw	Oil Supply Unit	Wrench
QE1B-SVXCR	SO-250651	-	T7
QE1B-SVXCR-TB	SO-250651	S-CU-TB	T7



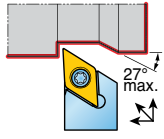
TURNING PRODUCTS



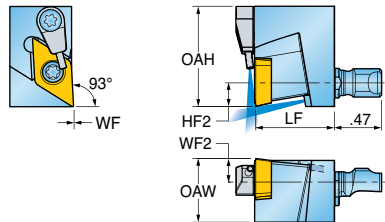
**QE1Y-SDJCR** • FOR Y-AXIS TURNING (DC\_T INSERTS)



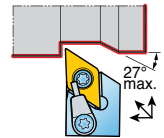
Approach Angle	Head Part Number	Dimension (inch)						Shank Part Number	Insert Part Number
		OAW Overall Width	OAH Overall Height	LF Functional Height	WF Functional Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1Y-SDJCR-11	0.638	0.787	0.787	0.000	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	DC_32.5... (DC_11T3...)



**QE1Y-SDJCR-TB** • FOR Y-AXIS TURNING WITH HIGH-PRESSURE COOLANT (DC\_T INSERTS)



Approach Angle	Head Part Number	Dimension (inch)						Shank Part Number	Insert Part Number
		OAW Overall Width	OAH Overall Height	LF Functional Height	WF Functional Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
93°	QE1Y-SDJCR-11-TB	0.638	1.004	0.787	0.000	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	DC_32.5... (DC_11T3...)



**SPARE PARTS**

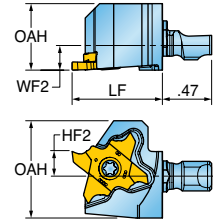
Part Number	Screw	Oil Supply Unit	Wrench
QE1Y-SDJCR-11	SO-35080I	-	T15
QE1Y-SDJCR-11-TB	SO-35080I	S-CU-TB	T15



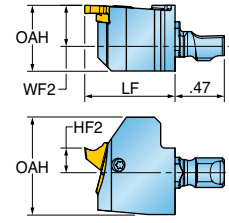
**QE1-TQHR/L • FOR PARTING AND GROOVING (TQ\_20 INSERTS)**



Right



Left

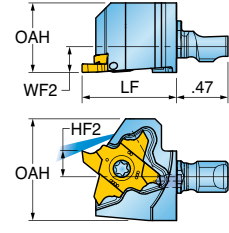


Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
	OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1-TQHR-20	0.933	0.866	0.638	0.236	0.276	QE1-S12N-TB	TQ_20...
QE1-TQHL-20	0.933	0.866	0.630	0.236	0.354	QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	<b>GOLD FLEX</b>

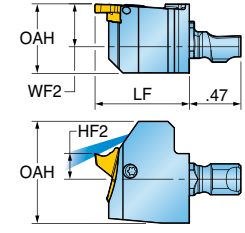
**QE1-TQHR/L-TB • FOR PARTING AND GROOVING WITH HIGH-PRESSURE COOLANT (TQ\_20 INSERTS)**



Right



Left



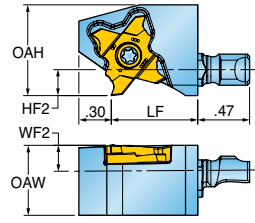
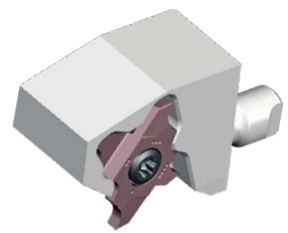
Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
	OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1-TQHR-20-TB	0.933	0.866	0.638	0.236	0.276	QE1-S12N-TB	TQ_20...
QE1-TQHL-20-TB	0.933	0.866	0.630	0.236	0.354	QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	<b>GOLD FLEX</b>

**SPARE PARTS**

Part Number	Screw	Wrench	
QE1-TQHR(-TB)	TS-40A100L	T-1508/5	
QE1-TQHL(-TB)	TS-40A100	T-1508/5	

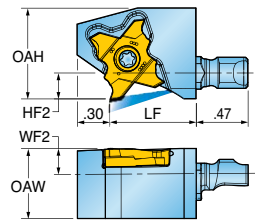
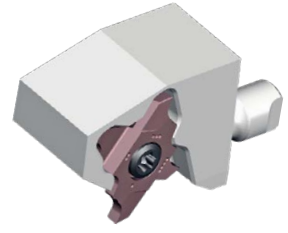


**QE1Y-TQHR** • FOR Y-AXIS PARTING AND GROOVING (TQ\_20 INSERTS)





Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
	OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1Y-TQHR-20	0.827	0.787	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	TQ_20... <b>GOLD FLEX</b>

**QE1Y-TQHR-TB** • FOR Y-AXIS PARTING AND GROOVING WITH HIGH-PRESSURE COOLANT (TQ\_20 INSERTS)



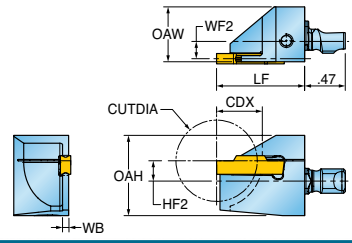
Head Part Number	Dimension (inch)					Shank Part Number	Insert Part Number
	OAH Overall Height	LF Functional Height	OAW Overall Width	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1Y-TQHR-20-TB	0.827	0.787	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	TQ_20... <b>GOLD FLEX</b>

**SPARE PARTS**

Part Number	Screw	Wrench
QE1Y-TQHR-20(-TB)	 TS-40A100L	 T-1508/5

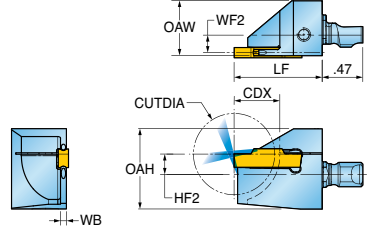


**QE1-TTER** • FOR EXTERNAL TURNING AND GROOVING (T-CLAMP ULTRA+ INSERTS)





Head Part Number	Dimension (inch)									Shank Part Number	Insert Part Number
	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Work Piece Parting Dia. Max.	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1-TTER-2-12-24	2	0.933	1.024	0.638	0.071	0.472	0.945	0.236	0.240	QE1-S12N-TB	TDC/J/T/A
QE1-TTER-2-16-32	2	0.933	1.024	0.638	0.071	0.630	1.260	0.236	0.240	QE1-S12.7R-TB	TDXU/XT/XY/XC
QE1-TTER-3-12-24	3	0.933	1.024	0.638	0.094	0.472	0.945	0.236	0.228	QE1-S15.9R-TB	TSC/J/A
QE1-TTER-3-16-32	3	0.933	1.024	0.638	0.094	0.630	1.260	0.236	0.228	QE1-S16R-TB	TDUF/TDV <b>TCLAMP</b>

**QE1-TTER-TB** • FOR EXTERNAL TURNING AND GROOVING WITH HIGH-PRESSURE COOLANT (T-CLAMP ULTRA+ INSERTS)



Head Part Number	Dimension (inch)									Shank Part Number	Insert Part Number
	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Work Piece Parting Dia. Max.	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1-TTER-2-12-24-TB	2	0.933	1.024	0.638	0.071	0.472	0.945	0.236	0.240	QE1-S12N-TB	TDC/J/T/A
QE1-TTER-2-16-32-TB	2	0.933	1.024	0.638	0.071	0.630	1.260	0.236	0.240	QE1-S12.7R-TB	TDXU/XT/XY/XC
QE1-TTER-3-12-24-TB	3	0.933	1.024	0.638	0.094	0.472	0.945	0.236	0.228	QE1-S15.9R-TB	TSC/J/A
QE1-TTER-3-16-32-TB	3	0.933	1.024	0.638	0.094	0.630	1.260	0.236	0.228	QE1-S16R-TB	TDUF/TDV <b>TCLAMP</b>

**SPARE PARTS**

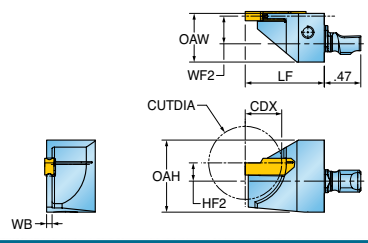
Part Number	Screw	Wrench	
	QE1-TTER(-TB)	 SH-M4X0.7X16	 L-W-3



TURNING PRODUCTS

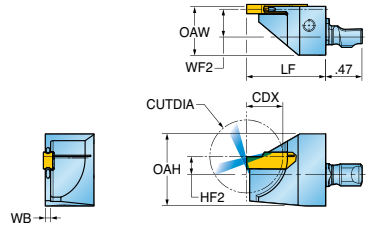


**QE1-TTEL** • FOR EXTERNAL TURNING AND GROOVING (T-CLAMP ULTRA+ INSERTS)





Head Part Number	Dimension (inch)									Shank Part Number	Insert Part Number
	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Work Piece Parting Dia. Max.	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1-TTEL-2-12-24	2	0.933	1.024	0.630	0.071	0.472	0.945	0.236	0.319	QE1-S12N-TB	TDC/J/T/A
QE1-TTEL-2-16-32	2	0.933	1.024	0.630	0.071	0.630	1.260	0.236	0.319	QE1-S12.7R-TB	TDXU/XT/XY/XC
QE1-TTEL-3-12-24	3	0.933	1.024	0.630	0.094	0.472	0.945	0.236	0.307	QE1-S15.9R-TB	TSC/J/A
QE1-TTEL-3-16-32	3	0.933	1.024	0.630	0.094	0.630	1.260	0.236	0.307	QE1-S16R-TB	TDUF/TDV <b>TCLAMP</b>

**QE1-TTEL-TB** • FOR EXTERNAL TURNING AND GROOVING WITH HIGH-PRESSURE COOLANT (T-CLAMP ULTRA+ INSERTS)



Head Part Number	Dimension (inch)									Shank Part Number	Insert Part Number
	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Work Piece Parting Dia. Max.	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width		
QE1-TTEL-2-12-24-TB	2	0.933	1.024	0.630	0.071	0.472	0.945	0.236	0.319	QE1-S12N-TB	TDC/J/T/A
QE1-TTEL-2-16-32-TB	2	0.933	1.024	0.630	0.071	0.630	1.260	0.236	0.319	QE1-S12.7R-TB	TDXU/XT/XY/XC
QE1-TTEL-3-12-24-TB	3	0.933	1.024	0.630	0.094	0.472	0.945	0.236	0.307	QE1-S15.9R-TB	TSC/J/A
QE1-TTEL-3-16-32-TB	3	0.933	1.024	0.630	0.094	0.630	1.260	0.236	0.307	QE1-S16R-TB	TDUF/TDV <b>TCLAMP</b>

**SPARE PARTS**

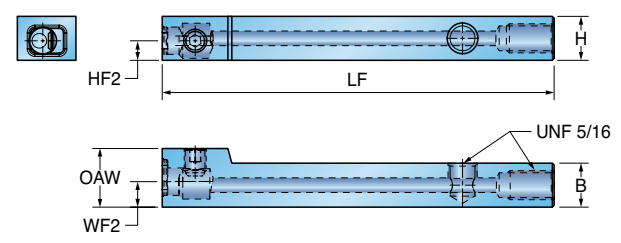
Part Number	Screw	Wrench
QE1-TTEL(-TB)	 SH-M4X0.7X16	 L-W-3





INCH

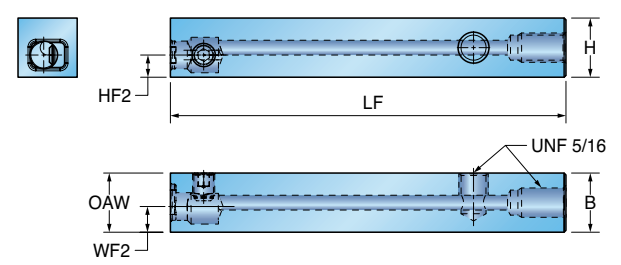
**FLEXTURN™ QE1-S12.7R/L-TB • .500" SHANK WITH HIGH-PRESSURE COOLANT**



Right hand shown

Shank Part Number	Dimension (inch)					
	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width	H Shank Height	B Functional Length	LF Functional Length	OAW Overall Width
QE1-S12.7R/L-TB	0.236	0.276	0.500	0.500	4.210	0.630

**FLEXTURN™ QE1-S15.9R/L-TB • .625" SHANK WITH HIGH-PRESSURE COOLANT**



Right hand shown

Shank Part Number	Dimension (inch)					
	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width	H Shank Height	B Functional Length	LF Functional Length	OAW Overall Width
QE1-S15.9R/L-TB	0.236	0.276	0.625	0.625	4.210	0.625

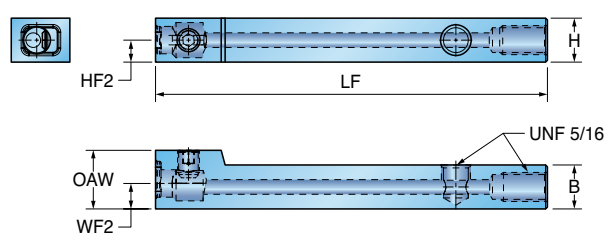
**SPARE PARTS**

Part Number	Screw	Plug	Wrench	
	QE-1...-TB	SS-M6F-7	PLG-5/16-UNF	L-W-3



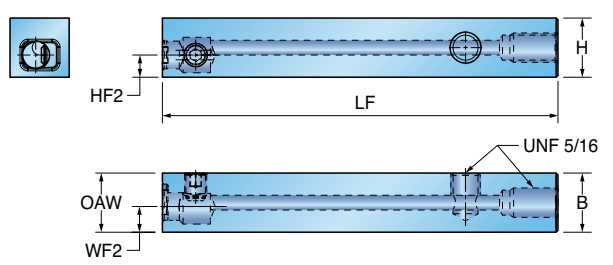
METRIC

**FLEXTURN™ QE1-S12N-TB • 12 MM SHANK WITH HIGH-PRESSURE COOLANT**



Shank Part Number	Dimension (mm)					
	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width	H Shank Height	B Functional Length	LF Functional Length	OAW Overall Width
QE1-S12N-TB	6.0	7.0	12.0	12.0	107.0	16.0

**FLEXTURN™ QE1-S16R/L-TB • 16 MM SHANK WITH HIGH-PRESSURE COOLANT**



Right hand shown

Shank Part Number	Dimension (mm)					
	HF <sub>2</sub> Functional Height	WF <sub>2</sub> Functional Width	H Shank Height	B Functional Length	LF Functional Length	OAW Overall Width
QE1-S16R/L-TB	6.0	7.0	16.0	16.0	107.0	16.0

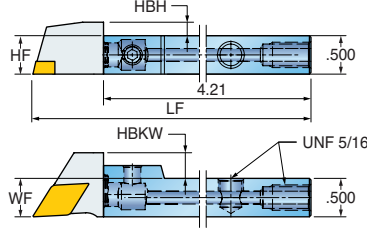
SPARE PARTS

Part Number	Screw	Plug	Wrench	
QE-1...-TB	SS-M6F-7	PLG-5/16-UNF	L-W-3	L-W-4

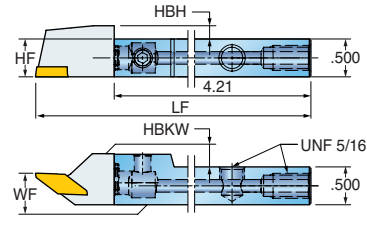


**FLEXTURN™ ASSEMBLY DIMENSIONS (EXTERNAL TURNING)**

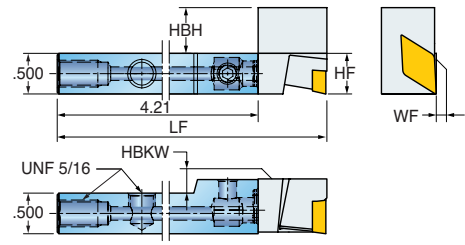
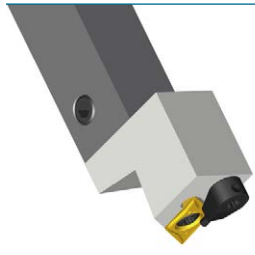
**INCH**



**Fig. 1**



**Fig. 2**



**Fig. 3**

**SHANK: .500" (RIGHT/LEFT)**

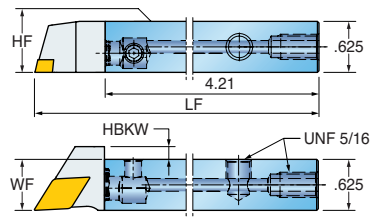
Shank Part Number	Head Part Number	Dimensions (inch)					Fig.
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width	
QE1 S12.7R-TB right hand type, 0.500"	QE1-SDJCR 11	0.500	0.138	5.080	0.500	0.138	1
	QE1-SDJCR-11-TB	0.500	0.138	5.080	0.500	0.287	
	QE1-SDJNR-0803	0.500	0.138	5.080	0.500	0.138	
	QE1-SDJNR-0803-TB	0.500	0.138	5.080	0.500	0.138	
	QE1-SDJNR-1305	0.500	0.138	5.080	0.500	0.138	
	QE1-SDJNR-1305-TB	0.500	0.138	5.080	0.500	0.287	
	QE1-SVJBR-11	0.500	0.138	5.080	0.500	0.138	
	QE1-SVJBR-11-TB	0.500	0.138	5.200	0.500	0.138	
	QE1-SVJCR-11	0.500	0.138	5.080	0.500	0.138	
	QE1-SVJCR-11-TB	0.500	0.138	5.200	0.500	0.138	
	QE1B-SVXCR-11	0.500	0.138	5.200	0.394	0.138	
QE1B-SVXCR-11-TB	0.500	0.138	5.200	0.394	0.138		
QE1 S12.7L-TB left hand type, 0.500"	QE1Y-SDJCR-11	0.500	0.287	5.000	0.000	0.138	3
	QE1Y-SDJCR-11-TB	0.500	0.504	5.000	0.000	0.138	

**FLEXTURN™ ASSEMBLY DIMENSIONS (EXTERNAL TURNING)**

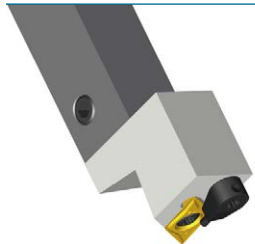
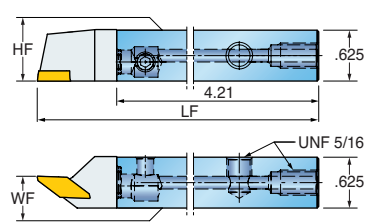
**INCH**



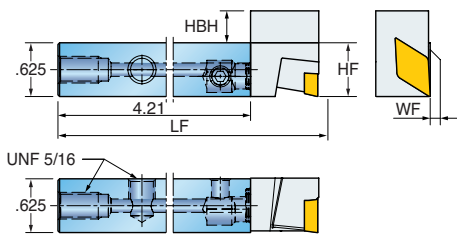
**Fig. 1**



**Fig. 2**



**Fig. 3**

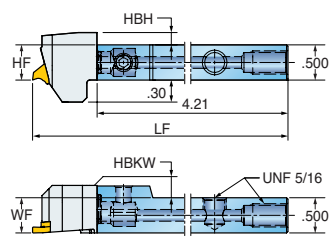
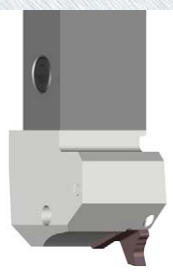


**SHANK: .625" (RIGHT/LEFT)**

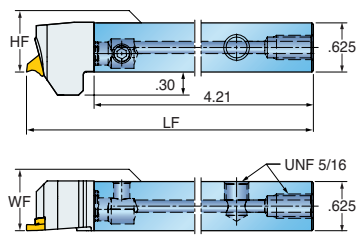
Shank Part Number	Head Part Number	Dimensions (inch)					Fig.
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width	
QE1 S15.9R-TB right hand type, 0.625"	QE1-SDJCR-11	0.625	0.000	5.080	0.625	0.000	1
	QE1-SDJCR-11-TB	0.625	0.000	5.080	0.625	0.161	
	QE1-SDJNR-0803	0.625	0.000	5.080	0.625	0.000	
	QE1-SDJNR-0803-TB	0.625	0.000	5.080	0.625	0.000	
	QE1-SDJNR-1305	0.625	0.000	5.080	0.625	0.000	
	QE1-SDJNR-1305-TB	0.625	0.000	5.080	0.625	0.161	
	QE1-SVJBR-11	0.625	0.000	5.080	0.625	0.000	
	QE1-SVJBR-11-TB	0.625	0.000	5.200	0.625	0.000	
	QE1-SVJCR-11	0.625	0.000	5.080	0.625	0.000	
	QE1-SVJCR-11-TB	0.625	0.000	5.200	0.625	0.000	
	QE1B-SVXCR-11	QE1B-SVXCR-11	0.625	0.000	5.200	0.394	0.000
QE1B-SVXCR-11-TB		0.625	0.000	5.200	0.394	0.000	2
QE1 S15.9L-TB left hand type, 0.625"	QE1Y-SDJCR-11	0.625	0.161	5.000	0.000	0.000	3
	QE1Y-SDJCR-11-TB	0.625	0.378	5.000	0.000	0.000	

**FLEXTURN™ ASSEMBLY DIMENSIONS (PARTING AND GROOVING)**

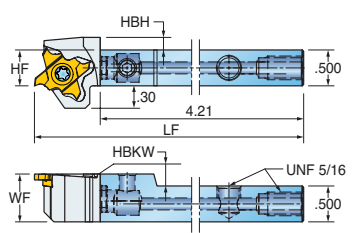
**INCH**



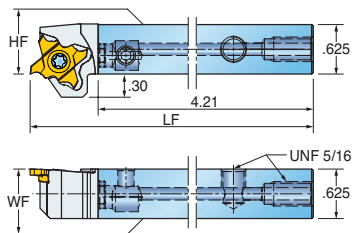
**Fig. 1**



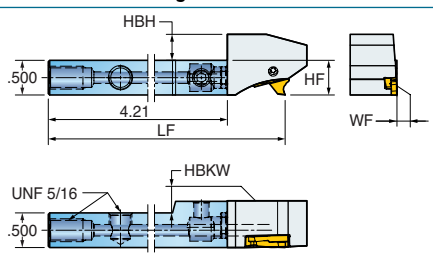
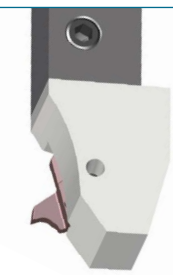
**Fig. 2**



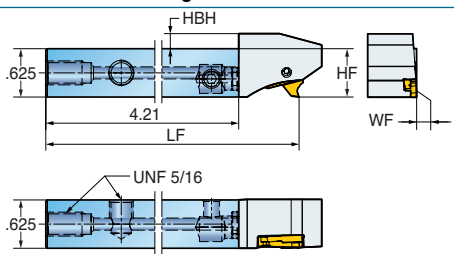
**Fig. 3**



**Fig. 4**



**Fig. 5**



**Fig. 6**

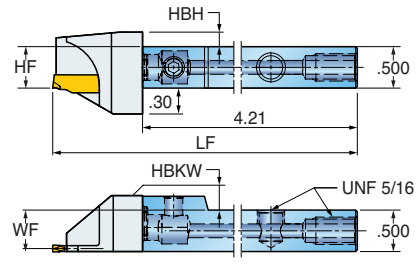
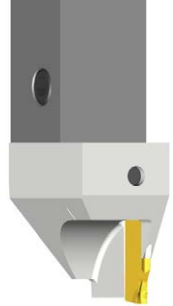
**SHANKS: .500" (RIGHT/LEFT) AND .625" (RIGHT/LEFT)**

Shank Part Number	Head Part Number	Dimensions (inch)					Fig.
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width	
QE1 S12.7R-TB right hand type, 0.500"	QE1-TQHR-20	0.500	0.138	5.080	0.500	0.130	1
	QE1-TQHR-20-TB	0.500	0.138	5.080	0.500	0.130	
	QE1-TQHL-20	0.500	0.138	5.080	0.630	0.138	3
	QE1-TQHL-20-TB	0.500	0.138	5.080	0.630	0.138	
QE1 S12.7L-TB left hand type, 0.500"	QE1Y-TQHR-20	0.500	0.327	5.000	0.000	0.138	5
	QE1Y-TQHR-20-TB	0.500	0.327	5.000	0.000	0.138	
QE1 S15.9R-TB right hand type, 0.625"	QE1-TQHR-20	0.625	0.000	5.080	0.625	0.000	2
	QE1-TQHR-20-TB	0.625	0.000	5.080	0.625	0.000	
	QE1-TQHL-20	0.625	0.130	5.080	0.625	0.000	4
	QE1-TQHL-20-TB	0.625	0.130	5.080	0.625	0.000	
QE1 S15.9L-TB left hand type, 0.625"	QE1Y-TQHR-20	0.625	0.201	5.000	0.000	0.000	6
	QE1Y-TQHR-20-TB	0.625	0.201	5.000	0.000	0.000	

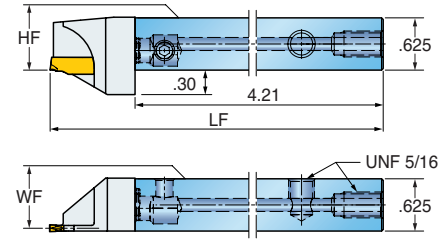


**FLEXTURN™ ASSEMBLY DIMENSIONS (PARTING AND GROOVING)**

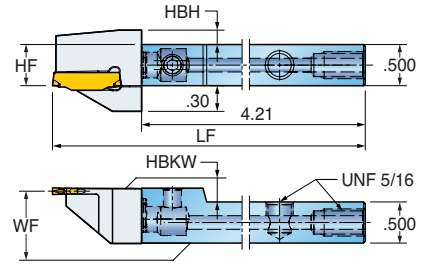
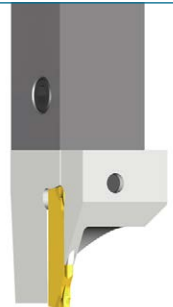
**INCH**



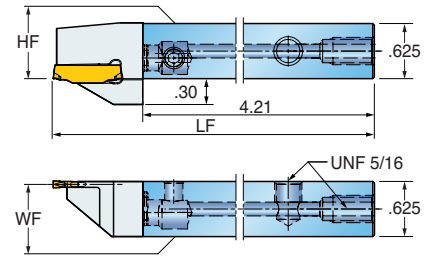
**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

**SHANKS: .500" (RIGHT) AND .625" (RIGHT)**

Shank Part Number	Head Part Number	Dimensions (inch)					Fig.	
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width		
QE1-S12.7R-TB right hand type, 0.500"	QE1-TTER-2...	0.500	0.138	5.240	0.465	0.138	1	
	QE1-TTER-2...-TB	0.500	0.138	5.240	0.465	0.138		
	QE1-TTER-3...	0.500	0.138	5.240	0.453	0.138		
	QE1-TTER-3...-TB	0.500	0.138	5.240	0.453	0.138		
	QE1-TTEL-2...	QE1-TTEL-2...	0.500	0.138	5.240	0.594	0.130	3
		QE1-TTEL-2...-TB	0.500	0.138	5.240	0.594	0.130	
		QE1-TTEL-3...	0.500	0.138	5.240	0.583	0.130	
		QE1-TTEL-3...-TB	0.500	0.138	5.240	0.583	0.130	
QE1-S15.9R-TB right hand type, 0.625"	QE1-TTER-2...	0.625	0.000	5.240	0.591	0.000	2	
	QE1-TTER-2...-TB	0.625	0.000	5.240	0.591	0.000		
	QE1-TTER-3...	0.625	0.000	5.240	0.579	0.000		
	QE1-TTER-3...-TB	0.625	0.000	5.240	0.579	0.000		
	QE1-TTEL-2...	QE1-TTEL-2...	0.625	0.000	5.240	0.594	0.000	4
		QE1-TTEL-2...-TB	0.625	0.000	5.240	0.594	0.000	
		QE1-TTEL-3...	0.625	0.000	5.240	0.583	0.000	
		QE1-TTEL-3...-TB	0.625	0.000	5.240	0.583	0.000	



**FLEXTURN™ ASSEMBLY DIMENSIONS (EXTERNAL TURNING)**

**METRIC**

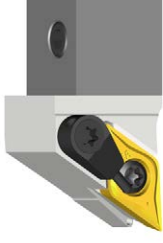


Fig. 1

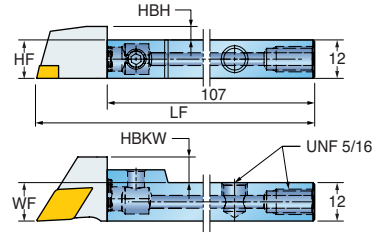


Fig. 2

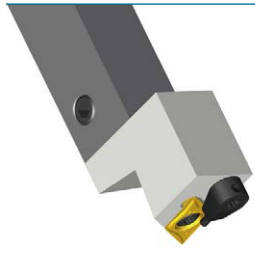
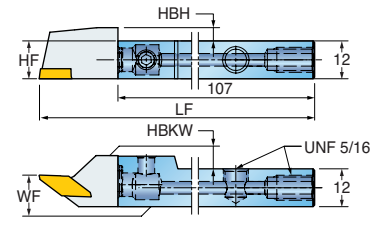
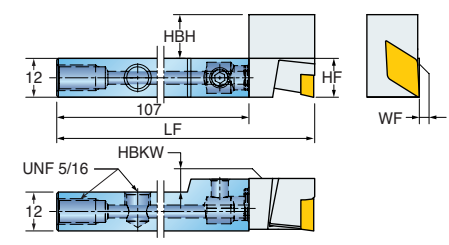


Fig. 3



**SHANK: 12 MM (NEUTRAL)**

Shank Part Number	Head Part Number	Dimensions (mm)					Fig.
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width	
QE1-S12N-TB neutral, 12 mm	QE1-SDJCR-11	12.0	4.2	129.0	12.0	4.2	1
	QE1-SDJCR-11-TB	12.0	4.2	129.0	12.0	8.0	
	QE1-SDJNR-0803	12.0	4.2	129.0	12.0	4.2	
	QE1-SDJNR-0803-TB	12.0	4.2	129.0	12.0	4.2	
	QE1-SDJNR-1305	12.0	4.2	129.0	12.0	4.2	
	QE1-SDJNR-1305-TB	12.0	4.2	129.0	12.0	8.0	
	QE1-SVJBR-11	12.0	4.2	129.0	12.0	4.2	
	QE1-SVJBR-11-TB	12.0	4.2	132.0	12.0	4.2	
	QE1-SVJCR-11	12.0	4.2	129.0	12.0	4.2	
	QE1-SVJCR-11-TB	12.0	4.2	132.0	12.0	4.2	
	QE1B-SVXCR-11	12.0	4.2	132.0	10.0	4.2	2
	QE1B-SVXCR-11-TB	12.0	4.2	132.0	10.0	4.2	
	QE1Y-SDJCR-11	12.0	8.0	127.0	0.00	4.2	3
	QE1Y-SDJCR-11-TB	12.0	13.5	127.0	0.00	4.2	

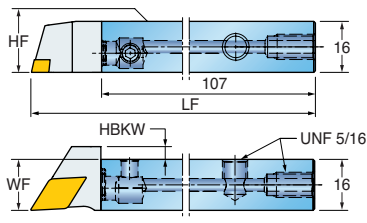


**FLEXTURN™ ASSEMBLY DIMENSIONS (EXTERNAL TURNING)**

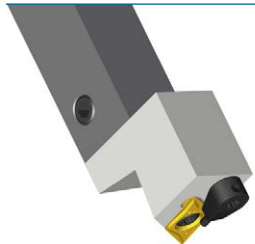
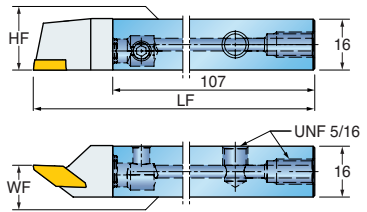
**METRIC**



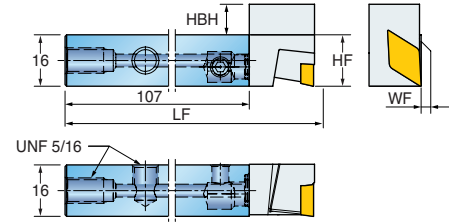
**Fig. 1**



**Fig. 2**



**Fig. 3**



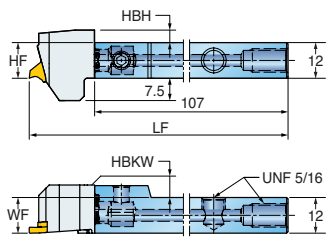
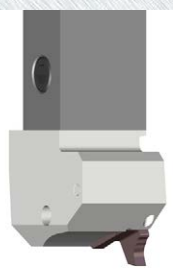
**SHANK: 16 MM (RIGHT/LEFT)**

Shank Part Number	Head Part Number	Dimensions (mm)					Fig.
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width	
QE1-S16R-TB right hand type, 16 mm	QE1-SDJCR-11	16.0	0.0	129.0	16.0	0.0	1
	QE1-SDJNR-0803	16.0	0.0	129.0	16.0	0.0	
	QE1-SDJNR-0803-TB	16.0	0.0	129.0	16.0	0.0	
	QE1-SDJNR-1305	16.0	0.0	129.0	16.0	0.0	
	QE1-SVJBR-11	16.0	0.0	129.0	16.0	0.0	
	QE1-SVJCR-11	16.0	0.0	129.0	16.0	0.0	
	QE1-SDJCR-11-TB	16.0	0.0	129.0	16.0	4.0	
	QE1-SDJNR-1305-TB	16.0	0.0	129.0	16.0	4.0	
	QE1-SVJBR-11-TB	16.0	0.0	132.0	16.0	0.0	
	QE1-SVJCR-11-TB	16.0	0.0	132.0	16.0	0.0	
	QE1B-SVXCR-11	QE1B-SVXCR-11	16.0	0.0	132.0	10.0	0.0
QE1B-SVXCR-11-TB		16.0	0.0	132.0	10.0	0.0	
QE1-S16L-TB left hand type, 16 mm	QE1Y-SDJCR-11	16.0	4.0	127.0	0.0	0.0	3
	QE1Y-SDJCR-11-TB	16.0	9.5	127.0	0.0	0.0	

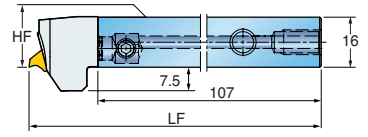


**FLEXTURN™ ASSEMBLY DIMENSIONS (PARTING AND GROOVING)**

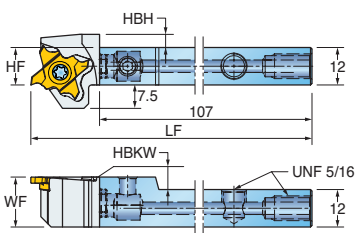
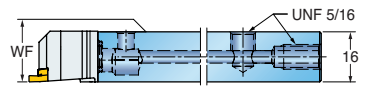
**METRIC**



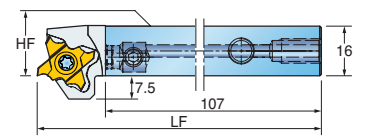
**Fig. 1**



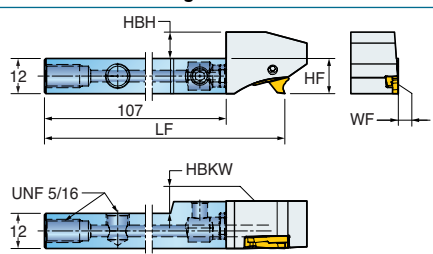
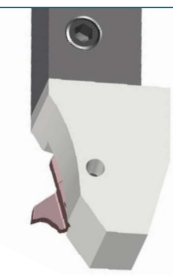
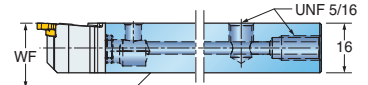
**Fig. 2**



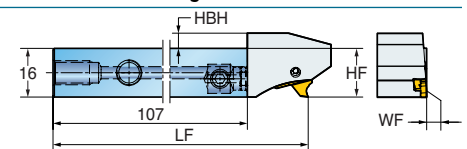
**Fig. 3**



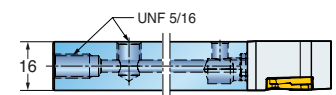
**Fig. 4**



**Fig. 5**



**Fig. 6**



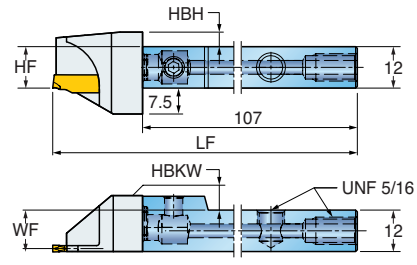
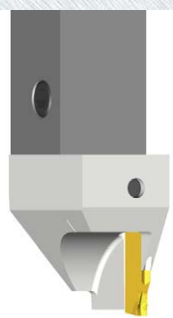
**SHANKS: 12 MM (NEUTRAL) AND 16 MM (RIGHT/LEFT)**

Shank Part Number	Head Part Number	Dimensions (mm)					Fig.
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width	
QE1-S12N-TB neutral, 12 mm	QE1-TQHR-20	12.0	4.2	129.0	12.0	4.2	1
	QE1-TQHR-20-TB	12.0	4.2	129.0	12.0	4.2	
	QE1-TQHL-20	12.0	4.2	129.0	16.0	4.0	3
	QE1-TQHL-20-TB	12.0	4.2	129.0	16.0	4.0	
	QE1Y-TQHR-20	12.0	9.0	127.0	0.0	4.2	5
	QE1Y-TQHR-20-TB	12.0	9.0	127.0	0.0	4.2	
QE1-S16R-TB right hand type, 16 mm	QE1-TQHR-20	16.0	0.0	129.0	16.0	0.0	2
	QE1-TQHR-20-TB	16.0	0.0	129.0	16.0	0.0	
	QE1-TQHL-20	16.0	0.0	129.0	16.0	0.0	4
	QE1-TQHL-20-TB	16.0	0.0	129.0	16.0	0.0	
QE1-S16L-TB left hand type, 16 mm	QE1Y-TQHR-20	16.0	5.0	127.0	0.0	0.0	6
	QE1Y-TQHR-20-TB	16.0	5.0	127.0	0.0	0.0	

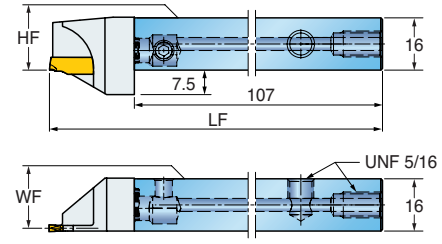


**FLEXTURN™ ASSEMBLY DIMENSIONS (PARTING AND GROOVING)**

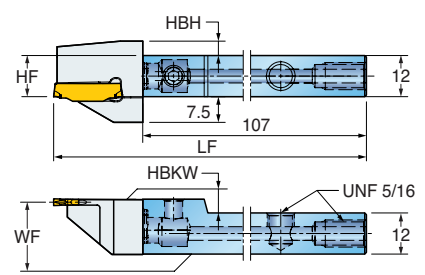
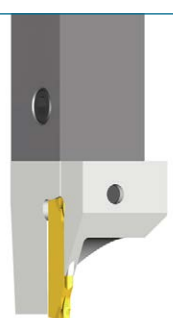
**METRIC**



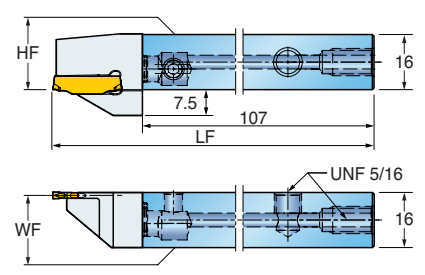
**Fig. 1**



**Fig. 2**



**Fig. 3**



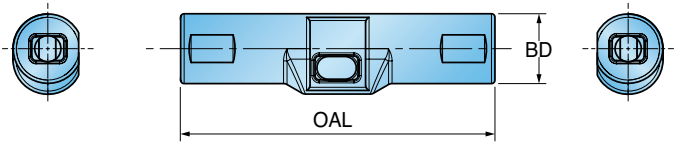
**Fig. 4**

**SHANKS: 12 MM (NEUTRAL) AND 16 MM (RIGHT)**

Shank Part Number	Head Part Number	Dimensions (mm)					Fig.	
		HF Functional Height	HBH Head Bottom Offset Height	LF Functional Length	WF Functional Width	HBKW Head Back Offset Width		
QE1-S12N-TB neutral, 12 mm	QE1-TTER-2	12.0	4.2	133.0	11.10	4.2	1	
	QE1-TTER-2-TB	12.0	4.2	133.0	11.10	4.2		
	QE1-TTER-3	12.0	4.2	133.0	10.80	4.2		
	QE1-TTER-3-TB	12.0	4.2	133.0	10.80	4.2		
	QE1-S16R-TB right hand type, 16 mm	QE1-TTEL-2	12.0	4.2	133.0	15.10	4.0	3
		QE1-TTEL-2-TB	12.0	4.2	133.0	15.10	4.0	
		QE1-TTEL-3	12.0	4.2	133.0	14.80	4.0	
		QE1-TTEL-3-TB	12.0	4.2	133.0	14.80	4.0	
QE1-S16R-TB right hand type, 16 mm	QE1-TTER-2	16.0	0.0	133.0	15.10	0.0	2	
	QE1-TTER-2-TB	16.0	0.0	133.0	15.10	0.0		
	QE1-TTER-3	16.0	0.0	133.0	14.80	0.0		
	QE1-TTER-3-TB	16.0	0.0	133.0	14.80	0.0		
	QE1-S16R-TB right hand type, 16 mm	QE1-TTEL-2	16.0	0.0	133.0	15.10	0.0	4
		QE1-TTEL-2-TB	16.0	0.0	133.0	15.10	0.0	
		QE1-TTEL-3	16.0	0.0	133.0	14.80	0.0	
		QE1-TTEL-3-TB	16.0	0.0	133.0	14.80	0.0	



# FLEXTURN™ INSERT REPLACEMENT FIXTURE • QE1-FIX-20100



Part Number	Dimension inch (mm)	
	OAL Overall Length	D Diameter
QE1-FIX-020100	3.66" (93.0 mm)	0.79" (20.0 mm)

**NOTE:** Fixture ordered separately.

## Insert replacement

Due to the FlexTurn's small head sizes, replacing the inserts could be difficult. Please use the fixture to facilitate insert replacement.

