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› Sandvik Coromant LF151.23-2525-60M1 Steel T-Max Q-Cut Shank Tool for Parting and Grooving Holder, 0.18" Maximum Depth of Cut

Sandvik Coromant LF151.23-2525-60M1

Instruction Manual

Sandvik Coromant LF151.23-2525-60M1 Steel T-Max Q-Cut Shank Tool

Model: LF151.23-2525-60M1 | Brand: Sandvik Coromant

1. PRODUCT OVERVIEW

The Sandvik Coromant T-Max Q-Cut Shank Tool is engineered for precision parting and grooving operations. This system features a single cutting edge design, optimized for efficiency and accuracy in various machining applications.

Key features include:

- Q-Cut 151.2 25 mm Square Shank for external machining.
- Designed as a Square Shank Parting and Grooving Holder.
- External Left Hand tool with an Overall Length (OAL) of 5.906 inches.
- Includes Clamp screw: 3212012-360 and Key 5680043-17 for secure insert mounting.
- Maximum cut depth capability of 0.18 inches.

The T-Max Q-Cut series offers specialized options: T-Max Q-Cut 151.2 is suitable for deep parting, while T-Max Q-Cut 151.3 is designed for internal machining and small diameter face grooving.

2. PRODUCT DIAGRAM AND DIMENSIONS

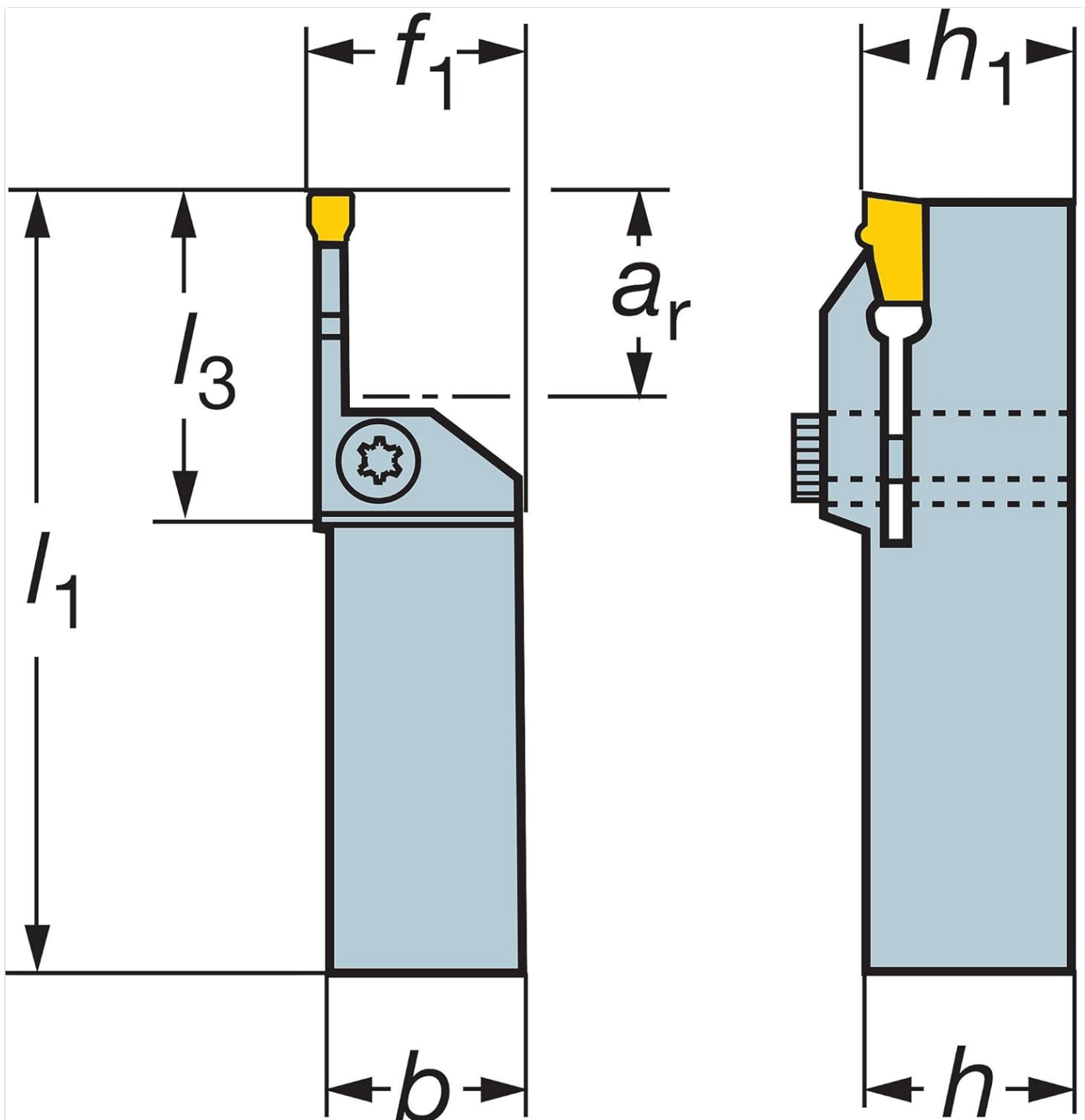


Figure 1: Technical diagram illustrating the dimensions of the Sandvik Coromant T-Max Q-Cut Shank Tool. Key dimensions such as overall length (l_1), effective length (l_3), width (b), height (h), cutting width (f_1), and depth of cut (a_r) are indicated.

3. SETUP AND INSTALLATION

Proper setup is crucial for optimal performance and safety. Follow these general guidelines for installing the T-Max Q-Cut Shank Tool:

1. **Preparation:** Ensure the machine tool and tool holder pocket are clean and free of chips or debris.
2. **Insert Selection:** Select the appropriate T-Max Q-Cut insert for your specific application (parting, grooving, internal machining).
3. **Insert Mounting:** Carefully place the insert into the tool holder pocket. Use the provided clamp screw (3212012-360) and key (5680043-17) to secure the insert. Tighten the screw to the recommended torque specification to prevent insert movement during operation.
4. **Tool Mounting:** Mount the shank tool securely into the machine tool's turret or tool post. Ensure proper alignment

and rigidity to minimize vibration.

5. **Coolant Nozzle:** If applicable, adjust the coolant nozzle to direct coolant effectively to the cutting zone for improved chip evacuation and tool life.
6. **Initial Checks:** Before starting machining, perform a visual inspection to confirm all components are correctly assembled and tightened.

4. OPERATING INSTRUCTIONS

The T-Max Q-Cut Shank Tool is designed for efficient parting and grooving. Adhere to the following operational guidelines:

- **Cutting Parameters:** Refer to Sandvik Coromant's cutting data recommendations for specific insert grades and workpiece materials. Optimal feed rates and cutting speeds are crucial for tool performance and longevity.
- **Depth of Cut:** Do not exceed the maximum recommended depth of cut of 0.18 inches for this tool holder.
- **Chip Control:** Monitor chip formation during operation. Effective chip evacuation is vital to prevent chip re-cutting and ensure a smooth process. Adjust cutting parameters if chip control is poor.
- **Coolant Application:** Utilize appropriate coolant or lubrication to reduce heat, minimize friction, and improve surface finish.
- **Tool Wear Monitoring:** Regularly inspect the cutting edge for signs of wear. Replace inserts promptly when wear becomes evident to maintain machining quality and prevent tool failure.
- **Safety:** Always wear appropriate personal protective equipment (PPE), including safety glasses, during machining operations.

5. MAINTENANCE

Regular maintenance ensures the longevity and consistent performance of your Sandvik Coromant tool holder:

- **Cleaning:** After each use, clean the tool holder thoroughly to remove chips, coolant residue, and any other contaminants. Use a brush and appropriate cleaning agents.
- **Inspection:** Periodically inspect the tool holder for any signs of damage, wear, or deformation, especially around the insert pocket and clamping mechanism.
- **Screw and Key Care:** Ensure the clamp screw and key are clean and in good condition. Replace worn or damaged screws to maintain proper clamping force.
- **Storage:** Store the tool holder in a clean, dry environment to prevent corrosion and damage.

6. TROUBLESHOOTING

This section addresses common issues that may arise during the use of the T-Max Q-Cut Shank Tool:

Problem	Possible Cause	Solution
Poor Surface Finish	Worn insert, incorrect cutting parameters, vibration.	Replace insert, adjust feed/speed, check tool rigidity.
Excessive Tool Wear	High cutting speed, insufficient coolant, wrong insert grade.	Reduce speed, increase coolant flow, select appropriate insert.
Chip Evacuation Issues	Incorrect feed rate, insufficient coolant pressure, wrong chip breaker.	Adjust feed, optimize coolant delivery, consider different insert geometry.

Problem	Possible Cause	Solution
Insert Breakage	Excessive depth of cut, impact, improper clamping.	Reduce depth of cut, ensure stable setup, verify clamping torque.

7. SPECIFICATIONS

Attribute	Value
Brand	Sandvik Coromant
Model Number	LF151.23-2525-60M1 (Item Model: 5733952)
Tool Type	Shank Tool for Parting and Grooving Holder
Cutting Edge System	1 cutting edge
Maximum Cut Depth	0.18 inches
Overall Length (OAL)	5.906 inches (External Left Hand tool)
Clamp Screw	3212012-360
Key	5680043-17
Package Dimensions	6.06 x 1.85 x 1.26 inches
Item Weight	1.48 Pounds
ASIN	B00IT5NTPQ
Date First Available	September 18, 2014

8. WARRANTY INFORMATION

Sandvik Coromant products are manufactured to high quality standards. For specific warranty terms and conditions applicable to the LF151.23-2525-60M1 T-Max Q-Cut Shank Tool, please refer to the official Sandvik Coromant warranty policy available on their corporate website or contact their customer service department. Generally, products are warranted against defects in material and workmanship under normal use and service.

9. CUSTOMER SUPPORT

For technical assistance, product inquiries, or support regarding your Sandvik Coromant T-Max Q-Cut Shank Tool, please contact Sandvik Coromant directly through their official channels:

- **Website:** Visit the official Sandvik Coromant website for comprehensive product information, technical data, and contact details.
- **Technical Support:** Access technical support resources or find contact numbers for your region on their website.
- **Distributor Network:** Contact your local authorized Sandvik Coromant distributor for sales and service support.

When contacting support, please have your product model number (LF151.23-2525-60M1) and any relevant purchase information readily available.

