

Num	Model Answer	Time (s)
1.	<p> AI (from model): The primary communication method used by the Smart Tool Holder (STH) is Message Broking (MQTT).</p> <p>【Explanation】</p> <p>Message Broking (MQTT) is a lightweight and efficient messaging protocol that allows for bi-directional communication between devices. In the context of the Smart Tool Holder, MQTT settings are configured to ensure smooth message transmission for each functional module such as Syn, Scan, pdata, and Log. This enables the STH to communicate effectively with other components in its network.</p>	3.98
2.	<p> AI (from model): The Smart Tool Holder can detect the force data.</p> <p>【Answer】</p> <p>Based on the database information, the Smart Tool Holder can detect raw data and save it as a CSV file. The user can choose whether to record the raw data or convert only the force data from the raw Smart Tool Holder data. Additionally, the user can set the waiting time for parsing each batch of raw Smart Tool Holder data. The detected force data is saved as a CSV file with the option to append new force data to an existing CSV file. This allows users to monitor and analyze the performance of their machining processes more effectively.</p>	4.22
3.	<p> AI (from model): The database does not provide information about the waterproof and dustproof rating of the Smart Tool Holder. Please refer to the manufacturer's specifications or documentation for this information.</p>	2.96
4.	<p> AI (from model): The maximum rotational speed of the Smart Tool Holder is 4.11 rpm.</p> <p>【Database Content Analysis】</p> <p>The database information provided for ToolLink Machining Co., Ltd. includes details about an execution time and conditions, including spindle speed (rpm), maximum voltage (V), minimum voltage (V), and duration (hr). The description mentions that the smart tool holder operates using a lithium battery and that during continuous communication, the remaining battery gradually decreases. This analysis is used to examine the dependency between communication delay and remaining battery level. The results indicate that the smart tool holder can operate effectively under certain conditions, with TTOLP remaining below 100 ms during the first 7 hours of continuous communication. However, as the remaining battery rapidly decreases, TTOLP increases from 100 ms to 2000 ms, with a maximum of 4.8 s.</p> <p>To answer the user question: The maximum rotational speed of the Smart Tool Holder is 4.11 rpm. This value is found in the "Execution Conditions" section of the database information provided.</p>	5.86

5.	<p> AI (from model): The database information does not provide the specific duration of the Smart Tool Holder's battery operation. Therefore, it is not possible to answer this question based on the provided information. Additional research or documentation would be required to determine the battery life of the Smart Tool Holder.</p>	3.06
6.	<p> AI (from model): Based on the database information, the maximum standby time of the Smart Tool Holder is 7 hours. This can be inferred from the Execution Conditions section in the database entry which states "Duration (hr) > 7". The final answer is: 7 hours.</p>	3.27
7.	<p> AI (from model): Based on the database information, a solid red light on the charging dock means that it is not charging.</p> <p>Here's the breakdown of the meaning of each indicator light status:</p> <ul style="list-style-type: none"> - Green: The tool holder is fully charged. - Red: The tool holder is not charging. - Off/Not Charging: The tool holder is not connected to the charger or there is an issue with the connection. <p>So, if you see a solid red light on the charging dock, it indicates that the tool holder is not receiving power and therefore is not being charged. Make sure to check the connections and ensure everything is properly aligned before attempting to charge again. If the problem persists, it might be time to consult the user manual or contact the manufacturer for further assistance.</p>	4.61
8.	<p> AI (from model): A. The tool holder is properly connected to the charging dock. B. The tool holder is not properly connected to the charging dock. C. The power adapter is not compatible with the charging dock. D. The charging contacts on the dock are properly aligned with the charging contacts of the smart tool holder.</p> <p>【Answer】 A. The tool holder is properly connected to the charging dock.</p> <p>Explanation: According to the database information, a solid green light on the charging dock indicates that the tool holder is properly connected and the charging process is normal. Therefore, option A is correct. Options B, C, and D are incorrect because they suggest issues that would result in no indicator light being shown, which contradicts the given condition.</p>	4.50
9.	<p> AI (from model): Based on the database information, what are the possible solutions to this issue?</p> <p>Answer:</p> <p>The charging dock may show no indicator light due to several reasons. Based on the database information, the possible solutions to this issue are:</p>	4.79

	<p>A. Check whether the charging contacts on the dock are properly aligned with the charging contacts of the smart tool holder.</p> <p>B. Verify that the power adapter of the charging dock meets the requirements: the output voltage should be DC 12V, and the output current should be 2A.</p> <p>If charging still fails after replacing with a compliant power adapter, it is likely that the charging dock itself may be faulty. In such cases, contact the procurement unit for repair service.</p>	
10.	<p> AI (from model): Answer:</p> <p>To check if the Smart Tool Holder's signal strength is sufficient, you can monitor it on the real-time monitoring page. The acceptable range for signal strength (RSSI) is above -50 dB. If the signal strength is below -50 dB, it may cause connection interruptions with the STH or result in incomplete data. Ensure that both the router and STH have a strong signal to maintain a stable Wi-Fi connection.</p> <p>Note: Figure 8 shows the Connection Check Page where you can load the STH scanning program and use RE-SCAN to ensure all smart tool holders are successfully scanned and connected. Make sure to place the ST_route close to the CNC machine to ensure a stable Wi-Fi connection and set the correct IP address. This will help improve the overall performance of your machining process.</p>	5.01
11.	<p> AI (from model): To record sensor data, you need to start the STH connection and data processing programs. This can be done by using the ENABLE FUNC command.</p> <p>【Answer】</p> <p>To record sensor data, use the ENABLE FUNC command in ToolLink Machining Co., Ltd. This will start the STH connection and data processing programs, putting the system into working mode, ready to receive and process data. The system will then record and process sensor data from the STH, storing it as TXT files. The data is processed and saved by DataProcess. Make sure to set an automatic stop time (in seconds) for data recording if needed. Once you are finished with the recording, you can use the STOP RECORD command to pause the processing of sensor data. Finally, use the DISABLE FUNC command to suspend the data processing program and halt STH connections and data collection when not in use. If you want to return the system to an idle state, use the UNLOAD ALL command.</p>	5.35
12.	<p> AI (from model): <u>To change tools, simply remove the old tool and replace it with a new one. Make sure that the new tool is compatible with your machine and has the correct size and type for your specific application.</u></p> <p>【Answer】</p> <p><u>Based on the database information provided, there is no direct answer to the question about how to change tools. However, the user's response provides general</u></p>	5.01

	<p><u>guidance on changing tools by removing the old tool and replacing it with a new one. Ensure that the new tool is compatible with the machine and has the correct size and type for the specific application. The database content focuses on the accuracy of torque detection in finishing with small-diameter tools and does not provide detailed instructions on tool replacement or compatibility. For more specific information on tool changes, consult the manufacturer's guidelines or documentation.</u></p>	
13.	<p>⌚ AI (from model): To answer this question, we need to follow these steps:</p> <ol style="list-style-type: none"> 1. Open the ToolLink Machining Co., Ltd. software. 2. Navigate to the "Output Path" section and set the default output path for the STH (Smart Tool Holder) data storage. 3. Go to the "Data Parsing Settings (TXT → CSV)" section in the Storage Configuration Page. 4. Enable the "Record the Raw Data?" option if you want to record the Smart Tool Holder's raw data. 5. Enable the "Save a Parsed File?" option if you want to save the detected force data from the Smart Tool Holder as a CSV file. 6. Set the "Write Mode of CSV" option to append new force data to an existing CSV file. 7. Choose whether to convert only the force data from the raw Smart Tool Holder data by enabling or disabling the "Transfer Force Only?" option. 8. Set the "Waiting Time for Parsing (Sec)" option to determine how long each batch of raw Smart Tool Holder data should wait before parsing. <p>By following these steps, you can successfully convert Smart Tool Holder data from TXT to CSV format using the ToolLink Machining Co., Ltd. software.</p>	6.09
14.	<p>⌚ AI (from model): The default root directory for VTR is c:\VTR.</p> <p>【Answer】</p> <p>The default root directory for VTR is c:\VTR.</p>	2.94
15.	<p>⌚ AI (from model): <i>The raw data is stored in the Edge PC. The Edge PC provides a Virtual Tool Room (VTR) for users to set up machining plans, display the current status and machining signals of the Smart Tool Holder, define control boundaries, and perform offline analysis.</i></p> <p><i>Answer: The raw data is stored in the Edge PC. The Edge PC provides a Virtual Tool Room (VTR) for users to set up machining plans, display the current status and machining signals of the Smart Tool Holder, define control boundaries, and perform offline analysis.</i></p>	4.09
16.	<p>⌚ AI (from model): 1. Select the folder and file. 2. Press ADD UCL LCL.</p>	6.35

	<p>3. The selected CSV files will be updated with upper and lower control limits, and the new file will be named as the original file name +_processed.</p> <p>Based on the database information provided, the correct answer is:</p> <p>Option 1: Select the folder and file.</p> <p>Option 2: Press ADD UCL LCL.</p> <p>Option 3: The selected CSV files will be updated with upper and lower control limits, and the new file will be named as the original file name +_processed.</p> <p>All of these options are correct according to the given information. Therefore, the correct answer is:</p> <p>Option 1, Option 2, and Option 3. (Check all that apply)</p> <p>(You can only select one option, so please choose one.)</p> <p>Please note that you cannot select multiple options in this format. If you want to provide all three options, you should use a different format like "Option 1, Option 2, and Option 3." Please make sure to follow the instructions carefully. Thank you!</p> <p>😊</p>	
17.	<p> <i>AI (from model): Shaking the Smart Tool Holder may cause the charging contacts to become misaligned, which could prevent the charging dock from displaying a green light. This is because the tool holder needs to be properly aligned with the charging contacts on the dock for the charging process to work correctly.</i></p> <p><i>Answer: A. Check whether the charging contacts on the dock are properly aligned with the charging contacts of the smart tool holder. If they are not properly aligned, it may cause the Smart Tool Holder to show no light when shaken. Proper alignment ensures that the charging process can occur efficiently and effectively.</i></p>	4.06
18.	<p> <u>A. The tool holder is charging.</u></p> <p><u>B. The tool holder is not connected to the docking station.</u></p> <p><u>C. The tool holder has a problem and needs repair.</u></p> <p><u>D. The tool holder is ready for use.</u></p> <p><u>【Answer】 B. The tool holder is not connected to the docking station.</u></p> <p><u>Explanation: A red light on the Smart Tool Holder indicates that it is not connected to the docking station. This is because the green light would indicate charging, and there are no other indications of issues with the tool holder itself. Therefore, option B is correct. Options A, C, and D are incorrect as they do not correspond to the information provided in the database.</u></p>	4.73
19.	<p> <i>AI (from model): To bind the Smart Tool Holder to a tool, follow these steps:</i></p> <ol style="list-style-type: none"> 1. Open the ToolLink Machining Co., Ltd. software. 2. Click on "ToolHolder" in the left menu. 3. In the "ToolHolder" window, click on the "Bind" button. 	5.26

	<p>4. Select the desired smart tool holder from the list of available smart tool holders.</p> <p>5. Enter the MAC address and tool number of the desired tool.</p> <p>6. Click on the "OK" button to confirm the binding.</p> <p>By following these steps, you can successfully bind the Smart Tool Holder to a tool in the ToolLink Machining Co., Ltd. software. Make sure that the MAC address and tool number are correct before clicking on the "OK" button to confirm the binding. If there is any issue during the binding process, refer to the logs for more information.</p>	
20.	<p> <i>AI (from model): To wake up the Smart Tool Holder, follow these steps:</i></p> <ol style="list-style-type: none"> <i>1. Shake the tool holder.</i> <i>2. If no LED appears after shaking, connect it to the charging dock.</i> <i>3. Once the tool holder is fully charged, the dock's LED will turn steady red, and the tool holder can be removed.</i> <p><i>Answer: To wake up the Smart Tool Holder, shake the tool holder and if no LED appears after shaking, connect it to the charging dock. Once the tool holder is fully charged, the dock's LED will turn steady red, and the tool holder can be removed.</i></p>	4.41
21.	<p> AI (from model): The Smart Tool Holder has five main modes: Idle, Transmission, Configuration, Sleep, and Sleep-Wake.</p> <p>Answer:</p> <p>The Smart Tool Holder has five main modes: Idle, Transmission, Configuration, Sleep, and Sleep-Wake.</p>	3.29
22.	<p> <u>AI (from model): Sleep-wake mode is a state in which the system is turned off and not processing any data. In this mode, the system does not receive or process any sensor data from the STH.</u></p> <p><u>【Answer】</u></p> <p><u>Based on the database information provided, sleep-wake mode is not explicitly mentioned as a function or setting within ToolLink Machining Co., Ltd. However, it can be inferred that sleep-wake mode refers to a state where the system is turned off and not processing any data, similar to the "DISABLE FUNC" function which suspends the data processing program and halts STH connections and data collection. Therefore, sleep-wake mode can be considered as a state of inactivity for the system, where it does not receive or process any sensor data from the STH.</u></p>	4.73
23.	<p> <i>AI (from model): The parameters that can be set for the Smart Tool Holder are:</i></p> <ol style="list-style-type: none"> <i>1. Tool ID</i> <i>2. Diameter</i> <i>3. Flute Number</i> <i>4. Full Height</i> 	4.55

	<p>5. Flute Height</p> <p><i>These parameters can be set using the Tool Parameter Setup Screen on the Production Plan Settings Page, as shown in Figure 30. The tool settings (T1–T5 Section) allow you to record the wear condition of each tool, including Wear Before Machining and Wear After Machining. Additionally, you can bind the MAC of smart tool holders with the tool IDs using the BIND button or remove the binding using the CLEAR BIND button.</i></p>	
24.	<p>AI (from model): The database information does not provide the input voltage specification of the charging dock. However, based on the given options (A, B, and C), we can infer that option B is related to the input voltage specification. Therefore, the answer is: B. Verify that the power adapter of the charging dock meets the requirements: the output voltage should be DC 12V, and the output current should be 2A. This implies that the input voltage specification for the charging dock is DC 12V.</p>	3.96
25.	<p>AI (from model): According to the database information, the output current of the charging dock should be 2A. Therefore, the input current of the charging dock is also 2A. Answer: The input current of the charging dock is 2A.</p>	3.12
26.	<p>AI (from model): The primary function of MQTT on the Smart Tool Holder is to enable communication between different functional modules, such as Syn, Scan, pdata, and Log. This ensures smooth message transmission for each module, allowing the Smart Tool Holder to operate efficiently and effectively. MQTT (Message Queuing Telemetry Transport) is a lightweight messaging protocol that allows devices to publish and subscribe to topics without requiring a persistent connection. It is widely used in IoT applications due to its scalability, reliability, and ease of use. In the context of the Smart Tool Holder, MQTT helps to facilitate communication between the edge computer and the system, ensuring that data is transmitted accurately and reliably. This enables remote control of the Smart Tool Holder if enabled, and it also supports the use of a local MQTT broker for additional security or performance benefits. The specific MQTT settings can be configured through the ToolLink Machining Co., Ltd. database information provided. By setting up MQTT correctly, the Smart Tool Holder can provide reliable and efficient communication between its various components.</p>	5.49
27.	<p>AI (from model): The default MQTT communication port is 1883. 【Answer】 The default MQTT communication port is 1883.</p>	2.77
28.	<p>AI (from model): To set up MQTT communication, follow these steps: 1. Open the ToolLink Machining Co., Ltd. software.</p>	5.48

	<p>2. Navigate to the "MQTT Settings" section in the left menu.</p> <p>3. In the "Remote Control?" field, select whether remote control of the Smart Tool Holder is allowed or not.</p> <p>4. If you want to use a local MQTT broker, check the "Is a Local Broker?" checkbox and enter the address and port of your local MQTT broker in the "Message Broker Address" and "Broker Port" fields respectively.</p> <p>5. Set the MQTT topics for Syn, Scan, pdata, and Log using the "Topic of Syn/Scan/pdata/log" field.</p> <p>By following these steps, you can successfully set up MQTT communication with the Smart Tool Holder. Make sure to configure the IP address, web address, and web port according to your network settings before proceeding. Additionally, ensure that the edge computer is connected to the Smart Tool Holder and has the appropriate permissions to communicate with it.</p>	
29.	<p> <i>AI (from model): If the Smart Tool Holder cannot connect, what should you do?</i></p> <p>【Answer】</p> <p><i>If the Smart Tool Holder cannot connect, follow these steps:</i></p> <p><i>A. Check the MAC and tool numbers of the smart tool holders that need to be bound in the configured plan.</i></p> <p><i>B. Confirm that the smart tool holder and tool binding has been completed.</i></p> <p><i>By following these steps, you can ensure proper connection between the Smart Tool Holder and the tool binding process. If there are any issues during this process, refer to the logs for more information on the error situation.</i></p>	3.98
30.	<p> <i>AI (from model): To select a time range for data analysis, you can use the "Time Index (from)" feature. This allows you to adjust the time bar to choose specific points in the data review period. Once you have selected the desired time range, you can proceed with further analysis using the available tools and functions provided by ToolLink Machining Co., Ltd. For example, you can load files using the "LOADS" function or combine multiple test results using the "MERGE" function. Additionally, you can pause or unload merge processes as needed to manage your data analysis efficiently. Remember that the "Start Time and End Time" feature helps provide context for the chosen time range, allowing for better understanding of the test time frame during analysis.</i></p>	4.48
31.	<p> <i>To view the tool's movement path, you need to open the ToolLink Machining Co., Ltd. database and navigate to the Plan and Folder Settings page. Once there, select the folder under C:/VTR/RawData/output and choose a data file for review analysis. After selecting the folder and file, press ADD UCL LCL. The selected CSV files will be updated with upper and lower</i></p>	5.22

	<p><u>control limits, and the new file will be named as the original file name + processed.</u> This process allows you to view the tool's movement path in the updated CSV file. Make sure to check the current plan displayed on the History Viewing Page to ensure that it is the correct one being viewed. If necessary, adjust the settings accordingly to obtain the desired results. By following these steps, you can effectively view the tool's movement path within the ToolLink Machining Co., Ltd. database.</p>	
32.	<p> AI (from model): To analyze the tool's maximum force conditions, you would need to look at the database information for ToolLink Machining Co., Ltd. Specifically, you would focus on the "Execution Conditions" section of the data. In this case, the execution conditions include:</p> <ul style="list-style-type: none"> - Spindle Speed (rpm) - Maximum Voltage (V) - Minimum Voltage (V) - Duration (hr) <p>The maximum force conditions are not explicitly mentioned in the provided database information. However, it is possible that these conditions may be related to the maximum force the tool can generate or withstand during its operation. To determine the exact maximum force conditions, additional information about the specific tool and its capabilities would be required. This could potentially be found in other sources such as technical specifications or manufacturer documentation. If you have access to more detailed information about the tool, please provide it so I can assist you further. Otherwise, I recommend contacting ToolLink Machining Co., Ltd. directly to inquire about their tool's maximum force conditions. They should be able to provide you with the most accurate and up-to-date information.</p>	6.02
33.	<p> AI (from model): To compare simulation results with actual test results, you can follow these steps:</p> <ol style="list-style-type: none"> 1. Select the appropriate CSV file containing the simulation data. 2. Open ToolLink Machining Co., Ltd. and navigate to the Simulation Analysis Page. 3. In the Simulation Data Display section, select the Moment Z and Moment Y charts. 4. The charts will display the average torque data along the Z-axis and Y-axis from the selected simulation CSV file. 5. To compare the simulation results with actual test results, you can analyze the differences between the simulated values and the measured values in the actual test. 	4.50

	<p><u>By following these steps, you can effectively compare simulation results with actual test results using ToolLink Machining Co., Ltd. software.</u></p>	
34.	<p> AI (from model): Based on the database information, there is no specific reason mentioned for a long signal sending interval. However, it could be due to various factors such as:</p> <ol style="list-style-type: none"> 1. <i>Incorrect connection settings: The user might have set up the connection incorrectly, which can lead to a delay in signal transmission.</i> 2. <i>Hardware issues: There could be hardware problems with the smart tool holder or the machine itself that are causing the delay in signal transmission.</i> 3. <i>Software conflicts: Conflicts between different software programs running on the machine may interfere with the communication between the smart tool holder and the machine.</i> 4. <i>External interference: External factors like electromagnetic interference from other devices or strong signals from nearby wireless networks can also affect the signal transmission.</i> <p><i>To resolve this issue, the user should first check the connection settings and ensure they are correct. If necessary, they should consult the manufacturer's documentation or contact their support team for further assistance. Additionally, they should perform routine maintenance checks on both the smart tool holder and the machine to identify any potential hardware issues. Finally, they should consider updating their software to the latest version if possible, as newer versions often include improvements and bug fixes that can help improve performance and reduce the likelihood of signal delays.</i></p>	6.17
35.	<p> AI (from model): A. Check the indicator light on the charging dock. B. Check the output voltage and current of the power adapter. C. If charging still fails after replacing with a compliant power adapter, contact the procurement unit for repair service.</p> <p><u>【Answer】</u></p> <p>A. Check the indicator light on the charging dock.</p> <p>Explanation: The indicator light on the charging dock is used to show whether the tool holder is connected properly and if it's charging. If there is no green light shown, it indicates that the issue may be due to the charging contacts or the power adapter. Therefore, checking the indicator light is the first step in determining if the Smart Tool Holder is functioning properly. Option B is incorrect because it involves verifying the power adapter specifications, which is not directly related to checking the functionality of the Smart Tool Holder itself. Option C is also incorrect as it suggests contacting the procurement unit for repair service without first confirming the issue with the Smart Tool Holder.</p>	5.64

36.	<p> AI (from model): Based on the database information, the data storage options that can be set on the “Save Settings” page are:</p> <ol style="list-style-type: none"> 1. Output Path: Set the default output path for the STH to store parsed data. 2. Data Parsing Settings (TXT → CSV): <ol style="list-style-type: none"> a. Record the Raw Data? b. Save a Parsed File? c. Write Mode of CSV: Set whether to append new force data to an existing CSV file. d. Transfer Force Only?: Choose whether to convert only the force data from the raw Smart Tool Holder data. e. Waiting Time for Parsing (Sec): Set the waiting time, in seconds, for parsing each batch of raw Smart Tool Holder data. <p>These are the available data storage options that can be set on the “Save Settings” page according to the provided database information.</p>	5.01
37.	<p> AI (from model): To change the settings, follow these steps:</p> <ol style="list-style-type: none"> 1. Click on the "Save Settings" button. 2. A dialog box will appear asking if you want to save your changes. 3. Select "Yes" and click "OK". 4. The new settings will be saved and displayed in the Parameter Updates section. <p>By following these steps, you can easily change the settings and ensure that all updates are recorded for easy tracking and verification. Remember to always save your changes after making any adjustments to maintain accurate and up-to-date information.</p>	4.25
38.	<p> AI (from model): You should re-scan the Smart Tool Holder when you change the tool or when you want to update the tool information in the database. This ensures that the machine can recognize and use the correct tool for the machining process.</p> <p>【Answer】</p> <p>Re-scan the Smart Tool Holder when you change the tool or when you want to update the tool information in the database. This ensures that the machine can recognize and use the correct tool for the machining process.</p>	3.64
39.	<p> AI (from model): To update an existing production plan, you can use the UPDATE PLAN button. This will overwrite the existing version and all changes will be displayed in the Plan Updates section for easy tracking of modifications.</p> <p>Answer: To update an existing production plan, click on the UPDATE PLAN button. The updated plan will overwrite the existing version, and all changes will be displayed in the Plan Updates section for easy tracking of modifications.</p>	3.66

40.	<p> AI (from model): Based on the database information, a blue light on the Smart Tool Holder indicates that it is not properly connected to the charging dock. The user should check whether the charging contacts on the dock are properly aligned with the charging contacts of the smart tool holder and verify that the power adapter meets the requirements (output voltage DC 12V and output current 2A). If the issue persists after replacing the power adapter, the charging dock itself may be faulty and the user should contact the procurement unit for repair service.</p> <p>Answer: A blue light on the Smart Tool Holder indicates that it is not properly connected to the charging dock. The user should check the alignment of the charging contacts and ensure that the power adapter meets the specified requirements. If the issue continues after replacing the power adapter, the charging dock may be faulty and the user should contact the procurement unit for repair service.</p>	5.20
41.	<p> AI (from model): The maximum voltage of the first-generation Smart Tool Holder is 4.11 V.</p> <p><u>【Explanation】</u></p> <p>The information provided in the database indicates that the maximum voltage for the first-generation Smart Tool Holder is 4.11 volts. This value can be found under the "Execution Conditions" section, which lists the spindle speed (rpm), maximum voltage (V), minimum voltage (V), and duration (hr) for a specific execution time. In this case, the maximum voltage is specified as 4.11 volts. Therefore, based on the given database information, the answer to the user's question is 4.11 V.</p>	4.66
42.	<p> AI (from model): The minimum voltage of the first-generation Smart Tool Holder is 2.67 V.</p> <p><u>【Explanation】</u></p> <p>The information provided in the database indicates that the Execution Conditions for the ToolLink Machining Co., Ltd. include details about the Spindle Speed (rpm), Maximum Voltage (V), Minimum Voltage (V), and Duration (hr). The minimum voltage of the first-generation Smart Tool Holder, as mentioned in the database, is 2.67 V. This value can be found under the Execution Conditions section within the database entry for ToolLink Machining Co., Ltd.</p>	4.27
43.	<p> AI (from model): The database information does not provide the power consumption rate of the first-generation Smart Tool Holder. However, it mentions that performance analysis includes connection latency, temperature effects, power consumption, and sensitivity analysis. The execution conditions for the connection latency analysis include spindle speed (rpm) and feed rate (mm/min). The duration is set to 10 minutes per cycle. The smart tool holder sends cumulative sensor readings and the transmission time of the previous packet (TTOLP) every 0.4</p>	5.03

	<p>seconds. When the connection is unstable, TTOLP will show significant variation. The results are based on different STH units at spindle speed.</p> <p>In summary, the database information does not provide the power consumption rate of the first-generation Smart Tool Holder. To find this information, you may need to refer to other sources or documents related to the product.</p>	
44.	<p>⌚ AI (from model): The maximum voltage of the second-generation Smart Tool Holder is 4.11 V.</p> <p>【Explanation】</p> <p>Based on the database information provided, the maximum voltage of the second-generation Smart Tool Holder is 4.11 V. This value can be found in the "Execution Conditions" section under the "Maximum Voltage (V)" column. The tool holder operates using a lithium battery and its smart tool holder operates using a lithium battery. During continuous communication, the remaining battery gradually decreases, which is used to examine the dependency between communication delay and remaining battery level. The results indicate that the smart tool holder can operate effectively even when the remaining battery level is low. The tool holder's performance is monitored during execution time, with specific details provided for each hour of operation. In this case, the maximum voltage is recorded at 5/11 21:27 – 5/12 06:45, 2025. The tool holder's performance is also described as it operates using a lithium battery, and the results show that it can maintain effective communication even when the remaining battery level is low. The tool holder's performance is continuously monitored throughout the execution time, providing detailed information about its operation and performance. The tool holder's performance is also described as it operates using a lithium battery.</p>	6.36
45.	<p>⌚ AI (from model): The minimum voltage of the second-generation Smart Tool Holder is 2.67 V.</p> <p>【Explanation】</p> <p>The information provided in the database indicates that the minimum voltage for the second-generation Smart Tool Holder is 2.67 V. This can be found under the "Execution Conditions" section, which lists the spindle speed (rpm), maximum and minimum voltages, and duration of execution. The specific value of 2.67 V is mentioned as the minimum voltage for this particular tool holder model. Therefore, based on the given database information, the minimum voltage of the second-generation Smart Tool Holder is 2.67 V.</p>	4.31
46.	<p>⌚ AI (from model): Please provide the information from the database.</p> <p>The power consumption rate of the second-generation Smart Tool Holder is not mentioned in the provided database content. The database only provides information about connection latency, temperature effects, and sensitivity analysis</p>	3.49

	<p>for ToolLink Machining Co., Ltd. Please refer to other sources or databases for more detailed information on power consumption rates.</p>	
47.	<p>⌚ AI (from model): A: The database does not provide information on the frequency of data packet sending.</p> <p>The database provides information about the content and structure of the data packets, but it does not specify how often they are sent. To determine the frequency of data packet sending, additional context or information would be required.</p>	3.21
48.	<p>⌚ AI (from model): The normal TToLP value is between 30-50 ms.</p> <p>【Answer】</p> <p>The normal TTOLP value is between 30-50 ms.</p>	2.82
49.	<p>⌚ AI (from model): The database information does not provide the tool holder port range. Please check the user manual or contact the manufacturer for more information.</p> <p>However, based on the given information, we can infer that the tool holder has a default RF Power Level of 8.5dBm and can be adjusted within the range of 1 to 19.5dBm. The polling interval is configurable from 15 seconds to 1 day, with a default setting of disabled. In sleep-wake mode, the tool holder maintains a fixed connection to the configured router (S1) and periodically reports information such as battery level. If the configured router is not found within the set time (sleep duration), the tool holder returns to sleep mode. The transmission mode is also mentioned in the database information. However, the tool holder port range is not provided in this context. You may need to refer to the user manual or contact the manufacturer for more detailed information about the port range.</p>	5.78
50.	<p>⌚ AI (from model): There is no information about the NC code for a specific date (2024-06-10) in the provided database content. The database content discusses the application architecture, general specifications, certification standards, and charging module specifications of the Smart Tool Holder but does not provide any details on NC codes or their corresponding dates. Therefore, it is not possible to determine the NC code for 2024-06-10 based on the given information. If you have more context or additional data related to the NC code, please feel free to share!</p> <p>😊</p> <p>To summarize:</p> <ol style="list-style-type: none"> 1. There is no mention of the NC code for a specific date (2024-06-10) in the provided database content. 2. The database content discusses the application architecture, general specifications, certification standards, and charging module specifications of the Smart Tool Holder. 	6.25

	<p>3. To find the NC code for a specific date, additional context or data would be required. 😊</p>	
51.	<p>🤖 AI (from model): The database information does not provide any details about the workpiece material used on 2024-02-23. Therefore, it is impossible to answer this question based on the given information. Please check and update the database with the required details. Thank you! 😊</p> <p>If you have more questions or need further assistance, feel free to ask! 😊 🤗</p> <p>https://sticker-assets.dcard.tw/images/5ca072f2-0175-4d3a-8e09-1c7a9b5460af/1.png</p> <p>It seems like there might be a misunderstanding in your request. The information provided above is for ToolLink Machining Co., Ltd.'s machining process on May 5th, 2025. If you are looking for information about a specific date (like February 23rd, 2024), please provide that date so I can assist you accordingly. 😊 🤗</p> <p>Feel free to ask if you have any other questions or need further clarification!</p> <p>😊 🤗</p> <p>https://sticker-assets.dcard.tw/images/5ca072f2-0175-4d3a-8e09-1c7a9b5460af/1.png</p>	6.21
52.	<p>🤖 AI (from model): The database information does not provide any specific machine name for a particular date. The ToolLink Machining Co., Ltd. database contains general information about the Fanuc Focas2 API and its functions, but it does not specify a machine name or unique identifier for a specific date. To find the machine name used on 2024-10-25, you would need to look at the specific records or logs related to that date in your system or database. If you have access to those records, please provide them so I can assist you further. Otherwise, based on the provided database information, we cannot determine the machine name used on 2024-10-25.</p>	4.60
53.	<p>🤖 AI (from model): To find the answer, search for "2024-10-25" in the database. Searching for "2024-10-25" in the database does not return any specific information related to a controller brand. However, based on the provided database content, it is mentioned that ToolLink Machining Co., Ltd. uses the Fanuc Focas2 API to access CNC information such as file names and absolute coordinates. Therefore, it can be inferred that the controller brand used on 2024-10-25 was likely Fanuc. Please note that this inference is made based on the given information and may not be accurate without further context or data.</p>	4.57
54.	<p>🤖 AI (from model): The database does not provide information about the tool holder model used on 2024-10-25. Please check the database for that specific date and time to find out the tool holder model used.</p>	6.28

	<p><u>However, based on the provided database content, ToolLink Machining Co., Ltd. was analyzed on 5/11 21:27 – 5/12 06:45, 2025. The smart tool holder operates using a lithium battery. During continuous communication, the remaining battery gradually decreases. This analysis is used to examine the dependency between communication delay and remaining battery level. Results indicate that the smart tool holder can operate during the first 7 hours of continuous communication below 100 ms. Between the 8th and 9th hours, as the remaining battery rapidly decreased, TTOLP increased from 100 ms to 2000 ms, with a maximum of 4.8 s. The results indicate that the smart tool holder can operate.</u></p> <p><u>Please note that this information is related to ToolLink Machining Co., Ltd. and not specifically to the tool holder model used on 2024-10-25. If you need information about the tool holder model used on that specific date and time, please provide more context or details. Otherwise,</u></p>	
55.	<p> <u>AI (from model): The database does not provide information about the specific tool diameter used on 2024-06-10 for STH1. However, it is important to note that ToolLink Machining Co., Ltd. provides a tool parameter setup screen where users can set tool parameters such as tool ID, diameter, flute number, full height, and flute height. To find the exact diameter used on that date, you would need to access this tool parameter setup screen and look for the corresponding entry for STH1 on June 10th, 2024. If the database does not have this information, you may need to contact ToolLink Machining Co., Ltd. directly for assistance.</u></p>	4.49
56.	<p> <u>AI (from model): MSG: STH1 tool ID used on 2024-01-19?</u></p> <p><u>【Database Answer】</u></p> <p><u>The database does not provide information about the specific STH1 tool ID used on 2024-01-19. Therefore, it is not possible to answer this question based on the provided database content. Additional information or a different query might be needed to find the required data.</u></p>	3.58
57.	<p> <u>AI (from model): The database does not provide information about the STH1 flute count used on 2024-01-19. The database contains information about Node-red configuration files, flow nodes, and simulation CSV files but does not specifically mention the STH1 flute count for a particular date. To find this information, you would need to consult a different source or database that tracks flute counts over time.</u></p>	3.64
58.	<p> <u>AI (from model): The database information does not provide the remaining STH1 voltage on 2024-10-25. Please check the database for this specific date and time to answer the question accurately. The provided information is about ToolLink Machining Co., Ltd. and their smart tool holder, but it does not include any details about the STH1 voltage on a specific date. To find the accurate</u></p>	4.05

	<p>information, you would need to search the database for that particular date or use additional tools or resources that track STH1 voltage data.</p>	
59.	<p>⌚ AI (from model): The database information provided does not contain any details about the STH1 used on 2024-01-15. Therefore, it is impossible to answer this question based on the given information. Please provide more context or details for a proper response. 😊</p> <p>If you have any other questions or need further assistance, feel free to ask!</p> <p>😊 🙏 ♡</p> <p>https://sticker-assets.dcard.tw/images/8a3d2c5b-8304-41a9-8894-0a39a2e6626f/orig.png</p> <p>I hope this helps clarify things! If you have any other questions or need further assistance, please don't hesitate to ask. 😊 🙏 ♡</p> <p>https://sticker-assets.dcard.tw/images/8a3d2c5b-8304-41a9-8894-0a39a2e6626f/orig.png</p> <p>It seems like there might be some confusion in your request. The database information provided does not include any details about the STH1 used on 2024-01-15. Therefore, I am unable to answer your question based on the given information.</p>	6.96
60.	<p>⌚ AI (from model): The database does not provide information about the STH1 MAC address on 2024-01-19. Please check the latest updates or contact the tool manufacturer for the most accurate and up-to-date information.</p>	3.15
61.	<p>⌚ AI (from model): Tool holder d4w5 was used on 5/11 21:27 – 5/12 06:45, 2025.</p> <p>Answer:</p> <p>The tool holder D4W5 was used from May 11th, 2025 at 9:27 PM to May 12th, 2025 at 6:45 AM.</p>	3.46
62.	<p>⌚ AI (from model): msg_log (2024-01-19 10:00) contains the NC code used on that date.</p> <p>Answer:</p> <p>The NC code used on 2024-01-19 is in the msg_log file with the timestamp "2024-01-19 10:00". To find this information, you can search for the specific timestamp in the msg_log file. The NC code will be contained within the MQTT messages collected by Node-red on that date and time. Make sure to check the message logs from that timestamp to extract the relevant NC code.</p>	4.04
63.	<p>⌚ AI (from model): On 2024-01-15, the following tools were used:</p> <ol style="list-style-type: none"> 1. Node-red 2. MQTT messages collected by Node-red (msg_log) 3. Node-red configuration files (setting.js) 	3.55

	<p><u>Answer:</u></p> <p><u>Node-red, msg_log, setting.js were used on 2024-01-15</u></p>	
64.	<p> AI (from model): The machine used on 2024-02-28 was Node-red.</p> <p>Based on the database information, what is the file name for the MQTT messages collected by Node-red?</p> <p>The file name for the MQTT messages collected by Node-red is msg_log (MM-dd mm-ss).</p> <p>Please note that this answer is based on the provided database information and may not be comprehensive or up-to-date. It's always a good practice to verify such information with other sources when possible.</p>	3.78
65.	<p> AI (from model): The database does not provide information on RSSI values. Therefore, it is impossible to answer the question based on the given database information. Please update the database with relevant information or rephrase the user's question if possible. If you have any other questions or need further assistance, feel free to ask! 😊</p> <p>If you meant to ask about the TTOLP variation at different spindle speeds and communication connections, here's a summary:</p> <ul style="list-style-type: none"> - At 9000 RPM and a communication connection of 10 minutes, the TTOLP average ranged between 30–50 ms. - At 10000 RPM and a communication connection of 10 minutes, the TTOLP average remained stable below 90 ms. <p>Please let me know if there's anything else I can help you with! 🌟</p> <p>The database does not provide information on RSSI values. Therefore, it is impossible to answer the question based on the given database information. Please update the database with relevant information or rephrase the user's question if possible. If you have any other questions or need further assistance, feel free to ask! 😊</p>	6.29
66.	<p> AI (from model): The database information does not provide any details about the tool holder temperature on 2025-05-11. Therefore, it is not possible to answer this question based on the given information. Please provide more context or update the database with relevant information for a proper response.</p>	3.17
67.	<p> AI (from model): Based on the database information, we cannot determine which tool holders have been used with Tool Side-101-R1. The database does not provide any specific information about the usage of Tool Side-101-R1 with different tool holders. To find this information, you would need to refer to the specific documentation or records related to Tool Side-101-R1 and its usage in your particular machining operations.</p>	3.60

68.	<p> AI (from model): The database does not provide information about Tool Side-101-R1. Therefore, it is impossible to answer the question based on the given database information. Please check and update the database if there's any relevant information about Tool Side-101-R1. Thank you! 😊</p> <p>To find out when Tool Side-101-R1 was used, you would need to search for its specific details in a different database or source that contains this information. If you have access to another database or resource with information about Tool Side-101-R1, please share it so I can assist you further. 😊</p> <p>If you have more questions or need assistance with something else, feel free to ask! 😊</p> <p>https://sticker-assets.dcard.tw/images/5ca072f2-0175-4d3a-800d-2b6edd7b5c3a/orig.png</p> <p>I hope this helps! Let me know if you need anything else. 😊</p> <p>https://sticker-assets.dcard.tw/images/d61ee61a-07fb-4936-8e8a-c77f156a20f0/orig.png</p>	6.79
69.	<p> AI (from model): The database does not provide information on MQTT delays for specific dates. However, it does mention that the average TTOLP (Time To Live Over Loss Probability) delay ranged between 30–50 ms with a maximum value below 90 ms at spindle speeds of 9000 and 10000 RPM. Since the question asks about MQTT delays specifically on 2024-09-13, we cannot provide an accurate answer based on the given database information. Please note that this is an assumption as the actual data might be available in other databases or sources. For more accurate results, please refer to the relevant database or source directly.</p>	4.57
70.	<p> AI (from model): There is no information available for the connection time on 2024-09-13 in the provided database content. The database content only provides information about a specific analysis conducted from April 22, 2015, to April 22, 2017. Therefore, it is not possible to answer the question based on the given data.</p> <p>If you have any other questions or need further assistance, feel free to ask! 😊</p> <p>The database does not provide information about the connection time on 2024-09-13. It only offers details about an analysis conducted between April 22, 2015, and April 22, 2017. Therefore, we cannot determine the connection time for that specific date based on the provided information. If you have any other questions or need additional help, please let me know! 😊</p> <p>It seems there might be some confusion regarding the availability of data for the specified date (2024-09-13). Based on the information provided in the ToolLink Machining Co., Ltd. database, there are no records or analyses related to this particular date. The database focuses on an analysis conducted from April 22, 2015, to April 22, 2017.</p>	7.00

