

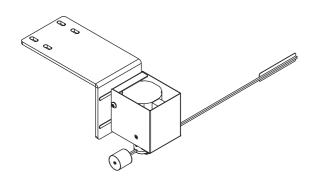
BROKEN TOOL DETECTOR

HIGH PRESSURE TSC SYSTEM

(Through spindle Coolant)



OVERALL EFFECT DIAGRAM



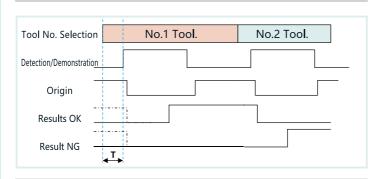
MACHINE INTERFACE SCHEMATIC

Broken Tool Detection Machine Tool PLC Controller Results OK Results OK Test result OK X*. * Result NG Result NG Test results NG Origin Impactor lever back to origin X*. * Origin Tool No.1 Tool No.1 Tool No.2 Tool No.2 Tool No.4 Tool No.4 Tool number decoding Tool No.8 (binary coding) Tool No.8 Tool No.16 Tool No.16 The number of tool Y*. * nagazine output poin Tool No.32 Tool No.32 number of tools to be Tool No.64 detected, up to 256 Y*. * Tool No.64 tools can be detected Tool No.128 Tool No.128 Detection Signal Output Y*.* for Detection for Demonstration Demonstration Signal Output Y*. *

MAIN TECHNICAL PARAMETERS

Serial Number	Item	Standard	
1	Rated Power 220W		
2	Controller Power Supply	24V DC±10%	
3	Driver Power Supply	220V AC	
4	Input & Output Levels	els 24V effective	
5	Ambient Temperature for Operation	-10°C~+60°C	
6	Protection Level	Detection device IP67	
7	Detection Rod Length	400mm	
8	Detection Angle	5°~150°	
9	Detection times/life	10 million times	
10	Single Detection Time	0.3-2 sec	
11	Detection Accuracy	Adjustable up to 1mm	
12	Detecting the strength of touching the tool	Adjustab l e	
13	Detection of the direction of rotation of the rod	Adjustab l e	
14	Mounting Holder	Adjustable Position	

DETECTION/DEMONSTRATION TIMING CHART



DEMONSTRATION INSTRUCTIONS

Detect No. 1 tool, output result OK, detect No. 2 tool, output result NG.

The demonstration/detection signal needs to lag the tool number selection signal by at least time T50ms.

The output of the demonstration/detection signal needs to be greater than 50ms.

The CNC can check the status of OK or NG after the home position is in place.

PRODUCTS INTRODUCTION

Cutting workpiece will produce high temperature vapor, the water vapor on the surface of the workpiece will isolate the cutting fluid from adhering, resulting in less than 20% of the cooling effect of the workpiece or tool, the only way to achieve the most efficient cooling effect is to pressurize the cutting fluid to more than 30 bar, so that the cutting fluid can directly contact the workpiece and tool.

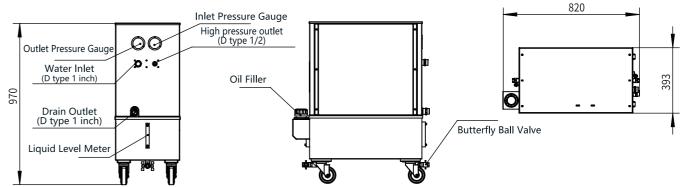
Advantages of Use

- 1. Reduce tool wear during cutting and machining, saving tool costs.
- ♦ 2. Improvement of iron filings generated by cutting, which is conducive to the introduction of automation.
- 3. The high-pressure center water discharge function effectively improves the drilling depth and cutting speed of the machine. It greatly improves the stability of cutting size during machine tool machining and increases the qualified rate of workpiece at the same time. Increase the feeding speed and cutting speed, increase the eating force, tap more productivity in production.
- 4. Fine filtration of the cartridge optimizes the cutting water quality and avoids the blockage of the circulating pipeline.
- 5. Reduce the risk of tool breakage, significantly reduce the local high temperature during machining, and extend tool life.

■ MSHC-30P20LT OUTLINE AND MOUNTING DIMENSIONS









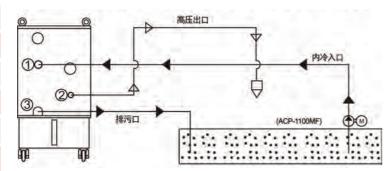
HIGH PRESSURE TSC SYSTEM (Through spindle Coolant)

SHANDONG RIZHAO SHANSEN CNC EQUIPMENT CO. LTD.



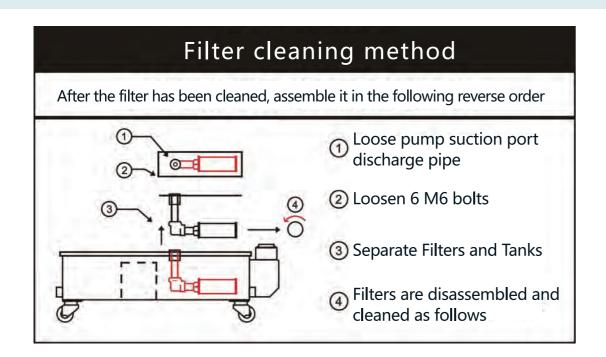
■ TECHNICAL PARAMETERS

Applicable Liquids	Semi-synthetic Water-soluble Cutting Fluid	
MAX Working Pressure	30-40bar	
Maximum Flow Rate	14L/min	
Filtration Accuracy	25u	
Sizes	820*393*970	
Standard Type	Vortex Separator	



- ◆ 1. Lift pump connection: D-type 1 inch from the cooling tank to the high-pressure system (vortex filter) supply cutting fluid line ACP-1100MF connection;
- 2. High-pressure outlet: D-type 1/2.
- 3. Sewage pump outlet: D type 1 inch;
- ◆ 4. Clean suction net once per 2 months, and clean water tank once per 6 months;
- ♦ 5. Use water-soluble cutting fluid (use non-water-soluble cutting fluid with a filter after consultation), initially used through the center of the oil filling port out of the water system injected more than half of the clean cutting fluid, up to the required level of liquid through the oil filling port to replenish;

3-phase, 220V, 50Hz (3-phase, 380V, 50Hz)



AUTOMATION SOLUTIONS

The company has a number of experienced mechanical, electrical, process, commissioning engineers, mainly engaged in automation design, automation upgrading and transformation, to provide users with overall solutions, turnkey projects.







Hydraulic Cylinder Automation Cases

utomotive Half Shaft Automation Cases

Ball Iron Head Automatic Line Cases

INDUSTRY-SPECIFIC MACHINE SOLUTIONS

For the auto parts industry, construction machinery, agricultural vehicles, forging, medical equipment, hydraulic industry and other mechanical parts design, manufacturing special equipment to improve processing efficiency and reduce labor intensity, the company has mature solutions in the milling and punching machine, differential special machine, worm special machine, front axis special machine and other industries.





SUPPLY AND MAINTENANCE OF CNC PARTS

Shandong Rizhao SHANSEN CNC Equipment Co., Ltd. is mainly engaged in domestic and foreign CNC system parts sales, parts maintenance, and undertake CNC machine tool repair, transformation and other related services.















Fanuc system parts, Siemens system parts, Mitsubishi system parts, DASEN system parts sales and repair