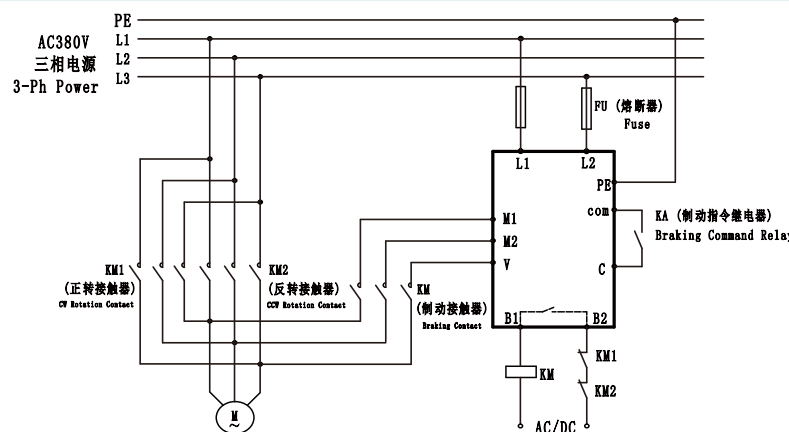


ELECTRICAL PARAMETERS

| Model No. | Applicable Motors | Braking Current | Input Voltage |
|-----------|-------------------|-----------------|---|
| ZD-15 | ≤7.5KW | ≤22A | AC380V±10% (AC220V to be Customized) |

ELECTRICAL DRAWINGS



TERMINAL DESCRIPTION

| | |
|-----------------|---|
| B1、B2 | Two normally open contacts of the brake's internal relay for controlling the brake contactor, capacity AC240V3ADC28V3A. |
| B3、B4 | The two normally open contacts of the brake's internal relay can be backed up. |
| C、COM | Brake internal power supply, when the need for motor braking, external brake trigger signal control C and COM closed for more than 0.1 seconds to trigger the braking process. |
| L1、L2 | Brake operating power input, usually AC380V (when AC220V is required, special order is required). |
| M1、M2 | The brake current output terminals are connected to any two-phase leads of the motor through the two main contacts of the brake contactor. |
| V | The speed measurement input terminal is connected through the other main contact of the brake contactor to the other phase terminal of the motor except the one connected to M1 and M2. |
| PE | Ground wire terminal, need to be firmly grounded. |
| Braking Time | Used to set the braking time limit in the range of 1.5 to 9 seconds. |
| Braking Current | Used to set the braking current, range 7-22A, adjusted to match the motor. |

SETTING INSTRUCTIONS

1.Braking time limit setting (blank for switch downward OFF)

| Gear position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|--------------------|-----|----|-----|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|
| 1 | | | | | | | | | ON | ON | ON | ON | ON | ON | ON | ON |
| 2 | | | | ON | ON | ON | ON | | | | | ON | ON | ON | ON | ON |
| 3 | | ON | ON | | | ON | ON | | | | ON | ON | | | ON | ON |
| 4 | ON | | ON | | ON | | ON | | | ON | | ON | | ON | | ON |
| Braking current(A) | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 |

2.Brake current setting (blank for switch down OFF)

| Gear position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|--------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 5 | | | | | | | | | ON | ON | ON | ON | ON | ON | ON | ON |
| 6 | | | | | ON | ON | ON | ON | | | | | ON | ON | ON | ON |
| 7 | | | ON | ON | | | ON | ON | | | ON | ON | | | ON | ON |
| 8 | | ON | | ON | | ON | | ON | | ON | | ON | | ON | | ON |
| Braking current(A) | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

PRODUCT OVERVIEW

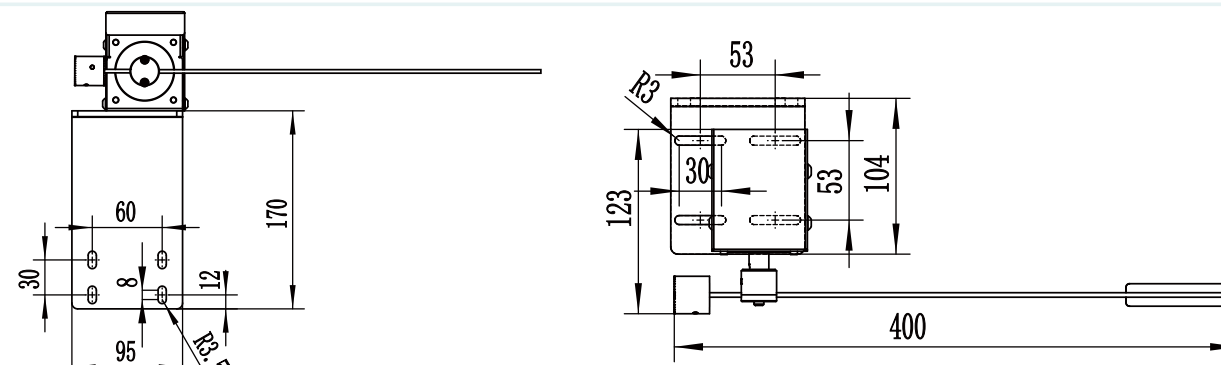
CNC machine tools in the process of automatic machining, due to high cutting intensity, high temperature, residual cutting, tool aging and other factors, may lead to tool wear or breakage, if you can not find the damage of the tool in time, it will cause major production and even safety accidents. This product can effectively detect the wear or breakage of the tool, and the whole inspection process is executed in the tool magazine, without taking up the processing time. It can be used for the detection of tools in disk-type tool magazine and chain-type tool magazine.



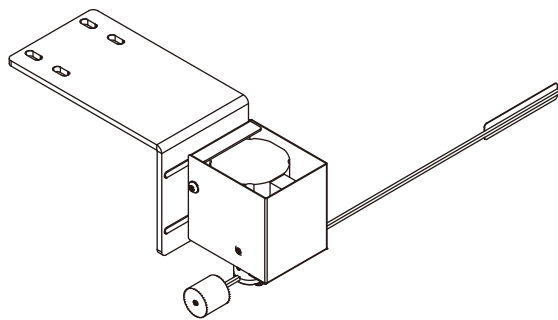
MODEL DESCRIPTION

| | | | |
|----------|------------------------------|----------|------------------------|
| Markings | Serial No. | Markings | Motor Cable Length |
| SFBK21 | Standard style | 22M | Line Length 22m |
| SFBK24 | Tape display | 33M | Line Length 33m |
| | | | Standard Type of 15m |
| Markings | Customized Holder | Markings | Detection Rod Length |
| W | Horizontal Holder | 480 | Pole Length 480mm |
| L | Old Model Holder | | Standard Type of 400mm |
| | Standard Type with No Holder | | |

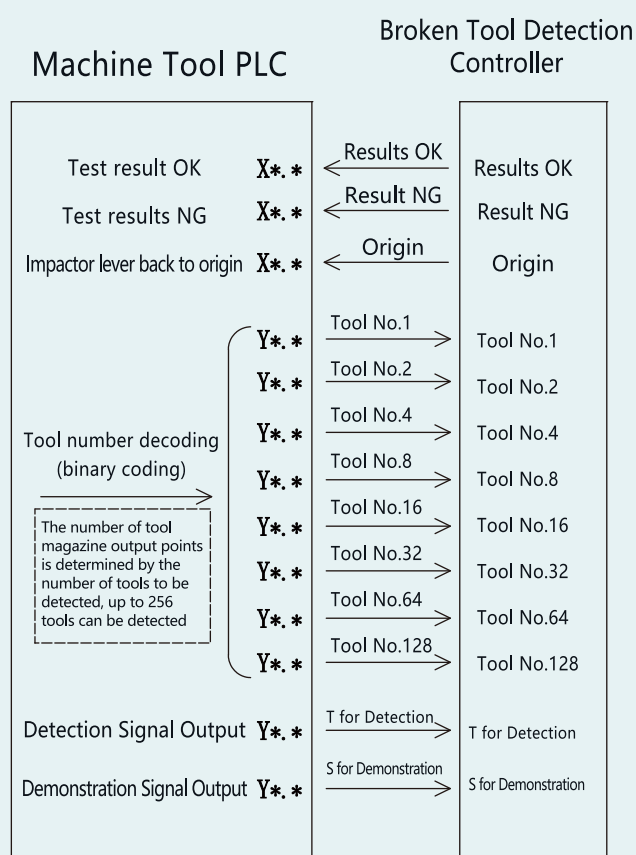
OVERALL INSTALLATION DIMENSION DRAWING



OVERALL EFFECT DIAGRAM



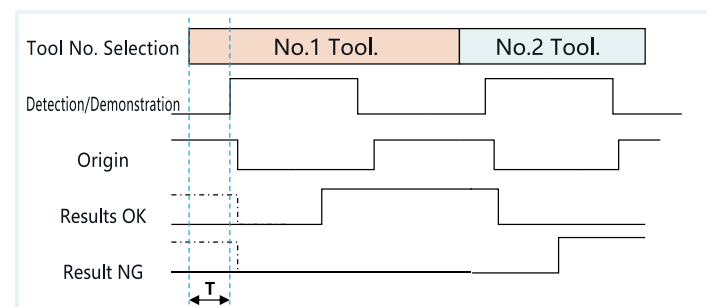
MACHINE INTERFACE SCHEMATIC



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 | 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 | Adjustable |
| 13 | Detection of the direction of rotation of the rod | Adjustable |
| 14 | Knife number and alarm number | viewable |
| 15 | Zero-back mode | Manual/automatic |
| 16 | Pre-bit function | have |
| 17 | Display interface | Function selection |
| 18 | Mounting Holder | Adjustable Position |
| 19 | Net product weight | 5.2kg |

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.


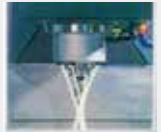


Advantages of Use

- 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.

USE

High pressure center outlet water system is used for machine tools, industrial cleaning equipment and other working conditions, can be applied to different temperature, flow, pressure range, filtration accuracy of 25μm, pressure of 20, 30, 50, 70bar.

Same workpiece high pressure center water system (high pressure) VS low pressure cooling (traditional)

| | High pressure center outlet system | Conventional low pressure cooling |
|-------------------------------|---|---|
| Outlet mode |  |  |
| material | Stainless steel | Stainless steel |
| Tool life (average) | 3000pca needs a new drill bit | 80pca requires a new drill bit |
| Shutdown time for tool change | The knife is changed once every 4 days, and the knife is changed within 1 hour a week | Eight knife changes in 24 hours and nine hours of downtime a week |
| Chip breaking condition | Chip breaking condition is good | There is often rolling debris |
| Chip breaking condition |  |  |