



High Pressure Coolant System

i-70 Series

COOLER SPECIFICATIONS

Cooling Capacity 5000/6000 Kcal/H 50/60HZ
 Room 32 °C / liquid temp 22 °C
Power Supply 3 Ø 220V 50/60HZ 2050W 8A
Compressor 3 Ø 220V 50/60HZ 1844W 6.77A
Fan motor 3 Ø 220V 50/60HZ 180W 0.8A
Condenser Forced ventilation fin
Evaporator Plate heat exchanger
Temperature Controller MCU Unit
Refrigerant R410A
Range room 10 - 30 °C
 liquid 10 - 40 °C



Item / Model	i70 N	i70E	i70S	i70H	i70X
Invert Motor	○	○	○	○	○
Cooler	X	X	X	○	○
Switchable Filter	○	○	○	○	○
Switchable Outlet	△	△	△	△	△
Pre-Filter Unit	△	△	△	△	△
Piston Pump	○	○	○	○	○
Sub-Tank	X	X	○	X	○
Work-lamp	△	△	○	○	○
7 inch Touch Screen	○	○	○	○	○
i-Cyclone	△	△	△	△	△
Foot Print (mm)	1000 x 800 x 390	1070 x 500 x 630	1155 x 500 x 1175	1155 x 500 x 1175	1280 x 600 x 1590
Weight (Kg)	150	150	200	200	250
Capacity (L/min)	35				
Max Pressure (Bar)	Standard (0 - 70 Bar) , Option (0 - 200 Bar)				
Voltage (V)	220 - 440				
Frequency (HZ)	50 / 60				
Application	Bar-feeder type turning Machine, can be placed under table	General turning / milling machines, most high pressure applications without cooling control	General gantry milling machines, equipped with sub-tank ensuring sufficient high-pressure of recycled cutting fluid	High-precision machining, built-in cooler can be used for constant temperature control ensuring machining accuracy and cutting fluid quality	High-precision large-scale gantry machine with cooler and sub-tank ensuring highest processing fluid pressure

○ : STD △ : OPT. X : NON

DEALER



i-70 Series

High Pressure Coolant System

OPEN SOLUTIONS i-Smart Co., Ltd. i-smart.com.tw



i-Smart Co., Ltd.

i-Smart
OPEN SOLUTIONS
i-Smart Co., Ltd.

www.i-smart.com.tw
 info@i-smart.com.tw

+ 886 4 2335 0957
 + 886 4 2335 0318

No.38, Aly.68, Ln.226, Taiming Rd., Wuri Dist.,
 Taichung City 41468, Taiwan (R.O.C)



7 inch touch screen and digital control system. It can respond to your pressure requirements in just 1 second, records and displays the operating status

The integrated cooler has a very small footprint and a outstanding appearance. The constant temperature control allows high-precision machining to be achieved and ensures that the processing fluid doesn't deteriorate

Constant pressure invert control system, which automatically follows the exit diameter of the tool for pressure conversion

- ✓ **Pump**
No limitation on oil / water mix ratio
- ✓ **Total control**
Total control over temperature and pressure
- ✓ **Inverter system**
For maximum utility efficiency of power - save energy save money (optional)
- ✓ **Record resume**
When error occurs and every single event gets in record
- ✓ **Touch screen**
Display system pressure, voltage, current, speed, power, etc... status, and can set cooling temperature through touch screen synchronization (optional)

- ✓ **Motor drives pump directly**
No belt transmission
- ✓ **Switching different tools**
Smart pressure setting modules for switching different tools automatically
- ✓ **Integrated cooling system**
It reduces the footprint significantly
Ready for automation compact design
- ✓ **Cyclone pre-filter system**
It centrifuges most particles (more than 90%) larger than 10um to prevent damages caused by particals entering the system (optional)
- ✓ **Constant pressure invert control system**
The energy-efficient invert system can meet your complex processing needs

BENEFIT

Cutting chip sharp

Traditional flashing processing
Pressure = 2 Bar



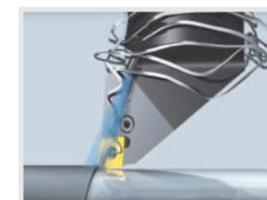
i-70 series high pressure
Pressure = 70 Bar



Traditional vs i-70 series

Traditional flashing processing

1. Tools are easily damaged by chip overheating.
2. Easy to wrap tool.
3. Chip friction causes degradation of workpiece.
4. Low pressure water not easy spray to cutting point.



i-70 series high pressure

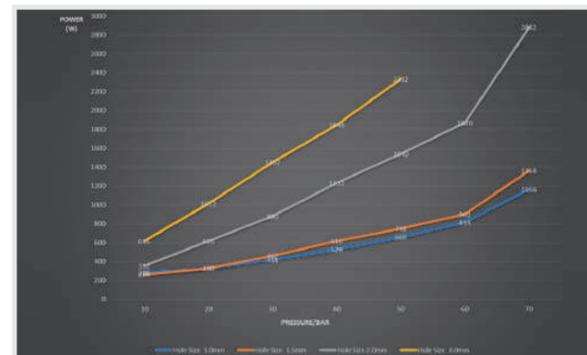
1. High pressure takes away heat, keep tool life.
2. Chip-breaking.
3. Chipbreaking does not affect surface quality surface quality.
4. High pressure can directly impact the cutting point.



EFFICIENCY

Invert system

Invert system can automatic constant pressure



CNC milling



CNC turning



Integrated cooler effectively reduces footprint and allows for high-precision machining

AUTO

MODBUS digital communication function can monitor and record system information

