

# TRC-S

**CLOSED CIRCUIT COOLER**

**TRUWATER®**

Modular Closed Circuit Counterflow Type



ISO 9001  
CERTIFIED

ISO 14001  
CERTIFIED

ENERGY & WATER SAVING



Member



# INTRODUCTION

TRC-S Series is an induced draft counter-flow, closed circuit coolers designed to provide efficient cooling for equipment cooling, industrial process cooling, manufacturing & data center applications.

TRC-S Series is designed to meet optimum performance and reliability with minimum maintenance. The closed-circuit coil is engineered to provide no contact to environment which will ensure clean cooling medium to meet stringent process requirement. The components selected have been proven in the field to provide reliable operation & designed with safety in mind and ease of maintenance.

This highly efficient TRC-S Series incorporate external circulating water to ensure full cooling coverage of the coils for optimum heat transfer. It comes with efficient drift eliminators which minimizes the drift loss up to 0.005% of circulating flow rate. The high-efficient fan of TRC-S series is driven by direct drive which offers minimum transmission loss and gives an optimum overall cooling efficiency.

## ADVANTAGES

### ► Reduced Water Consumption

With the closed circuit coils and high efficient drift eliminator, TRC-S series will significant reduces the water consumption all year round.

### ► High Efficient Cooling Coils

The high-efficient closed circuit coils suitable for all manufacturing environment and provides optimum cooling capacity with low pump head requirement.

### ► Simplified Control

All- in- one easy to control system which enable operators to control fan, spraying pumps & regulating valve.

### ► Modular Type

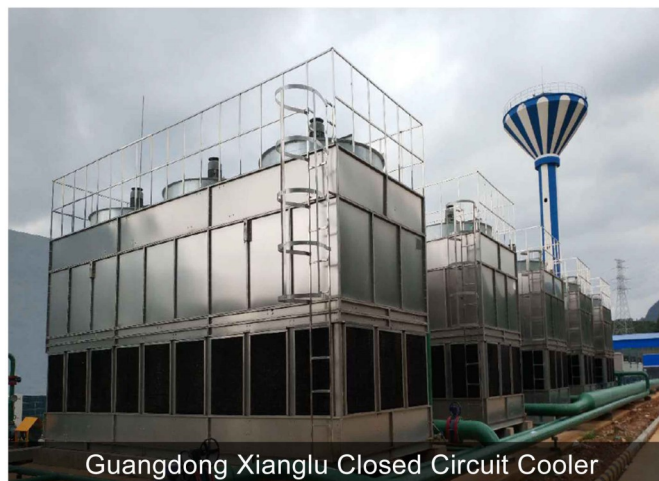
The coolers can be designed to ease transportation as it can be offered as containerized modular which will translate to fast installation and lower site installation cost.



Sichuan Zhong Jing Gas Closed Circuit Cooler



Shanxi Jianlong Closed Circuit Cooler

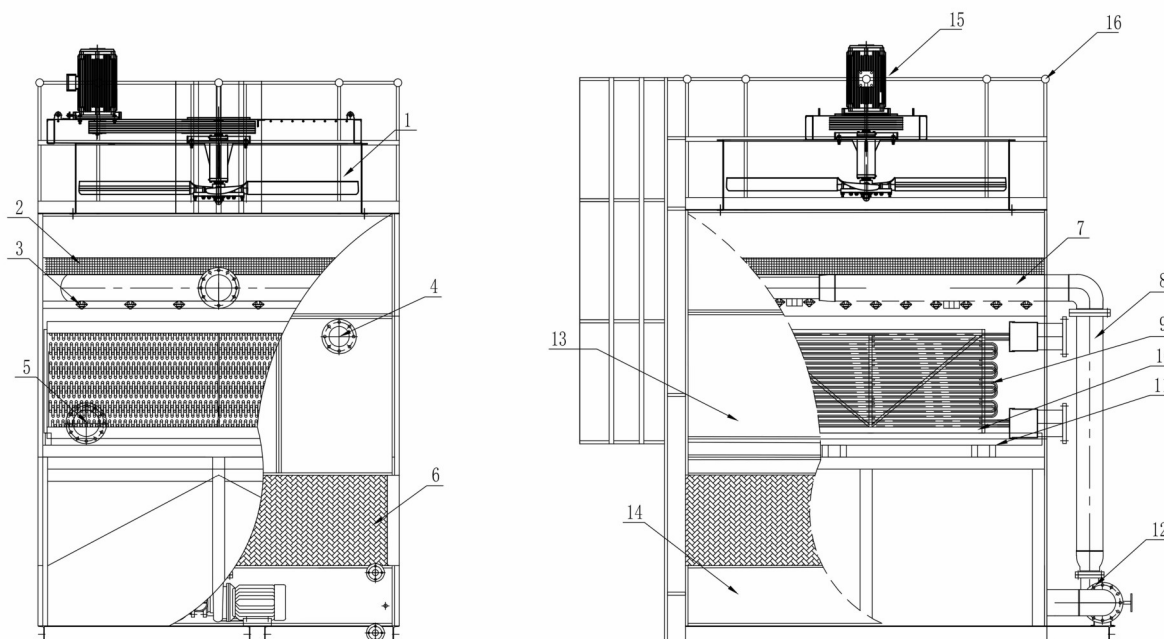


Guangdong Xianglu Closed Circuit Cooler



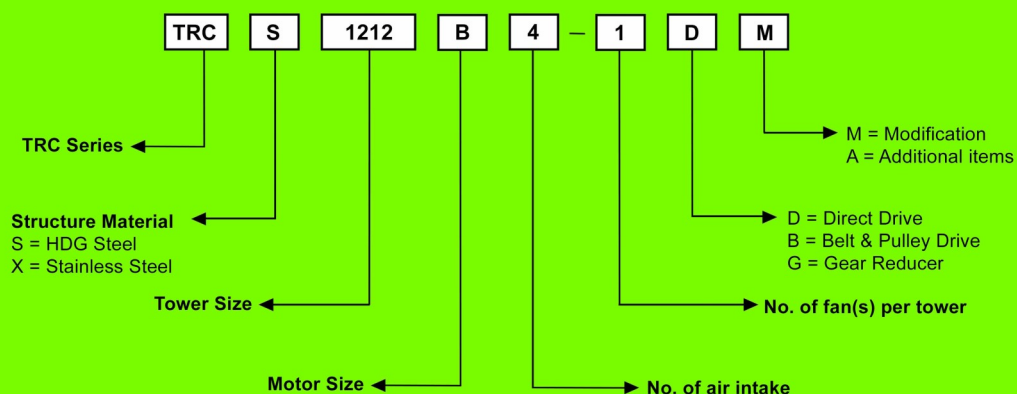
HuBei Xingfa Weng'an Closed Circuit Cooler

## FEATURE



No.	Description	Material/ Specification
1	Fan Assembly	Aluminium Alloy
2	Drift Eliminator	PVC
3	Non-Clog Spray Nozzle	ABS
4	Hot Water Inlet	HDG Steel
5	Cold Water Outlet	HDG Steel
6	Louver	PVC
7	Internal Water Distribution Piping	PVC
8	External Water Distribution Piping	PVC
9	Heat Exchanger Coil	SS304
10	Heat Exchanger Coil Frame	SS304
11	Heat Exchanger Coil Support	HDG Steel
12	Spray Pump	Cast Iron
13	Casing	GI
14	Cold Water Basin	GI
15	Motor	TEFC/ Weather Proof Type
16	Safety Handrail Caged Ladder	HDG Steel

### Model Definition Example





## TRCS SERIES COUNTERFLOW CLOSED CIRCUIT COOLER SPECIFICATION



### 1.0 GENERAL

The cooler shall be induced-draft, counterflow, closed circuit, HDG steel mainframe cooler. The cooler must be constructed with service and maintenance platform and safety handrail c/w caged ladder to meet OSHA (Occupational Safety and Health Administration) Standards.

### 2.0 CAPACITY

Cooler shall be capable of providing the thermal performance scheduled.



### 3.0 PERFORMANCE WARRANTY

The cooler manufacturer shall guarantee that the cooler supplied will meet the specified performance conditions when the cooler is installed according to recommendation by manufacturers.

### 4.0 CONSTRUCTION

The cooler main frame structure and fan cylinder shall be hot dipped galvanized steel (HDG). The casing shall be made of GI. The PVC type cellular louver shall be able to reduce water splashing, minimize sunlight penetration and reduce transmitted water noise out from cooler with minimum pressure drop.



### 5.0 MECHANICAL EQUIPMENT

5.1 Fan(s) shall be propeller-type axial flow, incorporating heavy-duty blades of aluminium alloy. Blade shall be individually adjustable.

5.2 The fan drive shall be direct drive or v-belt & pulley type. Motor(s) shall be TEFC, weatherproof sq. caged induction type suitable for 3PH/50HZ/380-415V.

5.3 The complete mechanical equipment assembly for each tower shall be supported by a rigid, welded, hot-dipped galvanised steel structural support.



### 6.0 CLOSED CIRCUIT COIL

Closed circuit coil shall be made of stainless steel material with low pressure losses in order to provide optimum heat transfer capacity.



### 7.0 WATER SPRAYING SYSTEM

Each cooler shall be equipped with a water spraying system. Header and lateral pipes shall be PVC. Nozzles shall be non-clogging. The spray system must be designed such that the nozzle outlet is the lowest point in the system. The water inlet connection shall be located outside the cooler casing. No rotating mechanical sprinkler system is allowed.

### 8.0 COLD WATER BASIN

The cold water basin shall be supported on HDG steel framework. Basin shall be provided and equipped with suction strainer, make-up ball valve, overflow and drain. For multiple tower arrangement, equalising pipes between basins shall be provided to maintain the same level of water in each basin.



### 9.0 ACCESS AND SAFETY

Ladder shall be provided for inspection & maintenance purposes. HDG steel fan guard shall be provided over each fan cylinder.

*...providing solution to your cooling needs*



Member



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