(주) 한양에프앤이
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Coolant Lubricant Filtration Systems

Hanyang F & E Corp.

Auto Band Filter

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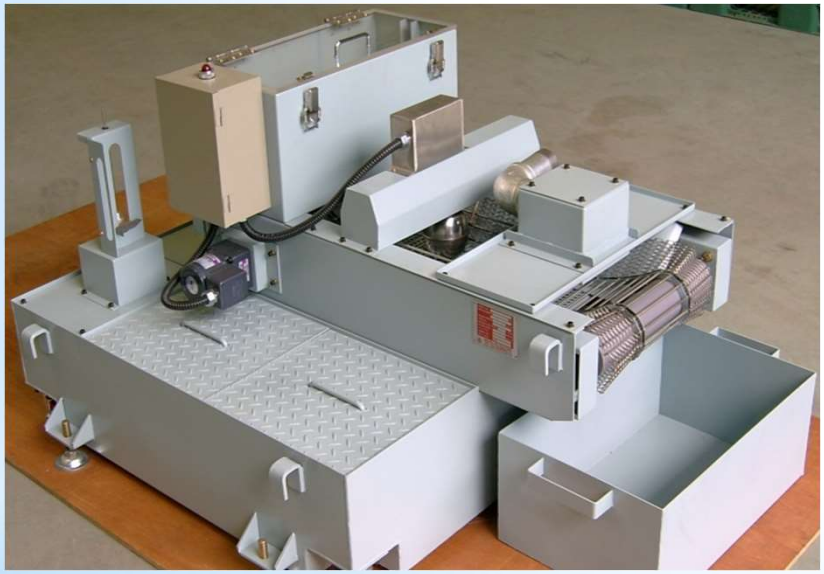

※ Operations

It is an automatic band filter using a paper roll.

The dirty liquid flows in through the distribution port, the sludge is filtered while passing through the paper roll, and the clean liquid goes down to the storage tank.

Over time, the surface of the paper roll becomes contaminated with sludge and the water level rises. At this time, the water level sensor detects and rotates the conveyor chain motor.

Contaminated paper rolls are discharged to the outside due to the rotation of the conveyor chain, and the water surface goes down as the clean paper rolls are inserted. The water level sensor detection is released and the conveyor chain motor is stopped.

※ Characteristic

1. Independent filtration device directly connected to processing equipment
2. Continuous automatic operation without interruption of liquid supply
3. Filtration precision: Ave.30 micron
4. Processing Capacity: 40 ~ 1,000 liter/min.

※ Applications

1. Water-soluble oil and non-water-soluble oil processing field
2. Low-viscosity liquid filtration

Magnetic Separator

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※ Operations

It is an iron separation device using a magnetic roller. When the dirty liquid flows in, the magnetic roller rotates to attach the iron, and the remaining liquid goes down to the tank.

The iron attached to the magnetic roller is compressed with a rubber roller to remove the remaining liquid, and is separated and discharged by a scraper.

※ Characteristic

1. Continuous automatic separation and discharge of iron generated during processing
2. No discharge liquid
3. Filtration precision: Ave.30 micron
4. Processing Capacity: 40 ~ 1,000 liter/min.

※ Applications

1. Water-soluble oil and non-water-soluble oil processing field
2. Low-viscosity liquid filtration

Band Filter Package

(주) 한양에프앤이
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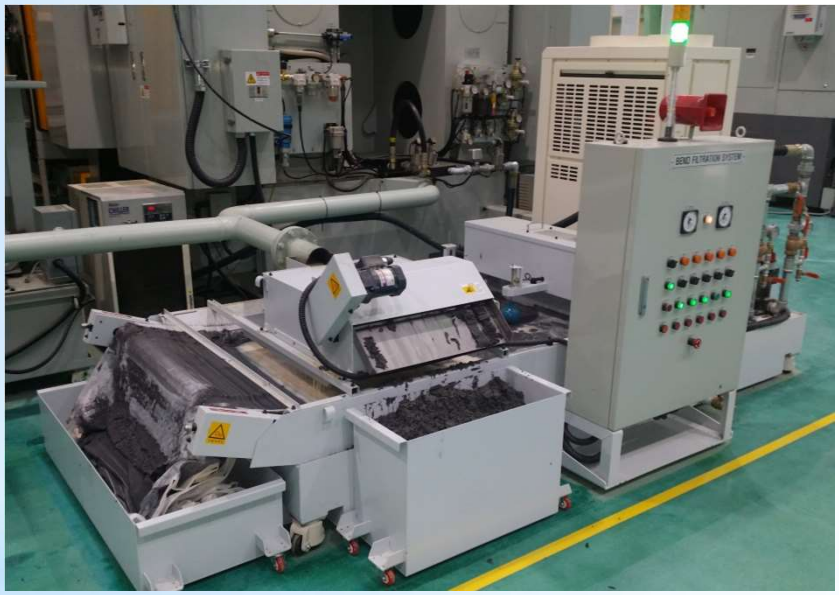
http://www.hyfilter.com



※ Operations

It is an automatic filtration device that combines a magnetic separator and a band filter.

As the dirty liquid passes through the magnetic separator, iron is removed, and as it passes through the paper roll again, the dirty liquid is placed in a storage tank as a clean liquid from which sludge is removed.

※ Characteristic

1. Independent filtration device directly connected to processing equipment
2. Continuous automatic operation without interruption of liquid supply
3. Reduction of paper roll consumption by separating and discharging iron
4. Filtration precision: Ave.30 micron
5. Processing Capacity: 40 ~ 1,000 liter/min.

※ Applications

1. Water-soluble oil and non-water-soluble oil processing field
2. Auto parts and bearing industry processing industry
3. Low-viscosity liquid filtration

Hydro Cyclone

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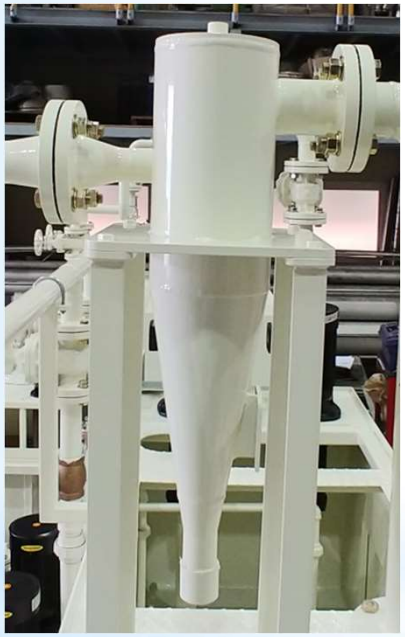
http://www.hyfilter.com



※ Operations

It is separation device using strong centrifugal force.

The dirty liquid is rotated quickly and the sludge is separated and discharged with strong centrifugal force.

※ Characteristic

1. Pre-treatment filtration device
2. Economical with no consumables
3. Expandable, large-capacity processing possible
4. Filtration precision: Ave.50 micron
5. Processing capacity: 100 ~ 20,000 liter/min.

※ Applications

1. Water-soluble oil and non-aqueous oil processing field
2. Auto parts and bearing industry processing industry

Chip & Sludge Conveyor

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※ Operations

It is chip conveyor device that removes various chips generated during processing.

In order to effectively remove various types of chips, it is possible to remove fine chips by combining a drum screen or a flat screen. The screen can be used semi-permanently with an automatic cleaning function.

※ Type

1.Magnet Conveyor

2. Rotary drum conveyor

3. Flat screen conveyor

4. Apron conveyor

5. Scraper conveyor

※ Applications

1. All fields of machining such as bolt hole, drilling, boring, milling, tap, etc.
2. 2. Auto parts and bearing industry processing industry
3. Turning, roughing, grinding, cutting processing industry

Combination Tank unit

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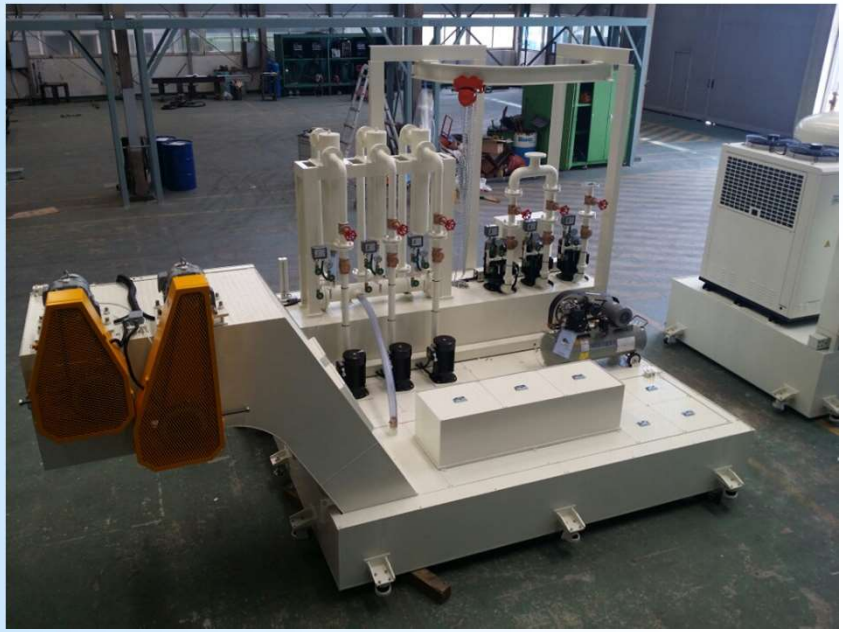
※ Operations

It is combined filtration device that combines a chip conveyor device, a cyclone, and a micro filter.

Various combinations from step 2 to step 4 can be applied depending on the purpose.

- 1 Stage Chip Conveyor – Removes large chips and sludge
- 2 Stage Cyclone – Removes fine chips and small sludge
- 3 Stage Bag Filter – Removes fine sludge



※ Characteristic

1. Coolant tank unit for processing machine
2. Final stage filtration precision: Ave.1 micron
3. Processing capacity: 500 ~ 20,000 liter/min

※ Applications

1. Separation of water-soluble oil and non-aqueous oil sludge
2. Auto parts and bearing industry processing industry
3. Turning, roughing, grinding, cutting processing industry

Vacuum Media Filter

(주) 한양에프앤이
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http://www.hyfilter.com

※ Operations

It is vacuum media filter that combines a conveyor type storage tank and a paper roll.

When the system pump is operated, the dirty liquid in the storage tank passes through the paper roll, the sludge is filtered, and the clean liquid is supplied to the processing equipment through the pump.

Over time, the paper roll surface becomes contaminated with sludge and the suction power of the system pump decreases. At this time, when it is detected by the pressure sensor, the conveyor chain motor is rotated to transfer the paper roll.

※ Characteristic

1. Automatic filtration device with integrated storage and filtration functions
2. Continuous automatic operation without interruption of liquid supply
3. Separate discharge of sludge and paper roll
4. Filtration precision: Ave.10 micron
5. 5. Processing capacity: 100 ~ 1,000 liter/min.

※ Applications

1. Water-soluble oil and non-aqueous oil processing field
2. Auto parts and bearing industry processing industry
3. Turning, roughing, grinding, cutting processing industry

Centralized
Vacuum Media Filter System

(주) 한양에프앤이
Hanyang Filters&Engineering Corp.

http://www.hyfilter.com

※ Operations

It is centralized vacuum media filtration system.

It is a large-capacity filtration system that processes many processing equipment at once in a centralized supply plant by connecting them through pipes. Storage, supply, filtration, sludge discharge, pressure, temperature, liquid replenishment, liquid concentration, etc.

All functions can be selectively configured, and by configuring a plurality of important devices, fully unattended automatic operation is possible without system stop due to abnormal occurrence.

※ Characteristic

1. Centralized unmanned automatic control system
2. 2. Automatic filtration device with integrated storage and filtration functions
3. 3. Continuous automatic operation without interruption of liquid supply
4. 4. Separate discharge of sludge and paper roll
5. 5.Filtration precision: Ave.10 micron
6. 6. Processing capacity: 2,000 ~ 15,000 liter/min

※ Applications

1. Separation of water-soluble oil and non-aqueous oil sludge
2. Auto parts and bearing industry processing industry
1. Turning, roughing, grinding, cutting processing industry

Pressure Belt Filter

(주) 한양에프앤이
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http://www.hyfilter.com

※ Operations

It is an automatic belt filter using a belt media. When the pump is operated and the dirty liquid is transferred to the upper chamber, the sludge is filtered on the surface of the belt, and the clean liquid is discharged into the lower chamber. Over time, the sludge forms a cake on the belt surface and the pressure rises inside the chamber.

At this time, when pressure is sensed by the pressure sensor, the pump is stopped and compressed air is injected to perform dehydration. When the spin-drying time is completed, the upper chamber is raised, and the chain motor is operated to rotate the belt. The dewatered sludge cake is separated and discharged with a scraper, and the rotating belt is cleaned with a washing nozzle.

When the sludge discharge time is completed, the upper chamber is lowered, and the pump is operated to start filtration.

※ Characteristic

1. Automatic filtration device with filtration, sludge dewatering and discharging functions
2. 2. Can be reused for a long time by washing the belt media
3. 3. Water content of discharged sludge less than 50%
4. 4.Filtration precision: Ave.10 micron
5. 5. Processing capacity: 500 ~ 5,000 liter/min.

Belt Filter Pakage

(주) 한양에프앤이
Hanyang Filters&Engineering Corp.
http://www.hyfilter.com

※ Operations

It is full package belt filtration system with oil storage, filtration, sludge discharge, cooling and supply.

1) Low water level detection in storage tank
2) Pump pressure low pressure detection
3) Automatic control of storage oil temperature
4) Prevention of spoilage of stored oil5) Automatic filtration, dewatering, discharging

※ Characteristic

1. Fully automatic filtration device
2. Can be reused for a long time by washing the belt media
3. Water content of discharged sludge less than 50%
4. Filtration precision: Ave.10 micron
5. Processing capacity: 500 ~ 1,000 liter/min.

※ Applications

1. Water-soluble oil processing field
2. 2. Auto parts and bearing industry processing industry
3. 3. Turning, roughing, grinding, cutting processing industry

Centralized
Belt Filter System

(주) 한양에프앤이
Hanyang Filters&Engineering Corp.

http://www.hyfilter.com

※ Operations

It is centralized belt filtration system.

It is a large-capacity filtration system that processes many processing equipment at once in a centralized supply plant by connecting them through pipes.

ll functions such as storage, supply, filtration, dehydration, sludge discharge, pressure, temperature, liquid replenishment, and liquid concentration can be selectively configured. It is possible.

※ Characteristic

1. Centralized unmanned automatic control system
2. Can be reused for a long time by washing the belt media
3. Water content of discharged sludge less than 50%
4. Filtration precision: Ave.10 micron
5. Processing capacity: 2,000 ~ 20,000 liter/min.

※ Applications

1. Grinding oil, cutting oil, water-soluble oil
2. 2. Auto parts and bearing industry processing industry

Precoat Filter System

(주) 한양에프앤이
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http://www.hyfilter.com

※ Operations

It is pre-coat filtration system that filters by coating the filter medium. The filter medium is put in a stirring tank, mixed, and then the pump is operated to coat the filter element. As the dirty liquid passes through the filter element, the particulates are removed, and it exits as a clean liquid. Over time, the filter element becomes dirty and the pressure rises. At this time, when pressure is sensed by the pressure sensor, the filtration is stopped, the filter element contaminated by the bumping process is removed, and compressed air is injected to transfer the liquid to the de-oiling unit.

The deoiling machine deoil the contaminated liquid by pressurizing it with compressed air. At this time, the discharged oil is recovered through the pipe, and the sludge is in a dry state. When the deoiling time is complete, the operator separates the lower POT to dispose of the waste.

※ Characteristic

1. Semi-auto filtration system
2. Long-term possible filter element
3. Water content of discharged sludge 30% or less
4. Filtration precision : Ave.1 micron
5. Processing capacity: 1,000 to 4,000 liter/min.

※ Applications

1. Filtration of water-soluble and non-aqueous oils such as grinding oil, honing oil, and washing oil
2. Auto parts and bearing industry processing industry
3. Low-viscosity liquid filtration

Precoat Filter Package

(주) 한양에프앤이
Hanyang Filters&Engineering Corp.
http://www.hyfilter.com

※ Operations

It is full package diatomaceous earth filtration system with oil storage, filtration, sludge deoiling, cooling and supply.

1) Storage tank level detection
2) Pump pressure low pressure detection
3) Automatic control of storage oil temperature
4) Automatic supply of filter media
5) Automatic filtration, deoiling, draining

※ Characteristic

1. Fully automatic filtration system
2. Long-term reusable filter element
3. Water content of discharged sludge less than 30%
4. Filtration precision: Ave.1 micron
5. Processing capacity: 500 ~ 1,800 liter/min.

※ Applications

1. Water-soluble and non-water-soluble oils such as grinding oil, honing oil, and cleaning oil
2. Auto parts and bearing industry processing industry
3. Low-viscosity liquid filtration

Centralized Precoat Filter System

(주) 한양에프앤이
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http://www.hyfilter.com

※ Device Description

It is centralized pre-coat filtration system. It is a large-capacity filtration system that processes many processing equipment at once in a centralized supply plant by connecting them through pipes.

All functions such as storage, supply, filtration, dehydration, sludge discharge, pressure, temperature, etc. can be selectively configured, and by configuring a plurality of important devices, fully unattended automatic operation is possible without system stop due to abnormal occurrence.

※ Characteristic

1. Centralized unmanned automatic control system
2. Long-term reusable filter element
3. Water content of discharged sludge less than 30%
4. Filtration precision: Ave.1 micron
5. Processing capacity: 2,000 ~ 15,000 liter/min.

※ Applications

1. Water-soluble and non-water-soluble oils such as grinding oil, honing oil, and cleaning oil
2. Auto parts and bearing industry processing industry
3. Low-viscosity liquid filtration

Sludge Press

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http://www.hyfilter.com

※ Operations

It is automatic sludge compaction system.

It is a device that compresses the discharged sludge, recovers the discarded oil, and reduces the volume of waste for convenient treatment.

It has sludge agitation, input, compression, discharge, and oil recovery functions.

※ Characteristic

1. Compressed sludge moisture content less than 15%
2. More than 90% of consumption oil recovery
3. Reduction of waste volume by more than 90%
4. Processing capacity: 30 ~ 60 kg/hr

※ Applications

1. Grinding oil, cutting oil sludge
2. Auto parts and bearing industry processing industry

Sludge Treatments

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Hanyang Filters&Engineering Corp.
http://www.hyfilter.com

pressurized belt press.

※ Operations

It is pressurized belt deoiling device that deoils sludge by pressurizing it with compressed air.

* 40% or less moisture content
* Output: 50kg/hr

chamber dehydrator

※ Operations

It is pressurized chamber deoiling device that deoil sludge by pressurizing it with compressed air.

- 40% or less moisture content
- Output: 20kg/hr

vacuum belt dehydrator

※ Operations

It is a vacuum belt deoiling device that deoil sludge by sucking air with a blower.

- 40% or less moisture content
- Output: 100kg/hr

Option Equipment

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Hanyang Filters&Engineering Corp.
http://www.hyfilter.com

Return tank

※ Operations

It is device that pumps the liquid and sludge drained from the processing equipment and transfers it to the outside.

Coolant mixing device

※ Operations

It is device that automatically dilutes the concentration of water-soluble coolant oil and replenishes it with water.

Oil skimmer

※ Operations

It is a device that removes other oil in water-soluble coolant oil. It's two types, belt type and disk type.

Engineering & Fabrications

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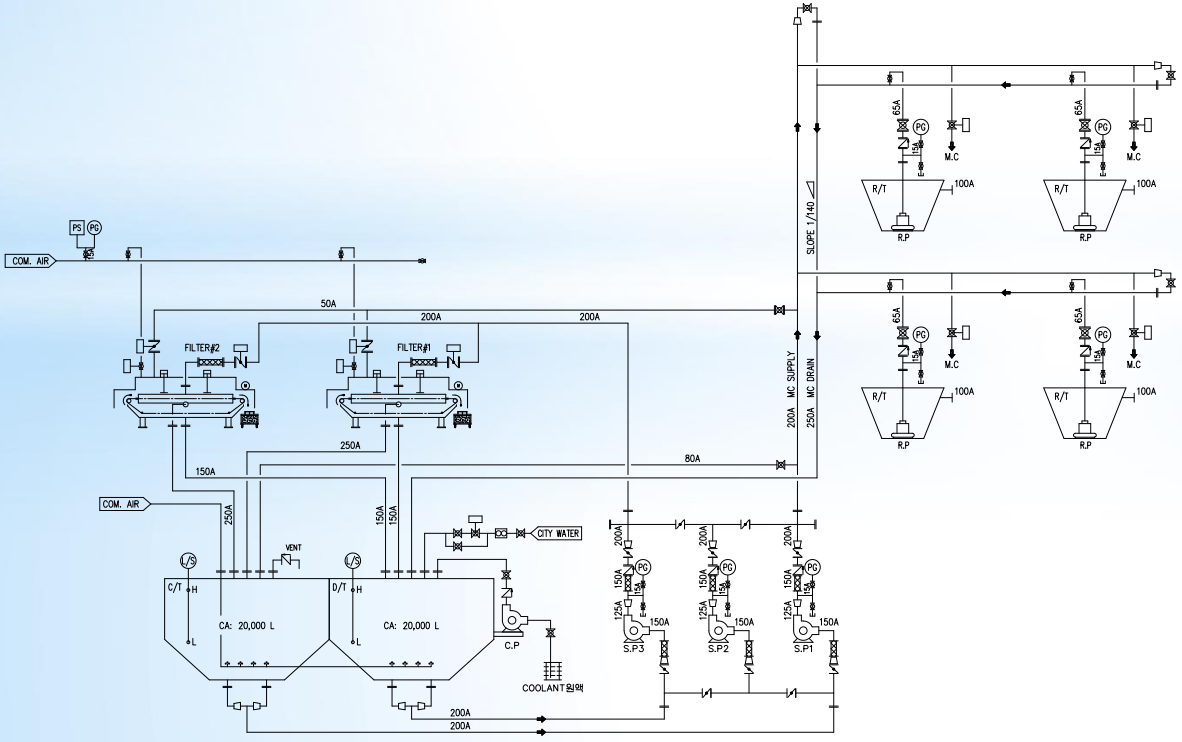
We design and manufacture the optimal filtering system according to the customer's requirements, processing process, and used oil.



Installation & Piping

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Control Systems

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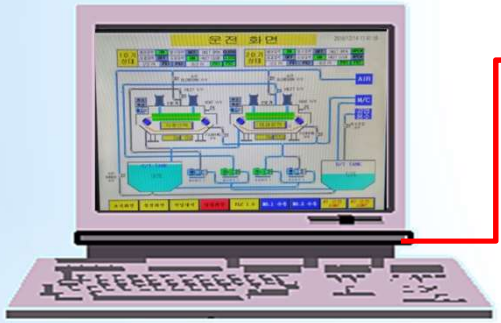
Monitoring

HUB



Local Control

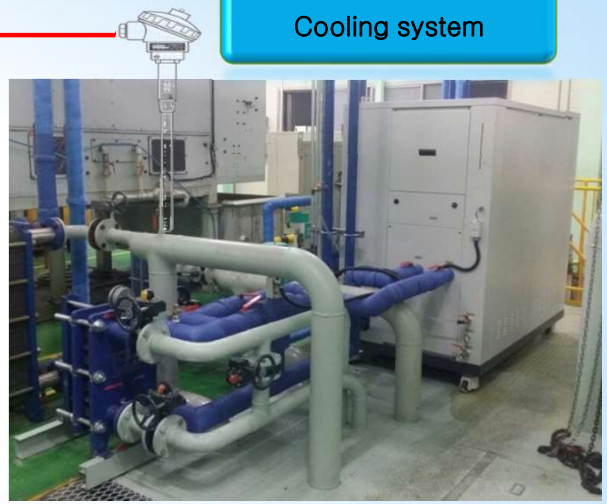
Level for tank

Control panel

System pump

Filtration unit

Cooling system



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