

# SOLUTION OF INDUSTRIAL FILTRATION



**Xinxiang Tiancheng Aviation  
Purification Equipments Co., Ltd.**

📍 No.2399 of Muye Road, Xinxiang City-453003,  
Henan Province, P.R. China

☎ +86 13801018868

✉ liushengyuan@tchkjh.com

☎ 0373-3520026

🌐 www.tchkjh.com



**XINXIANG TIANCHENG AVIATION  
PURIFICATION EQUIPMENTS CO., LTD.**



# TIANCHENG PROFILE

Xinxiang Tiancheng Aviation Purification Equipments Co., Ltd (hereafter referred to as Tiancheng) is dedicated to designing and producing high- quality filter elements, filter products and filter machine for **Coal mining, Construction machinery, Wind power, Thermal power, Petroleum, Petrochemical, Refrigeration compressor** and other industries.



**Petroleum  
petrochemical**



**Refrigeration  
compressor**



**Wind power**



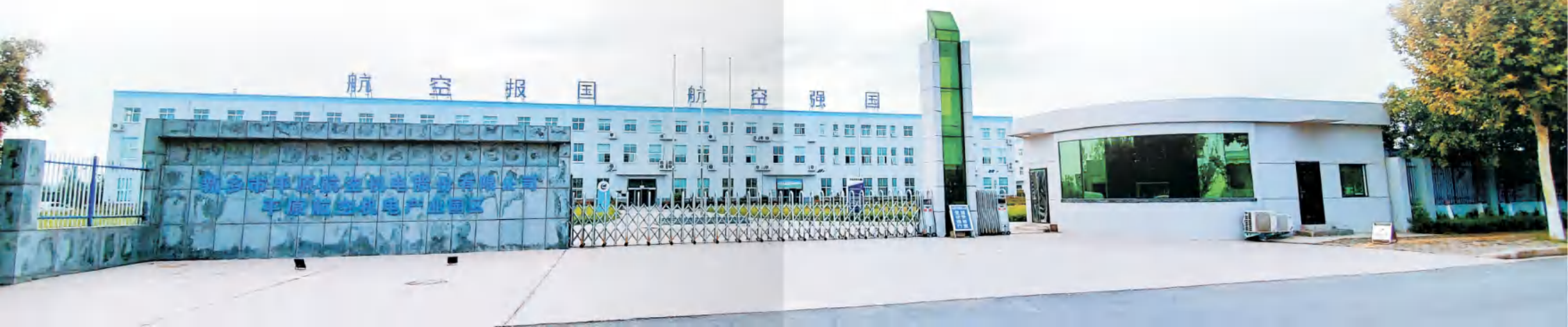
**Coal mining**



**Construction  
machinery**



**Thermal power**





## COMPANY PROFILE

Tiancheng was established in **2004** by our current chairman, Mr. Liu, with registered capital over **5.5** million dollars. It is located in high-tech district, **Xinxiang** city, Henan province, China. It has construction area of **100,700** sq.ft, and production area of **71,000** sq.ft and hires over **150** employees, among which over **40** employees are working at R&D department and **8** workers achieved advanced welder certificate.

**2004**

Established

**5.5**

Million dollars

**100,700**

Sq.ft

**150**

Employees





# ABOUT TIANCHENG

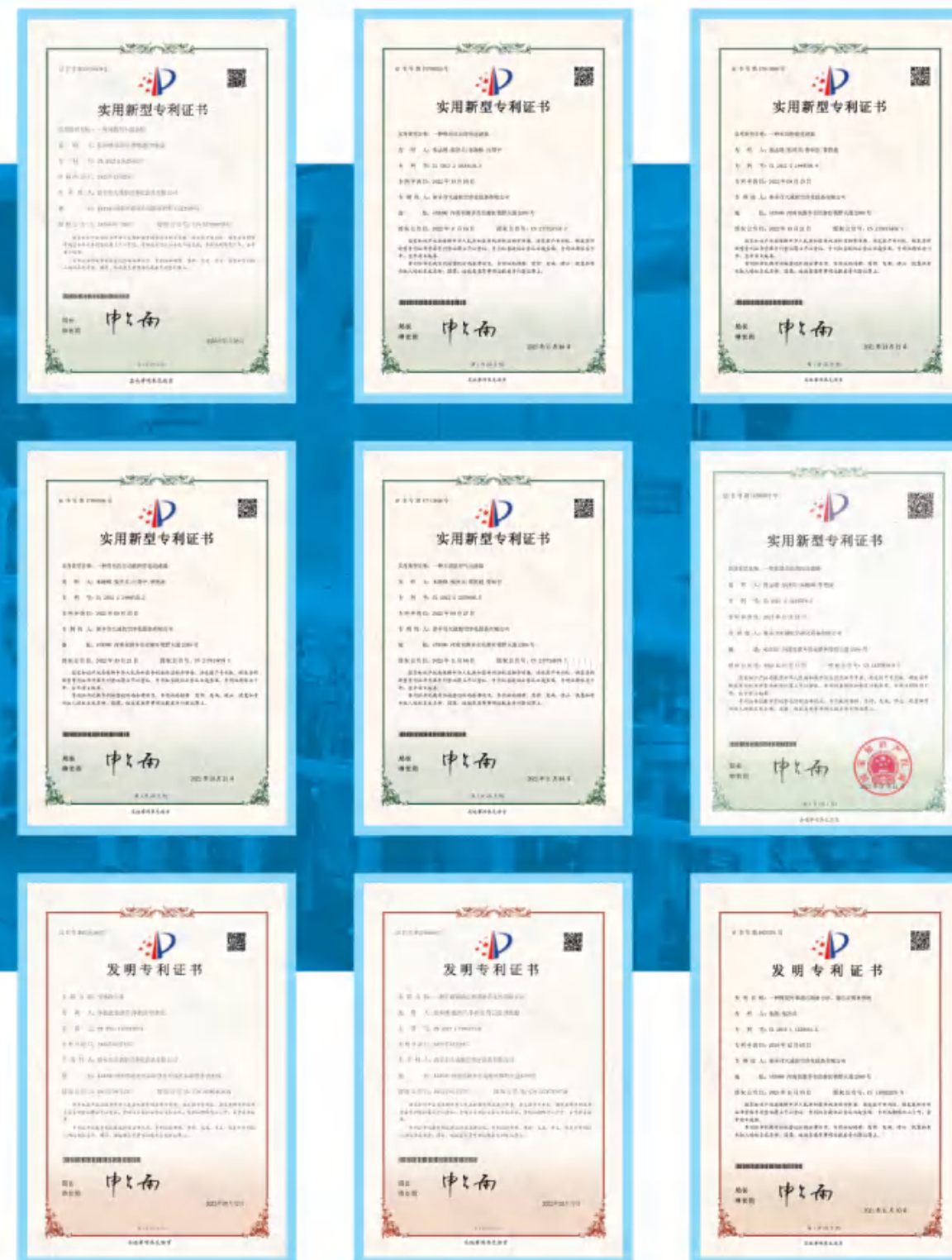


Tiancheng, vice president of Xinxiang Filtration and Separation Association, owns over 40 filter- related patents in China and built a research center, which was approved by Xinxiang government administration.

Tiancheng achieved ISO9001:2015 Quality Management System certificate, ISO14001:2015 Environment Management System certificate, ISO45001:2018 Occupational Health and Safety Management System certificate and CE certificate.

Tiancheng also became National High- tech Enterprises in 2018 and was listed in Henan Province Specialized High- tech Enterprises in 2022.

The size and achievements of Tiancheng is larger than 90% of domestic companies in the same industry.





## LABORATORY EQUIPMENT

To make a great effort to control quality of products, we purchased laboratory instruments to do aperture layout detection and air permeability test of various filter materials. These tests are essential to help our R&D colleagues to choose proper filter material.

We also have laboratory equipment to do structural integrity test of filter elements and flow resistance test, limit pressure test and air-tight test of filters. With the help from advanced laboratory equipment and instruments, we can research, design and manufacture premier filter element, filters and filter machine.



## FILTER ELEMENTS

A.Filter elements for lube system and hydraulic system .....	10
B.Candle filter with sintered wire mesh .....	11
C.Candle filter with metal fiber.....	11
D.Candle filter with sintered powder metal .....	12
E.Filter elements for backflush purifier of waste water .....	12
F.start- up filter/ hat- type screens .....	13
G.Liquid/gas coalescer.....	13
H.Liquid/oil coalescing filter cartridge,Water/oil separating cartridge.....	14
a.Liquid/oil coalescing filter cartridge .....	14
b.Water/ oil separating cartridge .....	14
I.Wound cartridge, depth filters,pleated cartridge.....	15
J.2- stage filter element with bypass valve and clogging indicator.....	16
K.Intake system air filter element .....	16
L.Dust collector filter .....	17
M.Filter elements for water inline and emulsion return- line duplex strainer .....	17
N.Filter elements of longwall face support system.....	18
O.Backflushable filter elements .....	18
P.Air intake cylinder and basket filter for industrial refrigeration compressor .....	19
Q.Filter element for lube system.....	19
R.Liquid/air coalescer for industrial refrigeration compressor.....	20
S.Liquid/air filter mesh for industrial refrigeration compressor .....	20

### A.Filter elements for lube system and hydraulic system

Filter elements for lube system and hydraulic system can work efficiently and reliably on removing gel, impurities and contaminants in oil. Choosing our filter elements can protect hydraulic system with cost efficiency.



Max. perm. differential pressure	20bar
Filtration rating	3~200μm
Flow rate	10~3000L/min
Filter element material	fiberglass, wood pulp paper,stainless steel wire mesh
Application	petrochemical,wind power,thermal power,coal mining,construction machinery



## B.Candle filter with sintered wire mesh

Sintered stainless steel wire mesh offers good permeability, narrow pore size distribution, and excellent corrosion resistance. It performs highly efficient on capture of hard particulate.

Working temperature	≤600℃
Filtration rating	1~200μm
Max. perm. differential pressure	35bar
Filter element material	stainless steel wire mesh
Application	petrochemical, coal mining



## C.Candle filter with metal fiber

Metal fiber is sinter- bonder to form a durable, porous structure containing no binders. It acts as a depth filter and removes hard deformable gel- type contaminants. It provides highly dirt- holding capacity and longer on- stream life than other porous metal media.

Working Temperature	≤450℃
Filtration rating	2~100μm
Max. perm. differential pressure	35bar
Filter element material	stainless steel metal fiber
Application	petrochemical, coal mining



## D.Candle filter with sintered powder metal

Sintered powder metal has highly uniform pore structure. The structure of sintered powder metal maximizes dirty holding capacity. It can be configured into either candle elements or disc elements.

Working temperature	≤800℃
Filtration rating	0.2~100μm
Max. perm. differential pressure	30 bar
Filter element material	Stainless steel powder, copper powder, nickel powder, high temperature alloy powder
Application	petrochemical, coal mining



## E.Filter elements for backflush purifier of waste water

Filter elements for backflush purifier of waste water is made of Johnson screen. It has longer life term than normal filter element, because particulates and contaminants blocked by Johnson screen are easily washed off by rinsing water. It helps on reducing maintenance costs.

Filtration rating	≥20 μm
Max. perm. differential pressure	30 bar
Filter element material	stainless steel
Application	petrochemical, coal mining





## F.start- up filter/ hat- type screens

Start- up filter serves to remove residues in the pipeline before they moving into the system. Start- up filters comprise a support element made from perforated sheet or wire mesh. Based on customers' requirement, a flange ring will be attached with start- up filters.

Nominal diameter	DN15~DN600
Nominal pressure	10~40bar
Filter rating	3~1000μm
Filter element material	stainless steel wire mesh
Application	petrochemical



## G.Liquid/gas coalescer

Liquid/ gas coalescer provides highly efficiency liquid and solid removal from contaminated gases reducing maintenance and operating costs.

Max. perm. operating pressure	64 bar
Filtration rating	0.3μm
Filtration efficiency	99.9%
Filter element material	fiberglass
Application	petrochemical



## H.Liquid/oil coalescing filter cartridge,Water/oil separating cartridge

### a. Liquid/oil coalescing filter cartridge

Liquid/oil coalescing filter cartridge filters water, impurities and other contaminants out from oil. When the fluid flows through the cartridge, impurities can be removed firstly, and water will be coalesced all together at the bottom.

Max. perm. operating pressure	16bar
Filtration rating	5μm
Flow rate	10~200L/min
Filter element material	fiberglass, stainless steel wire mesh
Max remaining oil content	50PPM
Application	petrochemical,thermal power



### b.Water/ oil separating cartridge

Water/ oil separating cartridge can separate water from oil. When fluid flows through the lipophilic and hydrophobic cartridge, water can be removed from oil.

Max. perm. operating pressure	16bar
Filtration rating	50μm
Flow rate	10~200L/min
Filter element material	stainless steel wire mesh
Application	petrochemical,thermal power





## I.Wound cartridge, depth filters,pleated cartridge

There are many kinds of filter cartridges, we can choose the proper filter cartridge for housing as long as you provide several information: what kind of filtration application, operating temperature, pressure of the system, flow rate, filtration rating and size.



Max. perm. operating pressure	16bar
Filtration rating	1~50µm
Flow rate	10~1000L/min
Filter element material	polypropylene, polyethylene
Application	petrochemical,thermal power,coal mining

## J.2- stage filter element with bypass valve and clogging indicator

The main filter rating of 2- stage filter elements is 10µm. The clogging indicator reminds workers of replacing filter element when the pressure of system reached setting pressure, which is 3 bar. The bypass valve opens when the pressure of system reached bypass cracking pressure, which is 4 bar. Then fluid goes through integrated protective filter with filter rating of 50µm.

The 2- stage filter element is able to purify oil even when bypass valve is opened with helps from integrated protective filter.

Flow rate	1300~2600L/min
Filtration rating	10/25µm
Max. perm. operating pressure	16 bar
Type of clogging indicator	electrical switch
Pressure setting	3bar
Bypass cracking pressure	4 bar
Filter element material	fiberglass
Material of cover	nylon or stainless steel
Application	wind power



## K.Intake system air filter element

Intake system air filter element is installed in before intake system of engine in construction machinery. It is built to perform and provide effective engine protection by removing dusts, impurities and particles from inlet air of the engine.

Filter material	paper
End cap	carbon steel, polyurethane
Dimensions	as requested by customers
Application	construction machinery





## L.Dust collector filter

Dust collector filter is installed in dust cabinet of drilling machine. It can collect dust when drilling machine working that ensure the clean air discharged into the atmosphere.

Filter material	polyester nonwoven fabric
End cap	carbon steel, polyurethane
Dimensions	as requested by customers
Application	construction machinery



## M.Filter elements for water inline and emulsion return- line duplex strainer

Filter elements can be installed in water inline and emulsion return- line duplex strainer. It removes particulates and contaminants from system.

Operating pressure	25~80 bar
Filtration rating	25/40/50/60μm
Flow rate	1000~3000L/min
Housing material	stainless steel
Filter element material	stainless steel mesh
Application	coal mining



## N.Filter elements of longwall face support system



Operating pressure	315/375bar
Filtration rating	25/40/60/80μm
Flow rate	4/100/400 L/min
Filter element material	stainless steel
Application	coal mining

## O.Backflushable filter elements

The backflushable high- pressure filters are installed into the pressure line directly behind the pump and remove particles and contaminants from the hydraulic fluid before these can reach the longwall equipment.

Max. perm. operating pressure	375 Bar
Min. perm. operating pressure	120 Bar
Filtration rating	as requested by customers, 25~60μm
Flow rate	1000~3000L/min
Filter element material	stainless steel mesh
Application	coal mining





## P. Air intake cylinder filter for industrial refrigeration compressor

Air intake filter can remove impurities, dusts and contaminants from air before they reached compressor. It can extend life of compressor and reduce maintenance costs.

Working Temperature	-25℃~110℃
Operating pressure	0~25 bar
Filtration rating	as requested by customers, 40~200μm
Filter element material	stainless steel wire mesh
Application	industrial refrigeration



## Q. Filter element for lube system

Filter element can be installed inside filters of lube system of industrial refrigeration compressor. It removes particulates and contaminants from lube oil to keep high cleanness of lube oil.

Temperature range	-25℃~110℃
Max. perm. operating pressure	52bar
Filtration rating	10~100μm
Filter material	fiberglass, stainless steel wire mesh
Application	industrial refrigeration



## R. Liquid/air coalescer for industrial refrigeration compressor

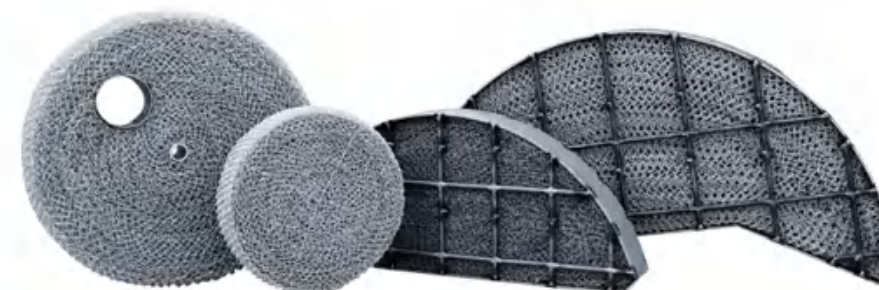
Liquid/air coalescer is installed inside liquid/oil separator of industrial refrigeration compressor.

Temperature range	-25℃~110℃
Nominal differential pressure	0.15bar
Max. perm. differential pressure	0.6bar
Max remaining oil content	≤5PPM
Filter material	fiberglass, fiberglass cotton
Application	industrial refrigeration



## S. Liquid/air filter mesh for industrial refrigeration compressor

Liquid/air filter mesh is installed inside liquid/oil separator of industrial refrigeration compressor. It helps on oil mist coalescing and separation and removes moist and impurities to keep clean air in the system.



Oil removal efficiency	≥97%
Filter mesh material	stainless steel wire mesh
Shape of wire mesh	V- type, twill weave, plain weave
Filter mesh width	40~700mm
Shape of product	round, semicircle, circle, special- shaped
Application	industrial refrigeration



## FILTER

A.TF- series suction line filter for hydraulic system .....	22
B.RF-series return line filter for hydraulic system.....	23
a.RFA- series return line filter is equipped with bypass valve and clogging indicator .....	23
b.RFB- series return line filter is equipped with bypass valve, clogging indicator, self- .....	24
C.Inline filter for hydraulic system .....	25
a.TCYPH- series inline filter .....	25
b.TCYPM- series inline filter .....	25
c.TCPLC- series inline filter .....	26
D.Block mounting filter .....	26
E.Tank- top breather filters .....	27
a.EF- series breather filter .....	27
b.PAF- series breather filter.....	27
c.DAB- series breather dryer.....	28
F.Fuel filter.....	28
G.Strainers .....	29
a.Y- type strainer .....	29
b.T- type strainer.....	29
c.Basket strainer .....	30
H.Duplex basket type strainer .....	30
I.Compressed air filter.....	31
J.Manual in-line duplex strainer and filter elements.....	32
K.Manually return- line strainer and filter elements.....	33
L.Backflush filter.....	34

### A.TF- series suction line filter for hydraulic system

TF- series suction line filter is designed to be mounted simply onto the outside of hydraulic oil tank. TF- series suction line filters are equipped with bypass valve, clogging indicator and self- seal valve. The self- seal valve is installed at the bottom of filters, it works automatically as soon as when the cap is opened.



Flow rate	25~1000L/min
Filtration rating	80/100/180μm
Type of clogging indicator	neg. pressure gauge
Type of indication	visual indicator
Pressure setting	0.18 bar
Bypass cracking pressure	0.2 bar
Type of connection	SAE flange or thread GB/T196
Housing material	aluminum
Filter element material	fiberglass,stainless steel wire mesh
Application	Petrochemical,wind power,thermal power,coal mining,construction machinery



## B.RF-series return line filter for hydraulic system

RF-series return line filter is designed to be mounted simply onto the outside of hydraulic oil tank. It protects the cleanness of return- line hydraulic liquid by removing metal impurities or rubber particles, which are generated during the operation of system and seal parts.

**a.RFA- series return line filter is equipped with bypass valve and clogging indicator.**



Flow rate	25~1000L/min
Filtration rating	1~30μm
Max. perm. operating pressure	16 bar
Type of clogging indicator	visual indicator, electrical indicator or both
Pressure setting	3.5 bar
Bypass cracking pressure	4 bar
Type of connection	SAE flange or thread GB/T196
Housing material	aluminum
Filter element material	fiberglass,stainless steel wire mesh
Application	Petrochemical,wind power,thermal power,coal mining,construction machinery

**b.RFB- series return line filter is equipped with bypass valve, clogging indicator, self- seal valve and permanent magnet. Permanent magnet improved filtration performance by attracting metal impurities with the size of over 1 micron.\**



Flow rate	25~1300L/min
Filtration rating	1~30μm
Max. perm. operating pressure	16 bar
Type of clogging indicator	visual indicator, electrical indicator or both
Pressure setting	3.5 bar
Bypass cracking pressure	4 bar
Type of connection	SAE flange or thread GB/T196
Housing material	aluminum
Filter element material	fiberglass,stainless steel wire mesh
Application	Petrochemical,wind power,thermal power,coal mining,construction machinery



## C.Inline filter for hydraulic system

Inline filter can be fitted into hydraulic system and remove impurities and particles from hydraulic fluid. It can be equipped with visual clogging indicator or electrical switch.

### a.TCYPH- series inline filter

Flow rate	60~660 L/min
Filtration rating	1~300 μm
Max. perm. operating pressure	420 bar
Pressure setting	7 bar
Type of clogging indicator	visual indicator, electrical indicator or both
Type of connection	thread ISO228
Filter element material	fiberglass,stainless steel wire mesh
Housing material	carbon steel or Stainless steel
Application	Petrochemical,wind power,thermal power,coal mining,construction machinery



### b.TCYPM- series inline filter

Flow rate	60~660 L/min
Filtration rating	1~300 μm
Max. perm. operating pressure	210 bar
Pressure setting	5 bar
Bypass cracking pressure	6 bar
Type of clogging indicator	visual indicator, electrical indicator or both
Type of connection	thread ISO228
Filter element material	fiberglass,stainless steel wire mesh
Housing material	aluminum
Application	Petrochemical,wind power,thermal power,coal mining,construction machinery



### c.TCPLC- series inline filter

Flow rate	30~1500 L/min
Filtration rating	1~300 μm
Max. perm. operating pressure	60 bar
Type of clogging indicator	visual indicator, electrical indicator or both
Pressure setting	3.5 bar
Bypass cracking pressure	4 bar
Type of connection	thread ISO228
Filter element material	fiberglass,stainless steel wire mesh
Housing material	aluminum
Application	Petrochemical,wind power,thermal power,coal mining,construction machinery



## D.Block mounting filter

DFB- series block mounting filter is installed on valve block. It filters out impurities,contaminants and particles in hydraulic liquid. It is quipped with clogging indicator.

Flow rate	30~660L/min
Filtration rating	3~30μm
Max. perm. operating pressure	320bar
Seal kit	O-ring
Type of clogging indicator	visual indicator, electrical indicator or both
Pressure setting	5bar
Type of connection	bolt
Filter element material	fiberglass,stainless steel wire mesh
Housing material	carbon steel
Application	Petrochemical,construction machinery





## E. Tank- top breather filters

### a.EF- series breather filter

EF- series breather filter is installed on the top of tank. They can either remove dusts and impurities from air or equalize inside and outside pressure.

Air flow rate	65~1500L/min
Air filtration rating	105/279μm
Oil filtration rating	125μm
Seal kit	perbunan
Type of connection	flange
Material of filter mesh	brass or stainless steel
Material of cap	chroming carbon steel
Material of flange	aluminum
Application	Petrochemical, wind power, thermal power, coal mining, construction machinery



### b.PAF- series breather filter

PAF- series breather filter is installed on the top of tank. They can either remove dusts and impurities from air or equalize inside and outside pressure.

PAF- series breather filters are equipped with one-way valve, which can prevent oil from spilling when machine walks on slope.

One-way valve cracking pressure	0.2/0.35/0.7bar
Air flow rate	450/550/750L/min
Air filtration rating	10/20/40μm
Oil filtration rating	500μm
Seal kit	perbunan
Type of connection	flange
Material of cap	carbon steel or stainless steel
Material of filter mesh	brass or stainless steel
Application	Petrochemical, wind power, thermal power, coal mining, construction machinery



### c.DAB- series breather dryer

DAB- series breather dryer work efficiently on absorbing moist from air and removing impurities from air. It keeps air in the tank dry and clean .

Max. moist absorb weight	85/170/285/570g
Weight	270/540/840/1680g
Air flow rate	500/1250L/min
Filtration rating	3μm
Type of connection	thread ISO 228
Application	construction machinery, wind power



## F. Fuel filter

SP- series fuel filter can be installed on any fuel dispenser. It filters out impurities and contaminants before they reach fuel system. It works efficiently with stable integrity and low weight. It is equipped with visual clogging indicator and bypass valve.

Flow rate	Suction oil	20~50L/min
	Return oil	60~160L/min
Filtration rating	10~25μm	
Max. perm. operating pressure	7bar	
Type of clogging indicator	visual indicator	
Pressure setting	2 bar	
Bypass cracking pressure	2.5 bar	
Limit compression	20 bar	
Type of connection	thread GB/T 7306	
Filter element material	metal wire mesh, paper or fiberglass	
Cartridge material	carbon steel	
Cap material	aluminum	
Application	construction machinery	





## G. Strainers

Strainer is commonly used in pipelines to prevent damage to control valve, gauges, pumps and flow meters. It can remove particles and contaminants from pipelines efficiently.

### a. Y- type strainer

Nominal diameter	DN15~DN600
Nominal pressure	10~40bar
Filter rating	3~1000μm
Housing material	carbon steel, stainless steel
Filter element material	stainless steel wire mesh
Type of connection	flange EN1092
Application	petrochemical



### b. T- type strainer

Nominal diameter	DN15~DN600
Nominal pressure	10~40bar
Filter rating	3~1000μm
Housing material	carbon steel, stainless steel
Filter element material	stainless steel wire mesh
Type of connection	flange EN1092
Application	petrochemical



### c. Basket strainer

Nominal diameter	DN25~DN300
Nominal pressure	10~40 bar
Filter rating	3~1000μm
Housing material	carbon steel, stainless steel
Filter element material	stainless steel wire mesh
Type of connection	flange EN1092
Application	petrochemical



## H. Duplex basket type strainer

This kind of strainer is used wherever continuous operation is required, and flow is not to be interrupted. The duplex strainer is offered with diverting valves. This filter consists of two filtration chambers and are offered with flush drain connections with ball valves.

It also can be equipped with various automatons and permanent magnets, based on customers' request.





Flow rate	20~600L/min
Nominal diameter	DN15~DN80
Filtration rating	3~1000μm
Max. perm. operating pressure	40bar
Temperature range	-25~ 110℃
Type of connection	flange or thread, as requested by customer
Filter element material	metal steel wire mesh
Material of housing and cover plate	carbon steel or stainless steel
Application	Petrochemical,wind power,thermal power,coal mining

## I.Compressed air filter

Compressed air filter can remove water and oil aerosols, atmospheric dirt, solid particles, rust, pipescale and micro- organisms. We have four types of compressed air filters sorted by filtration rating and max remaining oil content.



Type	C	T	A	H
Max. perm. operating pressure	16bar			
Filtration rating	3μm	1μm	0.01μm	0.01μm
Max remaining oil content	5ppm	1ppm	0.01ppm	0.003ppm
Housing material	plastic, aluminum, stainless steel			
Type of connection	flange EN1092 or thread ISO228			
Application	Petrochemical,wind power,thermal power,coal mining			

## J.Manual in-line duplex strainer

Manual in- line duplex strainer is a main component prior to emulsion mixing plant. Two dual filters are arranged on the filter station. In every pair, filter element can be replaced while the other one is operating by switching on/ off the ball valves manually.



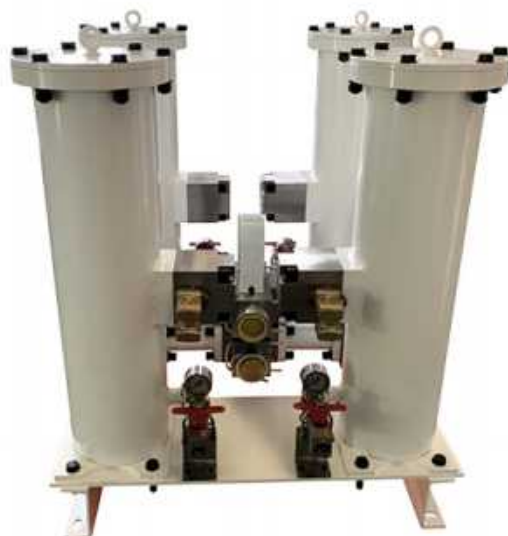
Operating pressure	25~80 bar
Filtration rating	40/50/60μm
Flow rate	1000~3000L/min
Housing material	stainless steel
Filter element material	stainless steel mesh
Weight	approx. 620kg
Type of connection	KJ63 or DN50
Application	coal mining



## K. Manually return- line strainer

Return- line strainer is an essential component between longwall face support system and emulsion tank. It purifies contaminants and impurities, which are generated by longwall face support system, before hydraulic liquid returned to emulsion tank.

Build- up of backpressure inside the chamber helps removing impurities on filter elements when it was turning off. Filter element can be replaced while the other one is operating by switching on/ off the valves manually.



Operating pressure	25~80 Bar
Filtration rating	25μm
Flow rate	1000~2000L/min
Housing material	carbon steel
Filter element material	stainless steel mesh
Weight	approx. 610kg
Type of connection	KJ63 or DN50
Application	coal mining

## L. Backflush filter

Backflush filter is installed into pressure line of longwall face support system and can purify hydraulic fluid.



Max. perm. operating pressure	375 bar
Filtration rating	25/40μm
Flow rate	450L/min
Filter element material	stainless steel
Housing material	stainless steel
Weight	approx. 26kg
Type of connection	DN25
Application	coal mining



## FILTER EQUIPMENT

A.Portable purifier .....	36
B.Purifier .....	37
C.Box- type purifier .....	38
D.High viscosity purifier .....	39
E.Water/ Oil Coalescing Purifier.....	40
F.Vacuum purifier .....	41
G.Portable Rinsing purifiers for gear box and hydraulic station .....	42
H.Automatic PLC self- clean filter system .....	43
a.automatic PLC self- clean filter system.....	43
b.one chamber of automatic PLC backflush filter system.....	44

### A.Portable purifier

Portable purifier is a small and light-weight filtration machine with pump, two filters and pressure gauge installed. Two- level filtration enhance its performance on purifying liquid. It can be lifted by only one hand easily and widely used in small room.

We can customize it by the requirements of filter rating, flow rate, connection size and power plug standard.



Flow rate	6~16L/min
Operating temperature	5~80℃
Operating pressure	0~16bar
Level I filtration rating	100μm
Level II filtration rating	3~40μm
Filter element material	fiberglass,stainless steel mesh
Structural material	carbon steel
Type of connection	thread
Viscosity	10~160Cst
Voltage	AC380V/AC230V/AC110V



## B.Purifier

Purifier is a filtration station, average size, with pump, three or four filters, pressure gauges and vacuum pressure gauge installed inside. Filters are arranged by the order of filter rating (from low to high) to guarantee efficient removal of particulars and contaminants from oil. Every chamber is equipped with a pressure gauge to help people noticing the condition of filter element.

We can customize it by the requirements of filter rating, flow rate, connection size and power plug standard.



Flow rate	25~150L/min
Operating temperature	5~80℃
Operating pressure	0~16 bar
Level I filtration rating	100μm
Level II filtration rating	3~40μm
Level III filtration rating (optional)	3~20μm
Level IV filtration rating (optional)	1~5μm
Filter element material	fiberglass, stainless steel mesh
Housing material	carbon steel or stainless steel
Type of connect	flange or thread
Viscosity	10~160Cst
Voltage	AC380V/AC230V/AC110V

## C.Box- type purifier

Box- type purifier is a filtration station with four wheels beneath and enclosed by painted carbon steel plate. It has supreme appearance and a touch screen.

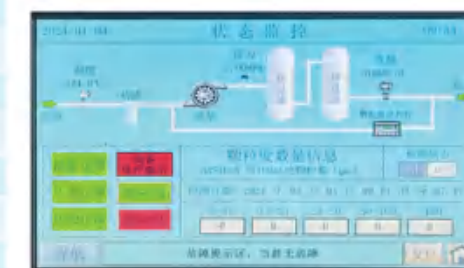
There are pump, three filters, pressure gauges, vacuum pressure gauge, pressure difference sensor and particle counter installed inside. Users are able to check the temperature, flow rate, pressure difference and particle number of contaminants simultaneously while purifier is working.

All functions are designed to provide better experience for our customers. We can also add new functions or delete unnecessary functions based on customers' demand.

We can customize it for you by the requirements of filter rating, flow rate, connection size and power plug standard.



Flow rate	25~500L/min
Operating temperature	5~80℃
Operating pressure	0~16 bar
Level I filtration rating	100μm
Level II filtration rating	10/20/40μm
Level III filtration rating	3/5/10μm
Filter element material	fiberglass, stainless steel mesh
Housing material	carbon steel or stainless steel
Shell material	carbon steel
Type of connect	flange or thread
Viscosity	10~160Cst
Voltage	AC380V/AC230V/AC110V





## D.High viscosity purifier

High viscosity purifier is a filtration station with pump, three filters, pressure gauges and vacuum pressure gauge.

In cold environment, oil becomes more and more viscous. It is almost hardly to purify oil by a normal portable purifier. The oil will be sucked in to tube when the proper pump, picked by us based on operating conditions, works.

Hence, If customers' working condition always suffered from cold weather, this product is able to help a lot.

Let us know what the temperature it usually is, what type of hydraulic oil customers use, we choose proper pump and customize it by the requirements of filter rating, flow rate, connection size and power plug standard.



Flow rate	25~300L/min
Operating temperature	5~80℃
Operating pressure	0~16 bar
Level I filtration rating	100μm
Level II filtration rating	10/20/40μm
Level III filtration rating	3/5/10μm
Filter element material	fiberglass, stainless steel mesh
Housing material	carbon steel or stainless steel
Type of connect	flange or thread
Viscosity	10~760Cst
Voltage	AC380V/AC230V/AC110V

## E.Water/ Oil Coalescing Purifier

Water/ Oil Coalescing Purifier is equipped with pump, five filters, pressure gauges and vacuum pressure gauge. It performs highly efficiency on removing water from hydraulic oil and keeps maximum remaining water content of oil less than 100PPM.

The first three of them work to remove particles and contaminants, the forth one is water/ oil coalescer and the last filter can separate water from oil.

We can customize it for you by the requirements of filter rating, flow rate, connection size and power plug standard.



Flow rate	32~100L/min
Operating temperature	5~80℃
Operating pressure	0~16 bar
Level I filtration rating	100μm
Level II filtration rating	10/20/40μm
Level III filtration rating	3/5/10μm
Level IV filtration	coalescing filter element
Level V filtration	separating filter element
Filter element material	fiberglass, stainless steel mesh
Housing material	carbon steel or stainless steel
Type of connect	flange or thread
Max remaining water content	≤100PPM
Viscosity	10~120Cst
Voltage	AC380V/AC230V/AC110V



## F. Vacuum purifier

Vacuum purifier is an advanced purifier which can remove water from oil with supreme efficiency.

Vacuum purifier is equipped with five filters. There is one filter and heating chamber before vacuum chamber. The vacuum chamber turn oil, polluted by water, into waste steam at certain temperature. Waste steam is actually mixture of water steam, air and oil steam.

At the second and the third filter, the waste steam becomes clean air without pollution and will be leaked outside the purifier.

The purified and dehydrated oil in the vacuum chamber will go to the rest two particulate filters. If users want totally dehydrated oil, this product would be the best choice.

We can customize it for you by the requirements of filter rating, flow rate, connection size and power plug standard.

Flow rate	25~200L/min
Operating temperature	-20~60℃
Operating pressure	0~16 bar
Level I filtration rating	100μm
Level II filtration rating	20~100μm
Level III filtration rating	0.1~1μm
Level IV filtration rating	10/20/40μm
Level V filtration rating	3/5/10μm
Filter element material	fiberglass, stainless steel mesh
Housing material	carbon steel or stainless steel
Type of connect	flange or thread
Max remaining water content	≤30PPM
Max remaining air content	≤0.2%
Voltage	AC380V/AC230V/AC110V



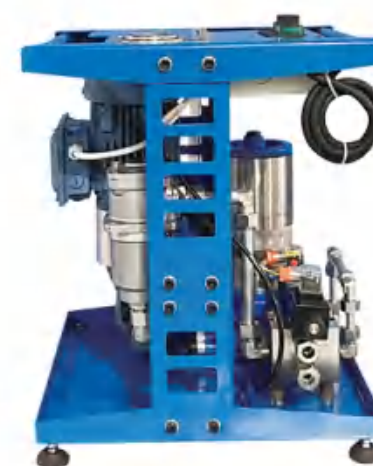
## G. Portable Rinsing purifiers for gear box and hydraulic station

Portable rinsing purifier can either fill oil or rinse oil gel from the oil box.

New hydraulic oil always has impurities, which was generated in the pump line of the manufacture. Purifier equipped with fiberglass filter element ensure the removal of any impurities larger than 5μm from oil before reached the oil box.

Portable rinsing purifier is equipped with stainless steel filter element can work efficiently on rinsing oil gel. Oil gel always stay at the bottom of the oil box. Purifier sucks oil out from the top of oil box and pump oil return into the bottom, oil gel will be rearranged fully with oil; then turning on reversing valve, oil will be sucked from the bottom and pumped return into the top. The circulation can remove oil gel efficiently without switching connection manually.

The purifier has small size and light weight and can be lifted easily.



Voltage	110/220/380V
Filtration rating	5~80μm
Flow rate	10-30L/min
Filter material	fiberglass, stainless steel mesh
Weight	25kg
Type of connection	DN10~DN25
Application for industrial field	wind power



## H. Automatic PLC self- clean filter system

Automatic PLC self- clean filter system removed particles, impurities, gels and contaminants from hydraulic fluid before these can reach customer's system.

The self- clean system can be operated automatically by Programmable Logic Controller.

Customers are able to choose self- clean modes among do- it at fixed differential pressure , at certain time or immediately.

When self- clean system works, build- up of backpressure and spinning metal brushes which is installed vertically inside the filter elements will remove dirty particles on the surface of Johnson screen. It saves large amount of time of replacing filter elements and cleaning by workers.

This system help customers on saving filter elements replacement costs, labor costs and shutdown losses.

We can customize it for you by the requirements of filter rating, flow rate, connection size and operating pressure.

### a. automatic PLC self- clean filter system



### b. one chamber of automatic PLC backflush filter system



Operating pressure	10~40 bar
Filtration rating	30~1000μm
Flow rate	200~4000L/min
Housing material	304-type stainless steel
Filter element material	Johnson screen
Weight	approx. 350kg(single chamber), 2800kg (whole system)
Type of connection	flange