Yuquan Equipment

FOCUS ON CLEAN GAS FOR AIR COMPRESSOR

SOLUTION

Focus on product details and improve service quality

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Yuquan (Henan) Intelligent Equipment Manufacturing Co., Ltd

Yuquan Equipment

Provide you with a full range of
Compressed gas purification solution

CONTENTS

Company Profile

Yuquan (Henan) Intelligent Equipment Manufacturing Co., Ltd., founded in 2001, evolved from Huixian Yuquan Filter Equipment Factory and Xinxiang Yuquan Filter Industry Co., Ltd. The company is located in Xinxiang City, Henan Province, known as the industrial filter production base in China. Currently, it boasts three core businesses: manufacturing of air compressor filters, dust removal equipment, and construction of first-level energy-efficient compressor air stations. It is a specialized company integrating production, research and development, sales, and service.

Air compressor three-filter manufacturing: This is the company's core advantage. With decades of deep industry experience, the company now boasts its own research and development center, and has established deep collaborations with universities such as Zhengzhou University. It possesses multiple proprietary intellectual property rights, has self-financed and self-built modern production bases, selects high-quality imported filter materials, and has multiple fully intelligent and digital production lines, ensuring that the produced three filters exhibit consistent and efficient filtration performance. The company supports customized services, can quickly respond to customer needs, and helps customers achieve energy conservation, environmental protection, cost reduction, and efficiency improvement. It has become the preferred supporting manufacturer for numerous air compressor manufacturers.

In the field of dust removal equipment: The company develops and produces various types of dust removal equipment, especially the self-developed series of gas-free rotary drum dryers, specifically designed to address the high energy consumption issues of traditional adsorption dryers. Through the unique rotary drum adsorption + gas-free regeneration technology, it achieves true "zero gas consumption". It is widely used in industries such as electronics, medicine, food, precision manufacturing, and others that require high-quality compressed air.

Level 1 Energy Efficiency Compressed Air Station: In line with the national call for energy conservation and emission reduction, our company actively participates in the construction of Level 1 Energy Efficiency Compressed Air Stations. Based on the actual gas consumption needs of our customers, we provide a one-stop solution. By adopting high-efficiency and energy-saving air compressor equipment, optimizing system pipeline design, and introducing advanced intelligent control technology, we ensure that the constructed compressed air station meets Level 1 Energy Efficiency standards, significantly reducing energy consumption for enterprises and achieving green production.

Currently, our products are sold well in many provinces and cities in China, and our cooperative customers cover more than 50 countries and regions worldwide, with our total sales ranking among the top. We will always adhere to the corporate philosophy of "striving for excellence and creating excellence", and make greater contributions to promoting the development of the air compressor filter and dust removal equipment manufacturing industry, as well as helping enterprises achieve energy conservation, emission reduction, and green production goals.

DEVELOPMENT HISTORY

2001

In 2001,it registered "Huixian Yuquan Filter Equipment Factory"

2005

Passed 1S09001 quality system certifica. tion in 2005

2008

Registered Yuquan "YQ" trademark in 2008

2018

In 2018, self raised funds were used to build standardized factories in the industrial park

2019

Signed school-enterprise cooperation agreements with "Zhengzhou University" and "Xinxiang College" respectively

In the same year, it was elected as the Secretary-General unit of the "Huixian City Filter Chamber of Commerce"

2020

Recognized as a "National High tech Enterprise" in 2020

In 2020,it will be recognized as "Xinxiang Air Compressor Filter Engineering Technology Research Center"

2021

The dryer project in 2021 has been recognized as a scientific and technolog ical achievement.

2022

In 2022, "Intelligent Air Compressor Station" (a first-level energy efficiency compressed air station) was established for Midoki, a national key leading enterprise in agricultural industrialization, enabling the company to achieve high efficiency and energy saving, and enhance production efficiency!

2023

Recognized as a "Specialized, Fine, Unique, and Innovative" small and medium-sized enterprise in Henan Province

Recognized as Henan Province Air Compressor Filter Engineering Technology Research Center

Upgrade and register "Yuquan (Henan) Intelligent Equipment Manufacturing Co., Ltd."

2024

"Established for Henan Juwang Food Co., Ltd.""Juwang Digital and Intelligent Air Compression Station" (Tier 1 Energy Efficiency) "Efficient compressed air station" allows the machine to operate during the processIt consumes less electric energy, thus it can helpAssist enterprises in saving a significant amount of energy costs. Meanwhile,Due to the reduction in energy consumption, the corresponding carbonEmissions and other pollutant discharges will also decrease.

2025

Mengdian Group, a national "Green Factory"The cement company has established the "Zero Carbon No.1 Smart" "Air compression station" (first-level energy efficiency compressed air station)Addressing the high energy consumption of the group's compressed air systemThe problem of low efficiency has also led to an increase in equipment malfunctions"Barrier rate, electricity cost savings, and equipment maintenance""Cost, ultimately achieving the highest efficiency from a single machine." The goal of achieving the highest efficiency at the main station.

CORPORATE CULTURE

CORPORATE VISION

- Creating Value For Users
- Provide A Platform For Employees to Achieve Success
- Take Responsibility For Society

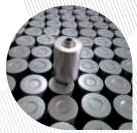
CORPORATE MISSION

- Building the top brand of high-end oil distribution
- Assisting economic development and social progress
- Filtering makes the Earth better

Corporate Values

- Good Faith
- Responsibility
- Innovate
- Quality

CUSTOMER FIRST | SERVICE FIRST



Understand The Product's Reasons

Complete problem resolution within 12 hours

Perform Quick Processing

A professional engineer will contact you within one hour of the occurrence of the fault, and the fault cause will be determined within four hours

Prompt and professional after-sales service

A professional technical engineer will arrive at the scene within 24 hours to assist you in solving technical difficulties

Enterprise Qualification

Honor is the harvest of cultivation, the crystallization of wisdom, the pursuit of ideals, and the footprint of hard work.

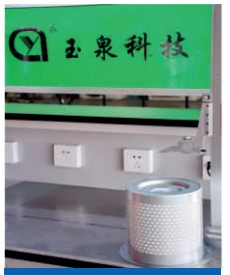
Honor is not a superficial and luxurious appearance, but a persistent and consistent appearance.

Yuquan Filter Industry has won the trust of customers with solid and reliable quality and professional and thoughtful service, which is not only an honor, but also a commitment and belief.

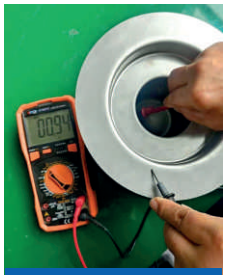
Product Development

The company has a group of high–qualityprofessional talents engaged inresearch anddevelopment,sales,and service in the field ofcompressed air purification.

Based on the introduction and absorption ofadvanced technologies at home and abroad, thecompany has successfully developed compressedair purification equipment with advanced technolo.gy, excellent and reliable performance and strongapplicability, which is the best choice for post–treatment purification equipment of various air compressors.



Specification Test Stand



Static electricity test

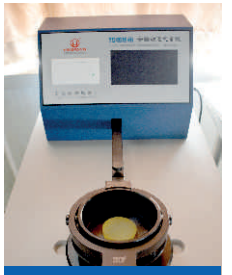
Filter Material Test Stand

Air Filter Dust Capacity Test

Inhalable Particulate Matter Tester

High–pressure flow resistance test bench

Pressure difference detector



Fully automatic air permeability tester

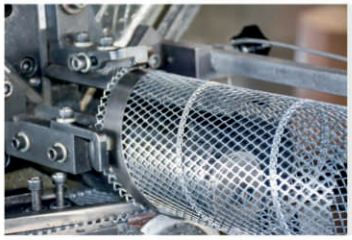
Oil pressure resistance test bench

To ensure the quality of each product, we select major components from well-known domestic and international brands, adopt internationally advanced processing and testing technologies, and strictly control the entire production process in accordance with the quality management system.

Production Process

Ultrasonic welding

On the basis of improving efficiency, remove additional stitching materials to increase product stability



Glue injection machine Spiral skeleton structure

Increase the compressive strength of the skeleton to reduce the degree of damage to the filter layer.

Welding free treatment of outer skeleton

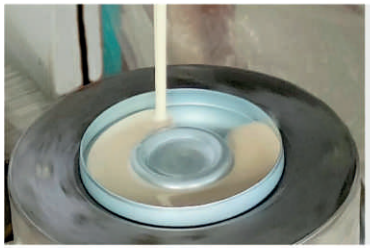
Increase the aesthetics of the product

Automatic winding machine

The tension is automatically adjusted to meet the uniformity of the filter layer and improve the coalescence and separation effect.

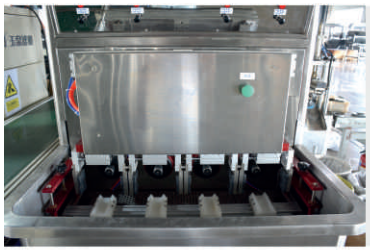
Intelligent production line

Intelligent production minimizes tolerances and reduces wear.



Glue injection machine

The precise control of glue temperature and injection amount can ensure higher stability of the product.



Air tightness testing

Before leaving the factory, the spin on filter undergoes 100% air tightness testing to meet product quality requirements and effectively prevent unqualified products from entering the market.

Filter layer folding machine

The filter layer can be folded with different wave heights, and the formed filter material has uniform and fluffy ripples with tension, effectively improving filtration efficiency.

Product Introduction

OIL-GAS SEPARATOR / SPIRAL WOUND TYPE

model	flange	Bottom cover diameter	inner diameter	height
YQ301010001	115	90	40	135
YQ301010002	170	130	75	160
YQ301010003	170	130	75	200
YQ301010004	200	165	109	230
YQ301010005	200	165	109	305
YQ301010007	355	290	220	400
YQ301010008	355	290	220	305
YQ301010013	355	290	220	500

The oil gas separator is a key component of an air compressor, and high-quality oil gas separators can not only ensure the eficientoperation of the compressor, but also improve the quality of compressed air in the air compressor. ts working principle is to separate the oilmist particles in the oil mist mixture through agglomeration and colision, thereby making the compressed air cleaner. After the oi is separat.ed, it passes through the return pipe and circulates the oil in the compressor.

The oil separation flter material is made of ultra-fine glass fiber composite filter material from HV Lydall Company in the United Stateswith a normal service ife of over 3000 hours. t is suitable for various brands of screw air comoressors and can be customized with OElproducts according to customer requirements.

OIL-GAS SEPARATOR/COMPOSITE TYPE

model	flange	Bottom cover diameter	inner diameter	height
YQ301080046	170	110	62	150
YQ301080075	170	130	60	160
YQ301080074	170	130	60	200
YQ301080051	355	300	220	305
YQ301080025	355	300	220	350
YQ301080016	355	300	220	400
YQ301080027	355	300	220	500
YQ301080030	430	350	265	500
YQ301080017	430	350	265	550
YQ301080018	540	480	385	650

The composite oil separator core adopts a composite structure, with the outer layer typically featuring a folded structure and the inner layer employing a flat-wound structure. The expanded area of the folded structure of the outer layer is four times that of the ordinary flat-wound structure, significantly reducing the flow velocity and making it easier to condense the oil from the compressed air. The flat-wound structure of the inner layer performs secondary separation, resulting in lower oil content in the discharged compressed air. Generally, the residual oil content in the separated gas can be ≤3ppm. Under the same operating conditions, it can significantly reduce fuel consumption and greatly extend the service life of the oil separator.

OIL-GAS SEPARATOR / FOLDING TYPE

The use of high-efficiency, low-resistance polymer materials ensures low flow resistance, excellent separation performance, and strong adaptability. It meets the needs of low-pressure air compressors and is suitable for specific industries such as glass and textiles. The corresponding filtration area has been increased, effectively controlling the oil content of the filtered gas to less than 3ppm, while extending the product's service life. The initial pressure difference is between 0.15bar and 0.25bar.

VACUUM PUMP ASSEMBLY

All carbon steel structure, sturdy and durable, equipped with a 0-ring seal, with a maximum vacuum value of less than 1pa.The high-eficiency, low resistance, composite filter element has a filtration efficiency of 99%, efectively preventing solid particlesor dust from being sucked in, improving the reliability of the vacuum pump, and extending the service life of the pump.

AIR FILTER

The filter material of the air filter is made of pulp filter paper from Germany's HV Company and South Korea's Ahlstrom Company, which filters out impurities such as dust, sand, moisture, and oil mist suspended in the ambient air. The working environment has a significant impact on its service life.

model	outer diameter	inner diameter	tall	structure
YQC303010096	60	35	68	双通
YQC303010002	100	68	80	双通
YQC303030002	125	78	315	单通
YQC303030001	157	100	370	单通
YQC303030004	195	117	397	单通
YQC303010012	320	220	700	单通
YQC303010192	400	290	700	单通
YQ7303010200	320	220	1000	单通

SPIN ON OIL FILTER

Technical Index

Filtration
5μm-10μm

Initial Pressure Difference
≤0.03Mpa

Maximum Working Pressure
0.7Mpa-1.6Mpa

Service Life
≥2000H

Using Korean AHLSTROM solidified filter paper, which undergoes high-temperature curing, ensures good stiffness and high filtration efficiency, guaranteeing the flow rate of lubricating fluid and preventing high temperatures from occurring in the machine. The high-precision filter element ensures the cleanliness and usage duration of the lubricating fluid, effectively extending the service life of the oil-gas separation.

Model	Corresponding Part Number	Caliber	0-inner Diameter	0-outer Diameter	Outer Diameter	Height
YQ305010011	WD719	3/4" 16-UNF	62	71	76	126
YQ305010006	WD962	1" 12-UNF	62	7	96	212
YQ305010079	WD11102	1" 1/8-UNF	93	104	108	260
YQ305010005	WD1374	1" 1/2 16-UNF	100	111	135	177
YQ305010014	WD13145	1" 1/2 16-UNF	100	111	135	302

SPIN ON OIL SEPARATOR

Under normal working pressure: 0.7MPa~1.3MPa

Initial Pressure Difference
0.15bar–0.25bar

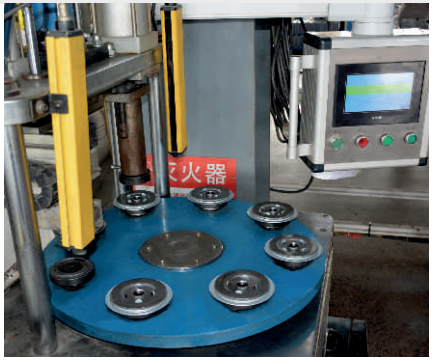
Service Life
≤3PPM

Filtering Efficiency
≤0.1μm

The external rotary oil separator is typically composed of an oil separator core, a conduit, a base, and an O-ring. The oil separator core is the core component, made of high-quality materials, and used for filtering oil mist. The conduit is used to connect the oil separator core to the external pipeline, while the base serves as a fixing and supporting function.

The external rotary oil separator can be directly mounted on the exhaust pipe of the air compressor, eliminating the need to disassemble components such as the oil and gas cylinder as required for internal oil separators, making installation and replacement more convenient.

Model	Corresponding Part Number	Caliber	0-inner Diameter	0-outer Diameter	Outer Diameter	Height
YQ304010007	LB719	M22x1.5	62	71	76	126
YQ304010062	LB962	M24x1.5	62	71	96	212
YQ304010003	LB11102	M32x1.5	93	104	108	260
YQ304010002	LB1374	M39x1.5	100	111	135	170
YQ304010009	LB13145	M39x1.5	100	111	135	302



PRE-FILTER

Technical Index

Model	Air Filtration Capacity M ³/ Min(Single Group)	Air Filter Area (Single Group)
YQZJ Series	200-10000	200㎡

Filtering Accuracy/efficiency	Service LIfe Of Filter Cartridge	Initial Resistance Loss
1μm/99.99% 2μm/100%	≥2000H	≤80pa

After inhaling air containing dust during the operation of the centrifuge, it will cause wear and tear of the equipment.The dust inhaled wil scale on the fan blade surface, causing imbalance in the dynamic balance of the rotor in the equip-ment, reducing accuracy, and greatly shortening its working life. The harmful chemical components in the dust can cause rust and corrosion of the equipment. Therefore, the centrifuge must be equipped with a high-precision inlet air filtration system (pre filter).

DEDICATED FOR LASER MACHINES PROCESSING SYSTEM

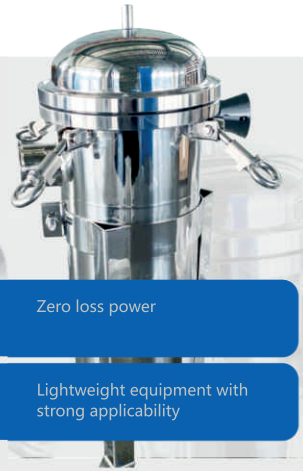
YQCJ SERIES

Special dust collector for laser cutting machine

- Made with Heart
- Specialized products
- Efficient anti exposure
- Energy-saving and environmental protection

YQFL series

Laser cutting machine
Dedicated oil-water separator



Product Features

- Good water absorption and separation effect, customized with special processes
- Zero loss power
- Stainless steel shell, environmentally friendly design
- Lightweight equipment with strong applicability

Available For Selection

Model	Processing Capacity (m ³/min)	In And Out Caliber	Maximum Working Pressure (mpa)	Maximum Operating Temperature (°c)
YQFL-1P	1.5	DN20	1.9	150
YQFL-2P	2	DN20	1.9	150
YQFL-3P	3.2	DN20	1.9	150
YQFL-4P	4.5	DN20	1.9	150

NO GAS CONSUMPTION ROTARY DRUM DRYER

Product Model	Processing capacity (Nm ³/min)	Overall dimensions (LxWxHmm)	Export pipe diameter	Drive motor (KW)	Auxiliary heating power (KW)	Export dew point	Weight (Kg)
HZ-60	80	850x480x1780	DN125	380V(0.12KW)	380V(10KW)	-20~-40	600
HZ-100	120	850x480x1780	DN150	380V(0.12KW)	380V(20KW)	-20~-40	800
HZ-120	150	2900x1525x2280	DN200	380V(0.12KW)	380V(30KW)	-20~-40	3500
HZ-200	200	3500x2200x2800	DN200	380V(0.12KW)	380V(30KW+30KW)	-20~-40	6500
HZ-400	400	7000x4400x5600	Dn300	380V(0.12KW)	380V(30KW+30KW)	-20~-40	13000

PRODUCT DISTRIBUTION

The Company's Products Are Primarily Sold To First-tier Cities Such As Shanghai, Shenzhen, Guangzhou, And Zhejiang

"The Company Boasts A Professional R&d Team And Rigorous Quality Management"
Comprehensive Pre-sale, In-sale, And After-sale Services

The Products Are Exported To Overseas Markets

More Than 50 Countries

The Total Sales Volume Is Far Ahead

Twenty Years Of Craftsmanship, Witnessed By

30000 Users Worldwide

Routine Maintenance

USE AND ROUTINE MAINTENANCE OF OIL-GAS SEPARATOR

Shut down the air compressor, close the outlet of the air compressor, open the pressure relief valve, and confirm that there is no pressure in the system.	Disassemble the pipeline above the oil and gas barrel, and remove the pipeline from the outlet of the return oil pipe and the minimum pressure valve to the cooler.	After removing the old oil separator core gasket and replacing it with a new one, install it in the reverse order of removal.	After startup, inspect for any abnormal noise or air leakage, and check the tightness of the end cap bolts. If any abnormalities are found, the new oil separator core must be removed, and the thorough removal of the oil separator core gasket must be rechecked.	When replacing the oil separator core, it is essential to strictly control the details. After conducting a startup test, confirm that the air compressor is operating safely.

- Stop the air compressor, close the outlet of the air compressor, open the pressure relief valve, and confrm that there is no pressure in the system.
- Disassemble the pipeline above the oil and gas barrel, remove the return pipeline and the pipeline from the minimum pressure valve outlet to the cooler.
- Remove the old oil separator paper pad, replace it with a new oil separator, and install it in the reverse order of removal.
- After starting, check for any abnormal noise or ar leakage, and check the tightness of the end cover bolts. If there are any abnormalties, the new oil separator must be removed and the oil separator paper pad must be rechecked for complete removal
- When replacing the oll separator, it is necessary to stricly control the details and confirm the safe operation of the ar compressor after starup testing.

OIL FILTER USAGE AND MAINTENANCE ROUTINE

Replace the oil filter every

2000-2500 hours

- When installing a new spin on oil filter, first apply a thin layer of oil onthe surface of the sealing ring, tighten the filter by hand, and then turn it3/4 of a turn. If unsure, you can also start the engine and run it for 2-3minutes to check for any oil leaks.

- When the engine is running, it is necessary to pay attention to the oilpressure and the oil alarm light frequently. If the oil pressure is too low.replace it with a new spin on oil filter.

USE AND ROUTINE MAINTENANCE OF AIR FILTERS

- The entire air filtration system is subjected to negative pressure. External air will automatically enter the system, so except for the air filterinlet, all connections (pipes, fanges) are not allowed to leak.

- Every day, the air filter should be checked to see if there is a largeamount of dust accumulation, cleaned in a timely manner, and installedcorrectly.

- If the inspection reveals that the air filter element is deformed or unable to remove dust, it is necessary to replace the air filter element under the guidance of a repair technician.

COMMON FAULT ANALYSIS

Compressors May Encounter Various Malfunctions In Daily Use, Some Of Which Are Directly Manifested On The Oil Separator Core, Such As High Oil Content In The Exhaust Gas And Excessive Pressure Difference Across The Oil Separator Core. While Addressing These Malfunctions, It Is Essential To Identify The Root Cause Of The Machine Failure. The Use Of Inferior Oil Separator Cores Is One Of The Reasons For These Phenomena. In Practice, We Have Found That Many Malfunctions Are Not Caused By Quality Issues With The Oil Separator Core. Here, We Briefly Explain Other Common Causes Of Malfunctions.

OIL–GAS SEPARATOR / SPIRAL WOUND TYPE

1. The Design Or Selection Of The Oil–gas Separation Tank Is Unreasonable.
2. Too Much Oil Added Or Excessively High Oil Temperature.
3. Large Gas Consumption, Overload Use At Low Pressure Or Use With Reduced Pressure.
4. The Oil Return System Is Blocked.
5. The Oil Return Pipe Is Not Installed Properly.
6. Minimum Pressure Valve Malfunction.
7. Unqualified Engine Oil Was Used.

REASONS FOR HIGH PRESSURE DIFFERENCE IN OIL–GAS SEPARATOR

1. The Differential Pressure Sensor Is Faulty Or The Pressure Gauge Is Damaged And Inaccurate.
2. The Environment Surrounding The Air Compressor Is Poor, With High Levels Of Pollutants In The Air.
3. Poor Quality Of Air Filter, Oil Filter, Or Oil.
4. The Engine Oil Has Not Been Changed For A Long Time, Resulting In Dirty Oil.
5. The Pipeline Between The Air Core And The Air Inlet Is Poorly Sealed.
6. When The Machine Operates At Low Temperature, Water Vapor Cannot Be Discharged In A Timely Manner, And Excessive Water Vapor Leads To Increased Resistance In The Oil Separator Core.
7. The Filter Material Becomes Damp Due To The Oil Core Being Left For Too Long.
8. A Mismatched Oil Separator Core Was Used.

REASONS FOR HIGH PRESSURE DIFFERENCE IN OIL FILTER

1. Poor Quality Of Lubricating Oil.
2. The Differential Pressure Gauge Has Not Been Reset.
3. Dirty Lubricating Oil.
4. The Oil Filter Has Reached The End Of Its Lifespan.

REASONS FOR HIGH PRESSURE DIFFERENCE IN AIR FILTERS

1. Poor External Environment.
2. The Differential Pressure Gauge Has Not Been Reset.
3. The Air Filter Is Stored And Used For A Long Time In A Humid Environment.
4. The Air Filter Has Reached The End Of Its Lifespan.