

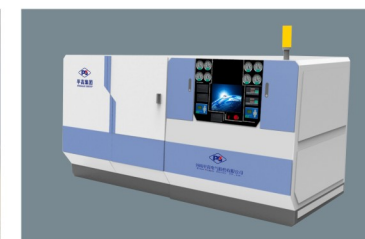
Intelligent Service For Power Grid Creating Value For The Client



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PINGGAO GROUP CO.,LTD.

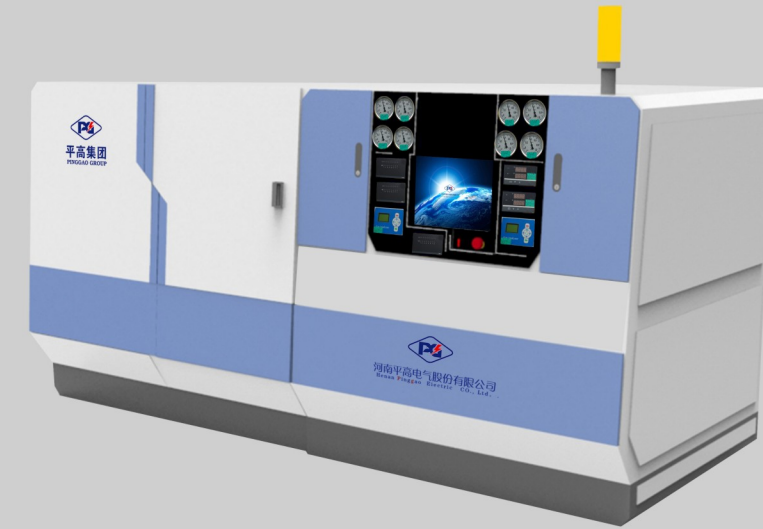
SF₆ Recovery and Purification Unit



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PINGGAO GROUP CO.,LTD

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平高集团有限公司
PINGGAO GROUP CO.,LTD.
河南平高电气股份有限公司
HENAN PINGGAO ELECTRIC CO.,LTD.



COMPANY PROFILE

Pinggao Group Co., Ltd., firstly named as Pingdingshan High Voltage Switchgear Factory established in 1970, is a wholly-owned subsidiary of State Grid Corporation of China. As a result of innovation and development for more than 40 years, Pinggao Group has become a base of researching, developing and manufacturing high voltage, extra-high voltage, ultra-high voltage switchgears and other important equipment in China, and also is the pillar enterprise of important technical equipment in the national electrical industry. Pinggao Group is the first hi-tech enterprise and the national innovative enterprise certificated by Chinese Academy of Sciences and Ministry of Science and Technology. It has won the "National May 1 Labor Prize" and several honorary titles, such as "National Advanced Enterprise for Cultural and Ethical Progress", "1000 Biggest Enterprise Groups of China", "Top 100 Enterprises in Mechanical Industry of China", "Top 500 Manufacturing Enterprises of China", "Top 10 Leading Enterprises in Electrical Industry of China", "Special Contributor for Demonstration Line of Ultra-high Voltage Alternating Current", "National Innovative Enterprise", and "4A-class Standard Enterprise of Good Conduct".

Sulfur hexafluoride (SF₆) gas widely applied in the high voltage electrical equipment is one of six green house gases, of which the emission is prohibited in Kyoto Protocol. Due to great greenhouse effect of its single molecule, SF₆ has received more and more extensive attention from all sectors of society. Pinggao Group, as an enterprise firstly manufacturing the SF₆ high voltage switchgears in China, has focused on the synchronous development of environmental protection in the course of research, development and manufacturing. For more than 10 years, Pinggao Group has successively developed more than 40 varieties of products in four major series, i.e. SF₆ gas recovery unit, evacuating device, purification center and central gas supply station, thus to realize zero emission of SF₆ gas throughout R&D, manufacturing, overhaul and other processes, improve the image of excellent social enterprise "undertaking social responsibility" and "working for environmental protection", lay a solid foundation for "Control Emission of Greenhouse Gas and Promote Construction of Green Grid" proposed by the State Grid Corporation, and make highly effective contributions to the environmental protection in China.

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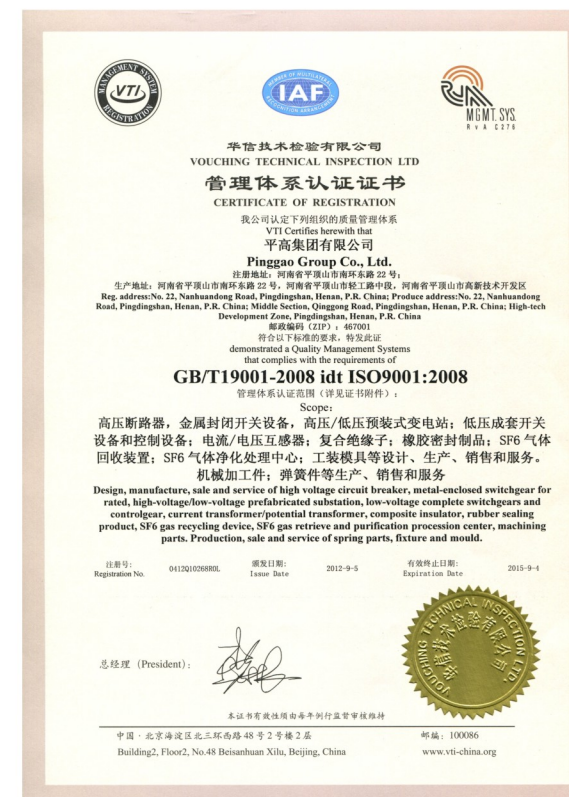
With Fine Equipment Power Grid



➤ Go forward hand in hand,
create brilliance together

Create world-leading and the most innovative product!

GROUP CERTIFICATION SYSTEM





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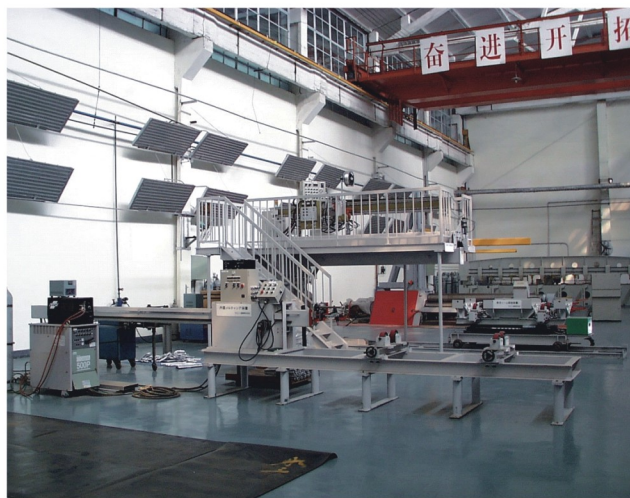
➤ PINGGAO ELECTRIC CERTIFICATION SYSTEM



➤ PRODUCTION CAPACITY

Pinggao Group Co., Ltd. has well-known brand effect and social influence, and also has abundant technical strength and rich practical experience in the application of SF₆ gas. Series of SF₆ products have spread over 31 provinces (municipalities and autonomous regions) in China, and have exported to more than 30 countries and regions in America, Europe, Asia and Africa. Pinggao Group has been highly praised by the customers at home and abroad due to its high product quality and good business reputation.

Pinggao Group engages in machining, casting of nonferrous metals, casting of epoxy resin insulators, pressing of rubber parts, injection of plastic parts, manufacturing of various coils, electrochemical surface treatment, surface coating, forging and stamping, welding, heat treatment, and foundry as well as manufacturing and assembling of tools and moulds, and also adopts various detection means such as chemical analysis, metallographic analysis, mechanical property test, electrical property test, environment test, particle analysis, chromatographic analysis, physical property test, ultrasonic inspection, radiographic



Toshiba automatic welding machine



Automatic spraying production line from Germany

Imported CNC machining equipment



inspection, fluorescent inspection and leakage test. Various models of testing equipment for electrical appliances can meet the requirements of type test and factory test of products. The company has been certified to ISO9001-2008 standard for quality assurance system.

Environmental Science & Technology Department, as a part of Pinggao Group Co., Ltd., mainly engages in recovery of SF₆ gas, evacuation and R&D, manufacturing, sales and services of purification products with rich experience in production, and has won national, provincial and prefecture-level awards for science and technology progress, patents and other achievements due to its designed and developed products. 500 recovery units, 5 sets of SF₆ gas station equipment and 20 sets of SF₆ purification equipment can be installed and commissioned annually.

Environmental Science & Technology Department has 28 R&D personnel, including 4 personnel with master's degree, 21 with bachelor's degree and 3 with college degree; 3 senior engineers, 9 engineers and 14 assistant engineers.

In 2006, we introduced a special oil-free compressor for SF₆ gas from HAUG in Switzerland, and independently researched, developed and produced a domestic first-class SF₆ recovery unit of high-pressure liquefaction type at world's advanced level.

At present, 8 devices independently researched and developed by us for SF₆ central supply station have been successfully operated. In addition, 13 recovery and purification centers of SF₆ gas have been successfully operated.



➤ PRODUCT INTRODUCTION

➤ Sf6 GAS RECOVERY UNIT

Model description

LH₂-20Y/18WG/600

Gas storage capacity of the container (kg)
 It can be filled into steel cylinder by high pressure.
 W indicates oil-free recovery system, while vacancy indicates oil recovery system.
 Pumping speed of vacuum pump (L/s)
 Storage mode (Y: liquid; Q: gas)
 Maximum air displacement of compressor (m³/h)
 Design serial number
 SF6 gas recovery unit

Technical parameters

Model	LH-57Y/18WG/600	LH ₂ -20Y/18WG/600	LH-20Y/18WG-II	LH ₄ -20Y/18WG/400	LH-20Y/18WG-I	LH-10Y/30G/200	LH-10Y/30G/200-I
Initial recovery pressure(Mpa)	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Final recovery pressure(Pa)	1330	1330	1330	1330	100	1330	15000
Maximum exhaust pressure(Mpa)	5.0	5.0	5.0	5.0	5.0	5.0	3.7
Ultimate vacuum (Pa)	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Maximum air displacement of compressor(m ³ /h)	57	20	20	20	20	14	10
Charging rate(m ³ /h)	>5	>5	>5	>5	>5	>5	>5
Pumping speed of vacuum pump(L/s)	18	18	18	18	18	18	30
Gas storage capacity of the container(kg)	600	600	/	400	/	200	200
Exterior dimension (mm)	2200×1200×2050	2000×1200×1950	1900×1100×1350	2050×1100×1850	2000×1200×1300	1840×1200×1300	1750×1150×1900
Oil content	Oil free	Oil free	Oil free	Oil free	Oil free	Oil free	Oil free
Dust filtering precision (μm)	<1	<1	<1	<1	<1	<1	<1
Water content (μL/L)	<40	<40	<40	<40	<40	<40	<40
Equipment weight (kg)	1850	1200	750	1200	800	800	1050

LH-57Y/18WG/600 SF6 recovery unit:

Functional characteristics:

- ◆High recovery rate;
- ◆Negative pressure recovery up to 1,330Pa;
- ◆High pressure bottling;
- ◆Stable gas filling and intelligent control
- ◆PLC and touch panel can realize automatic operation;
- ◆Special imported filter element, with excellent gas purification index

Application occasions:

- ◆Large air chamber; tight time for installation and maintenance, and; high production frequency.



Technical parameters

Model	LH-57Y/18WG/600	
Machine model	Indoor and outdoor use, move by hand pushing	
Operating ambient temperature:	-10°C~40°C	
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤1.33kPa
	Maximum recovery rate	57m ³ /h
	Maximum exhaust pressure	5.0MPa
	Pumping speed of vacuum compressor	30m ³ /h
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	18L/s
	Ultimate vacuum of vacuum pump	4×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤40ppm
	Oil content	N/A
	Dust grain diameter	≤1 μm
Storage vessel	Storage mode	Liquid
	Storage pressure (20°C)	5.0MPa
	Maximum gas storage capacity	600kg
Liquidation mode	High-pressure liquidation	
Gasification mode	Electrical heating (automatic temperature control)	
Control mode	Touch panel + PLC	
Noise	≤75dB	



LH₂-20Y/18WG/600 SF₆ recovery unit:

Functional characteristics:

- ◆Oil-free quick recovery;
- ◆Negative pressure recovery up to 1,330Pa;
- ◆High pressure bottling;
- ◆Stable gas filling and intelligent control
- ◆PLC and touch panel can realize automatic operation;
- ◆Special imported filter element, with excellent gas purification index

Application occasions:

- ◆Occasions where there are high requirements on repeated usage of recovered gas and high usage rate of equipment.



Technical parameters

Model		LH ₂ -20Y/18WG/600
Machine model		Indoor and outdoor use, move by hand pushing
Operating ambient temperature:		-10°C~40°C
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤1.33kPa
	Maximum recovery rate	20m ³ /h
	Maximum exhaust pressure	5.0MPa
	Pumping speed of vacuum compressor	15m ³ /h
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	18L/s
	Ultimate vacuum of vacuum pump	4×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤40ppm
	Oil content	N/A
	Dust grain diameter	≤1 μ m
Storage vessel	Storage mode	Liquid
	Storage pressure (20°C)	5.0MPa
	Maximum gas storage capacity	600kg
Liquidation mode		High-pressure liquidation
Gasification mode		Electrical heating (automatic temperature control)
Control mode		Touch panel + PLC
Noise		≤75dB

LH-20Y/18WG-I SF₆ recovery unit:

Functional characteristics:

- ◆Oil-free recovery, with recovery rate at 20m³/h;
- ◆Negative pressure recovery, up to 13.3mbar, conforming to national standards;
- ◆High pressure bottling;
- ◆Electric operating, visual system;
- ◆Small and exquisite appearance.

Application occasions:

- ◆Can be used cooperatively with several models of storage tanks; occasions with high requirements on cost performance ratio.



Technical parameters

Model		LH-20Y/18WG-I
Machine model		Indoor and outdoor use, move by hand pushing
Operating ambient temperature:		-10°C~40°C
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤1330Pa
	Maximum recovery rate	20m ³ /h
	Maximum exhaust pressure	5.0MPa
	Pumping speed of vacuum compressor	15m ³ /h
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	18L/s
	Ultimate vacuum of vacuum pump	< 4×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤40ppm
	Oil content	N/A
	Dust grain diameter	≤1 μ m
Storage vessel	Storage mode	External liquid storage tank
Liquidation mode		High-pressure liquidation
Gasification mode		Electrical heating (automatic temperature control)
Control mode		Touch panel + PLC
Noise		≤75dB



LH-20Y/18WG-II SF6 recovery unit:

Functional characteristics:

- ◆Oil-free recovery, with recovery rate at 20m³/h;
- ◆Negative pressure recovery up to 1330 Pa, conforming to national standards;

- ◆High pressure bottling;
- ◆Stable gas filling and intelligent control
- ◆Electric operating, visual system;
- ◆Small and exquisite appearance.

Application occasions:

- ◆Can be used cooperatively with several models of storage tanks; occasions with high requirements on cost performance ratio.

Technical parameters



Model	LH-20Y/18WG-II	
Machine model	Indoor and outdoor use, move by hand pushing	
Operating ambient temperature:	-10°C~40°C	
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤1330Pa
	Maximum recovery rate	20m ³ /h
	Maximum exhaust pressure	5.0MPa
	Pumping speed of vacuum compressor	15m ³ /h
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	18L/s
	Ultimate vacuum of vacuum pump	<6×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤40ppm
	Oil content	N/A
	Dust grain diameter	≤1 μm
Storage vessel	Storage mode	External liquid storage tank
Liquidation mode	High-pressure liquidation	
Gasification mode	Electrical heating (automatic temperature control)	
Control mode	Electric button control	
Noise	≤75dB	

LH4-20Y/18WG/400 SF₆ recovery unit:

Functional characteristics:

- ◆Oil-free recovery;
- ◆High negative pressure recovery;
- ◆High pressure bottling;
- ◆Stable gas filling and intelligent control
- ◆Electric operating, visual system;
- ◆High performance cost ratio

Application occasions:

- ◆Very high gas circulation frequency, medium and small air chamber; applicable to many occasions.



Technical parameters

Model	Lh ₄ -20Y/18WG/400	
Machine model	Indoor and outdoor use, move by hand pushing	
Operating ambient temperature:	-10°C~40°C	
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤1330Pa
	Maximum recovery rate	20m ³ /h
	Maximum exhaust pressure	5.0MPa
	Pumping speed of vacuum compressor	15m ³ /h
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	18L/s
	Ultimate vacuum of vacuum pump	<6×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤40ppm
	Oil content	N/A
	Dust grain diameter	≤1 μm
Storage vessel	Storage mode	Liquid
	Storage pressure (20°C)	5.0MPa
	Maximum gas storage capacity	400kg
Liquidation mode	High-pressure liquidation	
Gasification mode	Electrical heating (automatic temperature control)	
Control mode	Electric button control	
Noise	≤75dB	



LH-10Y/30G/200 SF₆ recovery unit:

Functional characteristics:

- ◆Stable performance, reliable operation;
- ◆Economical use, low price;
- ◆Manual operation, simple and visual system;

Application occasions:

- ◆Leakage inspection of switch installation site and air chamber.



Technical parameters

Model	LH-10Y/30G/200	
Machine model	Indoor and outdoor use, move by hand pushing	
Operating ambient temperature:	-10°C~40°C	
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤1330Pa
	Maximum recovery rate	10m ³ /h
	Maximum exhaust pressure	4.0MPa
	Pumping speed of vacuum compressor	7.2m ³ /h
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	30L/s
	Ultimate vacuum of vacuum pump	<6×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤80ppm
	Oil content	N/A
	Dust grain diameter	≤3 μ m
Storage vessel	Storage mode	Liquid
	Storage pressure (20°C)	4.0MPa
	Maximum gas storage capacity	200kg
Liquidation mode	High-pressure liquidation	
Control mode	Manual control	
Noise	≤75dB	

LH-10Y/30G/200-I SF₆ recovery unit:

Functional characteristics:

- ◆Stable performance, reliable operation;
- ◆Economical use, low price;
- ◆Manual operation, simple and visual system;

Application occasions:

- ◆Leakage inspection of switch installation site and air chamber.



Technical parameters

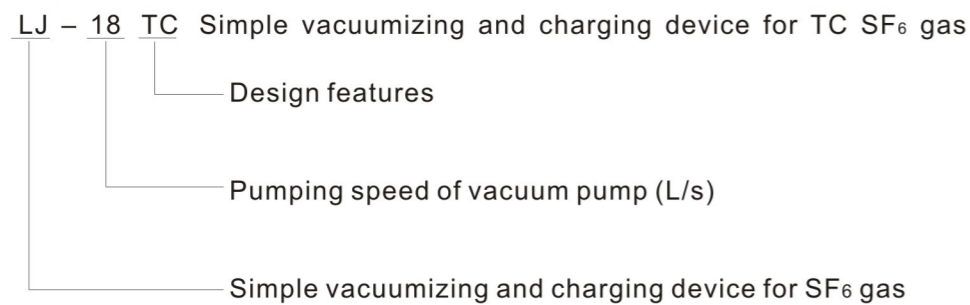
Model	LH-10Y/30G/200-I	
Machine model	Indoor and outdoor use, move by hand pushing	
Operating ambient temperature:	-10°C~40°C	
Recovery	Initial pressure (20°C)	≤0.8MPa
	Final pressure (20°C)	≤500Pa
	Maximum recovery rate	10m ³ /h
	Maximum exhaust pressure	4.0MPa
	Pumping speed of vacuum compressor	N/A
Gas charge	Charging pressure	0~0.8MPa
	Average charging speed	≥5m ³ /h
Vacuumize	Vacuumizing speed	30L/s
	Ultimate vacuum of vacuum pump	<6×10 ⁻² Pa
	Ultimate vacuum of the unit	≤10Pa
Annual leakage rate	Recovery unit body	≤1%
	Gas storage tank body	≤0.5%
Sf ₆ gas purity after recovery	Water content	≤80ppm
	Oil content	≤3ppm
	Dust grain diameter	≤1 μ m
Storage vessel	Storage mode	Liquid
	Storage pressure (20°C)	4.0MPa
	Maximum gas storage capacity	200kg
Liquidation mode	High-pressure liquidation	
Gasification mode	External natural heat absorption	
Control mode	Manual control	
Noise	≤75dB	

➤ SF₆ gas vacuumizing and charging device

Overview

LJ series of simple SF₆ vacuumizing device: This series of product is of small size, portable, economical and practical, and of much good operability and flexibility.

Model description



Technical parameters

Item \ Model	LJ-4	LJ-8	LJ-15	LJ-30	LJ-18TC	LJ-23T
Vacuumizing speed (L/s)	4	8	15	30	18	23
Final vacuum of the unit(Pa)	≤5	≤5	≤5	≤5	≤5	≤5
Weight(kg)	65	330	350	410	150	250
Outside dimension (mm)	640 × 360 × 640	1370 × 810 × 970	1370 × 810 × 970	1250 × 740 × 1050	900 × 550 × 700	1000 × 650 × 920
Power(kW)	0.55	1.1	1.7	3	2.2	3
Power supply	220V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz



LJ-4 simple vacuumizing device



LJ-18TC simple vacuumizing device



LJ-28T simple vacuumizing device



LJ-30 simple vacuumizing device

➤ SF₆ recovery and purification treatment center

Overview

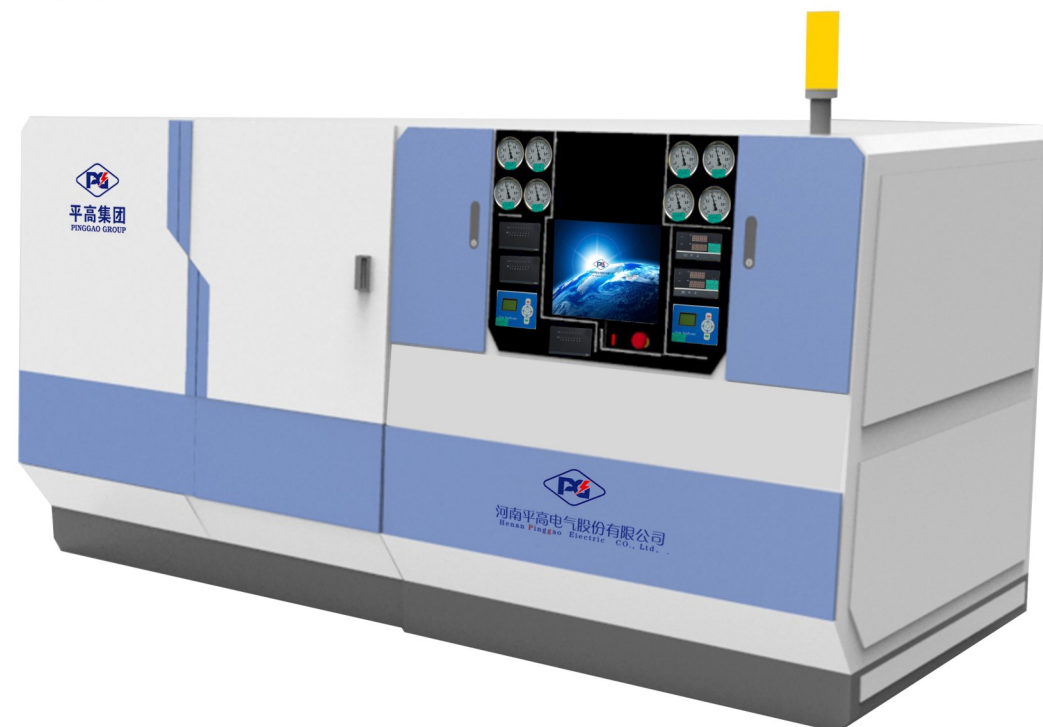
Recovery and purification center of SF₆ gas is a SF₆ gas processing system integrated with recovery, purification, filling, testing, refilling and other functions, to realize "distributed recovery, centralized processing, unified testing and rational use" of SF₆ gas in an area. It is a new generation of SF₆ gas processing system developed by our company.

This system is composed of inversion unit, processing unit and cryogenic separation unit, and combined with cylinder inversion, gas buffer, pressure swing adsorption and cryogenic separation of mechanically refrigerated exhaust, to ensure the processed gas can meet the requirements of Industrial Sulfur Hexafluoride (GB/T12022) and ensure a processing capacity of above 50kg/h.

The entire equipment is under the integrated control, to realize remote network management. The equipment is installed by modular combination method, to further facilitate interaction and usage, and also improve the safety of operation.

Environmental Science & Technology Department provides a complete set of solutions for construction and operation of SF₆ purification center, including general design scheme for the construction of center, plant layout and construction scheme, gas testing scheme, etc.

Main equipment



Main structure

		Name	Function
Major configurations of the center construction	Host equipment	JHCLZX-50/60 SF ₆ purification unit	Waste SF ₆ gas after purification
	Detection Equipment	SF ₆ decomposition product instrument	Moisture detection
		SF ₆ gas chromatograph	Purity detection
		Precise ion meter	Acidity detection
		Infrared spectrometer	Mineral oil detection
		Rotor flowmeter	Auxiliary
	Recovery, re-charge device and pressure container	Recovery device	SF ₆ gas recovery
		Vacuumizing unit	Vacuumize
		Fixed and mobile liquid storage tanks	SF ₆ gas storage
		Cylinder	New and waste SF ₆ gas storage
	Other equipments	Ventilating system	Indoor ventilation
		SF ₆ and O ₂ alarm system	Indoor monitoring
		Protective clothing and protection products	Protective equipments
		Weighing machine	Weighing
		Cylinder fixing bracket	Fixed cylinder
Vehicles		Transport cylinder or recovery unit	

Technical parameters

S/N	Name	Unit	Parameter	
1	Purification capacity	Recovery ratio	%	≥95
2		Processing speed	Kg/h	50
3		Annual treatment capacity	T	≥60
4		Water content	ppm	≤40
5		Oil	ppm	无
6		Purity	%	≥99.9
7	Vacuumize	Final vacuum	Pa	≤10
8		Vacuumizing speed	m ³ /h	60
9	Power supply	Voltage	V	AC380
10		Frequency	Hz	50
11	Annual leakage rate		%	≤0.5
12	Exterior dimension		mm	3600X1400X1800
13	Installation mode			Indoor fixed installation

Applicable environment

Ambient air temperature: -10°C ~+40°C

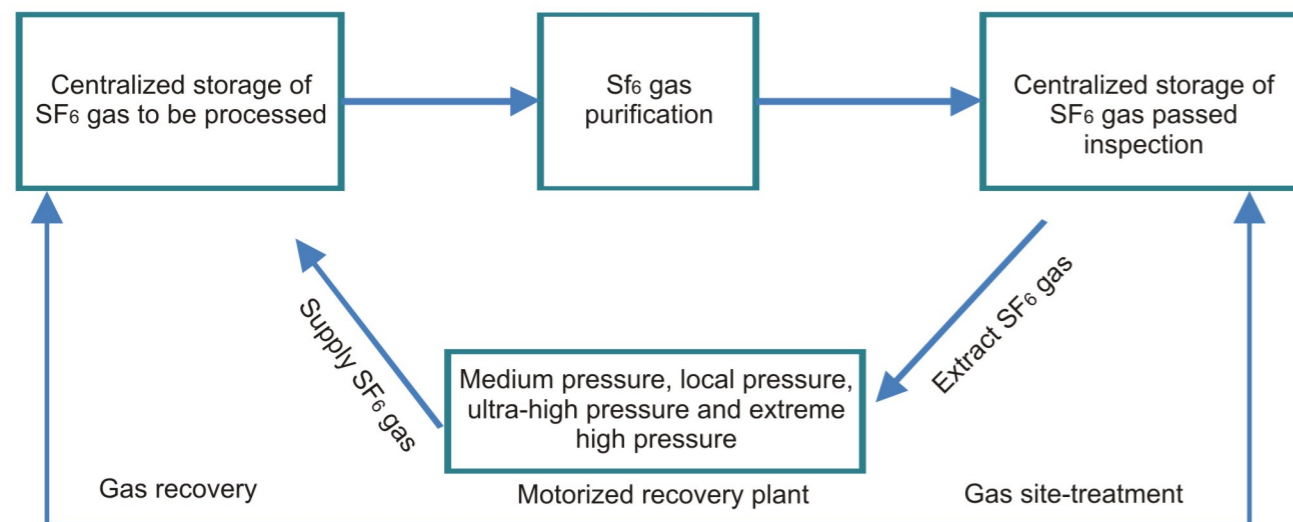
Elevation: no larger than 4,000m

Earthquake intensity: grade 7

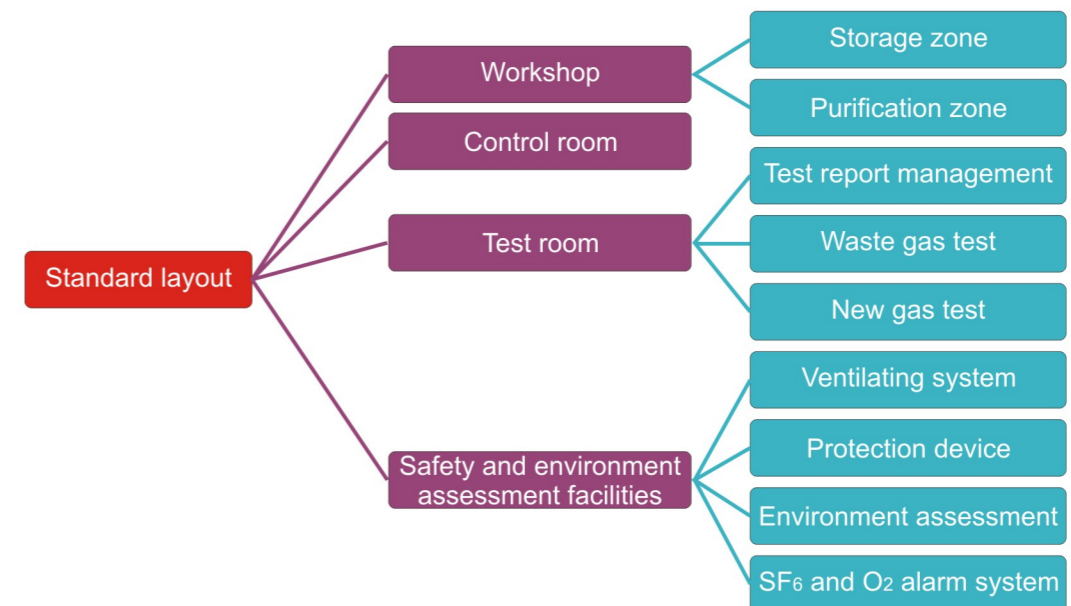
Solar radiation intensity: ≤1000W/m²

Relative humidity: When the ambient air temperature is 25°C, the relative humidity is smaller than 90%;

Operation mode



Standard layout of the purification center



Construction instruction

Plant construction of the SF₆ gas recovery and purification center shall be away from the places with large population such as residential living quarters, office area and schools. It is appropriate to select those areas with open surroundings, good ventilation, all-ready water and electricity and convenient transportation.

Plant area to consider: the whole plant shall have an area about 300m².

The plant building of SF₆ gas recovery processing center shall be divided into the following functional areas: area for gas to be treated; gas purification workshop; gas weighing area; qualified gas storage area; data and tool room; and analysis laboratory.

The plant building in the SF₆ gas recycling center shall be equipped with SF₆ gas leakage alarm device and oxygen content alarm device, to ensure the SF₆ gaseous content in the air of working area shall not exceed 1000 μL/L.

The lower part of the surrounding plant building shall be equipped with strong ventilation facilities, and the ventilation capacity shall guarantee one full exchange throughout the workshop within 15min, which can interact with the alarm system.

► Sf6 gas centralized supply station

Overview

The SF₆ gas centralized supply station is suitable for the power switch and cylinder manufacturers, which shall have several sub-workstations depending on the actual situations of the users. All sub-workstations are functionally independent from each other. Each sub-workstation can achieve the positive and negative pressure recovery, inflation and vacuuming operation of the product gas chamber, and the recovered SF₆ gas can be stored in a centralized manner in the liquid state, and gas can be filled. At the same time, the filled gas shall be dried, purified and subject to regeneration treatment.

The SF₆ gas centralized supply station stores SF₆ gas in a centralized manner, and gas can be supplied in a centralized manner. The SF₆ gas can be recycled and reused. The emission of SF₆ gas can be reduced, and production costs are decreased. The process is environmentally friendly, which has greatly enhanced the enterprise site management level and production efficiency.

An intelligent SF₆ gas centralized supply station shall be built, which has become a new tendency for all power switch and cylinder manufacturers in planning and building a new plant house.

Main features

- ◆ High degree of intelligence: unmanned and automatic operation in the station building;
- ◆ SF₆ gas recycling rate up to 99%;
- ◆ High speed and high efficiency: the maximum recovery rate for SF₆ gas up to 100m³/h;
- ◆ Technical parameters shall be determined according to user requirements, which must be economical and practical;
- ◆ Applicable scope: switch manufacturers with a large demand of gas; and the occasions in need of recycling use.



Parameter table

S/N	Name		Unit	Parameter values
1	Recovery pressure	Initial recovery pressure	MPa	≤0.8
2		Final recovery pressure	Pa	≤1330
3		Limit recovery ultimate pressure	Pa	≤100
4		Recovery rate	m ³ /h	30/60/80/100/>100
5		Maximum exhaust pressure	MPa	5.0
6	Charging pressure	Initial inflation pressure	Pa	≤100
7		Final inflation pressure	MPa	≤0.8
8		Inflation rate	m ³ /h	30~130
9	Vacuumize	Final vacuum	Pa	≤10
10		Vacuumizing speed	m ³ /h	Flexible configuration
11	Purification capacity	Water content	ppm	≤40
12		Oil	ppm	无
13		Dust	μm	<1
14	Annual air leakage rate		%	≤0.5
15	Power supply	Frequency	Hz	50
16		Voltage	V	AC380

Construction instructions

The design and construction of plant building type SF₆ gas station shall be determined according to the specific circumstances of each user:

Area of recommended main station building: more than 200m²;

Recommended control mode (manual and automatic);

Recommended workshop site layout and number of sites;

Recommended technical parameters including equipment recycling, vacuuming, air inflation, system gas storage capacity, etc.;

Recommended pipeline and equipment installation mode (two options for mounting pipelines, overhead pipeline and trench laying);

Consider installing the ventilating device in the main station building;

The workshop layout shall be designed to avoid the conflict with the air conditioning pipelines, fire pipelines and distribution box;

Consider that the distribution system shall be a separate power control cabinet for the gas station.



⇒ SALES NETWORK



⇒ PERFORMANCE

Client name	Product model	Operation time
Domestic performance		
New Northeast Electric Group	LH-57Y/18WG/600	2010.04
Hubei Switch Plant	LH ₂ -20Y/18WG	2011.04
Xiamen ABB HV Switch Co., Ltd.	LH ₄ -20Y/18WG/400	2011.04
Sanmenxia Power Materials Co., Ltd.	LH-20Y-18WG	2011.03
Hubei Extra HV Bureau	LH-60Y/18WG	2011.08
Sichuan Hongye Electric Power Group	LH-10Y/30G/200	2011.07
Power Supply System Renovation Project of Jiabei Circular Economy Industrial Park of Shandong Ludian International Trade Co. Ltd.	LH-10Y/30G/200	2012.08
Fuchuan Hydropower Station Project in Weixi County, Yunnan	LH-10Y/30G/200	2013.02
Pinggao-Toshiba Project (Phase I and Phase II)	Gas station	2011.05
Taizhou Lishan Machinery Factory	Gas station	2011.08
Jilin Electric Power Co., Ltd.	JHCLZX-50/60	2013.06
Jiangsu Electric Power Material Co., Ltd.	JHCLZX-50/60	2013.06
Fujian Electric Power Company	JHCLZX-50/60	2013.06
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International performance		
Procurement Contract of Monywa Letpadaung Copper Mine SF ₆ Gas Insulated Metal Enclosed Switchgear Equipment in Myanmar	LH ₄ -20Y/18WG/400	2012.10
Hua Na Hydropower Station of Vietnam	LH-10Y/30G/200	2012.06
3300t/d Clinker Dry Process Cement Production Line Project of Vietnam Sheng Mei Cement Factory	LH-10Y/30G/200	2012.04
Syrian Petroleum Company	LH ₂ -20Y/18WG/600	2012.05
Project of Peru HUANZA Hydropower Station	LH-14Y/18WG/400	2011.06
Malaysia Cement Factory	LH-10Y/30G/200	2011.12
New Cafurela[需确认] Power Plant of Venezuela	LH ₄ -20Y/18WG/400	2010.11
Syria Aleppo Power Plant Project of PEDEEE	LH ₂ -20Y/18WG/600	2010.10
BIN QASIM[需确认] 560MW Combined Cycle Power Plant Project in Pakistan	LH ₄ -20Y/18WG/400	2010.10
Mumbai Bernhard Transformer Substation in India	LH-9Y-18	2010.10
Galkynysh (South Iolotan) Gas Field in Turkmenistan	LH-10Y/30G/200	2010.03
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