

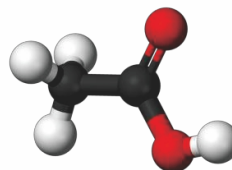
WEIDOU LI

FOR CHEMICAL INDUSTRY

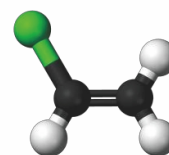




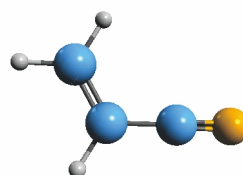
APPLICATION FIELDS



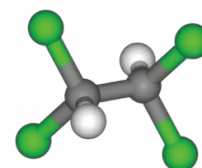
Acetic acid



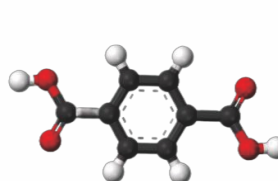
VCM



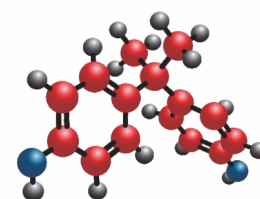
ACN



Alkylation



PTA



BPA

Weidouli Valves Co., Ltd specializes in providing high-quality valves for various chemical projects.

We specialize in supplying a wide range of corrosion-resistant and cost-effective valves of special alloy, including Titanium, Nickel, Monel, Hastelloy, Alloy 20, 904L, and duplex steel.

Our valves have been proven to help our customers cut procurement costs, as well as reduce construction time in wet smelting, PTA, acetic acid, ACN, VCM, and other chemical projects.

As a company rooted in China, we are proud to serve the world by building an international brand for high alloy valves. Our commitment to quality and customer satisfaction has earned us a reputation as a reliable and trusted supplier in the chemical industry.



Weidouli is a premier manufacturer in the Petrochemical, Fine Chemical, Refinery, Pulp & Paper, Fertilizer, New Energy, Water Desalination, and Marine industries.

We take pride in serving customers globally for their projects and framework agreements, supplying them with high-quality exotic alloy valves.

Among these applications, Weidouli valves have earned the trust of renowned organizations and brands within the chemical market, as listed below



LUXI



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INEOS



VALVES FOR ACETIC ACID APPLICATION

Acetic acid: known as ethanoic acid, is a versatile organic acid with a wide range of chemical, textile, pharmaceutical and other industries.

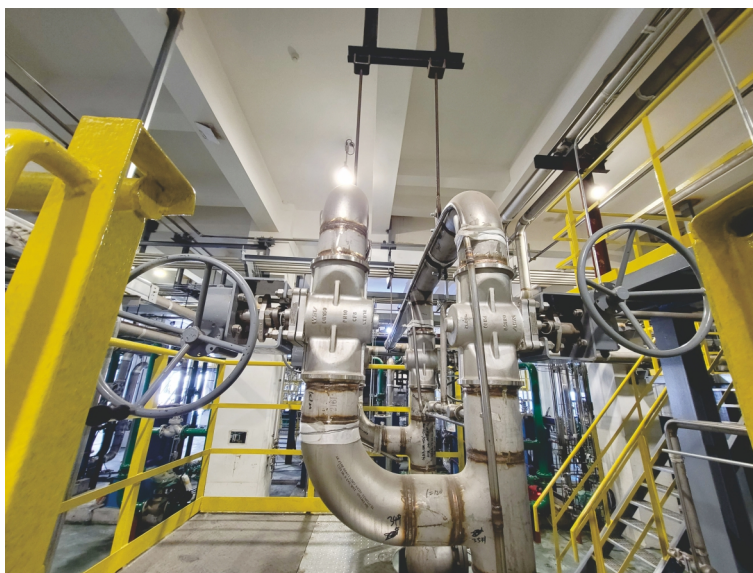
It is one of the most corrosive substances in organic acids.

Ordinary steel will be severely corroded in acetic acid at all concentrations and temperatures.

For demanding requirements such as high temperature and high concentration of acetic acid or other corrosive media, alloy material valves are dispensable.

Solution by Weidouli

For over 30 years, Weidouli has supplied Zirconium and Hastelloy valves in this application, to resist high corrosion and high-pressure steam.



Weidouli specializes in valve solutions for Acetic acid processes, typically Weidouli valves include:

Valves type:

Plug valves, check valves, gate valves, globe valves, ball valves.

Valves material:

Zirconium 702 / 705, Hastelloy B2 / B3, Hastelloy C276.



Weidouli plug valves' achievements in acetic acid industry

In addition to experience of more than 30 years, Weidouli has a number of features that make Weidouli plug valves unique in acetic acid application.

1. Acetic acid patented product

Weidouli plug valves are specially designed for the use in Acetic acid application. 9 patented plug valve products for acetic acid are owned by Weidouli.

2. Performance guarantee

Reliable sources of Zirconium & Hastelloy raw materials and Sealing Systems. Purpose-made PTFE M111 sleeve, in addition to standard sealing systems the plug valves have also security seals for fluctuation temperatures with stuffing boxes, optionally with graphite (Fire Safe) or PTFE.

3. Acetic acid industry achievements

Weidouli has won excellent reputation from global customers of acetic acid industry as a high-quality products supplier. Weidouli valves are serviced for Celanese, Ineos, Hengli Petrochemical, Sinopec, Huayi Engineering etc.

VALVES FOR VCM APPLICATION

Vinyl chloride monomer (VCM) is a key material for making polyvinyl chloride (PVC). The ethylene method, which uses ethylene dichloride (EDC) in chemical reactions to create a colorless, flammable gas, is the prevalent process over the calcium carbide acetylene method. VCM is flammable at room temperature and will polymerize if exposed to air or other activating substances, so is an explosion hazard.



Features & Application to VCM process

Weidouli valves are designed with enhanced safety features to address concerns related to toxic and flammable media. Our advanced stem seal design meets the stringent requirements of Fugitive Emission Control as per ISO 15848-1 BH. We employ Lean Manufacturing Process Management to ensure efficiency and effectiveness in our operations. Additionally, our special cavity design helps prevent the deposition of materials, while our anti-blow stem design effectively prevents stem packing leaks and mitigates the risk of fugitive emissions.



Weidouli sleeved plug valves in Wanhua VCM process line

Weidouli specializes in valve solutions for VCM processes, typically Weidouli valves include:

Valves Type:

Plug valve, check valve, butterfly valve, ball valve, gate valve, globe valve

Valves Material:

Duplex, Monel, Stainless Steel, Carbon Steel, Low-temp Carbon steel.

Weidouli valves are ideal for the hazardous conditions of VCM production and perform well.

Duplex steel is used for the entire process due to chloride ions.

Monel is for the oxygen chlorination process.

Carbon steel is for non-corrosive and standard production.

Low-temp carbon steel is for condensation and liquefaction in refining.

Weidouli specializes in custom valve solutions for various processes and are well-regarded in the industry, serving clients like Wanhua Chemical Group, Haiwan Chemical as well as Huayi Group etc

VALVES FOR ACN APPLICATION

Acrylonitrile is an important organic chemical raw material, mainly used in the production of synthetic fibers, plastics and synthetic rubber. The downstream consumption is mainly concentrated in the three major fields of acrylic, ABS and acrylamide.



Shenghong Sierbang ACN plant



Being volatile and flammable, it requires valves equipment with:

- Corrosion resistance to protect against acrylonitrile and chemicals like ammonia and sulfuric acid.
- High-temperature endurance for the hot reactor environment in production.
- Pressure resistance to handle high-pressure equipment and piping.
- Safety features for a quick response to potential leaks of flammable or toxic gases.

Weidouli specializes in custom valve solutions for ACN processes, typically Weidouli valves include:

Valves type:

Check valves, globe valves, ball valves, control valve.

Valves material:

Hastelloy B-2, Hastelloy B-3, Alloy 20, Alloy 28, Zirconium 702C.



VALVES FOR ALKYLATION APPLICATION

Alkylation is a crucial organic synthesis reaction widely utilized in both industrial chemistry and laboratory settings. It typically involves replacing a hydrogen atom within a molecule with an alkyl group.

The design and configuration of alkylation reaction units depend on factors such as reaction conditions, substrate characteristics, and desired products.

Weidouli has demonstrated exceptional technical prowess and unparalleled collaborative spirit in the field of alkylation.

We take pride in our significant contributions to the construction and maintenance of alkylation units through partnerships with leading chemical enterprises.

Whether in unit construction, revamping, or the operation of BDO and PTMEG units, we collaborate closely with clients to tackle challenges and achieve success.



Sinopec Alkylation plant in Jingmen

Weidouli valves used in alkylation service mostly feature a Monel trim, or both Monel body and trim. However, depending on the operating parameters, Hastelloy® and Alloy 20 may also be used as substitutes for Monel on some valves.

Weidouli specializes in custom valve solutions for various processes and is well-regarded in the industry, serving clients like Sinopec, Zhejiang Petrochemical etc.

Weidouli specializes in valve solutions for Alkylation processes, typically Weidouli valves include:

Valves type:

Ball valves, gate valves, check valves, plug valve, globe valve.

Valves material:

Alloy 20, Hastelloy, Monel, Inconel, Stainless Steel.



VALVES FOR PTA APPLICATION



Liwan plant in Ningbo

Purified Terephthalic Acid (PTA) is a pristine white crystalline substance, widely recognized as a vital organic compound. It serves as a precursor for the synthesis of thermoplastics, notably PET, which stands for polyethylene terephthalate. The applications of PTA are extensive, encompassing the creation of polyurethanes, powder coating resins, polyester textiles, films, and plastic bottles.

In the realm of PTA production, challenges such as corrosion, the handling of slurries, and the process of crystallization are paramount.

The raw materials, including acetic acid and PTA itself, exhibit a high degree of corrosiveness, even post the slurry treatment phase.

The crystallization stage introduces further complications, as the formation of hard polymers can adhere to metallic surfaces. This adherence can lead to the solidification on the trim components, subsequently resulting in erosion at the end flange.



Weidouli has been instrumental in the Hengli Huizhou PTA project in China, delivering an impressive 2,000 titanium valves.

The project has been marked by a swift and successful commissioning, with product qualification achieved within a remarkable two-day timeframe.

In the realm of pipeline materials, stainless and duplex steels reign supreme, while titanium is the preferred choice for valves due to its exceptional resistance to harsh and corrosive environments.

Carbon graphite is also favored for seals, further enhancing the system's resilience.

Weidouli specializes in valve solutions for PTA processes, typically Weidouli valves include:

Valves type:

Floating ball valve, V segment ball valve, check valve.

Valves material:

Titanium, Super duplex, Duplex, Hastelloy, Stainless steel.

VALVES FOR BPA APPLICATION

BPA(bisphenol A)

is an organic synthetic compound commonly used in the production of poly carbonate plastics and epoxy resins.

It is characterised by high transparency and good heat resistance, and is widely used in industry and daily life, such as food packaging, plastic bottles, medical appliances and paints.

Typical Equipment:

Reactor

Distillation

Columns

WEIDOU LI VALVES

IMPRESSE with excellence in BPA project.

The harsh working conditions require valves that can withstand high temperatures, high pressures, corrosion and other factors, and our special alloy valves are the ideal choice to meet these needs.



Wanhua Chemical Group Chemical Plant

End-user recognition:

End-user of our valves are highly evaluated. This is not only reflected in the product quality, but also the company's service, technical support recognition.

Product Stability

The stable operation of Weidouli's valves in the BPA production line, and real-time after-sales service, ensure the smooth progress of production.

Weidouli specializes in valve solutions for BPA processes, typically Weidouli valves include:

Valves type:

Check valve, plug valve, globe valve.

Valves material:

Monel, CN7M, M35-1, Stainless Steel.

Weidouli Valves are renowned for exceptional performance in manufacturing industrial valves with exotic materials such as Titanium, Zirconium, Nickel-based alloys, Alloy 20, 254SMO, AL-6XN, 904L, Ni-Al-Br, Duplex and Stainless Steel etc., all of which are highly corrosion-resistant.

Material	Feature	Application
Titanium & Titanium Alloy		
Titanium Gr.2	Titanium can withstand harsh chemical environments, such as strong acids like nitric acid, acetic acid, and the corrosive effects of seawater. The material essential for various industries, including chemical installations, petroleum refining, and the paper industry.	PTA /Nitric acid/ Desalination/Pulp&paper/Nickel Mining/ FPSO/Chlor-alkali industry.
Titanium Gr.3		
Titanium Gr.5		
Titanium Gr.7		
Titanium Gr.12		
Nickel		
Nickel 200	It offers strong corrosion resistance to alkaline carbonates like sodium carbonate and calcium carbonate, as well as soluble alkalis and carbonic acid solutions.	Caustic soda NaOH/Alkali salt/alkaline carbonate solutions.
Nickel 201		
Nickel Base Alloy		
Monel 400	It is suitable for alkali salt and hydrofluoric acid chemical installations, petroleum refining installations, etc., such as in fluorine gas,, sulfuric acid has excellent corrosion resistance. Meanwhile, it is more corrosion resistant than copper-based alloy in seawater.	Alkali salt/ Hydrofluoric acid /Sulfuric acid Petroleum refining installations/ Seawater treatment.
Monel K500		
Inconel 600	Good performance of anti-oxidation at high temperature and of stress corrosion against Cl- and of anti-corrosion against alkarine conditions.	Coal chemical industry.
Inconel 625		
Incoloy 800	Good performance of anti-oxidation and anti-carburizing at high temperature.	Polysilicon/Petro Chemical.
Incoloy 800H		
Incoloy 825		
Hastelloy B	High performance against all concentration level of hydrochloric acid up to the boiling point. Good performance against 60% or lower sulfuric acid, phosphoric acis or cupric chloride.	Acetic Acid/60% or lower sulfuric acid, phosphoric acid.
Hastelloy B-2		
Hastelloy B-3		
Hastelloy C276	High corrosion resistance under acidic conditions such as wet chlorine gas and chlorine dioxide, and high corrosion resistance to organic acids and salts.	Fine chemical industry (TDI, PTA, anhydride,acrylic acid, etc.) and power plant desulfurization/ Seawater treatment.
Hastelloy C-22		
Hastelloy C-4	More resistant to intergranular corrosion than Hastelloy B.	Fertilizer/Pesticide production equipment.
Hastelloy G	Superior corrosion resistance to mixed acid of phosphoric acid and oxidizing acid.	Sulfuric acid/Phosphoric acid.
Hastelloy G30		
Zirconium		
Zirconium 702	High resistance to pitting, crevice corrosion resistance, High resistance to stress corrosion cracking, corrosion fatigue and erosion. Good in nearly all cases, excellent for high temperature acids.	Acetic Acid/Nuclear cooling processes/ Chlorhydric acid / Alkali processes equipment/Urea.
Zirconium 705		

Material List of Weidouli Valves

Super Austenitic Stainless Steel		
904L	Austenitic stainless steel offers exceptional resistance to acids, alkalis, and chloride solutions, making it ideal for chemical processes, flue gas desulfurization, salt production, and seawater desalination.	Salt production/ Seawater desalination.
254SMO		
AL-6XN		
Alloy 20	It is suitable for chemical processes involving alkali, hydrofluoric acid, sulfuric acid, and phosphoric acid, as well as oil refining	Sulfuric acid/oil refining.
Duplex & Super Duplex		
Duplex S31803	The material is suitable for chloride conditions, such as salt production equipment and seawater desalination treatment. It is also used in acidic environments, such as facilities for dilute sulfuric acid, phosphoric acid, formic acid, and urea. In addition, it is utilized in chemical equipment like resin facilities, desulfurization systems in power plants.	VCM/ PTA/Water treatment/FPSO Coal Gasification Chemical.
Super Duplex S32750		
Super Duplex S32760		
Copper Alloy		
Ni-Al-Br C95800	Ideal for use in Marine Industry and Desalination Plants, Oil and Gas Industry.	Seawater desalination/FPSO.
Ni-Al-Br C95500		
Ni-Al-Br C95400		
Stainless steel		
304	Stainless steel can be easily machined and fabricated into various valve types. They are known for their durability, corrosion resistance, and ability to handle a wide range of temperatures and medium.	Chemical Processing/ Pharmaceutical/ Petrochemical/Power Generation/Water and Wastewater/Pulp and Paper/Mining Marine/Oil&Gas.
304L		
316		
316L		
317		
317L		
347		



Weidouli offers a variety of valve types, welcome you to contact us regarding specific product series catalogs.



No: WSV2018Q-01



No: WSV2018Z-01



No: WSV2018X-01



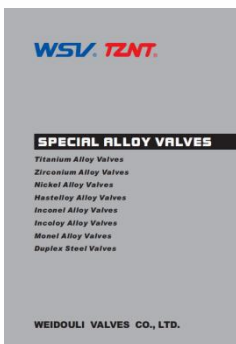
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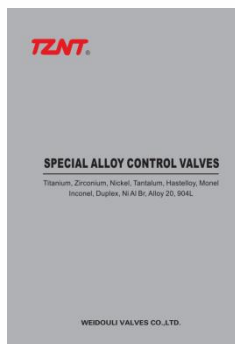
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No: WSV2019-01



No: WSV2019-02



No: WSV2019-03



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