

Modular Design of Piping System

In recent years, concept of modular design has been extended from the electronics industry to various manufacturing industries, and it's widely used in design domains such as machine tools, electronic products and aerospace, etc. The fructose ion-exchange project designed by Myande has achieved the expected results by adopting modular design.

The basic steps of modular factory construction: Determine the module specification → Modular design → Manufacture → Long-distance transportation → Field installation → Modern factory. To meet the requirements of long-distance transportation and field installation, the integrity, size control, weight control and accuracy of modular design are highly demanding. The design team of Myande has conducted in-depth research and applied the pipeline module technology based on the modular design functions of 3D design platform.

Process design is the core of modular design. The key to apply modular design concept to the pipeline design is the standardization and systematization of process flow and equipment design. Design standardization is the premise of modular design. In the process of modular design, the process flow, process conditions, equipment specifications and equipment type need to match the conditions of modular design, equipment materials and related manufacturing standards should also meet the requirements, at the same time, the geological and meteorological conditions of construction site shall be taken into consideration. In other words, modular design should give full consideration to different manufacturing standards, geological and meteorological conditions.

In addition, it is important to pay attention to the following points when designing pipeline layout: (1) The pipeline layout should be classified according to type and size, arrange plan diagram; (2) Typical pipeline layout design of general equipment and final-designed equipment; (3) Applying modular partitions to the equipment layout drawing, and which with high degree modularization is preferred for partition modular design; (4) Modular design of pipeline material database; (5) Modular design of pipeline standard support and hanger.

Implementation steps of pipeline modularization:

1. Work in design stage:

Select pipeline module → Define the pipeline module → Determine welding seam type of pipeline module → Forming serial products after comprehensive analysis of the performance of each functional unit. In addition to the serialization of functional modules, customers' special needs should also be considered in different engineering projects, which requires the balance between standardization and special requirements in the design process.

Publish the construction drawings of pipeline module. Formulate the procurement plan of valves and pipelines in the module according to the project construction plan, and determine its supply time and place. Fig.1 is an example of

3D design model of pipeline module.

2. Pipeline module manufacturing and hydraulic test

The prefabrication of pipeline module factory is completely consistent with the traditional field construction in terms of manufacturing technology, specification and environment, without special requirements. After the pipeline module factory is prefabricated, conduct hydraulic test.

3. Pipeline module transportation

After passing the inspection, the pipeline module leaves the factory. Since the module is loose and easy to be damaged, it is required to make professional fixed support and packaging for the pipeline module. Fig.2 is an example of pipeline module packing.

4. Lifting

To realize one basic function of module, a lot of equipments, valves and pipe fittings need to be integrated, which will result in large volume and self-weight definitely. Therefore, in the process of hoisting, whether in the selection of lifting equipment or in the formulation of lifting plan, the safety and protection of functional modules should be considered. Fig. 3 and Fig. 4 are examples of pipeline module hoisting.

With the wider application of modular technology, how to improve the efficiency and quality of module design has been paid more and more attention. In some project designs, by improving the efficiency of modular design, the progress of engineering construction and procurement schedule of relevant materials can be effectively improved, the potential risks in engineering construction can be eliminated, and the reliability of engineering construction can be increased. In the design process of specific projects, different equipments and devices, as well as different plane positions, patents and changes of natural conditions will have an impact on the modular design of pipeline system. Therefore, in the process of modular design, taking all these factors fully into account to improve the efficiency and quality of pipeline system modular design.

(Translated by Wu Yunzhu)

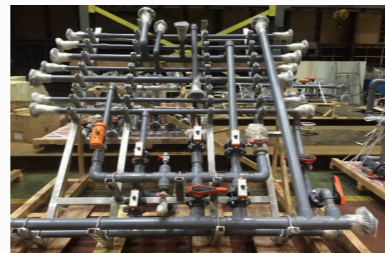
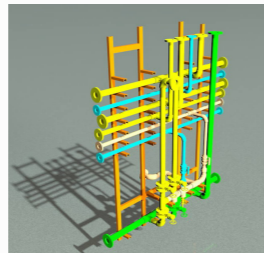


Fig. 1 | Fig. 2

Fig. 3 | Fig. 4

迈安德之窗

Glimpse of Myande

激情豪迈 Enthusiasm
精细为豆 Precision
诚信是德 Honesty

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MYANDE GROUP

Oils&Fats Equipment and Technology
Solid-state Fermentation Equipment and Technology

Starch&Derivatives Equipment and Technology
Energy-saving Evaporation Equipment and Technology

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Myande Large-scale Automatic Flaker Won the Second Prize of Science and Technology of China Cereals and Oils Society in 2018

Recently, the list of winners of the Science and Technology Award of China Cereals and Oils Society in 2018 was officially announced. Myande's project aimed at "Development and Application of Large-scale Automatic Oilseeds Flaker" won the second prize of the Science and Technology Award.

Flaker is one of the core equipment in oil preparation process. Its quality directly affects the extraction efficiency and the quality of soybean meal. Previously, the supply of flakers with capacity of 500TPD or over was dominated by foreign manufacturers. Through market research on the defects of flakers in use, Myande Group developed MYPG large-scale automatic oilseeds flaker. With independent and innovative design, it obtained a number of national patents, including roll end anti-gushing mechanism, roll gap adjusting device and belt tensioning device, which greatly improved the performance of the flaker.

In order to ensure the reliability of the flaker, Myande purchased a number of advanced manufacturing equipment, such as five-axis machining center, and optimized the intelligent manufacturing production line, which have enabled major technical features of Myande flakers, including its noise and vibration levels, reliability, and safety,

to reach international standards.

Myande flakers are currently running in more than ten large 5000TPD oil factories and more than 100 oils and fats enterprises at home and abroad.

This Science and Technology Award of the China Cereals and Oils Society represents the recognition and encouragement of the industry to Myande flaker. Myande will provide better serve for domestic and foreign customers and strive to achieve the vision of becoming a respectable global leading enterprise in the specialized market.

(Translated by Hu Tingting)



Myande Screw Reclaim System Listed among Jiangsu Province's Key "New Technologies and New Products" Catalogue

After rigorous review and assessment by authorities for promotion and application of new technologies and new products in Jiangsu Province, Myande screw reclaim system, independently developed by Myande Group, was listed among "New Technologies and New Products" Catalogue, and will receive priority support granted by Science and Technology Encouraging Innovation Policy in Jiangsu Province.

This honor is a result of Myande's operational concept focusing on R&D innovation, and is the result of hard work of the research team. Compared with similar products at home and abroad, Myandes crew reclaim system has the advantages of large production scale, small floor space, low energy consumption, stable storage product quality, high degree of automation, and effective reduction of labor costs

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and investment costs. In addition, it has overload protection and other various security features.

Earlier, this product won "High-tech Product Certificate" issued by Science and Technology Department of Jiangsu Province in 2017. During its development process, a total of 17 patents were applied for, and 2 invention patents, 9 utility model patents have been authorized, and 1 PCT patent have been granted.

(Translated by Lu Le)



Myande Signed Contract to Supply 2 sets of 16TPH MVR Evaporation System

At present, new energy resources has become a new development direction in the automotive field, and lithium battery technology has developed in the field of new energy vehicles. The lithium carbonate process required in the production of lithium batteries is inseparable from the use of evaporators. This new market trend brings opportunities and challenges to evaporator manufacturers.

To meet this challenge, Myande has intensified research and development of evaporators for lithium batteries industry. Through continuous communication with customer, Myande engineering team acquired deep understanding of customer needs. In the negotiation process, Myande team showed technical expertise and finally dispelled the customer concerns and uncertainties.

Myande successfully established the cooperative relationship with Jiangxi Yongxing Special Stainless Steel New Energy Technology Co., Ltd and signed 2 sets of 16TPH battery grade lithium carbonate MVR evaporation

crystallization equipment. The successful start of the project enabled Myande's MVR evaporation technology to get further break-through and development in the lithium battery industry.

Yongxing Special Stainless Steel Co., Ltd specializes in the research and development and production of high-quality stainless steel and nickel-based iron-nickel-based alloy rod and wire material. The products are mainly used in petrochemical, high-pressure boiler, nuclear power energy, aerospace and other industrial fields. It's a leading enterprise of stainless steel rod and wire in China. Jiangxi Yongxing Special Stainless Steel Technology Co., Ltd is a wholly-owned subsidiary of Yongxing Special Stainless Steel Co., Ltd. It's a professional enterprise engaged in the development of lithium battery materials and plans to build an annual output of 10000 tons of battery-grade lithium carbonate.

(Translated by ChenTing)

Myande Participated in 9th IEOE Expo and Won Gold Medal

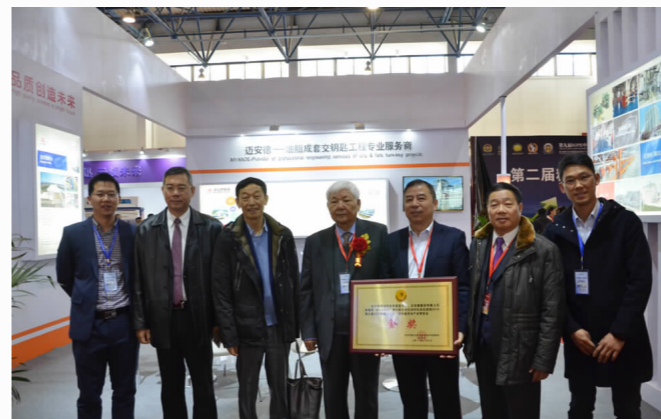
On December 06, 2018, Myande Group was invited to participate in the 9th IGPE China International Grain and Oil Products, Grain and Oil Processing and Storage Logistics Technology Expo and the 9th IEOE China International Edible Oil Industry Expo, which was hosted by CCOA (Chinese Cereals and Oils Association).

"MYANDE" brand large-scale automatic oilseeds flaking mill, exhibited at the event, won "Gold Medal" of the 9th IEOE China (Beijing) International Edible Oil Industry Expo. Myande Group has won many gold awards in succession, which fully proves Myande's manufacturing strength and leadership in the field of grain and oil processing equipment.

During the exhibition, Mr. Wang Ruiyuan, chief expert of CCOA and honorary president of the Oils and Fats Branch of CCOA, Mr. He Dongping, president of the Oils and Fats Branch of CCOA, and other leaders of the association visited Myande exhibition hall and highly praised Myande's comprehensive strength and technology development.

With constant upgrading of food consumption the acceleration of urbanization, the demand for high-quality grain and oil products, which are safer, more nutritious, more healthy, more diversified and individualized, has been in gradual but steady increase. In order to meet the changing needs and the new food consumption structure of

urban and rural residents, it is necessary to give full play to the role of grain and oil processing industry and promote the transformation and upgrading of the processing industry. Myande Group with its modern and intelligent



equipment manufacturing base adheres to its operational concept that focus on "excellent manufacturing" and guarding the food safety, energy saving, environmental protection and sustainable development. Myande always adheres to the corporate mission of "providing safer, more energy-efficient and intelligent professional mechanical products and system solutions to create better performance for customers".

During this exhibition, Myande Group communicated with industry partners on the current industry development situation, new process technology and equipment quality, in order to form modern grain and oil processing industry system featuring "safe nutrition, green ecology, reasonable layout, coordinated development, complete chain and good efficiency".

(Translated by Lu Le)

2019 New Year's Festival Gala Evening —Jointly Hosted by Myande Group, Ronghai Biotechnology Co., Ltd. and Jiangnan University

On December 22, 2018, more than 300 employees, teachers and students from Myande Group, Ronghai Biotechnology Co., Ltd. and Oils and Fats Innovation Team of Jiangnan University gathered together at New Year's Festival Gala Evening hosted by Myande Group in Yangzhou.

Years of close cooperation among Myande, Ronghai Biotechnology and Jiangnan University Innovation Team has created many brilliant achievements. In the past few years, Myande worked closely with the innovative team of Jiangnan University to develop appropriate processing technology and intelligent edible oil equipment. The results won the first prize for scientific and technological progress of China Cereals and Oils Society. Ronghai and Jiangnan University Innovation Team jointly set up "Jiangnan University-Ronghai Biotechnology Healthy Oils and Fats Joint Laboratory" to cooperate in the development of

healthy oils and fats products. This year, the three parties launched numerous cooperation projects such as large-scale production of flaxseed oil and production of functional oil. These projects are currently progressing smoothly.

Professor Wang Xingguo of Jiangnan University made a summary report on behalf of Jiangnan University Edible Oil Nutrition and Safety Science and Technology Innovation Team to summarize the representative events of the team in 2018.

At the end of the evening, Mr. Rong Zhen, CEO of Myande Group, delivered a congratulation speech. The successful hosting of the New Year's Festival Gala Evening not only enhances the feelings between schools and enterprises, and creates a harmonious atmosphere, but also lays a solid foundation for the future in-depth cooperation.

(Translated by Hu Tingting)



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