



Add: No.3 Zhenxing Road, Yangzhou City, Jiangsu Province China.

P.O: 225029

Tel: 0086-514-85828990

Fax: 0086-514-85828991

Email: biomass@muyang.com

Muyang Biomass Engineering Co

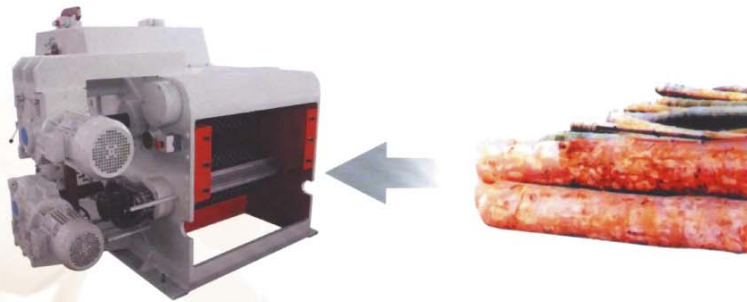


1976 saw the founding of Jiangsu Muyang Group Co, Ltd in the famous Chinese historic and cultural city Yangzhou. Over forty years of constant development through its IR&D programs and customized service have made it a group corporation well-known worldwide and put it in the lead as offering the equipment, technological solutions and turn-key projects for lots of industries such as feed manufacturing, food processing, grain milling, bio-energy production, environmental protection, material handling & storage, steel structure building and industrial automation etc.

As a holding company directly subordinate to Muyang Group, Muyang Biomass Engineering Co., Ltd is specialized in and fully dedicated to supplying biomass energy equipment and facilities for pelletizing various renewable loose biomass materials, say

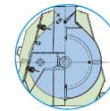
crop stalks, straws, sawdust, wood chips, bark, wood shavings and other industrial & household wastes etc, which can be used for household and industrial applications instead of fossil fuels with such advantages as increased bulk density and energy efficiency, lower transportation costs, reduced storage volume, easier handling and better environmental protection effects.

Relying on the Group's enormous resources, powerful IR&D capability, state-of-the-art machine tools and global-wide marketing networks, Muyang Biomass will uphold Muyang partnership philosophy, value customers' satisfaction so as to hammer at the reformation of energy structure, the improvement of people's living environment and the best service to agricultural production with its new equipment and technology.



Spec Model	Dia of Knife Roller mm	Qty of Knife	Inlet size mm	Max Dia. of Material mm	Length of chip mm	Cap m ³ /h	Main Power kw	Feeding Power kw	Oil Pump Motor Power kw	Weight kg	Dimension mm
BX218	800	2	225 × 680	160	30 20	15-20	110	4 × 2	0.5	7000	4670 × 150 × 1500
BX2113	1300	2	400 × 700	230	38	34-64	200-250	7.5 × 2	3	11840	3670 × 2617 × 2050
BX2113/13	1300	2	400 × 1250	250	30	90-132	450-600	11 × 2	2.2	20000	5484 × 5400 × 1860
BX2120	2000	4 × 2	860 × 1250	370	35	190	800-1000	22 × 2	3	55000	7970 × 7150 × 2750

- Excellent quality and the best cost performance;
- Suitable for wood log, brushwood, board etc;
- Customizable product size.



Genuine water-drip like grinding chamber

The design of the grinding chamber makes sense not only in its shape of a water-drop but also in its real performance function.



High-precision dynamic balancing test

Every rotor must be dynamically balanced in a strict way, which ensures the stable running of the equipment, the wearing reduction of bearings as well as hammer holders and other relative parts, resulting in higher reliability, longer service life and lower maintenance cost.



Interlocked screen pressing mechanism (patented)

Changing two-step or multi-step screen pressing into an one-step process, eliminates the unevenness of screen edges due to multi-step operation, ensuring the absolute tightness of the chamber. Patent No. ZL98 2 42415.9



Operation-friendly access door

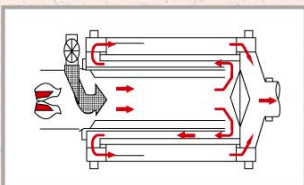
Equipped with rollers, the door can be pushed aside to displace and fully open it, featuring easier operation, maintenance and the reduction of labor intensity of the operator.

Patent No. ZL 98 2 42414.0

Technical data of hammermill

Name	Model	Power kw
968-II	SFSP132 × 36C/A	75/90/110
968-III	SFSP132 × 50C/A	110/132/160
968-IV	SFSP132 × 75C/A	200/220/250
968-V	SFSP132 × 102C/A	250/315/355
968-VI	SFSP132 × 125C/A	355/400/450

- Adopt large inlet, special for sawdust grinding, with high capacity and low power consumption;
- Matched with multiform Feeder;
- With interlocked system to protect operator;
- Suitable for sawdust grinding.



Based on years of application experience and project cases, Muyang Biomass can provide multiple special industrial dryers in accordance with the material characteristics, which surely meet and most often exceed customers' expectations, including triple-pass rotary dryer, single-pass rotary dryer, rotary tube bundle dryer, vibratory fluidized bed dryer (cooler), flash dryer and so on. They are proven to be effective and successful in a wide range of industries for the dehydration of alfalfa, sludge, palm fiber, coconut shell fiber, wood chip and saw dust, wood shaving, distillers' grain, paper pulp, and citrus & potato by-products etc.

Model	HTG-900	HTG-1800	HTG-3600	HTG-4800	HTG-5400	HTG-8000
Moisture reduction kg	900	1800	3600	4800	5400	8000
Raw material moisture	70% 60% 50%	70% 60% 50%	70% 60% 50%	70% 60% 50%	70% 60% 50%	70% 60% 50%
Final moisture	10%	10%	10%	10%	10%	10%
Capacity(dry) kg/h	300—800	600—1500	1200—3000	2400—6000	2700—6000	4000—10000
Power consumption kwh	25	38	53	60	75	105
Coal consumption kg/t	400 250 200	400 250 200	400 250 200	400 250 200	400 250 200	400 250 200
installed capacity kw	37	54	75	110	128	150
Dimension m	24 × 6 × 5	26 × 8 × 7	30 × 9 × 8	32 × 10 × 9	36 × 12 × 10	40 × 12 × 12

Muyang MUZLM Series Wood Pellet Mill

High-efficiency

- Single-motor V-belts driving system features ideal transmission, big driving torque and steady running;
- Die in many thicknesses and multiple die hole diameters ranging from $\Phi 6\text{mm}$ to $\Phi 12\text{mm}$ are optional in light of customer's requirements, so as to achieve the best technical and economic benefits;

Intelligent

- Feeding by an advanced frequency-conversion motor, equipped with an overload protection device and a magnetic separating device as well;
- High capacity, low noise, convenient operation and maintenance.

Model	Capacity t/h	Power kw	Size of pellet mm
MUZL420M	0.5 - 1.2	110	6-12
MUZL610M	1-2	160	6-12
MUZL1610M	3-5	280	6-12





MUYANG

STABILIZING & COOLING EQUIPMENT

FULLY AUTOMATIC PACKING SYSTEM

Muyang SLNF Series Tipping Type Counterflow Cooler (Type A)

- On the principle of the advanced counterflow cooling, the machine is equipped with a tipping type discharging device driven by a flexible hydraulic system, which is characterized by its smooth material flowing, adjustable discharging rate and discharging speed as well as uniform discharging ;
- The octagon cooling bin has eliminated dead cooling corner, which is beneficial to the cooling treatment of material;
- The new rotary spreader ensures materials for a uniform and complete cooling with reduced breakage, featuring adjustable range of material distribution and lowered power consumption;
- The temperature of material after cooling is not 5°C higher than ambient temperature, water removal rate is not lower than 3.8%, extending the storage time of high-grade pellets.



Muyang SKLN Series Counterflow Cooler (Type A)

- On the principle of the advanced counterflow cooling, the machine is equipped with a reciprocating grade type discharging device, which is characterized by its smooth material flowing and uniform discharging ;
- There are some pressure-relief plates provided above the discharging device, which can greatly improve the working load of discharging device, reduce its distortion, and extend the service life of the component parts;
- Power transmission is realized by means of a camshaft driven by a geared motor, featuring smooth driving, higher reliability, lower noise as well as easy installation and maintenance;
- The temperature of cooled materials is not 5°C higher than ambient temperature, extend the storage time of high-grade pellet.



Model	SLNF14 × 14A	SLNF16 × 16A	SLNF19 × 19A	SLNF22 × 22A	SLNF24 × 24A	SLNF28 × 28A
Power kw	1.5	1.5	1.5+0.75	3+0.75	3+0.75	3+0.75
Capacity t/h	5	7.5	10	15	20	20

Fully automatic packing system

- The complete and integrated packaging lines are suitable for bags of any type (paper, plastic, woven pp, etc) and various applications such as chemical, feed, food and grain and the like, and for 10–50kg bag sizes with the maximum rate of 1200 bags/h.
- The system features the control system and safety device for each operating unit to realize full automatic running. And the servo motor drive adopted results in a higher efficiency.





MUYANG

SEMI-AUTOMATIC PACKING SYSTEM

Muyang Packing Machine

- Unique anti-vibration design ensures excellent weighing accuracy;
- Real-time head rectification, internal digital adjustment and checking as well as automatic zero setting;
- Suitable for packing granular and powdery materials.

Weighting range kg	Static precision	Dynamic precision	Bagging speed bags/h
10, 25, 50	0.1%fs	0.2%fs	300-400



AUXILIARY EQUIPMENT



Model	TGTGK 40/28	TGTGK 50/28	TGTGK 60/28	TGTGK 80/33	TGTGK 100/33 x 2	TGTGK 120/33 x 2
Capacity Granule m³/h	80	100	150	300	670	1000
Powder m³/h	55	60				

Muyang TGTGk series Bucket Elevator

- Fire-proof and anti-abrasive rubber head pulley can prevent belt from sideslip efficiently;
- Equipped with an anti-explosion vent which can effectively avoid dust explosion, the elevator is safe and reliable;
- Backstop fitted can efficiently prevent material from blocking due to machine stoppage;
- Special cramp folding technique is applied in trunking manufacturing, hence high strength and good sealing performance are ensured;
- Belt take up used is of gravity type or thread rod type;
- Sideslip alarm and speed monitoring device are optional.



Model	TGSU16	TGSU20	TGSU25	TGSU32	TGSU42	TGSU50	TGSU63
Capacity m³/h	34	45	65	100	200	250	350

Muyang TGSU Series U-Trough Drag Conveyor

- Self-cleaning type mainly used for horizontally conveying powdery and granular materials;
- 'U' shape trough, scrapers finely made of industrial plastic with excellent wear resistant performance;
- Low noise, little material residue. Long service time;
- Simple structure, good sealing performance, flexible process layout and lower power consumption;
- Widely applied in grain, feed and pre-mix processing as well as light and chemical industrial.



Model	TGSS 16	TGSS 20	TGSS 25	TGSS 32	TGSS 42	TGSS 50	TGSS 63	TGSS 80	TGSS 100
Capacity m³/h	30	65	100	140	260	400	670	750-1070	1150-1600

Muyang TGSS Series En mass Drag conveyor

- Equipped with an alarming device for material blockage;
- Devices for speed loss and chain breakage protection are optional;
- Stable running low noise and long service life;
- Flexible for multi-point feeding and discharging;
- Thread rod type take-up (tensioner) can be fitted at the tail so as to meet various conveying requirements;
- Widely used in port, dock, grain depot and the malt flour, brewery, feed and chemical industry for horizontal bulk material conveying.



MUYANG

AUXILIARY EQUIPMENT

Muyang TLSS Screw conveyor

- Good adaptability, flexible inlet and outlet arrangement, low noise, convenient manipulation and maintenance;
- Widely used for the horizontal, include ($\leq 15^\circ$) or vertical conveying of all kinds of powdery.

Model	TLSS16	TLSS20	TLSS25	TLSS32	TLSS40	TLSS50
Capacity m ³ /h	10	20	40	60	80	120



Muyang TWLLS Series Double Screw Feeder

- With big feeding inlet and flights with constant diameter and different pitch, the machine features large capacity, low residue and more even feeding, suitable to be used at the inlets of batching bins of a proportioning system.

Model	TWLLS16	TWLLS20	TWLLS25	TWLLS32	TWLLS40
Capacity m ³ /h	10	18	30	55	70



Muyang TCXT Series Permanent Magnet Sleeve

- Powerful iron removal performance without power consumption, magnetic field intensity ≥ 3000 GS, Iron removing efficiency $\geq 99\%$.

Model	TCXT15	TCXT20	TCXT25	TCXT30	TCXT40B
Capacity t/h	10-15	20-30	30-50	50-70	80-100



AUXILIARY EQUIPMENT



(A)

A. Muyang TBLMb Series High Pressure Jet Filter Dust Collector

- Mainly used at the dump pit;
- Dismountable bag structures with skeletons and unique jet devices for easy maintenance;
- Up to 1m² filtering area of each bag greatly reduced the space needed;
- The series includes the models TBLMb4A, 6A, 8A, 12A.



(B)

B. Muyang TBLMY Series High Pressure Jet Dust Collector

- Equipped with a high-pressure solenoid valve; entering the collector tangentially, the dust-laden air is separated by revolving, and large size dust settles firstly;
- There are flat bottom and conic bottom dust discharging mechanisms;
- The series includes the models TBLMY8, 15, 25, 36, 52, 76, 108, 156.



(C)

C. Muyang LNGM Series High Pressure Jet Filter Dust Collector

- Equipped with a high-pressure solenoid valve, the air inlet is located on the dust hopper, preventing dust-laden air from directly impacting the filter bags, which results in increased service life of the bags;
- The series includes the models LNGM 18A (24), 30 (40), 36 (48), 45 (60), 54 (72), 63 (84), 72 (96), 81 (108), 90 (120), 117 (156).



MUYANG

AUXILIARY EQUIPMENT

Muyang SFJZ Series Vibrating Sifter

- Slight vibration and low noise;
- An settlement resistant outlet design make product free of cross contamination;
- Simple and convenient screen hold-down mechanism contribute to fast screen changing;
- Be used to sift out fines.

Model	Capacity t/h	Power kw	Vibration Frequency hz
SFJZ100×2	4-10	0.2×2	960
SFJZ100×1	4-10	0.2×2	960
SFJZ150×2	20-35	0.35×2	960
SFJZ100×2B	30-40	0.55×2	960



Muyang SFJH Series Rota-shake Sifter

- Balance weight adopted provides slight vibration and low noise;
- Speed shifting box adopts non-gear driving, eliminating oil lubrication and oil leakage;
- The elastic support provided for the sliding support of the tail part results in greatly reduced noise and improved sifting performance;
- Quick sieve changing due to simple and convenient sieve pressing mechanism;
- Double-deck sifter, triple-deck sifter or double-deck sifter with double inlets available as options(tailored supply);
- Suitable for grading pellets, powdery material.



Model		SFJH56×2C	SFJH80×2C	SFJH110×2C	SFJH130×2C	SFJH56×2C	SFJH80×2C	SFJH110×3C	SFJH130×3C
Capacity t/h	Capacity	3-5	5-8	8-10	10-15	3-5	5-8	8-10	10-15
	Granule	1-3	4-6	6-8	10-13	1-3	4-6	6-8	10-13
Power kw		0.75	2.2	2.2	3.0	0.75	2.2	3.0	3.0

AUTOMATIC CONTROL ENGINEERING



With its management concept "People are the first in science and technology", it has brought in lots of senior experts in the field of industrial automatic control, computer application and software development. By the technical improvement and successful implementation in the market, the company, since its founding, has gained the clients' trust and reliance for its solid technical strength, high standardized quality and excellent after-sales service. Now, as the first company in China for designing and supplying the automatic control systems for feed and grain milling, its products have been not only widely used in the domestic throughout China but also well exported to oversea market in dozens of countries such as Egypt, Philippines and Malaysia etc.

Scope of service:

Centralized automatic control system; Computer-based interface control system; Production manage

ment computer control system; Control panels for grinder, pellet mill, mixer system; Centralized automatic control system for a flour mill; Centralized automatic control system for a rice mill; Centralized automatic control system for an edible oil mill; Centralized automatic control system for a starch plant; Centralized automatic control system for a compound fertilizer factory; Centralized automatic control system for other industries; Computerized proportioning system; Computerized micro proportioning system;

Automatic control system for the bagging machine specialized for granular or powdery material, the intermediate scale, truck scale, level indicator, nonstandard high-low electric cabinet as well as the temperature measuring system in warehouses and silos.



MUYANG

RING DIE & PRESS ROLLER

HAMMER MILL

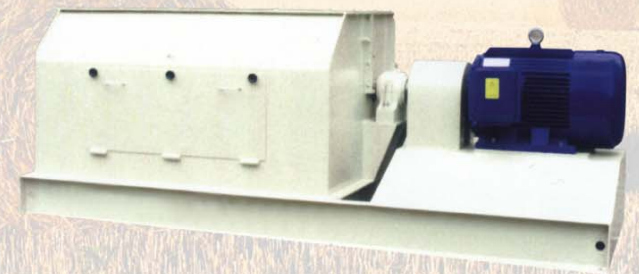


Advanced manufacturing tools, Supply all brand' s die.

Muyang SFSPM Series Herbage Coarse-grinding Hammer Mill

- Super wide grinding benefits herbage crushing;
- Laterally installed inlet makes herbage more convenient to be fed into the grinding chamber;
- Offset screen design improves screen utilization ratio and grinding efficiency;
- Highly credible configuration contributes to a steady running and low maintenance costs.

Model	Capacity t/h	Power kw
SFSP66 × 100M	2-5	55
SFSP66 × 200M	6-12	110





MUYANG HAMMER MILL

Muyang SFSPM Series Herbage Fine-grinding Hammermill

- Classical type of grinder for processing herbage proved by decades of experiences;
- Perfect safety design;
- Easy operation, convenient maintenance.

Model	Capacity t/h	Power kw
SFSP132 × 75M	4–10	110/132



BRIQUETTING MACHINE

Muyang MYKC Series Herbage Briquetting Machine

- Classical double-motor drive contributes to stable running;
- Frequency conversion speed control feeder with anti-bridge design;
- Furnished with a speed monitor warning device, the running is more safe and reliable;
- Liquid addition is available for this machine;
- Suitable for briquetting bulk materials like herbage and straw etc.

Model	Capacity t/h	Power kw
MYKC800	4–8	55 × 2





MUYANG

STABILIZING&COOLING EQUIPMENT

HERBAGE STRAW TURNKEY PROJECT

Muyang MJCC20 Herbage storage stabilizer

- With horizontal overall layout, simple and pleasant appearance;
- With a specialized conveying chain, the discharging speed is stepless adjustable;
- An access door is furnished on the end side of the machine, facilitating for convenient maintenance;
- Adaptable for stabilizing and storing herbage.



Model	Volume m³	Power kw	Dimension mm
MJCC20	18	17.5	17.5

Muyang MLWG160 Herbage Cooler

- Two independent axial-flow fans are installed on top of the cooler for air exhaust after cooling;
- Some sight glasses are furnished in the side walls and on top of the machine for convenient inspection and maintenance;
- An access door is set in front side, facilitating daily maintenance and repairing;
- Mainly used for cooling the high temperature herbage briquet after compressing.



Model	Capacity t/h	Rotated speed	Cooling time min	Water removal %	Power kw
MLWG160-I	5-8	2.5	15-20	2-3.5	10.75
MLWG160-II	8-14	2.5	15-20	2-3.5	18.75



Straw Stalk processing



Grinding section



Mixing section



Pelletizing section



Cooling section



Central control system



MUYANG

HERBAGE STRAW TURNKEY PROJECT



Taking the chance of that China is devoting its major efforts to develop the West China, Muyang Group has presented the advanced of forage straw and stalk processing technology to meet China's domestic needs. Based on the rich experience of compound feed mill design and construction, Muyang has developed a series of forage straw and stalk processing equipment, such as herbage hammer mill, herbage storage tempering machine, herbage pellet mill, Muyang "Hercules" cube press and Muyang horizontal herbage cooler etc., which greatly satisfy the customers' demand for processing herbage and stalk.

Muyang Group has built dozens of herbage and straw turn-key projects, like the Tianzhao alfalfa and corn stalk processing project in Fuxin, Liaoning Province, the alfalfa and hops pellet processing project in Yumen, Gansu Province, the herbage processing project in Sanjiaocheng, Qinghai Province, the Neimeng Huansen Group straw processing project, the Shenyang Hefeng Group marigold pelletizing project and etc. All these have fully borne out the machinery advantages and facility excellence of Muyang herbage and straw feed project in this field.



Coarse grinding + dust collecting Fine grinding Pelletizing Pellet grading



Storage tempering Cube cooling Cube pressing Materials splitting system



COMPOUND FERTILIZER TURNKEY PROJECT

Ecologic Organic Fertilizer Project

- Utilizing municipal refuse, sewer waste, dejecta and other wastes as raw materials;
- Compact structure, easy operation, less spare parts loss, lower production cost;
- Pellet product of high forming rate, low temperature, and better degradation.





MUYANG

COMPOUND FERTILIZER TURNKEY PROJECT

Compound fertilizer specialized for micro drip irrigation

- The world's most advanced micro drip irrigation with specialized compound fertilizer contributes to significant water-saving and production efficiency increase;
- The complete sets of equipment developed by Muyang group for manufacturing compound fertilizer specialized for micro drip irrigation have been successfully used in Xinjiang reclamation farms.



STORAGE PROJECT



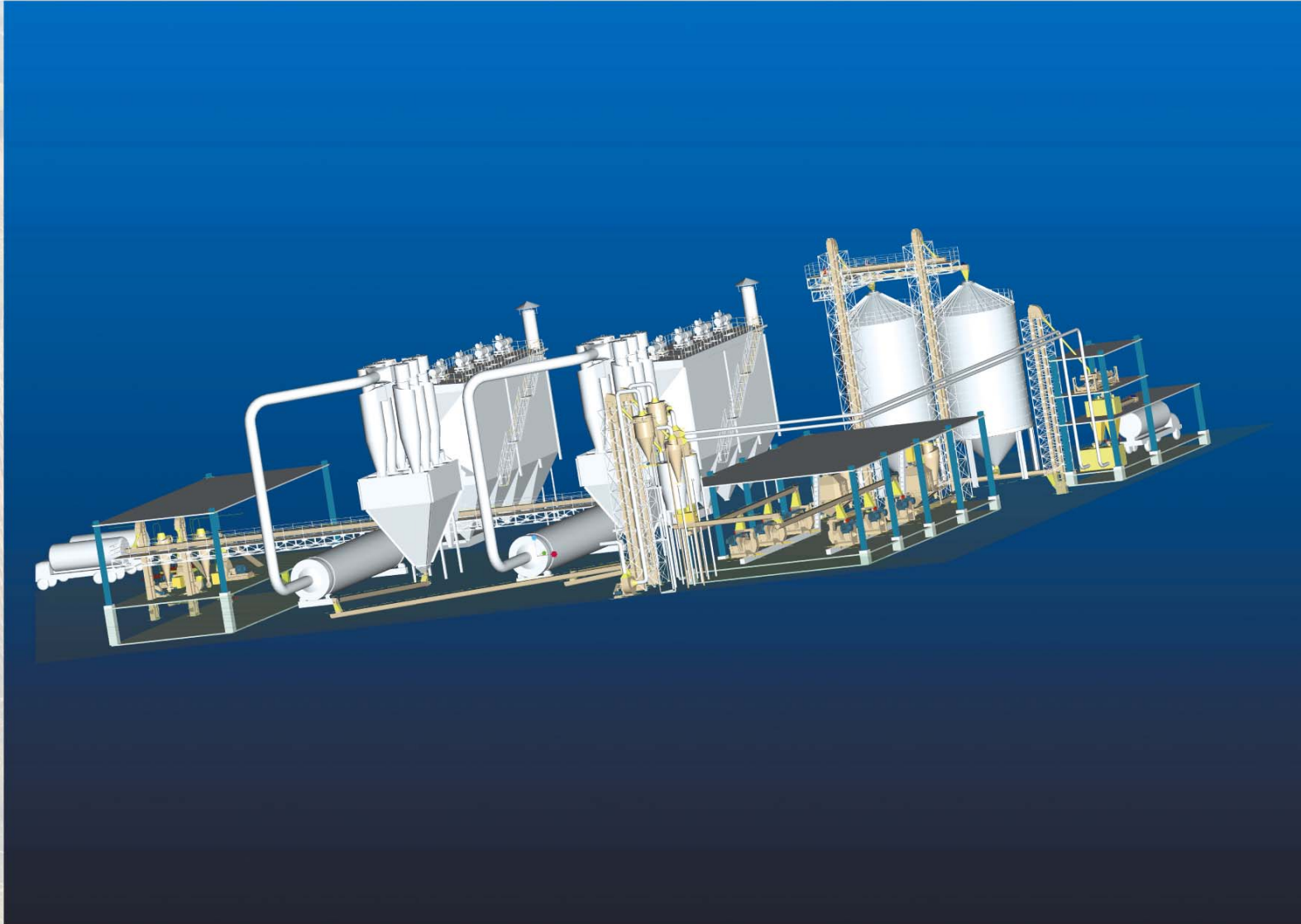
Specialized in the research, design, building, and marketing of material storage & handling facilities, we can provide both spiral type steel silo and assembly type corrugated steel silo.

Made by the technology introduced from Switzerland, Muyang spiral steel silos are available in a range of storing capacity from 50T to 7000T, with which diverse bottoms, flat or conic, and various discharging modes can be furnished.

The fabricating technology for assembly type corrugated steel silo comes from U.S.A. Various steel silos with different bottoms and discharges are available with a storing capacity from 10T to 16000T.

As a turnkey project contractor, MSEC have successfully built more than 1000 steel silo facilities all over China in the industrial fields of grain, feed and edible oil processing, grain terminal as well as chemical, brewing, building material, environmental protection industries. In recent years, Muyang international steel silo market has been extended to more than 30 countries and regions, like Malaysia, Egypt, Japan, South Korea, Australia, Iran and Vietnam etc. The maxi silo height reaches 38.5m, single-silo capacity 16800T, and maxi group-silo capacity 0.198 millionT.

The work scope of MSEC includes the design of process flow and civil work, and the turnkey project work from design, fabrication, erection up to commissioning for the systems of automatic control, conveying, cleaning, drying, fumigation, cooling and cold storage, ventilation, dust collection, temperature and moisture measurement. Personnel training is also available.



With the advanced technology and the strong design and manufacturing ability, Muyang Biomass will help you achieve success by “one-stop-shop” service.