

# Pump Line up

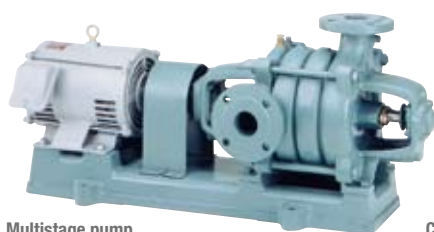
Although we may not notice them, pumps support our everyday lives. Leading-edge technology and uncompromising product quality control provide answers to today's changing needs.



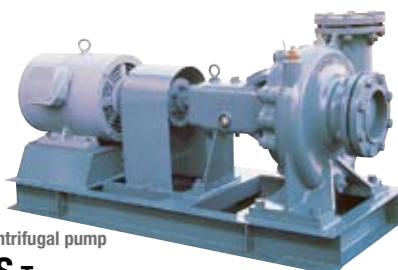
## Centrifugal pumps

High performance and reduced size and weight have been realized through the latest fluid design. Our stainless steel lineup has been improved to respond to a wide variety of needs.

## Centrifugal pumps



Multistage pump  
**M Type**



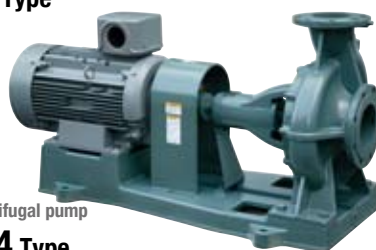
Centrifugal pump  
**LS Type**



Double suction  
centrifugal pump  
**DH Type**



Motor pump  
**SJM2/  
SJM3 Type**



Centrifugal pump  
**SJ4 Type**



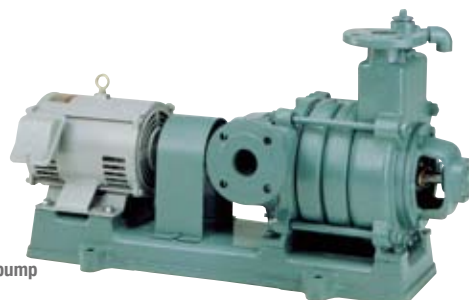
In-Line pump  
**LP Type**



## Self-priming pumps



Centrifugal pump  
**SP3/SP Type**



Multistage pump  
**MSP Type**



Motor pump  
**MTP Type**



Plastics  
motor pump  
**ESPM Type**

## Centrifugal/Stainless steel pumps



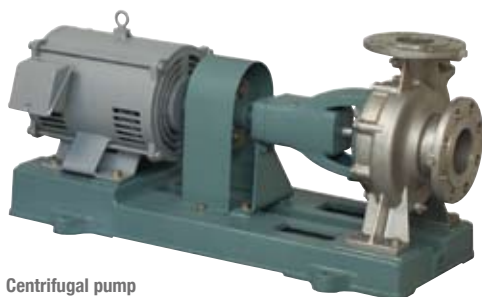
Motor pump  
**SJMS Type**



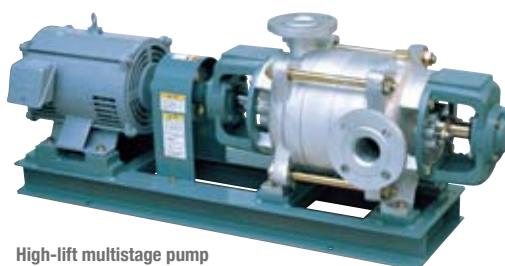
Multistage horizontal pump  
**NX Type**



Line pump  
**SLP2 Type**



Centrifugal pump  
**SJS Type**



High-lift multistage pump  
**MKHS Type**



High-lift stand type  
multistage pump  
**SVM Type**

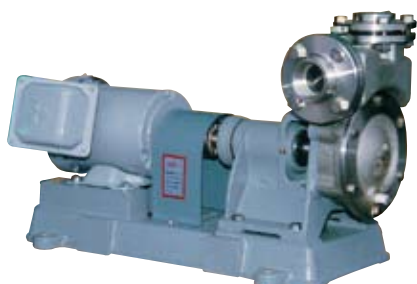
## Cascade Pumps



Self-priming  
**KSP Type**

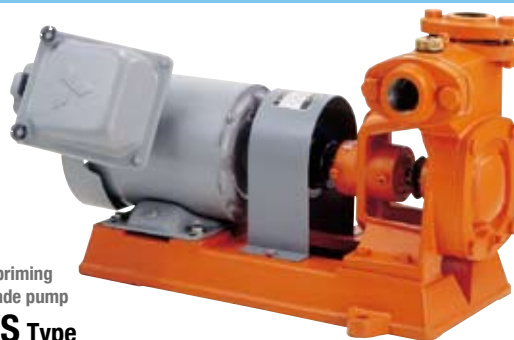


High pressure  
two-stage  
**KH Type**



Self-priming  
stainless steel  
**KSPS Type**

## Oil pumps



Self-priming  
cascade pump  
**OKS Type**



Gear pump  
**GPL II /  
GPM II Type**



Gear pump  
**GV Type**



## Freshwater submersible pumps

Our submersible motor pumps for deep wells are known for their high functionality and reliability. Our flexible lineup provides answers to a range of needs, from heavy industrial use to household uses.



Submersible axial flow/oblique flow pump  
High capacity pump

**SAM Type, SPM Type**



Deep well submersible pumps

**TWS Type**



Stainless steel  
Deep well submersible pumps

**MSUS Type**



All stainless steel  
submersible turbine pump

**SSTM Type**



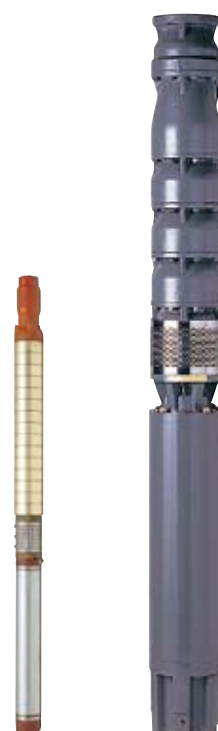
Submersible turbine middle inlet pump  
(can be installed horizontally)

**SSTM Type (T Type)**



Submersible turbine bottom-inlet pump

**STM Type (TU Type)**



Deep well submersible pump

**MSU Type**





## Water supply units

Designs that provide power while saving space and energy.

Practical, durable, highly functional pumps provide reliable support for daily life.

### Direct booster units



Large bore 75 mm Cabinet  
**MC3 Type**



New cabinet  
**MC4 Type**



Installation type  
**NX-DFC Type**

### Surface water supply units



Estimated thermal pressure constant control water supply unit (inverter control)  
**NX-VFC Type**



Constant-pressure water supply unit  
**NX-LAT Type**



Self-priming auto reel  
**LAT III Type**

### High head high flow water supply units



**SVMV Type**

Coming Soon

### Submersible water supply units



Estimated thermal pressure constant control  
**SSTM-VFC Type**

### Pumping units



**NX-LFT Type**



## Fire pumps

Teral presents the industry's first unitized fire pump. Its high-level technology and reliability have won considerable praise.

### Surface fire pump units

**MJF Type**



**NXF Type**



**MKF/MF Type**



### Specified facility water service linked type

**NXFT Type**



### Fire pump with engine

**MKFD Type**



## Submersible drainage pumps (For drainage)

Submersible shallow water level  
**LG2 Type**



With cutter  
**KO Type**



Compact  
**PL Type**



Effluent pump unit  
**RPU Type**



Stainless steel  
**KCS2 Type**



Semi-vortex  
**SVC Type**



Pump unit  
**U-PLT/  
U-PVT Type**



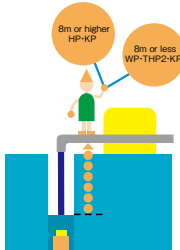
# Household pumps

Household pumps used in houses and housing complexes. We offer ideas for pressure pumps, deep well pumps, submersible pumps, etc. that are tailored to installation sites and conditions of use.

## What is the suction head?

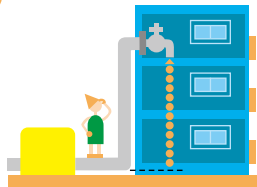
If the suction head is:

- 8m or higher, please select a submersible pump (HP type) or a shallow/deep well pump (KP type).
- 8m or less, please select either a shallow well pump (WP or THP2 type) or a shallow/deep well pump (KP type).
- 3m or less for pressure pumps, please select a water mains pressure unit pump (WP-S or THP-D type).



## What is the delivery head?

- The head height is a measure of the distance from the pump to the highest outlet.



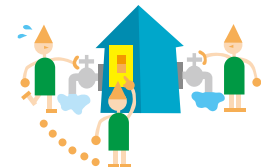
## What is the capacity you need?

- A good way to estimate the required capacity is to multiply the number of outlets in simultaneous use by 10 liters per minute.



## Should I choose manual or automatic?

- Generally, households use an automatic system, in which water flows as soon as the tap is turned.
- If water is going to be used continuously for a prolonged period, it may be better to select a manual system (one that requires action to start and stop the pump).



Shallow well constant pressure water supply pump

**THP5 Type**



Shallow well automatic pump

**WP Type**



Shallow/deep well automatic pump

**KP Type**



Deep well multistage inverter turbine submersible pump

**TWS-V Type**



Shallow/deep submersible pump

**HKP Type**



Shallow well manual pump

**CP Type**



Shallow well inverter pump

**THP5-V Type**

Shallow/deep submersible pump for general household water supply

**TWS Type**



Pressure cistern

**ST Type**



Compact water supply pump

**THP2-V-DW Type**



Water mains pressure unit pump with water receiving tank

**RMB Type  
(For use with THP5 Type)**







## Industrial/Set Pumps

Solid reliability and ease of maintenance are musts for units of machinery.

These highly distinctive products respond to the needs of a wide variety of workplaces.

## Coolant pumps



Compact immersion type  
**VKP Type**



Compact multistage immersion type  
**LHW Type**



Compact multistage immersion type  
**VKA Type**



Compact multistage immersion type with stainless steel liquid contact parts  
**VKC Type**



High flow immersion type  
**LFO Type**



High flow multistage immersion type  
**LPW Type**



High-head multistage immersion type  
**VKB Type**



Compact self-priming type  
**VKN Type**



High flow multistage self-priming type  
**LPS Type**



Floor mounted non self-priming type  
**VKH Type**



For tank interior cleaning  
**SKM Type**

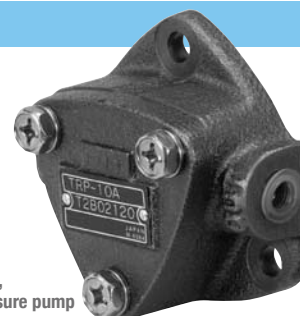
## TRP type internal gear pumps



Electric motor pump  
**TRP-MHC Type**



Low-flow, low-pressure pump  
**TRP-MS Type**



Low-flow, low-pressure pump  
**TRP-A Type**

# Fan Line up

Fans have come to play an indispensable role in today's ever more complex urban environments. Our varied line-up of high safety products help to maintain comfortable environments in a number of ways.



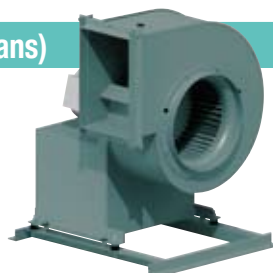
## For building ventilation and air conditioning

We are proud to present this diverse line up of products, used everywhere from air blowers in large-scale underground parking garages and subway stations, to ventilation units in hot water supply rooms.

### Sirocco fans (Centrifugal fans)



In-Line  
**LCF2 Type**



Single suction direct acting type  
**CLF5-HOH Type**



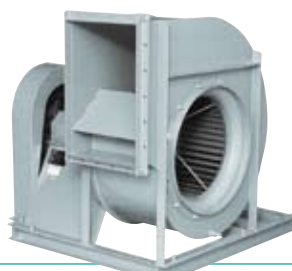
Inverter fan  
**CLF5-VF Type**



Dual intake  
**CLFII -RD Type**



Ventilation fan  
**CLF5-RS Type**



Single suction overhang impeller type  
**CLF5(II)-OB Type**

### Diagonal flow fans



In-line fan  
**ALF/ALFII Type**



Direct-coupled motor driven In-line fan  
**ALF-II E Type**



Belt drive type  
**ALF-II P Type**

### Axial flow fans



Motor driven  
**AES-II Type**



Belt drive type  
**APK5 Type**



**AF-70S Type**

### Mild fans (Limit-Load fans)



Single suction direct acting type  
**CMF3-HOH Type**



Single suction overhang impeller type  
**CMF3-SOB Type**



Single suction center impeller type  
**CMF3-RS Type**



## Silencer boxes



Sirocco fan, single intake  
**CLF5-U-RS Type**



Sirocco fan, dual intake  
**CLFII-U-RD Type**



Line fan  
**ALF Type II-U**

## Chemical fans



PVC sirocco fan  
**CLP Type**



PVC axial flow fan  
**AEP Type**

## Rooftop ventilator



**Standard type**  
**S-series**

## Smoke ventilation fans



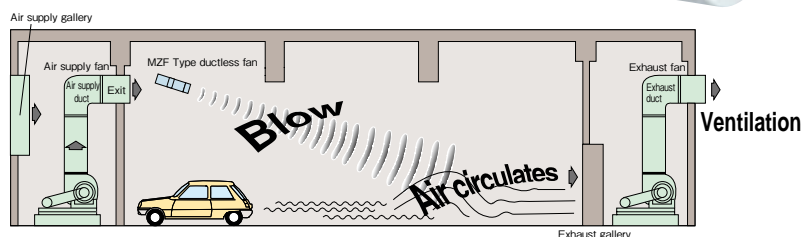
Motor driven centrifugal smoke ventilator  
**CLFII-CMF3(R) Type**

Smoke ventilation axial flow fan  
**AESIV(R) Type**



## Fans for special uses

Mini jet fan  
**MZT/MZF-T Type**



## Energy recovery ventilators

Building use  
Econo unit  
**EU Type**





## Industrial air blowers, Set fans

Air-cooling ventilators in thermal electric power plants, buildings, and factories help to maintain comfortable air conditions by sending fresh air and water.

These safe, high-performance devices help keep industrial facilities clean.



Single phase ring blower  
**VFZ-PN Type**



3-phase ring blower  
**VFZ-A Type**



3-phase low-noise type ring blower  
**VFZ-AN Type**



Approved ring blower  
**VFC Type**



Electric fan  
**KT Type**



Mild fan  
**CMF3-OB Type**



Turbo fan  
**CTF2-OB Type**



Turbo fan  
**CTF3-OB Type**



Turbo blower  
**CTB Type**

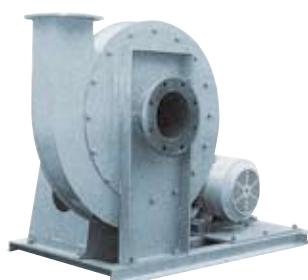
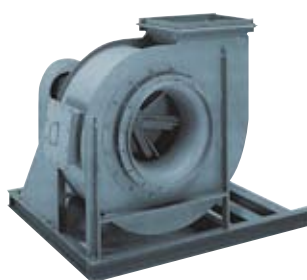


Plate fan  
**CPF Type**



Coupling direct link turbo fan  
**CTF3-MOB Type**



FRP turbo fan  
**KTF Type**



Double fan  
**DR-200MDS Type**



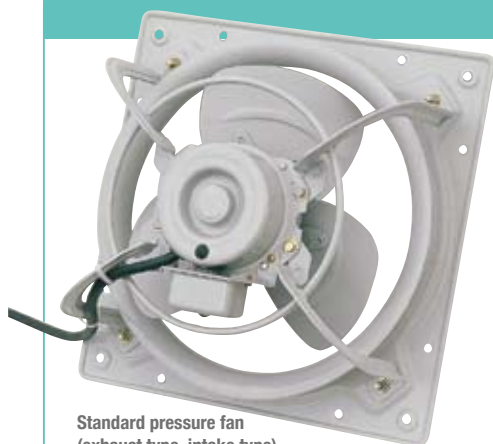
Duct silencer  
**CS Type**





## Pressure fans

We provide a variety of pressure fans, from standard types to stainless steel or frameless types, with various blade diameters and materials suited to a range of applications and conditions of use.



Standard pressure fan  
(exhaust type, intake type)

**PF-10BSD Type**



**PF-16BS1G Type**



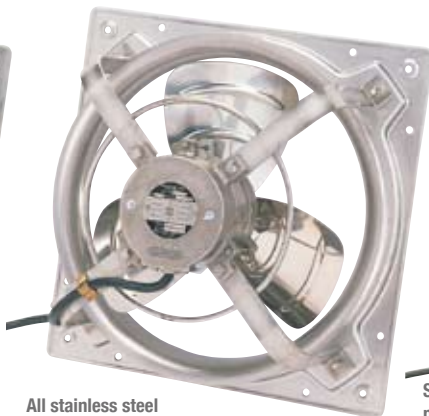
Frameless pressure fan

**TP-12B4 Type**



Stainless steel pressure fan (exhaust type)

**PFS-12BTD Type**



All stainless steel

**WPS-12B Type**



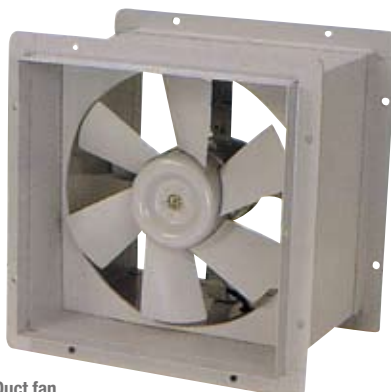
Special pressure fan with water  
proofed motor

**WP-16BT2G Type**



Centrifugal point (exhaust type)

**S-16BT2G Type**



Duct fan

**DF-16 Type**



Transformer cooling fan

**8WP-24BH Type**

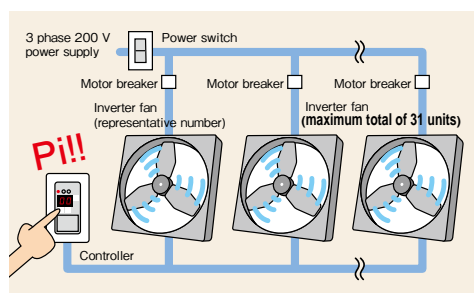




## Agricultural ventilation fans

Our extensive lineup of products allows us to respond with pinpoint accuracy to a range of needs, from air conditioning and ventilation for plastic greenhouses and livestock barns, to drying the harvest or frost prevention fans for fruit gardens.

Leave the existing functions intact,  
while adding multiple controls!



Ventilator fan with inverter  
for livestock use

**AP-100-  
DC3G Type**

Dedicated controller  
**AP-CR-100D**

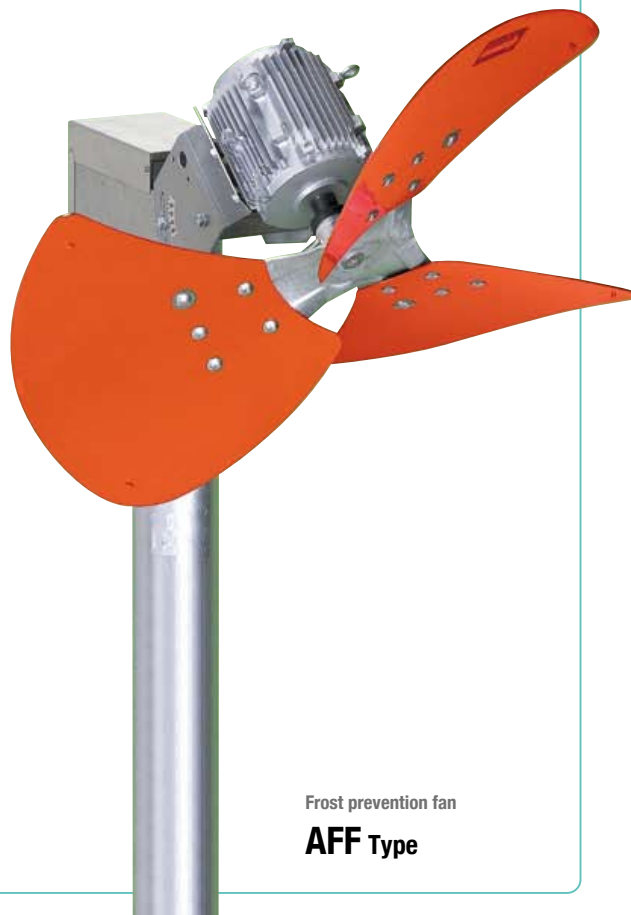
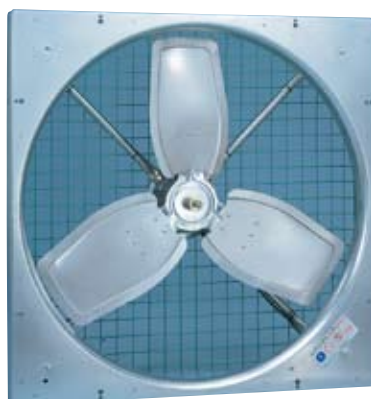


Swing fan with inverter

**APS-100-  
DC3 Type**

Standard ventilator fan for  
livestock use

**AP-100-1G Type**



Frost prevention fan

**AFF Type**

# Environmental Systems

Purification and recycle of wastewater is now one of the most priority issues of the urban life. We hope to promote a sustainable recycling society by taking a total approach to preserving the future of the environment.

## Filtration Equipment

**Filtration equipment is used for industrial cooling water, process water, and a range of other wastewater treatment applications. By making effective use of rainwater and other resources, this system also contributes to resource recycling.**

### Pools

In addition to traditional indoor and outdoor swimming pools, recent years have seen the growing popularity of sports clubs offering Jacuzzis, cold-water baths, waterfall-style baths, saunas and other bathing facilities. Teral, in addition to providing sand and other types of filtration equipment using either cartridges or FRP tanks, also provides a fully automatic, total control system to provide centralized control for automatic chlorination injectors and ozone treatment devices.



### Well water filtration systems

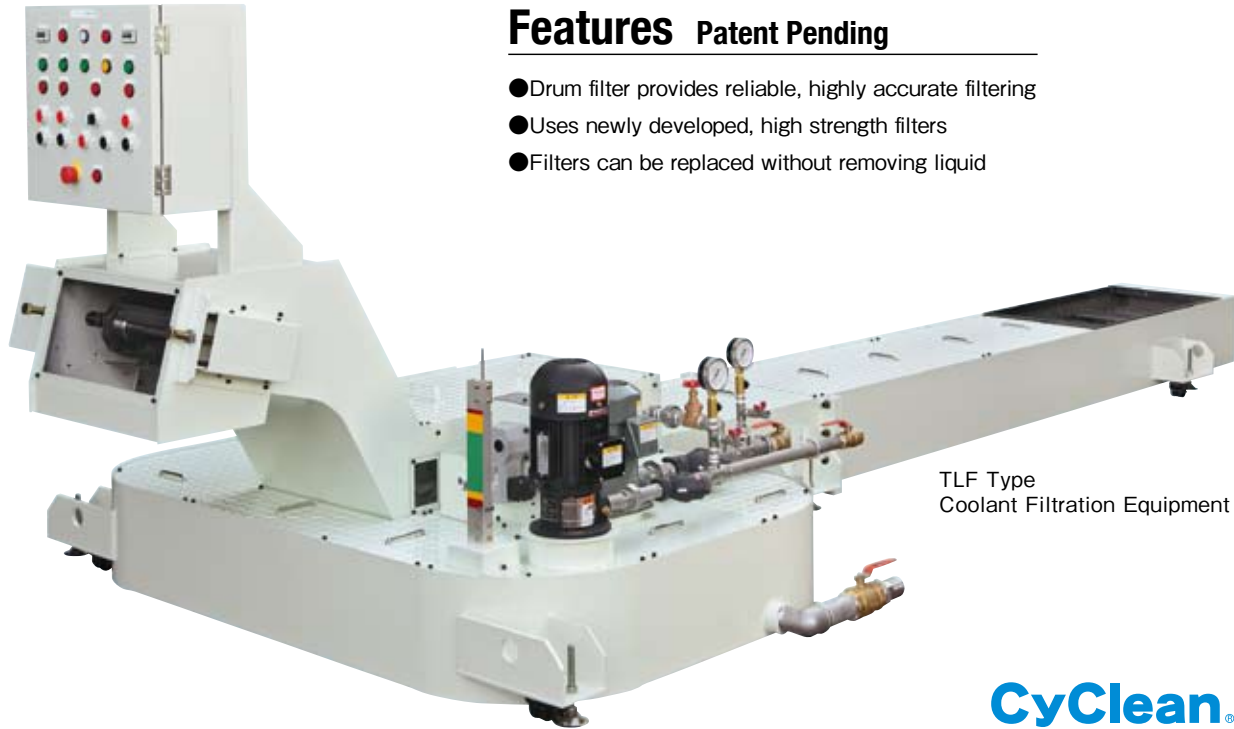


In the area of well water filtration systems for hotels, golf clubs, fitness clubs and factories, Teral provides systems optimized to the raw water quality and the customers' needs. We collect data through on-site inspections and coordination with well-drilling businesses to create a total system to provide drinkable water, covering the initial planning and basic design, construction design, construction and maintenance, while seeking to minimize water charges.

## Coolant filtration system

3 dimensional flow analysis has allowed us to optimize design of the coolant tank which in turn allows for coolant purification. Teral's unique ingenuity and technical capabilities allows us to provide products which are more environment and people friendly.

### Drum Filter Type Coolant Filtration Equipment



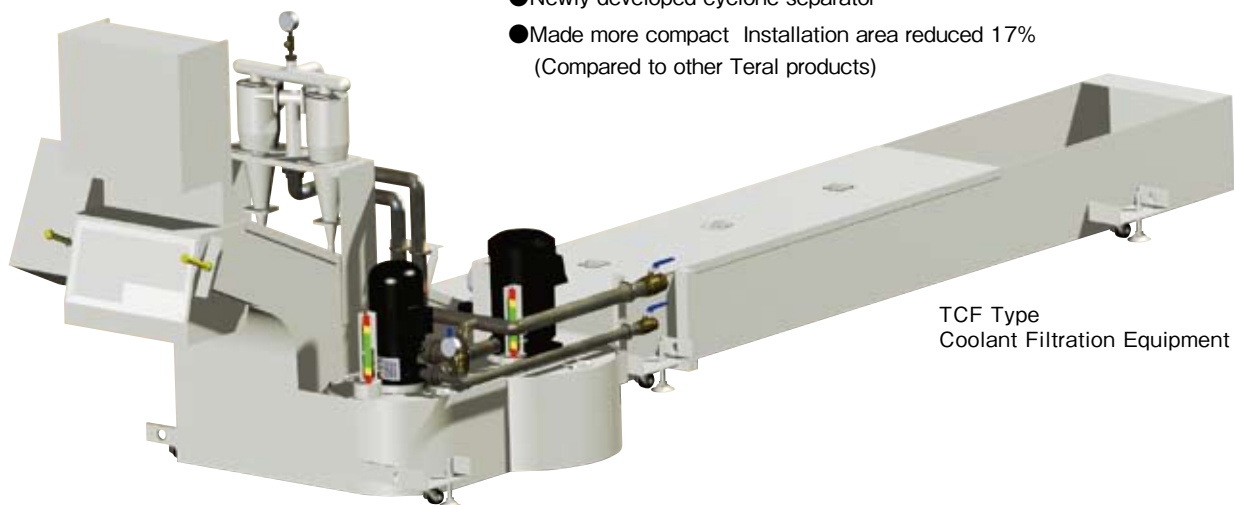
TLF Type  
Coolant Filtration Equipment

#### Features Patent Pending

- Drum filter provides reliable, highly accurate filtering
- Uses newly developed, high strength filters
- Filters can be replaced without removing liquid

**CyClean®**

### Cyclone Type Coolant Filtration Equipment



TCF Type  
Coolant Filtration Equipment

#### Features Patent Pending

- No consumable parts (No drum filter)
- Energy saving (No backwash necessary)
- Newly developed cyclone separator
- Made more compact Installation area reduced 17%  
(Compared to other Teral products)

**CyClean®**



## Water-treatment systems/Solar battery pump systems

We provide water treatment systems that play a key role in improving the environment, such as pretreatment system for kitchen water and water reuse systems to purify wastewater, necessary for hotels and restaurants to use as intermediate water supply.

### Pretreatment system for kitchen wastewater (BT Bio-clean)

This system purifies wastewater from kitchens, which contain highly concentrated organic pollutants and oils, to bring it up to the standards required for release into the public water mains. Instead of the existing pressurized flotation separation system, by using our unique organic treatment method called BT Bio-core, a separate treatment process for sludge and scum is no longer required. This system has won great praise from our customers.



### Waste water reuse (Intermediate water supply) system

Substitute clean water is waste water that has been purified of organic pollutants and microorganisms, then filtered and disinfected. Waste water reuse systems use this water as an intermediate water supply for toilets and firefighting purposes. The issue of conservation and recycling of water resources has attracted considerable attention in a number of fields.



### Rainwater treatment system

The rainwater filtration system seeks to filter and disinfect rainwater collected from the roof or tanks above the roof to improve the quality of water and allow it to be reused. Using this water in toilets and for firefighting purposes allows for significant decreases in clean water charges, and there has been a sudden surge in the number of new buildings introducing this type of system.



### Solar battery pump system

**This environmentally-friendly pump system runs on solar energy**

- ① Clean energy production as light is converted directly into electrical energy
- ② Uses renewable solar energy
- ③ No external power source required. Can be installed in any location.
- ④ Environmentally friendly, zero emissions of greenhouse gas (CO<sub>2</sub>)
- ⑤ Pump system can be selected to fit the intended application (Inverter type, sensorless brushless motor type, compact DC motor type)
- ⑥ Using submersible pumps results in extremely low running noise



## Kitchen Garbage Disposal Systems

Kitchen garbage disposal systems crush garbage in a disposer, and then purify the garbage in a treatment tank before releasing it into the sewer system. This system has drawn attention for its ability to reduce the offensive odor from treating kitchen garbage while also protecting the environment.

### Kitchen Garbage Disposal Systems

Disposing of kitchen garbage is as easy as putting it in the dispenser and pressing the switch, this system greatly reduces the load imposed by garbage collection. This system has rapidly come into wide use in sophisticated high-rise apartment buildings as well as business use which is required to have strict hygiene controls.

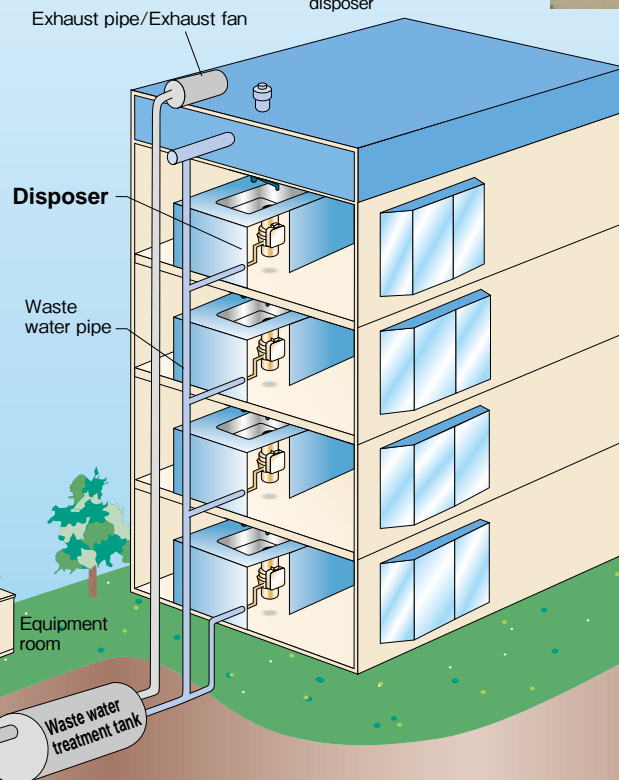


New disposer employing the first-of-its-kind jet flush system disposer

Garbage collection points can be kept small, preventing crows, stray cats or other animals from being attracted to the site.

The amount of garbage that has to be taken out is cut in half, greatly helping housewives and the elderly.

Eliminating the smell of kitchen garbage and leaks from garbage bags helps keep the elevators and stairs clean.



Released into public sewer mains or high-level domestic wastewater treatment tank

## Rooftop greening system

Rooftop greening systems have drawn attention as a possible solution to the heat island effect of major cities. By combining bamboo charcoal with a rainwater collection and circulation system, unique designs can be created without sacrificing ease of maintenance.

### Bamboo TECO Garden Greening System



Before



After





# Maintenance

Teral's nationwide service network delivers safety and peace of mind in this new age.

Water supply and drainage, air conditioning and water treatment systems work around the clock without pause in order to allow us to continue to enjoy safe, comfortable living conditions. In the event of an emergency, we must respond quickly, with highly skilled technical personnel to pinpoint the cause.

Teral Technoservice's nationwide network forms the cornerstone of our 24-hour emergency response organization, to catch issues before they become problems and to conduct regular maintenance, providing the customer's system with complete safety support.

Diagnosis



Propose improvements



Application



Construction work



Maintenance

## Periodic maintenance, cleaning service

Preventing problems before they occur, by maintaining your facility's equipment in the best possible condition, effectively reduces costs. In order for you to continue using this equipment safely over a prolonged period, we recommend conducting regular maintenance and cleaning.



## Maintenance coordinator service

Restaurant equipment is subject to a high level of wear and tear, and regular maintenance and cleaning is essential. It is important to manufacture restaurant equipment that is energy efficient and easy to maintain, to start with. Teral provides total coordination with an eye to keeping down costs.



## Improvements: Proposal service

Around 10 years after installing machinery, its performance begins to degrade and maintenance costs begin to rise. Teral can accurately assess the device's conditions of use, and present timely, customer-focused solutions.



## Improvements: Construction service

There is growing interest in the reuse of old water pipes, construction to switch to direct pressure/booster direct-coupled water supply systems, the replacement of water pumps and other measures to improve safety while saving space. We use the latest technologies to bring you fast and effective service.



## 24-hour emergency response

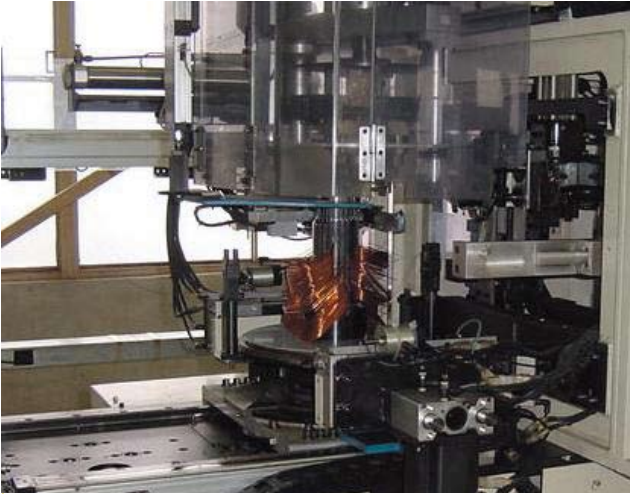
Major cities never sleep, and so trouble with plumbing system or air conditioning equipment can cause serious damage. Teral provides a 24-hour emergency response service, linking our monitoring center with automated emergency notification systems. In the event of a problem, we can respond quickly to keep the customer safe and worry-free.





# Parts Line up

- Teral presents its unique AMP system, which makes it easier to create a range of parts out of plastic, from high-strength thick walled parts to large-scale parts.
- We provide not only complete pumps, but also a strong line up of associated parts, allowing us to also respond to needs for individual parts.



TECO form



Discharge casing



THP5-V outdoor cover



Guide vane



Fire extinguisher box



Drum holder



Companion flange



Vacuum box (main body)



Vacuum box (lid)



Mold motor



Junction pipe



Hair catcher



Discharge elbow



Small motor



# TERAL's Network

The Teral group network provides solutions to customers' needs, not only in Japan, but also overseas.

Modern urban environments are rapidly growing and increasingly diverse. Customers' needs and issues facing societies grow broader and more complex. In order to respond to these trends, Teral is further improving the specialized knowledge of group companies working in a variety of fields, to provide a total solution to the issue of creating a safe and comfortable environment. Through leading-edge technologies and highly-focused marketing, we are helping to preserve tomorrow's irreplaceable environment, in Teral's home province of Hiroshima, in every corner of Japan, and around the world.



## ■ Teral Inc.

### Factory

Originally established to produce and sell pumps, through the development of pumps we gained unique insights into fluid theory, which we put to use in the manufacturing and sale of air blowers and total heat exchangers. This company forms the core of the Teral Group. Currently we have become well known as the inventor of the industry's first unitized fire pumps and water supply pumps. In 1988, the company name was changed from Kyokuto Machine Manufacturing Co., Ltd. to Teral Kyokuto Inc., and then to the current name in 2008. We continue to devote ourselves to activities designed to improve the environment.

Founded: August 1918 / Established: April 1950 / Capital: 78 million yen / Location: 230 Moriwake, Miyuki-cho, Fukuyama-shi, Hiroshima 720-0003, Japan



## ■ Teral Technoservice Inc.

This service and maintenance group is involved in a range of business activities, from air-conditioning installment to renovation advice and water treatment system engineering. The company has worked in a wide variety of areas including pumps and fans, air conditioning system maintenance, inspection and repair to facility improvement and other fields since becoming independent of Teral Kyokuto Inc. in 1978. More recently, we have created a strong business in the field of rooftop greening. A 24-hour monitoring system provides emergency response, protecting the lifelines of urban centers.

Established: October 1976 / Capital: 64 million yen  
Location: 230 Moriwake, Miyuki-cho, Fukuyama-shi, Hiroshima



## ■ Teral Taku Inc.

Pump manufacturer specializing in household pumps and machine pumps. We have been producing household "Kegon" pumps for more than 50 years. Today, we're realizing various possibilities and continuing to evolve by redesigning our "New Kegon" pumps. Our years of technical expertise in water, oil and fluid pumps combined with the seamless production of motor parts within the company provide a wide range of possibilities. This business unit joined the Teral Group in March 2003.

Established: March 1970 / Capital: 80 million yen  
Location: 3898 Nagao, Minami Takumachi, Taku-shi, Saga



## ■ Teral Kurita Inc.

A fan manufacturer which provides a line-up of products to suit the needs of a wide variety of fields including industrial, equipment and agricultural. Wind production technologies led to the development of ventilation systems, and from there into other applications of this technology, such as frost prevention, dehumidification and drying systems used in agriculture. We welcome orders for customized devices to suite specific needs. Since July 2004, this business unit has been continuing its business activities as part of the Teral Group.

Established: April 1947 / Capital: 100 million yen  
Location: 2-101 Arai, Kitamoto-shi, Saitama

## List of Teral Group business offices

### ■ Teral Inc.

Hokuriku Branch  
Kanazawa Business Office  
Toyama Business Office  
Fukui Business Office

### ■ Teral Inc.

Head Office  
Factory

### ■ Teral Technoservice Inc.

Head Office  
Fukuyama Business Office

### ■ Teral Inc.

Osaka Branch  
Osaka Business Office No.1  
Osaka Business Office No.2  
Aqua System Kinki Business Office  
Environmental System Division Osaka Environmental Systems Section  
Industrial Systems Division Osaka Industrial Systems Section  
Minami Osaka Business Office  
Shiga Business Office  
Kyoto Business Office  
Kobe Business Office  
Himeji Business Office

### ■ Teral Technoservice Inc.

Osaka Branch

### ■ Teral Inc.

Chugoku Branch  
Hiroshima Business Office  
Fukuyama Business Office  
Yonago Business Office  
Okayama Business Office

### ■ Teral Inc.

Kyusyu Branch  
Fukuoka Business Office  
Kitakyusyu Business Office  
Oita Business Office  
Kumamoto Business Office  
Aqua System Minamikyusyu Business Office  
Nagasaki Business Office  
Miyazaki Business Office  
Kagoshima Business Office

### ■ Teral Technoservice Inc.

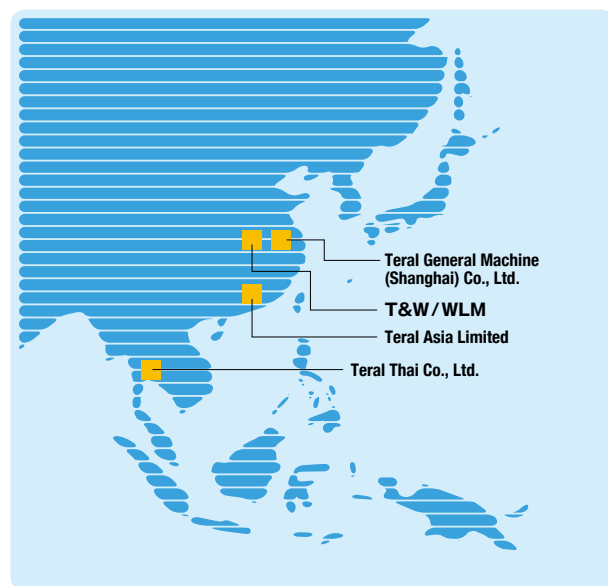
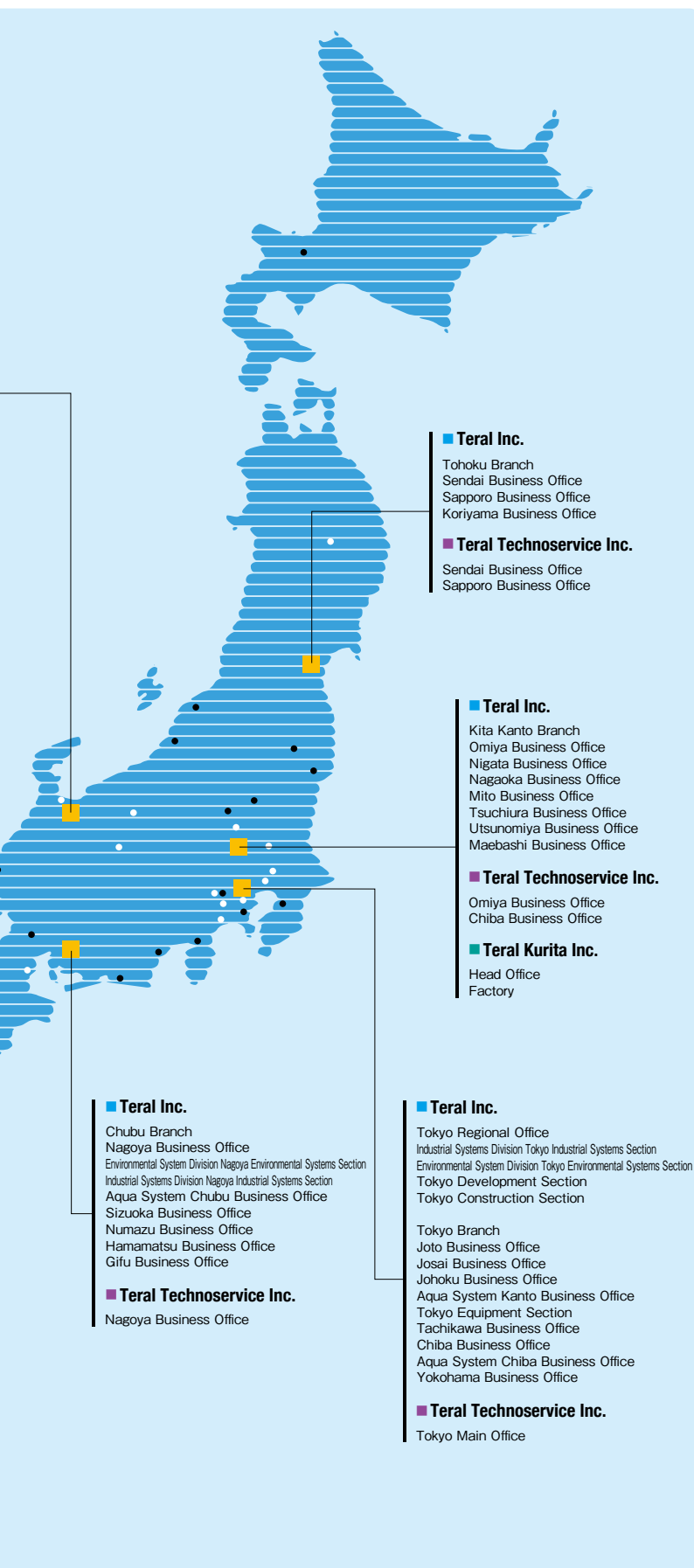
Fukuoka Business Office

### ■ Teral Taku Inc.

Head Office  
Factory

### ■ Teral Inc.

Shikoku Branch  
Takamatsu Business Office  
Matsuyama Business Office



#### Teral Asia Limited

Based in Hong Kong, this company handles worldwide marketing, sales strategy and the planning of appropriate production bases based on these operations and also serves as the holding company for Teral's overseas group companies in Thailand and China.

Established: March 2011

Address: Room 1001, 10/F, Olympia Plaza, 255 King's Road, North Point, Hong Kong



#### Teral Thai Co., Ltd.

Southeast Asia has a great deal of potential as a manufacturing hub and new business field. Teral Thai Co., Ltd., established in 1991, serves an important point for production and sales aimed at this new market in the coming era. The company mainly handles the manufacture and sale of water treatment and air conditioning equipment.

Established: September 1991 / Capital: 35 million baht

Address: <Bangpa-In Factory> 150 Moo 16 Udomsornyuth Rd., T. Bangkrasan, A. Bangpa-In, Ayutthaya 13160 Thailand



#### Teral General Machine (Shanghai) Co., Ltd.

Teral General Machine (Shanghai) was established in 2002 to take advantage of and expand the Chinese market, and to provide greater cost competitiveness in the Japanese market. This company is primarily engaged in the design and production of stainless steel pumps, water supply devices and air blowers, as well as the sale of our products, and it will play an increasingly important role in the Teral Group's future growth.

Established: November 2002 / Capital: 2.1 million US dollars

Address: No.285, Yuan Qu Road(N), Bei Qiao, Min Hang District, Shanghai 201109, China



#### Anhui Taiwei Electric Machine Co., Ltd. (T&W)

An electric motor company established through a merger with a Chinese electric motor manufacturer. The fusion of China's manufacturing power and Japan's technology and quality management have led to the creation of this plant which carries out assembly of 0.2-90 kW electrical motors. Motors are sold in Japan, China and Southeast Asian markets. At present, the plant has 2 production lines and maintains a daily production capacity of over 100 units per day.

Established: June/18/2009 - Capital: 2,500,000 USD

Address: Caifu Road, Jingchuan Town, Jing County, Xuancheng City, Anhui Province, P.R. China