

For inquiries about our products or catalog requests, please contact us.

Vacuum Pump Sales Division Overseas Sales Section

81-3-3833-0336



OSAKA HEADQUARTERS

16-40, 4-chome, Tsurumi, Tsurumi-ku, Osaka 538-8585, Japan Phone 81-6-6911-7111 Fax 81-6-6911-2930 E-mail: vpsales@tsurumipump.co.jp

KYOTO PLANT

1-1, Kaminaranagaike, Yawata-city, Kyoto 614-8163, Japan Phone 81-75-971-0831 Fax 81-75-971-1316

TOKYO HEAD OFFICE

33-8, 1-chome, Taito, Taito-ku, Tokyo 110-0016, Japan Phone 81-3-3833-0336 Fax 81-3-3835-1695 E-mail: vpsales@tsurumipump.co.jp

YONAGO PLANT

2700, Yomi-cho, Yonago-city, Tottori 683-0851, Japan Phone 81-859-29-0811 Fax 81-859-24-0602

TSURUMI PUMP KOREA CO., LTD.

Rm. 728, PoongLim Building, 127, Mapo-daero Seoul 04144, Korea Phone 82-2-701-6356 Fax 82-2-701-6358 E-mail: infor@tsurumipump.co.kr

TSURUMI VACUUM ENGINEERING (SHANGHAI) CO., LTD. 1st Floor No. 3 Building, No. 386 Hangyi Road, Fengxian District, Shanghai 201499, China Phone 86-21-5724-2030 Fax 86-21-5724-5545

Be sure to thoroughly read and understand the operation manual before using the equipment in order to operate correctly.

- *The units and values shown in this catalog are based on the International System of Units. *Product images and specifications may differ from actual products due to improvements.

 *The OO series and model OO are indicated with our series/model codes in this catalog.

TSURUMI MANUFACTURING CO., LTD. www.tsurumi-global.com

E-mail: tsurumi@vip.sina.com





Liquid Ring Pump

Toward the Realization of a Sustainable Society, **TSURUMI Liquid Ring Pump**



Introduction

Tsurumi's liquid ring pump is an environment-friendly clean pump that does not use hydraulic oil and is ideal for suction, exhaust and compression of water vapor, organic solvents, and flammable gases. We will realize a sustainable society by contributing to various industries such as the electric power, renewable energy, chemical / petrochemical, food, paper manufacturing / pulp, electricity / electronics / semiconductor industries all over the world.



Operating Principle of Liquid Ring Pump

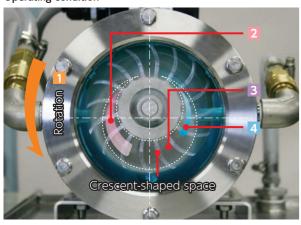


Stopped state





Operating condition



1 Potation

While the impeller rotates, seal liquid flows circularly along the inner wall of the casing under centrifugal force, to form a "liquid ring." Because the impeller is eccentrically offset, the space generated by the rotation of the impeller is crescent-shaped, instead of a circle centered on the shaft.

2 Suction

The suction port is located in the position where the crescentshaped space expands. The liquid sucked into the suction port is pushed into the space (gas cell) enclosed by the impeller blade and the "liquid ring."

3 Compression

As shown in the figure, the gas cell becomes smaller as the rotation continues. This means that the gas volume is being reduced, resulting in compression.

4 Discharge

Compressed air is discharged from the discharge port, which is located in the position where compressed gas pressure is increased to the specified level.

Contact (Sales Office)

We accept various inquiries such as for the purchase, replacement, inspection, and maintenance of products and parts.

Vacuum Pump Sales Division Domestic Sales Section (Osaka)

₹538-8585

16-40, 4-chome, Tsurumi, Tsurumi-ku, Osaka, 538-8585, Japan Phone: 81-6-6911-7111



Business Outline



Vacuum Pump Sales Division Domestic Sales Section (Tokyo) / Overseas Sales Section

₹110-0016

33-8, 1-chome, Taito, Taito-ku, Tokyo, 110-0016, Japan Phone: 81-3-3833-0336



Contact



Manufacturing Plant



Yonago Plant

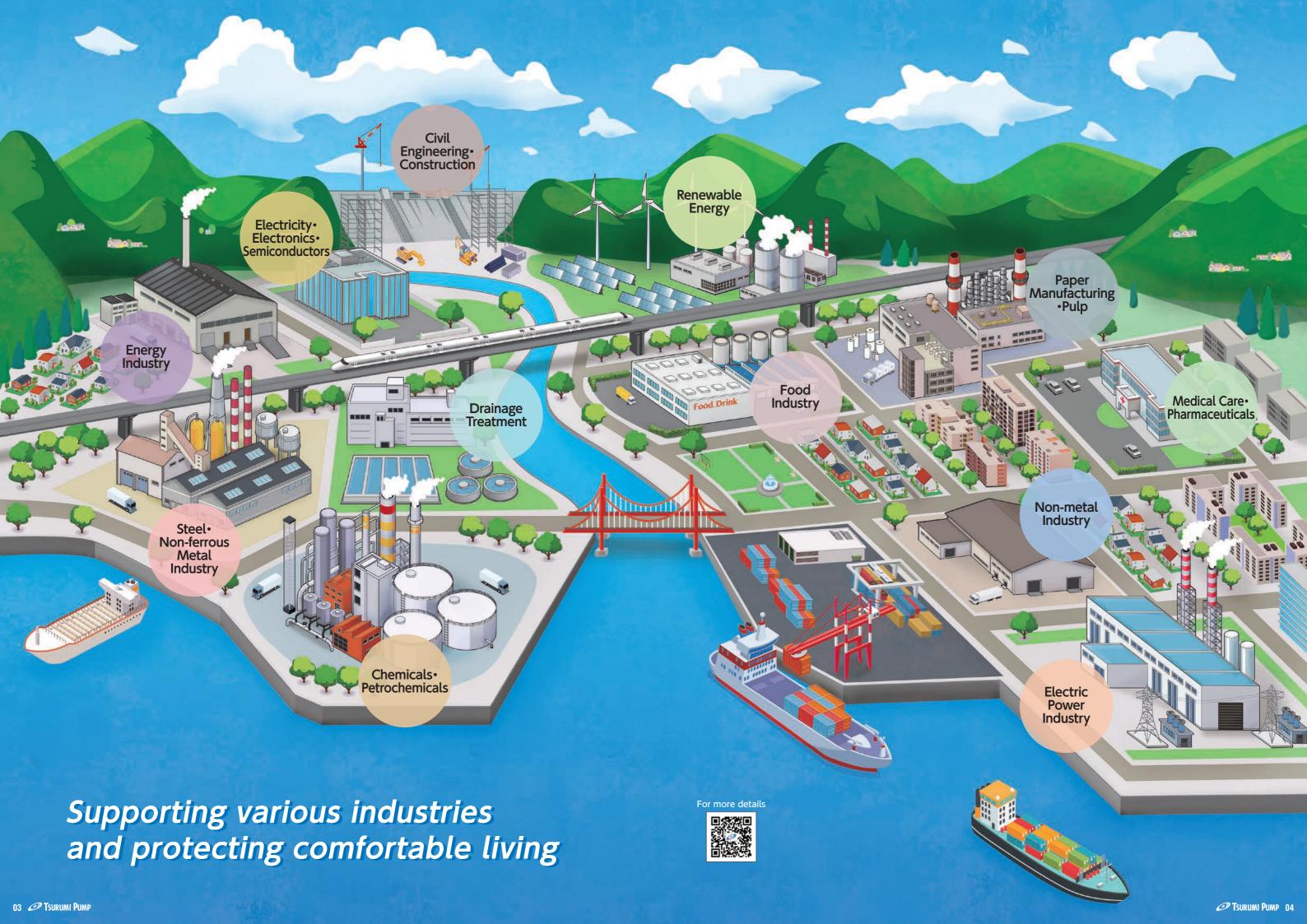
7683-085

2700, Yomi-cho, Yonago-city, Tottori, 683-0851, Japan Phone: 81-859-29-0811



Website





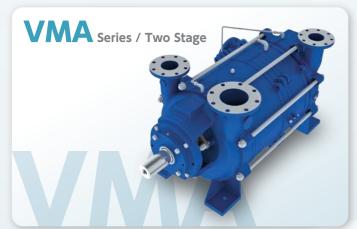
Product Guide for Liquid Ring Vacuum Pump

Series / Small (General-Purpose Product)





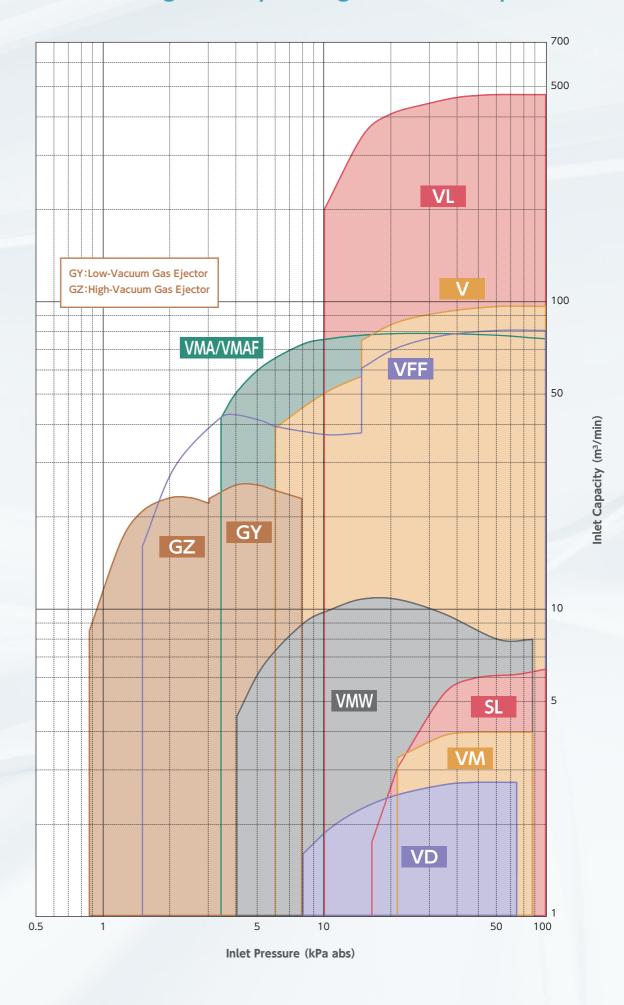








Performance Range for Liquid Ring Vacuum Pump



Features of Liquid Ring Pumps

Website

VD Series



A general-purpose vacuum pump integrated with an electric motor. By eliminating the conventional coupling part, a significant reduction in size has been achieved. It can be incorporated into various devices.





V Series



An almighty vacuum pump that supports special corrosion resistant materials and mechanical seals. We have a wealth of experience as a vacuum source for production equipment used in the petrochemical industry and for pharmaceuticals.



VL Series



A large-capacity, high-efficiency vacuum pump. It was developed as a vacuum source for equipment that requires a large air flow, such as for paper machine dehydration, gypsum separator dehydration, steelmaking degassing, and CO_2 separation and recovery.



VM•VMW Series



Since it is a two-stage type with two impellers built in series in one pump, this vacuum pump can exhibit good performance even in a high vacuum range such as in distillation, concentration, and polymerization.





Toward the Realization of a Sustainable Society, TSURUMI Liquid Ring Pump

VMAF•VFF•VL Series for Condenser Extraction



This vacuum pump draws air from the inside of a condenser such as in a thermal power plant and conforms to the US HEI standard, so it is possible to select a model immediately. In addition, it is also possible to select according to individual specifications such as for geothermal power, waste, and private power generation.





SL Series for Priming



A vacuum pump that is indispensable for various types of vacuum suction, including priming when the main pump of a pump station is started. Due to its small size, it can be used at any site.



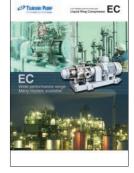


CEC Series Compressor



It is a single-actuated liquid-sealed compressor. As a feature of the liquid-sealed compressor, it can be used to compress all kinds of gas and steam, and has a proven track record of being used for production equipment in the petrochemical industry and the like.





Accessories for Liquid Ring Vacuum Pump

3D CAD design drawing



Based on the experience and know-how cultivated over many years, Tsurumi assembles liquid ring pumps, separator tanks, heat exchangers, sealed water pumps, instruments, and other incidental equipment on a common skid to meet the various needs of our customers. We design, manufacture and provide system products. In addition, by combining a liquid ring vacuum pump with a mechanical booster or steam ejector, we will propose, from an engineering standpoint, a system product that optimally balances the initial cost and running cost.



Liquid ring vacuum pump with steam ejector



Liquid ring vacuum pump with mechanical booster

After-Sales Service for Both Inside and Outside Japan



With a thorough service system, Tsurumi provides various services such as installation, test run, maintenance, and troubleshooting of liquid ring pumps, as well as training of personnel, in all regions.



Local user training



Implementation of maintenance course (Yonago plant)



Installation instruction for large liquid ring vacuum pump



Local maintenance by partner factory



Yonago Plant

Sales Engineer (Tokyo)

Skilled certified partner factory

Domestic

Saitama / Ibaraki

Overseas

Hi-Tech Vacuum Services (Thailand) Co., Ltd. Hi-Tech Vacuum Services (M) Sdn. Bhd.