





Energy Saving Pumps, Eco-Friendly Company

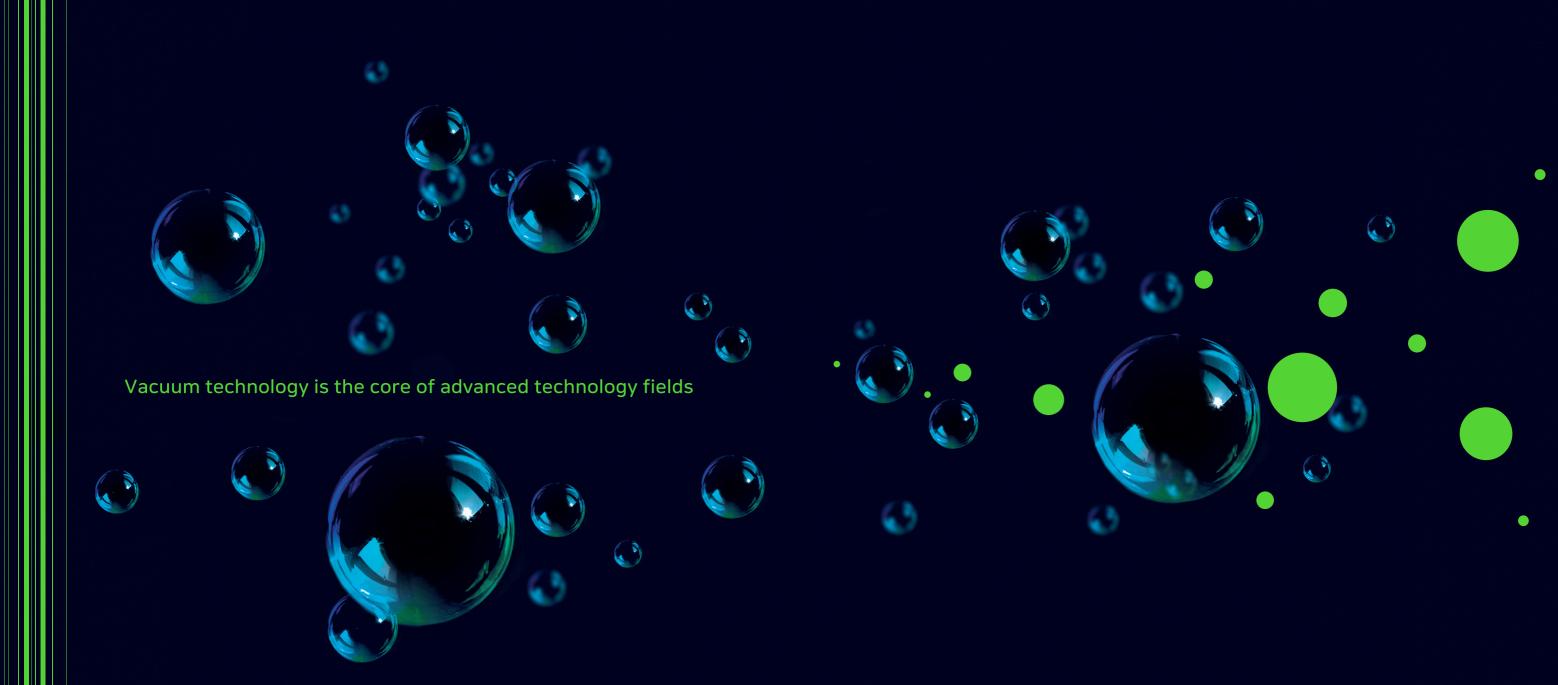
KASHIYAMA K TECH VACUUM TECHNOLOGY

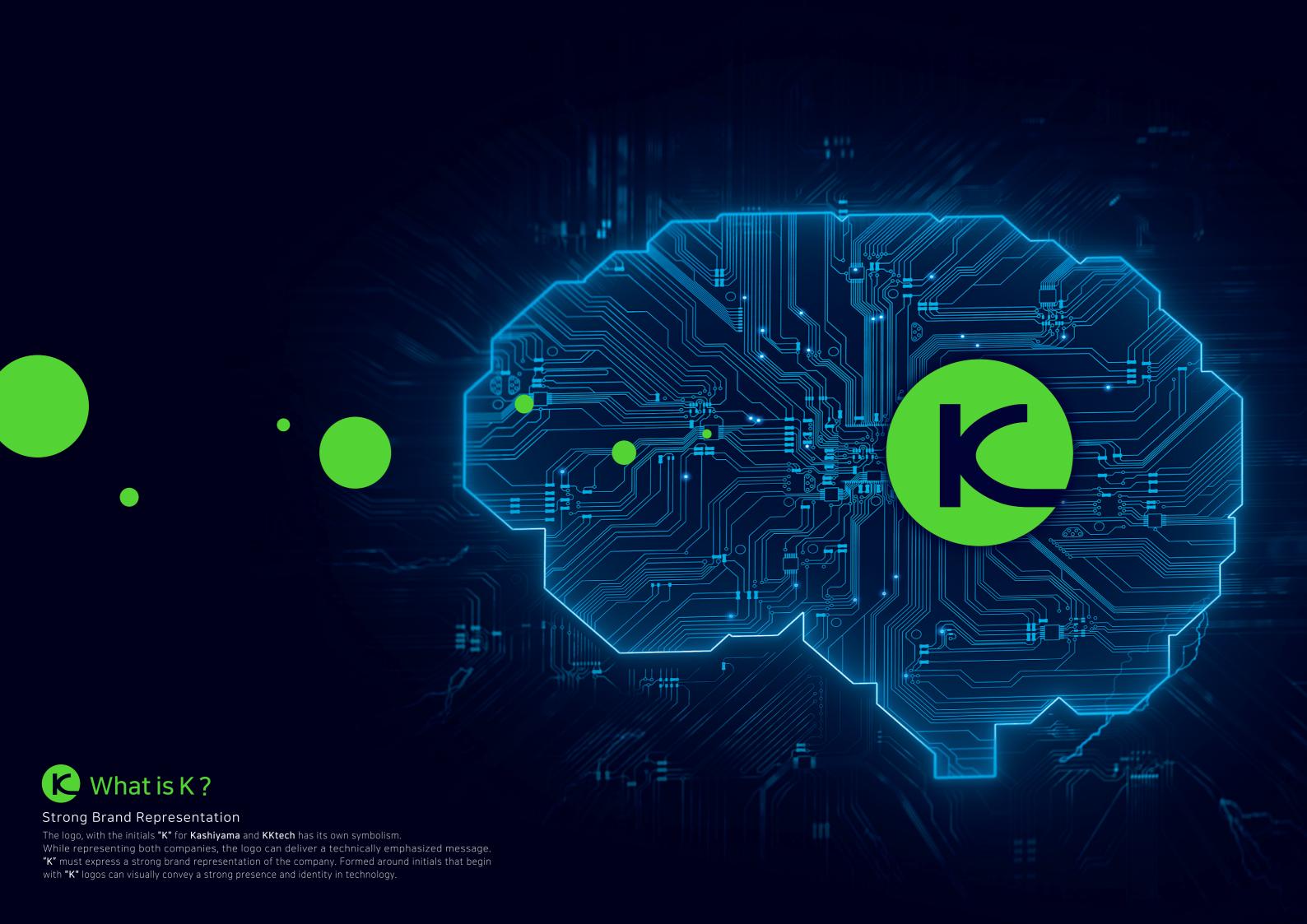


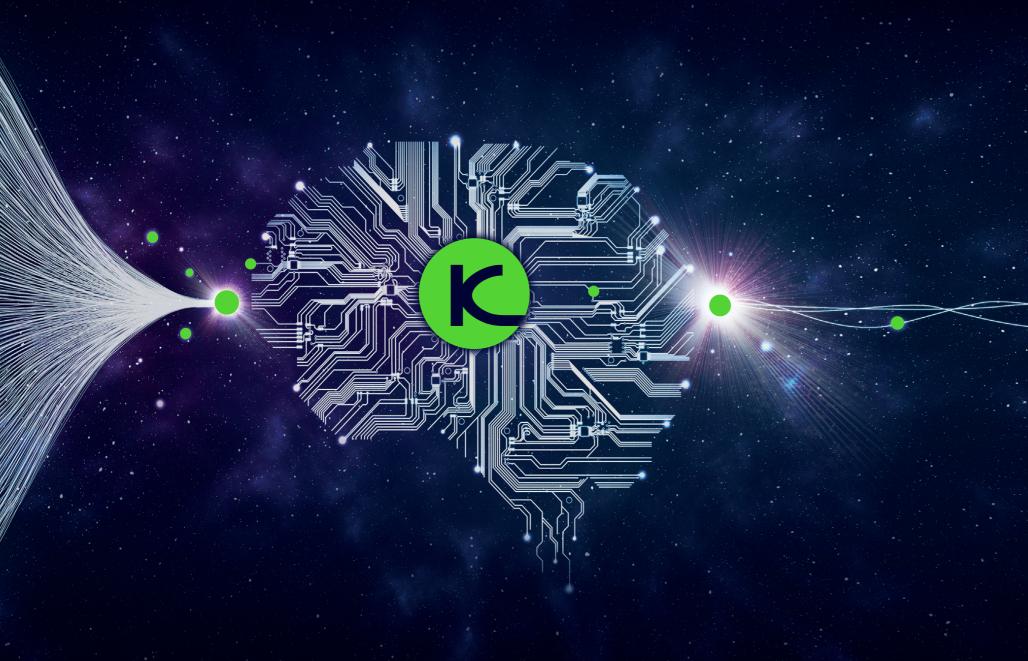
www.kashiyama.com

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Kashiyama K Tech's Vacuum Technology

Kashiyama Vacuum's expertise in vacuum technology directly benefits the semiconductor industry by providing essential equipment and solutions for various manufacturing and research processes, ensuring the quality and reliability of semiconductor devices.

Various KKTech's Products

Vacuum Instrument

KKTech's products have earned customer trust in advanced technology industries, especially semiconductor and FPD manufacturers. This confidence is the result of the vacuum technology that we have been developing over the years. Particularly, our series of dry vacuum pumps, which have become standard equipment in semiconductor manufacturing, are the best in vacuum technology. Their proven reliability has been highly appreciated by many customers.

SDE Series



SD Series



MU-XE Series



NeoDry-E Series



NeoDry-G Series



MUP Series



ALITY LARGE CAPACITY

SDL Series









Manufacture of vacuum pump



Manufacture of vacuum pump



KKTech is providing vacuum instruments that meet the absolute cleanliness required by semiconductor manufacturers.. We develop and supply high-quality, highly reliable equipment tailored to customers' requirements, for every manufacturing environment.

As a technology-oriented manufacturer, we utilize a wealth of knowledge and experience. Our technology is really comprehensively used in a wide variety of fields.





Kashiyama Korea History

CCTech

2021~2024

Korea Semiconductor Industry Association (KSIA) Award Winner
Acquisited the 3rd plant (K3)
Promoted to a Mid-Sized Firm
Ceremony for the shipment of localized products SDE1203XK Process Unit Pump

2016~2021

Korea Semiconductor Industry Association (KSIA) Award Winner

Completion the 2nd plant (K2)
(Location: 126, Muneung-ro, Daedeok-myeon, Anseong-si, Gyeonggi-do, Korea)

Received US\$10 million Export Tower Award

Won a contracts and Achieve KRW ₩100 billion in revenue

2011~2015

Ceremony for the shipment of localized products MU100XL/L,T/M Pump
Acquired Occupational Health and Safety Management System (KOSHA18001) certification
Received US\$5 million Export Tower Award
Selected as a Main-Biz (for small businesses promoting management innovation)

2007~2010

Received US\$3 million Export Tower Award
Received Award from the Commissioner of Korea Customs Service on Taxpayers' Day
Received US\$1 million Export Tower Award
Shipped 1000 units of KMB1203
Ceremony for the shipment of localized products KMB1203 Booster Pump

2006

Relocated to a newly developed plant (Location: 132, Muneung-ro, Daedeok-myeon, Anseong-si, Gyeonggi-do, Korea)

Paid-in capital of 5 billion won Registered as a foreign investment corporation (Gyeonggi-do Provincial Office)

Established a joint venture corporate (268-1, Gyereuk-ri, Miyang-myeon, Anseong-si, Gyeonggi-do, Korea)

Signing Ceremony for a joint venture between Kashiyama Industries, Ltd. and K·C·Tech Co.

Kashiyama Global History

Kashiyama

2016~2024

Donggang Kashiyama Co., Ltd. was founded (in Dongguan, China). Merged its subsidiary Kashiyama Seimitsu Co., Ltd. Won 8 awards including the Gold Award at Japan Wine Competition. Factory2 was completed (in Nagano Pref., Japan). Delivered 200,000 units of dry vacuum pumps.

Awarded the "Factory Greening Award Program by METI".

Hiroshi Kashiyama becomes Chairman. Akifumi Kashiyama becomes President.

Gross sales JPY32.8 billion (Individual), JPY42.5 billion (Consolidated).

Kashiyama Europe GmbH was founded (in Munich, Germany). Kashiyama Vietnam Co., Ltd. was founded (in Hanoi, Vietnam).

Changshu Kashiyama Co.,Ltd. was founded (in Changshu, China).

• GERMANY

VIETNAM

2011~2014

Won the gold award at Japan Wine Competition.
Won the "Partnership" Award from TOSHIBA CORPORATION.

Kashiyama (Xi'an) Co., Ltd. was founded (in Xi'an, China).

Won the "Excellent Logistical Support" Award from Taiwan Semiconductor Manufacturing Co.,Ltd. Won the "Technical Support" Award for the Quality Enhancement from Samsung Electronics Co.,Ltd. Won the "Monozukuri Nagano" Award sponsored by Shinetsu Broadcasting Co., Ltd.

2003~2008

Kashiyama Seimitsu's factory was constructed in Nenei, Saku City. Won the METI 's "Vigorous 300 Small and Medium-sized Enterprises" Award.

Kashiyama Taiwan Co., Ltd. was founded (in Taichung City, Taiwan). Kashiyama.K.Tech Co., Ltd. was founded (in Anseong-si, Korea).

Kashiyama Kingtek Limited was founded (in Shanghai, China).

• TAIWAN

KOREACHINA

1972~1995

Gross sales JPY10.0 billion. Kashiyama USA Inc. was founded.
The main building of Shinshu Factory was completed (in Nenei, Saku City).
Started manufacturing dry vacuum pumps (Japan's first dry pump).
Started manufacturing direct-coupled oil rotary vacuum pumps.
Released Japan's first snow-making system
(which later became a big hit and dominates the market).
Started manufacturing (water-sealed rotary) Liquid ring vacuum pumps.

• USA

JAPAN

1946~1951

Kashiyama Shoten was incorporated as Kashiyama Industries, Ltd. (Began the component manufacturing business for automotive and construction market). Kashiyama Shoten was founded.



Energy Saving Pumps Eco-Friendly Company

KKTech helps to create clean vacuum environment free from contaminants and oils. We believe it is a must to manufacture pumps that meet the requirements for the cleanest environments.



- Energy Saving Pumps • No Oil smoke, No chamber contamination!





- Power Consumption 0.25kW
- Extremely Small Footprint







To create the future with vacuum solutions

We will enhance our valuable vacuum products and services, as well as technological capabilities we have developed. Our goal is to achieve the best for customers through Kashiyama K Tech.

- Realize the world's best technology and quality.
- Manufacture trusted products in clean and eco-friendly factories.
- Continue challenging for our customers without fear of change.
 - We value Simple, Slim, Speedy.
 - Action with data and good reasons.
 - Identify our goal.

Value

Mission

Vision





Kashiyama Dry Pumps Product Series

KKTech Vacuum Technology

SDE Series HIGH QUALITY

Standard type for harsh process

Large Capacity

- Available up to 200kL/min.
- Best for large wafer and FPD.
- Durable to various processes.

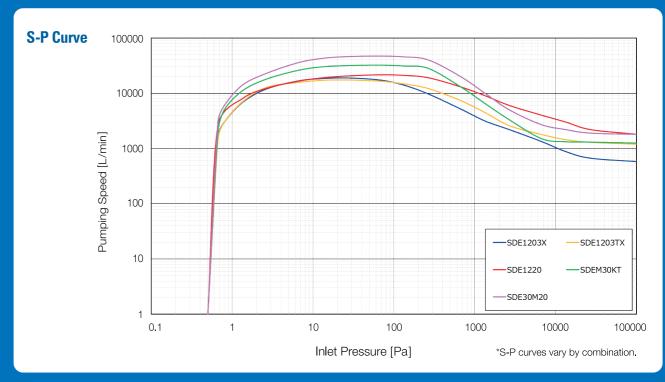


Major Products

| Spec./ Product | Spec./Products*1 | | SDE1203TX | SDE1220 | SDEM30KT | SDE30M20 | |
|----------------------|------------------|--|-------------|-------------|-------------|---------------|--|
| Max. Pumping Speed*2 | L/min | 20,000 | 20,000 | 20,000 | 30,000 | 50,000 | |
| Ultimate Pressure*2 | Pa | 0.5 | | | | | |
| N ₂ purge | SLM | 0~ | 60 | 0~80 | 0~80 | 0~120 | |
| Power Supply | | 3Ph, 200~220V, 380~480V, 50/60Hz Allowable voltage variation ±10% | | | | | |
| Cooling Water | L/min | 3.0 4.0 | | | | | |
| Power Consumption | kW | 2.0 3.2 | | 3.1 | 3.8 | 3.9 | |
| Dimensions(LxWxH)*3 | mm | 900 x 400 x 905 | 900x400x905 | 930×400×780 | 900×460×980 | 1,100×500×950 | |

^{*1)} Smaller than 20,000L/min pumps are also available. *2) Without N2 purge. *3) Package size. Dimensions vary by specification.

Kashiyama Dry Pumps SDE SERIES Ver 4.0/16.1



^{*}Contact us about international standard compliance. Spec. & name of products are subject to change without prior notice.

SD Series COMPACT FOOTPRINT

For harsh processes(SDX) and ultra-harsh processes(SDT)

- Highly advanced process tolerance owing to vertical screw design
- World-class compact footprint
- Low-power consumption even in harsh processes
- Compliant with SEMI/CE/NRTL standards
- Highly reliable design



High level of excellence in process tolerance

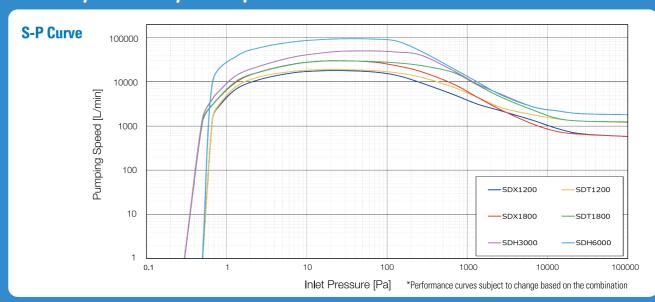
- Further strengthened process tolerance owing to vertical screw design, wide range of temperature variations and new heater system
- 45% smaller footprint for 19,000 L/min class compared to our conventional models
- Harsh process application example



Major Products

| Spec. / Products ¹ | | SDX1200 | SDT1200 | SDX1800 | SDT1800 | SDH3000 | SDH6000 |
|---------------------------------|-------|---|---------|---------|-------------|---------------|---------|
| Max. Pumping Speed ² | L/min | 20,000 20,000 30,000 | | 50,000 | 100,000 | | |
| Ultimate Pressure ² | Pa | 0 | .5 | 0 | .3 | 0.3 | 0.5 |
| N ₂ purge | SLM | | 0~ | 80 | 0~120 0~120 | | |
| Cooling Water | L/min | 3.0 | 4.0 | 3.0 | 4.0 | | |
| Supply Voltage | | 3Ph, 200~220V, 380~440, 50/60Hz Allowable voltage variation ±10% | | | | | |
| Power Consumption ³ | kW | 1.65 | 3.15 | 2.1 | 3.3 3.3 3. | | 3.7 |
| Dimensions (LxWxH) ⁴ | mm | 695 x 285 x 850 850 x 380 x 950 910 x 420 x 900 | | | | 1,050x515x950 | |

¹⁾ SDX energy-saving and harsh process-compatible machines, SDT process-resistant and ultra-harsh process-compatible machines 2) Values without N2 purge



³⁾ Approximate value of power consumption in attainable operation 4) Package dimensions. Please contact us for further details.

Specifications and model names are subject to change without prior notice. Please contact us for information on compatible gases.

MU-XE Series



Power Consumption 0.25kW Extreamly Small Footprint

2 Remarkable Solutions

- World's No.1 energy-saving performance has evolved even further
- World's No.1 in minimal footprint
- Compliant with SEMI, CE, and NRTL standards

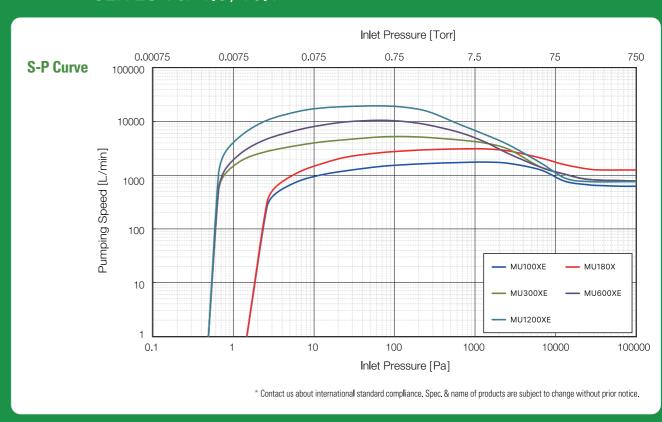


Major Products

| Spec./Products | | MU100XE | MU180X | MU300XE | MU600XE | MU1200XE | |
|--------------------------|-------|---------------------|-----------------|-----------------|-----------------|-----------------|--|
| Max. Pumping Speed *1 *5 | L/min | 1,660 | 3,000 | 5,000 | 10,000 | 20,000 | |
| Ultimate Pressure *1 | Pa | 1. | 5 | 0.5 | | | |
| Supply Voltage (50/60) | Hz | 3Phase AC200~220V*2 | | | | | |
| Power Consumption*3 | kW | 0.25 | 0.5 | 0.45 | 0.5 | 0.6 | |
| Dimensions (L×W×H)*4 | mm | 450 × 230 × 275 | 550 × 280 × 299 | 450 × 230 × 520 | 530 × 230 × 520 | 625 × 275 × 580 | |
| Mass | kg | 60 | 95 | 100 | 120 | 165 | |

^{*1)} Data without N2 purge. *2) Contact us for other voltage options. *3) Approx. value at ultimate pressure. *4) Package size.

Kashiyama Dry Pumps MU-XE SERIES Ver 1.0/16.1



^{*5)} The maximum punping speed is and approximate value. *Contact us about large capacity pumps.

NeoDry-E series



Handy & Cooling Air Type pump Energy Saving Pumps / Total Vacuum Solution



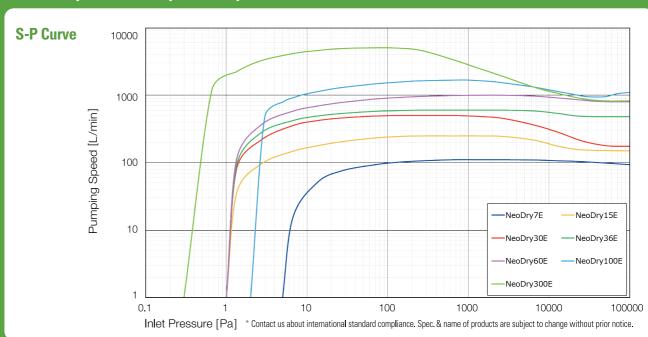
NeoDry-E SERIES Ver 6.0/16.1 Small Air-cooled DP 250~5,000 min

- Maintenance cycle: Once in 3 years! (Approx.when Air/N2 is used)
- No Oil smoke, No chamber contamination!
- No Tip-seal replacement, No Performance, No Particles!
- Hassle free to replace rotary/scroll pumps!
- Condensation-prone gas, like water vapor or solvent, available!
- By virtue of inverter, frequency does not affect to performance!
- Low Noise, Low Vibration!

Major Products

| Spec./Products | | NeoDry7E | NeoDry 15E | NeoDry30E | NeoDry36E | NeoDry60E | NeoDry100E | NeoDry300E |
|--|-------|--|------------|-----------|-------------|---|-------------|------------|
| Max. Pumping Speed | L/min | 110 | 250 | 500 | 600 | 1,000 | 1,670 | 5,000 |
| Ultimate Pressure (Without Gas Ballast) | Pa | 5.0 1.0 | | | .0 | | 2,0 | 0.3 |
| Supply Voltage(50/60) *1 | | Single Phase, AC100-120V Single Phase, AC200-240V Single Phase, AC200-240V 3 phase, AC200-240V | | | | Single phase, AC200~240V 3 phase, AC200~240V | | |
| Gas Ballast Mechanism | | Optional (N2 available) | | | | Standard accessory | | |
| Max Allowable Moisture | g/h | 120 250 350 | | | 350 | 600 | | |
| Noise | dB(A) | | 56 58 | | | 60 | 55 | 72 |
| Vibration | µтр-р | | | | 8 | 15 | | |
| Mass | kg | 19 | 23 | 25 | 54 | 56 | 88 | 125 |
| Inlet size | | NW25 NW40 | | | | W40 | | NW50 |
| Outlet size | | NW25 | | | | | | |
| Dimensions (LxWxH)*2 | mm | 360×196×219 385×210×250 410×210×250 | | | 475×298×275 | 530×315×275 | 576×320×365 | 574×304×59 |

 $^{^{\}ast}$ 1) Contact us for other voltage options. * 2) Package size.



^{*}Contact us about international standard compliance. Spec. & name of products are subject to change without prior notice.

Neodry-Gseries Low Noise Low VIBRATION

Maintenance cycle: Once in 6 years!

(Apprrox.. when Air/ N2 is used)

*Based on our track record off sales.



NeoDry-G SERIES Ver 6.0/16.1 Small Air-cooled DP 250~5,000 l/min

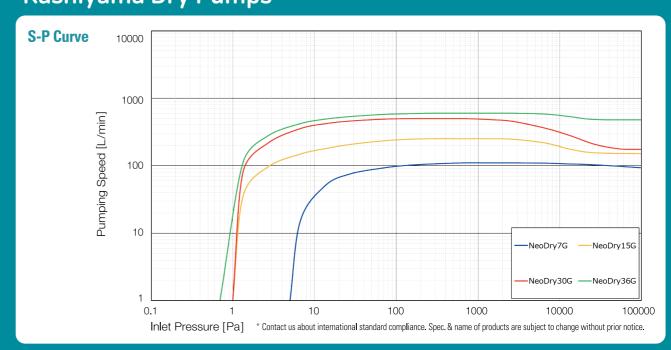
- Wide Voltage Range!
- Quieter & Temperature Optimization!
- Water vapor evacuation performance upgraded!
- •IEC Power Connector!
- Meet Harmonic Standards!

- -Switchable between 1ph 100V and 200V automatically.
- -Typically 45dB (50dB for 36G) at ultimate pressure. Optimized pump temperature with fan control.
- -Gas ballast enables the vacuum of condensable gases and brings a 10% water vapor evacuation performance boost. (Except 36G)
- -IEC connector adopted for your convenience.
- -Meeting European harmonic emission requirement.
- Serial Communication Port! Available for data communication and speed control

Major Products

| Spec./Products | | NeoDry7G | NeoDry15G | NeoDry30G | NeoDry36G | | |
|--|-------|--------------------------------|--------------------------|-----------|-------------|--|--|
| Max. Pumping Speed | L/min | 110 | 250 500 | | 600 | | |
| Ultimate Pressure (Without Gas Ballast) | Pa | 5.0 | 1. | 0.7 | | | |
| Supply Voltage(50/60)*1 | Hz | | Single Phase, AC100-240V | | | | |
| Gas Ballast Mechanism | | Option (N2 model is available) | | | | | |
| Max. Allowable Moisture | g/h | 135 | 135 275 | | | | |
| Noise | dB(A) | 45 51 | | | | | |
| Vibration | µтр-р | 4 | | | | | |
| Mass | kg | 19 | 22 24 | | 51 | | |
| Inlet Size | | NW25 NW40 | | | | | |
| Outlet Size | | NW25 | | | | | |
| Power Consumption at Ultimate Pressure | kW | 0.28 | 0.1 | 0.55 | | | |
| Dimensions (LxWxH) *2 | mm | 360×196×196 | 385×210×219 410×210×219 | | 475×298×260 | | |

Contact us for other voltage options.
 Package size. *Contact us about international standard compliance. Spec. & name of products are subject to change without prior notice



MUP Series HIGH QUALITY

High Performance

- Achieved further reduction in power comsumption
- Inheritance and evolution of process durability
- One of the orld's smallest footprints
- NEW appearance
- Compliant with SEMI/CE/NRTL standards



Enhanced process Durability and Improved Energy Efficiency

Srong / Saving

Envolved process durability and energy-saving performance. Achieved the world's best power consumption in medium process, e.g., etching.

Small

35% smaller footprint than the other 20,000 L/min pumps.

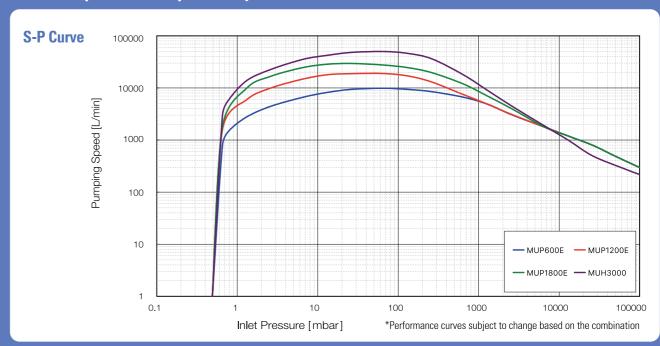
Safety

Compliant product specifications for various standards. (MUH does not support NRTL)

Major Products

| Spec. / Produc | ct | MUP600E | MUP1200E | MUP1800E | MUH3000 | |
|--------------------------|-------|----------------------|----------|-----------------|-----------------|--|
| Max. Pumping Speed *1 *4 | L/min | 10,000 | 19,000 | 30,000 | 50,000 | |
| Ultimate Pressure*1 | Pa | 0.5 | | | | |
| Supply Voltage (50/60) | Hz | 3-phase AC200-220V*5 | | | | |
| N ₂ purge | SLM | 0~45 0~60 | | | | |
| Cooling Water | L/min | 2.0 | | | | |
| Power Consumption*2 | kW | 0.9 | 0.95 | 1.2 | 1.6 | |
| Dimensions(LxWxH)*3 | mm | 695 x 2 | 85 x 655 | 850 x 380 x 950 | 910 x 420 x 900 | |

^{*1)} No heater specification, Values without N2 purge *2) Approximate value of power consumption in attainable operation. *3) Package dimensions. Contact us for further details.



^{*4)} Approximate Maximum exhaust speed. *5) If you have any requests other than this power supply, please consult with us separately.

SDL Series LARGE CAPACITY

Big Roots Rotor Type for Large Size Wafer & FPD **High Throughput Dry Pump**

• Available to large size wafer & FPD

Large capacity available by combination.
Larger than 150kL/min also available on demand.

Shorter cycle-time

Large capacity around atm. pressure can achieve high speed pumping best for large L/L chamber.

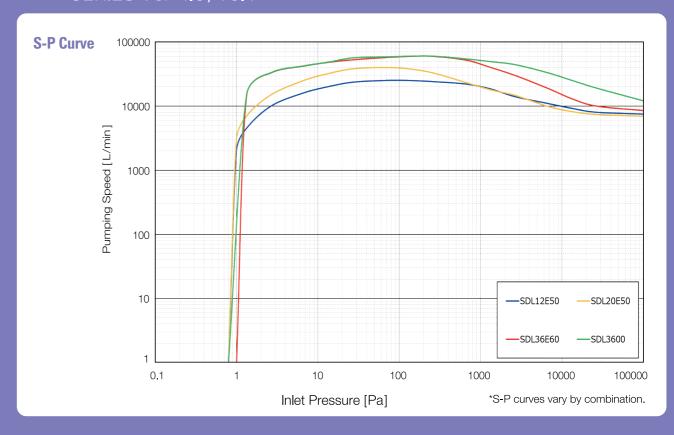
Pumps for solvent evacuation are also lined-up



Major Products

| Spec./Products | | SDL12E50 SDL20E50 | | SDL36E60 SDL3600 | | |
|-----------------------|-------|---|----|------------------|-----------------|--|
| Max. Pumping Speed *1 | L/min | 25,000 40,000 | | 60,000 | 60,000 | |
| Ultimate Pressure*1 | Pa | 0 | .8 | 1.0 | 0.8 | |
| N ₂ purge | SLM | 0~ | 50 | 0~120 | | |
| Power Supply | | 3 Phase, AC200 ~ 220V, AC380 ~ 440V(50/60Hz) Max. Fluctuation ±10% | | | | |
| Cooling Water | L/min | 6 | .0 | 8 | .0 | |
| Dimensions(LxWxH) | mm | 1,000×520×1,050 1,250×515×1,150 | | 1,370×600×1,295 | 1,370×600×1,295 | |

Kashiyama Dry Pumps SDL SERIES Ver 4.0/16.1



^{*}Contact us about international standard compliance. Spec. & name of products are subject to change without prior notice.





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