

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.

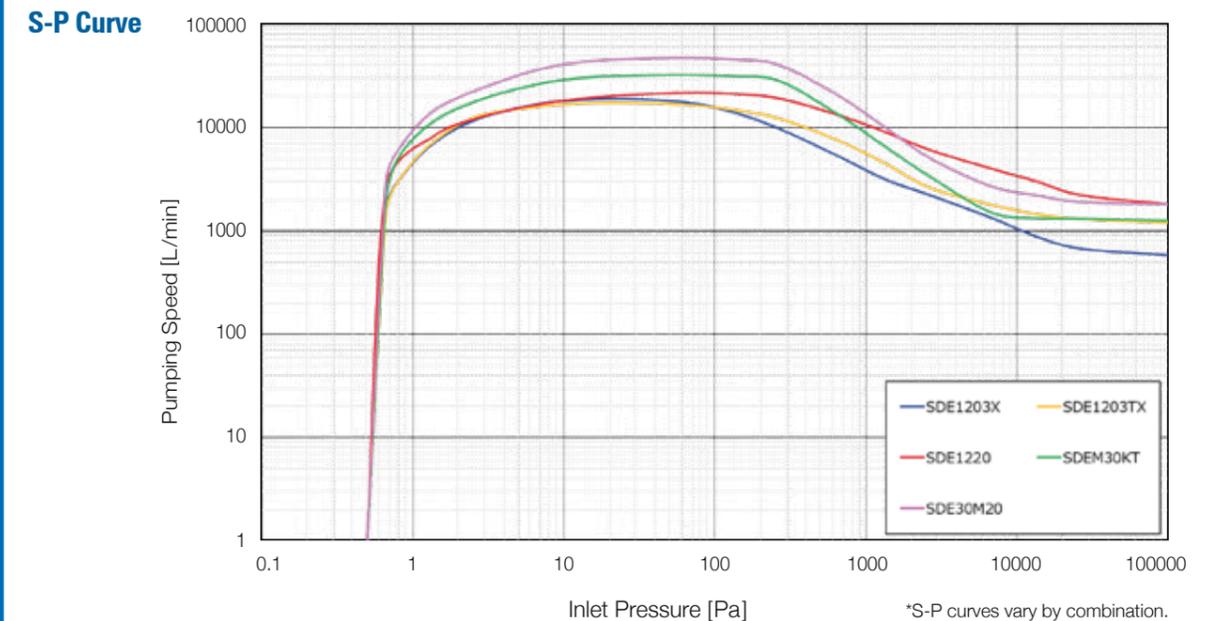


Major Products

Spec./Products ^{*1}		SDE1203X	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	900x400x905	900x400x905	930x400x780	900x460x980	1,100x500x950

^{*1} Smaller than 20,000L/min pumps are also available. ^{*2} Without N₂ purge. ^{*3} Package size. Dimensions vary by specification.
*Contact us about international standard compliance. Spec. & name of products are subject to change without prior notice.

Kashiwama Dry Pumps SDE SERIES Ver 4.0/16.1



SD Series **NEW**

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

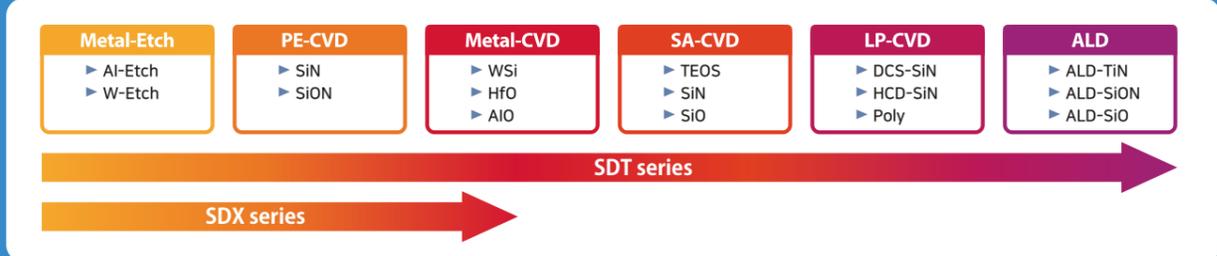
- Highly advanced process tolerance owing to vertical screw design
- World-class compact footprint
- Low-power consumption even in harsh processes
- Compliant with SEMI/CE/NRTL standards
- Highly reliable design



*Ready for evaluation orders

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

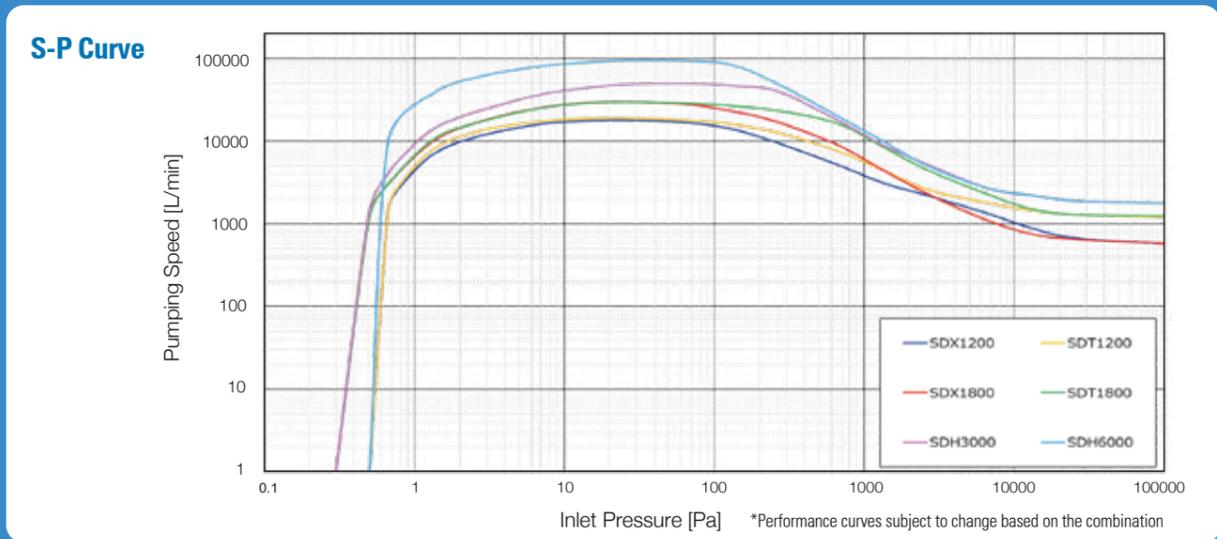


Major Products

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	3.7
Dimensions(LxWxH) ⁴	mm	695x285x850		850x380x950		910x420x900	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.

Kashiyama Dry Pumps



MU-X Series



Power Consumption 0.35kW
Extremely Small Footprint

2 Remarkable Solutions

- Roots dry pump achieved smallest energy consumption & footprint in the category.
- Applicable for various tools.
- Best for clean pumping such as L/L and transfer chamber, etc.

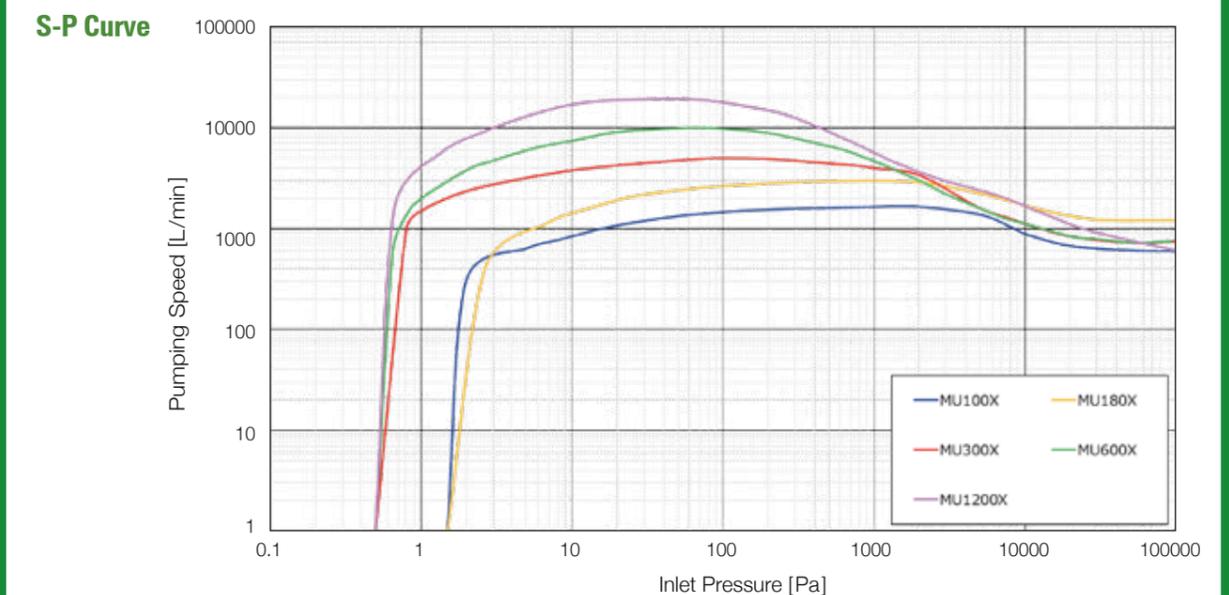


Major Products

Spec./Products		MU100X	MU180X	MU300X	MU600X	MU1200X
Max. Pumping Speed ^{*1}	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	0.35	0.5	0.55	0.6	0.7
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} Without N2 purge. ^{*2} Contact us for other voltage options. ^{*3} Approx. value at ultimate pressure. ^{*4} Package size.
*Contact us about international standard compliance. Spec. & name of products are subject to change without prior notice. *Contact us about large capacity pumps.

Kashiyama Dry Pumps MU-X SERIES Ver 1.0/16.1



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NeoDry-E Series **ECO**

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



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

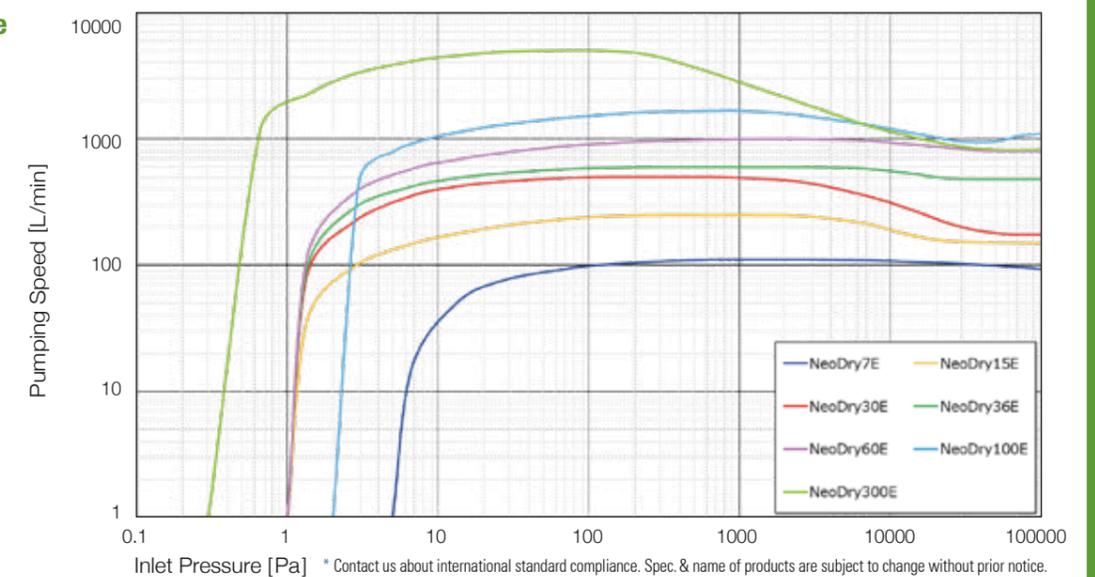
Major Products

Spec./Products		NeoDry7E	NeoDry15E	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			2.0		0.3
Supply Voltage(50/60) *1		Single Phase, AC100-120V Single Phase, AC200-240V	Single phase, AC100-120V/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	600		
Noise	dB(A)	56			58	60	55	72
Vibration	μmp-p	8						15
Mass	kg	19	23	25	54	56	88	125
Inlet size		NW25			NW40			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	574×304×595

*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.

Kashiya Dry Pumps

S-P Curve



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

NeoDry-G Series **NEW**

Maintenance cycle : Once in 6 years !
(Approx.. 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

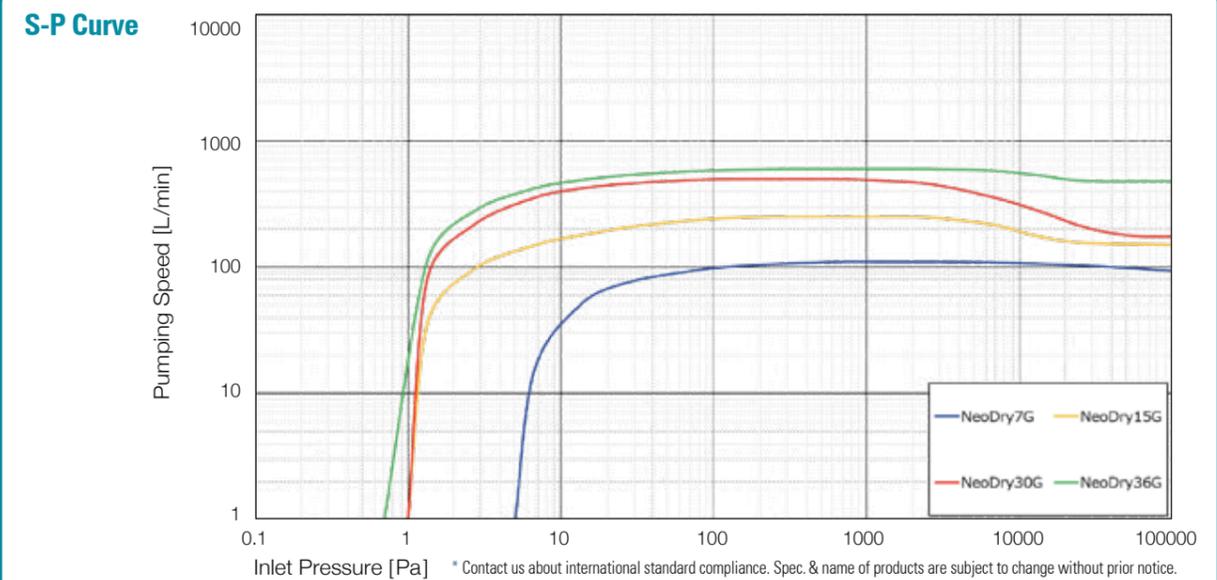
- **Wide Voltage Range !** - Switchable between 1ph 100V and 200V automatically.
- **Quieter & Temperature Optimization !** - Typically 45dB (50dB for 36G) at ultimate pressure. Optimized pump temperature with fan control.
- **Water vapor evacuation performance upgraded !** - Gas ballast enables the vacuum of condensable gases and brings a 10% water vapor evacuation performance boost. (Except 36G)
- **IEC Power Connector !** - IEC connector adopted for your convenience.
- **Meet Harmonic Standards !** - 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		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	275	350	
Noise	dB(A)	45		51	
Vibration	μmp-p	4			
Mass	kg	19	22	24	51
Inlet Size		NW25		NW40	
Outlet Size		NW25			
Power Consumption at Ultimate Pressure	kW	0.28	0.34		0.55
Dimensions(LxWxH) ^{*2}	mm	360×196×196	385×210×219	410×210×219	475×298×260

^{*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.

Kashiyma Dry Pumps



MUP Series

HIGH PERFORMANCE

For Medium Processes

- Energy efficient and high process durability
- World-class compact footprint
- Compliant with SEMI/CE/NRTL standards
- Highly reliable design



High level of energy efficiency and process durability

• Strength and energy conservation

Further improvement of the highly reliable structure and high energy-saving performance to achieve high operational efficiency in medium processes such as PVD*, Ashing, Oxide Etching, Poly Etching
(*= Except Metal-PVD)

• Compactness

32% smaller footprint : 19,000 L/min class compared to our conventional models

• Reliability and global standards

Designed to be highly reliable and compliant with SEMI/CE/NRTL standards

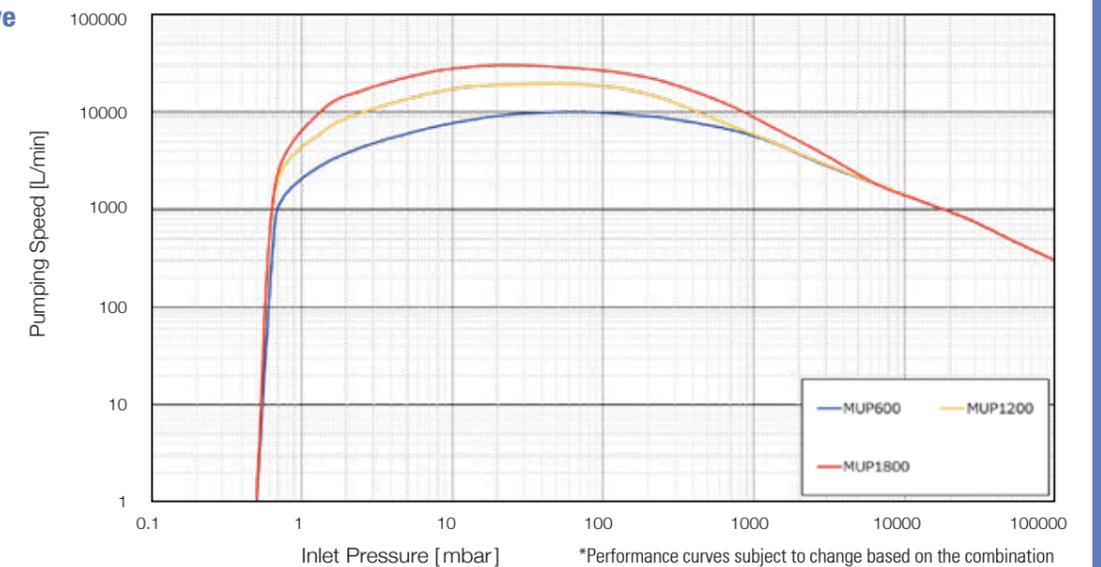
Major Products

Spec. / Product		MUP600	MUP1200	MUP1800
Max. Pumping Speed ¹	L/min	10,000	19,000	30,000
Ultimate Pressure ¹	Pa	0.5		
N ₂ purge	SLM	0~45		
Power Supply	Hz	3Ph, 200~220V, 380~440, 50/60Hz Allowable voltage variation ±10%		
Cooling Water	L/min	2.0		
Power Consumption ²	kW	0.9	0.95	1.2
Dimensions(LxWxH) ³	mm	695 x 285 x 655		850 x 380 x 950

1) Values without N₂ purge 2) Approximate value of power consumption in attainable operation. 3) Package dimensions. Contact us for further details.

Kashiya Dry Pumps

S-P Curve



*Performance curves subject to change based on the combination

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	1,000x520x1,050	1,250x515x1,150	1,370x600x1,295	1,370x600x1,295

*1) Without N₂ purge.

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

Kashiyama Dry Pumps SDL SERIES Ver 4.0/16.1

