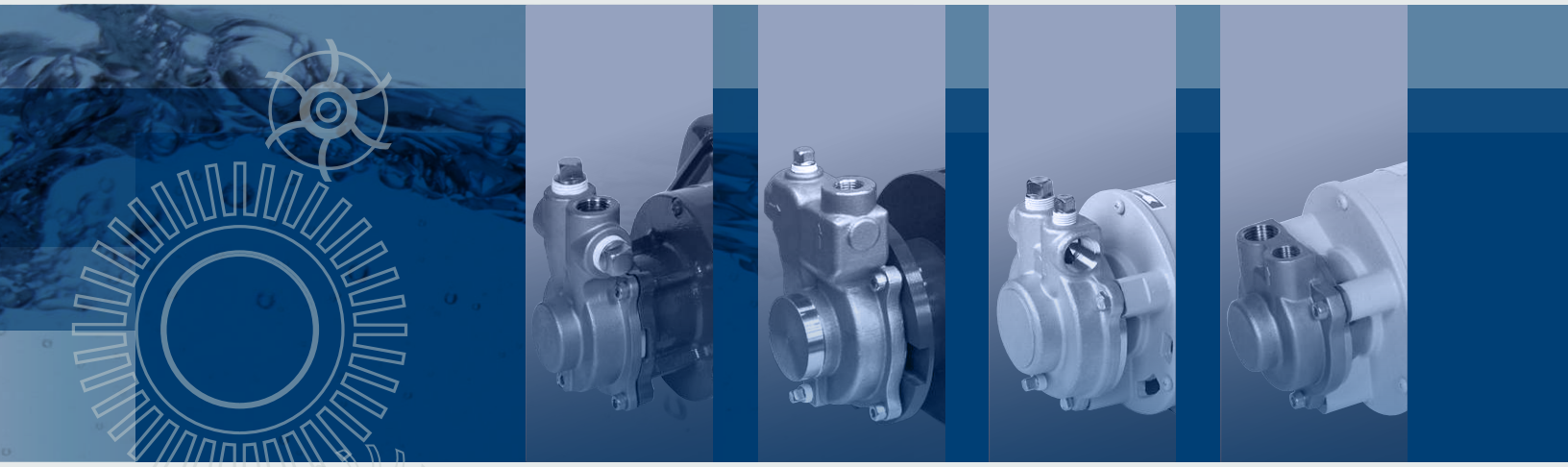
NIKUNI
Total Advanced Technology

Nikuni Precision Turbine Pumps



OEM Precision Turbine Pumps

G Series (Multi-purpose model)

D Series (General-purpose model)

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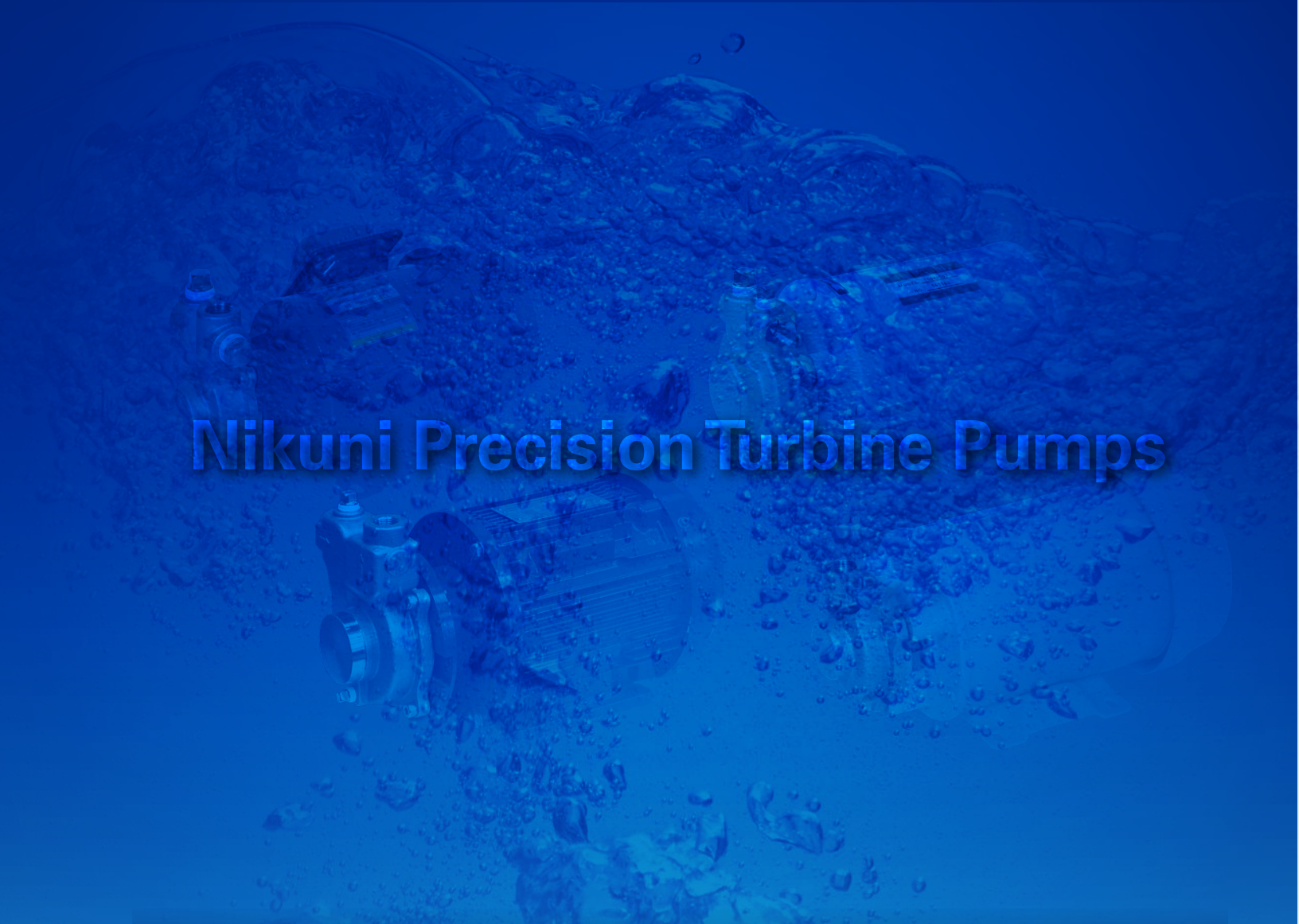


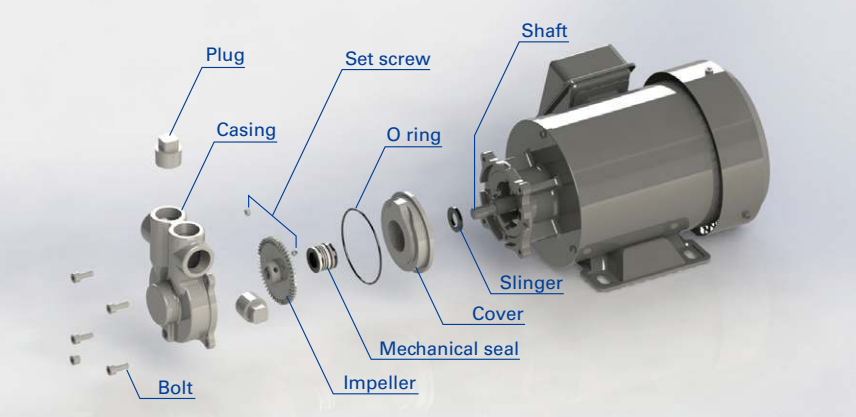
Nikuni Precision Turbine Pumps

Features

1. Precise internal clearance thanks to accurately machined individual parts realizing high efficiency
2. Fixed impeller structure and fine clearance control prevent internal contact of pump parts and performance deterioration
3. Optimum internal clearance enables filtration application without abrasions of rotating elements
4. Simple structure for easy maintenance and low cost of ownership
5. Minimum thrust displacement owing to the custom designed mono-block motor leading to outstanding durability

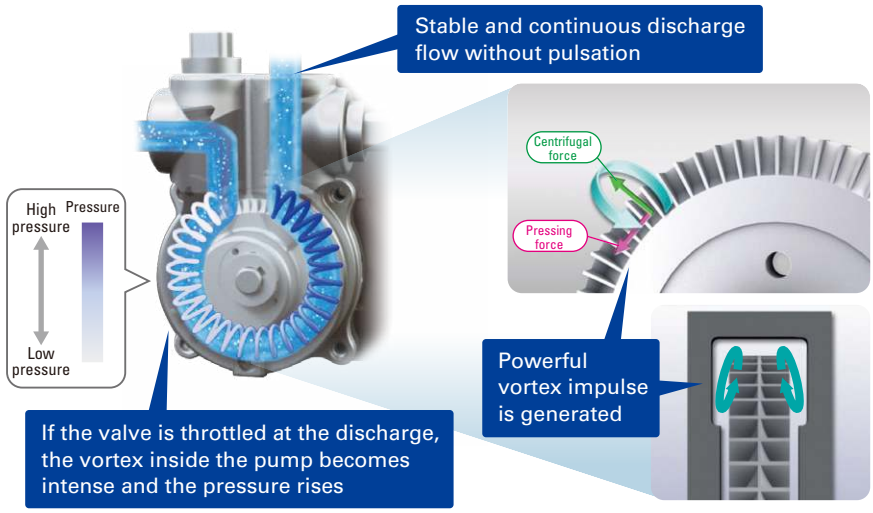
Precision Turbine Pump Structure and Features

1 Precision turbine pump structure



Robust construction withstands harsh operating conditions permitting stable operation

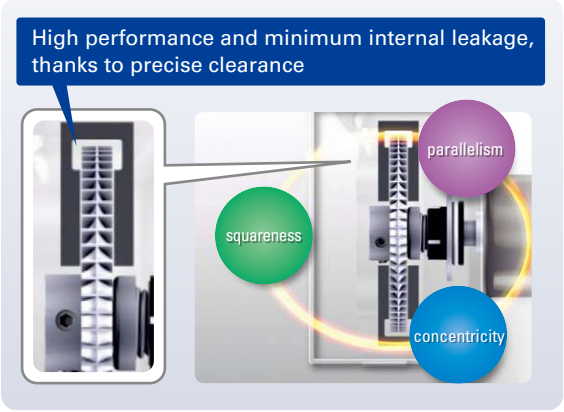
2 Precision turbine pump pressurizing principle



Fluid picked up by the impeller vane revolves along an annular channel and is pressurized repeatedly as it travels from the suction to the discharge producing high pressure of 1.5MPa(217psi) with a single stage impeller and Max 3.0 MPa(435psi) with a double stage impeller upon request

3 Nikuni's high reliability and performance

Nikuni's precision turbine pump



General regenerative turbine pump

No mechanical contact or sliding parts due to the optimum clearance for impeller rotation realized by precision machining technology (except for mechanical seal and sleeve bearing).
Accurate squareness, parallelism and concentricity assures reliability of a fixed impeller turbine pump

G Series

OEM Precision Turbine Pump
(Multi purpose model)

GNL/GNH

G Series Common Features :

1. Precisely machined components assembled with a special high precision custom built motor. The impeller is fixed to the pump shaft to prevent wear due to the contact with other parts to maintain excellent performance over a long pump lifetime.
2. Comes standard with a SiC × Carbon × FKM mechanical seal for strong chemical and heat resistance.
3. Available in GNL (medium pressure) and GNH (high pressure) models for most efficient fit, reduced motor size and power consumption to reduce overall equipment cost.
4. Other materials available upon request.
5. Dedicated close coupling component to accommodate explosion proof motors.
6. Easy to assemble without the need for special tools thanks to the simple construction.
7. Sealless magnet drive configuration is available upon request. Please contact us for details.

GNL Features :

1. Due to its symmetrical structure, the pump can be operated in both forward and reverse directions. Having two suction and discharge ports each, installation positioning within equipment and flow direction can be changed, thus improving the degree of freedom in piping design.
   ※ Over 10 different flow configurations including forward/reverse, splitting and merging flows, and more.
2. An extra port for priming, the pump can also be used to install various gauges, sensors, relief valves, orifaces and more for greater convenience and added value to equipment.

GNH Features :

1. Discharge pressure up to 1.5 MPa is achieved on account of the strengthed shaft that suppresses deflection even during high load operation. In addition, performance deterioration due to component wear is kept down to maintain a high level of performance over a long lifetime.
2. Can be used as an alternative to stainless steel rotary vane pumps or gear pumps, with less noise and internal wear for the low viscosity fluid service.

Model List

Material	SCS (Stainless Steel)			
Medium Pressure	15GNL04	20GNL07	25GNL15	32GNL22
High Pressure	15GNH07	20GNH15	25GNH22	-

Pump Model Codes

15 GNL 04 ZE - VTU

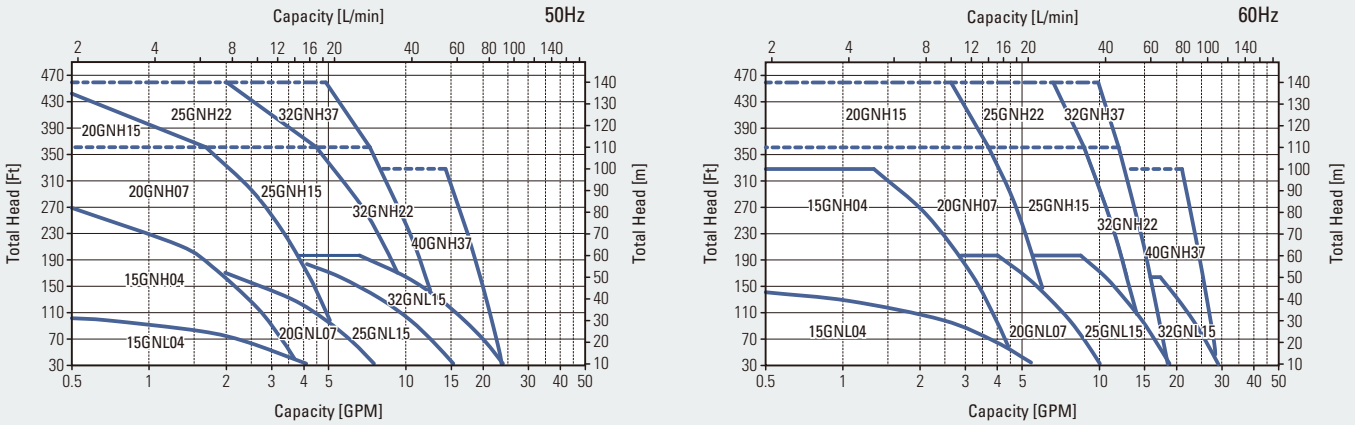
- Suction Nozzle Dia.
  - 10A (3/8") 20A (3/4")
  - 15A (1/2") 25A (1")
- D → D series range
- G → G series range
- K → CAC material
- N → SUS material
- L → Medium pressure type
- H → High pressure type
- Motor rating
  - 03 : 0.3KW
  - 04 : 0.4KW
  - 05 : 0.5KW
  - 07 : 0.7KW
  - 11 : 1.1KW
  - 15 : 1.5KW
  - 22 : 2.2KW
  - 37 : 3.7KW
- S → Sigle phase
- Z → Three phase
- I → Indoor
- E → Outdoor
- D → SiC/SiC/FKM
- E → WC/WC/FKM
- V → SiC/Carbon/FKM
- TU → UL
- TC → CE

Specifications

	Series name	15GNL04	20GNL07	25GNL15	32GNL15
	Total head	Max.45m	Max.60m		
	Liquid temperature	-20～90C°*			
Material	Body casing	SCS13			
	Impeller	SUS304			
	Mechanical seal	SiC × Carbon × FKM			
	O-ring	FKM			
	Shaft	SUS316L			
Motor	Single phase totally-enclosed fan cooled	50Hz/60Hz 115/120V, 230/240V 0.55-2KW, IP44, Ins.Class: F, UL certified Including over load protection system			
	Three phase totally-enclosed fan cooled	60Hz 230/460V 0.56-1.95KW IP44, Insu.Class :F, UL certified Connection: NPT/PT thread			

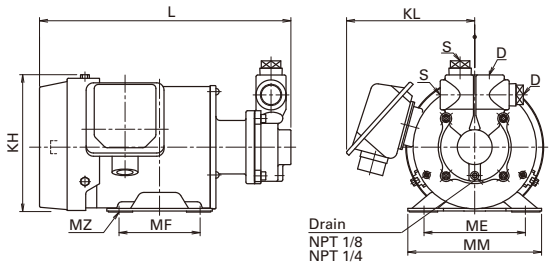
*If the temperature is outside the listed range, please consult Nikuni.

Pump Performance Curve



Note: 1. Max. head achievable is regulated by the required horse power. 2. Ranges of the chain line are non-standard range with higher rating motors.
3. Model GNL shall be selected when required head is 60m or less.

GNL/GNH Dimensions (3 Phase, TEFC motor)



GNL Dimension Table

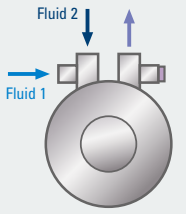
(unit: mm,kg)

Model	kW*	S	D	L	ME	MF	MM	MZ	KL	KH	Weight
15GNL04ZE-VTU	0.56	NPT 1/2	NPT 1/2	286.5	112	90	140	7×8	151	155	13.5
20GNL07ZE-VTU	0.975	NPT 3/4	NPT 3/4	310	125	100	165	10×8	158	169	17.5
25GNL15ZE-VTU	1.95	NPT 1	NPT 1	351.5	140	125	176	10×12	167.5	199	24.5
32GNL15ZE-VTU	1.95	NPT 1 ¼	NPT 1 ¼	355.5	140	125	176	10×12	167.5	215	25.5

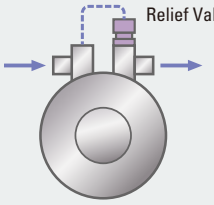
*1 Motors 0.75 and above are complied to IE3 standard.
*2 Values stated in * are actual motor output of "Extra-load capacity motors" .
*3 Figures shown above are the configuration when delivered from factory. (In case of the application which required motor to be rotated in reverse way, S&D positions will be in opposite.)

Applications

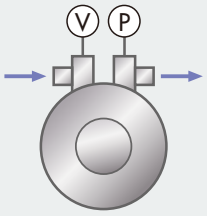
Various configurations are possible.



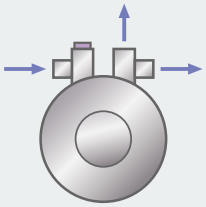
① Two Fluids In-Line Mixing



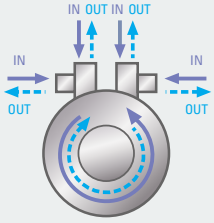
② Prevent Excess Pressure



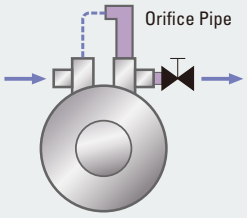
③ Instrument Installation



④ Divide



⑤ Rotation & Connection Interchangeability



⑥ Minute Flow Adjustment

D Series

OEM Precision Turbine Pump
(General purpose model)

DKL/DKH, DNL/DNH

(Lead free copper turbine pump) (Stainless steel turbine pump)

D Series Common Features :

1. Excellent cost performance, effectively reduces equipment and system costs.
2. Available in lead-free copper alloy and stainless steel pump materials for optimal selection.
3. Comes standard with a SiC × Carbon × FKM mechanical seal for strong chemical and heat resistance.
4. Precisely machined components assembled with a high precision custom built motor. The impeller is fixed to the shaft to prevent wear from contact with other parts to maintain excellent performance over a long pump lifetime.
5. Available in L-type (medium pressure) and H-type (high pressure) models for best possible fit, reducing motor size and power consumption to reduce overall equipment cost.

Model List

Material	CA (Copper Alloy)			SCS (Stainless Steel)		
Medium Pressure	15DKL03	20DKL05	25DKL11	15DNL03	20DNL05	25DNL11
High Pressure	15DKH03	15DKH05	-	15DNH03	15DNH05	-

Pump Model Codes

15 DKL 03 ZE - VTU

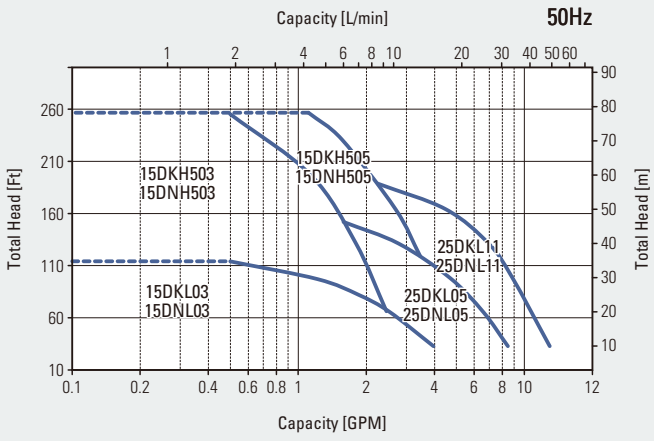
- TU → UL
- TC → CE
- D → SiC/SiC/FKM
- E → WC/WC/FKM
- V → SiC/Carbon/FKM
- I → Indoor
- E → Outdoor
- S → Sigle phase
- Z → Three phase
- Motor rating
  - 03 : 0.3KW
  - 04 : 0.4KW
  - 05 : 0.5KW
  - 07 : 0.7KW
  - 11 : 1.1KW
  - 15 : 1.5KW
  - 22 : 2.2KW
  - 37 : 3.7KW
- L → Medium pressure type
- H → High pressure type
- K → CAC material
- N → SUS material
- D → D series range
- G → G series range
- Suction Nozzle Dia.
  - 10A (3/8") 20A (3/4")
  - 15A (1/2") 25A (1")

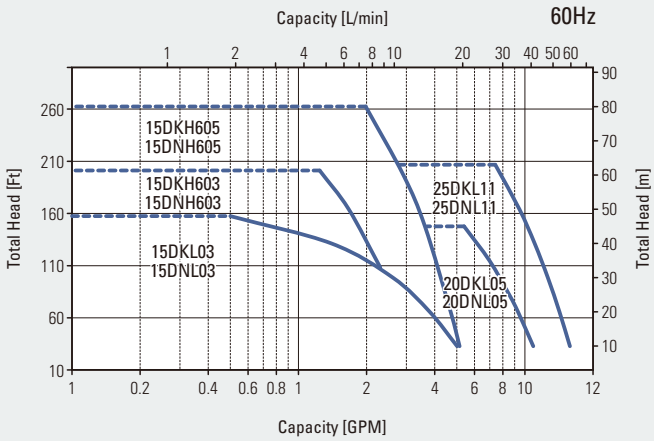
Specifications

Series name		DKL / DKH	DNL / DNH
Total head		Max. 80m	
Flow rate		Max. 75L/min	
Liquid temperature		～120C°	
Material	Casing/cover	Lead-free copper	SCS13
	Impeller	SUS303	
	Mechanical seal	SiC × Carbon × FKM	
	O-ring	FKM	
	Shaft	SUS316L	
Motor	Single phase totally-enclosed fan cooledr	50Hz/60Hz 115/120V, 230/240V 0.55-2KW, IP44, Ins.Class: F, UL certified Including over load protection system	
	Three phase totally-enclosed fan cooled	60Hz 230/460V 0.37-1.1KW IP44, Insu.Class :F, UL certified Connection: NPT/PT thread	

*If the temperature is outside the listed range, please consult Nikuni.

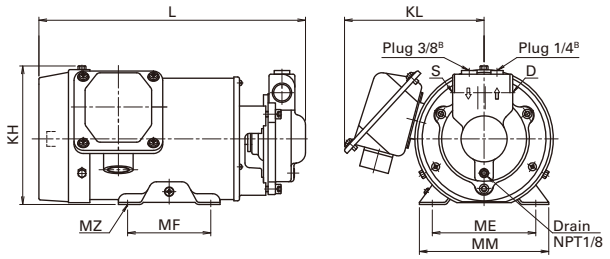
Pump Performance Curve





Note: max. head achievable is regulated by the reguired horse power.

DKL/DKH Dimensions (3 Phase, TEFC motor)



DKL Dimension Table

(unit: mm,kg)

Model	kW*2	S	D	L	ME	MF	MM	MZ	KL	KH	Weight
15DKL03ZE-VTU	0.37	NPT 1/2	NPT 3/8	287.5	112	90	140	7×8	151	150	10
20DKL05ZE-VTU	0.55	NPT 3/4	NPT 1/2	286.5	112	90	140	7×8	151	150	10
25DKL11ZE-VTU	1.1	NPT 1	NPT 3/4	300.5	125	100	165	10×8	158	170	17

*1 Motors for 0.75kW and above are complied to IE3 standard.
*2 Values stated in *2 are actual motor output of "Extra-load capacity motors".

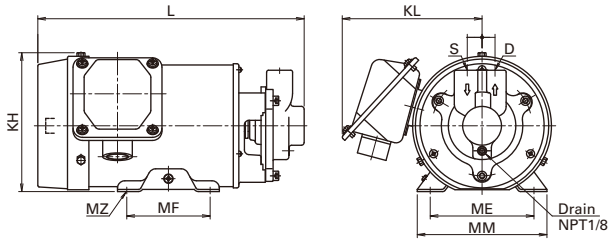
DKH Dimension Table

(unit: mm,kg)

Model	kW*1	S	D	L	ME	MF	MM	MZ	KL	KH	Weight
15DKH503ZE-VTU	0.37	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11
15DKH505ZE-VTU	0.55	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11
15DKH603ZE-VTU	0.37	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11
15DKH605ZE-VTU	0.55	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11

*1 Values stated in *1 are actual motor output of "Extra-load capacity motors".

DNL Dimensions (3 Phase, TEFC motor)



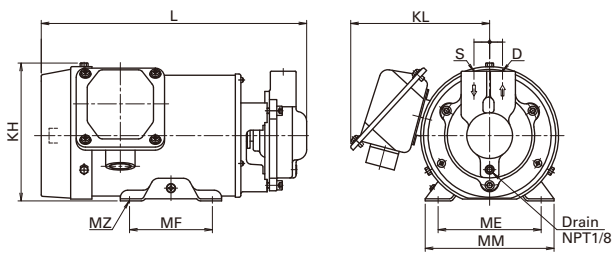
DNL Dimension Table

(unit: mm,kg)

Model	kW*2	S	D	L	ME	MF	MM	MZ	KL	KH	Weight
15DNL03ZE-VTU	0.37	NPT 1/2	NPT 3/8	287.5	112	90	140	7×8	151	150	10
20DNL05ZE-VTU	0.55	NPT 3/4	NPT 1/2	286.5	112	90	140	7×8	151	150	10
25DNL11ZE-VTU	1.1	NPT 1	NPT 3/4	300.5	125	100	165	10×8	158	170	17

*1 Motors for 0.75kW and above are complied to IE3 standard.
*2 Values stated in *2 are actual motor output of "Extra-load capacity motors".

DNH Dimensions (3 Phase, TEFC motor)



DNH Dimension Table

(unit: mm,kg)

Model	kW*1	S	D	L	ME	MF	MM	MZ	KL	KH	Weight
15DNH503ZE-VTU	0.37	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11
15DNH505ZE-VTU	0.55	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11
15DNH603ZE-VTU	0.37	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11
15DNH605ZE-VTU	0.55	NPT 1/2	NPT 1/2	289	112	90	140	7×8	151	150	11

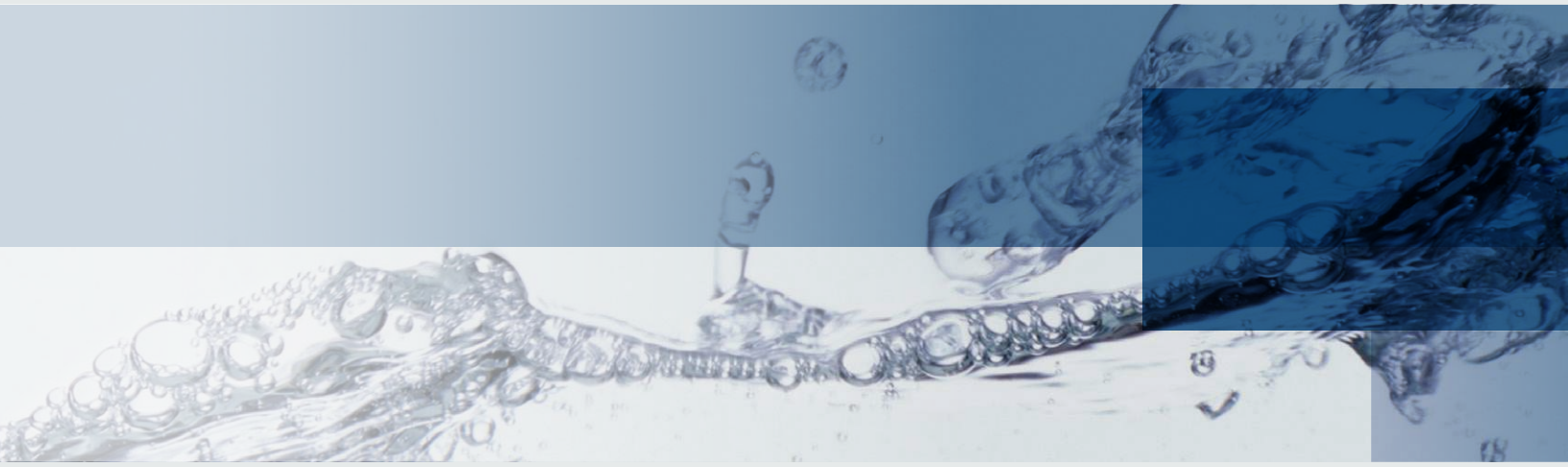
*1 Values stated in *1 are actual motor output of "Extra-load capacity motors".

Our Company

Established in 1946, Nikuni has been engaged in designing and manufacturing various industrial pumps and pump installations, semi-conductor production systems, semi-conductor test devices and optical devices.
For more than seventy years, Nikuni has been serving the Japanese, USA, European and Asian industries with high-quality products.

Our Product Line

Nikuni's major pump business consists of Precision Turbine Pumps, Centrifugal Pumps, Liquid-Ring Vacuum Pumps, Wet Type Shredder Pumps and Self-priming Liquid-Gas Transfer Pumps. Nikuni has been also developed pump-related systems as well as Hydro Cyclone Separator (VDF) and Coolant Filtration Systems (NAX Series) which are widely used in many countries.



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Products supported : All products

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Products supported : All products

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