

FUKKO's Twin Screw Pump



TWIN SCREW PUMP

FUKKO's Twin Screw Pump is chosen for its excellent transfer technology.

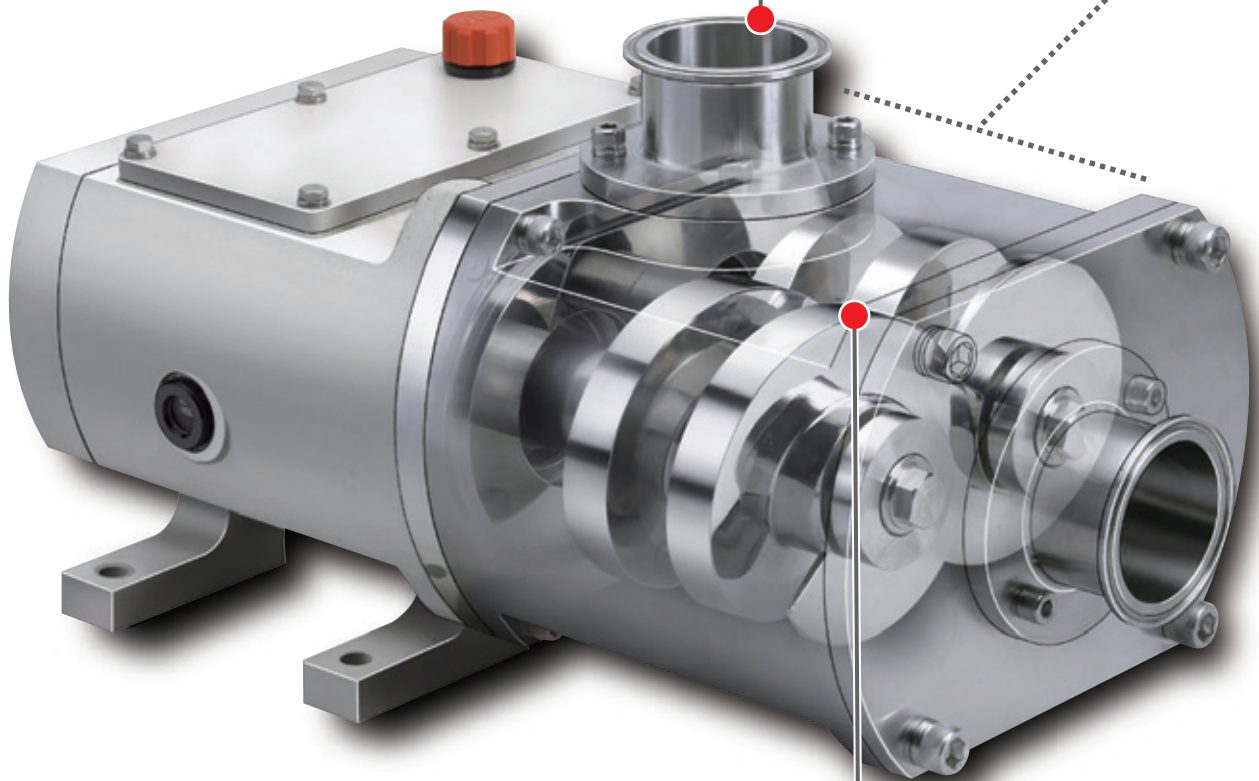
TWIN SCREW PUMP



Reason for having resistance to **high viscosity**

Strong suction

Strong suction is created by the high-speed rotation of the screw.
Complete self-suction method enables the operation without priming.



Reason for having resistance to **contamination**

▲SQ-type (Standard type)

The rotating part is contactless.

Because of a very little abrasion of the screw by the slurry liquid transfer, contamination is not generated.

Best for use with high-viscosity slurry

The use of in-tube transfer and non-contact screws significantly lower running cost compared to conventional contact-screw-type pumps.

Main application areas



Food factory

- Ketchup • Liquid eggs
- Rice cakes • Grated radishes
- Miso • Whipped cream



Cosmetics, drug medicines, and detergents

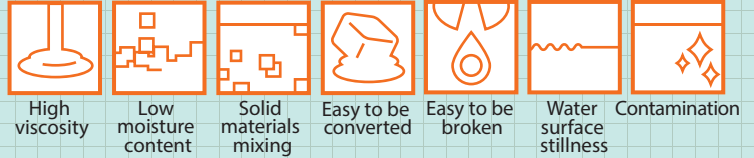
- Shampoo/Hair conditioner • Toothpaste
- Liquid detergents • Ointments



Chemical factory

- Solvent • Adhesive
- Thermosetting resin
- Latex

Problems of each characteristic are solved.



Transfer in tubes



Reason for having resistance to **solid materials mixing**

A little shape breaking allows smooth transfer.



Reason for having resistance to **easy to be converted**

No stirring

Pushing out liquids in an axial direction without provision of turning power allows transfer of delicate liquids which can be converted by stirring.



Reason for having resistance to **easy to be broken**

No shear

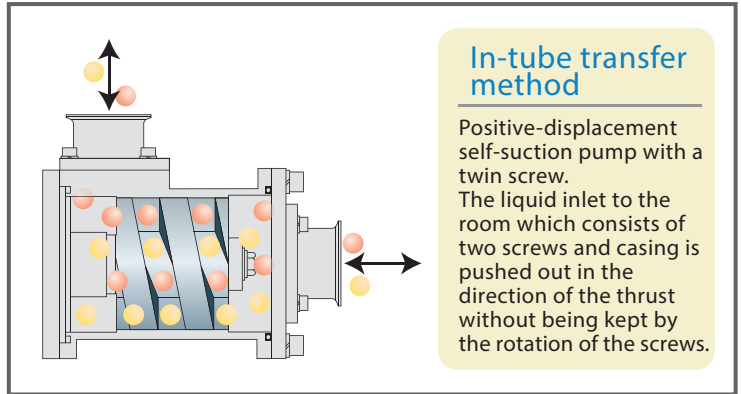
In-tube transfer method allows continuous transfer rooms to push out materials without shear force.



Reason for having resistance to **water surface stillness**

No pulsation

Continuous transfers by a screw allow constant discharge in regardless of viscosity.



In-tube transfer method

Positive-displacement self-suction pump with a twin screw. The liquid inlet to the room which consists of two screws and casing is pushed out in the direction of the thrust without being kept by the rotation of the screws.

High performance

High-speed rotation of 3,600 rpm not shared by conventional pumps
Maximum discharge pressure of 2.0 MPa is achieved.

Excellent cost performance

Because the smaller pumps than ever provide the same performance as ever, a difference is made on pump selection.

Making a contribution to the line simplification and quality assurance

A unit of pump can handle from low viscosity to high viscosity liquids, and the operation efficiency and quality assurance from liquid transfer to CIP (cleaning in place) are realized.

Structure with consideration of disassembling and cleaning

Easy disassembling and quick perfect cleaning are available.

Low noise/vibration

Because the discharge pressure is applied to the thrust load (axial direction), vibration is not generated and operation is noiseless.



Recycling facility Environmental facility

- Sludge
- Waste liquid
- Sawdust
- Rice straw



Petroleum/Paint/ Fat factory

- UV paint
- Slurry ink
- Grease
- Wax



Paper factory

- Cellulose
- Woody fiber
- Japanese paper material
- Emulsion
- Pulp material



Others

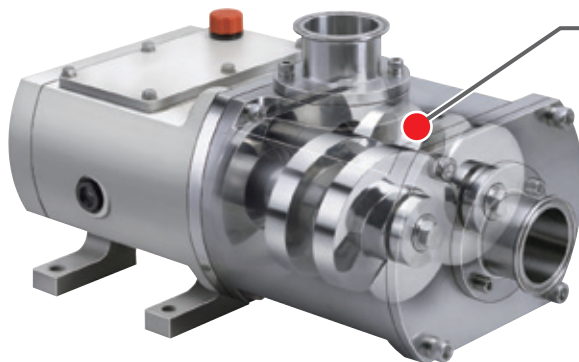
- Carbon
- Alumina slurry
- Mineral slurry (battery material)

Two series according to applications Smooth transfer is achieved.

Transfer of any liquid is enabled.

SQ-type

▶ Standard type



Structure with consideration of cleaning

- The part that contacts liquids can be exposed completely for various cleaning methods.
- Finish processing with consideration to cleaning of inside of the casing
- The mechanical seal is removable.
- The outside of the casing optionally can be finished buffing for the surface to be clean.

Specialized for low moisture content materials difficult to be transferred

SQW-type

▶ Twin Screw Pump with Screw Conveyor (PAT)

Patented

Mounting a screw conveyor realizes smooth transfer of superhigh viscosity liquids, soft materials like cakes, and others.

Low moisture content

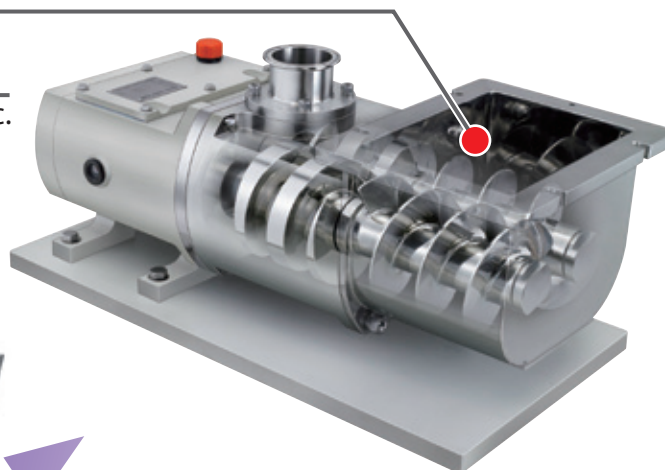
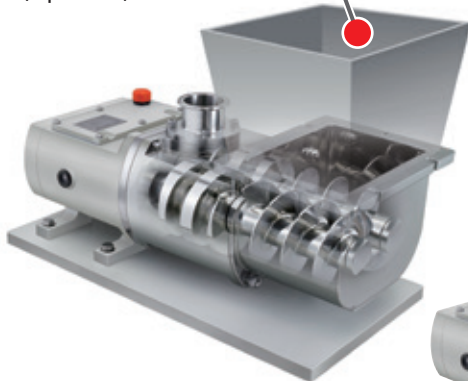


Applications

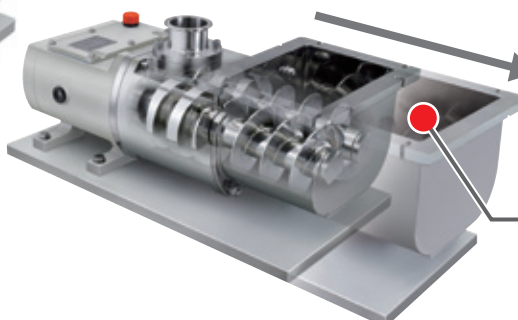
Bean curd refuse, corns, etc.

The inlet can be expanded for smooth input of materials to be transferred.

(Optional)



More special applications can be handled.



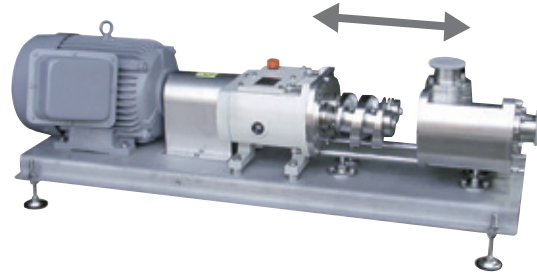
The inlet can be expanded furthermore.

Options are available that are suitable for your cleaning environment.

▶ Slide bar specification (PAT)

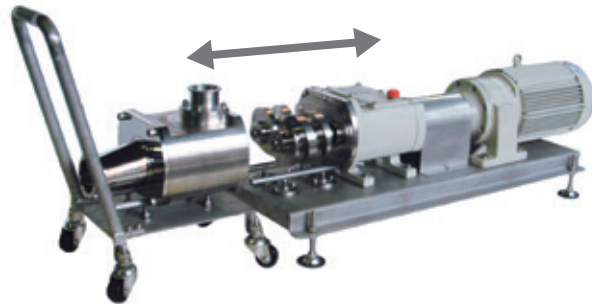
Patented

The casing can be attached/removed without touching the screws.



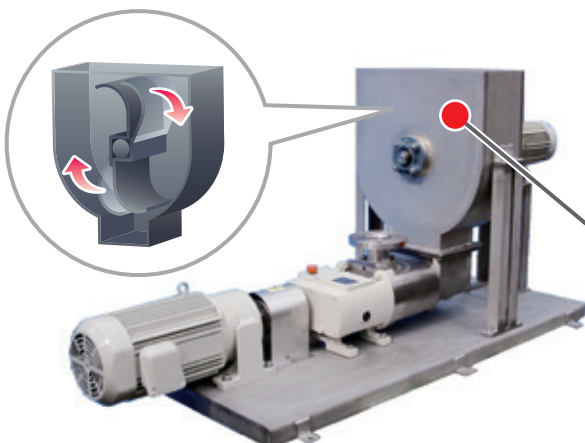
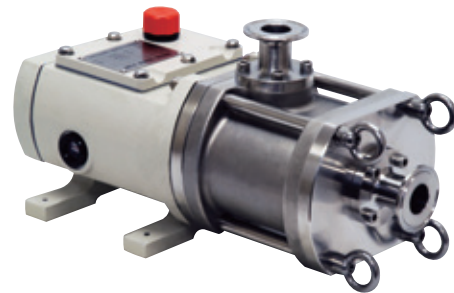
▶ Slide bar docking system

Operations are easy on a dedicated wagon.



▶ Stad specification

Easy disassembling/assembling allows effective daily cleaning.



A block of materials can be crumbled to be even.

▶ Twin Screw Pump with Paddle

Furthermore with a feeder paddle mounted, materials like cakes almost solid can be crumbled to prevent bridges for smooth transfer.

Low moisture content



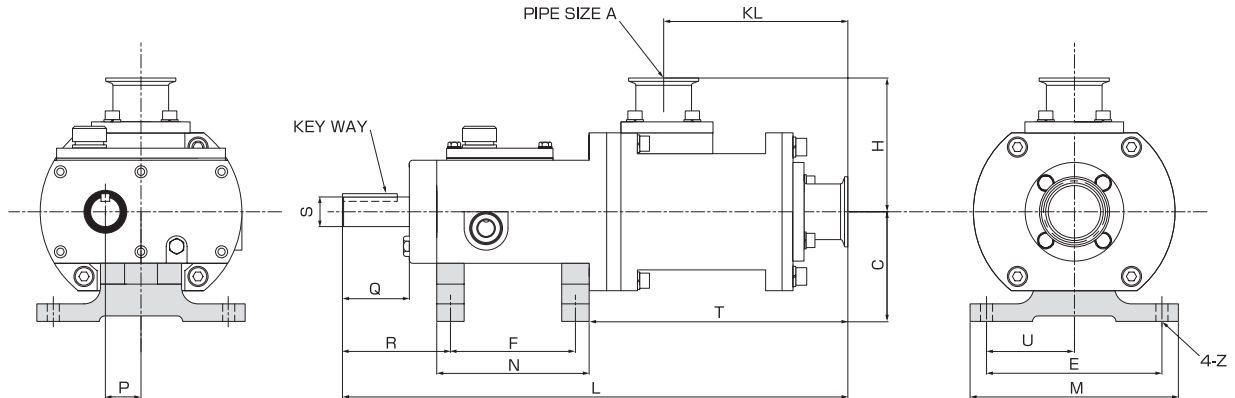
Applications

Grease, oil cakes, etc.

Outer dimensions/structure drawing/specifications

► SQ-type (Standard type)

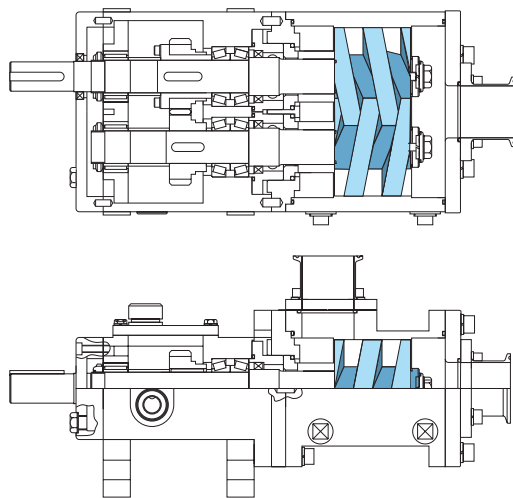
Outer dimensions



(Unit : mm)

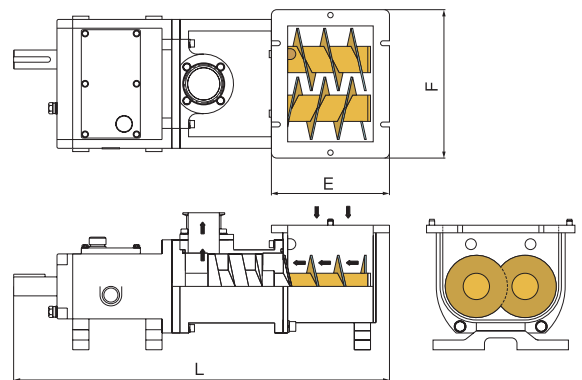
MODEL	A	C	Q	R	Key	S	F	N	L	U	P	E	M	H	KL	T	Z	Weight
SQ-25	1S	80	47	82.5	6	∅20	107	132	391	70	27	140	170	99	137	201.5	∅10	24kg
SQ-40	1.5S	90	51	89.5	8	∅22	120	145	426	75	30	150	180	105	149	216.5	∅10	40kg
SQ-50	2S	100	61	98.5	8	∅27	114	139	463	80	32.5	160	190	122	168	250.5	∅10	50kg
SQ-65	2.5S	117	80	124	10	∅34	135	165	558	110	45	220	250	136	207	299	∅12	75kg
SQ-80	3S	150	78	135	14	∅45	150	190	626	110	52.5	220	260	160	232.5	341	∅16	100kg

Structure drawing



► SQW-type (with a screw conveyor)

Outer dimensions/structure drawing



(Unit : mm)

MODEL	E	F	L
SQW-25	150	186	469
SQW-40	172	204	526
SQW-50	175	218	554
SQW-65	218	274	694
SQW-80	247	318	772

●The dimensions above are of the standard one. Other dimensions are available.

Main specifications

Type	SQ(W)-25	SQ(W)-40	SQ(W)-50	SQ(W)-65	SQ(W)-80
Seal method	Mechanical seal (single/edge)				
Connection method	Ferrule, IDF screw, and JIS10K				
Discharge pressure	Max. 2.0MPa				
Rotation speed	Max. 3,600rpm				
Viscosity	500,000mPa·s				
Flow direction	Reverse is available.				
Operating temperature	100°C (Standard specification) *				
Bore	1S to 3S				
Drive system	Direct coupling and V belt drive				

*200°C (Special specification)

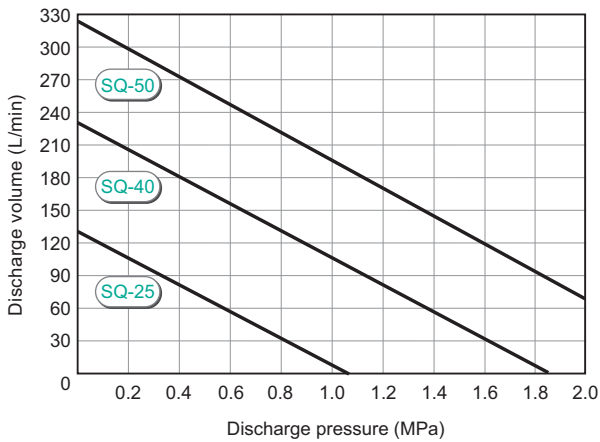
Main part standard material

Housing	FC250
Casing	SCS16
Rotating screw	SUS316L
Shaft	SUS329J1

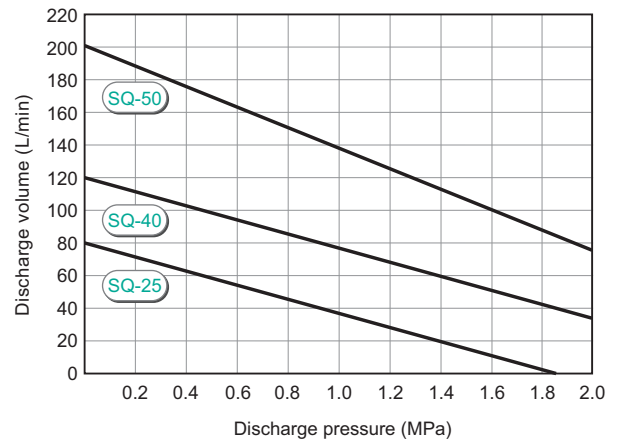
Performance curves

► SQ-25, SQ-40, SQ-50

1cp 3,000rpm

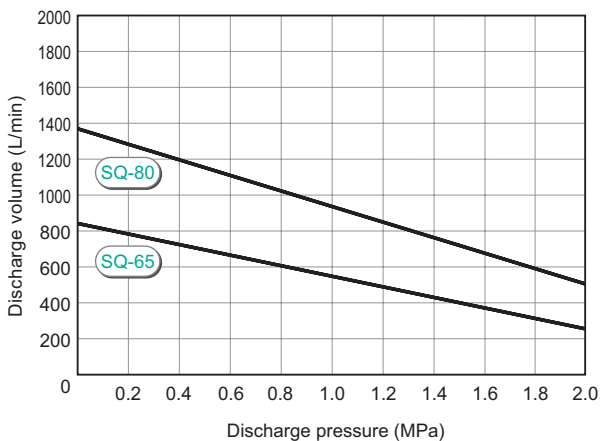


10,000cp 1,800rpm

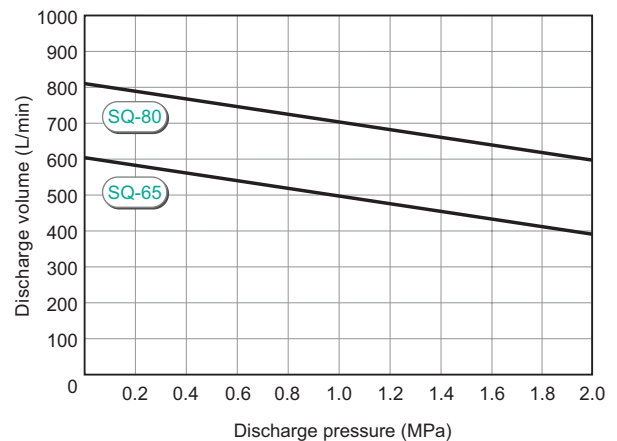


► SQ-65, SQ-80

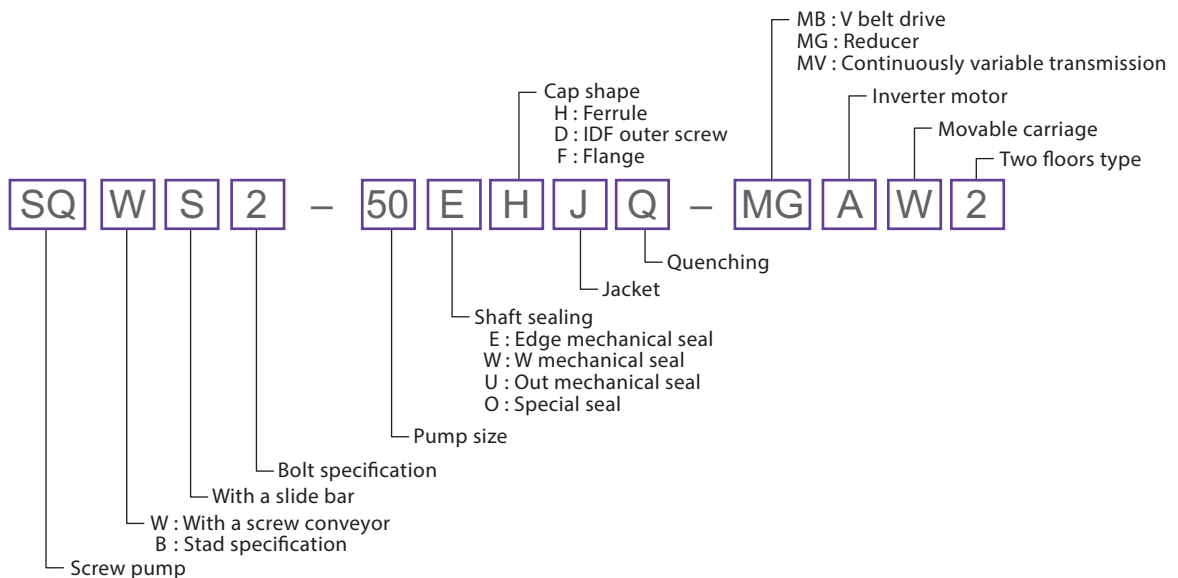
1cp 3,000rpm



10,000cp 1,800rpm



Model indications



If you have any inquiries: We would appreciate your help if you fill in the following information sheet before you make an inquiry, for example when looking for an estimate. (Please fill in the data to the extent of your knowledge.)

Transferred substances	Material			
	State of the material	<input type="checkbox"/> Liquid	<input type="checkbox"/> Cake-like materials	<input type="checkbox"/> Solid with some fluidity
	Temperature	Common use :	°C / Maximum :	°C
	Cleaning	<input type="checkbox"/> None	<input type="checkbox"/> Clean (°C)	<input type="checkbox"/> Hot water <input type="checkbox"/> CIP <input type="checkbox"/> SIP <input type="checkbox"/> Vapor
	Relative density	(at °C)		
	Viscosity	mPa·s (at °C)		
	Solid mixture	<input type="checkbox"/> None	<input type="checkbox"/> Mixed (Properties :	Granularity : Rate of mixture : %)
	Corrosive	<input type="checkbox"/> No	<input type="checkbox"/> Yes	

Pump specification	Discharge volume	L / min	m ³ / Hr
	Discharge pressure	m	MPa
	Intake pressure	Push (+) :	Suction (-) :

Motor specification	Power supply	V	Hz	<input type="checkbox"/> Indoors	<input type="checkbox"/> Outdoors
	Type	<input type="checkbox"/> TEFC	<input type="checkbox"/> Explosion proof safety increased	<input type="checkbox"/> Explosion proof	
	Driving method	<input type="checkbox"/> V belt	<input type="checkbox"/> Reduction gears	<input type="checkbox"/> Continuously variable transmission	<input type="checkbox"/> Inverter motor

Connection duct	Intake duct aperture	
	Discharge duct aperture	

Piping drawing

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⚠ Safety notice
 To use the product properly and safely,
 thoroughly read the instructions before using it.