KEMPION

ATEX

SPEC

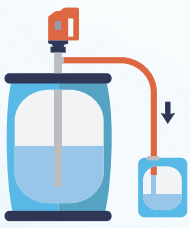
KAB-QC-18

ISO 9001
Certified Company

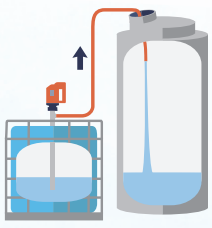
DRUM PUMPS

for Transferring and Dividing Liquid

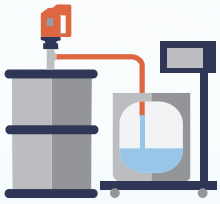
DR



Spliting easily
into smaller



Transferring
quickly



Measuring amount
easily

For transferring flammable
or corrosive liquid

Certification of
Explosion Proof

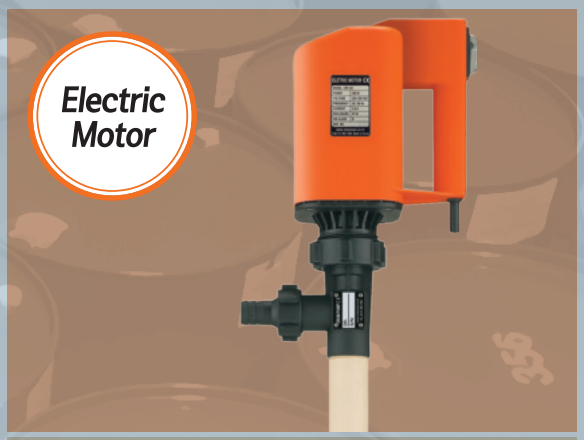
www.drpump.co.kr

KEMPION

DRUM PUMPS

Features

- Removing unstable elements of pump performance with sealless structutre.
- Preventing motor damage by installing of dual safety device in the motor.
- Easy operation and simple part replacement.
- The material of motor casing with strong chemical resistance and shock resistance.
- Transfer flammable liquid by using ex. proof motor or air motor.
- Transfer various raw materials and chemicals.



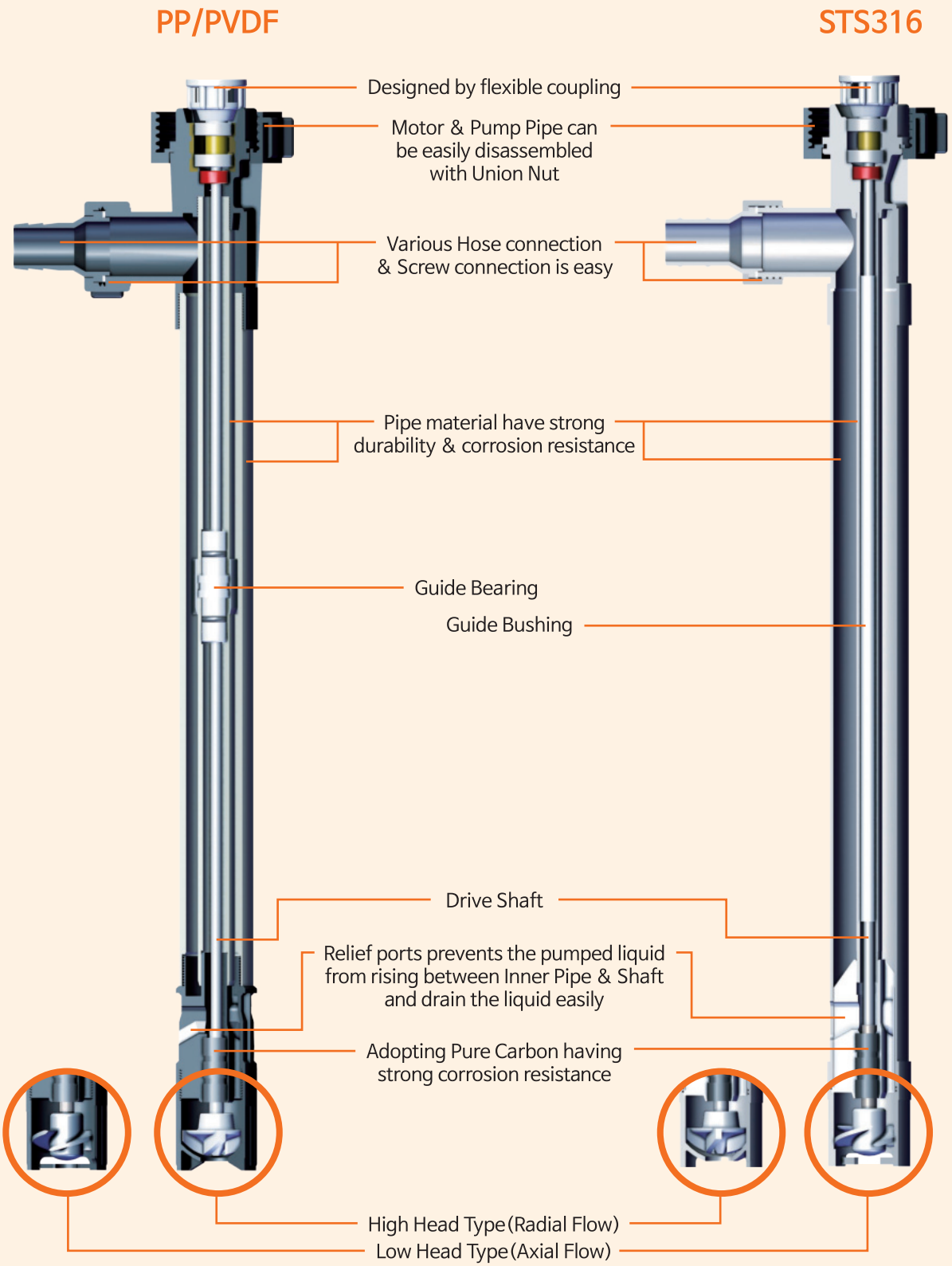
Applications

- To transfer from plating facility, chemical plant or chemical warehouse or to decant into small units
- To transfer or refill chemicals in metal factory or waste processing facilities.
- To refill chemicals in research centers or hospitals.
- To transfer cosmetics and food raw material or split into smaller
- To transfer dangerous or flammable liquid in explosion proof process and oil company.

Before

After

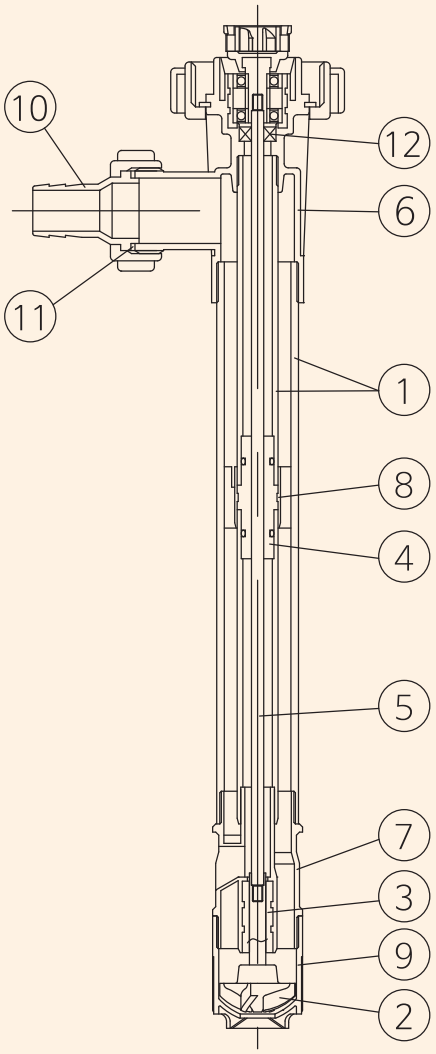
Drum Pump Pipes (Sealless Structure)



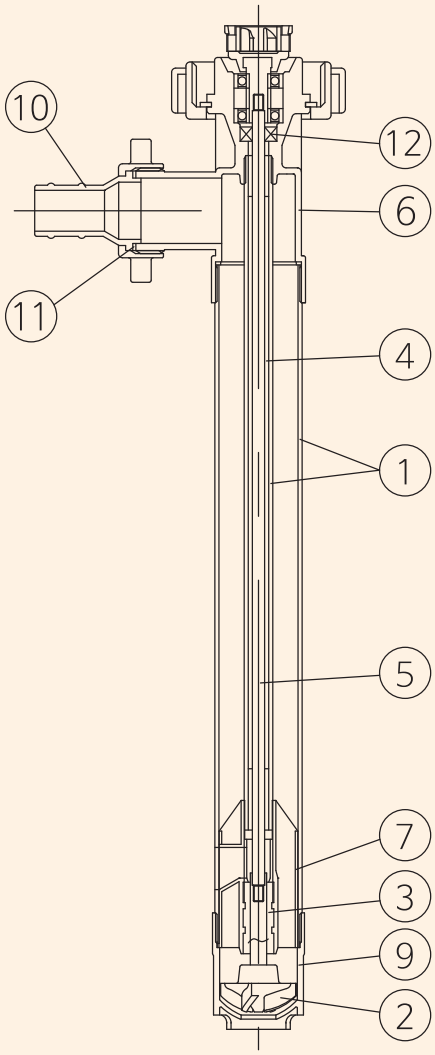
- Accurate Alignment & Part replacement is easy because all parts are fixed with solid screw
- Robust design against indeliberate dry run for a short period (Max. 5 minutes)

Pipe Material

PP/PVDF



STS316



Specification

No.	Model	DR-P□H	DR-P□S	DR-P□T	DR-F□H	DR-F□T	DR-S□S
①	Pipe	PP			PVDF		STS316
②	Impeller	ETFE					
③	Bearing	CARBON				PTFE	CARBON
④	Guide Bearing (Bushing)	PTFE					
⑤	Drive Shaft	HASTELLOY	STS316	TITANIUM	HASTELLOY	TITANIUM	STS316
⑥	Discharge Housing	PP			PVDF		SSC14A
⑦	Bearing Housing	PP			PVDF		ETFE
⑧	Guide Ring	PP			PVDF		-
⑨	Foot	PP			PVDF		SSC14A
⑩	Hose connector	PP			PVDF		SSC14A
⑪	Packing	FKM			PTFE		
⑫	Oil Seal	FKM					

Electric Motor

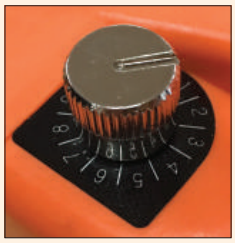
● Dual prevention of motor from damage caused by overload through installing Thermal Protection device(TP) and over-current breaker internally.

● Dual wall type motor housing prevents damage from external impacts.

● By installing low voltage release device(Optional), preventing motor damage caused by low voltage.

● 5m long power cable is equipped with plug as standard item.

Motor	Power	Voltage	Frequency	Current	Protection Grade	Insulation Grade	Weight
U4	420~430W	220~230VAC	50/60Hz	2.8A	IP44	B	3.0kg
U8	800W	220~230VAC	50/60Hz	4A	IP44	B	3.9kg



Speed Control Device (Optional)

Flow can be controlled easily with the motor speed(RPM) dial, so that stability can be improved in transferring corrosive liquid, and operating coast can be reduced as well by decreasing of motor power consumption with the low speed.

Air Motor

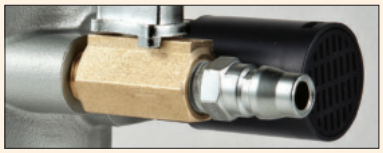
● Simple sturcture

● Can be used for dangerous area of explosion

● Lighter than electric motor

● Easy speed control by supply pressure

● Suction Dia. : Rc1/4, Discharge Dia. : Rc1/2



Motor	Power	Supply Pressure	Air Consumption	Weight
A4	460W	3~6bar	920L/min	1.2kg

※ Explosion Proof Grade : Ex II G2 cp IIC T6 (Cert No. : 0425 ATEX 2535)

Ex-Proof Motor

● Can be used for dangerous area of explosion. (Ex de IIC T6)

● Dual prevention of motor from damage caused by overload through installing Thermal Protection device(TP) and over-current breaker internally.

● By installing low voltage release device(Optional), preventing motor damage caused by low voltage.

● Dual wall type motor housing prevents damage from external impacts.

● 5m long power cable is equipped with plug as standard item.(Non-Ex. Proof)

Motor	Power	Voltage	Frequency	Current	Protection Grade	Insulation Grade	Weight
E4	420~430W	220~230VAC	50/60Hz	2.8A	IP54	F	5.2kg

※ Explosion Proof Grade : Ex de IIC T6 (Cert No. : 18-GA280-0494X)

Electric Motor (400W class)

Pump Specification

〈 PP 〉

Application

For transferring acid, alkali and neutral.

Examples

Chemicals, Cosmetics raw material, Plating solution, Lubricating oil & etc.

Specification

		DR-PL	DR-PH
Max. Flow rate (L/min)		130	80
Max. Head (m)		8	21
Max. Viscosity (mPa·s)		200	800
Max. Specific Gravity		1.3	1.6
Dia. of Insertion (mm)		44	44
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp. (℃)		50	50
Weight (kg)	700mm	4.0	4.0
	1,000mm	4.2	4.2
	1,200mm	4.4	4.4

〈 PVDF 〉

Application

For transferring strong Corrosive chemicals.

Examples

Chemicals for acid washing, Strong corrosive chemicals, Toxic chemicals & etc.

Specification

		DR-FL	DR-FH
Max. Flow rate (L/min)		130	80
Max. Head (m)		8	21
Max. Viscosity (mPa·s)		200	800
Max. Specific Gravity		1.3	1.6
Dia. of Insertion (mm)		44	44
Dia. for Hose Connection (mm)		32	25
Limit of liquid Temp. (℃)		80	80
Weight (kg)	700mm	4.2	4.2
	1,000mm	4.5	4.5
	1,200mm	4.7	4.7

〈 STS316 〉

Application

For transferring oils, alkali and neutral.

Examples

Cosmetics raw material, Chemicals raw material, Food additives raw material, Spice, Detergent, Water paint, Coating solution, Diesel & etc.

Specification

		DR-SL	DR-SH
Max. Flow rate (L/min)		160	90
Max. Head (m)		7.5	17
Max. Viscosity (mPa·s)		150	600
Max. Specific Gravity		1.3	1.6
Dia. of Insertion (mm)		45	45
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp. (℃)		100	100
Weight (kg)	700mm	5.9	5.9
	1,000mm	6.6	6.6
	1,200mm	7.2	7.2

Model Code

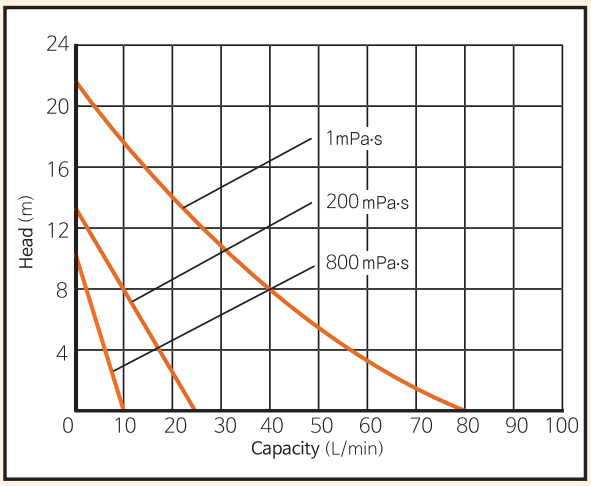
DR - P L S - 10 - U 4 S - S

Pump model

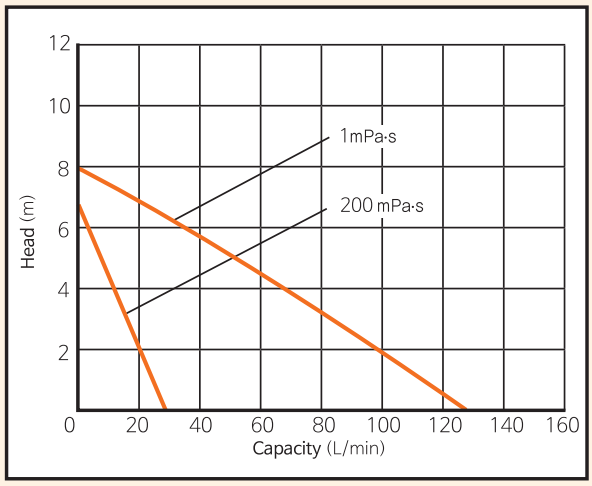
Motor voltage	S:220~230V 50/60Hz			
Motor option	S:Standard A:Speed Control B:Speed Control & Low voltage release			
Motor power	4:420W			
Motor Type	U:Electric Motor			
Pipe length	07:700mm	10:1000mm	12:1200mm	
Shaft material	S:STS316	H:HASTELLOY	T:TITANIUM	
Capacity features	L:Low head	H:High head		
Pipe material	P:PP	F:PVDF	S:STS316	

Performance Curves

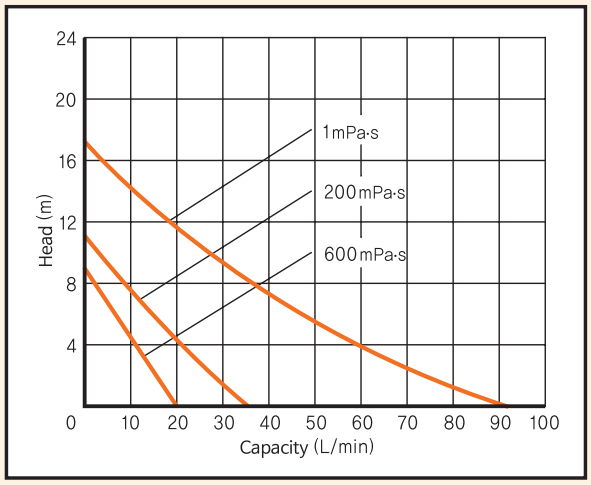
PH, FH(High head)



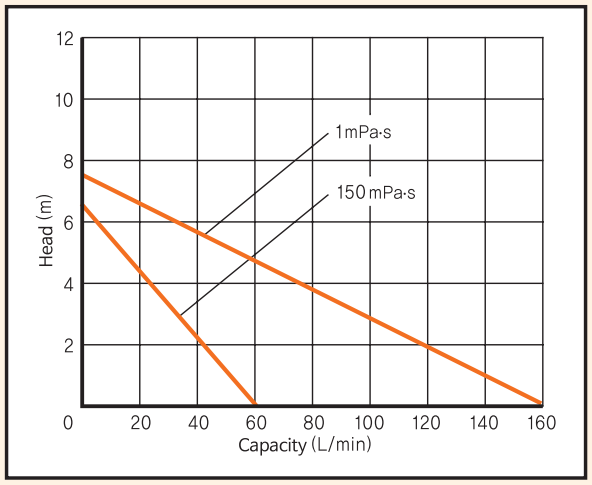
PL, FL(Low head)



SH(High head)



SL(Low head)



※ Performance curves can be somewhat different accordance with application of jop site.

Electric Motor (800W class)

Pump Specification

〈 PP 〉

Application
For transferring acid, alkali and neutral.

Examples
Chemicals, Cosmetics raw material, Plating solution, Lubricating oil & etc.

Specification

		DR-PL	DR-PH
Max. Flow rate (L/min)		160	95
Max. Head (m)		10	24
Max. Viscosity (mPa·s)		350	1200
Max. Specific Gravity		1.7	1.9
Dia. of Insertion (mm)		44	44
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp. (℃)		50	50
Weight (kg)	700mm	4.9	4.9
	1,000mm	5.1	5.1
	1,200mm	5.3	5.3

〈 PVDF 〉

Application
For transferring strong Corrosive chemicals.

Examples
Chemicals for acid washing, Strong corrosive chemicals, Toxic chemicals & etc.

Specification

		DR-FL	DR-FH
Max. Flow rate (L/min)		160	95
Max. Head (m)		10	24
Max. Viscosity (mPa·s)		350	1200
Max. Specific Gravity		1.7	1.9
Dia. of Insertion (mm)		44	44
Dia. for Hose Connection (mm)		32	25
Limit of liquid Temp. (℃)		80	80
Weight (kg)	700mm	5.1	5.1
	1,000mm	5.4	5.4
	1,200mm	5.6	5.6

〈 STS316 〉

Application
For transferring oils, alkali and neutral.

Examples
Cosmetics raw material, Chemicals raw material, Food additives raw material, Spice, Detergent, Water paint, Coating solution, Diesel & etc.

Specification

		DR-SL	DR-SH
Max. Flow rate (L/min)		185	105
Max. Head (m)		8.5	22
Max. Viscosity (mPa·s)		600	1400
Max. Specific Gravity		1.7	1.9
Dia. of Insertion (mm)		45	45
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp. (℃)		100	100
Weight (kg)	700mm	6.8	6.8
	1,000mm	7.5	7.5
	1,200mm	8.1	8.1

Model Code

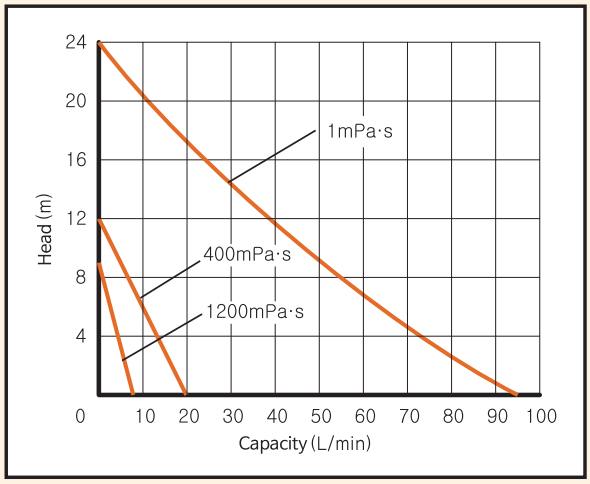
DR - P L S - 10 - U 8 S - S

Pump model

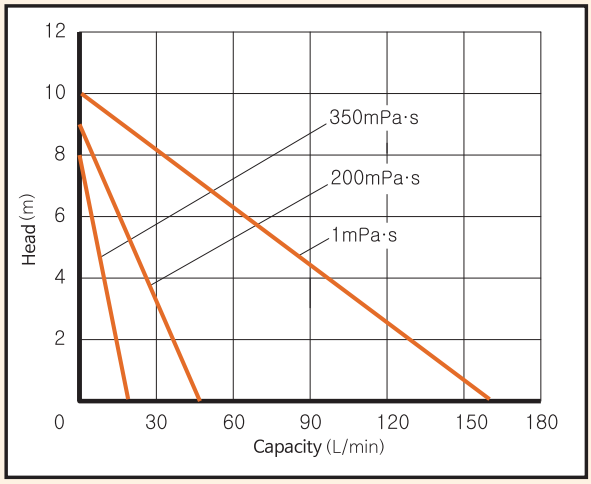
Pipe material	P:PP	F:PVDF	S:STS316
Capacity features	L:Low head	H:High head	
Shaft material	S:STS316	H:HASTELLOY	T:TITANIUM
Pipe length	07:700mm	10:1000mm	12:1200mm
Motor Type	U:Electric Motor		
Motor power	8:800W		
Motor option	S:Standard A:Speed Control		
Motor voltage	S:220~230V 50/60Hz		

Performance Curves

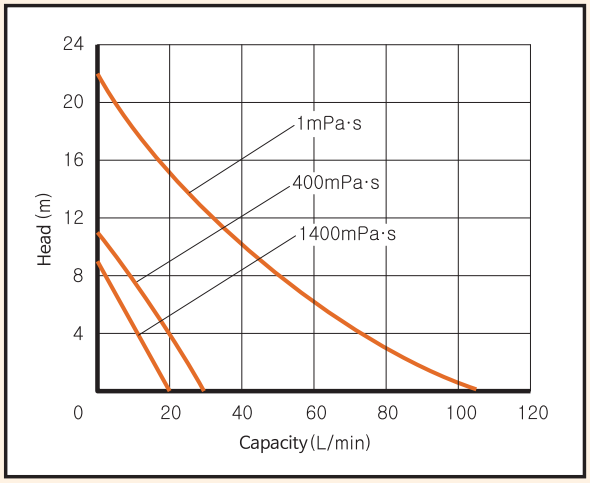
PH, FH(High head)



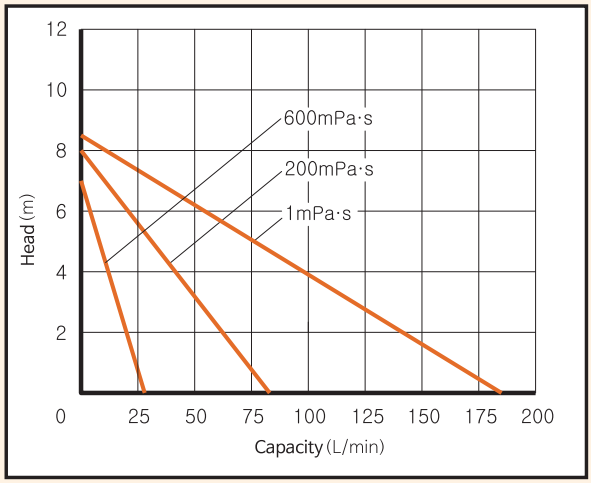
PL, FL(Low head)



SH(High head)



SL(Low head)



※ Performance curves can be somewhat different accordance with application of jop site.

Air Motor (400W class)

Pump Specification

〈 PP 〉

Application

For transferring acid, alkali and neutral.

Examples

Chemicals, Cosmetics raw material, Plating solution, Lubricating oil & etc.

Specifiaction

		DR-PL	DR-PH
Max. Flow rate (L/min)		135	85
Max. Head (m)		8.5	22
Max. Viscosity (mPa·s)		1000	1200
Max. Specific Gravity		1.4	1.8
Dia. of Insertion (mm)		44	44
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp. (℃)		50	50
Weight (kg)	700mm	2.1	2.1
	1,000mm	2.3	2.3
	1,200mm	2.5	2.5

〈 PVDF 〉

Application

For transferring strong Corrosive liquid

Examples

Chemicals for washing acid, Strong corrosive chemicals, Toxic chemicals, flammable liquid & etc.

Specifiaction

		DR-FL	DR-FH
Max. Flow rate (L/min)		135	85
Max. Head (m)		8.5	22
Max. Viscosity (mPa·s)		1000	1200
Max. Specific Gravity		1.4	1.8
Dia. of Insertion (mm)		44	44
Dia. for Hose Connection (mm)		32	25
Limit of liquid Temp. (℃)		80	80
Weight (kg)	700mm	2.3	2.3
	1,000mm	2.6	2.6
	1,200mm	2.8	2.8

〈 STS316 〉

Application

For transferring flammable liquid

Examples

Coating solution, Ink, Flammable liquid (Alcohol, Thinner, Solvent, etc), Lubricating oil & etc.

Specifiaction

		DR-SL	DR-SH
Max. Flow rate (L/min)		165	95
Max. Head (m)		8	18
Max. Viscosity (mPa·s)		400	800
Max. Specific Gravity		1.4	1.8
Dia. of Insertion (mm)		45	45
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp. (℃)		100	100
Weight (kg)	700mm	4.0	4.0
	1,000mm	4.8	4.8
	1,200mm	5.3	5.3

Model Code

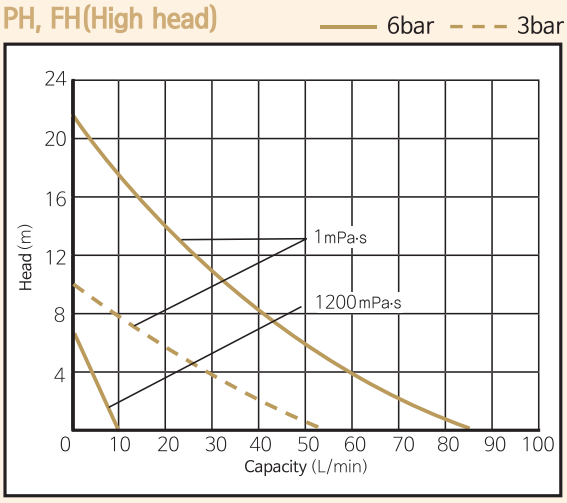
DR - P L S - 10 - A 4 - 1

Pump model

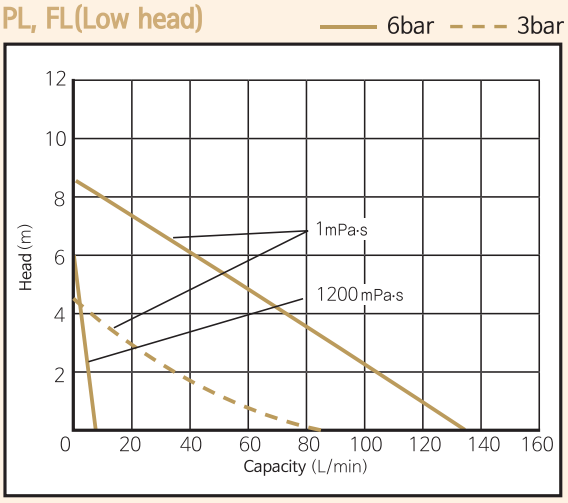
Valve type	1:Ball Valve		
Motor power	4:460W		
Motor type	A:Air Motor		
Pipe length	07:700mm	10:1000mm	12:1200mm
Shaft material	S:STS316	H:HASTELLOY	T:TITANIUM
Capacity features	L:Low head	H:High head	
Pipe material	P:PP	F:PVDF	S:STS316

Performance Curves

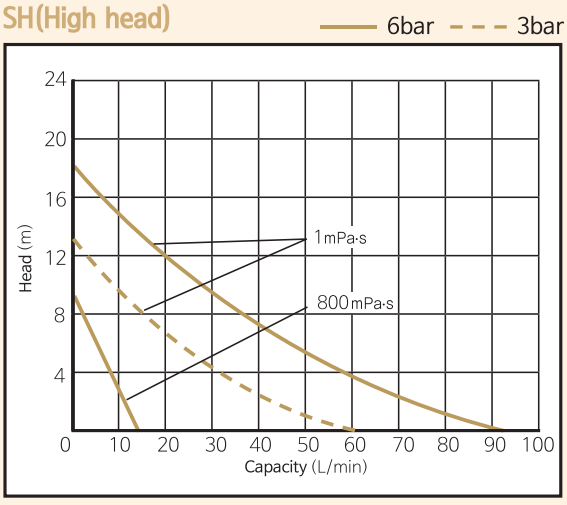
PH, FH(High head)



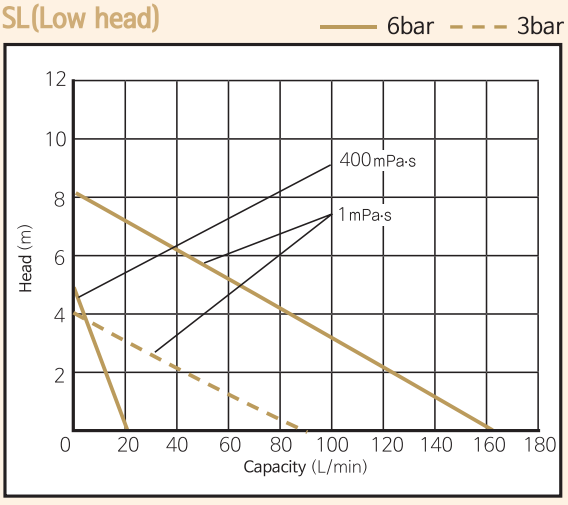
PL, FL(Low head)



SH(High head)



SL(Low head)



※ Performance curves can be somewhat different accordance with application of jop site.

Ex-Proof Motor (400W class)

Model Code

DR - S L S - 10 - E 4 S - S

- Pump model: DR
- Pipe material: S — S:STS316
- Capacity features: L — L:Low head, H:High head
- Shaft material: S — S:STS316
- Pipe length: 10 — 07:700mm, 10:1000mm, 12:1200mm
- Motor type: E — E:Ex-Proof Motor
- Motor power: 4 — 4:420W
- Motor option: S — S:Standard
- Motor voltage: S — S:220~230V 50/60Hz

Pump Specification

Application

For transferring flammable liquid

Examples

Coating solution, Ink, Flammable liquid(Alcohol, Thinner, Solvent, etc), Lubricating oil or dangerous liquid in explosion area, chemicals companies, military area & etc.

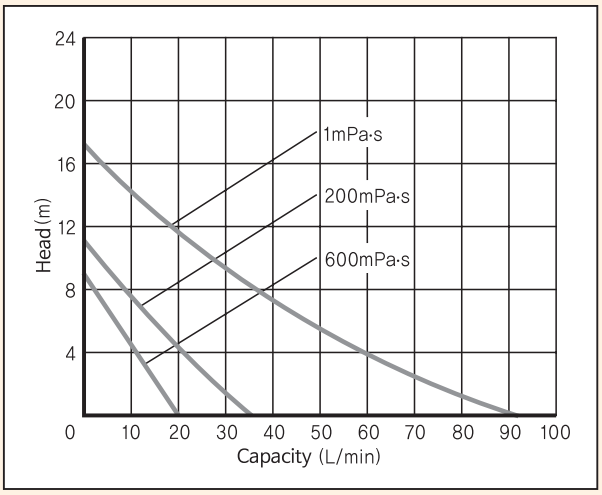
Specification (STS316)

		DR-SH	DR-SL
Max. Flow rate (L/min)		90	160
Max. Head (m)		17	7.5
Max. Viscosity (mPa·s)		600	150
Max. Specific Gravity		1.6	1.3
Dia. of Insertion (mm)		45	45
Dia. for Hose Connection (mm)		25	25
Limit of liquid Temp(℃)		100	100
Weight (kg)	700mm	8.1	8.1
	1,000mm	8.9	8.9
	1,200mm	9.4	9.4

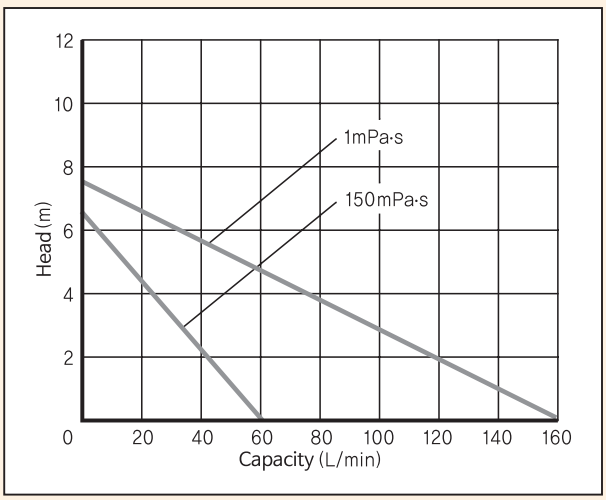
※ Only STS316 Pipe is available for Ex. Proof Motor type Drum Pump.
※ Performance curves can be somewhat different accordance with application of jop site.

Performance Curves

SH(High head)

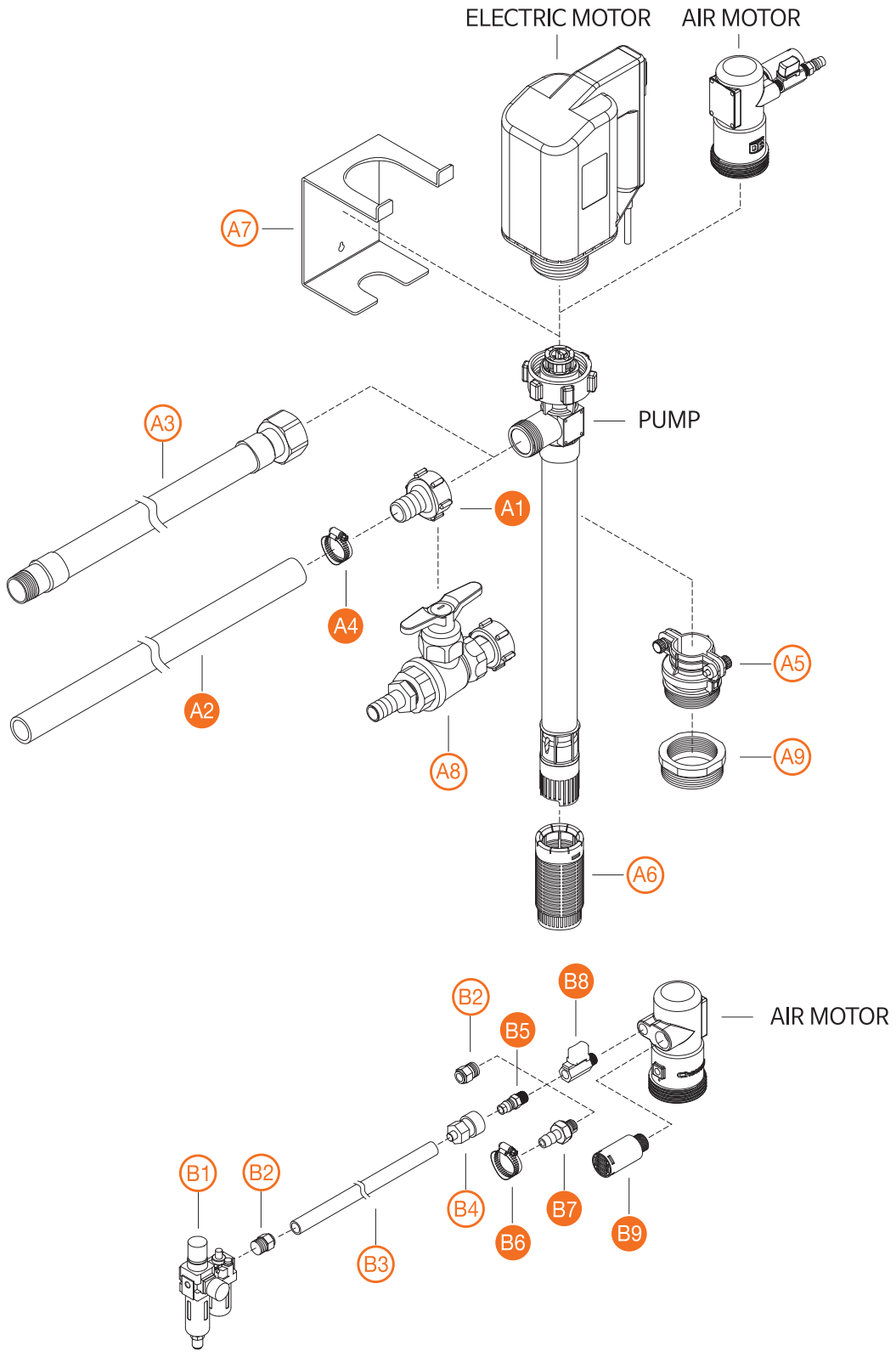


SL(Low head)



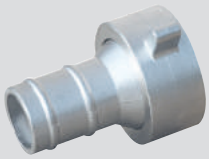
Accessories

● Standard ○ Optional



Accessories

● Standard ○ Optional

	PP PIPE	PVDF PIPE	SS316 PIPE
A1 Hose Connector Hose Connector, Union Nut(Pump), Packing Thread G1¼			
A2 Hose(1.5m) PVC Spring Hose : 5bar 60℃ PTFE Flexible Hose :3bar 260℃			
A3 Hose(1.5m) STS304 Flexible Hose : 15bar 300℃ Thread G1¼×R1	—	—	
A5 Drum Adapter For fixing the pump pipe to the drum opening Thread G2			
A9 Adapter Bushing Additionally installed on drum adapter and fixed to a Plastic Drum Thread BCS70×6			—
A6 Strainer Mounted on the pump suction and keep impurities away from the rotating parts			
A8 Ball Valve Open & Close discharge port Thread G1¼			

Common Use

● Standard ○ Optional

A4 Hose Clamp

For fixing of the hose inserted into the hose connector
Size Ø19~Ø40

A7 Wall Bracket

For safety storage of the pump

Air Motor Accessories

● Standard ○ Optional

B1 Air Unit

Filter, Regulator & Lubricator
Thread Rc$\frac{3}{8}$ Max. 10bar

B2 One Touch Fitting

Thread R$\frac{1}{4}$ or R$\frac{3}{8}$
Size Ø12

B3 Air Hose

Polyurethane braided hose
Ø12×Ø8 Max. 9bar

B4 Air Coupler (Socket)

Size Ø12~Ø8

B5 Air Coupler (Plug)

Thread R$\frac{1}{4}$

B6 Hose Clamp

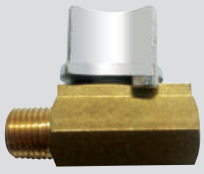
Size Ø6~Ø16

B7 Hose Nipple

Thread R$\frac{1}{4}$
Hose Nozzle Ø8~Ø9

B8 Ball Valve

Open & Close compressed air
Thread R$\frac{1}{4}$×Rc$\frac{1}{4}$



B9 Muffler

Device for reducing the noise caused by releasing compressed aid to atmosphere
Thread R$\frac{1}{2}$

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