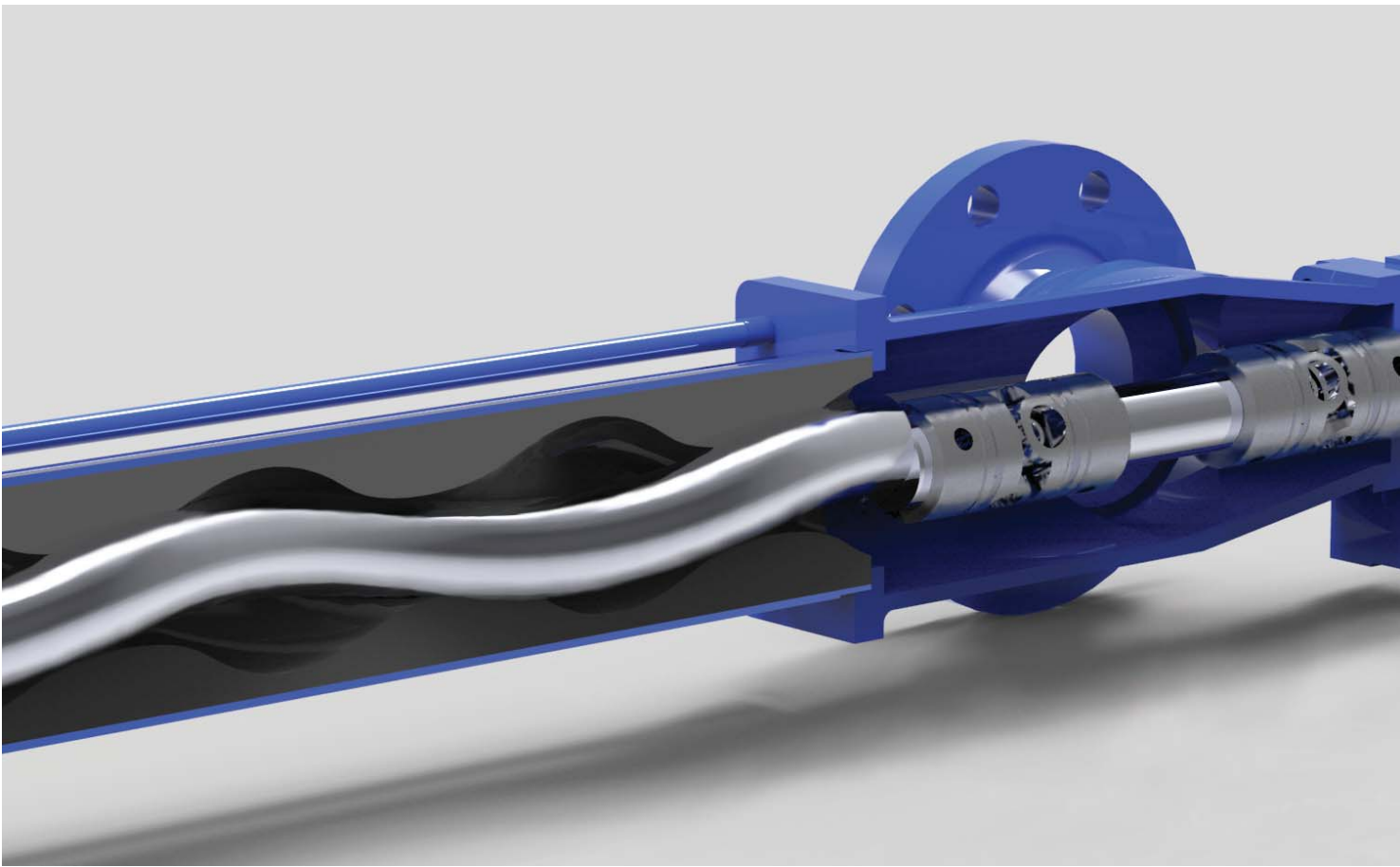


# Mono Pump



# Mono Pump

Mono Pump(Progressive Cavity Pump) of YUCHEON ENGINEERING could convey a wide range of substances with gentle, low pulsation and stable pressure. The application range is so broad that it covers from sewage, waste sludge, polymer, and dewatered cakes to other substances including various industrial adhesives, edible pastes (pepper, miso, and anchovy paste), yogurt, and even fish cake. YUCHEON design could meet the requirement of clients with its accumulated technologies and knowhow.



## Features of GETS Mono Pump

- Continuously convey required amount of sludge regardless of fluctuations in pressure and viscosity.
- Strong suction and conveyance of sludge from even 10m below.
- Convey required amount of sludge with low pulsation controlling motor rotation speed.
- Convenient part replacement. (Rotor, Stator and etc.)
- Minimize water leakage by using high quality mechanical seal.
- Customized material usage for key parts upon client request. (EPDM, STS316L, SKD11)

## Application



- Environment: waste water, sewage, dissolved chemicals, dewatered cake
- Industry: adhesive, grease, paint, cement, and other substances from pharmaceutical and cosmetic industries
- Food: honey, miso paste, pepper paste, jam, anchovy paste, fish cake, and others
- Others: highly sticky substances from all industries

# Type of Mono Pump

## **EH Type**

### **(Regular Type Mono Pump)**

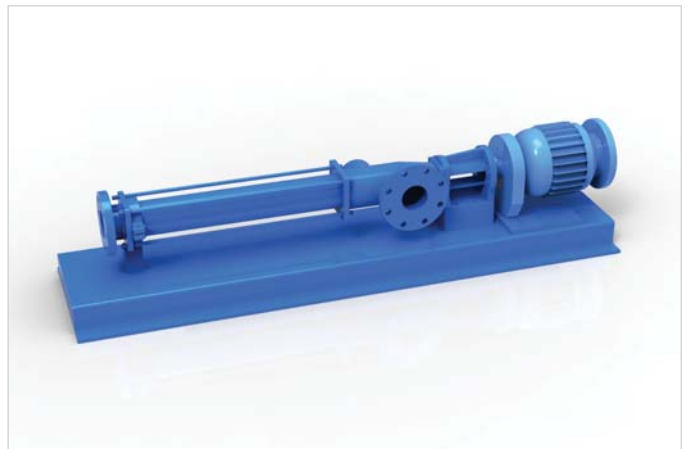
- The surface method of motor.
- The most general type that connect the power of the driving part with belt.
- The decelerating rate can be controlled with the size of pulley.



## **EL Type**

### **(Direct-Coupled Mono Pump)**

- Motor direct connection type.
- The method that directly connects the power of the driving part.
- Decelerating by the rates of 5:1, 10:1.
- The advantage of maintenance due to no need of consumable belt.



## **E4R Type**

### **(Dehydration Cake Transportation Pump)**

- Transporting substances of low liquidity cake condition.
- Transporting non-liquidity substances to the long distance pipe with high discharge pressure.
- No valve structure, transporting solid matter to the original condition.
- Can be used on dehydration cake, fruit juice, fish scraps and clay.



## **ES Type**

### **(Pump for Food and Beverage)**

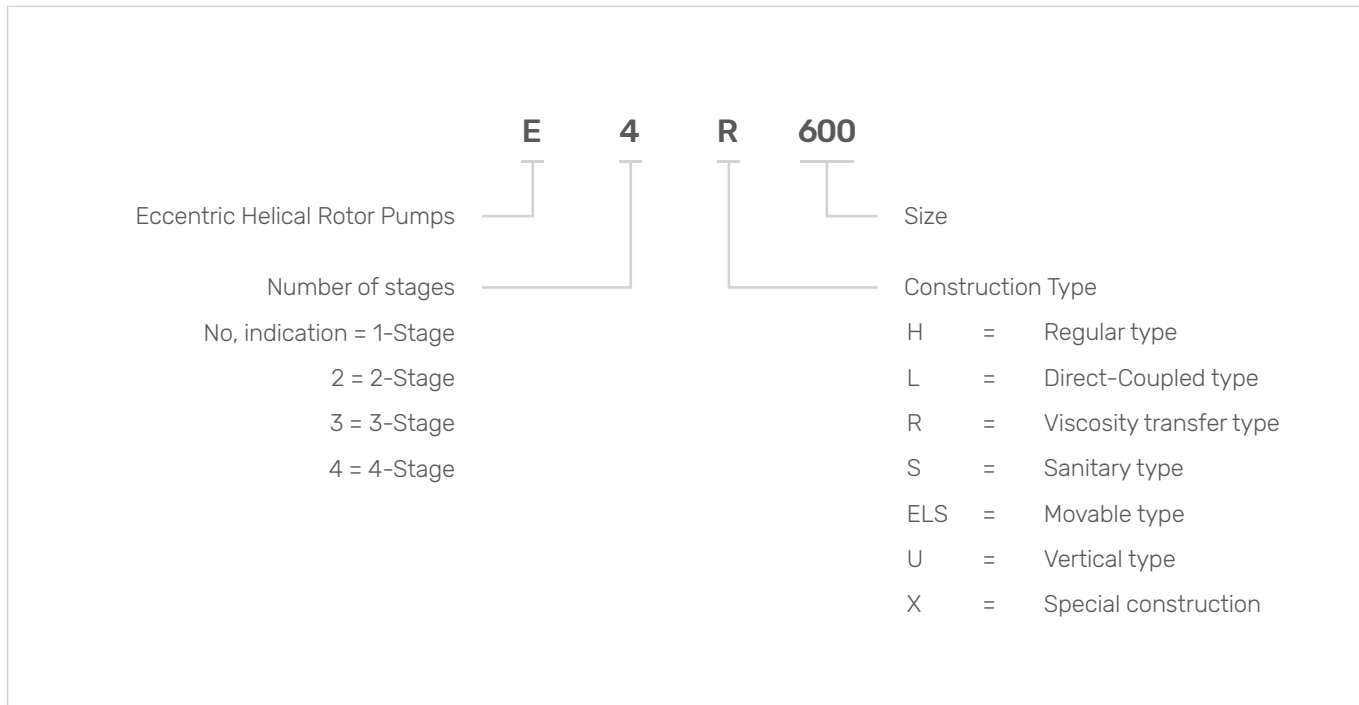
- Easy to maintain and clean due to the minimization of assembling and dissembling process.
- Fluid can be conveyed in proportion to the speed of motor's rotation, and low-pulsed soft transportation is possible.
- It can be applied to media with low viscosity and high viscosity, so it can be used in the food and beverage field.



# Detailed Description

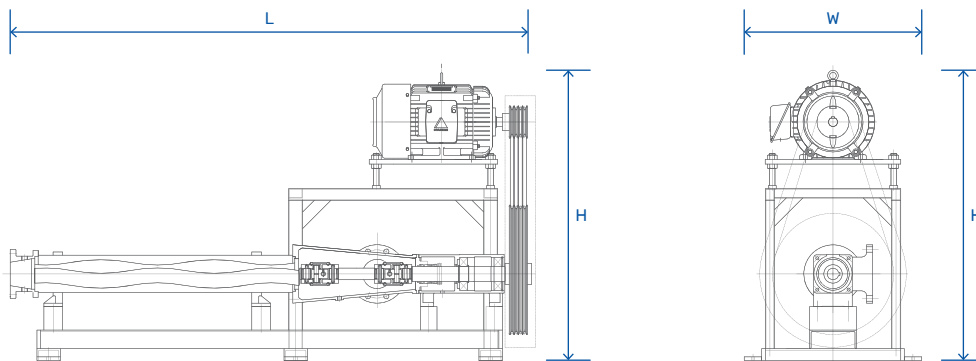
## Standard of Selection per Each Type

Mono pump can be customized in the design for use and driving methods according to customers' requirements.



## EH Type

(Regular Type Mono Pump)

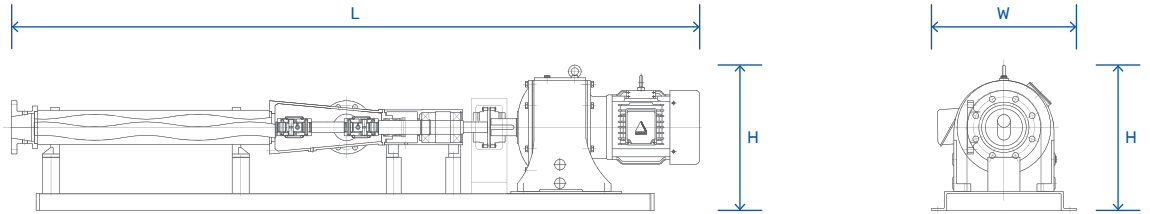


Model	Nozzle Size (Suction)	RPM	Motor Power	Throughput	BAR	Size		
						Length	Width	Height
EH Type	a	rpm	kW	m <sup>3</sup> /h	kg/cm <sup>2</sup>	mm	mm	mm
EH-164	25	100-600	0.4-0.75	0.2-2.0	6	742	465	617
EH-236	65	100-600	1.5-2.2	0.5-5.0	6	922	500	724
EH-375	80	100-500	2.2-3.7	1.1-10.1	6	1,170	550	868
EH-600	100	100-500	3.7-5.5	1.7-14.0	6	1,275	550	910
EH-1024	100	100-500	5.5-7.5	2.5-25.0	6	1,315	550	860
EH-1500	125	100-400	7.5-11.0	7.0-42.0	6	1,860	700	1,173
EH-1900	150	100-350	11.0-15.0	10.0-75.0	6	2,216	760	1,290
EH-2650	200	100-350	15.0-22.0	20.0-110.0	6	2,369	950	1,220
EH-4500	250	100-300	22.0-37.0	40.0-170.0	6	2,915	950	1,547
EH-6300	300	100-300	37.0-50.0	60.0-250.0	6	3,510	1050	1,858

\* The measurement above is subject to change according to specifications (drawings).

## EL Type

(Direct-Coupled Mono Pump)

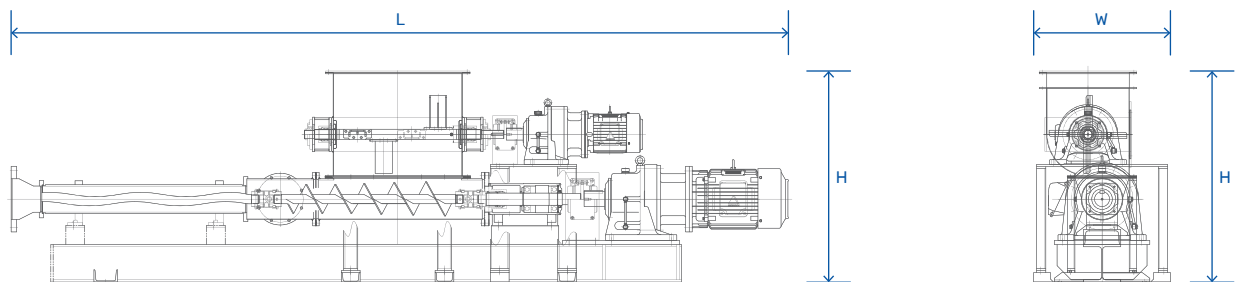


Model	Nozzle Size (Suction)	RPM	Motor Power	Throughput	BAR	Size		
						Length	Width	Height
EL Type	a	rpm	kW	m <sup>3</sup> /h	kg/cm <sup>2</sup>	mm	mm	mm
EL-164	25	100-600	0.4-0.75	0.2-2.0	6	1,134	350	334
EL-236	65	100-600	1.5-2.2	0.5-5.0	6	1,420	400	378
EL-375	80	100-500	2.2-3.7	1.1-10.1	6	1,723	450	430
EL-600	100	100-500	3.7-5.5	1.7-14.0	6	1,767	430	424
EL-1024	100	100-500	5.5-7.5	2.5-25.0	6	1,995	450	444
EL-1500	125	100-400	7.5-11.0	7.0-42.0	6	2,650	550	611
EL-1900	150	100-350	11.0-15.0	10.0-75.0	6	3,220	680	682
EL-2650	200	100-350	15.0-22.0	20.0-110.0	6	3,428	620	697
EL-4500	250	100-300	22.0-37.0	40.0-170.0	6	4,000	700	781

\* The measurement above is subject to change according to specifications (drawings).

## E4R Type

(Dehydration Cake Transportation Pump)

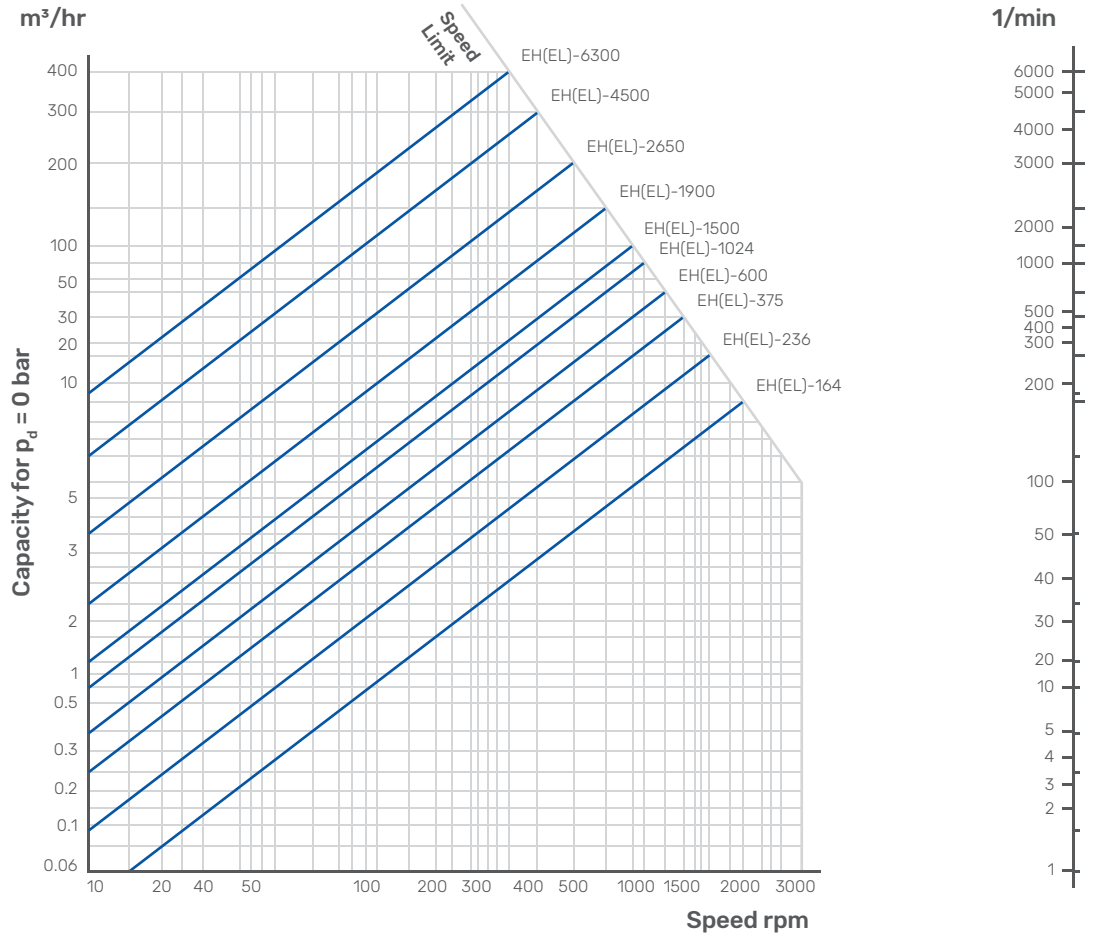


Model	Nozzle Size (Suction)	Power		Throughput	BAR	Size		
		Pump	Feeder			Length	Width	Height
E4R Type	a	kW	kW	m <sup>3</sup> /h	kg/cm <sup>2</sup>	mm	mm	mm
E4R-600	125	5.50	0.75	0.5-1.0	24	2,440	740	788
E4R-1024	125	7.50	1.50	1.0-1.5	24	2,358	640	887
E4R-1500	200	11.00	1.50	1.5-3.0	24	3,332	605	1,121
E4R-1900	200	15.00	2.20	3.0-7.0	24	4,148	730	1,116
E4R-2650	250	19.00	2.20	5.0-10.0	24	4,157	575	1,430
E4R-4500	300	22.00	3.70	7.5-15.0	24	4,742	975	1,302
E4R-6500	350	37.00	3.70	10.0-25.0	24	5,746	1,050	1,794

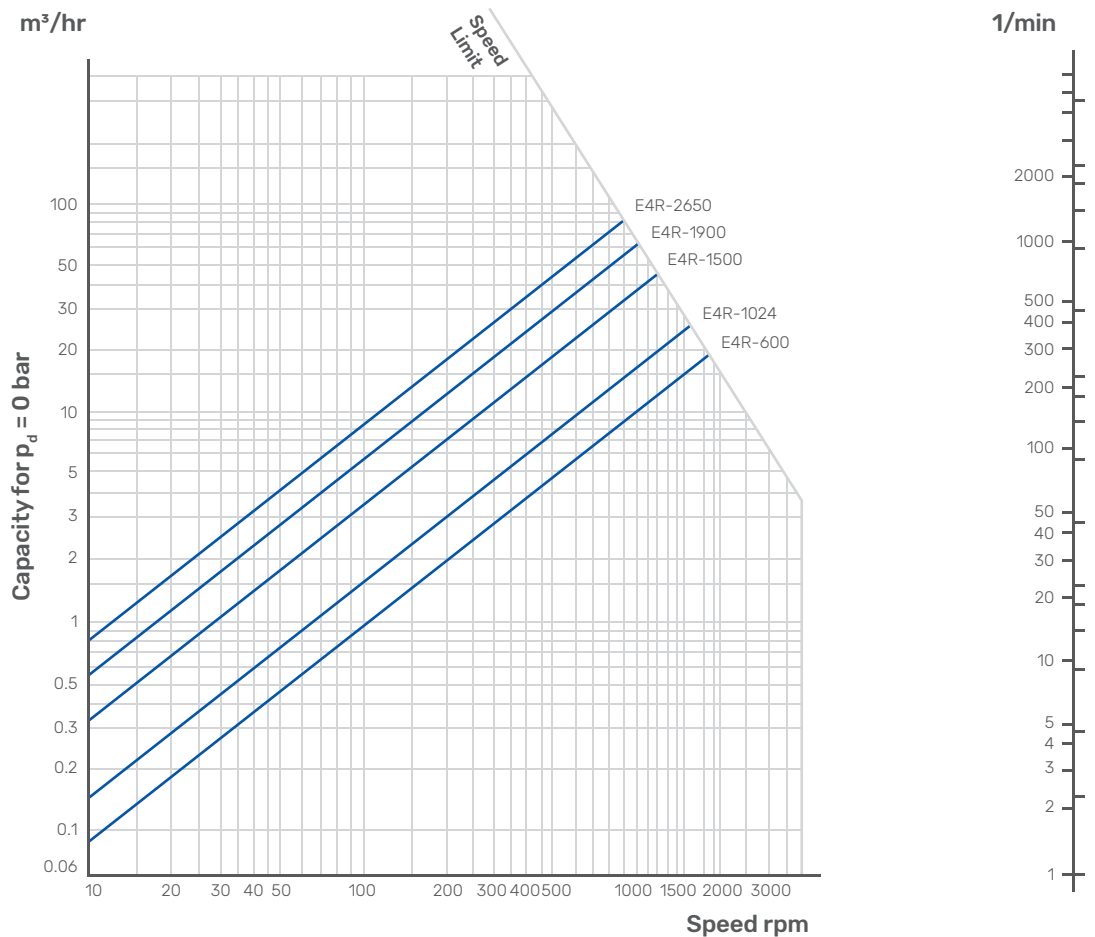
\* The measurement above is subject to change according to specifications (drawings).

# Performance Curve

## EH(EL) Type

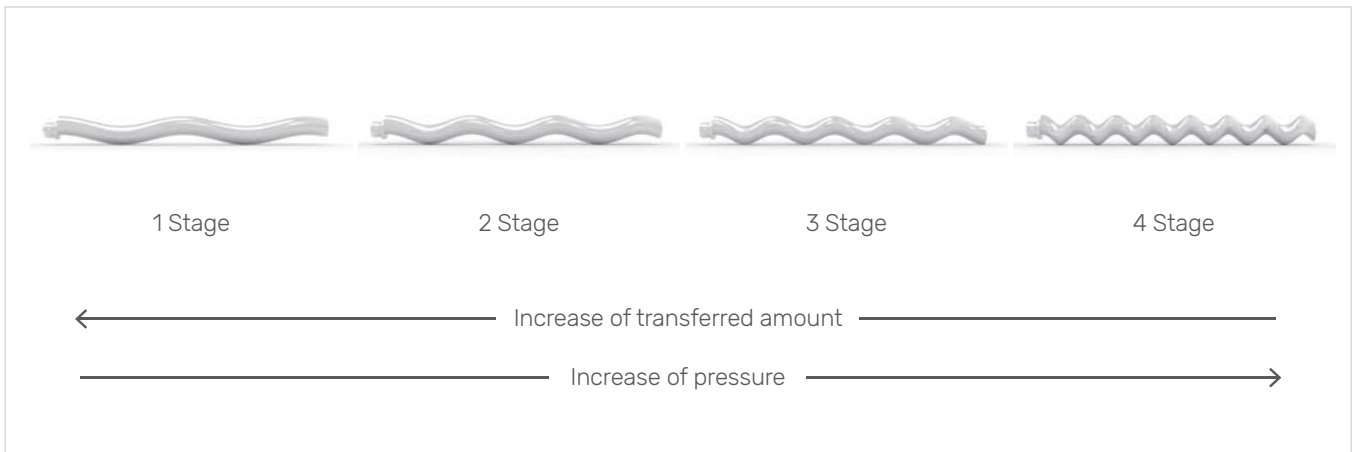
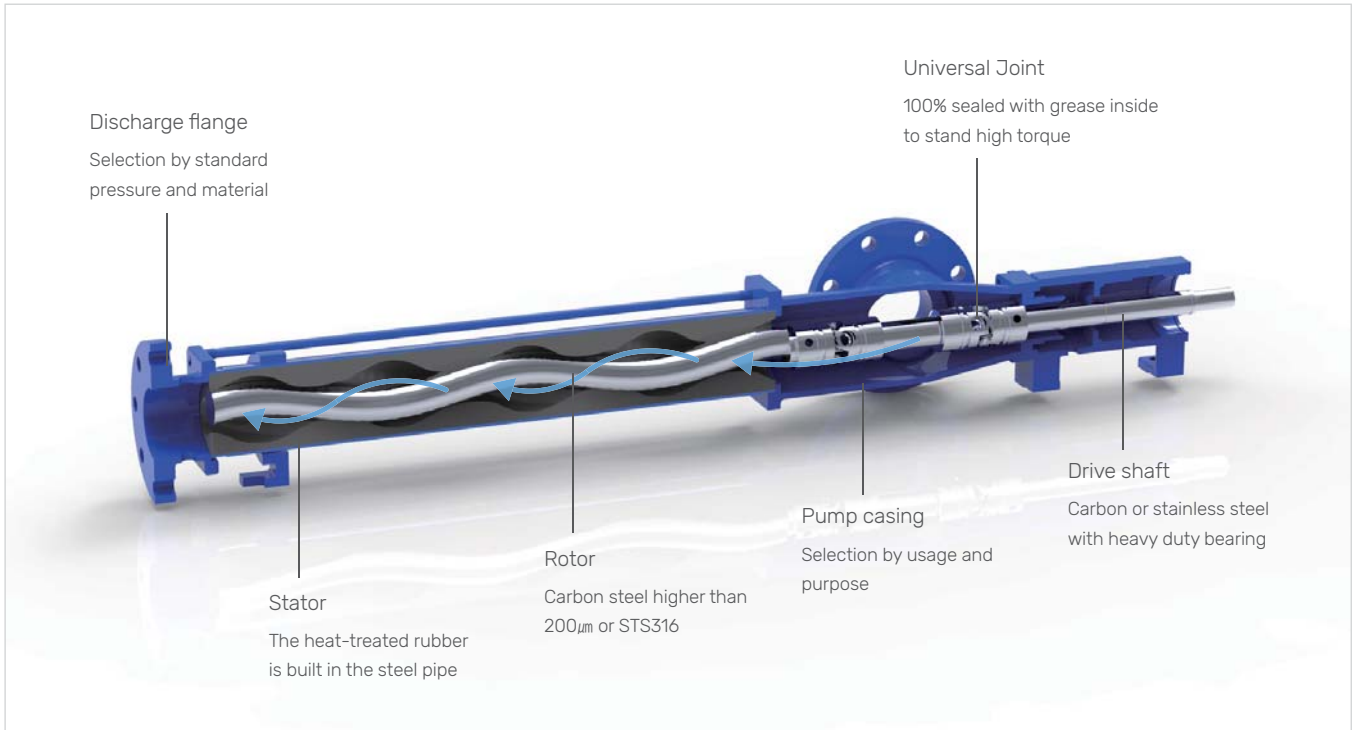


## E4R Type



# How It Works

YUCHEON ENGINEERING Mono pump is a simple structure of rotating displacement pump and is operated without valve. It transfers the fixed quantity of liquid with high viscosity to the space created by the rotor's rotation in the stator. The more amount of twist there is, the less transferred amount can be and the higher discharge pressure will occur.



## Option

- Discharge port, Suction casing  
Casting : GC line  
Stainless steel : STS304, STS316
- Rotor  
Material : STS304, STS316, STS316L, SKD line  
Coating : Hcr(Chromium plating), Q/T(Heat Treatment)  
Stage : 1stage, 2stage, 3stage, 4stage
- Stator : N.B.R EPDM
- Drive Method : V.S controller, Geared motor, Inverter motor
- Shaft seal : Mechanical seal
- Safety device : Protection against dry running, Flow detector by sensor
- Different designs to suit general application
- Pressure control valve
- Cooling or heating device

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