

# Compact type single stage vane pump



## Features

- **Low noise**  
Since the size of the suction port is wide enough, small resistance through suction port enables to realize low noise.
- **High efficiency**  
The side clearance is always kept constant by the cushion plate system. Accordingly, the pump can maintain stable and high efficiency without seizure and abrasion.
- **Low pulsation**  
Since the cam ring can minimize the displacement variation, the operation sound is quiet and the pulsation is small, resulting in gaining the stable performance.

## Nomenclature

\* - DS \*\* P - 20 - \*

1 2 3 4 5

### (1) Nomenclature of applied fluid

No mark : Working oil with petroleum contents,  
Working oil with water/glycol contents  
Working oil with W/O emulsion contents  
F : Working oil with phosphoric acid ester

### (2) Model No.

DS\_P : Compact type single stage vane pumps

### (3) Pump capacity code

11 : DS 11 type  
12 : DS 12 type  
13 : DS 13 type  
14 : DS 14 type

### (4) Design number (the design number is subject to change)

### (5) Direction of the rotation from the view of the shaft end

No mark : Clockwise (rightward)  
L : Counterclockwise (leftward)

\* Impossible to exchange "clockwise" with "counterclockwise".

## Specifications

Model No.	[Conditions] Input revolving speed: 1800min <sup>-1</sup> Working oil : Equivalent to ISO VG32 Oil temp: 40 C									
	Displacement L/min					Shaft power input kW				
	0.4MPa {4kgf/cm <sup>2</sup> }	3MPa {30kgf/cm <sup>2</sup> }	5MPa {50kgf/cm <sup>2</sup> }	7MPa {70kgf/cm <sup>2</sup> }		0.4MPa {4kgf/cm <sup>2</sup> }	1MPa {10kgf/cm <sup>2</sup> }	3MPa {30kgf/cm <sup>2</sup> }	5MPa {50kgf/cm <sup>2</sup> }	7MPa {70kgf/cm <sup>2</sup> }
DS 11P	5.0	4.5	4.1	3.9		0.15	0.28	0.55	0.82	1.1
DS 12P	7.7	7.2	6.7	6.5		0.20	0.40	0.75	1.12	1.5
DS 13P	12.6	11.8	11.5	11.0		0.25	0.50	1.05	1.55	2.1
DS 14P	22.1	21.2	20.5	20.0		0.35	0.77	1.65	2.50	3.4

## Weight (kg)

Pump's type	Flange connection type	Foot mounting type
DS1 ※ P	3	4.4