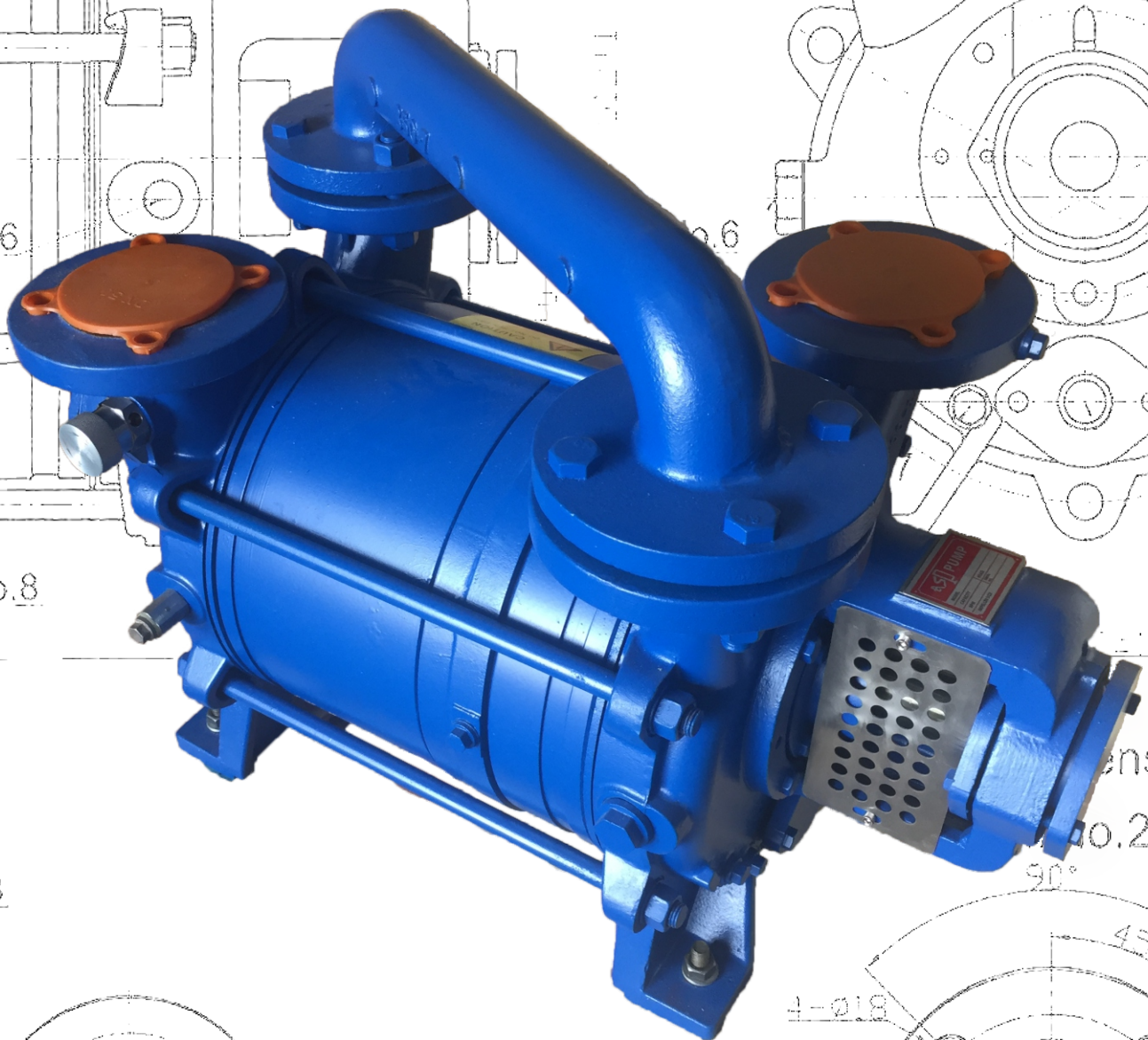


VACUUM PUMP



ADSV SERIES

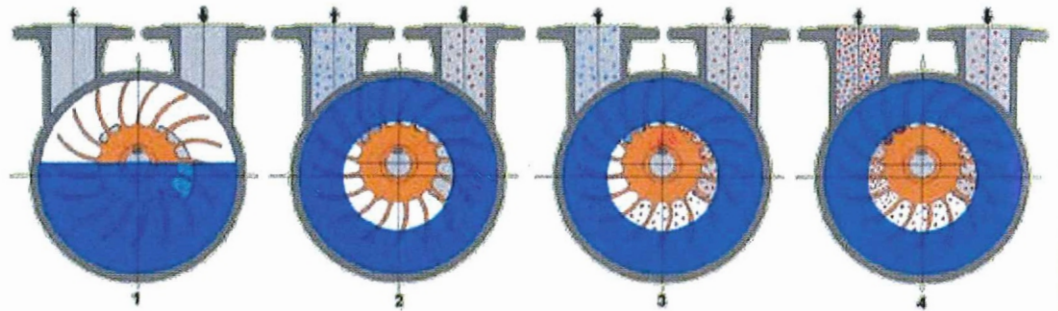
DOUBLE-STAGE LIQUID RING VACUUM PUMP



FEATURES OF ADSV PUMPS

Liquid Ring Vacuum Technology

A liquid ring rotating in the working chamber of the pump eccentrically to the shaft, takes up the drive power delivered to the vane wheel impellers and transfers it as compression power to the gas to be compressed.



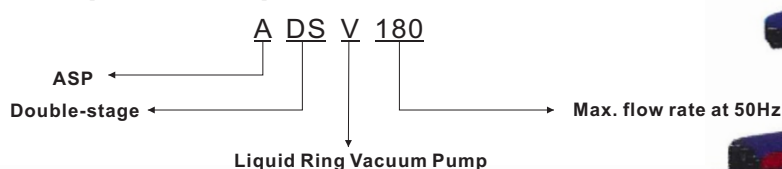
Main Characteristics:

- ASP ADSV are adaptable to most duties, with appropriate selection of materials & service liquid
- Oil-Free operation
- Applied to almost all gases and vapours
- Gases being pumped can be saturated with vapour
- Small quantities of entrained liquid can be handled
- Compression of gases and vapours being pumped is nearly isothermal
- Reliable operation with minimum maintenance
- Low noise and vibration levels

Standard Execution

ASP liquid ring vacuum pump are of the double-stage displacement type. the only movable parts are the shaft and the vane wheel impellers. They do not touch the stationary pump parts. Both shaft ends run in antifriction bearing. For sealing, mechanical seals are applied.

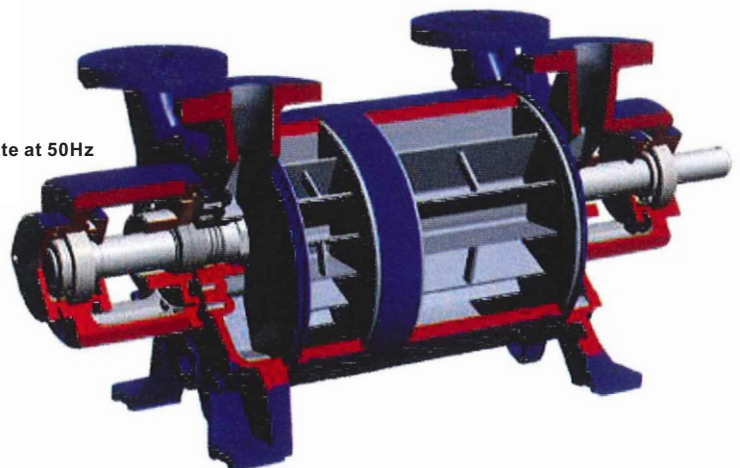
Pump Code Explanation



Materials of Construction

The ASP double-stage ADSV are available in:

1. Standard Construction
Cast Iron Body / Stainless Steel Impeller
2. Optional
Fully Stainless Steel or Duplex

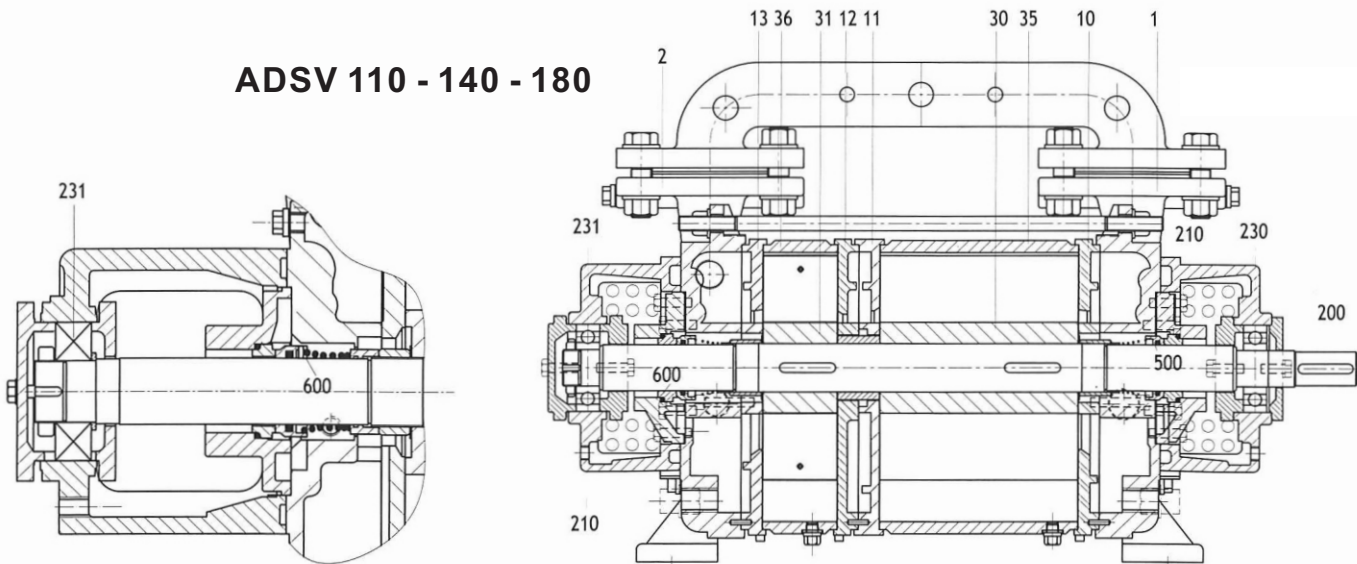


Performance

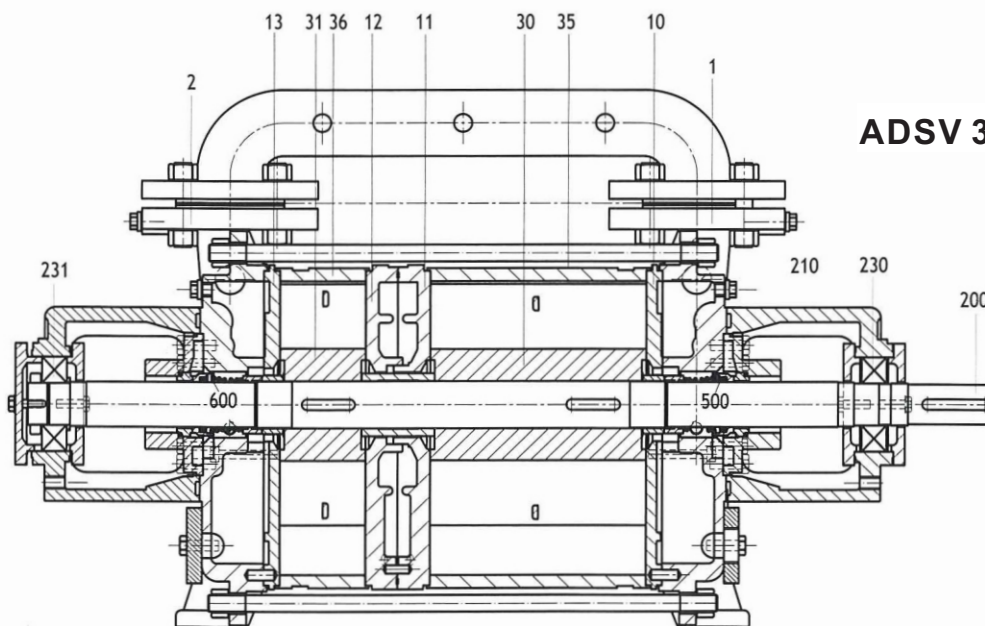
Using water with a temperature of 15°C as service liquid and a pressure of 1013mbar at the discharge branch, the lowest suction pressure achievable is 33mbar. With other service liquid such as oil, which has a low and stable vapour pressure, deeper vacuum of 25mbar (abs) may be achieved.

SECTIONAL DRAWING

ADSV 110 - 140 - 180



ADSV 300 - 350 - 400



Pump Parts

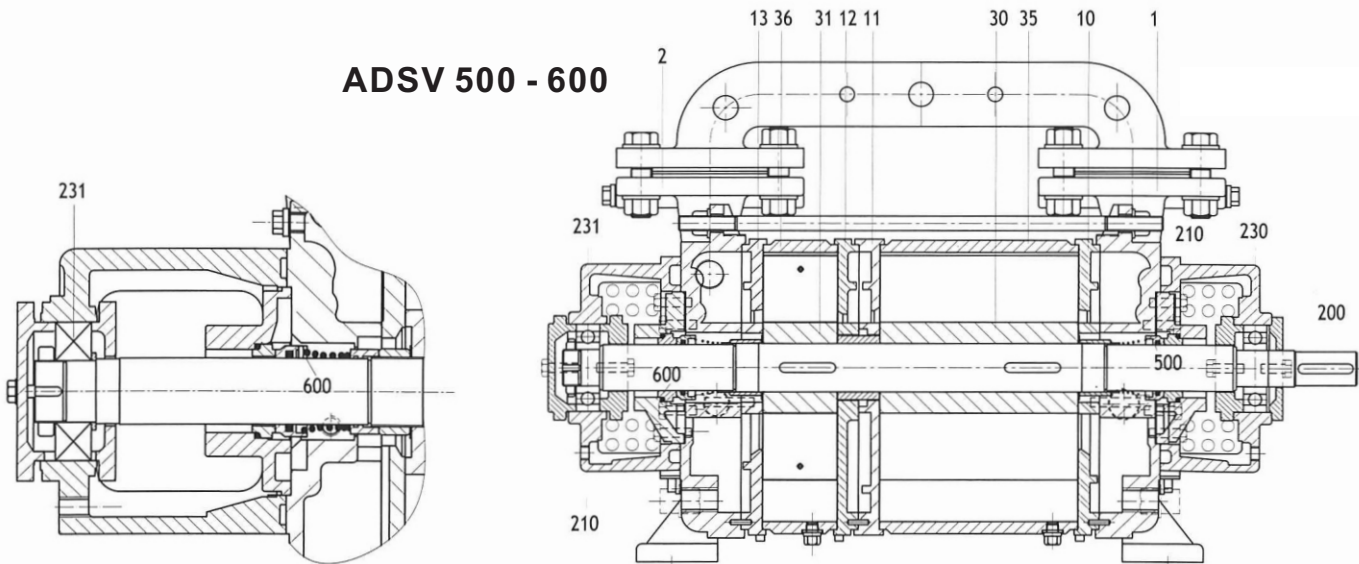
Pos. No.	Part Name	MoC
1 • 2	Suction • Discharge Covers	Cast Iron
10 • 11 • 12 • 13	Suction • Intermediate • Discharge Port-plates	Cast Iron
30 • 31	1 st • 2 nd Stage Impellers	Stainless Steel
35 • 36	1 st • 2 nd Stage Centre Casing	Cast Steel
200	Pump Shaft	Chrome Steel
210	Bearing Bracket	Cast Iron
230 • 231	Anti-friction Bearing	SKF • NSK
500 • 600	Mechanical Seal	Carbon vs SiC / Viton

VACUUM PUMP

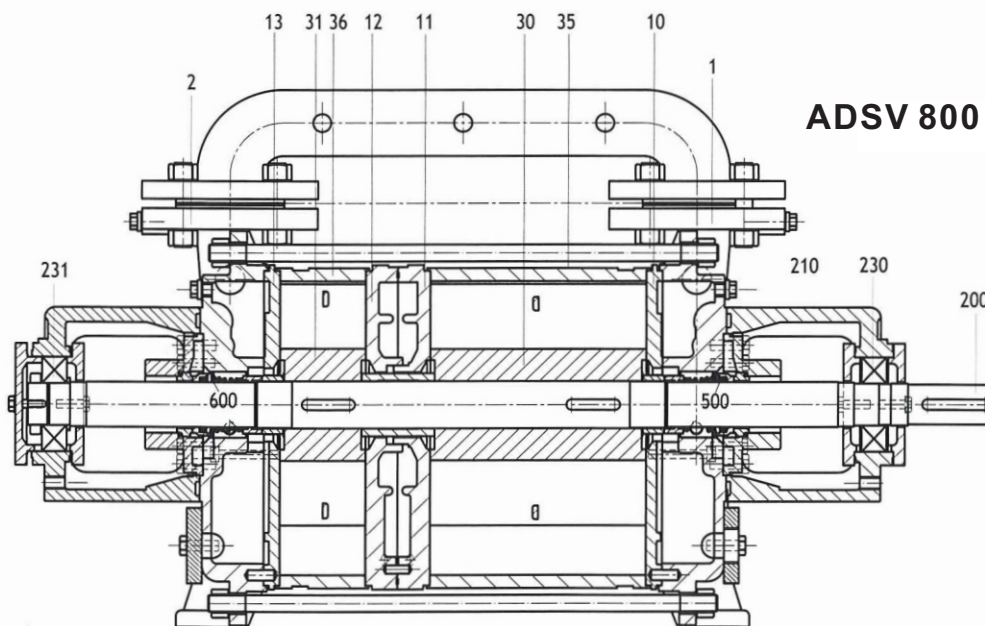


SECTIONAL DRAWING

ADSV 500 - 600



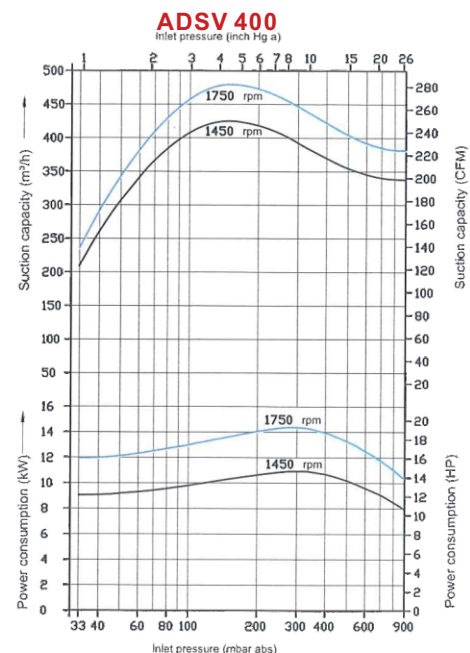
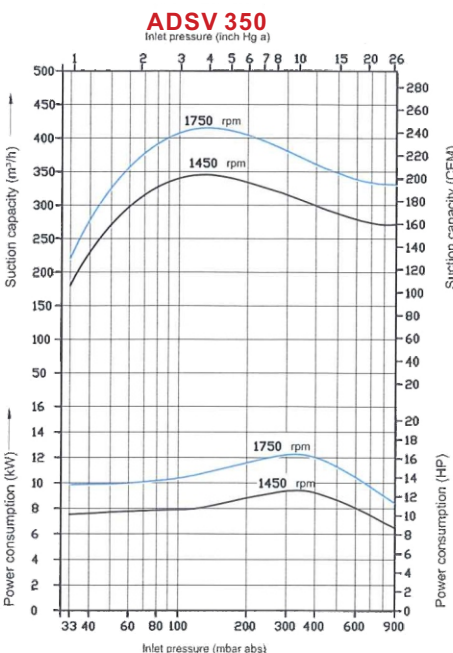
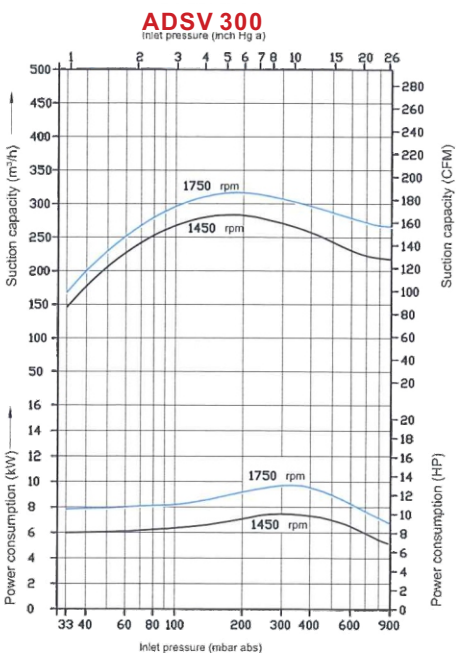
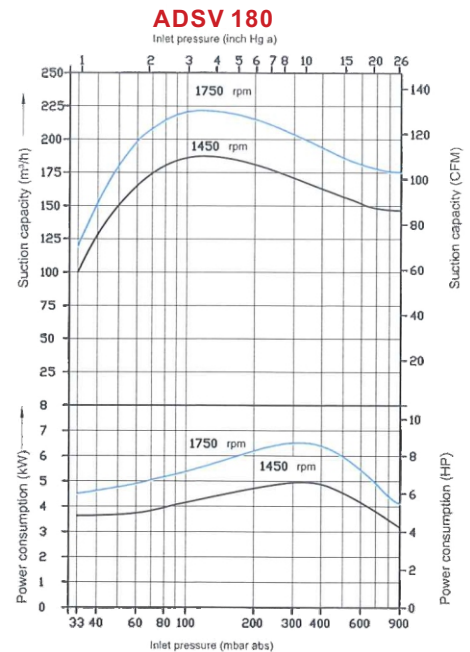
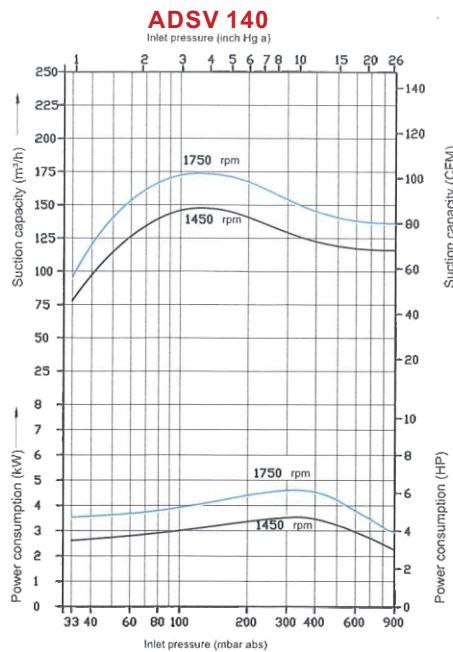
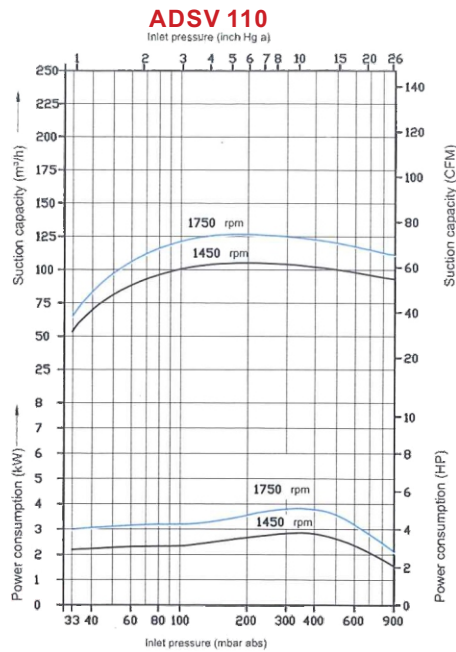
ADSV 800 - 1200 - 1600



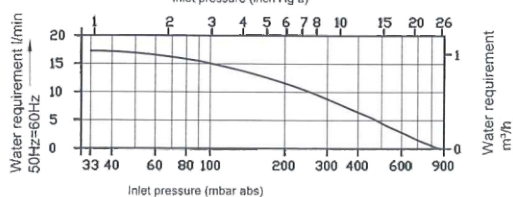
Pump Parts

Pos. No.	Part Name	MoC
1 • 2	Suction • Discharge Covers	Cast Iron
10 • 11 • 12 • 13	Suction • Intermediate • Discharge Port-plates	Cast Iron
30 • 31	1 st • 2 nd Stage Impellers	Stainless Steel
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200	Pump Shaft	Chrome Steel
210	Bearing Bracket	Cast Iron
230 • 231	Anti-friction Bearing	SKF • NSK
500 • 600	Mechanical Seal	Carbon vs SiC / Viton

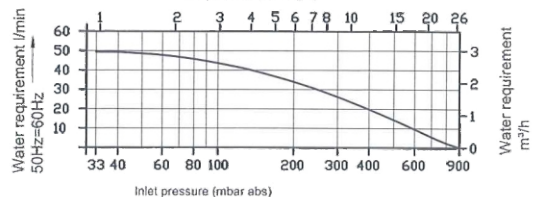
PERFORMANCE CURVES



ADSV 110 140 180
Required Service Liquid Flow-rate
Inlet pressure (inch Hg a)



ADSV 300 350 400
Required Service Liquid Flow rate
Inlet pressure (inch Hg a)

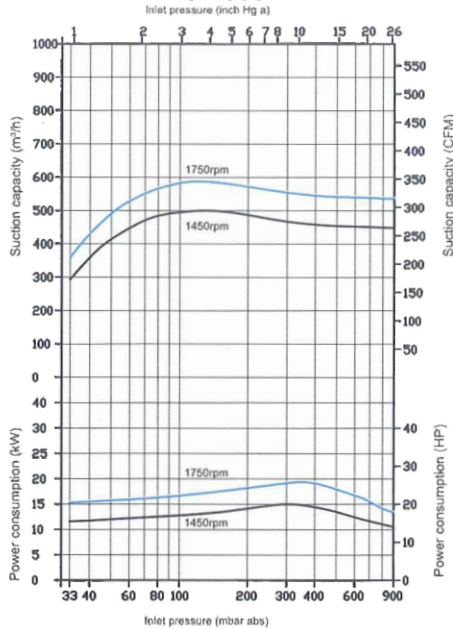


Suction capacity and power consumption depending on inlet pressure

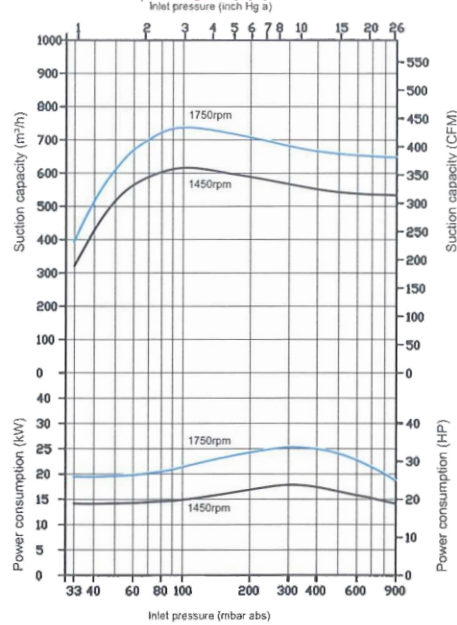
The characteristics are applicable for compression of 20°C (68°F) dry air from inlet pressure to atmospheric pressure (30 inch Hg a). Service liquid is water at 15°C (59°F). The tolerance of the suction capacity is -10% and of the power consumption +10%. With different operating conditions, performance characteristics change (e.g. differing gas operating liquid conditions, conveying of additional liquids and/or pumping of gas-steam mixtures).

PERFORMANCE CURVES

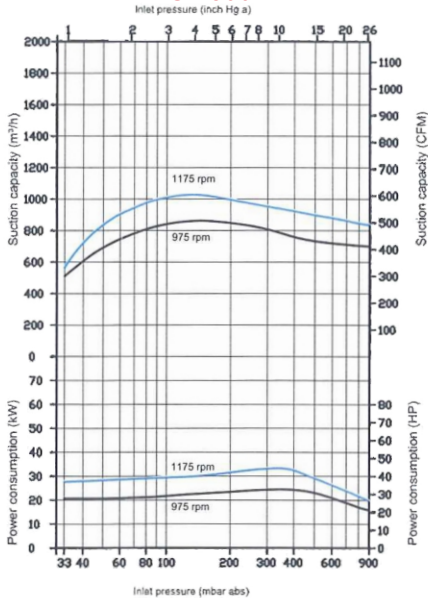
ADSV 500



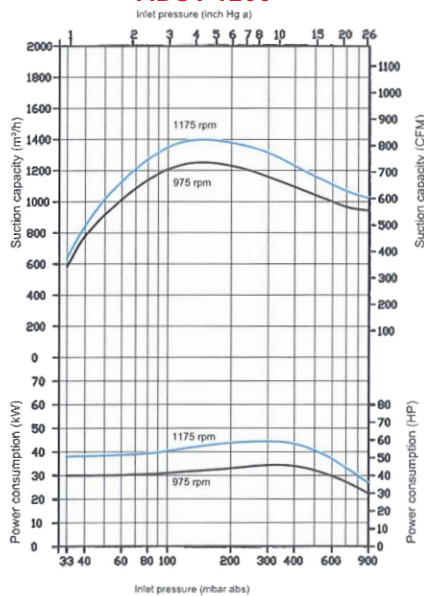
ADSV 600



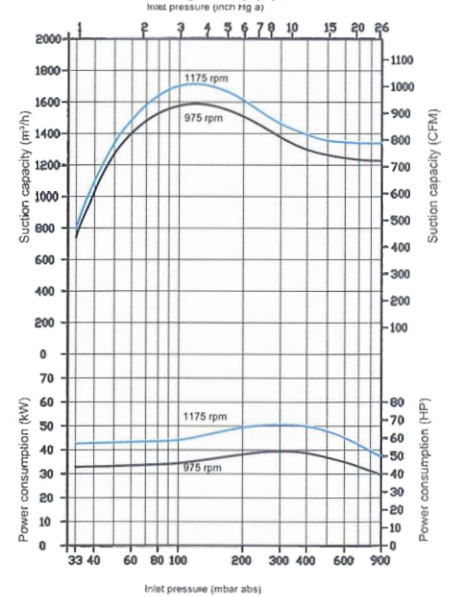
ADSV 800



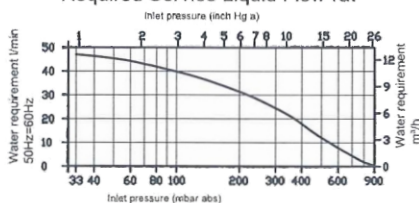
ADSV 1200



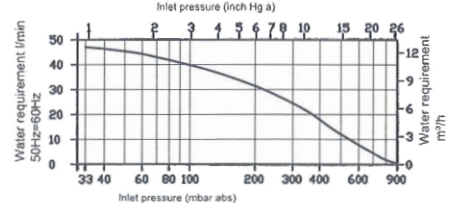
ADSV 1600



ADSV 500 600
Required Service Liquid Flow-rat



ADSV 800 1200 1600
Required Service Liquid Flow-rat



Suction capacity and power consumption depending on inlet pressure

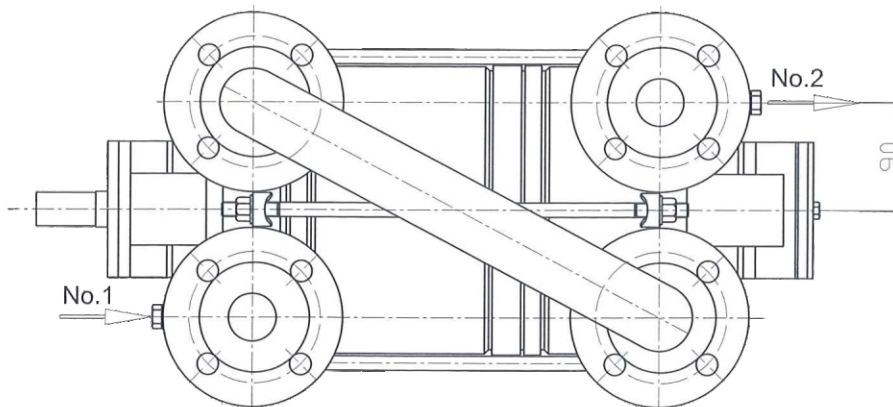
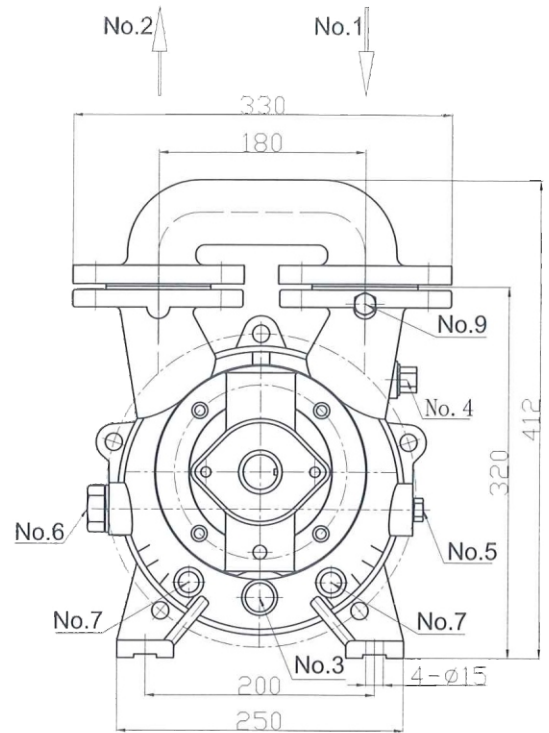
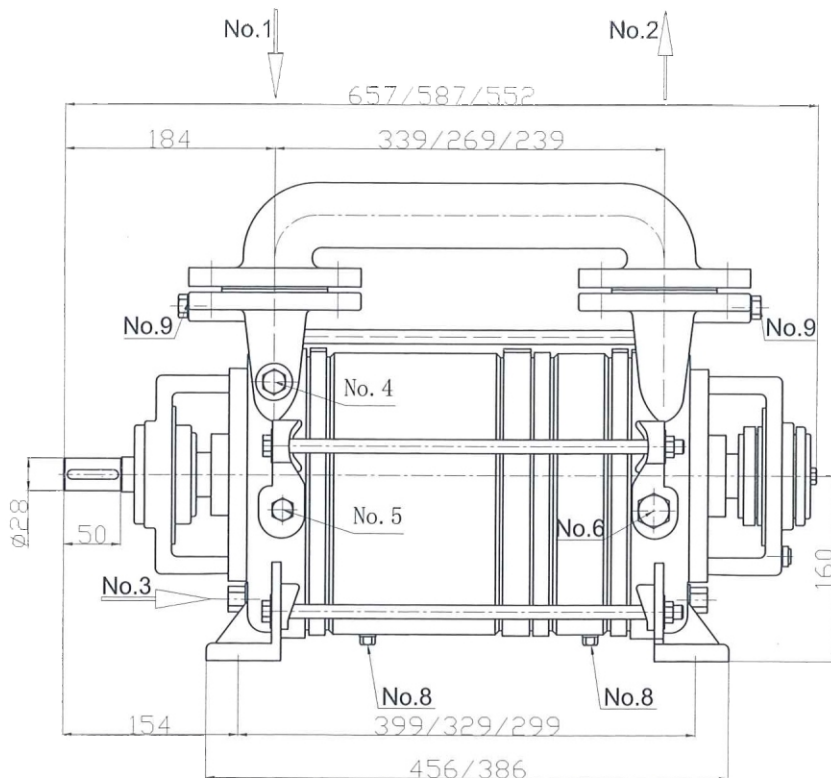
The characteristics are applicable for compression of 20°C (68°F) dry air from inlet pressure to atmospheric pressure (30 inch Hg a). Service liquid is water at 15°C (59°F). The tolerance of the suction capacity is -10% and of the power consumption +10%. With different operating conditions, performance characteristics change (e.g. differing gas operating liquid conditions, conveying of additional liquids and/or pumping of gas-steam mixtures).

VACUUM PUMP

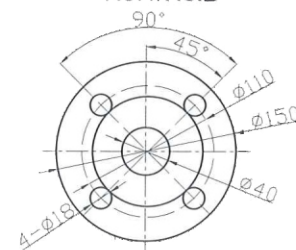


INSTALLATION/ DIMENSIONS DRAWING

ADSV 110 140 180



Flange Dimension
No.1/No.2



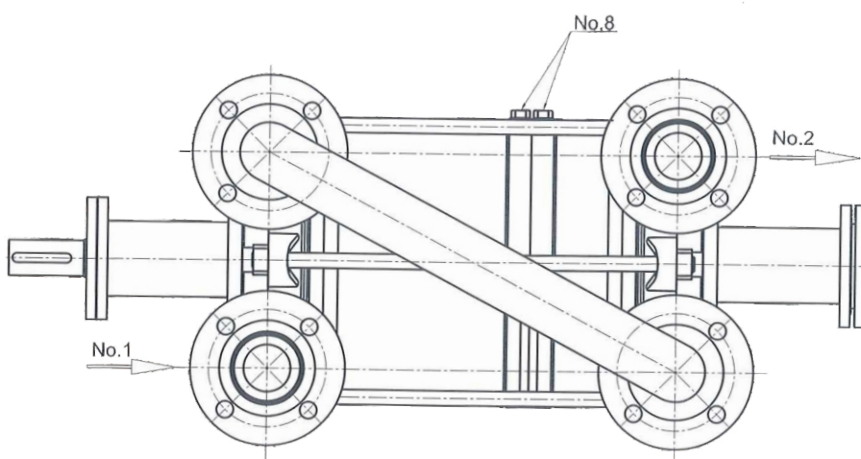
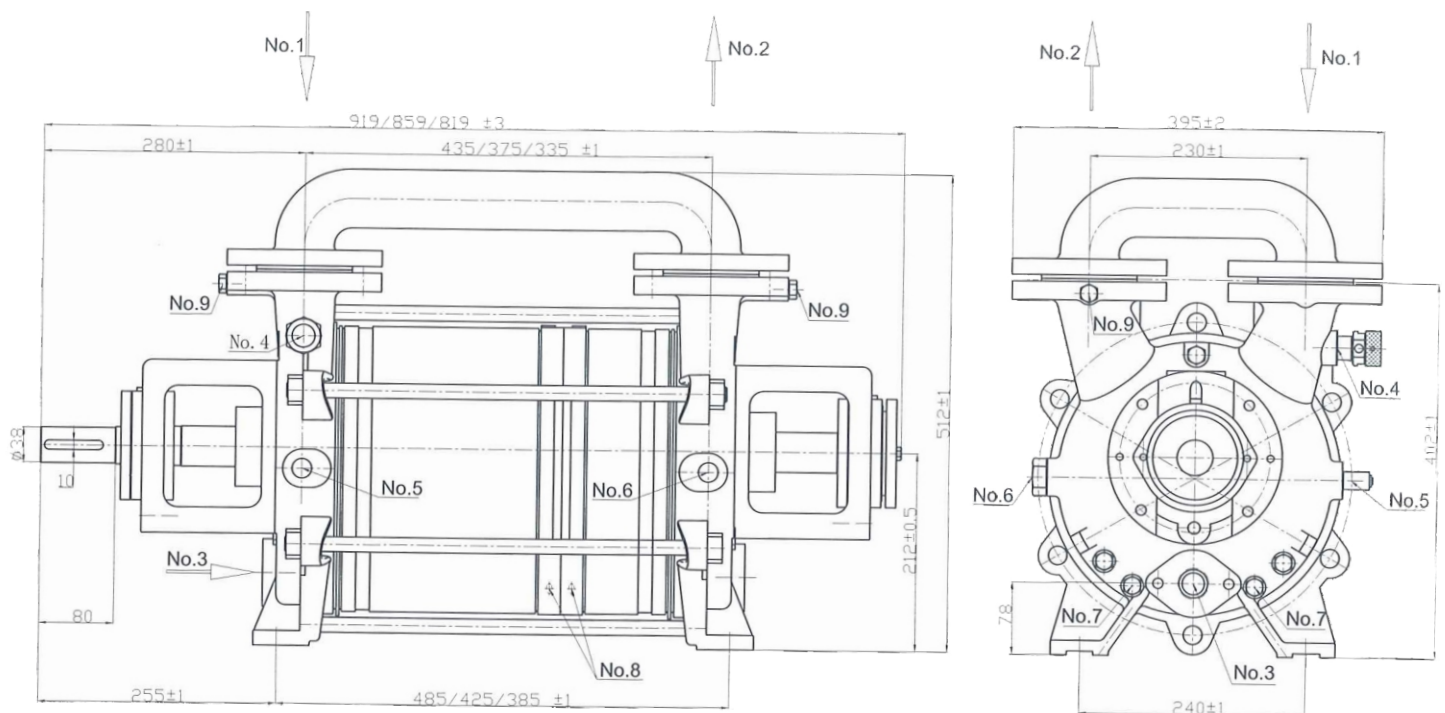
No.	Part Name	Dimension
1	Inlet	DN40 PN1.0
2	Outlet	DN40 PN1.0
3	Service Liquid	G 1/2
4	Relief Valve	G 1/2
5	Auto-drain Valve	G 1/4
6	Spare Connector	G 3/4
7	Inlet Plug	G 1/4
8	Drain Plugs	G 1/4
9	Spare Connector	G 1/4

VACUUM PUMP



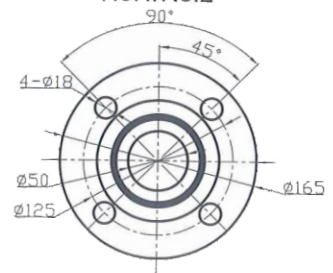
INSTALLATION/ DIMENSIONS DRAWING

ADSV 300 350 400



Flange Dimension

No. 1/No. 2



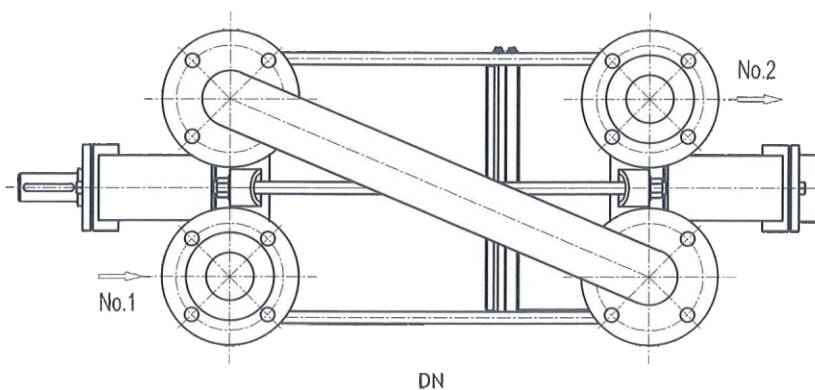
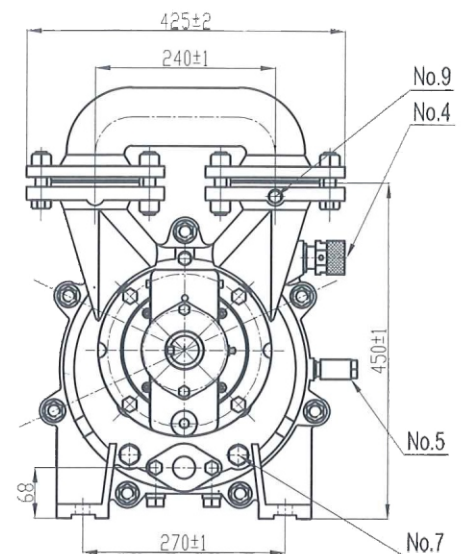
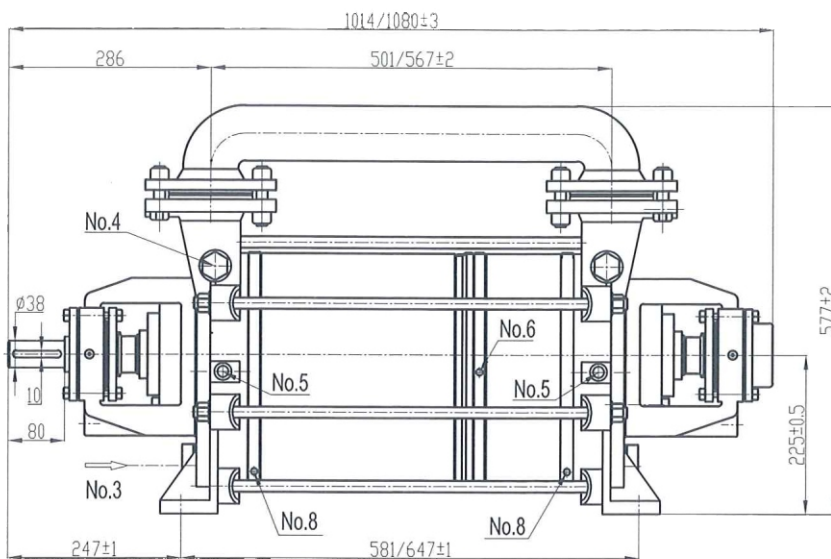
No.	Part Name	Dimension
1	Inlet	DN50 PN1.0
2	Outlet	DN50 PN1.0
3	Service Liquid	G 1
4	Relief Valve	G 3/4
5	Auto-drain Valve	G 1/4
6	Spare Connector	G 3/4
7	Inlet Plug	G 1/4
8	Drain Plugs	G 1/4
9	Spare Connector	G 1/4

VACUUM PUMP

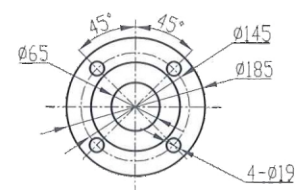


INSTALLATION/ DIMENSIONS DRAWING

ADSV 500 ADSV 600



flange demension
No.1, No.2



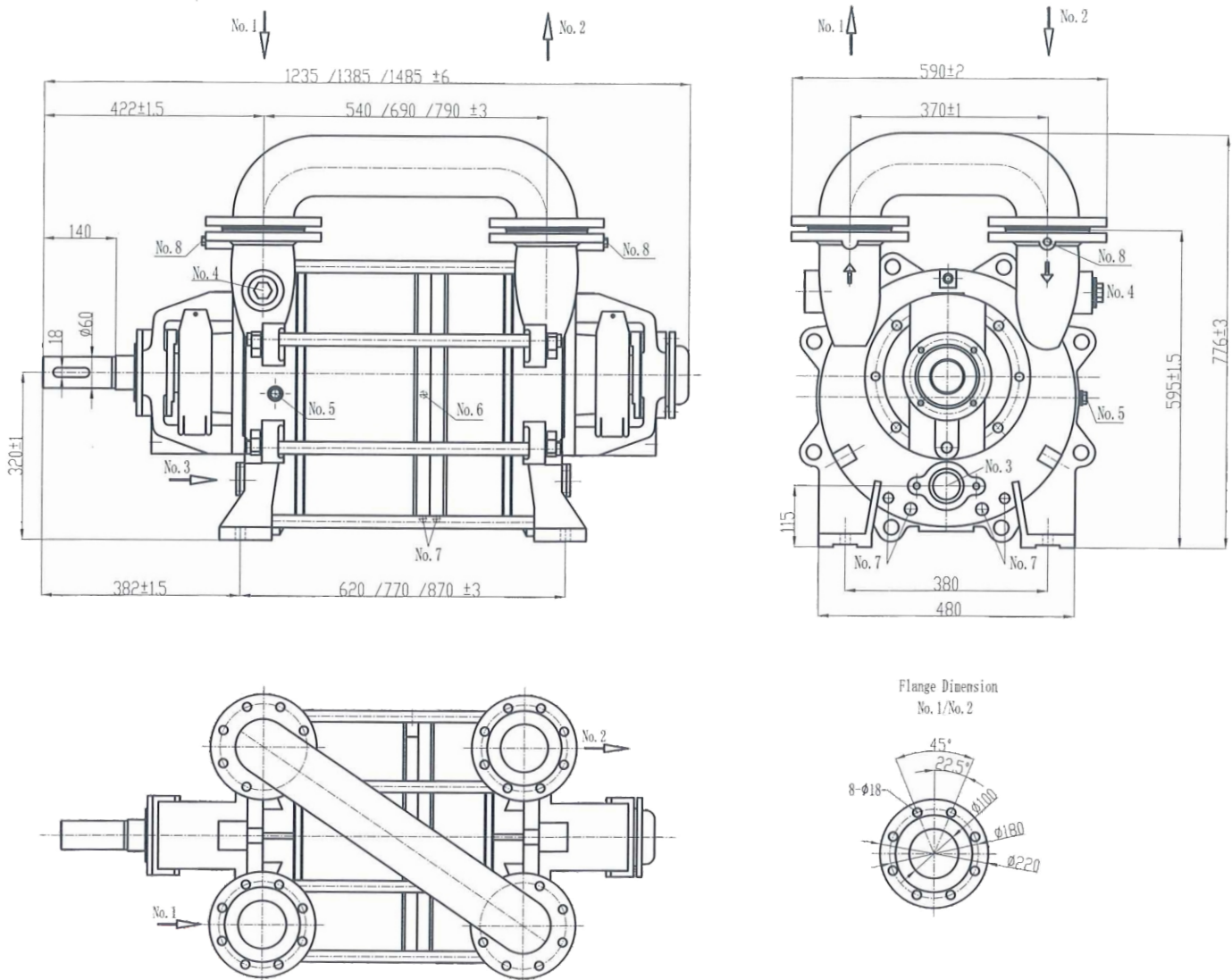
No.	Part Name	Dimension
1	Inlet	DN65 PN1.0
2	Outlet	DN65 PN1.0
3	Service Liquid	G 1
4	Relief Valve	G 3/4
5	Auto-drain Valve	G 3/8
6	Spare Connector	G 1/4
7	Inlet Plug	G 1/2
8	Drain Plugs	G 1/2
9	Spare Connector	G 1/4

VACUUM PUMP



INSTALLATION/ DIMENSIONS DRAWING

ADSV 800 1200 1600

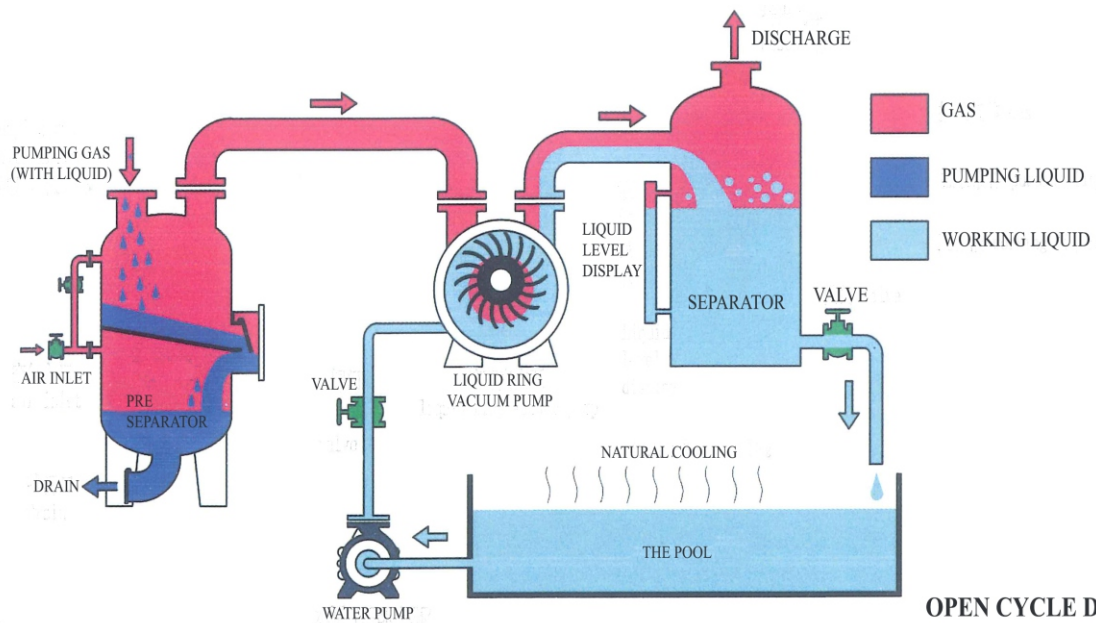


No.	Part Name	Dimension
1	Inlet (Gas)	DN100 PN1.0
2	Outlet (Gas)	DN100 PN1.0
3	Service Liquid	G2
4	Air Relief Valve	G1 1/2
5	Drain Valve Connector	G 1/2
6	Cavitation Protection Connector	G 3/8
7	Liquid Drain Up Connector	G 1/4 G1/2
8	Pressure and Vacuum Gauge Connector	G 1/4

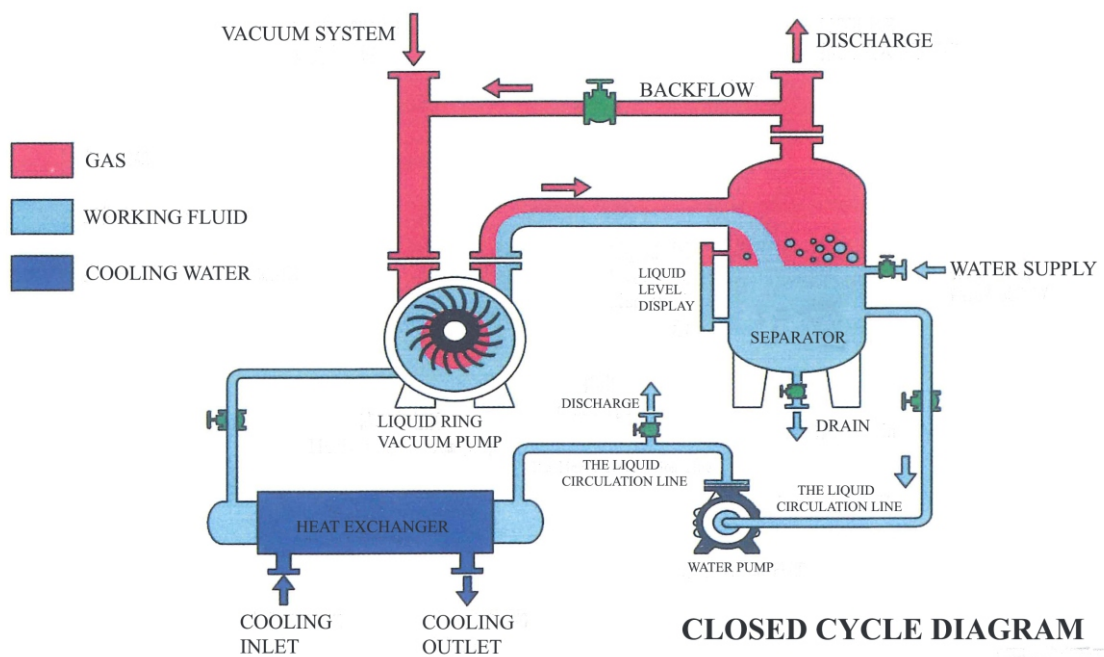
VACUUM PUMP



ADSV SYSTEMS



OPEN CYCLE DIAGRAM



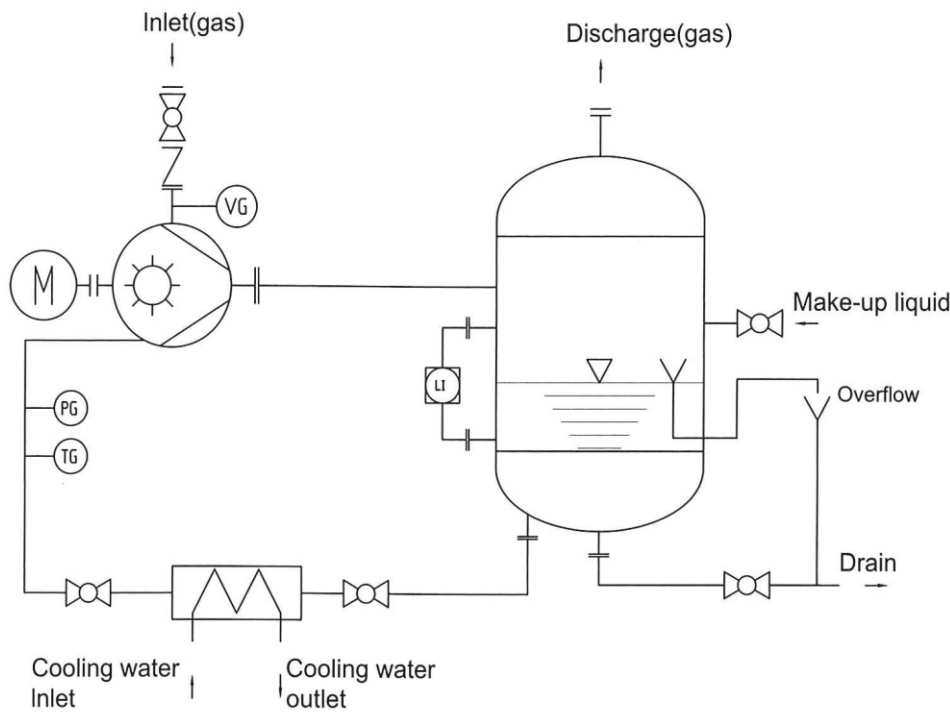
CLOSED CYCLE DIAGRAM

VACUUM PUMP



ADSV SYSTEMS

P & ID



	Liquid Ring Vacuum Pump
	Electric Motor
	Discharge Separator
	Heat Exchanger
	Pressure Gauge
	Vacuum Gauge
	Temperature Gauge
	Level Indicator Ball
	Valve
	Check Valve

