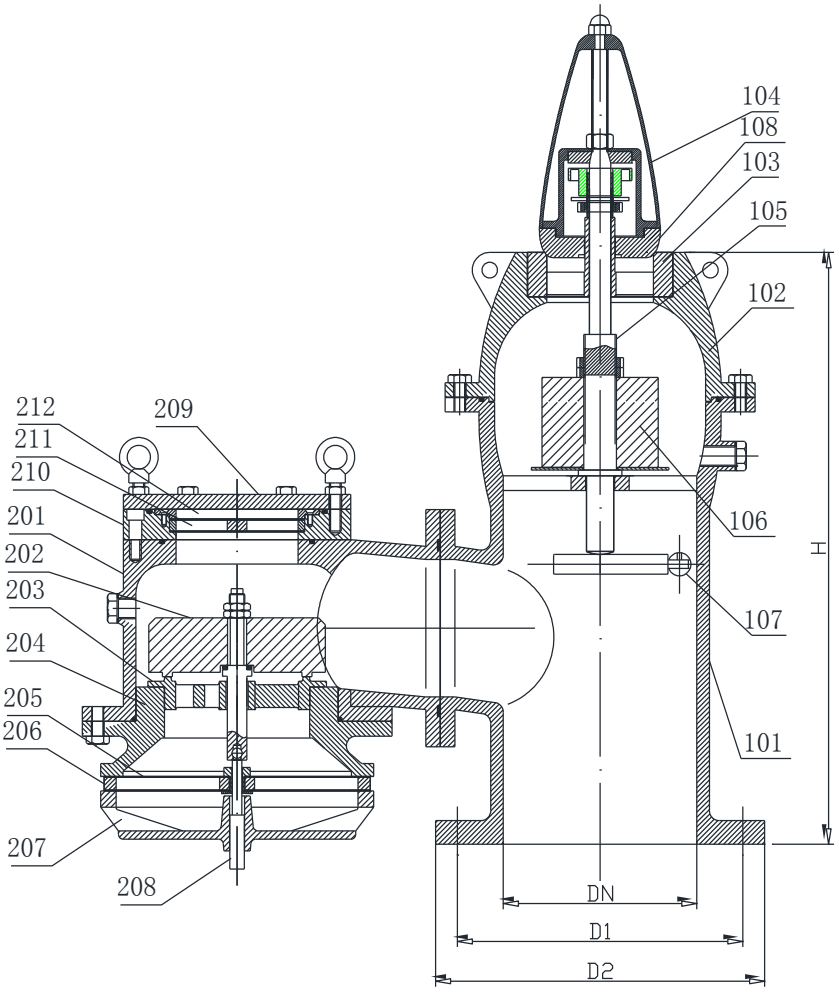
PV valve



Picture 1

2.2 Table 1 is the dimension parameter of high velocity relief valve.

Table 1

NO.	DN	D1	D2	H	assembly hole
1	80	160	200	320	8XΦ18
2	100	180	220	370	8XΦ18
3	150	240	285	530	8XΦ22

Remarks: Flange executive standards are according to demand of shipyards

2.3 Table 2 is main parts of the High velocity relief valve.

Table 2

NO.	Parts	quantity	material	Remarks
101	Low valve housing	1	Sus316L	Pressure valve
102	Up valve housing	1	Sus316L	Pressure valve
103	up housing seal seat	1	Sus316L	Pressure valve
104	Flow guide cover	1	Sus316L	Pressure valve
105	Guide shaft	1	Sus316L	Pressure valve
106	Weight loading	1	Sus316L	Pressure valve
107	Check lift	1	Sus316L	Pressure valve
108	Pressure disc	1	Sus316L	Pressure valve
201	Vent valve housing	1	Sus316L	Vacuum valve
202	Vacuum disc	1	Sus316L	Vacuum valve
203	Vacuum seal seat	1	Sus316L	Vacuum valve
204	Vacuum seat	1	Sus316L	Vacuum valve
205	Flame screen	1	Sus316L	Vacuum valve
206	Low flame screen guide	1	Sus316L	Vacuum valve
207	Inlet cover	1	Sus316L	Vacuum valve
208	Vacuum valve rod	1	Sus316L	Vacuum valve

209	Gas freeing cover	1	Sus316L	Vacuum valve
210	Fire proof seat	1	Sus316L	Vacuum valve
211	Up flame screen guide	1	Sus316L	Vacuum valve
212	Press ring	1	Sus316L	Vacuum valve

2.4 Table 3 is the technical parameter of high velocity relief valve.

Type	DN (mm)	Opening Pressure(Kpa)	Minimum Pipe Diameter(mm)	Maximum Pipe length(m)	MESG(equal to or greater than)/Apparatus Group
HPVV08	80	14~21/-7.0~-3.5	65	42	0.65/IIB
HPVV10	100	14~21/-7.0~-3.5	80	42	0.65/IIB
HPVV15	150	14~21/-7.0~-3.5	125	42	0.65/IIB

2.5 Working principle of high velocity relief and pressure valve.

The standard joint of high velocity valve is connected with cargo tank, when the cargo tank is loading, the compressed air will formed, the pressure valve disc with block will automatically lift up, start and dropping in a flash while the compressed air meet to the operating pressure(oil tanker is 14.KPa. chemical tanker is 18.0~20.0kPa,special is 60.0kPa;) of P-valve of high velocity relief valve. The compressed air in the tank is as the arrowhead showed, it will relief to the air from cabin to the exit through valve disc so that its sealing will be better.

2.6 Main principle of vacuum valve:

The vacuum(negative pressure) will formed when the tank unloading, and the valve will automatically open while the negative pressure reach to the opening pressure(-3.5kPa), at that time, the air will come into the cabin from deck space through flame screen, which as the arrowhead showed, The negative pressure will impact on the p-valve disc so that the sealing of pressure valve will be better.