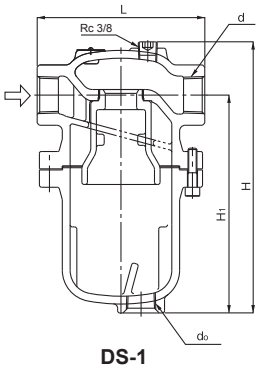
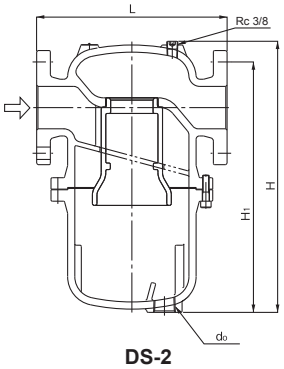
DS-1, DS-2

DS-1

DS-2



DS-1



DS-2

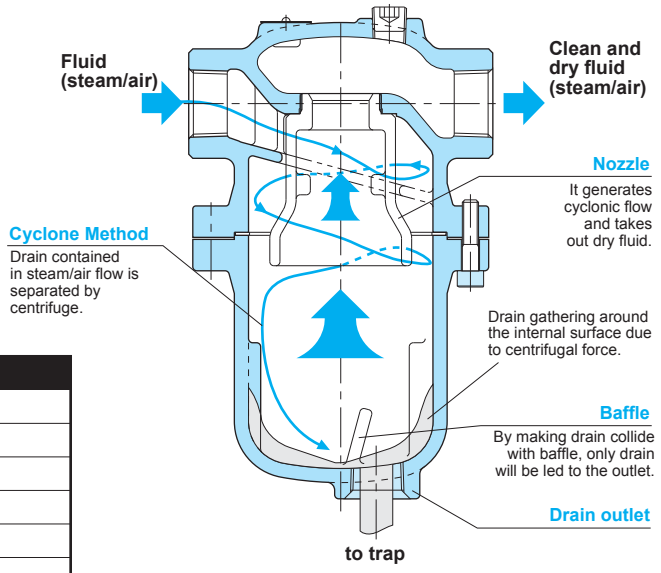
Drain (condensate) in steam and air piping causes a decline in thermal efficiency, water hammer, corrosion of devices, valves, and pipes, and many other problems. The DS-1 and DS-2 drain separators are capable of efficiently separating condensate from steam and air with the aid of centrifugal force generated from the configuration of the passage. In normal condition, use a separator of the same size as piping for both steam and compressed air systems.

FEATURES

1. High efficient drain separation due to cyclone type.
2. Extremely low pressure loss.
3. Trouble-free by minimizing the number of moving parts.

STRUCTURE AND PRINCIPAL OF DRAIN SEPARATOR

There is no movable part. The capacity will not change almost permanently, since the design itself has made this perfomance possible.



SPECIFICATIONS

Model		DS-1	DS-2	
Application		Steam, Air		
Maximum pressure		2.0 MPa (1.0 MPa for air)		
Maximum temperature		220˚C		
Material	Body	Ductile cast iron		
	Nozzle	Cast iron		
	Receiver	Ductile cast iron		
Connection		JIS Rc screwed	JIS 10K/20K FF Flanged	Flanged PN16

DIMENSIONS (MM) AND WEIGHTS (KG)

Model	Nominal size	d	L	H	H_1	do	Weight
DS-1	15A	Rc 1/2	150	243	193	Rc 3/4	7.1
	20A	Rc 3/4	150	243	193	Rc 3/4	7.1
	25A	Rc 1	150	243	193	Rc 3/4	7.3
	32A	Rc 1-1/4	190	282	213	Rc 1	12.5
	40A	Rc 1-1/2	190	282	213	Rc 1	12.5
	50A	Rc 2	219	342	260	Rc 1	20.5

Model	Nominal size	d	L			H	H_1	do	Weight		
			JIS 10K FF	JIS 20K FF	Flanged PN16				JIS 10K FF	JIS 20K FF	Flanged PN16
DS-2	15A	–	174	178	178	243	193	BSPT/Rc 3/4	8.5	8.7	8.7
	20A	–	204	208	208	243	193	BSPT/Rc 3/4	9.6	9.8	9.8
	25A	–	204	208	208	243	193	BSPT/Rc 3/4	10.1	10.5	10.5
	32A	–	222	226	226	282	213	BSPT/Rc 1	15.6	16.0	16.0
	40A	–	242	246	248	282	213	BSPT/Rc 1	16.3	16.7	16.7
	50A	–	246	250	252	342	260	BSPT/Rc 1	24.7	24.9	24.9
	65A	–	288	292	300	418	314	BSPT/Rc 1	40.0	40.0	40.0
	80A	–	335	343	351	484	361	BSPT/Rc 1 1/4	54.0	56.0	56.0
	100A	–	390	402	410	594	445	BSPT/Rc 1 1/4	96.0	100.0	100.0

*last updated 06/23

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DS-1, DS-2

SELECTING A NOMINAL SIZE

Keep the instruction described below in mind to enable the drain separator to operate most effectively and meet working conditions to the fullest extent possible.

● Selecting a drain separator nominal size
Select the same nominal size as that of piping (nominal size of piping = nominal size of drain separator). Using a drain separator of a smaller nominal size may increase pressure loss, resulting in failure to keep the specified pressure at the outlet of a unit.

TABLE 1: WORKING FLOW VELOCITY

Application	Flow velocity
Steam	30 m/sec or less
Air	15 m/sec or less

* Keep the fluid below the specified flow velocity.
* A higher flow velocity may cause drain separation to fail.

GUIDELINES FOR DRAIN SEPARATOR

1. Check the following direction of the fluid and the inlet and outlet directions of the drain separator in advance, and properly install it.
2. When connecting it to piping, securely support the product and the piping with a lifting device.
3. When installing the product, secure the space of the dimension H3 shown in the figure below, which is required for maintenance and inspections.
   * When using model DS-1, 2 for steam application, it is recommended to replace the gasket after 2 years as a guide.

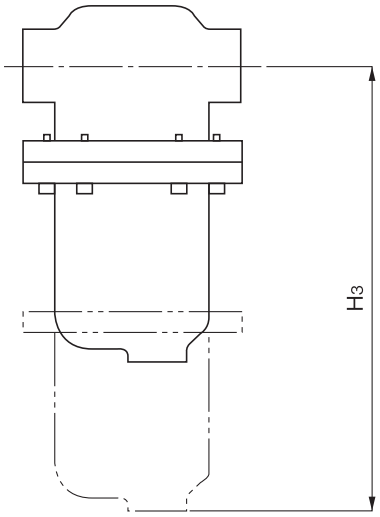
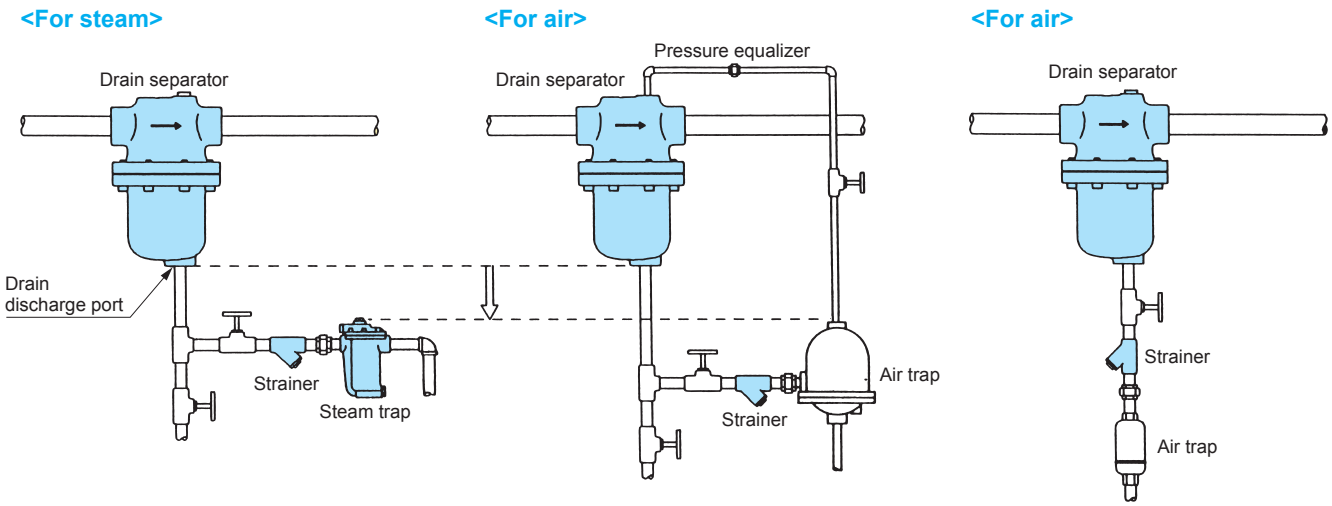


TABLE 2: MAINTENANCE REQUIRED DIMENSION

Model	Nominal size	H_3
DS-1 DS-2	15A	210
	20A	210
	25A	210
	32A	240
	40A	240
	50A	290
DS-2	65A	350
	80A	410
	100A	550

GUIDELINES FOR DRAIN SEPARATOR



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