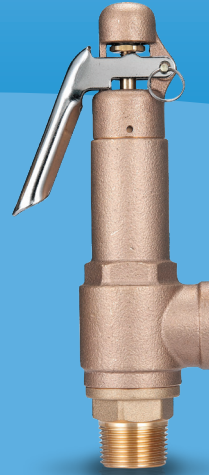


STAINLESS STEEL  
L9-SP



BRONZE  
L9-BP



## L9-SP/BP

### SAFETY VALVES

#### GENERAL FEATURES

In order to protect the systems that are designed according to different fluids and a certain pressure against all the adversities, the valves that provide controlled discharge of the fluid (steam, liquid, gas) when the design pressure rises above a certain value are called safety valve.

Within the safety rules for pressure vessels, the pressure vessel is usually equipped with 2 safety valves.

#### Duty of Safety Valve

It releases a certain amount of steam, gas or liquid if the system pressure rises above the valve's set pressure. In this way, it protects the desired pressure system against unauthorized pressure increases.

The safety valve reaches its full discharge capacity with a maximum pressure increase of 10% of the set pressure.

Shut-off pressure of the safety valve:

It is maximum 10% for compressible materials and less than 20% for incompressible substances.

#### Installation

1- Storage and transportation and installation should be done with care.

2- The valve should be protected from foreign objects and dust until the installation time.

3- Valve shaft should be mounted with its axis vertical.

4- There should not be any valve between the safety valve and the pressure vessel.

5- Safety valve should have easily accessible area where it is installed.

6- Safety valve outlet pipe should be opened to the atmosphere by the shortest way.

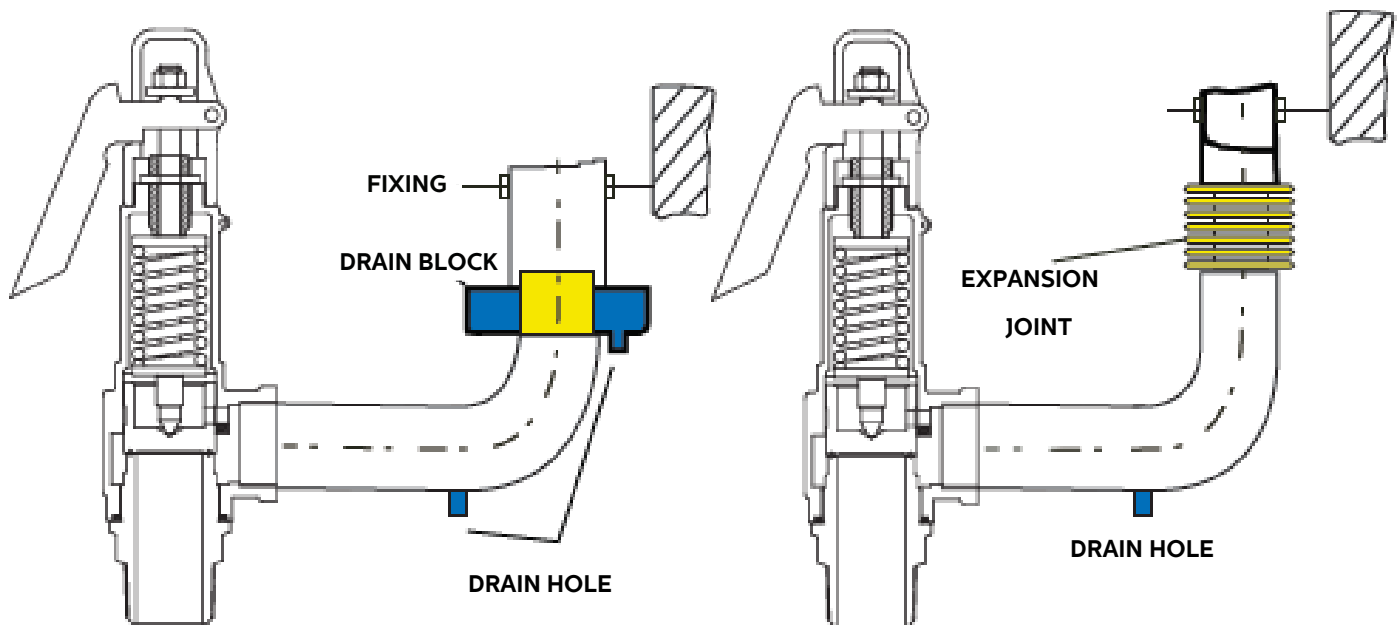
7- The safety valve should be inclined in the direction of outlet pipe outlet.

8- If there is an increase after the safety valve, one of the options such as drainage, pot (two nested pipes) and diameter increase should be designed in order to get water that may occur in the elbow.

9- A separate output line should be made for each safety valve. If there will be entry into the exhaust pipe; the distance between the safety valve outlet and the exhaust must be at least 4 meters.

# L9-LS/LP SAFETY VALVE

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## PROPERTIES SPECIFIED IN SAFETY VALVE SELECTION

- System operating pressure
- The initial opening (setting) pressure of safety valve
- Fluid type
- Relevant discharge capacity
- Fluid temperature
- Back pressure at the outlet of the valve
- It is advisable to look at safety valve tables.

## APPLICATION AREAS

### Usable Fluids

- Water
- Non-corrosive gas
- Corrosive gas
- Air and steam

### Unavailable Fluids

- Can not be used in liquid fuels

# L9-SP/BP SAFETY VALVE

## DISCHARGE CAPACITY

DISCHARGE CAPACITY KG/H (MODEL L9-BP, BRONZE, 2-10,5 BAR, HANDLE (w/PTFE) (MALE-FEMALE) PROPORTIONAL GAS-AIR-STEAM 45/+185 °C)																				
DIA	Gas(AIR & STEAM) BAR										Bar for Water									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
1/2"	18	28	37	46	56	65	74	84	93	102	492	696	852	984	1100	1206	1300	1392	1480	1560
3/4"	39	59	79	99	119	139	159	179	198	218	1056	1488	1824	2100	2358	2580	2790	2982	3160	3330
1"	68	102	137	171	206	240	275	309	344	378	1824	2580	3120	3648	4080	4470	7860	5160	5460	5760
1 1/4"	111	168	224	281	337	394	450	507	563	619	2988	4224	5160	5940	6660	7320	7860	8400	8900	9450
1 1/2"	157	237	316	396	475	555	635	714	794	874	4212	5958	7260	8400	9420	10320	11100	11880	12600	13320
2"	272	410	547	685	823	961	1099	1237	1374	1512	7296	10300	12600	14580	16320	17820	19260	20580	21800	23000

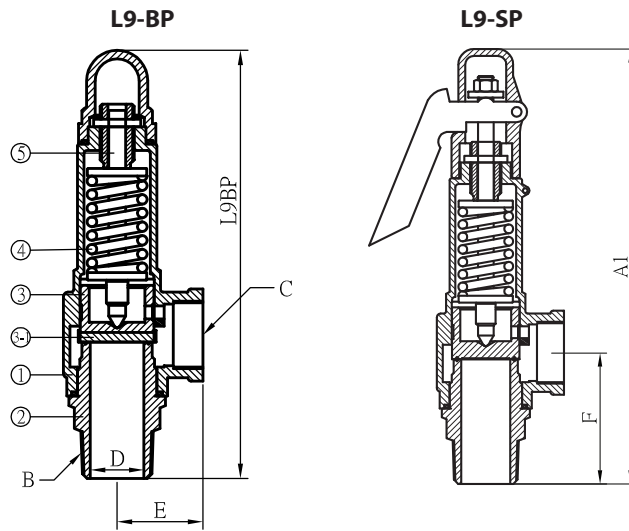
DISCHARGE CAPACITY L9-BP 10,5-20 BAR, HANDLE (w/PTFE) (MALE-FEMALE) PROPORTIONAL WATER, NON-CORROSIVE GAS, AIR, STEAM -45/+185 °C)																				
DIA	Gas(AIR & STEAM) BAR										Bar for Water									
	11	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17	18	19	20
1/2"	112	121	130	140	149	158	167	177	186	195	1638	1710	1776	1848	1908	1974	2034	2094	2148	2208
3/4"	238	258	278	298	318	338	358	378	398	417	3492	3648	3798	3942	4080	4212	4344	4470	4590	4710
1"	413	447	481	516	550	585	619	654	688	723	6048	6318	6576	6822	7062	7296	7518	7740	7950	8154
1 1/4"	676	732	789	845	902	958	1015	1071	1128	1184	9912	10350	10776	11178	11574	11952	12318	12678	13038	13662
1 1/2"	953	1033	1112	1192	1272	1351	1431	1510	1590	1670	13974	14597	15192	15768	16320	16854	17356	17874	18366	18846
2"	1650	1788	1926	2064	2202	2339	2477	2615	2753	2891	24240	25320	26340	27300	28260	29220	30120	30960	31800	32640

DISCHARGE CAPACITY KG/H (MODEL L9-SP, SS304 (CF8), 2-10,5 BAR, HANDLE (w/PTFE) (MALE-FEMALE) PROPORTIONAL NON-CORROSIVE GAS, CORROSIVE GAS, AIR, STEAM -5 /+290 °C)																				
DIA	Gas(AIR & STEAM) BAR										Bar for Water									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
1/2"	18	28	37	46	56	65	74	84	93	102	492	696	852	984	1100	1206	1300	1392	1480	1560
3/4"	39	59	79	99	119	139	159	179	198	218	1056	1488	1824	2100	2358	2580	2790	2982	3160	3330
1"	68	102	137	171	206	240	275	309	344	378	1824	2580	3120	3648	4080	4470	7860	5160	5460	5760
1 1/4"	111	168	224	281	337	394	450	507	563	619	2988	4224	5160	5940	6660	7320	7860	8400	8900	9450
1 1/2"	157	237	316	396	475	555	635	714	794	874	4212	5958	7260	8400	9420	10320	11100	11880	12600	13320
2"	272	410	547	685	823	961	1099	1237	1374	1512	7296	10300	12600	14580	16320	17820	19260	20580	21800	23000

DISCHARGE CAPACITY KG/H (MODEL L9-SP, SS304 (CF8), 10,5-20 BAR, HANDLE (w/PTFE) (MALE-FEMALE) PROPORTIONAL NON-CORROSIVE GAS, CORROSIVE GAS, WATER, AIR, STEAM -5 /+290 °C)																				
DIA	Gas(AIR & STEAM) BAR										Bar for Water									
	11	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17	18	19	20
1/2"	112	121	130	140	149	158	167	177	186	195	1638	1710	1776	1848	1908	1974	2034	2094	2148	2208
3/4"	238	258	278	298	318	338	358	378	398	417	3492	3648	3798	3942	4080	4212	4344	4470	4590	4710
1"	413	447	481	516	550	585	619	654	688	723	6048	6318	6576	6822	7062	7296	7518	7740	7950	8154
1 1/4"	676	732	789	845	902	958	1015	1071	1128	1184	9912	10350	10776	11178	11574	11952	12318	12678	13038	13662
1 1/2"	953	1033	1112	1192	1272	1351	1431	1510	1590	1670	13974	14597	15192	15768	16320	16854	17356	17874	18366	18846
2"	1650	1788	1926	2064	2202	2339	2477	2615	2753	2891	24240	25320	26340	27300	28260	29220	30120	30960	31800	32640

# L9-SP/BP SAFETY VALVE

## TECHNICAL SPECIFICATIONS



DIMENSIONS (L9-BP BRONZE SAFETY VALVE)											
Dia.	L9S	Inlet Dia B.	Outlet Dia. C	Valve Seat Orifice D	E	F	Lift Device	Weight kg.	Dia.	L9-BP	Weight Kg.
1/2"	145	1/2"	1/2"	13	29	49	0,52	0,5	1/2"	168	0,6
3/4"	167	3/4"	3/4"	19	36	55	0,76	0,8	3/4"	190	0,9
1"	202	1"	1"	25	40	67	1	1,3	1"	223	1,4
1 1/4"	233	1 1/4"	1 1/4"	32	50	79	1,28	2,2	1 1/4"	248	2,2
1 1/2"	256	1 1/2"	1 1/2"	38	54	86	1,52	2,9	1 1/2"	272	2,9
2"	283	2"	2"	50	66	96	2	4,7	2"	299	5

DIMENSIONS (L9-SP STAINLESS STEEL VALVE)											
Dia.	L9S	Inlet Dia B.	Outlet Dia. C	Valve Seat Orifice D	E	F	Lift Device	Weight kg.	Dia.	L9-BP	Weight Kg.
1/2"	142	1/2"	1/2"	13	29	49	0,52	0,5	1/2"	168	0,6
3/4"	164	3/4"	3/4"	19	36	55	0,76	0,7	3/4"	190	0,8
1"	200	1"	1"	25	40	67	1,00	1,2	1"	222	1,3
1 1/4"	232	1-1/4"	1-1/4"	32	50	79	1,28	2,0	1-1/4"	248	2,0
1 1/2"	256	1-1/2"	1-1/2"	38	54	86	1,52	2,6	1-1/2"	272	2,7
2"	283	2"	2"	50	66	96	2,00	4,3	2"	306	4,6

(Dimensions are given in mm.)

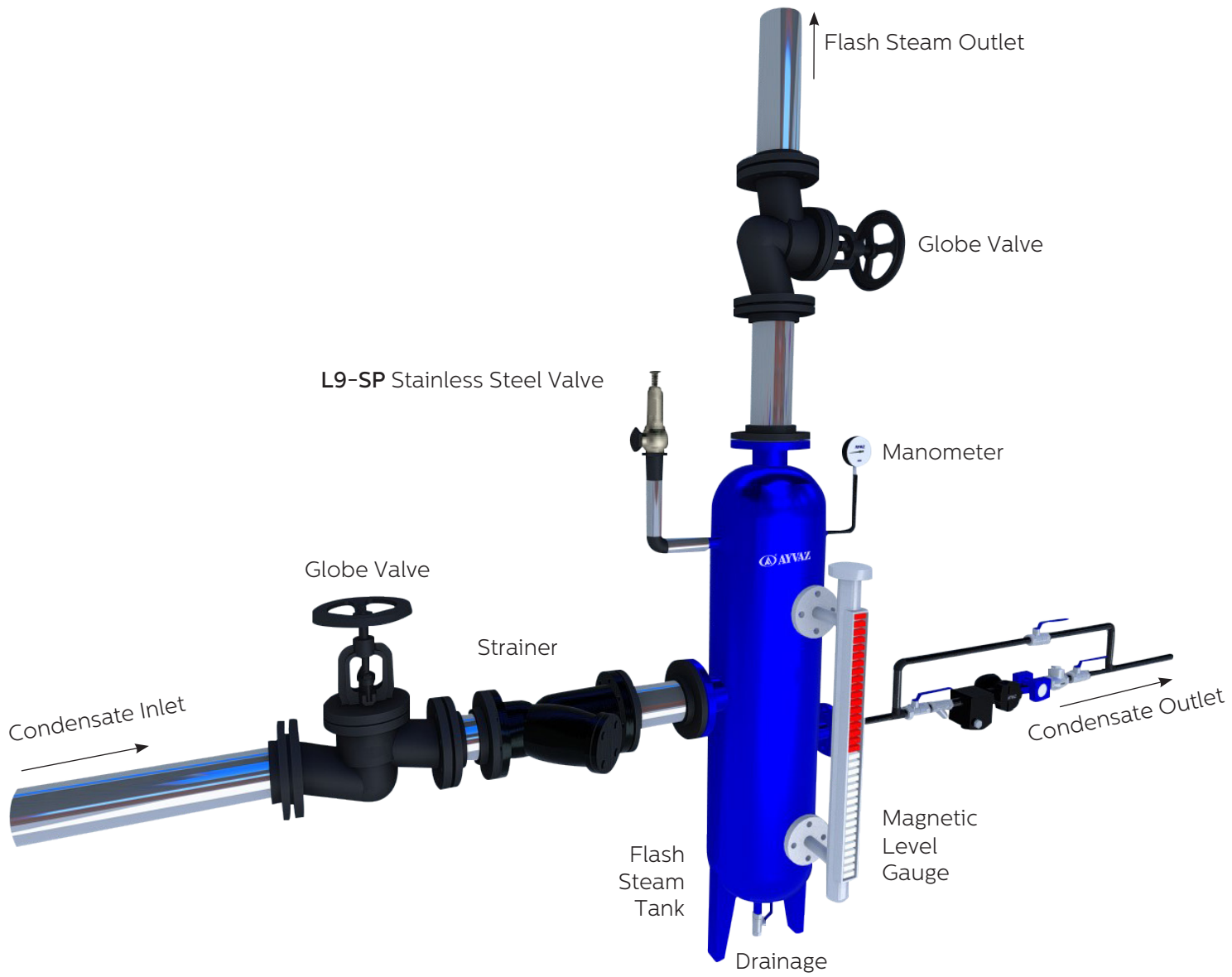
L9-BP BRONZE SAFETY VALVE		
NO.	Part Name	L9 - BP
1	Valve Body	Cast Bronze
2	Seat	Cast Brass
3	Disc	Cast Brass
4	Gasket	Teflon (PTFE)
5	Stem	Brass
Working Pressure		2-10,5 bar/10,5-20bar
Working Temp.		- 45 °C - 185 °C
Fluid		Non-Corrosive Gas / Fluid, Air, Steam, Water, Oil

L9-SP STAINLESS STEEL SAFETY VALVE		
NO.	Part Name	L9 - SP
1	Valve Body	CF8 SS
2	Seat	304 SS or CF8
3	Disc	304 SS or CF8
4	Gasket	304 SS
5	Stem	304 SS
Working Pressure		2-10,5 bar/10,5-20bar
Working Temp.		- 196 °C - 290 °C
Fluid		Non-Corrosive Gas, Corrosive Gas, Air, Steam

# L9-SP/BP SAFETY VALVE

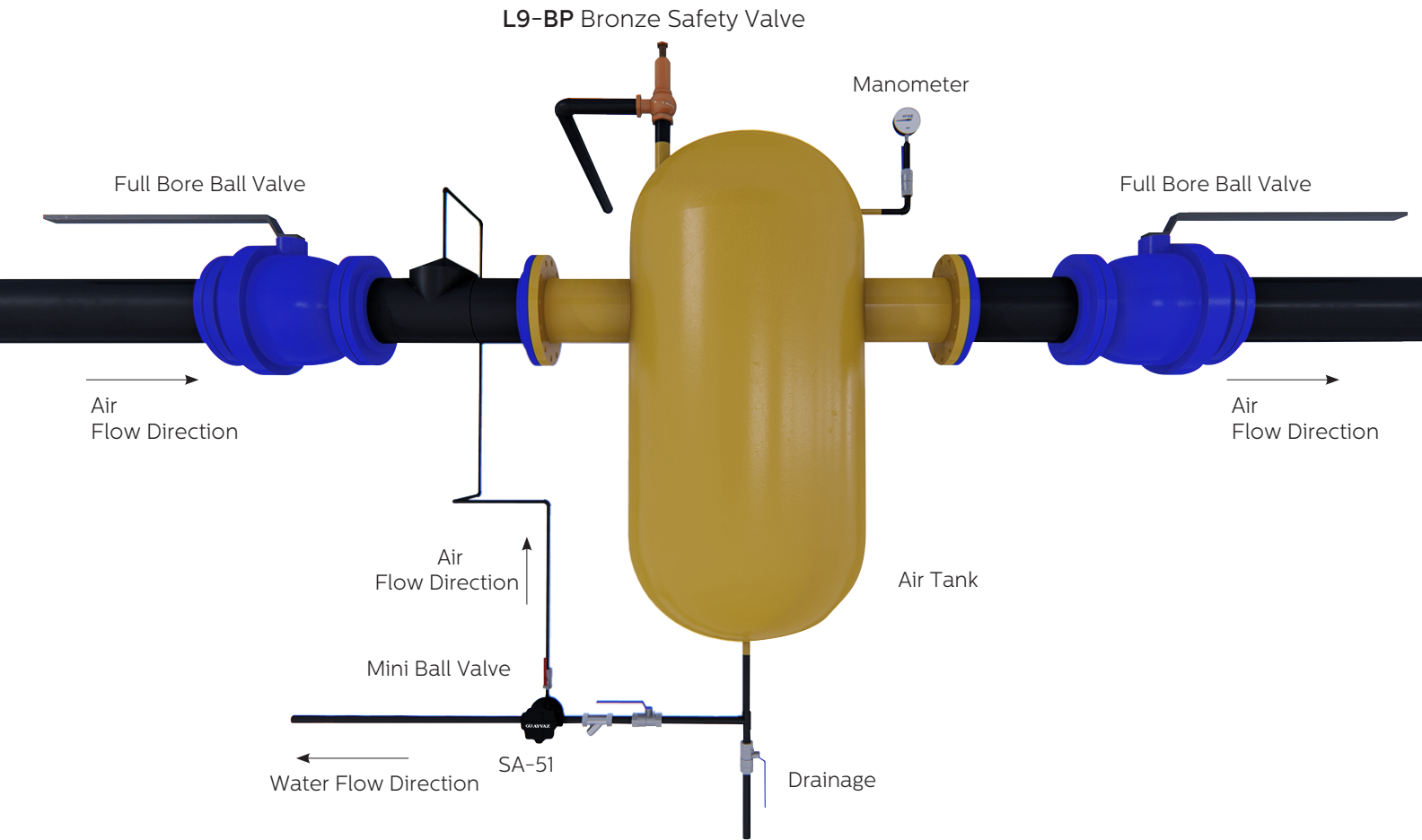
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## 3D APPLICATION SAMPLE 1



# L9-SP/BP SAFETY VALVE

## 3D APPLICATION SAMPLE 2



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