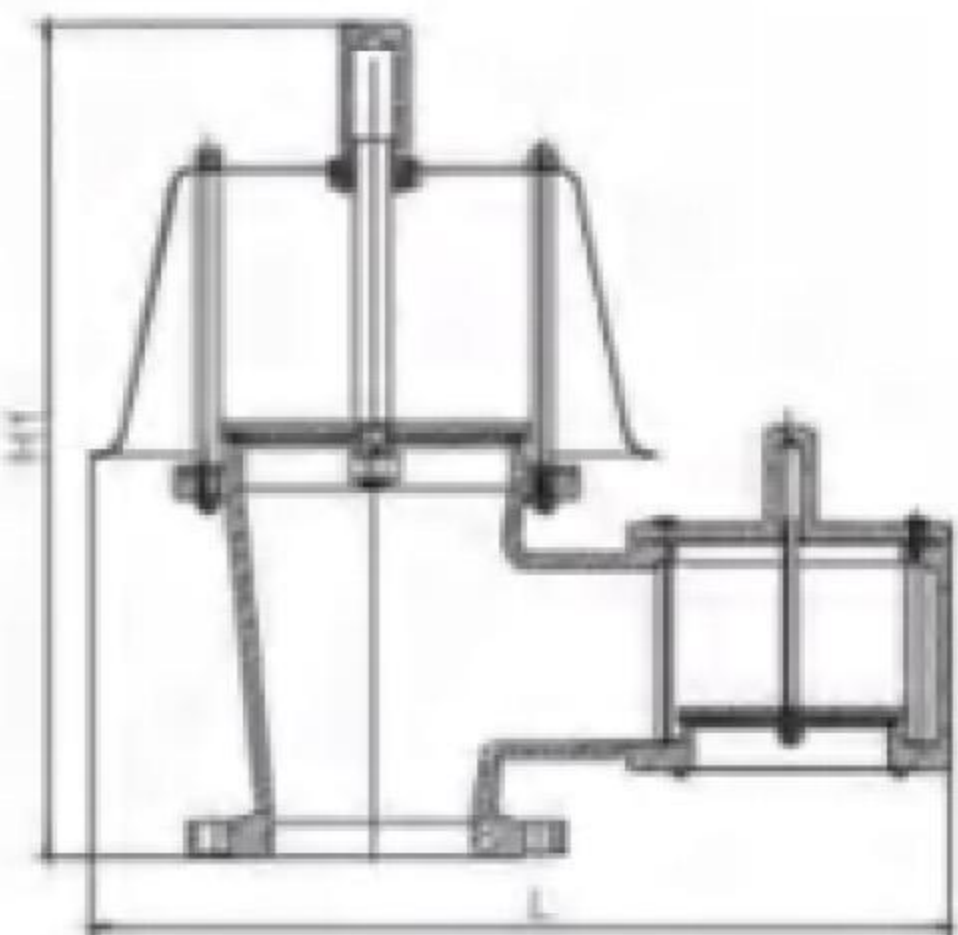
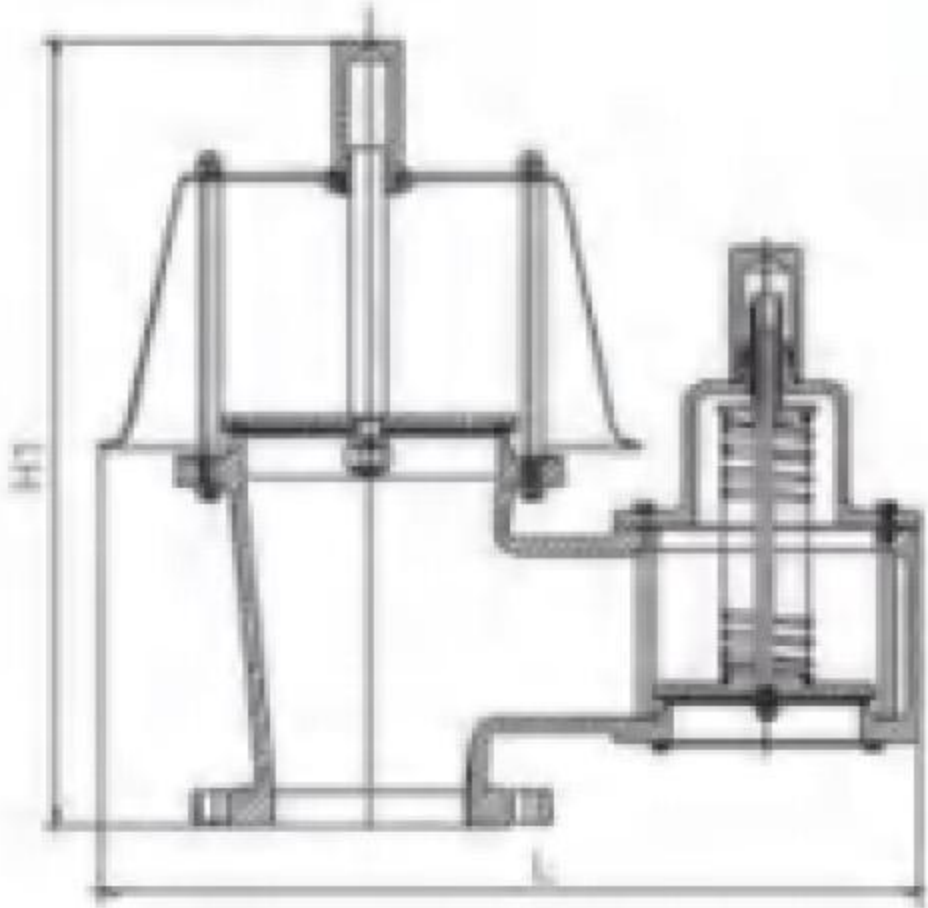


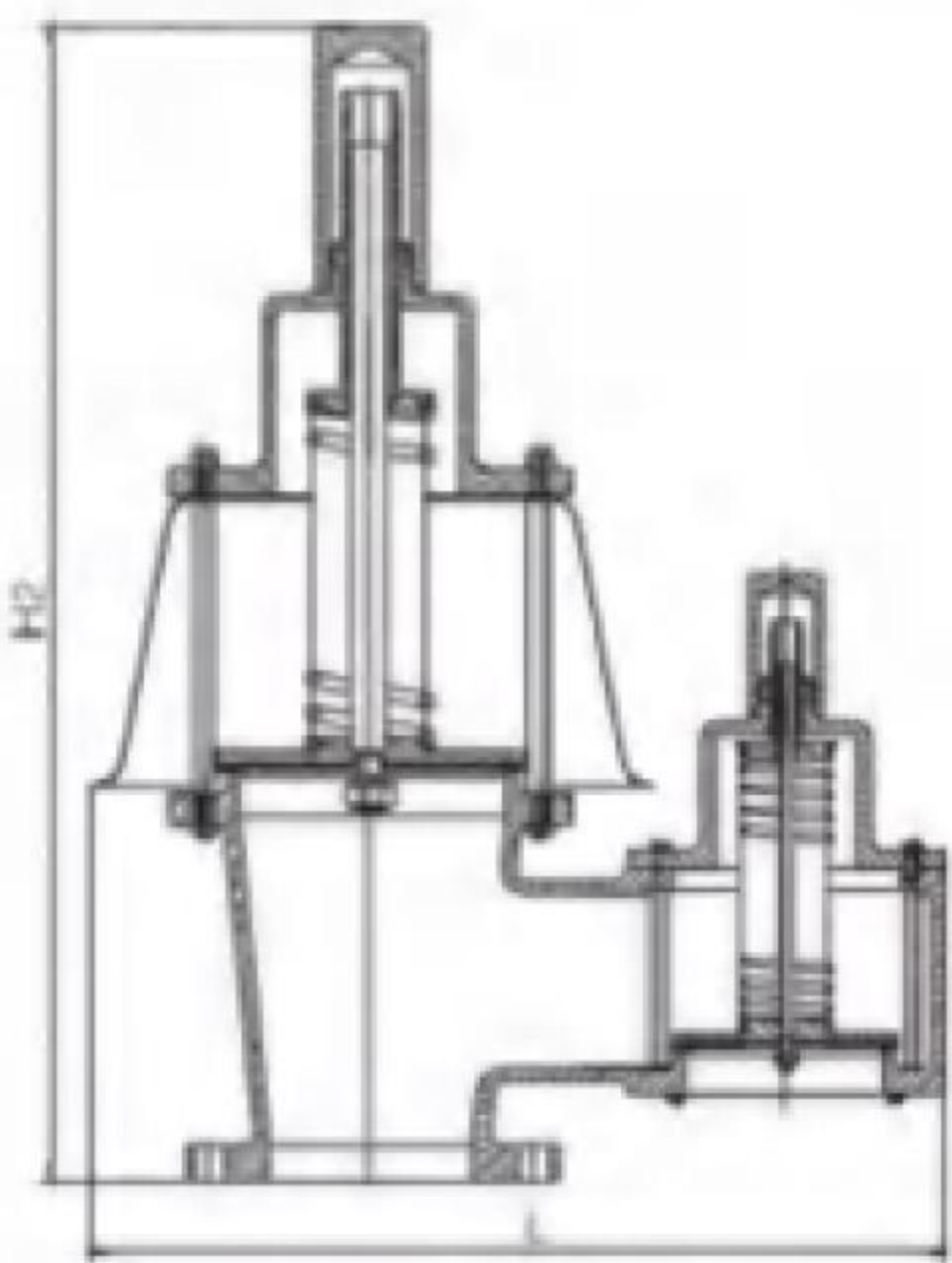
Mode TT7110/8110 Pressure/Vacuum Relief Valve is designed for use on atmospheric and low-pressure storage tanks, vents to atmosphere. The primary function is to protect tanks from damage, deformation, and minimize emissions to the environment as well as loss of product due to evaporation.



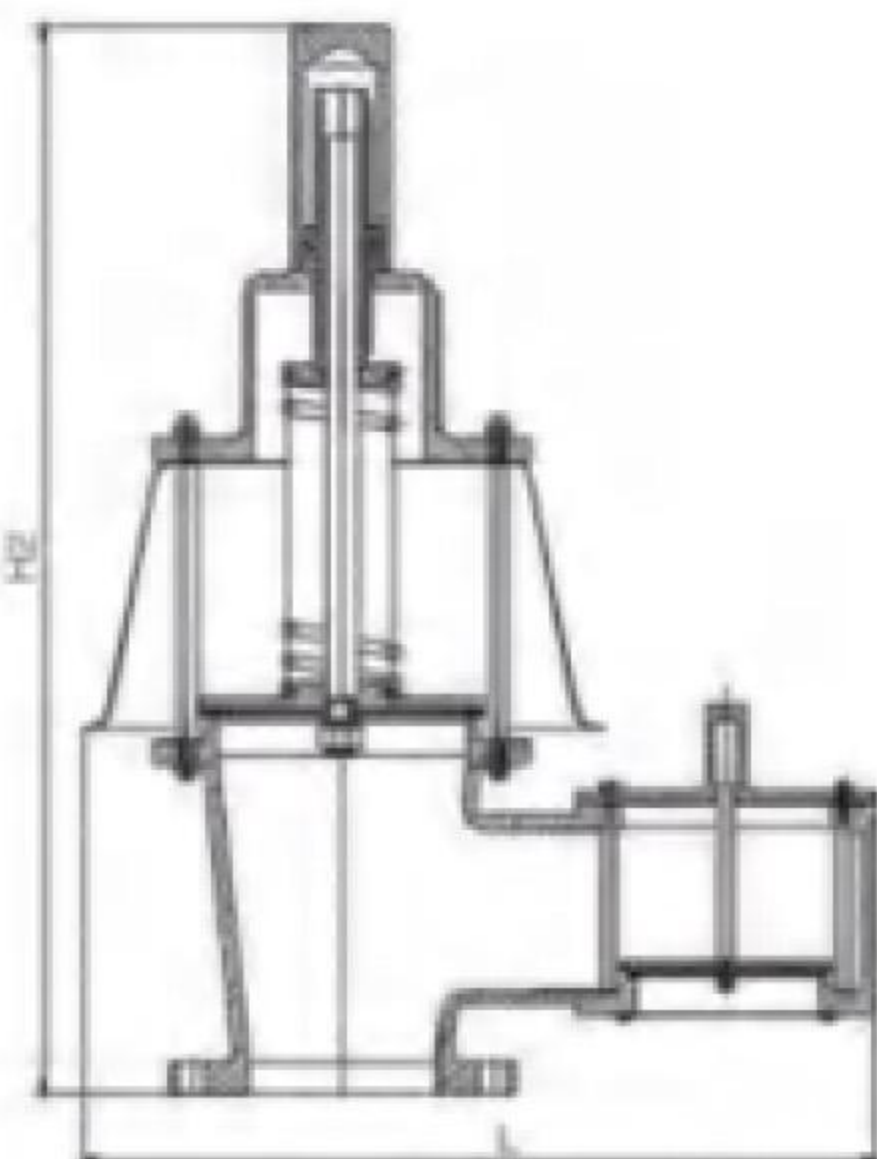
a. TT7110, TT8110 Weight Loaded



b. TT7112, TT8112 Vacuum Spring Loaded



c. TT7113, TT8113 Pressure/Vacuum Spring Loaded



d. TT7115, TT8115 Pressure Spring Loaded

- Sizes available 2"~12"(DN50~DN300).
- The Model TT7110 series outlet ports is same to inlet.
- The Model TT8110 series outlet ports is one pipe size larger than inlet flange to optimize flow capacity.
- Vent to atmosphere.
- The weather hood and cover are easily removed for inspection and maintenance.
- Protective screens are provided at pressure and vacuum ports to prevent entrance of foreign matter.
- The Flame Arrester, Inlet Pipe, Steam Jacket, Blowing Hole, Lining or Humidity Absorber are options to client.
- Designed and tested according to API 2000.
- The flanges are accordance with ANSI B16.5, or EN1092, JIS.
- Available Materials: Aluminum, Carbon Steel, Stainless Steel, Special Materials on Application.

Setting Pressure

Model	TT7110, TT8110	TT7112, TT8112	TT7113, TT8113	TT7115, TT8115
Set Pressure (KPa)	0.2 to 6.9	0.2 to 6.9	6.9 to 103.4	6.9 to 103.4
Set Vacuum (KPa)	-0.2 to -4.3	-4.3 to -82	-4.3 to -82	-0.2 to -4.3

TT7110, 7112, 7113, 7115 Dimensions (mm)

Nominal Size (inch)	2"	3"	4"	6"	8"	10"	12"
(mm)	DN50	DN80	DN100	DN150	DN200	DN250	DN300
L	301	368	416	525	675	824	967
Width	160	200	248	290	390	488	584
H1	290	352	393	490	622	746	876
H2	394	422	505	636	870	1030	1230

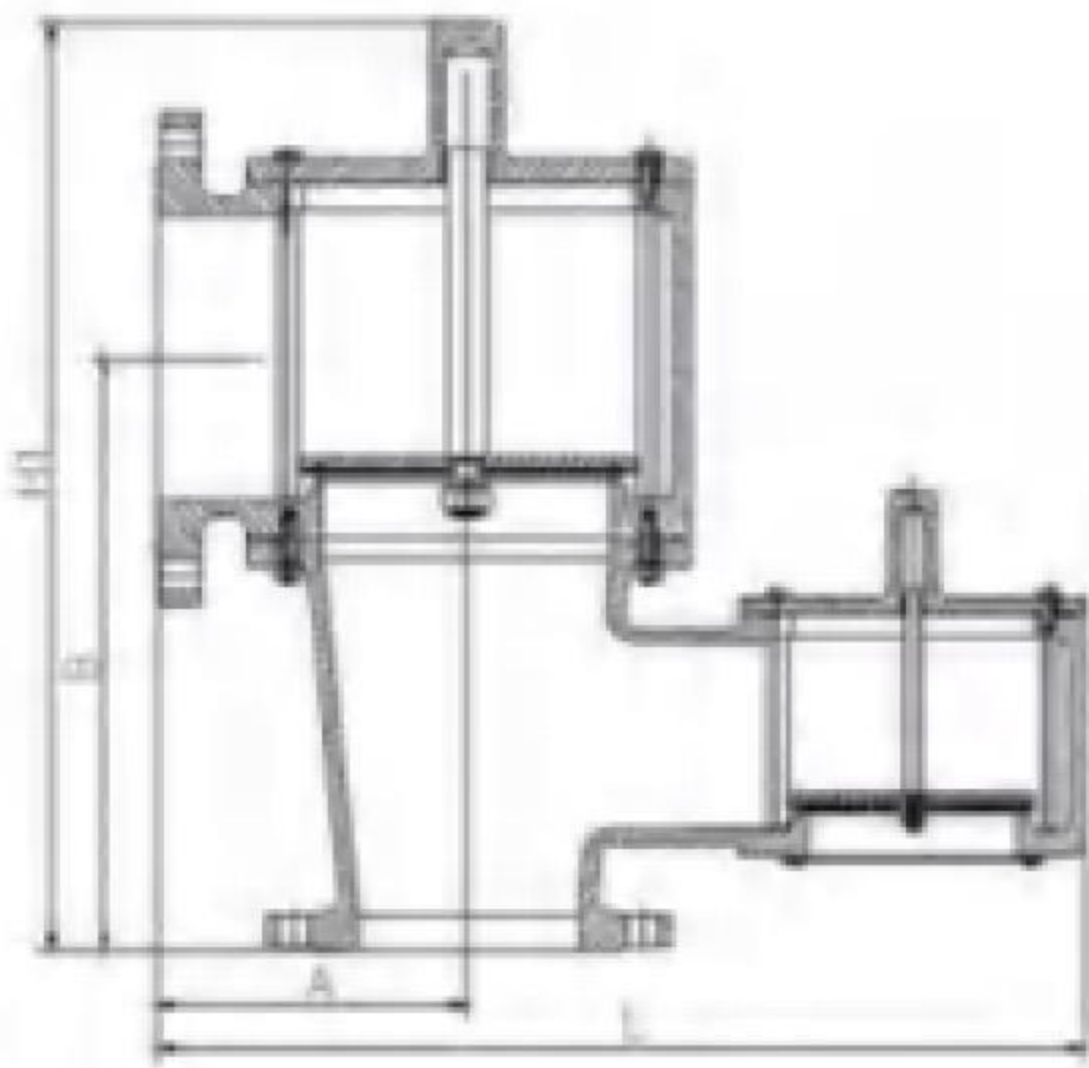
TT8110, 8112, 8113, 8115 Dimensions (mm)

Nominal Size (inch)	2"	3"	4"	6"	8"	10"	12"
(mm)	DN50	DN80	DN100	DN150	DN200	DN250	DN300
L	322	405	473	620	770	912	1075
Width	200	248	290	390	488	584	680
H1	335	378	466	613	701	830	956
H2	403	490	615	860	985	1182	1225

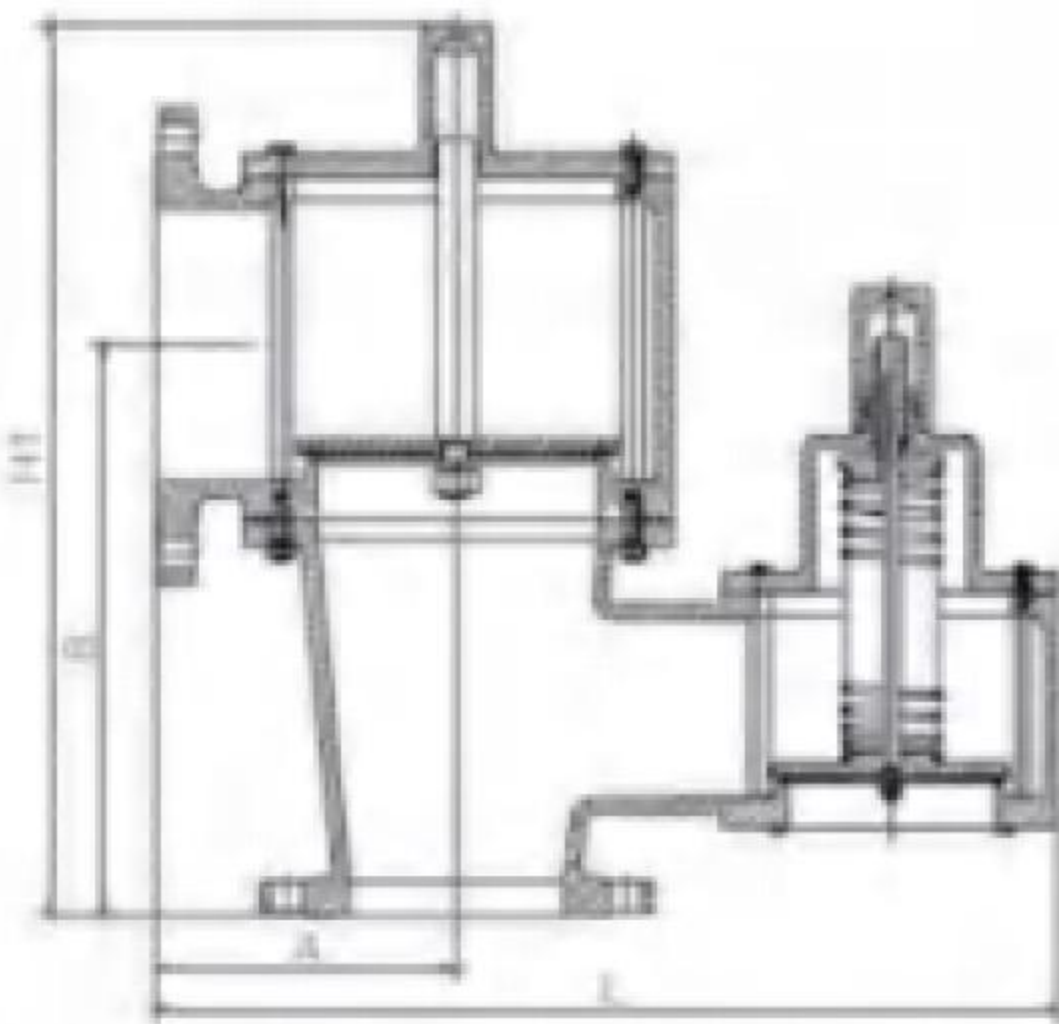
How to Order

THINKTANK	Model	Size	Material	Others
TT				
	7110	02"	Body Material	Diaphragm Material
	7120	03"	Seat Material	Options
	7130	04"	Disc Material	Flanged Ends
	7140	05"		
	8110	06"	1 - Carbon Steel	F - FEP
	8120		2 - Aluminum	V - Viton
	8130		3 - SS304	B - Buna-N
	8140	12"	4 - SS316	M - Metal to Metal
	...		5 - SS316L	S - Special
			6 - Special	
				N - No Option
				Z - With Flame Arrester
				J - Steam Jacket
				C - Blowing Hole
				G - With Inlet Pipe
				L - Lining
				A - ANSI 150LB RF
				D - PN10 RF
				E - PN16 RF
				J - JIS 10K RF

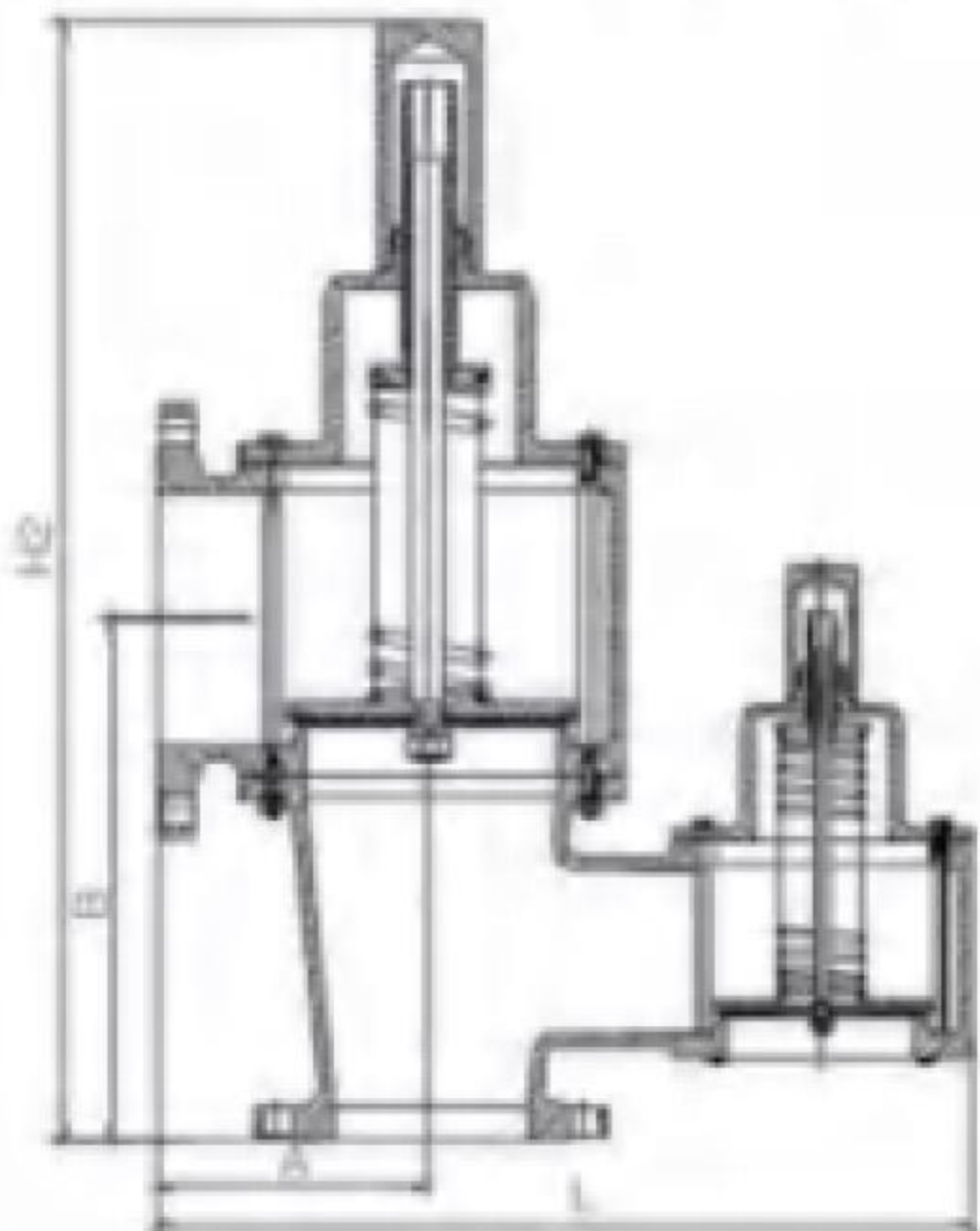
Mode 7120/8120 Pressure Vacuum Relief Valve is designed for use on atmospheric and low-pressure storage tanks, pipe away. The primary function is to protect tanks from damage or deformation and minimize emissions to the environment, as well as loss of product due to evaporation.



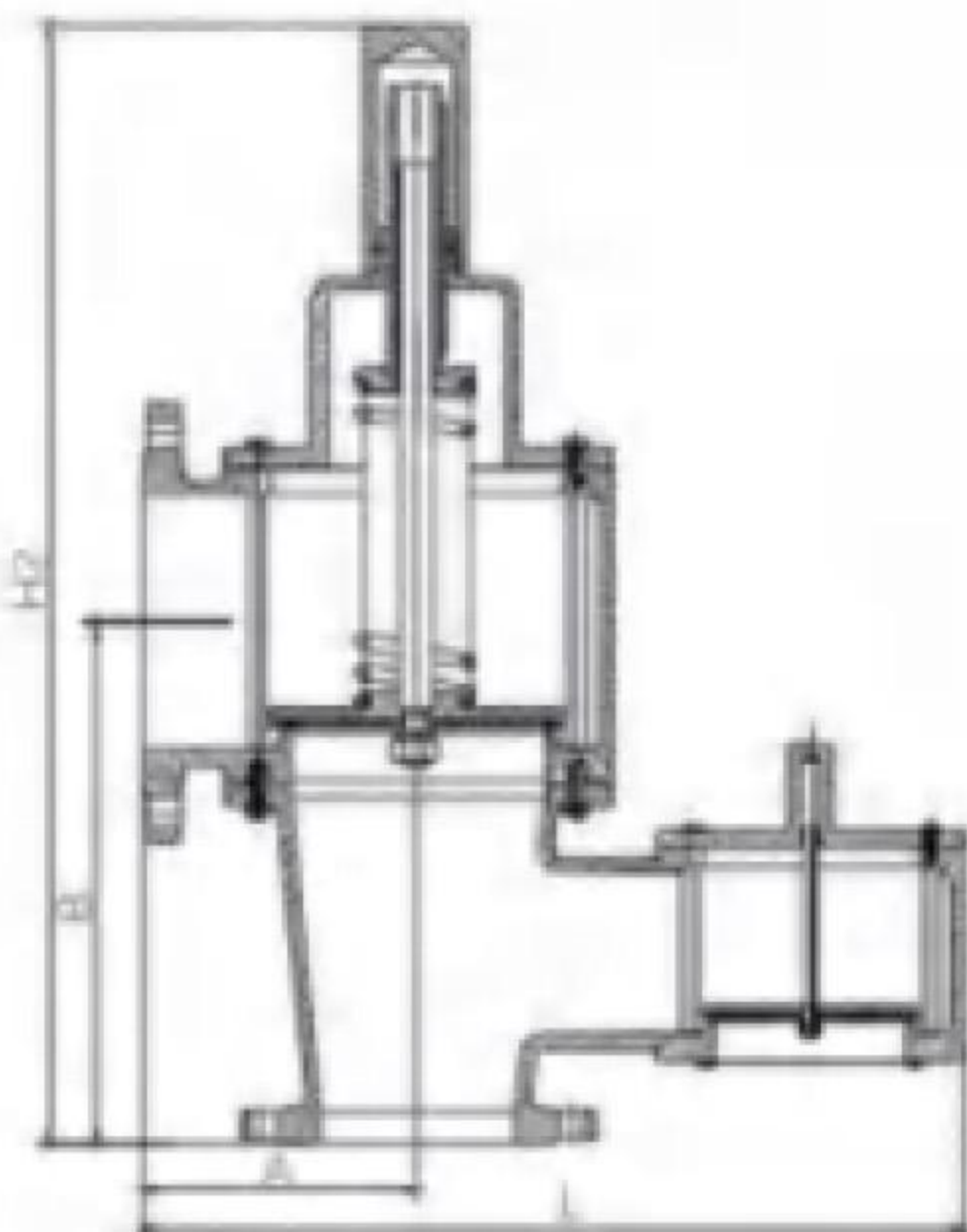
a. TT7120, TT8120 Weight Loaded



b. TT7122, TT8122 Vacuum Spring Loaded



c. TT7123, TT8123 Pressure/Vacuum Spring Loaded



d. TT7125, TT8125 Pressure Spring Loaded

- Sizes available 2"~12" (DN50~DN300).
- The Model TT7120 series outlet ports is same to inlet.
- The Model TT8120 series outlet ports is one pipe size larger than inlet flange to optimize flow capacity.
- Vent to pipeline.
- The protective screens prevents external debris from entering the equipment through the inlet or outlet.
- The Flame Arrester, Inlet Pipe, Steam Jacket, Blowing Hole, Lining or Humidity Absorber are options to client.
- Designed and tested according to API 2000.
- The flanges are accordance with ANSI B16.5, or EN1092, JIS.
- Available Materials: Aluminum, Carbon Steel, Stainless Steel, Special Materials on Application.

Setting Pressure

Model	TT7120, TT8120	TT7122, TT8122	TT7123, TT8123	TT7125, TT8125
Set Pressure (KPa)	0.2 to 6.9	0.2 to 6.9	6.9 to 103.4	6.9 to 103.4
Set Vacuum (KPa)	-0.2 to -4.3	-4.3 to -82	-4.3 to -82	-0.2 to -4.3

TT7120, 7122, 7123, 7125 Dimensions (mm)

Nominal Size (inch)	2"x2"	3"x3"	4"x4"	6"x6"	8"x8"	10"x10"	12"x12"
(mm)	DN50xDN50	DN80xDN80	DN100xDN100	DN150xDN150	DN200xDN200	DN250xDN250	DN300xDN300
L	345	406	445	546	696	853	995
Width	200	200	230	280	345	406	485
H1	300	359	417	523	648	789	923
H2	412	441	525	660	893	1055	1257
A	123	138	153	166	216	273	320
B	200	245	280	350	420	515	590

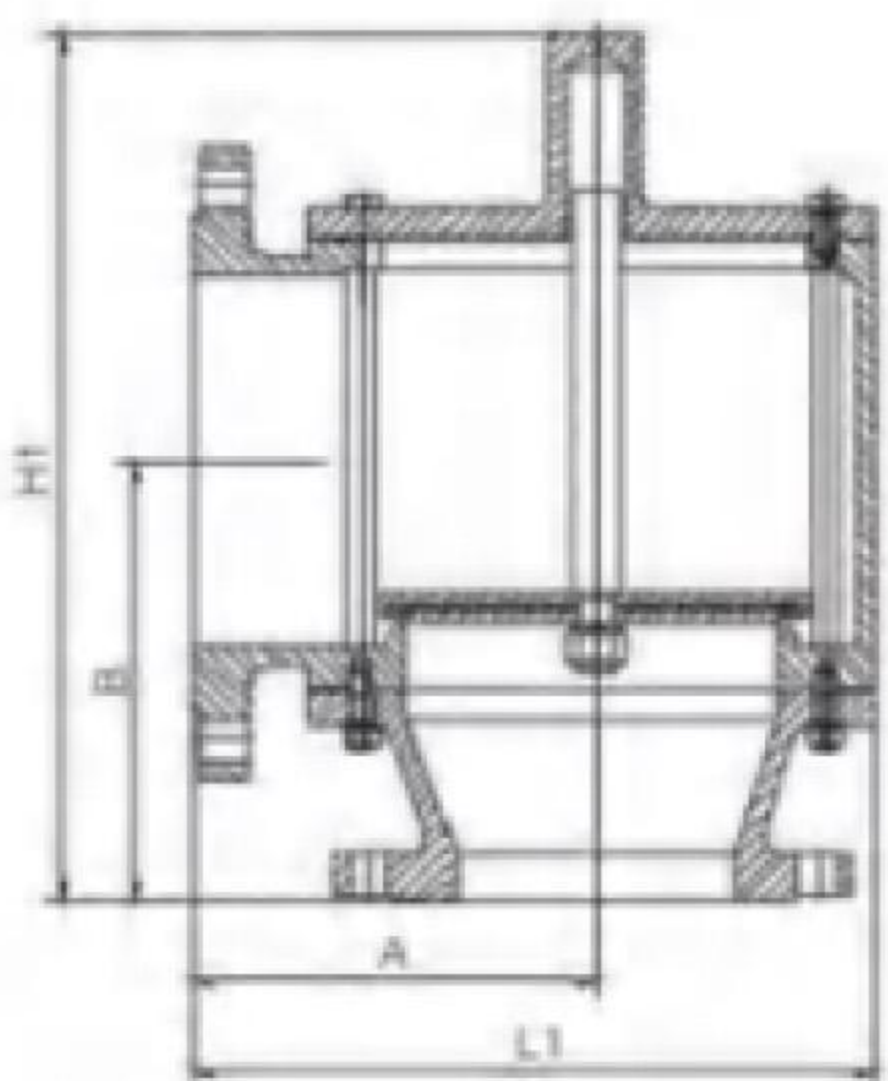
TT8120, 8122, 8123, 8125 Dimensions (mm)

Nominal Size (inch)	2"x3"	3"x4"	4"x6"	6"x8"	8"x10"	10"x12"	12"x14"
(mm)	DN50xDN80	DN80xDN100	DN100xDN150	DN150xDN200	DN200xDN250	DN250xDN300	DN300xDN350
L	360	435	494	641	798	940	1116
Width	200	230	280	345	406	485	533
H1	340	402	498	640	744	875	984
H2	422	510	636	884	1010	1209	1253
A	138	153	166	216	273	320	381
B	226	265	327	411	470	542	616

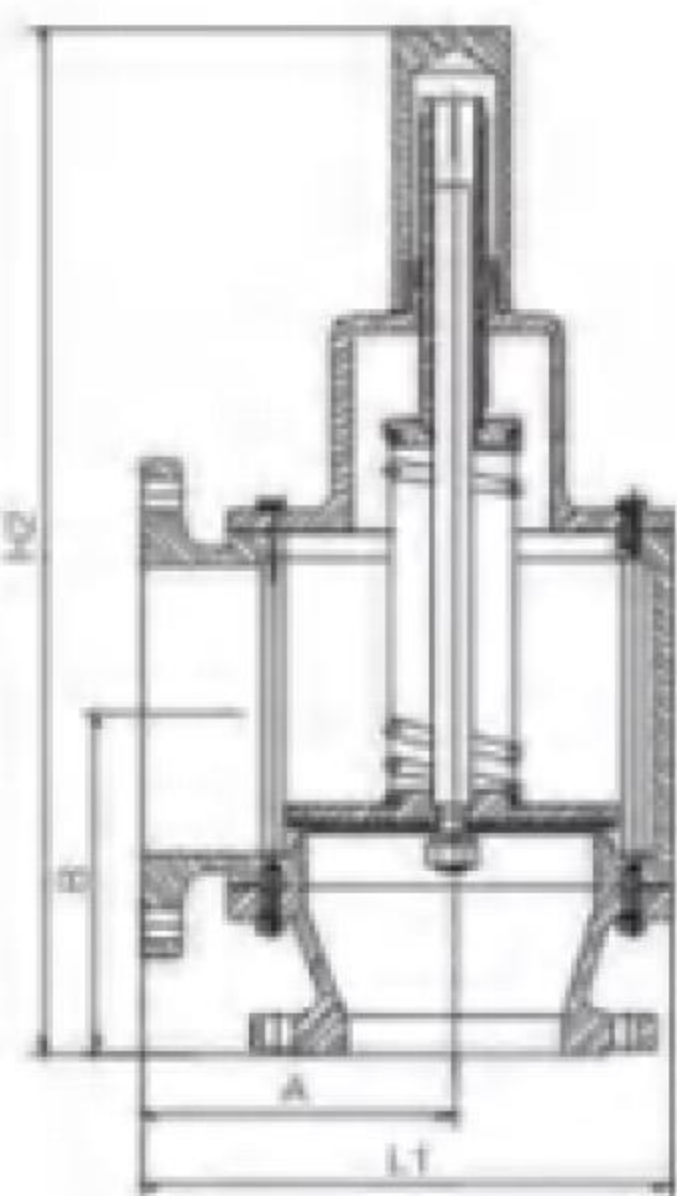
How to Order

THINKTANK	Model	Size	Material	Others
TT				
	7110	02"	Body Material	Diaphragm Material
	7120	03"	Seat Material	Options
	7130	04"	Disc Material	Flanged Ends
	7140	05"		
	8110	06"	1 - Carbon Steel	F - FEP
	8120		2 - Aluminum	V - Viton
	8130		3 - SS304	B - Buna-N
	8140	12"	4 - SS316	M - Metal to Metal
	...		5 - SS316L	S - Special
			6 - Special	
				N - No Option
				Z - With Flame Arrester
				J - Steam Jacket
				C - Blowing Hole
				G - With Inlet Pipe
				L - Lining
				A - ANSI 150LB RF
				D - PN10 RF
				E - PN16 RF
				J - JIS 10K RF

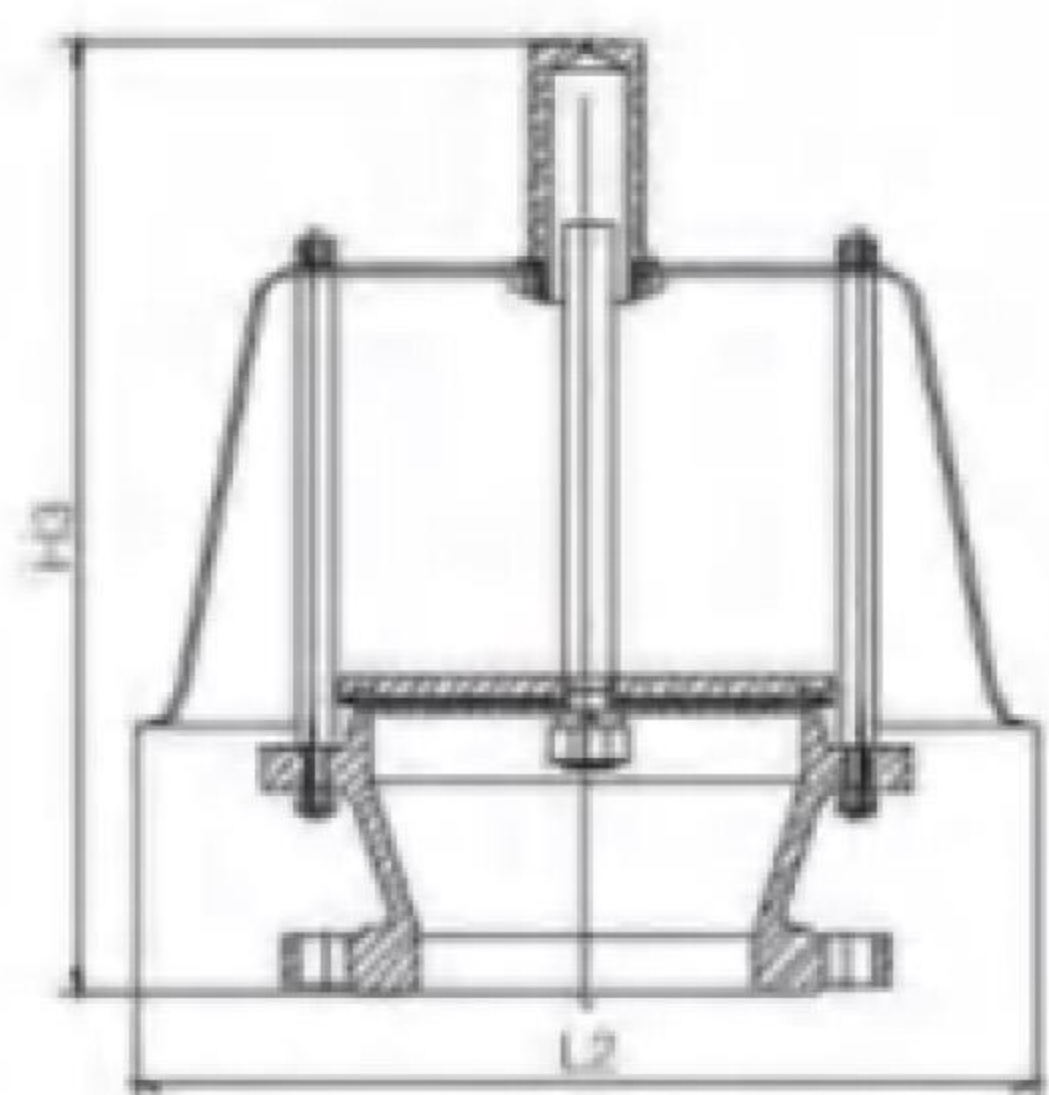
Mode 7130/8130 Pressure Relief Valve is designed for use on atmospheric and low-pressure storage tanks, vents to atmosphere, or pipe away. The primary function is to protect tanks from damage or deformation and minimize emissions to the environment, as well as loss of product due to evaporation.



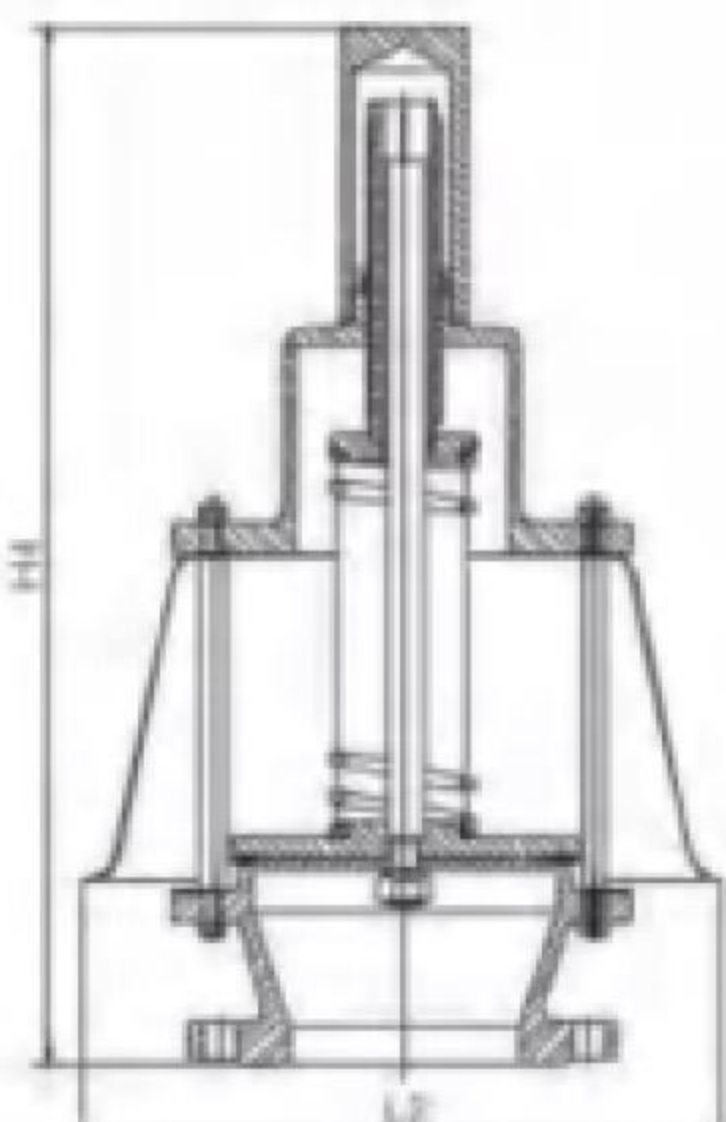
a. TT7130, TT8130 Pipe Away/Weight Loaded



b. TT7135, TT8135 Pipe Away/Spring Loaded



c. TT7136, TT8136 Vent to ATM Weight Loaded



d. TT7138, TT8138 Vent to ATM/Spring Loaded

- ◆ Sizes available 2"~12"(DN50~DN300).
- ◆ The Model TT7130 series outlet ports is same to inlet.
- ◆ The Model TT8130 series outlet ports is one pipe size larger than inlet flange to optimize flow capacity.
- ◆ Vent to atmosphere/pipe.
- ◆ The weather hood and cover are easily removed for inspection and maintenance.
- ◆ Protective screens are provided at pressure and vacuum ports to prevent entrance of foreign matter.
- ◆ The Flame Arrester, Inlet Pipe, Steam Jacket, Blowing Hole, Lining or Humidity Absorber are options to client.
- ◆ Designed and tested according to API 2000.
- ◆ The flanges are accordance with ANSI B16.5, or EN1092, JIS.
- ◆ Available Materials: Aluminum, Carbon Steel, Stainless Steel, Special Materials on Application.

Setting Pressure

Model	TT7130, TT8130	TT7136, TT8136	TT7135, TT8135	TT7138, TT8138
Set Pressure (KPa)	0.2 to 6.9	0.2 to 6.9	6.9 to 103.4	6.9 to 103.4

TT7130, 7135, 7136, 7138 Dimensions (mm)

Nominal Size	L1	L2	H1	H2	H3	H4	A	B	W7130	W7136
2"x2"	200	160	209	322	200	303	123	110	160	155
3"x3"	215	200	303	322	230	303	138	126	200	200
4"x4"	268	248	380	400	267	380	153	154	230	248
6"x6"	306	290	483	504	332	483	166	195	285	290
8"x8"	388	390	687	710	438	687	216	237	345	390
10"x10"	476	488	795	820	511	795	273	280	406	488
12"x12"	562	584	946	973	594	946	320	306	485	584

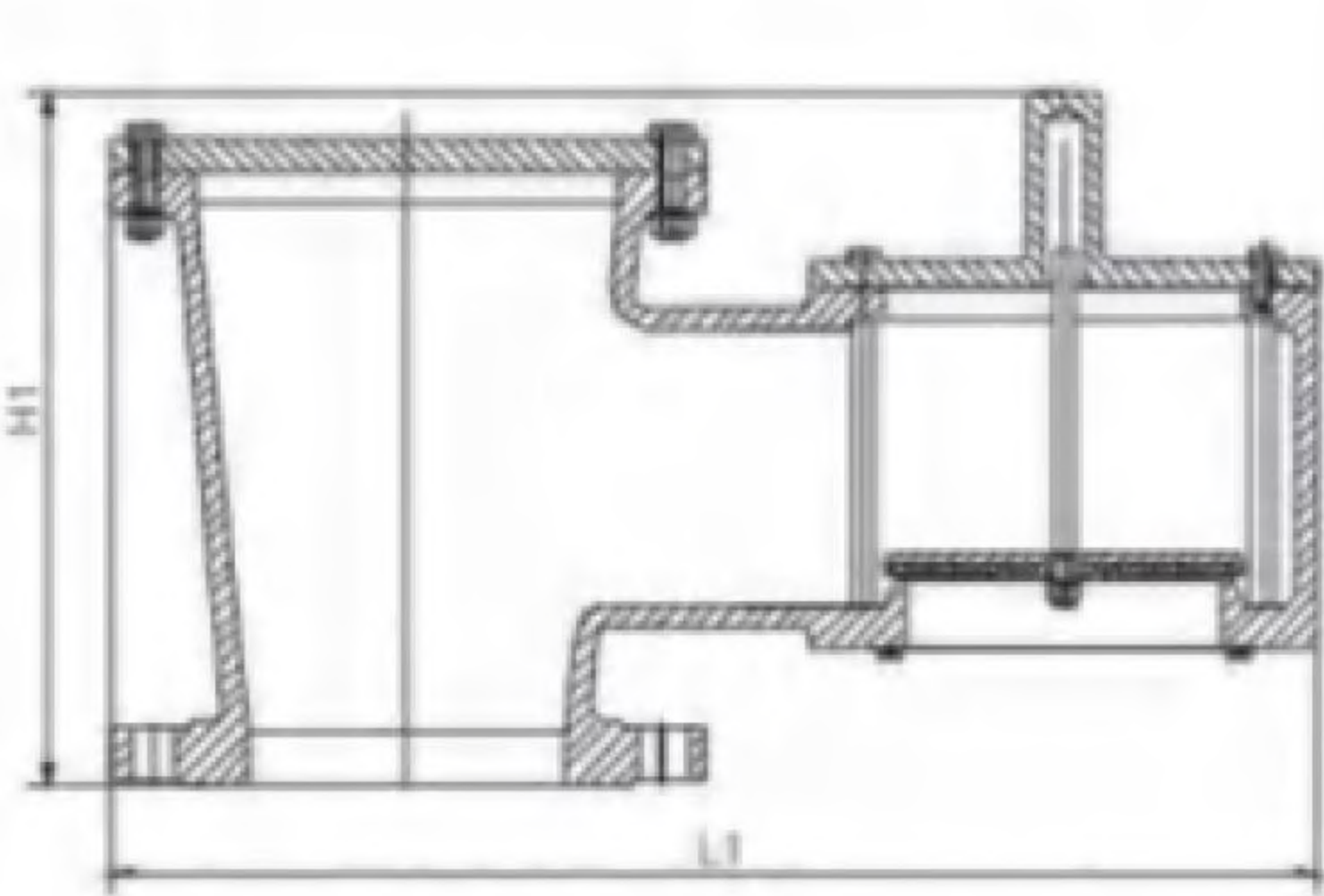
TT8130, 8135, 8136, 8138 Dimensions (mm)

c	L1	L2	H1	H2	H3	H4	A	B	W8130	W8136
2"x3"	215	200	240	322	230	303	138	126	200	200
3"x4"	240	248	291	400	267	380	153	154	230	248
4"x6"	281	290	368	503	332	483	166	195	285	290
6"x8"	366	390	464	710	438	687	216	237	345	390
8"x10"	453	488	554	820	511	795	273	280	406	488
10"x12"	525	584	639	973	594	946	320	306	485	584
12"x14"	616	680	702	991	674	951	381	334	533	680

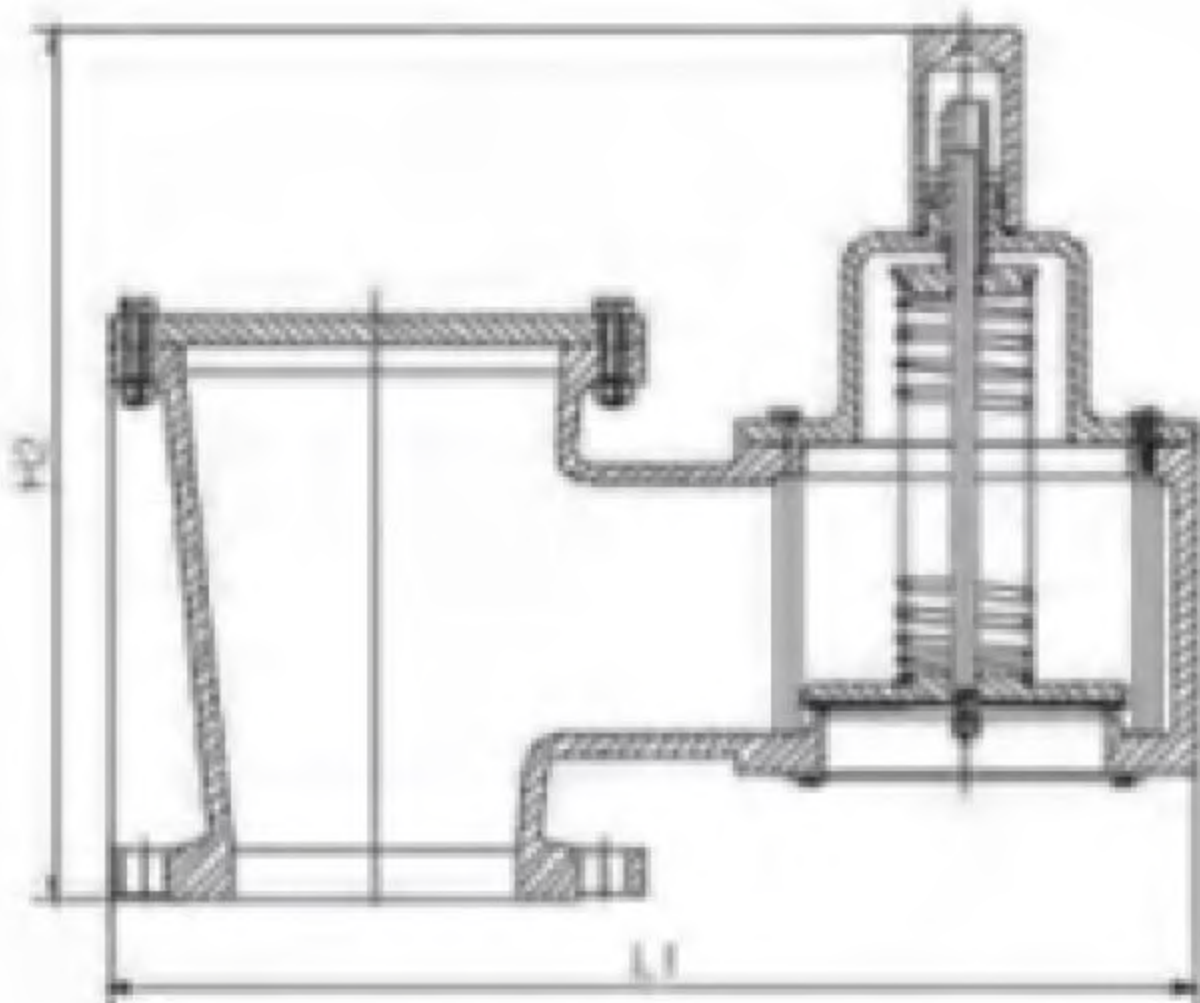
How to Order

THINKTANK	Model	Size	Material	Others
TT				
	7110	02"	Body Material	Diaphragm Material
	7120	03"	Seat Material	Options
	7130	04"	Disc Material	Flanged Ends
	7140	05"		
	8110	06"	1 - Carbon Steel	F - FEP
	8120		2 - Aluminum	V - Viton
	8130		3 - SS304	B - Buna-N
	8140	12"	4 - SS316	M - Metal to Metal
	...		5 - SS316L	S - Special
			6 - Special	
				Z - With Flame Arrester
				J - Steam Jacket
				C - Blowing Hole
				G - With Inlet Pipe
				L - Lining
				A - ANSI 150LB RF
				D - PN10 RF
				E - PN16 RF
				J - JIS 10K RF

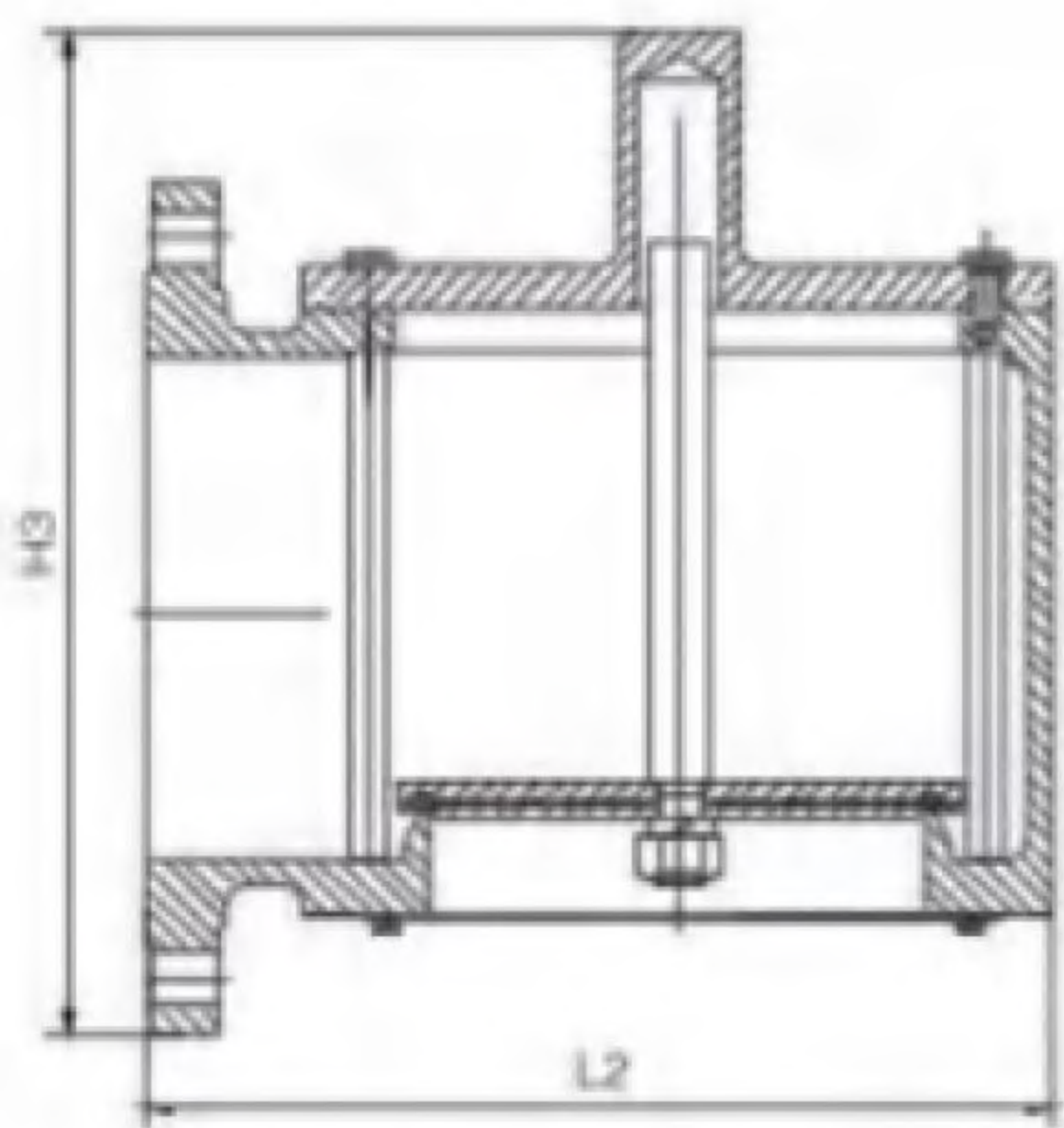
Mode TT7140/8140 Vacuum Relief Valve is designed for use on atmospheric and low-pressure storage tanks, vents to atmosphere or pipe away. The primary function is to protect tanks from damage, deformation, and minimize emissions to the environment as well as loss of product due to evaporation.



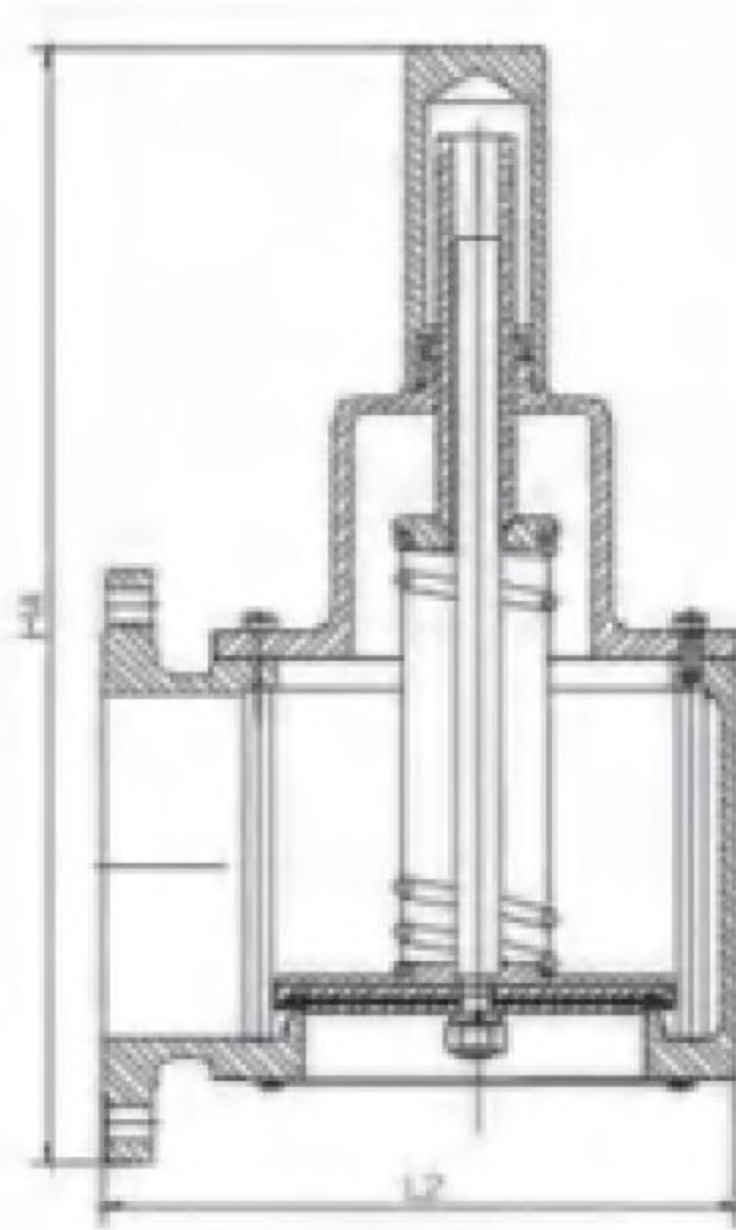
a. TT7140, TT8140 Vertical Installation/Weight Loaded



b. TT7143, TT8143 Vertical Installation /Spring Loaded



c. TT8145 Side Instalation/Weight Loaded



d. TT8147 Side Installation/Spring Loaded

- Sizes available 2"~14"(DN50~DN350).
- Vertical/Side Installation.
- The protective screens prevents external debris from entering the equipment through the inlet or outlet.
- The Flame Arrester, Inlet Pipe, Steam Jacket, Blowing Hole, Lining or Humidity Absorber are options to client.
- Designed and tested according to API 2000.
- The flanges are accordance with ANSI B16.5, or EN1092, JIS.
- Available Materials: Aluminum, Carbon Steel, Stainless Steel, Special Materials on Application.

Setting Pressure

Model	TT7140, TT8140	TT7143, TT8143	TT8145	TT8147
Set Pressure (KPa)	-0.2 to -4.3	-4.3 to 82	-0.2 to 4.3	-4.3 to -82

TT8140, 8143, 8145, 8147 Dimensions (mm)

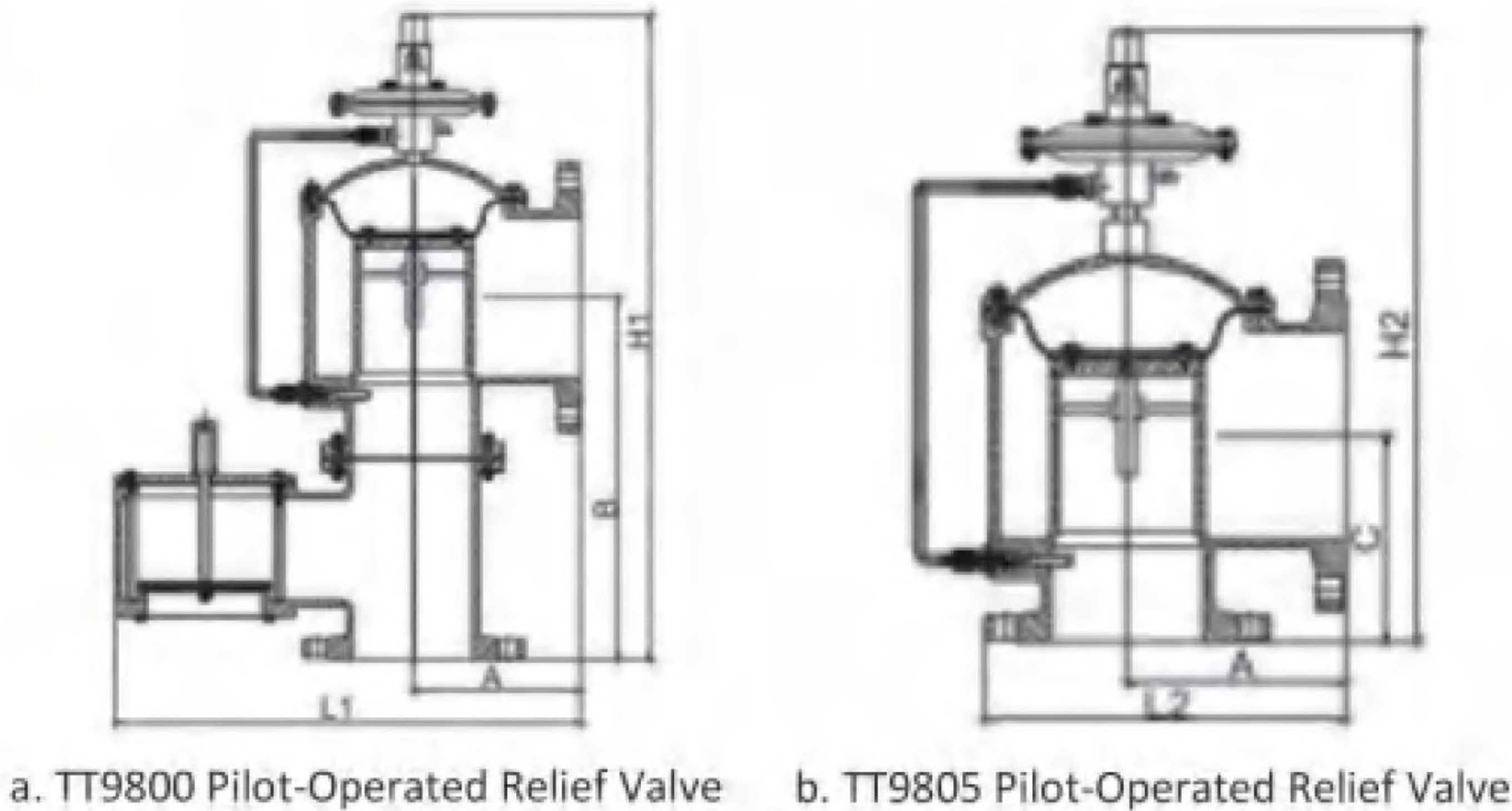
Nominal Size	L1	L2	H1	H2	H3	H4	W8140	W8146
2"(DN50)	300	186	180	292	175	288	155	155
3"(DN80)	378	215	217	300	214	296	200	200
4"(DN100)	443	241	253	361	252	361	235	230
6"(DN150)	575	281	311	448	289	448	300	280
8"(DN200)	705	366	370	615	350	645	360	345
10"(DN250)	825	453	439	705	440	742	410	406
12"(DN300)	970	525	519	853	520	909	470	483
14"(DN350)	—	616	—	—	535	910	—	533

How to Order

THINKTANK	Model	Size	Material	Others
TT				
	7110	02"	Body Material	Diaphragm Material
	7120	03"	Seat Material	Options
	7130	04"	Disc Material	Flanged Ends
	7140	05"		
	8110	06"	1 - Carbon Steel	F - FEP
	8120		2 - Aluminum	V - Viton
	8130		3 - SS304	B - Buna-N
	8140	12"	4 - SS316	M - Metal to Metal
	...		5 - SS316L	S - Special
			6 - Special	
				N - No Option
				Z - With Flame Arrester
				J - Steam Jacket
				C - Blowing Hole
				G - With Inlet Pipe
				L - Lining
				A - ANSI 150LB RF
				D - PN10 RF
				E - PN16 RF
				J - JIS 10K RF



Compared with general gravity-loaded and spring-type breathing valves, Model TT9800 Pilot-operated breathing valves have higher sealing performance and can reach full displacement when the overpressure is less than 10%. Therefore, the operating pressure of the pilot breathing valve can be very close to the maximum design pressure of the storage tank, thereby reducing evaporation losses and improving economic performance.



Mode TT9800 Pilot-operated relief valve has two principal advantages over other types of relief valves:

1. It is bubble-tight to set pressure.
2. It is fully open at less than 10% above set pressure.

These characteristics permit an operating pressure nearer to the maximum allowable working pressure of the tank. High operating pressures reduce evaporation and total venting volume, thereby reducing product loss and the cost of processing emissions.

Model

Model TT9800 Pilot Operated Pressure Vacuum Relief Valve

Model TT9805 Pilot Operated Pressure Relief Valve

Design Feature

- ◆ Sizes available 2" ~12"(DN50~DN300).
- ◆ Fully open at less than 10%above set pressure .
- ◆ Pipe away.
- ◆ Designed and tested according to API 2000.
- ◆ The flanges are accordance with ANSI B16.5, or EN1092, JIS.
- ◆ Available Materials: Aluminum,Carbon Steel, Stainless Steel, Special Materials on Application.

Setting Pressure

Model	TT9800	TT9805
Set Pressure (KPa)	0.5 to 103.4	0.5 to 103.4
Set Vacuum (KPa)	-0.2 to -4.3	/

TT9800 Dimensions (mm)

Nominal Size	L1	L2	Width	H1	H2	A	B	C
2"x3"	338	191	280	340	525	115	282	112
3"x4"	406	233	280	765	580	138	301	112
4"x6"	472	294	280	870	655	179	360	148
6"x8"	594	354	345	1025	755	214	460	202
8"x10"	720	412	405	1005	700	240	514	214
10"x12"	860	486	485	1080	745	283	614	246
12"x14"	998	562	535	1140	795	321	696	280

How to Order

THINKTANK	Model	Size	Material	Others
TT				
	7110	02"	Body Material	Diaphragm Material
	7120	03"	Seat Material	Options
	7130	04"	Disc Material	Flanged Ends
	7140	05"		
	8110	06"	1 - Carbon Steel	F - FEP
	8120		2 - Aluminum	V - Viton
	8130		3 - SS304	B - Buna-N
	8140	12"	4 - SS316	M - Metal to Metal
	...		5 - SS316L	S - Special
			6 - Special	
				N - No Option
				Z - With Flame Arrester
				J - Steam Jacket
				C - Blowing Hole
				G - With Inlet Pipe
				L - Lining
				A - ANSI 150LB RF
				D - PN10 RF
				E - PN16 RF
				J - JIS 10K RF

