

# Pressure Relief Valve

End-of-line, spring loaded  
**Model 143**



## Product Description

Storagetech™ 's Model 143 End of Line, Spring Loaded Pressure Relief Valve is designed to protect the tank from excessive internal pressure during operation.

The spring-loaded pallet and diaphragm assembly is held tightly against a seal to prevent the loss of vapour to atmosphere in the closed position.

As the internal pressure in the tank increases, due to product filling or vapour development, the set pressure is reached, accordingly, the diaphragm shall be opened and discharge the gas to atmosphere.

The opening set-point is selectable from a range between +35 mbar and +1000 mbar. (+14 inch and +400 inch W.C.).

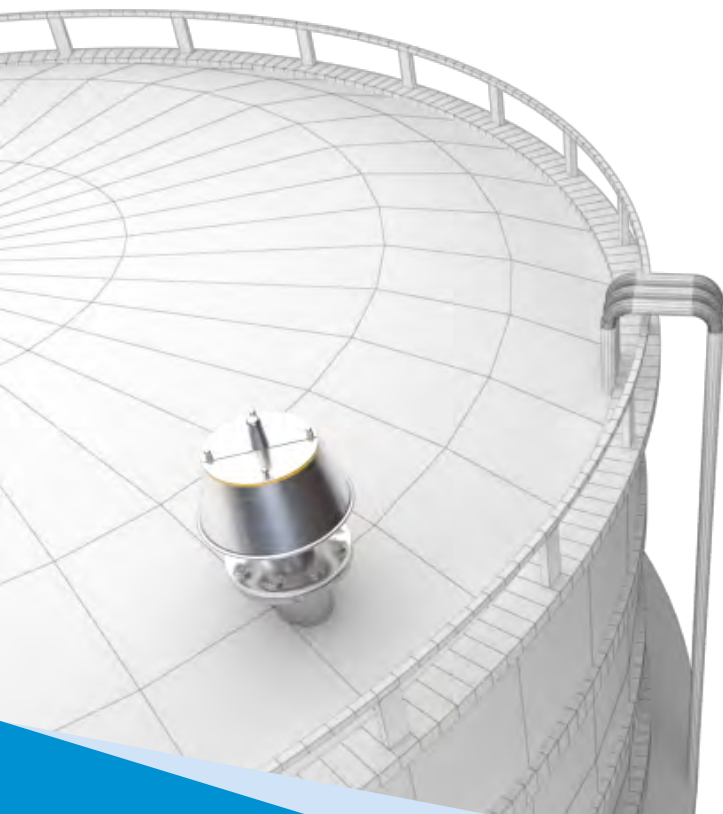
When the tank come into normal operation range, the valve shall be seated again.

Storagetech Valves Activated as close as to set pressures, less than 10% of set pressures, ensuring accurate pressure management and isolate emission losses perfectly.



With 40 years of experience, Storagetech™ PVV systems offer effective solutions against unwanted evaporation and vacuums that may occur in tanks.

Thanks to PVV solutions produced completely in accordance with international norms, Storagetech™ is a reliable, sustainable and effective solution partner for your investments.



### Standard Sizes

2" to 12" (DN50 to DN300)  
Further sizes are applicable upon request.

### Flanges

ANSI, DIN, JIS, BSP

### Body

Carbon Steel, Stainless Steel or Aluminium

### Seals

Klingrit, Nitrile, Viton, PTFE

### Pallet

Stainless Steel AISI 304/316

### Springs

Stainless Steel

### Paint Finish

1. Customer Specification
2. Powder Coating, Colour RAL 9006
3. Epoxy Paint, Colour RAL 9006
4. PTFE Coating

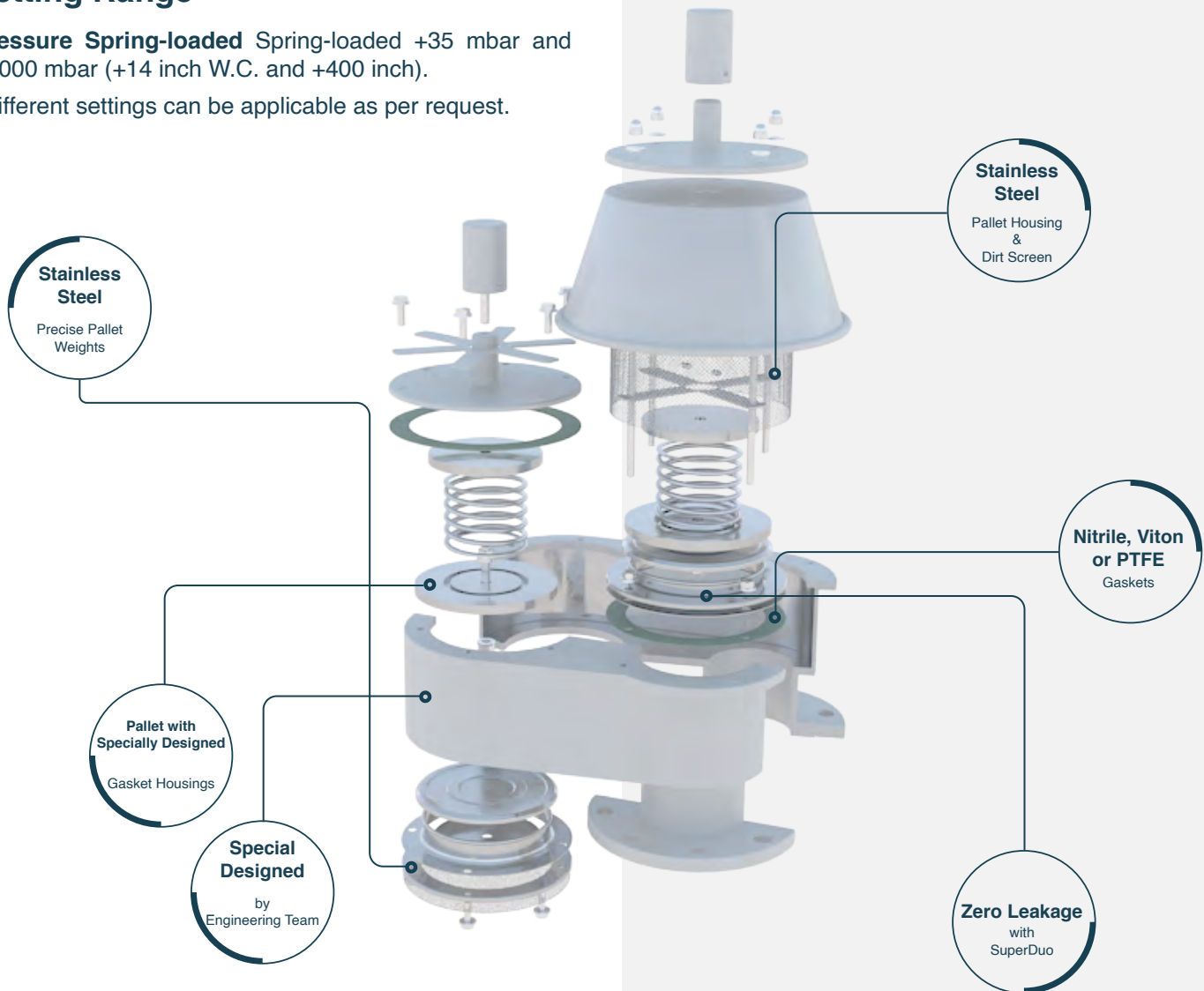
### ATEX Cert

Ex II 1/2 G Ex h IIB Ga/Gb

## Setting Range

**Pressure Spring-loaded** Spring-loaded +35 mbar and +1000 mbar (+14 inch W.C. and +400 inch).

\*Different settings can be applicable as per request.

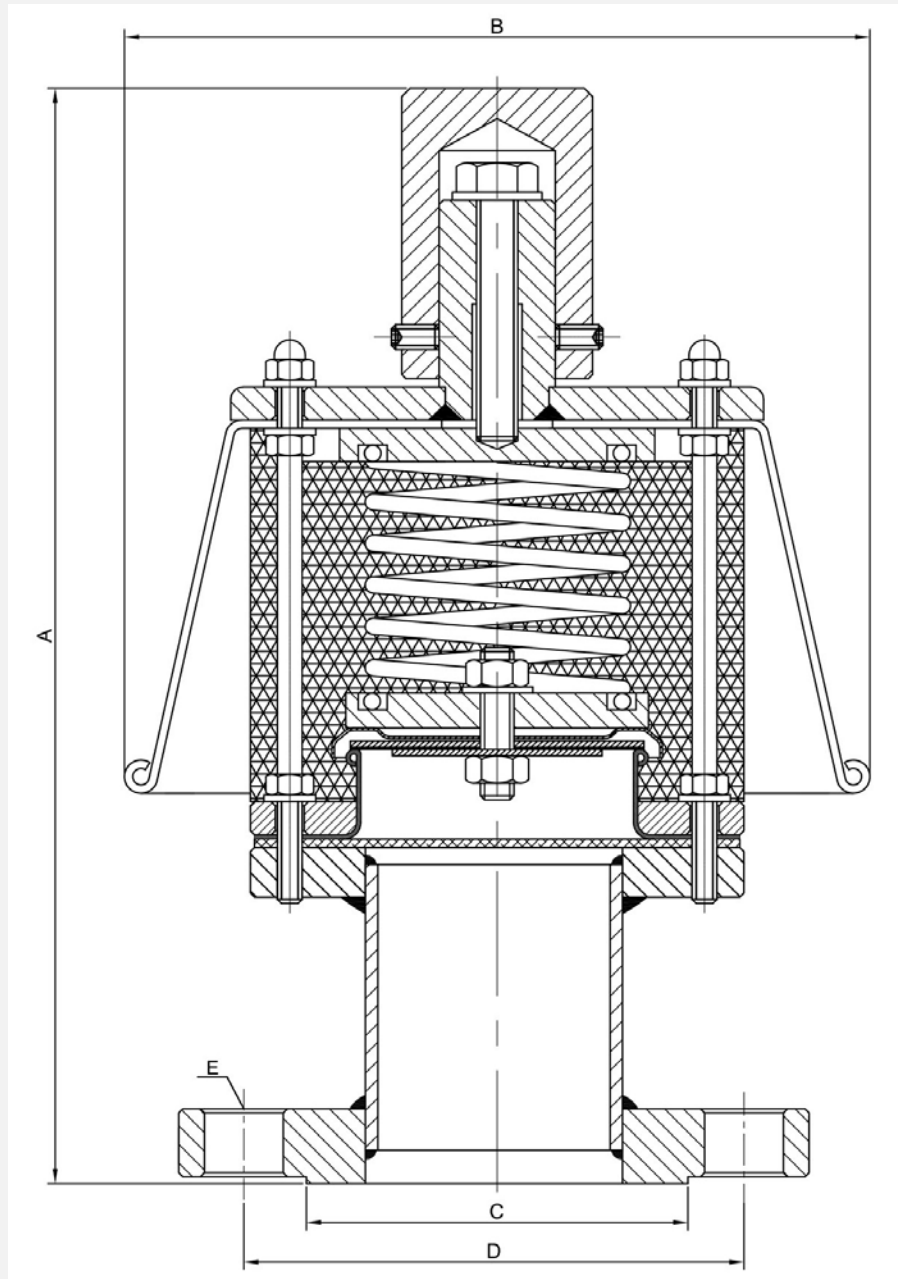


## Key Features

- Easy to install. Do not need a special tool or experience.
- Transferring vapour content to collection system or condensation units.
- Prevent certain fire hazards.
- Light weight construction.
- Quick and easy to install, inspect and clean.
- Any grade materials are available.
- Has stainless steel pallets.
- Special designs can be achievable upon request to meet individual specifications.
- Eliminate the intake of air content (if needed) and the escape of vapors.
- Internal materials are resistant to winter conditions.
- Vacuum and relief cases can be managed effectively as per the set requirements of bulk storage tank.

- Super Duo technology provides extra curves and perfect seating with zero leakage.
- Set values can be arranged as per the site conditions, no need supervising.
- Design, manufacturing and test according to EN ISO 80079-36.
- PTFE, XYLAN, Rubber lining, etc. coating options are available.
- ANSI, DIN, JIS, API, etc. any special end connections are available.
- Breathing requirements are fulfilled according to API 2000 7th Edition.
- Diaphragm is manufactured from PTFE material to prevent possibility of ice formation and sticky residues hindering the valve from opening, while the pallet assembly moves freely on guide posts.

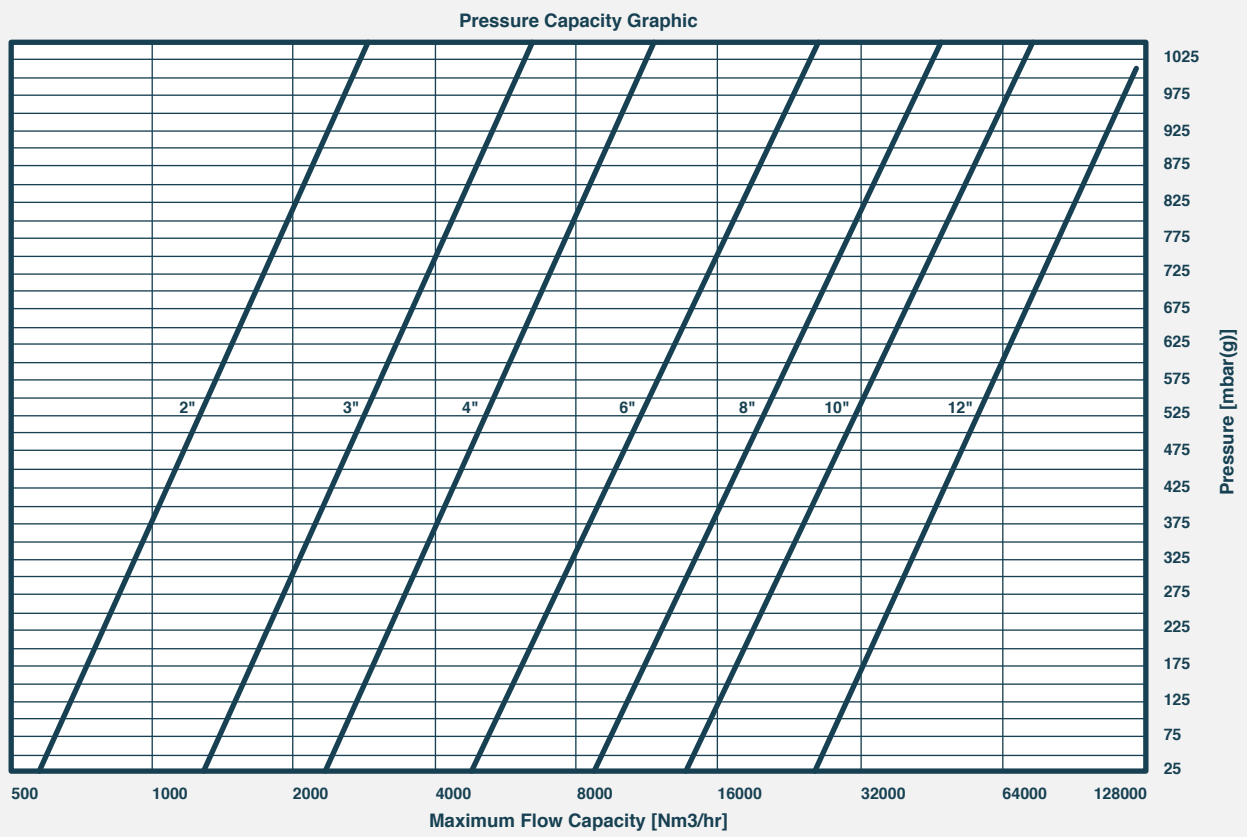
## Technical Drawing



## Weight & Dimensions

SIZE		A	B	C		D		E		TOTAL WEIGHT (kg)
NPS	DN			ANSI 150# RF	DN	ANSI 150# RF	DN	ANSI 150# RF	DN	
2"	50	285	165	Ø92.1	Ø102	Ø120.6	Ø125	Ø19x4	Ø18x4	8
3"	80	306	200	Ø127	Ø138	Ø152.4	Ø160	Ø19x4	Ø18x8	10
4"	100	364	285	Ø157.2	Ø158	Ø190.5	Ø180	Ø19x8	Ø18x8	14
6"	150	357	370	Ø215.9	Ø212	Ø241.3	Ø240	Ø22.2x8	Ø22x8	18
8"	200	354	455	Ø269.9	Ø268	Ø298.4	Ø295	Ø22.2x12	Ø22x12	25
10"	250	437	555	Ø323.8	Ø320	Ø362	Ø355	Ø25.4x12	Ø26x12	35
12"	300	407	613	Ø381	Ø378	Ø431.8	Ø410	Ø25.4x12	Ø26x12	50

## Flow Capacity Tables



## Flow Capacity Tables

### PRESSURE RELIEF CAPACITIES [Nm<sup>3</sup>/hr] - OVERPRESSURE SPRING

mbar (g)	2"		3"		4"		6"		8"		10"		12"	
	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%
40	569	585	1282	1320	2277	2344	5090	5239	9111	9377	14260	14676	20533	21131
50	637	655	1434	1476	2546	2620	5721	5887	10185	10481	15936	16400	22948	23617
60	697	718	1569	1614	2788	2869	6264	6447	11153	11478	17453	17962	25130	25862
70	752	774	1694	1744	3011	3098	6764	6961	12043	12394	18845	19394	27133	27924
80	804	828	1811	1863	3217	3310	7229	7439	12869	13244	20139	20725	28997	29841
90	854	879	1921	1977	3411	3511	7665	7889	13645	14043	21352	21974	30744	31640
100	899	925	2024	2083	3595	3699	8075	8310	14379	14798	22500	23156	32397	33340
120	985	1013	2216	2280	3935	4049	8842	9099	15739	16198	24627	25345	35463	36496
140	1062	1093	2391	2460	4246	4369	9543	9821	16989	17484	26584	27359	38278	39393
160	1135	1168	2554	2629	4537	4669	10195	10492	18149	18677	28397	29224	40891	42082
180	1203	1238	2708	2787	4809	4949	10805	11119	19236	19797	30097	30973	43342	44605
200	1267	1304	2852	2935	5065	5212	11382	11713	20262	20852	31709	32632	45650	46979
240	1386	1427	3120	3211	5541	5703	12451	12813	22166	22811	34680	35690	49940	51394
280	1496	1539	3365	3463	5977	6151	13430	13821	23908	24605	37410	38499	53868	55437
300	1547	1592	3481	3583	6182	6362	13892	14296	24730	25451	38697	39824	55702	57325
350	1668	1716	3750	3859	6665	6859	14978	15415	26665	27441	41727	42943	60080	61830
400	1780	1832	4006	4122	7114	7321	15986	16451	28457	29286	44527	45824	64118	65985
450	1885	1940	4242	4365	7532	7752	16926	17419	30225	31106	47151	48525	67891	69869
500	1983	2041	4463	4593	7927	8158	17812	18331	31709	32632	49617	51062	71441	73522
550	2076	2137	4673	4809	8300	8541	18648	19191	33201	34168	51953	53466	74805	76984
600	2165	2228	4873	5015	8654	8906	19446	20013	34618	35627	54168	55745	77998	80270
650	2251	2316	5063	5211	8993	9255	20207	20795	35973	37021	56290	57929	81050	83410
700	2331	2399	5246	5399	9316	9588	20935	21545	37265	38351	58319	60017	83976	86422
750	2409	2479	5422	5580	9628	9909	21636	22266	38517	39639	60265	62021	86762	89289
800	2483	2556	5591	5754	9929	10218	22310	22960	39717	40874	62149	63959	89484	92091
850	2554	2629	5754	5921	10218	10515	22959	23627	40870	42061	63958	65821	92091	94774
900	2627	2703	5911	6083	10498	10804	23588	24275	41993	43216	65710	67624	94611	97366
950	2694	2773	6064	6240	10769	11082	24197	24902	43076	44330	67405	69369	97051	99877
1000	2762	2843	6216	6397	11036	11358	24800	25523	44149	45435	69099	71111	99467	102364

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### data sheet series

PRV- End-of-line,  
spring loaded

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storagetech.de

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Storagetech™ Website  
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