

# Pressure Relief Valve

Top mounted, pipe-away, weight loaded

**Model 141**



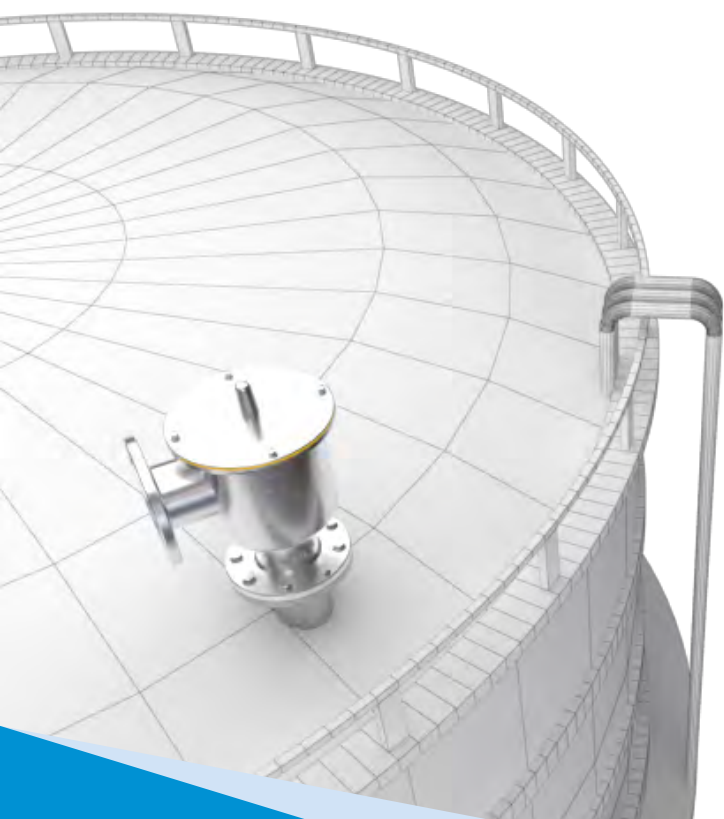
## Product Description

Storagetech™ 's Model 141 Top Mounted, Pipe Away, Weight Loaded Pressure Relief Valve provides protection to bulk storage tanks and vessels from over and under pressurisation. The valves are mounted on the tank roof flange or a vent pipe from the vapour space. Sytem is especially preferred for transferring vapour content to collection system or condensation units, even prevent certain fire hazards. The pressure relief pallet and diaphragm assembly is held tightly against a seal to prevent the loss of vapour to atmosphere in the closed position. Due to product filling and vapour development, the pressure in tank increases and in the event that the set pressure of the unit is reached. Accordingly the diaphragm will be opened and discharge the gas to system. System back pressure are also included in balance calculations to achieve desired certain seat and re-seat actions. Storagetech Valves Activated as close as to set pressures, less than 10% of set )ressures, 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.



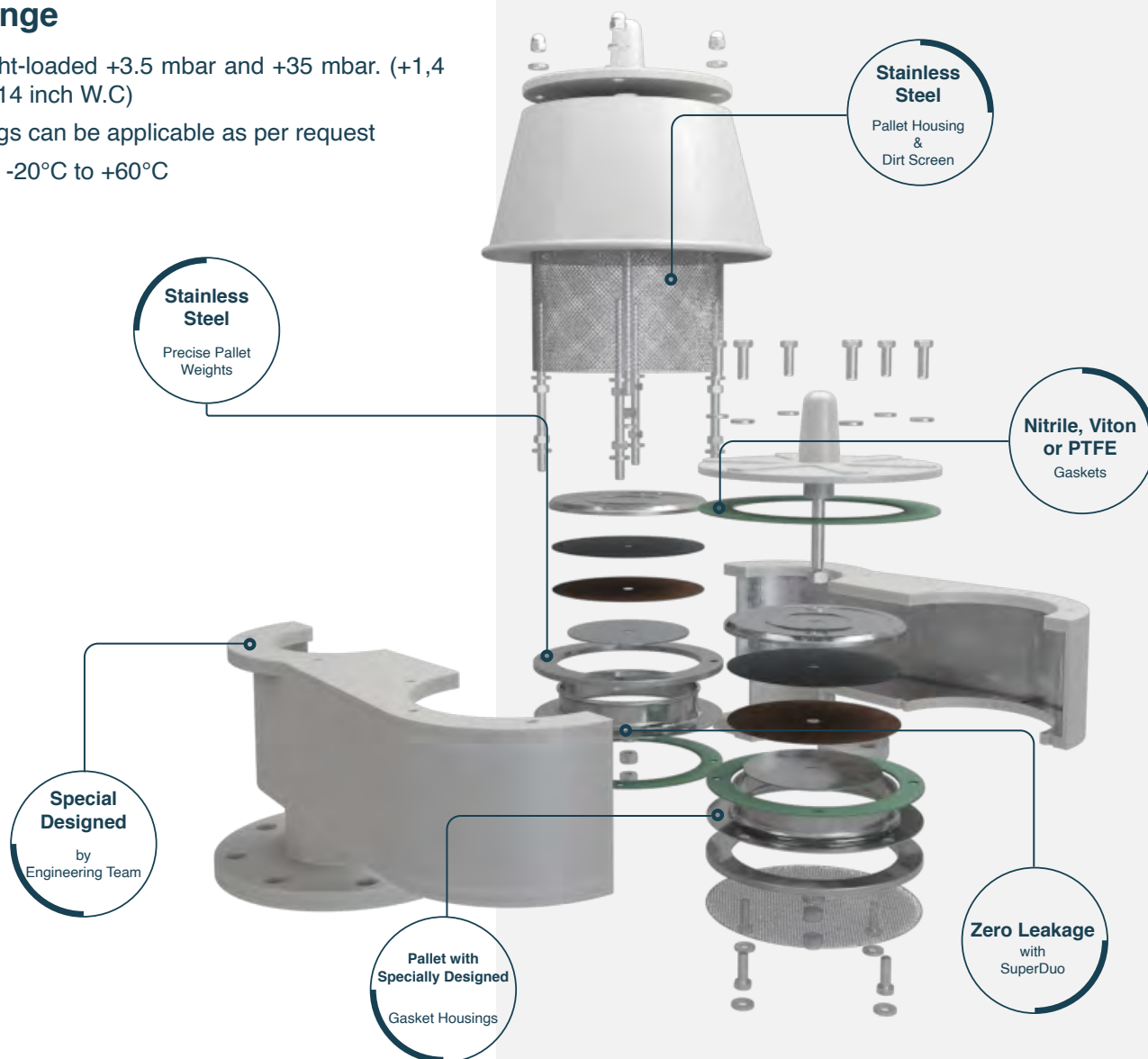
<b>Standard Sizes</b>	2" to 12" (DN50 to DN300) Further sizes are applicable upon request.
<b>Flanges</b>	ANSI, DIN, JIS, BSP
<b>Body</b>	Carbon Steel, Stainless Steel or Aluminium
<b>Seals</b>	Klingrit, Nitrile, Viton, PTFE
<b>Pallet</b>	Stainless Steel AISI 304/316
<b>Springs</b>	Stainless Steel
<b>Paint Finish</b>	1. Customer Specification 2. Powder Coating, Colour RAL 9006 3. Epoxy Paint, Colour RAL 9006 4. PTFE Coating
<b>ATEX Cert</b>	Ex II 1/2 G Ex h IIB Ga/Gb

## Setting Range

**Pressure** Weight-loaded +3.5 mbar and +35 mbar. (+1,4 inch W.C and +14 inch W.C)

\*Different settings can be applicable as per request

**Ambient temp.** -20°C to +60°C

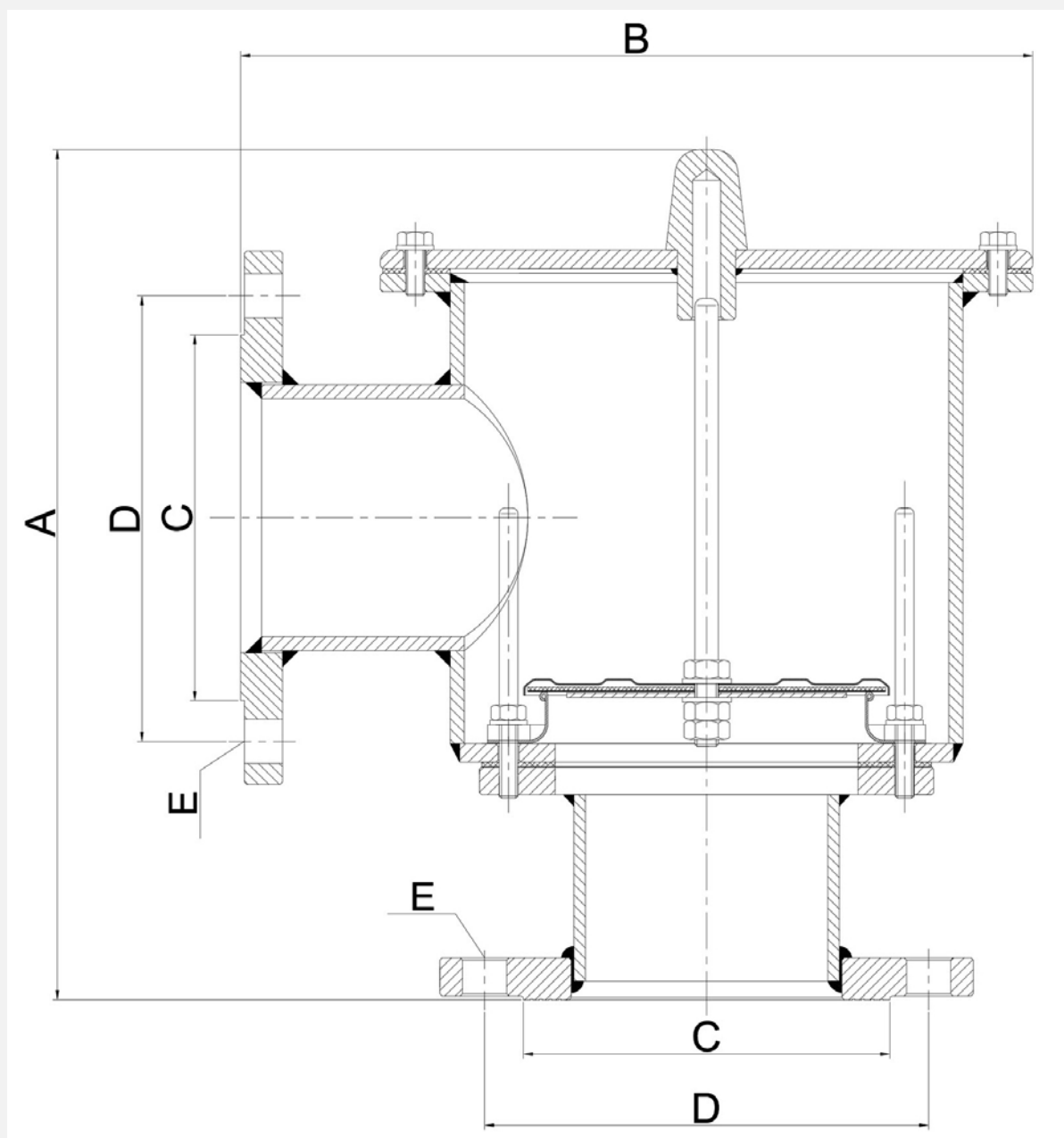


## Key Features

- 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 achieved 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.

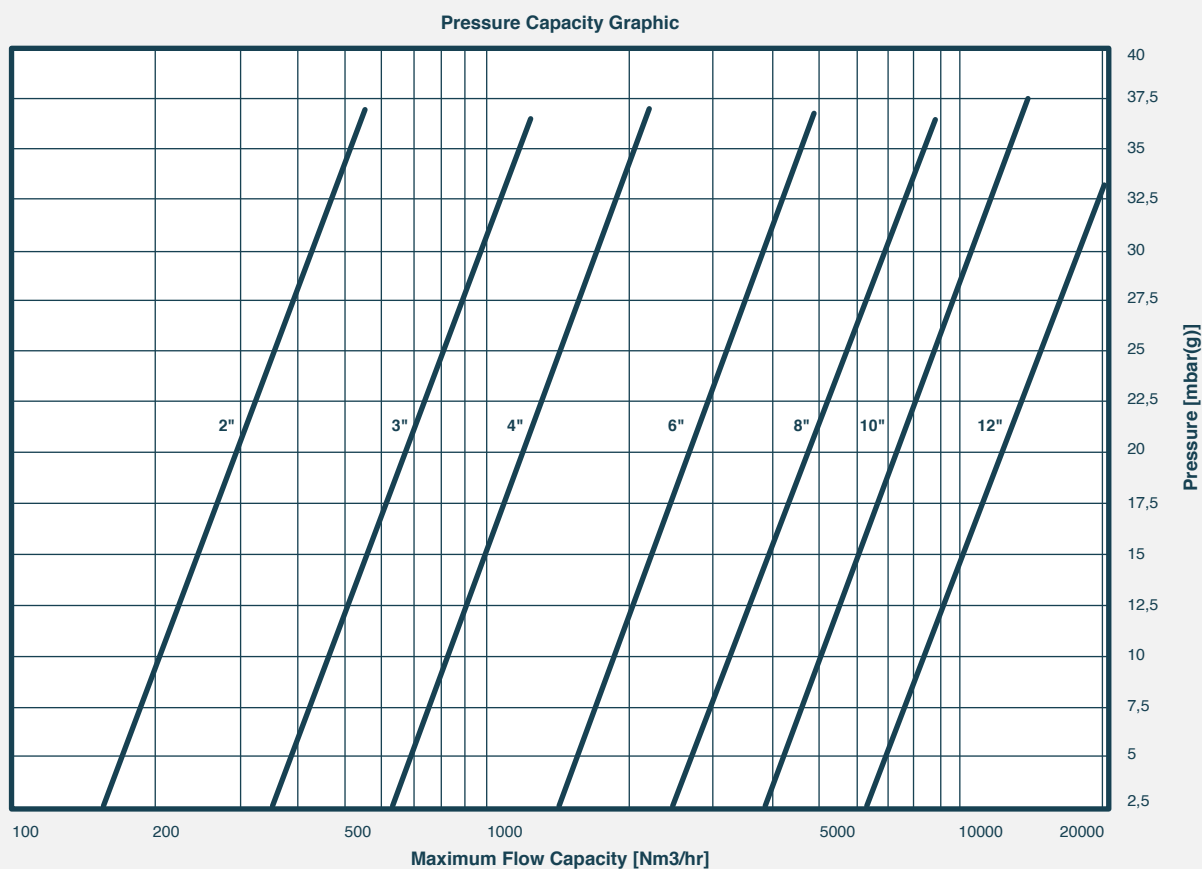
## Technical Drawing



## Weight & Dimensions

SIZE		A	B	C		D		E		TOTAL WEIGHT
NPS	DN			ANSI 150# RF	DN	ANSI 150# RF	DN	ANSI 150# RF	DN	(kg)
2"	50	287	230	Ø92.1	Ø102	Ø120.6	Ø125	Ø19x4	Ø18x4	14
3"	80	339	267	Ø127	Ø138	Ø152.4	Ø160	Ø19x4	Ø18x8	19
4"	100	481	340	Ø157.2	Ø158	Ø190.5	Ø180	Ø19x8	Ø18x8	25
6"	150	555	402	Ø215.9	Ø212	Ø241.3	Ø240	Ø22.2x8	Ø22x8	33
8"	200	500	605	Ø269.9	Ø268	Ø298.4	Ø295	Ø22.2x12	Ø22x12	70
10"	250	658	591	Ø323.8	Ø320	Ø362	Ø355	Ø25.4x12	Ø26x12	100
12"	300	702	680	Ø381	Ø378	Ø431.8	Ø410	Ø25.4x12	Ø26x12	125

## Flow Capacity Tables



**PRESSURE RELIEF CAPACITIES [Nm<sup>3</sup>/hr] - OVERPRESSURE WEIGHTED**

mbar (g)	2"		3"		4"		6"		8"		10"		12"	
	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%
2,5	150	163	339	367	603	653	1356	1468	2413	2613	3777	4089	5439	5888
5	213	230	480	519	853	924	1917	2076	3414	3696	5342	5783	7691	8326
7,5	275	297	620	671	1104	1195	2479	2683	4415	4779	6907	7478	9943	10764
10	302	327	679	735	1207	1306	2711	2935	4827	5225	7554	8177	10876	11774
12,5	329	356	738	799	1309	1417	2943	3186	5239	5671	8200	8877	11809	12784
15	356	386	797	863	1412	1528	3175	3437	5651	6117	8846	9577	13309	14408
17,5	384	415	856	926	1514	1639	3407	3689	6063	6563	9493	10277	14502	15700
20	426	461	960	1040	1706	1847	3812	4126	6823	7387	10678	11559	15374	16644
22,5	469	507	1065	1153	1898	2054	4216	4564	7584	8210	11862	12842	15940	17256
25	476	516	1070	1159	1906	2064	4285	4639	7628	8258	11936	12921	17178	18597
27,5	484	524	1076	1165	1915	2073	4353	4713	7671	8305	12009	13000	18417	19937
30	522	565	1176	1273	2088	2261	4692	5080	8355	9045	12201	13209	18824	20379

# Product Recommendations



## Flame Arrestor

End-Of-Line,  
With Automatic  
Opening Hood,  
Deflagration

### Model: 312

Storagetech™ Flame Arrestors ( End-of-line, with Automatic Opening Hood) are passive devices that prevent the propagation of a flame or fire from entering into an opening in a pipeline or vessel discharging flammable vapor. As different from model 310, Model 312 end of line flame arrestor's weather hood is designed to react fire instantly tanks to it's fusible link, which is melted during the fire and let the weather hood release the gas/fire to the atmosphere.



## Pressure Vacuum Relief Valve With Flame Arrestor

End-Of-Line,  
Weight Loaded,  
Combination,  
Atmospheric Deflagration  
Proof

### Model: 330

Storagetech™'s Model 330 Pressure Vacuum Relief Valve with Flame Arrestor provides protection to bulk storage tanks and vessels from over and under pressurization.



## Flame Arrestor

Vertical,  
In-Line,  
Detonation

### Model: 320

Storagetech™'s Model 320 In-line Detonation Flame Arrestor (also called flame arrestor or fire arrestor) is designed for installation in gas pipelines. Detonation occurs when a flame travelling through the pipeline reaches supersonic velocities, usually as a result of the pipeline configuration or pipeline surface roughness. Changes in gas density and pressure causes the flame velocity to metamorphose from subsonic to supersonic.



## Flame Arrestor

Horizontal,  
In-Line,  
Detonation

### Model: 321

Storagetech™'s Model 321 In-line Detonation Flame Arrestor (also called flame arrestor or fire arrestor) is designed for installation in gas pipelines. Detonation occurs when a flame travelling through the pipeline reaches supersonic velocities, usually as a result of the pipeline configuration or pipeline surface roughness. Changes in gas density and pressure causes the flame velocity to metamorphose from subsonic to supersonic.

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### data sheet series

PRV-Top mounted, pipe-away,  
weight loaded

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ST-DS-PR.PA.W-04.21/V2  
storagetech.de

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Storagetech™ Website  
QR Code



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