API

Flanged Safety Relief Valves
Series 526

TOS
TOBS

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MODEL:

TOS-4C2-01~03-2J3 TOS-4C2-03~15-3J4
TOS-4C3-01~03-2J3 TOS-4C3-03~15-3J4
TOS-4N8-01~03-2J3 TOS-4N8-03~15-2J3

Spring fall lift clased safety valve

Program Highlights

SIZING

Sizing of safety valves in accordance with the leading global standards and codes (Safety valve according to API 526 with standardized capacities, installation dimensions and materials.)

Calculates two-phase flow in accordance with API 520 Appendix C and fire case according to API 521

Calculates inlet pressure loss, back pressure, reaction forces, and noise level.

此处放实物图

● The solid nozzle screws into the body its maintenance is easy.

● The shape of the disc holder has been designed to enhance the effect of the fluid thrust for an instant lift of the disc.

● Blowdown control is provided with adjustable nozzle ring only.

● The adequate materials and clearance between disc holder and guide, spindle and adjusting screw assures disc to lift successfully.

● The surface of both the disc and the nozzle seat is deposited with Stellite. Excellent flatness and surface finish of the seating surfaces by precision machining and lapping assure safety valve to have high degree of seat tightness and long using life.

● The bellows of balanced bellows safety valves not only can avoid and effect of variable back pressure in the system, but also can protect spring and other trim components from corrosive media.

● The choice of materials is careful. The manufacture of the spring and the bellows has strict technological process. Each of them is test-ed and checked strictly

Technical data API Safety valves

Set pressure	0.2-400barg / 2-5,802psig
Temperature	-273-550° C/-450-1,000° F
Connections DIN EN 1952	DN25toDN200
Connections ASME B16.5	NPS1toNPS8
Body material	Carbonsteel,heat resistant Carbon steel, Stainless steel

Orifice Areacm2	Inlet Flange Class	Type	Size(inch) Inlet×Orifice×Outlet	Connections		Maximum Set Pressure(MPa) Lnlet Temperature						Back pressure limit38℃		Material		Inlet Temp.Range (℃)
				Inlet	Outlet	-268~-60	-59~29	-29℃~38℃	38℃~232℃	233℃~427℃	427~538	TOS-4C2	TOBS-4C2	Body	Spring	
8.303(J)	1	TOS-01	2J3	150LB	150LB			1.96	1.27	0.55		1.96	1.58	Carbon Steel.	Alloy Steel.	-29~427
	2	TOS-03	2J3	300LB	150LB			1.96	1.96	1.96		1.96	1.58			
	3	TOS-03a	3J4	300LB	150LB			5.10	4.24	2.82		1.96	1.58			
	4	TOS-06	3J4	600LB	150LB			10.20	8.51	5.68		1.96	1.58			
	5	TOS-09	3J4	900LB	150LB			15.30	12.72	8.51		1.96	1.58			
	6	TOS-15	3J4	1500LB	300LB			18.61	18.61	14.20		4.13	1.58			
	3	TOS-03a	3J4	300LB	150LB					3.51	1.48	1.96	1.58	Chrome Molybde-num Steel.	Alloy Steel.	428~538
	4	TOS-06	3J4	600LB	150LB					6.99	2.96	1.96	1.58			
	5	TOS-09	3J4	900LB	150LB					10.51	4.48	1.96	1.58			
	6	TOS-15	3J4	1500LB	300LB					17.51	7.44	4.13	1.58			
	1	TOS-01	2J3	150LB	150LB	1.89	1.89	1.89	1.24	0.55	0.13	1.96	1.58	Austenitic Stainless Steel.	Alloy Steel. Stainless Steel.	-268~538
	2	TOS-03	2J3	300LB	150LB	1.89	1.89	1.89	1.89	1.89	1.89	1.96	1.58			
	3	TOS-03a	3J4	300LB	150LB	3.44	4.96	4.96	3.41	2.89	2.41	1.96	1.58			
	4	TOS-06	3J4	600LB	150LB	4.30	9.92	9.92	6.72	5.82	4.82	1.96	1.58			
	5	TOS-09	3J4	900LB	150LB	5.51	14.89	14.89	10.23	8.72	7.23	1.96	1.58			
	6	TOS-15	3J4	1500LB	300LB	5.51	18.61	18.61	17.09	14.54	12.06	4.13	1.58			

Type		ANSI Flange Class		Center to Face		Total Thickness of Flange gnd Nozzle	Approximate height H Cap Type		
				outlet	Inlet				
		Inlet	outlet	A	B	X	4C2	4N8	4C3
TOS-01	2J3	150	150	124.0	136.0	43	540	590	600
TOS-03	2J3	300	150	124.0	136.0	43	540	590	600
TOS-03a	3J4	300	150	181.0	184.0	55	685	735	755
TOS-06	3J4	600	150	181.0	184.0	57	685	735	755
TOS-09	3J4	900	150	181.0	184.0	70	695	745	765
TOS-15	3J4	1500	300	181.0	184.0	70	735	785	805

Model numbering

4C2 Closed

4N8 Open window with lifting rod

4C3 Closed with handie

Item	Component	Type TOS NACE	Type TOBS NACE
1	Nozzle	316 Stainless Steel	316 Stainless Steel
2	Nozzle Gasket	Flexible Graphite/Stainless Steel	Flexible Graphite/Stainless Steel
3	Body	ASME SA216 GR WCB	ASME SA351 GR CF8M
4	Set Screw Gasket	Stainless Steel	Stainless Steel
5	Set Screw	Stainless Steel	316 Stainless Steel
6	Nozzle Ring	Stainless Steel	316 Stainless Steel
7	Disc	Stainless Steel	316 Stainless Steel
8	Retention Clip	Stainless Steel	Stainless Steel
9	Disc Holder	Stainless Steel	316 Stainless Steel
9A	Bellows	/	316L Stainless Steel
10	Guide	Stainless Steel	316 Stainless Steel
11	Guide Gasket	Stainless Steel	Stainless Steel
12	Bonnet Stud	ASME SA193 GR. B7	ASME SA193 GR. B8M
13	Bonnet Stud Nut	ASME SA194 CL 2H	ASME SA194 CL 8M
14	Spring Washers	Carbon Steel	Stainless Steel
15	Spring	Alloy Steel	Alloy Steel Corrosion Resistant Coating
16	Spindle	420 Stainless Steel	316 Stainless Steel
17	Adjusting Bolt	Stainless Steel	Stainless Steel
18	Cap Gasket	Stainless Steel	Stainless Steel
19	Adjusting Bolt Nut	Stainless Steel	Stainless Steel
20	Threaded Cap	Stainless Steel	Stainless Steel