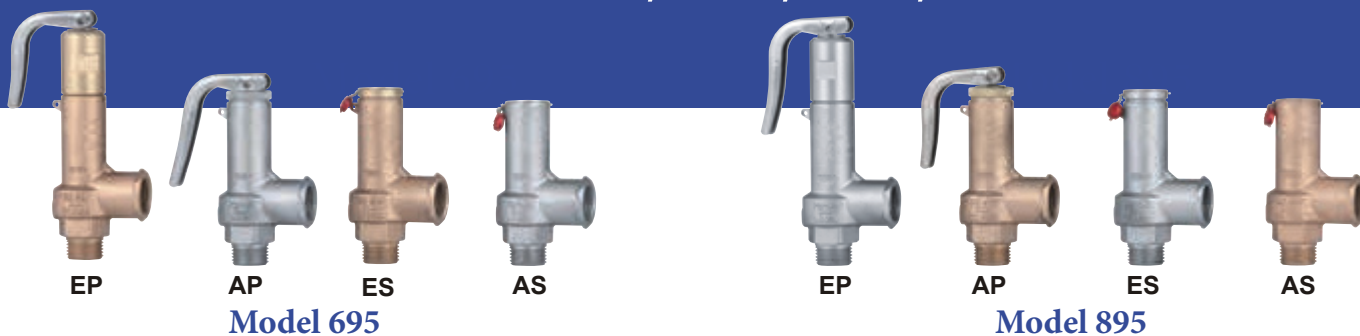


FULL LIFT SAFETY VALVE

MODEL 695 / 895 / 995 / 694



Model 695

Model 895

Model 995

Model 694

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Design in accordance with "International Standard ISO 4126-1 Safety Valves"

In accordance with the requirements of directive 97/23/EC (2014/68/EU)

EC valve verification certified by: TÜV Internacional Grupo TÜV Rheinland, S.L. EC 0035.

Type (Module D) EC examination report n° 33530455 certified by: TÜV Internacional Grupo TÜV Rheinland, S.L.

In compliance with the ATEX 94/9/CE directive "Protective equipment and systems for use in potentially explosive atmospheres".

Other authorisations: ISCIR, ITI, NASTHOL,...etc.

Specifications

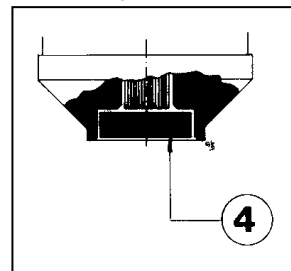
- 90° angular flow.
- Activated by direct action helicoid spring.
- Simplicity of construction ensuring minimum maintenance.
- Materials carefully selected for their resistance to corrosion.
- Internal body designed to offer favourable flow profile.
- Sealing surfaces balanced and making them extremely tightness, even exceeding EN 12266-1 requirements.
- Great discharge capacity. For liquids typically used with openings similar to proportional safety valves.
- Auto-centering plug.
- Totally precise open and close.
- All the valves are supplied sealed at the set pressure requested, simulating operational conditions, and are vigorously tested.
- All components are numbered, registered and checked. If requested in advance, material, casting, test and efficiency certificates will be enclosed with the valve, and the instruction manual, in accordance with P.E.D.97/23 EC (2014/68/EU)

IMPORTANT

Depending on demand:

- 1.- Fluorelastomer (Vitón) seals, Silicone's rubber, PTFE (Teflón)... etc., achieving leakage levels less than $0,3 \times 10^{-3} \frac{\text{Pa cm}^3}{\text{seg.}}$

RANGE OF APPLICATION FOR THE SEALS					
FLUID	SET PRESSURE IN bar				
	0,2	1,8	4,8	5,0	20,0 30,0(50,0) 144,0
Saturated steam	S	V	T		
Liquids and gases	S		V	T	
SEALS	TEMPERATURE IN °C				
		ACCORDING TO MANUFACTURERS		WE RECOMMENDED	
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
Silicone's rubber	S	-60	+200	-50	+115
Fluorelastomer (Vitón)	V	-40	+250	-30	+150
PTFE (Teflón)	T	-265	+260	-80	+230



Depending on demand:

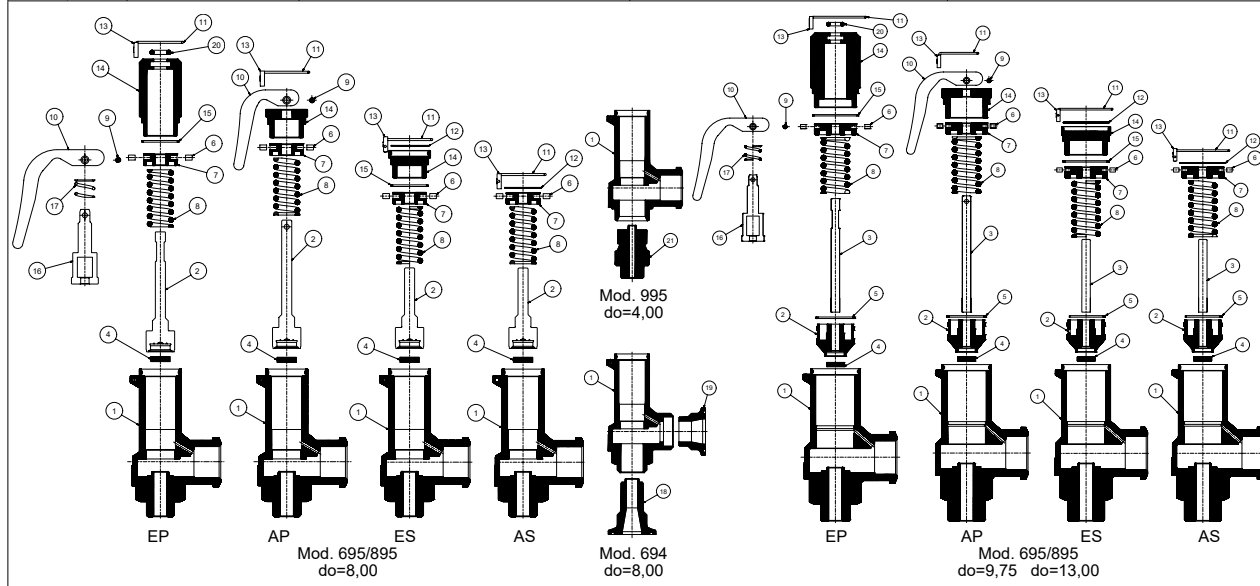
1. Buna-nitrils seals, Butyl, Natural rubber, E.P.D.M., Chlorosulphonate polyethylene (Hypalon), Neoprene, etc.
2. Possibility of manufacture in other types of material, for use in special working conditions (high temperatures, fluids, etc.).

Full lift safety valve model 695 / 895 / 995 / 694

No. PIECE	PIECE	MATERIAL	
		BRONZE	STAINLESS STEEL
1	Body	Bronze (EN-CC491K)	S. steel (EN-1.4408)
2	Plug	Brass (EN-CW617N)	S. steel (EN-1.4401)
3	Shaft	S. steel (EN-1.4305)	S. steel (EN-1.4305)
4	Seal	Silicone's rubber	Silicone's rubber
		Fluorelastomer (Viton)	Fluorelastomer (Viton)
		PTFE (Teflon)	PTFE (Teflon)
5	Limiter ring	S. steel (EN-1.4310)	S. steel (EN-1.4310)
6	End-stop	PTFE (Teflon)	PTFE (Teflon)
7	Spring press	Brass (EN-CW617N)	S. steel (EN-1.4305)
8	Spring	S. steel (EN-1.4310)	S. steel (EN-1.4310)
9	Clip	S. steel (EN-1.4310)	S. steel (EN-1.4310)
10	Lever	S. steel (EN-1.4301)	S. steel (EN-1.4301)
11	Sealing wire	Sealing wire	Sealing wire
12	Characteristic plate	Aluminium	Aluminium
13	Seal	Plastic	Plastic
14	Cap	Brass (EN-CW617N)	S. steel (EN-1.4305)
15	Hood coupling	PTFE (Teflon)	PTFE (Teflon)
16	Piston	Brass (EN-CW617N)	S. steel (EN-1.4305)
17	Piston Spring	S. steel (EN-1.4310)	S. steel (EN-1.4310)
18	Inlet clamp	-	S. steel (EN-1.4404)
19	Outlet clamp	-	S. steel (EN-1.4404)
20	O-ring	Fluorelastomer (Viton) (1)	Fluorelastomer (Viton) (1)
21	Seat	-	S. steel (EN-1.4401)

MODEL		R ₁ xR ₂	3/8"x1/2" to 1"x1"			
			PN	PMS 36 bar		
695	OPERATING CONDITIONS	PN	PMS 36 bar	40		
		PRESSURE IN bar	36	36		
		MAX. TEMPERATURE IN \varnothing C	200	250		
		MIN. TEMPERATURE IN \varnothing C	-60	-60		
895	OPERATING CONDITIONS	R ₁ xR ₂	3/8"x1/2" to 1"x1"			
		PN	PMS 36 bar	40		
		PRESSURE IN bar	36	36		
		MAX. TEMPERATURE IN \varnothing C	200	250		
995	OPERATING CONDITIONS	R ₁ xR ₂	3/8"x1/2" to 1/2"x1/2"			
		PN	-	160		
		PRESSURE IN bar	-	144		
		MAX. TEMPERATURE IN \varnothing C	-	250		
694	OPERATING CONDITIONS	DN ₁ xDN ₂	10x15 to 25x25			
		PN	-	16		
		PRESSURE IN bar	-	16		
		MAX. TEMPERATURE IN \varnothing C	-	250		
				MIN. TEMPERATURE IN \varnothing C	-	-60

(1) Mod. 895; Perfluorelastomer (FFKM)



Full lift safety valve model 695 / 895 / 995 / 694

Full lift safety valve with spring loading (AIT) version EP.

1. Disassembly and assembly

1.1 Disassembly

To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:

A - Cut the seal thread (11) with pliers.

B - Withdraw the fastener (9), using a punching tool, until the lever (10) comes free.

C - Unscrew and extract the hood (14).

D - Unscrew the piston (16) from the rod (3) and then the screw cap (22).

E - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).

F - Extract the spring (8).

1.2 Assembly

A - Enter the spring (8) through the upper part of the rod (3).

B - Screw the spring press (7) holding the rod (3) and the screw cap (22).

C - Adjust the set pressure with the spring press (7).

D - Screw the piston (16) to the rod (3).

E - Screw the hood (14).

F - Place the lever (10) and fix it with the fastener (9).

2. Adjusting the firing pressure

A - Proceed according to points 1.1.A, 1.1.B, 1.1.C, 1.1.D, 1.1.E.

B - Proceed according to points 1.2.C, 1.2.D, 1.1.E, 1.1.F.

Full lift safety valve with spring loading (AIT) version AP.

1. Disassembly and assembly

1.1 Disassembly

To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:

A - Cut the seal thread (11) with pliers.

B - Withdraw the clip (9), using a punching tool, until the lever (10) comes free.

C - Unscrew and extract the hood (14).

D - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).

E - Extract the spring (8).

1.2 Assembly

A - Enter the spring (8) through the upper part of the rod (3).

B - Screw the spring press (7) holding the rod (3).

C - Adjust the set pressure with the spring press (7).

D - Screw the hood (14).

E - Place the lever (10) and fix it with the fastener (9).

2. Adjusting the firing pressure

A - Proceed according to points 1.1.A, 1.1.B, 1.1.C, 1.1.D.

B - Proceed according to points 1.2.C, 1.2.D, 1.1.E.

Full lift safety valve with spring loading (AIT) version ES.

1. Disassembly and assembly

1.1 Disassembly

To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:

A - Cut the seal thread (11) with pliers and extract the characteristic plate (12).

B - Unscrew and extract the hood (14).

C - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).

D - Extract the spring (8).

1.2 Assembly

A - Enter the spring (8) through the upper part of the rod (3).

B - Screw the spring press (7) holding the rod (3).

C - Adjust the set pressure with the spring press (7).

D - Screw the hood (14).

2. Adjusting the firing pressure

A - Proceed according to points 1.1.A, 1.1.B, 1.1.C.

B - Proceed according to points 1.2.C, 1.2.D.

Full lift safety valve with spring loading (AIT) version AS.

1. Disassembly and assembly

1.1 Disassembly

To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:

A - Cut the seal thread (11) with pliers and extract the characteristic plate (12).

B - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).

C - Extract the spring (8).

1.2 Assembly

A - Enter the spring (8) through the upper part of the rod (3).

B - Screw the spring press (7) holding the rod (3).

C - Adjust the set pressure with the spring press (7).

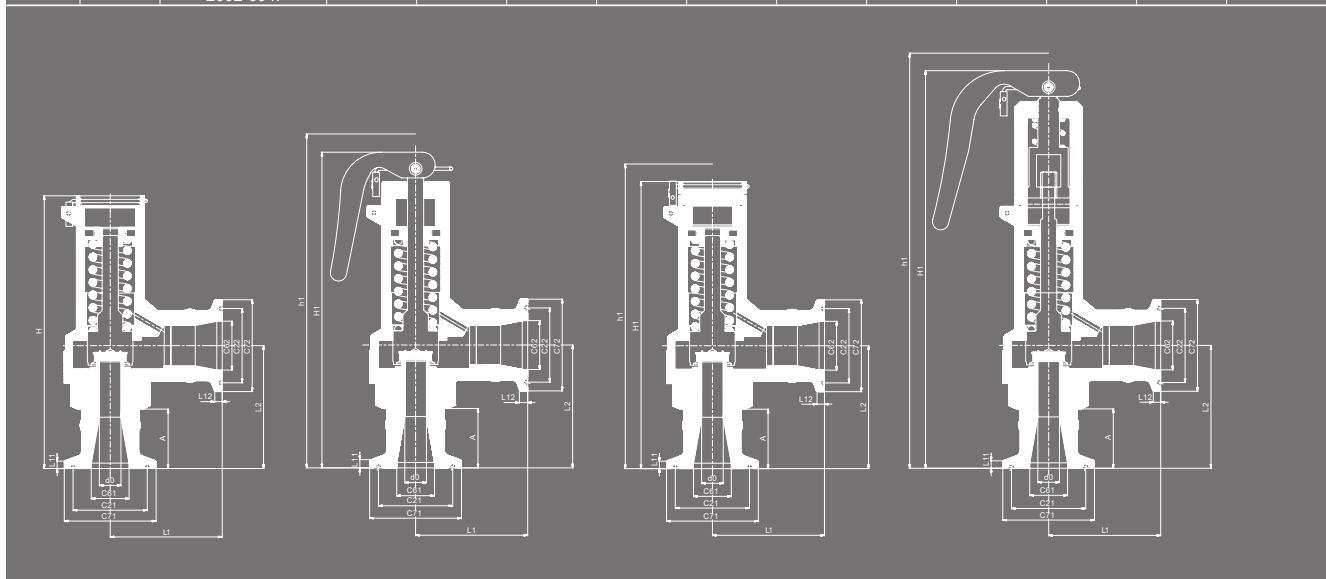
2. Adjusting the firing pressure

A - Proceed according to points 1.1.A, 1.1.B.

B - Proceed according to points 1.2.C.

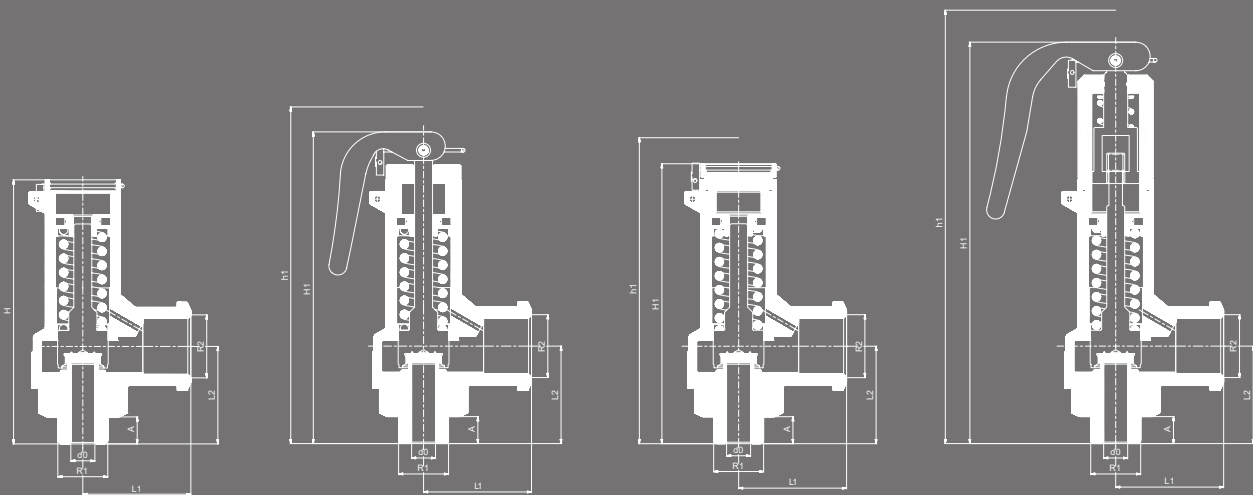
Full lift safety valve model 695 / 895 / 995 / 694

R, xR ₂		MODEL 695/895/995										
CONNECTIONS		3/8"x1/2"					1/2"x 1/2"			1/2"x 3/4"		
		Male thread x Female thread Whitworth gas-tight cylindrical ISO 228/1										
DN, xDN ₂		10x15					15x15			15x20		
CONNECTIONS		CLAMP ISO 2852:1993										
d ₀	694/695/895						8,00			9,75		
	995						4,00					
$A_0 = \frac{\pi \cdot d_0^2}{4}$	694/695/895						50,26			74,66		
	995						12,57					
H	695/895	-	88	-	-	-	91	-	-	-	109	
	995	-	99	-	-	-	102	-	-	-	-	
	694	-	101	-	-	-	101	-	-	-	121	
H ⁱ	695/895	102	-	136	93	105	-	139	96	127	-	
	995	113	-	147	-	116	-	150	107	-	-	
	694	115	-	149	106	115	-	149	106	139	-	
h ⁱ	695/895	119	-	148	109	122	-	151	112	142	-	
	995	130	-	159	120	133	-	162	123	-	-	
	694	132	-	161	122	132	-	161	122	154	-	
A	695/895/995	9					12			12		
	694						22			24		
L ₁	695/895/995						36			44		
	694						41,50			52		
L ₂	695/895	32,50					35,50			45,50		
	995	43,50					46,50					
	694						45,50			57,50		
INTAKE FLANGE	PN-16 CLAMP ISO 2852:1993	C ₆₁	14					18,10			18,10	
		C ₇₁						34			34	
		C ₂₁						27,50			27,50	
		L ₁₁						2,85			2,85	
ESCAPE FLANGE	PN-16 CLAMP ISO 2852:1993	C ₆₂						18,10			23,70	
		C ₇₂						34			50,50	
		C ₂₂						27,50			43,50	
		L ₁₂						2,85			2,85	
WEIGHT IN Kgs.												
		EP	AP	ES	AS	EP	AP	ES	AS	EP	AP	
695/895/995	BRONZE	0,47	0,38	0,36	0,34	0,47	0,38	0,36	0,34	0,97	0,74	
	S. STEEL	0,45	0,36	0,34	0,32	0,45	0,36	0,34	0,32	0,95	0,72	
694	S. STEEL	0,50	0,41	0,39	0,37	0,50	0,41	0,39	0,37	1,06	0,83	
CODE	695	BRONZE 2002-695.	83810	838110	838120	838130	80210	802110	802120	802130	80211	802111
		S. STEEL 2002-695.	83820	838210	838220	838230	80220	802210	802220	802230	80221	802211
	895	BRONZE 2002-895.	83810	838110	838120	838130	80210	802110	802120	802130	80211	802111
		S. STEEL 2002-895.	83820	838210	838220	838230	80220	802210	802220	802230	80221	802211
	995	S. STEEL 2002-995.	03820	038210	038220	038230	00220	002210	002220	002230	00221	002211
		S. STEEL 2002-694.	83820	838210	838220	838230	80220	802210	802220	802230	80221	802211



Full lift safety valve model 695 / 895 / 995 / 694

MODEL 695/895/995													
1/2"x 3/4"				3/4"x3/4"				3/4"x1"				1"x1"	
Male thread x Female thread Whitworth gas-tight cylindrical ISO 228/1													
MODEL 694													
15x20				20x20				20x25				25x25	
CLAMP ISO 2852:1993													
9,75												13,00	
74,66												132,73	
-	-	-	112	-	-	-	138	-	-	-	141	-	-
-	-	-	121	-	-	-	148	-	-	-	148	-	-
164	116	130	-	167	119	159	-	196	147	162	-	199	150
176	128	139	-	176	128	169	-	206	157	169	-	206	157
178	134	145	-	181	137	174	-	210	165	147	-	213	168
190	146	154	-	190	146	184	-	220	175	154	-	220	175
12				15				15				18	
		24								25			
		44								60			
		52								67			
45,50				48,50				58,50				61,50	
57,50												68,5	
18,10				23,70				23,70				29,70	
34				50,50								50,50	
27,50				43,50								43,50	
2,85												2,85	
23,70												29,70	
50,50												50,50	
43,50												43,50	
2,85												2,85	
ES	AS	EP	AP	ES	AS	EP	AP	ES	AS	EP	AP	ES	AS
0,72	0,70	0,97	0,74	0,72	0,70	1,67	1,35	1,33	1,31	1,67	1,35	1,33	1,31
0,70	0,68	0,95	0,72	0,70	0,68	1,65	1,33	1,31	1,29	1,65	1,33	1,31	1,29
0,81	0,79	1,10	0,87	0,85	0,83	1,74	1,52	1,50	1,48	1,02	1,80	1,78	1,76
802121	802131	83410	834110	834120	834130	83411	834111	834121	834131	81010	810110	810120	810130
802221	802231	83420	834210	834220	834230	83421	834211	834221	834231	81020	810210	810220	810230
802121	002131	83410	834110	834120	834130	83411	834111	834121	834131	81010	810110	810120	810130
802221	802231	83420	834210	834220	834230	83421	834211	834221	834231	81020	810210	810220	810230
002221	002231	03420	034210	034220	034230	03421	034211	034221	034231	01020	010210	010220	010230
802221	802231	83420	834210	834220	834230	83421	834211	834221	834231	81020	810210	810220	810230



Full lift safety valve model 695 / 895 / 995 / 694

SET PRESSURES AND REGULATING RANGES									
MODEL			695/895/995/694						
ENTRY CONNECTION	695/895/995		R ₁	3/8"	1/2"	1/2"	3/4"	3/4"	1"
	694		DN ₁	10	15	15	20	20	25
EXIT CONNECTION	695/895/995		R ₂	1/2"		3/4"		1"	
	694		DN ₂	15		20		25	
d ₀	695/895/694			8,00		9,75		13,00	
	995			4,00					
SET PRESSURE IN bar	MAXIMUM	695/895	PMS. 36 bar	36		36		36	
		695	PN-40	36		36		36	
		995	PN-160	144					
		694	PN-16	16		16		16	
	MINIMUM	695/895	PMS. 36 bar	0,2		0,2		0,2	
		695	PN-40	0,2		0,2		0,2	
		995	PN-160	0,8					
		694	PN-16	0,2		0,2		0,2	
SPRING REGULATING RANGE IN bar	695/895/694	995							
	0,20 a 0,70	0,80 a 2,80	CODE	56160-56330		56169		56178	
	0,60 a 1,60	2,40 a 6,40	CODE	56161-56331		56170		56179	
	1,50 a 3,50	6,00 a 14,00	CODE	56162-56332		56171		56180	
	3,40 a 5,50	13,60 a 22,00	CODE	56163-56333		56172		56181	
	5,40 a 10,00	21,50 a 40,00	CODE	56164-56334		56173		56182	
	9,80 a 15,00	39,00 a 60,00	CODE	56165-56335		56174		56183	
	14,50 a 20,00	58,00 a 80,00	CODE	56166-56336		56175		56184	
	19,00 a 25,00	76,00 a 100,00	CODE	56167-56337		56176		56185	
	24,00 a 36,00	96,00 a 144,00	CODE	56168-56338		56177		56186	

Full lift safety valve model 695 / 895 / 995 / 694

RECOMMENDED RANGES OF APPLICATION						
MODEL		695/895/995/694				
		AP	AS	EP	ES	
FLUID	SATURATED STEAM		*	*	*	*
	GASES	INERT	*	*	*	*
		NON INERT			?	?
LIQUIDS				?	?	
OPENING PRESSURE IN % OF THE SET PRESSURE			+10%			
CLOSURE PRESSURE IN % OF THE SET PRESSURE			-10%			

