

## Model 1216

### DESCRIPTION

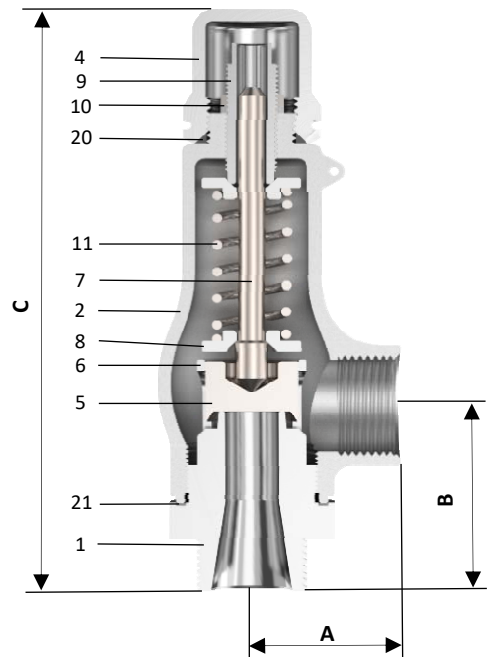
Safety and relief valve, angle type, conventional  
 Direct spring loaded  
 Full lift safety valve  
 Stainless steel, DUPLEX (on request)  
 Steam, gases, cryogenic fluids, vapours and liquids  
 Cleaned and degreased for oxygen service  
 Threaded BSP / NPT  
 PN 40  
 Seat metal- metal, Viton and PTFE  
 Set pressure range 0,5 to 34,5 barg  
 Tolerance Set pressure  $\pm 3\%$   
 Overpressure 10%  
 European Pressure Equipment Directive PED 2014/68/EU  
 CE 0056 Module B  
 CE Production Quality Assurance (Module D) ES037955- 1035  
 Material test certificate EN 10204 3.1



### MATERIALS

Item	Components	Material	Cryogenic
1	Nozzle	A351 CF-3M	A351 CF-3M
2	Body	A351 CF-3M	A351 CF-3M
4	Cap	A351 CF-8	A351 CF-8
5 <sup>SP</sup>	Disc	AISI-316L	AISI-316L
6	Guide	A351 CF-3M	A351 CF-3M
7	Push Rod	AISI-316L	AISI-316L
8	Spring Button	AISI-303	AISI-303
9	Adjusting Screw	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303
11 <sup>SP</sup>	Spring	AISI-302	INCONEL X 750
12	Lever	A351 CF-8	A351 CF-8
17	Release nut	AISI-304	AISI-304
18 <sup>SP</sup>	Lever axis	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303
20 <sup>SP</sup>	Gasket cap	PTFE	PTFE
21 <sup>SP</sup>	Gasket	PTFE	PTFE
22 <sup>SP</sup>	Gasket pack. lever	Viton	Viton
28 <sup>SP</sup>	Soft seat	Viton / PTFE	Metal

<sup>SP</sup> Recommended spare parts



### DIMENSIONS

	Orifice (mm)	Area (mm <sup>2</sup> )	A (mm)	B (mm)	C (mm)	Weight (kg)
1/2" x 3/4"	13	133	45	57	155	2,2
1/2" x 1"	13	133	45	57	155	2,2
3/4" x 1"	14	154	45	57	155	2,2
1" x 1"	16	201	45	60	155	2,2
1" x 1 1/4"	16	201	45	61	155	2,3
1" x 2"	22	380	62	87	234	4,5
1 1/4" x 1 1/4"	18	254	45	62	155	2,4
1 1/2" x 2"	28	616	62	89	234	4,6
2" x 2"	32	804	62	93	234	5,1

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## Model 1216 B

### DESCRIPTION

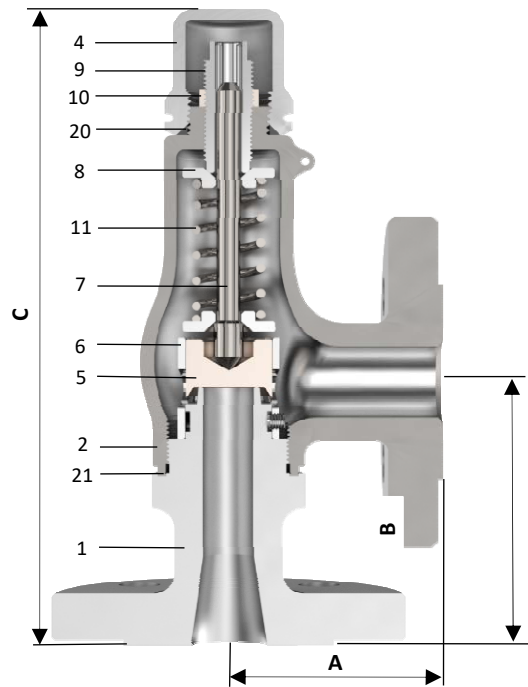
Safety and relief valve, angle type, conventional  
 Direct spring loaded  
 Full lift safety valve  
 Stainless steel, DUPLEX (on request)  
 Steam, gases, cryogenic fluids, vapours and liquids  
 Cleaned and degreased for oxygen service  
 Flanges EN or ANSI  
 PN16, PN 40, ANSI150 and ANSI300  
 Seat metal- metal, Viton and PTFE  
 Set pressure range 0,5 to 34,5 barg  
 Tolerance Set pressure  $\pm 3\%$   
 Overpressure 10%  
 European Pressure Equipment Directive PED 2014/68/EU  
 CE 0056 Module B  
 CE Production Quality Assurance (Module D) ES037955- 1035  
 Material test certificate EN 10204 3.1



### MATERIALS

Item	Components	Material
1	Nozzle	A351 CF-3M
2	Body	A351 CF-3M
4	Cap	A351 CF-8
5 <sup>SP</sup>	Disc	AISI-316L
6	Guide	A351 CF-3M
7	Push Rod	AISI-316L
8	Spring Button	AISI-303
9	Ajusting Screw	AISI-303
10	Tensor Nut	AISI-303
11 <sup>SP</sup>	Spring	AISI-302
12	Lever	A351 CF-8
17	Release nut	AISI-304
18 <sup>SP</sup>	Lever axis	AISI-303
19	Packing lever axis	AISI-303
20 <sup>SP</sup>	Gasket cap	PTFE
21 <sup>SP</sup>	Gasket	PTFE
22 <sup>SP</sup>	Gasket pack. lever	Viton
28 <sup>SP</sup>	Soft seat	Viton / PTFE

<sup>SP</sup> Recommended spare parts



### DIMENSIONS

	Connections		Orifice (mm)	Area (mm <sup>2</sup> )	A (mm)	B (mm)	C (mm)	Weight (kg)
	Inlet	Outlet						
1/2" x 1"	ANSI150 or ANSI300	ANSI150	13	133	70	90	155	3
3/4" x 1"	ANSI150 or ANSI300	ANSI150	14	154	70	90	155	3,2
3/4" x 1"	ANSI150 or ANSI300	ANSI150	16	201	70	90	155	3,5
1/2" x 1"	ANSI150 or ANSI300	BSP/ NPT	13	133	45	90	155	3
3/4" x 1"	ANSI150 or ANSI300	BSP/ NPT	14	154	45	90	155	3,2
3/4" x 1"	ANSI150 or ANSI300	BSP/ NPT	16	201	45	90	155	3,5
15 x 25	PN 16 or PN 40	PN 16	13	133	70	90	155	3
20 x 25	PN 16 or PN 40	PN 16	14	154	70	90	155	3,2
25 x 25	PN 16 or PN 40	PN 16	16	201	70	90	155	3,5
15 x 1"	PN 16 or PN 40	BSP/ NPT	13	133	45	90	155	3
20 x 1"	PN 16 or PN 40	BSP/ NPT	14	154	45	90	155	3,2
25 x 1"	PN 16 or PN 40	BSP/ NPT	16	201	45	90	155	3,5

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## Model 1216 C

### DESCRIPTION

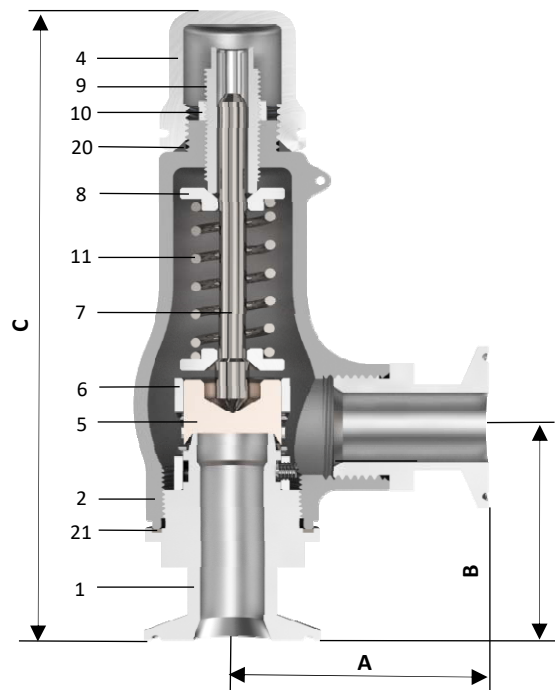
Safety and relief valve, angle type, conventional  
 Direct spring loaded  
 Full lift safety valve  
 Stainless steel  
 Steam, gases, vapours and liquids  
 Clamp- Clamp or Clamp- BSP  
 PN 10  
 Clamp dimensions according ISO 2852  
 Seat metal- metal, Viton and PTFE  
 Set pressure range 0,5 to 34,5 barg  
 Tolerance Set pressure  $\pm 3\%$   
 Overpressure 10%  
 European Pressure Equipment Directive PED 2014/68/EU  
 CE 0056 Module B  
 CE Production Quality Assurance (Module D) ES037955- 1035  
 Material test certificate EN 10204 3.1



### MATERIALS

Item	Components	Material
1	Nozzle	A351 CF-3M
2	Body	A351 CF-3M
4	Cap	A351 CF-8
5 <sup>SP</sup>	Disc	AISI-316L
6	Guide	A351 CF-3M
7	Push Rod	AISI-316L
8	Spring Button	AISI-303
9	Ajusting Screw	AISI-303
10	Tensor Nut	AISI-303
11 <sup>SP</sup>	Spring	AISI-302
12	Lever	A351 CF-8
17	Release nut	AISI-304
18 <sup>SP</sup>	Lever axis	AISI-303
19	Packing lever axis	AISI-303
20 <sup>SP</sup>	Gasket cap	PTFE
21 <sup>SP</sup>	Gasket	PTFE
22 <sup>SP</sup>	Gasket pack. lever	Viton
28 <sup>SP</sup>	Soft seat	Viton / PTFE

<sup>SP</sup> Recommended spare parts



### DIMENSIONS

	Connections		Orifice (mm)	Area (mm <sup>2</sup> )	A (mm)	B (mm)	C (mm)	Weight (kg)
	Inlet	Outlet						
15 x 25	Clamp	Clamp	9,5	71	73	65	155	2,4
20 x 25	Clamp	Clamp	15	176,6	73	65	155	2,4
25 x 25	Clamp	Clamp	18	254	73	67	155	2,8
40 x 40	Clamp	Clamp	32	804	90	98	234	8,2
15 x 1"	Clamp	BSP	9,5	71	45	65	155	2
20 x 1"	Clamp	BSP	15	176,6	45	65	155	2
25 x 1"	Clamp	BSP	18	254	45	67	155	2,2
40 x 2"	Clamp	BSP	32	804	62	98	234	8,2

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# Model 1400

## DESCRIPTION

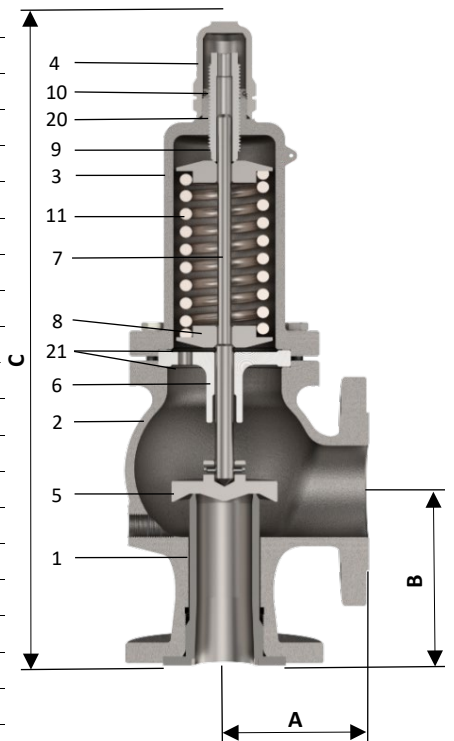
Safety and relief valve, angle type, conventional  
 Direct spring loaded  
 Full lift safety valve  
 Nodular Iron, Carbon steel, Stainless steel.  
 WC6, LCC, DUPLEX, SUPERDUPLEX (on request)  
 Steam, gases, cryogenic fluids, H<sub>2</sub>, vapours and liquids  
 Cleaned and degreased for oxygen service  
 Flanged EN 1092 PN-16 / 25 / 40 / 63 / 100  
 Seat metal- metal, Stellite, Viton and PTFE  
 Set pressure range 0,5 to 90 barg  
 Tolerance Set pressure ± 3%  
 Overpressure 10%  
 European Pressure Equipment Directive PED 2014/68/EU  
 CE 0056 Module B  
 CE Production Quality Assurance (Module D) ES037955- 1035  
 Material test certificate EN 10204 3.1



## MATERIALS

Item	Components	Nodular iron	Carbon steel	Stainless steel
1	Nozzle	A351 CF-8	AISI-316L	A351 CF-8
2	Body	EN-JS1030	C.S. 1.0619	1.4409
3	Bonnet	EN-JS1030	C.S. 1.0619	1.4409
4	Cap	A351 CF-8	A351 CF-8	A351 CF-8
5 <sup>SP</sup>	Disc	AISI-316L	AISI-316L	AISI-316L
6	Guide	AISI-304	AISI-304	AISI-304
7	Push Rod	AISI-316L	AISI-316L	AISI-316L
8	Spring Button	Carbon steel	Carbon steel	AISI-303
9	Ajusting Screw	AISI-303	AISI-303	AISI-303
10	Tensor Nut	AISI-303	AISI-303	AISI-303
11 <sup>SP</sup>	Spring	1.8159 C. steel	1.8159 C. steel	AISI-302
12	Lever	A 351 CF 8	A 351 CF 8	A351 CF-8
17	Release nut	AISI-304	AISI-304	AISI-304
18 <sup>SP</sup>	Lever axis	AISI-303	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303	AISI-303
20 <sup>SP</sup>	Gasket cap	PTFE	PTFE	PTFE
21 <sup>SP</sup>	Gasket	GRAPHITE +S.S	GRAPHITE +S.S	GRAPHITE+SS
22 <sup>SP</sup>	Gasket pack. lever	Viton	Viton	Viton
27 <sup>SP</sup>	Bellows	AISI-316 Ti	AISI-316 Ti	AISI-316 Ti
28 <sup>SP</sup>	Soft seat	Viton / PTFE	Viton / PTFE	Viton / PTFE

<sup>SP</sup> Recommended spare parts



## OPTIONS

Lifting device  
 Sealed packing lever  
 Open bonnet  
 Soft seat, viton, PTFE.  
 Bellows AISI 316TI, Inconel.  
 ECTFE powder coating for highly corrosive or ultrapure chemicals

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# Model 1400

## DIMENSIONS

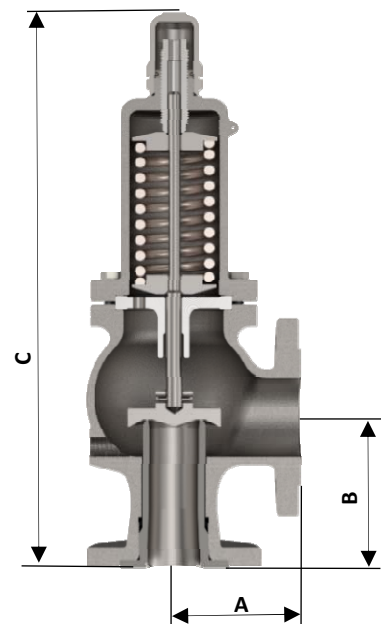
	Orif. (mm)	Area (mm <sup>2</sup> )	PN 16				PN 25				PN 40			
			A (mm)	B (mm)	C (mm)	Weight (kg)	A (mm)	B (mm)	C (mm)	Weight (kg)	A (mm)	B (mm)	C (mm)	Weight (kg)
<b>15 x 25</b>	13	133	95	95	275	10	95	95	275	10	95	95	275	10
<b>20 x 25</b>	13	133	95	95	275	10	95	95	275	10	95	95	275	10
<b>25 x 40</b>	23,8	445	100	105	280	12	100	105	280	12	100	105	280	12
<b>32 x 50</b>	29,5	683	110	115	325	15	110	115	325	15	110	115	325	15
<b>40 x 65</b>	36	1018	115	140	325	19	115	140	325	19	115	140	325	19
<b>50 x 80</b>	46	1662	120	150	460	29	120	150	460	29	120	150	460	29
<b>65 x 100</b>	60	2827	140	170	460	36	140	170	460	36	140	170	460	36
<b>80 x 125</b>	72	4072	160	195	590	58	160	195	590	58	160	195	590	58
<b>100 x 150</b>	90	6362	180	220	630	85	180	220	630	85	180	220	630	85
<b>125 x 200</b>	105	8659	200	250	690	140	200	250	690	140	200	250	690	140
<b>150 x 200</b>	125	12.272	•	•	•	•	•	•	•	•	241	240	695	160
<b>150 x 250</b>	125	12.272	225	285	715	150	225	285	715	150	•	•	•	•
<b>200 x 250</b>	153	18.385	•	•	•	•	•	•	•	•	279	276	815	195
<b>200 x 300</b>	153	18.385	300	290	815	200	•	•	•	•	•	•	•	•
<b>250 x 350</b>	200	31.415	406	305	1.390	750	•	•	•	•	•	•	•	•
<b>300 x 400</b>	228	40.828	406	359	1.432	850	•	•	•	•	•	•	•	•
<b>400 x 500</b>	304	72.950	533	432	1.943	900	•	•	•	•	•	•	•	•

### PN 63

	Orif. (mm)	Area (mm <sup>2</sup> )	A (mm)	B (mm)	C (mm)	Weight (kg)
<b>15 x 25</b>	9,5/13	71/133	95	95	275	11
<b>20 x 25</b>	9,5/13	71/133	95	95	275	11
<b>25 x 50</b>	20	314	140	95	315	25
<b>32 x 50</b>	23,8	445	140	95	315	30
<b>40 x 65</b>	26	531	165	124	430	30
<b>50 x 80</b>	32	804	162	154	400	35
<b>65 x 100</b>	48	1.809	140	170	460	66

### PN 100

	Orif. (mm)	Area (mm <sup>2</sup> )	A (mm)	B (mm)	C (mm)	Weight (kg)
<b>15 x 25</b>	9,5/13	71/133	95	95	275	11
<b>20 x 25</b>	9,5/13	71/133	95	95	275	11
<b>25 x 50</b>	16	201	140	95	315	25
<b>32 x 50</b>	20	314	140	95	315	30
<b>40 x 65</b>	23,8	445	165	124	430	30
<b>50 x 80</b>	32	804	162	154	400	35
<b>65 x 100</b>	39	1.194	140	170	460	66



## Model 1415

### DESCRIPTION

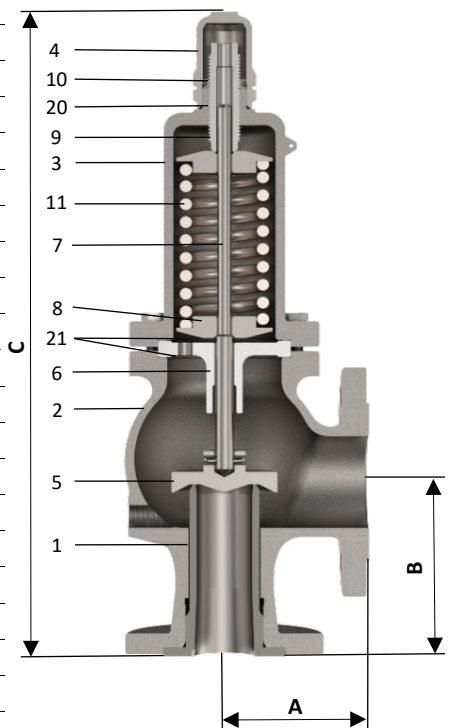
Safety and relief valve, angle type, conventional  
 According ASME VIII and XIII  
 Direct spring loaded  
 Full lift safety valve  
 A 216 WCB, WCC, Stainless steel A351 CF3M.  
 A217 WC6, LCC, DUPLEX, SUPERDUPLEX (on request)  
 Steam, gases, cryogenic fluids, H<sub>2</sub>, vapours and liquids  
 Cleaned and degreased for oxygen service  
 Flanged ASME/ANSI B16.5 ANSI150 / 300 / 600 / 900 / 1500 / 2500  
 Seat metal- metal, Stellite, Viton and PTFE  
 Set pressure range 0,2 (with bellows 2 barg) to 425 barg  
 Tolerance Set pressure  $\pm 3\%$   
 Overpressure 10%  
 European Pressure Equipment Directive PED 2014/68/EU  
 CE 0056 Module B  
 CE Production Quality Assurance (Module D) ES037955- 1035  
 Material test certificate EN 10204 3.1



### MATERIALS

Item	Components	Carbon steel	Stainless steel	DUPLEX
1	Nozzle	AISI-316L	AISI-316L	EN 1.4462
2	Body	A216 WCB	A351 CF3M	EN 1.4462
3	Bonnet	A216 WCB	A351 CF3M	EN 1.4462
4	Cap	A351 CF8	A351 CF8	EN 1.4462
5 <sup>SP</sup>	Disc	AISI-316L	AISI-316L	EN 1.4462
6	Guide	AISI-316L	AISI-316L	EN 1.4462
7	Push Rod	AISI-316L	AISI-316L	EN 1.4462
8	Spring Button	AISI-303	AISI-303	EN 1.4462
9	Ajusting Screw	AISI-420	AISI-303	EN 1.4462
10	Tensor Nut	AISI-303	AISI-303	EN 1.4462
11 <sup>SP</sup>	Spring	1.8159 C. S.	AISI-302	Inconel X 750
12	Lever	A351 CF8	A351 CF8	A351 CF8
17	Release nut	AISI-304	AISI-304	AISI-304
18 <sup>SP</sup>	Lever axis	AISI-303	AISI-303	AISI-303
19	Packing lever axis	AISI-303	AISI-303	AISI-303
20 <sup>SP</sup>	Gasket cap	PTFE	PTFE	PTFE
21 <sup>SP</sup>	Gasket	Graphite + S.S.	Graphite + S.S.	Graphite + S.S.
22 <sup>SP</sup>	Gasket pack. lever	Viton	Viton	Viton
27 <sup>SP</sup>	Bellows	AISI-316 TI	AISI-316 TI	AISI-316 TI
28 <sup>SP</sup>	Soft seat	Viton / PTFE	Viton / PTFE	Viton / PTFE

<sup>SP</sup> Recommended spare parts



### OPTIONS

Lifting device  
 Sealed packing lever  
 Open bonnet  
 Soft seat, viton, PTFE.  
 Bellows AISI 316TI, Inconel.  
 ECTFE powder coating for highly corrosive or ultrapure chemicals

Version 2022

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# Model 1415

## DIMENSIONS

Letter	Orif. (mm)	Area (mm <sup>2</sup> )	ANSI 150				ANSI 300				ANSI 600				
			A (mm)	B (mm)	C (mm)	Weight (kg)	A (mm)	B (mm)	C (mm)	Weight (kg)	A (mm)	B (mm)	C (mm)	Weight (kg)	
D/E	1/2" D / E 1"	9,5/13	71/133	95	95	275	10	95	95	275	10	95	100	275	11
	3/4" D / E 1"	9,5/13	71/133	95	95	275	10	95	95	275	10	95	100	275	11
	1" D / E 1"	9,5/13	71/133	95	95	275	10	95	95	275	10	95	100	275	11
	1" D / E 2"	9,5/13	71/133	114	105	275	14	114	105	275	16	114	105	275	18
F	1 1/2" F 2"	16	201	121	124	315	17	121	124	315	17	152	124	315	20
	1 1/2" F 2" 300L	16	201	•	•	•	•	152	124	315	17	•	•	•	•
G	1 1/2" G 3"	21	346	121	124	400	26	121	124	400	26	152	124	400	28
	1 1/2" G 3" 300L	21	346	•	•	•	•	152	124	400	26	•	•	•	•
H	1 1/2" H 3"	26	531	124	130	400	26	124	130	400	26	•	•	•	•
	2" H 3"	26	531	•	•	•	•	124	130	400	27	162	154	400	32
J	2" J 3"	32,5	830	124	137	400	28	124	137	400	29	•	•	•	•
	3" J 4"	32,5	830	•	•	•	•	181	184	595	56	181	184	595	62
K	3" K 4"	40	1.195	162	156	595	56	162	156	595	56	181	184	595	62
L	3" L 4"	49	1.866	165	156	595	56	165	156	595	56	•	•	•	•
	4" L 6"	49	1.866	•	•	•	•	181	179	630	56	203	179	630	90
M	4" M 6"	55	2.376	184	178	630	88	184	178	630	90	203	178	630	110
N	4" N 6"	60	2.827	210	197	630	88	210	197	630	90	222	197	630	110
P	4" P 6"	73	4.185	229	181	630	88	229	181	630	90	254	225	630	120
	4" P 6" 300L	73	4.185	•	•	•	•	254	181	630	90	•	•	•	•
Q	6" Q 8"	96	7.238	241	240	690	140	241	240	690	140	241	240	690	190
R	6" R 8"	115	10.387	241	240	690	140	241	240	690	140	•	•	•	•
	6" R 10"	115	10.387	•	•	•	•	267	240	795	198	267	240	795	198
T	8" T 10"	147	16.972	279	276	800	210	279	276	800	220	•	•	•	•
V	10" V 14"	200	31.415	406	305	1.390	750	406	305	1.390	780	•	•	•	•
W	12" W 16"	228	40.828	406	359	1.432	800	406	359	1.432	850	•	•	•	•

Letter	Orif. (mm)	Area (mm <sup>2</sup> )	ANSI 900				ANSI 1500				ANSI 2500				Weight
			A (mm)	B (mm)	C (mm)	Weight (kg)	A (mm)	B (mm)	C (mm)	Weight (kg)	A (mm)	B (mm)	C (mm)	Weight (kg)	
D/E	1 1/2" D 2"	9,5/13	71/133	140	105	315	19	140	105	315	24	•	•	•	•
	1 1/2" D 3"	9,5/13	71/133	•	•	•	•	•	•	•	•	178	140	325	30
F	1 1/2" F 3"	16	201	165	124	315	22	165	124	315	22	178	140	325	30
G	1 1/2" G 3"	21	346	165	124	430	28	•	•	•	•	•	•	•	•
	2" G 3"	21	346	•	•	•	•	175	156	444	41	175	156	444	50
H	2" H 3"	26	531	162	154	400	32	162	154	430	45	•	•	•	•
J	3" J 4"	32,5	830	181	184	595	70	181	184	595	65	•	•	•	•
K	3" K 6"	40	1.195	216	198	610	90	216	198	610	105	•	•	•	•
L	4" L 6"	49	1.866	222	197	820	140	222	197	820	120	•	•	•	•
M	4" M 6"	55	2.376	222	197	690	140	•	•	•	•	•	•	•	•
N	4" N 6"	60	2.827	222	197	820	140	•	•	•	•	•	•	•	•
P	4" P 6"	73	4.185	254	225	630	140	•	•	•	•	•	•	•	•