

Serial No.	H-V011-E-17
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GATE VALVES

Type P (Standard: Plug)

Type S (Soft Seal)

User's Manual

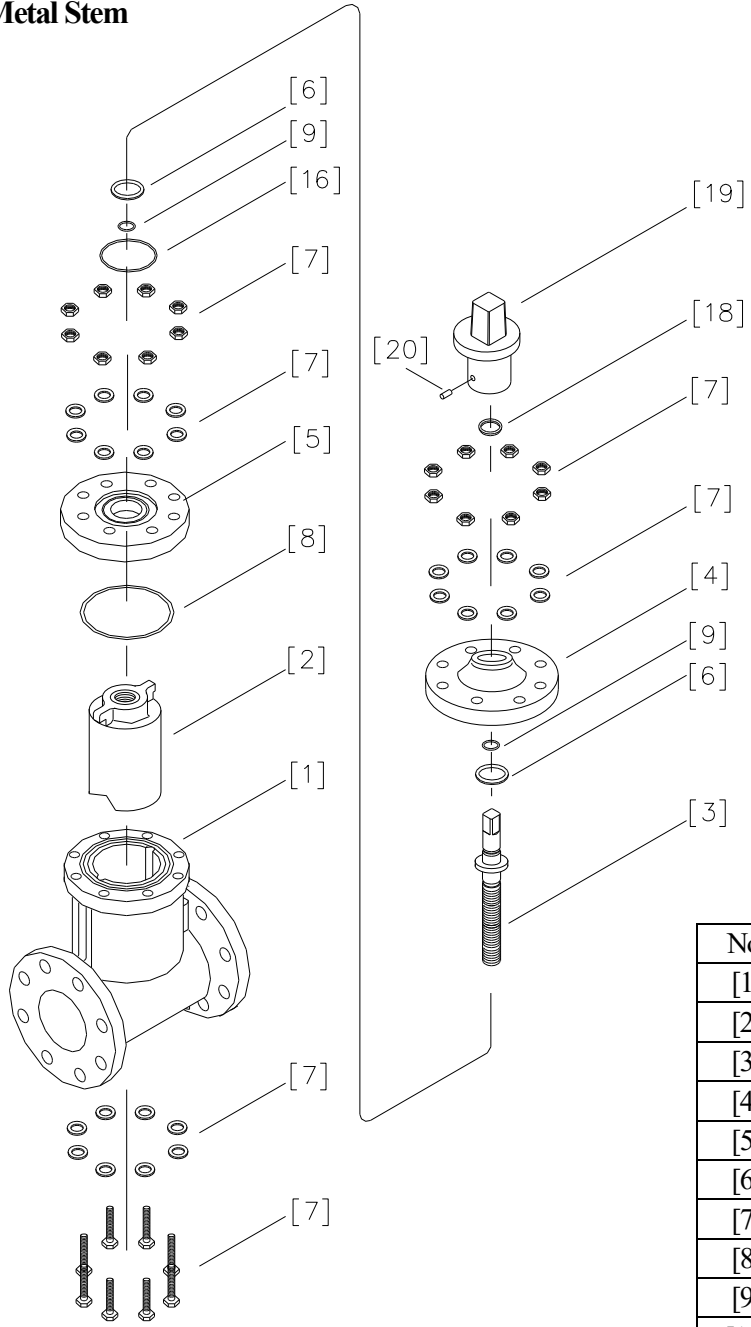


Contents

(1) Be sure to read the following warranty clauses of our product	1
(2) General operating instructions	2
(3) General instructions for transportation, unpacking and storage	2
(4) Name of parts	3
(5) Maximum working pressure vs. temperature	18
(6) Installation procedure	19
(7) Operating procedure	22
(8) Disassembling method for replacing parts	23
(9) Inspection items	24
(10) Troubleshooting	24
(11) Handling of residual and waste materials	24

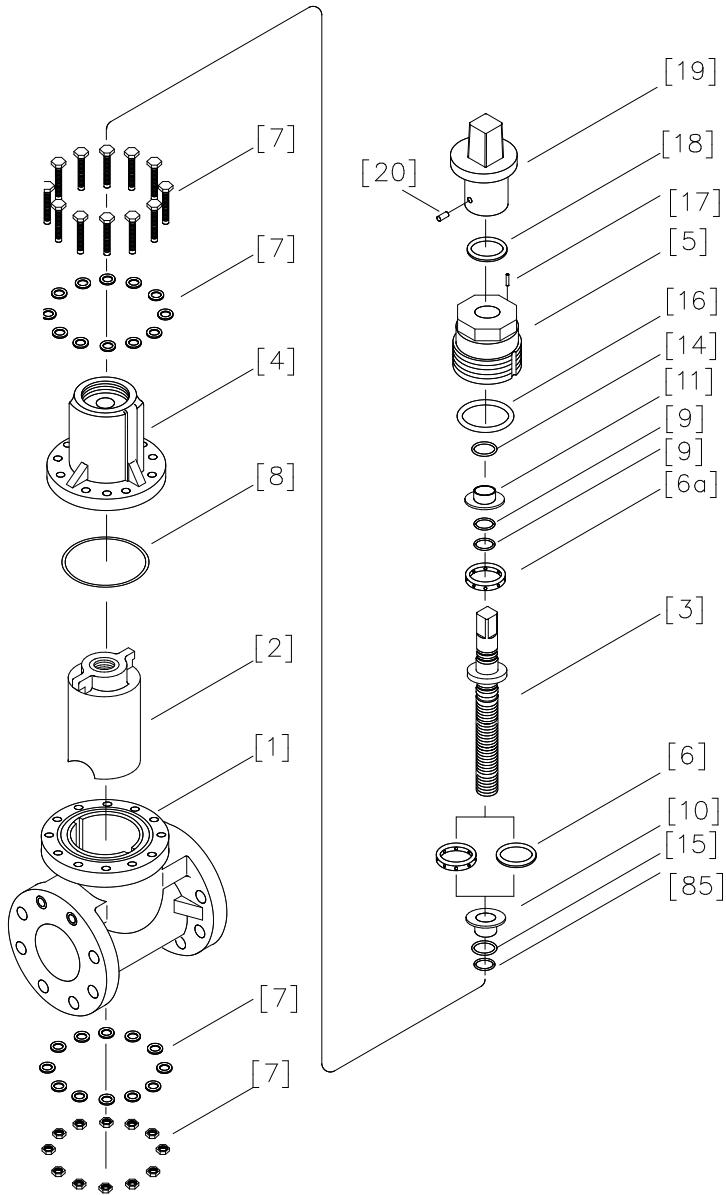
(4) Name of parts

AV Gate Valve Type P
32 (1 1/4") - 150mm (6")
Cap / Metal Stem

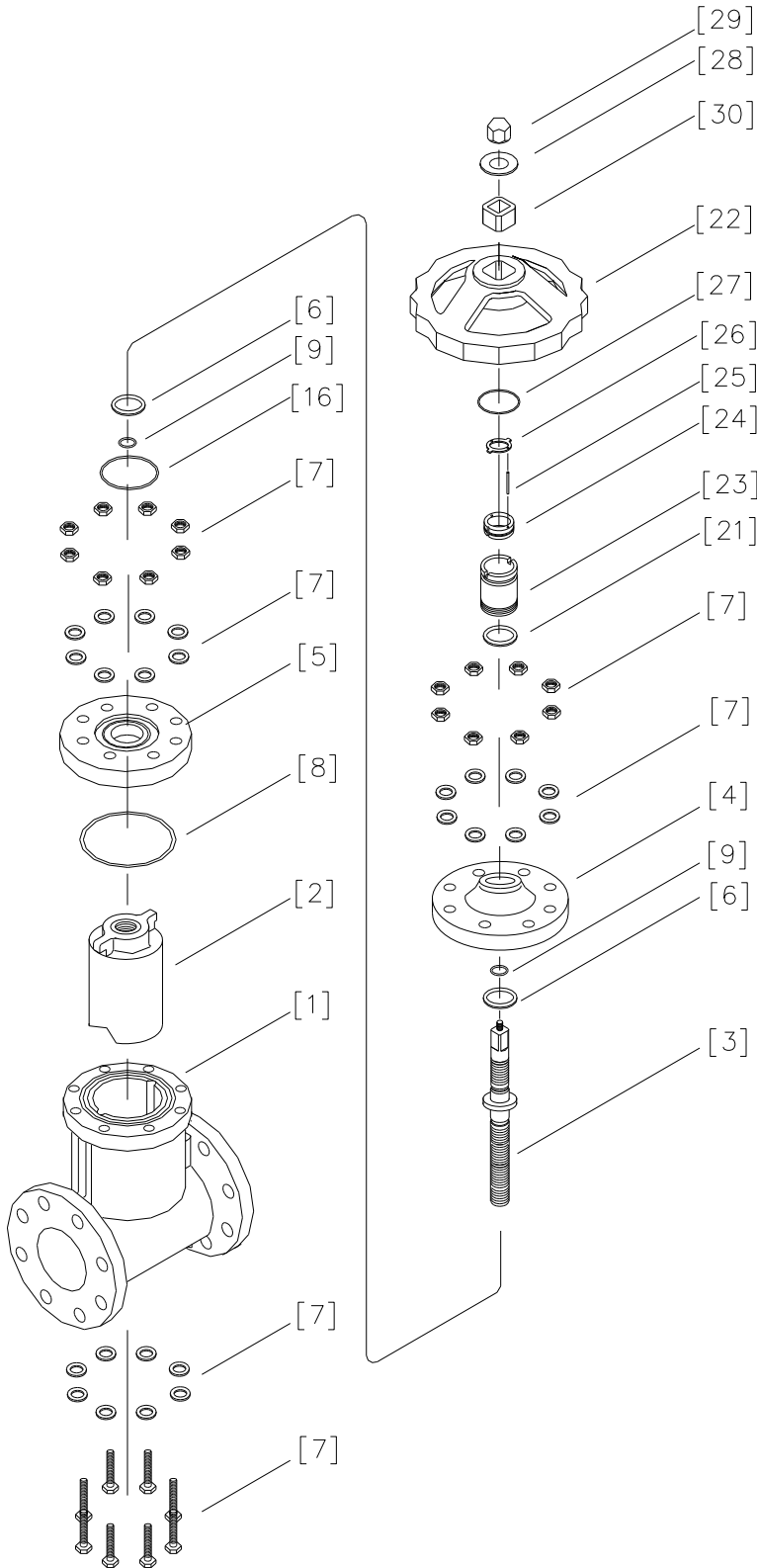


No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[16]	O-ring (D)
[18]	Dust seal
[19]	Cap (A)
[20]	Set screw (B)

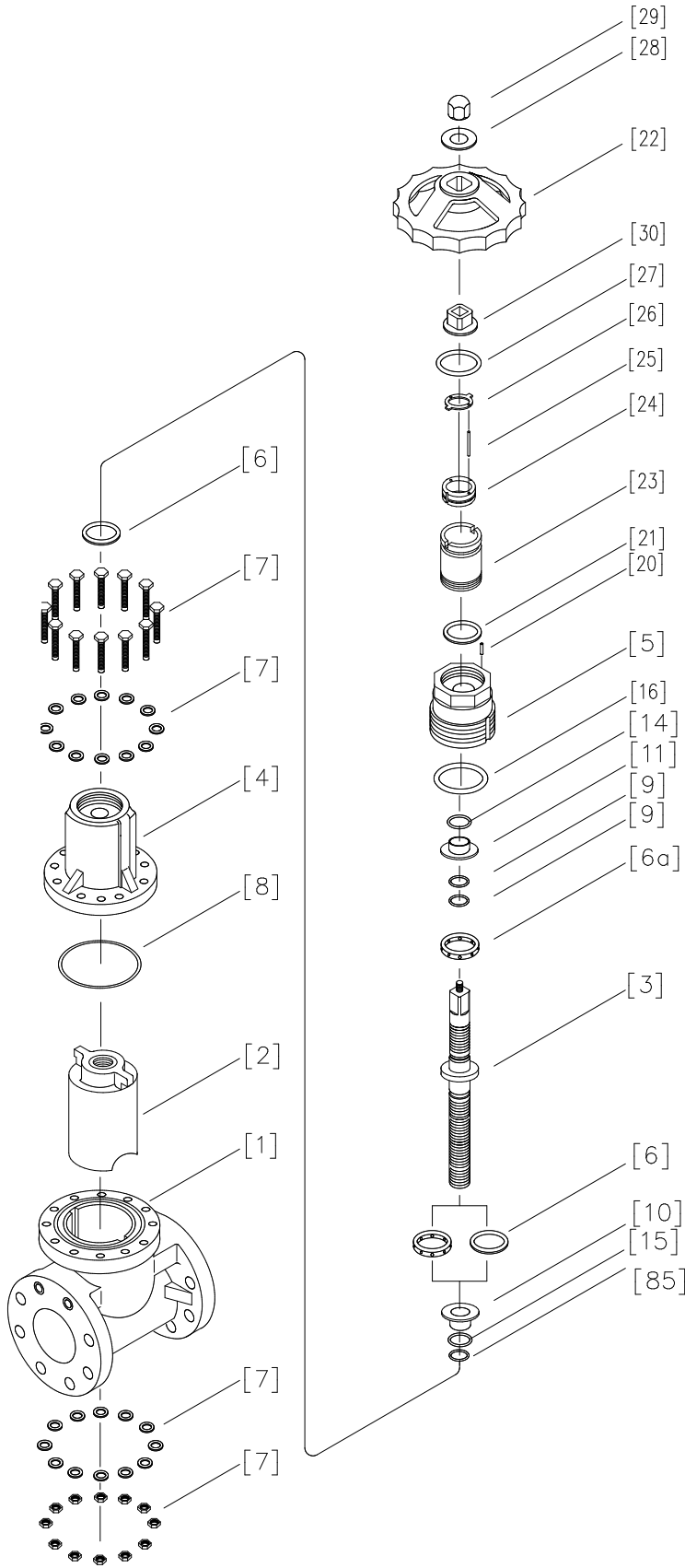
AV Gate Valve Type P
200 (8") - 350mm (14")
Cap / Metal Stem



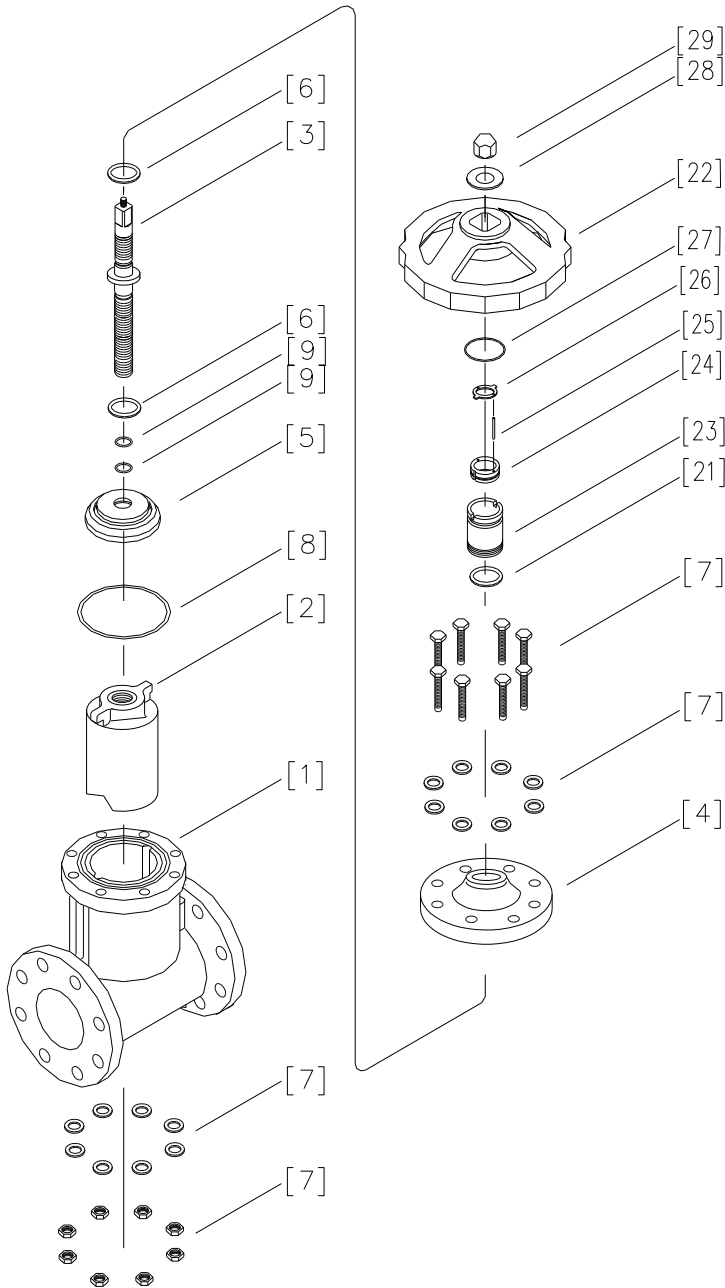
No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[6a]	Thrust bearing
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[10]	Bush (A)
[11]	Bush (B)
[15]	O-ring (F)
[16]	O-ring (D)
[17]	Set screw (A)
[18]	Dust seal
[19]	Cap (A)
[20]	Set screw (B)
[85]	O-ring (M)



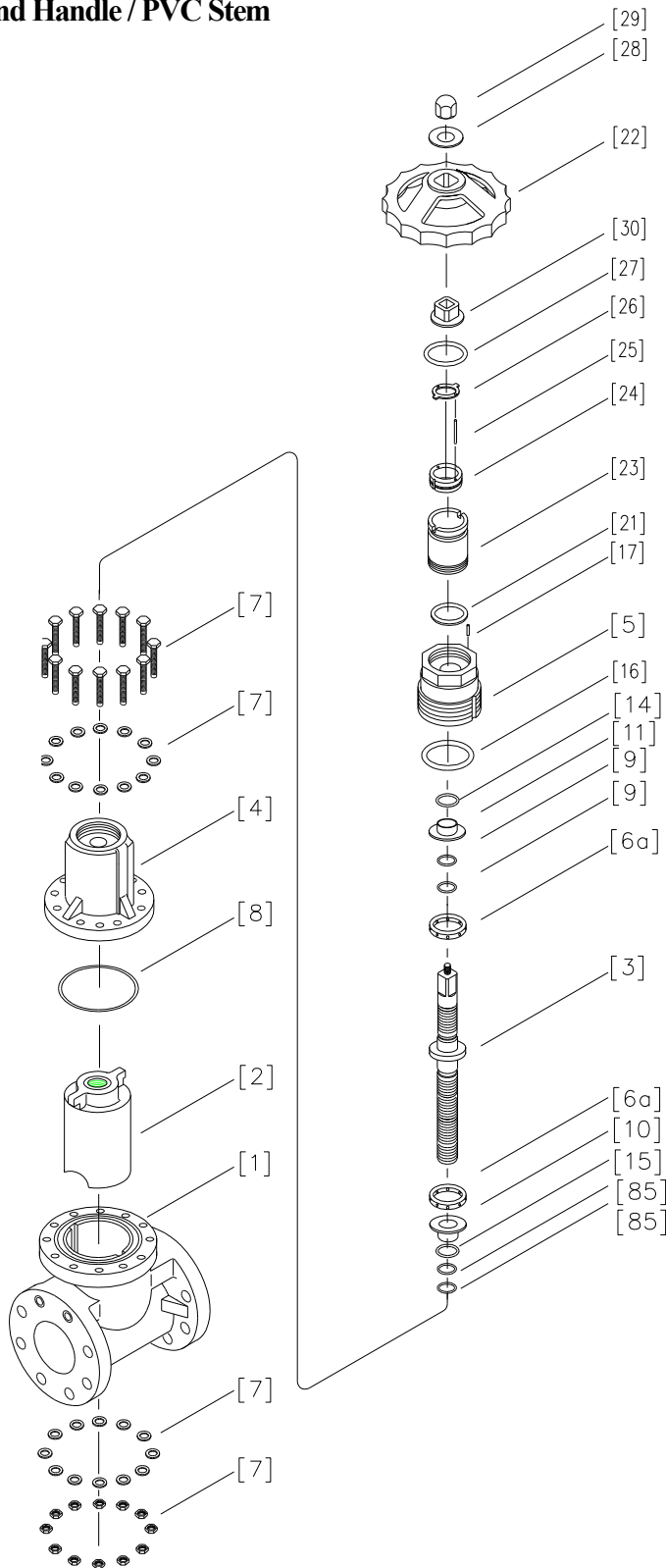
No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[16]	O-ring (D)
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[25]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut
[30]	Handle bush



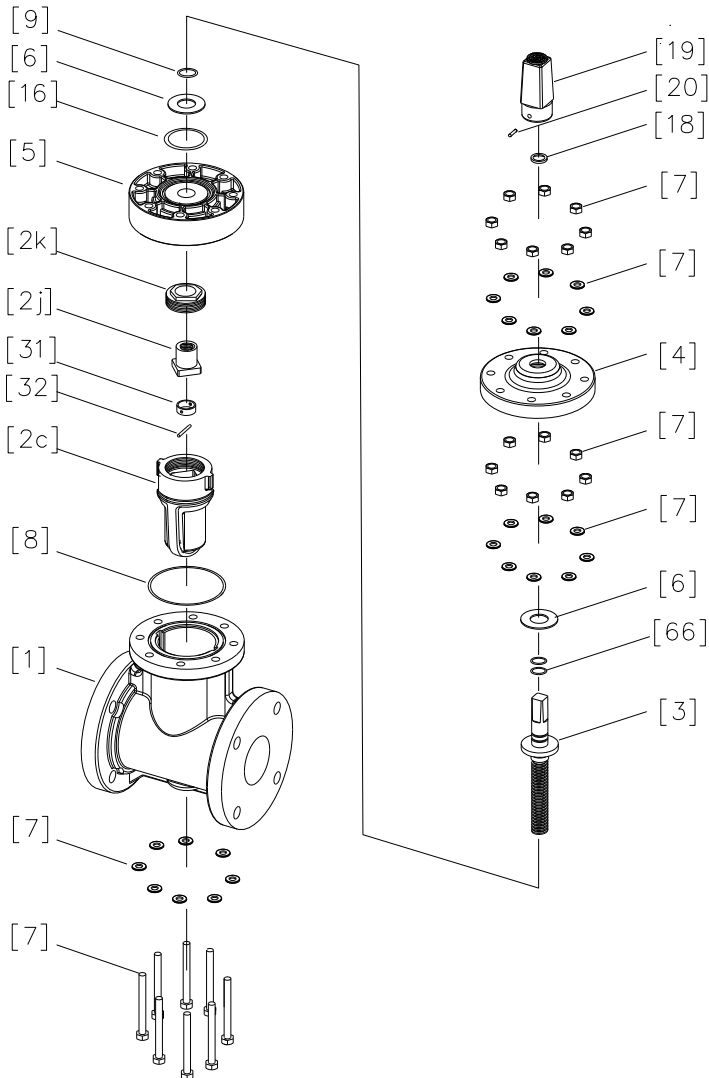
No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[6a]	Thrust bearing
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[10]	Bush (A)
[11]	Bush (B)
[14]	O-ring (E)
[15]	O-ring (F)
[16]	O-ring (D)
[20]	Set screw (A)
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[25]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut
[30]	Handle bush
[85]	O-ring (M)



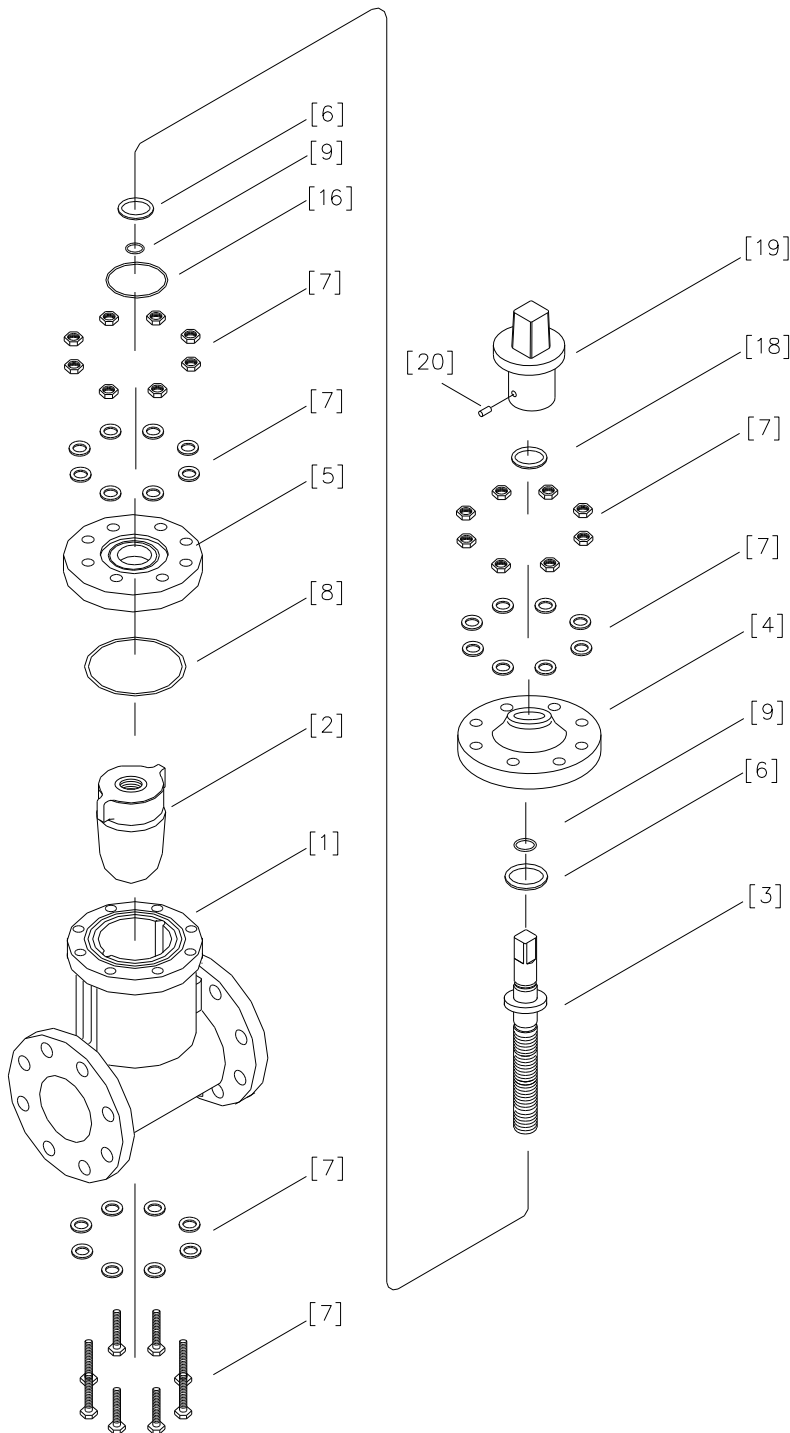
No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[25]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut



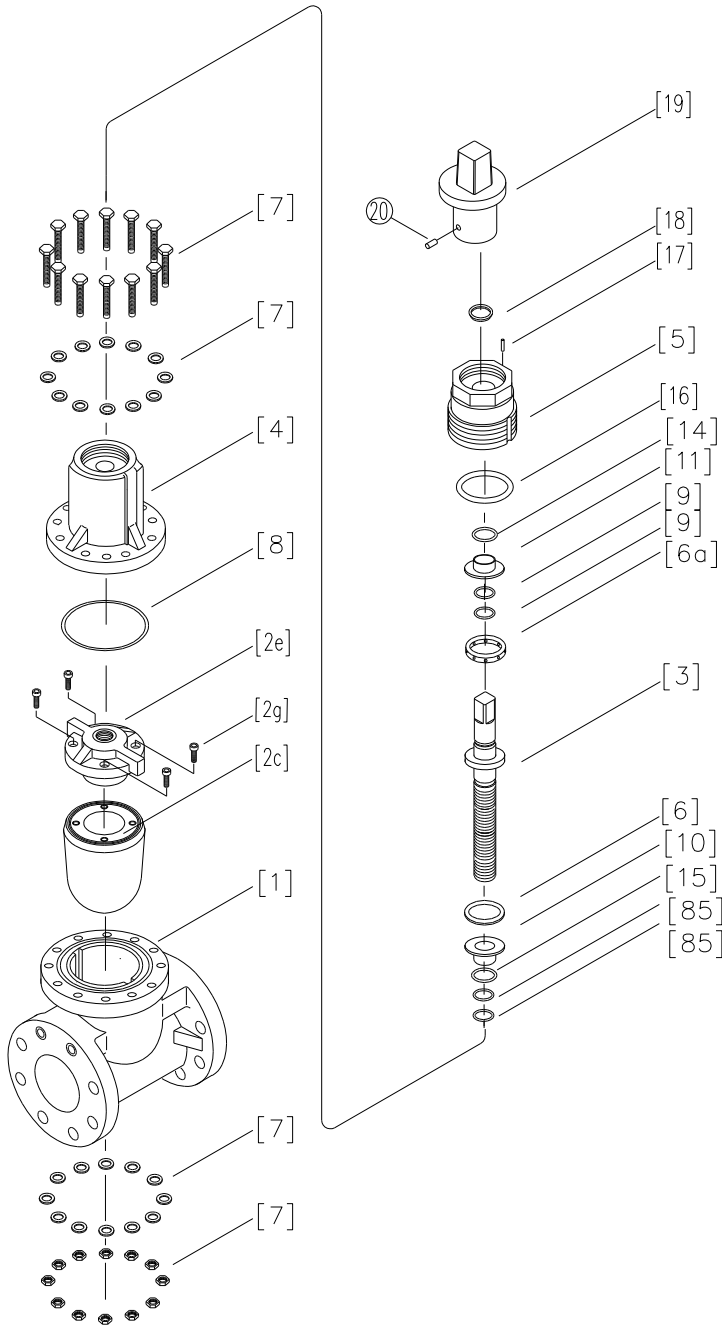
No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[6a]	Thrust bearing
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[10]	Bush (A)
[11]	Bush (B)
[14]	O-ring (E)
[15]	O-ring (F)
[16]	O-ring (D)
[17]	Set screw (A)
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[25]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut
[85]	O-ring (M)



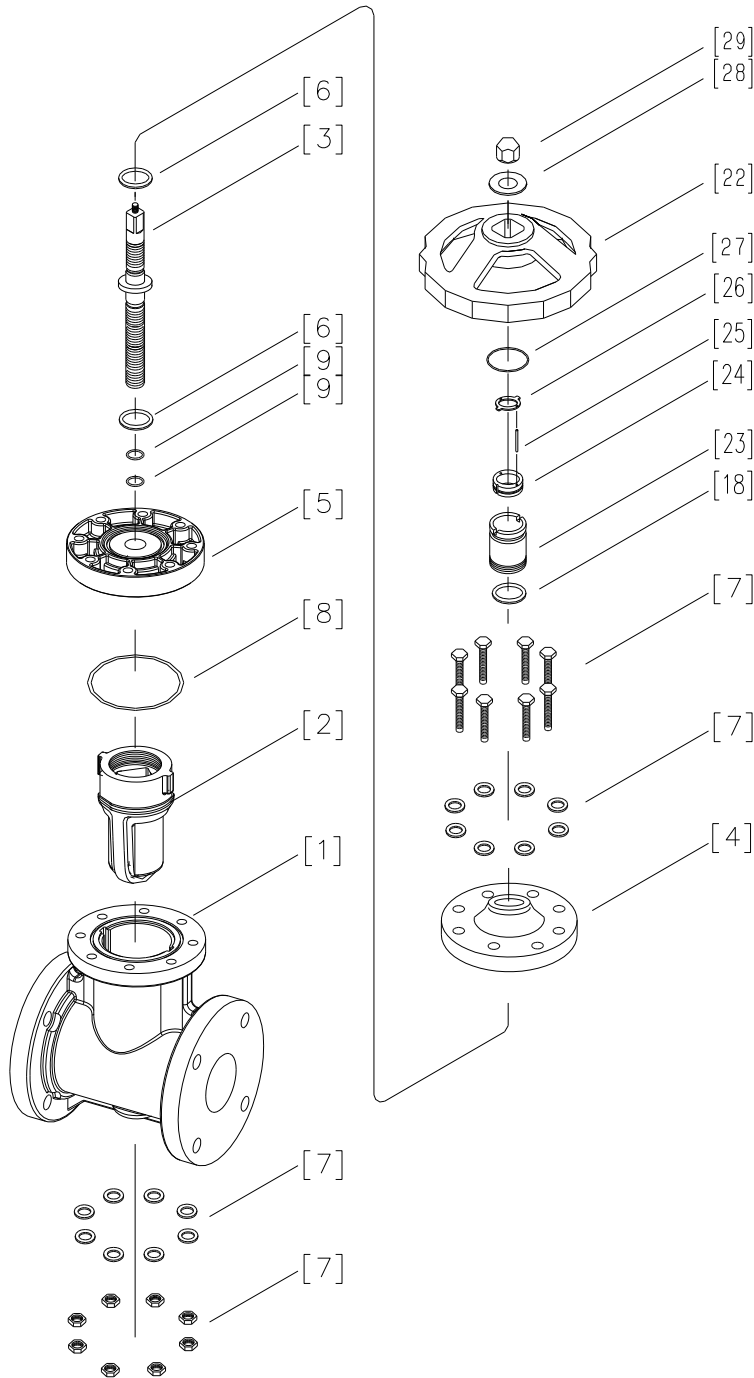
No.	DISCRIPTION
[1]	Body
[2c]	Gate (A)
[2j]	Female screw metal
[2k]	Female screw holder
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[16]	O-ring (D)
[18]	Dust screw
[19]	Cap
[20]	Set screw (B)
[31]	Stopper (A)
[32]	Pin (A)
[66]	O-ring (H)



No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[16]	O-ring (D)
[18]	Dust seal
[19]	Cap
[20]	Set screw (B)

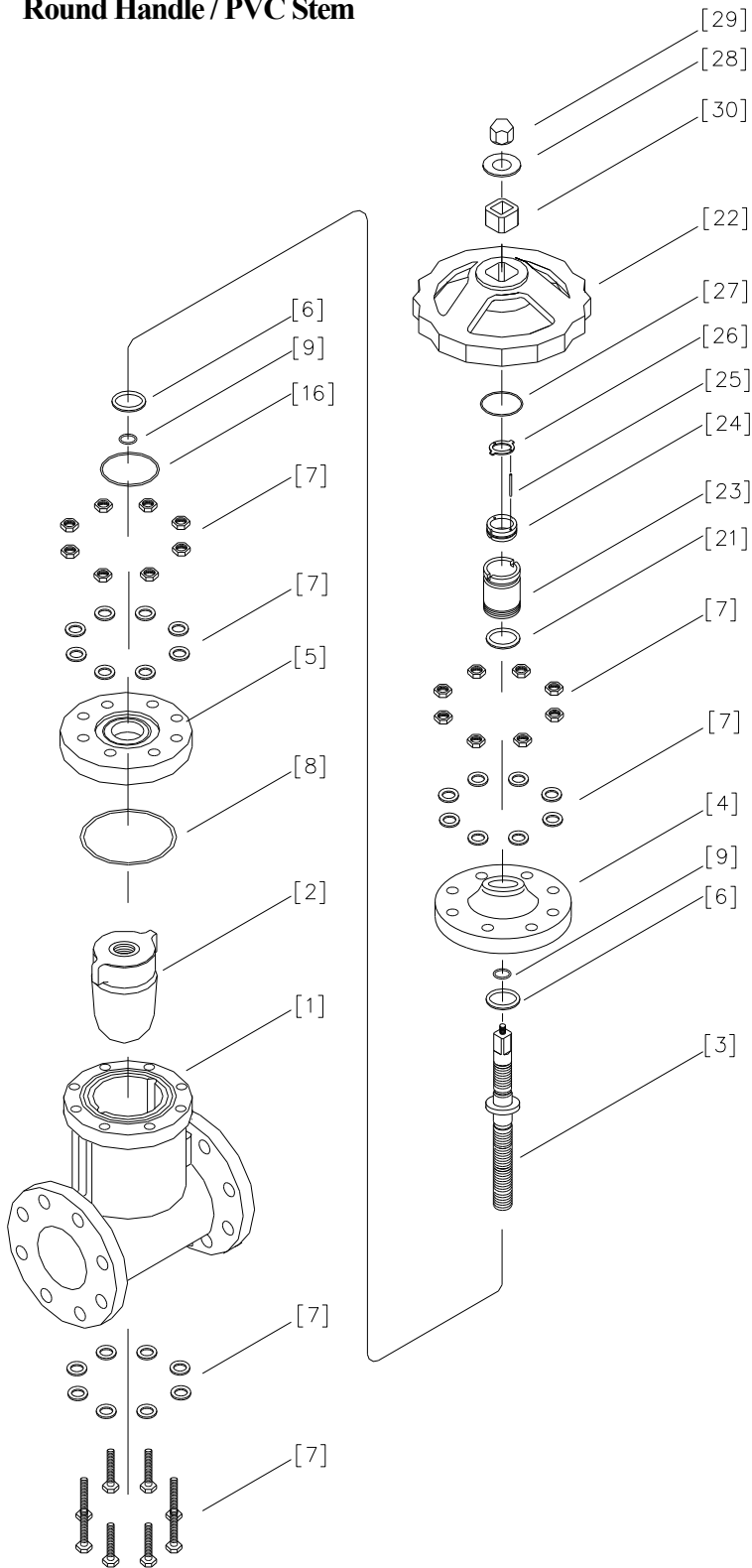


No.	DESCRIPTION
[1]	Body
[2c]	Gate (A)
[2e]	Gate (B)
[2g]	Bolt (A)
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[6a]	Thrust bearing
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[10]	Bush (A)
[11]	Bush (B)
[14]	O-ring (E)
[15]	O-ring (F)
[16]	O-ring (D)
[17]	Set screw (A)
[18]	Dust screw
[19]	Cap
[20]	Set screw (B)
[85]	O-ring (M)

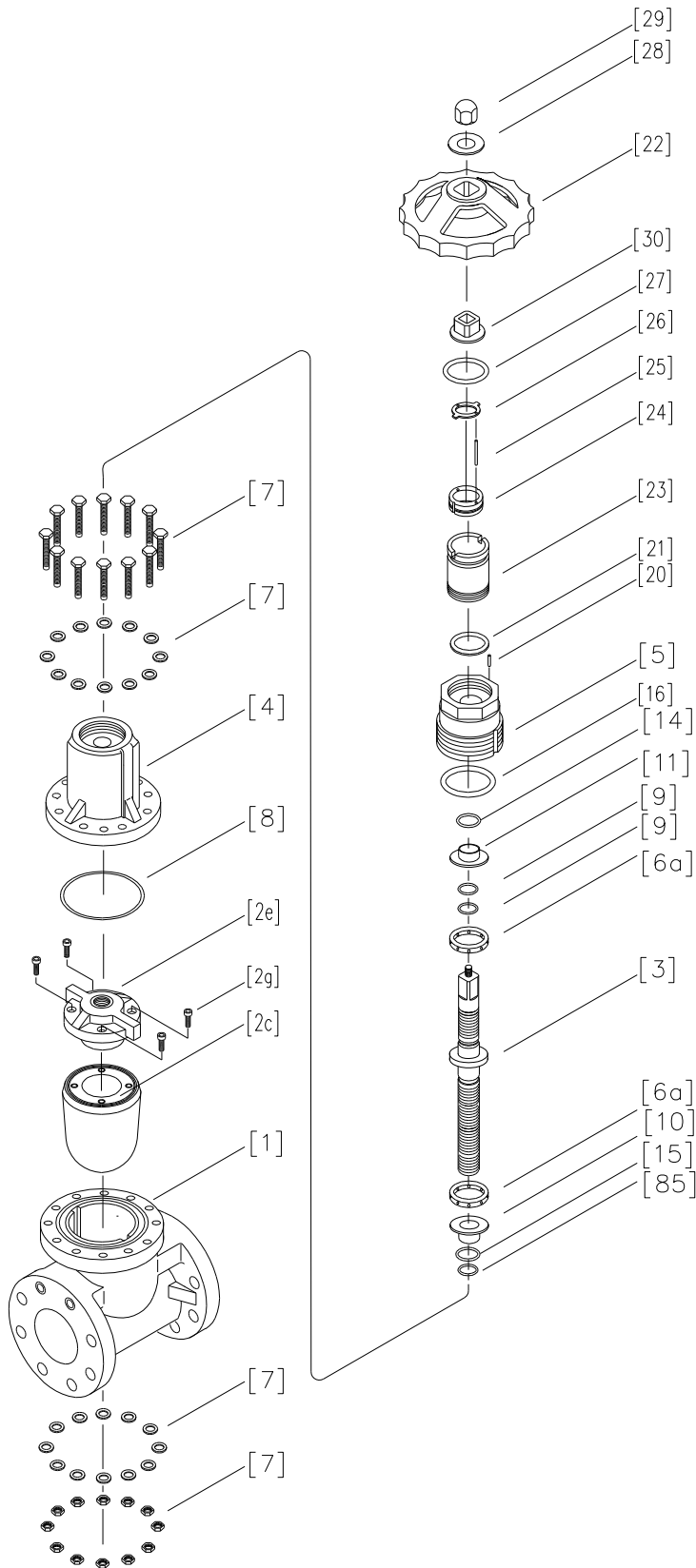


No.	DESCRIPTION
[1]	Body
[2c]	Gate (A)
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[25]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut

AV Gate Valve Type S
65mm (2 1/2"), 125mm (5")
Round Handle / PVC Stem

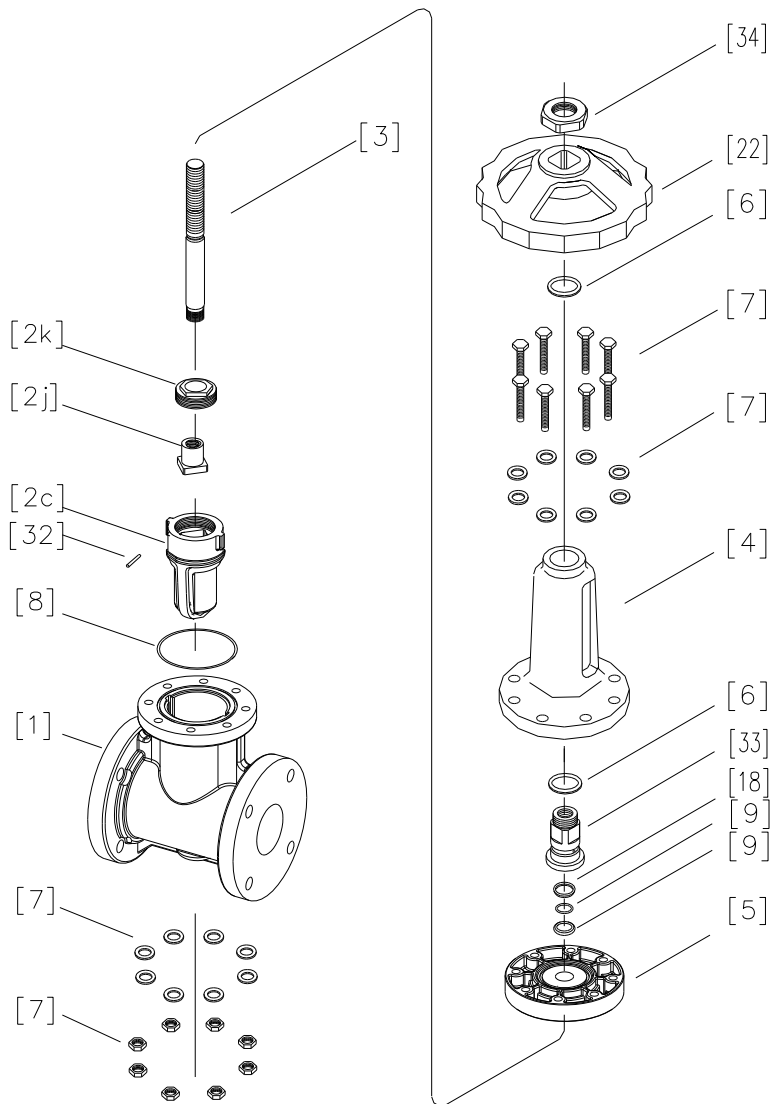


No.	DESCRIPTION
[1]	Body
[2]	Gate
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[16]	O-ring (D)
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[25]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut
[30]	Handle bush



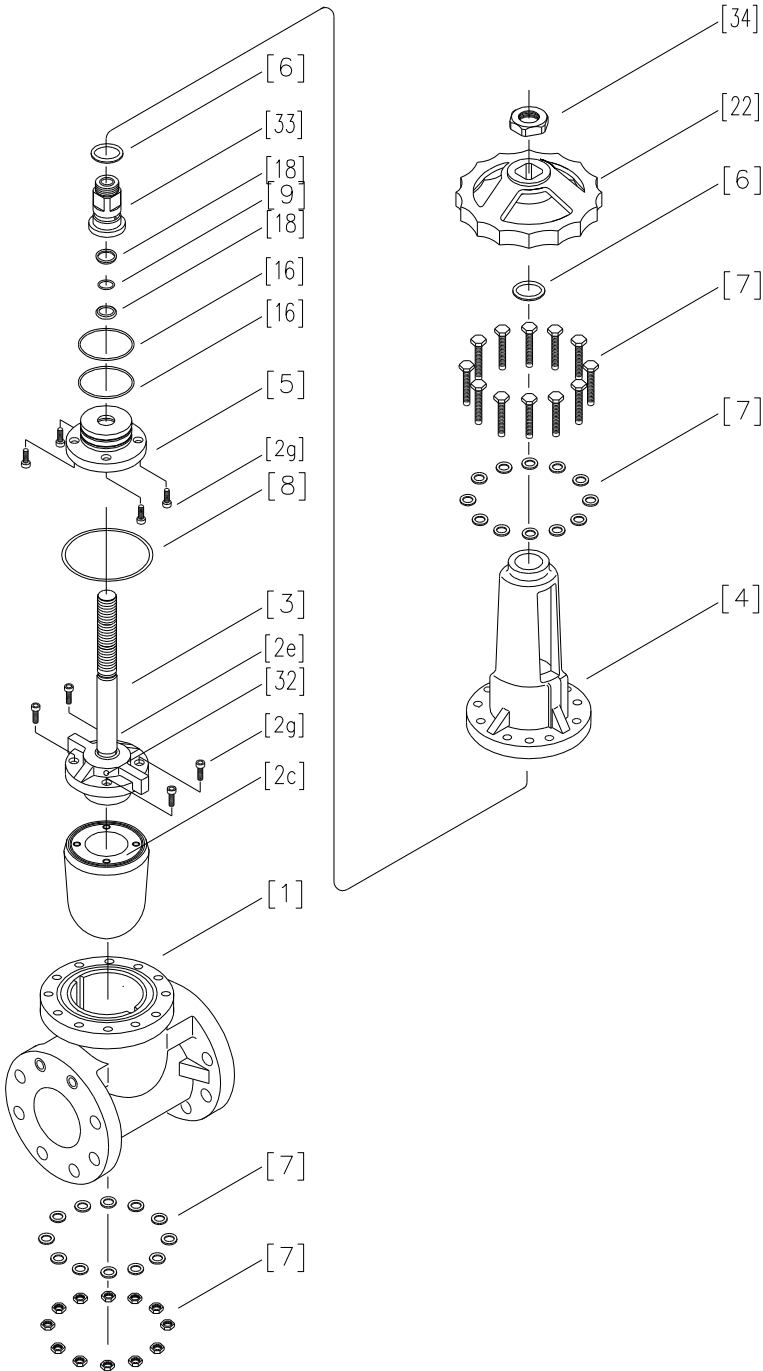
No.	DESCRIPTION
[1]	Body
[2c]	Gate (A)
[2e]	Gate (B)
[2g]	Bolt (A)
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6a]	Thrust bearing
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[10]	Bush (A)
[11]	Bush (B)
[14]	O-ring (E)
[15]	O-ring (F)
[16]	O-ring (D)
[17]	Set screw (A)
[18]	Dust seal
[21]	Packing
[22]	Handle
[23]	Indicating cover
[24]	Indicating ring
[24]	Guide pin
[26]	Guide pin holder
[27]	O-ring (G)
[28]	Washer
[29]	Box nut
[30]	Handle bush
[85]	O-ring (W)

AV Gate Valve Type S
30 (1 1/4") - 150mm (6")
External Threaded Type
Round Handle / Metal Stem



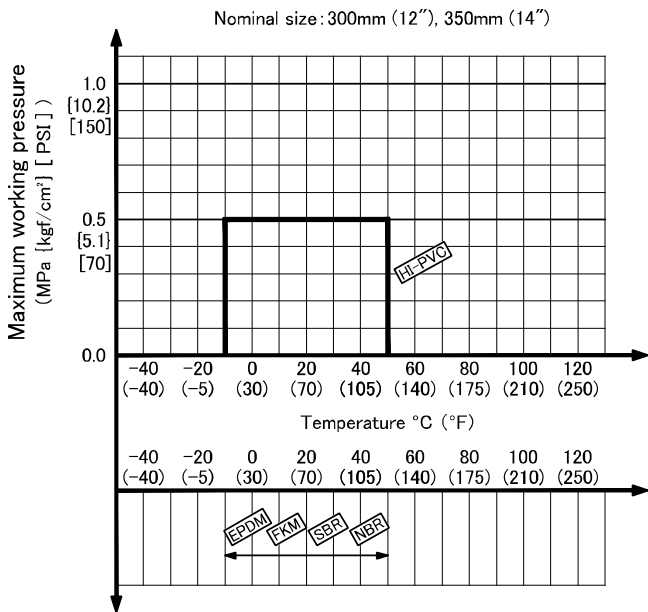
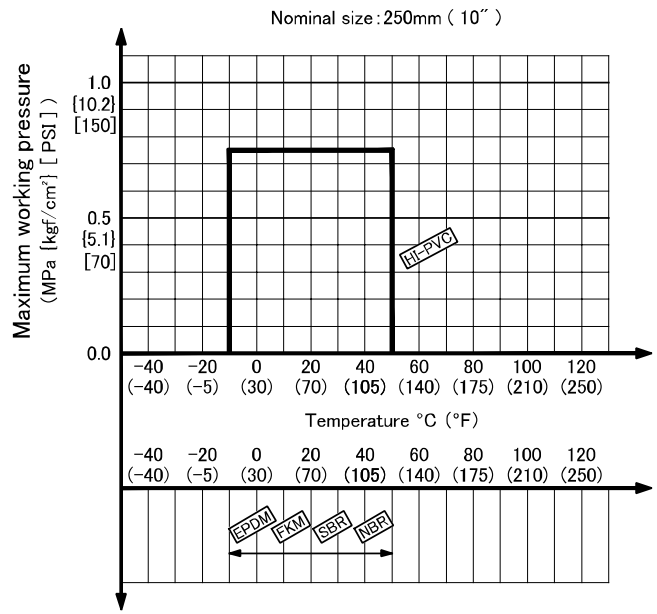
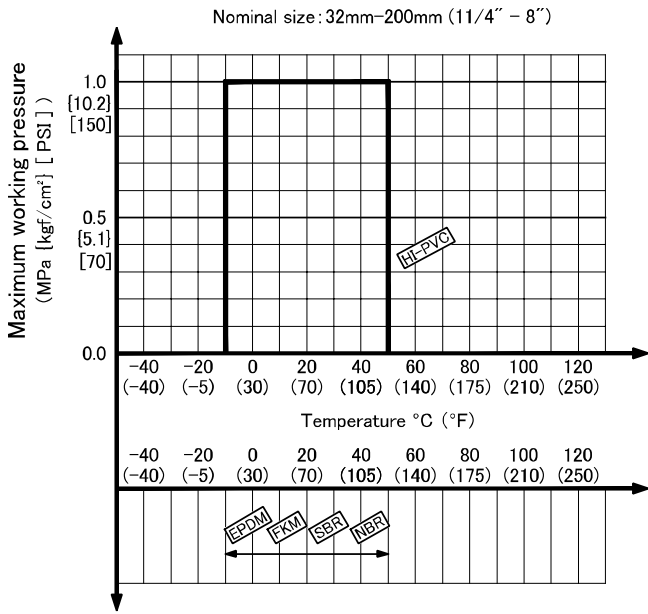
No.	DESCRIPTION
[1]	Body
[2c]	Gate (A)
[2j]	Female screw metal
[2k]	Female screw holder
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[18a]	Dust seal (A)
[22]	Handle
[32]	Pin (A)
[33]	Sleeve
[34]	Nut

AV Gate Valve Type S
200mm (8"), 250mm (10")
External Threaded Type
Round Handle / Metal Stem



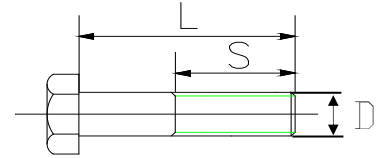
No.	DESCRIPTION
[1]	Body
[2c]	Gate (A)
[2e]	Gate (B)
[2g]	Bolt (A)
[3]	Stem
[4]	Bonnet (A)
[5]	Bonnet (B)
[6]	Thrust ring
[7]	Bolt-nut (A)
[8]	O-ring (B)
[9]	O-ring (C)
[16]	O-ring (D)
[18]	Dust seal
[22]	Handle
[32]	Pin (A)
[33]	Sleeve
[34]	Nut

(5) Maximum working pressure vs. temperature



2.1) Bolt Length (Flanges: AV TS Flange)

n: Number of Bolt, d: Nominal Size, L: Length, S: Length of Threaded



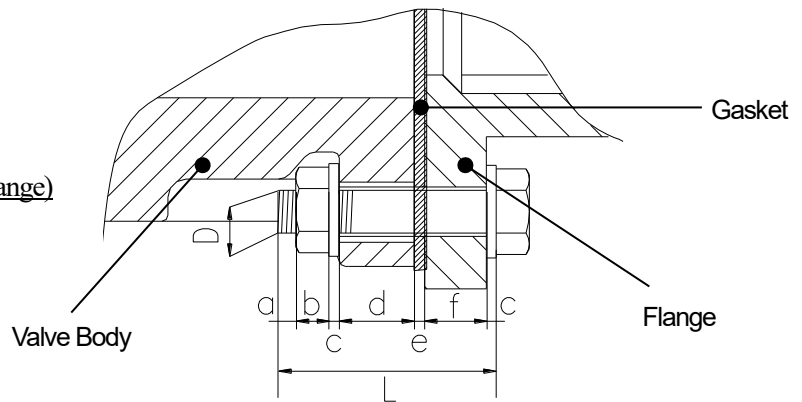
Dimension of Bolt (Minimum)

Nom. Size mm (inch)	JIS 10K (unit: mm)				ANSI Class150 (unit: inch)				DIN PN10 (unit: mm)			
	n	D	L	S	n	D	L	S	n	D	L	S
32mm (1¼")	4	M16	70	38	4	W5/8"-11	2.56"	1.50"	4	M16	70	38
40mm (1½")	4	M16	70	38	4	W5/8"-11	2.56"	1.50"	4	M16	70	38
50mm (2")	4	M16	75	38	4	W5/8"-11	2.76"	1.50"	4	M16	75	38
65mm (2½")	4	M16	75	38	4	W5/8"-11	2.95"	1.50"	4	M16	75	38
80mm (3")	8	M16	75	38	4	W5/8"-11	2.95"	1.50"	8	M16	75	38
100mm (4")	8	M16	75	38	8	W5/8"-11	3.15"	1.50"	8	M16	75	38
125mm (5")	8	M20	85	46	8	W3/4"-10	3.35"	1.81"	8	M16	85	38
150mm (6")	8	M20	90	46	8	W3/4"-10	3.15"	1.81"	8	M20	90	46
200mm (8")	10	M20	90	46	6	W3/4"-10	3.35"	1.81"	6	M20	90	46
250mm (10")	12	M22	90	50	12	W7/8"-9	3.74"	1.97"	12	M20	90	46
300mm (12")	14	M22	100	50	10	W7/8"-9	3.74"	1.97"	10	M20	100	46
350mm (14")	12	M22	110	50	8	W1"-8	3.94"	1.97"	12	M20	100	46

<Inserted metal of Body> Dimension of Bolt (Minimum)

Nom. Size mm (inch)	JIS 10K (unit: mm)				ANSI Class150 (unit: inch)				DIN PN10 (unit: mm)			
	n	D	L	S	n	D	L	S	n	D	L	S
200mm (8")	2	M20	55	46	2	W3/4"-10	2.17"	1.81"	2	M20	55	46
300mm (12")	2	M22	55	50	2	W7/8"-9	2.36"	1.97"	2	M20	60	46
350mm (14")	4	M22	60	50	4	W1"-8	2.36"	1.97"	4	M20	60	46

2.2) Bolt Length (Flanges: Except for AV TS Flange)



$$\text{Bolt Length [L]} = \text{Three threads beyond Nut of Bolt [a]} + \text{Thickness of Nut [b]} + \text{Thickness of Washer} \times 2 [\text{c}] + \text{Body [d]} + \text{Thickness of Gasket [e]} + \text{Thickness of Flange [f]}$$

Nom. Size mm (inch)	a	b	c	d	e	f
40mm (1½")	Three threads beyond Nut	Thickness of Nut	Thickness of Washer × 2	22mm (0.87")	Thickness of Gasket	Thickness of Flange
50mm (2")				23mm (0.91")		
65mm (2½")				24mm (0.94")		
80mm (3")				25mm (0.98")		
100mm (4")				27mm (1.06")		
125mm (5")				27mm (1.06")		
150mm (6")				27mm (1.06")		
200mm (8")				28mm (1.10")		
250mm (10")				30mm (1.18")		
300mm (12")				31mm (1.22")		
350mm (14")				32mm (1.26")		

Gate Valves
Type P (Standard: Plug)
Type S (Soft Seal)

ASAHI YUKIZAI CORPORATION



Distributor

<https://www.asahi-yukizai.co.jp/en/>