

SEGURO



Largest Resilient Seal Gate Valve

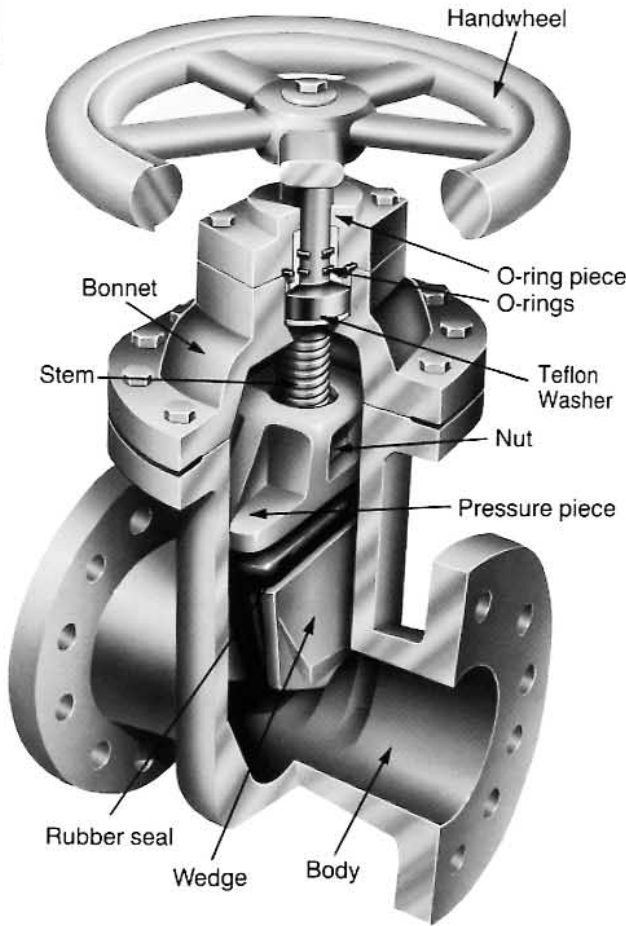
UP TO 60" DIAMETER
OS & Y and NRS



TORONTO, ONTARIO, CANADA

SEGURO

**LARGE
RESILIENT
SEAL
GATE
VALVE**



FILLING THE NEED

There are many reputable manufacturers of resilient seal gate valves, all of them supplying valves up to 12" diameter.

By applying all the advantages of resilient seal gate valves, Seguro developed and has provided a complete line up to 60", OS & Y and NRS, thus filling the demand for large size resilient seal gate valves, since 1972. Now the design engineers and the users can specify and ask for RESILIENT SEAL GATE VALVES in sizes up to 60" diameter. (Larger sizes on application.)

GENERAL FEATURES

Since 1972, the Seguro Gate Valve, has represented a new concept in gate valve design; it is unique in that the sealing of the valve is effected by a soft rubber seal, firmly secured by a 3 piece wedge. The wedge is guided by ribs, cast into the valve body, which has a 100% full round bore through the body passage. With the self flushing design of the valve body, possible build-up of sediments or other foreign matter in the valve body is eliminated. The result, a minimum of maintenance and 100% bubbletight closure.

The above features, combined with simple but sound engineering practices, assure an ideal shut-off device for almost all installations and mediums. 100% closure, high reliability in service and long life with a minimum of maintenance, make Seguro a logical choice for economical and trouble free service.

SEGURO FEATURES

100% BUBBLE TIGHT SEAL

Bi-directional
Ideal for sludge, sewage applications
Long Life

100% FULL BORE FLOW WATER PASSAGE

No pockets or cavities for debris to collect
Self Flushing
Low pressure drops
Ideal for tapping

RESILIENT SEAL UP TO 60"

Conforms to ANSI Dimensions
Larger sizes on application

ISO 9001 QUALITY PROGRAM

Lloyd's Register Q.A. Certificate



*SEGURO is manufactured by Brdr. Christensens Haner A/S, Skuderlose, Denmark
Exclusive North American Distributors: NEO Valves, Toronto, Canada*

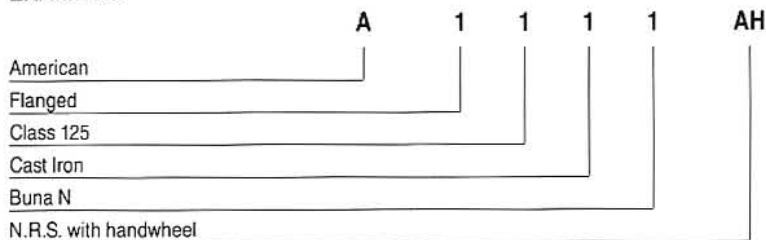
ORDERING and SPECIFYING

Seguro Gate Valves are available in a wide range of variants each having its own Identification Number.

From below select the appropriate numerals and letters.

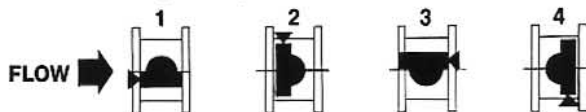
CODE:		symbol 1.	symbol 2.	symbol 3.	symbol 4.	symbol 5.	symbol 6.
Standards	American	A					
	British	B					
	Danish	D					
	German Din 3216	TF					
	German Din 3225	TO					
End Connections	Screwed		0				
	Flanged		1				
	Mechanical Joint Ends		4				
	Note: Other end connections to order						
Pressure Class	125 Pound			1			
	250 Pound			3			
Body & Bonnet Material	Cast Iron				1		
	Ductile Iron				3		
Seal Material	Buna N					1	
	E.P.D.M.					2	
* Methods of Operating	Non Rising Stem: Less handwheel						A
	Non Rising Stem: Complete with handwheel						AH
	Non Rising Stem: With manual gear operator						AM
	Non Rising Stem: With electric operator						AE
	Non Rising Stem: With indicator and handwheel						IH
	Rising Stem: (O.S. & Y.) Less handwheel (or c/w handwheel)						B (BH)
	Rising Stem: (O.S. & Y.) c/w man. gear op'r. (or electric op'r.)						BM (BE)

EXAMPLE:



Note: Due to continuous development of our range of valves we reserve the right to alter the dimensions and information contained in all our literature as required.

*When ordering with operator indicate desired position.



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CONSTRUCTION FEATURES

Valve Body

The body has a 100% full flow bore with no cavities or obstructions in the waterway. This minimizes pressure drops and prevents accumulation of sediments and debris. The clear unobstructed waterway is ideally suited for tapping operations. (Fig. 1)

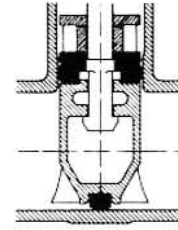


FIG. 1

Smooth accurate travel of the wedge is assured by tongue type guides cast integrally with the wedge. These guides follow the ribs cast into the valve body, insuring smooth accurate seating of the valve. (Fig. 2)

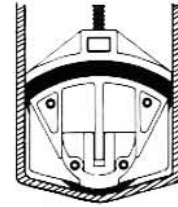


FIG. 2

Wedge

The wedge consists of two halves (bolted together with stainless steel bolts) a pressure piece and the rubber seal. When assembled, the two halves and the pressure piece form a groove in which the seal is retained and protected. Projections are cast on the bottom of the wedge; these act as a "stop" and prevent overloading of the rubber seal and overseating. A drain hole is provided in the bottom of the seal to prevent stagnation of water. (Fig. 3)

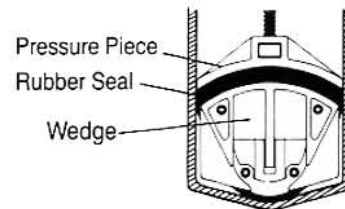


FIG. 3

The wedge is shown as it is about to be seated. (Fig. 4) Note as the seal touches the bottom of the port area as well as the vertical walls of the valve body there are no projections.

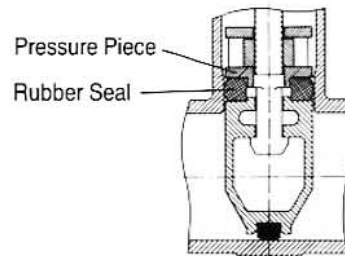


FIG. 4

The valve is now fully seated and is hermetically closed. (Fig. 5) Note the seal is 100% bubble tight as the gate rubber is compressed downward and outward by the movement of the gate as it closes. Also note the built-in "stop" prevents overseating of the valve.

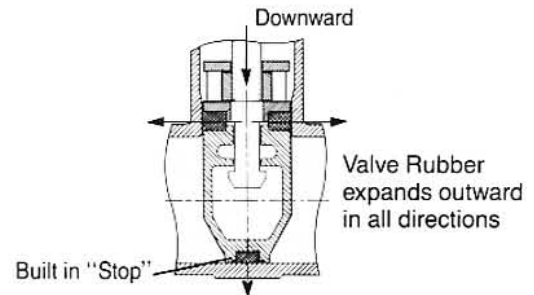


FIG. 5

Bonnet

Bonnet on all sizes and types of Seguro valves are of bolted construction. (Fig. 6)

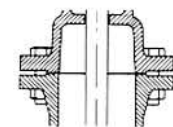


FIG. 6

CONSTRUCTION FEATURES

Stem Passage

N.R.S. sizes 1 1/2" - 60"

The design of the stem passage is the same for all valves with N.R.S.

The bearing assembly consists of a flanged cast iron or steel "O" ring piece fastened to the bonnet with 4 bolts. The "O" ring piece is bored and lined with a nylon bushing.

The seal is obtained through 2 "O" rings which are inserted in the nylon bushing. (Fig. 7)

Non-Rising Stem Seguro Gate Valves have a teflon washer placed under the spindle collar; this is intended to ease operation of the valve and, at the same time, to act as a seal between the spindle collar and the bonnet. (Fig. 8)

When the valve is fully open, the spindle collar is pulled down. As a hermetic seal is obtained, even at maximum working pressure, this facilitates the replacement of "O" rings with the valve under pressure. This is accomplished simply by removing the 4 bolts in the "O" ring piece. (Fig. 8)

All N.R.S. Seguro Gate Valves are also equipped with a rubber wiper washer fitted over the stem, flush with the bonnet. This prevents penetration of sediment, or other foreign matter. (Fig. 9)

OS & Y, Sizes 1 1/2" - 60"

On valves with Outside Screw and Yoke the stem passage is built up as follows.

A brass bushing, which serves as a guide for the stem, is pressed into the yoke. This bushing is machined to contain the stem packing and at the bottom it is chamfered for backseating, allowing the valve to be repacked under pressure.

The stem packing is a self-tightening "U" packing and is secured by a stainless steel locking ring. (Fig. 10)

The yoke is bolted to the bonnet on all sizes.

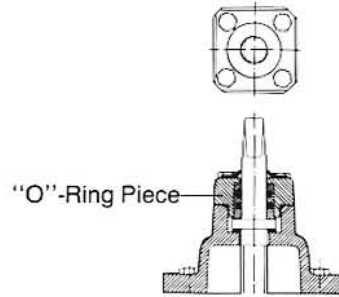


FIG. 7

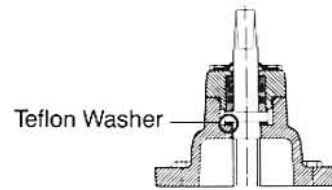


FIG. 8

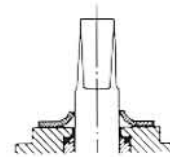


FIG. 9

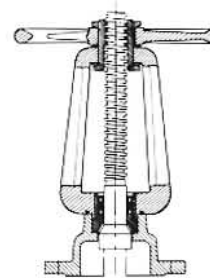


FIG. 10

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VALVE

CONSTRUCTION FEATURES

Stem

The stem is of stainless steel, one piece construction with a very sturdy collar on valves with N.R.S. The square of the stem is pyramidic type. (Fig. 11)

On valves with OS & Y (Outside Screw and Yoke), the stem has a chamfer which backseats against the brass bushing. This allows the "U" packings to be changed under full line pressure. (Fig. 12)

The thread is a rolled trapezoidal type, thus thread flanks have a flat, hard surface.

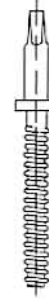


FIG. 11



FIG. 12

Number of Turns of the Handwheel to Open Valve:

Valve Size (Class 125 lbs.)	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"
No. of Turns	14	16	19	22	27	27	32	42	52	62	62	70	78	84	88	97	103	120	124	140

Stem Nut

Standard construction is brass. The stem nut is also available in cast iron where copper alloys are not used, such as alkali or acid services where there is a risk of galvanic corrosion. The stem nut "floats" within the pressure piece to prevent radial loading of the stem. (Fig. 13)

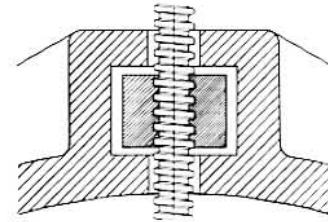


FIG. 13

Seguro Gate Valves are cast, machined, assembled and tested in a Quality Approved Factory. All moving parts are thoroughly lubricated with Molybdenum sulphide grease. Each valve is coated inside and outside with a special corrosion resisting plastic (Polyacrylate/Isocyanate). Each and every valve is tested to conform to the standards outlined in the specification sheets.

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MATERIALS*

Part Name	Material
Body and Bonnet	Ductile Iron, Cast Iron
Stem	Stainless steel AISI 420
Stem Nut	Brass
	Bronze (optional)
	Cast Iron (optional)
Seal	Buna N
	EPDM (optional)

*See Parts List for additional Material Data.

END OPTIONS**

Type	Size Availability***
Flanged (ANSI)	1 1/2" - 60"
Mechanical Joint (AWWA)	4" - 48"
Victaulic, Flange x Victaulic	Available to special order

***Larger sizes available on special request.

**Other end options available upon request.

PRESSURE DATA

FOR CLASS 125 VALVE

Name	Working Pressure (psi)	Test Pressure (psi)
Shell:		
1 1/2" - 12"	200	400
14" - 60"	150	300
Seat		
1 1/2" - 12"	200	200
14" - 60"	150	150

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SEAL TEMPERATURE LIMITS**

Service/Seal Type	Buna N	EPDM
Water	195	265
Steam	*	265
Air	195	250
Oil	195	*
Gasoline	122	*
Natural Gas	+	+
Moderate Acids	+	+
Moderate Alkalies	+	+

* Not constant + Constant

**Temperature in °F

WEIGHTS (Lbs)

Size*	Flanged N.R.S.	Flanged O.S. & Y.	Mechanical Joint N.R.S.
1-1/2"	23	25	—
2"	29	31	—
2-1/2"	38	42	—
3"	44	51	—
4"	66	75	66
5"	97	108	—
6"	122	133	108
8"	245	267	209
10"	406	432	362
12"	518	549	456
14"	618	660	551
16"	937	984	827
18"	1047	1102	926
20"	1389	1459	1257
24"	1984	2083	1852

*Sizes above 24" may have gear operator and bypass.
Refer to your Seguro representative for weights.

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DIMENSIONS

Class 125 N.R.S.

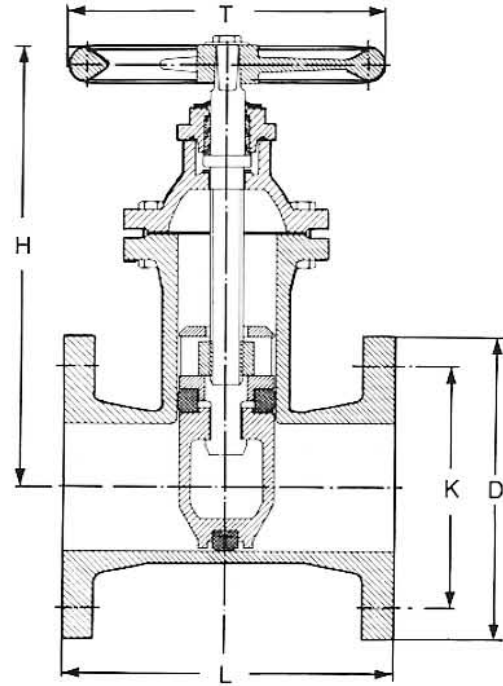
Designed for use where a limited amount of head room is available and where exposure of stem threads to the atmosphere is not desirable.

Brass nut can be replaced with one of cast iron on alkali, acid and other moderately corrosive fluids.

Face to face dimensions ANSI B16.10

Catalogue #A-1111AH (Buna N Seal)

#A-1112AH (EPDM Seal)



Size (mm)	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	750	900	1000	1200	1400
D	127	152	178	191	229	254	279	343	406	483	533	597	635	699	813	984	1168	1346	1511	1683
E	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20	28	32	36	44	44
F	16	19	19	19	19	22	22	22	25	25	28	28	32	32	35	35	41	41	41	41
H	227	222	253	284	318	384	421	553	630	716	812	916	991	1066	1246	1654	1864	2259	2565	2794
K	98	121	138	152	191	216	241	299	362	432	476	540	578	635	749	914	1086	1257	1422	1594
L	165	178	191	203	229	254	267	292	330	356	381	406	432	457	508	610	711	864	914	1016
T	180	180	200	200	225	280	320	360	400	400	500	500	640	640	720	800	800	900	1000	1200

Size (in.)	1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	30	36	42	48	54
D	5	6	7	7½	9	10	11	13½	16	19	21	23½	25	27½	32	38¾	46	53	59½	66¼
E	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20	28	32	36	44	44
F	5/8	¾	¾	¾	¾	7/8	7/8	7/8	1	1	1½	1½	1¼	1¼	1¾	1¾	1½	1½	1½	1½
H	8¾	8¾	10	11½	12½	15½	16½	21¾	24¾	28½	32	36	39	42	49	65½	73¾	88¾	101	110
K	3¾	4¾	5½	6	7½	8½	9½	11¾	14¼	17	18¾	21¼	22¾	25	29½	36	42¾	49½	56	62¾
L	6½	7	7½	8	9	10	10½	11½	13	14	15	16	17	18	20	24	28	34	36	40
T	7½	7½	7¾	7¾	8¾	11	12½	14½	15¾	15¾	19½	19½	25¼	25¼	28¾	31½	31½	35¾	39¾	47¼

NOTE: E = number of holes F = hole diameter

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DIMENSIONS

Class 125 OS & Y

Recommended for shut-off control of most fluids and gases. On special order also including certain alkalis, chemicals and other moderately corrosive fluids. Since the stem threads do not contact the line medium, the Seguro is suitable to applications where the medium could have a destructive influence on the threads.

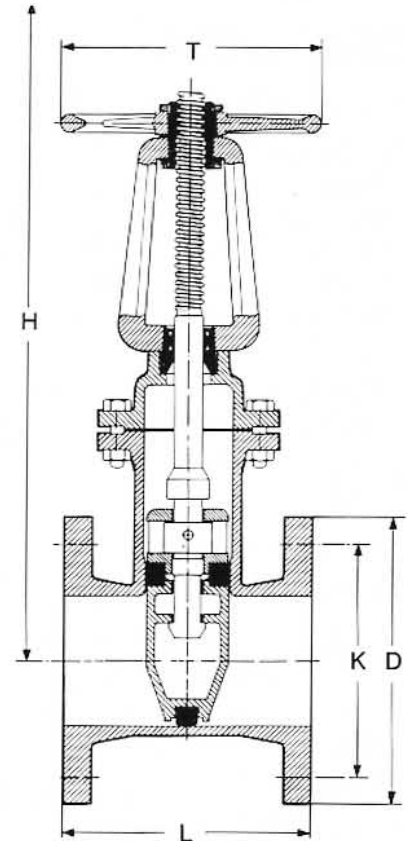
The rising stem serves as an indicator.

The yoke, yoke screw and stem are of heavy construction, designed for easy cleaning and re-packing of the valve under pressure.

Face to Face Dimensions ANSI B16.10

Catalogue #A-1111BH (BUNA N Seal)

#A-1112BH (EPDM Seal)



Size (mm)	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	750	900	1000	1200	1400
D	127	152	178	191	229	254	279	343	406	483	533	597	635	699	813	984	1168	1346	1511	1683
E	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20	28	32	36	44	44
F	16	19	19	19	19	22	22	22	25	25	28	28	32	32	35	35	41	41	41	41
H	354	349	439	486	555	678	778	1002	1187	1379	1580	1769	1949	2125	2529	3340	3760	4470	5054	5486
K	98	121	140	152	191	216	241	299	362	432	476	540	578	635	749	914	1086	1257	1422	1594
L	165	178	191	203	229	254	267	292	330	356	381	406	432	457	508	610	711	864	914	1016
T	180	180	200	200	225	280	320	360	400	400	500	500	640	640	720	800	800	900	990	1200

Size (in.)	1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	30	36	42	48	54
D	5	6	7	7½	9	10	11	13½	16	19	21	23½	25	27½	32	38¾	46	53	59½	66¼
E	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20	28	32	36	44	44
F	5/8	¾	¾	¾	¾	7/8	7/8	7/8	1	1	1½	1½	1¼	1¼	1¾	1¾	1½	1½	1½	1½
H	13¾	13¾	17¼	19½	21¾	26½	30½	39¾	46¾	54¼	62½	69½	76¾	83½	99½	131½	148	176	199	216
K	3¾	4¾	5½	6	7½	8½	9½	11¾	14¼	17	18¾	21¼	22¾	25	29½	36	42¾	49½	56	62¾
L	6½	7	7½	8	9	10	10½	11½	13	14	15	16	17	18	20	24	28	34	36	40
T	7½	7½	7¾	7¾	8¾	11	12½	14½	15¾	15¾	19½	19½	25¼	25¼	28¾	31½	31½	35¾	39¾	47¼

NOTE: E = number of holes F = hole diameter



Exclusive North American Distributors: NEO Valves, Toronto, Canada

DIMENSIONS

Class 125 Mechanical Joint Ends

Mechanical Joint Seguro Gate Valves are primarily designed for underground buried service, mainly watermains. Mechanical Joint offer in addition to a drop tight connection, deflection, as well as longitudinal expansion and contraction of the cast iron pipe without leakage.

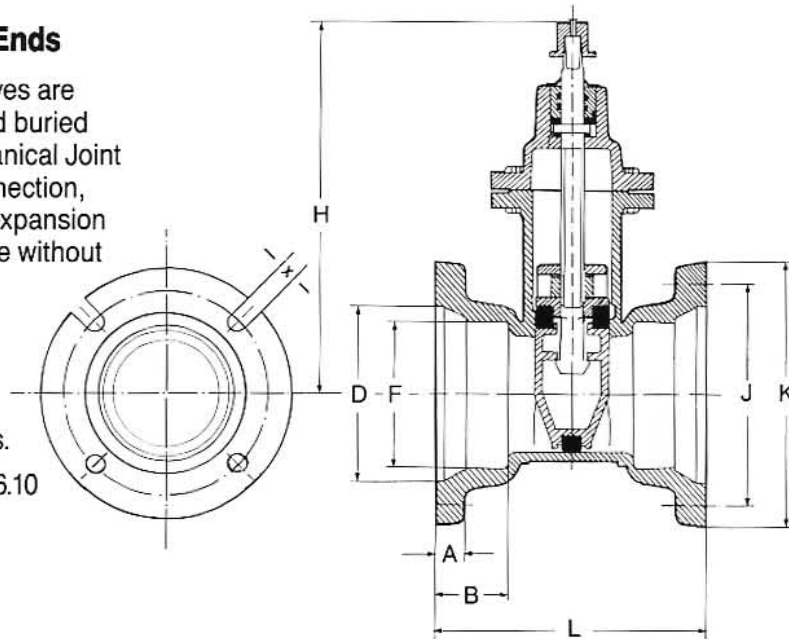
A 2 inch square operating nut is supplied as standard equipment.

Also available are floorstands, extension stems, plus other options.

Face to Face Dimensions ANSI B16.10

ENDS ANSI/AWWA C111/A21.11-80

Catalogue #A-4111A (Buna N Seal)
#A-4112A (EPDM Seal)



Size (mm)	100	150	200	250	300	350	400	450	500	600	750	900	1050	1200
A	25	27	29	30	32	33	35	37	38	41	46	51	51	51
B	60	64	64	73	80	89	89	89	89	89	102	102	102	102
C*	4	6	6	8	8	10	12	12	14	16	20	24	28	32
D	153	207	261	313	367	420	473	527	580	687	850	1010	1167	1327
F	124	178	232	284	338	392	446	499	552	659	817	977	1135	1205
H	315	418	550	627	713	809	913	988	1063	1243	1651	1861	2259	2609
J	191	241	298	356	413	476	533	591	648	762	937	1111	1286	1461
K	230	281	338	397	454	514	572	629	686	800	994	1168	1349	1524
L	229	267	292	330	356	381	406	432	457	508	610	711	813	914
X*	22	22	22	22	22	22	22	22	22	22	29	29	35	35

Size (in.)	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"
A	1.00	1.06	1.13	1.19	1.25	1.31	1.38	1.44	1.50	1.63	1.81	2	2	2
B	2.38	2.50	2.50	2.88	3.13	3.50	3.50	3.50	3.50	3.50	4	4	4	4
C*	4	6	6	8	8	10	12	12	14	16	20	24	28	32
D	6.02	8.13	10.27	12.34	14.44	16.54	18.64	20.74	22.84	27.04	33.5	39.8	46	52.3
F	4.90	7.00	9.15	11.20	13.30	15.44	17.54	19.64	21.74	25.94	32.2	38.5	44.7	47.4
H	12.50	16.50	21.50	24.50	28.00	32.00	36.00	39.00	42.00	49.00	65	73.3	88.9	102.7
J	7.50	9.50	11.75	14.00	16.25	18.75	21.00	23.25	25.50	30.00	36.9	43.8	50.6	57.5
K	9.06	11.06	13.31	15.62	17.88	20.25	22.50	24.75	27.00	31.50	39.1	46	53.1	60
L	9.00	10.50	11.50	13.00	14.00	15.00	16.00	17.00	18.00	20.00	24	28	32	36
X*	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8

*NOTE: X = size of bolt holes C = number of holes and slots

Exclusive North American Distributors: NEO Valves, Toronto, Canada

SEGURO

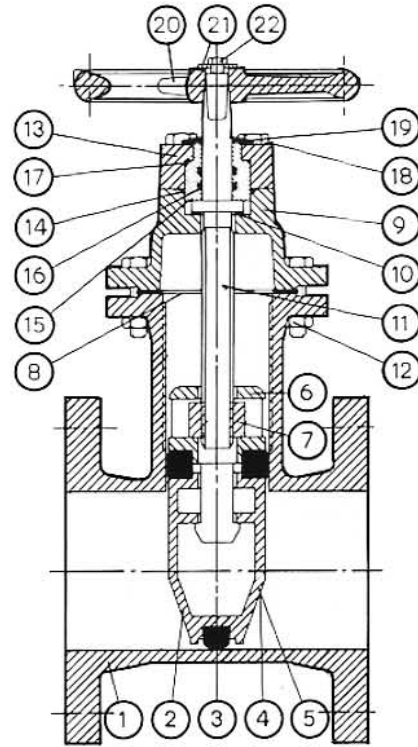
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PARTS LIST

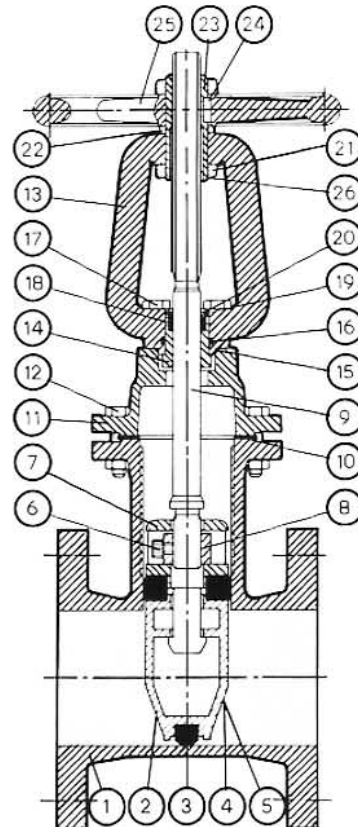
NRS

No.	Part	Material
1	Body	Ductile Iron, Cast Iron
2	Wedge	Cast Iron
3	Rubber Seal	Buna N, EPDM
4	Washer	Nylon
5	Screw	Stainless Steel
6	Pressure Piece	Cast Iron
7	Stem Nut	Brass
8	Gasket	CAF 201
9	Bonnet	Cast Iron, Ductile Iron
10	Washer	Teflon
11	Stem	AISI 420
12	Hexagon Bolts	Steel Hot Zinc
13	O-Rings Piece	Cast Iron
14	O-Ring	Buna N
15	Bushing	Nylon or Bronze
16	O-Rings	Buna N
17	O-Ring (size 350 mm and bigger)	Buna N
18	Hexagon Bolts	Steel Hot Zinc
19	Washer	Rubber
20	Handwheel	Cast Iron
21	Washer	Steel
22	Hexagon Bolt	Steel Hot Zinc



OS & Y

No.	Part	Material
1	Body	Ductile Iron, Cast Iron
2	Wedge	Cast Iron
3	Rubber Seal	Buna N, EPDM
4	Washer	Nylon
5	Scw	Stainless Steel
6	Screw	Stainless Steel
7	Pressure Piece	Cast Iron
8	Stem Nut	Brass
9	Stem	AISI 420
10	Gasket	CAF 201
11	Bonnet	Cast Iron, Ductile Iron
12	Hexagon Bolts	Steel Hot Zinc
13	Yoke	Cast Iron
14	Bushing	Brass
15	O-Ring	Buna N
16	O-Ring	Buna N
17	Hexagon Bolts	Steel Hot Zinc
18	U-Packing	Buna N
19	Washer	Brass
20	Snap Ring	Stainless Steel
21	Nut	Brass
22	Bearing Ring	Bronze
23	Top Stem Nut	Brass
24	Nut Key	Steel
25	Handwheel	Cast Iron
26	Pointed Screw	Stainless Steel



SEGURO

LARGE
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GATE
VALVE

OPTIONS

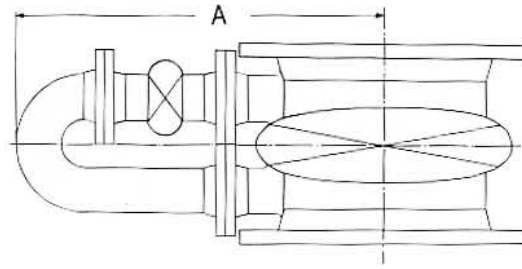
By-Pass

The installation of a BY-PASS permits the line medium to pass around the main valve in a controlled amount. This is sometimes desirable as it eases operation of the main valve and greatly reduces possible damage due to water hammer.

BY-PASS is mounted on the main valve with the spindle in a parallel position (see illustration).

Other arrangements on special request.

Unless otherwise specified BY-PASS valves are supplied in accordance with the main valve (eg.



a N.R.S. main valve is equipped with a N.R.S. BY-PASS valve while an OS & Y main valve is equipped with an OS & Y BY-PASS valve.)

NOTE: LOCATION OF BY-PASS (SIDE OF VALVE IS STANDARD; BOTTOM OF VALVE - OPTIONAL) TO BE ADVISED AT TIME OF ORDER.

Size (mm)	400	450	500	600	750	900	1000	1200	1400
Size (in.)	16"	18"	20"	24"	30"	36"	42"	48"	54"
A (mm)	700	720	750	890	980	1220	1295	1525	1625
A (in.)	27½	28¼	29½	35	38½	48	51	60	64
B	3"	3"	3"	4"	4"	6"	6"	8"	8"

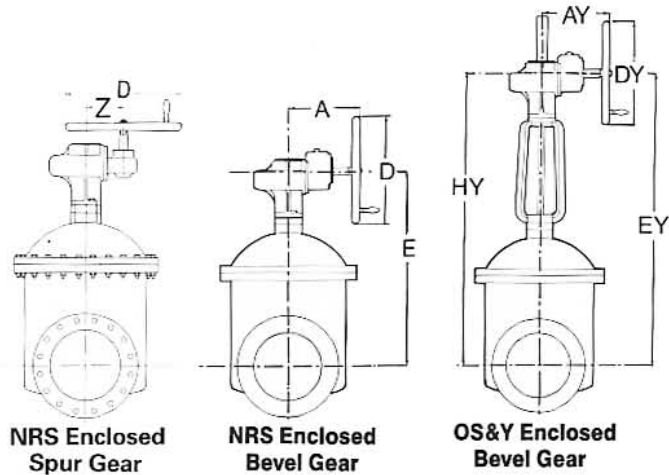
NOTE: B = BY-PASS VALVE SIZE

Manual Gear Operation

Manual Gear Operation is recommended on larger size valves, especially at elevated pressures.

The Seguro Gear Operator illustrated can be combined with extension stem, operating gear brackets and floorstands if desired, as well as right angle drive.

All Operators can easily be mounted in the field on N.R.S. valves already in service.



NRS Enclosed Spur Gear

NRS Enclosed Bevel Gear

OS&Y Enclosed Bevel Gear

Size (mm)	350	400	450	500	600	750	900	1000	1200	1400
A	222	222	250	250	280	350	350	405	405	470
D	400	400	500	500	640	640	640	800	800	900
E	795	920	990	1070	1215	1835	2045	2515	2820	3150
AY	222	222	250	250	280	350	350	405	405	470
Z	132	132	132	157	157	184	184	212	212	-
EY	1227	1405	1520	1760	1900	2795	3060	3710	4140	4545
NTB*	186	210	234	252	264	291	309	360	372	420
NTS**	279	315	351	462	484	543	577	672	694	-

Size (in.)	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"
A	8 ¾	8 ¾	9 7/8	9 7/8	11	13 ¾	13 ¾	16	16	18 ½
D	15 ¾	15 ¾	19 ¾	19 ¾	25 ¼	25 ¼	25 ¼	31 ½	31 ½	35 7/8
E	31 ¼	36 ¼	39	42 1/8	47 7/8	72 ¼	80 ½	99	111	124
AY	8 ¾	8 ¾	9 7/8	9 7/8	11	13 ¾	13 ¾	16	16	18 ½
Z	5 3/16	5 3/16	5 3/16	6 3/16	6 3/16	7 ¼	7 ¼	8 3/8	8 3/8	-
EY	48 3/8	55 ¼	59 7/8	69 ¼	74 3/8	110	120 ½	146	163	179
NTB*	186	210	234	252	264	291	309	360	372	420
NTS**	279	315	351	462	484	543	577	672	694	-

* NOTE: NTB - number of turns to open valve (enclosed bevel gear)

** NOTE: NTS - number of turns to open valve (enclosed spur gear)

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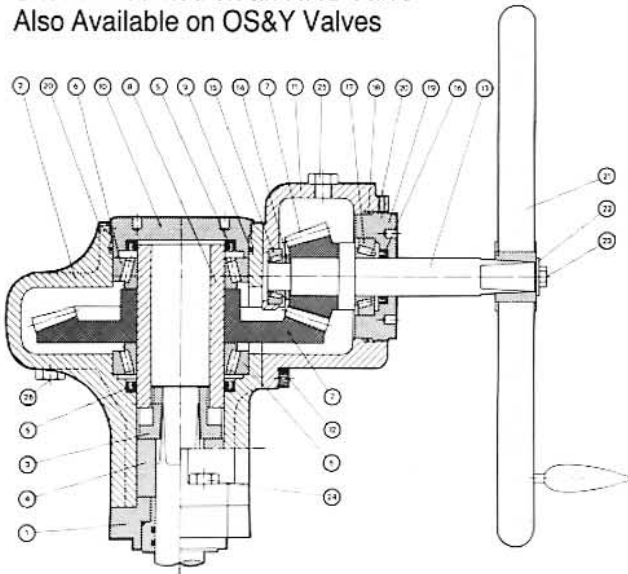
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VALVE



PARTS LIST

Enclosed Bevel Gear Operator

Shown Mounted on an NRS Valve
Also Available on OS&Y Valves

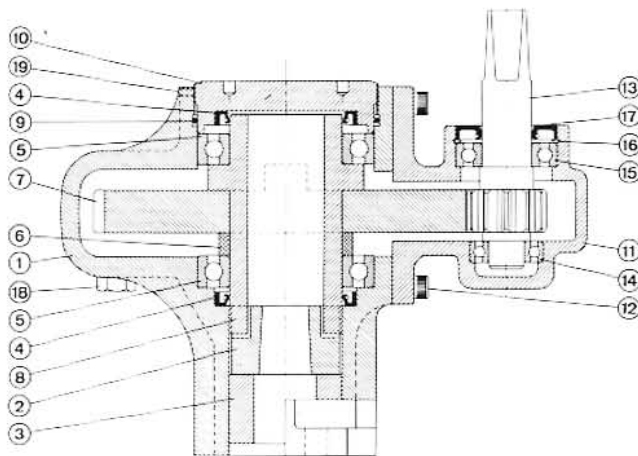


Standard Bevel Gear Ratio is 3:1.

Part No.	Part Name	Materials
1	O-Rings Piece	Cast Iron
2	Right-Angle Gear House	Cast Iron
3	Driving Cam	Cast Iron
4	Pilot Bushing	Nylon
5	Radial Sealing Ring	Rubber NBR
6	Taper Roller Bearing	Steel
7	Gear-Wheel	Steel
8	Shaft with Snap Coupoing	Steel
9	O-Ring	Rubber NBR
10	Bearing Cap	Steel
11	Cover	Cast Iron
12	Socket Screw	Stainless Steel
13	Pinion Shaft	Stainless Steel
14	Spacing Ring	Brass
15	Taper Roller Bearing	Steel
16	Radial Sealing Ring	Rubber NBR
17	Taper Roller Bearing	Steel
18	O-Ring	Rubber NBR
19	Bearing Cap	Steel
20	Pointed Screw	Steel
21	Handwheel	Cast Iron
22	Washer	Steel Hot Zinc
23	Hexagon - Headed Screw	Steel 8.8, Hot Zinc
24	Hexagon - Headed Screw	Steel 8.8, Hot Zinc

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VALVE

Enclosed Spur Gear Operator



Spur Gear Ratios
14", 16", 18" - 4.5:1
20", 24" - 5.5:1
Above 24" - 5.6:1

Part No.	Part Name	Materials
1	Gearhouse	Cast Iron
2	Driving cam	Ductile Iron
3	Pilot bushing	Nylon
4	Radial sealing ring	NBR
5	Ball bearing	Steel
6	Spacing ring	Steel
7	Gear-wheel	Steel
8	Shaft with snap coupling	Steel
9	O-ring	NBR
10	Bearing cap	Steel
11	Cover	Cast Iron
12	Setscrew	Steel
13	Shaft with gear wheel	Steel
14	Ball bearing	Steel
15	Ball bearing	Steel
16	Snap ring	Steel
17	Radial sealing ring	NBR
18	Oil plug	Steel
19	Pointed screw	Steel

SEGURO GATE VALVE 14"-60"

Standard Specification for Valves

Gate valves 14" and larger shall be manufactured and tested to meet or exceed the requirements of ANSI/AWWA C-509, latest revision.

The body of the valve shall be cast iron, with a full round port opening equal to or exceeding the diameter of the corresponding pipe. The body shall have integrally cast guides to insure the gate is properly guided through complete travel, and shall be free of pockets and bridges in the valve bottom.

The sealing mechanism shall consist of a free draining by-directional compression seating gate, which ensures a 100% bubble tight seal in the closed position against the line flow. The gate shall be constructed of a maintenance free rubber seal mechanically retained between two epoxy coated gate halves which are securely fastened with stainless steel recessed capscrews.

The valve stem shall be 300 or 400 series stainless steel and shall be independent of the bronze stem nut. A four bolt bonnet cover shall contain a grit and dust cap protecting two O-ring stem

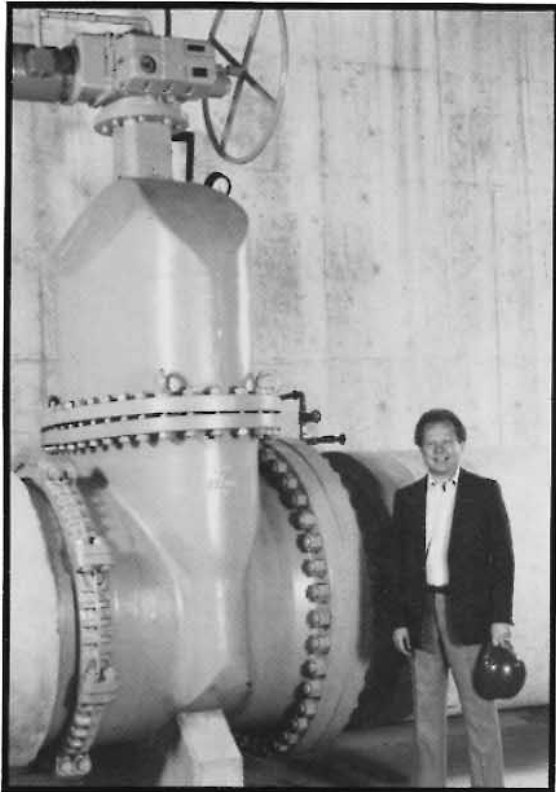
seals and the nylon bushing located above the stem collar. A teflon washer shall be located between the stem collar and bonnet as an anti-friction device.

All internal and external surfaces of the valve including the interior of the gate shall be coated with a two part epoxy coating suitable for potable water and in accordance with AWWA C550.

End connections shall be furnished to mate the connecting pipe. Mechanical joints are to be per ANSI/AWWA C111/A21.11; flanged joints shall conform to ANSI standard B16.1, Class 125 or 250; grooved joints shall be furnished in accordance with AWWA C606.

OS & Y, bevel gear, (handwheel or wrench nut), electric, pneumatic, or hydraulic cylinder actuators may be furnished in addition to non-rising stem operators to suit the specified service of the valve.

Gate valves shall be Seguro, or approved equal.



**48" SEGURO GATE VALVE,
Flanged x Victaulic, Class 250**

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