eko2000 & eko2100
PN16 CI & DI RESILIENT SEAL GATE VALVES

GENERAL FEATURES

eko2000 PN16 CI Gate Valve	eko2100 PN16 DI Gate Valve	eko2110 PN10 Gate Valve
Body: GG 25 Cast Iron	Body: GGG 50 Ductile Iron	Body: DN 200 to 300: GG 25 Cast Iron DN 350 to 800: GGG 50 Ductile Iron
Wedge: Fully vulcanized iron	Wedge: Fully vulcanized iron	Wedge: Fully vulcanized iron
Stem: Stainless Steel 420, Stainless Steel 316	Stem: Stainless Steel 420, Stainless Steel 316	Stem: Stainless Steel 420, Stainless Steel 316
Powder Epoxy Coating (Min 250 Microns)	Powder Epoxy Coating (Min 250 Microns)	Powder Epoxy Coating (Min 250 Microns)
Wedge Coating Options: EPDM, NBR	Wedge Coating Options: EPDM, NBR	Wedge Coating Options: EPDM, NBR
From DN 50 to DN 300	From DN 50 to DN 400	From DN 200 to DN 800 DN 800 is supplied with gearbox

DESIGN STANDARDS	
Valve Design	BS EN 1171
Connection	Flanged, acc to EN 1092-2
Face to Face Dimensions	EN 558-1 Basic Series 14 (F4)
Valve Test	EN 12266-1
Marking	EN 19

TECHNICAL ADVANTAGES

- Soft seated. Suitable for sewage water applications.
- Better flow values with smaller upper body space
- Inner and outer surface of the valve is powder epoxy coated for all sizes
- Can be supplied with multi-turn electrical actuators

REMARKS

- eko2000 Series resilient gate valves can be used as ISOLATION VALVES.
- NBR coated wedge can be used for nonflammable oil applications.
- Resilient Seat Gate valves are all non-rising stem type.
- Electrical actuator connection is succeeded with an intermediary top flange

APPLICATIONS

Application fields and temperatures of eko2000 Series valves vary according to the selection of the seat.

Please choose and order the seat material considering the requirements of application.

PLEASE NOTE: Items written in grey are optional and can be supplied upon request.

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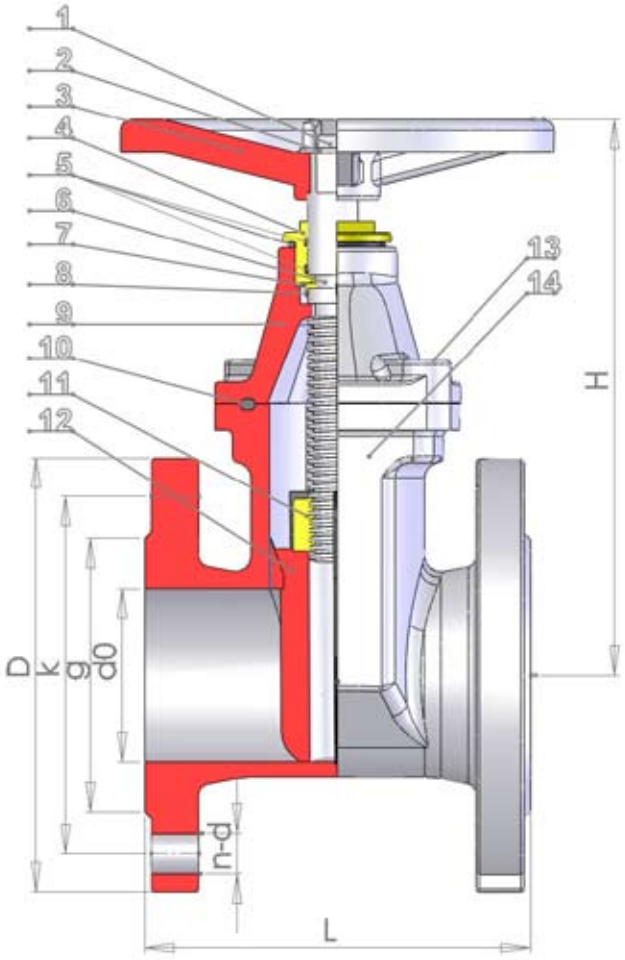
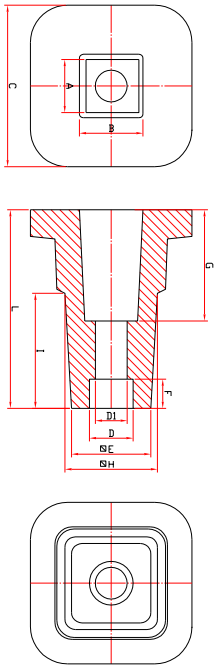
DIMENSIONS AND PRODUCT DATA



OPERATION CAP



PARTS AND MATERIALS

No.	Part Name	Material	
		eko2000	eko2100
1	Bolt	DIN 933	DIN 933
2	Washer	Steel	Steel
3	Handwheel	GG25 Cast Iron	GGG40 Ductile Iron
4	O-Ring	EPDM	EPDM
5	O-Ring	Bush	Bush
6	Stem	SAE 420	SAE 420
7	O-Ring	EPDM	EPDM
8	Bushing	MS58	MS58
9	Bonnet	GG25 Cast Iron	GGG40 Ductile Iron
10	Bonnet Sealing Ring	EPDM	EPDM
11	O-Ring Bush	MS58	MS58
12	Vulcanized Rubber	EPDM	EPDM
13	Body	GG25 Cast Iron	GGG40 Ductile Iron
14	Ring	PTFE	PTFE

DIMENSION TABLE (eko 2000 CI / PN16)

DN	DIMENSIONS		CONNECTIONS ISO 7005-2 / EN 1092-2								
Ø mm	L	H	d	g	k	D	n-d	b	f	Holes	Weight (Kg.)
50	150	198	50	99	125	165	19	20	3	4	9.55
65	170	222	65	118	145	185	19	20	3	4	13.40
80	180	251	80	132	160	200	19	22	3	8	15.70
100	190	285	100	156	180	220	19	24	3	8	20.10
125	200	350	125	184	210	250	19	26	3	8	29.90
150	210	387	150	211	240	285	23	26	3	8	41.30
200	230	485	200	266	295	340	23	30	3	12	60.20
250	250	558	250	319	355	405	28	32	3	12	109.30
300	270	735	300	370	410	460	28	32	4	12	124.20

DIMENSION TABLE (eko 2110 DI / PN10)

DN	DIMENSIONS		CONNECTIONS ISO 7005-2 / EN 1092-2								
Ø mm	L	H	d	g	k	D	n-d	b	f	Holes	Weight (Kg.)
200	230	485	200	266	295	340	23	26	3	8	70.65
250	250	558	250	319	350	405	23	32	3	12	100.90
300	270	735	300	370	400	460	23	32	4	12	132.20
400	310	895	400	480	515	580	28	32	4	16	255.00
500	350	1050	500	582	620	712	28	32	4	20	432.00
600	390	1185	600	682	725	840	31	34	5	20	530.00
700	430	1362	700	794	840	895	31	33	5	24	800.00
800	470	1532	800	901	950	1015	34	35	5	24	950.00
900	510	1792	900	1001	1050	1115	34	38	5	28	1400.00
1000	550	1965	1000	1112	1160	1230	37	40	5	28	-

DIMENSION TABLE (eko 2100 DI / PN16)

DN	DIMENSIONS		FLANGE ACC TO ISO 7005 - 2 / EN 1092-2								
Ømm	L	H	d	g	k	D	n-d	b	f	Holes	Weight Kg
50	150	210	50	99	125	165	19	20	3	4	9.55
65	170	233	65	118	145	185	19	20	3	4	13.40
80	180	253	80	132	160	200	19	22	3	8	15.70
100	190	306	100	156	180	220	19	24	3	8	20.10
125	200	364	125	184	210	250	19	26	3	8	29.90
150	210	422	150	211	240	285	23	26	3	8	41.30
200	230	498	200	266	295	340	23	26	3	12	60.20
250	250	575	250	319	355	405	28	22	3	12	109.30
300	270	660	300	370	410	460	28	24,5	4	12	124.20
400	310	870	400	480	525	580	31	38	4	16	225.00

OPERATION CAP DIMENSIONS

	A	B	C	D	D1	E	F	G	H	I	L
DN50-65	14.65X 14.65	17.5X 17.5	62x62	14,5	10	30x30	9	31	35x35	44	55
DN80-100	16.5X 16.5	20X20	62x62	16,5	12	30x30	12	35	35x35	44	57
DN125-150-200	20X20	24X24	62x62	16,5	12	30x30	11	42	35x35	44	75
DN250-300	26X26	29X29	62x62	19,5	14	30x30	15	47	35x35	44	96

GENERAL INSTRUCTIONS AND INSTALLATION

Handle valve with precaution
Take care of the coatings and protections. Do not drag the valves, avoid shocks and frictions which may cause starters of corrosion.

Store the equipment under good conditions
The valves must be protected from;
Humidity and rain to avoid corrosion;
Wind, sand: to avoid the penetration of sold particles whose presense is catastrophic for the tightness;
Sunshine and heat; they damage the coatings, particularly harmful for plastic valves and fittings very sensitive to the ultraviolet.

Valves with rubber seat must always be stored half-opened.
The aparatuses with metal seat must be stored closed (except particular specifications) to avoid the penetration of the particles in internal volumes.
Ball valves must be stored in open position.
Preserve the aparatuses with their plastic caps which should be taken away when mounting the valves.

Clean the pipes
Rinsing the pipes is essential (water, air, steam if compatible) before testing and starting of the installations. It is critical to eliminate all the particles and several objects which could remain in the pipes and especially welding residues which could definitively damage the valve seat.

Clean the gasket seat
Be sure that the gasket seats are perfectly clean and free from stripes.

Align pipings
Control piping alignment. For correcting bad alignments do not rely on the valves: this may cause leakage and operating defect or even of breaking.

Avoide Water Hammers
A rise in pressure of extreme brutality can be generated by a water hammer. A water hammer can cause the damage : butterfly valve disc splits, destroyed various aparatus, axes deformed. There are very varied causes of the water hammers but generally: the starting of pump and the sudden closing of valve.

Respect assembly direction
Certain valves are one-way (non-return valve, knife gate valves, etc.)
Take care of an assembly in conformity with the arrow direction or of the instructions of assembly.

Use support for heavy valves
In certain cases, valves of large lenght, heavy servo-motor, it can be essential to provide for supports which will avoid tensions prejudicial with the operating risking the fast deterioration of the stem and of the tightness.

Maintenance and control
- Control the valves yearly.
- Change the gaskets after each disassembling.
- Any maintanance action must be carried out when the installation is in the atmospheric pressure.
- Cut energy supply of the actuators.
- Respect the recommended positions of assembly.
- Respect the disassembling direction.
- In the event of prolonged storage or of weak frequency of operation, lubricate the valve stem regularly.
- When assembling of an electric motor on the valve, take care to lubricate the nut of the motor and the stem of the valve.