



GVK(PGR) PLUNGER VALVE

Total Engineering Solution Service

Mission

기초에 근거하여 원천 기술을 살리고 원천 기술을
극대화하여 세계 중심에 서는 것

To stand at the centre of the world by
utilizing original technology based on the
foundation and maximizing original technology

Vision

우리는 옳은 일과 가치 있는 일에 주저함이 없이
최선을 다하고 실천하여 세계의 중심에 서자

Let us put ourselves at the center of the world by
doing our best and not hesitating to stand up for
what is right and worthy



GLOBAL VISION KOREA

VMV[®]
Value MFG Valve

 **ACEFLOW**
Valve Engineering



Valve Product Service



GVK Limited, founded in June 2020 by a leader with 38 years of experience, focuses on R&D while ensuring quality, price, and functionality through domestic production. The company offers Process Valves, Valve Equipment, and Total Engineering services for industries such as Gas, Refining, Petroleum, Power generation, Environment, and Water treatment.

With a management team possessing 30-40 years of experience, GVK has developed numerous patents and adheres to quality standards like ISO 9001, 14001, 45001, and CE. Recognized for its advanced automatic control valves, GVK also supplies a range of Control Valves globally through OEM and ODM partnerships.

Although still in the early design and manufacturing stages, GVK has emerged as a leading company in Korea, equipped with skilled personnel and testing capabilities. The company aims to lower production costs, enhance efficiency, and improve quality while accumulating Hyper-Intelligence Valve Engineering (HIVE) technology. GVK Limited is committed to meeting customer needs with competitive pricing and high value-added services.

The Professional Provider of Automatic valve Actuators



Mutually Beneficial Relationships



To Be Your Best Partner



Twenty years experience "one stop" goods and services





PGR SERIES

Plunger Valve

Total Engineering Solution Service



GVK / PGR Series Plunger Valve

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Series PGR

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Plunger Valve

Plunger Valve Overview

Regulates the flow of high-pressure fluid
 Installable at pipelines with large pressure differences
 A flow control valve appropriate for reservoir dam hydroelectric power plant
 Excellent for circulating water line of chemical/steel plant
 Recommended for water supply/treatment line at wastewater treatment facility

Plunger Valve Applications

Used in water treatment, water distributionams,
 power plants and many other industries

Characteristics

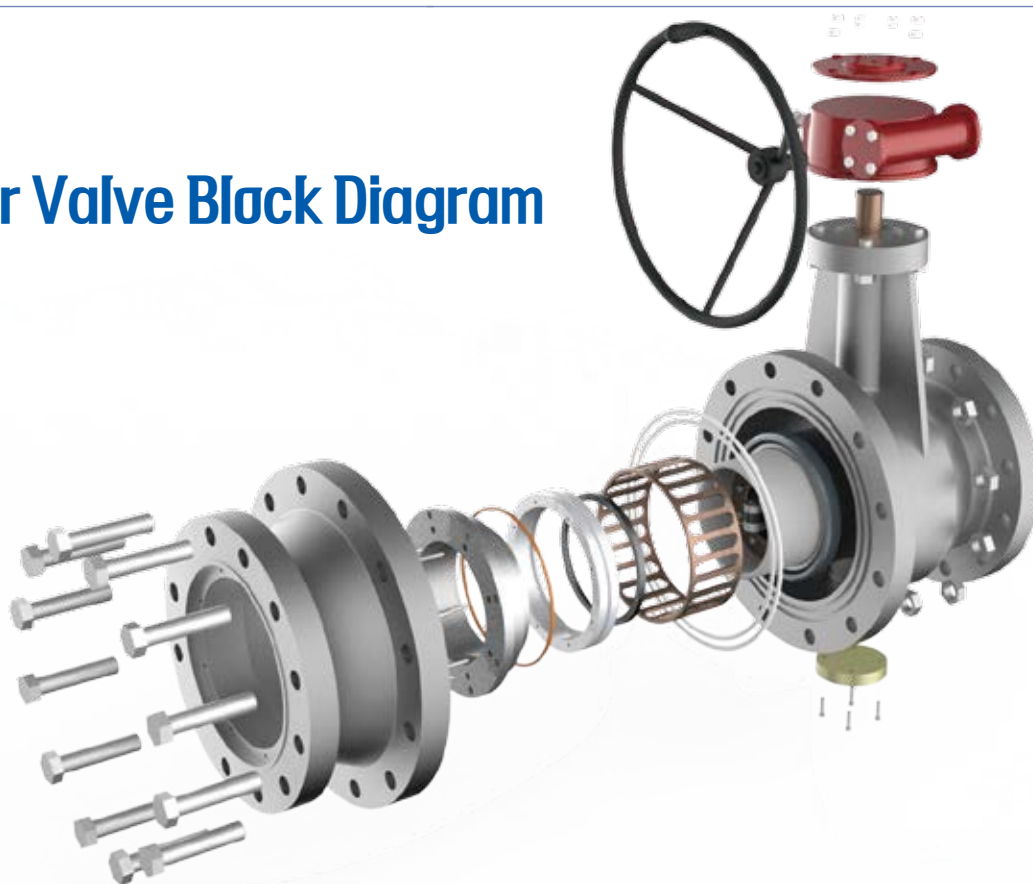
- 1) PERFECT SEALING
- 2) Control valve in straightway type
- 3) Low actuating torque due to pressure balanced valve piston
- 4) Elastic profile sealing ring located in the
 no-flow zone for high durability

Description

- 1) SIZE RANGE : 50A(2")~1000A(40")
- 2) TEMP. RANGE : -20~120
- 3) LEAKAGE : ANSI FCI 70-2
- 4) FLANGE RATINGS : KS(JIS) 5K, 10K, 16K, 20K, 30K, 40, 63K, DIN PN6, PN10, PN16, PN25, PN40
 ASME CLASS 150, 300, 600, 900

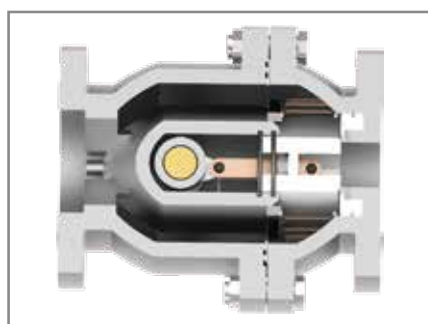
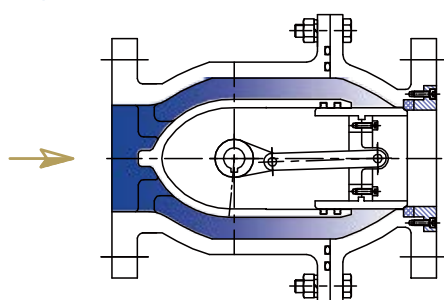
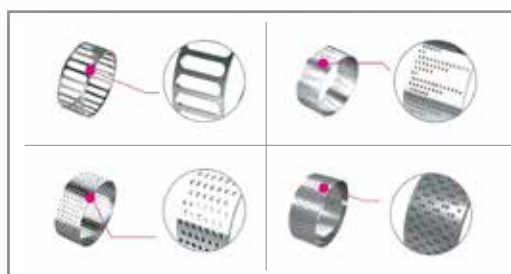


Plunger Valve Block Diagram

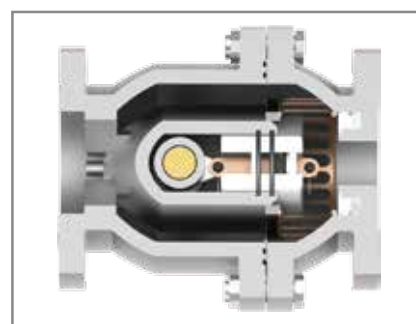
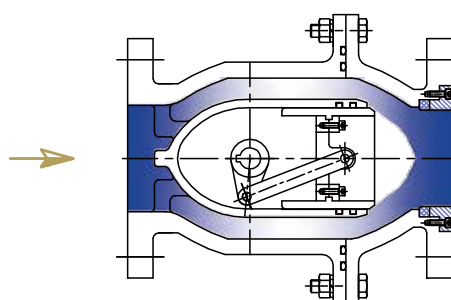


Plunger Valve Fluid Flow

With the cage applied with different patterns, it prevents the valves from oscillatory motions and controls the fluid flow.

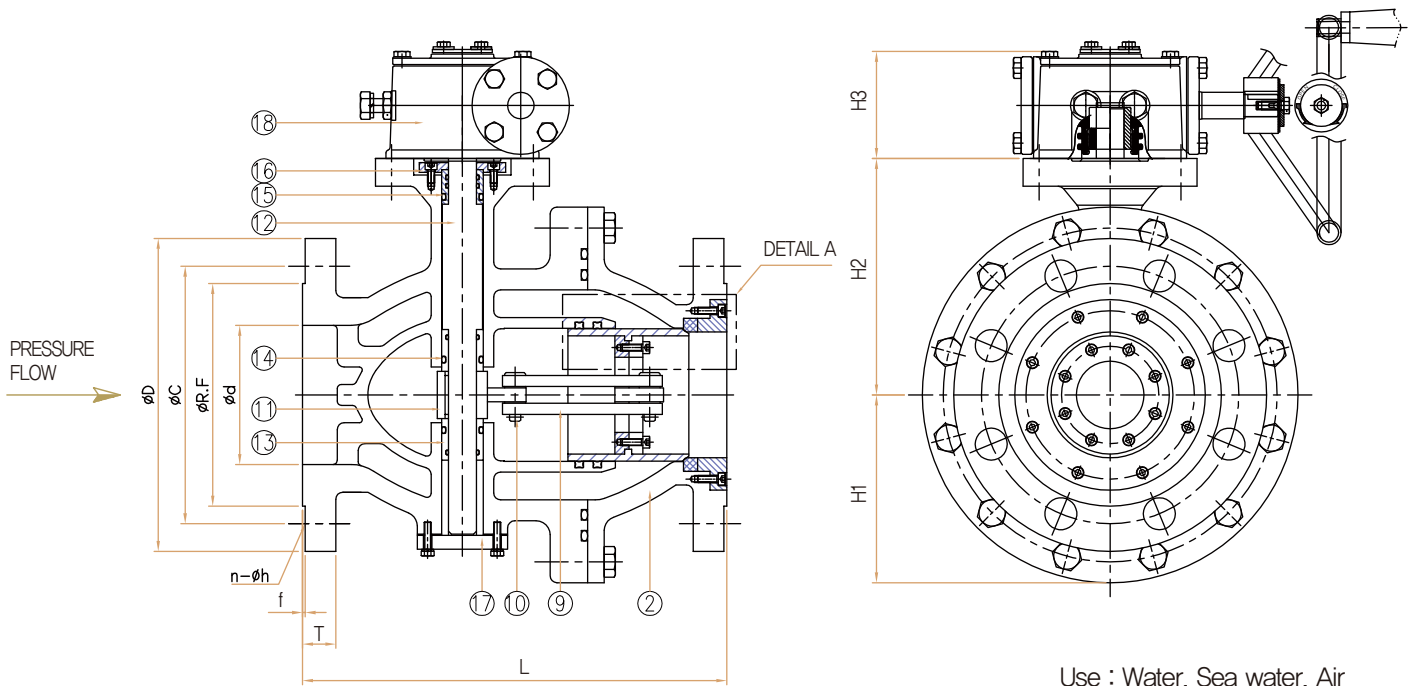


CLOSE



OPEN

Dimensions (100A~400A, 10K) Gear Operated

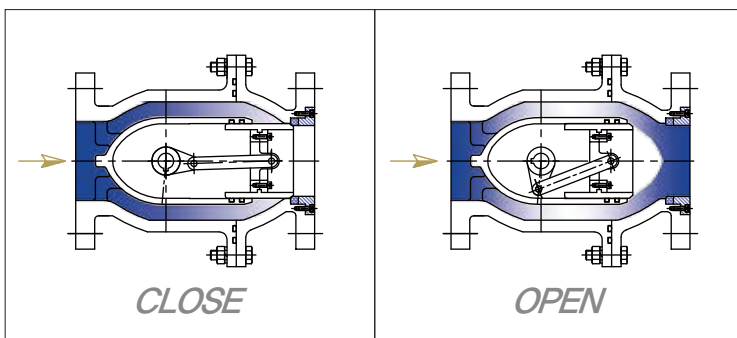


Use : Water, Sea water, Air

DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	ϕd	L	FLANGE(JIS 10K)						H1	H2	H3
			ϕD	T	$\phi R.F$	f	ϕC	$n-\phi h$			
4"(100A)	100	229	210	18	151	2	174	8- $\phi 19$	150	200	100
5"(125A)	125	356	250	20	182	2	210	8- $\phi 23$	175	210	100
6"(150A)	150	394	280	22	212	2	240	8- $\phi 23$	190	230	100
8"(200A)	200	457	330	22	265	2	290	12- $\phi 23$	240	300	125
10"(250A)	250	533	400	24	324	2	355	12- $\phi 25$	300	360	125
12"(300A)	300	610	445	24	368	2	400	12- $\phi 25$	360	420	150
14"(350A)	350	850	490	26	415	3	445	16- $\phi 25$	360	420	200
16"(400A)	400	950	560	28	475	3	510	16- $\phi 27$	455	560	200

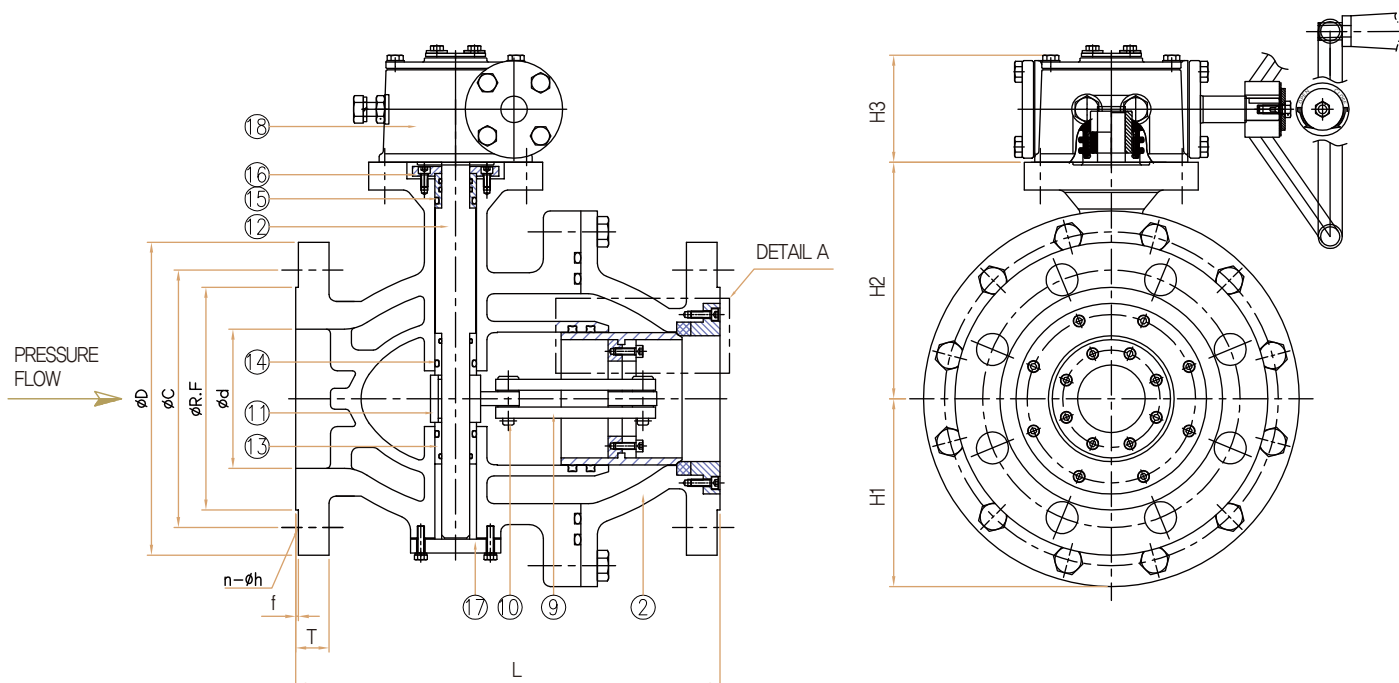


NOTE

1. FLANGE DRILLING : JIS 10K
2. FACE-TO-FACE DIMENSIONS : API 6D
3. TEST PRESSURE : MAKER STANDARD
SHELL : 15 bar
SEAT : 11 bar
4. DESIGN PRESSURE : 10 bar
5. LEAKAGE : ANSI B16.104 CLASS VI

※ The contents are subject to change, please contact us for related inquiries.

Dimensions (100A~400A, 20K) Gear Operated

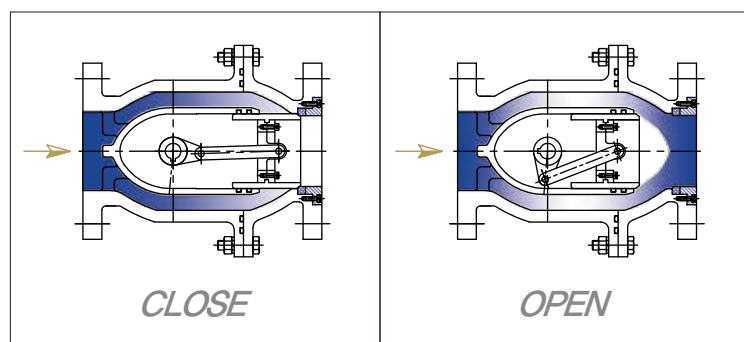


Use : Water, Sea water, Air

DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	Ød	L	FLANGE(JIS 20K)						H1	H2	H3
			ØD	T	ØRF	f	ØC	n-Øh			
4"(100A)	100	305	225	24	160	2	185	8-Ø23	170	230	125
5"(125A)	125	381	270	26	195	2	225	8-Ø25	190	260	125
6"(150A)	150	403	305	28	230	2	260	8-Ø25	230	300	125
8"(200A)	200	502	350	30	275	2	305	12-Ø25	280	360	150
10"(250A)	250	568	430	34	345	2	380	12-Ø27	340	420	150
12"(300A)	300	648	480	36	395	2	430	12-Ø27	420	490	180
14"(350A)	350	850	490	26	415	3	445	16-Ø25	360	420	200
16"(400A)	400	950	560	28	475	3	510	16-Ø27	455	560	200

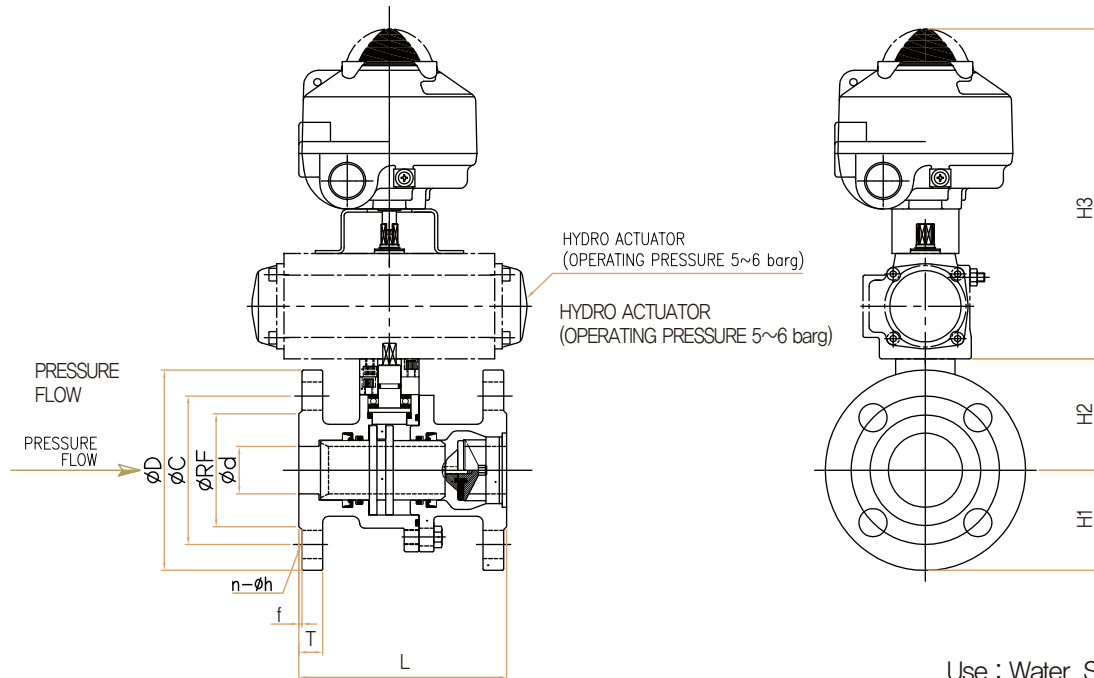


NOTE

1. FLANGE DRILLING : JIS 20K
2. FACE-TO-FACE DIMENSIONS : API 6D
3. TEST PRESSURE : MAKER STANDARD
SHELL : 30 bar
SEAT : 22 bar
4. DESIGN PRESSURE : 20 bar
5. LEAKAGE : ANSI B16.104 CLASS VI

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Dimensions (25A~100A, 10K) Hydro Cylinder Operated Pneumatic Cylinder Operated

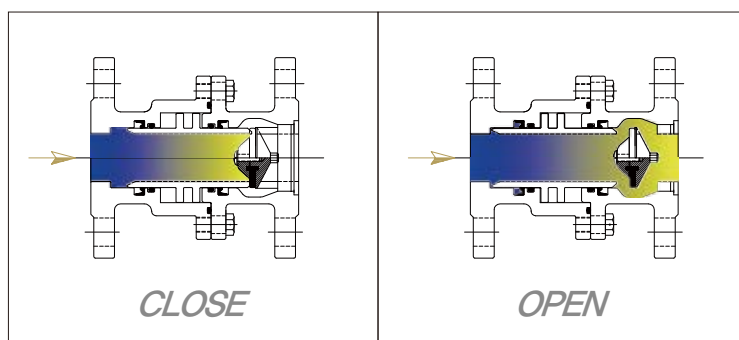


Use : Water, Sea water, Air

DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	ød	L	FLANGE(JIS 10K)						H1	H2	H3
			øD	T	øRF	f	øD	n-øh			
1"(25A)	25	125	125	14	70	1	90	4-ø19	62.5	71	222
1-1/4"(32A)	32	140	135	16	80	2	100	4-ø19	67.5	67.5	222
1-1/2"(40A)	40	165	140	16	85	2	105	4-ø19	70	70	222
2"(50A)	50	178	155	16	100	2	120	4-ø19	77.5	90	222
2-1/2"(65A)	65	190	175	18	120	2	140	4-ø19	87.5	96	243.5
3"(80A)	80	203	185	18	130	2	150	8-ø19	92.5	104.5	243.5
4"(100A)	100	229	210	18	155	2	175	8-ø19	105	115	243.5

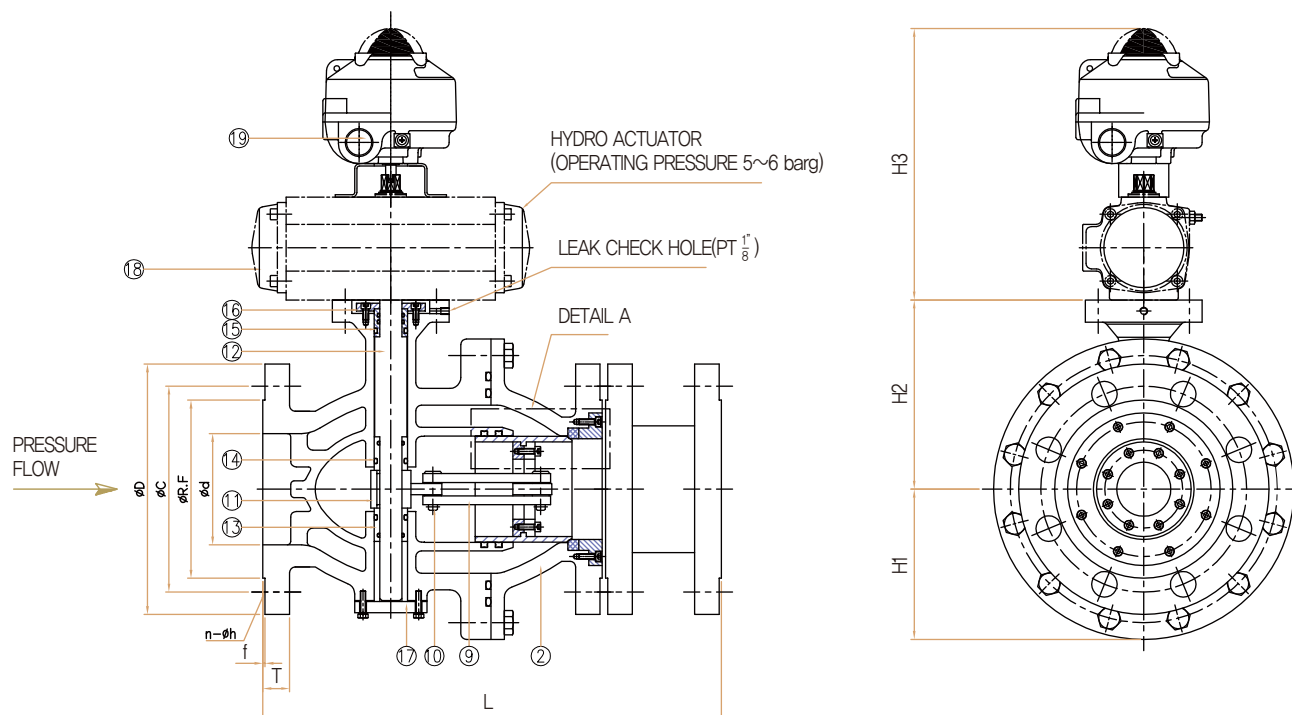


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Dimensions (100A~400A, 10K) Hydro Cylinder Operated Pneumatic Cylinder Operated

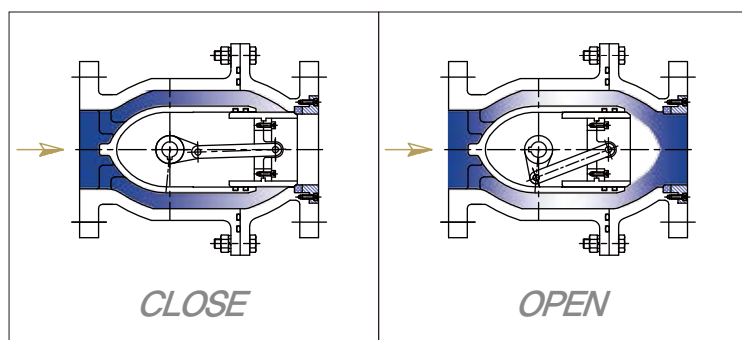


Use : Water, Sea water, Air

DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	ød	L	FLANGE(JIS 10K)						H1	H2	H3
			øD	T	øRF	f	øC	n-øh			
4"(100A)	100	380	210	18	155	2	175	8-ø19	170	190	264
5"(125A)	125	420	250	20	185	2	210	8-ø23	175	210	264
6"(150A)	150	470	280	22	215	2	240	8-ø23	190	230	281
8"(200A)	200	580	330	22	265	2	290	12-ø23	240	300	281
10"(250A)	250	670	400	24	325	2	355	12-ø25	300	360	313.5
12"(300A)	300	790	445	24	370	3	400	16-ø25	360	420	313.5
14"(350A)	350	850	490	26	415	3	445	16-ø25	360	420	331
16"(400A)	400	950	560	28	475	3	510	16-ø27	455	560	380



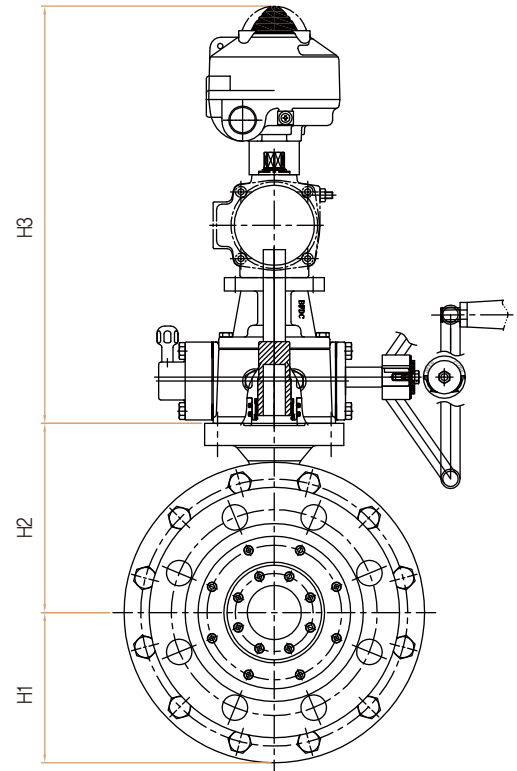
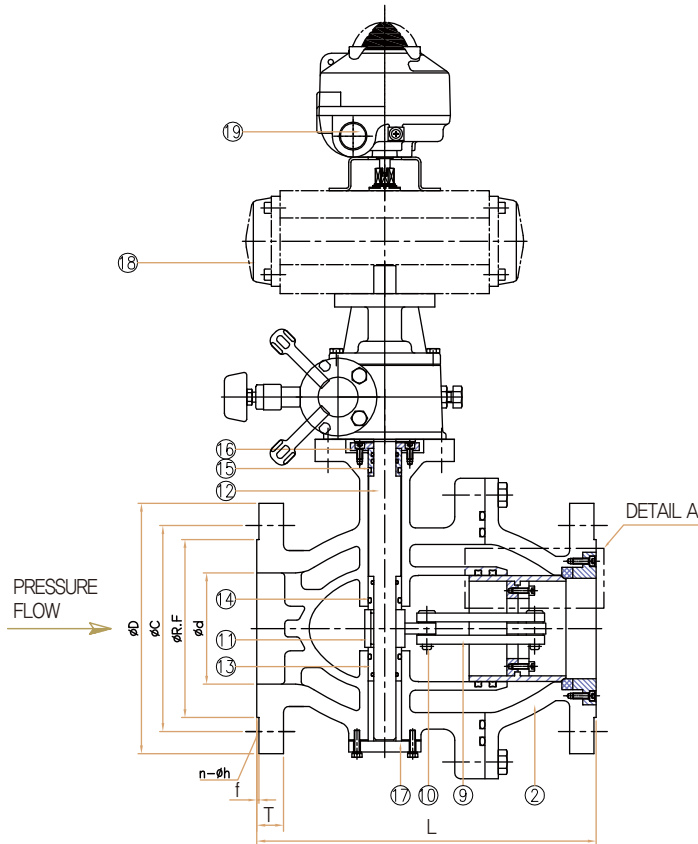
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Dimensions (100A~400A, 20K)

Hydro Cylinder Operated Pneumatic Cylinder Operated

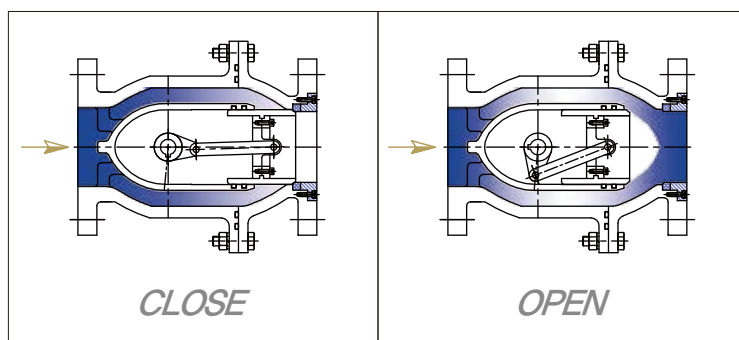


Use : Water, Sea water, Air

DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	ød	L	FLANGE(JIS 20K)						H1	H2	H3
			øD	T	øRF	f	øC	n-øh			
4"(100A)	100	305	225	24	160	2	185	8-ø23	170	230	415
5"(125A)	125	381	270	26	195	2	225	8-ø25	190	260	415
6"(150A)	150	403	305	28	230	2	260	8-ø25	230	300	415
8"(200A)	200	502	350	30	275	2	305	12-ø25	280	360	475
10"(250A)	250	568	430	34	345	2	380	12-ø27	340	420	475
12"(300A)	300	648	480	36	395	2	430	16-ø27	340	490	475
14"(350A)	350	850	540	40	440	3	480	16-ø33	365	470	535
16"(400A)	400	950	605	46	495	3	540	16-ø33	455	560	535

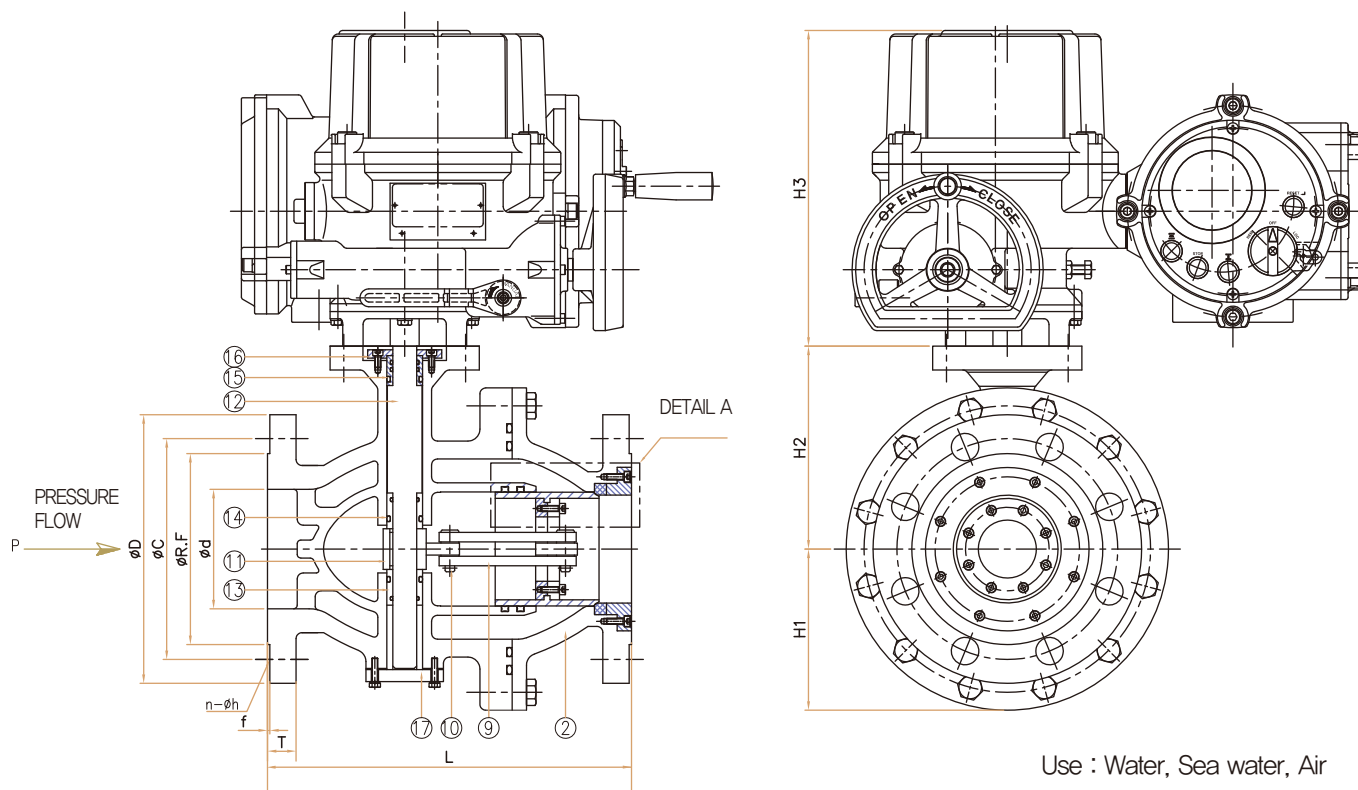


NOTE

1. FLANGE DRILLING : JIS 20K
2. FACE-TO-FACE DIMENSIONS : API 6D
3. TEST PRESSURE : MAKER STANDARD
SHELL : 30 bar
SEAT : 22 bar
4. DESIGN PRESSURE : 20 bar
5. LEAKAGE : ANSI B16.104 CLASS VI

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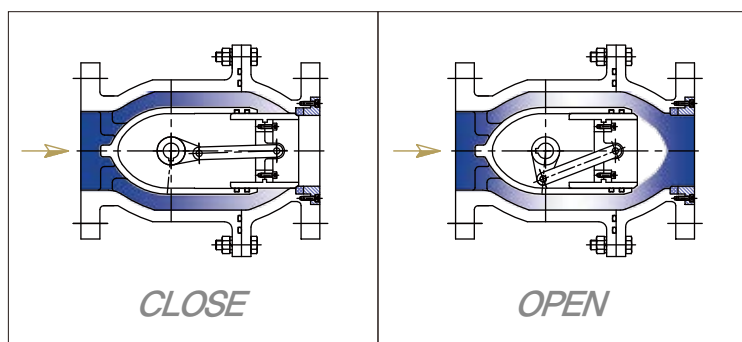
Dimensions (100A~400A, 10K) Electric Motor Actuator Operated



DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	ϕd	L	FLANGE(JIS 20K)						H1	H2	H3	MOV
			ϕD	T	$\phi R.F.$	f	ϕC	$n-\phi h$				
4"(100A)	100	229	210	18	151	2	174	8- $\phi 19$	150	200	265	TQ-020
5"(125A)	125	356	250	20	182	2	210	8- $\phi 23$	175	210	265	TQ-020
6"(150A)	150	394	280	22	212	2	240	8- $\phi 23$	190	230	265	TQ-020
8"(200A)	200	457	330	22	265	2	290	12- $\phi 23$	240	300	287	TQ-040
10"(250A)	250	533	400	24	324	2	355	12- $\phi 25$	300	360	287	TQ-060
12"(300A)	300	610	445	24	368	2	400	12- $\phi 25$	360	420	321	TQ-080
14"(350A)	350	850	490	26	415	3	445	16- $\phi 25$	360	420	321	TQ-120
16"(400A)	400	950	560	28	475	3	510	16- $\phi 27$	455	560	321	TQ-120



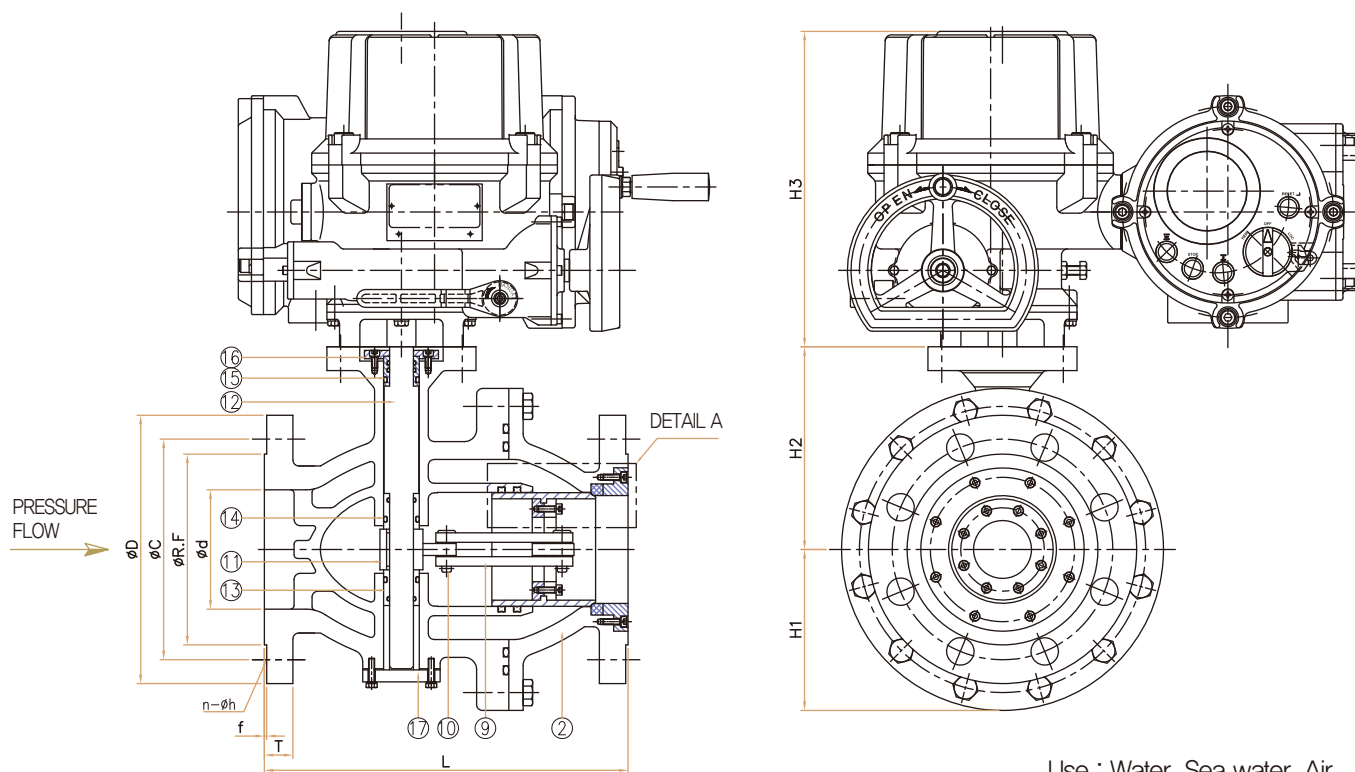
NOTE

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SEAT : 11 bar
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Dimensions (100A~400A, 20K)

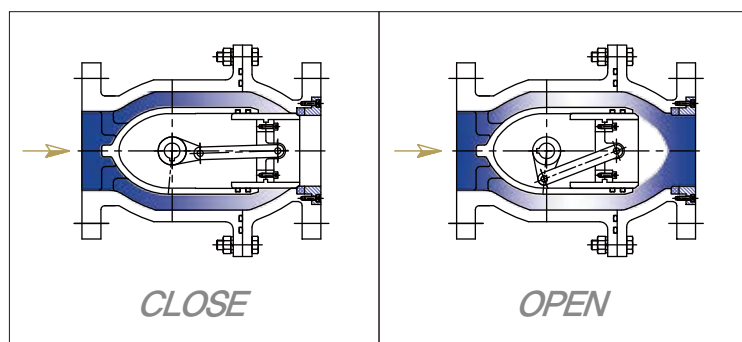
Electric Motor Actuator Operated



DIMENSION

(UNIT : mm)

NOMINAL DIAMETER	ød	L	FLANGE(JIS 20K)						H1	H2	H3	MOV
			øD	T	øR.F	f	øC	n-øh				
4"(100A)	100	305	225	24	160	2	185	8-ø23	170	230	265	TQ-020
5"(125A)	125	381	270	26	195	2	225	8-ø25	190	260	287	TQ-040
6"(150A)	150	403	305	28	230	2	260	8-ø25	230	300	287	TQ-040
8"(200A)	200	502	350	30	275	2	305	12-ø25	280	360	287	TQ-060
10"(250A)	250	568	430	34	345	2	380	12-ø27	340	420	321	TQ-080
12"(300A)	300	648	480	36	395	2	430	12-ø27	340	490	321	TQ-120
14"(350A)	350	850	540	40	440	3	480	16-ø33	365	470	556	TQ-200
16"(400A)	400	950	560	28	475	3	510	16-ø27	560	560	556	TQ-200



NOTE

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4. DESIGN PRESSURE : 20 bar
5. LEAKAGE : ANSI B16.104 CLASS VI

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Actuator Torque Selection Reference Table

Gear



MODEL	TORQUE (kg.m) (MAX)	TURN NUMBER TIME	WEIGHT (kg)
WG-BF(32:1)	36	8	4
WG-0(36:1)	78	9	6
WG-00(40:1)	120	10	10
WG-01(44:1)	200	11	13
WG-02(48:1)	280	12	21
WG-03(52:1)	430	13	29
WG-04(56:1)	1040	14	56

MOV



MODEL	TORQUE (kg.m)	ACTION TIME (SEC)	WEIGHT (kg)
TQ-010	10	17	6.5
TQ-020	20	17	19
TQ-040	40	25	25
TQ-060	60	25	25
TQ-080	80	34	35
TQ-120	120	34	35
TQ-200	200	51	75
TQ-300	300	51	75

Pneumatic(Single/Double Acting)



MODEL	TORQUE (kg.m)(at.5bar)	ACTION TIME (SEC)	WEIGHT (kg)
RT50SR	2.5	0.5	1.7
RT65SR	6.6	0.6	3.5
RT80SR	12.7	1	5.5
RT100SR	20.8	2	10
RT125SR	40	3	18
RT160SR	78	5	44
RT210SR	150	6	81
RT50DA	5.4	0.5	1.6
RT65DA	14.9	0.6	3
RT80DA	27.7	1	5
RT100DA	44.9	2	7.5
RT125DA	86	3	11
RT160DA	166.8	5	29
RT210DA	347.6	6	56

Technical Data

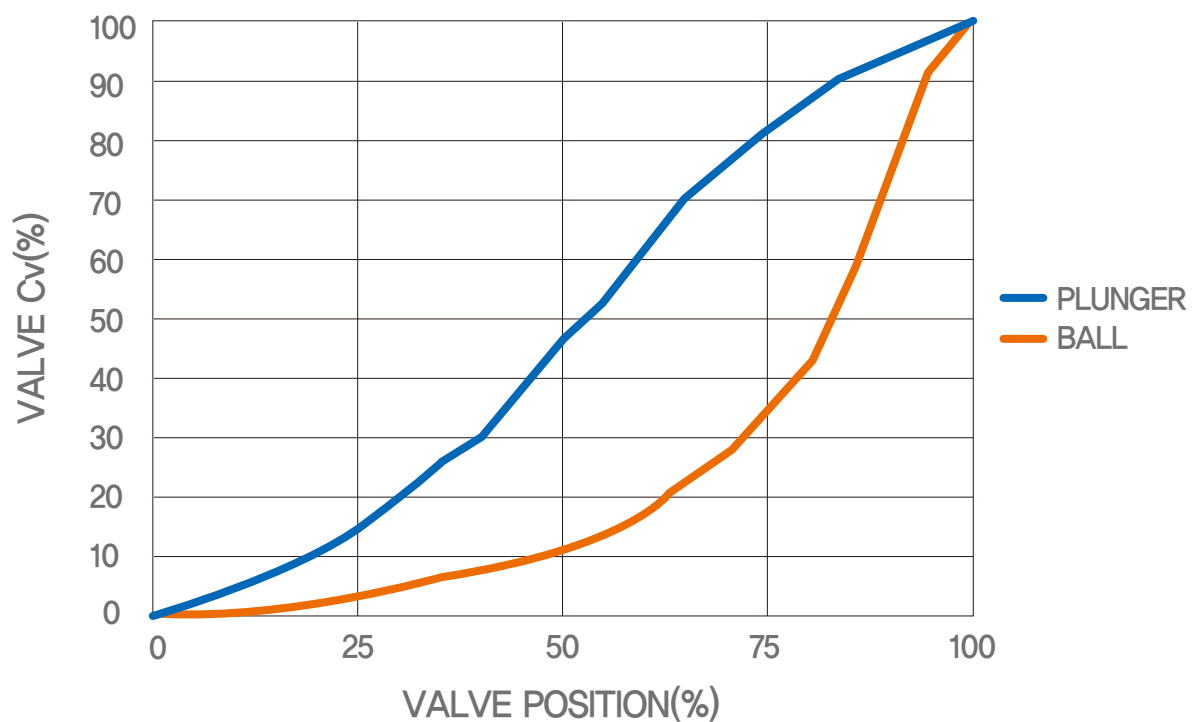
TORQUE TABLE

PLUNGER VALVE		
SIZE	10K	20K
	(UNIT : NM)	
25	3.5	6.5
32	5.5	11
40	9	17
50	14	26.5
65	24	45
80	40	68
100	65	106
125	85	166
150	125	240
200	215	425
250	340	664
300	480	956
350	650	1301
400	850	1700

BALL VALVE		
SIZE	10K	20K
	(UNIT : NM)	
25	11	14
32	17	30
40	29	57
50	60	97
65	83	125
80	120	200
100	210	350
125	252	450
150	380	650
200	720	1230
250	810	2630
300	1236	3240
350	1590	4164
400	3465	5650

Cv GRAPH

Cv GRAPH

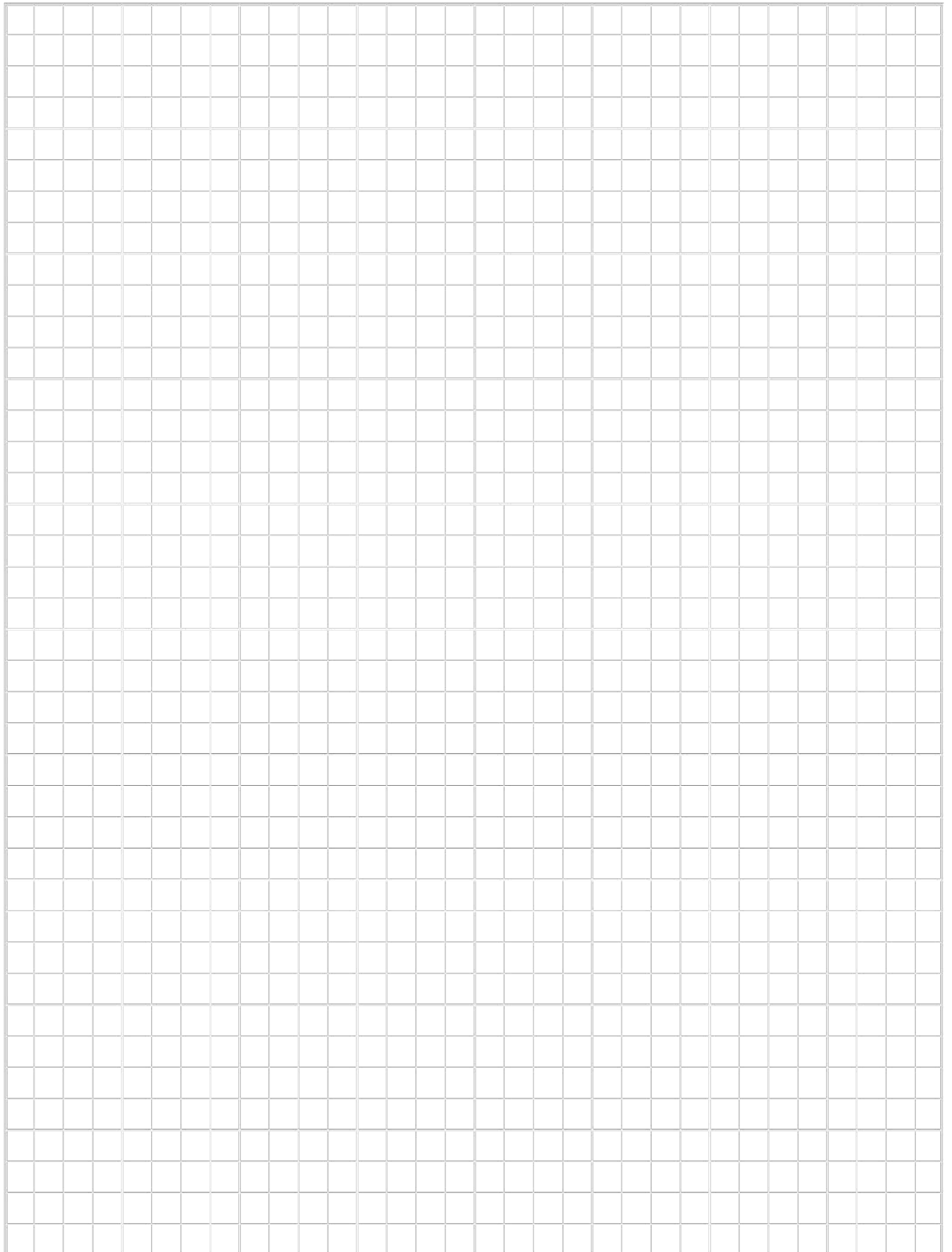


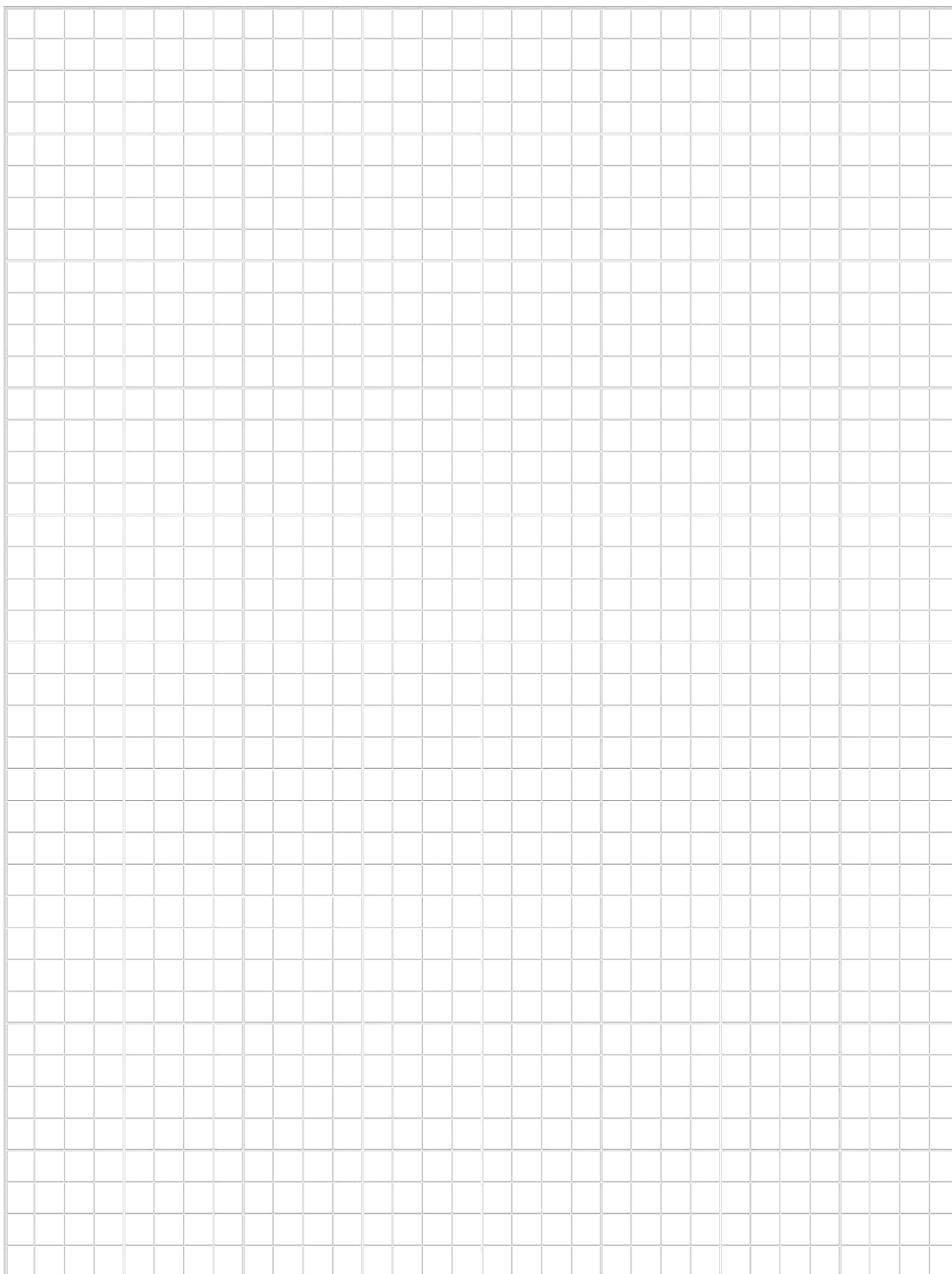
Ordering Chart (Plunger Valve)

GVK	PGR	0	0	0	0	0	0	0	0
		1	2	3	4	5	6	7	8

1. BODY SIZE(mm)				2. RATING				3. END CONNECTION		4. TRIM CHARACTERISTIC	
CODE	mm	CODE	mm								
1	50	13	500	1	KS(JIS)5K	13	DIN PN 40	F	FF FLANGED	E	EQUAL PERCENTAGE
2	65	14	550	2	KS(JIS)10K	14	ANSI 125LB	R	RF FLANGED	L	LINEAR
3	80	15	600	3	KS(JIS)16K	15	ANSI 150LB			N	NON
4	100	16	650	4	KS(JIS)20K	16	ANSI 300LB				
5	125	17	700	5	KS(JIS)30K	17	ANSI 600LB				
6	150	18	750	6	KS(JIS)40K	18	ANSI 900LB				
7	200	19	800	7	KS(JIS)63K	19	AWWA CLASS B				
8	250	20	850	8	DIN PN 2.5	20	AWWA CLASS D				
9	300	21	900	9	DIN PN 6	21	MAKER STD'				
10	350	22	1000	10	DIN PN 10	22					
11	400	...	...	11	DIN PN 16	...					
12	450	99	SPECIAL	12	DIN PN 25	99					

5. BODY MEATERIAL		6. DISC MATERIAL		7. SEAT MATERIAL		8. DRIVING TYPE	
1	A126 B(FC 200)65	1	A351 CF8(SCS 13A+Cr)	E	EPDM	PD	PNEU' DA
2	A536 Gr.65-45-12(FCD 450)	2	A536 Gr.65-45-12(FCD 450)	N	NBR	PS	PNEU' SR
3	A216 WCB(SCPH2)	3	A216 WCB(SCPH2)	P	PTFE	PDH	PNEU'DA+H/W
4	A351 CF8(SCS 13A)	4	A351 CF8(SCS 13A)	R	RTFE	PSH	PNEU'SR+H/W
5	A351 CFBM(SCS 14A)	5	A351 CF8M(SCS 14A)	V	VITON	M1	MOTOR(BASIC+HP68)
6	A351 CF3(SCS 13A)	6	17-4PH(SUS 630)	C	SILICONE	M2	MOTOR(BASIC+방폭)
7	A351 CF3M(SCS 16A)	7	A217 CA15(SUS 410L)	B	BUNA-N	M3	MOTOR(INTERFAL+HP68)
8	A167(STS310)	8	A351 CF8(SCS 13A)+STL'	I	INCONEL	M4	MOTOR(INTERFAL+방폭)
9	A36(SS400)	9	A351 CF3(SCS 19A)+STL'	D	DUPLEX	M5	MOTOR(SPECIAL)
10	A573(SM490)	10	A351 CF3M(SCS 16A)+STL'	J	STS 304	H	HYDRAULIC
11	A572(SM40)	11	A351 CF8(SCS 13A)+HCr	K	STS 304L	PC	PNEU' CYLINDER
12	HASTELLOY	12	A351 CF8M(SCS 14A)+HCr	L	STS 316	W	WORM GEAR(BEVEL or SPUR)
13	ALLOY	13	A351 CF3(SCS 19A)+HCr	N	STS 316L	L	LEVER
14	DUPLEX	14	A351 CF3M(SCS 16A)+HCr	M	MONEL	B	BARE
15	STEN 1	15	HASTELLOY	Z	SPECIAL		
16	STEN 2	16	ALLOY				
17	K600	17	STEN 1				
18	R405	18	STEN 2				
99	SPECIAL	99	SPECIAL				







Product Service Qualified Certificate

ISO 9001:2015

ISO 14001:2015

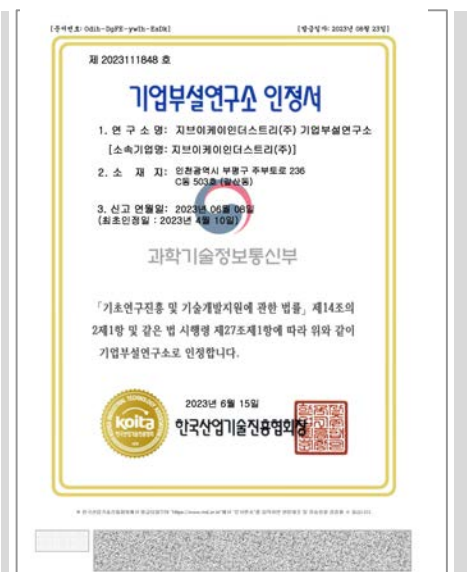
ISO 45001:2018



CE: Globe Control Valve

CE : Ball Valve

Research Institute



ASME U, pp Stemp

EAC : RUSSIA TRCU

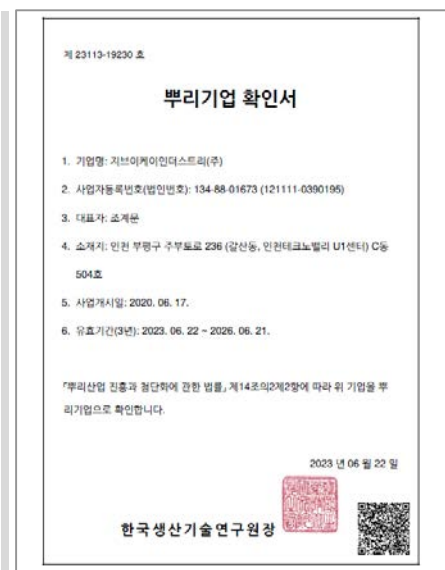
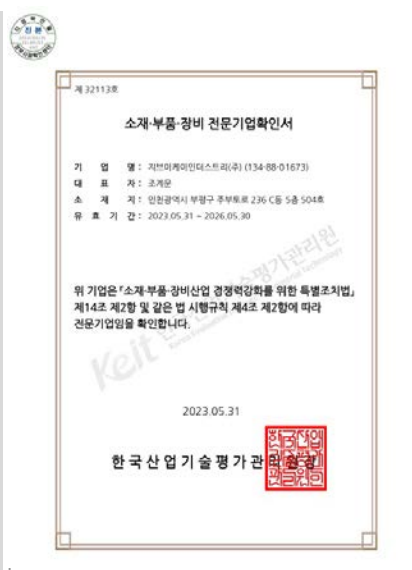
API 6D / 600 By KSM



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