GVK(TS)
3WAY BALL

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 Actuastors





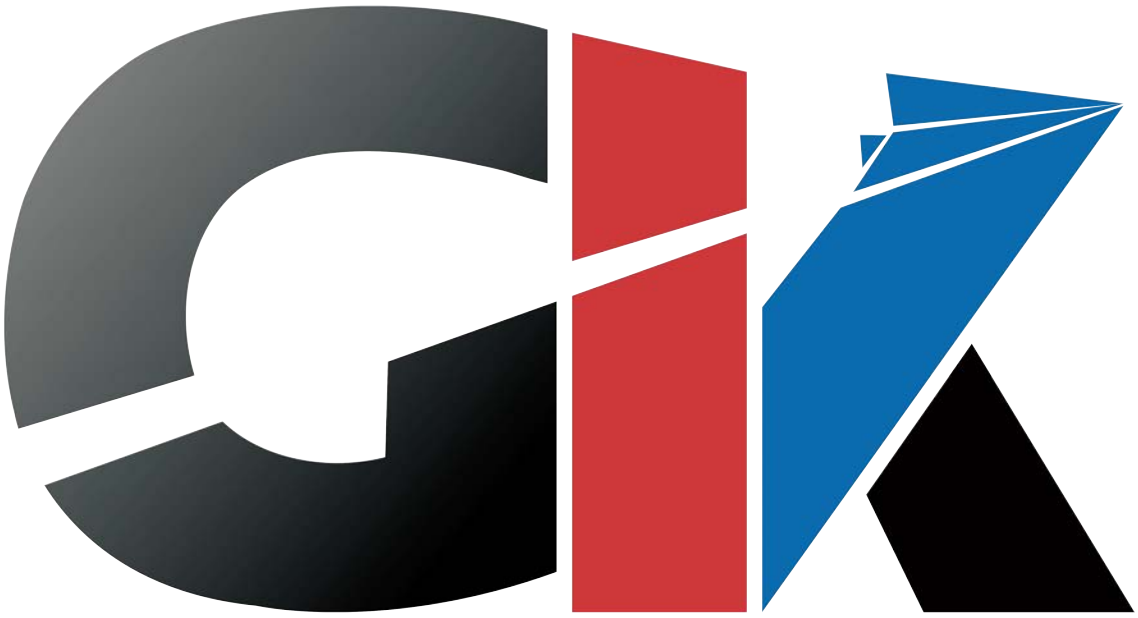


Mutually Beneficial Relationships

To Be Your Best Partner

Twenty years experience "one stop" goods and services



TS SERIES

3Way Ball

Total Engineering Solution Service

GVK / TS Series 3way Ball Valve

Contents

Series TS

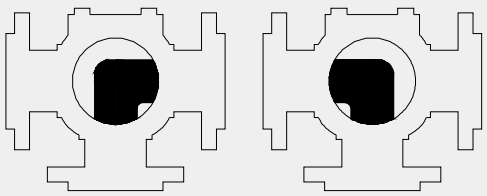
FLOATING
3 WAY BALL VALVES

1” - 8” I Class 150
DN 25 - DN 200 I PN 16

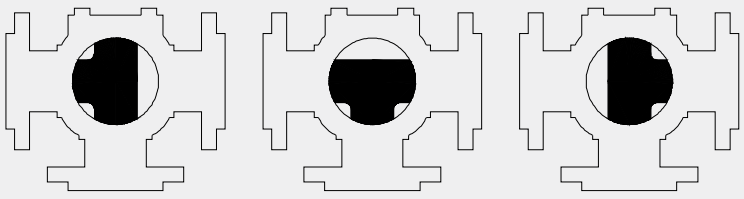
The VMV Three way ball valves, have been designed to divert the flow at 90º in several options between two pipes. Three way ball valves are available with either “L” and double “L” (X) port, or T-port design. The full port design is easily automated and is available with various seat materials.

PORT COMBINATIONS

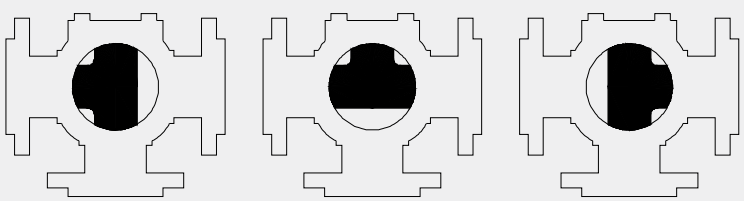
3 WAY L PORT

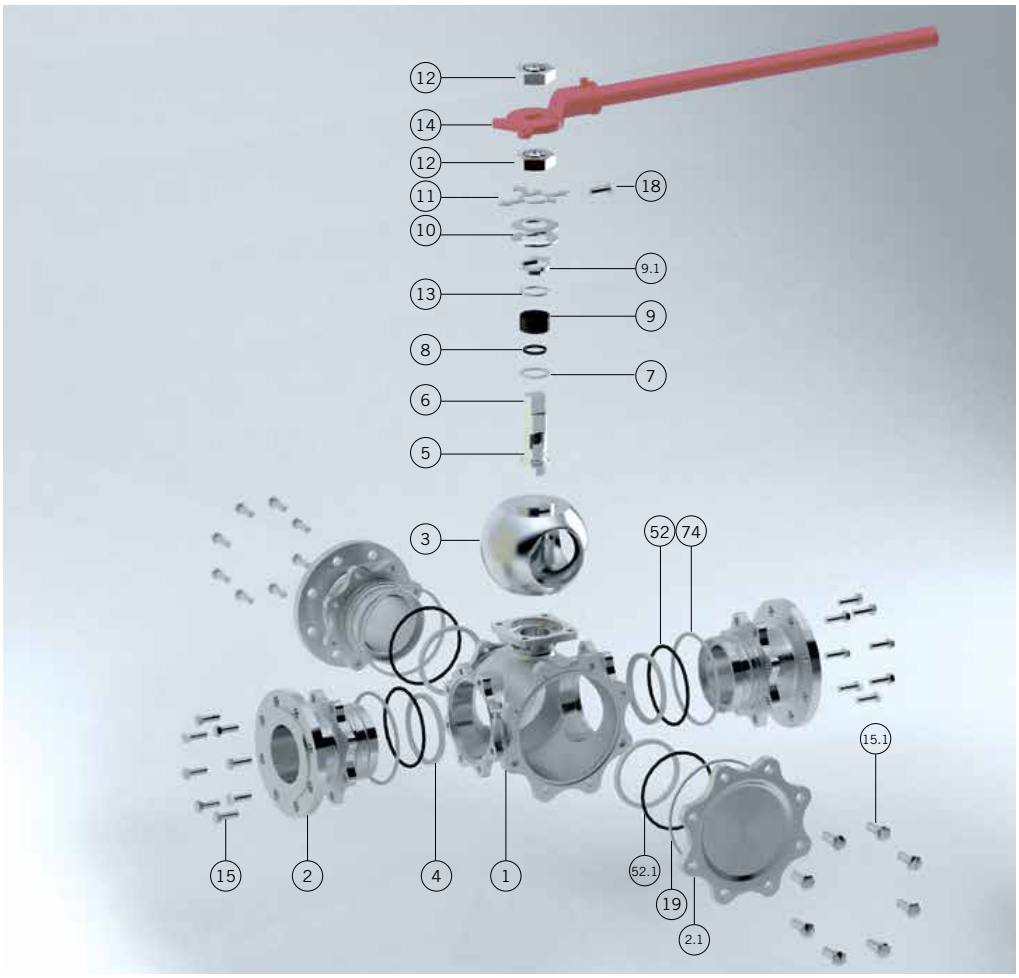


3 WAY T PORT



3 WAY INVERTED PORT





Materials

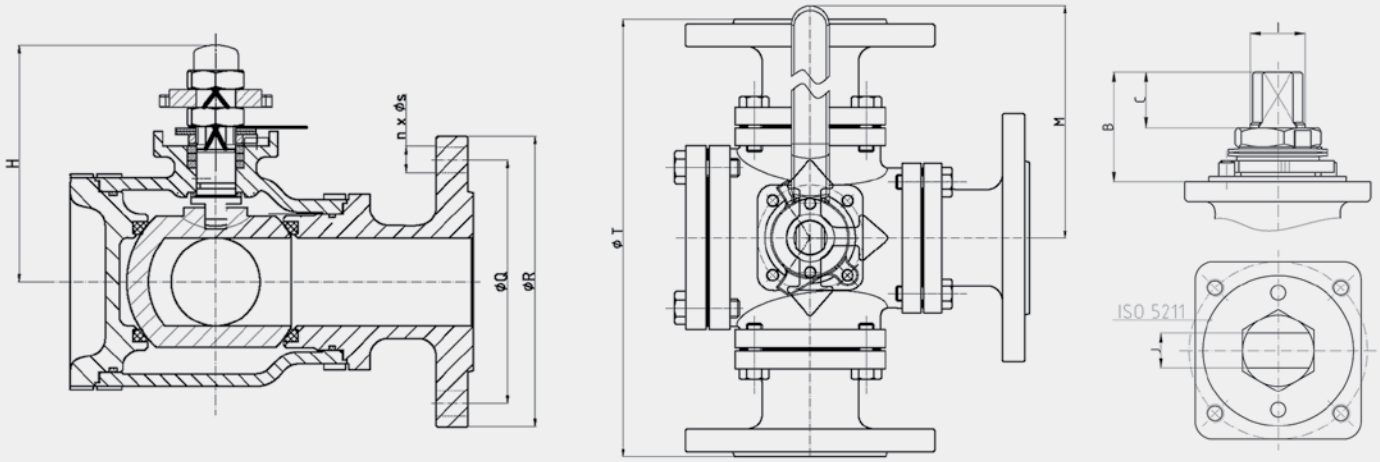
	EN-DIN		ASME	
	916 AIT	916 IIT	915 AIT	915 IIT

Item	Description	Material		Material	
1	Body	1.0619	1.4408	A216 Gr. WCB (C≤0,25%)	A351 Gr. CF8M
2	Body connector	1.0619	1.4408	A216 Gr. WCB (C≤0,25%)	A351 Gr. CF8M
2.1	Side Cover	1.0619	1.4408	A216 Gr. WCB (C≤0,25%)	A351 Gr. CF8M
3	Ball	A 351 Gr. CF8M		A 351 Gr. CF8M	
4	Seat ring	PTFE		PTFE	
5	Stem	A 479 Type 316		A 479 Type 316	
6	Stem thrust seal	25%GF PTFE		25%GF PTFE	
7	O'ring	FKM		FKM	
8	Stem packing	Graphite		Graphite	
9	Gland	AISI 303	AISI 316	AISI 303	AISI 316
9,1	Stop plate	F114	AISI 304	F114	AISI 304
10	Disk spring	E.N.P Carbon steel		E.N.P Carbon steel	
11	Look. Wash. Pointer	Rilsan coated Carbon St.		Rilsan coated Carbon St.	
12	Gland nut	Zinc plated carbon steel	AISI 303	Zinc plated carbon steel	AISI 303
13	Antifriction washer	25%GF. PTFE		25%GF. PTFE	
14	Wrench	Nodular iron		Nodular iron	
15	Bolt	DIN 933 A4 - 70		DIN 933 A4 - 70	
15.1	Bolt	DIN 933 A4 - 70		DIN 933 A4 - 70	
18	Stop bolt	A4-70		A4-70	
19	Body cover seal	PTFE		PTFE	
52	O'ring	FKM		FKM	
52.1	O'ring	FKM		FKM	
74	Body connector seal	PTFE		PTFE	
89	Identification plate	Stainless St.		Stainless St.	

BALL VALVES | FLOATING 3 WAY BALL VALVES

ASME 915 | Class 150 | Full Bore

Class 150. From 1" to 8"



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 60.

Pressure - Temperature

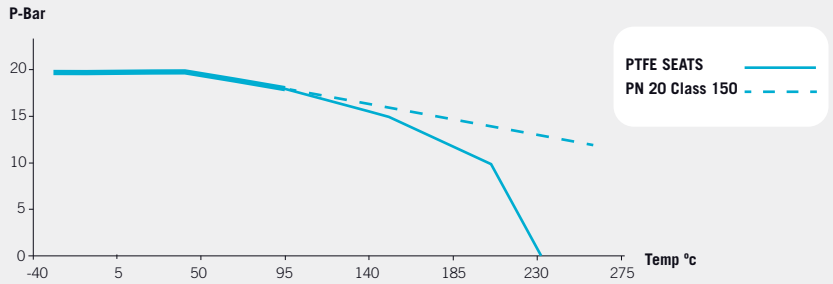


Fig. 915 (Class 150)

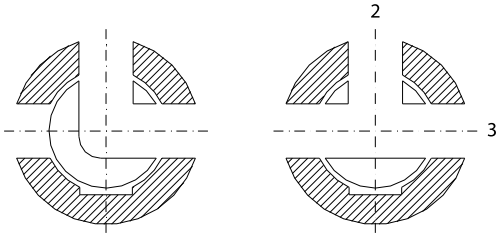
DN	øP	øL	A	A1	øR	n x øS	øT	H	M	ISO 5211	B	C	I	J	WEIGHT
1"	25	212	106	70	79,4	4x15,9	110	96	170	F05	22	12,2	M12x1.5	8	8
1½"	40	262	131	80	98,4	4x15,9	125	121	200	F07	33	19,2	M18x1.5	12	17
2"	50	290	145	90	120,7	4x19	150	134	350	F07	34	20,2	M22x1.5	15	25
2½"	65	325	162,5	107	139,7	4x19	180	180	350	F10	34	19,2	M22x1.5	15	34
3"	80	370	185	117	152,4	4x19	190	189	465	F10	45	27,7	M28x1.5	19	51
4"	100	430	215	148	190,5	8x19	230	230	475	F12	56	32,2	M36x1,5	24	77
6"	150	500	250	194	241,3	8x22.2	280	280	855	F14	69	41	M48x3	32	138
8"	200	600	300	270	298,5	8x22.2	345	325	855	F14	69	34	M48x3	32	

TORQUE

VALVE SIZE	AT MAXIMUM DIFFERENTIAL PRESSURE	
	L	T
25 (1")	32	26
40 (1 ½")	65	55
50 (2")	88	72
65 (2½")	140	132
80 (3")	220	205
100 (4")	440	440
150 (6")	680	680
200 (8")	1100	1100

Kv

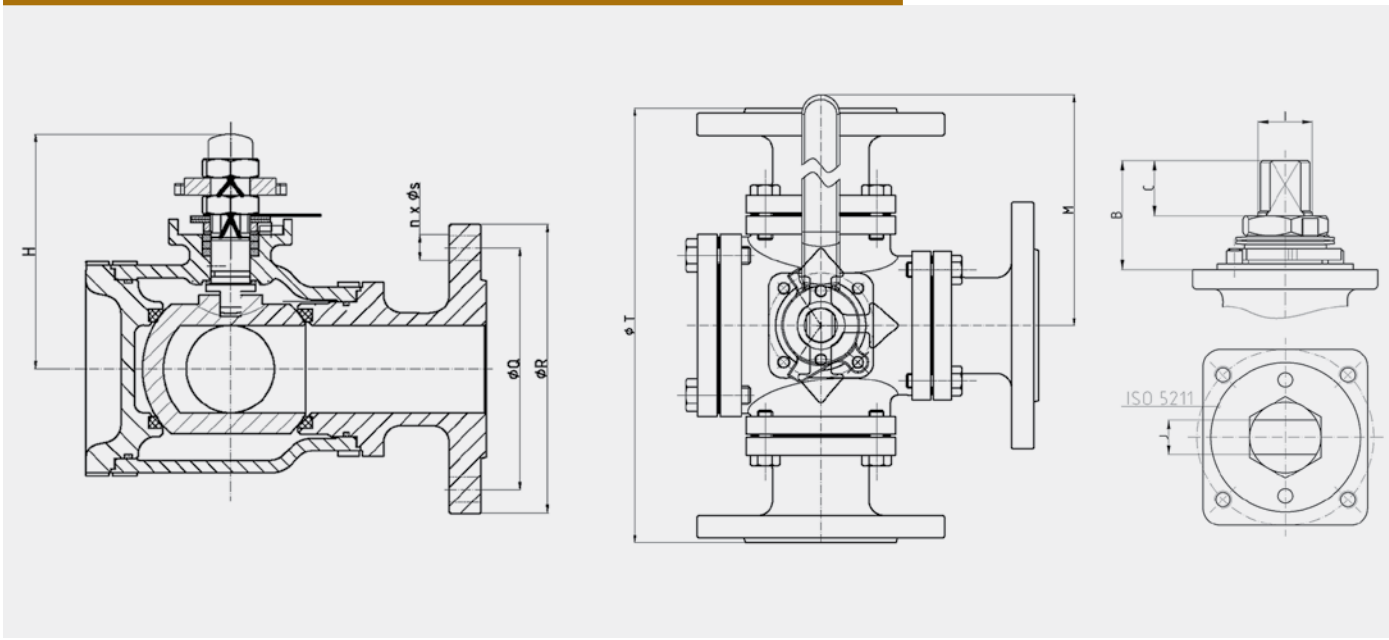
VALVE SIZE	PORT L	PORT T	
		PORT 2	PORT 3
25 (1")	20,4	28,9	51
40 (1 ½")	51,85	51,85	149,6
50 (2")	42,5	80,75	249,9
65 (2½")	136,85	136,85	478,55
80 (3")	206,55	291,55	732,7
100 (4")	323	323	1217,2
150 (6")	726,75	726,75	3087,2
200 (8")	920	920	4810



(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.
Torque Values in Nm.
Kv Values in m3/h.

EN-DIN 916 | PN 16 | Full Bore

PN 16. From DN 25 to DN 200



(*) Dimensions of diameters of drills ISO 5211 refer to table from page 60.

Pressure - Temperature

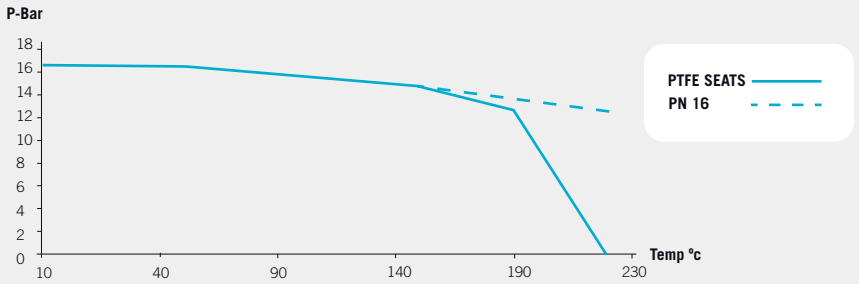


Fig. 916 (PN 16)

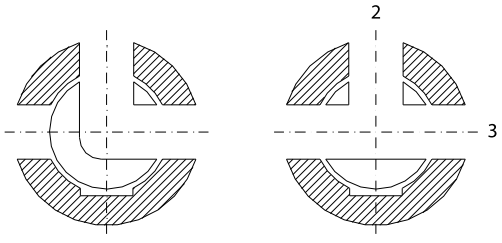
DN	øP	øL	A	A1	øR	n x øS	øT	H	M	ISO 5211	B	C	I	J	WEIGHT
25	25	212	106	70	85	4x14	115	96	170	F05	22	12,2	M12x1.5	8	8
40	40	262	131	80	110	4x18	150	121	200	F07	33	19,2	M18x1.5	12	17
50	50	290	145	90	125	4x18	165	134	350	F07	34	20,2	M22x1.5	15	25
65	65	325	162,5	107	145	8x18	185	180	350	F10	34	19,2	M22x1.5	15	34
80	80	370	185	117	160	8x18	200	189	465	F10	45	27,7	M28x1.5	19	51
100	100	430	215	148	180	8x18	220	230	475	F12	56	32,2	M36x1,5	24	77
150	150	500	250	194	240	8x22	285	280	855	F14	69	41	M48x3	32	138
200	200	600	300	270	295	12x22	340	325	855	F14	69	34	M48x3	32	

TORQUE

VALVE SIZE	AT MAXIMUM DIFFERENTIAL PRESSURE	
	L	T
25 (1")	35	30
40 (1 ½")	59	59
50 (2")	88	72
65 (2½")	140	140
80 (3")	220	220
100 (4")	360	360
150 (6")	680	680
200 (8")	850	850

Kv

VALVE SIZE	PORT L	PORT T	
		PORT 2	PORT 3
25 (1")	20,4	28,9	51
40 (1 ½")	51,85	51,85	149,6
50 (2")	42,5	80,75	249,9
65 (2½")	136,85	136,85	478,55
80 (3")	206,55	291,55	732,7
100 (4")	323	323	1217,2
150 (6")	726,75	726,75	3087,2
200 (8")	920	920	4810



(*) Dimensions in mm and weight in kg.
(**) Weights and dimensions can be changed without notice.
Torque Values in Nm.
Kv Values in m3/h.

| BALL VALVES |

SPECIAL CONSTRUCTIONS

VMV Ball Valves can be delivered in special constructions as following:

STEAM JACKET

When viscous materials are handled, VMV steam jacketed ball valves are recommended to prevent valve to be blocked in closed position.
The maximum steam jacket pressure is 10 Bar (1.0 MPa) and maximum temperature is 260℃.

CAVITY FILLER

Some of the roughest process controls problems involve fluids than can polymerize in place. That means they can polymerize inside body cavities and could block the valve. Cavity-filler seats are available in PTFE, Stansit, TFM. Applications: Styrene, Butadiene, Monomers, Pharmaceuticals, Food process, ...

DOUBLE PACKING

Today's concern for the containment of fugitive emissions has brought forth in the industry a wide range of stem sealing concepts and designs aimed to eliminating stem leakage. For these applications where it is imperative that fluid containment has to be assured, double packing can be adapted to any VMV ball valve.

CRYOGENIC SERVICE

VMV ball valves have been widely used in low temperature and cryogenic applications, including some gas treatment processes (LNG, Methane, LPG…), requiring valves able to be operated and to assure helium leakage rates within specified limits at low temperatures. In these cases VMV offers valves designed with special seats, bonnets and materials for low temperature or cryogenic service.

FULLY AUTOMATED BALL VALVES

VMV Valves can be delivered with pneumatic, electric, hydraulic or gas-over-oil actuators as per costumer requirements.

SPECIAL TAILOR MADE VALVES MADE FROM BAR OR FORGINGS

VMV tailor made valves are indicated for specific demands, special circumstances, extra-ordinary applications, hard to obtain products and short delivery times. Valves are produced from bar stock materials or forgings with really short time, with exotic materials Nickel alloys (Hastelloy®, Incoloy®, Inconel®, Monel®, Alloy 20, etc.), Titanium, Duplex and Super Duplex and corrosion resistant alloys.

FULLY WELDED VALVES

The VMV fully Welded Ball Valve gives it maximum strength at minimum weight as well as maximum resistance both to pipeline pressures and stresses. The compact, spherical design also eliminates body flanges, thus reducing overall size and leak paths.
VMV welded body ball valves are used mainly in Gas transmission and distribution pipeline (Mid-stream), typical for underground and buried installation.

Product Service Qualified Certificate

ISO 9001:2015	ISO 14001:2015	ISO 45001:2018


Certificate of Registration

GVK INDUSTRY CO., LTD.

This is to certify that the Quality Management System of the company mentioned above meets the requirements of

ISO 9001:2015

SCOPE

Design/Development and Manufacture of Automatic Valves

Certificate No. : GSR-Q-950
Initial Certification : 2021. 04. 09.
Date Of Issue : 2021. 04. 09.
Expiry Date : 2024. 04. 08.

Global Systems Register Co.,Ltd


Certificate of Registration

GVK INDUSTRY CO., LTD.

This is to certify that the Environmental Management System of the company mentioned above meets the requirements of

ISO 14001:2015

SCOPE

Design/Development and Manufacture of Automatic Valves

Certificate No. : GSR-E-950
Initial Certification : 2021. 04. 09.
Date Of Issue : 2021. 04. 09.
Expiry Date : 2024. 04. 08.

Global Systems Register Co.,Ltd


Certificate of Registration

GVK INDUSTRY CO., LTD.

This is to certify that Occupational Health and Safety Management System of the company mentioned above meets the requirements of

ISO 45001:2018

SCOPE

Design/Development and Manufacture of Automatic Valves

Certificate Number: GSR-O-950 Issue Date: 2023. 10. 20.
Initial Certification: 2023. 10. 20. Expiry Date: 2026. 10. 19.

Global Systems Register Co., Ltd.

CE: Globe Control Valve	CE : Ball Valve	Research Institute


SZUTEST CE

CERTIFICATE OF COMPLIANCE
UYGUNLUK SERTİFİKASI


SZUTEST CE

CERTIFICATE OF COMPLIANCE
UYGUNLUK SERTİFİKASI


제 2023111848 호

기업부설연구소 인정서

1. 연 구 소 명: 지브이케이인더스트리(주) 기업부설연구소
[소속기업명: 지브이케이인더스트리(주)]
2. 소 재 지: 인천광역시 부평구 주부토로 236
C동 503호 (갈산동)
3. 신고 연월일: 2023년 06월 08일
(최초인정일 : 2023년 5월 10일)

과학기술정보통신부

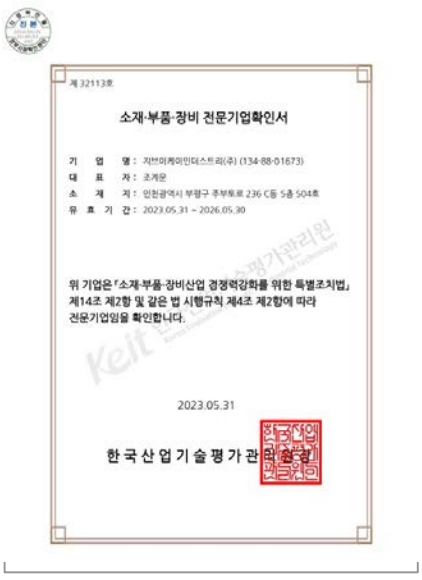
「기초연구진흥 및 기술개발지원에 관한 법률」 제14조의 2제1항 및 같은 법 시행령 제27조제1항에 따라 위와 같이 기업부설연구소로 인정합니다.

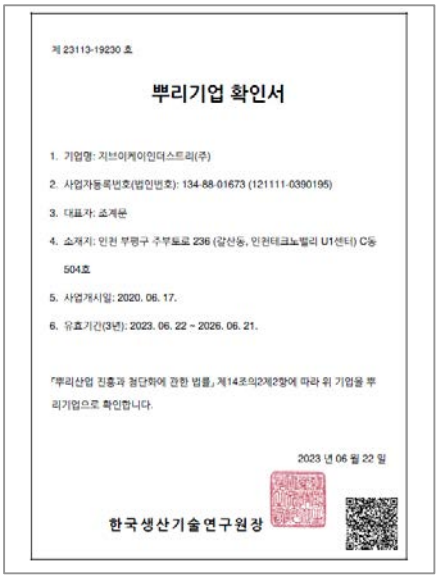
2023년 6월 15일

한국산업기술진흥협회장

ASME U, PP Stemp	EAC : RUSSIA TRCU	API 6D / 600 By KSM

Venture company	Material · Part · Equipment	Rooting Enterprise





GVK(TS)
3WAY BALL

Total Engineering Solution Service

GVK CO.,LTD.

HEAD OFFICE
Techno Valley C-503, 236, Jubuto-ro,
Bupyeong-gu, Incheon, Republic of Korea

TEL +82-32-678-7972
FAX +82-32-678-7973
EMAIL ican@gvkvalve.com

www.gvkvalve.com