



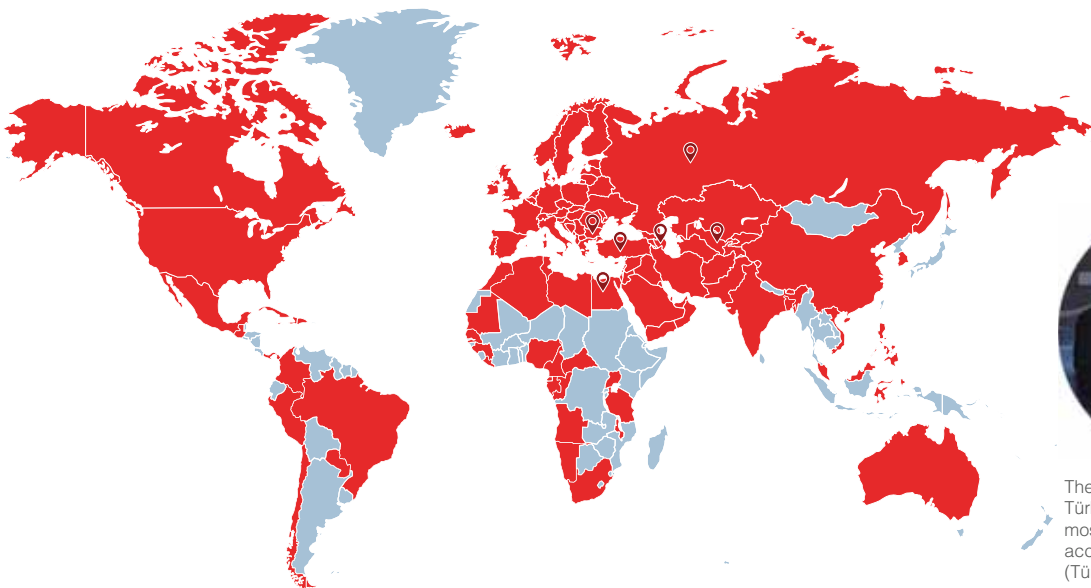
EKİN ENDÜSTRİYEL

**FLOW CONTROL  
PRODUCTS  
GENERAL CATALOG**

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Your Satisfaction Is Our Priority;  
Globalization Is Our Goal!



The second-rated company in Türkiye has exported to the most different countries in 2021, according to ISIB (Türkiye HVAC-R).



## **The first condition of innovation is to question. Sustainable innovation is to never stop questioning.**

For us, the journey of innovation started with a question: "Why not produce value-added technology in Türkiye?". The first turning point in this long journey was the birth of the MIT (Made In Türkiye) brand. The founding vision of MIT, which enabled us to become Türkiye's first domestic manufacturer in the field of "Plate Heat Exchanger", was not to be a domestic "alternative", but to create a quality brand that could compete in the global market.

By working for this goal, we have been entitled to receive many international quality certificates such as ISO, TSE, CE, GOST... for our products and processes over many years. For us, questioning the current situation was a natural result of our desire to exceed ourselves.

## **New Generation Engineering**

With our engineering approach that focuses on the process, not the problem, we do not only specialise in one product, but also consider the entire ecosystem of that product. Therefore, we provide an end-to-end application by producing all other components that will form a system as well as the plate heat exchanger. For this, we focus on the continuous development of the necessary engineer staff. With our business development, pre-sales, sales and after-sales services provided by our expert engineers, we produce not only products but also "solutions".

At the point we have reached; we offer complementary services with our internationally approved plate heat exchangers, components such as accumulation tanks, boilers, industrial pumps and installation materials that turn these heat exchangers into a system. With our team of more than 100 expert engineers, we continue to develop as a solution partner for projects requiring high technology in more than 60 countries.



## HEAT TRANSFER PRODUCTS

- Gasketed Plate Heat Exchangers
- Brazed Heat Exchangers
- Shell & Tube Heat Exchangers
- Evaporators and Condensers
- DC Fan Driven Oil Coolers
- Heat Coils
- Serpentine / Radiators / Economizers

## PRESSURE VESSELS

- Water Heater Tanks
- Water Storage Tanks
- Buffer Tanks
- Expansion Tanks / Automatic Pump Controlled Expansion System
- Stainless Steel Tanks
- Balance Tanks / Dirt Separators / Air Separators / Air Tubes
- Steam Separators
- Pressured Air Tanks
- Neutralization Units

## INDUSTRIAL AND FOOD GRADE SYSTEMS

- Heat Stations
- Industrial Process Systems
- Dosing Systems
- Substations
- Thermoregulators
- Pasteurizers
- CIP and Hygienic Process Systems
- Hygienic Storage and Process Tanks / Reactors
- Homogenizers
- Turn-key Projects

## FLUID TRANSFER PRODUCTS

- Lobe Pumps
- Hygienic Centrifugal Pumps
- Twin Screw Pumps
- Gear Pumps
- Magnetic Drive Pumps / Thermoplastic Pumps
- Dosing Pumps
- Air Operated Double Diaphragm Pumps (AODD)
- Drum Pumps
- Monopumps
- Peristaltic (Hose) Pumps
- Centrifugal Blowers
- Roots Blowers
- Turbo Blowers

## FLOW CONTROL UNITS

- Butterfly Valves
- Ball Valves
- Globe Valves
- Knife Gate Valves
- Actuators
- Check Valves and Strainers
- Pneumatic Piston Valves

## ENERGY SYSTEMS

- Domestic and Industrial Boilers
- Steam Generators
- Chillers
- Cooling Towers

PRODUCT RANGE



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*From our product quality to our value-added services; we owe our sustainable success to our established corporate culture in every field from employee satisfaction to customer satisfaction.*

*Our comprehensive corporate policies pave the way for our corporate culture. Thanks to these policies, we design all our activities to offer the same quality regardless of individuals and market dynamics.*

# CORPORATE POLICIES



The secret of being the leading company in the heating and cooling sector lies in the people. We know in order to make a difference; it is necessary to have the staff to implement these policies flawlessly as well as the corporate policies created by experts in their fields with nearly 20 years of experience. We demonstrate our customer-oriented approach by reflecting the needs and expectations of the industry to our MIT branded products in the best possible way. We are raising the standards of the heating-cooling and air conditioning industry by combining our modern production and marketing understanding with our innovative approach with the valuable experience of our expert engineers.





## OUR VISION

To make the MIT brand a reputable and leading global brand in all sectors in which Ekin Endüstriyel operates.

## OUR MISSION

To provide sustainable benefit to all our stakeholders by using our resources effectively and efficiently within the framework of human and moral values.



## AN ENGINEERING APPROACH FROM SALES TO MAINTENANCE

We offer value added pre and after sale services with our customer satisfaction-oriented approach and deep expertise we are more than happy to share. Thanks to our expert engineers that provide proactive solutions, we focus on making a difference throughout the process, from presales to maintenance. With our “quality product, quality service, quality solution” approach, we are more than a manufacturer and supplier, we are a highly motivated solution partner for all kinds of heating and cooling projects.





## QUALITY POLICY

We aim for sustainable quality with a proactive approach that not only meets the need but anticipates it. We bring together an understanding of corporate management based on strategy, not personal thoughts, with effective decision-making mechanisms that include our employees and suppliers. We run an operation based on efficiency and sustainability.



## CUSTOMER SATISFACTION

We aim for sustainable quality with a proactive approach that anticipates rather than meets the need. We bring together a corporate management approach based on strategy, not personal considerations, with effective decision-making mechanisms, including our employees and suppliers. We run an operation based on efficiency and sustainability.





## ETHICAL VALUES

We conduct all our activities in accordance with the laws and then with ethical values. We believe in growing together and we look for mutual benefit in all our business relationships.

## PRIVACY POLICY

All your personal information shared with our company is guaranteed by our ethical values and our processes in compliance with the Law No. 6698 on Protection of Personal Data.

## OCCUPATIONAL HEALTH AND SAFETY (OHS) POLICY

We prioritize a single rule in all our operations: "It is the right of every human being to work in a healthy and safe environment." We minimize risks with preventive OHS practices and analyzes. We increase the awareness of our own personnel, our suppliers and subcontractors with trainings and guidance. We work with the understanding of "zero concessions" in compliance with Occupational Health and Safety Regulations and related laws.

## ENVIRONMENTAL POLICY

We care about the prevention of waste in natural resource consumption. We keep the environmental pollutants and our wastes under constant control. We constantly inform our employees in this topic. We never compromise on compliance with the relevant legal legislation, and we wholeheartedly support all kinds of work that will benefit environmentally friendly technologies and social awareness.

## INFORMATION SECURITYZ

All our information technology operations are protected by our information security processes, which are managed in accordance with ISO 27001 Information Security Management System requirements.



## SPONSORSHIP AND SOCIAL RESPONSIBILITY

As Ekin Endüstriyel, we have been supporting projects that will bring social benefit from day one with our desire to develop and grow together. We strive to create and promote a sensitivity towards the future of our country and our world.

With our understanding of "Sponsorship and Social Responsibility", we regularly support various social sharing projects on education, health, and environment with great interest. We work diligently to fulfill our responsibilities towards our employees and heir families, customers, dealers, universities, non-governmental organizations, and other stakeholders.

In addition to the projects, we have implemented in a corporate sense, we support the projects created by students with all our strength in order to contribute to the raising of environmentally sensitive generations and to enlighten future generations. In addition, we prioritize the demands and needs of the projects in our region.

In the field of education, we are proud to provide support for many projects carried out domestically and nationwide. As the leading institution of the industry, we carry out projects focused on education and employment with vocational high schools and universities. In addition, innovation, we support the renewable energy, research, and R&D projects of student communities in Turkey's elite universities.

We are also working with non-governmental organizations in the field of health. We regularly organize seminars to inform our employees in topics like blood donation, harms of smoking and similar health-related issues. We wholeheartedly support projects carried out in the field of health at every opportunity.

While contributing to the national economy and employment with our investments, we strive to achieve a vision that tries to be a pioneer and an example to the society with our sponsorship and social responsibility projects and the voluntary support of our employees. We prioritize projects that generate permanent benefits to create sustainable effects with our social responsibility efforts.

WE USE THE RESOURCES WE HAVE MORE EFFICIENTLY AND TAKE CARE TO PROVIDE THE MOST EFFECTIVE RECYCLING WITHIN OUR COMPANY. **WE ADOPT TO ACT WITH CARE AND SEE IT AS A REFLECTION OF OUR RESPECT FOR THE ENVIRONMENT, HUMANITY, FUTURE GENERATIONS, AND OURSELVES.**







# OUR FACILITIES

 DUDULLU



HIGH  
QUALITY, FAST  
SHIPMENT &  
AFTER SALES  
SUPPORT!







We continue to produce solutions with designs suitable for the process and specific to your demand.





# OUR FACILITIES



KIRKLARELİ



QUALITY  
PRODUCTION  
WITH INNOVATIVE  
MANUFACTURING  
APPROACH









# OUR FACILITIES



AKSARAY











# OUR PRODUCTIONS

FROM THE FIELD









OUR PRODUCTIONS

FROM THE FIELD





## OUR HISTORY

- 2005** As Ekin Endüstriyel, we have established our foot print as the very "First Domestic Plate Heat Exchanger" producer, applying "New Generation Engineering" approach.
- 2006** We succeeded as a locally technology possessor & pioneer of domestically producing company of heat exchanger; entiteled with MIT (Made in Türkiye) brand.
- 2007** We added the production of "Pressure Vessels" alongside our Plate Heat Exchanger, and continously growing.
- 2008** We added "Tubular Heat Exchangers" to our Heat Transfer Portfolio...
- 2009** In order to determine the most suitable heat exchangers for our customers' needs, our expert engineers started to offer the best solutions via using the heat exchanger selection software.
- 2010** Expansion Tank took its place in our product range, which provides pressure control and water support in plumbing systems.
- 2011** "MIT Brazed Plate Heat Exchanger" designed & produced for cooling-heating & ventilation processes.
- 2012** MIT brand has made its presence felt in 60 countries.
- 2013** Ekin moved the Headquarter to a new location in Des Industrial Zone.
- 2014** Foundation of our Kırklareli factory launched.
- 2015** "Fluid & Air Transfer" products added to Ekin product portfolio; & that enabled us to be responsive to our customers, in each & every field.
- 2016** Our 2500 m<sup>2</sup> factory in Kırklareli started commissioning.
- 2017** We started providing services in various engineering fields to meet our customers' expectations with "Package System" solutions.
- 2018** "MIT Cooling Towers", "Chillers" and "Steam Generators" have been included in our product range. "MIT point" Regional directorates started operations in four different countries.
- 2019** We never stopped moving forward and started manufacturing "MIT Boilers".
- 2020** We added Truevalve brand to our group of products.
- 2021** We added the hose pump group to our Fluid Transfer product range.
- 2022** We have been granted "2nd-Exporting Company of the Year 2021" award, by İSİB in Air Conditioning Sector.

### Today;

Alongside our various production facilities (Dudullu Organized Industrial Zone, Aksaray, Kırklareli, Maltepe), we have been trying to provide our business partners with best services, end-to-end equipment supply and unlimited supports. With our innovative manufacturing approach and team-work spirit...

## Truevalve Butterfly Valve

### What is a Butterfly Valve?

Butterfly valves are a versatile valve type used for opening, closing and flow adjustment. Butterfly valve is an economical type of valve that takes up little space in the pipeline, provides perfect sealing in both directions, can be easily and economically adapted to automation, works with low pressure losses. These features have made the butterfly valve a preferred product in many systems since the 1960s when it was first designed.

Today, there are two types of butterfly valves, wafer and lug, which are used in many areas such as fire extinguishing installations, water and waste water installations, energy stations, compressor lines, air handling units, treatment centers. For detailed information about these valve types, you can check our Butterfly Valve Types page.

### Butterfly Valve Types

Butterfly valves have two types, wafer and lug. Both types of butterfly valves have different characteristics. In Lug type butterfly valves, since each flange has its own bolts, it is possible to clean, inspect and repair the valve without completely shutting down the system. On the other hand, wafer type butterfly valves are designed to prevent backflow in one-way flow systems. They have high sealing and protect the system against two-way pressure difference. Both valve types have their own subtypes.

### Butterfly Valve Usage Areas

Butterfly valve is frequently used in many areas as an economical valve type that occupies little space in the pipeline, provides excellent sealing properties in both directions, can be adapted to automation easily and economically, works with low pressure losses. These valves, which are used in different fluid applications in different sectors with their sub-types, are one of the most preferred valve types. The main usage areas are as follows.

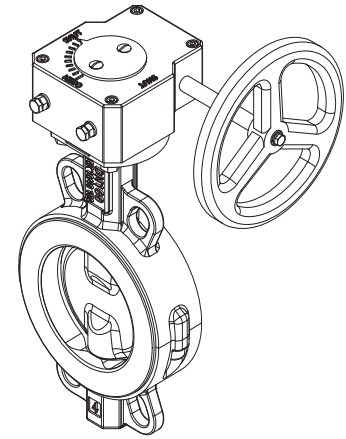
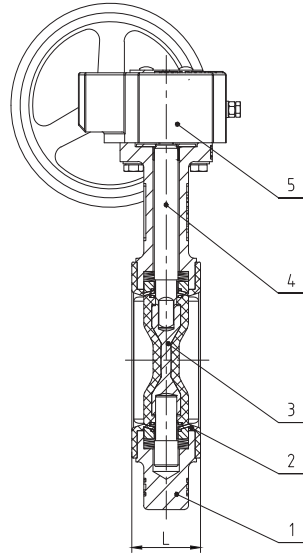
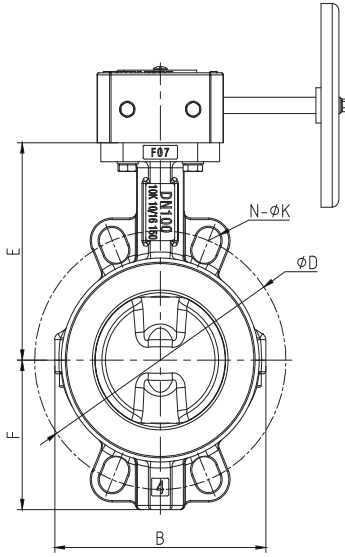
- In Fire Extinguishing Installation
- Water and Waste Water
- In Energy Stations
- In Compressor Lines
- In Air Handling Units
- Treatment Facilities
- In Heating-Cooling Lines
- In Chemical and Petrochemical Facilities
- In Shipbuilding Industry
- In the Food Industry
- In Gas and Exhaust Lines
- In Paper Industry





### Truevalve Teflon Material Butterfly Valve

**Shaft** : AISI 420  
**Gasket** : PTFE  
**Body Material** : GGG40  
**Disc** : PTFE  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 16 Bar



### TRUEVALVE WAFER TYPE PURE TEFLON BUTTERFLY VALVE

Part Description	Material
Body	GGG40 Ductile Iron
Disc	WCB + PTFE
Gasket	PTFE
Stuffing	PTFE
Shaft	AISI SS420

DN	inch	L	øD	N-øK	E	F	B
50	2	43	125	2-18	134	68	100
65	2 1/2	46	145	2-18	145	78	120
80	3	46	160	2-18	150	80	140
100	4	52	180	4-18	160	110	160
125	5	56	210	4-22	178	130	190
150	6	56	240	4-22	197	140	220
200	8	60	295	4-22	239	175	277
250	10	68	350	4-26	278	215	330
300	12	78	400	4-26	315	250	380



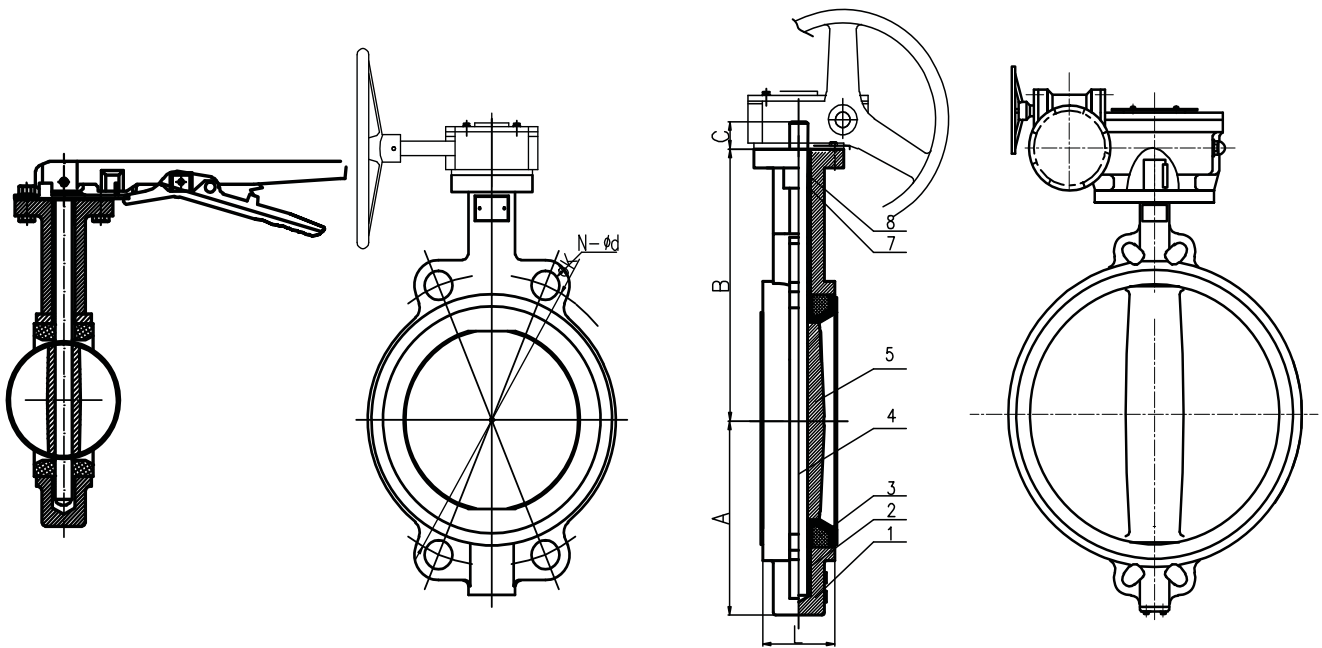
**Truevalve Wafer Type Butterfly Valve**

**Shaft** : AISI 420  
**Gasket** : EPDM - NBR - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



**Truevalve Wafer Type PTFE Seal Butterfly Valve**

**Shaft** : AISI 420  
**Gasket** : PTFE  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 16 Bar



TRUEVALVE WAFER TYPE BUTTERFLY VALVE	
Part Description	Material
Body	GGG40 Ductile Iron
Disc	Nickel-SS304 -SS316 -PTFE
Gasket	EPDM-NBR-VITON-PTFE
Stuffing	PTFE
Shaft	AISI SS420



Size		A	B	C	L	ANSI 150B		DIN PN 10		DIN PN 16		JIS10K		ISO 5211			Top Flange
mm	in					øK	N-ød	øK	N-M	øK	N-ød	øK	N-ød	øD	D1	N-øG	
40	1.5"	67	141	32	33	98.5	4-ø16	110	4-ø18	110	4-ø18	105	4-ø19	65	50	4-ø8	F05
50	2"	67	141	32	43	120.6	4-ø19	125	4-ø18	125	4-ø18	120	4-ø19	65	50	4-ø8	F05
65	2 1/2"	75	151	32	46	139.7	4-ø19	145	4-ø18	145	4-ø18	140	4-ø19	65	50	4-ø8	F05
80	3"	95	160	32	46	152.4	4-ø19	160	8-ø18	160	8-ø18	150	8-ø19	65	50	4-ø8	F05
100	4"	111	180	32	52	190.5	8-ø19	180	8-ø18	180	8-ø18	175	8-ø19	90	70	4-ø10	F07
125	5"	129	193	32	56	215.9	8-ø22.4	210	8-ø18	210	8-ø18	210	8-ø23	90	70	4-ø10	F07
150	6"	142	207	32	56	241.3	8-ø22.4	240	8-ø22	240	8-ø22	240	8-ø23	90	70	4-ø10	F07
200	8"	170	240	45	60	298.4	8-ø22.4	295	8-ø22	295	12-ø22	290	12-ø23	125	102	4-ø12	F10
250	10"	206	270	45	68	361.9	12-ø25.4	350	12-ø22	355	12-ø26	355	12-ø25	125	102	4-ø12	F10
300	12"	238	316	45	78	431.8	12-ø25.4	400	12-ø22	410	12-ø26	400	16-ø25	125	102	4-ø12	F10
350	14"	267	368	45	78	476.2	12-ø28.4	460	16-ø22	470	16-ø26	445	16-ø25	125	102	4-ø12	F10
400	16"	298	400	51	86	539.7	16-ø28.4	515	16-ø26	525	16-ø30	510	16-ø27	175	140	4-ø12	F14
450	18"	318	422	51	105	577.8	16-ø31.8	565	20-ø26	585	20-ø30	565	20-ø27	175	140	4-ø18	F14
500	20"	349	479	57	127	635	20-ø31.8	620	20-ø26	650	20-ø33	620	20-ø27	175	140	4-ø18	F14
600	24"	410	562	70	154	749.3	20-ø35.1	725	20-ø30	770	20-ø36	730	24-ø33	210	165	4-ø22	F16



### Truevalve Double Flanged Butterfly Valve

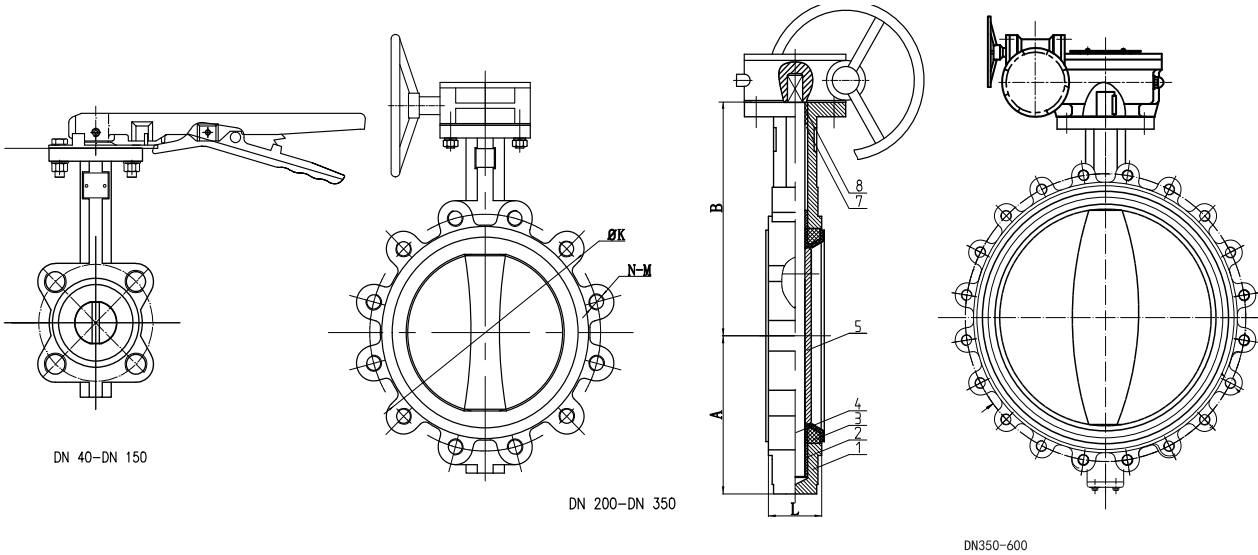
- Shaft** : AISI 420
- Gasket** : PTFE - NBR - EPDM - VITON
- Body Material** : GGG40
- Disc** : GGG40 -STAINLESS
- Max. Working Temperature** : 120 °C
- Max. Working Pressure** : 16 Bar





### Truevalve Lug Type Butterfly Valve

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



### TRUEVALVE WAFER TYPE BUTTERFLY VALVE

Part Description	Material
Body	GGG40 Ductile Iron
Disc	Nickel-SS304 -SS316 -PTFE
Gasket	EPDM-NBR-VITON-PTFE
Stuffing	PTFE
Shaft	AISI SS420

Size		A	B	C	L	DIN PN 10		DIN PN 16		ANSI 150B		ISO 5211			Top Flange
mm	in					ØK	N-M	ØK	N-M	ØK	N-M (in)	ØD	D1	N-ØG	
40	1.5"	67	141	32	33	110	4-M16	110	4-M16	98.5	4-1/2	65	50	4-Ø8	F05
50	2"	67	141	32	43	125	4-M16	125	4-M16	120.6	4-5/8	65	50	4-Ø8	F05
65	2 1/2"	75	151	32	46	145	4-M16	145	4-M16	139.7	4-5/8	65	50	4-Ø8	F05
80	3"	95	160	32	46	160	8-M16	160	8-M16	152.4	4-5/8	65	50	4-Ø8	F05
100	4"	111	180	32	52	180	8-M16	180	8-M16	190.5	8-5/8	90	70	4-Ø10	F07
125	5"	129	193	32	56	210	8-M16	210	8-M16	215.9	8-3/4	90	70	4-Ø10	F07
150	6"	142	207	32	56	240	8-M20	240	8-M20	241.3	8-3/4	90	70	4-Ø10	F07
200	8"	170	240	45	60	295	8-M20	295	12-M20	298.4	8-3/4	125	102	4-Ø12	F10
250	10"	206	270	45	68	350	12-M20	355	12-M24	361.9	12-7/8	125	102	4-Ø12	F10
300	12"	238	316	45	78	400	12-M20	410	12-M24	431.8	12-7/8	125	102	4-Ø12	F10
350	14"	267	368	45	78	460	16-M20	470	16-M24	476.2	12-1	125	102	4-Ø12	F10
400	16"	298	400	51	86	515	16-M24	525	16-M27	539.7	16-1	175	140	4-Ø18	F14
450	18"	318	422	51	105	565	20-M24	585	20-M27	577.8	16-1 1/8	175	140	4-Ø18	F14
500	20"	349	479	57	127	620	20-M24	650	20-M30	635	20-1 1/8	175	140	4-Ø18	F14
600	24"	410	562	70	154	725	20-M27	770	20-M33	749.3	20-1 1/4	210	165	4-Ø22	F16



### Truevalve Wafer Type Butterfly Valve With Gear Box

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



### Truevalve Lug Type Butterfly Valve With Gear Box

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



### Truevalve Wafer Type Butterfly Valve With Pneumatic Actuator

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



### Truevalve Lug Type Butterfly Valve With Pneumatic Actuator

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



### Truevalve Wafer Type Butterfly Valve With Electrical Actuator

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar  
**Actuator** : 220V - 24DC



### Truevalve Lug Type Butterfly Valve With Electrical Actuator

**Shaft** : AISI 420  
**Gasket** : PTFE - NBR - EPDM - VITON  
**Body Material** : GGG40 - GG25  
**Disc** : GGG40 - AISI304 - AISI316  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar  
**Actuator** : 220V - 24DC

## Truevalve Ball Valves

### What is Ball Valve?

Ball valves take their name from the perforated and rotating ball inside them. Basically, the flow through the system is controlled by turning it at 90 degree angles with the help of the handle on this perforated globe valve. When the valve stem is aligned with the flow, the bore of the ball is aligned with the flow and the fluid is completely free. When the handle is turned 90 degrees perpendicular to the valve, the system is closed and the flow is interrupted. Ball valves are preferred primarily in places that open and close a lot or need to be opened and closed quickly. Ball valves are one of the most preferred metal valve types due to their good sealing properties, low pressure loss, easy opening and closing, and taking up less space in the pipeline.

### Ball Valve Features

- Low pressure losses
- Easy on and off
- Have good sealing
- To be Lightweight
- Little floor covering

### Ball Valve Types

There are sub-types of ball valve to suit different needs. For example, the natural gas ball valve used in the natural gas installation must be produced in accordance with EN 331 European standards.

Among some types of ball valves, in systems where sealing is a priority; flanged ball valves or butterfly arm ball valves used in narrow areas where the normal arm cannot rotate are used.

The main types of ball valves can be listed as follows.

- Threaded Ball Valve
- Flanged Ball Valve
- Butterfly Sleeve Ball Valve
- Mini Ball Valve
- Natural Gas Ball Valve

### Ball Valve Usage Areas

Ball valves are a type of metal valve used in many sectors with their lightness, ease of use, small footprint, low pressure loss and good sealing properties. Ball valves, which we are accustomed to see especially in drinking water installations and natural gas installations in buildings, are frequently used in the following areas besides these most familiar areas.

- Heating-Cooling Lines
- Chemical Industry
- Food Facilities
- Natural Gas Lines
- Paper Mills
- Ship Constructions

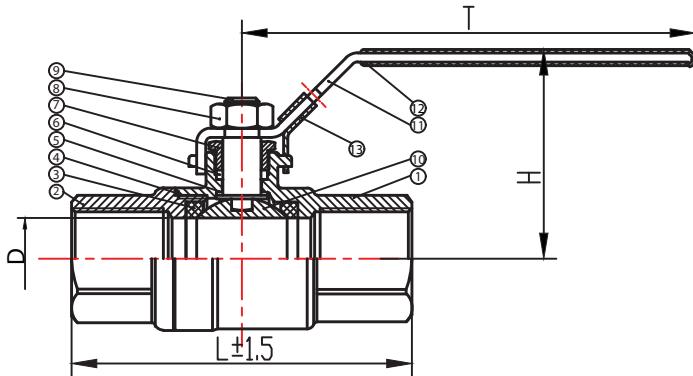






### Truevalve Two Pieces Threaded Stainless Steel Ball Valve

<b>Gasket</b>	: PTFE
<b>Connection Type</b>	: Threaded
<b>Body Material</b>	: AISI 304 - AISI 316
<b>Max. Working Temperature</b>	: 180 °C
<b>Max. Working Pressure</b>	: 63 Bar



#### TRUEVALVE TWO PIECES THREADED STAINLESS STEEL BALL VALVE

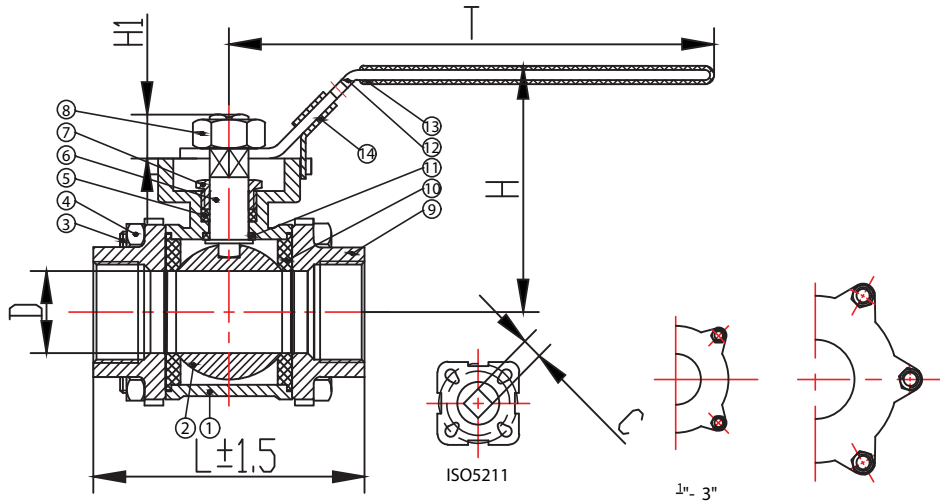
Part Description	Material
Body	SS304 -SS316
Ball Teflon	PTFE
Ball	SS304-SS316
Gasket	PTFE
Sealing Equipment	PTFE
Bolt Nut	SS304-SS316
Washer	SS304-SS316
Pressure Nut	SS304-SS316
Movement	SS304-SS316
Arm	SS304-SS316

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
DN	8	10	14	19	24	32	38	48	65	80	100
D	8	10	15	20	25	32	39	50	65	80	100
L ± 1.5	55	60	76	80	90	110	120	140	185	205	240
H	53	53	56	56	70	75	90	100	128	134	160
T	98	98	110	110	130	150	160	160	210	240	314
KG	0.210	0.2100	0.280	0.4000	0.585	0.855	1.250	1.795	3.800	5.7100	8.5050



### Truevalve Three Pieces Threaded Stainless Steel Ball Valve

**Gasket** : PTFE  
**Connection Type** : Threaded  
**Body Material** : AISI 316 - AISI 304  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 63 Bar



### TRUEVALVE THREE PIECES THREADED STAINLESS STEEL BALL VALVE

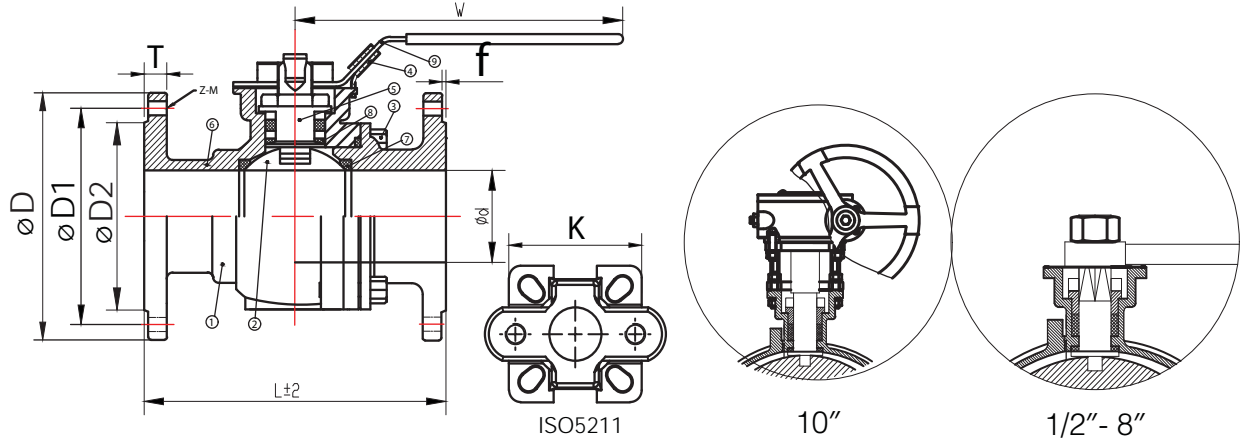
Part Description	Material
Body	SS304 -SS316
Ball Teflon	PTFE
Ball	SS304-SS316
Gasket	PTFE
Sealing Equipment	PTFE
Bolt Nut	SS304-SS316
Washer	SS304-SS316
Pressure Nut	SS304-SS316
Movement	SS304-SS316
Arm	SS304-SS316

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
DN	8	10	15	20	25	32	40	50	65	80	100
D	8	10	15	20	25	32	40	50	65	80	100
L ± 1.5	65	65	75	80	90	110	120	138	185	205	240
H	65	65	63	74	86	95	116	122	147	153	167
H1			9	14	13.5	13.4	20	20	22	20	23
H2			40	45	52	63.500	65.800	78.55	96.55	107.4	127
T	131	131	131	131	167	167	193	193	242	272	295
C	9	9	9	9	11	11	14	14	17	17	17
NM	3.5	3.5	3.5	6	6	7.5	18	28	32	38	80
ISO5211	F03/F04	F03/F04	F03/F04	F03/F04	F04/F05	F04/F05	F05/F07	F05/F07	F07/F10	F07/F10	F07/F10
Kg	0.625	0.605	0.595	0.715	1.10	1.57	2.130	2.71	5.620	7.935	13.465



### Truevalve Stainless Steel Flanged Two Pieces Ball Valve

<b>Gasket</b>	: PTFE
<b>Connection Type</b>	: Flanged
<b>Body Material</b>	: AISI 304 - AISI 316
<b>Max. Working Temperature</b>	: 180 °C
<b>Max. Working Pressure</b>	: 16 Bar
<b>Connection</b>	: ISO5211



### TRUEVALVE STAINLESS STEEL FLANGED TWO PIECES BALL VALVE

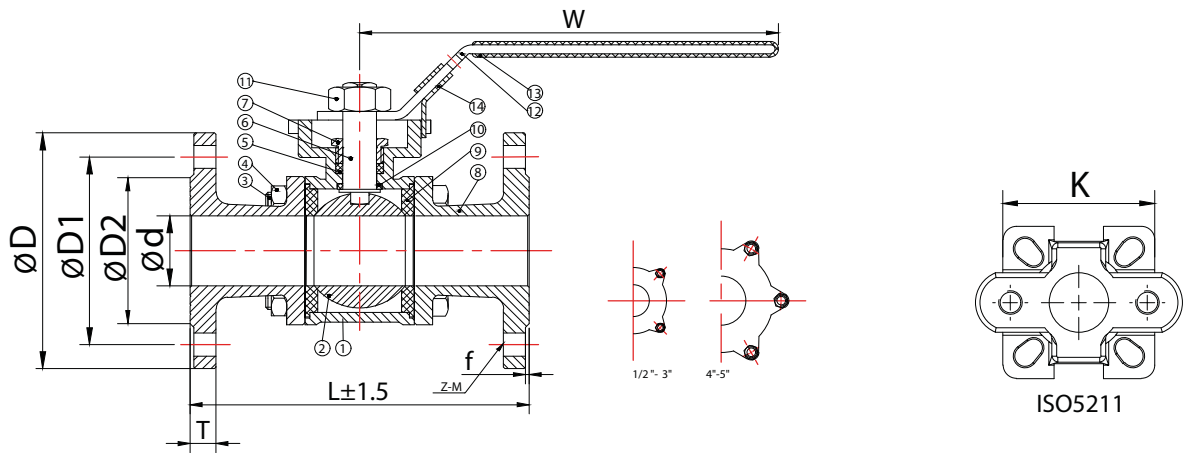
Part Description	Material
Body	SS304 -SS316
Ball Teflon	PTFE
Ball	SS304-SS316
Gasket	PTFE
Sealing Equipment	PTFE
Bolt Nut	SS304-SS316
Washer	SS304-SS316
Pressure Nut	SS304-SS316
Movement	SS304-SS316
Arm	SS304-SS316

DN	d	D	D1	D2	T	f	L ± 2	W	NM	Z-M	C	ISO5211	Kg
15	15	95	65	45	16	2	115	131	2.1	4-14	9	F03/F04	2.49
20	21	104	75	58	18	2	120	131	3.8	4-14	9	F03/F04	3.13
25	23.5	113	85	68	18	3	125	167	7.5	4-14	11	F04/F05	3.735
32	21	139	100	78	18	3	130	167	9.8	4-18	11	F04/F05	5.435
40	37.5	149	110	88	18	3	140	193	10.5	4-18	14	F05/F07	6.39
50	49	165	125	102	20	3	150	193	16.7	4-18	14	F05/F07	8.305
65	65	185	145	122	18	3	170	242	28.2	4-18	17	F07/F10	11.69
80	78	200	161	138	20	3	183	272	32.1	8-18	17	F07/F10	14.525
100	100.9	221	180	158	20	3	190	295	60.2	8-18	17	F07/F10	17.805
125	126	250	210	188	23	3	331	530		8-18	24	F10/F12	32.6
150	151	286.5	240	212	22	3	350	530		8-22	24	F10/F12	43.7
200	198	340	296.5	266	24	3	403	625		12-22	27	F12/F14	69.82
250	252	410	395.6	232	29.6	3	450	/		12-26	34	F12/F14	157



### Truevalve Stainless Steel Flanged Three Pieces Ball Valve

- Gasket** : PTFE
- Connection Type** : Flanged
- Body Material** : AISI 304 - AISI 316
- Max. Working Temperature** : 180 °C
- Max. Working Pressure** : 25 Bar
- Connection** : ISO5211



TRUEVALVE STAINLESS STEEL FLANGED THREE PIECES BALL VALVE	
Part Description	Material
Body	SS304 -SS316
Ball Teflon	PTFE
Ball	SS304-SS316
Gasket	PTFE
Sealing Equipment	PTFE
Bolt Nut	SS304-SS316
Washer	SS304-SS316
Pressure Nut	SS304-SS316
Movement	SS304-SS316
Arm	SS304-SS316

DN	d	D	D1	D2	T	f	L ± 2	W	NM	Z-M	C	ISO5211	Kg
15	15	95	65	45	16	2	130	131		M14X4	9	F03/F04	2.105
20	20	105	75	58	18	2	150	131		M14X4	9	F03/F04	2.895
25	25	115	85	68	18	2	160	167		M14X4	11	F04/F05	3.755
32	32	140	100	78	18	2	180	167		M18X4	11	F04/F05	5.205
40	38	150	110	88	18	2	200	193		M18X4	14	F05/F07	6.505
50	50	165	125	102	19	3	227	193		M18X4	14	F05/F07	8.405
65	64	184	145	116	22	4	290	242		M18X4	17	F07/F10	13.055
80	79	200	160	136	24	4	310	272		M18X8	17	F07/F10	18.0450
100	99	234	190	160	24	4	355	295		M18X8	17	F07/F10	27.755
125	125	270	219	185	26	3	400	495		M18X8	22	F10/F12	41.2





### Truevalve Pneumatic Actuated Threaded Ball Valve

**Gasket** : PTFE  
**Body Material** : AISI 304 - AISI 316  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 63 Bar  
**Connection** : Threaded



### Truevalve Casting Body Ball Valve

**Gasket** : PTFE  
**Body Material** : Cast Iron  
**Max. Working Temperature** : 150 °C  
**Max. Working Pressure** : 10 Bar  
**Connection** : Flanged



### Truevalve Casting Body Ball Valve

**Gasket** : PTFE  
**Body Material** : Cast Iron  
**Max. Working Temperature** : 150 °C  
**Max. Working Pressure** : 16 Bar  
**Connection** : Flanged



### Truevalve Electric Actuated Flanged Ball Valve

**Gasket** : PTFE  
**Body Material** : AISI 304 - AISI 316  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 25 Bar  
**Connection** : Flanged



### Truevalve Electric Actuated Threaded Ball Valve

**Gasket** : PTFE  
**Body Material** : AISI 304 - AISI 316  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 63 Bar  
**Connection** : Threaded



### Truevalve Pneumatic Actuated Flanged Ball Valve

**Gasket** : PTFE  
**Body Material** : AISI 304 - AISI 316  
**Max. Working Temperature** : 180 °C  
**Max. Working Pressure** : 25 Bar  
**Connection** : Flanged



### 3 Way Ball Valve

**Design Standard:** ASME B16.34 GB/T12237

**Test & Inspection:** AP 1598 JB/T9092

**Threaded Ends:** PT, BSPT, BSP, NPT, DIN2999 D22 DIN EN ISO288

**Product Style:** Q14/15F-63/1000WOG (C/P/R)

**Mounting Pad:** ISO 5211

**Working Pressure:** 6.3M. pa, 1000PSI

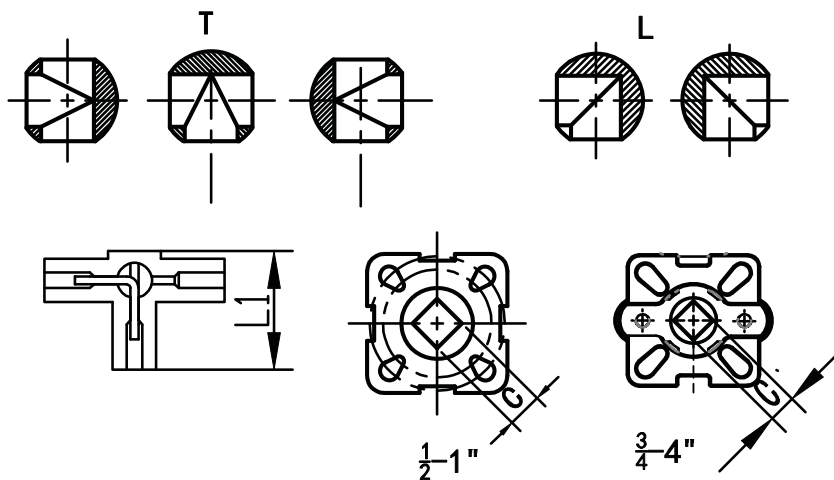
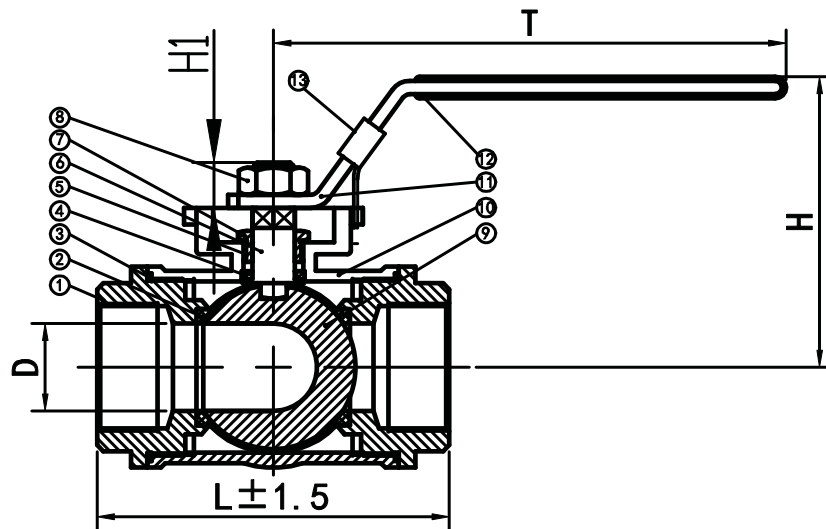
**Temperature Range:** -20°C~180°C

**Material:** ASTM-A351-CF8M, ASTM-A351-CF8, ASTM-A216-WCB

TRUEVALVE 3 WAY BALL VALVE			
No	Part Name	Material	Qty
1	Cap	CF8/CF8M	3
2	Seat	PTFE/RPTFE	4
3	Joint Gasket	PTFE/RPTFE	3
4	Thrust Washer	PTFE/RPTFE	1
5	Packing	PTFE/RPTFE	1
6	Stem	S304/S316	1
7	Gland	SS304	1
8	Nut	SS304	2
9	Ball	S304/S316	1
10	Body	CF8/CF8M	1
11	Handle	201	1
12	Handle Cover	PVC	1
13	Lock	201	1



Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
DN	8	10	15	20	25	32	40	50	65	80	100
D	8	10	12	15	18	25	32	38	50	64	78
L ±.5	72	72	72	85	98	118	124	175	175	199	233
L1	55	55	55	63	72	90	100	142	142	163	192
H	65	65	65	70	79	90	115	146	146	150	154
T	131	131	131	131	167	167	193	242	242	272	295
C	9	9	9	9	11	11	14	17	17	17	17
NM	2.5	2	1.6	3.1	4.5	11.5	19	41	41	558	64
ISO5211	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04	F03/F04
T Weight (kg)	0.645	0.61	0.570000	0.80000	1.2	2.215	3.4	4.505	6.665000	9.670000	13.725000
L Weight (kg)	0.65	0.63	0.575	0.8	1.24	2.255	3.49	4.79	7.010000	9.97	14.245



## Truevalve Knife Gate Valves

### What is a Knife Gate Valve?

Knife gate valves are developed for mud and abrasive applications. They are frequently used especially in fluids containing abrasive particles. Since these valves cut off the fluid passage with a knife (slide) perpendicular to the flow, their name is knife valve. This knife works by closing and opening vertically between two sealing rings. It is preferred that they work as fully open or fully closed. They are not suitable for precise flow control.

Knife gate valves are used in multi-fibrous fluids, for example; These are valves suitable for use in paper industry and waste water lines.



They provide full sealing with their one-piece body and elastomer (EPDM, NBR, NR) seat. They can also be produced with metal seat depending on their fluid properties. They can be flywheel, gear box, chain wheel, pneumatic actuator and electric actuator.

### Knife Gate Valve Usage Areas

Knife valves are used in the parts of the systems that do not require precise flow control of the systems that contain solid materials such as mud, sediment, fiber. The knife (slide) that moves perpendicular to the flow direction is not affected by the solid materials in these fluids that can restrict the movement, like butterfly valves. Therefore, it is a preferred type of valve in impure fluids.

The main usage areas are below.

- Fibrous Fluids
- Waste Water
- Hot Water
- Cold Water
- Acid and Non-Alkaline Fluids

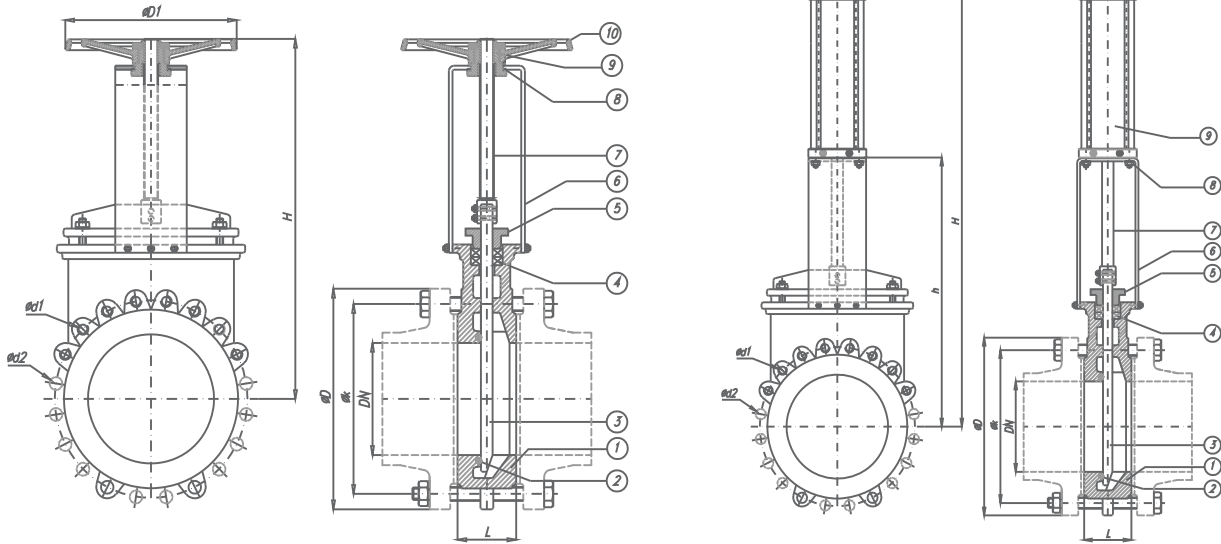






### Truevalve Knife Gate Valves

<b>Body Material</b>	: AISI 304 - AISI 316 - GGG40 Ductile Iron
<b>Knife</b>	: AISI 304 -316 Stainless
<b>Max. Working Temperature</b>	: 150 °C
<b>Max. Working Pressure</b>	: 16 Bar
<b>Control</b>	: Pneumatic - Piston - Electric Actuated Manual



#### TRUEVALVE KNIFE GATE VALVES

Part Description	Material
Body	GGG40 Ductile Iron-SS304 -SS316
Knife	SS304-SS316
Gasket	EPDM - NBR- PTFE-VITON
Stuffing	Ptfe
Support Plate	ST - SS304- SS316
Shaft	SS420-SS304-SS316
Nut	ST-SS304-SS316

PN	16-10						10-6				6-4			
DN	50	95	80	100	125	150	200	250	300	350	400	450	500	600
L	40	105	50	50	50	60	60	70	70	96	100	106	110	110
H	290	115	358	378	428	490	588	690	815	890	980	1120	1400	1700
D1	180		220	240		280	300	320		400	450	530	600	
ØD	165	150	200	220	250	285	340	395	445	505	565	615	670	780
ØK	125	165	160	180	210	240	295	350	400	460	515	565	620	725
Ød1XAd	M16X2		M16X2			M20x2		M20x4		M20x6	M24x6	M24x8		M27x8
Ød2XAd	Ø19X2		Ø19X6			Ø23x6		Ø23x8		Ø23x10	Ø27X10	Ø27x2		Ø30x12
Kg	7	8	11	13	15	21	355	46.5	70	96	128	320	345	454

PN	16-10						10-6				6-4			
DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L	40	40	50	50	50	60	60	70	70	96	100	106	110	110
H	415	460	505	565	645	720	885	1045	1165	1365	1545	1680	1845	2150
h	240	270	295	335	370	420	525	625	725	800	900	990	1100	1310
FD	165	185	200	220	250	285	340	395	445	505	565	615	670	780
FK	125	145	160	180	210	240	295	350	400	460	515	565	620	725
Fd1*Ad	M16x2		M16x2			M20x2		M20x4		M20x6	M24x6	M24x8		M27x8
Fd2*Ad	F19x2		F19x6			F23x6		F23x8		F23x10	F27x10	F27x12		F30x12
Kg	8	9	10	13	18	23	39	57	74	127	155	250	345	454

## Truevalve Pneumatic Piston Valve

### What is Pneumatic Piston Valve?

Pneumatic piston valves are valves that allow the piston to cut off or open the flow with linear motion by moving away from the seating surface (seat) with the air power supplied to the actuator. As long as no air is supplied to the actuator, the pneumatic piston valve remains in the closed position with the force of the spring and ensures that the fluid does not pass. It has good sealing and long life. It is available in threaded - flanged and welding neck types as connection type.

### Pneumatic Piston Valve Usage Areas

It is used in many areas thanks to its ease of maintenance, fast opening and closing, low pressure loss, high passability and resistance to impact.

The main ones are;

- In the Food Industry
- Textile
- Machine
- Chemical
- Iron and Steel
- Cement
- In the Pharmaceutical Industry
- Cosmetic
- Oil
- Gas Installations
- Chemical Matter
- Steam
- Air
- Water

### Types of Pneumatic Piston Valves



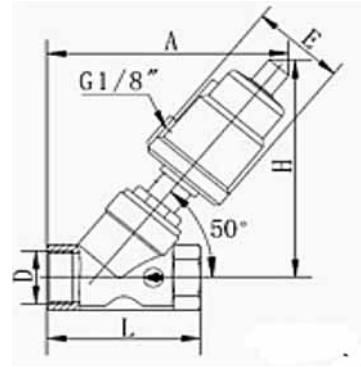
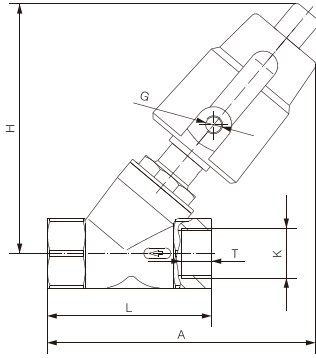
#### Truevalve Pneumatic Piston Flanged Valve

**Body** : 316 Stainless Steel  
**Piston** : 304 Stainless Steel  
**Max. Working Temperature** : 220 °C  
**Max. Working Pressure** : 4-7 Bar



#### Truevalve Pneumatic Piston Threaded Valve

**Body** : 316 Stainless Steel  
**Piston** : 304 Stainless Steel  
**Max. Working Temperature** : 220 °C  
**Max. Working Pressure** : 4-7 Bar



DN	m <sup>3</sup> /h	L	H	A	E	d	16 BAR
15	6,9	68	138	133	62	/	1/2"
20	9,3	75	147	137	62	/	3/4"
25	115	90	154	145	62	/	1"
32	32,1	115	201	188	76	/	1 1/4"
40	49	115	207	190	76	/	1 1/2"
50	64,2	135	213	196	96	/	2
65	105	185	280	252	96	/	2 1/2"

### TRUEVALVE PNEUMATIC PISTON THREADED VALVE

Part Description	Material
Body	SS316
Head	SS304
Gasket	PPL
Nut	SS316

Size	Actuator	H	A	K	T	L	G
DN10	27	93 (94)	97(98)	3/8"	12 (14)	57 (68)	G1/8"
DN10	32	96 (97)	102(103)		12 (14)	57 (68)	
DN10	40	113 (114)	117(118)		12 (14)	57 (68)	
DN10	50	126 (127)	130(131)		12 (14)	57 (68)	
DN15	27	94	98	1/2"	14	68	
DN15	32	97	103		14	68	
DN15	40	114	118		14	68	
DN15	50	127	131		14	68	
DN20	50	130	137	3/4"	16	75	
DN25	50	135	145	1"	20	90	
DN25	63	159	169		20	90	
DN32	63	175	185	1 1/4"	20	116	
DN40	63	175	190 (189)	1 1/2"	22	120 (117)	
DN50	63	184	205	2"	27	138	
DN32	80	185	199	1 1/4"	20	115	
DN40	80	185	202 (200)	1 1/2"	22	120 (117)	
DN50	80	198	218	2"	27	138	
DN32	90	216	226	1 1/4"	20	115	G1/4"
DN32	90	216	229 (228)	1 1/2"	22	120 (117)	
DN40	90	228	246	2"	27	138	
DN50	90	257	279	2 1/2"	27	180	





## Truevalve Actuators

### What is an Actuator?

The actuator is an operator mechanism that provides automation of the valve's opening/closing process. It is mounted on the valve and connected to the valve body. There are different types of actuators and these types have different uses. Power actuated actuators are basically divided into three.

**Electric Actuator:** It uses the electric motor to open and close the valve.

**Pneumatic Actuator:** It uses pneumatic systems operated by compressed air to open and close the valve.

**Hydraulic Actuator:** It uses hydraulic systems operated by pressurized fluid to open and close the valve.

The common feature of all three types is that they make the valves work faster than manual operation. They are often used especially in large valves. All actuators are actuated by electrical energy. Actuators allow intermediate positions in addition to opening and closing the valve. The open/closed position of the valve can be monitored with limit switch boxes, i-p converters and positioners mounted on these actuators. In addition, location information can be transmitted to the automation system.

### Pneumatic Actuator

Pneumatic actuators are actuators powered by compressed air. Pneumatic actuators are preferred in most applications due to their lightweight and durable construction. They are effective and reliable for cost. Their advantages are that they can be used in explosive atmospheres and are used as emergency shut-off actuators (Fail-Safe).

Single-acting pneumatic actuator is produced as a model that opens/closes with spring force. In this way, the actuator is in the open or closed position as long as it is not operated. When these actuators are operated, they are closed if they are open and open if they are closed. It is the spring inside that allows it to return to its original state.

Pneumatic actuators work with a compressor, so the installation cost is slightly higher. However, since it uses air as a raw material, its operating cost is low. They are noisier than electric actuators.

### Pneumatic Actuator Types

- Diaphragm Type

- Piston - Cylinder Type

### Valve Types Using Pneumatic Actuators

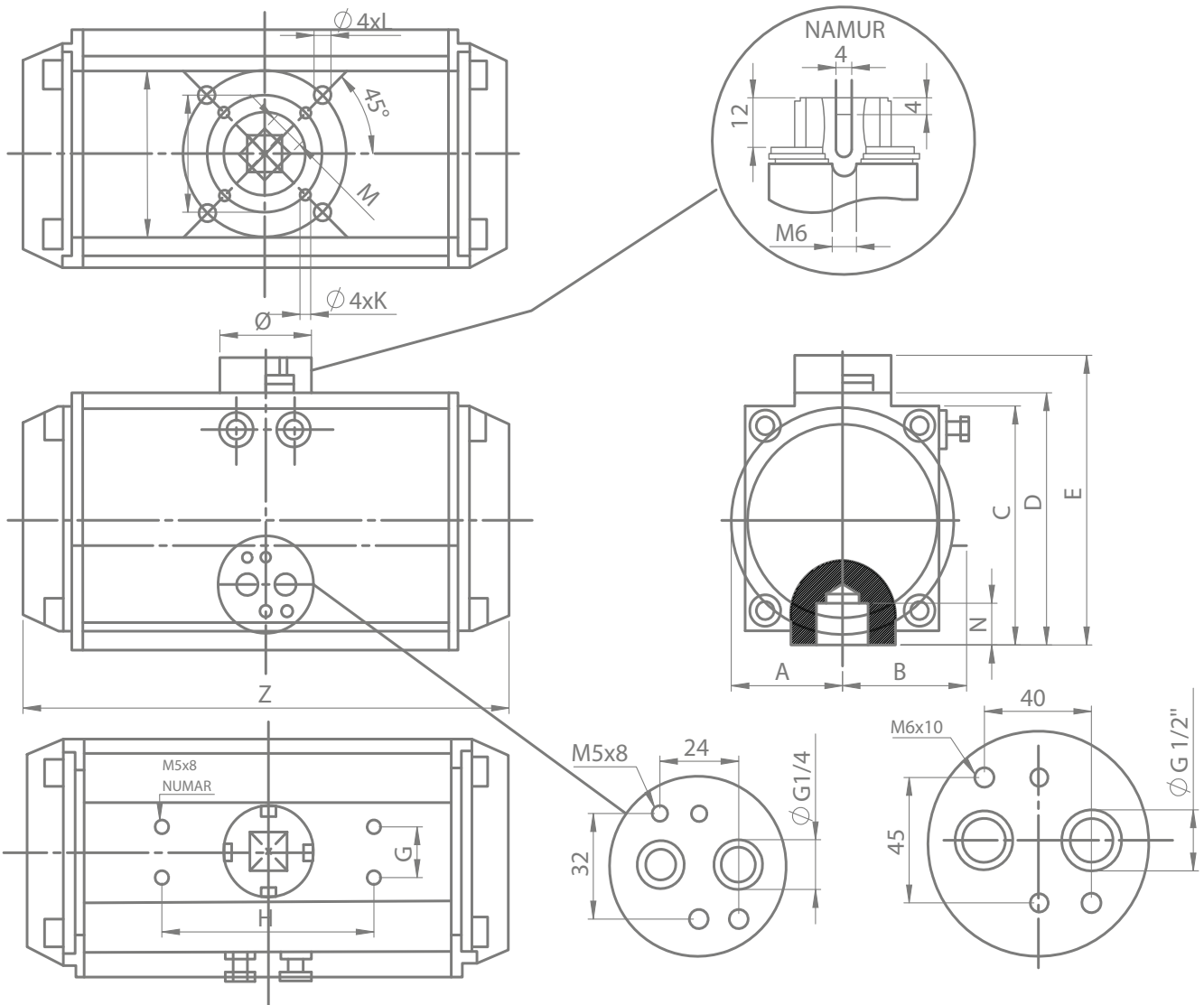
- Linear
  - o Gate
  - o Daphragm
- Rotary
  - o Ball
  - o Butterfly
  - o Plug



### Truevalve Pneumatic Actuator

**The Way of Working:** Double Acting Pneumatic Actuator / Single Acting Pneumatic

**Protection Class** : IP 67  
**Body** : Aluminum Extrusion



## TRUEVALVE PNEUMATIC ACTUATOR

Part Description	Material
Body	Aluminum Extrusion
Piston	Aluminum Casting
Connection	ISO 5211

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Z	F	Air Connection
RT52	30	41.5	65.5	72	92	65	30	80	F03	F05	M5x8	M6x10	11	14	147	F40	Namur G1/4"
RT63	36	47	81	87.5	107.5	72	30	80	F05	F07	M6x10	M8x13	14	18	168	F40	Namur G1/4"
R75	42	53	94	99.5	119.5	81	30	80	F05	F07	M6x10	M8x13	14	18	184	F40	Namur G1/4"
RT83	46	57	98.5	108.7	128.7	92	30	80	F05	F07	M6x10	M8x13	17	21	204	F40	Namur G1/4"
RT92	50	58.5	111	116.8	136.8	98	30	80	F05	F07	M6x10	M8x13	17	21	262	F40	Namur G1/4"
RT105	57.5	64	122.5	133	153	109.5	30	80	F07	F10	M8x13	M10x16	22	26	268	F40	Namur G1/4"
RT125	67.5	74.5	145.5	155	175	127.5	30	80	F07	F10	M8x13	M10x16	22	26	296	F55	Namur G1/4"
RT140	75	77	160.75	171.5	191.5	137.5	30	80	F10	F12	M10X16	M12x20	27	31	390	F55	Namur G1/4"
RT160	87	87	184	197	217	158	30	80	F10	F12	M10X16	M12x20	27	31	545	F55	Namur G1/4"
RT190	103	103	216	230	260	189	30	130	F16	F14	M20x25	M16x25	36	40	525	F80	Namur G1/4"
RT210	113	113	235.5	255	285	210	30	130		F14		M16x25	36	40	532	F80	Namur G1/4"
RT240	130	130	264	288	318	245	30	130		F16		M20x25	46	50	610	F80	Namur G1/4"
RT270	147	147	299	326	356	273	30	130		F16		M20x25	46	50	722	F80	Namur G1/2"
RT300	162	162	348	348	378	324	30	130	F16	F20	M20x25	M20x25	46	60	742	F80	Namur G1/2"
RT350	190	190	402	402	432	380	30	130	F16	F20	M20x25	M20x25	46	60	860	F80	Namur G1/2"
RT400	258	258	464	464	494	498	30	130	F16	F25	M20x25	8-M16X25	55	60	924	F80	Namur G1/2"





## Truevalve Electric Actuator

Electric actuators use an electric motor to open and close the valve. The driving force obtained by the electric motor provides the circular movement of the gears inside the body. Since the gear system is used, a constant torque rotation is provided from the beginning to the end of the opening/closing process. Electric actuators can be used with many different valves, such as butterfly and ball valves. In addition, due to the gear systems inside, they perform the valve open-close operation more slowly than pneumatic and hydraulic actuators.

### Advantages of Truevalve Electric Actuators

- Availability of electricity everywhere.
- The longevity of the products.
- The products are more compact and lighter.
- Precise control possibility.
- Wide operating voltage range.
- Large maximum rotation angle tolerance.
- Silent Running



### Truevalve Electric Actuator

**The Way of Working** : 220V AC - 24V DC

**Protection Class** : IP 67

**Body** : Aluminum Injection

### TRUEVALVE ELECTRIC ACTUATOR

Part Description	Material
Body	Aluminum Extrusion
Piston	IP67
Connection	ISO 5211

Model	POE-05E	POE-10E	POE-20E	POE-40E	POE-50E	POE-60E	POE-100E	POE-200E
Feeding Power	D12V, DC24V, DC220V, AC24V, AC110V, AC380V ; 50/60HZ							
Electric Motor Power	10W	23W	40W	40W	90W	90W	100W	100W
Nominal Current	0.24A (AC220V)	0.32A (AC220V)	0.48A (AC220V)	0.48A (AC220V)	0.92A (AC220V)	0.92A (AC220V)	1.0A (AC220V)	1.0A (AC220V)
Output Momentum	50NM	100NM	200NM	400NM	500NM	600NM	1000NM	2000NM
Operation Time	30S	30S	30S	30S	30S	30S	50S	100S
Rotation Angle	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°
Total Machine Weight	2.4 Kg	4.2 Kg	7.2 Kg	7.2 Kg	8 Kg	8 Kg	11.5 Kg	12.1 Kg
Input Signal	4-2mA DC, 1-5VDC, 0-10VDC (Others can be selected before leaving the factory.)							
Output Signal	4-20mA DC (Others can be selected before leaving the factory.)							
Fundamental Deviation	* It cannot be greater than ±1%.							
Rotation Difference	*less than 0.3%.							
Non-Working Zone	0.4% - 1.5% adjustable							
Damping Feature	0 Times							
Recurring Device Error	0%							
Insulation Resistance	DC24V: 100MΩ/300VDC				100MΩ/500VDC			
Voltage Withstand Level	DC24V: 500VAC/1 Minute				1500VAC/1 Minute			
Protection Level	IP67							
Ambient Temperature	- 25°C - +60°C (Other temperature range is open to customization.)							
Installation Angle	360°, Whichever Angle							
Body Material	Aluminum alloy precision press - Forged part.							
Optional Features	Over-momentum protection, heater dehumidifier, powerless contact point type.							

## Truevalve Globe Valves

### What is Globe Valve?

Globe valve is the most commonly used valve type in installations all over the world. Like all frequently preferred products, the technology of these valves is developing rapidly. They are durable and long-lasting, suitable for continuous open closing. Globe valves offering precise flow control are suitable for use at high pressure and temperature. The most important reason why these valves are preferred frequently is the successful sealing they provide at three different points. These valves, which owe their circuit tightness to the system that closes with the pressure of the rotating valve flywheel, provide external sealing with two different solutions. It guarantees the sealing between the body and the cover with a gasket. It guarantees the impermeability from the movement shaft to the external environment with the sealing rings.

### Globe Valve Types

Globe valve, which is the most frequently used valve type in installations all over the world, has three different sealing methods.

#### Printed Type Globe Valve

In printed type valves, the sealing system is made by closing the valve, which is a metal closing element, by sitting on a metal disc. That is, the sealing system is in the form of metal-metal.

#### Metal Bellows Globe Valve

The stem sealing systems of these valves are enhanced with a stainless steel bellows. In other words, the sealing system of the valve out of the shaft bearing is supported by the cup-bellows-spindle system installed between the cover and the body. In addition, there is a seal group as a temporary solution against the risk of leakage as a result of problems that may occur in the bellows.

#### Piston Globe Valve

The sealing system of piston type valves is metal-elastic. In these valves, there are two annular elastic rings and a piston that enters them. This piston acts as a closing element. The pressure coming from the cover nuts wraps the piston inside the rings with radial pressure. Sealing is provided by this pressure. Thanks to the closure of the piston, unlike other globe valves, the residue and dirt that may occur in the circuit are also cleaned.

### Globe Valve Usage Areas

Globe valves, which are resistant to high pressure and high temperatures, provide precise flow control as well as these features. The main topics in which globe valves, which have higher pressure losses than other valves, are used in fluid control are as follows.

#### Usage Areas

- Hot and cold water installations.
- Hot oil installations.
- Steam installations.
- Compressed air installations.
- Cooling water systems.
- Fuel oil systems.
- Feed water or chemical feed systems.
- Boiler and main steam outlets and sewer ducts.
- Turbine lubrication system and others.



### Truevalve Globe Valves

<b>Shaft</b>	: AISI304 - AISI 316
<b>Body Material</b>	: GG25 - GGG40
<b>Cap Material</b>	: GG25 - GGG40
<b>Flywheel</b>	: GG20
<b>Max. Working Temperature</b>	: -10 °C / 220 °C
<b>Pressure Class</b>	: PN16



### Truevalve Metal Bellow Sealed Globe Valves

<b>Shaft</b>	: AISI304 - AISI 316
<b>Body Material</b>	: GG25 - GGG40
<b>Cap Material</b>	: GG25 - GGG40
<b>Flywheel</b>	: GG20
<b>Max. Working Temperature</b>	: -10 °C / 220 °C
<b>Pressure Class</b>	: PN16 - PN25 - PN40

## Truevalve Check Valves

### What is Check Valve?

Check valves are safety fixtures that prevent the fluid from returning back in fluid transfer systems. There are many types of check valves to choose from according to the system requirement and other criteria. The main factors taken into account when choosing a check valve are pressure loss, closing feature and costs.

Check valves are valves that allow one-way flow of fluid. They provide this with ball, spring or conical structures. These equipments are used in different installations for different reasons. These are the systems where the backflowing fluid, such as LPG motor vehicles, will adversely affect the operation of the system. In these systems, the check valve provides system stabilization, while in hydraulic systems, it prevents the pressure created from decreasing with the return of the fluid.

### Check Valve Types

Check valves used for different purposes in different systems have different types suitable for the process and the fluid used. The main types of check valves are as follows.

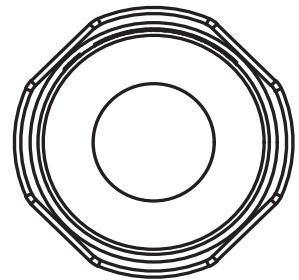
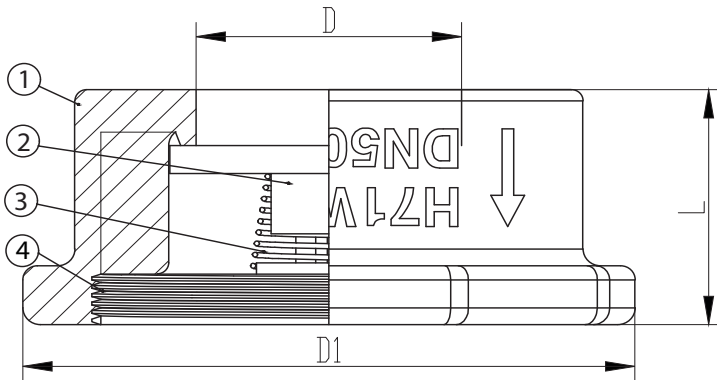
- Disco Check Valve
- Swing Check Valve
- Ball Check Valve
- Wafer Flap
- Toilet Check Valve
- Lift Type Spring Check Valve
- Double Valve Check Valve





**Truevalve Stainless Steel Disc Check Valve**

**Body Material** : AISI 304 - AISI 316  
**Disc Material** : AISI 304 - AISI 316  
**Max. Working Temperature** : 200 °C  
**Max. Working Pressure** : 40 Bar



TRUEVALVE STAINLESS STEEL DISC CHECK VALVE	
Part Description	Material
Body	SS304 -SS316
Disc	SS304-SS316
Segment	SS304-SS316
Spring	SS304-SS316
Sealing Equipment	PTFE
Screw	SS304-SS316

Size	A	B	C	D	E	F	G	H	I	J	K	L
Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"
DN	15	20	25	32	40	50	65	80	100	125	150	200
D	14	19	24	30	38	46	62	78	96.5	118	142.5	176
D1	52	62	72	83	93	106	125	143	162	195	220	273
L	23	24.5	26.5	30	32.5	40	47	51	60	79.5	97	107
Kg	0.15	0.215	0.34	0.505	0.7	0.97	1.505	2.075	2.805	4.495	6.48	10.99



**Truevalve Dual Check Valve**

**Gasket** : EPDM  
**Body Material** : GG25  
**Disc Material** : GGG40 - AISI304  
**Max. Working Temperature** : 120 °C



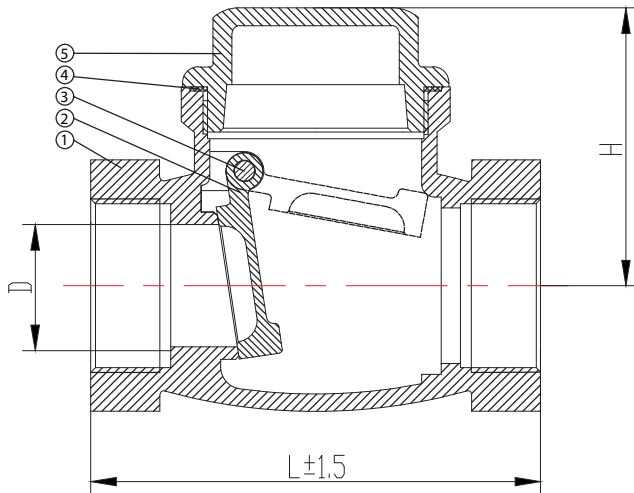
### Truevalve Swing Casting Check Valve

**Body Material** : Cast Iron  
**Max. Working Temperature** : 120 °C  
**Max. Working Pressure** : 16 Bar



### Truevalve Stainless Threaded Swing Check Valve

**Body Material** : AISI304  
**Max. Working Temperature** : -20 °C / 180 °C  
**Pressure Class** : PN16



## TRUEVALVE STAINLESS THREADED SWING CHECK VALVE

Part Description	Material
Body	SS304 -SS316
Disc	SS304-SS316
Disc Shaft	SS304-SS316
O-Ring	VITON
Body Cover	SS304-SS316
Shaft Gasket	Viton

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"
DN	15	20	25	32	40	50	65	80	100	125	150	200
D	15.5	20	24.7	31	37	47.6	65	76.5	96	118	142.5	176
L ± 1.5	62	75	84	100	115	134	164	190	237	195	220	273
H	38	45	49	55	61	71	91	103	136	79.5	97	107
Weight (Kg)	0.220	0.305	0.430	0.685	0.940	1.3	2.860	3.785	8.095	4.495	6.48	10.99

## Truevalve Strainers

### What is a Strainer?

Strainers are plumbing equipment that filters impurities in pipelines. Strainers, which have a very wide usage area, are indispensable for the health and safety of the system.

These equipments are used so that many equipment in the system, such as pump, water meter, control valve, can work healthily and for a long time. These mechanical equipments, which can be easily cleaned without disassembly, are also very easy to maintain.



### Strainer Types

Strainers, which are indispensable equipment for system health, have varieties suitable for use with different fluids. Strainer types with different features are as follows.

- Y Type Flanged Strainer
- Brass Threaded Strainer
- Stainless Threaded Strainer
- T Type Flanged Strainer
- Mud Type Strainer

### Strainer Usage Areas

Strainers are used in almost all processes as they ensure the smooth operation of fluid transfer systems. The main usage areas are as follows.

- Central Heating
- Petrochemical Plants
- Food Facilities
- Paper Mills
- Tobacco Factories
- Iron and Steel Factories
- Chemical Industry
- Energy Production



### Truevalve Flanged Strainer

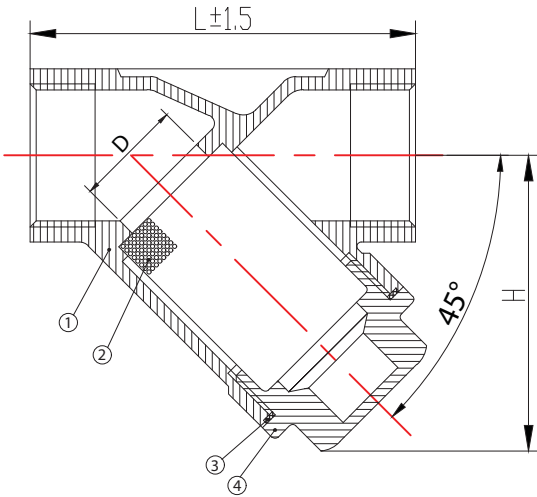
<b>Body Material</b>	: Cast Iron
<b>Gasket</b>	: EPDM
<b>Max. Working Temperature</b>	: 150 °C
<b>Max. Working Pressure</b>	: 16 Bar





### Truevalve Y Type Stainless Strainers

**Body Material** : AISI304  
**Max. Working Temperature** : -20 °C / 180 °C  
**Pressure Class** : PN16



#### TRUEVALVE Y TYPE STAINLESS THREADED STRAINER

Part Description	Material
Body	SS304-SS316
Filter	SS304-SS316
Gasket	PTFE
Cover	SS304-SS316

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	8"
DN	8	10	15	20	25	32	40	50	65	80	100	200
D	8	10	15	20	25	32	40	50	65	80	100	176
L ± 1.5	54	54	59	73	84	97	107	127	165	188	232	273
H	35	35	45	60	63	80	88	90	111	130	165	107
Weight (Kg)	0.130	0.120	0.150	0.260	0.365	0.530	0.760	1.200	2.430	3.800	6.0950	10.99

## Truevalve Gate Valve

### What is Gate Valve?

Gate valves are also known as gate valves. Gate valves that control the flow of fluid by closing and opening between two sealing rings, thanks to a disc sliding perpendicular to the flow direction of the fluid; It is closed by a flat surface, disc or slider and cuts off the flow. The slider of these valves can be a single piece, or it can have more than one piece. Gate valves can operate as fully open or fully closed. It can be preferred according to the purpose of use and the place to be used.



### Truevalve Gate Vana

<b>Body</b>	: Cast Iron
<b>Cover</b>	: Cast Iron
<b>Disc</b>	: Rubber Coated Casting
<b>Max. Working Temperature</b>	: 120 °C

### Gate Valve Usage Areas

In systems with sensitive flows, this is not even a matter of preference. Gate valves are mostly used to regulate and control the flow of fluids such as water, hot water, superheated water, compressed air, fuel oil and chemical fluids.

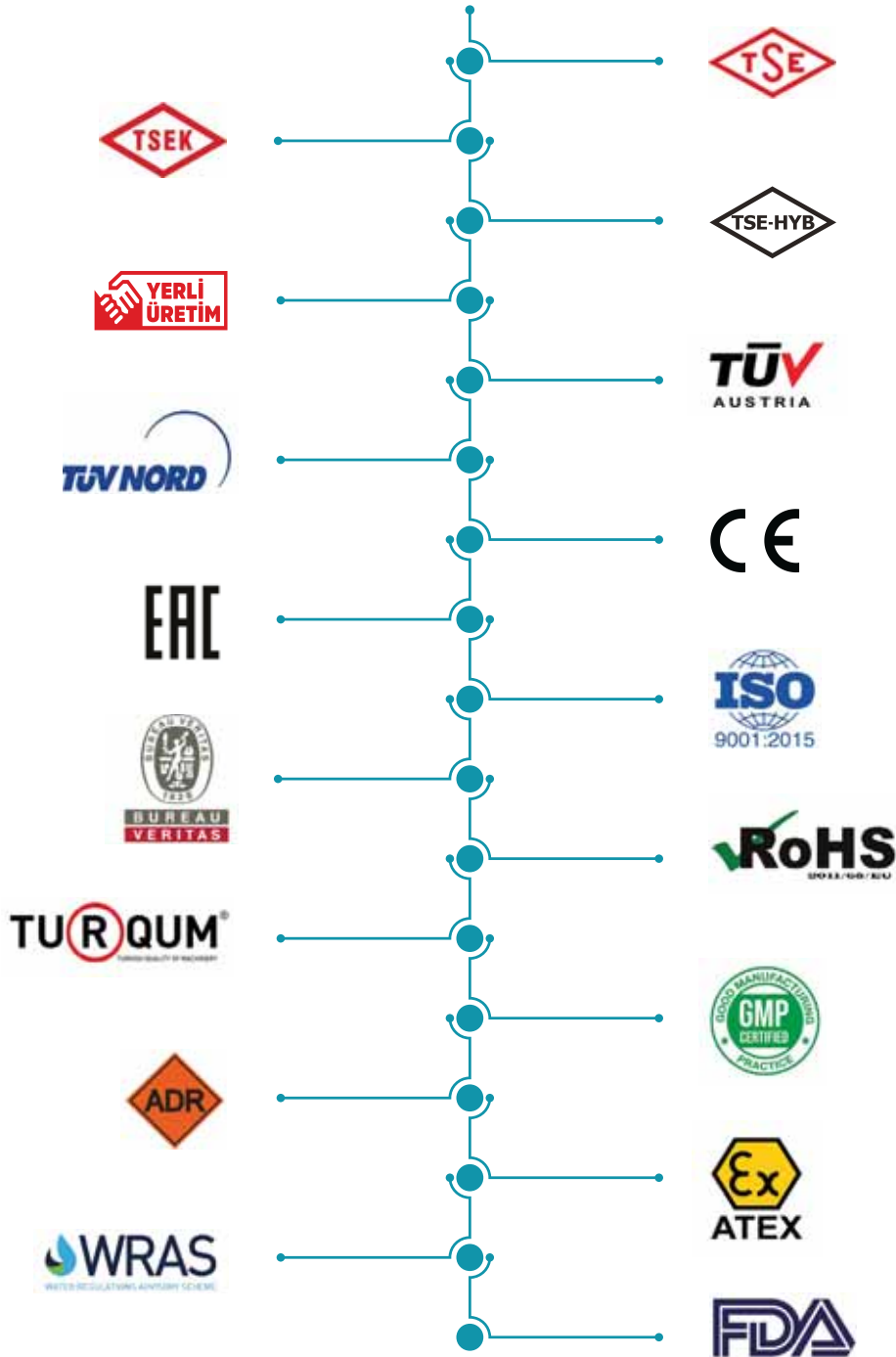
- Textile Industry
- Energy Production Facilities
- Refineries
- Petrochemical Facilities
- Paper Mills
- Food Factories
- Shipbuilding







# QUALITY MANAGEMENT SYSTEM



Ekin Heating and Cooling Endüstriyel Co. applies engineering approach; to focus on the process, not the problem; respectively, not only specializes in concerned products, but also take the entire aspects of the product, into consideration. Therefore, alongside the plate heat exchanger, Ekin has the capability to produce all other components to form a system. Advanced quality control structure are fully equipped, in order to present the products with a quality that goes beyond the acceptable regulations and standards.

With respect to "ISO 9001: 2015 Quality Management System" certification, which covers all processes from production, domestic / international sales and after-sales services, aiming at continuous improvement, respecting optimum results. With our expert engineers and solution-oriented approaches, the products have been certified with TSE, CE, Rosh and FDA quality certificates.

## General Conditions

- 1- Unless otherwise agreed, our company issues all invoices in Turkish Lira (TL). For products priced in foreign currency, the TL amount will be determined and collected based on the effective selling rate of the Central Bank of the Republic of Turkey (T.C.M.B.) on the invoice date.
- 2- In cases where invoices are issued in foreign currency as required by the agreement, the TL amount will be determined and collected based on the T.C.M.B. effective selling rate on the payment date. If payments are made in TL-denominated bills of exchange, they will be converted into foreign currency using the T.C.M.B. exchange rate on the bill's maturity date, and then deducted from the debt. The buyer, under this contract, accepts, declares, and undertakes to pay any possible exchange rate differences.
- 3- Our prices do not include Value Added Tax (VAT) and Special Consumption Tax (ÖTV) unless stated otherwise. All taxes and duties arising from the contract, unless otherwise stated, are the responsibility of the buyer. Due to changes in Turkish Republic legislation, all existing or newly added taxes and other financial obligations will be applied to existing and ongoing offers and orders, as announced in the Official Gazette.
- 4- Our products are under a 2-year guarantee against material and manufacturing defects. The warranty period starts upon product delivery. Consumables and parts subject to normal wear and tear (seals, stators, rotors, diaphragms, membranes, resistors, etc.) are excluded from the warranty. The warranty terms are void if the recommended product is used outside the specified working conditions.
- 5- Failures resulting from the improper use of the product contrary to the usage instructions are not covered by the warranty. Ekin Endüstriyel provides usage manuals with the product and publishes them on the website. If the usage manual does not reach the buyer, the product should not be put into operation, and the manual should be requested in writing from Ekin Endüstriyel. Otherwise, it is assumed that you are aware of the installation, maintenance, and usage conditions, and Ekin Endüstriyel cannot be held responsible for any problems that may arise.
- 6- Warranty terms are valid only when periodic maintenance is carried out using original parts by authorized service centers of Ekin Endüstriyel.
- 7- If the buyer does not adhere to the payment plan mentioned above and cancels the order even if the goods or services have not been delivered or completed, Ekin Endüstriyel may unilaterally terminate the order contract without any notice. In such a case, Ekin Endüstriyel will request a penalty payment of 40% of the total amount as compensation for damages, while reserving the right to claim additional damages. If the buyer has made an advance payment, Ekin Endüstriyel records the amount received as revenue.
- 8- In the event of product returns, a 40% deduction will be made from the invoice amount if the return is accepted. The shipping cost for returns is not the responsibility of Ekin Endüstriyel. In customer-specific orders or supply of special-order products, changes to the order, return, or order suspension, will not be accepted under any circumstances including force majeure. In case of cancellation, revision, return, or suspension, the fee for the work will be invoiced as a penalty and collected from the buyer. For customer-specific orders or supply of special-order products, in cases where there are events that may damage mutual trust between the parties, Ekin Endüstriyel reserves the right to request additional security within the limits of the product cost. Products must be received and installed as soon as they are ready. This period should not exceed 4 weeks. If exceeded, Ekin Endüstriyel has the right to invoice the order amount and request payment of the product price.
- 9- Unpaid invoices will incur a monthly default interest rate of 5% until paid in full. Until the total amount of the invoiced product is paid, the ownership of the product remains with Ekin Endüstriyel Heating, Cooling, Industry and Trade Inc.
- 10- When placing orders with Ekin Endüstriyel, it is the responsibility of the buyer to provide complete and accurate information regarding the type of product, the type of fluid used, pressure, temperature, density, and other relevant details. Otherwise, any problems that may arise due to incorrect information are not the responsibility of our company.
- 11- Problems arising from the quality of the fluid used in our products or from the installation or piping system are not covered by the warranty. Damage caused by corrosion, cavitation, vibration, water hammer, or freezing is not covered by our warranty.
- 12- Damage resulting from the absence or improper functioning of the necessary fixtures in the system or the non-use of safety fixtures (safety valve, thermostat, pressure sensor, temperature sensor, etc.) will not be considered under the warranty. Any financial or moral losses that may arise are not the responsibility of our company.
- 13- Goods are not insured during transportation, but can be insured at the expense of the buyer if requested. Otherwise, the risk is borne by the buyer. In deliveries that include transportation, delivery is made on the vehicle. Our responsibility ends from the moment the product is delivered to the buyer's carrier.
- 14- Mechanical assembly, commissioning, external certification, and third-party tests are not included in our offer. Any fixtures and additional parts not mentioned in our offer are not included in our prices.
- 15- Technical details of our products have been sent in attached files. Acceptance of the offer by the buyer implies approval. Ekin Endüstriyel reserves the right to make changes to the specified dimensions and values. Descriptions in catalogs and advertisements, as well as measurements, weights, and other documents, are for reference only.
- 16- Products that use in our products or we sell but we do not manufacture are not covered by the Ekin Endüstriyel guarantee. The guarantee and liability for any damage that may occur are the responsibility of their respective manufacturing companies. By accepting this offer, the buyer agrees not to hold Ekin Endüstriyel responsible.
- 17- Our company is not responsible for any process, production, or immovable losses that may arise from our products. Claims for compensation will only be accepted in cases of deliberate or gross negligence. The compensation for any damage that may occur cannot exceed the invoice amount. By placing this order, the customer accepts, declares, and undertakes this.
- 18- Unless otherwise agreed in writing by the parties, the sales and delivery conditions stated here will apply to all of Ekin Endüstriyel Heating, Cooling, Industry, and Trade Inc.'s sales. Any requests from the buyer that deviate from these terms and conditions will not be accepted. These terms and conditions will remain valid for future deliveries and services, even if they have not been explicitly agreed upon in individual cases within ongoing business relationships.
- 19- The delivery period begins upon the issuance of the order confirmation notice. However, the delivery period will not start until the buyer sends the required documents and approvals (technical drawing approvals) to Ekin Endüstriyel via email or registered mail. If there is an agreed prepayment, the delivery period will not start until payment is made. In cases of force majeure or unexpected obstacles beyond our control, as well as industrial disputes, specific strikes, and lockouts that have an impact on the production or delivery of ordered goods, delivery times will be extended accordingly, provided that it is proven that such events have an impact. This clause also applies when subcontractors are affected by such situations.
- 20- If there is no special agreement or contract between the parties regarding the delay of delivery for the products ordered, the buyer cannot claim compensation for the delay.
- 21- After receiving the products, the buyer has a direct or indirect control, inspection, and notification period of 2 business days for obvious defects and 8 business days for hidden defects. Products for which written notice has not been made within this period will be considered accepted.
- 22- We have an obligation to improve in case of errors caused by the manufacturer, except for errors due to installation and use. We also reserve the right to replace the product with a new one. However, the buyer does not have the right to request a replacement. When improvement or repair is impossible or when improvement or new delivery cannot be made, the buyer can request the cancellation of the contract or a price reduction.
- 23- The selection of a product that meets the needs, its suitability for special applications, its safe and trouble-free installation, its operation and maintenance are the responsibility of the system designer and the user. Otherwise, we are not responsible for any damage or work accidents that may occur.
- 24- Our company is only responsible for ensuring that the goods to be delivered are prepared carefully for shipment. Since our company does not provide engineering services, application details, material compatibility with the system, product specifications must be evaluated technically by the buyer before product selection. The wrong selection, installation, or improper use of the products can cause material damage or injury. Our company does not assume responsibility for product selection.
- 25- In cases where the buyer is a trader or a legal entity governed by public law, all legal disputes will be resolved by the court within our jurisdiction. All legal disputes arising exclusively from common legal relationships, including all kinds of disputes, are subject to the exclusive jurisdiction and authority of the Anadolu Courthouse/Turkey. In the event of a dispute, Istanbul Anadolu court and enforcement offices have the authority.
- 26- The buyer is obliged to confirm the offer letter sent for the organization of the order in writing, or to send their official order form. For orders that are not notified in writing, the acceptance of products is considered as acceptance of this contract. The order form, contract, or change request forms sent by the buyer will only come into effect with the written acceptance of Ekin Endüstriyel Heating, Cooling, Industry, and Trade Inc.
- 27- If this offer is approved and turned into an order, it becomes a contract, and the buyer declares that they have fully accepted the above clauses.



## Notes

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## Notes

A series of horizontal dotted lines for taking notes.



### **A chain is only as strong as its weakest link.**

Running and maintaining a quality production process that meets international standards requires focusing on quality all along the ecosystem. Maintaining this focus requires a unifying vision of constant improvement shared by all stakeholder, and a certain level of expertise for all parties involved. Ekin Academy was established with the principles of continuous development and growing together to share the knowledge and experience that will realize this vision.

We support the development of our employees with training programs that directly contribute to the results in their business processes and make a difference in their personal development. We offer technical trainings on heat transfer, pressure vessels, package systems, food systems and liquid transfer. We help them become individuals who will make a difference with our development programs that covers topics like leadership, strategy, sales and many more. In addition, we provide information regarding installation, operating, maintenance and repairs with our pre and after sales training modules prepared for our business partners and customers.

At Ekin Academy we do not solely focus on the development of our staff, partners and customers. Thanks to our university collaborations, we provide the means for future engineers to put their theoretical knowledge to use with practical applications.



We organize seminars, conferences and trainings for professional chambers, and institutions we collaborate on social responsibility projects. Because we know that only by investing in the society, the industry and the future of the industry, we can become a country known for its high-quality engineering products.

## Sales Team

### An Engineering Approach from Sales to Maintenance

We offer value added pre and after sale services with our customer satisfaction-oriented approach and deep expertise we are more than happy to share. Thanks to our expert engineers that provide proactive solutions, we focus on making a difference throughout the process, from presales to maintenance.

With our “quality product, quality service, quality solution” approach, we are more than a manufacturer and supplier, we are a highly motivated solution partner for all kinds of heating and cooling projects.



#### Customer Satisfaction

Our priority is to ensure customer satisfaction and protect the rights of our customers with our pre-sales processes that analyze customer needs well, quality-registered product range, expert staff and meticulous working methods.



#### Ethical Values

We conduct all our activities in accordance with the laws and then with ethical values. We believe in growing together and we look for mutual benefit in all our business relationships.



#### Privacy Policy

All your personal information shared with our company is guaranteed by our ethical values and our processes in compliance with the Law No. 6698 on Protection of Personal Data.



#### Information Security

All our information technology operations are protected by our information security processes, which are managed in accordance with ISO 27001 Information Security Management System requirements.

## Professional System Solution Center

You can get answers to the problems you experience with your pumps, heat exchangers and system from our MIT professional system solution center. You can also benefit from our 7/24 uninterrupted service with our solution center consisting of our expert engineers.

- Domestic hot water installations.
- Central and district heating systems.
- Milk, yogurt, heating, cooling and pasteurization systems.
- Industrial cooling and heating systems.
- Oil cooling systems.
- Energy recovery systems.
- Pool heating systems.
- Steam installations.



It is vital for your system to be designed and implemented correctly in the first installation in order to be able to operate at the desired capacity, smoothness and long life. For this reason, you can get first-hand

the technical support you need during the installation phase of your system and the problems that may arise in the business; You can reach us **24 hours +90 (216) 232 24 12 in 7 days.**



**+90 850 811 04 18**

We would like to reiterate that we will be happy to share our knowledge accumulated over many years with our valued customers in order for your system to work correctly and performance.

Ekin will continue to be the best solution partner for you in all applications with all kinds of heating and cooling applications.



Producer; reserves the right to change the product features, technical dimensions and information and installation diagrams specified in this catalog without notice. No specified information can be copied and used without the permission of the manufacturer. In no way can the manufacturer be held responsible by giving examples of technical information and diagrams. In case of need, we request you to request a special technical drawing for your project for exact dimensions.



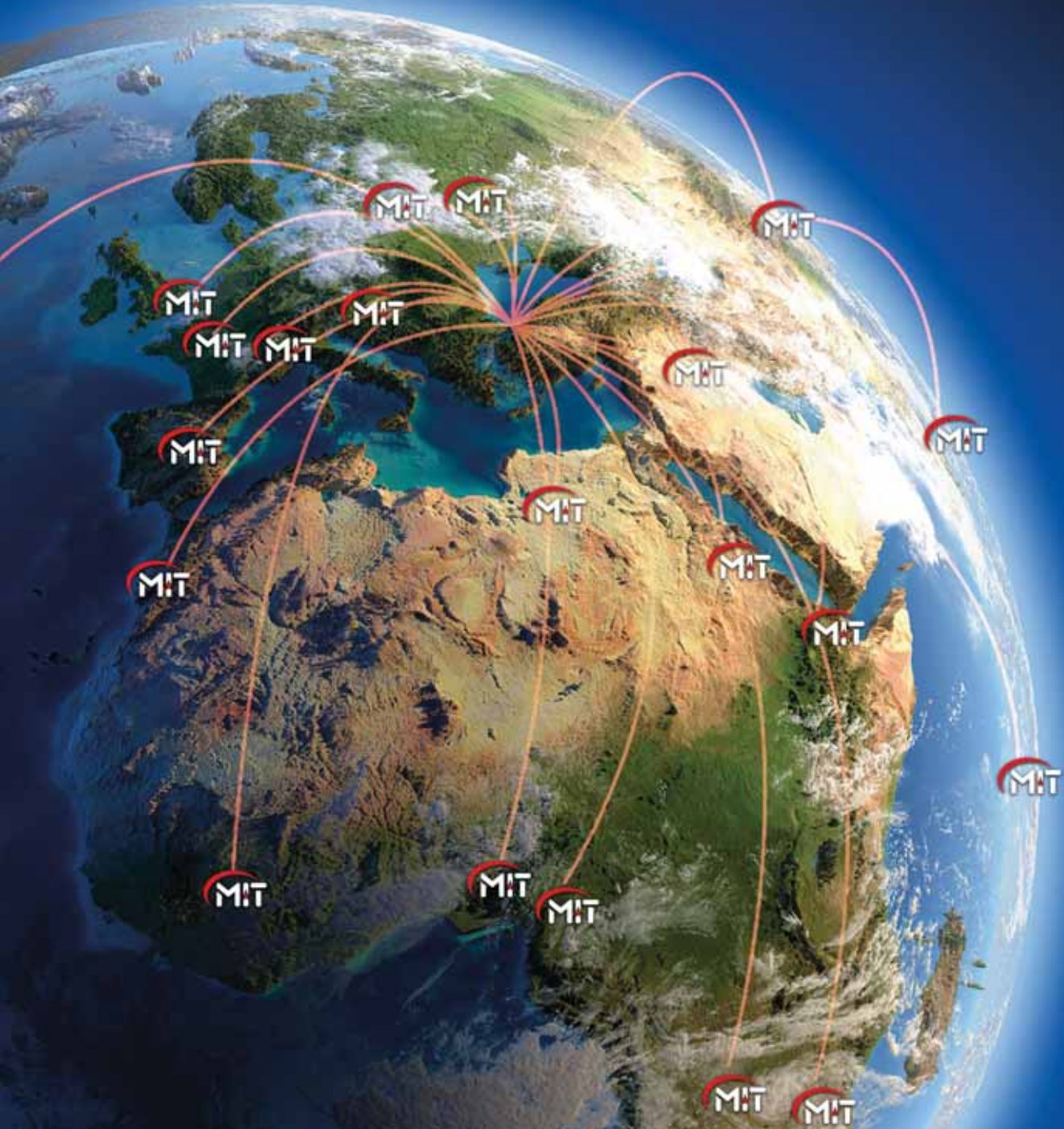
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