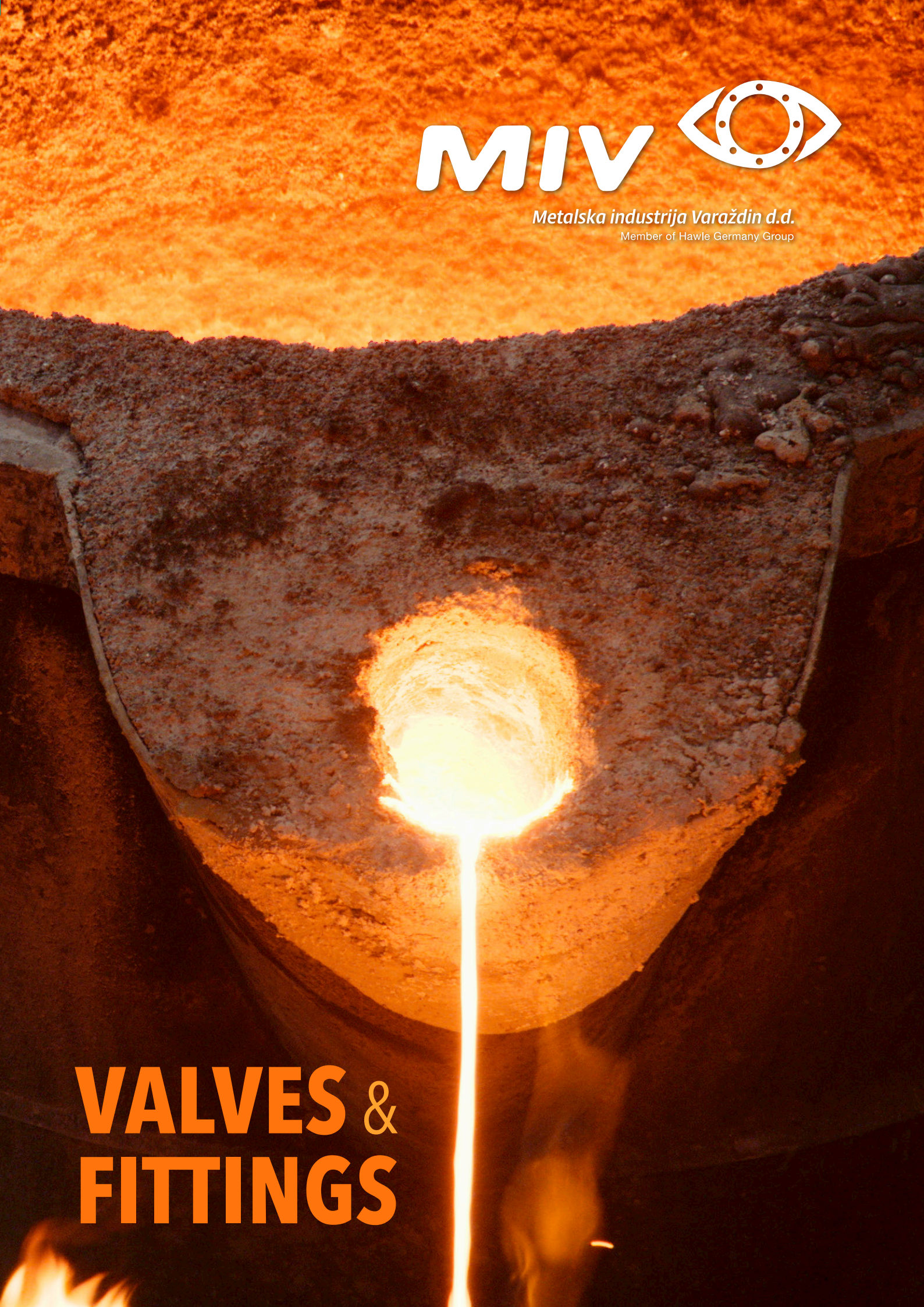
MIV

Metalska industrija Varaždin d.d.

Member of Hawle Germany Group



VALVES & FITTINGS

A HISTORY OF MIV d.d.

1939	Foundry Varaždin, Varaždin's (Croatia's) first iron foundry, opens for business
1954	valve production starts
1992	MIV d.d. is privatised and becomes a joint-stock company
2000	floated on stock exchange
2007	ownership changes
2018	MIV d.d. became member of Hawle Germany group

From 2007 to today MIV d.d. (Croatia, EU) has been working hard on the 3R Project

RESTRUCTURING **RATIONALISATION** **REORGANIZATION**

From the idea to the final product

Metalska industrija Varaždin - MIV - is a renowned global producer of valves and fitings, with production history dating back to 1939. The company exports more than 70 percent of its production to over 40 countries in the world. MIV valves and fittings are installed in water and sewage systems, power plants, desalination facilities, pump stations and process industry. There are very few companies in the industry that can claim their ownership of the complete production process - from the idea to the final product. MIV owns all the segments of production from design, making prototypes, casting, machining and welding to surface coating protection, assembling and testing of produced parts: moreover, one should especially point out that entire production process from the foundry to the machine processing takes place at the same location.

In order to keep up with the needs of the global markets and successfully follow the global technology trends, the company continuosly strives to expand and modernise its production facilities. Furthermore, it is also eager to enchance the product quality, extend the production programme, participate in international collaboration deals and constantly increase the foreign market shares of its total sales volume.

PRINCIPLES, VISION, MISSION

PRINCIPLES

Trust, Respect, Honesty, Understanding, Transparency, Professionalism and Legality

VISION

To became an indispensable company for customers in Europe and around the world. To produce high-quality products of valves and fittings for the construction of water and sewage systems, systems of energy, insisting on a permanent quality of processes and products, using the knowledge and innovation.

MISSION

As a company led by principles of business and social responsibility as well as sustainable development, MIV d.d. uses its knowledge, experience and new technologies to add innovation to traditional production and manufacturing processes, thereby become even more recognizable on the market and offering customers high-quality products.

* **tradition since 1939**
* **3000 standard products**
* **30000 different types of products**
* **more than 40 countries worldwide using our products**

In all bussiness areas, the MIV company is focused to the harmonization of the quality assurance and environmental managment system.
The harmonized quality assurance and environmental managment system continuosly perform, develop and implement technologies, process, products and services which bring the risks and negative influence to the lowest possible level, taking into consideration influence to health, security and environment of the employees, users and all concerned parties.
The quality - and environmental management system is performed as an integral business management system, based on the law, company rules, profession rules and requirements of the **ISO 9001 and ISO 14001 norms.**
The quality - and environmental management system is performed at all levels, from the checkup of the raw materials and all others materials, verification of all production processes, as well as of all processes which are performed in MIV.
The quality - and environmental mangement system includes, and manages, the international ISO 9001:2008 and ISO 14001:2004 norms, as well as performing the certification processes in accordance with the various norms of the national or professional associations, checkup of all certificates and approvals.
Bussines policy of the company MIV, as well as a quality- and environmental managment system, are aimed at achieving the top product quality, along with the socially responsible and acceptable behaviour and satisfaction of all involved parties.
Management, SUKO and all the company employees prove dedication to the goals and social responsibility, through the obtained approval for the integrated environment conditions IPPC (Integrated Pollution, Prevention and Control) as well, which was granted in the year 2013. MIV production is characterized as **“green production”.**

ASSURANCE AND ENVIRONMENTAL MANAGMENT SYSTEM

EU CERTIFICATE OF CONFORMITY

In accordance with the requirements of the Pressure Equipment Directive 2014/68/EU

This is to certify that the Quality Management System of:

Metalska industrija Varaždin d.d.
Metalska ulica 2
42 000 Varaždin
Republic of Croatia

has been assessed against the requirements of Annex III, Module H of the Pressure Equipment Directive 2014/68/EU and conforms to the requirements for the products shown below:

Design and manufacture of valves and pressure accessories up to DN 3000, NP up to 40 bar in cast iron, ductile cast iron and welded steel.

Approval is subject to the continued maintenance of the quality system in accordance with the requirements of the above Directive for the products listed on the attached schedule.

Authorisation is hereby given to use the LRE Notified Body Identification Number in accordance with the requirements of the specified Directive in relation to the products as identified above.

Certificate No: 0094/PED/MAD/20020020/A ENG (*)
Original Approval: 31 December 2020
Current Certificate: 31 December 2020
Certificate Expiry: 18 December 2023
LRE Notified Body Number 0094

Teresa Souto LRE Technical Manager

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Certificate number: SMS.LAB.320/378/D.0

RECOGNITION OF TEST LABORATORY

MIV - METALSKA INDUSTRIJA VARAZDIN d.d.
Varazdin - CROATIA

Summary of the range of the recognition which is detailed in the subsequent page(s):
MATERIALS TESTING LABORATORY SPECIALISED IN NDT AND MECHANICAL TESTING OF CASTINGS

This certificate will expire on: 08 May 2025

For Bureau Veritas Marine & Offshore,
At BV RIJEKA, on 30 Apr 2021,
Slaven Celic

Gütegemeinschaft Schwerer Korrosionsschutz
Quality Assurance Association for Heavy-Duty Corrosion Protection

AWARD CERTIFICATE

Production heavy corrosion protection of valves and fittings

The Quality Association for Heavy Duty Corrosion Protection of Valves and Fittings by Powder Coating e.V. (GSK) awards based on the test report of the externally supervising body presented to the Quality Committee and on the resolution of the Executive Committee of GSK for the coating procedure for the production of heavy corrosion protection for valves and fittings and for the product families mentioned in the appendix to the company:

MIV Metalska industrija Varaždin d.d.
Metalska ulica 2, 42000 Varaždin, CROATIA

the right to use the quality mark with the performance-related addition RAL-GZ 662/2.

This certificate is valid until 31st December 2024

Schwäbisch Gmünd, the 31st December 2021

Managing Director

Page 1 of 2
Certificate No: LR2168394WA
Issue Date: 19/08/2020
Expiry Date: 18/08/2023

Approved Manufacturer of Iron Castings

Manufacturer METALSKA INDUSTRIJA VARAŽDIN d.d.
Address Metalska ulica 2, Varaždin, 42000, Croatia
Type Iron Castings

This approval is subject to compliance with the Rules for the Manufacture, Testing and Certification of Materials. The full details of the processes and grades to which this approval applies are given on subsequent pages of this certificate.

This certificate is issued to the named manufacturer, and is valid until the expiry date specified. Lloyd's Register is to be notified of any change that may affect the validity of this certificate, and reserves the right to cancel or withdraw this certificate.

Li Xu
Senior Specialist- Fracture Mechanics and Fatigue Analysis to Lloyd's Register EMEA
A member of the Lloyd's Register group

DVGW type examination certificate
DVGW-Baumusterprüfzertifikat

DW-7705CP0604

Field of Application *Anwendungsbereich*	products of water supply *Produkte der Wasserversorgung*
Owner of Certificate *Zertifikatinhaber*	MIV Metalska Industrija Varazdin d.d. Fabijanska 33, HR-42000 Varazdin
Distributor *Vertreiber*	MIV Metalska Industrija Varazdin d.d. Fabijanska 33, HR-42000 Varazdin
Product Category *Produktart*	ductile iron pipe fittings: Ductile iron fittings (7705)
Product Description *Produktbezeichnung*	Ductile iron fittings with flanges for the drinking water supply
Model *Modell*	Ductile iron fittings MIV
Test Reports *Prüfberichte*	supplement test: 1900836 from 15.05.2019 (ÖFI) type testing: 414.988 from 25.08.2014 (OFI) UBA-Guideline: 414.988 from 28.07.2015 (WHY) hygienic testing: W-279700k-17-Sl/Krü from 21.12.2016 (WHY) UBA-Guideline: KA 0036/17 from 12.05.2017 (TZW) hygienic testing: MO 191/17 from 18.10.2017 (TZW)
Test Basis *Prüfgrundlagen*	DVGW GW 337-P (01.09.2010) DVGW GW 337-Bbl./1 (01.08.2012) DIN EN 545 (01.09.2011) UBA BESCH-LL (30.11.2010) DVGW W 270 (01.11.2007)
Date of Expiry / File No. *Ablaufdatum / Aktenzeichen*	25.08.2024 / 19-0366-WNV

07.08.2019 Fk A-1/2

Certificate of Approval

This is to certify that the Management System of:

METALSKA INDUSTRIJA VARAŽDIN d.d.
Fabijanska 33, 42000 Varaždin, Croatia

has been approved by LRQA to the following standards:
ISO 9001:2015

Gilles Bessiere - Area Technical Manager
Issued by: Lloyd's Register EMEA Branch Rijeka
for and on behalf of: Lloyd's Register Quality Assurance Limited

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Current issue date: 13 March 2019
Expiry date: 18 March 2022
Certificate identity number: 10179634
Original approval(s): ISO 9001 – 26 June 1997

Approval number(s): ISO 9001 – 0035236

The scope of this approval is applicable to:
Design, manufacturing, sales and service of fittings and valves and valves accessories.
Production and mechanical machining of bronze and brass casting.

Certificate of Approval

This is to certify that the Management System of:

METALSKA INDUSTRIJA VARAŽDIN d.d.
Fabijanska 33, 42000 Varaždin, Croatia

has been approved by LRQA to the following standards:
ISO 14001:2015

Gilles Bessiere - Area Technical Manager
Issued by: Lloyd's Register EMEA Branch Rijeka
for and on behalf of: Lloyd's Register Quality Assurance Limited

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Current issue date: 13 March 2019
Expiry date: 18 March 2022
Certificate identity number: 10179624
Original approval(s): ISO 14001 – 13 May 2010

Approval number(s): ISO 14001 – 0035235

The scope of this approval is applicable to:
Design, manufacturing, sales and service of fittings and valves and valves accessories.

Certificate of Approval

This is to certify that the Management System of:

METALSKA INDUSTRIJA VARAŽDIN d.d.
Metalska ulica 2, 42000 Varaždin, Croatia

has been approved by Lloyd's Register to the following standards:
ISO 45001:2018

Approval number(s): ISO 45001 – 0042481

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Daniel Oliva Marcilio de Souza
Area Operations Manager - South Europe
Issued by: Lloyd's Register Quality Assurance Italy Srl
for and on behalf of: Lloyd's Register Quality Assurance Limited

Certificate of Approval

This is to certify that the Management System of:

METALSKA INDUSTRIJA VARAŽDIN d.d.
Metalska ulica 2, 42000 Varaždin, Croatia

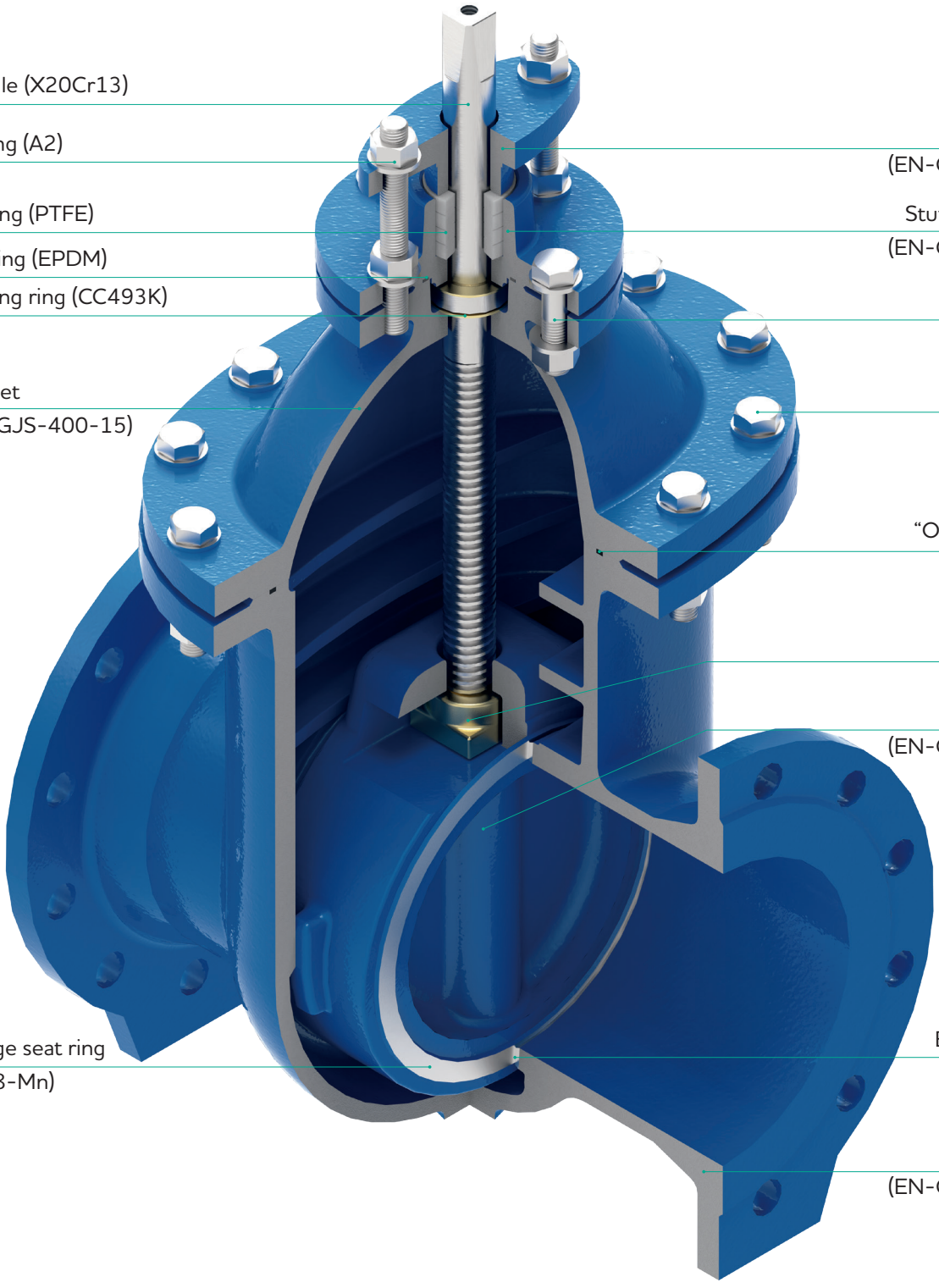
has been approved by Lloyd's Register to the following standards:
ISO 50001:2018

Approval number(s): ISO 50001 – 0042498

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Daniel Oliva Marcilio de Souza
Area Operations Manager - South Europe
Issued by: Lloyd's Register Quality Assurance Italy Srl
for and on behalf of: Lloyd's Register Quality Assurance Limited

DESIGN OF METAL SEATED GATE VALVES



METAL SEATED GATE VALVES

Flat body Gate Valve type V1-07 and V1-08
Technical features

- Standard Application: water, Potable water, Sewage water
- max. working Temperature: 60° C, other on request
- face to face: Series 14, EN 558
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Dimension DN 40 - DN 1600

V1-08 non rising spindle

V1-07 rising spindle

Oval body Gate Valve type V2-01 and V2-02
Technical features

- Standard Application: water, Potable water, Sewage water
- max. working Temperature: 60° C, other on request
- face to face: Series 15, EN 558
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Dimension DN 40 - DN 1600

V2-01 non rising spindle

V2-02 rising spindle

Round body Gate Valve type V3-01 and V3-02
Technical features

- Standard Application: water, Potable water, Sewage water
- max. working Temperature: 60° C, other on request
- face to face: Series F15, DIN 3202
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Dimension DN 40 - DN 700

V3-01 non rising spindle

V3-02 rising spindle

Gate Valve acc. to BS5163 type V1-10
Technical features

- Standard Application: water, Potable water, Sewage water
- max. working Temperature: 60° C, other on request
- face to face: Series 3, EN 558
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Dimension DN 40 - DN 1600

V1-10 non rising spindle

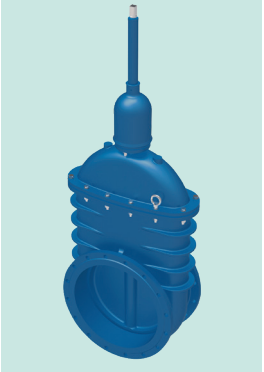
V1-10 rising spindle

Actuator variants

Actuator variant with non-rising/internal spindle

Metal seated Gate Valve with free shaft end

Metal seated Gate Valve with Handwheel



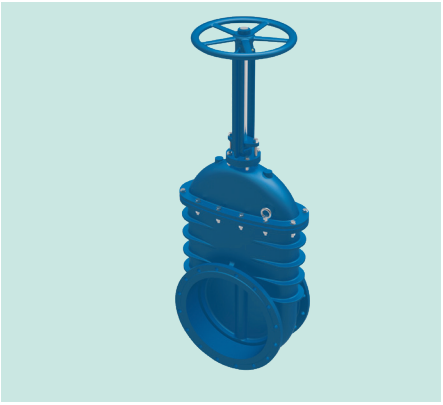
Metal seated Gate Valve with underground installation equipment (Earth installation)

Metal seated Gate Valve with electric actuator

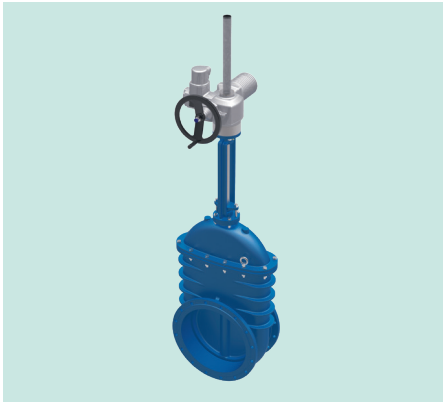
Metal seated Gate Valve for vertical installation with Spindle extension and electric actuator

Actuator variants Metal seated gate Valve with outside (rising) spindle

Metal seated Gate Valve with outside Spindle and free shaft end

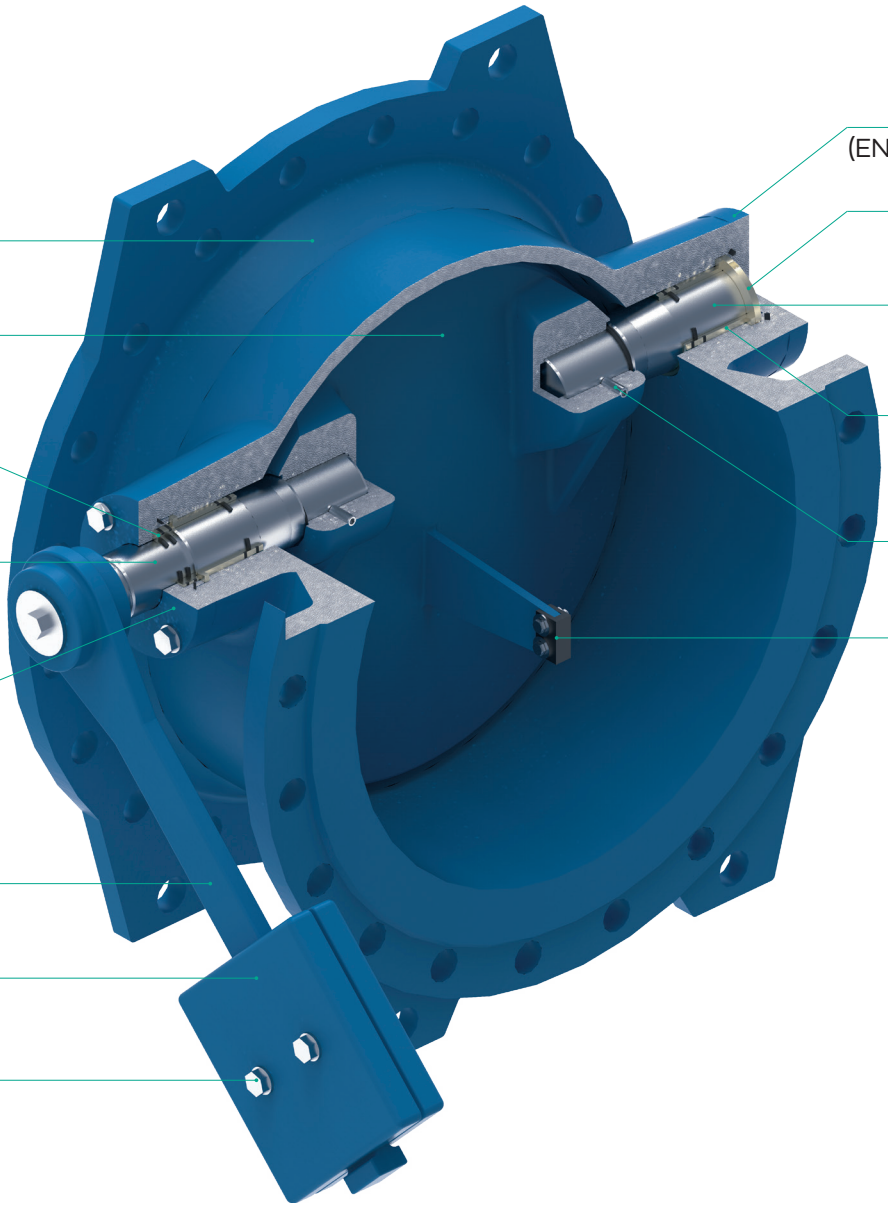


Metal seated Gate Valve with outside Spindle and Handwheel

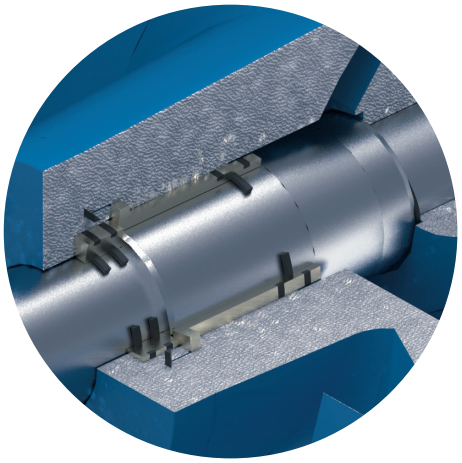


Metal seated Gate Valve with outside Spindle and electric actuator

Model:	Description	max. operating pressure		Dimension
V1-08 V1-07	**Metal seated gate valve with flat body**	10 bar / 6 bar / 4 bar / 2,5 bar / 1,6 bar / 1 bar	10 bar / 6 bar / 4 bar / 2,5 bar / 1,6 bar / 1 bar	DN 40 - DN 200: Flange PN 10 DN 250 - DN 300: Flange PN 10 DN 350 - DN 500: Flange PN 10 DN 600 - DN 700: Flange PN 10 DN 800: Flange PN 10 DN 900 - DN 1600: Flange PN 10
V2-01 V2-02	**Metal seated gate valve with oval body**	10 bar / 16 bar / 25 bar	10 bar / 16 bar / 25 bar	DN 40 - DN 1600: Flange PN 10 DN 40 - DN 1600: Flange PN 16 DN 40 - DN 600: Flange PN 25
V3-01 V3-02	**Metal seated gate valve with round body**	10 bar / 16 bar / 25 bar / 40 bar	10 bar / 16 bar / 25 bar / 40 bar	DN 40 - DN 1000: Flange PN 10 DN 40 - DN 1000: Flange PN 16 DN 40 - DN 1000: Flange PN 25 DN 40 - DN 600: Flange PN 40
V1-10	**Metal seated gate valve acc. to BS5163**	10 bar / 16 bar / 25 bar	10 bar / 16 bar / 25 bar	DN 40 - DN 1600: Flange PN 10 DN 40 - DN 1600: Flange PN 16 DN 40 - DN 600: Flange PN 25



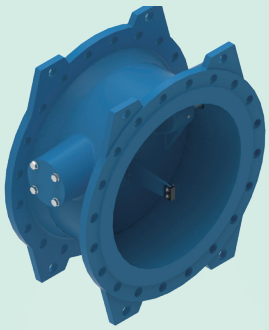
Shaft sealing detail



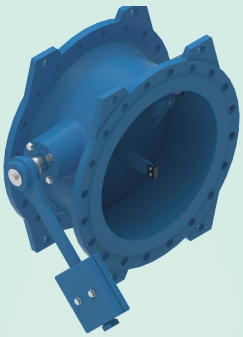
Butterfly Check Valve type V2-09
Technical features

- Standard Application: water, Potable water
- max. working Temperature: 60° C, other on request
- face to face: Series 14, EN 558
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Dimension DN 150 - DN 2400
- Casted or Welded design

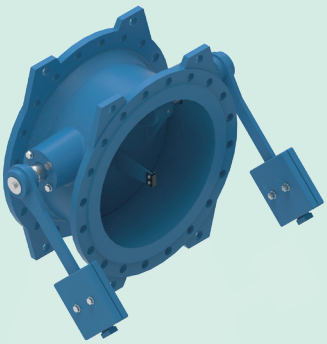
Actuator variants



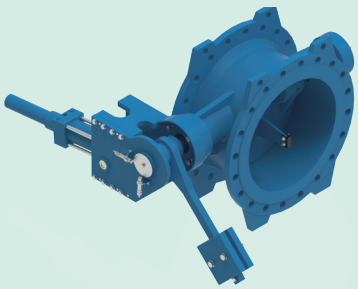
without lever and weight



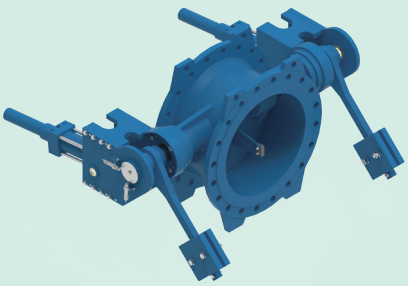
with lever and weight



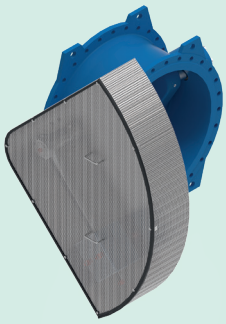
with lever and weight on both side



with hydraulic device



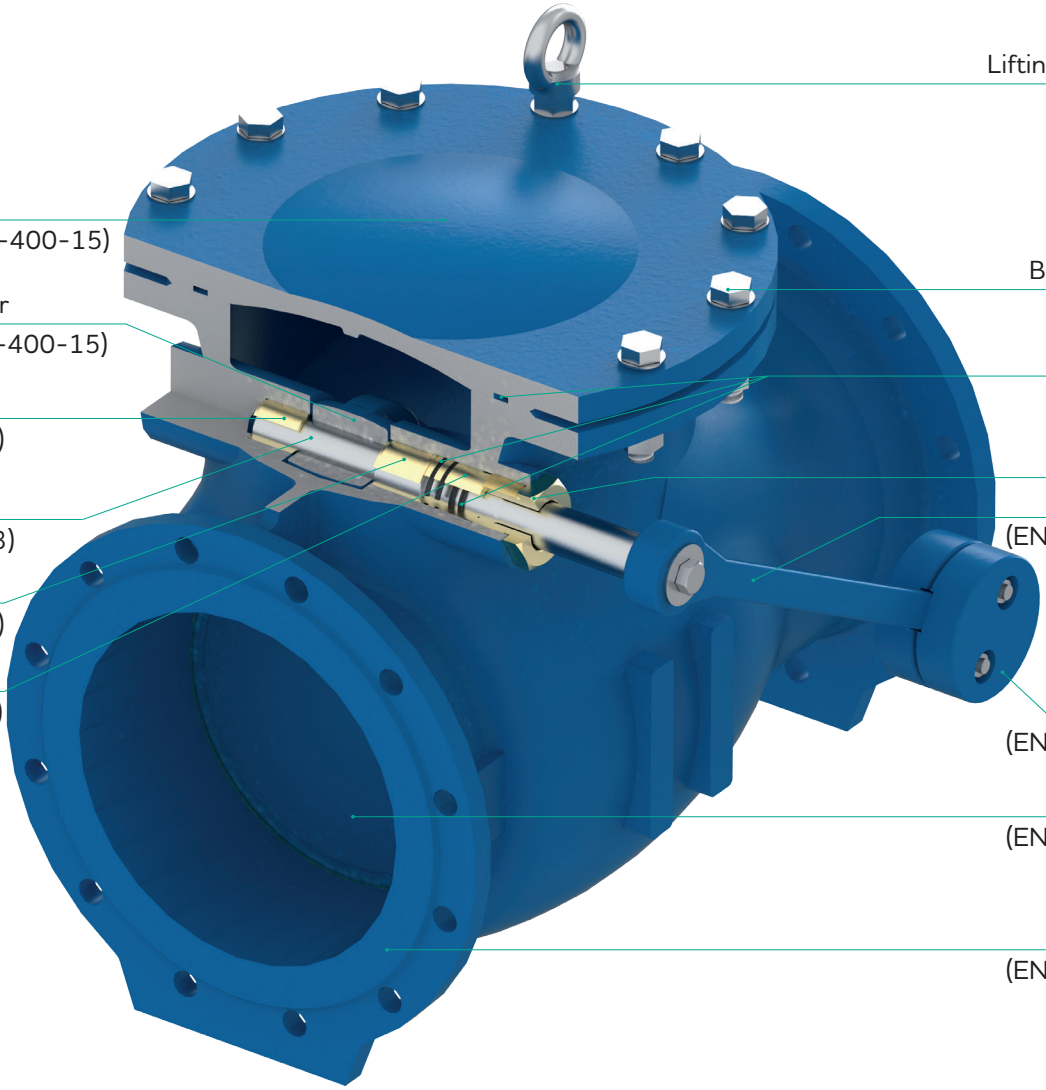
with hydraulic device on both side



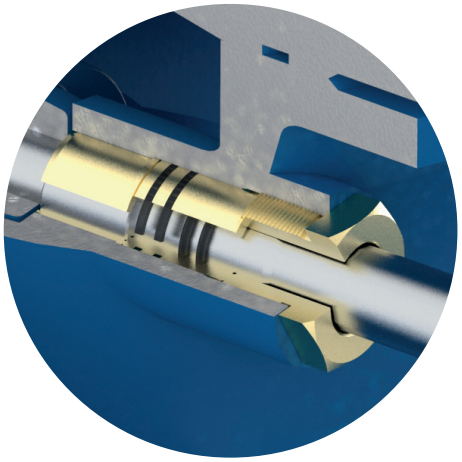
with protection basket

Model:	Description	max. operating pressure	Dimension
V2-09	**Butterfly Check Valve** (Application: water, Potable water)	10 bar / 16 bar/ 25 bar / 40 bar	DN 200 - DN 1600: Flange PN 10 DN 200 - DN 1600: Flange PN 16 DN 200 - DN 800: Flange PN 25 DN 200 - DN 400: Flange PN 40 (up to DN 2400 other on request)
V2-09/A V2-09/2A	**Check valve with one/two dampers, lever and weight** (Application: water, Potable water)	10 bar / 16 bar/ 25 bar / 40 bar	DN 200 - DN 1600: Flange PN 10 DN 200 - DN 1600: Flange PN 16 DN 200 - DN 800: Flange PN 25 DN 200 - DN 400: Flange PN 40 (up to DN 2400 other on request)

For more information on other check valves, other pressure stages, please refer to the technical data sheets on **www.miv.hr**



Shaft sealing detail

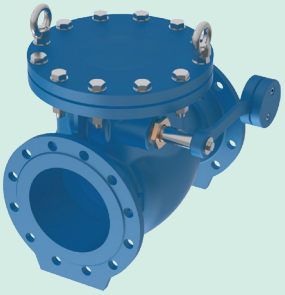


Swing check valve type V2-08
Technical features

- Standard Application: water, Potable water, Sewage water
- max. working Temperature: 60° C, other on request
- face to face: Series 48, EN 558
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Dimension DN 50 - DN 1000

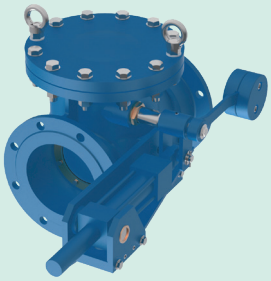
Actuator variants

without lever and weight

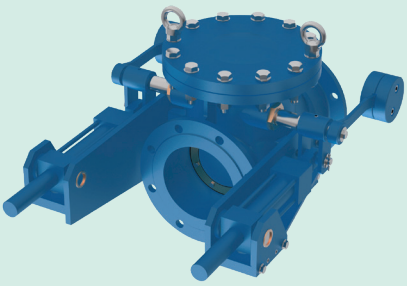


with lever and weight

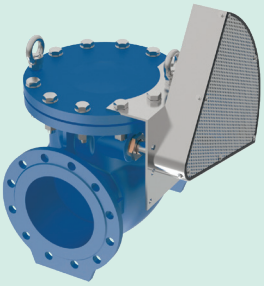
with lever and weight on both side



with hydraulic device



with hydraulic device on both side



with protection basket

Model:	Description	max. operating pressure		Dimension
V2-08	**Swing Check Valve** (Application: water, Potable water, Sewage water)	10 bar / 16 bar/ 25 bar / 40 bar	10 bar / 16 bar/ 25 bar / 40 bar	DN 50 - DN 1000: Flange PN 10 DN 50 - DN 1000: Flange PN 16 DN 50 - DN 200: Flange PN 25 DN 50 - DN 200: Flange PN 40
V2-08/A V2-08/2A	**Swing Check Valve with one/two dampers, lever and weight** (Application: water, Potable water, Sewage water)	10 bar / 16 bar/ 25 bar / 40 bar	10 bar / 16 bar/ 25 bar / 40 bar	DN 50 - DN 800: Flange PN 10 DN 50 - DN 800: Flange PN 16 DN 50 - DN 200: Flange PN 25 DN 50 - DN 200: Flange PN 40

For more information on other check valves, other pressure stages, please refer to the technical data sheets on **www.miv.hr**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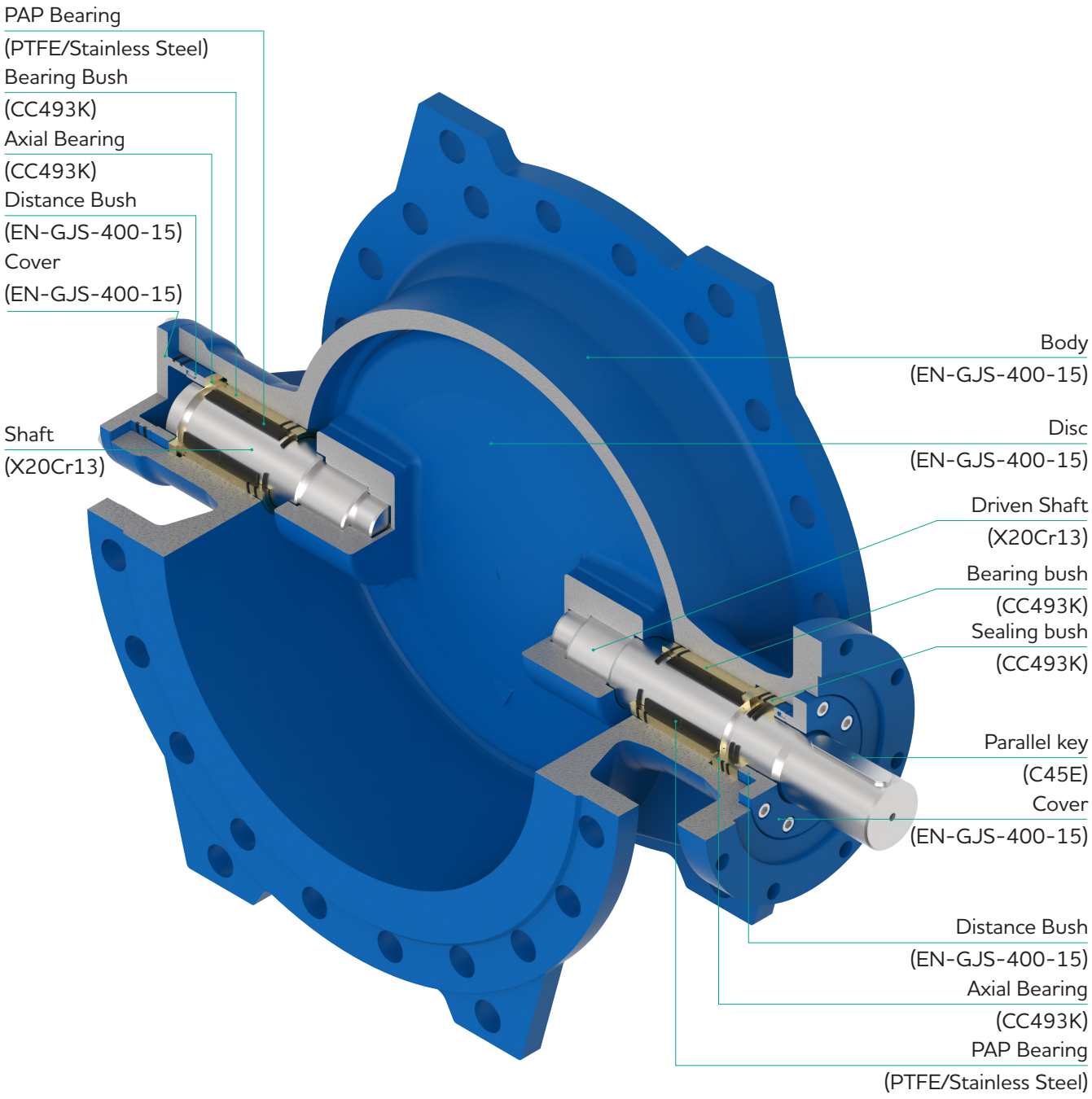
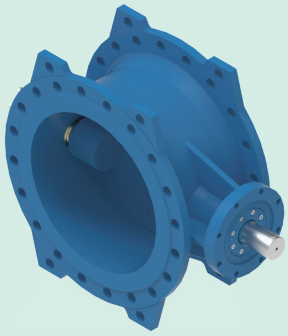
KUKA



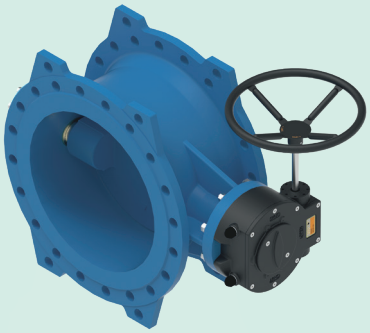
Technical Feautures

- Standard Application: water Potable water, Sewage water, Sea water
- max. working Temperature 60°C, other on request
- face to face: Series 14, DIN EN 558
- Standard coating: Fusion bonded epoxy powder min. 250 µm GSK-certified RAL 5015
- Installation flanges according to EN 1092-2 or on request according to other standard.
- Casted design up to DN2000, welded design up to DN3200

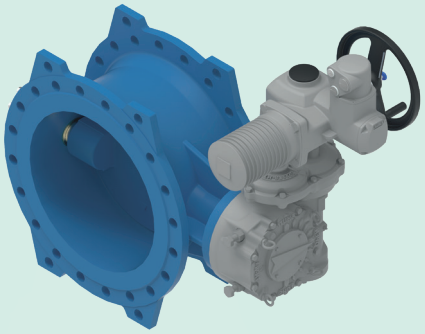
Actuator variants



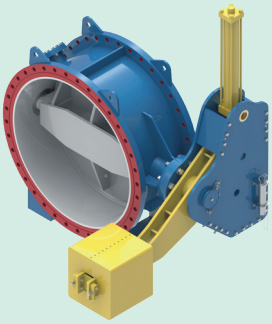
bare shaft



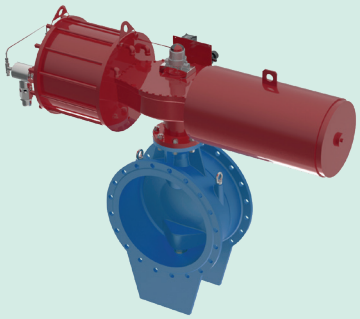
manual operated



electric operated



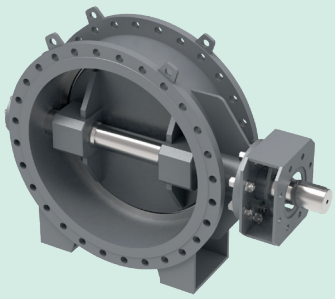
hydraulic operated



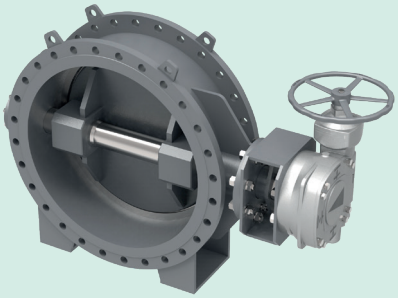
pneumatic operated

Model:	Description	max. operating pressure		Dimension
V3-06	**Double eccentric Butterfly Valve** (Application: water, Potable water, Sewage water)	10 bar / 16 bar / 25 bar / 40 bar	10 bar / 16 bar / 25 bar / 40 bar	DN 100 - DN 2000: Flange PN 10 DN 100 - DN 2000: Flange PN 16 DN 100 - DN 1600: Flange PN 25 DN 100 - DN 800: Flange PN 40 Working Temperature: +60°C
V3-06 V	**Double eccentric Buterfly Valves - steel welded** (Application: water, Potable water, Sewage water)	6 bar / 10 bar / 16 bar / 25 bar / 40 bar	6 bar / 10 bar / 16 bar / 25 bar / 40 bar	DN 100 - DN 3200: Flange PN 6 DN 100 - DN 3200: Flange PN 10 DN 100 - DN 2000: Flange PN 16 DN 100 - DN 1200: Flange PN 25 DN 100 - DN 1200: Flange PN 40 Working Temperature: +60°C
V3-06 G	**Double eccentric Butterlfy Valve** (Application: water, Brackish water)	10 bar / 16 bar	-	DN 150 - DN 2000: Flange PN 10 DN 150 - DN 1800: Flange PN 16 Working Temperature: +60°C

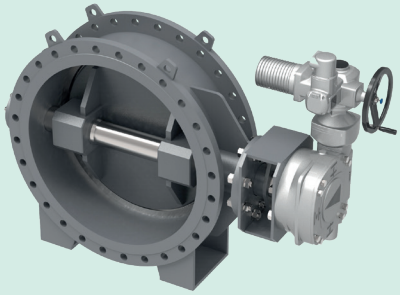
Welded design



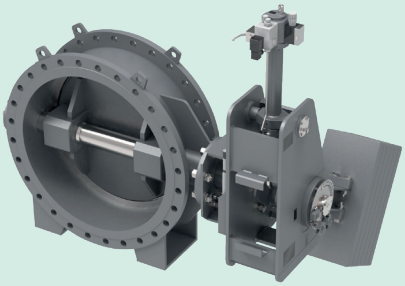
bare shaft



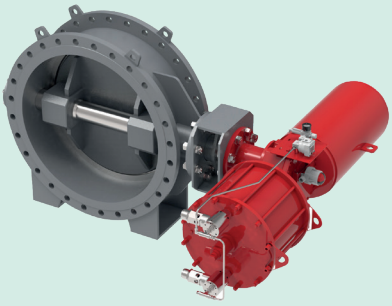
manual operated



electric operated



hydraulic operated

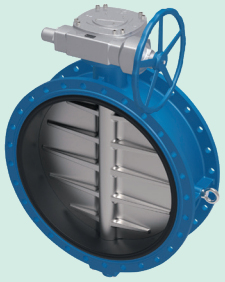


pneumatic operated

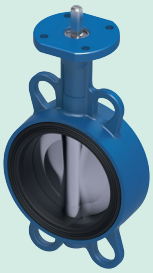
Model:	Description	max. operating pressure		Dimension
V3-06-3E	**Triple eccentric Butterlfy Valve** (Application: agressive medium)	10 bar / 16 bar	-	DN 150 - DN 1400: Flange PN 10 DN 150 - DN 1400: Flange PN 16

For more information on other check valves, other pressure stages, please refer to the technical data sheets on **www.miv.hr**

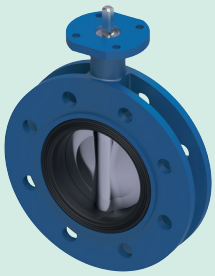
CONCENTRIC BUTTERFLY VALVES



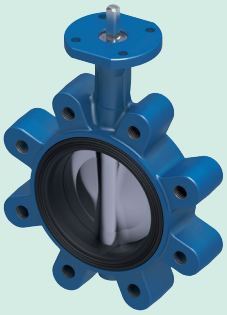
Model: V3-08 D
Concentric Butterfly Valve
Series 13



Model: V3-18
Concentric Butterfly Valve
wafer type



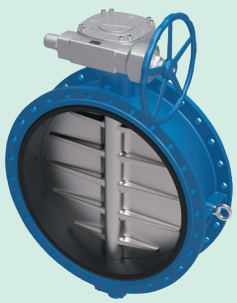
Model: V3-19
Concentric Butterfly Valve
flanged type



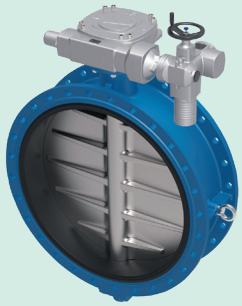
Model: V3-20
Concentric Butterfly Valve
lug type

Model:	Description	max. operating pressure		Dimension
V3-08D	**Centric Butterfly Valve series 13** (Application: water, Potable water)	10 bar /	-	DN 50 - DN 1400: Flange PN 10
V3-18	**Concentric Butterfly Valve - wafer type** (Application: water, Potable water)	10 bar / 16 bar /	10 bar / 16 bar /	DN 200 - DN 1200: Flange PN 10 DN 32 - DN 150: Flange PN 16
V3-19	**Concentric Butterfly Valve - flanged type** (Application: water, Potable water)	10 bar / 16 bar /	10 bar / 16 bar /	DN 200 - DN 1600: Flange PN 10 DN 150: Flange PN 16
V3-20	**Concentric Butterfly Valve - lug type** (Application: water, Potable water)	10 bar / 16 bar /	-	DN 200 - DN 1000: Flange PN 10 DN 32 - DN 150: Flange PN 16

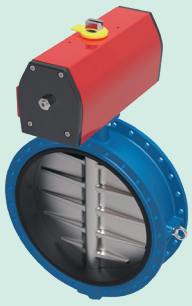
Actuator variants concentric butterfly valve



Manual operated concentric valve



Electric operated concentric valve



Pneumatic operated concentric valve

Model: V6-01 A
Air release valve

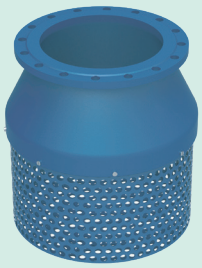
Model: V6-03 A
Air release valve

Model: V6-03 B
Air release valve

Model:	Description	max. operating pressure		Dimension
V6-01A	**Air release valve** (Application: water, Potable water)	10 bar / 16 bar / 25 bar / 40 bar	-	DN 40 - DN 350: Flange PN 10 DN 40 - DN 350: Flange PN 16 DN 40 - DN 300: Flange PN 25 DN 40 - DN 250: Flange PN 40
V6-03A	**Air release valve** (Application: water, Potable water, Waste water)	10 bar / 16 bar /	10 bar / 16 bar /	DN 50 - DN 300: Flange PN 10 DN 50 - DN 300: Flange PN 16
V6-03B	**Air release valve** (Application: water, Potable water, Waste water, Sea water)	10 bar / 16 bar /	10 bar / 16 bar /	DN 40 - DN 200: Flange PN 10 DN 40 - DN 200: Flange PN 16

For more information on other check valves, other pressure stages, please refer to the technical data sheets on **www.miv.hr**

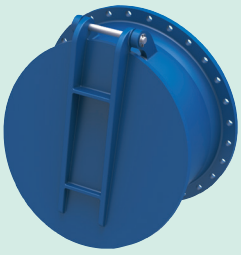
SPECIAL VALVES FOR PLANT CONSTRUCTION



Model: V7-01
Inlet strainer without valve
casted / welded

Model: V7-01-2
Inlet strainer with valve
casted / welded design

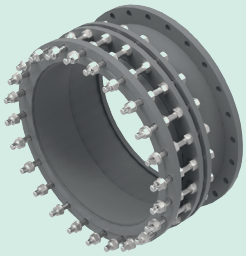
Model: V7-05-1
Basket Strainer
casted / welded design



Model: V7-03
Flap Check Valve
casted / welded design

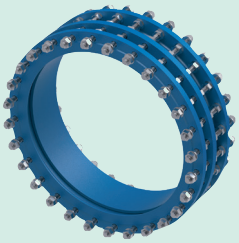
Model: V6-04
Float valve
casted design

Model:	Description	max. operating pressure		Dimension
V7-01	**Inlet strainer without valve** (Application: water, Potable water)	10 bar	-	DN 50 - DN 600: Flange PN 10
V7-01-2	**Inlet strainer with valve** (Application: water, Potable water)	2,5 bar / 1 bar	-	DN 50 - DN 350: Flange PN 10 DN 400 - DN 600: Flange PN 10
V7-05-1	**Basket Strainer** (Application: water, Potable water, sea water)	10 bar / 16 bar /	-	DN 100 - DN 500: Flange PN 10 DN 100 - DN 600: Flange PN 16
V7-03	**Flap Check Valve - casted / welded** (Application: Potable water, Sewage water)	10 bar / 16 bar /	10 bar / 16 bar /	DN 50 - DN 1200: Flange PN 10, PN 16
V6-04	**Float Valve** (Application: water, Potable water)	10 bar / 16 bar /	-	DN 50 - DN 500: Flange PN 10, PN 16

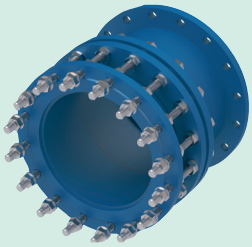


Model: V7-10
Dismantling Joint
welded design

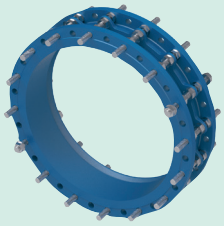
Model: V7-10A
Dismantling Joint
welded design



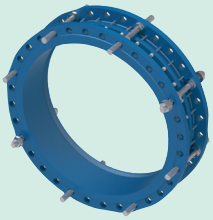
Model: V7-10C
Dismantling Joint
casted design



Model: V7-10D
Dismantling Joint
casted design



Model: V7-10F
Dismantling Joint
casted design

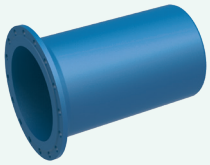


Model: V7-10T
Dismantling Joint
casted design

Model:	Description	max. operating pressure		Dimension
V7-10	**Dismantling Joint** (Application: Potable water and Seawater)	10 bar / 16 bar	10 bar / 16 bar	DN 200 - DN 1000: PN 10 DN 200 - DN 1000: PN 16
V7-10A	**Dismantling Joint - welded design** (Application: water, Potable water, Sewage water)	10 bar / 16 bar / 25 bar	10 bar / 16 bar / 25 bar	DN 40 - DN 1600: PN 10, PN 16 DN 40 - DN 1200: PN 25
V7-10C	**Dismantling Joint** (Application: water, Potable water, Sewage water)	10 bar / 16 bar / 25 bar	10 bar / 16 bar / 25 bar	DN 40 - DN 1600: PN 10, PN 16 DN 40 - DN 1200: PN 25
V7-10D	**Dismantling Joint** (Application: water, Potable water, Sewage water, Seawater, Oil)	10 bar / 16 bar /	10 bar / 16 bar /	DN 40 - DN 600: PN 10 DN 400 - DN 600: PN 16
V7-10F	**Dismantling Joint** (Application: water, Potable water, Sewage water, oil, Seawater)	10 bar / 16 bar /	10 bar / 16 bar /	DN 80 - DN 1200: PN 10 DN 80 - DN 1200: PN 16
V7-10T	**Dismantling Joint** (Application: water, Potable water, Sea water)	10 bar / 16 bar /	10 bar / 16 bar /	DN 1000 - DN 1600: PN 10, PN 16

FITTINGS

FLANGED SPIGOT PIECES



EN 545

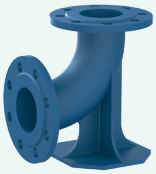
DN50 - DN1200 PN10/16

DOUBLE FLANGED BENDS

EN 545

DN50 - DN800 PN10/16

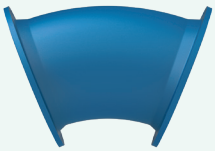
DOUBLE FLANGED BENDS



EN 545

DN50 - DN600 PN10/16

DOUBLE FLANGED 1/8 BENDS



EN 545

DN50 - DN800 PN10/16

DOUBLE FLANGED 1/12 BENDS

EN 545

DN50 - DN800 PN10/16

DOUBLE FLANGED 1/16 BENDS

EN 545

DN50 - DN800 PN10/16

DOUBLE FLANGED 1/32 BENDS

EN 545

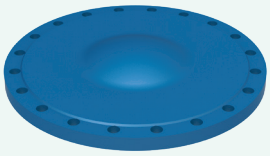
DN50 - DN800 PN10/16

ALL FLANGED TEES

EN 545

DN50 - DN1000 PN10/16

BLANK FLANGES



EN 545

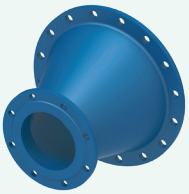
DN50 - DN1200 PN10/16

ALL FLANGED CROSSES

EN 545

DN80 - DN700 PN10/16

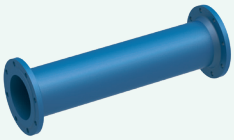
DOUBLE SOCKET TAPERS



EN 545

DN50 - DN700 PN10/16

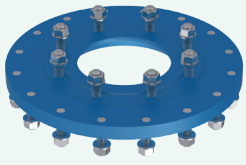
DOUBLE FLANGED COLLARS

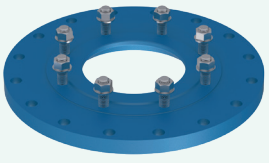


EN 545

DN40 - DN1000 PN10/16

TAPERS FLANGES



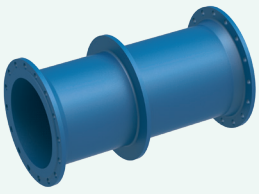


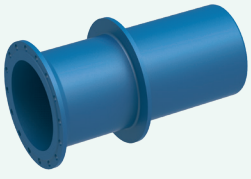
EN 545

EN 545

DN60 - DN600 PN10/16

FITTING PIECE WITH WALL FLANGE



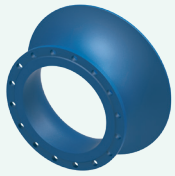


EN 545

EN 545

DN60 - DN1000 PN10/16

FLANGED BELIMOUTHS



EN 545

DN80 - DN600 PN10/16

T - FLANGED INVERT TEE

EN 545

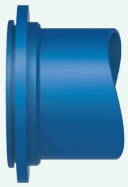
DN300 - DN600 PN10/16

ADJUSTMENT BEND

EN 545

DN80 - DN100 PN10/16

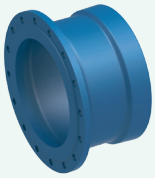
PIPE CONNECTION DOUBLECHAMBER



EN 545

DN50 - DN300 PN10/16

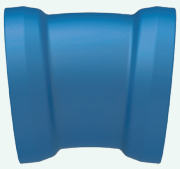
FLANGE AND TJ SOCKET PIECES



EN 545

DN60 - DN1200 PN10/16

TJ 11 1/4° BENDS



EN 545

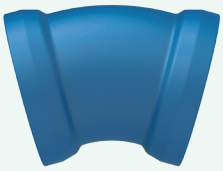
DN60 - DN1000 PN10/16

TJ 22 1/2° BENDS

EN 545

DN60 - DN1000 PN10/16

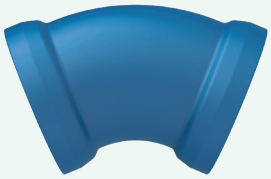
TJ 30° BENDS



EN 545

DN80 - DN1000 PN10/16

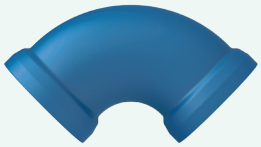
TJ 45° BENDS



EN 545

DN60 - DN1000 PN10/16

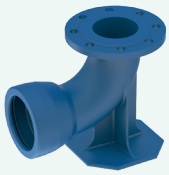
TJ 90° BENDS



EN 545

DN60 - DN600 PN10/16

FLANGE AND TJ SOCKET 90° BENDS



EN 545

DN80 - DN100 PN10/16

TJ CONCENTRIC TAPERS

EN 545

DN80 - DN800 PN10/16

TJ TEES

EN 545

DN60 - DN200 PN10/16

FLANGE ON TJ TEES

EN 545

DN60 - DN800 PN10/16

DOUBLE SOCKET COLLARS

EN 545

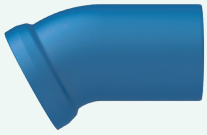
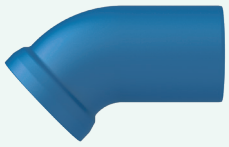
DN60 - DN1200 PN10/16

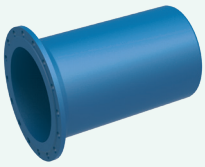
SOCKET BEND 11 1/4° WITH TYTON-SOCKETS

EN 545

DN80 - DN300 PN10/16

FITTINGS

SOCKET BEND 22 1/2° WITH TYTON-SOCKETS	SOCKET BEND 30° WITH TYTON-SOCKETS	SOCKET BEND 45° WITH TYTON-SOCKETS	SOCKET BEND 90° WITH TYTON-SOCKETS
			
EN 545	EN 545	EN 545	EN 545
DN80 - DN300 PN10/16	DN80 - DN300 PN10/16	DN80 - DN300 PN10/16	DN100 - DN400 PN10/16

FLANGED SOCKET PIECES	FLANGED SPIGOT PIECES	DOUBLE SOCKET TEES WITH FLANGED BRANCH	FLANGED SOCKET 90° DUCKFOOT BEND
			
EN 545	EN 545	EN 545	EN 545
DN50 - DN500 PN10/16	DN50 - DN500 PN10/16	DN50 - DN300 PN10/16	DN80 - DN100 PN10/16

SYSTEM DELTA – FAST CONNECTION	
	
E - BS	U - BS
EN 545	EN 545
DN50 - DN400 PN10/16	DN50 - DN400 PN10/16

Nominal sizes: DN 40 up to DN 1000 from ductile cast iron GGG
Welded carbon and steel welded fittings production with flange connections for working pressures up to PN 40.
Nominal pressures: PN 2.5, 4, 6, 10, 16, 25 and 40 (higher on request)
Connections: Flange, socket, KS-joint, AC-joint, TJ-joint, ISO, MJ
High corrosion resistance due to the use of epoxy powder.

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