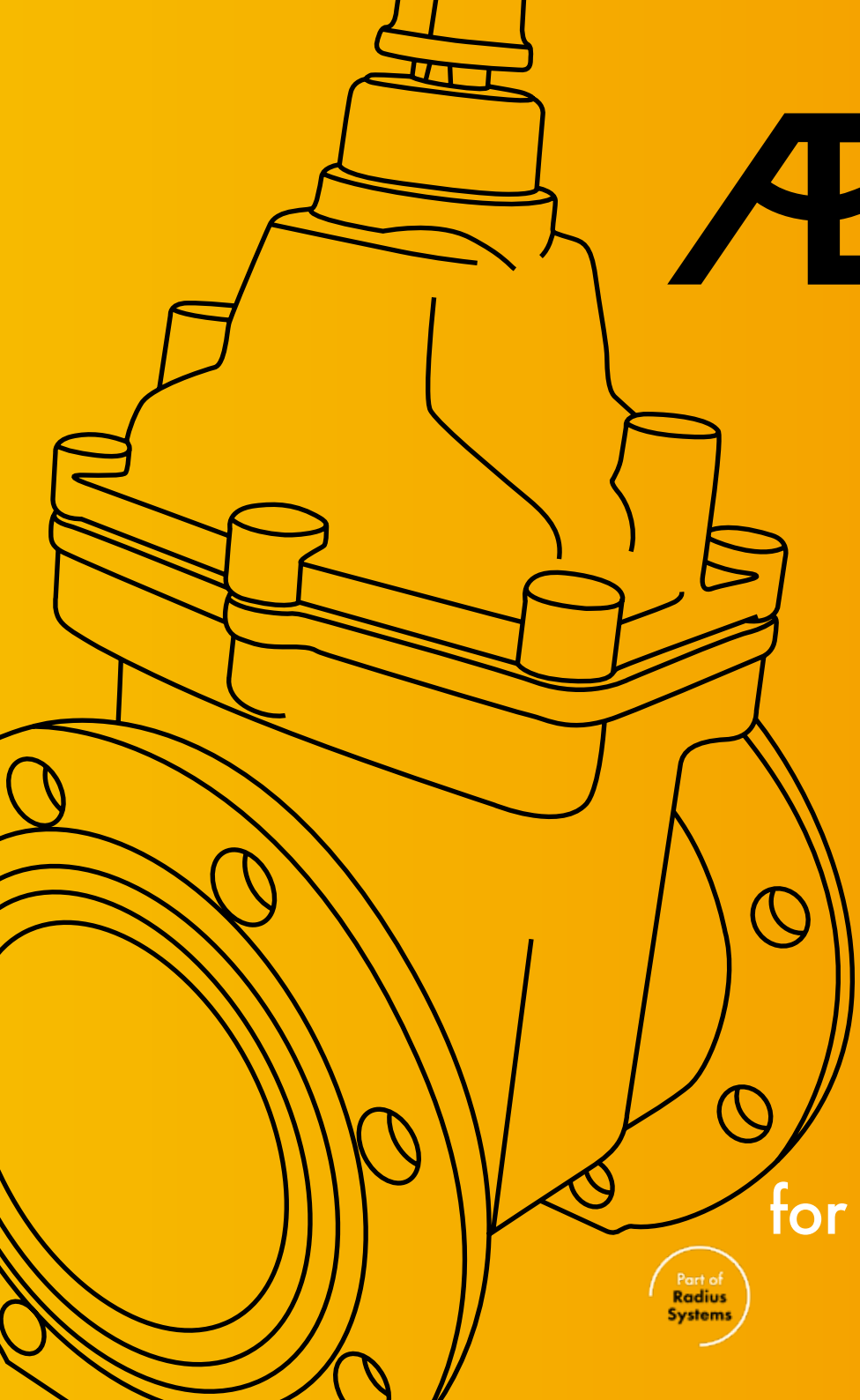


AEON

Valves

for gas applications

Advanced control solutions

Part of Radius Systems

OCT 2020

WHO WE ARE

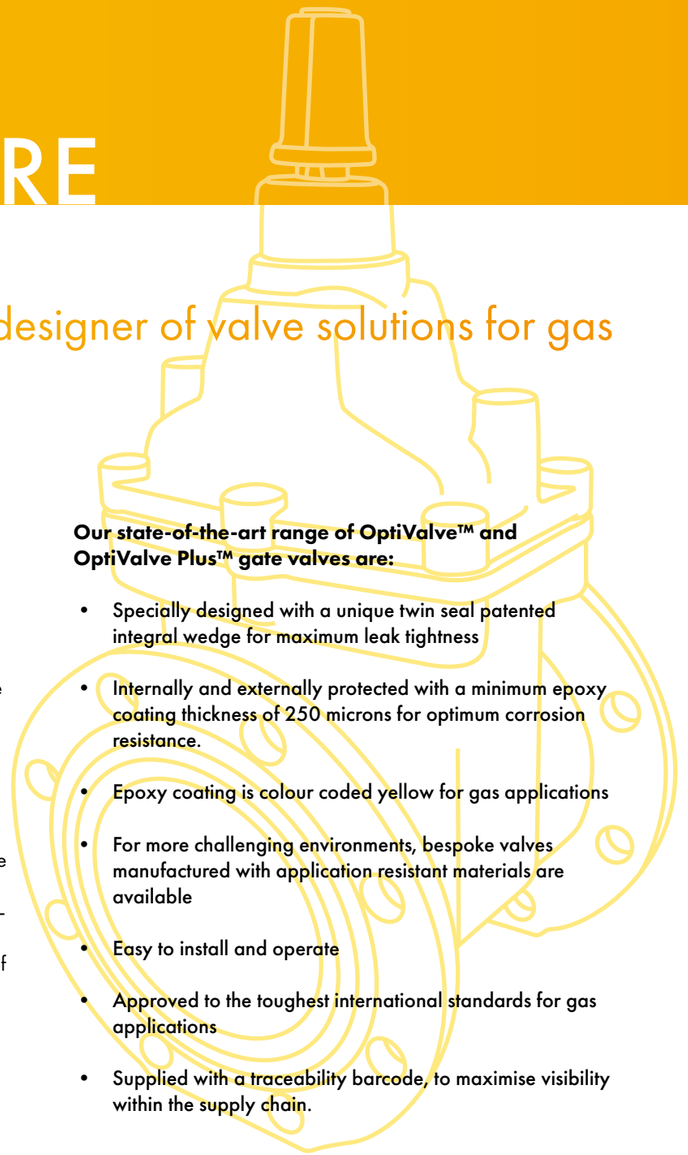
The leading developer and designer of valve solutions for gas applications

Aeon, part of Radius Systems, is a developer and designer of innovative valve solutions for the control of suitable fluids in pipeline networks.

With our headquarters based in the UK and testing and assembly facilities in Europe and the UAE, we have been successfully supplying our patented gate valves throughout the world for over 30 years.

Quality, safety and sustainability

We partner with dedicated manufacturers and suppliers of components and coatings who deliver high quality products. We believe that by using high quality parts we can increase the efficient and safe operation of our valves, as well as their long-term sustainability, for a service life that lasts a lifetime. This is why we place great emphasis on safety, durability and ease of use, when we develop our valve solutions.



Our state-of-the-art range of OptiValve™ and OptiValve Plus™ gate valves are:

- Specially designed with a unique twin seal patented integral wedge for maximum leak tightness
- Internally and externally protected with a minimum epoxy coating thickness of 250 microns for optimum corrosion resistance.
- Epoxy coating is colour coded yellow for gas applications
- For more challenging environments, bespoke valves manufactured with application resistant materials are available
- Easy to install and operate
- Approved to the toughest international standards for gas applications
- Supplied with a traceability barcode, to maximise visibility within the supply chain.

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OPTIVALVE™ & OPTIVALVE PLUS™

Our range of OptiValve™ and OptiValve Plus™ have been developed with an innovative design, offering unique features that benefit the gas industry and end users during the installation and lifetime of the valve.

Design features

- Our OptiValve™ and OptiValve Plus™ valve features a fully NBR encapsulated patented double seated integral ductile iron wedge.
- Perfectly smooth guides, situated on either side of the wedge, offering low operational torque.
- Integral wedge designed so that compression occurs in the final 10% of travel. This results in a 'positive stop', no need to re-tighten and eliminates any possible stem 'back-winding'.
- Patented primary seal integrated in the wedge ensures a leak-free top seal when the valve is opened.
- Stem strength is designed to be at least three times higher than the MOT (maximum operating torque) requirements of GIS/V7-1 and EN13774

Benefits

- Full clear through bore, without wedge / gate recess, eliminating dust or debris build up
- Stem seals can be replaced under pressure, eliminating the need to turn off the supply of gas.
- Double start stem thread offers a lower number of turns to operate, bringing time and labour savings.
- Indelible identification label with a unique QR code ensures complete traceability from inventory to final installation.
- Plastic protection on the bonnet, flange and bore eliminates the risk of damage during storage, transportation and installation.

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INCREASED SAFETY

The AEON OptiValve™ and OptiValve Plus™ provide maximum leak-tight performance at low closing torques and are ideally suited for gas applications.

The patented integral wedge can be manufactured with vents for double block and bleed operations.

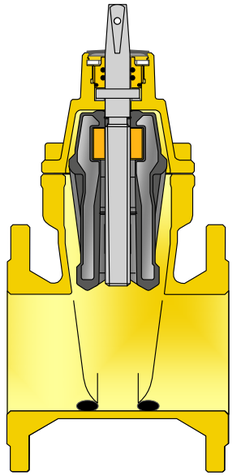
Patented low friction seat design

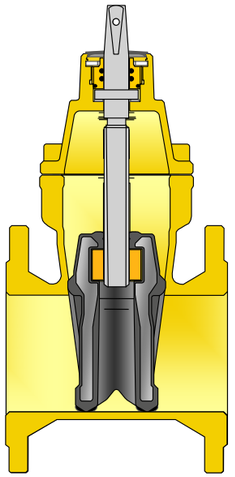
The special wedge design, offers the following benefits:

- Reduced wedge wear
- Low friction guide materials
- Reduced operational torque
- Increased operational lifetime

The design of the wedge with its compressible rubber, can sustain increased torque during closing operations offering:

- Positive seal
- Eliminates deformation of the wedge seal





The unique twin seal within the OptiValve™ and OptiValve Plus™ offers both robustness and ease of use, giving customers considerable operational advantages:

- Positive valve closure
- Long-term durability
- Reduced effort to operate the valve
- Minimal maintenance

Fully encapsulated wedge casting' with vulcanised rubber:

- The wedge is entirely encapsulated in NBR rubber, approved to EN 682, with a minimum thickness of 1.5 mm
- There are no exposed metallic parts, reducing the risk of corrosion and increasing the wedge lifetime

Wedge guides are located on more than 50% of the wedge height providing:

- No bending movement
- Smooth travel during the valve operation

“Wash-out” effect - removal of trapped debris:

- During closure the wedge creates a turbulent gas flow, removing system debris from the wedge sealing position

Corrosion resistant coating

- Colour coded yellow for gas applications
- Fully coated both internally and externally with a minimum 250 µm protective layer of hot dipped or electrostatic paint
- Eliminates the need for additional external corrosion protection wrapping during installation, increasing efficiencies and reducing installation costs

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HIGH QUALITY ENGINEERED SOLUTIONS

Our next generation of OptiValveTM and OptiValve PlusTM have been specifically developed and engineered to offer a high quality and robust valve solution that meets our customer challenges. And using quality components and coatings in the production of our valves is key to ensure that they last a lifetime.

All our valves are extensively tested in our dedicated facilities, certified to ISO9001:2015 and ISO14001:2015, providing the assurance of a high performance and high quality product.

Our valves are approved to the most stringent specifications:

- GIS/V7-2007
- EN13774

Our valves are produced and tested in accordance with the following certifications:

- DVGW (DIN 3352-5 PG2 and PG3
- PED 214/6/EU
- INIG
- KIWA-Gastec
- Russia national Gas Certification
- Australia national Gas Certification
- Croatia national Gas Certification

bsi ISO 14001 Environmental Management CERTIFIED

EMS 507217

CE

bsi

539993
718127

CCAS UKAS

2004/400

GASTEC

AGA

DVGW CERT

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ENGINEERED FOR ULTIMATE PERFORMANCE

OptiValve™

Part	OptiValve™
Cast parts	2: body and bonnet
Bearings	Plastic POM
Stem	With collar
Gland brush	Brass

OptiValve Plus™

Part	OptiValve Plus™
Cast parts	3: body, bonnet, glandhousing
Bearings	Brass/bronze
Stem	Without collar, thicker stem
Gland brush	Brass/bronze

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PROTECTIVE COATING
PUR PROTEGOL 32-55R

Aeon is an expert in two-component polyurethane(PUR) coating technology, supplied worldwide to cater for valve installations in harsh environments, where additional protection is needed.

The application of the PUR coating is entirely carried out at our factory in Poland in a controlled environment to ensure maximum quality and process management.

PUR is a two-component polyurethane coating with short curing time. Compatible with other coatings, PUR is specifically engineered to provide additional protection and corrosion resistance to components installed in environments where abrasion can be a challenge:

- Deserts or sandy grounds
- Grounds affected by sea, ocean salt
- Brownfield sites where chemicals are present

It is a safe material and can be used on a wide range of components which require protection:

- Pipe
- Fittings
- Tanks

The PUR coating meets the requirements of:

- EN 10290

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FEATURES AND BENEFITS

- High chemical resistance with excellent protection against contact with petroleum materials
- Coating complies with EN 10290
- High resistance to microbial degradation and high temperatures
- Minimum thickness class A - 1 mm, class B - 1.5 mm in accordance with EN 10290
- Electrical breakdown resistance max. 20 kV.

Property		Unit	Value
Density	A	gram/cm³	1,7
	B	gram/cm³	1,2
A / B ratio	Weight		82:18
	Volume		3.3:1
Max. thickness of a single layer on a vertical surface		mm	1,0
Application temperature	Surface	°C	>10
	Mix	°C	50÷80
Cure time at 20°C - condition	Dust free	Hours	1/6
	Storage	Hours	8
	Full strength	Hours	120
Continuous working temperature	Normal operation	°C	-30÷80
	Briefly	°C	110
Hardness		Shore degrees	75

2.2 certificate available on request.

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OptiValve ™ and OptiValve Plus™
Gas gate valves

OptiValve™
RSGV with or without vent plug, double block and bleed option
DN40-DN300
PN10 & PN16
Options: BS, ANSI, F4 and F5

OptiValve™
RSGV with PE tails, with or without vent plug
DN50-300
PN10

OptiValve™
RSGV with welded ends, with or without vent plug
DN50-300
PN16

OptiValve Plus™
RSGV with or without vent plug, double block and bleed option
DN50-DN300
PN10 & PN16
Options: BS, ANSI, F4 and F5

OptiValve Plus™
RSGV with PE tails, with or without vent plug
DN50-300
PN10

OptiValve Plus™
RSGV with welded ends, with or without vent plug
DN50-300
PN16

OptiValve Plus™
RSGV with or without vent plug, double block and bleed option
DN400
PN10 & PN16
Options: BS, F4
Available on request: F5

OptiValve Plus™
RSGV prepared for actuator, with or without vent plug
DN80-DN300
PN10 & PN16
Options: BS, ANSI, F4 and F5

OptiValve Plus™
RSGV with actuator, with or without vent plug
DN80-DN300
PN10 & PN16
Options: BS, ANSI, F4 and F5

Available for all our Aeon valves:

- Purge points and / or purge pipes
- Locking device for bare stem or hand wheel operated valves for flanged ductile iron BS DN250, 300 & 400, available upon requests

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OptiValve ™

With patented dual seal technology, our high-quality resilient seated gate valve provides perfect seal tightness with low torque, minimal number of turns and full traceability.

Face to face in accordance to:
EN 558-1 Series 3 (BS5163)
EN 558-1 Series 14 (DIN 3201-1 F4)
EN 558-1 Series 15 (DIN 3201-1 F5)

Maximum operating pressure MOP:
BS - 7 bar for double block and bleed (available without double block and bleed with vent plug for MOP 16 bar for MOP 16 bar)
F4 & F5 - 16 bar / PN16

Working temperature:
-20 to +60°C

Construction complies with:
EN 13774 Class 1/2, DIN 3230-5 PG2 or PG3, GIS/V7-1 Class A/B

Certification:
DVGW, CE (PED 2014/68/EU), BSI Kitemark

Flange type:
EN 1092-2 PN10 & PN16, ANSI B16.5 150#RF

DN	Type BS		Type ANSI	Type F4					Type F5				
	L	PN16		L	Epoxy		PUR		L	Epoxy		PUR	
mm	mm			mm	PN16	PN10	PN16	PN10	mm	PN16	PN10	PN16	PN10
40	-	-	-	140	AG0408	-	AG0434	-	240	AG0409	-	AG0416	-
50	178	AG0507	AG0002	150	AG0510	-	AG0534	-	250	AG0511	-	AG0516	-
65	-	-	-	170	AG6521	-	AG6534	-	270	AG6522	-	AG6516	-
80	203	AG0807	AG0003	180	AG0828	-	AG0834	-	280	AG0829	-	AG0816	-
100	229	AG1007	AG0004	190	AG1028	-	AG1034	-	300	AG1029	-	AG1016	-
125	254	-	-	200	AG1264	-	AG1234	-	325	AG1265	-	AG1216	-
150	267	AG1507	AG0006	210	AG1521	-	AG1534	-	350	AG1522	-	AG1516	-
200	292	AG2007	AG0008	230	AG2038	AG2028	AG2074	AG2075	400	AG2039	AG2029	AG2076	AG2017
250	330	AG2507	AG0010	250	AG2538	AG2528	AG2574	AG2575	450	AG2539	AG2529	AG2576	AG2517
300	356	AG3007	AG0012	270	AG3038	AG3028	AG3074	AG3075	500	AG3039	AG3029	AG3076	AG3017

L = Length

Options

Valves with vent plug

BS	DN 50 - DN 300
ANSI	DN 50 - DN 300

Valves without vent plug

F4	DN 40 - DN 300
F5	DN 40 - DN 300

F4 & F5 DN 80 and above are available with vent plug on request.

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OptiValve Plus ™

Our first-class Type B resilient seated gate valve offers outstanding performance, maximum leak-tightness, durability and longevity.

Face to face in accordance to:
EN 558-1 Series 3 (BS5163)
EN 558-1 Series 14 (DIN 3201-1 F4)
EN 558-1 Series 15 (DIN 3201-1 F5)

Maximum operating pressure MOP:
BS - 7 bar / PN7 (available without double block and bleed for MOP16 bar)
F4 & F5 - 16 bar / PN16, (7 bar for double block and bleed - optional)

Working temperature:
-20 to +60°C

Construction complies with:
EN 13774 Class 1/2, DIN 3230-5 PG2 or PG3, GIS/V7-1 Class A/B

Certification:
DVGW, CE (PED2014/68/EU), BSI Kitemark, AGA

Flange type:
EN 1092-2 PN10 & PN16, ANSI B16.5 150#RF

DN	Type BS		Type ANSI	Type F4					Type F5				
	L	PN16		L	Epoxy		PUR		L	Epoxy		PUR	
mm	mm			mm	PN16	PN10	PN16	PN10	mm	PN16	PN10	PN16	PN10
50	178	BG0500	BG0002	-	-	-	-	-	-	-	-	-	-
80	203	BG0807	BG0003	180	BG0848	-	BG0845	-	280	BG0849		BG0863	-
100	229	BG1007	BG0004	190	BG1048	-	BG1045	-	300	BG1049		BG1063	-
125	-	-	-	200	BG1268	-	BG1245	-	325	BG1279		BG1263	-
150	267	BG1507	BG0006	210	BG1548	-	BG1545	-	350	BG1549		BG1563	-
200	292	BG2007	BG0008	230	BG2048	BG2047	BG2045	BG2044	400	BG2049	BG2050	BG2063	BG2056
250	330	BG2507	BG00010	250	BG2548	BG2547	BG2545	BG2544	450	BG2549	BG2550	BG2563	BG2556
300	356	BG3007	BG00012	270	BG3048	BG3047	BG3045	BG3044	500	BG3049	BG3050	BG3063	BG3056
400	406	BG4007	-	310	BG4038	BG4028	-	-	600	BG4029	BG4039	-	-

L = Length

Options

Valves with vent plug

BS	DN 50 - DN 400
ANSI	DN 50 - DN 400

Valves without vent plug

F4	DN 80 - DN 400
F5	DN 80 - DN 400

F4 & F5 DN 80 and above are available with vent plug on request.

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OptiValve Plus ™ for/with actuator

The Aeon valve with actuator offers a perfect solution for on or off-site valve operation, meaning the valve can be automatically or manually operated in case of emergency shut-off

Face to face in accordance to:
EN 558-1 Series 3 (BS5163)
EN 558-1 Series 14 (DIN 3201-1 F4)
EN 558-1 Series 15 (DIN 3201-1 F5)

Maximum operating pressure MOP:
7 bar for double block and bleed

Working temperature:
-20 to +60°C

Construction complies with:
EN 13774 Class 1/2, DIN 3230-5 PG2 or PG3, GIS/V7-1 Class A/B

Certification:
DVGW, CE (PED2014/68/EU), BSI Kitemark, AGA

Flange type:
EN 1092-2 PN10 & PN16
ANSI B16.5 150#RF

DN	Type BS			Type ANSI		Type F4					Type F5				
	L	PN16	EN 1092-2			L	PN16		PN10		L	PN16		PN10	
mm		For	With	For	With	mm	For	With	For	With	mm	For	With	For	With
50	178	BG0557	BG1320	BG0558	BG1328	-	-	-	-	-	-	-	-	-	-
80	203	BG0857	BG1321	BG0858	BG1329	180	BG0853	BG1300	-	-	280	BG0859	BG1310	-	-
100	229	BG1057	BG1322	BG1058	BG1330	190	BG1053	BG1301	-	-	300	BG1059	BG1311	-	-
125	-	-	-	-	-	200	BG1283	BG1302	-	-	325	BG1289	BG1312	-	-
150	267	BG1557	BG1324	BG1558	BG1331	210	BG1553	BG1303	-	-	350	BG1559	BG1313	-	-
200	292	BG2057	BG1325	BG2058	BG1332	230	BG2053	BG1304	BG2054	BG1307	400	BG2059	BG1314	BG2064	BG1317
250	330	BG2557	BG1326	BG2558	BG1333	250	BG2553	BG1305	BG2554	BG1307	450	BG2559	BG1315	BG2564	BG1318
300	356	BG3057	BG1327	BG3058	BG1334	270	BG3053	BG1306	BG3054	BG1309	500	BG3059	BG1316	BG3064	BG1319

L = Length
For = ready for actuation, i.e. with ISO Flange
With = fitted with Actuator

Options

Valves with vent plug

BS	DN 50 - DN 300
ANSI	DN 50 - DN 300

Valves without vent plug

F4	DN 80 - DN 300
F5	DN 80 - DN 300

F4 & F5 DN 50 and above are available with vent plug on request.

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OptiValve™/OptiValve Plus™ with PE tail

The resilient seated gate valve with PE tails is the ultimate valve solution, connected using electrofusion or butt-fusion, for the construction of a high integrity, fully welded and leak-tight polyethylene pipeline.

Maximum operating pressure MOP:
10 bar / PN10 (7 bar for double-block-and-bleed - optional)

Working temperature:
-20 to +40°C

Construction complies with:
EN 13774 Class 1/2, GIS/V7-1 Class A/B

Certification:
DVGW, CE (PED2014/68/EU), BSI Kitemark

PE pipe approval dependent on individual market specification

DN	OD	L	OptiValve		OptiValve Plus	
mm			Epoxy	PUR	Epoxy	PUR
50	63	920	AG0551	AG0566	BG0551	BG0566
80	90	920	AG0851	AG0866	BG0851	BG0866
100	110	920	AG1051	AG1066	BG1051	BG1066
100	125	920	AG1052	AG1067	BG1052	BG1067
150	160	950	AG1551	AG1566	BG1551	BG1566
150	180	950	AG1552	AG1557	BG1552	BG1557
200	200	1000	AG2051	AG2066	BG2051	BG2066
200	225	1000	AG2052	AG2067	BG2052	BG2067
250	250	1050	AG2551	AG2566	BG2551	BG2566
250	280	1050	AG2552	AG2567	BG2552	BG2567
300	315	1100	AG3051	AG3066	BG3051	BG3066

L = Length

Options

Valves without vent plug
DN 50 - DN 300

Valves are available with vent plug on request.

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OptiValve™/OptiValve Plus™ with welded ends

Specifically designed in steel for high pressure steel pipelines, the Aeon welded end valve is welded in-line when constructing a pipeline, with no steps created in the construction or bore reduction for higher pipeline integrity.

Maximum operating pressure MOP:
16 bar / PN16
7 bar / PN7 (7 bar for double-block-and-bleed - optional)

Working temperature:
-20 to +60°C

Construction complies with:
EN 13774 Class 1/2, GIS/V7-1 Class A/B

Certification:
DVGW, CE (PED2014/68/EU), BSI Kitemark

DN	L	OptiValve				OptiValve Plus			
		EU specification		RU specification		EU specification		RU specification	
mm	mm	Epoxy	PUR	Epoxy	PUR	Epoxy	PUR	Epoxy	PUR
50	570	AG0555	AG0564	AG0560	AG0565	BG0555	BG0560	BG0561	BG0562
80	550	AG0855	AG0864	AG0860	AG0865	BG0855	BG0860	BG0861	BG0862
100	520	AG1055	AG1064	AG1060	AG1065	BG1055	BG1060	BG1061	BG1062
150	530	AG1555	AG1564	AG1560	AG1565	BG1555	BG1560	BG1561	BG1562
200	570	AG2055	AG2049	AG2061	AG2065	BG2055	BG2060	BG2061	BG2062
250	590	AG2555	AG2549	AG2561	AG2565	BG2555	BG2560	BG2561	BG2562
300	620	AG3055	AG3049	AG3061	AG3065	BG3055	BG3060	BG3061	BG3062

L = Length

DN400 available upon request

Options

Valves without vent plug
DN 50 - DN 300

Valves are available with vent plug on request.

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OptiValve Plus ™ cast steel valves

The reliability and strength of our cast steel valves makes them the ideal solution for industrial applications such as food processing, oil & gas, construction, railways, drilling, mining and transportation.

Face to face in accordance to:
BS 5163 (EN 558-1 Series 3)

Maximum operating pressure MOP:
16 bar / PN16
7 bar / PN7 for Double Block & Bleed

Working temperature:
-20 +60

Construction complies with:
EN 13774 Class 1/2, GIS/V7-1 Class A/B

Certification:
GIS/V7-1 (Kitemark)

Flange type:
EN 1092-2 PN16
ANSI B16.5 150#RF available on request

DN	L	PUR
mm		
250	330	BG2583
300	356	BG3083
400	406	BG4083

L = Length

Options

Valves without vent plug
DN 50 - DN 300

Valves are available with vent plug on request.

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OtiValve Plus ™ - cast steel valve with PE tail

Our new cast steel valves with factory connected PE tails are a great solution for in-line installation and connection to a polyethylene gas pipeline. Quick and easy to install with no mechanical or flanged joints, our valve with connected PE tails offers a high integrity, robust and leak-tight solution to your gas pipeline construction.

Maximum operating pressure MOP:
10 bar / PN10
7 bar / PN7 double block and bleed

Working temperature:
-20 + 40 (for pipes)
-20 + 60 (for the valve

Construction complies with:
EN 13774 Class 1/2, GIS/V7-1 Class A/B

Certification:
GIS/V7-1 (Kitemark)

PE pipe approval dependent on individual market specification

DN	OD	L	PUR
mm			
250	250	700	BG2522
300	315	700	BG3022
400	400	700	BG4022

L = Length

Options

Other lengths available upon request.
max lengths of pipe 1400mm

Get in touch: **t:** +44 (0) 1325 621178 **e:** info.uk@aeon-online.com www.aeonvalves.com

Extension spindles

Telescopic extension spindles

Aeon's telescopic extension spindles are valuable tools that enable operators to easily open and close valves installed up to 2.5m below ground. Their length is adjustable and can extend from 550 to 2200mm for our larger sizes.

DN	Length	Weight	OptiValve™	OptiValve Plus™
mm		Kg		
50	550-800	3.0	AA1018	AA1062
	800-1200	4.0	AA1019	AA1063
	1000-1600	4.5	AA1020	AA1064
	1400-2200	5.2	AA1021	AA1065
80	550-800	3.0	AA1024	AA1062
	800-1200	4.0	AA1025	AA1063
	1000-1600	4.5	AA1026	AA1064
	1400-2200	5.3	AA1027	AA1065
100 -150	550-800	3.0	AA1030	AA1068
	800-1200	4.0	AA1031	AA1069
	1000-1600	4.5	AA1032	AA1070
	1400-2200	5.3	AA1033	AA1071
200	550-800	3.5	AA1036	AA1074
	800-1200	4.5	AA1037	AA1075
	1000-1600	5.0	AA1038	AA1076
	1400-2200	6.0	AA1039	AA1077
250-300	550-800	3.5	AA1042	AA1080
	800-1200	4.5	AA1043	AA1081
	1000-1600	5.0	AA1044	AA1082
	1400-2200	6.0	AA1045	AA1083

Other sizes available on request

Fixed extension spindles

Aeon's fixed extension spindles enable easy valve operation installed up to 1.2m below ground. They are small, easy to use and are available in 700 to 1500mm lengths to fit different valve diameters. Extension spindle with position indicator available as an option.

DN	Length	Weight	OptiValve™	OptiValve Plus™
mm		Kg		
50	700	3.0	AA1156	AA1236
	1000	4.0	AA1157	AA1237
	1250	4.5	AA1158	AA1238
	1500	5.2	AA1159	AA1239
80	700	3.0	AA1162	AA1242
	1000	4.0	AA1163	AA1243
	1250	4.5	AA1164	AA1244
	1500	5.3	AA1165	AA1245
100 -150	700	3.0	AA1168	AA1248
	1000	4.0	AA1169	AA1249
	1250	4.5	AA1170	AA1250
	1500	5.3	AA1171	AA1251
200	700	3.5	AA1174	AA1254
	1000	4.5	AA1175	AA1255
	1250	5.0	AA1176	AA1255
	1500	6.0	AA1177	AA1256
250-300	700	3.5	AA1180	AA1258
	1000	4.5	AA1181	AA1259
	1250	5.0	AA1182	AA1260
	1500	6.0	AA1183	AA1261

Other sizes available on request

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Accessories

Hand wheels

Design features

- Coating - galvanised Fe/Zn 12c black bituminous external and internal coating
- Application - to operate valves by hand without the use of a valve key

DN	OD	Hand wheel kit for OptiValve™			Hand wheel kit for OptiValve Plus™		
		Square	Weight	Code	Square	Weight	Code
mm		mm	Kg		mm	Kg	
40	175	14	0.8	BV0030	-	-	-
50	175	14	0.8	BV0030	19	1.6	BV0033
65	175	17	0.8	BV0031	-	-	-
80	225	17	1.7	BV0032	19	1.6	BV0033 (BS)
100	225	19	1.6	BV0033	19	1.6	BV0033
125	305	19	2.7	BV0034	19	2.7	-
150	305	19	2.7	BV0034	19	2.7	BV0034
200	355	24	3.3	BV0035	24	3.3	BV0035
250	405	27	4.8	BV0036	27	4.8	BV0036
300	405	27	4.8	BV0036	27	4.8	BV0036
400	640	32	23.3	BV0038	32	23.3	BV0038

OD - wheel outside diameter.
Square - centre square diameter.

Cap tops

Design features

- Coating - galvanised Fe/Zn 12 c
- Application - to open and close valves

BS valves supplied with cap tops

DN	OptiValve™	OptiValve Plus™
mm	Code	Code
50	AA2408	AA2410
80	AA2409	AA2410
100	AA2410	AA2410
125	AA2410	-
150	AA2410	AA2410
200	AA2411	AA2411
250	AA2412	AA2412
300	AA2412	AA2412

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Surface boxes for valves

Design features

- Corrosion protection - Asphalt coating
- Application - Designed for valve installations below ground. In paths, surfaced and non surfaced roads

Material

- Cast iron

DIN	Weight	Code
	Kg	
4056	13	AA0502
3581	13	AA0506

Surface boxes for valves

Design features

- Corrosion protection - Asphalt coating
- Application - Designed for valve installations below ground. In paths, surfaced and non surfaced roads

Material

- High density polyethylene

DIN	Weight	Code
	Kg	
4056	4	AA0552
3581	4	AA0554

Support tiles

Design features

- Material - HDPE
- Application - stabilising support for below ground surface boxes

Weight	Code
Kg	
0.9	AA0561

Position indicators

Design features

- Easy to install
- Can be retrofitted to installed valves
- Open/close red indicator
- Compatible with OptiValve Plus™

DN	Weight	Code
mm	Kg	
50	0.07	AP0090
80	0.07	AP0090
100	0.07	AP0090
150	0.09	AP0091
200	0.15	AP0092
250	0.18	AP0093
300	0.18	AP0093

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What is AEON Smart?

Valve traceability and geolocation system

Developed by the Aeon team as a company traceability tool for our gas product range, the AEON Smart platform provides our Quality Management System administrators access to a whole range of data on components and testing regime for all our gas valves and complementary products.

Based on stored data, AEON Smart offers the additional benefit of asset management to the asset owner. The product can be identified using a mobile device (IOS, Android or Windows platform) by scanning the QR code or NFC chip (Near-field Communication chip) integrated with the valve available as an option. The test report certificates are available straight away on the mobile device.

The valve geolocation (where it is installed) can be registered by the customer or installer. Thanks to the integrated Google map / navigation system, the valve can be quickly located and operated, in the event of an emergency.

The key features of AEON Smart can be customised to fit your requirements with the app widely used for valve maintenance and asset management.

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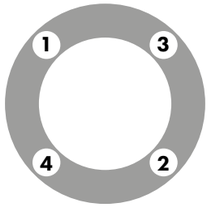
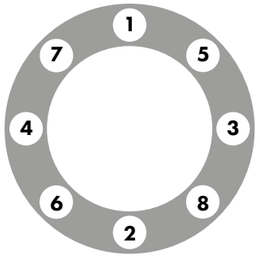
Connecting to PE stub flange assemblies

Bolt tightening sequence

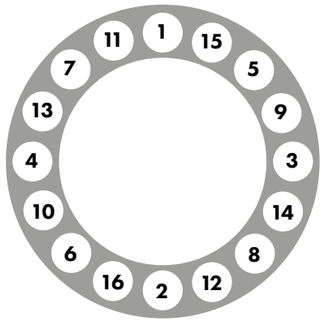
4 bolt flange



8 bolt flange



16 bolt flange



Flange design

When designing large diameter PE pipe systems, careful consideration should be given to the transition points of the pipeline, as polyethylene pipes are sized on the outside diameter and metallic systems are sized on the bore diameter. These sizing differences mean that there could be steps in the bore of the differing pipe systems.

Flange assembly

Flanges are usually joined together with studs or bolts and nuts with flat faced washers. The bolts are manufactured from corrosion resistant materials or coated with a corrosion resistant layer. The bolts or studs must span the entire width of the flange joint and provide sufficient thread length to fully engage the nut.

Firstly ensure both flange components are supported prior to alignment. The two flange ends should be brought together with a suitably sized gasket placed between the two flange faces. The bolts and nuts (with washers) are fitted to align the two flange components and maintain the gasket position. The bolts should be initially secured 'hand tight' until all the bolts are located.

The bolts should then be tightened in sequence to 50% of the final stated torque (see bolt sequence charts) starting at bolt 1 and then moving diametrically opposite to the sequential order pattern for that flange size. The tightening process is then repeated to 75% of the final torque value and then apply the full stated torque value. (See bolt torque guidance pg 25)

Allow the assembly to relax for a minimum of 1 hour before re-applying the final torque value, in the correct sequence, to overcome compression in the PE material.

Bolt torque (guidance only)

Flange nominal diameter	Flange OD	PCD	Nº holes	Hole diameter	Bolt	Bolt torque
mm	mm	mm		mm		Nm
50	165	125	4	18	M16	35
80	200	160	8	18	M16	30
100	220	180	8	18	M16	40
150	285	240	8	22	M20	70
200	340	295	12	22	M20	80
250	405	355	12	26	M24	100
300	460	410	12	26	M24	120
400	580	525	16	30	M27	200
450	640	585	20	30	M27	200
500	715	650	20	33	M30	300

Before final valve assembly, please refer to the guidance supplied by the mating flange manufacturer

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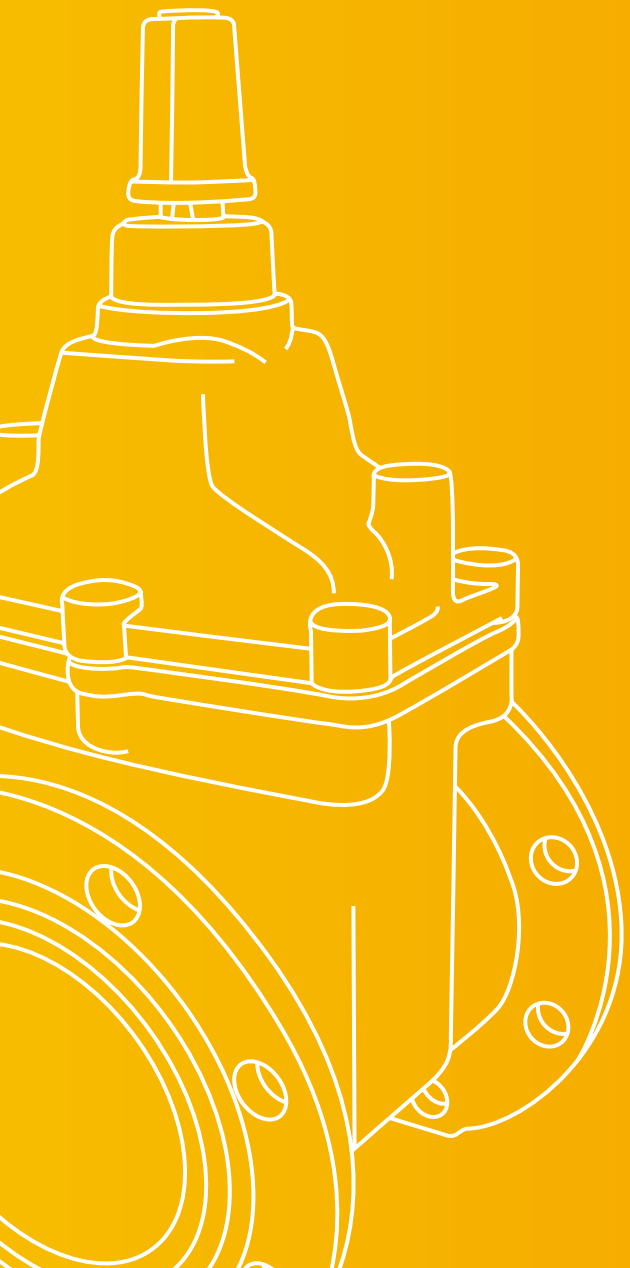

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