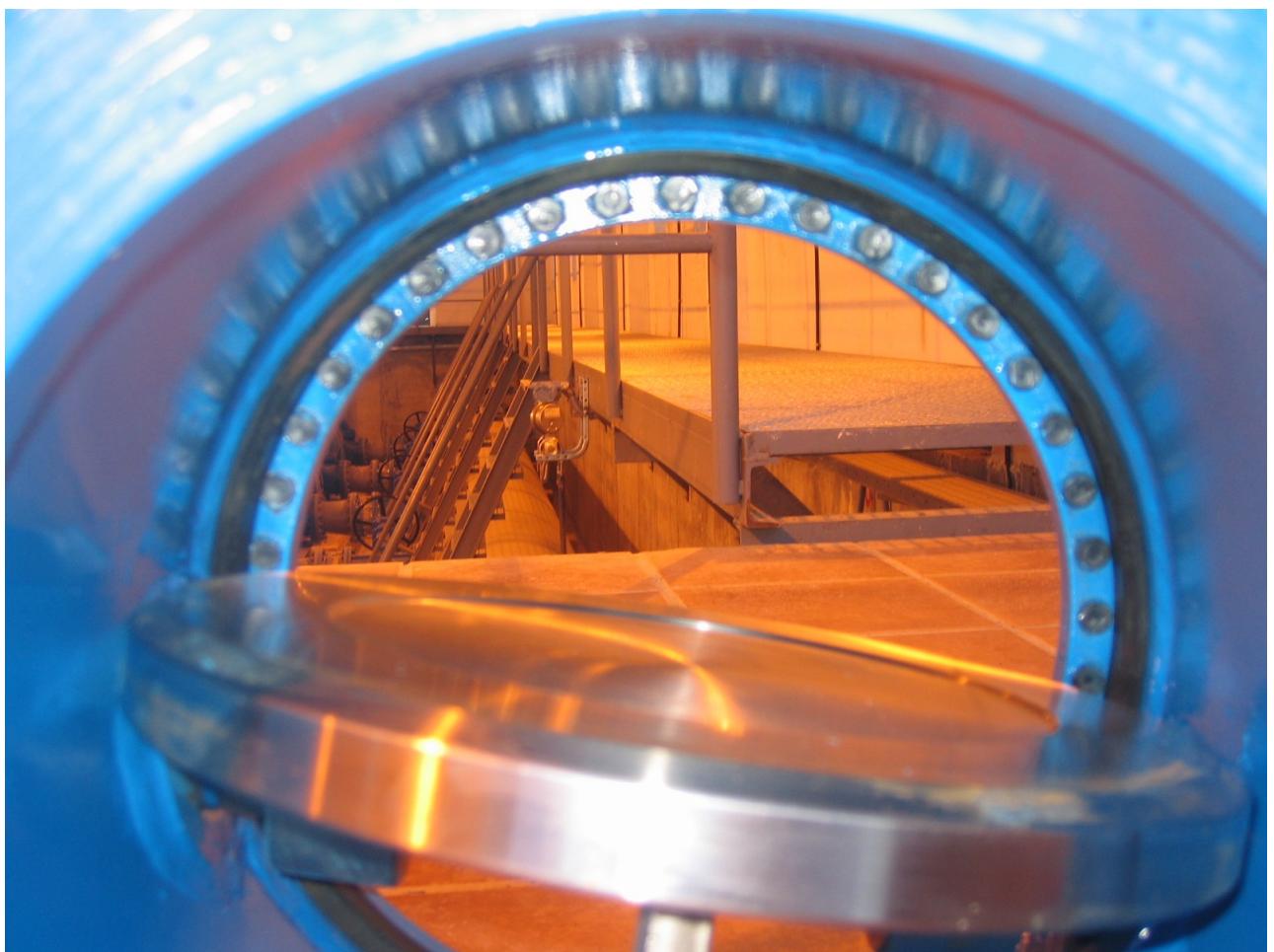




Butterfly valves.

“Since 1970 close to our customers.”

Different models of butterfly valves manufactured by ANGODOS



Made in Spain



CERTIFICADO DE APROBACIÓN

Certificamos que el Sistema de Gestión de Calidad de:

**ANGODOS, S.L.
San Juan, 21-23, Pol. Ind. "El Palomo"
28946 Fuenlabrada, Madrid
España**

ha sido aprobado por Lloyd's Register Quality Assurance
de acuerdo con la siguiente Norma de Sistema de Gestión de Calidad:

ISO 9001:2008

El Sistema de Gestión de Calidad es aplicable a:

**Diseño, fabricación, puesta en marcha, mantenimiento y
servicio post-venta de válvulas de mariposa. Fabricación de
repuestos y sistemas de accionamiento hidráulicos y mecánicos
para válvulas de mariposa.**

Aprobación
Certificado No: SGI 2199125

Aprobación Original: 01 de Julio 1999

Certificado en Vigor: 01 de Diciembre 2012

Caducidad del Certificado: 30 de Noviembre 2015

Emitido por: LRE, S.A.
En nombre de Lloyd's Register Quality Assurance Limited



Este documento está sujeto a los términos y condiciones que aparecen al dorso
71 Fenchurch Street, London EC3M 4BS United Kingdom. Registration number 1879370
Esta aprobación es realizada en acuerdo con los procedimientos de evaluación y certificación de LRQA y monitoreada por LRQA.
El uso de la Marca de Acreditación UKAS indica Acreditación con respecto a aquellas actividades cubiertas por el Certificado de Acreditación 001.
Macro Revision 13

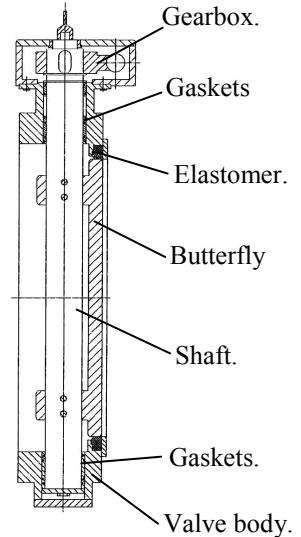
The Quality Management System is applicable to:

**Design, manufacture, installation, maintenance and service post sell, of
butterfly valves. Production of spare parts and manufacture of hydraulic
and mechanical drive systems for butterfly valves.**

 ANGODOS® <i>Butterfly valves.</i>	Butterfly valves. Flanged valve, model AG1.	Broucher: AG1-01 Review : 01 Page: 3 from 12 Date: 1/2013
AG1 flanges		

Product features and advantages.

- * Butterfly valve flange type, according to EN 1092-2 for installing between flanges, with elastic seal and single or double eccentric sealing system.
- * Nominal dimensions from DN -200 mm (8 ") to DN -2600 mm (104 ").
- * Pressure range PN-10/16/25/40/64.
- * Designed for installation between flanges and assembly joint, with replaceable elastomer without disassemble the valve, as it is fixed on one side of the valve body.
- * Suitable for use in the water treatment and distribution, dams, power plants, industry and in the pressure systems.
- * Can be operated by manual worm drive or pneumatic, electric, hydraulic, etc. gear.
- * The shaft consists of one piece (up to DN -1400 (56 ")) and two pieces for larger diameter and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Vacuum tight up to 0,019 psi.
- * Hermetic sealing in both flow directions.



Model AG1 DN-500 PN-16 with gearbox.



Model AG1 DN-1000 PN-16

Standard manufacturing materials.

- Valve body:** Nodular Cast Iron EN 156 GJS-400-15.
 Steel EN 10025 S 275JR.
- Butterfly:** Stainless Steel EN 10088-3-95 14301. (AISI-304)
 Stainless Steel EN 10088-3-95 14401 (AISI-316).
 Steel EN 10025 S275JR + EN 10088-3-95 14301.
- Shaft:** Stainless Steel EN 10088-3-95 (AISI-420)
- Elastomer :** E.D.P.M. EN 681-1-96 Chart-2.

Corrosion protection

Valve body: Inside and outside with epoxy powder coating.

“drinking-water certified”

Butterfly: Epoxy powder coating. “drinking-water certified”

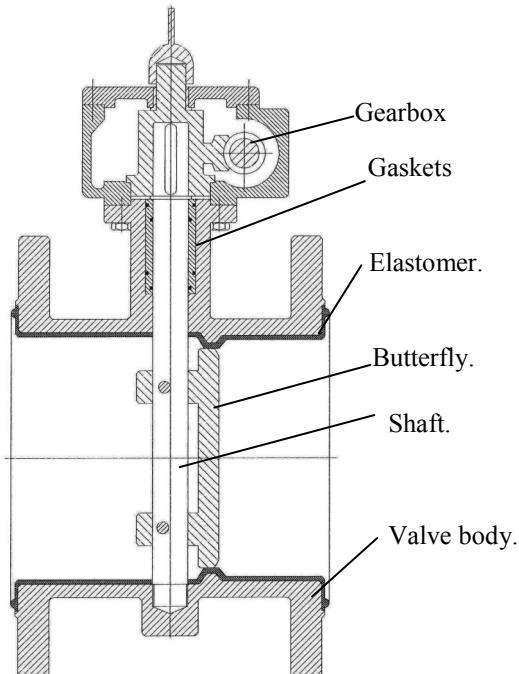
 ANGODOS® <i>Butterfly valves.</i>	Butterfly valves.	Broucher: AG1-VC Review : 01
AG1-VC Flanges	Flanged valve model AG1-VC. <i>With the elastomer vulcanized to the body</i>	Page : 4 from 12 Date : 9/2013

Product features and advantages.

- * Butterfly valve flange type, according to EN 1092-2 for installing between flanges, with elastic seal and single or double eccentric sealing system.
- * Nominal dimensions from DN -100 mm (4 ") to DN -300 mm (12 ").
- * Pressure range PN-10/16/25.
- * Designed for the installation between flanges, with the elastomer vulcanized to the body. The elastomer covers the inside and sides of the valve body, so it is not necessary to use flat gaskets during assembly.
- * Suitable for use in the water treatment and distribution, dams, power plants, industry and in the pressure systems.
- * Can be operated by manual worm drive or pneumatic, electric, hydraulic, etc. gear.
- * The shaft consists of one piece and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Vacuum tight up to 0,019 psi. .
- * Hermetic sealing in both flow directions.
- * Face to face dimensions in accordance with EN 558-1/14.



Model AG1-VC DN-300 PN-16 with gearbox.



Standard manufacturing materials.

- Valve body:** Nodular Cast Iron EN 156 GJS-400-15.
- Butterfly:** Stainless Steel EN 10088-3-95 14301. (AISI-304)
Stainless Steel EN 10088-3-95 14401 (AISI-316).
Steel EN 10025 S275JR + EN 10088-3-95 14301.
- Shaft:** Stainless Steel EN 10088-3-95 (AISI-420)
- Elastomer :** E.D.P.M. EN 681-1-96 Chart-2.

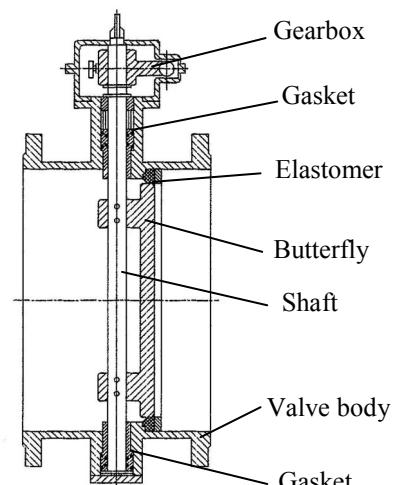
Corrosion protection.

- Valve body:** Outside with epoxy powder coating. "drinking-water certified"
- Butterfly:** Epoxy powder coating. "drinking-water certified"

 ANGODOS® <i>Butterfly valves.</i>	Butterfly valves.	Broucher: AG1-BC Review : 01
AG1-BC Flanges	Flanged valve model AG1-BC.	Page : 5 from 12 Date : 9/2013

Product features and advantages.

- * Butterfly valve flange type, according to EN 1092-2 for installing between flanges, with elastic seal and single or double eccentric sealing system.
- * Nominal dimensions from DN-200 mm (8") to DN-2000 mm (80").
- * Pressure range PN-10/16/25.
- * Designed for the installation between flanges and assembly joint, with replaceable elastomer without disassemble the valve as it is fixed on one side of the valves body.
- * Suitable for use in the water treatment and distribution, dams, power plants, industry and in the pressure systems.
- * Can be operated by manual worm drive or pneumatic, electric, hydraulic, etc. gear.
- * The shaft consists of one piece (up to DN-1400(56")) and two pieces for a larger diameter and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Vacuum tight up to 0,019 psi. .
- * Hermetic sealing in both flow directions.
- * Face to face dimensions in accordance with EN 558-1 13/14.



Standard manufacturing materials.

- Valve body:** Nodular Cast Iron EN 156 GJS-400-15.
 Steel EN 10025 S275JR
- Butterfly:** Stainless Steel EN 10088-3-95 14301. (AISI-304)
 Stainless Steel EN 10088-3-95 14401 (AISI-316).
 Steel EN 10025 S275JR + EN 10088-3-95 14301.
- Shaft:** Stainless Steel EN 10088-3-95 (AISI-420)
- Elastomer :** E.D.P.M. EN 681-1-96 Chart-2.

Model AG1-BC DN-250 PN-16 with gearbox.

Corrosion protection.

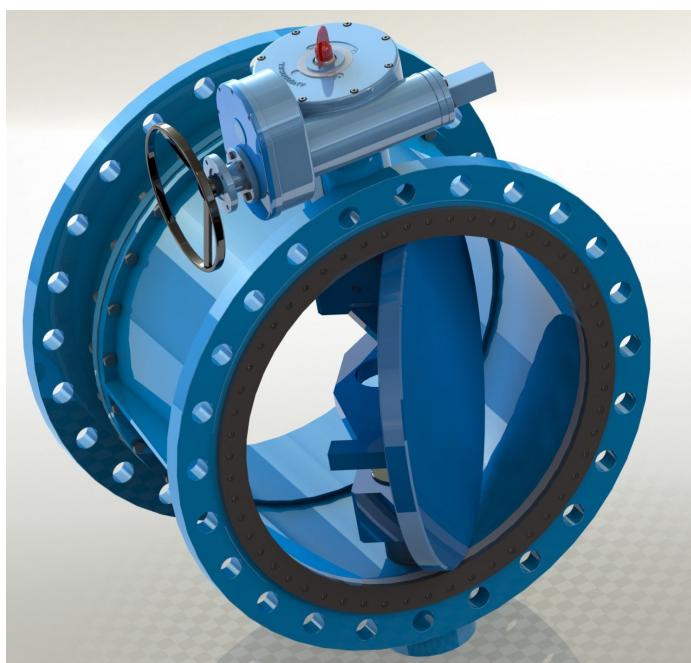
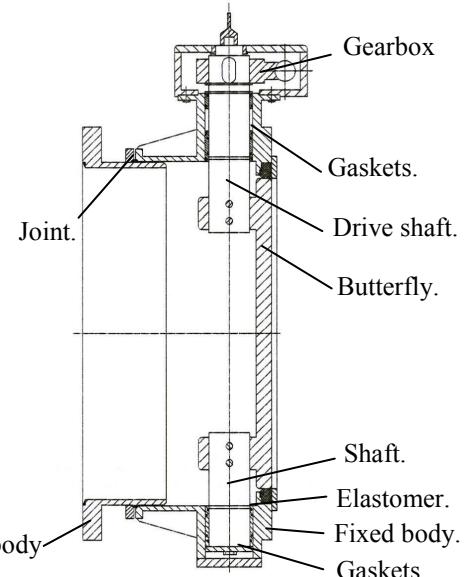
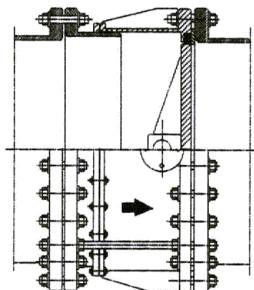
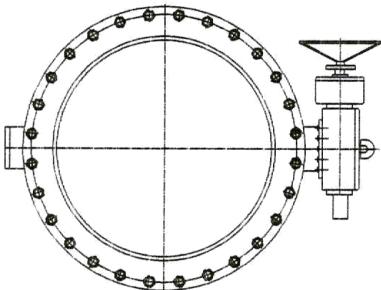
Valve body : Outside and inside with epoxy powder coating. "drinking-water certified"

Butterfly: Epoxy powder coating. "drinking-water certified"

Check AG1-BC brochure for more information. www.angodos.com

Product features and advantages.

- * Flanged butterfly valve, according to EN 1092-2 for installing between flanges, with elastic seal and single or double eccentric sealing system and incorporated assembly / disassembly joint.
- * Nominal dimensions from DN-700 mm (28 ") to DN-2000 mm (80 ").
- * Pressure range PN-10/16/25.
- * Designed for installation between flanges, it is reducing installation and maintenance costs and decreasing assembly time, as it is requiring 30 % fewer screws. The elastomer can be replaced without need to disassemble the valve, as it is fixed on one side of the valves body.
- * Suitable for use in water treatment and distribution, dams and big irrigation systems.
- * Can be operated by manual worm drive, electric, or hydraulic gear.
- * The shaft consists of two pieces and is swinging out on maintenance-free seals. This guarantees a long and safe life.
- * Vacuum tight up to 0,019 Psi
- * Hermetic sealing in both flow directions.
- * Face to face dimensions in accordance with EN 558-1 13/14 plus joint.



Model AG1-CT DN-800 PN-16 with gearbox.

Standard manufacturing materials.

Fixed body: Steel EN 10025 S 275JR.

Mobile body: Steel EN 10025 S275 JR. + EN 10088-3-95 14301.

Butterfly: Stainless Steel EN 10088-3-95 14301. (AISI-304)
Stainless Steel EN 10088-3-95 14401 (AISI-316).
Steel EN 10025 S275JR + EN 10088-3-95 14301.

Shaft: Stainless Steel EN 10088-3-95 (AISI-420)

Elastomer: E.D.P.M. EN 681-1-96 Chart-2.

Corrosion protection.

Valve bodies: Outside and inside with epoxy powder coating.
“drinking-water certified”

Butterfly: Epoxy powder coating. “drinking-water certified”



Butterfly valves.

Butterfly valve Wafer model AG3.

Broucher: AG3-W

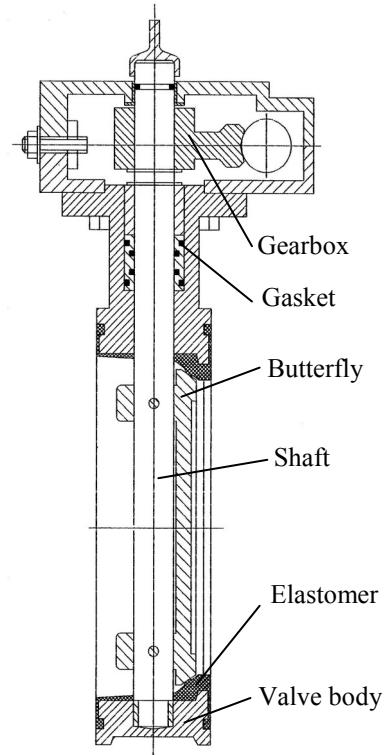
Review : 01

Page : 7 from 12

Date : 9/2013

Product features and advantages.

- * Wafer model butterfly valve, according to EN 1092-2 for installing between flanges, with elastic seal and single eccentric sealing system.
- * Nominal dimensions from DN-40 mm (1 ½") to DN-300 mm (12").
- * Face to face dimensions according to EN 558-1, basic line 20 (DIN 3202/ K1).
- * Pressure range PN-10/16.
- * Designed for installation between soldered flanges, PE flanges and loose flanges with a B collar. With vulcanized elastomer inside the valve body and encircling the sides so that there is no need to install side seals.
- * Suitable for use in water treatment and distribution, dams, power plants, in industry and irrigation systems.
- * Can be operated by a lever, a steering wheel, a manual worm drive, pneumatic, electric, or hydraulic gear.
- * The shaft consists of one piece and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Vacuum tight up to 1 torr.
- * Hermetic sealing in both flow directions.



Model Wafer AG3 DN-100 PN-16

Standard manufacturing materials.

- | | |
|--------------------|---|
| Valve body: | Nodular Cast Iron EN 156 GJS-400-15. |
| Butterfly: | Stainless Steel EN 10088-3-95 14301. (AISI-304) |
| | Stainless Steel EN 10088-3-95 14401 (AISI-316). |
| | Steel EN 10025 S275JR + EN 10088-3-95 14301. |
| | Brass EN 12163 CW 507. |
| Shaft: | Stainless Steel EN 10088-3-95 (AISI-420) |
| Elastomer: | E.D.P.M. EN 681-1-96 Chart-2. |

Corrosion protection.

Valve body: Outside with epoxy powder coating. "drinking-water certified"

Butterfly: Epoxy powder coating. "drinking-water certified"

Model Wafer AG3 DN-150 PN-16 with gearbox.



ANGODOS®

Butterfly valves.

AG1 Lug

Butterfly valves.

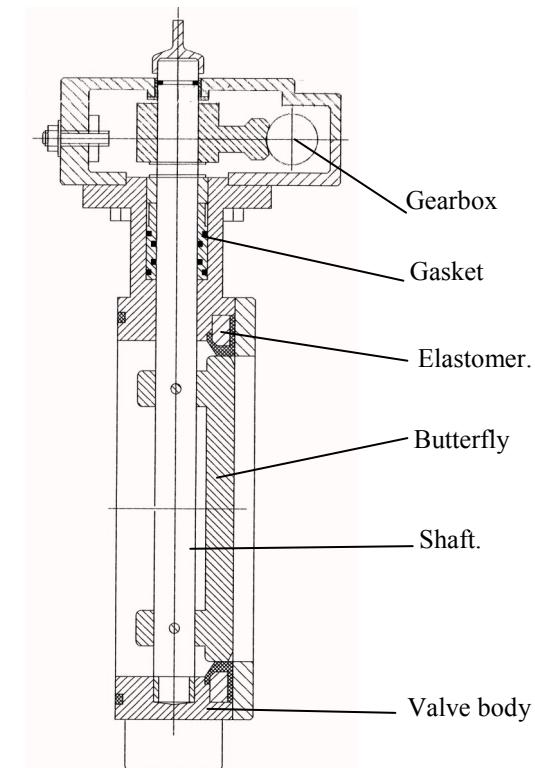
Broucher: AG1**Review : 01**

Butterfly valve Lug model AG1.

Page : 8 from 12**Date : 9/2013**

Product features and advantages.

- * Wafer model butterfly valve, according to EN 1092-2 for installing between flanges, with elastic seal, single and double eccentric sealing system.
- * Nominal dimensions from 80 mm (3") to 150 mm (6").
- * Pressure range PN-10/16/25/40.
- * Designed for installation between soldered flanges, PE flanges and loose flanges with a B collar. The elastomer can be replaced without need to disassemble the valve, as it is fixed on one side of the valves body.
- * Suitable for use in the water treatment and distribution, dams, power plants and in industry.
- * Can be operated by manual worm drive or pneumatic, electric, hydraulic, etc. gear.
- * The shaft consists of one piece and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Vacuum tight up to 1 torr.
- * Hermetic sealing in both flow directions.



Standard manufacturing materials.

Valve body: Nodular Cast Iron EN 156 GJS-400-15.**Butterfly:** Stainless Steel EN 10088-3-95 14301. (AISI-304).

Stainless Steel EN 10088-3-95 14401 (AISI-316).

Steel EN 10025 S275JR + EN 10088-3-95 14301.

Brass EN 12163 CW 507.

Shaft: Stainless Steel EN 10088-3-95 (AISI-420)**Elastomer :** E.D.P.M. EN 681-1-96 Chart-2.

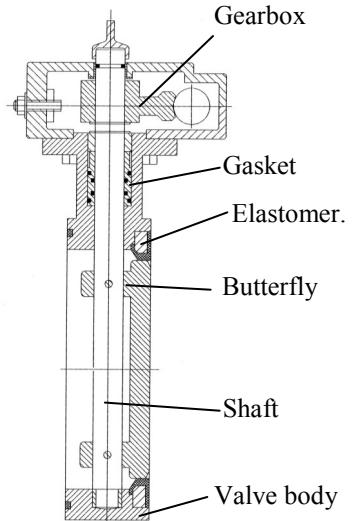
Corrosion protection.

Valve body : Outside with epoxy powder coating. "drinking-water certified"**Butterfly:** Epoxy powder coating. "drinking-water certified"**Model lug DN-150 PN-40 with gearbox.****Check AG1 brochure for more information. www.angodos.com**

 ANGODOS® <i>Butterfly valves.</i>	Butterfly valves.	Broucher: AG1 Review : 01
AG1 Wafer	Butterfly valve Wafer model AG1.	Page : 9 from 12 Date : 9/2013

Product features and advantages.

- * Wafer model butterfly valve, according to EN 1092-2 for installing between flanges, with elastic seal, single and double eccentric sealing system.
- * Nominal dimensions from 50 mm (2") to 600 mm (24").
- * Pressure range PN-10/16/25/40.
- * Designed for installation between soldered flanges, PE flanges and loose flanges with a B collar. The elastomer can be replaced without need to disassemble the valve, as it is fixed on one side of the valves body.
- * Suitable for use in the water treatment and distribution, dams, power plants and in industry.
- * Can be operated by manual worm drive or pneumatic, electric, hydraulic, etc. gear.
- * The shaft consists of one piece and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Vacuum tight up to 1 torr.
- * Hermetic sealing in both flow directions.



Model Wafer DN-250 PN-16 with a lever.



Model Wafer DN-100 with a lever.

Standard manufacturing materials.

- | | |
|--------------------|---|
| Valve body: | Nodular Cast Iron EN 156 GJS-400-15. |
| Butterfly: | Stainless Steel EN 10088-3-95 14301. (AISI-304) |
| | Stainless Steel EN 10088-3-95 14401 (AISI-316). |
| | Steel EN 10025 S275JR + EN 10088-3-95 14301. |
| | Brass EN 12163 CW 507. |
| Shaft: | Stainless Steel EN 10088-3-95 (AISI-420) |
| Elastomer: | E.D.P.M. EN 681-1-96 Chart-2. |

Corrosion protection.

Valve body: Outside with epoxy powder coating. "drinking-water certified"

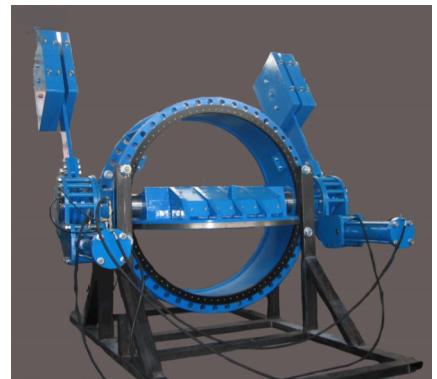
Butterfly: Epoxy powder coating. "drinking-water certified"

Check AG1 brochure for more information. www.angodos.com

 ANGODOS® <i>Butterfly valves.</i>	Butterfly valves. Overspeed valve model AG1	Broucher: AG1-SOV Review : 01 Page : 10 from 12 Date : 9/2013
Overspeed		

Product features and advantages.

- * Flanged butterfly valve, according to EN 1092-2 for installing between flanges, with elastic seal and single or double eccentric sealing system and counterweight closure.
- * Designed for installation between flanges and assembly spool with replaceable elastomer without cutting up the valve, fixed on one side of the valves body.
- * Suitable for use in anti-flood protection, in water distribution, dams, power plants, in industry and pressure systems.
- * Can be operated through manual hydraulic or electric gear.
- * Two-way speed sensor built in stainless steel AISI -304, independent regulation from 0.5 m/s to 5 m/s.
- * The shaft consists of one piece (up to DN-1400 (56")) and of two pieces for bigger DN. It's swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Hermetic sealing in both flow directions.
- * Valves closure in two adjustable directions.
- * Activation system of automatic closure (detector), without electrical energy.
- * Nominal dimensions from DN -600 mm (24 ") to DN -2600 mm (104 ").
- * Pressure range PN-10/16/25/40.



Overspeed valve DN-2000 PN-25

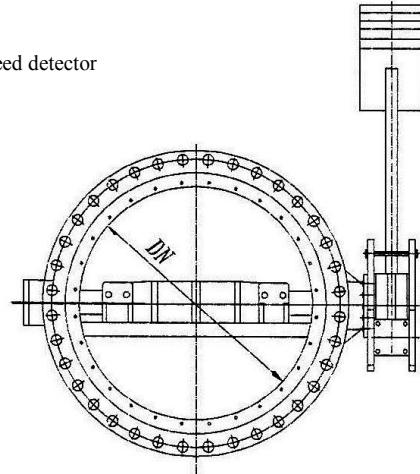
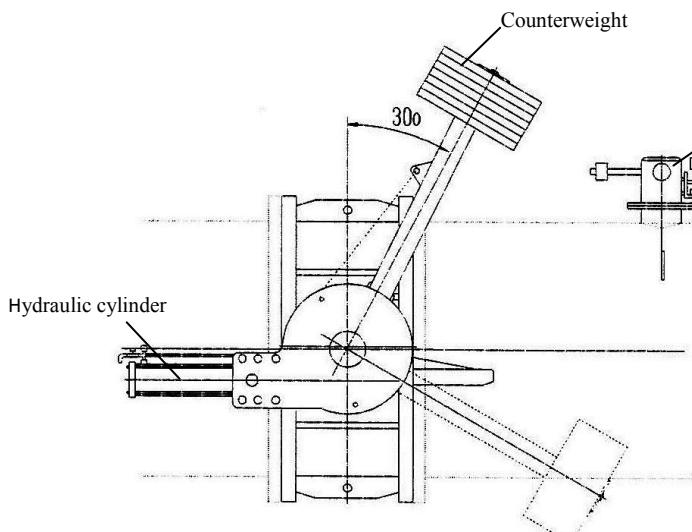
Standard manufacturing materials

Valve body: Steel EN 10025 S 275JR.
Butterfly: Stainless Steel EN 10088-3-95 14301. (AISI-304)
 Stainless Steel EN 10088-3-95 14401 (AISI-316).
 Steel EN 10025 S275JR + EN 10088-3-95 14301.
Shaft: Stainless Steel EN 10088-3-95 (AISI-420)

Elastomer : E.D.P.M. EN 681-1-96 Chart-2.

Corrosion protection.

Valve body : Outside and inside with epoxy powder coating. "drinking-water certified"
Butterfly: Epoxy powder coating. "drinking-water certified"

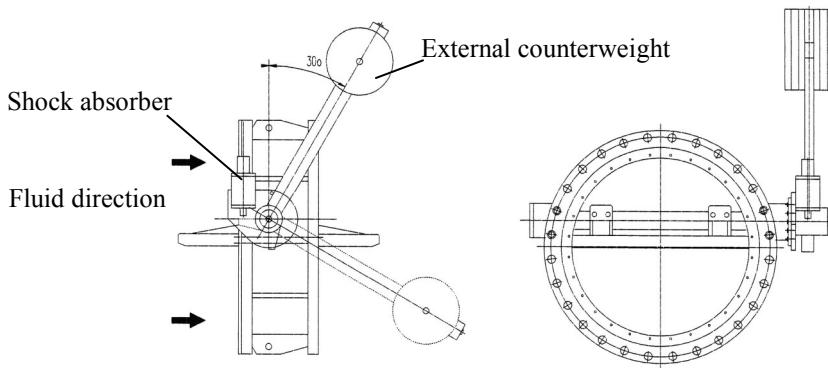


Check AG1-SOV brochure for more information. www.angodos.com

 ANGODOS® <i>Butterfly valves.</i>	Check Valve	<i>Broucher: AG1-R</i> <i>Review : 01</i>
AG1-R	Disc check Valve AG1-R	<i>Page : 11 from 12</i> <i>Date : 9/2013</i>

Product features and advantages:

- * Disc check valve, flange type for installing between flanges according to EN 1092-2, with elastic seal and double eccentric sealing system. With internal or external counterweights, with internal stops.
- * Nominal dimensions from DN -200 mm (8") to DN -1500mm (58").
- * Pressure range PN-10/16/25.
- * Designed for installation between flanges and assembly spool with replaceable elastomer without cutting up the valve, fixed on one side of the valves body.
- * Suitable for use in the water treatment and distribution, dams, power plants, in industry and pressure systems.
- * Closure of the valve by counterweight, with possibility to mitigate the closure by hydraulic shock absorber.
- * The shaft consists of one piece (up to DN-1400 (56")) and is swinging out on maintenance-free seals made of bronze. This guarantees a long and safe life.
- * Length from flange to flange according to EN 558-1, series 13 and series 14.
- * The elastomer can be replaced without need to disassemble the valve.

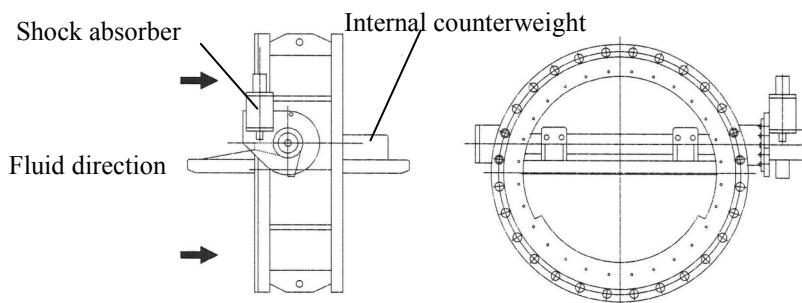


Standard manufacturing materials.

- Valve body:** Steel EN 10025 S 275JR.
Butterfly: Stainless Steel EN 10088-3-95 14301. (AISI-304)
 Stainless Steel EN 10088-3-95 14401 (AISI-316).
 Steel EN 10025 S275JR + EN 10088-3-95 14301.
Shaft: Stainless Steel EN 10088-3-95 (AISI-420)
Elastomer : E.D.P.M. EN 681-1-96 Chart-2.

Corrosion protection.

- Valve body:** Outside and inside with epoxy powder coating. "drinking-water certified"
Butterfly: Epoxy powder coating. "drinking-water certified"





Made in Spain

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