

BS EN 736-2:2016



BSI Standards Publication

Valves — Terminology

Part 2: Definition of components of valves

National foreword

This British Standard is the UK implementation of EN 736-2:2016. It supersedes BS EN 736-2:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/18/1, Industrial valves, steam traps, actuators and safety devices against excessive pressure - Valves - Basic standards.

A list of organizations represented on this committee can be obtained on request to its secretary.

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ISBN 978 0 580 89951 5

ICS 01.040.23; 23.060.01

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 May 2016.

Amendments issued since publication

Date	Text affected
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EUROPEAN STANDARD

EN 736-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2016

ICS 01.040.23; 23.060.01

Supersedes EN 736-2:1997

English Version

Valves - Terminology - Part 2: Definition of components of valves

Appareils de robinetterie - Terminologie - Partie 2:
Définition des composants des appareils de
robinetterie

Armaturen - Terminologie - Teil 2: Definition der
Armaturenteile

This European Standard was approved by CEN on 15 December 2015.

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European foreword

This document (EN 736-2:2016) has been prepared by Technical Committee CEN/TC 69 “Industrial valves”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

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This document supersedes EN 736-2:1997.

The main changes compared to the previous edition are:

- a) Clause 3 “Terms and definitions” has been updated;
- b) Annex A has been updated.

EN 736 comprises three parts:

- *Part 1: Definition of types of valves*
- *Part 2: Definition of components of valves*
- *Part 3: Definition of terms*

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Introduction

This is the first step in harmonizing the valve terminology in Europe. It is possible that other names of components or other definitions will be found in other European Standards.

Experts establishing European Standards are asked to use the name of components and the definitions given in this European Standard. If other names of components or definitions are needed or already published in European Standards please contact the CEN/TC 69 Secretariat for adding or harmonizing the names of components and their definitions in these European Standards.

1 Scope

This European Standard specifies the names of components of valves and their definitions. It has the purpose to provide a uniform terminology for all components of valves.

This European Standard covers components common to more than one type of valve. Names of components and definitions specific to one type of valve will be found in the relevant product or performance standard.

2 Normative references

Not applicable.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 shell

pressure containing envelope of the valve

Note 1 to entry: It normally comprises the body and when included in the design a bonnet or cover and the body bonnet or body cover joint excluding sealing parts.

3.1.1 body

main component of the valve which provides the fluid flow passageways and the body ends

3.1.1.1

straight pattern body

body having two body end ports and where the axis of the bonnet or cover is parallel to the faces of the body end ports

3.1.1.2

angle pattern body

body having two body end ports and where the faces are at right angles

3.1.1.3

oblique pattern body

body having two body end ports and where the axis of the bonnet or cover is not parallel to the faces of the body end ports

3.1.1.4

double flanged body

body having two flanged body ends for connecting to corresponding flanges

3.1.1.5

single flanged body

body with a single flange not being a body end flange, designed to be installed by bolting to adjacent pipe flange(s)

Note 1 to entry: It can be suitable to close the end of the pipe line allowing dismantling of the downstream pipe line.

3.1.1.6

lug type body

body designed with threaded or unthreaded holes for bolting to the adjacent flange(s) of the pipeline

3.1.1.7

wafer type body

body designed to be installed by clamping between flanges

3.1.1.8

multi end body

body with more than two body end ports

3.1.1.9

body end

part of the body provided with the means of connection to the piping component (excluding by-pass if fitted)

3.1.1.10

flanged end

body end provided with a flange for mating with a corresponding flange

3.1.1.11

welding end

body end prepared for welding to a corresponding end of a component, which can be of the butt welding or socket welding type

3.1.1.12

butt welding end

body end prepared for welding to a component by abutting the ends and welding within the groove formed between the prepared ends

3.1.1.13

socket welding end

body end prepared for insertion of a component end into the socket and joining and sealing by fillet welding

3.1.1.14

threaded end

body end provided with internal or external thread for mating with a corresponding threaded component

3.1.1.15

socket end

body end prepared for connection to a spigot end

3.1.1.16

spigot end

body end prepared for insertion in a socket

3.1.1.17

capillary end

body end prepared for connection to a tube by soldering or brazing

3.1.1.18

compression end

body end prepared for connection to a tube by the compression of a ring or sleeve on to the outside surface of a tube by a tubing nut

3.1.1.19

body end port

fluid flow opening in the body end

3.1.1.20

body bonnet/cover flange

flange on a body to which the bonnet or cover is bolted

3.1.1.21

body bonnet/cover thread

thread on the body into or onto which the bonnet or cover is screwed

3.1.1.22

boss

raised area on the surface of a component

3.1.1.23

shell tapping

threaded hole in the wall of the shell

3.1.1.24

by-pass

pipng loop provided to permit fluid flow from one side to the other side of the main valve obturator in its closed position

3.1.2

bonnet

component of the shell which closes an opening in the body and contains an opening for the passage of the operating mechanism

3.1.2.1

cover

component of the shell which provides a closure for an opening in the body

3.1.2.2

bolted bonnet

bonnet connected to a body by bolting

3.1.2.3

bolted cover

cover connected to a body by bolting

3.1.2.4

screwed bonnet

bonnet which is screwed into or onto the body

3.1.2.5

screwed cover

cover which is screwed into or onto the body

3.1.2.6

welded bonnet

bonnet connected to the body by a weld which provides mechanical attachment and sealing

3.1.2.7

welded cover

cover connected to the body by a weld which provides mechanical attachment and sealing

3.1.2.8

union bonnet

bonnet connected to a body by means of a union nut

3.1.2.9

union cover

cover connected to a body by means of a union nut

3.1.2.10

pressure sealed bonnet

bonnet connected to the body using a pressure seal joint

3.1.2.11

pressure sealed cover

cover connected to the body using a pressure seal joint

3.1.2.12

clamp ring

ring which connects two components by means of clamping

3.1.3

body bonnet/cover joint

connection of the valve body to the bonnet or the cover

3.1.3.1

bonnet flange

flange on the bonnet by which the bonnet is bolted to the body

3.1.3.2

cover flange

flange on the cover by which the cover is bolted to the body

3.1.3.3

bonnet thread

thread on the bonnet by which the bonnet is screwed into or onto the body

3.1.3.4

cover thread

thread on the cover by which the cover is screwed into or onto the body

3.1.3.5

bonnet bolting

bolting which connects the bonnet to the body

3.1.3.6

cover bolting

bolting which connects the cover to the body

3.1.3.7

union nut

threaded ring which connects the union bonnet or cover to the body

3.1.3.8

body bonnet

cover gasket

gasket which seals the body bonnet/cover joint

Note 1 to entry: The gasket can be made in different shapes and of different materials.

3.1.3.9

pressure seal joint

body bonnet/cover joint in which the internal fluid pressure increases the compressive loading on the bonnet/cover gasket or pressure seal ring

3.1.3.10

pressure seal ring

ring which acts as the sealing component in a pressure seal joint

3.1.3.11

seal weld

weld which provides a seal between two parts, for example body and bonnet/cover

3.2

trim

functional components of a valve excluding the shell components which are in contact with the fluid inside the valve

Note 1 to entry: The components are specified in the relevant product standards.

3.2.1

obturator

movable component of the valve whose position in the fluid flow path permits, restricts or obstructs the fluid flow

Note 1 to entry: The term "disc" has been commonly used in the English language.

3.2.2

operating mechanism

mechanism which translates the motion of the operating device to the motion of the obturator

3.2.2.1

stem

component extending through the shell which transmits the motion from the operating device to the obturator which has a linear motion

3.2.2.2

rising stem

stem which has linear motion during the obturator travel

3.2.2.3

non rising stem

stem which has no linear motion during the obturator travel

3.2.2.4

inside screw

operating thread of the stem which is in contact with the fluid inside the valve

3.2.2.5

outside screw

operating thread of the stem which is not in contact with the fluid inside the valve

3.2.2.6

stem nut

component of the operating mechanism mounted on the obturator which together with the thread of the stem converts rotary motion into linear motion

3.2.2.7

yoke bushing

fixed component of the operating mechanism mounted on the yoke which together with the thread of the stem converts rotary motion into linear motion

3.2.2.8

yoke sleeve

rotating component of the operating mechanism mounted on the yoke which together with the thread of the stem converts rotary motion into linear motion

3.2.2.9

yoke

component of a valve which supports the yoke sleeve, yoke bushing or the actuator, and which can be a separate component or an integral part of the bonnet or actuator

3.2.2.10

bonnet bushing

component in a bonnet which serves as a stem guide and can also provide a back seat seating surface

3.2.2.11

shaft

component extending through the shell which transmits the motion from the operating device to the obturator which has a rotary motion

3.2.3

seating

components associated with the seating surfaces

3.2.3.1

seating surface

contacting surfaces of the obturator seat and the body seat which effect valve closure

3.2.3.2

body seat

part of the body which provides the body seating surface and which can be an integral or a separate component

3.2.3.3

obturator seat

part of the obturator which provides the obturator seating surface and which can be an integral or a separate component

3.2.3.4

seat ring

separate component which provides the seating surface

Note 1 to entry: See body seat ring and obturator seat ring.

3.2.3.5

body seat ring

separate component assembled in the body which provides a body seating surface

3.2.3.6

obturator seat ring

separate component assembled to the obturator which provides an obturator seating surface

3.2.3.7

hard facing

deposit of molten metallic material intended to provide wear resistance to the seating surfaces or other components

3.2.3.8

soft seat

part made of soft material which provides the seating surface

Note 1 to entry: Examples of soft materials are PTFE, rubber etc.

3.2.3.9

liner

replaceable component made of plastomer and/or elastomer designed to protect the shell from the fluid and incorporating the body seat

3.2.3.10

lining

non-replaceable part made of plastomer and/or elastomer, designed to protect a component from the fluid

3.3

operating mechanism sealing

components associated with the seal of the passage of the operating mechanism through the shell

3.3.1

packing chamber

chamber of the shell provided to contain the packing

3.3.2

packing

component made of deformable material which provides the seal of the passage of the operating mechanism through the shell

3.3.3

packing gland

component used to compress the packing

3.3.4

gland flange

flange bearing against a packing gland used to compress the packing

3.3.5

gland nut

nut bearing against the packing gland used to compress the packing

3.3.6

lantern ring

rigid spacer used in the packing chamber to separate two packing sets

3.3.7

bellows seal

component using a bellows which provides the seal of the passage of the operating mechanism through the shell

3.3.8

soft seal

component using a resilient seal ring which provides the seal of the passage of the operating mechanism through the shell

3.3.9

seal ring bushing

bushing designed to accept the seal ring(s) of a soft sealed operating mechanism sealing

3.3.10

diaphragm

component using a diaphragm which provides the seal of the passage of the operating mechanism through the shell

3.3.11

back seat

contacting seating surfaces on the bonnet or bonnet bushing and the stem or corresponding component when the stem is fully retracted

3.4

operating device

manual or power operated device used to operate the bare valve

3.4.1

operating element

component of the operating device by which the mechanical power is introduced

Note 1 to entry: It can be mounted directly on the bare valve.

3.4.1.1

handwheel

wheel designed to operate a valve by hand

3.4.1.2

lever

pivoting arm designed to operate a valve by hand

3.4.1.3

chainwheel

wheel designed to be operated by a chain

3.4.1.4

actuator

operating element which uses electrical, hydraulic or pneumatic power

3.4.2

extension device

component of the operating device which transmits mechanically the motion of the operating element to the operating mechanism of a bare shaft valve when situated apart from the operating element

3.5

bare shaft valve

valve comprising shell, trim and operating mechanism sealing prepared for the attachment of the operating device

Note 1 to entry: The boundary between the bare valve and the operating device is specified in the relevant product standard.

Annex A
(informative)

Glossary

English	French	German	Subclause
actuator	actionneur	Kraftantrieb	3.4.1.4
angle pattern body	corps d'équerre	Gehäuse in Eckform	3.1.1.2
back seat	siège arrière	Rückdichtung	3.3.11
bare shaft valve	appareil de robinetterie sans actionneur	Armatur ohne Betätigungsvorrichtung	3.5
bellows seal	soufflet d'étanchéité	Faltenbalgdichtung	3.3.7
body	corps	Gehäuse	3.1.1
body bonnet/cover flange	bride d'assemblage corps – chapeau/couvercle	Gehäuse-Oberteil/Deckel-Flansch	3.1.1.20
body bonnet/cover gasket	joint de chapeau/couvercle	Gehäuse-Oberteil/Deckel-Dichtung	3.1.3.8
body bonnet/cover joint	liaison corps – chapeau/couvercle	Verbindung von Gehäuse mit Oberteil/Deckel	3.1.3
body bonnet/cover thread	filetage d'assemblage corps — chapeau/couvercle	Gehäuse-Oberteil/Deckel-Gewinde	3.1.1.21
body end	extrémité du corps	Gehäuseende	3.1.1.9
body end port	orifice d'extrémité du corps	Gehäuseendöffnung	3.1.1.19
body seat	siège du corps	Sitz im Gehäuse	3.2.3.2
body seat ring	siège rapporté de corps	Sitzring im Gehäuse	3.2.3.5
bolted bonnet	chapeau boulonné	Geflanshtes Oberteil	3.1.2.2
bolted cover	couvercle boulonné	Geflanschter Deckel	3.1.2.3
bonnet	chapeau	Oberteil	3.1.2
bonnet bolting	boulonnerie corps/chapeau	Oberteil-Schrauben	3.1.3.5
bonnet bushing	bague du chapeau	Buchse im Oberteil	3.2.2.10
bonnet flange	bride de chapeau	Oberteil-Flansch	3.1.3.1
bonnet thread	filetage du chapeau	Oberteil-Gewinde	3.1.3.3
boss	bossage	Nocken	3.1.1.22
butt welding end	extrémité à bout à souder en bout	Stumpf-Schweißende	3.1.1.12
by-pass	bipasse	Umführungsleitung	3.1.1.24
capillary end	extrémité à braser par capillarité	Kapillar-Lötende	3.1.1.17
chainwheel	roue à chaîne	Kettenrad	3.4.1.3

English	French	German	Subclause
clamp ring	collier de serrage	Klemmring	3.1.2.12
compression end	extrémité à compression	Klemmanschlussende	3.1.1.18
cover	couvercle	Deckel	3.1.2.1
cover bolting	boulonnerie corps/couvercle	Deckelschrauben	3.1.3.6
cover flange	bride de couvercle	Deckelflansch	3.1.3.2
cover thread	filetage du couvercle	Deckelgewinde	3.1.3.4
diaphragm	membrane	Membrane	3.3.10
double flanged body	corps à brides	Gehäuse mit zwei Flanschen	3.1.1.4
extension device	dispositif intermédiaire	Spindelverlängerung	3.4.2
flanged end	extrémité à bride	Flanschanschluss	3.1.1.10
gland flange	bride de fouloir	Stopfbuchsflansch	3.3.4
gland nut	écrou de fouloir	Stopfbuchsmutter	3.3.5
handwheel	volant de manœuvre	Handrad	3.4.1.1
hard facing	revêtement dur	Panzerung	3.2.3.7
inside screw	filetage intérieur	Innenliegendes Spindelgewinde	3.2.2.4
lantern ring	lanterne	Sperrkammerring	3.3.6
lever	levier de manœuvre	Handhebel	3.4.1.2
liner	manchette	Manschette	3.2.3.9
lining	revêtement interne	Auskleidung	3.2.3.10
lug type body	corps à oreilles	Lug-Type-Gehäuse	3.1.1.6
multi-end body	corps multi-voies	Mehrwege-Gehäuse	3.1.1.8
non rising stem	tige non-montante	Nichtsteigende Spindel	3.2.2.3
oblique pattern body	corps à tête inclinée	Gehäuse mit schrägem Oberteil	3.1.1.3
obturator	obturateur	Abschlusskörper	3.2.1
obturator seat	siège d'obturateur	Sitz am Abschlusskörper	3.2.3.3
obturator seat ring	siège rapporté d'obturateur	Sitzring am Abschlusskörper	3.2.3.6
operating device	dispositif de manœuvre	Betätigungsvorrichtung	3.4
operating element	organe de manœuvre	Betätigungselement	3.4.1
operating mechanism	mécanisme de manœuvre	Betätigungsorgan	3.2.2
operating mechanism sealing	dispositif d'étanchéité du mécanisme de manœuvre	Abdichtung des Betätigungsorgans	3.3
outside screw	filetage extérieur	Außenliegendes Spindelgewinde	3.2.2.5
packing	garniture d'étanchéité	Packung	3.3.2
packing chamber	logement de la garniture	Packungsraum	3.3.1
packing gland	fouloir	Stopfbuchsbüchse	3.3.3

English	French	German	Subclause
pressure seal joint	liaison autoclave	Druckdichtende Verbindung	3.1.3.9
pressure seal ring	bague d'étanchéité autoclave	Druckdichtender Ring	3.1.3.10
pressure sealed bonnet	chapeau à liaison autoclave	Druckdichtendes Oberteil	3.1.2.10
pressure sealed cover	couvercle à liaison autoclave	Druckdichtender Deckel	3.1.2.11
rising stem	tige montante	Steigende Spindel	3.2.2.2
screwed bonnet	chapeau vissé	Verschraubtes Oberteil	3.1.2.4
screwed cover	couvercle vissé	Verschraubter Deckel	3.1.2.5
seal ring bushing	bague porte-joints	Dichtringbuchse	3.3.9
seal weld	soudure d'étanchéité	Dichtschweißung	3.1.3.11
seat ring	siège rapporté	Sitzring	3.2.3.4
seating	siège	Sitz	3.2.3
seating surface	portée d'étanchéité	Sitzoberfläche	3.2.3.1
shaft	arbre	Welle	3.2.2.11
shell	enveloppe	Drucktragendes Gehäuse	3.1
shell tapping	raccordement auxiliaire de l'enveloppe	Anbohrung im drucktragenden Gehäuse	3.1.1.23
single flanged body	corps monobride	Monoflanschgehäuse	3.1.1.5
socket end	extrémité à emboîter femelle	Muffenende	3.1.1.15
socket welding end	extrémité à emboîter et à souder	Schweißmuffenende	3.1.1.13
soft seal	dispositif d'étanchéité souple	Weichdichtung	3.3.8
soft seat	siège souple	Weichdichtender Sitz	3.2.3.8
spigot end	extrémité à emboîter mâle	Spitzende	3.1.1.16
stem	tige	Spindel	3.2.2.1
stem nut	écrou de tige	Spindelmutter	3.2.2.6
straight pattern body	corps à tête droite	Gehäuse in Durchgangsform	3.1.1.1
threaded end	extrémité filetée	Gewindeende	3.1.1.14
trim	équipement interne	Ausrüstung	3.2
union bonnet	chapeau union	Oberteil mit Überwurfmutter	3.1.2.8
union cover	couvercle union	Deckel mit Überwurfmutter	3.1.2.9
union nut	écrou union	Überwurfmutter	3.1.3.7
wafer type body	corps à insérer	Einklemmgehäuse	3.1.1.7
welded bonnet	chapeau soudé	Verschweißtes Oberteil	3.1.2.6
welded cover	couvercle soudé	Verschweißter Deckel	3.1.2.7
welding end	extrémité à souder	Schweißende	3.1.1.11
yoke	arcade	Bügelaufsatz	3.2.2.9

English	French	German	Subclause
yoke bushing	écrou de tige (fixe)	Buchse im Bügelaufsatz	3.2.2.7
yoke sleeve	écrou de tige (tournant)	Gewindebuchse im Bügelaufsatz	3.2.2.8

Bibliography

EN 736-1, *Valves - Terminology — Part 1: Definition of types of valves*

EN 736-3, *Valves — Terminology — Part 3: Definition of terms*

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