

Valves — Terminology

Part 2. Definition of components of valves

The European Standard EN 736-2 : 1997 has the status of a
British Standard

ICS 01.040.23; 23.060.01

National foreword

This British Standard is the English language version of EN 736-2 : 1997.

The UK participation in its preparation was entrusted to Technical Committee PSE/7/1. Valves — Basic standards. which has the responsibility to:

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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

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CEN

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Comité Européen de Normalisation
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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 69, Industrial valves, of the Secretariat 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of an identical text or by endorsement, at the latest by February 1998, and conflicting national standards shall be withdrawn at the latest by February 1998.

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 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 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 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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard, only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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

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

3 Definitions

For the purposes of this standard the following definitions apply.

3.1 shell

Pressure containing envelope of the valve.

NOTE. It normally comprises the body and when included in the design a bonnet or cover and the body bonnet or body cover joint.

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

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

NOTE. 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. Such body end 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

Piping 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. 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. 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. 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. It 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. It can be integral or a separate component.

3.2.3.3 obturator seat

Part of the obturator which provides the obturator seating surface. It can be integral or a separate component.

3.2.3.4 seat ring

Separate component which provides the seating surface (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. 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 utilizing a bellows which provides the seal of the passage of the operating mechanism through the shell.

3.3.8 soft seal

Component utilizing 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 seal

Component utilizing 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. 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 valve when situated apart from the operating element.

3.5 bare valve

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

NOTE. 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
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English	French	German	Subclause
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English	French	German	Subclause
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