
**Specification for
Draw-off taps and stopvalves
for water services
(screw-down pattern)**

**Part 2. Draw-off taps and
above-ground stopvalves**

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The following BSI references relate to the work on this standard:

Committee reference SAB/2 Draft for approval 72/13017.

Co-operating organizations

The Sanitary Appliances Industry Standards Committee under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Association of Public Health Inspectors
- *British Bath Manufacturers' Association
- *British Plastics Federation
- *British Waterworks Association
- *Council of British Ceramic Sanitaryware Manufacturers
- *Department of the Environment
- *Department of the Environment—Building Research Establishment
- *Flushing Cistern Makers' Association
- *Greater London Council
- *Institute of Plumbing
- *Institution of Municipal Engineers

- Institution of Public Health Engineers
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- Ministry of Defence, Air Force Department
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- National Federation of Building Trades Employers
- *National Federation of Builders' and Plumbers' Merchants
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- *Royal Society of Health
- Scottish Federation of Plumbers' and Domestic Engineers' (Employers) Association
- *Water Companies Association

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Association of Manufacturers of Domestic Electrical Appliances
- Association of Waterworks Officers
- British Non-ferrous Metals Research Association
- Copper Ball Manufacturers' Association
- Copper Development Association
- Copper Tube Fittings Manufacturers' Association
- Department of Trade and Industry
- Electricity Council, the Central Electricity Generating Board and the Area Boards in England and Wales
- Gas Council

- Heating and Ventilating Contractors' Association
- Institute of British Foundrymen
- Institution of Gas Engineers
- Institution of Heating and Ventilating Engineers
- Institution of Water Engineers
- London Chamber of Commerce
- Metropolitan Water Board
- National Federation of Plumbers and Domestic Heating Engineers
- Society of British Gas Industries



Amendment Slip No.1, published 30 April 1975
to BS 1010 : Part 2 : 1973

Draw-off taps and stopvalves for water services (screw-down pattern)
Part 2. Draw-off taps and above-ground stopvalves

Revised text

AMD 1633
April 1975

List of contents

Under 'Tables', in the titles of 5 and 6, after the word 'spindle' place 'rising type' in parentheses to be followed by a comma, thus '(rising type),'.
Under 'Figures', in the title of 10a place 'rising type' in parentheses.

AMD 1633
April 1975

Foreword

In the first line of the fifth paragraph insert 'which are' after 'for screw threads'.

Delete the whole of the sixth paragraph and substitute the following:

'Basic pipe threads have been retained as they are standard for the purpose internationally (See ISO/R 228 'Pipe threads where pressure-tight joints are not made on the threads'). Designations remain in imperial units for the time being but tolerances are those of the current edition of BS 2779. All other screw threads are also unchanged physically.'

AMD 1633
April 1975

Clause 1.1 Scope

Delete the second sentence from the first paragraph and substitute the following:

'Pillar taps of rising type are specified in $\frac{1}{2}$ in, $\frac{3}{4}$ in and 1 in nominal sizes and non-rising type in $\frac{1}{2}$ in and $\frac{3}{4}$ in nominal sizes only.'

AMD 1633
April 1975

Clause 1.3 Illustrations

In the first line delete '3,'.

AMD 1633
April 1975

Fig.1 Easy clean bib tap

On the right hand side of the illustration from the fifth line delete 'Spinde' and substitute 'Spindle'.

AMD 1633
April 1975

Fig.3 Boss for lead pipe with internal BS pipe (parallel) thread

From each of the last five lines of the legend commencing 'Minimum length of plain tail, dimension *T*' delete the words 'up to and including'.

AMD 1633
April 1975

Fig.4 Pillar tap sizes $\frac{1}{2}$ in to 1 in BSP

From the note at the bottom of the left hand side of illustration delete 'line Q', and substitute 'line 15'.

AMD 1633
April 1975

Clause 1.7.2 Stopvalves and hose union taps

At the end of the clause add the following further paragraph:

'The stopvalve or hose union tap being tested shall show no sign of leakage during the tests.'

AMD 1633
April 1975

Clause 2.2 Composition

(4) Gunmetal (cast) for bodies and components:

Delete '-C' from both 'LGI-C' and 'LG2-C'.

(8) Phosphor bronze for circlips:

Delete 'BS 369' and substitute 'BS 2874 PB 102'.

(9) Stainless steel for circlips and components:

Delete 'BS 971 En 58' and substitute 'BS 1449 : Part 4, Grade 304 S 16 or Grade 302 S 17 or other grades not less suitable'.

AMD 1633
April 1975

Clause 4.3.3 Spindle thread

In the second line delete '70 %' and substitute '50 %'.

AMD 1633
April 1975

Clause 4.5.1.2

Delete the whole of 4.5.1.2 and substitute the following:

'The depth of shrouding, which in any case should not exceed the thickness of the washer when new, shall be such that the face of the washer plate can rest on the seating in accordance with 4.3.3.'

AMD 1633
April 1975

Clause 4.5.3.1

Delete the whole of 4.5.3.1 and substitute the following:

'The washer plate unit shall be made in accordance with the dimensions given in Table 9, fabricated units being joined as specified in 4.2.2(2). If it is a sand or shell casting, it shall be machined all over.'

AMD 1633
April 1975

Clause 4.7.3

(2) Delete '8.0 mm' and '9.0 mm' and substitute '5.5 mm' and '6.5 mm' respectively.

AMD 1633
April 1975

Clause 4.12 Hexagonal shoulders

Following '(2) bib taps of all sizes.' delete the full stop and add 'except plain end bib taps and flanged bib taps up to and including $\frac{3}{4}$ in size having flanges not less than 75 mm diameter.'

AMD 1633
April 1975

Fig.7 Dimensions of tap bodies

Delete the information at the bottom of the drawing 'To Table 12, line 2, 4 or 20 and 4.11.3' and substitute 'For counterbore see clause 4.11.3 and Table 12, either lines 2 and 4 or line 20'.

AMD 1633
April 1975

Fig.8 Dimensions of stopvalve bodies

Change the lines indicating the minor diameter of the body thread engaging with the head from thin to thick and the lines indicating the major diameter from thick to thin.

AMD 1633
April 1975

Table 1 Dimensions of bodies ($\frac{1}{4}$ in to $\frac{3}{4}$ in nominal sizes)

Delete from line 9, column 3 'Length to end of bore for' and substitute 'Length of end for'.

From line 14, column 3 after 'stopvalve' delete 'tails' and substitute 'ends'.

At the end of this line after 'only' add '(see 4.6.2.1)'.

AMD 1633
April 1975

Table 2 Dimensions of bodies (1 in to 2 in nominal sizes)

Delete from line 9, column 3 'Length to end of bore for' and substitute 'Length of end for'.

From line 14, column 3 after 'stopvalve' delete 'tails' and substitute 'ends'. At the end of this line after 'only' add '(see 4.6.2.1)'.

AMD 1633
April 1975

Table 3 Dimensions of heads and glands of rising spindle type taps and valves (1/4 in to 3/4 in nominal sizes)

In line 10, column 11, delete '9.0' and substitute '8.5'.

In line 11, column 7 and column 9, delete '3.0' and substitute '2.5'.

In line 12, column 7 and column 9, delete '3.0' and substitute '2.5'.

AMD 1633
April 1975

Table 4 Dimensions of heads and glands of rising spindle type taps and valves (1 in to 2 in nominal sizes)

In line 12, column 5, delete '4.0' and substitute '3.5'.

AMD 1633
April 1975

Fig. 10a Spindle rising type and crutch

In the caption put 'rising type' in parentheses. Add arrows from 'Top of head' and from 'Bottom edge of crutch when tap closed' to the extremes of dimension *F* at the spindle line.

AMD 1633
April 1975

Table 5 Dimensions of spindle rising type, washer, washer plate and handle (1/4 in to 3/4 in nominal sizes)

Put 'rising type' in parentheses.

AMD 1633
April 1975

Table 6 Dimensions of spindle rising type, washer, washer plate and handle (1 in to 2 in nominal sizes)

Put 'rising type' in parentheses.

AMD 1633
April 1975

Fig. 11 Head of non-rising spindle type taps and valves

Add the following note above the caption:

'Alternative arrangements of seals and washer plate unit designs (see Figs. 2 and 13)'.

AMD 1633
April 1975

Table 7 Dimensions of heads of non-rising spindle type taps and valves (1/2 in to 3/4 in nominal sizes)

In line 10 of column 3 delete 'of threaded engagement' and substitute 'of full engagement of thread' and in columns 5 and 7 delete '8.0' and '9.0' and substitute '5.5' and '6.5' respectively.

AMD 1633
April 1975

Table 8 Dimensions of spindles of non-rising spindle type taps and valves (1/2 in to 3/4 in nominal sizes)

In line 1 of column 3 delete 'of spindle thread engagement' and substitute 'of full engagement of spindle thread' and in columns 5 to 7 delete '8.0' and '9.0' and substitute '5.5' and '6.5' respectively.

In line 2 of column 3 delete 'head' and substitute 'spindle'.

AMD 1633
April 1975

Fig. 13 Washer plate unit for non-rising spindle type taps and valves

Delete dimension '*F*' and the dimension lines.

AMD 1633
April 1975

Table 9 Dimensions of washer plate units of non-rising spindle type taps and valves ($\frac{1}{2}$ in to $\frac{3}{4}$ in nominal sizes)

In line 5 of column 3 delete 'of spindle thread engagement' and substitute 'of full engagement of spindle thread' and in columns 5 and 7 delete '8.0' and '9.0' and substitute '5.5' and '6.5' respectively.

Delete the whole of line 9.

AMD 1633
April 1975

Table 10 Dimensions of back nuts for pillar taps

Reference letter *D*. In column 2 delete 'Size of hexagonal across (min.)' and substitute 'Width across flats of hexagon (min.)'.

AMD 1633
April 1975

Standard union ends, tail pipes and coupling nuts

Explanatory notes for Tables 11 and 12 and Fig.15.

In the last paragraph of the explanatory notes after 'solid drawn copper tube' insert 'of not less than 1 mm thickness'.

AMD 1633
April 1975

Table 11 Key table for connecting ends

From the 'Key table' delete the whole of the section referring to 'Stopvalves (for all purposes with full bore union tail pipes)' and figures in columns 2, 3 and 4 and substitute the following:

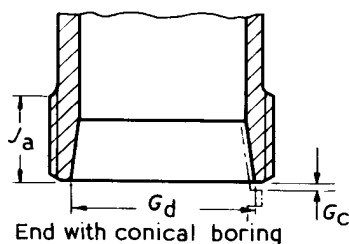
Stopvalves (for all purposes with full bore union tail pipes)	$\frac{1}{4}$	$\frac{3}{8}$	4 and 5
	$\frac{3}{8}$	$\frac{1}{2}$	6 and 7
	$\frac{1}{2}$	$\frac{5}{8}$	8 and 9
	$\frac{1}{2}$	$\frac{3}{4}$	10 and 11
			(alternative)
	$\frac{3}{4}$	$\frac{7}{8}$	12 and 13
	$\frac{3}{4}$	1	14 and 15
			(alternative)
	1	$1\frac{1}{4}$	16 and 17
	$1\frac{1}{4}$	$1\frac{1}{2}$	18 and 19
	$1\frac{1}{2}$	$1\frac{3}{4}$	20 and 21
	$1\frac{1}{2}$	2	22 and 23
			(alternative)
	2	$2\frac{1}{4}$	24 and 25
	2	$2\frac{1}{2}$	26 and 27
			(alternative)

Delete the asterisk and note at the bottom of the table.

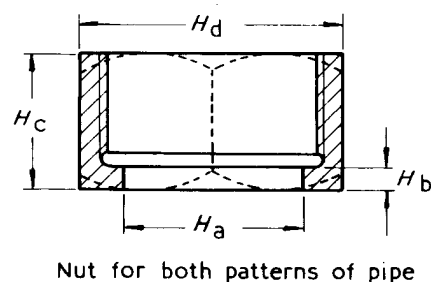
AMD 1633
April 1975

Fig.15 Reference diagrams for standard ends, tail pipes and nuts

Delete the diagram of 'End with conical boring' and substitute the new diagram below.



Delete the diagram of 'Nut for both patterns of pipe' and substitute the new diagram below.



AMD 1633
April 1975

Table 12 Parallel spigot and cone end tail pipes for British Standard draw-off taps and stopvalves

In line 3 of the footnotes at the base of the table delete '(see 4.11)' and substitute '(see 4.11.3)'.

AMD 1633
April 1975

Table 13 Dimensions of sink columns

In line 8 of column 4 ($\frac{1}{2}$ in max.) delete '4' and substitute '6'.

In line 9 of column 7 ($\frac{3}{4}$ in min.) delete '26' and substitute '26.2'.

AMD 1633
April 1975

Inside back cover

BSI publications referred to in this standard

BS 61. Delete the title 'Copper tubes (heavy gauge) for general purposes

Part 2. Threads for light gauge copper tubes and fittings' and substitute 'Threads for light gauge copper tubes and fittings'.

BS 369. Delete the reference to this standard.

BS 864. Delete 'Capillary and compression fittings of copper and copper alloy for use with copper tube complying with BS 659, BS 1386 and BS 3931' and substitute 'Capillary and compression tube fittings of copper and copper alloy'.

BS 971. Delete the reference to this standard.

BS 1400. Delete 'Copper alloy ingots and copper alloy castings' and substitute 'Copper alloy ingots and copper and copper alloy castings'.

Between BS 1400 and BS 1737 insert:

'BS 1449 Steel plate, sheet and strip

Part 4. Stainless and heat resisting plate, sheet and strip'.

Amendment Slip No.2, published 28 May 1976
to BS 1010 : Part 2 : 1973

Draw-off taps and stopvalves for water services
(screw-down pattern)

Part 2. Draw-off taps and above ground stopvalves

Revised text

AMD 2003
May 1976

Clause 4.6.2.2

Delete the existing text and substitute the following:

'Pillar taps from $\frac{1}{2}$ in to 1 in size inclusive shall have screwed shanks not less than 50 mm long from the underside of the flange. The outlet nose of a pillar tap shall be not less than 13 mm above the level of the underside of the fixing flange, and for $\frac{1}{2}$ in to 1 in sizes the centre of the nose shall project a minimum of 63 mm (see Fig. 4).

A locating feature may be provided below the flange at the manufacturer's option to facilitate production. Any such feature shall be coaxial with the centre line of the tail and shall be within a circumscribed circle of diameter Q (Tables 1 and 2, line 15) and shall have a maximum axial length as dimension S (Tables 1 and 2, line 17).

References to the 'square under the flange' in Figs. 4, 7, 16 and 19 shall be interpreted as a 'locating feature' as described in this clause. In order to prevent rotation of the fitting in the ware after installation, antirotational washers shall be provided.'

AMD 2003
May 1976

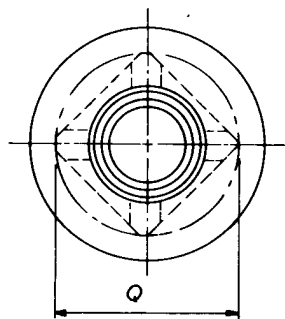
Clause 4.15 Combination tap assemblies

In item (2) delete 'Squares or lugs' and substitute 'Locating features'.

AMD 2003
May 1976

Fig. 7. Dimensions of tap bodies

Delete the bottom left-hand diagram of this figure and substitute the following:



View under flange

Gr 2

Table 1. Dimensions of bodies ($\frac{1}{4}$ in to $\frac{3}{4}$ in nominal sizes)

Delete lines 15, 17 and 19 and substitute the following:

1	2	3	4	5	6	7	8	9	10	11
Line No.	Ref letter on diagram	Dimension	Nominal size of tap in inches							
			$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$		$\frac{3}{4}$	
			max.	min.	max.	min.	max.	min.	max.	min.
15	<i>Q</i>	Circumscribed diameter of locating feature					29.0		34.0	
17	<i>S</i>	Depth of locating feature under flange of pillar tap					5.0		5.0	
19	<i>U</i>	Length of threaded tail (including locating feature)						50.0		50.0

Table 2. Dimensions of bodies (1 in to 2 in in nominal sizes)

Delete lines 15, 17 and 19 and substitute the following:

1	2	3	4	5	6	7	8	9	10	11
Line No.	Ref. letter on diagram	Dimension	Nominal size of tap in inches							
			1		1 $\frac{1}{4}$		1 $\frac{1}{2}$		2	
			max.	min.	max.	min.	max.	min.	max.	min.
15	<i>Q</i>	Circumscribed diameter of locating feature	44.0							
17	<i>S</i>	Depth of locating feature under flange of pillar tap	6.0							
19	<i>U</i>	Length of threaded tail (including locating feature)		50.0						

Table 3. Dimensions of heads and glands of rising spindle type taps and valves ($\frac{1}{4}$ in to $\frac{3}{4}$ in nominal sizes)

Delete line 5 and substitute the following:

1	2	3	4	5	6	7	8	9	10	11
Line No.	Ref. letter on diagram	Dimension	Nominal size of tap in inches							
			$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$		$\frac{3}{4}$	
			max.	min.	max.	min.	max.	min.	max.	min.
5	E	Length of internal thread for spindle including 'recess' (see also 4.3.3)		14.2		18.1		18.1		20.1

Table 4. Dimensions of heads and glands of rising spindle type taps and valves (1 in to 2 in nominal sizes)

Delete line 5 and substitute the following:

1	2	3	4	5	6	7	8	9	10	11
Line No.	Ref. letter on diagram	Dimension	Nominal size of tap in inches							
			1		$1\frac{1}{4}$		$1\frac{1}{2}$		2	
			max.	min.	max.	min.	max.	min.	max.	min.
5	E	Length of internal thread for spindle including 'recess' (see also 4.3.3)		25.1		29.1		34.1		39.2

Table 5. Dimensions of spindle rising type, washer, washer plate and handle ($\frac{1}{4}$ in to $\frac{3}{4}$ in nominal sizes)

Delete line 7 and substitute the following:

1	2	3	4	5	6	7	8	9	10	11
Line No.	Ref. letter on diagram	Dimension	Nominal size of tap in inches							
			$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$		$\frac{3}{4}$	
			max.	min.	max.	min.	max.	min.	max.	min.
7	G	Length of external thread on spindle (see also 4.3.3)		15.0		19.0		19.0		21.0

Table 6. Dimensions of spindle rising type, washer, washer plate and handle (1 in to 2 in nominal sizes)

Delete line 7 and substitute the following:

1	2	3	4	5	6	7	8	9	10	11
Line No.	Ref. letter on diagram	Dimension	Nominal size of tap in inches							
			1		1¼		1½		2	
			max.	min.	max.	min.	max.	min.	max.	min.
7	G	Length of external thread on spindle (see also 4.3.3)		26.0		31.0		36.0		41.0

AMD 2003
May 1976

Table 7. Dimensions of heads of non-rising spindle type taps and valves
($\frac{1}{2}$ in to $\frac{3}{4}$ in nominal sizes)

At the end of the line 10 entry in column 3 insert '(see also 4.3.3)'.

AMD 2003
May 1976

Table 8. Dimensions of spindles of non-rising spindle type taps and valves
($\frac{1}{2}$ in to $\frac{3}{4}$ in nominal sizes)

At the end of the line 1 entry in column 3 insert '(see also 4.3.3)'.

AMD 2003
May 1976

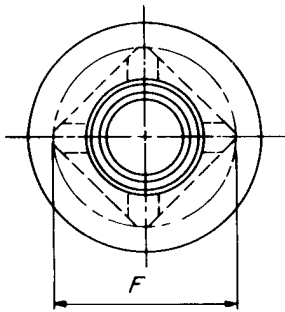
Table 9. Dimensions of washer plate units of non-rising spindle type taps and valves ($\frac{1}{2}$ in and $\frac{3}{4}$ in nominal sizes)

At the end of the line 5 and line 6 entries in column 3 insert '(see also 4.3.3)'.

AMD 2003
May 1976

Fig. 16 Sink columns

Delete the small right-hand diagram of this figure and substitute the following:



View under flange

AMD 2003
May 1976

Table 13. Dimensions of sink columns

Delete lines 6; 7 and 8 and substitute the following:

Line No.	Reference letter on Fig. 16	Dimension	Size			
			$\frac{1}{2}$ in		$\frac{3}{4}$ in	
			max.	min.	max.	min.
6	F^*	Circumscribed diameter of locating feature	29.0		34.0	
7	G	Length of threaded tail (including locating feature)		50.0		50.0
8	H	Depth of locating feature under flange	5.0		5.0	



**Amendment Slip No. 3,
published and effective from 29 June 1979
to BS 1010 : Part 2 : 1973**

**Draw-off taps and stopvalves for water services
(screw-down pattern)**

Part 2. Draw-off taps and above-ground stopvalves

Revised text

**AMD 3024
June 1979**

Contents

Under '2. Materials' insert the following new item:
'2.3 Water quality'.

**AMD 3024
June 1979**

Clause 2.1 General

In the last line, after the word 'plates' insert the words 'and backnuts'.

Insert an additional sentence as follows.

'Backnuts may also be made of zinc alloy complying with the requirements of BS 1004/alloy A.'

**AMD 3024
June 1979**

New clause 2.3

Insert the following new clause:

'2.3 Water quality'

All materials that are used in the construction of draw-off taps and stopvalves, and that are in contact with the supply water, shall not constitute a toxic hazard and shall not foster microbiological growth nor give rise to taste, odour, cloudiness or discoloration of the water.'

**AMD 3024
June 1979**

Clause 4.2.1 General

In line 4, delete the comma after the word 'it' and insert a full stop. Delete the remaining text.

**AMD 3024
June 1979**

Clause 4.10.2

In line 5, insert a full stop after the word 'manufacturers' and delete the remaining text.

**AMD 3024
June 1979**

Clause 4.10.4

Delete this subclause entirely.

**AMD 3024
June 1979**

Clause 4.13.1

Delete the second sentence entirely.

Amendment No. 4
published and effective from 28 September 1984
to BS 1010 : Part 2 : 1973

Draw-off taps and stopvalves for water services
(screw-down pattern)
Part 2. Draw-off taps and above-ground stopvalves

Revised text

AMD 4590
September 1984

Clause 2.1 General (as amended by Amendment No. 3)

Delete the last sentence and substitute the following.

'In addition it is permissible to form backnuts and other components not in contact with the water, from zinc alloy (see 2.2 (11)).'

AMD 4590
September 1984

Clause 2.2 Composition

After item (10) insert the following.

'(11) Zinc alloy: BS 1004: alloy A'.

AMD 4590
September 1984

New clause 4.5.1.4

After 4.5.1.3 insert the following.

'**4.5.1.4** An undercut used for securing the washer plate (to lift with the spindle) shall have a diameter of not less than 80 % of the minimum diameter of the washer plate stem.'

