SANITARY TAPWARE
Technical Document
077-01C

Complementary specifications for minimal protection at the point of use of traditional household fittings (bath-shower, shower, washbasin and sink)
CSTB (Centre Scientifique et Technique du Bâtiment), a public establishment supporting innovation in construction, has four key activities—research, expertise, assessment and dissemination of knowledge—organised to meet the challenges of ecological and energy transition in the construction sector. Their fields of expertise include construction materials, buildings and their integration into districts and towns.

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## MODIFICATION HISTORY

<table>
<thead>
<tr>
<th>Revision no.</th>
<th>Date</th>
<th>Modifications</th>
</tr>
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<tr>
<td>18</td>
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1. MINIMAL PROTECTION AT THE POINT OF USE OF TRADITIONAL HOUSEHOLD FITTINGS (BATH-SHOWER, SHOWER, WASHBASIN AND SINK)

1.1 Antipollution protection

Given the implementation of Standard NF EN 1717, minimal pollution control at the point of use of sanitary tapware is required.

The minimum protections listed below are acceptable provided that the water distribution facilities have the appropriate backflow prevention systems for private cold or hot water supply branches if production is collective, in accordance with applicable health regulations (departmental health regulations, orders, or technical reference guides, etc.).

1.2 Products

- Bath-Shower or Shower Tapware
  For shower and bath-shower taps, with an obturator upstream of the mixing chamber (e.g. mixing valves and mechanical mixers):
  ⇨ either a family E type B valve on the shower tap outlet (or on each tap inlet), for bath-shower or shower taps;
  ⇨ or an automatic diverter, for bath-shower taps, in accordance with Standard NF EN 14506 (HC end disconnector, anti-pollution automatic diverter).

  For shower and bath-shower taps, with an obturator downstream of the mixing chamber (e.g. thermostatic mixers):
  ⇨ a family E type B valve on each tap inlet.

- Washbasin or sink tapware
  For sink / washbasin taps equipped with an extractable handspray or spout:
  Solution No. 1
  ⇨ a family E type B valve on the tap outlet before the hose;
  Solution No. 2
  ⇨ a family E type B valve on each tap inlet;
  Solution No. 3
  ⇨ a family E type B valve on the extractable handspray or spout inlet (This is only applicable if the design of the connection of the extractable handspray or spout to the body of the tap is specific to the product. This possibility is, thus, not applicable to products equipped with “standard” or “universal” handsprays.

- For sink taps with a retractable spout:
  Solution No. 1
  ⇨ a family E type B valve on each tap inlet;
  Solution No. 2
  ⇨ a family E type B valve integrated in the retractable spout (This is only applicable if the spout design is specific to the product. This possibility is, thus, not applicable to products equipped with “standard” spouts.)
1.3 Technical documentation

In addition, the following items should be added in the documentation provided with the tap:

- an installation diagram (unless the air trap is ensured by the construction of the product);
- a description such as: “This tapware has antipollution protection against backflow that must not be removed under any circumstances (except for replacement with at least equivalent protection).

This tapware is intended for traditional sanitary devices for domestic use such as showers, bath-showers, washbasins and sinks.

Installation of this tapware shall not result in an exemption from the requirement of appropriate protection at the origin of private pipes (for apartment supply, for example) in accordance with the provisions of applicable health regulations (departmental health regulations, orders, technical reference guides, etc.).

1.4 Technical specifications

To ensure the maintenance of antipollution protection systems for sanitary tapware, the following requirements are established:

1) Labelling of valves

To identify a family of valves, the designation “ST” (for construction) is used, followed by the nominal diameter of the enclosure (bore receiving the valve). The designation “DN” (for performance) must be specified in the instructions provided with the tapware.

Designation currently possible: ST10/DN 6/Manufacturer Code
ST10/DN 8/Manufacturer Code
ST14/DN 10/Manufacturer Code
ST15/DN 10/Manufacturer Code
ST20/DN 15/Manufacturer Code

2) Composition of a cartridge type EB check valve

The assembled cartridge and outer seal form a complete set.

3) Standardised dimensions for fitting valves

Diagram 2
### Table 1

<table>
<thead>
<tr>
<th></th>
<th>A Max. mm</th>
<th>B Max. mm</th>
<th>C mm</th>
<th>D mm</th>
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<td>ST 10 (DN6/DN8)</td>
<td>10</td>
<td>11</td>
<td>$10^{+0,15}_{-0}$</td>
<td>$11^{+0,5}_{-0}$</td>
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<tr>
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<td>14</td>
<td>16.5</td>
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<td>18</td>
<td>$20^{+0,15}_{-0}$</td>
<td>$18^{+0,5}_{-0}$</td>
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In the future, ST families may change according to proposals submitted to the committee.