

Title: WORCESTER VALVES, CONTACT WITH FOOD REGULATION EC1935

1.0 Introduction

1.1 This specification covers the special requirements of T1935.

2.0 Scope

2.1 Stainless steel Worcester ball valves intended to come into contact with food in accordance with the European food contact Regulation (EC) No 1935/2004.

2.2 Available valve series approved for EC1935 food contact

| Series | Variants | Fire-safe available | Anti-static available |
|-----------|--------------------------------|---------------------|--|
| 44 & 59 | 44, A44 & F44 59, A59 & F59 | Y | A44 & A59 require external anti-static braid |
| 459 & 599 | 459 & A459 599 & A599 | N | Y |
| 819 | R819, F819 | Y | Y |
| 829 | TBC | TBC | TBC |
| 51 | TBC | TBC | TBC |
| 52 | TBC | TBC | TBC |
| 519 | R519, F519 | Y | Y |
| 529 | TBC | TBC | TBC |
| 13 & 14 | 13 & 14 only | N | N |

2.3 Available sealing materials for food contact valves

| Material | FFC material spec | Notes |
|------------------------|-------------------|--|
| PTFE, Virgin | 508 | EU 10/2011 Compliant |
| PTFE, 15% Glass filled | 514 | EU 10/2011 Compliant |
| PTFE, 25% Glass filled | 509 | EU 10/2011 Compliant |
| Graphite, Virgin | 905 | Shall be supplied without PTFE coating |

3.0 Variation

3.1 Only the valve series, build and materials stated within the scope of this specification are available for use with EC1935 food contact service. For any variant or material not listed within this document, Engineering must be consulted prior to quotation or sale.

3.2 459/A459 & 599/A599 series valves only

- Stem thrust seals and gland packing shall be 25% glass filled PTFE.
- A459 & A599 standard stems should be used with EPV coding J4 to ensure traceability of materials.
- A459/A599 shall be marked with ATEX compliant.

3.3 All transit O-rings for welded connectors shall be substituted with EC1935 compatible body seals.

- 3.4** The 44/59 and 2.5" & 3" 459 series wrenches sleeves shall be the white EC1935 type and display the 'fork and glass' symbol.
- 3.5** Anti-static braid option (A44 & A59 series only):
- Small 3-piece valves requiring anti-static devices may be fitted with a braid attached between the body and stem.
 - Valves are marked ATEX compliant.
- 3.6** 13 & 14 series valves should use a stem (not drilled for foolproof pin) with EPV coding J4 to to ensure traceability of materials, and a ball which may be drilled for the foolproof pin.
- 3.7** All other components are as per Flowserve coding procedure 300033-SECT 1A/1M.

4.0 Material batch traceability

- 4.1** All valve components which come into direct contact with the media shall be batch traceable to the supplier and manufactured to an appropriate quality assurance and control system as referred to in regulation (EC) No 2023-2006 (good manufacturing practice for materials and articles intended to come into contact with food).

Metallic wetted parts requiring batch traceability shall include:

| Part | Material | Batch trace method |
|--------------------|----------|-----------------------------------|
| Body | 680 | Use melt no from 3.1 cert |
| Connector | 680 | Use melt no from 3.1 cert |
| Seat ring housing | 680 | Use melt no from 3.1 cert |
| Insert | 680 | Use melt no from 3.1 cert |
| Ball | 680 | Use melt no from 3.1 cert |
| | 6A6 | Use 3.1 cert and assign batch no# |
| Stem assembly | 9R1 | Use 2.1 cert and assign batch no# |
| Stem location ring | 612 | Use 2.1 cert and assign batch no# |

Notes

- For stem assemblies, the 2.1 cert must include a batch number for the complete assembly. In addition the basic material grades shall be stated for the stem, anti-static ball and anti-static spring.
- 4.2** Metallic wetted parts with EN 10204 3.1 certs
- For materials with full EN 10204 3.1 certification, the melt no. must be marked on each separate part which serves as the batch number. As 3.1 certificates already show the supplier, melt no and exact chemical composition, a 3.1 cert provides all the required information for batch traceability.
- 4.3** Metallic wetted parts with EN 10204 2.1 certs (C of C)

For parts supplied with certificates of conformity, an internal batch number shall be generated and recorded to include:

- Supplier name
- Batch number
- Flowserve part number
- Basic material grade (e.g. 316 stainless steel or Flowserve spec 601 etc.)

Note: Individual 2.1 certified parts do not require marking as the batch references are booked against the completed valve.

4.4 Plastic wetted parts requiring food contact (EC) No 10/2011 compliance:

- Body seals
- Seat rings
- Thrust seals, gland packing
- Secondary stem seal
- All wetted plastic parts

All plastic wetted parts shall be supplied in accordance with regulation (EC) No 10/2011 (plastic materials and articles intended to come into contact with food). Refer to paragraph 2.0 for currently available plastic materials.

5.0 Assembly

- 5.1 For all wetted parts, a record shall be maintained for each batch number used against the order. All batch numbers must be traceable back to the supplier and maintained for future reference.
- 5.2 Prior to assembly, all valve components including the plastic end cap protectors shall be cleaned in the Turbex washer at a minimum of 70 degrees C to remove particles and contaminants.
- 5.3 Assembly of valves must be carried out in the designated 'food contact' clean area. The clean area must be free of contaminants and only the lubricants and assembly tools designated for 'food contact' valves may be used. Tools and fixtures used for the assembly of standard valves must be cleaned prior to use on 'food contact' valves.
- 5.4 44/59 series valves shall be assembled and tested using the actual body seals (o-ring transit seals are not fitted) with a spare set of body seals cleaned, packaged and labelled separately according to this specification.
- 5.5 All valves shall be built dry however it is permitted to use Rocol Dry PTFE spray on stem threads and bolting. The sprayed film must be allowed to dry thoroughly before components are used in valve assembly. Care shall be taken during assembly to ensure contact with lubricants or greases in the wetted area is minimised.
- 5.6 Where lubrication is required for graphite stem packing the lubricant shall be:
- NSF H1 rated for indirect food contact (i.e. no contact in wetted area)
NSF 3H rated for direct food contact (i.e. Minimal contact in wetted area)
- 5.7 Valves shall be hydrostatically tested using de-mineralised water in the designated clean area.

- 5.8 Straight after successful completion of the hydrostatic test, all valves shall be blown dry with air.
- 5.9 The seat test shall be conducted using air or Nitrogen in the designated clean area.
- 5.10 After successful completion of testing, all valves shall be fitted with clean end protector caps and sealed in polythene bags. All packaging used, must be approved for use with 'food contact' valves. The end protector caps shall be compliant with regulation (EC) No 10/2011.

5.0 Certification

- 5.1 A certificate of conformity shall be supplied with the following statement:

Regulation (EC) No 1935/2004

These products are supplied in accordance with the European 'materials and articles intended to come into contact with food' Regulation (EC) No 1935/2004.

The above EC1935 text code number is 50003088 which shall be added to the valve BOM routings.

- 5.2 A declaration of conformity for compliance in accordance with EC 1935 shall be issued to the customer with each order.

6.0 Labelling

- 6.1 A label shall be attached to the outside of each bag for valves, repair kits and spares stating:

Intended for contact with food
in accordance with regulation
(EC) No 1935/2004

DO NOT open prior to installation

7.0 Repair kits

- 7.1 All repair kits shall be supplied in accordance with this specification.
- 7.2 For batch traceability purposes, the sales order number and line item shall be printed on the repair kit label.



Flow Control

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Revision Notes:

Revision 4

Add capability for A459/A599 & 13/14 series valves.

Amend 3.2 to allow for anti-static ball stems

Change 3.6 to 13 & 14 series notes

Note 3.6 now 3.7

Revision 3

Added paragraph 7.2 for including the sales order number on repair kit labels.