

**BUILDING MATERIALS EVALUATION COMMISSION
(BMEC)**

**DATE OF AUTHORIZATION
BMEC AUTHORIZATION
BMEC APPLICATION**

**OCTOBER 31, 2002
BMEC # 02-06-277
#A2002-11**

Royal PVC DWV Starter Fittings

1. Applicant

Royal Pipe Systems
131 Regalcrest Court
Woodbridge, Ontario
Canada
L4L 8P3

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2. Manufacturing Facilities

Royal Pipe Systems
56400 Mound Road
Shelby, Twp
MI, USA
48316

3. Description

The Royal PVC DWV Starter Fitting consists of a one piece, molded drain waste vent (DWV) for connecting three drains to one pipe, through a single fitting. The Royal PVC DWV Starter Fitting is designed for use in stack drainage applications where multiple fittings are required to connect a series of plumbing fixtures. The starter fitting consists of a 3" (75 mm) wye toilet drain connection and incorporates two 1 ½" (38 mm) shower/bath outlets at 45° from the centre of the fitting.

The Royal PVC DWV Starter Fitting is designed to reduce the connection of multiple fittings to connect different fixtures required on stack assemblies within limited spaces.

4. Authorization requested

The applicant sought authorization for the use of the Royal PVC DWV Starter Fitting as part of a drainage system to replace multiple fittings in a stack DWV system referred to in Articles 7.2.4.5. and 7.2.4.1. of the 1997 Ontario Building Code as amended.

5. Assessment

Reports and assessments provided by the applicant demonstrate that if the Royal PVC DWV Starter Fitting is constructed, installed, operated, maintained and monitored in accordance with the limitations of the manufacturer's specifications and the conditions stated in this authorization, a level of performance equivalent to that required by the 1997 Ontario Building Code as amended will be provided.

Reports assessments, information submitted, and reviewed:

1. Technical Background Information Memo relating to Royal PVC DWV Starter Fitting, dated September 23, 2002.
2. CSA Certificate of Compliance for Royal Pipe Systems "PVC DWV Starter Fitting", issued June 27, 2002.
3. Shop Drawings, Reference Job #6505 "Two Cavity 3" Manifold PVC", dated October 10, 2002.
4. ASTM International: Designation F610/F610M-00a "Standard Test Method for Evaluating the Quality of Molded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings by Heat Reversion Technique.
5. ASTM International: Designation D2122-98 "Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings"
6. Royal Pipe Systems PVC DWV Starter Fitting "Quality Control Procedure", dated August 14, 2002.
7. Installation Manual "Royal Pipe Systems PVC DWV Starter Fitting."
8. Manufacturer's Literature, "Show and Tell: The Next Generation of Fire Protection Royal Pipe Systems."
9. Letter Report ULC, re: PVC Fittings Designated as "PVC DWV Starter Fitting," dated October 24, 2002.

6. Authorization

The Royal PVC DWV Starter Fitting is authorized for use in a drainage system for a multi storey building using a modified stack configuration as referenced in Articles 7.2.4.5. and 7.2.4.1. of the 1997 Ontario Building Code as amended, all other requirements pertaining to the installation of the Royal PVC DWV Starter Fitting shall conform to the requirements of the 1997 Ontario Building Code as amended, and is subject to the following terms and conditions:

A. Specific Terms and Conditions

1. This authorization is valid only for Royal PVC DWV Starter Fitting.
2. The Royal PVC DWV Starter Fitting shall be a moulded assembled unit and shall not be site assembled.
3. The Royal PVC DWV Starter Fitting is permitted in a single configuration as a specially designed device or system.
4. The Royal PVC DWV Starter Fitting shall meet the smoke and flame spread requirements of the 1997 Ontario Building Code as amended.
5. The Royal PVC DWV Starter Fitting shall not be installed within a supply or return air plenum.
6. The Royal PVC DWV Starter Fitting must be provided with a clean-out above the flood level rim of the highest fixture it serves.
7. The Royal PVC DWV Starter Fitting shall be installed as per CSA B181.2, "PVC Drain, Waste, and Vent Pipe and Pipe Fittings."
8. The Royal PVC DWV Starter Fitting shall be marked, and certified to CSA B181.2, "PVC Drain, Waste, and Vent Pipe and Pipe Fittings" as a molded assembled unit.

B. General Conditions

1. The use of the Royal PVC DWV Starter Fitting must comply with the *Building Code Act, 1992* as amended or re-enacted from time to time and except as specifically authorized herein, with the OBC as amended or remade from time to time.

2. A copy of this Authorization shall accompany each application for a building permit and shall be maintained on the site of the construction with the building permit.
3. The Applicant named in Part 1 hereof shall promptly notify the BMEC of:
 - (a) the failure of the applicant, or of the material, system or building design that is the subject matter of this authorization, to comply with any of the Specific Terms and Conditions set out in 6. A. above; or
 - (b) the occurrence of any of the events described in Specific Terms and Conditions 6. B. 4. (a) and (b) (ii) below.
4. The BMEC may amend or revoke this Authorization where it determines that:
 - (a) any change has been made to:
 - (i) the material, system or building design that is the subject matter of this authorization;
 - (ii) the address of the applicant specified in Part 1 of this authorization; or,
 - (iii) the ownership of the applicant specified in Part 1 of this authorization.
 - (b) the use of the material, system or building design authorized herein;
 - (i) does not comply with the *Building Code Act, 1992* or any relevant legislation as they may be amended or re-enacted from time to time; or
 - (ii) provides an unsatisfactory level of performance, in situ.
 - (c) the applicant, or the material, system or building design that is the subject matter of this authorization, has failed to comply with any of the Specific Terms and Conditions set out in this Authorization; or
 - (d) any Ontario Building Code provision relevant to this Authorization has been amended or remade.

5. Where the Commission receives additional information concerning the material, system or building design authorized herein, the Commission may review this Authorization and the Commission may after the review amend or revoke this Authorization as in the opinion of the Commission may be necessary.

at Toronto this 31st day of October 2002.

BUILDING MATERIALS EVALUATION COMMISSION

per: Rashmi Nathwani,, Chairman