

SECTION 233300 - AIR DUCT ACCESSORIES (Basis-of-Design: ROSSI HVAC Hardware)

Note to Specifying Engineer:

This specification is provided as a guide specification for using ROSSI HVAC Hardware products as the basis-of-design. The technical information provided applies to ROSSI HVAC Hardware products. Care must be taken when editing this specification such that the design intent of using ROSSI HVAC Hardware products as the basis-of-design is not compromised.)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Manual volume dampers.
 - 2. Duct accessory hardware.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. Product data sheet shall show verification of specified features.
- B. Source quality-control reports.
- C. Operation and Maintenance Data: For air duct accessories to include in operation and maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Comply with NFPA 90A, "Installation of Air Conditioning and Ventilating Systems," and with NFPA 90B, "Installation of Warm Air Heating and Air Conditioning Systems."
- B. Comply with UL 1995 Standards Code for Heating & Cooling (CSA-C22.2 No. 238 UL 1995) with the required flammability rating of 5VA.
- C. Comply with SMACNA standards for manual air flow regulators (dampers).

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.
- B. Galvanized Sheet Steel: Comply with ASTM A 653/A 653M.
 - 1. Galvanized Coating Designation: [**G90 (Z275)**].
- C. Non Metallic Components: Polyamide 66 (PA66), Flame Retardant, Glass Reinforced, "Zytel," the engineering polymer by Dupont. PA66 is the material outlined for use in all Non-Metallic Components as specified in the UL 1995 Standards Code for Heating & Cooling (CSA-C22.2 No. 238 UL 1995) with the required flammability rating of 5VA.

2.2 MANUAL VOLUME DAMPERS

- A. Standard, Steel, Manual Volume Dampers:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ROSSI HVAC Hardware (www.RossiHardware.com) (info@rossihardware.com) (818) 252 – 3811
 - 2. Suitable for horizontal or vertical applications.
 - 3. Locking Hardware Component: Everlock damper handle by ROSSI HVAC Hardware
 - a. Bracket: Cold Rolled Steel (ASTM A-1008), 18 gauge nominal thickness Of 0.0478 with Tolerance range of 0.0438 to 0.0518. Single cut and formed bracket for use with 1.5" or 2.0" insulation wrapping or any other such stand-off applications. Finished with a white Chromate plating process which provides durable corrosion resistance. Auto Planting ASTM B-633 Type II (white) class FE/ZN8 or SC2 Thickness of 0.0003.
 - b. Handle and Thumb Trigger: Polyamide 66 (PA66), Flame Retardant, Glass Reinforced, "Zytel," the engineering polymer by Dupont. PA66 is the material outlined for use in all Non-Metallic Components as specified in the UL 1995 Standards Code for Heating & Cooling (CSA-C22.2 No. 238 UL 1995) with the required flammability rating of 5VA.

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- c. Compression Spring: Stainless Steel Type 302-OD 0.25 wire 0.026 free length of 7/8" (0.875")
 - d. Retaining Spring: Ext. Self-Lock TX-75ST-ZF Carbon Steel SAE 1074 with Zink Bright Plating. C-Scale Rockwell Hardness 47 to 51.
4. Blades (or Discs) by ROSSI HVAC Hardware
- a. 4" to 16" diameter Single blade (or disc). ASTM-A527 LFO G90, 22 gauge reinforced to equal strength of 20 gauge material.
 - b. 3/8" full length bar fits through formed channel in center of damper blade.
5. Bars: 3/8" square Aluminum bar
6. Bearings by ROSSI HVAC Hardware
- a. Snap-in bearings by ROSSI HVAC Hardware for medium and low pressure systems. Polyamide 66 (PA66), Flame Retardant, Glass Reinforced, "Zytel" by Dupont.
 - b. Clip-on bearings by ROSSI HVAC Hardware for higher pressure systems. Polyamide 66 (PA66), Flame Retardant, Glass Reinforced, "Zytel" by Dupont.
 - c. B-Lined bearings by ROSSI HVAC Hardware for lined duct. Polyamide 66 (PA66), Flame Retardant, Glass Reinforced, "Zytel" by Dupont.
- B. Damper Hardware For Other Dampers:
- 1. Locking Hardware Component: Everlock damper handle by ROSSI HVAC Hardware
 - a. Bracket: Cold Rolled Steel (ASTM A-1008), 18 gauge nominal thickness Of 0.0478 with Tolerance range of 0.0438 to 0.0518. Single cut and formed bracket for use with 1.5" or 2.0" insulation wrapping or any other such stand-off applications. Finished with a white Chromate plating process which provides durable corrosion resistance. Auto Planting ASTM B-633 Type II (white) class FE/ZN8 or SC2 Thickness of 0.0003.
 - b. Handle and Thumb Trigger: Polyamide 66 (PA66), Flame Retardant, Glass Reinforced, "Zytel," the engineering polymer by Dupont. PA66 is the material outlined for use in all Non-Metallic Components as specified in the UL 1995 Standards Code for Heating & Cooling (CSA-C22.2 No. 238 UL 1995) with the required flammability rating of 5VA.
 - c. Compression Spring: Stainless Steel Type 302-OD 0.25 wire 0.026 free length of 7/8" (0.875")

- d. Retaining Spring: Ext. Self-Lock TX-75ST-ZF Carbon Steel SAE 1074 with Zink Bright Plating. C-Scale Rockwell Hardness 47 to 51.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install duct accessories according to applicable details in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for metal ducts and in NAIMA AH116, "Fibrous Glass Duct Construction Standards," for fibrous-glass ducts.
- B. Install volume dampers at points on supply, return, and exhaust systems where branches extend from larger ducts. Install volume dampers and brackets wherever indicated on the floor plans.
- C. Set dampers to fully open position before testing, adjusting, and balancing.

3.2 FIELD QUALITY CONTROL

- A. Tests and Inspections:
 - 1. Operate dampers to verify full range of movement.
 - 2. Inspect locations of access doors and verify that purpose of access door can be performed.

END OF SECTION 233300