



1.2 ACTION AND INFORMATIONAL SUBMITTALS (Cont'd) .7 Closeout submittals: submit maintenance and engineering data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.3 QUALITY ASSURANCE .1 Pre-Installation Meetings:  
.1 Convene pre-installation meeting one week prior to beginning on-site installations in accordance with Construction Progress Schedule.  
.1 Verify project requirements.  
.2 Review installation and substrate conditions.  
.3 Co-ordination with other building subtrades.  
.4 Review manufacturer's installation instructions and warranty requirements.  
.2 Health and Safety:  
.1 Do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.

1.4 DELIVERY, STORAGE AND HANDLING .1 Waste Management and Disposal:  
.1 Separate waste materials for reuse and recycling.

PART 2 - PRODUCTS

2.1 GENERAL .1 Manufacture in accordance with SMACNA - HVAC Duct Construction Standards.

2.2 FLEXIBLE CONNECTIONS .1 Frame: galvanized sheet metal frame with fabric clenched by means of double locked seams.  
.2 Material:  
.1 Fire resistant, self extinguishing, neoprene coated glass fabric, temperature

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2.2 FLEXIBLE CONNECTIONS (Cont'd) .2 Material:(Cont'd)  
.1 (Cont'd)  
rated at minus 40 degrees C to plus 90 degrees C, density of 1.3 kg/m<sup>2</sup>.

2.3 ACCESS DOORS IN DUCTS .1 Non-Insulated Ducts: sandwich construction of same material as duct, one sheet metal thickness heavier, minimum 0.6 mm thick complete with sheet metal angle frame.  
.2 Insulated Ducts: sandwich construction of same material as duct, one sheet metal thickness heavier, minimum 0.6 mm thick complete with sheet metal angle frame and 25 mm thick rigid glass fibre insulation.  
.3 Gaskets: neoprene.  
.4 Hardware:  
.1 Up to 300 x 300 mm: two sash locks complete with safety chain.  
.2 301 to 450 mm: four sash locks complete with safety chain.  
.3 451 to 1000 mm: piano hinge and minimum two sash locks.  
.4 Doors over 1000 mm: piano hinge and two handles operable from both sides.  
.5 Hold open devices.

2.4 TURNING VANES .1 Factory or shop fabricated single thickness with trailing edge, to recommendations of SMACNA and as indicated.

2.5 INSTRUMENT TEST .1 1.6 mm thick steel zinc plated after manufacture.  
.2 Cam lock handles with neoprene expansion plug and handle chain.  
.3 28 mm minimum inside diameter. Length to suit insulation thickness.

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2.5 INSTRUMENT TEST .4 Neoprene mounting gasket.  
(Cont'd)

2.6 SPIN-IN COLLARS .1 Conical galvanized sheet metal spin-in  
collars with lockable butterfly damper.  
.2 Sheet metal thickness to co-responding round  
duct standards.

PART 3 - EXECUTION

3.1 MANUFACTURER'S .1 Compliance: comply with manufacturer's  
INSTRUCTIONS written recommendations or specifications,  
including product technical bulletins,  
handling, storage and installation  
instructions, and data sheet.

3.2 INSTALLATION .1 Flexible Connections:  
.1 Install in following locations:  
.1 Inlets and outlets to supply air  
units and fans.  
.2 Inlets and outlets of exhaust and  
return air fans.  
.3 As indicated.  
.2 Length of connection: 100mm.  
.3 Minimum distance between metal parts  
when system in operation: 75 mm.  
.4 Install in accordance with  
recommendations of SMACNA.  
.5 When fan is running:  
.1 Ducting on sides of flexible  
connection to be in alignment.  
.2 Ensure slack material in flexible  
connection.  
.2 Access Doors and Viewing Panels:  
.1 Size:  
.1 600 x 600 mm for servicing entry.

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- 3.2 INSTALLATION      .2      Access Doors and Viewing Panels: (Cont'd)  
(Cont'd)
- .2      Locations:
    - .1      Fire and smoke dampers.
    - .2      Control dampers.
    - .3      Devices requiring maintenance.
    - .4      Required by code.
    - .5      Reheat coils.
    - .6      Elsewhere as indicated.
  - .3      Instrument Test Ports:
    - .1      General:
      - .1      Install in accordance with recommendations of SMACNA and in accordance with manufacturer's instructions.
    - .2      Locate to permit easy manipulation of instruments.
    - .3      Install insulation port extensions as required.
    - .4      Locations:
      - .1      For traverse readings:
        - .1      Ducted inlets to roof and wall exhausters.
        - .2      Inlets and outlets of other fan systems.
        - .3      Main and sub-main ducts.
        - .4      And as indicated.
      - .2      For temperature readings:
        - .1      At outside air intakes.
        - .2      In mixed air applications in locations as approved by Departmental Representative.
        - .3      At inlet and outlet of coils.
        - .4      Downstream of junctions of two converging air streams of different temperatures.
        - .5      And as indicated.
  - .4      Turning vanes:
    - .1      Install in accordance with recommendations of SMACNA and as indicated.
- 3.3 CLEANING      .1      Perform cleaning operations as specified in Section and in accordance with manufacturer's recommendations.
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