

Part 1 General

1.1 REFERENCE STANDARD

- .1 Provide and install mechanical equipment so that Average Noise Criteria Curves, as outlined in ASHRAE Guide, are not exceeded.

1.2 GENERAL REQUIREMENTS

- .1 Supply vibration isolation equipment and materials by one supplier. Consider side loading of equipment and inertia bases when calculating maximum loads on isolators.
- .2 Ensure equipment is sufficiently rigid for isolator point loading.

1.3 PRODUCT OPTIONS AND SUBSTITUTIONS

- .1 Refer to Division 01 for requirements pertaining to product options and substitutions.

1.4 SHOP DRAWINGS AND PRODUCT DATA

- .1 Comply with requirements of Section 01 33 10.
- .2 Provide schedule of vibration isolation devices prepared by the manufacturer to include:
 - .1 Type of isolator
 - .2 Service
 - .3 Location
 - .4 Static load
 - .5 Deflection
 - .6 Base dimensions
- .3 Provide installation instructions.

1.5 INSPECTION

- .1 Retain and pay for inspection services and report by manufacturer's representative to confirm installation is in accordance with manufacturer's recommendations.

Part 2 Products

2.1 VIBRATION ISOLATORS

- .1 Type 5: Closed spring hanger with elastomer washer in series with the spring..

2.2 KINETIC ISOLATION PADS

- .1 50 mm thick solid neoprene isolators.
- .2 Maximum deflection of pad not to exceed 7 mm.

Part 3 Execution

3.1 BASE ASSEMBLIES

- .1 Provide bases for equipment as specified in Vibration Control Schedule.
- .2 Provide concrete housekeeping pad below pad. Anchor vibration isolators to the housekeeping base.
- .3 Provide minimum 50 mm clearance between housekeeping pad and base.
- .4 Ensure bases and housekeeping pads are level and clear of all debris.
- .5 Support vertical piping to equipment from the base, not on the housekeeping pad or floor.

3.2 SPRING ISOLATED PIPING SUPPORTS

- .1 Where piping connects to vibration isolated devices, provide Type 5 isolators on pipe hanger supports as follows:
 - .1 First three pipe hangers for pipe 100 mm or less.
 - .2 Size first spring hanger to deflect two times the static deflection of the isolated equipment, with maximum deflection of 50 mm. Minimum 25 mm deflection of subsequent hangers.

3.3 SOUND AND VIBRATION PENETRATIONS

- .1 Support piping passing through equipment room floors with a pipe clamp at floor level, supported from floor on Type 8 isolators.
- .2 Caulk pipe and ducts passing through equipment room floors or walls on each side. Install lead sheeting around the opening to form a sound barrier.

3.4 RUBBER ISOLATED PIPING SUPPORTS

- .1 Where domestic hot and cold piping to plumbing fixtures is supported in drywall partitions, install 3 mm thick neoprene rubber separation between bracket support and pipe.

3.5 VIBRATION CONTROL SCHEDULE

- .1 Refer to Schedule on drawings.

END OF SECTION