

PART 1 - GENERAL

- 1.1 REFERENCES .1 ASTM International
.1 ASTM A 653/A 653M-Latest Edition,
Standard Specification for Steel Sheet,
Zinc-Coated (Galvanized) or Zinc-Iron
Alloy-Coated (Galvannealed) by Hot-Dip
Process.
- 1.2 ACTION AND
INFORMATIONAL
SUBMITTALS .1 Submit in accordance with Section 01 33 00 -
Submittal Procedures.
.2 Product Data:
.1 Submit manufacturer's instructions,
printed product literature and data sheets for
dampers and include product characteristics,
performance criteria, physical size, finish
and limitations.
- 1.3 CLOSEOUT
SUBMITTALS .1 Submit in accordance with Section 01 78 00 -
Closeout Submittals.
.2 Operation and Maintenance Data: submit
operation and maintenance data for dampers for
incorporation into manual.
- 1.4 DELIVERY,
STORAGE AND
HANDLING .1 Deliver, store and handle materials in
accordance with Section 01 61 00 - Common
Product Requirements and with manufacturer's
written instructions.
.2 Delivery and Acceptance Requirements: deliver
materials to site in original factory
packaging, labelled with manufacturer's name
and address.
.3 Storage and Handling Requirements:
.1 Store materials indoors in dry location
and in accordance with manufacturer's
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- 1.4 DELIVERY, STORAGE AND HANDLING (Cont'd)
- .3 Storage and Handling Requirements: (Cont'd)
- .1 (Cont'd) recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect dampers from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

PART 2 - PRODUCTS

- 2.1 MULTI-LEAF DAMPERS
- .1 Opposed and or parallel blade type as indicated.
 - .2 Extruded aluminum, interlocking blades, complete with extruded vinyl seals, spring stainless steel side seals, extruded aluminum frame.
 - .3 Pressure fit self-lubricated bronze bearings.
 - .4 Linkage: plated steel tie rods, brass pivots and plated steel brackets, complete with plated steel control rod.
 - .5 Operator: electric actuator compatible with damper. Submit shop drawings for approval.
 - .6 Performance:
 - .1 Leakage: in closed position less than 2% of rated air flow.
 - .2 Pressure drop: at full open position less than 15 Pa differential across damper.
 - .7 Insulated aluminum dampers:
 - .1 Frames: insulated with extruded polystyrene foam with RSI 0.88.
 - .2 Blades: constructed from aluminum extrusions with internal hollows insulated with polyurethane or polystyrene foam, RSI 0.88.
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- 2.2 BACK DRAFT .1 Automatic gravity operated, multi leaf,
DAMPERS aluminum construction with nylon bearings,
centre pivoted, spring assisted or
counterweighted, as indicated.

PART 3 - EXECUTION

- 3.1 EXAMINATION .1 Verification of Conditions: verify that
conditions of substrate previously installed
under other Sections or Contracts are
acceptable for damper installation in
accordance with manufacturer's written
instructions.
 .1 Inform Departmental Representative of
unacceptable conditions immediately upon
discovery.
 .2 Proceed with installation only after
unacceptable conditions have been remedied and
after receipt of written approval to proceed
from Departmental Representative

- 3.2 INSTALLATION .1 Install where indicated.
 .2 Install in accordance with recommendations of
SMACNA and manufacturer's instructions.
 .3 Seal multiple damper modules with silicon
sealant.
 .4 Install access door adjacent to each damper.
See Section 23 33 00 - Air Duct Accessories.
 .5 Ensure dampers are observable and accessible.

- 3.3 CLEANING .1 Progress Cleaning: clean in accordance with
Section 01 74 11 - Cleaning.
 .1 Leave Work area clean at end of each
day.
 .2 Final Cleaning: upon completion remove
surplus materials, rubbish, tools and
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<u>3.3 CLEANING</u>	.2	Final Cleaning: (Cont'd)
<u>(Cont'd)</u>		equipment in accordance with Section 01 74 11
		- Cleaning.