

PART 1 - GENERAL

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| <u>1.1 REFERENCES</u> | .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. |
| <u>1.2 ACTION AND
INFORMATIONAL
SUBMITTALS</u> | .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. |
| <u>1.3 CLOSEOUT
SUBMITTALS</u> | .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. |
| <u>1.4 DELIVERY,
STORAGE AND
HANDLING</u> | .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. |
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PART 2 - PRODUCTS

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| 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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| <u>2.2 BACK DRAFT
DAMPERS</u> | .1 | Automatic gravity operated, multi leaf, aluminum construction with nylon bearings, centre pivoted, spring assisted or counterweighted, as indicated. |
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PART 3 - EXECUTION

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| <u>3.1 EXAMINATION</u> | .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 |
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| <u>3.2 INSTALLATION</u> | .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. |

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| <u>3.3 CLEANING</u> | .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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3.3 CLEANING	.2	Final Cleaning: (Cont'd)
<u>(Cont'd)</u>		equipment in accordance with Section 01 74 11
		- Cleaning.