# PRODUCT SPECIFICATION GUIDE

## MODEL: CEILING DAMPERS – C-S/R

# DIVISION 23 - Heating, Ventilation, and Air Conditioning (HVAC)

1. **GENERAL**
	* + 1. **SECTION INCLUDES**
				1. Ceiling dampers with butterfly style blades meeting the requirements of the latest edition of UL Standard 555C.
			2. **SUMMARY**
				1. Section HVAC Ducts and Casings.
			3. **REFERENCES**
2. IBC – International Building Code.
3. NFPA 90A - Installation of Air Conditioning and Ventilating Systems.
4. UL 555C - Standard for Safety; Ceiling Dampers.
	* + 1. **SUBMITTALS**
5. Comply with requirements of Submittal Section.
6. Product Data: Submit manufacturer's product data.
	1. Include UL ratings, fire resistance, size limitations, and mounting orientation.
	2. Indicate materials, construction, dimensions, and installation details.
	3. Verify conformance to NFPA, UL, and applicable building code.
	4. Include a copy of UL approved installation instructions.
		* 1. **QUALITY ASSURANCE**
				1. Dampers shall be warranted against manufacturing defects for a period of 1 years.
				2. Dampers shall be tested, rated and labeled in accordance with the latest UL-555C requirements.
				3. Comply with NFPA 90A, "Installation of Air Conditioning and Ventilating Systems”.
			2. **DELIVERY, STORAGE, AND HANDLING**
				1. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer, material, and location of installation.
				2. Storage: Store materials in a dry area indoor and protected from damage and in accordance with manufacturer’s instructions.
				3. Handling: Handle and lift dampers by sleeve or frame only. Do not lift damper by blades. Protect materials and finishes during handling and installation to prevent damage.
7. **PRODUCTS**
	* + 1. **MANUFACTURER**
				1. Ceiling Dampers shall be in compliance and labelled to UL 555C standard with the specific model reflecting on the UL certificate of the supplier, e.g., Central Ventilation Systems (R27747) and approved by Civil Defense.
			2. **CEILING DAMPERS**
				1. Model: C-S/R series ceiling dampers.
				2. Ratings:

Fire Rating: 3-hour rated in accordance with UL 555C.

* + - * 1. Construction:

Frame: Minimum 22-gauge (0.85 mm) roll formed, galvanized steel.

Blades: Minimum 22-gauge (0.85 mm) galvanized steel.

 (Un-insulated up to 80 sq. in. and UL classified Insulated over 80 sq. in.)

Thermal Blanket: Non-asbestos, ceramic blanket.

Spring: Corrosion resistant steel.

Fire Closure Device: Fusible link

Closure Temperature:

* 165 ºF (74 ºC).
* 212 ºF (100 ºC).

Mounting: Horizontal

* + - 1. **Accessories:**
1. Adjustable Volume Controller: Volume control device with integral fusible link, model CD-S/R-A.
2. CK-2000-1: Thermal blanket required to protected exposed portion of steel backed diffusers
3. **EXECUTION**
	* + 1. **EXAMINATION**
				1. Examine areas to receive dampers. Notify the Engineer of conditions that would adversely affect installation or subsequent utilization of dampers. Do not proceed with installation until unsatisfactory conditions are corrected
			2. **INSTALLATION**
				1. Install dampers at locations as indicated on the drawings and in accordance with manufacturer’s UL approved installation instructions.
				2. Install dampers square and free from racking. DO NOT compress or stretch damper sleeve or frame into the duct or opening.
				3. Handle dampers using the frame or sleeve. Do not lift or move damper using blades.

**END OF SECTION**