



ADVANCED WIND PROTECTION FOR SAFE ROOMS AND STORM SHELTERS

CYCLONE® products provide an exceptional level of protection for penetrations on projects located in areas susceptible to high-wind events



COMPREHENSIVE PROTECTION FOR PENETRATIONS

CYCLONE® products provide protection for various roof and wall penetrations, such as pipes, conduits, gas lines, electrical wiring, fresh air or forced air louvers, and ducts.



MEETS MANDATORY ICC & FEMA REQUIREMENTS

A leading third-party tested roof and wall penetration protection solution for safe rooms/storm shelters, we meet FEMA P-361 and ICC 500-2014 for up to 250 mph winds, including Missile Impact Testing and labeling.*



ENGINEERED FOR ICC 500 TWO-POINT DEFLECTION

Select CYCLONE® products feature two-point deflection to meet ICC 500 Section 305.1, requiring debris to strike two surfaces before reaching shelter space. This protection is essential for wall and roof penetrations into the shelter envelope.



ADVANCED ENGINEERING FOR COMPLEX APPLICATIONS

We work closely with architects, engineers, and contractors to understand their toughest penetration challenges in high-wind zones and turn those insights into innovative, technically advanced solutions.



PARTNERSHIP & SUPPORT

Our team is dedicated to supporting you throughout the entire process, from early specification to final installation. We stand behind our products with a 3-year insured warranty.

IDEAL SOLUTION
FOR SPECIFIERS OF:

ICC 500 & FEMA P-361
PROJECTS

PROJECTS IN
HIGH WIND ZONES

SAFE ROOMS/
STORM SHELTERS

CYCLONE®
STEEL HOUSING (CSH)



SAFE ROOM/STORM SHELTER PROTECTION

CYCLONE® products meet strict standards for safe rooms/storm shelters, including ICC 500-2014* and FEMA P-361 codes. Third-party tested to withstand up to 250 mph winds with two-point deflection design for ICC compliance, they offer exceptional protection for the building and occupants in areas prone to high-wind events.

WHAT is unique about CYCLONE® products?

- Third-party tested to meet ICC-500 2014* and FEMA P-361 requirements for storm shelters/safe room penetrations, which includes Missile Impact Testing and labeling.
- The two-point deflection design meets ICC standards and offers added protection for occupants in high wind areas.
- Eliminates costly leak repairs and ensures the safety of your building, contents, and occupants against weather-related damage
- Fabricated from 3/16" carbon steel or schedule 40 steel pipe with industrial coating.

*RPH is currently in the process of testing for ICC 500-2024 certification.

CYCLONE® ROOF DRAIN
(CRD)/(COFRD)



patent # US 10,907,356 B2

WHY do CYCLONE® products perform so well?



CYCLONE® 5000 SERIES
RPH EXIT SEAL™

Our CYCLONE® products are designed with advanced technology and premium materials, such as 3/16" carbon steel or schedule 40 steel pipe, to surpass performance and durability requirements in high wind areas, such as hurricane and tornado-prone regions. Our proprietary RPH Exit Seals™ are a crucial component in the performance of our CYCLONE® Steel Housing, working together to create a water-tight and air-tight solution for protecting roof and wall penetrations.

WHERE are CYCLONE® products typically installed?

TYPICAL BUILDING TYPES

- Safe Rooms/Storm Shelters
- Healthcare Facilities
- Food & Beverage Facilities
- Educational Facilities
- Mission Critical Facilities
- Commercial
- Data Centers
- Public Safety Facilities
- Retail Centers/Strip Malls

TYPICAL INSTALLATIONS

- New Construction
- Retrofit
- Reroof



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Engineered for Safety: FEMA and ICC Compliant Roof and Wall Penetration Solutions for Architects and Engineers Designing Safe Rooms and Storm Shelters

Architects and engineers designing safe rooms and storm shelters in hurricane and tornado-prone areas must ensure that their designs comply with both FEMA P-361 and ICC 500 regulations. These mandated regulations provide specific guidelines for the construction of safe rooms and storm shelters, including the use of specific materials, design parameters, and structural requirements.

In the past, the focus was on protecting the building itself during extreme weather events like hurricanes and tornadoes. However, there has been a shift towards prioritizing the safety of occupants during these events. This has led to stricter regulations for roof and wall penetrations in safe rooms/storm shelters. CYCLONE® products meet these regulations and provide maximum protection against high winds and debris impact.



The following structures must include a storm shelter constructed in accordance with ICC 500 when located in a 250 mph wind speed zone for tornadoes

- ✓ **911 CALL STATIONS**
- ✓ **EMERGENCY OPERATIONS CENTERS**
- ✓ **FIRE, RESCUE, AND AMBULANCE STATIONS**
- ✓ **POLICE STATIONS**
- ✓ **K-12 SCHOOL BUILDINGS WITH A CAPACITY OF 50 OR MORE OCCUPANTS, WITH CERTAIN EXCEPTIONS**
- ✓ **ANY PROJECT WITH FEMA FUNDING**

All CYCLONE® products are third-party tested to meet ICC-500 2014* and FEMA P-361 to 250+ mph wind, including missile impact and labeling. They are engineered with a two-point deflection for ICC compliance and optimum safety, and fabricated from 3/16" carbon steel or schedule 40 steel pipe with industrial coating.



CYCLONE® STEEL HOUSING (CSH)

Provides a multiple penetrant pathway to the roof in tornado/hurricane-prone areas

Paired with our RPH Exit Seals™ for a weather-tight solution



CYCLONE® ROOF DRAIN (CRD)/(COFRD)

Supports high flow rates to prevent overflow in severe weather.

Dome shaped to dampen shock to roof drain sump

patent # US 10,907,356 B2



CYCLONE® ROOF HATCH (CRH)

Passed both the ASTM E330-14 uniform static A/P differential and Missile Impact Tests, demonstrating its resilience in hurricane/tornado-prone areas

R-40 insulated lid



CYCLONE® WALL SHROUD (CWS)

Designed to protect interior/exterior wall penetrations or roof deck of a safe room/storm shelter

Access door for future repairs



CYCLONE® VENT THROUGH ROOF (CVTR)

Facilitates plumbing vent for safe rooms/storm shelters.

Can be custom designed for the thickness of the roof and height of the parapet



CYCLONE® WALL DOWNSPOUT (CWDS)

Accommodates small piping and conduit for exterior walls

Can also serve as a downspout nozzle for roof drain leaders

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LET RPH BE YOUR PARTNER AND RESOURCE FOR ALL THINGS ROOF AND WALL PENETRATION PROTECTION FOR SAFE ROOMS AND STORM SHELTERS



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