# Blast Resistant Power Control Room (PCR®)

*ENCLOSURES DESIGNED TO PROTECT CRITICAL EQUIPMENT*

## PROTECTING CRITICAL EQUIPMENT

Electrical Enclosures are a fundamental part of any process facility as they house the equipment that distributes, controls, and monitors the electrical power used for process equipment in the plant.

Although these enclosures are not continuously occupied by personnel, they can have a critical function in the plant during an emergency.

Industry recommended practices such as ASCE Design of Blast- Resistant Buildings for Petrochemical Facilities (2010) and PIP recommend that indicate that they be protected against potential vapor cloud explosions to enable safe shutdown and avoid escalation of events.

*Protect Personnel and Emergency Critical Equipment*

*Every Design is Customized based on Facility Siting Study and QRA API 752*

*Blast Resistant Design based on ASCE and PIP*

*Optional NFPA496 Pressurization in Classified Areas*

*Noncombusitble Construction*

## BLAST RESISTANT PRODUCT LINE

Powell can provide all our building product line with a blast-resistant design:

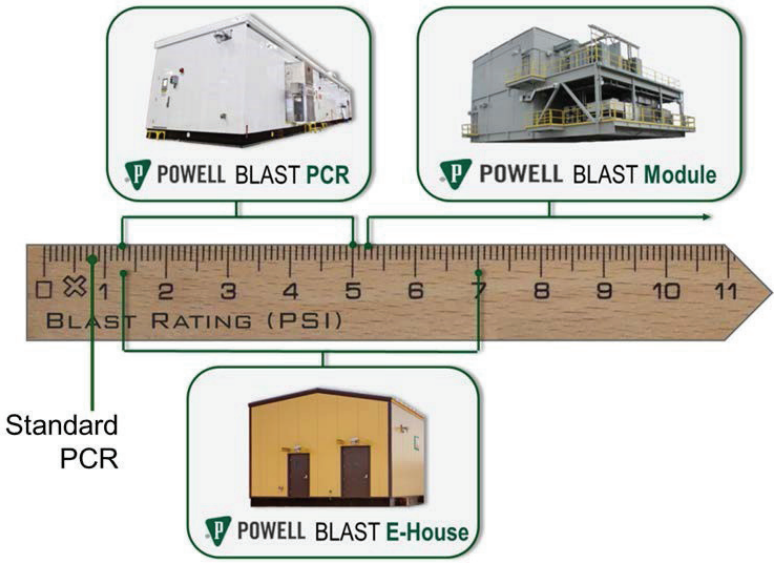
- **Power Control Room (PCR®)**
  Interlocking Steel Panel Construction
- **Rigid Rame E-House ™**
  Rigid frame with insulated metal panels
  can be designed to bear higher blast loading with
- **Custom Engineered Modules**
  Welded Plate Construction

## PROVEN CONSTRUCTION

Our construction methods are validated through state-of-the-art testing and analysis methods. Our propietary interlocking blast-resistant PCR® wall design underwent an extensive shock-tube testing program and nonlinear dynamic finite element analysis. Our engineering team can provide a custom engineered solution for your blast resistant modular buildings based on the facility siting study (FSS) hazards.

## EQUIPMENT FUNCTIONALITY

The mission of blast-resistant enclosures is to provide protection to emergency-critical equipment, such that they can be functional after a potential vapor cloud to prevent escalation of the event. Vulnerable equipment is secured to withstand wall and floor accelerations during the blast event.




Approximate Range for Blast Capacity

## FLAMMABLE AND TOXIC RESISTANCE

For electrically classified areas, or where the buildings must protect occupants from potential release flammable and toxic, a NFPA 496 compliant pessurization system can be provided.

## FIRE RESISTANCE

Powell Blast Resistant Enclosures are constructed with nonflammable material with the option of 2-hour fire rated barrier as per NFPA 850 recommended practice for transformer fire protection.

## TYPICAL STANDARD FEATURES

- Galvanized and Painted Wall and Roof Construction
- Complete System Integration and Testing
- Computer Floor with Underfloor Cable Baskets
- Copper Ground Bar and Ground Pads
- NEMA Motor Control 600V through 7.2kV
- Arc Resistant and Standard Contruction Designs
- IEC Controlgear LV and MV
- Bus and Cable Duct from 600V through 38kV
- Load Interrupter Switchgear
- High Resistance Grounding Systems
- Power Transformers
- Communications Systems
- Line Conditioning Products/Systems
- Spare/Replacement/Commissioning Parts
- Intelligent Device Network Connectivity
- Environmental Systems
- HVAC Systems
- Fire and Gas Detection/Suppression Systems
- DAS and DCS Systems
- Field Service for Testing, Maintenance, and Start Up
- Transportation Planning and Execution

## BLAST RESISTANT FOR ANY APPLICATION

- Electrical Buildings
- Remote Instrumentation Enclosures
- Control Rooms
- Operators Shelters
- Living Quarters

Blast Resistant Offshore Module

Blast Resistant PCR®

Powell Blast Resistant Ridged Frame E-House™

*Powered by Safety®*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