



**PACS Industries, Inc.**

## Arc Resistant Switchgear & Blast Resistant Buildings

Arc Resistant switchgear has become a standard in the petrochemical industry due to safety considerations in the event of an electrical Arc Flash. Over 2000 Arc Flash incidents resulting in death or injury are reported each year. OSHA and NFPE 70-E have mandated that an owner shall provide a safe electrical workplace for all personnel. PACS has developed medium voltage Arc Resistant switchgear that will mitigate or eliminate such accidents. This design accommodates any brand of breaker.

To maximize our safety offering, we have joined in a cooperative venture with VOLTA to integrate our **PACsafe** Arc Resistant switchgear into Blast Resistant buildings as further protection against catastrophic fires or explosions in a facility. This equipment is available for use in petrochemical plants as a safeguard for both personnel and equipment. Even though there are two companies, PACS will be the lead company in proposing, and fulfilling all design and commercial aspects of an order, including warranties, so that there is a single seamless point of contact for a customer.

# **PACsafe**

Switchgear is manufactured and tested to the following Standards: IEEE C37.20.2, IEEE C37.20.7 (Type 1, 2, and suffix B, C, D).

Vacuum circuit breakers are IEEE C37.20.04,06,09.

Ratings: To 15 kV and to 63 kA SC. To 4,000 Amps.

27 kV (125 kV BIL) and to 40 kA SC. To 3,000 Amps.

34.5 kV (to 200 kV BIL) and to 40 kA SC. To 4,000 Amps.

Switchgear is available one high or two high to 34.5 kV.

**PACsafe** can accommodate any brand of circuit breaker.

Our patented plenum system dedicates a single vertical plenum for each cubicle to transfer dangerous Arc Resistant by-products to top mounted Collector plenum, which is ducted out of the area. This design does not force by-products through unfaulted cubicles as in other designs.



34.5 kV Arc Resistant



2.4 kV to 27 kV Arc Resistant



Illustrations of Arc Flash & Arc Resistant Protection



Single Handle Door

For facilities we can provide Blast Resistant Electrical Equipment Enclosures (BREEC) into which are installed

**PACsafe** switchgear as well as other required apparatus such as MCC's, transformers, etc..

Standards: API Recommended Practice 752/753; PIP STC01018; ASCE "Design of Blast Resistant Buildings in Petrochemical Facilities"; all NEC, NFPA 496, etc. codes.

Professional Engineers verify blast resistant performance by utilizing finite element and/or single degree of freedom analysis.

Two basic designs are available. Modified bolted interlocking panel designs can be used up to a peak reflective pressure of 6.0 PSI. For pressures up to 15 PSI, corrugated 1/4" steel plate, continuously welded construction is used.

BREEC can be designed to accommodate many configurations as single shipping units, or with shipping splits, as required by transport and site conditions.



Corrugated welded 1/4 inch plate steel building to 15 psi.

Modified bolted interlocked panel steel building to 6 psi.



[CONTACT US FOR ADDITIONAL LITERATURE OR DESIGN CONSIDERATIONS](#)

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