



# KENNEDY STEEL MAN DOORS

**Jack  
Kennedy  
Metal  
Products  
&  
Buildings,  
Inc.**



*Part of the  
Good Air Solution*

# I N T R O D U C T I O N



Kennedy steel man doors are designed by people with decades of mine door experience to operate safely and economically in mining environments. Our complete system of doors and frames is engineered for both Kennedy steel stoppings as well as masonry or wood block stoppings and is built for enduring strength with patented features that operate, seal and protect under severe underground mine heaving and distortion conditions.

***Kennedy steel man doors are engineered to operate, seal and protect under severe heaving and distortion conditions.***

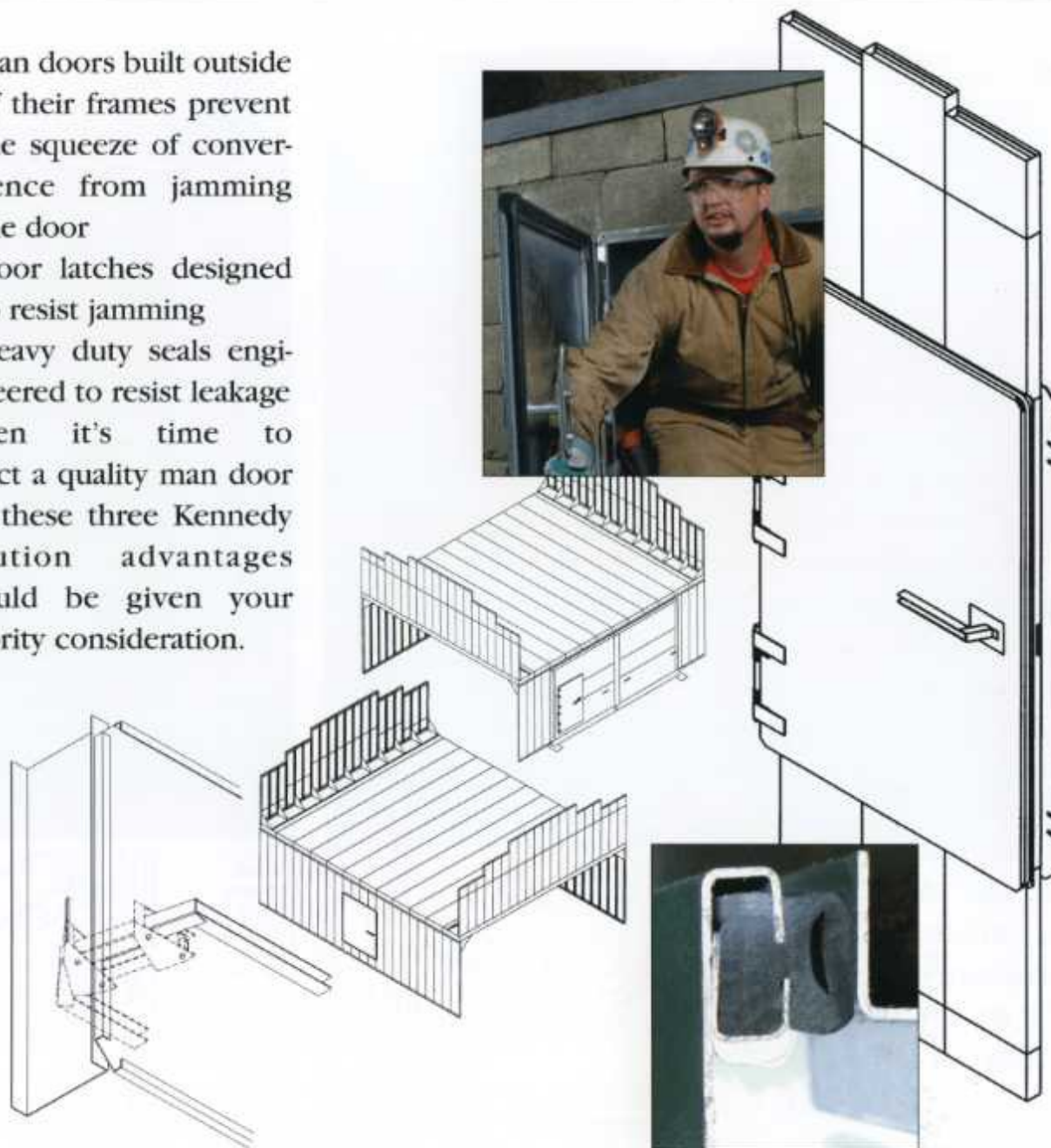


# THE KENNEDY STEEL MAN DOOR SOLUTION

The Kennedy steel man door solution consists of a complete selection of doors, frames, latches and seals that are integrated and engineered to support safe passage under severe mining conditions. Built utilizing galvanized steel for strength and corrosion resistance, the Kennedy man door is a collection of innovative yet practical design concepts that have been developed and tested over decades and found to be the most reliable mine doors in existence.

Three inherent Kennedy advantages make significant impact on mine door performance and safety.

- Man doors built outside of their frames prevent the squeeze of convergence from jamming the door
  - Door latches designed to resist jamming
  - Heavy duty seals engineered to resist leakage
- When it's time to select a quality man door . . . these three Kennedy solution advantages should be given your priority consideration.

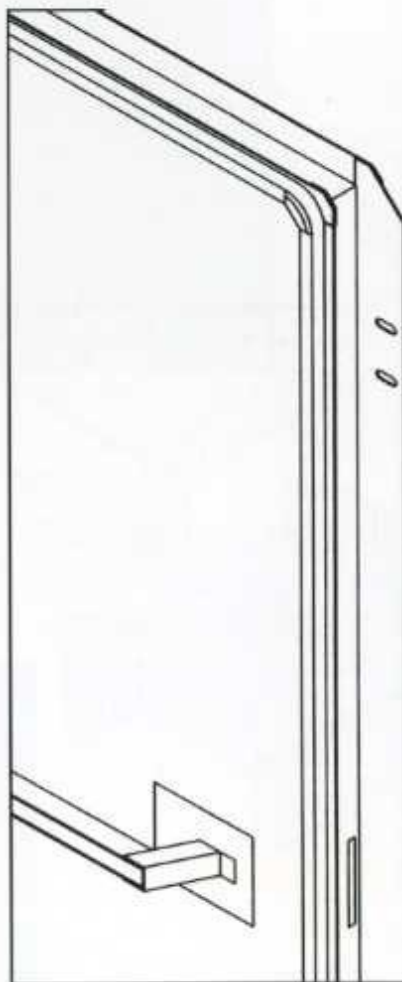


# KENNEDY STEEL MAN DOORS

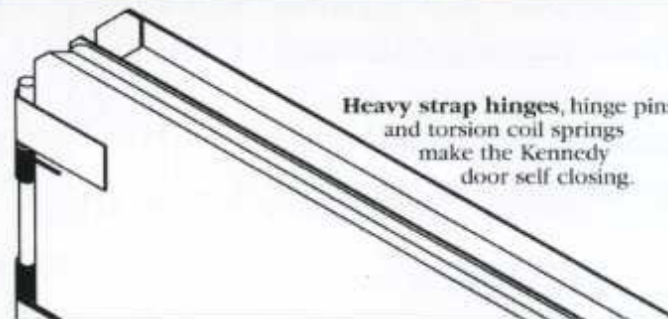
## **BUILT FOR KENNEDY STEEL STOPPINGS**

Our steel stopping man door takes the place of panels in the stopping. Doors come in kit form with all the necessary hardware for installation. Kennedy doors seal on the outside of their frame. The pressure that would normally be found on the frame of a man door in a conventional stopping is absorbed by the telescopic action of the upper and lower short panels in the Kennedy steel stopping. Consequently, air leakage at the door is held to a minimum over the stopping's life. The door is an independent unit, hung on its own frame.

Therefore, it does not prevent the stopping from yielding as necessary to accommodate roof-to-floor pressure.



**Small oblong holes** in the extended flange on the door's narrow frame allow clamps to secure the door frame into a Kennedy stopping.



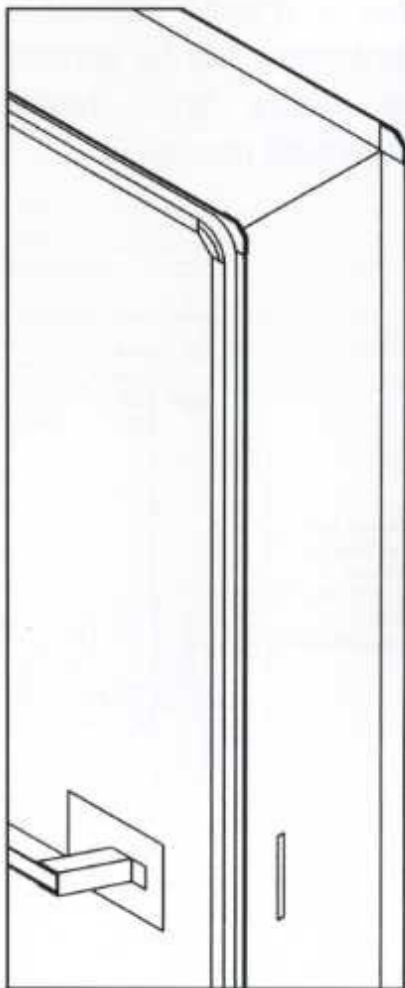
**Heavy strap hinges, hinge pins and torsion coil springs** make the Kennedy door self closing.



## **BUILT FOR MASONRY BLOCK STOPPINGS**

Our steel man door that is designed for masonry block stoppings has an expanded frame large enough to accommodate concrete block between the flanges. The Kennedy block door complements our steel stopping door system with basically the same array of features that are configured in a wider profile frame. The same strap hinges, hinge pins and torsion coil springs utilized in the steel stopping door are used to make the masonry door self closing.

Kennedy masonry frames are large enough to accommodate blocks between the flanges.



***Kennedy doors built outside of their frames prevent the squeeze of convergence from jamming the door.***

# KENNEDY MAN DOOR LATCHES

Kennedy latches are available in both manual and automatic styles for use in Kennedy steel man doors and feature engineering specifications designed to keep them from getting jammed in case of frame distortion.

## PARALLELOGRAM AUTOMATIC LATCH

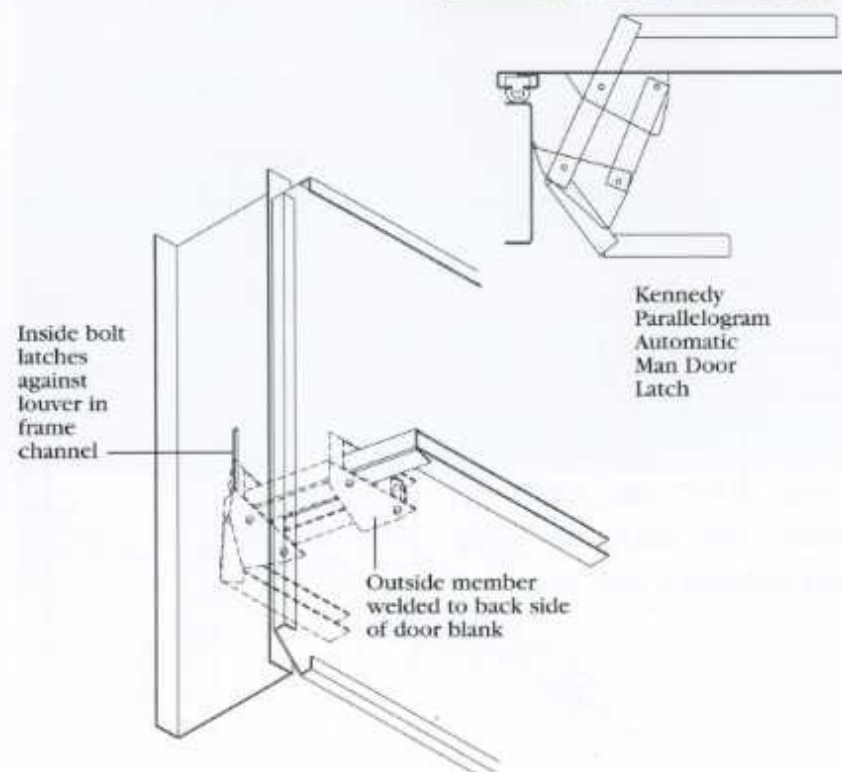
An important feature of the design of the parallelogram latch is that it provides a very large operating range. When convergence occurs, it usually causes the frame to buckle inward, so the louver moves toward the bolt. The large operating range lets the Kennedy door continue to function even though there is considerable convergence

damage. This is possible because the door is mounted outside its frame allowing for the use of Kennedy parallelogram automatic jam resistant latches.

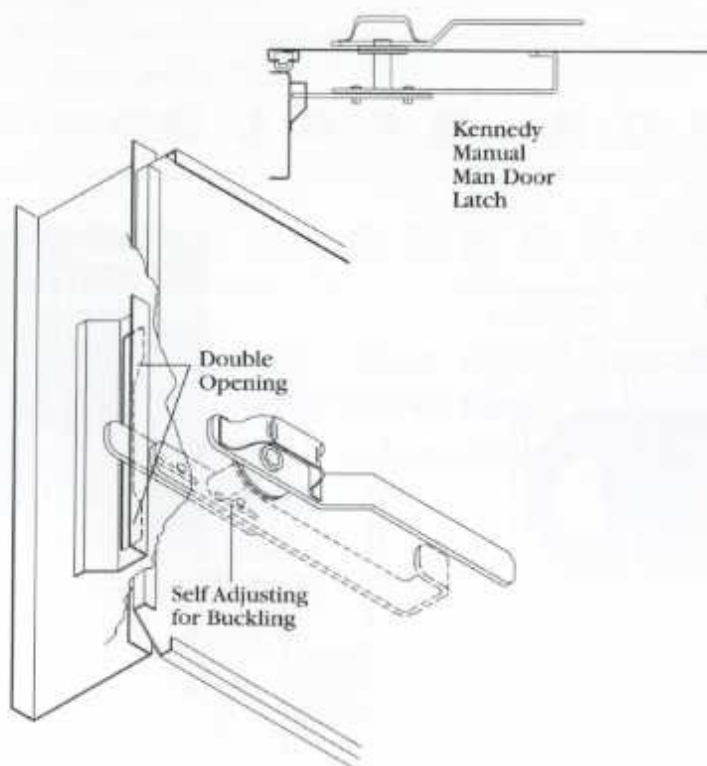
Here's how this patented parallelogram automatic latch works. As you pull the handle of the door toward you, the bolt unhooks from the louver because the "stationary member" is welded to the inside of the door panel. The other piece below the top member has its pointed end engaged in the louver. This makes a "bolt" that moves to latch the door. Because of the four pivot points of the parallelogram, the bolt raises away from the

louver when the door is unlatched.

In addition, the parallelogram automatic latch has a retrofit adjustable strike that can be applied to doors with heavy structural damage.







### MANUAL LATCH

The basic operational concept of the Kennedy manual latch is that the latch rotates about a pivot point that is through a hole in the door panel. The bolt is engaged in a special piece that has been added to the frame. The bolt is not rigidly attached to the "J" shaped piece but is held with two bolts. The bolts are in slots so if the frame distorts, moving towards the latch, the bolt can slide on the "J" shaped piece and not become jammed.

The slots that the bolt "tongue" can slide back in make the bolt shorter. The strike has an opening that "cams" the door tight as the latch is centered.

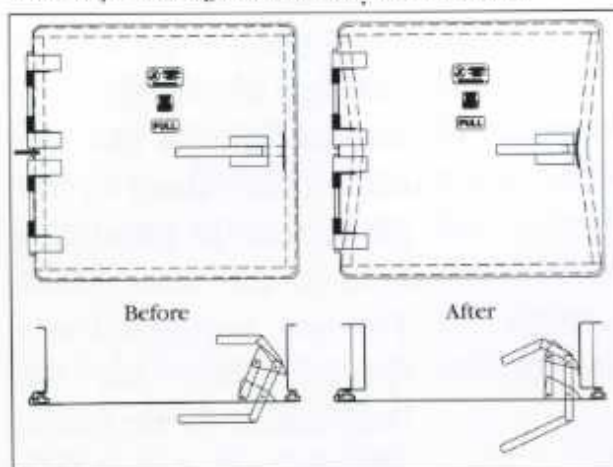
There are two openings, one above and one below the center section of the strike so that the latch can operate if the frame is distorted to such an extent that if the bolt can't reach to engage one opening, it will be able to engage the other, providing a secure seal.

*The Kennedy jam proof latch defeats frame distortion.*

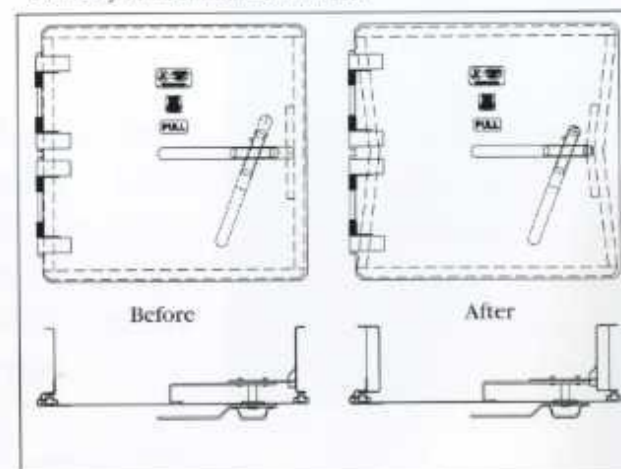
## MORE ABOUT KENNEDY LATCHES

One of the inherent advantages of Kennedy doors is its patented latching system. These latches are built to continue to function in spite of the "squeeze" of convergence induced size reduction pressure on the door frame, essentially making the latch jam proof.

Kennedy Parallelogram Automatic Man Door Latch



Kennedy Manual Man Door Latch



## KENNEDY MAN DOOR SEALS

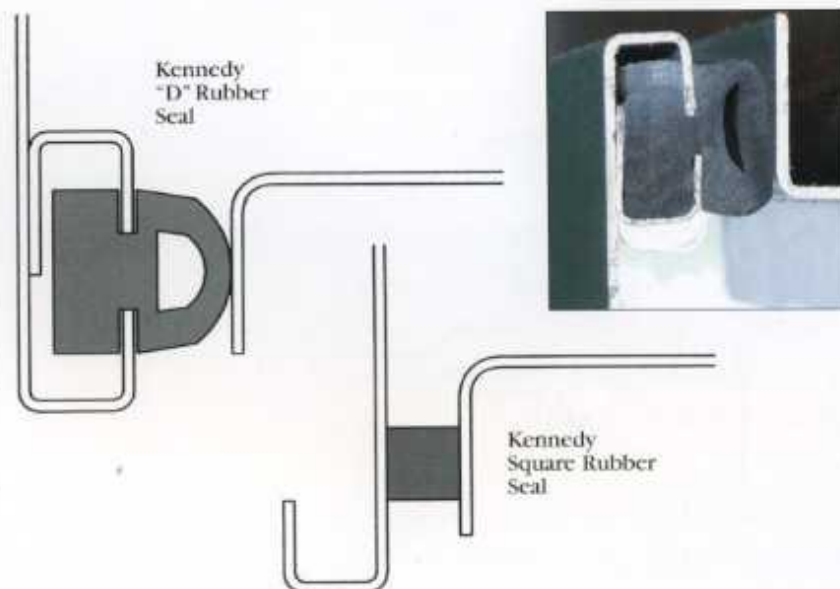
### "D" RUBBER SEALS

The Kennedy "D" rubber seal has become the mining industry top standard for mine door closure. The "D" seal is captivated in the door panel and seals tight against the channel frame. This door seal gasket solves the problems of tear-off and provides superior resilience. The seal captivity is accom-

plished with specially molded grooves in the rubber and is filled by a separate "rubber" retainer.

### SQUARE RUBBER SEAL

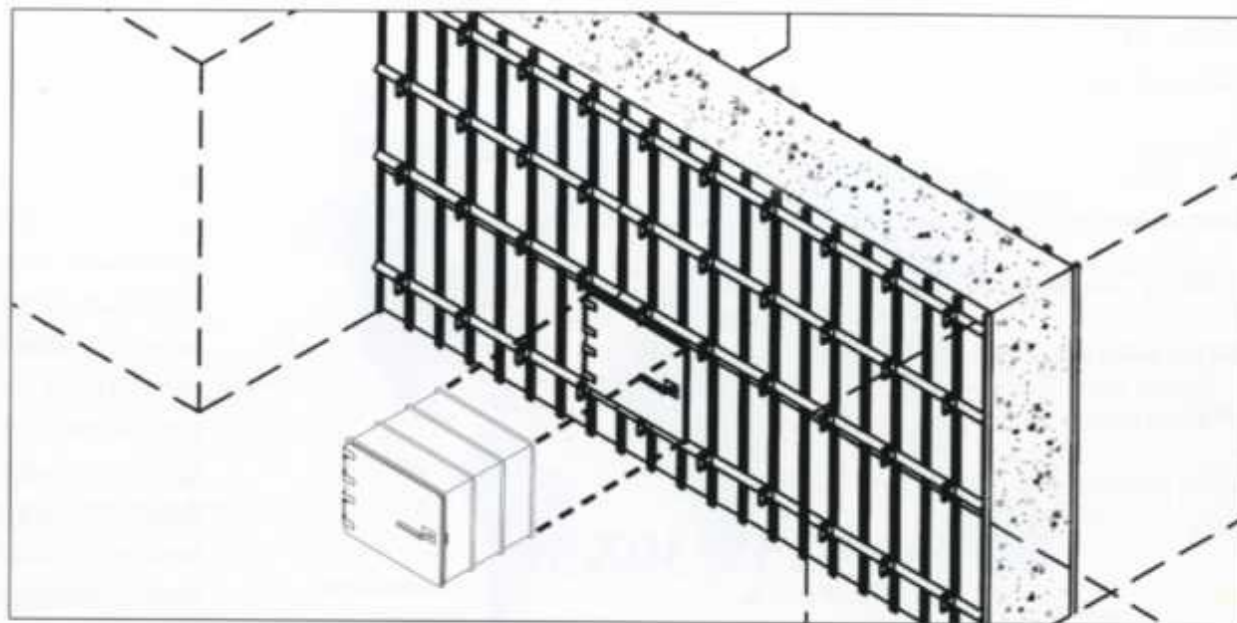
The Kennedy square rubber seal features a reversed panel design with the return flange turned away. The square seal is glued to the frame reducing damage risk.





## KENNEDY NZL EXTENDED FRAME DOORS

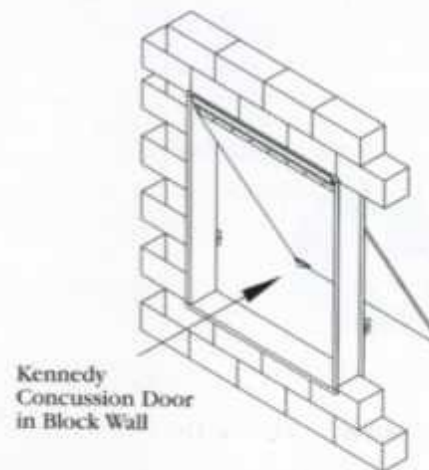
Kennedy NZL (Near Zero Leak) steel man doors in extended frames are designed for use with NZL stoppings. NZL doors and stoppings are constructed to be used on "main lines"-in places where they would be in use for an extended period of time. Their greatest advantage is that they offer low leakage over time.



## KENNEDY CONCUSSION RELIEF DOORS

The Kennedy concussion relief doors are built specifically to "blow open" to relieve concussion from blasting, long wall initial roof collapse, etc. These doors are able to open in both directions and are held closed by the friction of their perimeter seals.

When desired, this door can be locked closed so it will not relieve pressure.



# ORDER INFORMATION

## Kennedy Metal Products Steel Man Doors

Customer \_\_\_\_\_

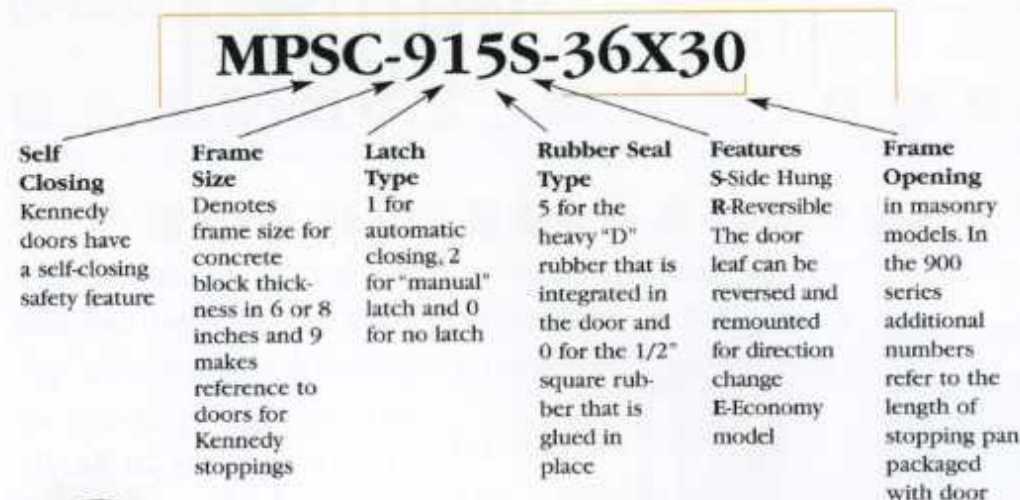
Date of Request \_\_\_\_\_

Delivery Date Requested \_\_\_\_\_

When ordering, select from door features including:

- ✓ Frame Size    ✓ Latch Type    ✓ Rubber Seal Type
- ✓ Reversibility    ✓ Frame Opening

Door Number and Feature Code Example:



Jack Kennedy Metal Products & Buildings, Inc.  
P.O. Box 138  
Taylorville, IL 62568

### Common Man Door Sizes

### Quantity

MPSC-615-31.5X30.5	_____
MPSC-610E-31.5X30.5	_____
MPSC-815-31.5X30.5	_____
MPSC-815-35.5X60	_____
MPSC-815R-31.5X30.5	_____
MPSC-825-31.5X30.5	_____
MPSC-815-48X60*	_____
MPSC-810-31.5X30.5	_____
MPSC-820R-31.5X30.5	_____
MPSC915S-36X30-24/24	_____
MPSC925S-36X30-18/24	_____
MPSC915-36X60-12/36	_____
MPSC915-48X60*	_____
MPSC925-48X60*	_____
MPSC905-12X12	_____

*Kennedy doors with special sizes or features are available upon request.*

OVERCASTS/Kennedy steel man doors are available for use with overcasts, both side and end wall applications.

\*Denotes 3 Kennedy doors that are 48" wide and meet the MSHA criteria for an Escapeway Door. Kennedy offers vinyl reflecterized signs that identify mine door locations.

Date Order Placed \_\_\_\_\_

Delivery Date Quoted \_\_\_\_\_

## READ THIS NOTICE

The seller makes no warranty of any kind whatsoever, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose are hereby disclaimed by seller and excluded from this agreement. Seller hereby disclaims any liability for any other or consequential damages which might occur from failure of the product to perform as herein stated.



# KENNEDY WORLDWIDE

Kennedy Metal Products has been working to make mining safer and more productive for decades. We are recognized experts in mining ventilation with plants and warehouses on four continents.



## READ THIS WARNING

NEVER defeat any feature of this door. It may be related to safety in some manner you do not understand.

**WARNING:** While this door has been designed to operate in mining conditions, it is possible for it to become jammed or inoperative. Check it frequently to be sure the door, its latch and hinges particularly, are operational and satisfactorily providing their intended function. Personnel could be trapped if this door doesn't work properly.

**WARNING:** Installation of this door where there is significant air pressure differential across the door could cause the door to be difficult to

open, and to close with great force causing injury or even death to you and/or others.

**WARNING:** If there is significant air pressure differential across the door and high flow rates through the open door, being in front of the door or passing through the door way could be hazardous. The flow of air could cause you to lose your balance or be forced through the doorway unexpectedly causing injury or even death to you and/or others. Be careful.

**WARNING:** Opening this door for extended periods, or not being sure it is completely closed and sealed, or blocking it open - even partially - may

make significant air flow changes in this and other areas in the mine. These changes could result in dust or gas accumulation that in turn could cause an ignition or explosion. Do not allow this door to make ventilation changes you do not understand. A mine disaster could occur causing injury or death to you and/or others.

**WARNING:** Read completely and thoroughly all installation manuals, instructions and warnings before attempting to install this product and follow such manuals, instruction and warnings. Failure to do so could result in injury and/or death to you and others at the time of installation or in the future.



## Jack Kennedy Metal Products & Buildings, Inc.

### FOR THE BEST VENTILATION USE THE COMPLETE KENNEDY SYSTEM...STOPPINGS, DOORS & OVERCASTS

- Steel Stoppings
- NZL (near zero leak) Stoppings
- Preassembled Stoppings
- Overcasts
- Undercasts
- Over 200 Models of Man Doors
- Concussion Relief Doors
- Manual Regulators
- Power Regulators
- Automatic Regulating Systems
- Rescuer Boxes
- Roof Brackets
- Conveyor Belt Slip and Sequence Switches
- Belt Crossings



#### PATENT INFORMATION

These products are covered by one or more United States or Foreign Patents, granted or pending.

4082331; 4118894; 4523406; 1256319; 4373294; 4478535; 5168667; 645899; 2258006; 2066075; 92/2783; 6164871; 736872; 99/265498; 2288597; 99/6988; 6032986; 724730; 9906465.1; 99/2403; 5167474; 09/044455; 1734399; 9906200.2; 992074; 6220785; 741355; 99/7771; RE34220; RE32871; 578107; 2177437; 1210943; 85/05115; RE32675; 555283; 566341; 2119832; 1198902; 83/1658; 4820081; 601647; 2214542; 1302099; 88/8623; 4695035; 588383; 2182081; 1246348; 86/7509; 4484857; 6379084; 09/903429; 60/355243

Copyright © 2004 by Jack Kennedy Metal Products & Buildings, Inc. All rights reserved. Printed in U.S.A.  
Prices and specifications subject to change without notice.