



# KENNEDY STEEL STOPPINGS



*Part of the Good  
Air Solution*

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

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Kennedy yielding steel stoppings are the finest ventilation structures available. Our stoppings and other structures are used to ventilate the largest and most gassy mines in the free world including mines operating in some of the most difficult mining conditions found anywhere. Their unique characteristics make them without equal in the mining community. The Kennedy steel stopping is light and easy to transport yet possesses twice the strength of a masonry structure and can yield to changes in the mining environment without damage. Used properly, it will give better ventilation control with less trouble and cost less than any other system.

***Kennedy steel stoppings possess twice the strength of a masonry structure.***



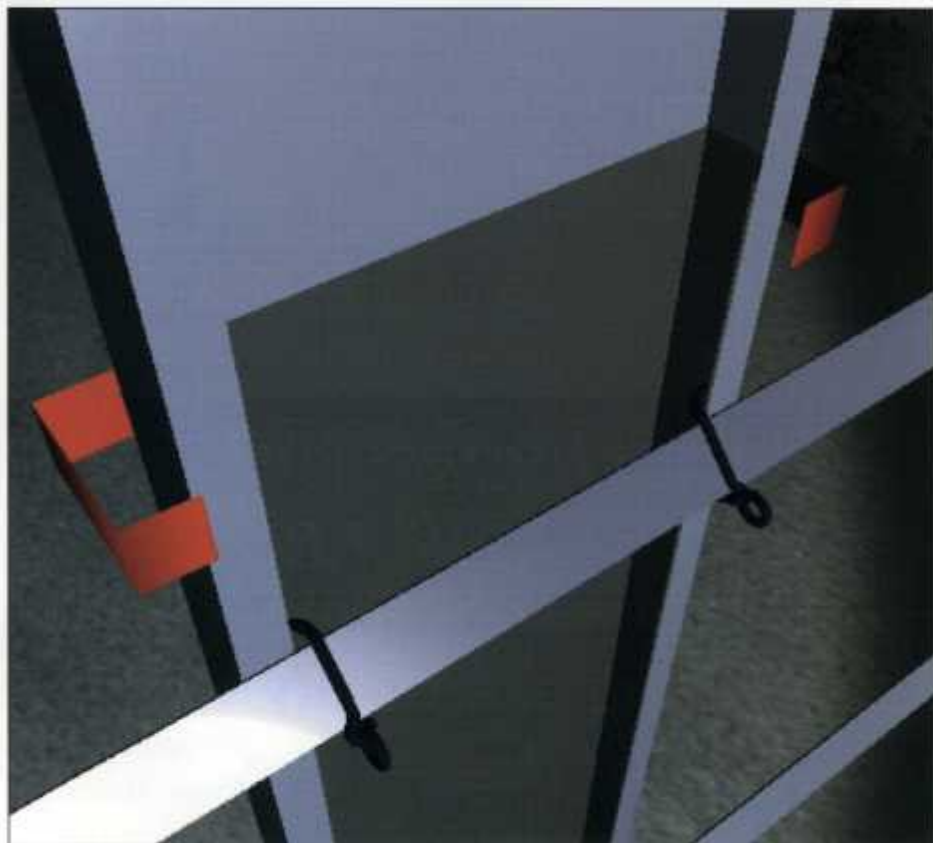
# THE KENNEDY STEEL STOPPING SOLUTION

A Kennedy standard steel stopping is a system of foot-wide vertically telescoping steel panels, installed under pressure in an entry to form a substantial and incombustible airtight permanent stopping. Each panel is actually two panels — one

inside the other — forming an upper and lower unit. Upon installation, these two panels are telescoped apart to reach from the roof to the floor of the mine. The strength of each panel is inherent in the “C” shape of the panels. Together they

form a solid wall of steel held securely by the roof-to-floor pressure. The telescoping action of the Kennedy steel stopping allows it to yield to heaving, as well as bow out to accommodate pillar expansion. After several inches of movement, the stopping is still tight and undamaged. Our stoppings can survive pressures that crush block stoppings. Kennedy steel stoppings are available for just about any seam thickness, in a wide range of widths and heights, along with a complete selection of doors.

***Kennedy steel stoppings can survive pressures that would crush block stoppings.***



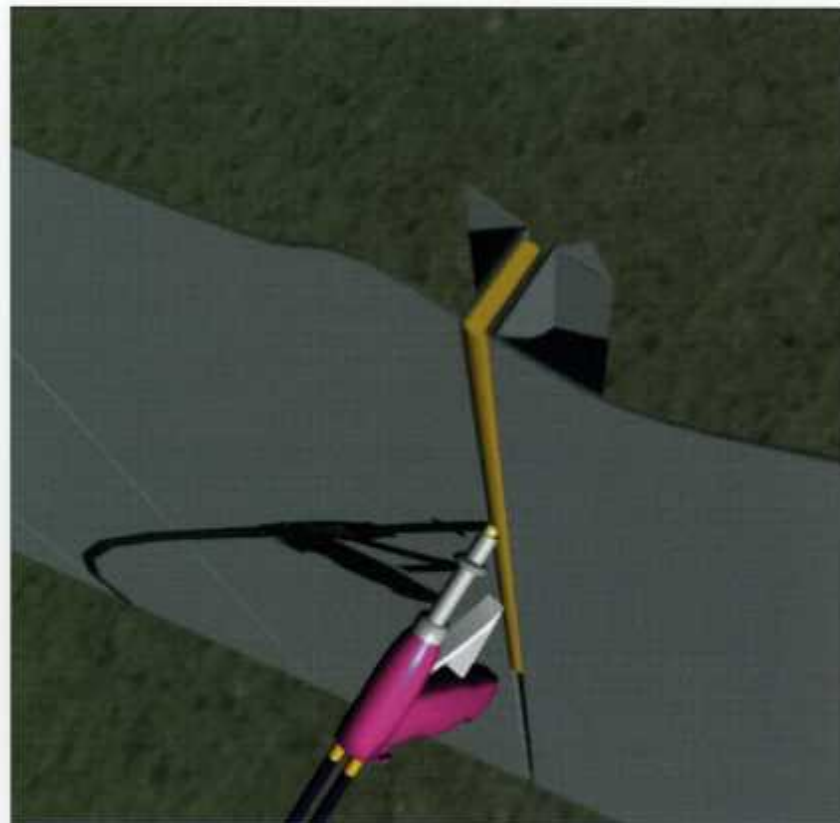
# AIR AND FIRE CONTROL BENEFITS

## *Fire Control*

Fire performance testing done by both Kennedy Metal Products and the Bureau of Mines, using full scale fire tests, indicate the steel stopping is probably superior in holding back a fire from crossing a stopping line. Fire does not go through it by conduction, radiation, etc. Volatiles on the back side of the steel stopping are not ignited.

## *Leakage*

Kennedy steel stoppings are more airtight and allow less leakage than a conventional block stopping both when they're new and when they've been around for awhile. The non-porous steel provides for zero leakage. Plus, after construction each cross joint and each vertical joint is sealed so that no air can pass by the stopping. The best recommended sealant is our special polyurethane foam. A foam-sealed Kennedy stopping is very resistant to leakage over time because of the foam's ability to give, while sticking tenaciously to the stopping, roof and rib.



***The non-porous steel combined with a foam sealant makes the stopping extremely resistant to leakage.***



# COST SAVING BENEFITS

## **Efficiency**

Kennedy steel stoppings have only about one-fourth the bulk of the block-type and one-fourteenth the weight. This makes transportation costs - particularly underground transportation costs - much lower. The high erection speed of the Kennedy steel stopping also makes handling much more efficient. One experienced man can erect a steel stopping in as little as 1 hour. Steel stoppings will also last longer than block-type stoppings. Preassembled stoppings erect even more quickly.

## **Recovery**

The longevity of the Kennedy steel stoppings can provide you with a

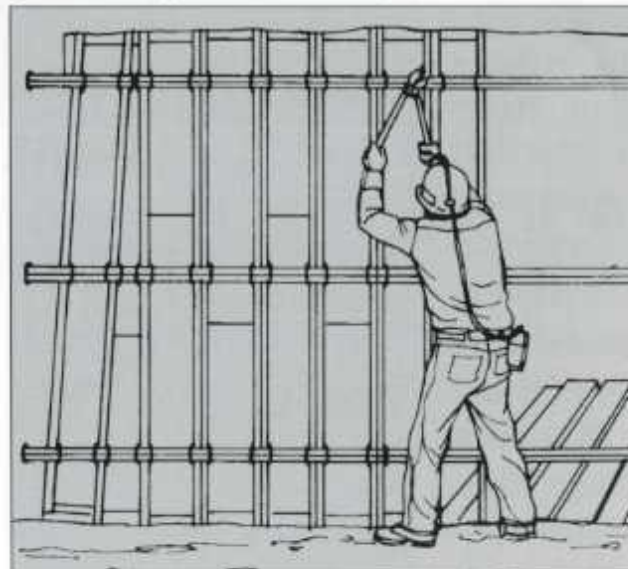
permanent asset with a virtually unlimited life. The galvanized panels do not rust, so there is no reason the stopping cannot last the life of your mine - thirty years or more. The stopping can be recovered simply by cutting each of the twist clamps that hold it together. A stopping that has been installed properly can be recovered with practically no damage

even after years of use. The stopping's unique ability to yield to convergence between the roof and floor prevents it from being damaged in service. The entire stopping can be down and ready for loading in 5 minutes. All you will need to erect it at a new location are new twist clamps, head seals and sealant; all other parts of the stopping,

including the door can be used again.

## **Productivity**

The real cost savings is not only in dollars and cents but in the stoppings' ability to increase your rate of mining. Their efficiency in transportation, handling labor and erection speed all contribute to faster production.



*One experienced man can erect a steel stopping in as little as 1 hour... preassembled stoppings erect even more quickly.*

## KENNEDY NZL STOPPINGS

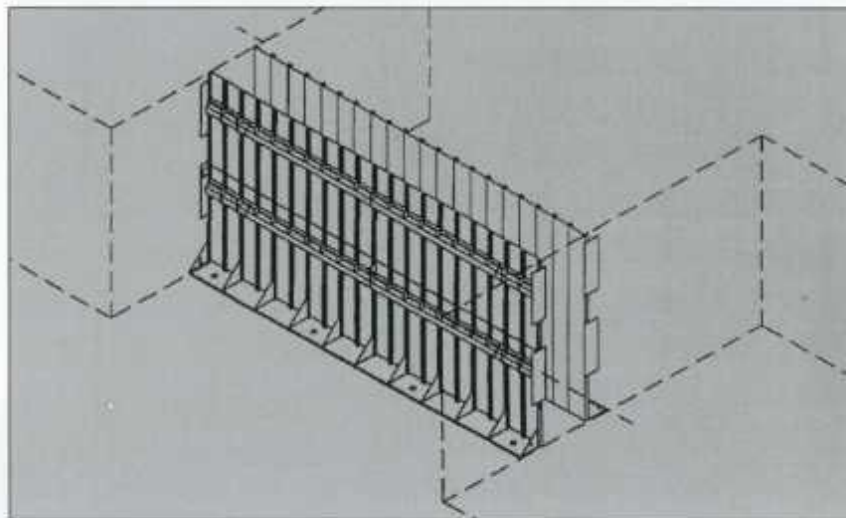
Kennedy NZL (Near Zero Leak) stoppings are constructed to be used on "main lines" in places where they would be in place for an extended period of time and/or subject to high ventilating pressures. Their greatest advantage is that they offer low leakage over time. By simply replacing the first few structures in your air course with NZLs you could potentially double the air at the working areas of the mine.

The secret of the NZLs is the "foamed cement" filling that is used in place of concrete. The foamed cement isn't as heavy as concrete and doesn't try to burst the form apart as more vertical height is achieved. More importantly during convergence, the foamed cement is able to yield by crushing downward into itself without either catastrophic failure or putting outward forces on the structure. NZLs are available in three

different designs to fit various mine conditions:

1. Tieless Design
2. Rod Tie Design
3. Flat Tie Design

***Kennedy NZL stoppings offer low leakage over time.***



## KENNEDY SEALS

Kennedy seals are similar to NZL stoppings but are heavier. They are constructed to resist explosion forces that may occur behind the

seal. The Kennedy seals consist of simply erecting two ordinary Kennedy stoppings perhaps four feet apart with appropriate form ties between

them. The resulting cavity is pumped full of foamed cement or concrete to form the seal. Kennedy seals also offer the advantage of being

readily adaptable to fit the relatively rough mine floor, roof and rib conditions.

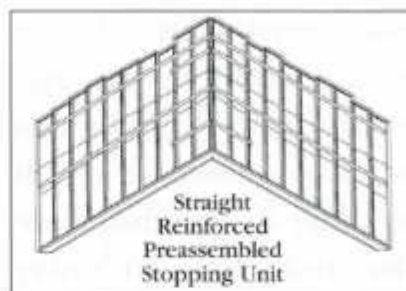


# KENNEDY PREASSEMBLED STOPPINGS

Our telescopic preassembled stopping units can be used in free standing configurations that are quickly erected at the site in half the time required for a standard Kennedy stopping.

Our preassembled stopping units are available in two different types. The basic stopping unit incorporates the construction

features of our regular stopping panels and are usually erected in a straight vee. Kennedy preassembled stoppings are also available as reinforced units designed for added strength. In either vee or 3-section units, they feature reinforced beams for severe applications and rib attachment devices to prevent entry displacement.



*Typical installation requires half the time.*



## STEEL STOPPING DOORS

A steel stopping door takes the place of up to three foot-wide 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

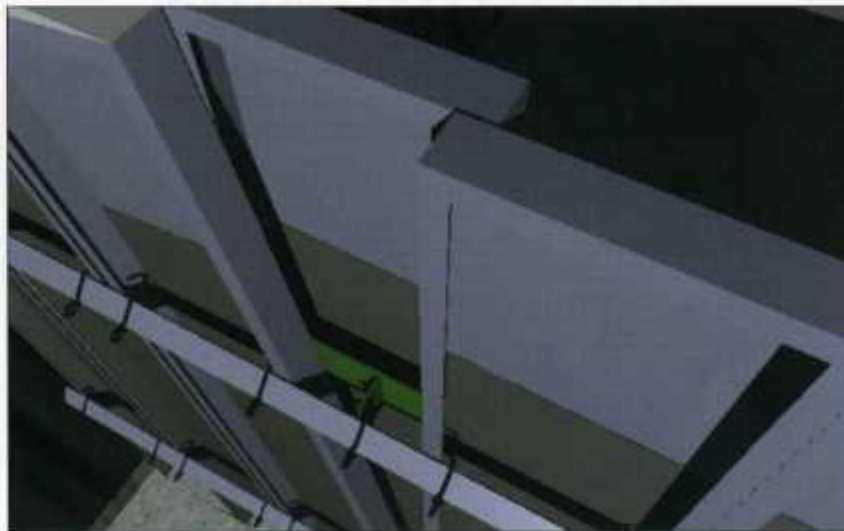
a minimum over the stopping's life. The door is an independent unit, hung on its own frame. Therefore it does not prevent the stopping from yielding as necessary to accommodate roof-to-floor pressure.

# EXTENSION PANELS

## *Lap Over Panels*

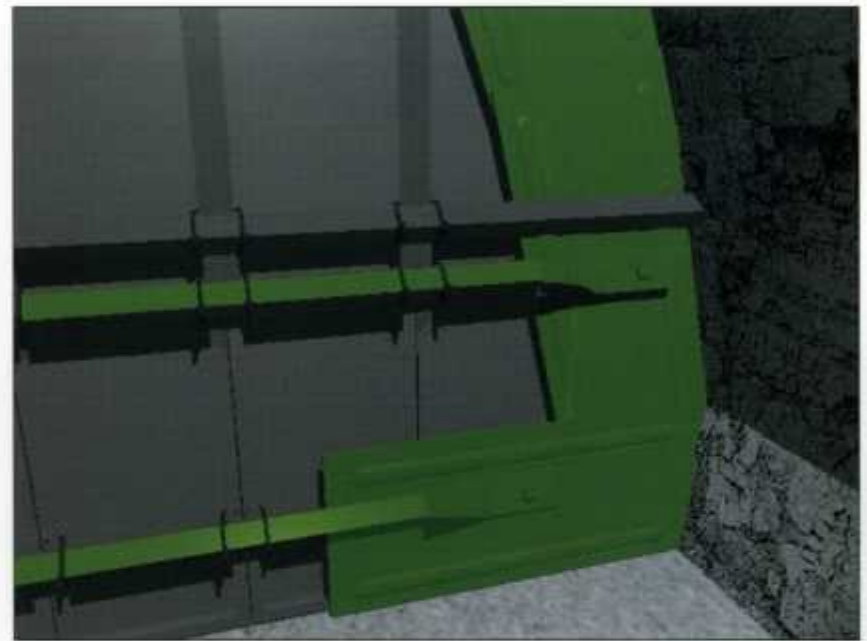
Lap over panels cover various odd shaped openings remaining at the end of the construction of the stopping. Pie shaped openings created by out of plumb ribs can

pillar expansion. As the pillars take weight and expand, the stopping can actually reduce its width in order to accommodate the reduction in entry size. Lap over panels can also be used to accom-



easily be plumbed up through the use of one or more lap over panels. The lap over panel also gives the stopping some of its ability to absorb

modate benches on the floor or brows from the roof. Hardware to make lap over panels is included with all Kennedy standard stoppings.



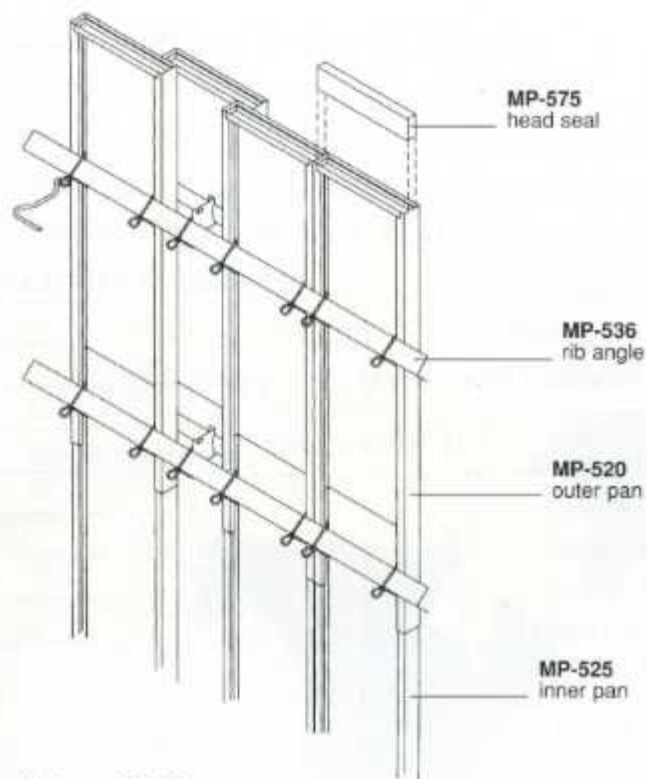
## *Side Extension Panels*

Also included with the standard Kennedy stoppings are side extension panels. If an opening is found beside the stopping where the rib cannot be easily trued sufficiently for easy sealing, side extensions can be applied to the stopping. An opening up

to 2' deep can be accommodated with these extensions. They can be lapped over each other to provide intermediate heights. If continuous rib deterioration occurs due to weathering of the rib, the side extensions can be re-adjusted outward or additional extensions applied at a later date.

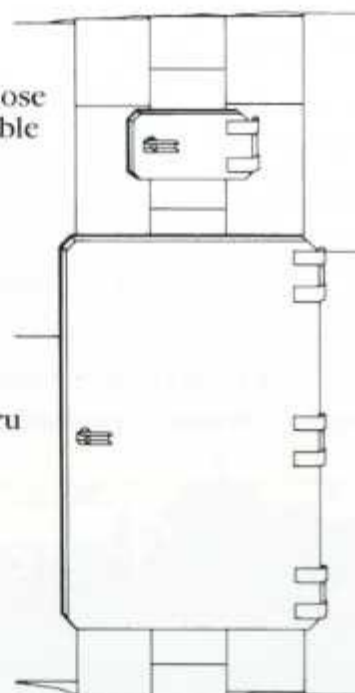


# STEEL STOPPINGS COMPONENTS



Outer pan **MP-520** and inner pan **MP-525** telescope together to adjust to any height seam.

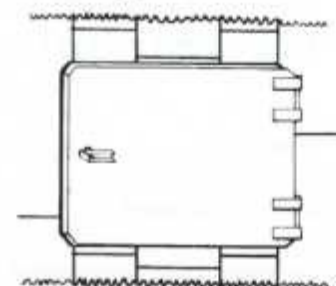
Steel Hose and Cable Door



Walk Thru Door

**MPSC-915** self closing man door and **MP-915** steel hose and cable door kits include short panels for above and below doors.

Side Hung Door



The **MPSC-915S** self closing side-hung door is complete with regular heavy hinges and latch—plus short top panels and bottom panels. Makes up 3 panel widths of Jack Kennedy Steel Stopping.

Installation Jack



Special jacks for super-rigid installation of steel stoppings.

**MP-541** 2'-3'

**MP-542** 2-1/2'-4'

**MP-543** 3'-5'

**MP-544** 4'-7'

**MP-545** 5'-9'

**MP-546** 6'-10'

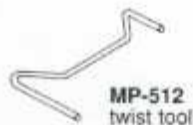
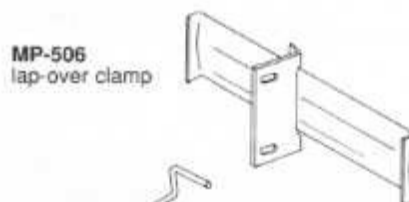
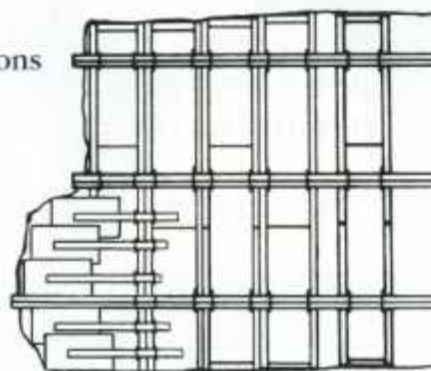
**MP-547** 7'-12'

**MP-548** 8'-14'

**MP-550** 10'-18'

**MP-554** 12'-20'

Side Extensions



Foam Sealant



**MP-567** foam sealant pack is easy to carry and comes complete with hoses and gun.

Trowel Sealant



**MP-568** sealant for steel or masonry stoppings. Incombustible. Ready mixed trowel grade. 32 pound cans.

# ORDER INFORMATION

## Kennedy Metal Products Steel Stoppings

Customer \_\_\_\_\_

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

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

Height	Width	Quantity	Height	Width	Quantity
2' - 3'	_____	_____	5' - 9'	_____	_____
2 1/2' - 4'	_____	_____	6' - 10'	_____	_____
3' - 5'	_____	_____	7' - 12'	_____	_____
4' - 6'	_____	_____	8' - 14'	_____	_____
4' - 7'	_____	_____	10' - 18'	_____	_____
5' - 8'	_____	_____	12' - 20'	_____	_____

### NZL Stoppings

Thickness \_\_\_\_\_

### Preassembled Stoppings



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

### Steel Doors

MPSC-915 (Man Door)	_____
MP-915 (Steel Hose and Cable Door)	_____
MPSC-915T (Top Hung Door)	_____
MPSC-915S (Side Hung Door)	_____

### Installation Jacks

MP-541 (2' - 3' range)	_____
MP-542 (2 1/2' - 4' range)	_____
MP-543 (3' - 5' range)	_____
MP-544 (4' - 7' range)	_____
MP-545 (5' - 9' range)	_____
MP-546 (6' - 10' range)	_____
MP-547 (7' - 12' range)	_____
MP-548 (8' - 14' range)	_____
MP-550 (10' - 18' range)	_____
MP-554 (12' - 20' range)	_____

### Sealant

MP-567 Foam Pack	_____
MP-568 Trowel Grade	_____

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.





## **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; 4573294; 4478535; 5168667; 645899; 2258006; 2066075; 92/2783; 6164871; 758872; 9926549.8; 2288597; 99/6988; 6052986; 724750; 9906465.1; 99/2403; 5167474; 09/044455; 1734599; 9906200.2; 992074; 6220785; 741355; 99/7771; RE34220; RE52871; 578107; 2177437; 1210943; 85/05115; RE52675; 555283; 566341; 2119832; 1198902; 83/1658; 4820081; 601647; 2214542; 1302099; 80/8623; 4695035; 588385; 2182081; 1246348; 86/7509; 4484837; 6379084; 09/903429; 60/355245

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