

UNDERGROUND MINING



SURFACE MINING



TUNNELING & CIVIL



W8x31 ARCH TYP

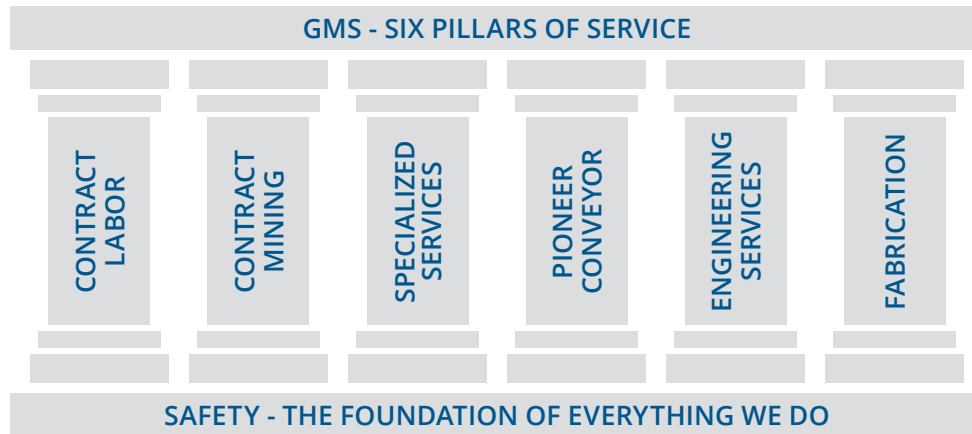
W8x31 POST TYP

CUSTOM FABRICATION

SELECTED
Services & Products



OUR SIX PILLARS OF SERVICE



Contract Labor

With nearly 40 years of experience in the field, GMS is the largest and most successful underground and surface mining labor provider in the US. Through the use of our proprietary Employee Development Programs and the outreach of our internal recruiters, GMS maintains an active pool of available skilled labor. We simultaneously source, vet and onboard hundreds of new recruits annually, for deployment into multiple industries throughout the world.

Contract Mining

In addition to providing an experienced labor force, GMS can handle every aspect of production mining operations, whether surface or underground, including materials handling, equipment maintenance, mine design, drilling, blasting, cutting/excavating, scheduling and budgeting.

Specialized Services

GMS offers leading-edge underground and surface technical services. We are experienced and proficient in many areas, including: Ground Control, Ventilation, Belt Terminal Services, Concrete, Slope/Drift Excavation, Shaft Work, Blasting, Longwall Services, and Surface Construction. Each of these technical service disciplines has its own dedicated managers and labor teams providing rapid response and effective resolution to our customers most critical and technically demanding applications.

Pioneer Conveyor

Our affiliate company, Pioneer Conveyor is a leading, bulk material, conveyor manufacturer with complete engineering, machining, and fabrication capabilities to design and manufacture even the most complicated conveyor systems.

Engineering Services

Our technical sales reps work closely with you, and with our engineers and fabrication experts, to create the most appropriate customized solutions for your specific situation. We utilize state-of-the-art software and manufacturing equipment to minimize lead time and maximize efficiency, while operating three strategically-located fabrication facilities to simplify production and transportation logistics.

Fabrication

Utilizing modeling and design software that is compatible with our customers, we provide seamless communication and quick turn solutions to meet any demand. Our Engineering department, in collaboration with our Fabrication team can custom design, engineer and manufacture everything from obscure replacement parts to large scale capital projects.

Safety

Safety is the foundation of everything we do! Our staff includes Safety Supervisors and Safety Foremen providing training, compliance and safety oversight at customer locations throughout the world. We have vigorous training, certification, continuous education, and drug enforcement protocols in place to ensure compliance of our entire workforce.



MISSION STATEMENT

To be the premier provider of contract mining services, products and technical support with an emphasis on safety and innovation.



We build long-term relationships that help make you successful!

For nearly 40 years, GMS has played a pivotal role in the support of customers in the **Mining and Tunneling/Civil** sectors. Using strategically located facilities throughout North America, we are able to deploy a vast array of services and products from a site nearest to the customer, quickly, economically and consistently throughout the term of the engagement.

GMS is built on a platform of **Six Pillars of Service: Contract Labor, Contract Mining, Specialized Services, Pioneer Conveyor, Engineering Services, Fabrication** – with **Safety** being the foundation of everything we do! GMS is a Partner who can deliver turnkey solutions to the most challenging issues and complex projects worldwide!

CORE VALUES

INTEGRITY

All stakeholder relationships are built on a foundation of moral and ethical integrity.

FAMILY





GMS gets its strength through the experience, professionalism and character of our employees.

COMMITMENT

GMS is committed to be the safest, most productive and innovative contractor in the industries we serve.

CONTENTS

SERVICES

 CONTRACT LABOR	4
• Employee Development Program	
• American Mining Academy	
 CONTRACT MINING	6
• Underground Mining	
• Surface Mining	
 SPECIALIZED SERVICES	8
• Ground Control	8
- Back & Rib Bolting	
- High Wall Stabilization	
- Square Sets, Arches & Tunnel Rings	
- Cans & Steel Props	
- Steel Pumpable Cans	
- Pumpable Cribs	
- Pumpable Tower Cribs	
- Shotcrete	
- Glue Injection	
- Cementitious Grouting	
- Surface Grouting	
- Void Filling & Back Filling	
• Ventilation	20
- Overcasts/Undercasts	
- Stoppings/Curtain Walls	
- Mine Seals	
- Thin Spray Liners	
- Refuge Shelters	
- Man Doors & Specialty Mine Doors	
• Belt Terminal	25
• Mill Site/Plant Maintenance Solutions	26
• Concrete	27
• Slope/Drift Excavation	28
• Blasting	29
• Shaft Excavation & Rehab	30
• Longwall Services	31
• Surface Construction	32
GMS ADVANTAGE	33
<i>Proprietary products developed by GMS and used exclusively by GMS crews, giving GMS an advantage over competitors!</i>	
• Badger	
• ROSA (Remote Oscillating Shotcrete Arm)	
• Equipment Rental	
<i>Non-Proprietary GMS equipment that can be rented with or without GMS operators</i>	
- Underground Scoops	
- Fletcher Bolters	
- Drills	
- Pumps	
 ENGINEERING	36
• Custom Product Development	

PRODUCTS

 PIONEER CONVEYOR	37
 FABRICATION & DISTRIBUTION	
• Custom	38
- Large & Specialty Doors	
- Remote Track Switch	
- Boxes, Liners, Carts	
- Sleds, Trailers, Hauling Equipment	
- Rebuilds & Refurbishments	
• Ground Control	41
- Steel Props	
- Yield Prop	
- Interlocking Timber Cribs	
- Square Sets	
- Arches & Tunnel Rings	
- The Can®	
- Expandable Rock Bolts	
- Friction Bolts	
- Washer Plates	
- Rebar Bolts	
- Mechanical Anchors	
- Cable Bolts	
- Resin Cartridges	
- Screen	
• Ventilation	56
- Man Doors	
- Overcasts, Belt Crossovers, Stairs	
- Ambient Air Movement/Fume Removal Products	
- Omega Blocks	
• Hard Hat Lamps	64
• Conveyor Belt	65
• Drying Racks	66

CONTACT US

CONTACT US	
• Affiliates	67
• Locations	68

CONTRACT LABOR

Employee Development Program

With more than twenty experienced recruiters, GMS actively recruits safe and reliable professionals to work in the field, using a variety of means including television, radio, newspaper, social media, billboards, job fairs, and more.

GMS contract professionals are thoroughly screened, given complete, up-to-date training, and arrive ready-to-work with all necessary PPE gear. They continue to be vetted collaboratively throughout a three month probationary period, after which they are eligible to be hired.

SAFETY FIRST. *GMS employees log nearly 3 million man hours annually and boast the lowest incident rate in our sector!*

RECRUITING

We Find the Best!

- Television, Radio, Newspaper, Social Media, Billboards, Job Fairs, and more.

VETTING PROCESS

- 16-Panel Drug Test
 - Pre-Employment
 - Random
 - Accident/Suspicion
- Complete Background Check
- Monthly Employee Reviews during probationary period

BENEFITS

- Safety and Attendance Bonus
- Paid Vacation
- Health Care
- Dental Care
- Vision Care
- 401K Match
- Health Savings Account Match

READY TO WORK

- Up-To-Date Training
 - MSHA
 - OSHA
 - PEC Safe Land
 - First Aid/CPR
 - Common Core

PPE PROVIDED

- Hard Hat
- Reflective Clothes
- Metacarpal Gloves
- Safety Glasses
- Metatarsal Boots
- Methane Detector (If needed)
- Self Rescuer (If needed)



CONTRACT LABOR



American Mining Academy

American Mining Academy is dedicated to teaching fundamental principles and technical training involved in mining operations, as well as *advancing a culture of safety* to inexperienced students and experienced miners alike.

We Know Mining

For nearly 40 years, GMS Mine Repair & Maintenance has been North America's premier mining contractor. As such, GMS knows something about what it takes to become a professional miner and enjoy the rewarding career opportunities that await those who are properly trained and ready to work. That's why GMS began the American Mining Academy. A state-of-the-art facility in southwestern Pennsylvania that includes a *simulated underground mine* and brings together some of the best instructors and experienced field personnel to prepare students for an exciting career in mining, or to provide quality refresher training to seasoned veterans.

Industrial Safety Training

AMA also provides both standard and customized industrial safety training and instruction for a broad range of workplace requirements.



CONTRACT MINING

Underground Mining

- Experienced Production Crews
- Hard Rock Mining Crews
- Continuous Mining
- Raise Mining
- Sub Level Stopping
- Professional Consulting



CONTRACT MINING

Surface Mining

- Production Mining
- Training
- Drill & Blasting
- Overburden Removal
- Screening and Crushing
- Professional Consulting



Back & Rib Bolting



Installing 50 ft Cable Bolts

We can operate any equipment and install any support!

Skilled ground control specialists can be mobilized quickly and can operate a variety bolters, drills, lifts and other heavy equipment to install any ground support mechanism.



Installing 8 ft Point Anchor Bolts



Highwall Stabilization



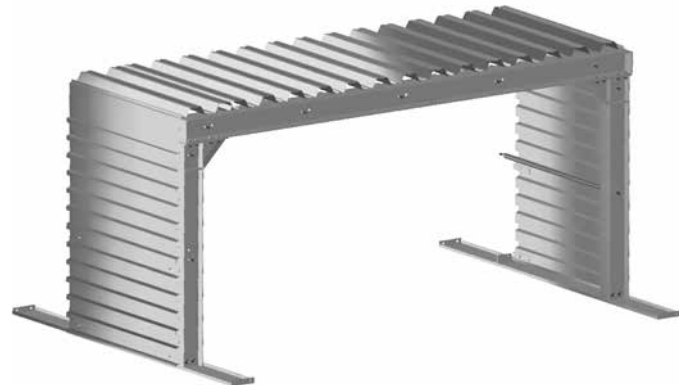
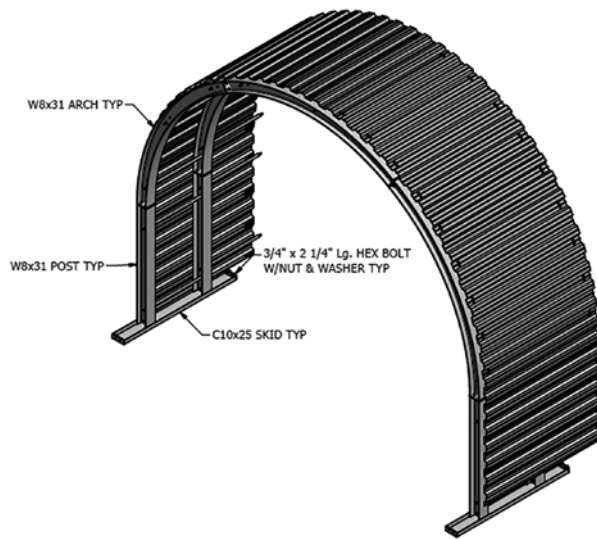
- Highwall bolt-mesh
- Shotcrete
- Glue/grout injection



Square Sets, Arches & Tunnel Rings



Custom designed and precisely fabricated to fit your specific needs, our talented and innovative engineers can work with you to create the perfect solution to your ground support challenges.



Cans & Steel Props



Quick Install Props

Heavy duty, up to 60T capacity, these props can be carried easily and installed quickly by one person. Height range adjustability and alternative plates to suit surface conditions.

Can Supports

The can support is a yieldable secondary roof support made from a confined core of cementitious composite, encased in a cylindrical steel canister, which resembles a can.

Steel Pumpable Cans



Pumpable Can Supports

- Steel casing offers substantial initial strength
- Greater strength than pumpable tower cribs, more than 2,500 tons
- Used in high back applications up to 50 ft
- *Requires assisted material handling in transport and setup.*

Pumpable Cribs



Pumpable Cribs

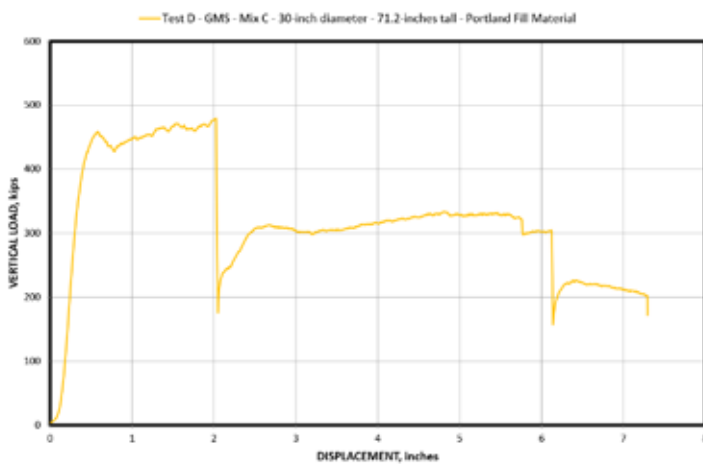
- Long pumping distance, up to 15,000 ft.
- Can be pumped from the surface
- Efficient material handling
- Rapid installation
- Rapid strength gain provides quick support
- Yieldable support

Peak Loads

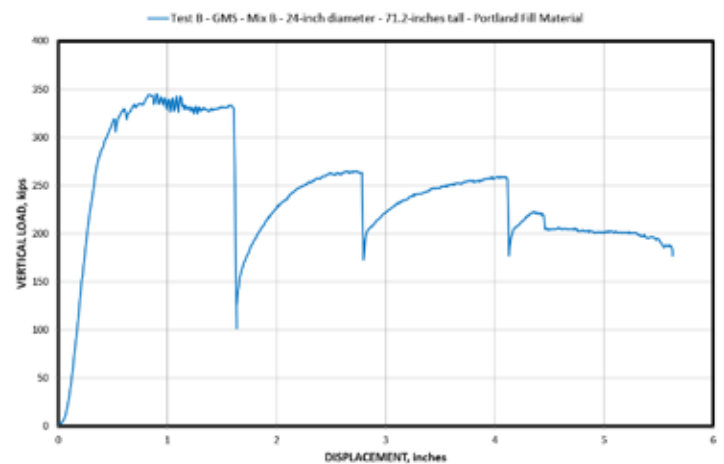
30 in.	240 tons
27 in.	218 tons
24 in.	172 tons



NIOSH RESEARCH LABORATORY
GMS - Pumpable - 1/10/2019



NIOSH RESEARCH LABORATORY
GMS - Pumpable - 1/10/2019



Pumpable Tower Cribs



Pumpable Tower Cribs

- Cribs are securely tethered together in a three-crib cluster to provide stability when pumping high areas
- Used in applications from 16 to 50 ft in height
- Long pumping distance, up to 15,000 ft
- Can be pumped from the surface
- Efficient material handling
- Rapid installation
- Rapid strength gain provides quick support
- Yieldable support

Shotcrete



ROSA (Remote Oscillating Shotcrete Arm) is a versatile attachment that mounts on most hydraulic equipment to allow GMS miners to remotely apply shotcrete from a safe location using any dry or wet shotcrete pump.



Wet Shotcrete

- Applied wet from underground or surface
- Ability to work inby when spraying (minimal dust)
- Quick application
- Minimal material rebound
- Can be pumped up to 4,500 ft
- Can be pumped from the surface
- Applied manually or with Remote Oscillating Shotcrete Arm (ROSA)

Dry Shotcrete

- Applied with low profile Baby Reed pump
- Sprayed dry requires less water GPM
- Quick and easy mobilization
- Applied manually or with Remote Oscillating Shotcrete Arm (ROSA)



Glue Injection

For Mining, Construction and Environmental applications.

- Roof Consolidation
- Water Stoppage
- Rock Stabilization
- Ring Grouting
- Void Filling



Cementitious Grouting

For Mining, Construction and Environmental applications.

- Water Stoppage
- Ground Consolidation

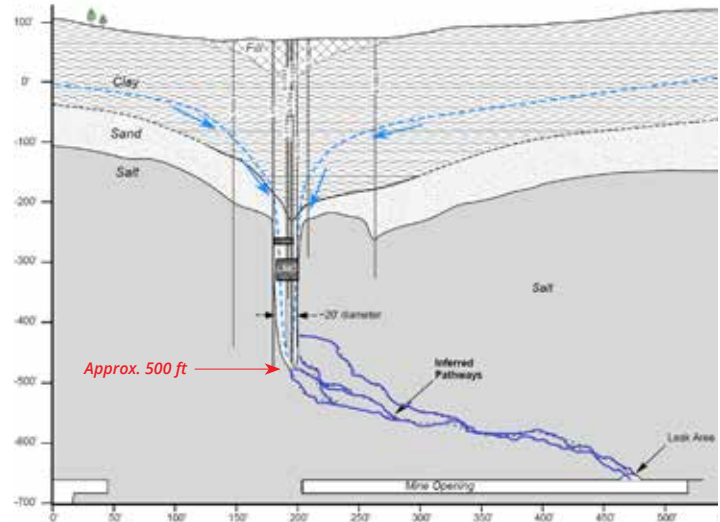


Surface Grouting

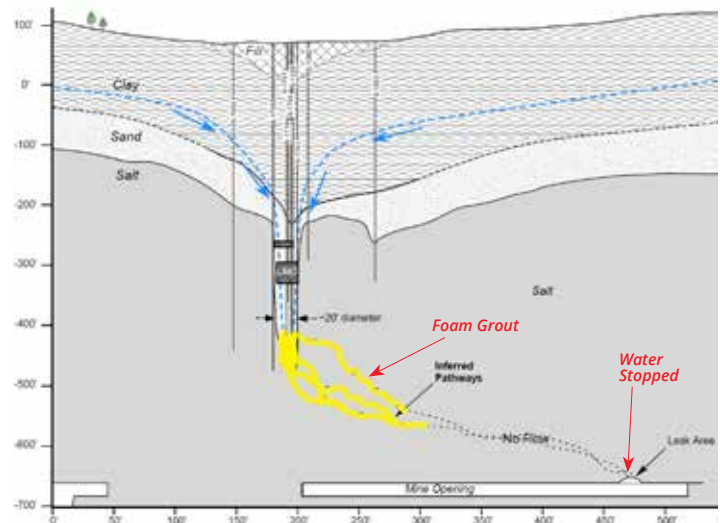


Down-hole Grouting:

- Insert 2-part packer down into borehole followed by an Injection of 2-part grout
- Can stop even substantial water ingress
- High volume application



Before Grout: Water was leaking into the mine at approximately 200gpm.



After Grout: The grout sealed up the pathways eliminating any further water ingress.

Void Filling & Back Filling



Expansion Foam

- Pumped from surface or underground
- Expands 30X original volume
- Strong adhesion properties to surrounding strata



Shield Tips



QC= 30X Expansion Rate

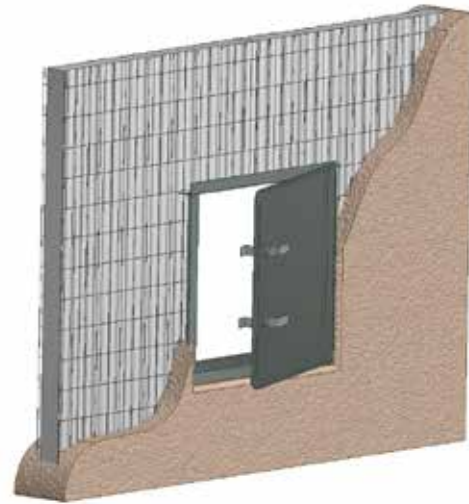
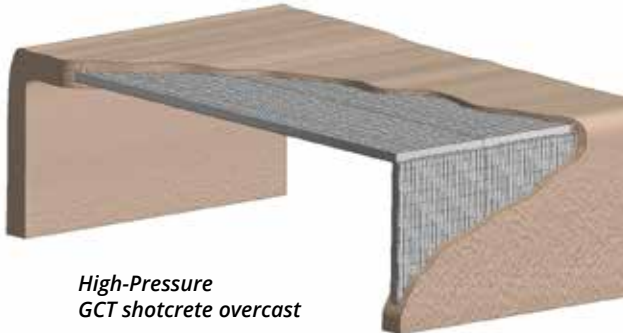


Form Shield Tips to Face

Overcasts/Undercasts

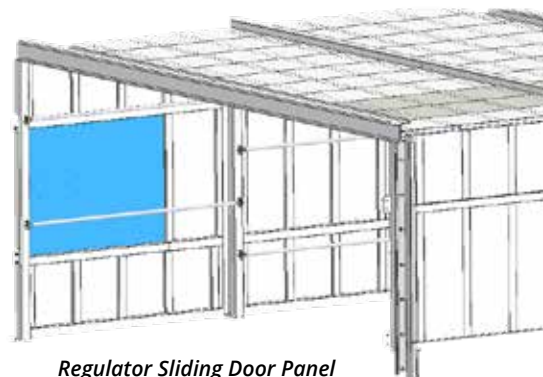
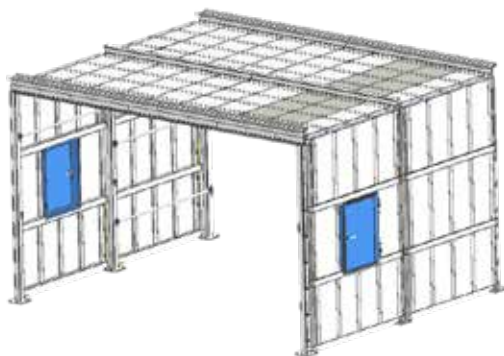
High Pressure Overcasts

- Overcast panels are cut to fit any application
- Panels are dialed into the mine roof, rib, and floor
- Panels are sprayed with shotcrete on both sides
- Can withstand up to 20 in. wg



Low Pressure Overcasts

- Overcast panels are engineered to customer specifications
- Modular, mobile and reusable
- Available with a variety of customized options, such as doors, ramps, steps, etc.



Stoppings/Curtain Walls



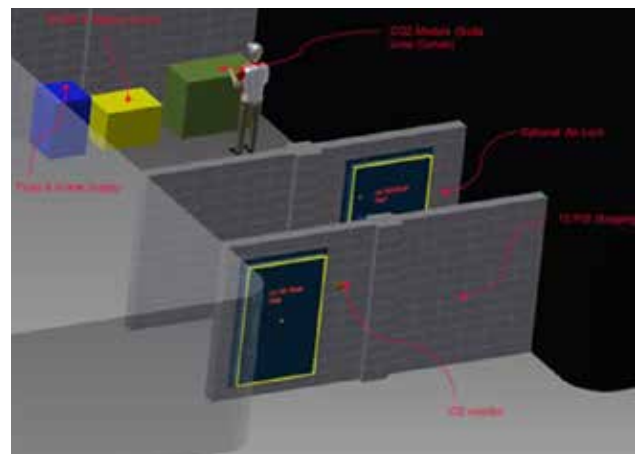
Sprayed Shotcrete high-pressure stoppings can withstand 22 in. wg



Refuge Shelters

MSHA Approved Refuge Chamber

- Breathable air can be provided from:
 - Borehole from the surface
 - Compressed air from the mine filtration system
 - Oxygen cylinders
- 15 PSI Stopping with thin spray-on liner sprayed on roof and rib
- Storage for communication devices
- Water and food
- Fire extinguisher
- Gas detectors



Mine Seals 120psi MSHA Approved



120 PSI MSHA approved mine seals.



- GMS has thoroughly trained and highly experienced installers that have been constructing 120 PSI seals since the development of the latest regulations.
- We can pump underground or from the surface, utilizing a fleet of both crib and seal pump systems.



Thin Spray-On Liners



Customized application, underground training room.

Elastic polymer-based thin spray-on liner (TSL) for surface reinforcement and weathering protection of soil, rock and coal strata

- Water- and air-tight
- For preventive measures on ventilation and seals
- Protects from atmosphere deterioration
- Product expands and flexes with roof or rib changes
- Unique waterproof membranes
- Prevents weathering in newly mined entries
- Sprayed on white for a brighter reflection
- Approved for ventilation controls
- Fireproof and can be used in charging stations
- One-component polymer powder, applied with baby reed pump
- Dry spray application, mixed with water in the spraying nozzle
- Sets within 5-10 minutes; generates tensile strength over the next hours, days, months
- Good bond and high elasticity
- Application thickness of 2-10 mm, average 4 mm
- No toxic components and virtually dust free, enhancing mine health and safety

FAST

- Can be applied at one square foot per second
- Rapid set-up; allows stop and start at any time
- Only needs compressed air

SAFE

- Improves visibility in mine due to white color
- Neither methane nor radon can pass through it
- Improves ventilation by creating smooth surface to the strata
- Impermeable

LOW MAINTENANCE

- Easily washed and readily accepts rock dust
- Will stop the symptoms of weathering and prevent small rocks from falling
- Will not corrode. Forty-year life expectancy
- Not affected by Mine Acid Water

COST EFFECTIVE

- No rebound or waste of material
- Takes less man power and cost to spray five times more than gunite or shotcrete
- One pallet of TSL can replace 14 pallets of shotcrete or gunite to do same area
- Requires a small, low cost machine that is permissible to use anywhere in the mine (Baby Reed SOVA, Allentown, Blastcrete Picolla or equivalent)

Man Doors & Specialty Mine Doors



Man doors and large-scale, specialty equipment doors, custom designed, professionally and efficiently installed.

Belt Terminal



Drive Installations
Take-Up Units
Head Frames
Chute Work/Replacement
Conveyor Structure Installation
Tunnel Reclaims



Mill Site/Plant Maintenance Solutions



GMS can help keep your operation running smoothly with qualified support crews to make repairs and complete dozens of mechanical services at your site. We have fully equipped service trucks, complete with tooling, welders, compressors, and cranes. We can also provide underground- and surface-qualified mill employees to supplement your workforce.

Services include:

- Chute and loading zone installation, repair, and replacement
- Rubber, lagging, and ceramic installation, repair and replacement
- Screen replacement and repair
- Pulley and bearing replacement
- On-site welding and fabrication
- Process analysis
- Outage work
- Complete conveyor maintenance
- Maintenance service contracts
- Structural steel; design, build, repair
- Complete concrete and construction services
- Contract labor MSHA



Complete engineering, on-site fabrication, installation, and on-going maintenance!

Concrete



GMS Concrete Services can design, form and pour foundations or structures, underground or above!

GMS can pump concrete from the surface to underground 5,500- 6,000 feet. While pumping from underground, we can pump from 800-1,000 feet away.

Underground projects typically include:

- Bunkers
- Sumps
- Training, Maintenance, Break Rooms
- Diesel Stations
- Slopes
- Cellular Concrete Void Fills
- Silo foundations
- Belt tunnel travel ways

Slope/Drift Excavation



Concrete and gunited entries



Track installed with heat tubes



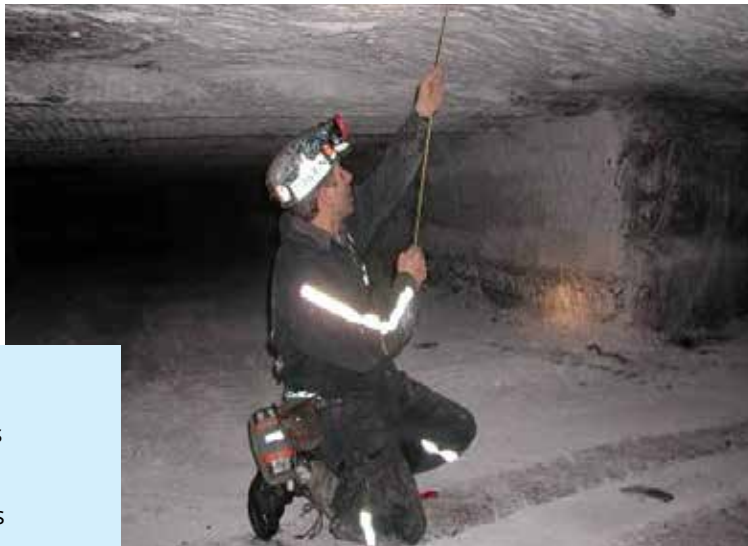
Innovative slope drop car and platform



Drill and Blast Excavation

Blasting

ATF licensed and equipped to handle blasting needs at any operation



Blasting Crews

- Certified Shot Firers
- ATF Permitted
- Blasting Capabilities
 - Overcasts
 - Undercasts
 - Sumps
 - Manholes
 - Belt Trenches
 - Bunkers
 - Slopes
 - Any problem rock
 - Production
 - Shaft Excavation
- Production
 - Pre-Split
 - Smooth
- Development
 - Ramp
 - Overburden



Shaft Excavation & Rehab



**Raise Bore Shaft
Excavation
Shaft Liners
Shaft Grouting
Guide Rail Replacement
Shaft Rehabilitation**

Longwall Services



Longwall Moves Longwall Maintenance

- Turnkey Longwall Moves
- Longwall Setup and Recovery Crews
- Outby Utility Crews
- Glue Injection Crews
- Pumpable Crib Crews
- Consultancy Services
- Shield Technicians
- Maintenance Services
- Pre-Driven Extraction Faces
- Mule Operators
- Certified Foremen
- Rental Equipment

GMS crews specialize in specific skill sets directly related to Longwall recovery and installation services. Current GMS Longwall core group has an average of 4.5 years of continuous longwall install and recovery experience with an average of 6 to 9 longwall moves per year, in various coal mines with varied geological conditions and recovery methods.

This experience allows GMS crews to minimize exposure to workplace hazards, and develop cost-saving efficiencies in longwall relocations.

Surface Construction

GMS Construction offers complete construction services, from residential renovations to designing and building commercial or industrial facilities, we have the resources and experience to do the job efficiently and cost-effectively.

General Contracting/ Project Management

Concrete

Industrial Construction

Masonry

Utilities

Pipeline

Excavation

Industrial Maintenance

- Millwrights
- Electricians



Badger



ELECTRIC OR DIESEL!

GMS ADVANTAGE

The GMS Advantage is a proprietary product like the Badger, developed by GMS and used exclusively by GMS crews, giving GMS an advantage over competitors!

The GMS electric- or diesel-powered Badger is a robust, remote-operated, excavation and utility machine, that is nimble and compact enough to access areas too precarious or difficult to reach for a traditional skid steer or dozer. Underground examples include excavation in narrow or low areas, and under conveyors. Above ground, typical uses include highwall bench cleaning and remediation, or culvert and confined space cleaning.

With optional attachments that allow you to drill, hammer, spray, cut or carry, the Badger is also extremely versatile!

A single operator remains at a safe distance with enhanced sight lines, and an exhaust catalyst reduces emissions (diesel), making the Badger as safe as it is efficient!



ROSA (Remote Oscillating Shotcrete Arm)

GMS ADVANTAGE

The GMS Advantage is a proprietary product like the ROSA, developed by GMS and used exclusively by GMS crews, giving GMS an advantage over competitors!



ROSA (Remote Oscillating Shotcrete Arm) is a quick mobilization, highly versatile attachment that mounts on most hydraulic equipment to allow GMS miners to remotely apply shotcrete from a safe location using any dry or wet shotcrete pump.

Equipment Rental

GMS ADVANTAGE

The GMS Advantage is an inventory of commonly-used rental equipment that can be rented with or without GMS operators, giving you extraordinary convenience!

GMS offers reliable and well-serviced equipment rentals that can be rented with or without GMS operators.

Equipment includes:

- Underground Scoops
- Bolters
- Drills
- Pumps
- Face/Jumbo Drills
- Cobra Drills
- Jack Leg Drills
- Utility Vehicles



ENGINEERING



GMS engineering services provides value to our customers by designing solutions for newly proposed projects and for existing areas and systems that may not be performing up to expectations. We perform analysis of structural issues, beltlines and equipment and recommend solutions while working closely with our clients to meet their financial goals.

We cover surface and underground projects and provide all phases of design services from layouts and proposals on through complete detailing. We prepare specs for our customers or will work directly in adherence to their supplied scope. Engineering performs various forms of necessary virtual and real-world analysis and integrates the solutions into our designs. All modelling and detailing is handled in-house and the engineers finish projects by working closely with the fab shops and field crews ensuring success.

Typical projects include:

- Square Sets
- Overcasts
- Roof Support
- Fall Remediation
- Seals
- Foundations
- Retaining and Containment
- Magnet Installations
- Transfer Points
- Chutes and a **wide array of machinery and custom equipment** for both beltlines and support functions.



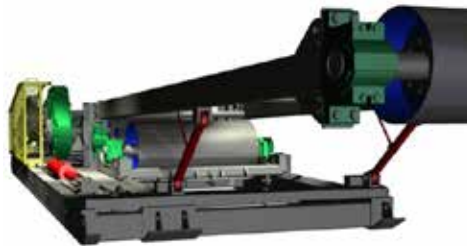
PIONEER CONVEYOR



Pioneer Conveyor, an affiliate of GMS Mine Repair & Maintenance, is a leading bulk material conveyor manufacturing firm serving customers throughout North America. Pioneer has designed and manufactured thousands of standard and custom conveyor systems for a multitude of applications. Pioneer has complete engineering, machining, and fabrication capabilities on-site to design and manufacture even the most complicated conveyor systems. All Pioneer Conveyor components are rated well above CEMA specifications allowing Pioneer to offer customers the most attractive warranty in the industry.



PIONEER  CONVEYOR



Large & Specialty Doors

Equipment Doors

- Channel frame construction
- Changeable bottom sweep
- Easy installation
- Custom sizes and variations available



Engineered Doors

- Measurement is Passable Opening
- Adjustable Frame Height at 6 in. increments
- Sliding Pressure Relief Door
- Designed for 11 in. Water Gauge
- Custom sizes and variations available



Drive-Thru Doors

- Bolt-together channel or heavy beam construction
- Changable bottom sweep
- Various latching mechanisms available
- Custom sizes and variations available



Combination Doors

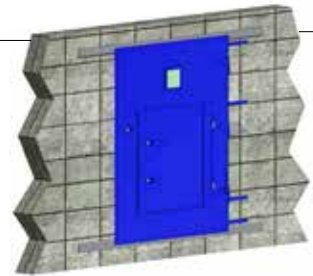
Designed with opposable, slide-away doors with 84 in. maximum pass-through and for 8 in. block wall construction.

- 8 in. sight glass windows
- 30 in. x30 in. spring loaded mandoor
- Draw latch, 4400 lbs work load
- Available in custom sizes per mine requirements

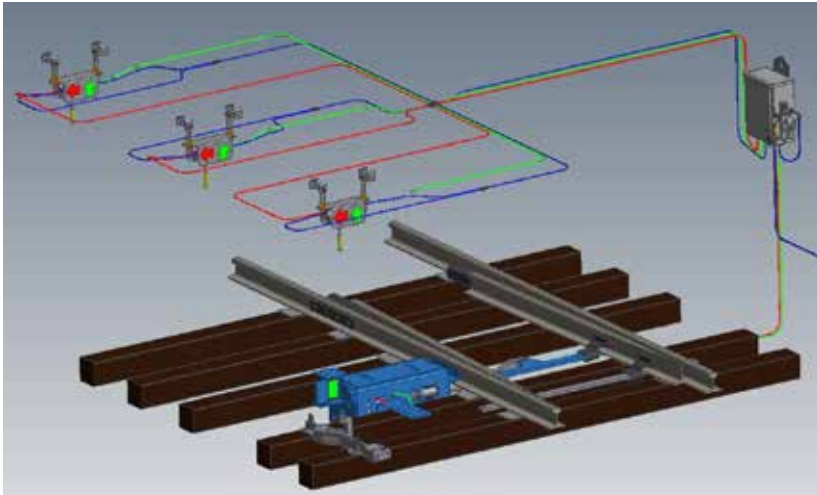
Heavy Duty Man Doors

Designed for block wall installation with 60 in. maximum pass-through.

- Heavy, 12 gauge construction
- 8 in. sight glass windows
- 30 in. x30 in. spring loaded mandoor
- 60 in. removable door
- Draw latch, 1100 lbs work load
- Available in custom sizes per mine requirements



Remote Track Switch



Remote Track Switch, complete system.

Boxes, Liners, Carts

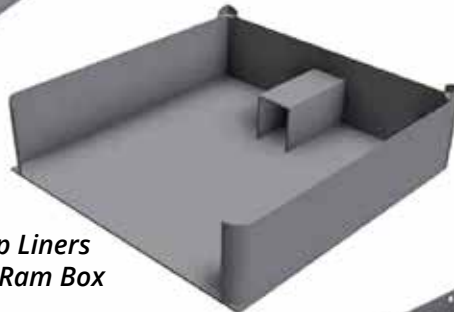
Designed to fit! Manufactured to last!



Basic Scoop Liners



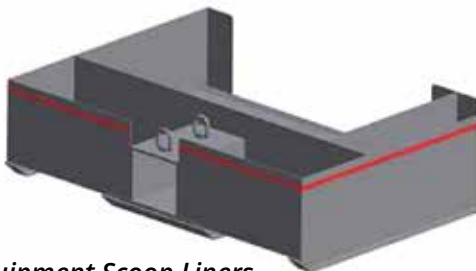
*SCSR
Cache boxes*



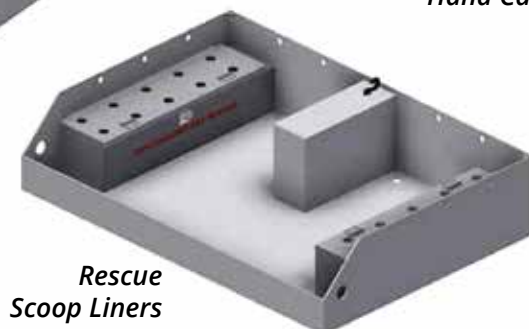
*Scoop Liners
with Ram Box*



Hand Carts



Equipment Scoop Liners



*Rescue
Scoop Liners*

Sleds, Trailers, Hauling Equipment



Available for safety and rescue equipment, structure moves and belt hauling, and various other transport needs. Drag behind, tow behind, fork and scoop mobile.

Custom designed and manufactured sleds, trailers and hauling equipment includes:

- Belt and Structure Sled
- Glue and Mesh Sled
- Fire Suppression Sled
- Spray Trailer
- High Voltage Sled
- Belt Sled
- Mesh Sled
- Supply and Engineered Trailers
- Structure and Flat Haulers

Rebuilds & Refurbishments

Complete rebuilds and restorations or custom parts replacement.



BEFORE



AFTER

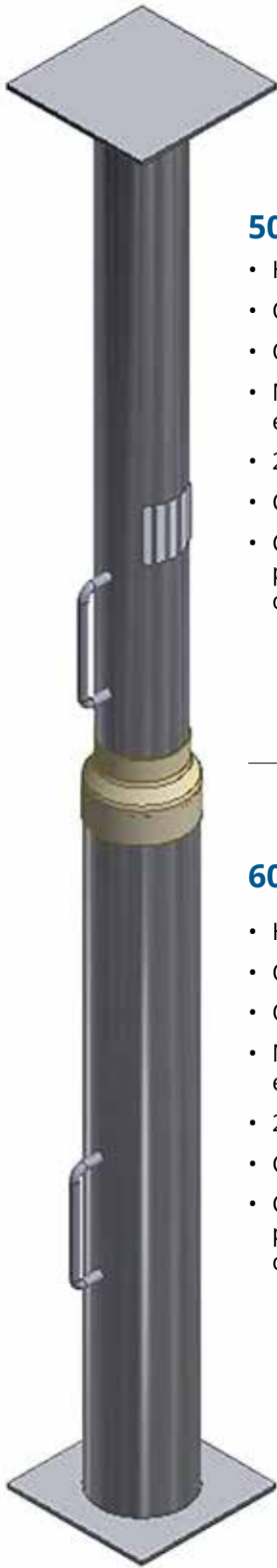


BEFORE



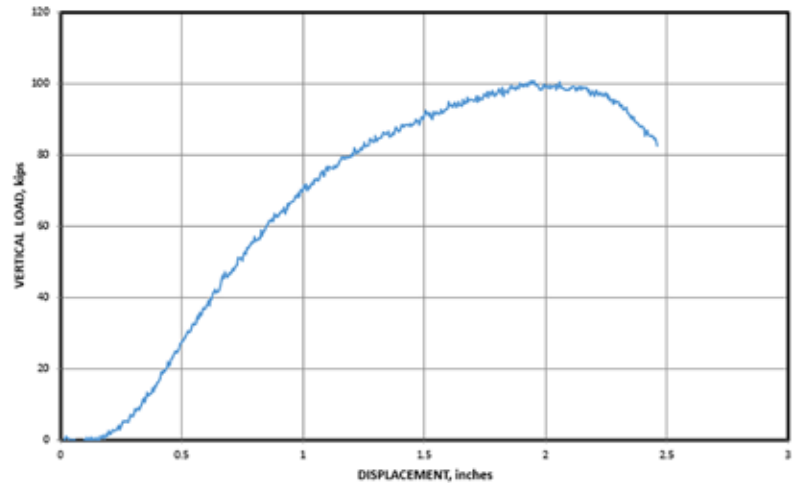
AFTER

50T and 60T Quick Install Sand Prop



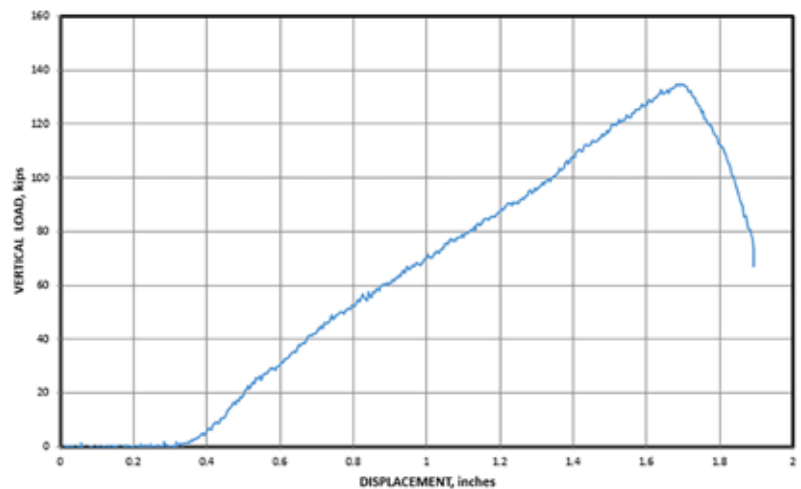
50T QIP Sand Prop

- Heavy duty, 50T capacity
- Quick installation
- One person can install
- Material handling efficiency
- 24 in. adjustability
- Carry handles
- Change top and bottom plates to adapt to surface control conditions



60T QIP Sand Prop

- Heavy duty, 60T capacity
- Quick installation
- One person can install
- Material handling efficiency
- 24 in. adjustability
- Carry handles
- Change top and bottom plates to adapt to surface control conditions

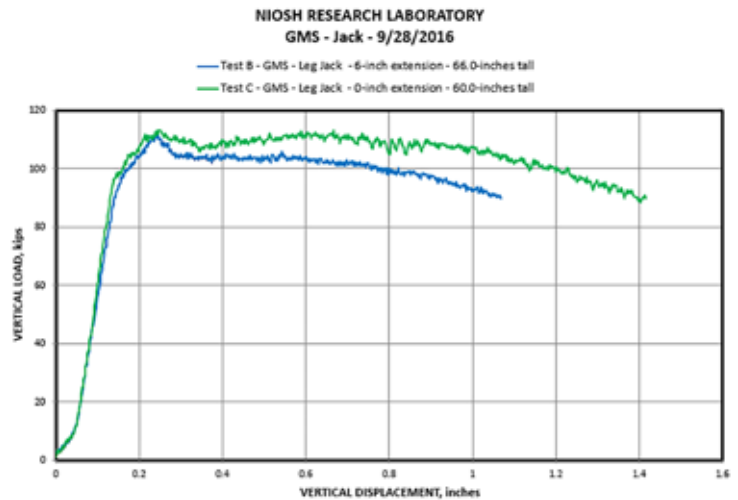


50T RAM Jack Prop



50T RAM Screw Jack Prop

- Reuseable
- Heavy duty, 50T capacity
- Quick installation
- One person can install
- Material handling efficiency
- 12 in. adjustability
- Carry handles
- Change top and bottom plates to adapt to surface control conditions



Underground Installation

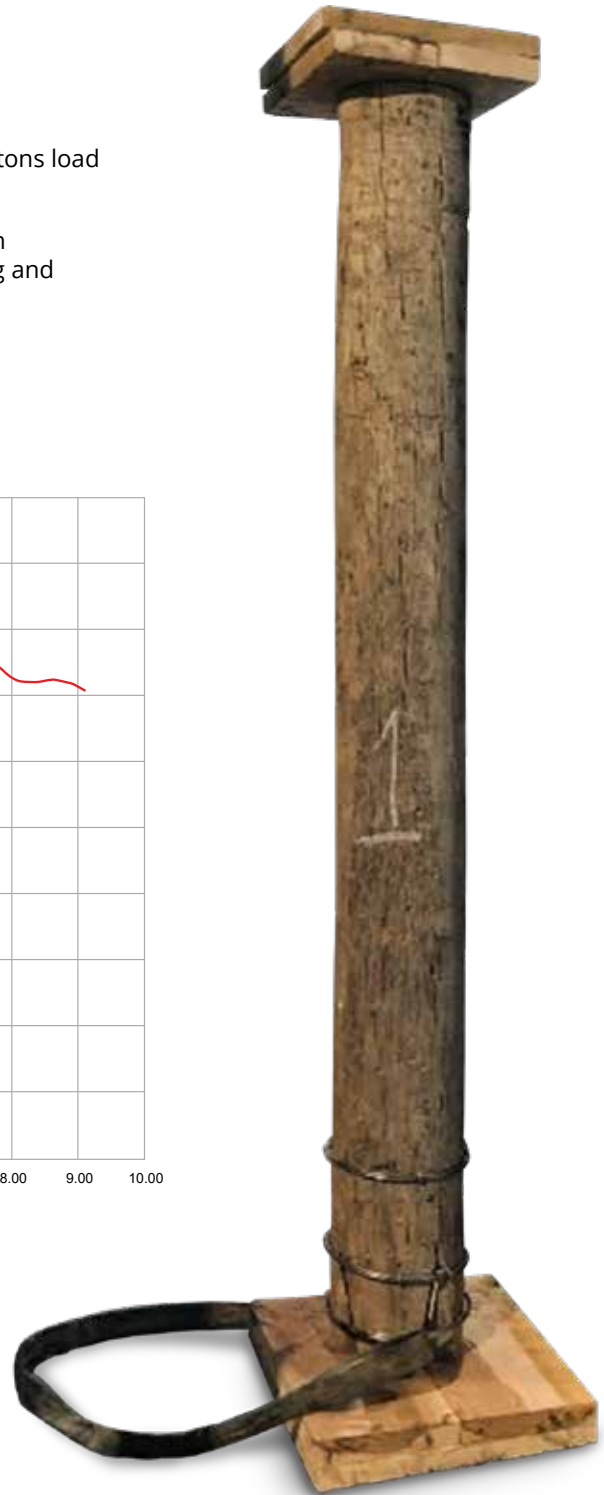
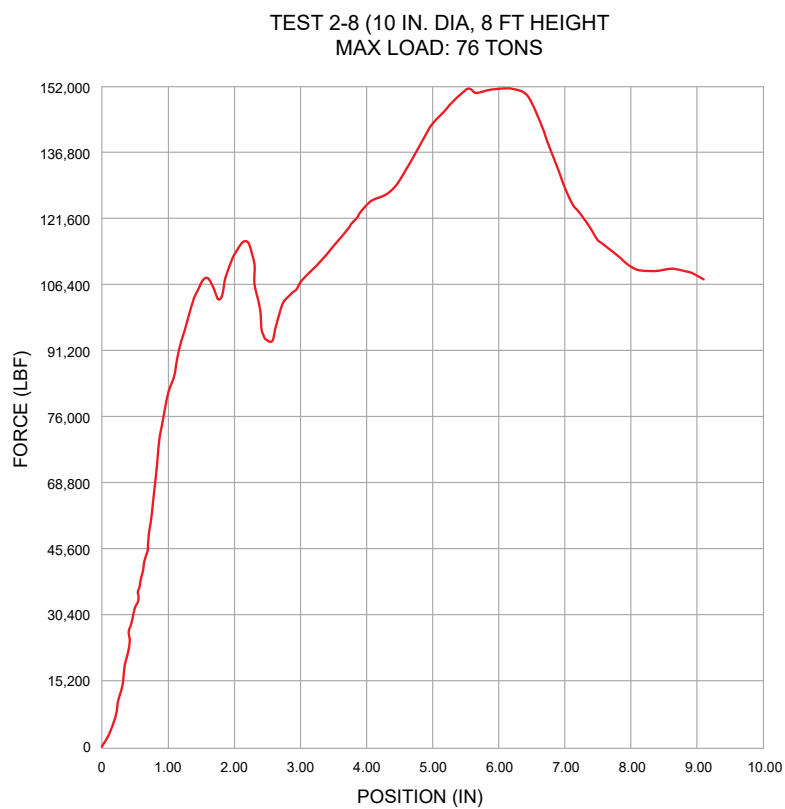


NIOSH Failure Analysis

Yield Prop

Standing Yielding Support

- 10 inch diameter post withstands up to 70 tons load
- Easy to transport and quick to install
- Efficiently bundled for your application with specifications to optimize material handling and transportation



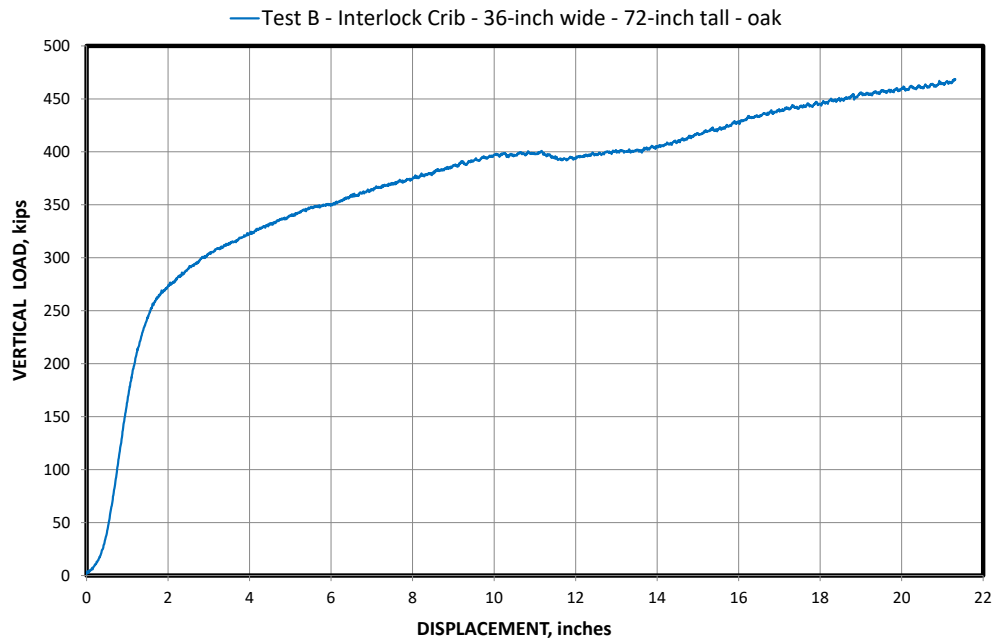
Interlocking Timber Cribs



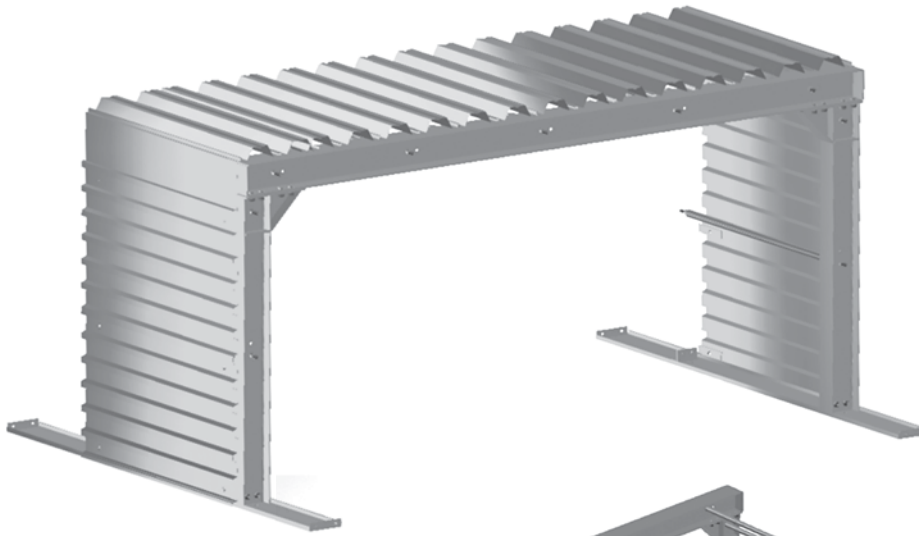
Interlocking Timber Cribs are designed to replace four and nine-point cribs in mine ceiling heights up to sixteen feet. The support system consists of interlocking timber blocks stacked in layers. Their interlocking capabilities create 100% contact between the layers, increasing strength and stability as the unit length increases.

GMS Interlocking Timbers Crib undergoing failure analysis at a NIOSH testing facility.

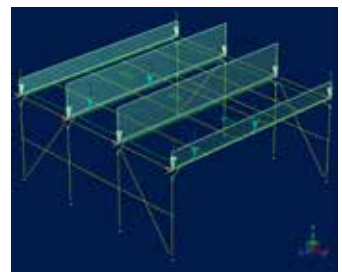
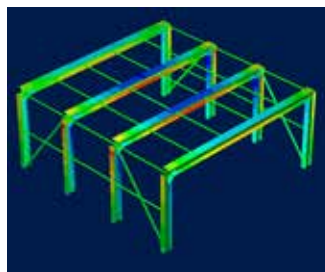
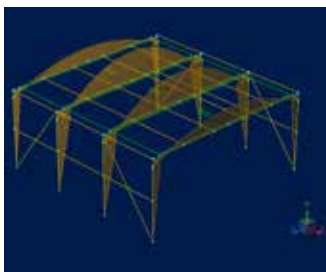
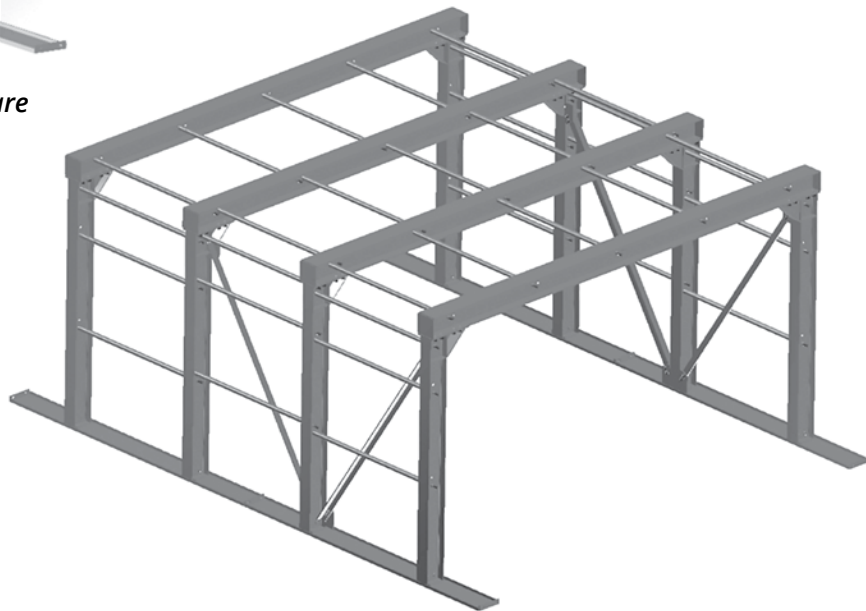
NIOSH RESEARCH LABORATORY
GMS - INTERLOCK - 11/21/2019



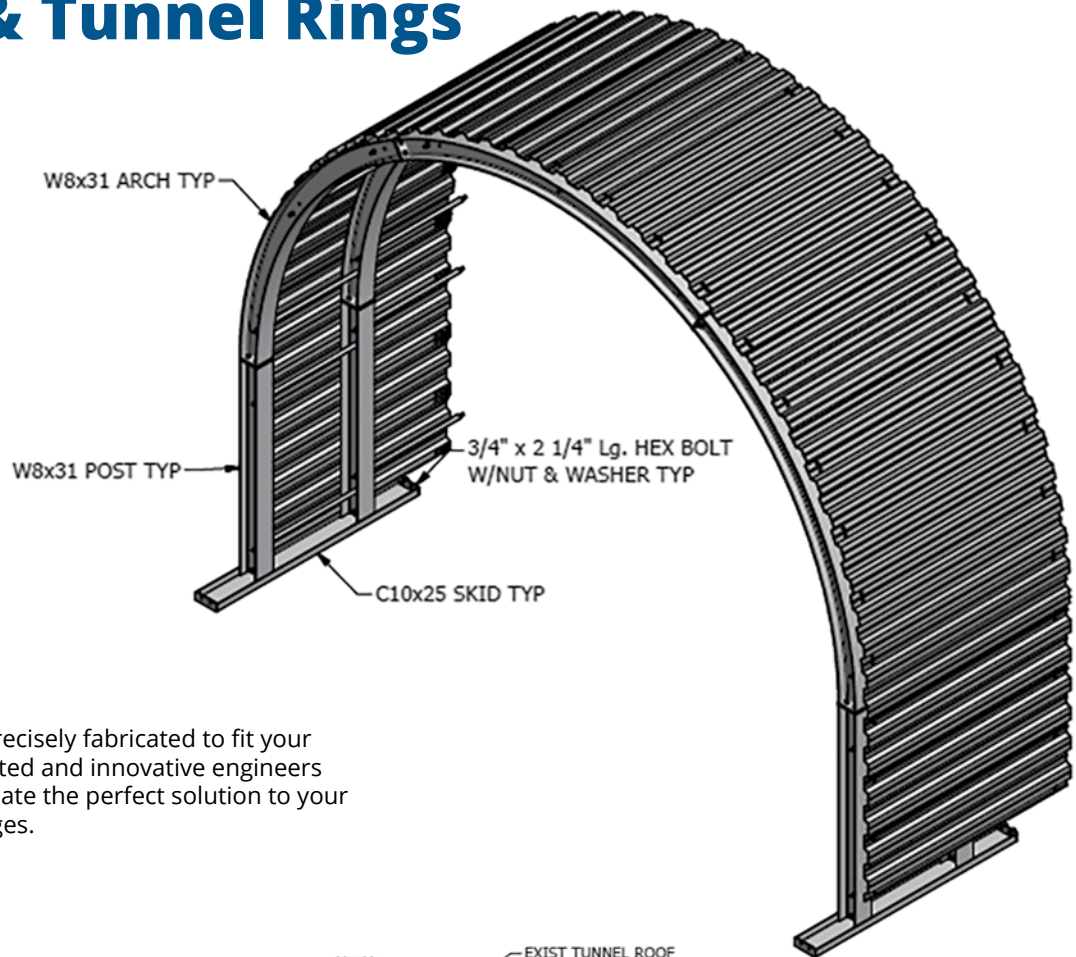
Square Sets



Custom, computer-designed square sets, engineered, fabricated, and installed by GMS.

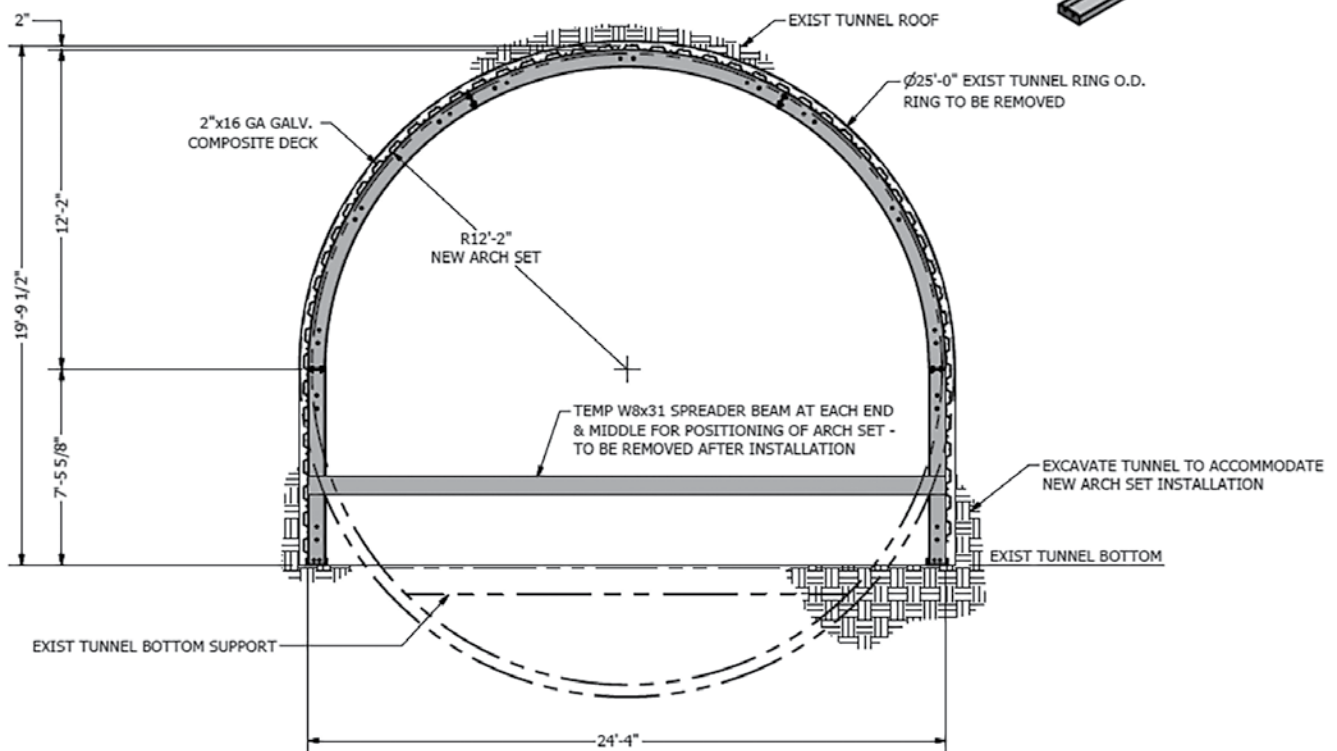


Arches & Tunnel Rings



Tunnel Rings

Custom designed and precisely fabricated to fit your specific needs, our talented and innovative engineers can work with you to create the perfect solution to your ground support challenges.



The CAN®

The CAN® is a yieldable secondary roof support made from a confined core of cementitious composite, encased in a cylindrical steel canister, which resembles a can. The CAN handles mine floor heaving and roof sag better than any other type of support available today. The CAN is flexible in design in that it can be engineered to meet mine-specific load conditions regardless if the adverse conditions are induced by the roof or the floor. The simple 1 piece design of the CAN installs quickly using a mine scoop or similar piece of equipment. The smooth steel skin of the CAN improves ventilation and promotes air flow by reducing resistance in the mine entry. When installed correctly, The CAN has never failed.



Product Specifications

- Manufactured mainly from post combustion products which then does not promote combustion
- The CAN is able to accept 50% convergence without failure
- The CAN is not brittle; it reacts and performs similarly when tested vertically and bi-axially
- The CAN promotes oxygen content in a mine environment, (drying / rotting wood depletes oxygen)

Product Diameters

- 9-inch
- 18-inch
- 22-inch
- 24-inch
- 30-inch
- 36-inch



Expandable Rock Bolts

The Expandable Rock Bolt meets the most demanding roof support applications. The high load-bearing capacity combined with excellent elongation properties, ensures safer working conditions and faster excavation cycles for lower costs.

There are three products available; Standard for lighter applications with a load capacity of 12 metric tons, Midi (16 metric tons), and the robust Super (24 metric tons).

Benefits

- Immediate full length support for faster excavation cycles and safer working conditions
- Simple and clean installation
- Adjusts to borehole irregularities
- Excellent elongation properties add to application flexibility
- Flexible to variations in drill hole diameter
- Versatile bolting solution for variable ground conditions
- No grouting or use of chemicals needed to avoid contamination



Water is pumped into the bolt under high pressure expanding the steel tube. The water is removed and the bolt is pressed against the rock providing immediate high-load friction capacity.



Case at top of bolt, with hole to inflate bolt with pressurized water.



Face plate at top of the bolt, no nut necessary.

Expandable Rock Bolts

SPECIFICATIONS	STANDARD	MIDI	SUPER
Length (up to), ft (m)	26.25 (8000)	26.25 (8000)	26.25 (8000)
Tube Thickness, in. (mm)	.08 (2)	.08 (2)	.12 (3)
Bolt Dia, in. (mm)	1.02 (26)	1.42 (36)	1.42 (36)
Original Tube, in. (mm)	1.61 (41)	2.13 (54)	2.13 (54)
Hole Dia, in. (mm)	1.3-1.5 (32-39)	1.7-2.0 (43-52)	1.7-2.0 (43-52)
Optimal Hole, in. (mm)	1.4-1.5 (35-38)	1.8-2.0 (45-51)	1.8-2.0 (45-51)
Min Breaking Load, t (kN)	12.2 (120)	16.3 (160)	24.5 (240)
Minimum Elongation, %	10	10	10
Yield Strength, %	80	80	80
Face Plate	150x150x6(x)	200x200x6(x)	200x200x8(x)
Face Plate Hole, in. (mm)	1.18 (30)	1.58 (40)	1.58 (40)
Weight, lb/ft (kg/m)	14.47 (2.0)	20.25 (2.8)	27.12 (3.75)



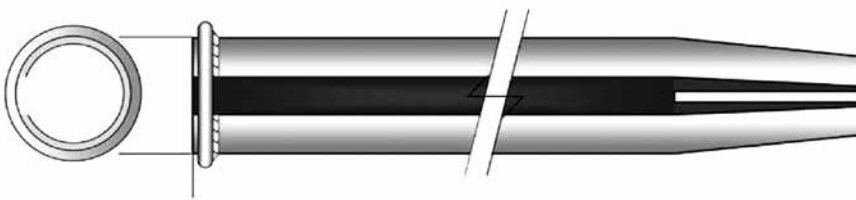
Friction Bolts

The friction bolts are an easy fortification system that works by friction and offers immediate support. They are formed by a longitudinally grooved tube with a conical end to be easily inserted into the hole. The bolt is inserted into the hole, which has a slightly smaller diameter than the bolt. When the bolt is inserted into the hole, the impact forces the bolt against the walls generating a frictional resistance along the entire length of the bolt.



Friction Bolts

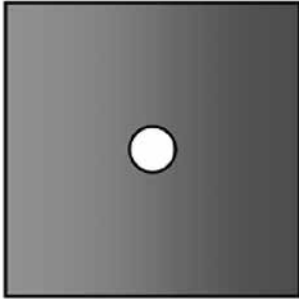
SPECIFICATIONS	BOLT DIAMETER			
	FS33	FS35	FS39	FS46
Mass, lb/ft (kg/m)	1.1 (1.64)	1.1 (1.64)	1.26 (1.88)	1.88 (2.8)
Ultimate Tensile Strength, Min, lb (kN)	20,000 (89)	20,000 (89)	23,000 (102)	32,500 (145)
Recommended Initial Load, t (kN)	3-6 (27-54)	3-6 (27-54)	3-6 (27-54)	6-10 (54-89)
Recommended Bit Diameter Range, in. (mm)	1.19-1.25 (31-33)	1.19-1.31 (32-33)	1.38-1.5 (35-38)	1.63-1.75 (41-45)
Bolt Length, in. (m)	18-96 (.45-2.4)	18-96 (.45-2.4)	18-120 (.45-3)	36-120 (.9-3.7)
Elongation	Minimum 21%			



Advantages

- Process automation
- Easy and fast installation
- Very simple process automation
- Simple, safe installation provides immediate support
- Low sensitivity to ground movements
- Low manufacturing cost

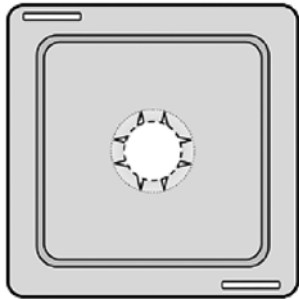
Washer Plates



Flat Washer

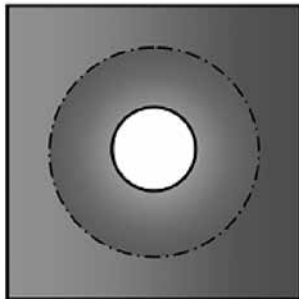
Flat Washers are available in the following standard sizes:

- 0.25 (1/4) in. x 4 in. x 4 in. (6.4 mm x 100 mm x 100 mm)
- 0.25 (1/4) in. x 5 in. x 5 in. (6.4 mm x 125 mm x 125 mm)
- 0.25 (1/4) in. x 6 in. x 6 in. (6.4 mm x 150 mm x 150 mm)
- 0.25 (1/4) in. x 8 in. x 8 in. (6.4 mm x 200 mm x 200 mm)
- 0.25 (1/4) in. x 5 in. x 5 in. (9.5 mm x 125 mm x 125 mm)
- Other sizes available on request.



Push On Plate

The Push On Plate is *pushed* on the .625 (5/8) in. mechanical bolt. The tabs hold the plate on the dolly for ease of installation. It is a quick, economical method of double-plating when starting a new row of screen.



Dome Washer

- 0.25 (1/4) in. x 4 in. x 4 in. (6.4 mm x 100 mm x 100 mm)
- 0.25 (1/4) in. x 5 in. x 5 in. (6.4 mm x 125 mm x 125 mm)
- 0.25 (1/4) in. x 6 in. x 6 in. (6.4 mm x 150 mm x 150 mm)
- 0.25 (1/4) in. x 8 in. x 8 in. (6.4 mm x 200 mm x 200 mm)
- Hole size as required
- The standard dome is designed to collapse at 8 tons (+/- .5 ton) giving operators a good visual reference for changing



Butterfly Plate

- Galvanized or Standard
- Controlled edge shearing to eliminate jagged edges
- Ideal for added surface coverage with added strength
- Lightweight with large (12 in. x 12 in.) surface area

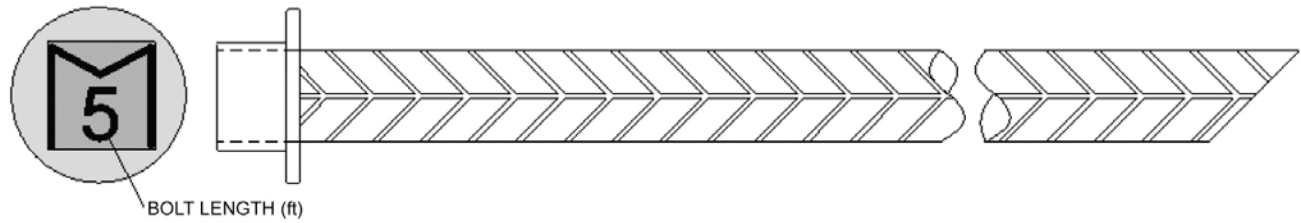


Friction-Set Washer Plate

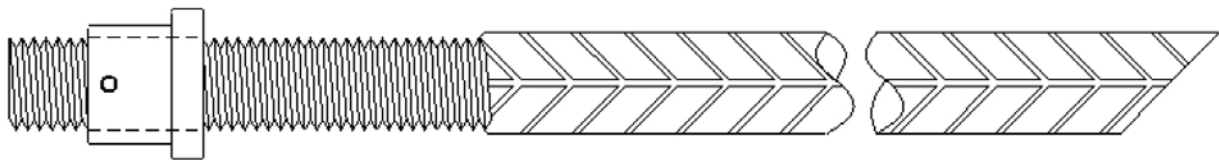
- .19 (3/16) in. x 6 in. x 6 in. (4.8 mm x 150 mm x 150 mm)
- Available for both the FS33 or FS39
- Galvanized or Standard
- 14 Ga thickness

Rebar Bolts

Forgerd Head Rebar



Threaded Rebar



Rebar Bolts

STEEL	YIELD STRENGTH (MIN)	TENSILE STRENGTH (MIN)	ELONGATION %
Grade 400 W, psi (MPa)	58,016 (400)	78,312 (540)	13

THREADED SECTION	400 MPA STEEL			
	5/8 IN. - 11 UNC	3/4 IN. - 10 UNC	7/8 IN. - 9 UNC	1 IN. - 8 UNC
Yield Strength, Min, lbs (kN)	13,112 (58)	19,377 (86)	26,803 (119)	35,158 (156)
Tensile Strength, Min, lbs (kN)	17,700 (79)	26,159 (116)	36,184 (161)	47,462 (211)

BAR SECTION	400 MPA STEEL			
	5/8 IN. - 11 UNC	3/4 IN. - 10 UNC	7/8 IN. - 9 UNC	1 IN. - 8 UNC
Yield Strength, Min, lbs (kN)	15,890 (71)	28,250 (126)	34,183 (152)	44,141 (196)
Tensile Strength, Min, lbs (kN)	21,453 (95)	38,138 (170)	46,147 (205)	59,590 (265)
Elongation, Min, %	13			

Advantages

- Drill hole diameter can fluctuate
- Well-proven and effective system
- Grouting ensures adherence to strata
- High tensile strength

Mechanical Anchors

Advantages

- Simple handling and optimized installation time
- Immediate load-bearing capacity
- Field-proven and reliable anchors
- Unproblematic installation in aquiferous boreholes
- Optimized ratio of anchor force vs. borehole diameter

System Components

Steel Expansion Shell

- Different versions available on request
- Optimized with regards to the given borehole diameter

Anchor Shaft (tendon): threaded or rebar version

Plate

- Mechanical Anchor: Flat plate with conical through-hole
- Mechanical Rebar Anchor: Domed plate with round or long hole

Nut

- One-sided convex hexagonal nut, self-locking nut, or domed nut
- Spherical washers and driver tools available on request

Other dimensions, steel grades, and galvanized versions are available on request



Mechanical Anchor

- Continuous threaded anchor bars allow flexible length adjustments and posterior extension on site
- Expansion sleeves are available for different borehole diameters

Mechanical Rebar Anchor

- Smooth or ribbed reinforcing steel
- Forged or threaded head versions
- In accordance with ASTM F432 or CSA M430 specifications. Steel grade B 500 B according to DIN 488-1 or OENORM B 4700; **alternative steel grades available on request**
- Standard bar sizes: 5/8 in., 3/4 in., and 7/8 in. (16 mm and 20 mm)
- **Different expansion shell types and diameters available on request**

Mechanical Anchors

SPECIFICATIONS	KS-145	KS-190	KS-220
Nominal Diameter, in. (mm)	.64 (16.2)	.71 (18)	.79 (20)
Nominal Weight, lb/ft (kg/m)	11.72 (1.62)	14.47 (2.00)	17.79 (2.46)
Nominal Cross Section, in ² . (mm ²)	.32 (207)	.39 (254)	.49 (314)
Yield Strength ¹ , psi (N/mm)	65267 (450)	97175 (670)	72519 (500)
Tensile Strength ¹ , psi (N/mm)	101526 (700)	116030 (800)	101526 (700)
Ultimate Load ² , t (kN)	14.55 (145)	19.07 (190)	22.08 (220)
Ultimate Elongation, %	15	15	15
Nut Version ³	S, H	K	K
Borehole Diameter ⁴ , in. (mm)	1.34-1.42 (34-36)	1.73-1.85 (44-47)	1.73-1.85 (44-47)

1) Steel tendon (anchor shaft)

2) Anchor system: anchor bar, plate and nut

3) H=hex nut, one-sided convex seat; S=stop nut; K=domed nut

4) Standard version expansion shell

Cable Bolts

Effective ground control suited for various fields of application. Appropriate for bolting in limited space conditions, reinforcement of roadways and gateways, or bolting in the hanging wall of longwall T-junctions

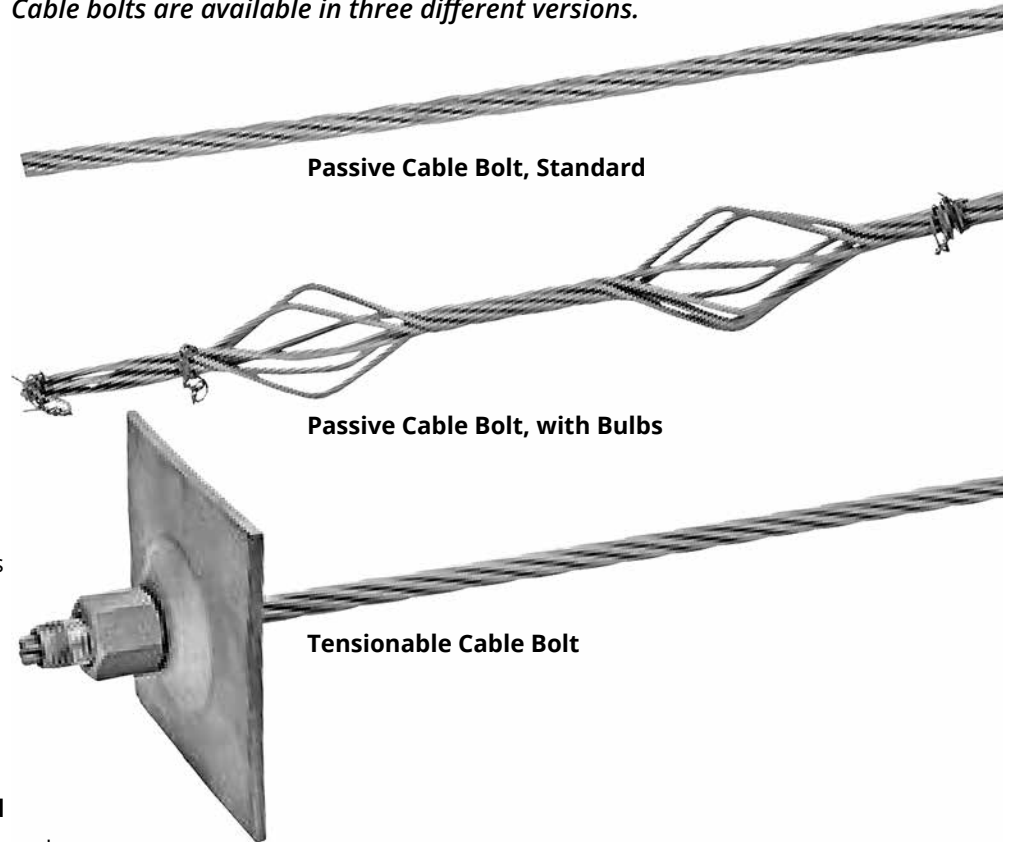
Advantages

- Long cable bolts are easily displaceable in limited space
- High load-bearing capacity at a low weight per meter
- Flexible bolt lengths
- Installation using cement cartridges, resin cartridges, cement grout, or injection resin
- Various types of cable tensioners available on request

System Components

- **End Holding Devices**
 - Single strand fish hook
- **Seven wire prestressing strand**
 - Uncoated, low relaxation strand
 - One center wire and six outer wires
 - Plain or bulbed version
 - Different customer-specific lengths
 - Greased strands with free lengths available on request
- **Plate**
 - Different designs and dimensions available on request
- **Domed Cable Grip**
 - Domed barrel
 - Three pieces wedge
 - Optional plastic cap
- **Tensionable Cable Bolt**
 - Press sleeve
 - Metric, UNC, or DYWI® Drill thread
 - Tension nut
- **Injection and Breather Tubes**
 - Standard versions 13 x 2 mm (0.5 x 0.08 in.) and 16 x 2 mm (0.6 x 0.08 in.)
 - Alternative designs and dimensions available on request

Cable bolts are available in three different versions.



Cable Bolts

SPECIFICATIONS ¹	.6 DIA
Nominal Diameter, in. (mm)	0.6 ² (15.2)
Cross Section, in. (mm)	.28 (7.1)
Weight, lbs/ft (kg/m)	.74 (1.1)
Tensile Strength, ksi (N/mm ²)	270 (1862)
Yield Load, lbs (kg)	52740 (23922)
Ultimate Load, lb (kg)	58600 (26580)
Elongation ³ , %	≥ 3.5

1) According to ASTM A416

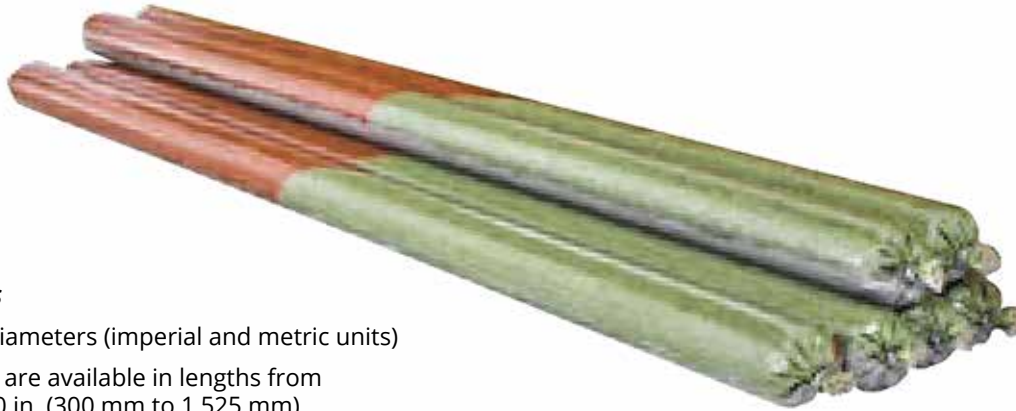
2) 0.5 in., 0.7 in., and galvanized version available on request

3) Measuring length: 24 in.

Resin Cartridges

Resin cartridges are used to bond bolts to the surrounding ground. Cartridge diameter and length must be optimized to bolt length as well as borehole and bolt diameter. Bonding can either be accomplished using resin cartridges with the same setting (gel) time, or cartridges with different gel times allowing pretensioning of a bolt.

Resin cartridges consist of two compartments: one containing resin, the other one a catalyst. Separation of those two compartments is accomplished by a head-sealed polyester film tube clipped at both ends. This chemical resistant film tube prevents migration between the resin and the catalyst, and features an optimum shelf life. Hence, the film shreds quickly during the installation process. Resin cartridges are thixotropic and fast setting, allowing a low installation force and torque.



Specifications

- Nominal diameters (imperial and metric units)
- Cartridges are available in lengths from 12 in. to 60 in. (300 mm to 1,525 mm)
- Deviating dimensions available on request
- Standard Gel Times: 15 - 400 seconds
- Alternative gel times available on request
- Spin times depending on resin cartridge type
- Storage temperature must be lower than 30 °C (86 °F), default shelf life one year
- Standard Diameters: 1 in., 1-1/8 in., 1-1/4 in. (25 mm, 28 mm, 32 mm)

Advantages

- Maximum bonding capacity due to optimized components
- Optimized installation times
- Durable and sound resin grouting
- Constant and customized gel times
- Water-based resin cartridge system
- High catalyst/resin ratio
- Suitable for all ground types with stable boreholes

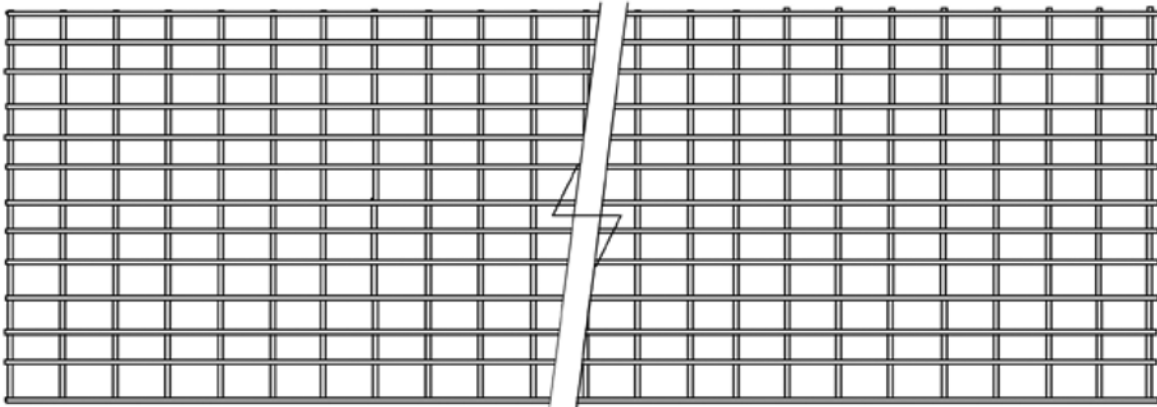
Standard Cartridge Diameters

IN.	MM
.9	23
1	25
.125	28
.141	29
1.181	30
1.259	32
1.377	35
1.574	40

Screen

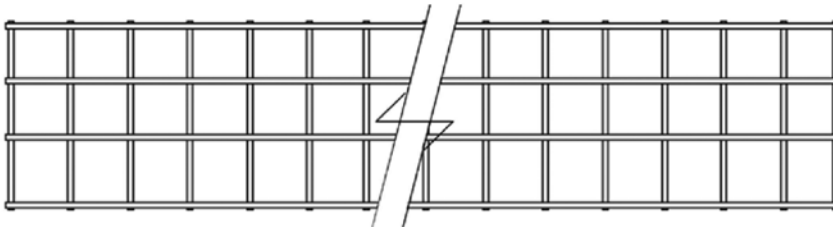
Made of straight steel bars that are joined by fusion welding at their intersections. ***Flush cut for added safety!*** Available in black, galvanized, straight and corrugated.

- Rolls from 48 in. (1.2 m) wide to 82 ft (25 m) long
- Sheets from 48 in. (1.2 m) wide to 19.7 ft (6 m) long



Rectangle Screen

- 4 in. (0.10 m) x 10 in. (0.25 m) openings
- 48 in. (1.2 m) width x any length
- 9 gauge



Screen Strap

- 4 in. x 4 in.
- Available in any length
- Width: 12 in. (305mm)
- Length: 7 ft, 10 ft (2.1 m, 3.0m)
- 0/0 gauge (.305 in. nominal)
- Overhang (flush): 3/8 in. max
- Minimum Weld Shear: 5,180 lbs min
- 7 ft Weight: 12.5 lbs (5.7kg)
- 10 ft Weight: 17.9 lbs (8.1 kg)

Man Doors

Gravity Close Doors

- Available in galvanized or painted versions
- Bar latch or self-latching available
- Single flanged for easy installation
- Flat gasket seal
- Custom sizes available upon request

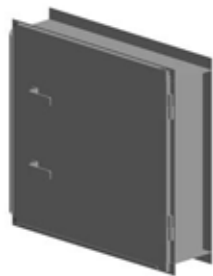


Gravity Close Doors

W (in.)	H (in.)	D (in.)	Material (Ga)
30	30	6, 8	12, 14
32	34	6, 8	12, 14
36	36	6, 8	10, 12, 14

Reversible Doors

- Door can be utilized on either side of frame
- Available in galvanized or painted versions
- Single or double latching
- Flat or bulb gasket seal
- Custom sizes available upon request



Reversible Doors

W (in.)	H (in.)	D (in.)	Material (Ga)
30	30	6, 8	12, 14
32	34	6, 8	12, 14
36	36	6, 8	10, 12, 14

Spring Loaded Doors

- Available in galvanized or painted versions
- Self latching or bar latching
- Flat or bulb gasket seal
- Custom sizes available upon request



Spring Loaded Doors

W (in.)	H (in.)	D (in.)	Material (Ga)
30	30	6, 8	12, 14
34	34	6, 8	12, 14
36	36	6, 8	12, 14
30	60	6, 8	12
36	60	6, 8	10, 12

Spring Loaded, Double Latch Doors

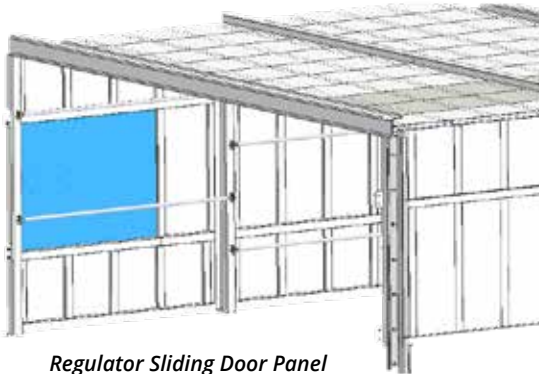
- Available in galvanized or painted versions
- Heavy gasket and double latching for a tighter seal
- Custom sizes available upon request



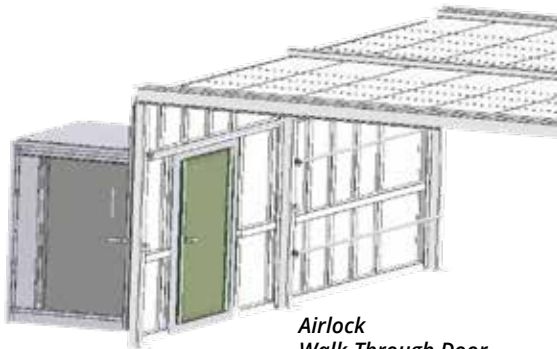
Spring Loaded, Double Latch Doors

W (in.)	H (in.)	D (in.)	Material (Ga)
30	30	6, 8	12, 14
34	34	6, 8	12, 14
36	36	6, 8	12, 14
48	48	6, 8	12
30	60	6, 8	12

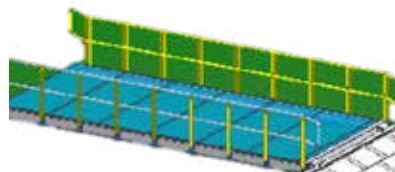
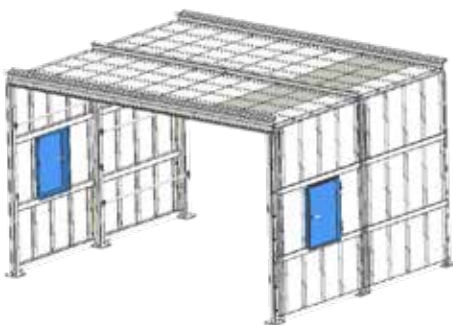
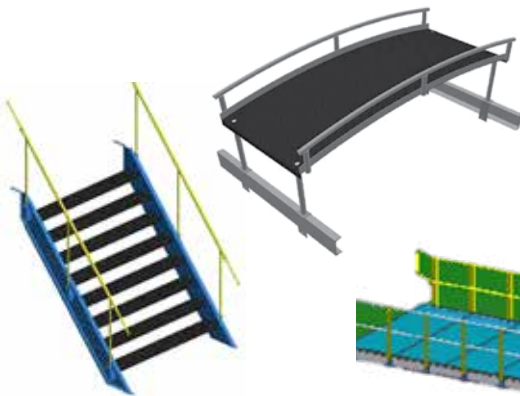
Overcasts, Belt Crossovers, Stairs



Regulator Sliding Door Panel



Airlock Walk-Through Door



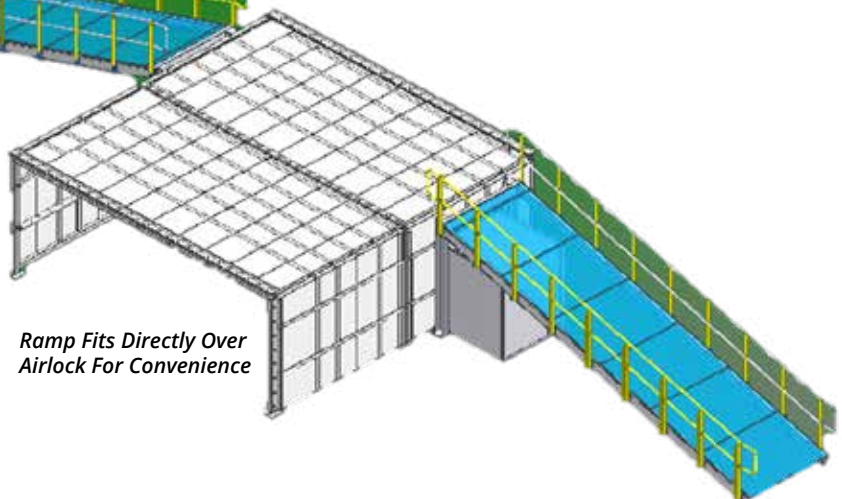
Ramp Fits Directly Over Airlock For Convenience

Standard Overcasts/Undercasts

- Easy to install
- Modular (low pressure) and Permanent (high pressure)
- Can be reused
- For low pressure applications (< 8 in. of wg)
- Adjustability:
 - 5 ft to 10 ft high in 6 in. increments
 - 16 ft to 24 ft wall side in 6 ft increments
 - 14 ft to 26ft beam side in 12 in. increments
- Can be conformed to fit angled entries
- Small, compact packaging for easier handling at mine site
- Kept in inventory for quick mobilization
- Design can be sprayed with gunite or finished with sealant
- Patent Pending

Pre-Fabricated Modular Overcast

- MSHA Suitability tested (MSHA-ST 35)
- Fully engineered and designed to customer specifications
- Overcast is mobile and reuseable
- Quick installation
- Available with:
 - Man Hole for haulage entries
 - Man Door panels
 - Airlock Walk-thru Door
 - Regulator Sliding Door Panel
 - Six ft Prefabricated Ramps for Safer Escape Way Travel



Fly Pads

AirStop® Series VentaTex® 3000 & 5000 Series

Trust the durability and quality of fly pads for safe travel in underground environments. Fly pads made with AirStop® window clear fabric and VentaTex® frosty clear fabric allow vehicles to conveniently travel in and out of crosscuts while providing visibility and directing air flow. The heavyweight material helps ensure that the curtain will hang straight once the vehicle has passed.

AirStop® Series Window Clar Fabrics

FABRIC	WEIGHT (oz./yd. ²)	WEIGHT (g/m ²)	SCRIM COUNT
AS-600	18	610.30	N/A
AS-1000	30	1,017.37	N/A
AS-2500	25	847.64	2 x 2
AS-4500	45	1,525.76	N/A
AS-4550	45	1,525.76	2 x 2
AS-6000	60	2,034.35	N/A
AS-6550	60	2,034.35	2 x 2

VentaTex® 300 & 5000 Series Frosty Clear Fabrics

FABRIC	WEIGHT (oz./yd. ²)	WEIGHT (g/m ²)	SCRIM COUNT
V-3110	20	678.11	9 x 5
V-3120	25	847.64	9 x 5
V-3150	30	1,017.17	9 x 5
V-5150RS	30	1,017.17	9 x 6 RipStop
V-5175RS	35	1,186.70	9 x 6 RipStop
V-3205	40	1,356.23	9 x 5
V-5200RS	40	1,356.23	9 x 6 RipStop
V-5225RS	44	1,491.85	9 x 6 RipStop
V-5300RS	58	1,966.53	9 x 6 RipStop



Brattice

VentaTex® & VentaLene® Series Fabrics

Conventional Weft-Insertion Knitted Scrim

VentaTex® and VentaLene® fabrics incorporate synthetic scrims that are produced by overstretching a non-woven web. This produces a scrim with a unique geometric pattern. The substrate is laminated using PVC films, resulting in a strong, low-maintenance, fire-resistant fabric excellent for brattice and flexible ducting applications.

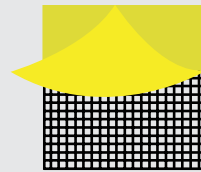
RipStop Weft-Insertion Knitted Scrim

VentaTex® and VentaLene® fabrics with RipStop feature heavier yarns staggered sequentially in either a uni-directional or bi-directional pattern. The result is a fabric that prevents a small snag from developing into a major tear. Mine fabrics comply with all applicable United States Mine Safety and Health Administration (MSHA) regulations and policies. Extensive laboratory testing gives you peace of mind that your product will perform at specific, documented rating strengths.

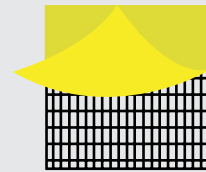
VentaTex® 300 & 5000 Series Frosty Clear Fabrics

FABRIC	WEIGHT (oz./yd. ²)	WEIGHT (g/m ²)	SCRIM COUNT	COLOR
VL-695	6	204.43	9 x 5	Frosty Clear
VL-895	8	271.25	9 x 5	Frosty Clear
V-330	9	305.15	9 x 5	Frosty Clear or Yellow
V-335	9	305.15	9 x 5	Frosty Clear or Yellow
V-800	10	339.06	9 x 9	Frosty Clear
V-820	11	372.96	9 x 9	Frosty Clear or Yellow
V-840	12	406.86	9 x 9	Frosty Clear or Yellow
V-870	18	610.30	9 x 9	Yellow
V-885UD	22	745.92	9 x 9UD	Yellow
V-335UD	10	339.06	9 x 5UD	Frosty Clear or Yellow
V-540RS	12	406.86	9 x 6RS	Frosty Clear or Yellow
V-8440RS	13	440.77	9 x 9RS	Frosty Clear or Yellow
V-365UD	16	542.49	9 x 5UD	Frosty Clear
V-560RS	16	542.49	9 x 6RS	Frosty Clear or Yellow
V-570RS	18	610.30	9 x 6RS	Frosty Clear or Yellow
V-8740RS	18	610.30	9 x 9RS	Yellow

Strength in construction. Strength in quality. Strength in experience. Brattice offers mine and tunnel professionals custom line curtain solutions for the most complex applications. A number of manufacturing variables, including scrim or substrate, adhesive, and film combinations influence the overall tear and tensile strength and brattice weight. GMS experts will work with you to select the best product for your operating requirements.



9 x 9 Conventional



9 x 6 Conventional



9 x 5 Uni-directional



9 x 9 Uni-directional



9 x 6 RipStop



9 x 9 RipStop

RigiDuct®

Filament-Wound Fiberglass Tubing

The strength of RigiDuct® is derived from filament-wound fiberglass rovings reinforced with polyester fibers for added durability and resiliency. RigiDuct has greater strength than non-filament wound fiberglass or PVC duct; yet, the tubing is as light as other plasticmade ducting and much lighter than comparable metal ducting.

A unique feature of ABC Industries' RigiDuct is the WireGuard reinforcement. During the manufacturing process, a web of steel wire is constructed within the fiberglass rovings to increase the tubing's strength under high degrees of negative pressure. The wire provides a lightweight, economical solution for strengthening the ducting while providing superior impact resistance.

Tough polyester resins, coupled with the inherent resiliency of fiberglass and polyester fibers, make RigiDuct highly resistant to attack from acidic or alkaline conditions. UV stabilized; rubberized elastic gaskets* resist degrading and remain pliable in cold weather applications. RigiDuct is approved by the United States Mine Safety and Health Administration (MSHA).



Standard Duty (SD) Round RigiDuct® Sizes

8 IN. (200 MM)	18 IN. (450 MM)	28 IN. (700 MM)
10 IN. (250 MM)	20 IN. (500 MM)	30 IN. (750 MM)
12 IN. (300 MM)	22 IN. (550 MM)	36 IN. (900 MM)
14 IN. (350 MM)	24 IN. (600 MM)	42 IN. (1,050 MM)
16 IN. (400 MM)	26 IN. (650 MM)	48 IN. (1,200 MM)

Standard Duty Oval RigiDuct® Sizes

14 IN. (350 MM)	22 IN. (550 MM)	36 IN. (900 MM)
16 IN. (400 MM)	24 IN. (600 MM)	42 IN. (1,050 MM)
18 IN. (450 MM)	30 IN. (750 MM)	45 IN. (1,150 MM)
21 IN. (550 MM)		

RigiDuct® Tube Fittings

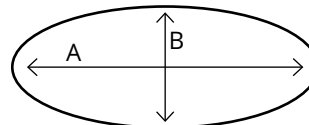


RigiDuct® Size for Specifying

Spigot End
Note: Add 1" (25 mm) to dimensions to determine bell end equivalents.

Equivalent Round Diameter (I.D.)

		A		B			
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
14	350	17.125	450	9.125	250	12.5	300
16	400	19.75	500	10.875	300	15.125	400
18	450	22.5	550	11.125	300	16.5	400
21	550	26.5	650	12	300	19.125	500
22	550	28.75	750	14.25	350	21.125	550
24	600	30	750	16	400	22.5	550
30	750	36.5	950	20.5	500	28.1	700
36	900	43	1,100	26	650	34.375	850
42	1,050	51	1,300	28	700	39.250	1,000
45	1,150	54	1,350	32.5	850	43.125	1,100



MineDuct®

Wire-Reinforced Ducting

Demanding mine and tunnel ventilation applications require high quality, reliable ducting to perform in extreme underground conditions. MineDuct® wire-reinforced ducting is made of premium PVC fabric for both positive and negative pressure applications. Its durable construction and heavy-duty wearstrip allow MineDuct to withstand continuous use in the harshest environments. RipStop substrate technology makes maintenance quick and easy by preventing tears from expanding.



Specifications

FABRIC	13 oz./yd. ² (441 g/m ²)
SCRIM	9 x 9 RipStop
FILM	PVC laminated to both sides of scrim
COLOR	Yellow
STANDARD PITCH	3" (7.5 cm) for Exhausting 6" (15 cm) for Blowing
WIRE	Hard-Drawn Steel
INSIDE DIAMETER	Sewn: 8" - 48" (200 - 1,200 mm) Heat-Sealed: 8" - 36" (200 - 900 mm)
LENGTH	10', 20' (3, 6 m)
WEARSTRIP	Heavy-Duty, Flame Resistant
END FINISH	Wire Rope Coupling (Standard)
SUSPENSION	A-3 Hooks

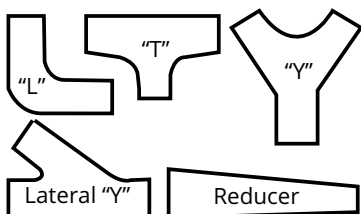
MineVent®



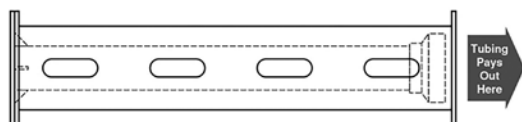
Layflat Blower Tubing

Expect more from your collapsible, layflat blower tubing by choosing MineVent® for positive pressure applications. Its 100% welded construction eliminates air loss and weakening associated with conventional sewn ducting. MineVent features RipStop substrate technology to prevent small tears from expanding into gaping holes. Several standard and custom end finishes provide numerous configuration possibilities for your installation.

MineVent® Tubing Accessories



MineVent® AutoFeed™ Tubing Cassette



Holds 100-150 m (109-164 yds) of MineVent®

Molecularly bonded for positive pressure applications, MineVent is manufactured with VentaTex® material. MineVent is designed to perform from -20° F to 180° F (-29° to 82° C) continuously in underground environments. MineVent fabrics have been tested and approved by Mine Safety and Health Administration Standards (MSHA).

Specifications

FABRIC	12 oz./yd. ² (407 g/m ²) 13 oz./yd. ² (441 g/m ²) 18 oz./yd. ² (610 g/m ²) 22 oz./yd. ² (746 g/m ²)
SCRIM	9 x 9 RipStop, 9 x 9, 9x9 RipStop
FILM	PVC laminated to both sides of scrim
COLOR	Yellow
DIAMETER	8" - 72" (200-1,850 mm)
LENGTH	25', 50', 100' (7.5, 15, 30.5 m)
END FINISH	Wire Rope Coupling (Standard), Aussie Coupling, Snap-Loc Coupling, Soft Cuff, Velcro® Cuff, Velcro®/Zipper Cuff
SUSPENSION	A-3 Hooks

Omega Block

Omega Block products are composed of non-toxic incombustible materials whose air permeability and relative fire-resistance characteristics are unequalled. Fully approved for constructing underground ventilation devices by MSHA, Omega Blocks reduce labor because they cover the area of 3 normal concrete blocks. Omega Blocks are easy to use because they can be accurately cut to size with a handsaw. A typical brattice stopping is dry stacked using alternating courses and then sealed with an approved sealant about the roof, rib and seams.

Product Specifications

- Approved for use with any MSHA approved underground mine sealant
- Impermeable to air and will not support combustion
- Fire Resistant: Meets temperature transmission requirements of U.B.C. Standard No.7-1 and passed the 2 hour fire test for ASTM E-119 Test
- Passed the ASTM E-72 Test
- R value = 2.15 for 3" of thickness

Product Dimensions

- Omega 443: 4 ft. x 4 ft. x 32 inches with molded forklift tine pockets
- 6" Omega 384: 6" x 16" x 24". Weighing 35 lbs. each
- 8" Omega 384: 8" x 16" x 24". Weighing 45 lbs. each



Hard Hat Cordless Mine Lamp

Wisdom WiseLite2 MSHA Certified Version



Designed for underground mine use, this MSHA approved mine lamp is extremely durable! It is also light weight (less than 1/2 lb) and waterproof. High/Low light modes.

INCLUDES: One Wisdom Wiselite2 lamp with stainless steel/nickel adjustable bracket. Charger sold separately.

- MSHA Approved (Part 19, Title 30 CFR)
- High-Light - 8,500 Lux / 167 Lumens / 16 Hour Run Time
- Low-Light - 1,800 Lux / 50 Lumens / 60 Hour Run Time
- Four Hour Charge Time (2A)
- IP68 Certified Water Resistant
- Battery Lifecycle - 1,200 Cycles
- LED Light Life - 100,000 Hours
- Adjustable Mounting Bracket
- Battery Charge State Indicator
- Includes SOS Flashing Mode
- Wisdom NWB-30 Charger Required (*Not Included*)

WiseLite2 AND Charger
COMBINE AND SAVE!



Charging Racks Available!



Racks available with 12, 24, 36, 60, 120, or 204 charging Ports. Each lamp charges independently with its own LED charge indicator.

Conveyor Belt, New & Used

New & used conveyor belt for mining, agricultural and industrial applications. Standard and MSHA Underground Part 14, agricultural baler belt, industrial specialty belt and more!

Call for pricing and availability!

MSHA Underground Part 14 Flame-Resistant Belt

Rubber Belt

- 36 in. to 72 in. Width
- 2-Ply, 400 PIW
- 3-Ply, 600 PIW
- 4-Ply, 800 PIW
- Top Covers vary from 1/16 in. to 3/8 in.

PVC Belt

- 36 in. to 48 in. Width
- 400 PIW
- 600 PIW
- 800 PIW

PVG Belt

PVC Core with rubber compound top.

- 36 in. to 48 in. Width
- 350 PIW
- 600 PIW

Agricultural Baler Belt

Cut to specifications for haybalers and other uses. Comes complete with splices applied.

- MRT (Mini Rough Top)
- Smooth
- MRT-IMP
- Continuous V-Cleat (Chevron)
- Diamond

Horse & Cow Stall Mats

- Surplus rolls or cut to length
- By the piece or by the truckload

Specialty Belt

- MOR (Moderate Oil Resistant)
- Bareback
- Continuous V-Cleat (Chevron)
- Single Cleat
- Rough Top
- Hot Belt (400° - 700° in stock)
- U-Cleat



Huge Inventory of Used Belt!
Used Conveyor Structure and Idlers
also available!

Call for Specific Availability.



CONTACT

Wayne Shreve, Sales
wshreve@gmsminerepair.com
301-616-0589

Drying Racks



Mobile racks to hang hose, packs or gear for air drying!

- Dry or store up to 1,200 ft (1-1/2 in. to 1-3/4 in.) or 800 ft (2-1/2 in. to 3 in.)
- Heavy duty casters for easy movement
- Powder-coated for corrosion resistance



OUR AFFILIATES



Pioneer Conveyor is a leading, bulk material, conveyor manufacturing firm serving customers throughout North America. We have complete engineering, machining, and fabrication capabilities to design and manufacture even the most complicated conveyor systems.



GMS Construction offers complete construction services, from residential additions to designing and building commercial or industrial facilities, we have the resources and experience to do the job efficiently and cost-effectively.



GMS Oil & Gas specializes in providing qualified, safe and responsible oil & gas professionals for all areas of operation, from Rig Hands to Cleaning/Wash Down Crews, to Equipment Operators. We can even provide Security personnel to monitor and protect your sites.



GMS Land Design & Waterscapes is your one-stop location for all of your outdoor, decorative desires. Servicing the Morgantown and Greater Pittsburgh area, we offer a wide variety of products and services from complete outdoor kitchenettes to customized swimming pools.



American Mining Academy is dedicated to teaching fundamental principles and technical training involved in mining operations, as well as advancing a culture of safety to inexperienced students and experienced miners alike.



GMS Geotechnical is a complete turnkey provider of geotechnical services with regional offices throughout the United States and Canada.

LOCATIONS

United States Locations

ALABAMA

GMS South Regional Office
5521 Powder Plant Ln
Bessemer, AL 35022
TEL 205-481-1042

COLORADO

GMS West Regional Office
832 North Crest Dr, Suite A
Grand Junction, CO 81506
TEL 970-208-9170

ILLINOIS

GMS Midwest - Illinois Office
212 South 9th St
Mt Vernon, IL 62864
TEL 618-316-7222

KENTUCKY

GMS Midwest Regional Office
1651 Progress Dr
Madisonville, KY 42431
TEL 270-821-1820

MARYLAND

Global Headquarters
32 Enterprise Drive
Oakland, MD 21550
United States
TEL 301-334-8186

NEVADA

Elko Office
450 West Silver Street
Suite 105
Elko, NV 89801
TEL 775-397-7194

PENNSYLVANIA

Mt Morris Office
(American Mining Academy)
111 Watkins Run Rd
Mt. Morris, PA 15349
TEL 304-413-2280

North Appalachian Regional Office
112 Columbia Dr
Waynesburg, PA 1570
TEL 724-852-1017

UTAH

GMS West - Utah Office
92 North 4th East, Suite 2
Price, Utah 84501
TEL 970-312-7404

WEST VIRGINIA

Bruceton Mills Office
(Pioneer Conveyor)
224 Moyers Rd
Bruceton Mills, WV 26525
TEL 304-413-2500

Chapmanville Office
125 Hurricane Branch Rd
Chapmanville, WV 25508
TEL 304-855-3503

Morgantown Office
(GMS Land Design & Waterscapes)
3016 Earl L Core Rd
Morgantown, WV 26508
TEL 304-241-1780

Canada Locations

Canadian Headquarters
4145 North Service Road, 2nd FL
Burlington, ON L7L 6A3
TEL 705-702-3875

CONTACT

