



CONTROLS



HEADFRAMES



HOISTS



SHEAVES



SKIPS



FIELD SERVICES



BRAKEMAN CARS



CAGES/ELEVATORS



WIRE ROPE NDT



VERTICAL BELTS

DESIGN. BUILD. INSTALL. SERVICE.

FKC-Lake Shore serves the underground heavy civil and mining industries throughout North and South America. We offer design-build-install services for innovative hoisting, elevator, and vertical conveyance systems used to transport personnel and material. Our Field Services Division provides routine maintenance, inspections, wire rope NDT, and **24/7 emergency repair** of electrical and mechanical systems.

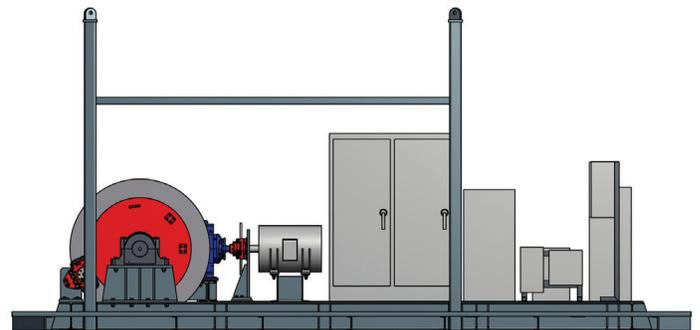
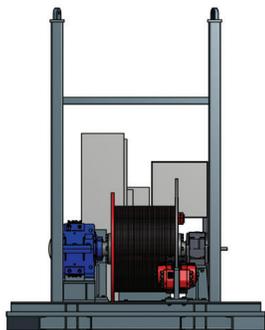
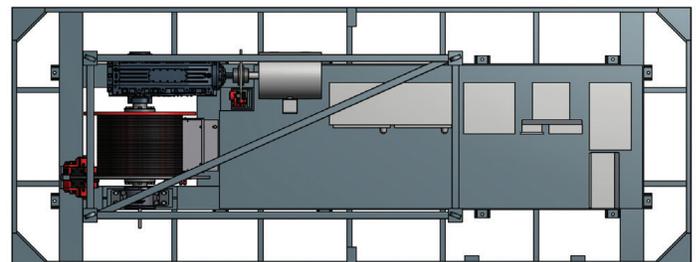
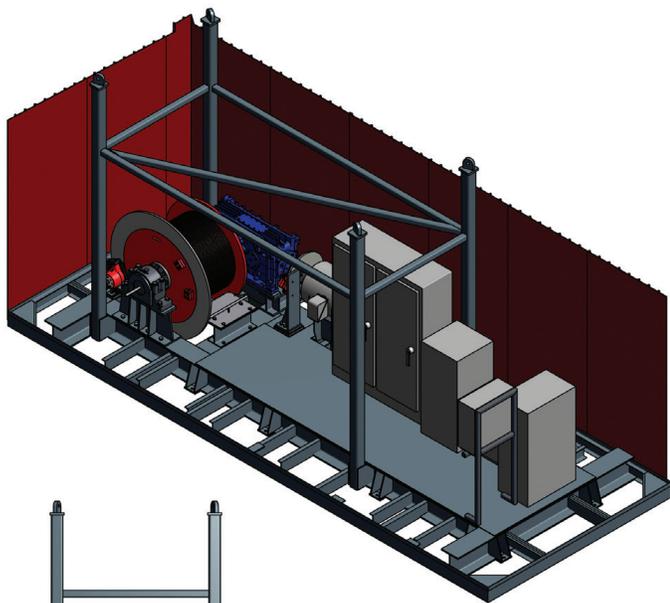
EMERGENCY ESCAPE HOISTS

EXCEEDS MSHA BULLETIN #P12-03 SPECS

HOIST ARRANGEMENT:	Complete System is Unitized on a Common Base
DRUM TYPE:	Drum Winder
DRUM SIZE:	36" Diameter; (width varies by depth)
HOIST SPEED:	250 FPM
DEPTH:	As Required
TYPICAL CAGE SIZE:	2.5 ft ² /person
CAGE GUIDES AVAILABLE:	Ropes; Steel
ROPE SIZE:	¾" Diameter
ROPE ATTACHMENT(S):	Socket w/Safety Bridal
BRAKE SYSTEM:	Spring Applied Caliper Brakes/Hydraulic Release
LINE PULL	Approx. 10,000 lbs.

FKC-Lake Shore offers standard or custom-designed Escape Hoist packages to provide emergency underground egress. We have standard packages for depths up to 2,000' of lift. The standard cage is 3' x 4' with a sliding door for normal access but also hinged for unrestricted access to load a stretcher.

All data in the above table is approximate and based on standard designs. Custom designs are available.

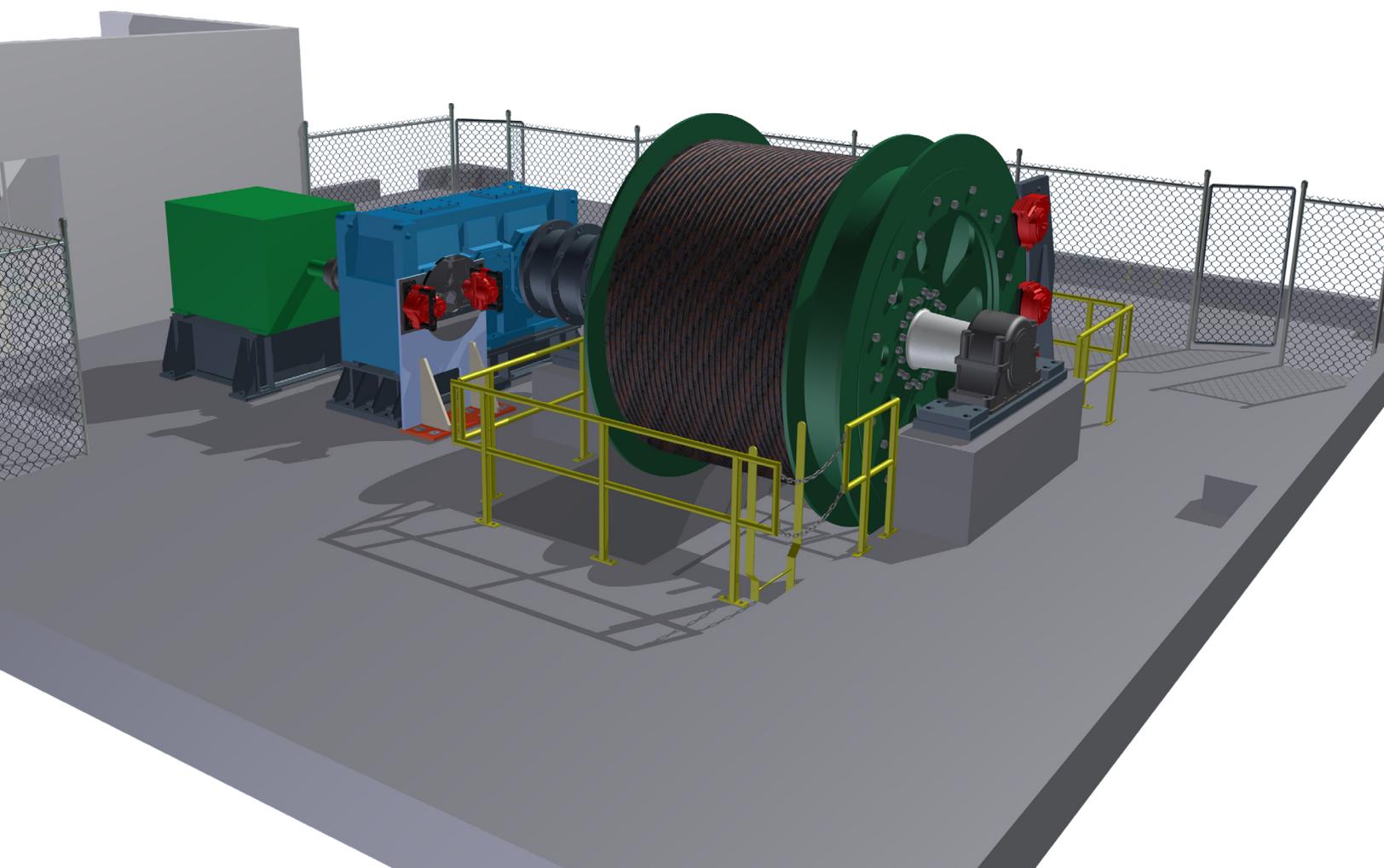


SLOPE (INCLINE) HOISTING SYSTEMS

HOIST ARRANGEMENT:	In-Line/Off-Set with Turning Sheave Assembly
DRUM TYPE:	Drum Winder
HOIST SPEED:	500 FPM-Normal/250 FPM-Heavy
DEPTH:	As Required
ROPE SIZE:	1.625" - 1.875"
ROPE ATTACHMENT(S):	Open Spelter Socket
CONVEYANCE:	FKC-Lake Shore Brakeman Car; Mine Supply Car
PAYLOADS:	45,000-70,000 lbs Line Pull; (80T-125T at 16°)

To transport personnel and supplies up and down mine slopes, FKC-Lake Shore offers standard and custom-designed Slope Hoist packages. Our standard hoists are rated for 80T, 100T, and 125T on a 16° slope.

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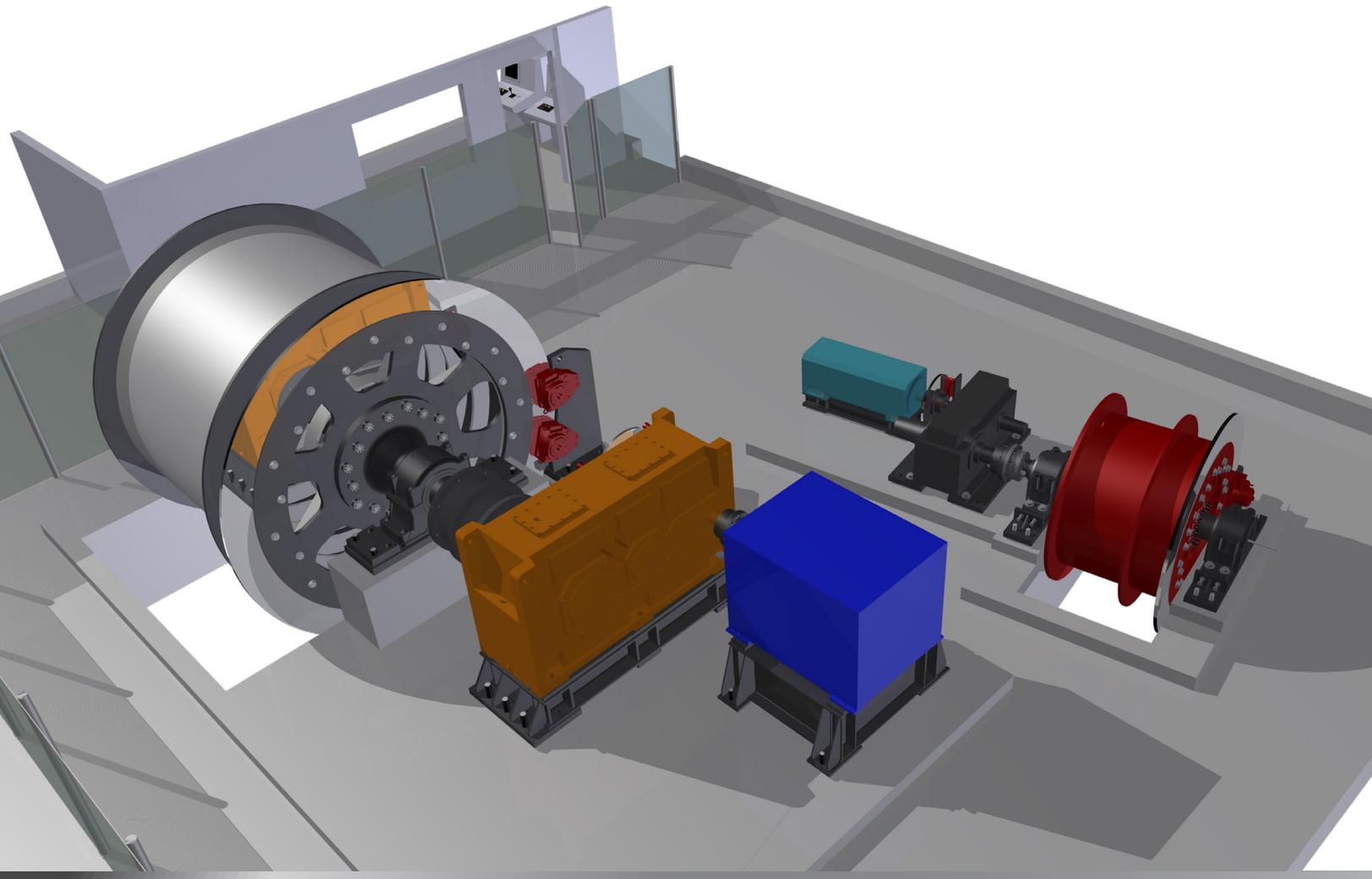


SERVICE HOISTS

HOIST ARRANGEMENT:	Ground-Mounted/Tower-Mounted
DRUM TYPE:	Drum Winder; Friction Hoist; Over/Under; Double Drum
DRUM SIZE:	Up to 12 ft.
HOIST SPEED:	As Required
DEPTH:	As Required
TYPICAL CAGE SIZE:	2.5 ft ² /person
CAGE GUIDES AVAILABLE:	Ropes, Steel, & Wood
ROPE SIZE:	1"-2¼" Diameter
ROPE ATTACHMENT(S):	Short Couple Thimble(s) (Cappels)
BRAKE SYSTEM:	Spring Applied Caliper Brakes/Hydraulic Release
CAGE PAYLOADS:	5T-50T

Service Hoisting Systems are used to transport personnel and supplies through vertical shafts. FKC-Lake Shore offers standard over/under designs for 15T, 20T, and 25T on shafts up to 1,000 ft. deep. For deeper shafts, we offer Friction Hoists for 20T, 30T, and 40T applications. Custom Double Drum Hoists are available.

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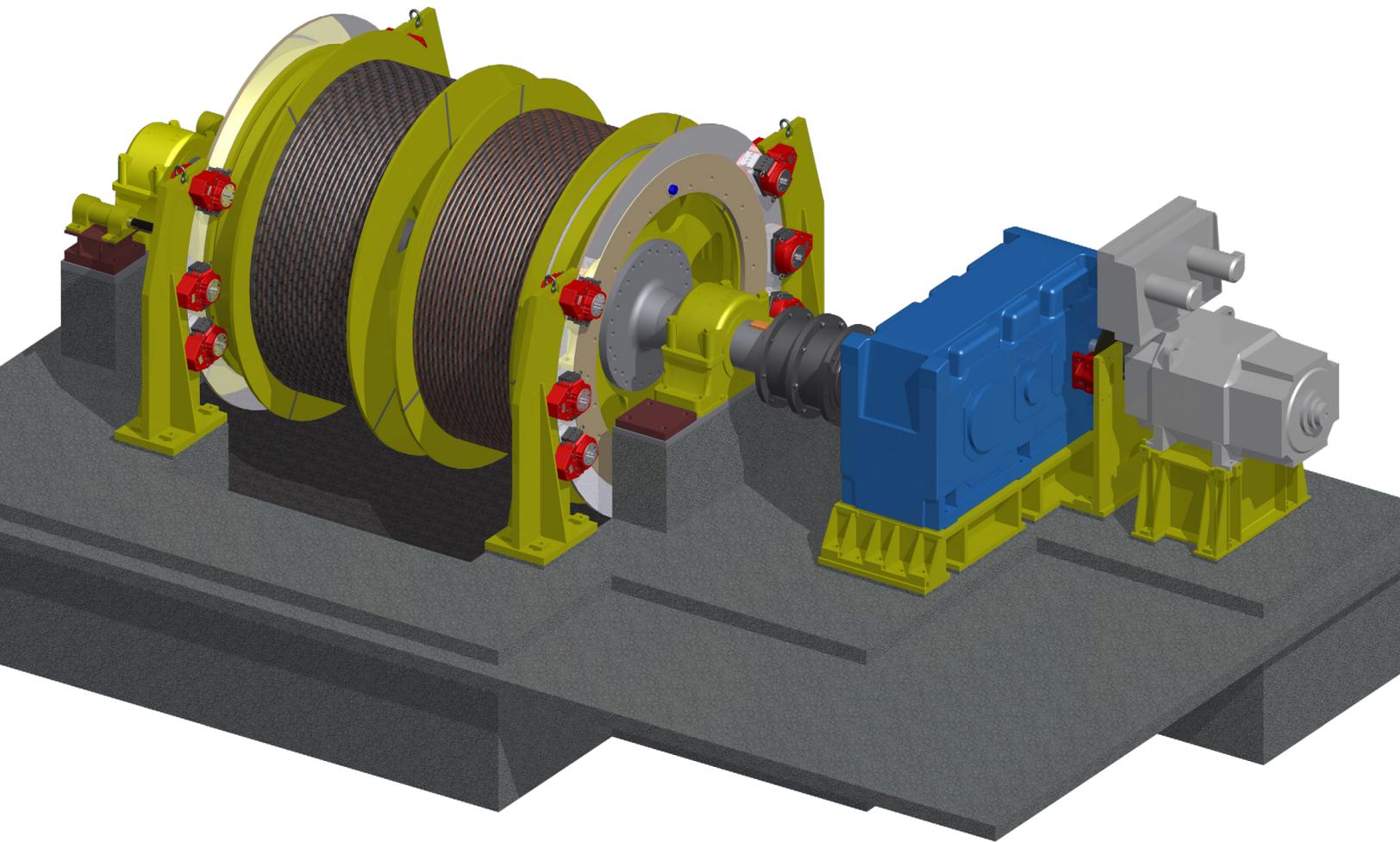


PRODUCTION HOISTS

HOIST ARRANGEMENT:	Typically Ground-Mounted
DRUM TYPE:	Drum Winder; Friction Hoist; Double Drum
CONVEYANCE:	Jeto Skips with Optional Cage for Personnel
HOIST SPEED:	As Required
DEPTH:	As Required
ROPE ATTACHMENT(S):	Short Couple Thimble (Cappels)
GUIDE SYSTEM:	Ropes, Steel, & Wood
BRAKE SYSTEM:	Spring Applied Caliper Brakes/Hydraulic Release
SKIP PAYLOADS:	4T-35T

All data in the above table is approximate and based on standard designs. Custom designs are available.

FKC-Lake Shore offers custom-designed Production Hoisting Systems to bring mined materials from underground to the surface. Double Drum or Koepe (Friction) Hoists are available to meet the production needs of our mining customers.



VERTICAL CONVEYOR SYSTEMS

TYPE:	Corrugated Sidewall
MAX LIFT:	2,600 ft. (800m)
MAX TONNAGE:	6,000 TPH
BELT CONSTRUCTION:	Fabric & Steel Cord Base Belts
BRAKING:	External Backstops & Spring-Applied Hydraulic Release
CONTROLS:	FKC-Lake Shore Controls Soft-Start or VFD

FKC-Lake Shore offers custom-designed Vertical Conveyor solutions to transport mined materials from underground to the surface. We can accommodate lifts from 10m–800m. Tonnage rates depend upon depth and material density.

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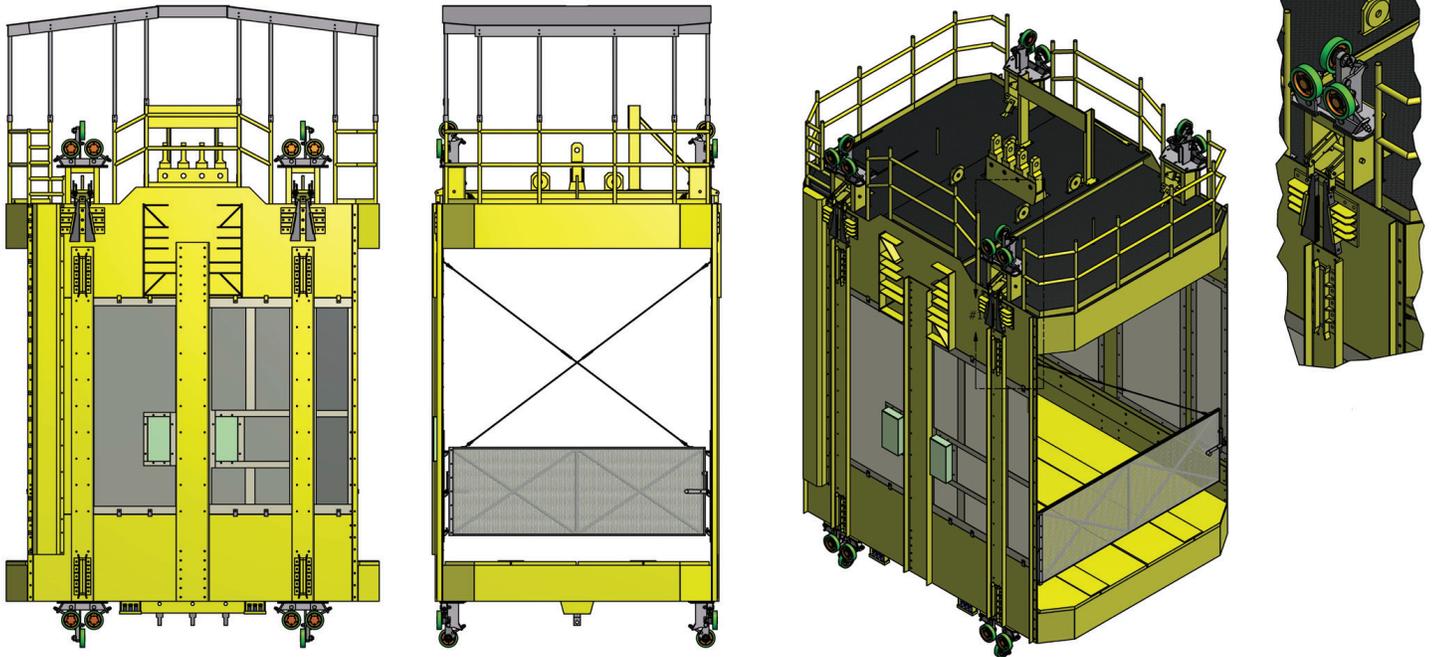


CAGES

TYPE:	Single, Double, or Triple Deck
MATERIAL:	Steel; Aluminum; Stainless Steel
GATES:	Swing; Bi-Parting, Roll-Up
GUIDES:	Steel; Wood; Rope
SAFETY MECHANISM:	Dogs (Steel, Wood, or Rope)
DESIGN CRITERIA:	2.5 ft ² /person; 100 lbs/ft ²
GUIDES:	FKC-Lake Shore 3-Wheel Guide System

FKC-Lake Shore offers custom-designed Cages to transport personnel and material in vertical shafts. Cages can be built from steel, aluminum, or stainless steel to meet the needs of the underground environment. Broken rope safeties are available for steel guides, wooden guides, and rope guides.

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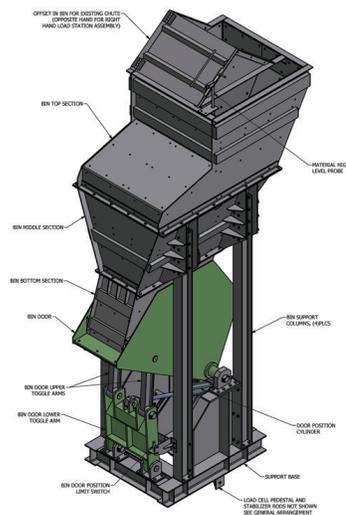
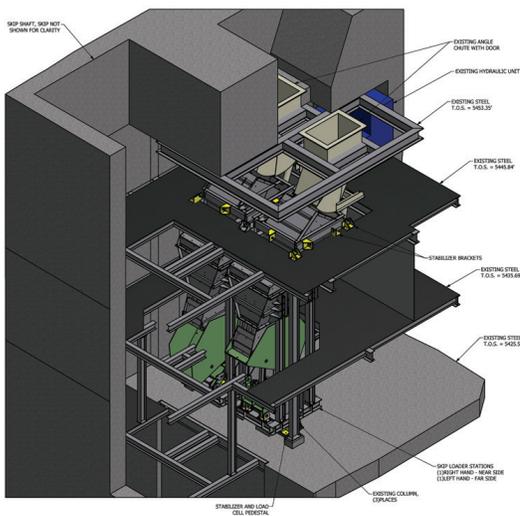
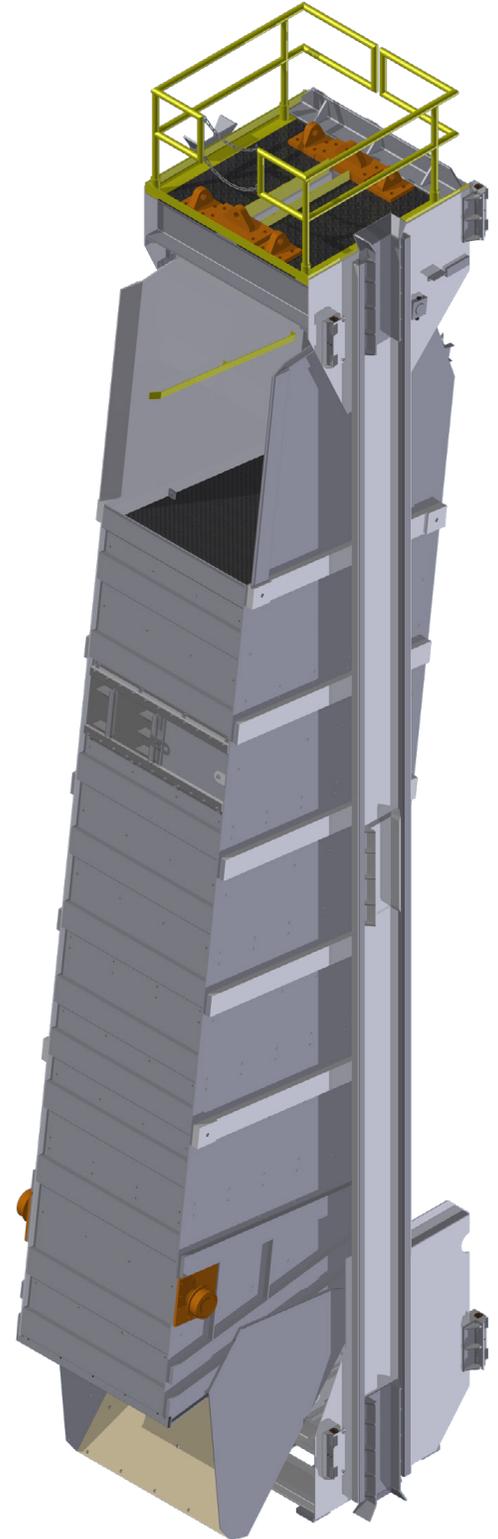


SKIPS & SKIP LOADING STATIONS

TYPE:	“Jeto” Bottom-Dump
CAPACITY:	Designed to Meet Customer Needs
MATERIAL:	Aluminum, Steel
LINERS:	Steel, Poly, Aluminum, AR, Tri-blaze, Astralloy
OPTIONAL:	Safety Dogs; Platforms or Cages for Man Riding

All data in the above table is approximate and based on standard designs.
Custom designs are available.

The Lake Shore patented “Jeto” Bottom-Dump Skip, designed for faster, cleaner dumping, is in use throughout the world in all types of mines—metal and non-metal. This Skip is designed to achieve proper balance while providing rugged strength, long wear life, and minimum dead weight. With the “Jeto,” the center-of-gravity puts all weight directly on the hoist rope whether loaded, partially loaded, or empty.

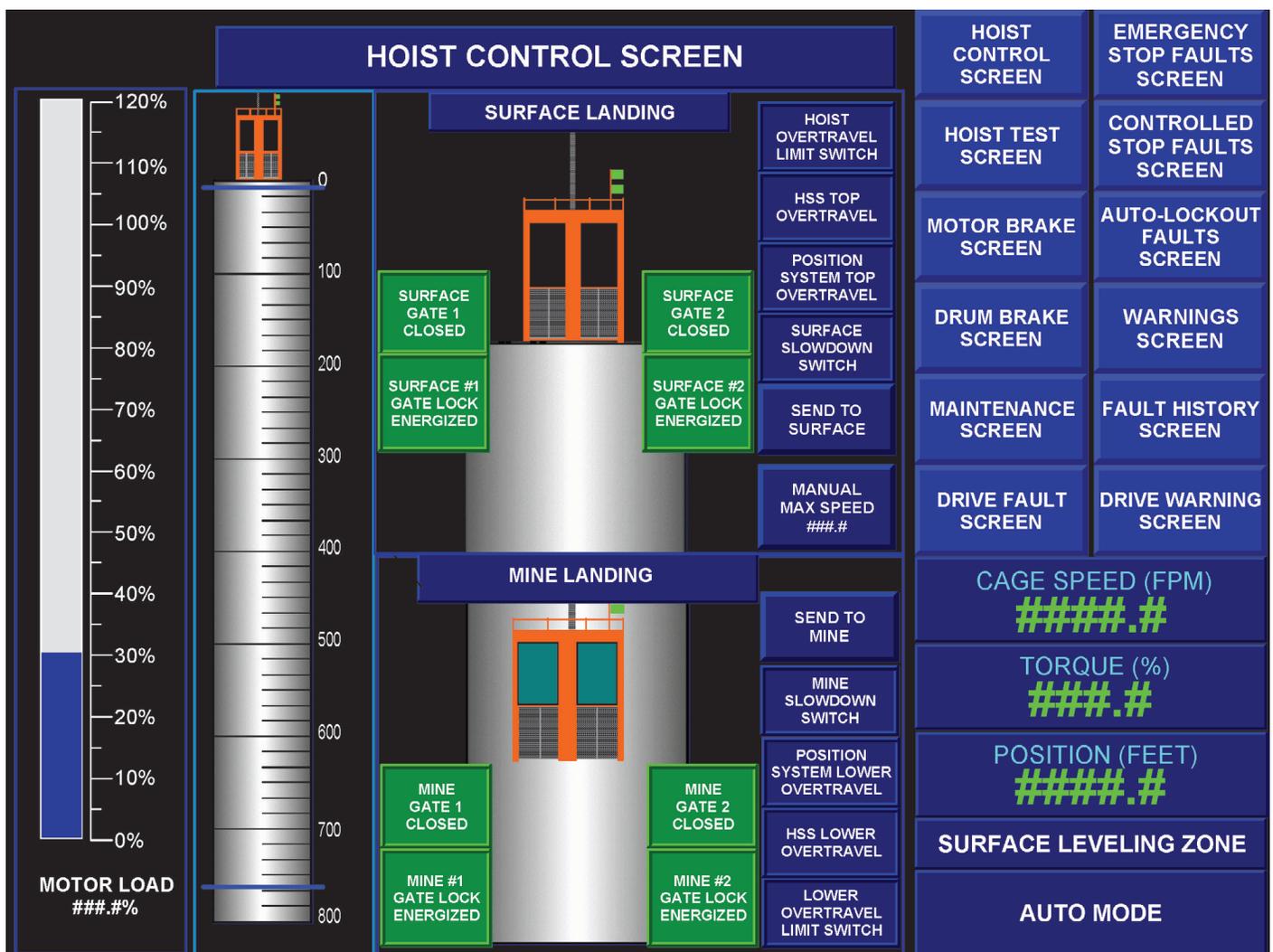


ELECTRICAL CONTROLS

HOISTS:	AC & DC Hoist Controls (Production, Service, Slope, Escape)
VERTICAL BELTS:	VFD Controls for Vertical Belts
ELEVATORS:	ANST 17. Controls for Elevators
DIGITAL LILLY:	Hoist Safety Supervisor (HSS)

FKC-Lake Shore provides standard and custom-designed AC & DC control packages for Escape Hoists, Slope Hoists, Production Hoists, and Vertical Conveyors.

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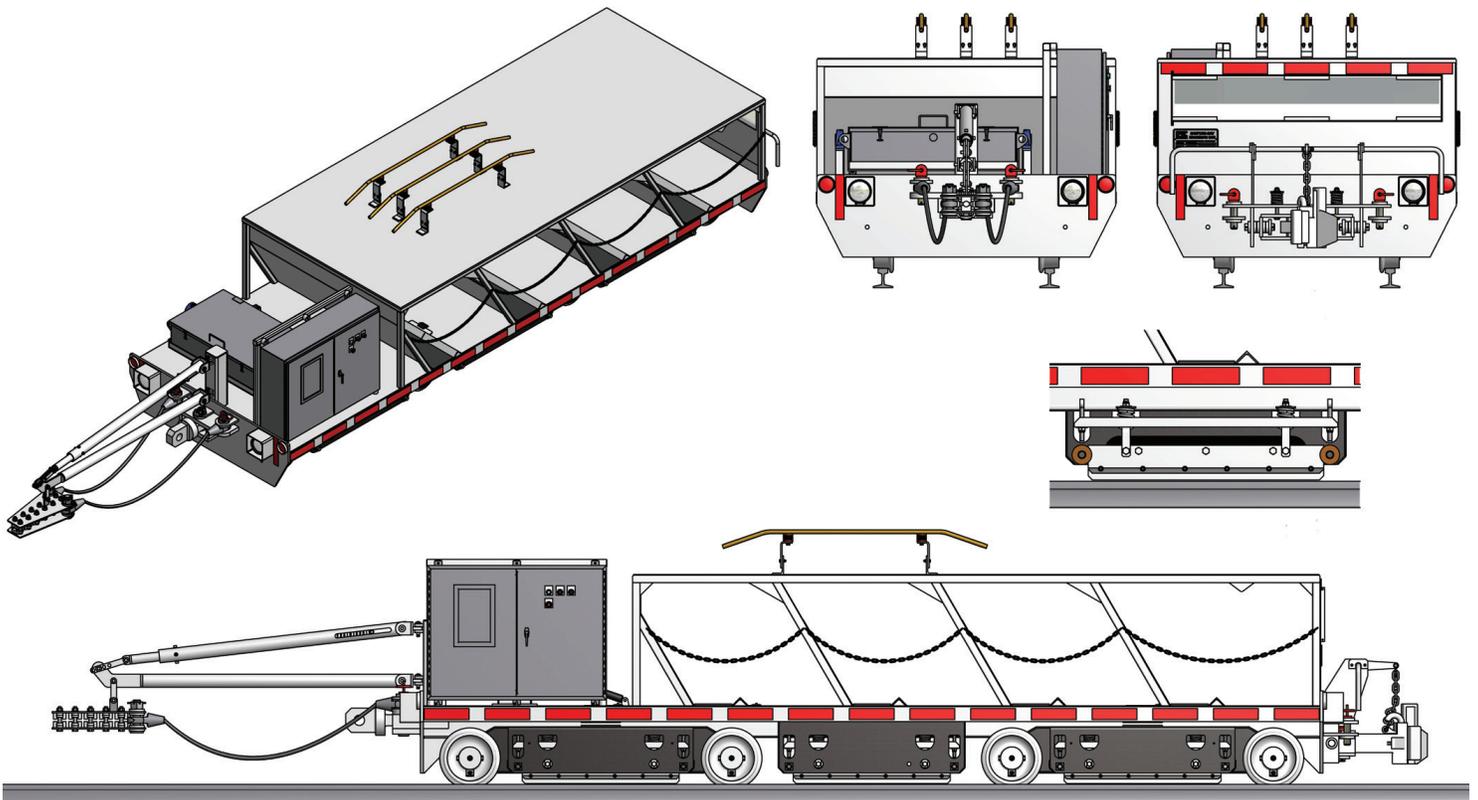


BRAKEMAN CARS

TYPE:	16-Man Brake Car; 20-Man Slave Car; "Barney" Maint. Car
BRAKE SYSTEM:	48VDC Electromagnetic Brake System
SAFETY FEATURES:	Overspeed & Rollback Protection through Onboard Controls
MATERIAL:	Steel
FEATURES:	Fold Down Seats to Accommodate a Stretcher

All data in the above table is approximate and based on standard designs. Custom designs are available.

FKC-Lake Shore Brakeman Cars provide personnel with access to slope mines. Our standard Brakeman Car line consists of a 16-man Brakeman Car with six (6) brakes, a 20-man Slave Car with six (6) brakes, and a 4-man Barney Car with two (2) brakes. Each standard car comes with multiple end configurations to match the needs of the mine.

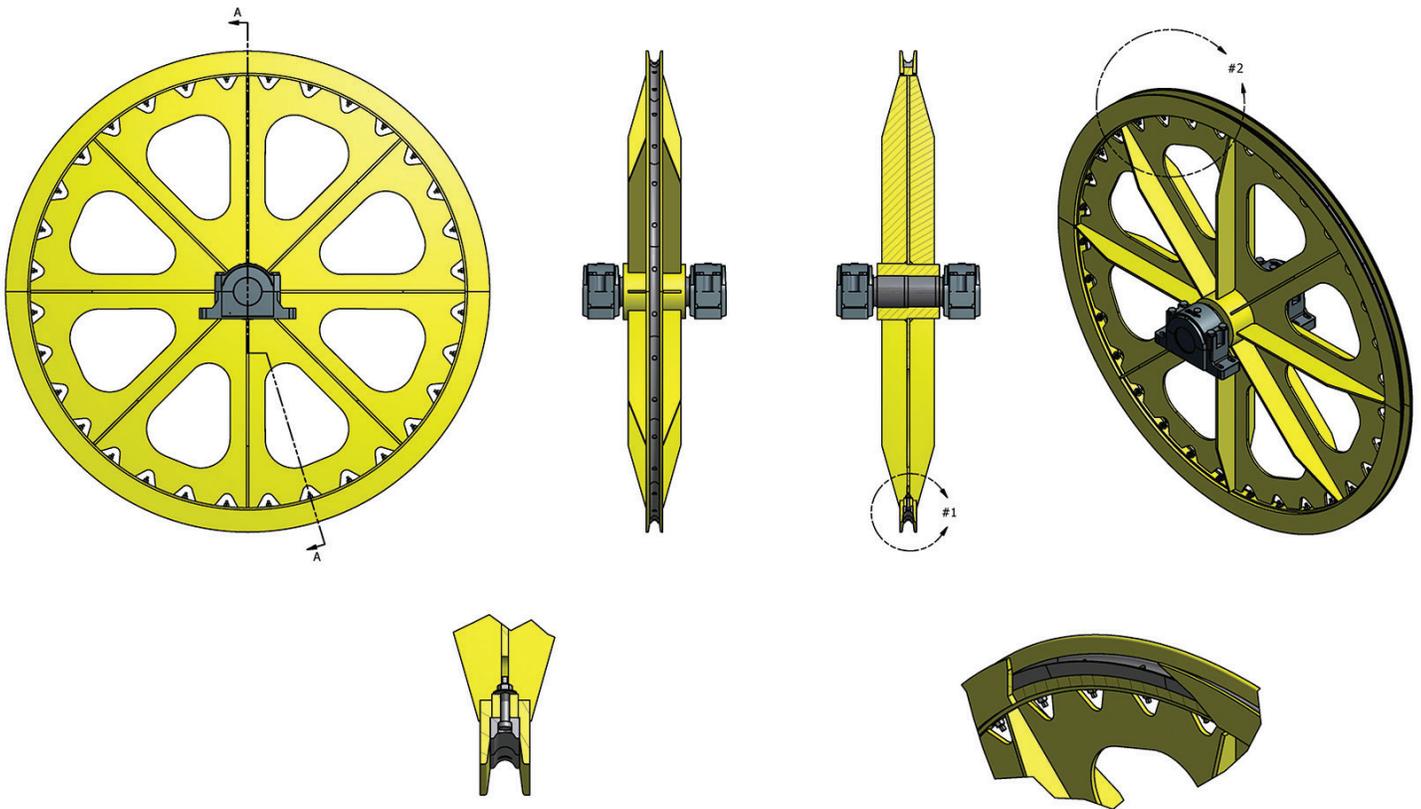


SHEAVES

TYPES:	Single & Multi-Rope Clusters
LINERS:	Poly & Steel (Bolt-In) or Solid T1 Rims
CAPACITY:	50T
DIAMETER:	15 ft.
BEARING LIFE:	L10=100,000 hours
TYPICAL D/d RATIO:	80:1

All data in the above table is approximate and based on standard designs. Custom designs are available.

FKC-Lake Shore offers Sheaves to deflect wire ropes from the hoist to the conveyance in single-rope or multi-rope configurations. FKC-Lake Shore Sheaves are of fabricated steel construction with forged steel hubs and steel shafting. A variety of rim sections and hub/bearing configurations are offered.



FIELD SERVICES

FKC-Lake Shore Field Service Group offers a team of skilled, proven technicians who can perform many special tasks; including installing, upgrading, repairing, and maintaining system components such as Hoists, Skips, Skip Loaders, Cages, and Elevators. We offer services such as:

INSPECTION & REPAIR OF:

- Hoisting Systems
- Elevator Systems
- Vertical Systems
- Cages
- Skips
- Brakeman Cars
- Sheaves
- Electrical Components

PREVENTIVE MAINTENANCE PROGRAM:

- Wire Rope NDT
- Vibration Analysis
- Thermal Imaging
- Inventory Control

THE GROUP ALSO OFFERS:

- Rope Changes
- Controls Systems Upgrades
- Misc. Emergency Repair Work



FKC-Lake Shore
1695 Allen Road
Evansville, IN 47710

1.877.554.8600
information@frontierkemper.com

www.fkc-lakeshore.com

