Steel Sets and Tunnel/Shaft Rings

JENNMAR Specialty Products, in conjunction with our sister affiliate engineering company, Keystone Mining Services (KMS®) can custom design arch and square set support systems as well as tunnel and shaft rings. We use 3-D modeling and finite element analysis to determine beam sizing and spacing as well as orientation and configuration of fasteners and butt plates.

Advantages

- Sound structural design
- Advanced steel design according to American Institute of Steel Construction (AISC) national standards
- Reliable moment connection, bolt and welding design
- Computerized steel manufacture equipment to ensure quality cutting, drilling and welding
- Complete accessories including V-decking lagging panel, tie rod, beam extension, leg extension, belt hanger, etc.
- Optimal design according to actual engineering requirements
- JENNMAR and KMS can quickly turn conceptual designs into actual products within a designated time period
- Full technical support by KMS including design customization
- Field installation training services

Square Sets

Square Sets consist of a straight cross member and two legs, manufactured from a W-section beam selected to meet load requirements. Square sets are shipped complete with gussets, bolts, nuts and tension rods. Our steel V-Deck lagging panels and C-Channel runners are optional.

Impact-Resistant Arch Sets

Impact Resistant Arch Sets are used for immediate roof support. We also manufacture JENNMAR’s RIP® 50- and 100-ton steel props that can be used with JENNMAR’s lightweight high-strength beam.

Mobile Recovery Arches

Mobile Recovery Arches are used as a mobile canopy recovery unit in the event of a mine roof fall. The recovery units are assembled outby the fall area and are pushed forward under the unsupported top to provide a pathway for workers in the unsupported area.

Long-Radius Arch Sets

Long-Radius Arches consist of a slightly bent cross member on two straight legs. Long-radius arches are shipped complete with gussets, bolts, nuts and tension rods. Steel paneled V-Deck lagging and C-Channel runners are optional.

Shaft and Tunnel Rings

Shaft and tunnel rings are used to shore large, deep vertical and horizontal excavations. The steel liner is a series of flanged plates bolted together to form a ring that provides structural support necessary to stabilize the excavation. Lagging can then be placed between the rings to hold the surround soil in place.