

OSHA Upgrades [OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) UNITED STATES DEPARTMENT OF LABOR]

OSHA STANDARDS FOR GUARDRAILS AND RAILINGS

TOP OF CAR HANDRAIL: SAFETY FOR EVACUATING PASSENGERS THROUGH THE TOP-OF-CAR EMERGENCY EXIT OR FOR ELEVATOR INSPECTORS AND ELEVATOR TECHNICIANS.

Guardrails and railings are used as fall protection systems or to establish controlled access zones. Falls occur when workers move from their center of gravity beyond a point of recovery, and may result in serious physical injury or bodily harm. In the United States, businesses and government agencies install guardrails and railings both to protect workers and ensure compliance the Americans with Disabilities Act (ADA). Suppliers of ADA-compliant handrails provide products that are designed to allow people with physical handicaps to maintain their balance, transfer their weight, and avoid falls. For construction workers and other employees who work on elevated platforms, the U.S. Occupational Safety and Health Administration (OSHA) provide standards for various fall protection systems. Most guardrails and railings are made of standard schedule pipe to provide a smooth, continuous gripping surface along their entire length. These pipes are made of metal and are often painted or powder coated to provide a visual cue. Although designs for other products may vary, ADA railings must consist of a framework of horizontal rails and vertical uprights or posts. Often, the fittings are galvanized for long-term use and low maintenance. Guardrails and railings that do not require drilling or welding are relatively easy to assemble, and do not require specialized workers or equipment. These products are sold as complete systems, or are available as individual components. Examples of ADA railing system components include single handrail sockets, handrail connectors, capped or uncapped twin handrail sockets, angled elbows, end posts, wall-mounted end returns, handrail brackets, and top fix rail assemblies. Product specifications for guardrails and railings include materials of construction, color, pipe size, and special features. Post and rail parameters are also important considerations. Although steel guardrails and railings are commonly available, many suppliers also offer products made of aluminum or aluminum-magnesium. Because most aluminum alloys will corrode when combined with a dissimilar metal, however, care should be taken to select corrosion-resistant products, especially for outdoor use. For extreme environments, anodized fittings and stainless steel screw sets are recommended. Pipe sizes are specified by either schedule or gauge. Iron pipe size (IPS) products use the schedule to determine wall thickness. For gauge sizes, lower numbers indicate thicker walls.