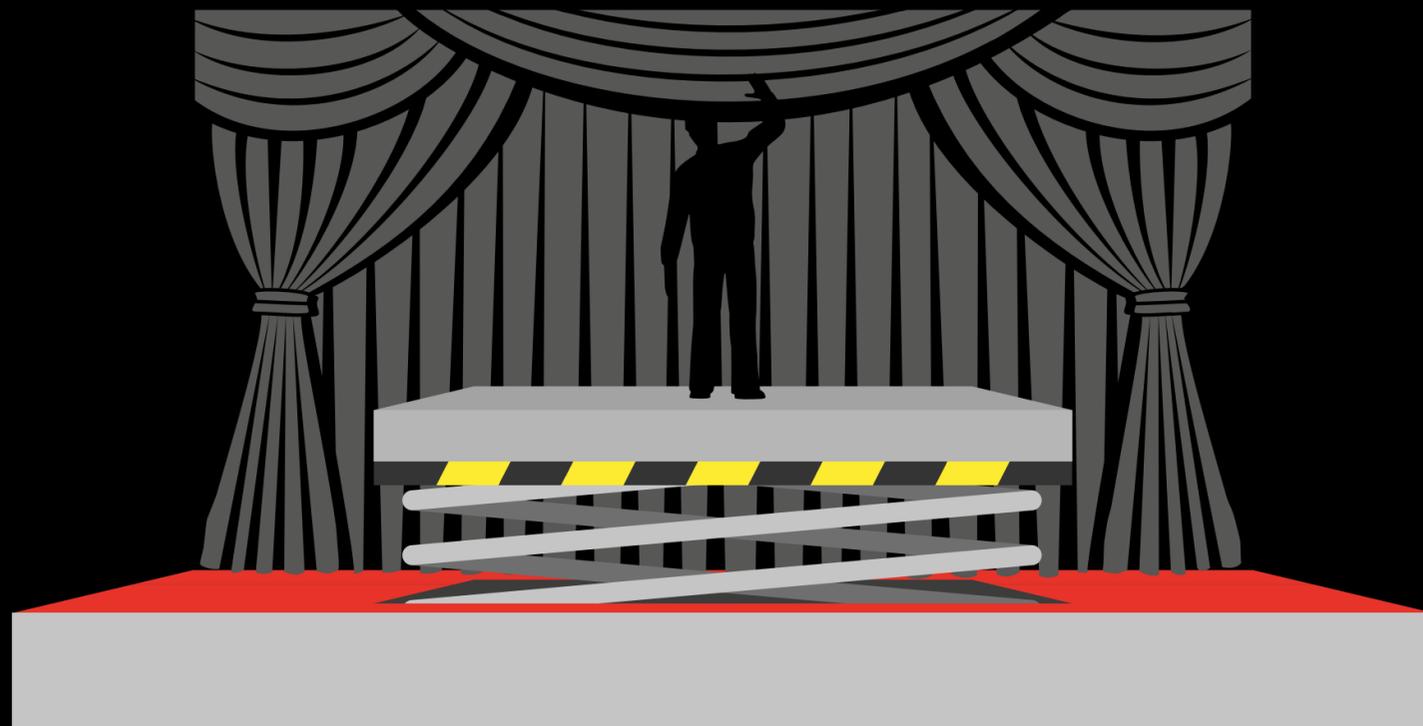


ASO CUSTOMISED APPLICATIONS

AVIATION GROUND SUPPORT, MANUFACTURING, LIFTS, TV AND THEATRE



AVIATION GROUND SUPPORT EQUIPMENT



APPLICATIONS

The constant dangers surrounding aircraft ground operations can cause huge problems for health & safety requirements in all types of airfield operations around the world. From personal injury protection of persons using ground support vehicles through to potential damage to aircraft, ASO's range of contact sensors and electronics provides the complete solution.

Our range of customisable **SENTIR contact edges** and **bumpers** can be easily retro-fitted to ground support equipment such as **unit load devices**, to provide a highly cushioning bumper solution protecting aircraft from impact damage. Requirements in the newly published IATA ground handling standards, state that equipment that comes in to contact with aircraft be fitted with bumpers that are compressible to avoid damage.

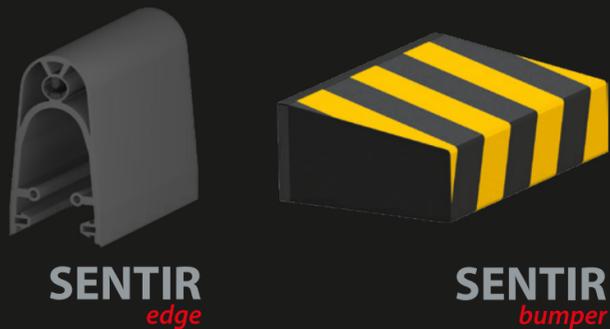
Personal injury protection for all types of GSE can also be provided through use of our tactile sensors, mats, or light curtaining products.



K-loader impact points can be protected with **SENTIR bumpers** and scissor lift crushing area with **SENTIR contact edges**



Belt Loaders for luggage can be fitted with **SENTIR bumpers** to protect aircraft to protect the hull



OTHER USEFUL APPLICATIONS

- ▶ Belt loaders
- ▶ Tow tractors and TUGS
- ▶ Passenger staircases
- ▶ Catering trucks
- ▶ Bag carts and ULD trailers
- ▶ Forklifts and scissor lifts



Catering truck impact points can be protected with **SENTIR bumpers** and scissor lift crushing area with **SENTIR contact edges**



Mobile gangways fitted with **SENTIR bumpers** protect the aircraft from impact damage

MANUFACTURING TECHNOLOGY

APPLICATIONS

Modern manufacturing plants are now technological marvels packed full of automated machinery, such as CNC milling centres and robot production cells. The requirement for safety is of paramount importance when human workers enter this highly automated environment. From simple door safety sensors for CNC machine centres, through to complex safety mat areas in robot cells ASO's range of tactile sensors provides all the safety and re-assurance you need.

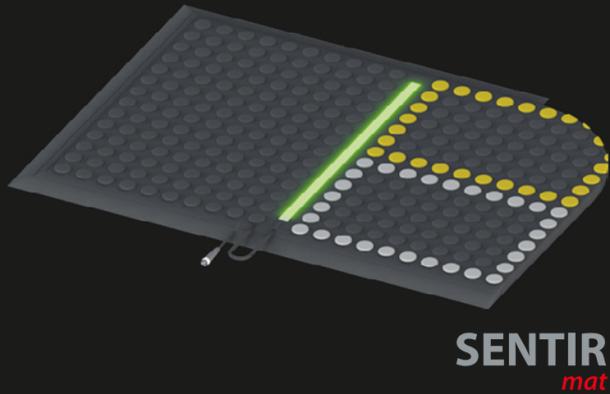
Our range of customisable **SENTIR contact edges** and **bumpers** can be easily fitted to machines to safeguard against operator injury or unwanted damage to equipment. Intelligent multi-zone safety **Mats** with integrated LED signalling are easily deployed to protect workers or equipment and ensure minimum downtime for servicing requirements.



Operators can be protected from machine centre door crushing and shearing hazards with SENTIR contact edges, or machine functions disabled / slowed when in contact with a SENTIR mat

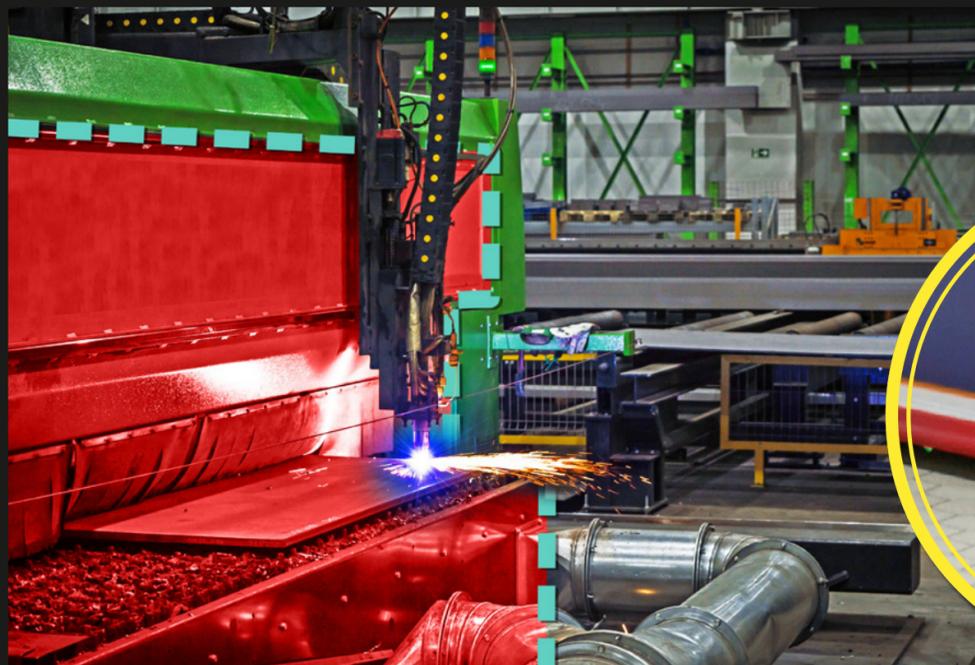


Robotic production line workers can be protected from crushing, shearing and draw-in points with SENTIR contact edges, mats and bumpers



OTHER USEFUL APPLICATIONS

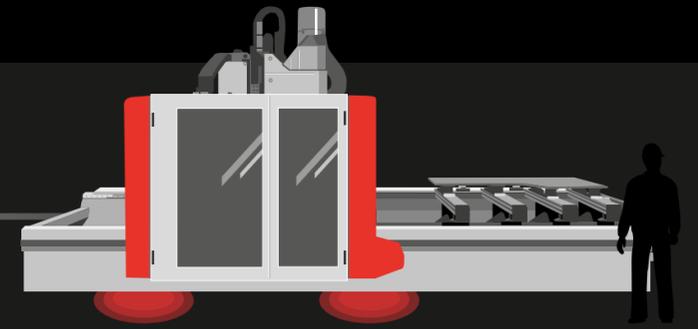
- ▶ Automated guided vehicles
- ▶ Production conveyor belts
- ▶ Open, closed and gantry CNC machinery:
 - Plasma and laser cutters
 - Millers
 - Routers
 - Lathes
 - Palletisers



SENTIR mats and contact edges can be used in around CNC machines to halt operation if someone reaches into the active area or an unexpected worker approaches.



Protect workers and property from AGV impacts with SENTIR bumpers, or create safe surfaces using SENTIR mats to bring AVGs to a stop while workers are in an area.



LIFTS, TV & THEATRE

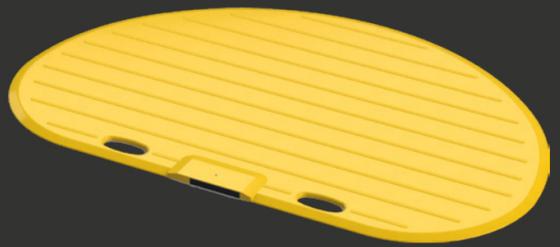
APPLICATIONS

In buildings, TV sets and Theatres across the globe lift technology is in everyday use and provides essential access to areas for staff, visitors, and performers. A huge range of lifting equipment, vehicles and stages have moving parts that can cause critical hazards to operators and passers-by. ASO's extensive range of tactile sensors, light curtaining, and interfaces can be custom produced to fit almost any requirement.

SENTIR contact edges and bumpers are used to protect very large, complex moving stages in TV & Theatre applications (up to 100 meters or more). Safety Mats are used to restrict use or protect hazardous zones on fork lift truck equipment, the list of applications is almost endless.



Raised stage platform protecting performers from crushing hazards using SENTIR bumpers



Custom designed Safety mats can be made with increased visibility

OTHER USEFUL APPLICATIONS

- ▶ Automated production and CNC machine centres used by production design studios for prop and set fabrication
- ▶ Motion control camera rigs using robotic cranes and automated dollies
- ▶ Automated light and sound rigs that change motion and position
- ▶ Large automated sound stage doors



Automated motion control, dolly and other camera rigs can be made safe using SENTIR bumpers and contact edges to stop impact and crush hazards



Aerial work platforms using SENTIR mats and bumpers to ensure worker safety against crushing and impact hazards