



Collision Protection and Anti-Fall Guard

Collision Protection and Anti-fall Guard Safety Barriers for Humans & Machines

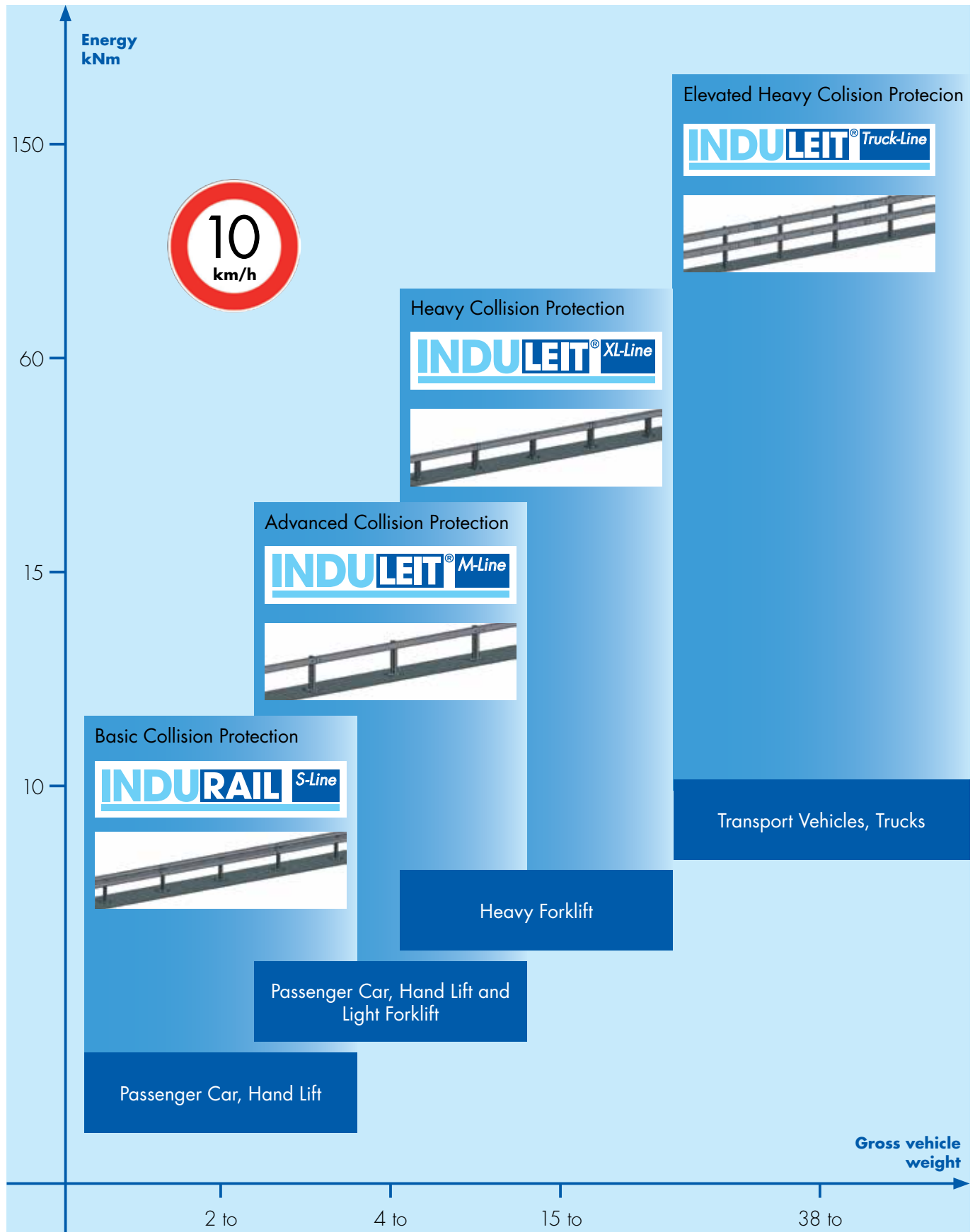


The modern industry requires the use of effective safety systems for the protection of humans and machines. Especially technically high-quality systems require appropriate protection against damage and third party influence. Our protection systems are highly effective designs that meet these requirements and they are used for the protection of e.g. storage tanks and chemical plants, high bay warehouses, workshops, manufacturing facilities,

car parks and parking lots! Furthermore, halls and facades can be effectively protected. Our safety barriers are able to withstand high impact energies with very low system deformation. At the same time these systems serve as fall protection, e.g. in car parks and on ramps. The differences between the systems for the various requirements can be found on the following pages.



Application Criteria for the Systems



Basic Collision Protection **INDURAIL** S-Line

Passenger Car, Hand Lift



Well-Known & Reliable System, adapted from Systems successfully used on Public Roads

Advantages of the System

- Withstands light impact energies
- Optimum system height of 750 mm
- Small width of 180 mm
- Posts with and without base plate available - for pile driving in soil or anchoring on solid ground
- Variable in length and direction through individual angles and end pieces
- Additional assembly of a handrail provides safety for pedestrians

Typical Applications

- Access roads and parking lots
- Car parks
- High bay racking without forklift
- Routes in industrial halls



Advanced Collision Protection **INDULEIT[®] M-Line**

Passenger Car, Hand Lift, Light Forklift



INDULEIT[®] M-Line is the Enhancement of our Patented System **INDULEIT[®] XL-Line**

Advantages of the System

- Withstands medium impact energies
- Optimum system height of 650 mm
- Small width of approx. 190 mm
- Posts with and without base plate available - for pile driving in soil or anchoring on solid ground
- Variable in length and direction through individual angles and end pieces

- Additional assembly of a handrail provides safety for pedestrians
- Modular system

Typical Applications

- Access roads and parking lots
- Car parks
- High bay racking
- Loading ramps
- Routes in industrial halls



Heavy Collision Protection **INDULEIT**[®] XL-Line

Heavy Forklift



Reliable Patented Modular System

Advantages of the System

- Withstands heavy impact energy
- Optimum system height of 650 mm
- Small width of 180 mm
- Can be hit from both sides due to the box beam on top of the posts
- Posts with and without base plate available - for pile driving in soil or anchoring on solid ground
- Variable in length and direction through individual angles and end pieces
- Additional construction parts – e.g. underide protection that stiffens the whole system and fully close it beneath to prevent intrusion of forklift tines
- Additional assembly of a handrail provides safety for pedestrians
- Avoids risk of injury by covering sharp corners and edges
- Suitable for forklifts up to 15 tons

Typical Applications

- Working places and production facilities
- Chemical & electrical plants
- Gas tanks and fuel stations
- Routes in industrial halls
- Bearing structures of buildings and facades
- Airports and their runways
- Fall protection in car parks



Elevated Heavy Collision Protection **INDULEIT[®] Truck-Line**

Transport Vehicles and Truck Traffic



Improved Collision Protection due to Elevated System

Advantages of the System

- Withstands very heavy impact energy
- Optimum system height of 1200 mm
- Small width of approx. 280 mm
- Space saving due to low system deformation after impact
- Posts with and without base plate available - for pile driving in soil or anchoring on solid ground
- Variable in length and direction through individual angles and end pieces
- Modular system

Typical Applications

- Delivery zones
- Chemical & electrical plants
- Gas tanks and fuel stations
- Routes in industrial halls
- Bearing structures of buildings and facades

Punctual Collision Protection Passenger Car, Forklift and Trucks

TUBELEIT *Uno* and **TUBELEIT** *Duo*

Advantages of the System

- Withstands light respectively heavy impact energies
- Bollards with and without base plate available - for embedment into concrete foundation or anchoring on solid ground
- Variable in height and diameter
- Made of hot-dip galvanized or stainless steel

Possible Bollard Variants

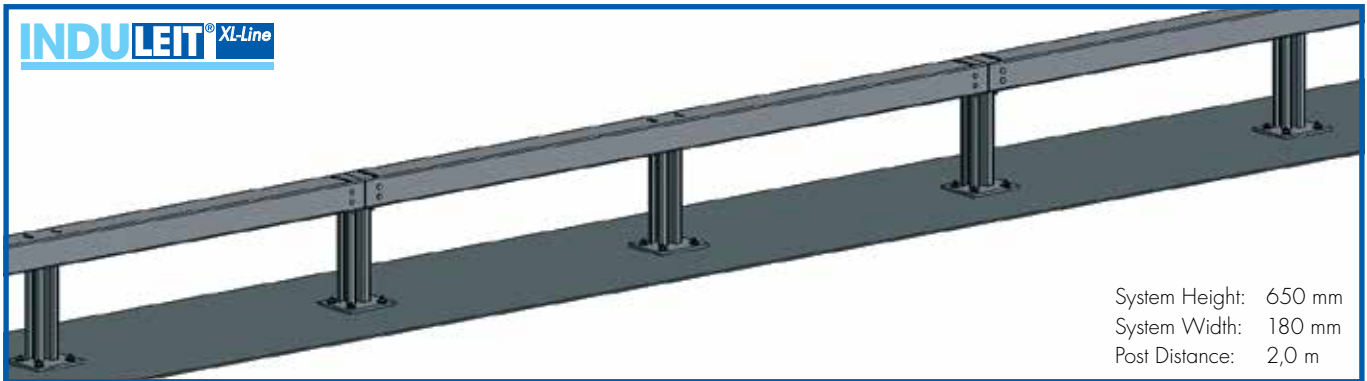
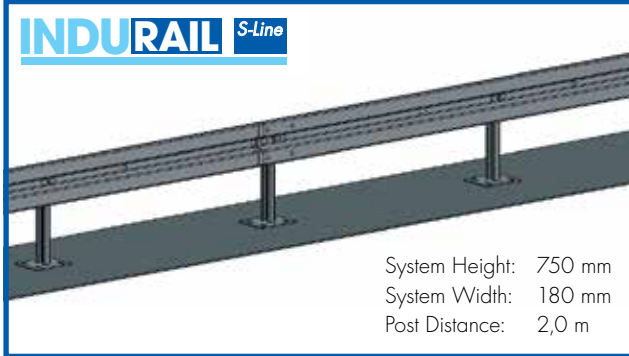
- Retractable
- Lockable
- Foldable
- Removable
- Movable

Typical Applications

- Access roads and parking lots
- Car parks
- Hall doors
- Loading ramps
- Corners of buildings



Design Drawings



- The Systems INDURAIL and INDULEIT[®] are available with post distances of: 1,0 / 1,33 / 2,0 / 4,0 m
- Individual Solutions

