

# PROTEKTOR® 2.0

Occupant & Wheelchair Restraint System



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# PROTEKTOR® 2.0

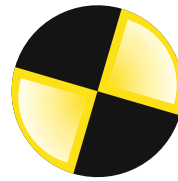
## Occupant & Wheelchair Restraint System

In the 1970s, AMF-Bruns was the first manufacturer in the world to develop a retractor 4-point safety system. Other suppliers followed this example only 20 years later. In the meantime, the AMF-Bruns PROTEKTOR system has become the international standard for securing wheelchairs and their occupants in vehicles.

AMF-Bruns' high standards are complemented by dedicated work in national and international standards committees. Close cooperation with institutions including TÜV, the Federal Highway Research Institute (BAST), the Dynamic Test Center (Switzerland) and the Union Technique de l'Automobile, du Motocycle et du Cycle (France) ensures constant improvement and control of the PROTEKTOR systems. In the company's own test centre, further developments are constantly being driven forward.

In parallel with this development, AMF-Bruns has been permanently testing the PROTEKTOR system according to worldwide standards since the 1970s. In all tests, the safety results of the PROTEKTOR system always exceeded

the required safety standards. Even in the case of heavy electric wheelchairs, the PROTEKTOR restraint system ensures maximum safety.



Dynamic crash tests at a speed of 50 km/h and an acceleration of 20 g, numerous static test series as well as practical driving tests with wheelchairs and dummies prove this repeatedly.

### STANDARDS

The AMF-Bruns PROTEKTOR System complies with the following national and international standards:

ISO 10542-1, DIN 75078-2, CSA Z 605, FMVSS/CMVSS, AS 2596, SAE J 2249, 2001/85/EC

### PROTEKTOR 2.0 – THE NEW GENERATION

PROTEKTOR 2.0 is the new generation of the proven occupant and wheelchair restraint system and sets new standards in safety, design and functionality!

The retractors convince with a compact, flat design and improved control elements.

### SAFE DIVERSITY

The floor anchorage offers 4 stud fitting and mono fitting. The wheelchair attachment can be connected via loop, hook or carabiner. The AMF-Bruns PROTEKTOR system is easy, fast and safe to use and one of the best systems on the market. It is compatible with all wheelchairs and vehicles and is ideal for use with wheelchairs with an integrated lap belt.

Regardless of which variant you choose - BlackSeries, SilverSeries or PlatinumSeries - the PROTEKTOR 2.0 system offers proven safety according to ISO 10542 and DIN 75078.

The PlatinumSeries from AMF-Bruns additionally meets the requirements of DIN 75078-2 and is suitable for applications up to a total weight of 160 kg.





# BLACKSERIES

The BlackSeries is tested according to ISO 10542 and is the lightweight amongst the retractor systems. It features a robust, black ABS housing and an easy-to-use semi-automatic pull-out.



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**BLACKSERIES****Wheelchair Restraint Systems with Loop****4 STUD FITTING / FLEXIBLE**

**PROTEKTOR® 2.0 System Pro 2 B LV**  
with loop and 4 stud fitting, flexible

- 2x retractor belt LV
- 2x static belt LV
- 1x pelvis belt

**Item No. H 450 502 LV**



**PROTEKTOR® 2.0 System Pro 4 B LV**  
with loop and 4 stud fitting, flexible

- 4x retractor belt LV
- 1x pelvis belt

**Item No. H 450 504 LV**

**MONO FITTING**

**PROTEKTOR® 2.0 System Pro 2 B LM**  
with loop and mono fitting

- 2x retractor belt LM
- 2x static belt LM
- 1x pelvis belt

**Item No. H 450 502 LM**



**PROTEKTOR® 2.0 System Pro 4 B LM**  
with loop and mono fitting

- 4x retractor belt LM
- 1x pelvis belt

**Item No. H 450 504 LM**

**GENERAL NOTE!**

Static belts are only permitted for front attachment.

## Wheelchair Restraint Systems with Hook

## 4 STUD FITTING / FLEXIBLE



**PROTEKTOR® 2.0 System Pro 2 B HV**  
with hook and 4 stud fitting, flexible

- 2x retractor belt HV
- 2x static belt HV
- 1x pelvis belt

Item No. H 450 522 HV



**PROTEKTOR® 2.0 System Pro 4 B HV**  
with hook and 4 stud fitting, flexible

- 4x retractor belt HV
- 1x pelvis belt

Item No. H 450 524 HV

## MONO FITTING



**PROTEKTOR® 2.0 System Pro 2 B HM**  
with hook and mono fitting

- 2x retractor belt HM
- 2x static belt HM
- 1x pelvis belt

Item No. H 450 522 HM



**PROTEKTOR® 2.0 System Pro 4 B HM**  
with hook and mono fitting

- 4x retractor belt HM
- 1x pelvis belt

Item No. H 450 524 HM

**BLACKSERIES****Wheelchair Restraint Systems with Carabiner****4 STUD FITTING / FLEXIBLE**

**PROTEKTOR® 2.0 System Pro 2 B CV**  
with carabiner and 4 stud fitting, flexible

- 2x retractor belt CV
- 2x static belt CV
- 1x pelvis belt

**Item No. H 450 552 CV**



**PROTEKTOR® 2.0 System Pro 4 B CV**  
with carabiner and 4 stud fitting, flexible

- 4x retractor belt CV
- 1x pelvis belt

**Item No. H 450 554 CV**

**MONO FITTING**

**PROTEKTOR® 2.0 System Pro 2 B CM**  
with carabiner and mono fitting

- 2x retractor belt CM
- 2x static belt CM
- 1x pelvis belt

**Item No. H 450 552 CM**



**PROTEKTOR® 2.0 System Pro 4 B CM**  
with carabiner and mono fitting

- 4x retractor belt CM
- 1x pelvis belt

**Item No. H 450 554 CM**

## RETRACTORS WITH LOOP



**Retractor B LV**  
with loop and  
4 stud fitting, flexible

Item No. H 450 509 LV



**Retractor B LM**  
with loop and  
mono fitting

Item No. H 450 509 LM

## RETRACTORS WITH HOOK



**Retractor B HV**  
with hook and  
4 stud fitting, flexible

Item No. H 450 534 HV



**Retractor B HM**  
with hook and  
mono fitting

Item No. H 450 534 HM

## RETRACTORS WITH CARABINER



**Retractor B CV**  
with carabiner and  
4 stud fitting, flexible

Item No. H 450 564 CV



**Retractor B CM**  
with carabiner and  
mono fitting

Item No. H 450 564 CM

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PROTEKTOR® 2.0

Static Belts

STATIC BELT WITH 4 STUD FITTING



**Static Belt LV**  
with loop and  
4 stud fitting  
(front attachment)

Item No. H 450 510 LV



**Static Belt HV**  
with hook and  
4 stud fitting  
(front attachment)

Item No. H 450 535 HV



**Static Belt CV**  
with carabiner and  
4 stud fitting  
(front attachment)

Item No. H 450 565 CV

STATIC BELT WITH MONO FITTING



**Static Belt LM**  
with loop and  
mono fitting  
(front attachment)

Item No. H 450 510 LM



**Static Belt HM**  
with hook and  
mono fitting  
(front attachment)

Item No. H 450 535 HM



**Static Belt CM**  
with carabiner and  
mono fitting  
(front attachment)

Item No. H 450 565 CM



## BELT SYSTEMS



**Electric Belt L**  
with loop  
Length: 3.6 m  
(front attachment)

Item No. H 450 240 L



**Electric Belt H**  
with hook  
Length: 3.6 m  
(front attachment)

Item No. H 450 240 H



**Electric Belt C**  
with carabiner  
Length: 3.6 m  
(front attachment)

Item No. H 450 240 C

## HOUSING



**Top Cover (ABS)**  
for electric belt  
(front attachment)

Item No. H 350 632



**Bottom Cover (ABS)**  
for electric belt  
(front attachment)

Item No. H 350 633



**Housing (ABS)**  
for electric belt,  
top and bottom cover  
(front attachment)

Item No. H 350 634



**Zinc Die-Cast Housing**  
for electric belt,  
top and bottom cover  
(front attachment)

Item No. H 350 257



# SILVERSERIES

The ISO 10542 tested SilverSeries has an automatic pull-out. The high-quality zinc die-cast housing is particularly robust and suitable for daily use in the vehicle.



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## SILVER SERIES

### Wheelchair Restraint Systems with Loop

#### 4 STUD FITTING / FLEXIBLE



**PROTEKTOR® 2.0 System Pro 2 S LV**  
with loop and 4 stud fitting, flexible

- 2x retractor belt LV
- 2x static belt LV
- 1x pelvis belt

Item No. H 450 501 LV



**PROTEKTOR® 2.0 System Pro 4 S LV**  
with loop and 4 stud fitting, flexible

- 4x retractor belt LV
- 1x pelvis belt

Item No. H 450 503 LV

#### MONO FITTING



**PROTEKTOR® 2.0 System Pro 2 S LM**  
with loop and mono fitting

- 2x retractor belt LM
- 2x static belt LM
- 1x pelvis belt

Item No. H 450 501 LM



**PROTEKTOR® 2.0 System Pro 4 S LM**  
with loop and mono fitting

- 4x retractor belt LM
- 1x pelvis belt

Item No. H 450 503 LM

#### GENERAL NOTE!

Static belts are only permitted for front attachment.



**Wheelchair Restraint Systems with Hook****4 STUD FITTING / FLEXIBLE**

**PROTEKTOR® 2.0 System Pro 2 S HV**  
with hook and 4 stud fitting, flexible

- 2x retractor belt HV
- 2x static belt HV
- 1x pelvis belt

**Item No. H 450 520 HV**



**PROTEKTOR® 2.0 System Pro 4 S HV**  
with hook and 4 stud fitting, flexible

- 4x retractor belt HV
- 1x pelvis belt

**Item No. H 450 525 HV**

**MONO FITTING**

**PROTEKTOR® 2.0 System Pro 2 S HM**  
with hook and mono fitting

- 2x retractor belt HM
- 2x static belt HM
- 1x pelvis belt

**Item No. H 450 520 HM**



**PROTEKTOR® 2.0 System Pro 4 S HM**  
with hook and mono fitting

- 4x retractor belt HM
- 1x pelvis belt

**Item No. H 450 525 HM**

**SILVER**SERIES

## Wheelchair Restraint Systems with Carabiner

## 4 STUD FITTING / FLEXIBLE



**PROTEKTOR® 2.0 System Pro 2 S CV**  
with carabiner and 4 stud fitting, flexible

- 2x retractor belt CV
- 2x static belt CV
- 1x pelvis belt

Item No. H 450 550 CV



**PROTEKTOR® 2.0 System Pro 4 S CV**  
with carabiner and 4 stud fitting, flexible

- 4x retractor belt CV
- 1x pelvis belt

Item No. H 450 555 CV

## MONO FITTING



**PROTEKTOR® 2.0 System Pro 2 S CM**  
with carabiner and mono fitting

- 2x retractor belt CM
- 2x static belt CM
- 1x pelvis belt

Item No. H 450 550 CM



**PROTEKTOR® 2.0 System Pro 4 S CM**  
with carabiner and mono fitting

- 4x retractor belt CM
- 1x pelvis belt

Item No. H 450 555 CM

## RETRACTORS WITH LOOP



**Retractor S LV**  
with loop and  
4 stud fitting, flexible

Item No. H 450 505 LV



**Retractor S LM**  
with loop and  
mono fitting

Item No. H 450 505 LM

## RETRACTORS WITH HOOK



**Retractor S HV**  
with hook and  
4 stud fitting, flexible

Item No. H 450 530 HV



**Retractor S HM**  
with hook and  
mono fitting

Item No. H 450 530 HM

## RETRACTORS WITH CARABINER



**Retractor S CV**  
with carabiner and  
4 stud fitting, flexible

Item No. H 450 560 CV



**Retractor S CM**  
with carabiner and  
mono fitting

Item No. H 450 560 CM

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PROTEKTOR® 2.0

Static Belts

STATIC BELT WITH 4 STUD FITTING



**Static Belt LV**  
with loop and  
4 stud fitting  
(front attachment)

Item No. H 450 510 LV



**Static Belt HV**  
with hook and  
4 stud fitting  
(front attachment)

Item No. H 450 535 HV



**Static Belt CV**  
with carabiner and  
4 stud fitting  
(front attachment)

Item No. H 450 565 CV

STATIC BELT WITH MONO FITTING



**Static Belt LM**  
with loop and  
mono fitting  
(front attachment)

Item No. H 450 510 LM



**Static Belt HM**  
with hook and  
mono fitting  
(front attachment)

Item No. H 450 535 HM



**Static Belt CM**  
with carabiner and  
mono fitting  
(front attachment)

Item No. H 450 565 CM



## BELT SYSTEMS



**Electric Belt L**  
with loop  
Length: 3.6 m  
(front attachment)

Item No. H 450 240 L



**Electric Belt H**  
with hook  
Length: 3.6 m  
(front attachment)

Item No. H 450 240 H



**Electric Belt C**  
with carabiner  
Length: 3.6 m  
(front attachment)

Item No. H 450 240 C

## HOUSING



**Top Cover (ABS)**  
for electric belt  
(front attachment)

Item No. H 350 632



**Bottom Cover (ABS)**  
for electric belt  
(front attachment)

Item No. H 350 633



**Cover (ABS)**  
for electric belt,  
top and bottom cover  
(front attachment)

Item No. H 350 634



**Zinc Die-Cast Cover**  
for electric belt,  
top and bottom cover  
(front attachment)

Item No. H 350 257

# PLATINUM SERIES • HD160



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## Occupant &amp; Wheelchair Restraint System

Weight increases due to electric wheelchairs and wheelchair users require a wheelchair restraint system that can withstand higher loads. AMF-Bruns developed the new PROTEKTOR PlatinumSeries after intensive crash tests indicated the need for more durable and robust retractors. The PlatinumSeries is a heavy-duty 4-point securement system for wheelchairs and their occupants, suitable for a total weight of up to 160 kg – creating a new level of safety!

## THESE FACTS MAKE ALL THE DIFFERENCE

- » 4-point securement system for use up to a total weight of 160 kg
- » Robust construction and compact design
- » Simple application and easy operation
- » PlatinumSeries is compatible with all wheelchairs and vehicles
- » Complies with ISO 10542, WC18 and DIN 75078-2 with integrated lap belt
- » Ensures a safe connection between wheelchair and vehicle, even if the wheelchair deforms in an accident

PLATINUMSERIES **BLACK**

with semi-automatic pull-out and robust ABS housing

PLATINUMSERIES **SILVER**

with automatic pull-out and high-quality zinc die-cast housing



# PLATINUMSERIES *BLACK*

## Retractors

### RETRACTORS WITH LOOP



**Retractor PB LV**  
with loop and  
4 stud fitting, flexible

Item No. H 450 809 LV



**Retractor PB LM**  
with loop and  
mono fitting

Item No. H 450 809 LM

### RETRACTORS WITH HOOK



**Retractor PB HV**  
with hook and  
4 stud fitting, flexible

Item No. H 450 834 HV



**Retractor PB HM**  
with hook and  
mono fitting

Item No. H 450 834 HM

### RETRACTORS WITH CARABINER



**Retractor PB CV**  
with carabiner and  
4 stud fitting, flexible

Item No. H 450 864 CV



**Retractor PB CM**  
with carabiner and  
mono fitting

Item No. H 450 864 CM



## 4 STUD FITTING / FLEXIBLE



**PROTEKTOR® 2.0 System Pro 4 PB LV**  
with loop and 4 stud fitting, flexible

- 4x retractor belt LV
- 1x pelvis belt

Item No. H 450 804 LV



**PROTEKTOR® 2.0 System Pro 4 PB HV**  
with hook and 4 stud fitting, flexible

- 4x retractor belt HV
- 1x pelvis belt

Item No. H 450 824 HV



**PROTEKTOR® 2.0 System Pro 4 PB CV**  
with carabiner and 4 stud fitting, flexible

- 4x retractor belt CV
- 1x pelvis belt

Item No. H 450 854 CV

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## PLATINUM SERIES *SILVER*

### Retractors

#### RETRACTORS WITH LOOP



**Retractor PS LV**  
with loop and  
4 stud fitting, flexible

Item No. H 450 805 LV



**Retractor PS LM**  
with loop and  
mono fitting

Item No. H 450 805 LM

#### RETRACTORS WITH HOOK



**Retractor PS HV**  
with hook and  
4 stud fitting, flexible

Item No. H 450 830 HV



**Retractor PS HM**  
with hook and  
mono fitting

Item No. H 450 830 HM

#### RETRACTORS WITH CARABINER



**Retractor PS CV**  
with carabiner and  
4 stud fitting, flexible

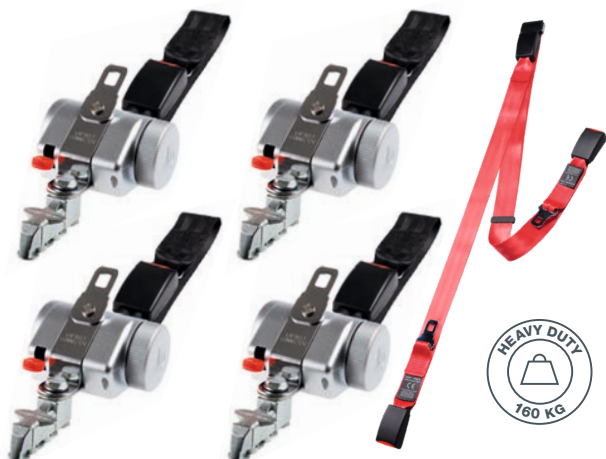
Item No. H 450 860 CV



**Retractor PS CM**  
with carabiner and  
mono fitting

Item No. H 450 860 CM

## 4 STUD FITTING / FLEXIBLE



**PROTEKTOR® 2.0 System Pro 4 PS LV**  
with loop and 4 stud fitting, flexible

- 4x retractor belt LV
- 1x pelvis belt

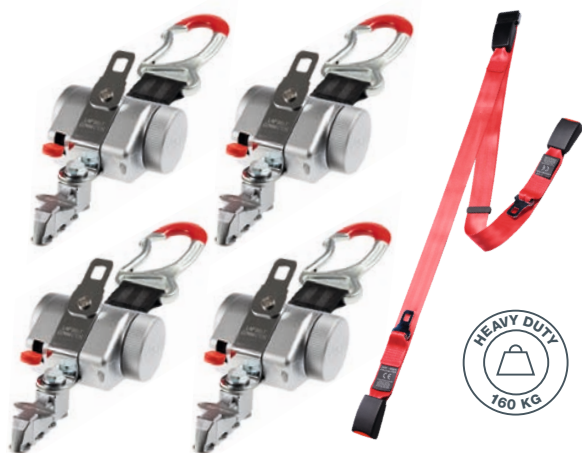
Item No. H 450 803 LV



**PROTEKTOR® 2.0 System Pro 4 PS HV**  
with hook and 4 stud fitting, flexible

- 4x retractor belt HV
- 1x pelvis belt

Item No. H 450 825 HV



**PROTEKTOR® 2.0 System Pro 4 PS CV**  
with carabiner and 4 stud fitting, flexible

- 4x retractor belt CV
- 1x pelvis belt

Item No. H 450 855 CV

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# PROTEKTOR® 2.0

## Occupant Restraint Systems



### Pelvis Belt

Standard length  
Item No. H 450 200

XL length  
Item No. H 450 198



### Automatic Pelvis Belt with flexible buckle

Length: 300 mm  
Item No. H 350 205



### Automatic Pelvis Belt

Item No. H 350 207



### Flexible Buckle

Length: 300 mm  
Item No. H 350 210



### Automatic Shoulder Belt no height adjustment

Item No. H 450 225



### Automatic Shoulder Belt height adjustment

Item No. H 450 235



### Automatic Shoulder Belt no height adjustment with 2x 4 stud fitting

Item No. H 450 250



### Automatic Shoulder Belt height adjustment to the rail with 2x 4 stud fitting

Item No. H 450 239



### Static Shoulder Belt with velcro fastener

Item No. H 350 226



### Static Shoulder Belt with buckle two-part

Item No. H 350 227





**Automatic Shoulder Belt**  
height adjustment with  
retractor

Item No. H 450 255



**Harness Belt**  
(only in combination with  
shoulder belt)

4 stud fitting  
Item No. H 450 222

Mono fitting  
Item No. H 450 223



**Automatic 3-Point Belt**  
no height adjustment

Item No. H 350 230



**Automatic 3-Point Belt**  
height adjustment

Item No. H 450 231



**Automatic 3-Point Belt**  
no height adjustment with  
2x 4 stud fitting

Item No. H 350 251



**Automatic 3-Point Belt**  
height adjustment with  
2x 4 stud fitting

Item No. H 450 252



**WAV Automatic  
3-Point Belt**  
no height adjustment with  
2x flexible buckle

Item No. H 350 232



**WAV Automatic  
3-Point Belt**  
height adjustment with  
2x flexible buckle

Item No. H 350 233



**Secure Loop**

Length: 300 mm

Item No. H 350 238

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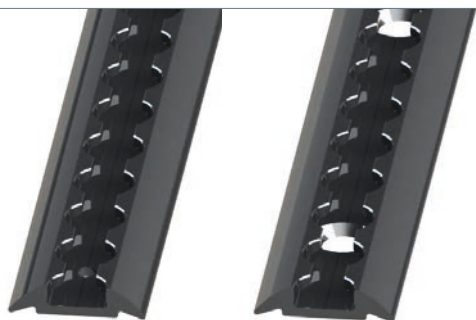
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# PROTEKTOR® 2.0

## Floor Systems



### Surface Rail

**not pre-drilled (length)**

1,000 mm

1,500 mm

1,750 mm

3,000 mm

Item No. H 150 132

Item No. H 150 134

Item No. H 150 135

Item No. H 150 136

**pre-drilled (length))**

3,000 mm

Item No. H 150 385



### Insert Rail

**not pre-drilled (length)**

1,750 mm

3,500 mm

Item No. H 150 120

Item No. H 150 130

**pre-drilled (length)**

3,500 mm

Item No. H 150 375



### End Cap for Surface Rail

Item No. 200261878



### End Cap for Insert Rail

Item No. 200261840



### 4 Stud Fitting

excl. bolt

Item No. 200414278

incl. bolt

Item No. H 150 615



### Mono Disc

(floor mounting)

incl. bolt M12

50 mm

Item No. H 150 917

70 mm

Item No. H 150 919



### Mono Fitting (complete)

incl. bolt M12

50 mm

Item No. H 150 915



### Mono Fitting

(headpiece)

incl. bolt M12

50 mm

Item No. H 150 916



**Floor Pocket**  
Item No. 200269390



**Zinc Die-Cast Cover**  
for anchorage points,  
top and bottom cover with  
90° angle

Item No. H 350 256



**EasyBag**  
for wheelchair restraints  
Item No. 10019363



**Emergency Cutter**  
Item No. 10020724

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