# Cross Ram Support Set Ram accessories

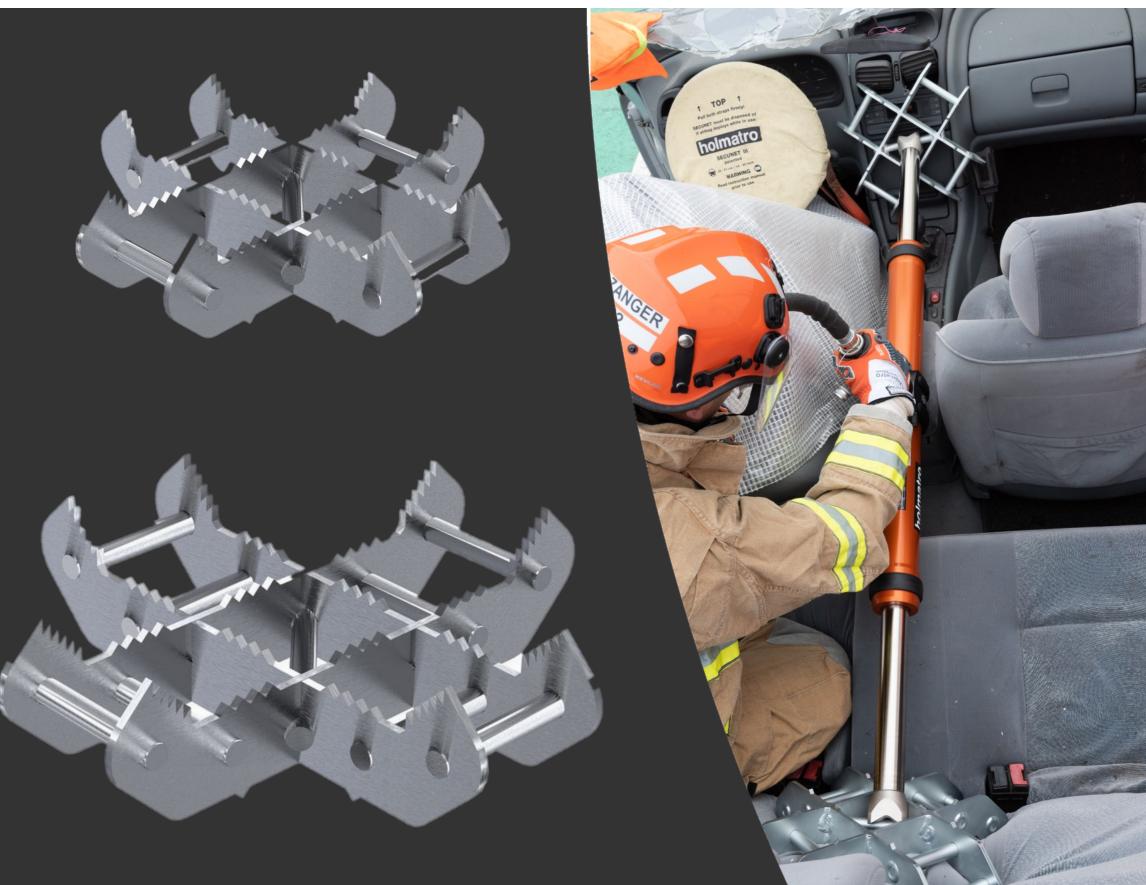




### **Set composition**

- The Cross Ram Support Set consists of:
  - > 1 x model XRS01S Small
  - > 1 x model XRS01L Large







### How does it work?

- Cross ramming is a technique to create space when parts of the vehicle are deformed and obstruct a safe patient extrication. With the help of a ram the car construction is pushed back into its original shape.
- The set of two supports helps you to distribute the force of the ram over a larger area and prevents it from pushing through the car construction.
- The Cross Ram Supports have a push-off bar in the centre on which the ram head can be placed.





# Features & Benefits





### **Cross Ram Support Set – Features/Benefits**

### **Even distribution of the ram force**

- Designed for even distribution of the ram force
  - > The Cross Ram Supports spread the load on the material surface, caused by the ram, over a larger area
  - > This prevents the ram from pushing through car (interior) parts, such as door cards, seat fabric, roof panels and B-pillars



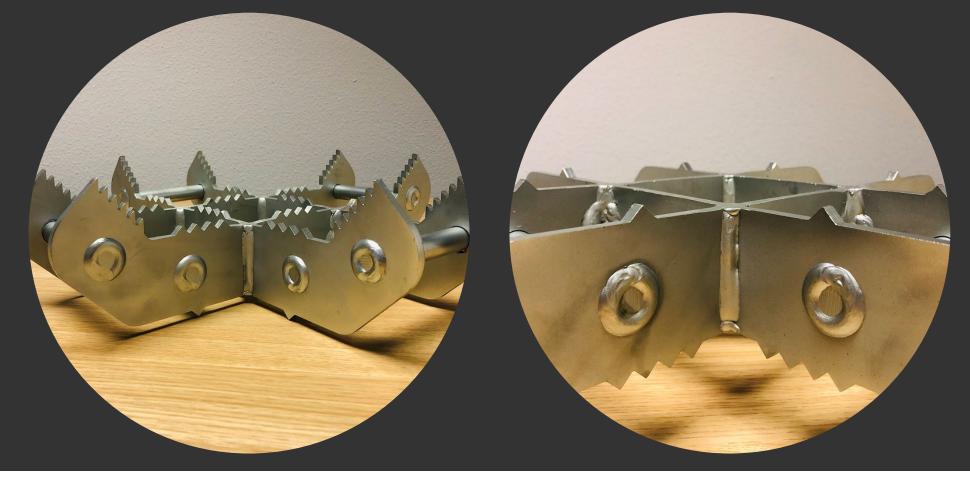




### **Cross Ram Support Set – Features/Benefits**

### Maximum grip on car interior surfaces

- Grip teeth on both sides of the Cross Ram Supports
  - > To provide maximum grip on car interior surfaces
  - > To provide optimum stability and grip during cross ramming



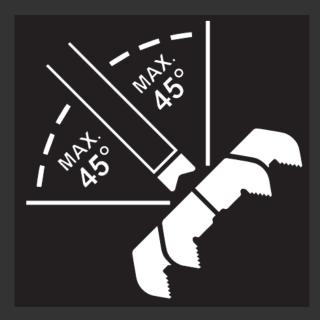




### **Cross Ram Support Set - Features/Benefits**

### **Maximum safety**

- Clear labels with safety warnings and instructions for correct use of the Cross Ram Supports.
  - > To help you work safer and easier.
  - Example: If during the operation the angle between the ram and the Cross Ram Support exceeds 45°, the operation must be interrupted immediately. Reposition to a correct angle – see safety label.



holmatro XRS01S Capacity 98.1kN / 22,054 lbf Art. No. 151.001.161





### **Cross Ram Support Set - Features/Benefits**

### **Optimum visibility**

- Clear zinc plated steel surface
  - Durable and corrosion resistant
  - Good visibility on dark dashboard surfaces and during rescue operations at night





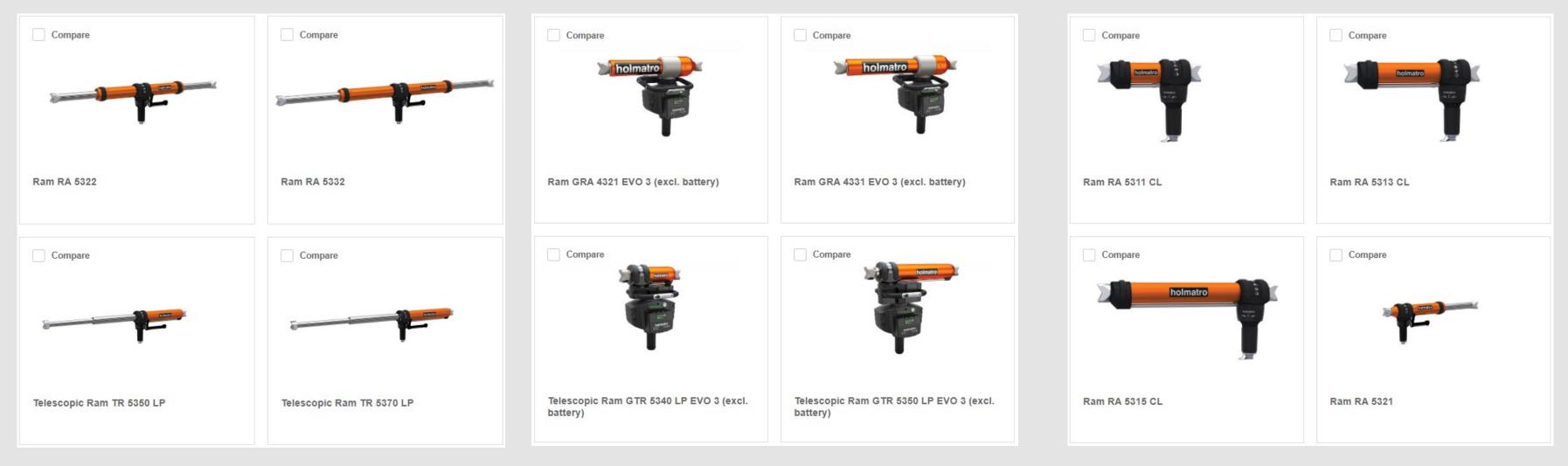
# Application



### **Cross Ram Support Set – Features/Benefits**

### **Compatible with all Holmatro Rams**

- Past and present models
- The longer ram models are preferred as they have enough stroke to push the vehicle construction back into its original shape.





### **Cross Ram Support Set - Application**

### **In General**

- The accessory is designed to help you push back the dashboard, the roof or the B-pillars, which have intruded the passenger cell as a result of a collision.
- The set can be applied on cars and trucks.





### **Cross Ram Support Set - Application**

### Warning

• The Cross Ram Support set is intended for use in vehicles only!

> The item is not intended as a lifting device.

> A safety warning label is attached to each Cross Ram Support.

Use the support in vehicles only. Position it between weak structure and ram's griphead. Deformation load = 98.1 kN / 22,054 lbf

Gebruik de steun alleen in voertuigen. Plaats deze tussen zwakke constructie en kruiskop van ram. Vervormingsbelasting = 98.1 kN / 22,054 lbf

Utilisez le support seulement dans les véhicules. Placez-le entre une construction fragile et la tête du vérin. Force de déformation = 98.1 kN / 22,054 lbf

Verwenden Sie die Stütze nur in Fahrzeugen. Bitte zwischen schwache Konstruktion und Spannkopf Rettungszylinder positionieren. Verformungskraft = 98.1 kN / 22,054 lbf





### **Cross Ram Support Set – Application – Dashboard Push**

### **Dashboard push: Cross Ram Support Installation**

The smaller support XRS01S is designed to push against the car's dashboard and roof.

The larger support XRS01L is meant to be positioned on the rear seat of a car.







# Make sure the ram does not touch the centre console to prevent the ram from slipping

REPRESENTATION OF



### **Cross Ram Support Set – Application – Dashboard Push**

## Dashboard Push: Installation of the Second Ram

- Position the ram diagonally in the door aperture and open it so that it remains in position.
- Open the ram in the middle of the car until the force is around 20% of the total force required for the dash push.
- Follow the movement with the ram in the door aperture. The ram in the door should generate 80% of the total force needed.
- Keep operating the central ram and the "door opening ram" alternately until enough space is created to neutralize the patient's entrapment.





### **Dashboard Push: Back Seat Strength**

- > The back seat of a car is relatively weak. For this reason, the larger Cross Ram Support is used on the back seat to create as large a surface for load distribution as possible.
- Whether or not the back seat can handle the load depends on the correct distribution of that load in the door aperture (80%) and the central ram (20%).
- > The higher the central ram can be positioned on the back seat, the more force will be directed straight to the dashboard.







### **Cross Ram Support Set – Application**

### **B-Pillar / Side Wall Push**

• The Cross Ram Support Set can also be used to push back the B-pillars or side wall of a deformed car or truck.





### **B-Pillar / Side Wall Push: Installation**

> The B-pillars are the strongest parts of a car's side wall and your best option if you need to perform a side wall push. If possible, install the ram with the Cross Ram Supports between and against the two B-pillars.

If there is an obstruction between the two B-pillars, for instance a trapped person or a car seat, you can alternatively use the lower sill area (rocker channel) on the opposite side of the car.

> If that is unavailable too, the middle of a door can also be used to push back a B-pillar on the other side of the car. Keep following the movement of the door and make sure the door stays in position during the operation.





### **Cross Ram Support Set – Application – Roof Push**

### **Roof Push: Installation**

> The Cross Ram Support Set can also be used to push back a car roof back to its original shape.

> The teeth ensure maximum grip on the fabric.









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