



**More than products. A partnership.**

# KALNIK XL

Motorway snow plough with 4 to 5 metre width

KALNIK XL is a robust plough intended for the maintenance of wide and open roads. Its variable dimensions, implemented through opening and closing the leftmost wing, enable simple changing of plough width from 4 to 5 metres and ploughing with both widths.



# Flexible solution for motorways

KALNIK XL is a robust plough intended for the maintenance of wide and open roads. It is designed for clearing deep snow and can be adjusted to the requirements of different ploughing widths. Its variable dimensions, implemented through the tilting leftmost wing, enable simple changing of plough width from 4 to 5 metres and ploughing with both widths. This enables the user to adjust to different profiles of motorways and access roads.

KALNIK XL is intended for ploughing at high speeds and has a range of installed safety elements that do not affect the snow clearing efficiency. The floating position, multi-segmented design, spring connections of the plough's wings and beam and supporting elements in the form of wheels and slide pads contribute to the safe use of the plough, while the installed mechanism of axial tilt, mutually independent plough wings and the available range of scrapers enable efficient clearing of snow.

For maximum efficiency of clearing snow on motorways, KALNIK XL can be used in combination with the BSP side plough in an echelon ploughing configuration.



## WHY CHOOSE THE KALNIK XL SNOW PLOUGH?



### ✓ Variable dimensions for different types of open road

KALNIK XL has variable dimensions which are implemented through the tilting leftmost wing. They enable simple changing of plough width from 4 to 5 metres and ploughing with both widths. This enables the user to adjust to different profiles of motorways and access roads.



### ✓ Ploughing speed

KALNIK XL is specially intended for ploughing at high speeds on highways and motorways. Its robust design and a range of installed safety elements ensure efficient snow clearing at high speeds.



### ✓ Maximum snow clearing efficiency

For maximum efficiency of clearing snow on motorways, we recommend that KALNIK XL is used in combination with the BSP side plough in an echelon ploughing configuration.



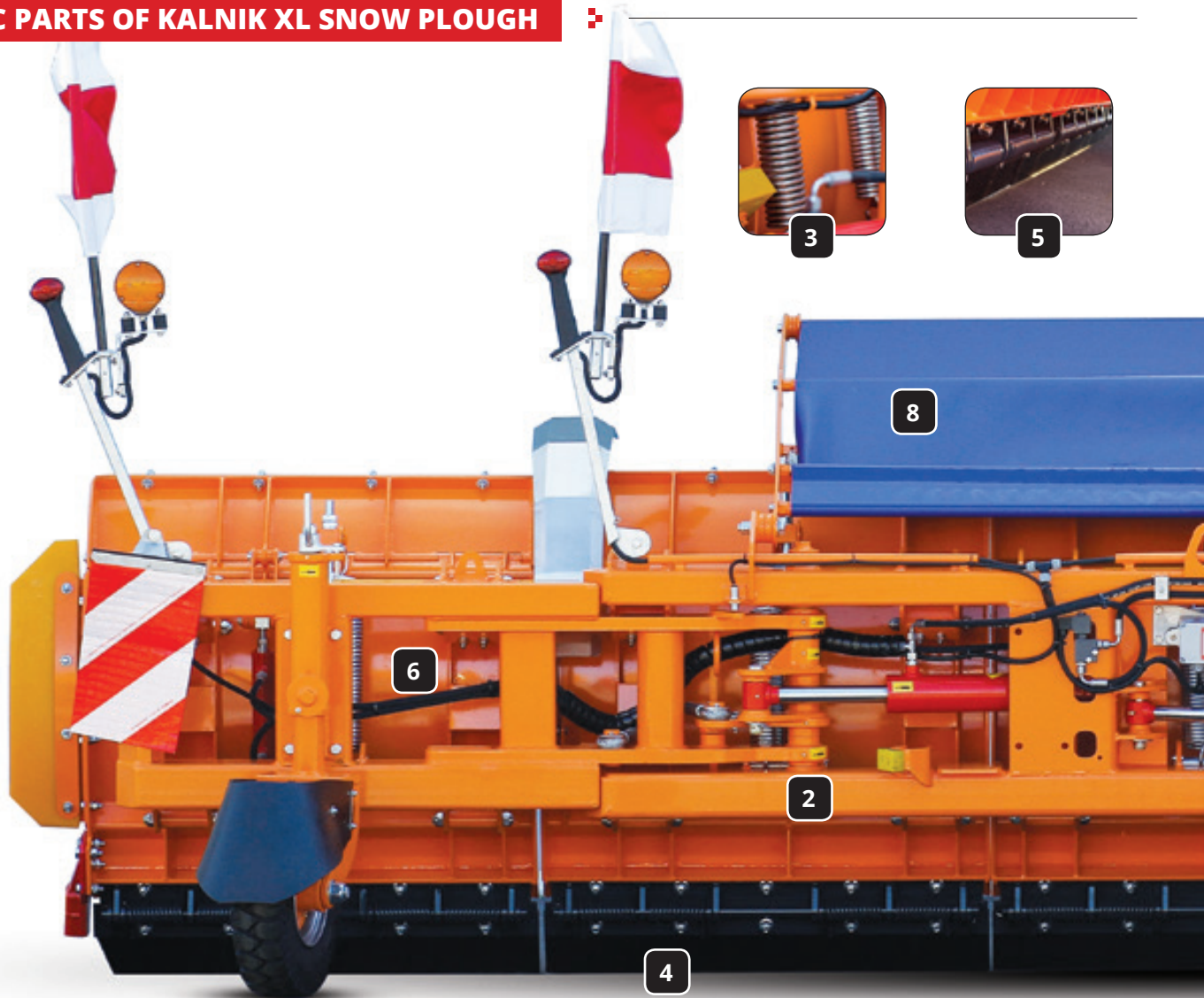
### ✓ Lowest cost of ownership

Easiness of use and maintenance, robust design, high-quality materials, and hydraulic components produced by renowned manufacturers guarantee a safe investment in the KALNIK XL snow plough.

Proven durability, safety, efficiency, simplicity, and availability of service parts and post-sales support guarantee the lowest overall cost of ownership of a snow plough currently available on the market.



## BASIC PARTS OF KALNIK XL SNOW PLOUGH



### 1 | Plough wings

Created using robotic welding technology. The precise, computer-controlled production process ensures uniform quality of all plough elements. Superior surface protection in combination with the welding technology and the chosen material for production serve as a guarantee of product durability.

### 2 | Plough beam

Reinforced double plough beam ensures the plough's resistance to vibrations and impacts. High quality design enables the plough's durability and robustness.

### 3 | Plough wing and beam connection

Firm level-and-spring connections enable efficient clearing of deeper snow. Upon encountering an obstacle on the surface, individual wing segments will lift and then return to the starting position.

### 7 | Mounting system

Enables the attachment of snow ploughs to trucks using different types of mounting plates.

### 8 | Protection from snow

This protection is built in on the plough wing and protects the windshield from snow spray, thus enabling safe and unhindered ploughing. It is made from a special material, tolerates frequent temperature changes and is extremely long-lasting.

### 9 | Traffic signalisation

Improves the visibility of the snow plough and vehicle, thus ensuring safety during operation and transport. This may include flags, reflective marks, raised front headlights and turn indicators.



#### 4 | Scrapers

Ploughs are equipped with scrapers depending on the surface that is being cleared. RASCO ploughs can be equipped with steel, polyurethane, rubber or composite scrapers. The scrapers can be attached to wings using screws or steel clamps, which enable fast and simple replacement of scrapers that can be done by one person.

#### 5 | Swiveling scraper mechanism

The mechanism tilts the scrapers backwards if an obstacle is encountered. After the obstacle is passed, the scrapers are returned to the original position.

#### 6 | Tilting side wing

The leftmost wing of the snow plough can be opened or closed hydraulically from the truck's cabin. This increases the vehicle's manoeuvrability during transport and enables passage through toll gates.

#### 10 | Supporting elements

Slide pads and auxiliary wheels support the plough's weight and prevent the plough from digging into the ground. They extend the lifespan of scrapers and protect the plough and the surface that is being cleared from damage.

#### 11 | Side bumpers

Placed on the outer plough wings, side bumpers prevent damage to wings from side impacts with obstacles on the surface that is being cleared. Just like scrapers, they are disposable plough elements and can be easily replaced.

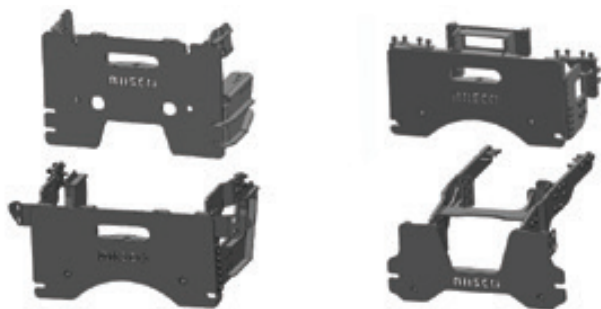
#### 12 | Storage outside the season

Storage of ploughs outside the season is made easier with the use of storage legs. Storage legs protect rubber and polyurethane scrapers from deformation, prevent damage of the surface on which the plough is placed and enable easier mounting of the plough on the vehicle.





# Easy mounting on all types of vehicles



## Mounting using mounting plates

RASCO offers the possibility of creating and installing mounting plates for various trucks and tractors. All mounting plates are created in accordance with the current standards, which guarantees high quality and resistance to damage such as torsion or bending.

Designed for complete efficiency during the operation of attachments and adjustable according to vehicle height, mounting plates enable fast and simple installation of snowploughs on all types of vehicles.





# Solution for vehicles with and without built-in hydraulic system

## Vehicles with built-in hydraulic system

KALNIK XL ploughs can be powered using a built-in hydraulic system of the vehicle if it is designed according to the EN ISO 15431 standard.



## Vehicles without built-in hydraulic system

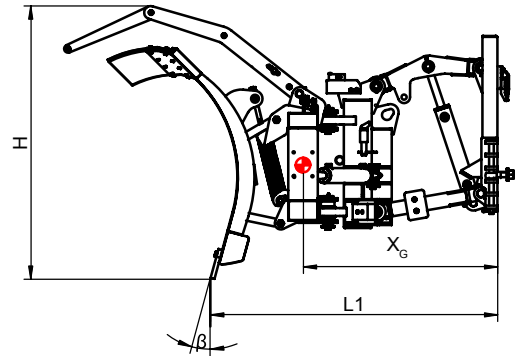
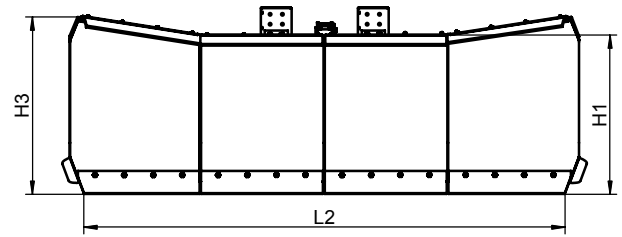
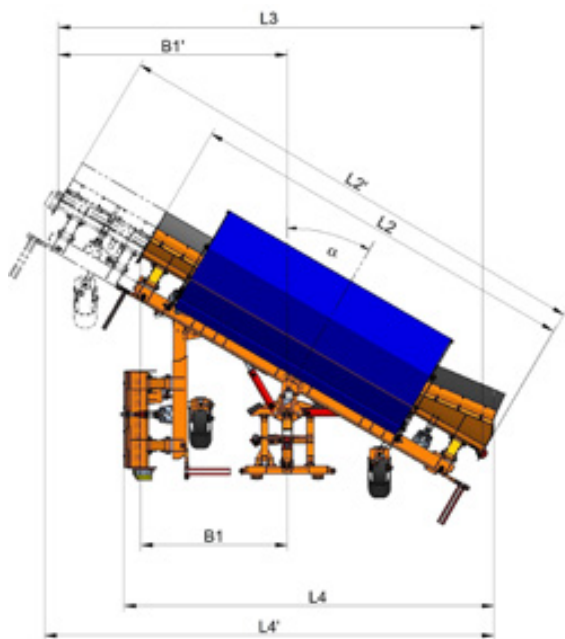


### Power via diesel-hydraulic power unit

The snow plough can also be powered via the connection to a diesel-hydraulic power unit installed on the spreader.

Powering via the diesel-hydraulic power unit is recommended when the vehicle is not equipped with an adequate hydraulic system.

## TECHNICAL CHARACTERISTICS



KALNIK XL

KALNIK XL		
H1	Height of the inner segment	1100
H2	Height of the left side segment	1100
H3	Height of the right side segment	1200
H	Overall height with the protective tarp	1360
L1	Distance of the tip of the scraper from the mounting plate	1450
L2	Width on scrapers / folding wing closed	4000
L'2	Width on scrapers / folding wing open	5000
L3	Clearing width at 30° rotation	4330
L4	Overall width at 30° rotation / folding wing closed – transport position	3800
L'4	Overall width at 30° rotation / folding wing open	4620
B1	Distance of the left segment from the middle at 30° rotation / folding wing closed	1510
B'1	Distance of the left segment from the middle at 30° rotation / folding wing open	2350
α	Rotation angle	30°
β	Attack angle	15° / 8°
XG	Centre of mass position	950
m	Minimum mass of device	1350
	Number x width of segments	5 x 1000

## CHOICE OF SNOW PLOUGH EQUIPMENT

- Steel scrapers
- Polyurethane scrapers
- Composite scrapers
- Rubber scrapers
- Scraper swiveling elements
- Slide pads
- Auxiliary wheels

- Protection from snow
- Safe ploughing to the right side with the left wing in folded position
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs



**RASCO d.o.o.**  
Kolodvorska 120b  
HR - 48361 Kalinovac  
CROATIA



+385 48 883 112



rasco@rasco.hr



RascoCompany



Rasco\_company



RascoTV



RASCO d.o.o.