SNOW REMOVAL EQUIPMENT

EFFICIENCY, DURABILITY, SIMPLICITY AND SAFETY ARE THE KEY FEATURES OF PROFESSIONAL RASCO SNOW REMOVAL EQUIPMENT FOR MAINTENANCE OF TRAFFIC INFRASTRUCTURE.



LE MASCO





RASCO The smart choice

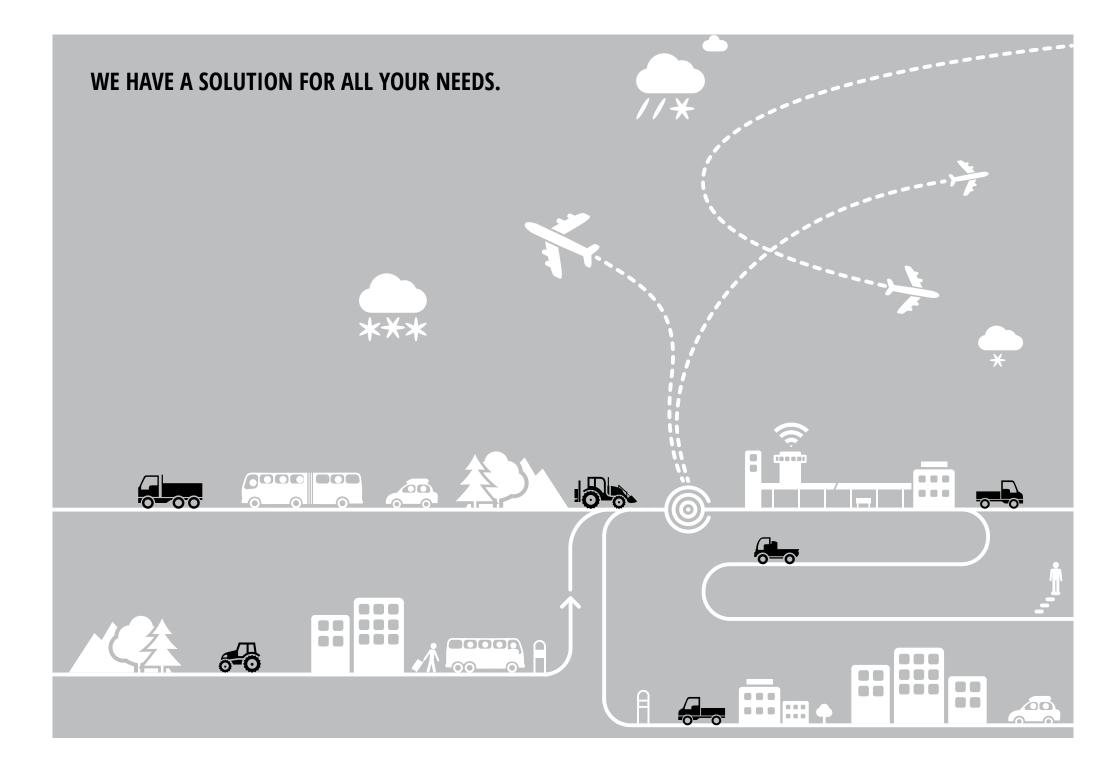
RASCO is one of the leading European manufacturers of equipment for the maintenance of traffic infrastructure. The company's line of products is comprised of devices for summer and winter maintenance. All products from the RASCO product program have been developed based on 25 years of experience in the production of equipment for the maintenance of traffic infrastructure.

The key features of all RASCO devices include efficiency, durability, simplicity and safety. They are included in design and manufacture processes of professional RASCO snow removal equipment which encompasses snow ploughs and other equipment for snow removal from traffic areas. Efficiency, durability, simplicity and safety are implemented through a range of functional characteristics of RASCO snow removal equipment, such as the design of wings, multiple safety mechanisms, superior surface protection, simple installation and a wide choice of additional options.

Today, professional RASCO snow removal equipment serves to maintain smooth traffic flow on roads in over 30 countries. Proven reliability in the most extreme winter maintenance conditions in Europe and North and Central Asia, with ensured post-sales support, makes RASCO snow removal equipment a smart choice.

SNOW PLOUGHS

Ŧ	PLOUGH	DIMENSIONS [m]												ATTACK ANGLE	ROTATION ANGLE		VEHICLE TYPE						PURPOSE				WEATHER CONDITIONS		
		1.6	1.8	2.0	2.2	2.4	2.7	3.0	3.2	3.4	3.6	4.0	4.5	5.0	$\overline{)}$		00 O	-	6 -3	.	-	*	*# *	A	A		*	* *	***
12	KALNIK XL													•	8º / 15º	30°	•						•					•	
14	VELEBIT							•	•	•	•	•	•		25°	30º ÷ 36º	•	•					•	•					•
16	KALNIK							•	•	•	•	•	•		15º/22º	30º ÷ 36º	•	•	•				•	•	•			•	
20	MOSOR PK						•	•	•	•	•	•	•	•	15º/22º	30º ÷ 36º	•	•	•			•	•	•	•	•		•	
22	MSP						•	•	•	•	•	•			-5º / 15º / 45º	30º ÷ 36º	•	•	•					•	•	•		•	
22	MSP L						•	•	•	•	•	•			-7,5º / 15º	30º ÷ 36º	•	•	•					•	•	•	•		
26	SPTT					•	•	•	•						18º	30º ÷ 36º	•	•	٠					•	•	•		•	
28	комві						•	•		<u>.</u>					18º	30°				•					•	•		•	
32	MOSOR Light					•	•								15°	30°		•	٠						•	•	٠		
34	BILO	•	•	•	•	•				·					20°	30°		•	٠		•				•	•	•		
38	VERTUS		•	•		•		•	•	•	•				0°	40°	•	•	•		•	•			•	•	•		•
40	BSP									•		-			25°	45°	•				·		•					•	
BRU	SHES																												
	МКК						•		•						-	-	•								•	•	•		
			*	Air	ports						l	E>	press	ways a	ind national r	oads		С	ity road	ds				×	× M	oderate	e snow	fall	
			۳	▪ Mo	otorwa	iys					1	Re	egiona	al and	local roads			⊹ Li	ght sn	owfall				* *	⊷ × He	eavy sn	owfall		



RASCO SNOW PLOUGHS

Reliable solution for every challenge

RASCO's range of professional snow ploughs includes ploughs for all types of vehicles, ranging from trucks and multi-purpose vehicles to tractors, construction machines and small utility vehicles. The construction of ploughs is adjusted to different kinds of surfaces to be cleared and to the height of snow.

Efficient ploughing depends on the choice of the right plough that is adequate for the height of snow and surface that is being cleared. RASCO's range of snow ploughs includes over 10 different designs adjusted to different surfaces and weather conditions.

The biggest plough in the RASCO program, KALNIK XL, and the side plough BSP can be used for wide and open roads such as motorways. VELEBIT is a plough intended for clearing high snow, while KALNIK is universal plough of wide application. The MOSOR plough is a highly elastic plough intended for comfortable and quiet ploughing in urban areas. The variable geometry plough VERTUS is intended for clearing snow on narrow streets and parking lots, while single segment ploughs BILO and MSP are constructed for clearing light snowfall. SPTT and KOMBI ploughs are intended to be mounted on multi-purpose vehicles, tractors and construction machinery.

All RASCO ploughs are designed and constructed for efficient, simple and safe removal of snow from roads, and their quality of construction and robustness serve as a guarantee of durability.





EFFICIENCY

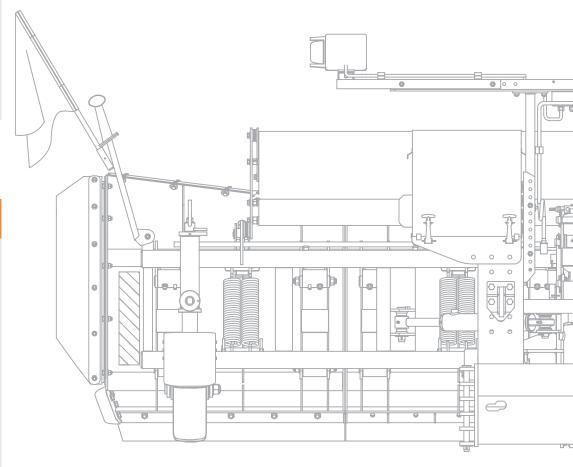






plough to follow the surface slope and increases the quality of snow clearing.

A wide range of scrapers that can be mounted on plough wings ensures maximum efficiency for clearing all types of roads in all weather conditions.



SAFETY



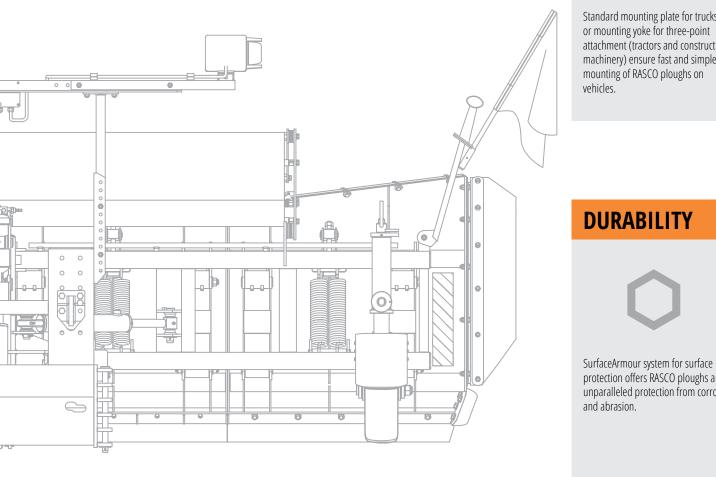


Safety mechanisms mounted in RASCO ploughs, such as the floating position, swiveling scrapes, wheels, slide pads and separate plough wings, guarantee safe crossing over obstacles.

Double safety valve mounted in the cylinder hydraulic circuit for plough rotation protects the plough from damage when it encounters obstacles.

Raised headlamps, plough marking flags, outline lights and windshield protection from snow spray ensure safe steering and visibility of winter service vehicles.

8 KEY FEATURES OF RASCO SNOW PLOUGHS



SIMPLICITY







Standard mounting plate for trucks RASCO snow ploughs adapt easily to different kinds of vehicles. Whether you or mounting yoke for three-point attachment (tractors and construction are using a truck, tractor or a multimachinery) ensure fast and simple purpose vehicle, RASCO has a ready mounting of RASCO ploughs on solution.

RASCO single-circuit, dual-circuit or triple-circuit hydraulics is the best choice for steering RASCO snow ploughs. For complete independence from the vehicle, it is possible to use an electrohydraulic power unit installed directly on the snow plough.

DURABILITY



Completely integrated production process protection offers RASCO ploughs an of RASCO snow ploughs, which begins unparalleled protection from corrosion with raw metal and ends with the final product, serves as a guarantee of their quality and durability.



The construction and design of RASCO plough beam and wings, robotically assisted production and the use of materials by verified suppliers result in robust ploughs made for the most difficult working conditions.

1 Plough wings

2 Plough beam

They are created using the 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. Reinforced double plough beam ensures the plough's resistance to vibrations and impacts. A high quality design enables the plough's durability and robustness.

3 Plough wing and beam connection

The connections can be firm (springs) or flexible (polyurethane connections). Spring connections enable more efficient clearing of deeper snow, while polyurethane connections allow for efficient and comfortable ploughing of surfaces with a large number of obstacles.

6 Hydraulic drive

4 Scrapers

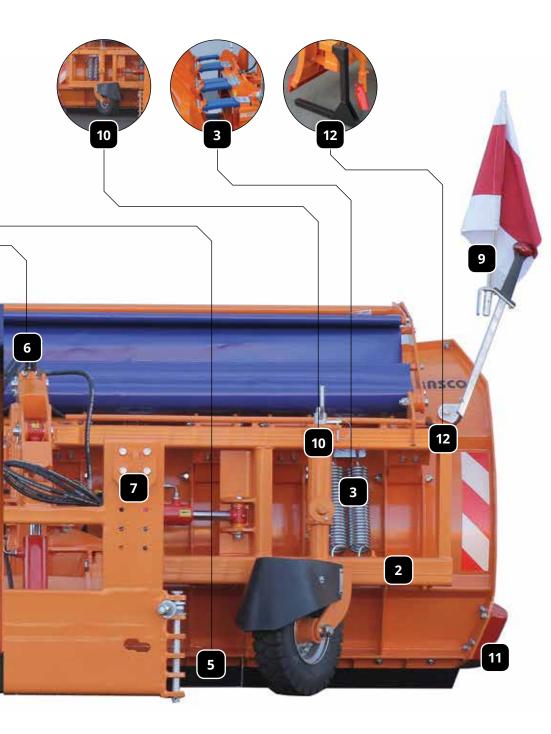
Ploughs are equipped with scrapers depending on the surface that is being cleared. RASCO ploughs can be equipped with steel, polyurethane, rubber or combined scrapers. The scrapers can be attached to wings using screws or steel clamps, which enable fast and simple replacement of scrapers that can be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

Snow ploughs can be powered by an installed electro-hydraulic power unit (EHAG) or hydraulics of the vehicle on which it is mounted. EHAG is a simple solution for mounting ploughs on vehicles without hydraulic installations, while RASCO hydraulics are a simple and reliable solution for controlling snow ploughs.





7 Mounting system

8 Protection from snow

9 Traffic signalisation

Enables the attachment of snow ploughs on vehicles in several ways – using different types of mounting plates for trucks and multi-purpose vehicles or by front three-point attachment on tractors and construction machines.

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.

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.

10 Supporting elements **11** Side bumpers

12 Storage outside the season

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.

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 plough scrapers, they are disposable and can easily be replaced.

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.

KALNIK XL

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 should be used in combination with the side BSP plough in an echelon ploughing configuration.

- Steel scrapers
- Polyurethane scrapers
- Combined 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



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4.0 - 5.0 m



Clears moderate snowfall.



Intended to be mounted on trucks.



Ideal for use on motorways in combination with a side plough.



Fast ploughing of deep snow

VELEBIT is a strong plough constructed for clearing deep snow at higher ploughing speeds. It is intended for clearing snow deeper than 50 cm covering open roads, and the wing height of 1200 mm makes it ideal for working in conditions of heavy snowfall. Efficient removal of snow from the surface that is being cleared is of extreme importance in such conditions, so VELEBIT has bilaterally raised wings that increase the distance at which the cleared snow is thrown.

Safe ploughing with VELEBIT at high speeds is supported by a range of installed elements that increase the efficiency of clearing snow. Attack angle, axial tilt and the available range of scrapers enable the adjustment to the cleared surface and following the terrain configuration. The VELEBIT plough can be safely used in all weather conditions with the help of supporting elements in the form of wheels and slide pads, swiveling scrapers, floating position, multisegmented wing design, protection from snow and additional signalization for better plough and vehicle visibility.

VELEBIT is manufactured from high quality steel with the use of robotic welding technology. This plough's robustness is especially useful for clearing heavy snowfall on open roads and motorways, where the plough's passing restores a free flow of traffic.

- Steel scrapers
- Double scrapers (second row with rubber scrapers)
- Polyurethane scrapers
- Combined scrapers
- Rubber scrapers
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs
- Storage legs with auxiliary wheels
- Electrohydraulic power unit







3.0 – 4.5 m





Clears heavy snowfall with ease.





Simple mounting on trucks and multipurpose vehicles.



Intended for removal of heavy snowfall from motorways, expressways and national roads.









KALNIK

Universal plough for open roads

Snow plough KALNIK is universal plough of wide application. Its size and power makes it suitable for open and wide motorways, but it is also excellent for city conditions. A wide choice of dimensions, scrapers and systems that can easily overcome obstacles enables its adjustment to various snow clearing conditions.

Efficient clearing of snow with KALNIK ploughs is enabled by mechanisms of transition over obstacles and good adjustment to the configuration of the cleared surface. The swiveling scraper mechanism, supporting elements in the form of wheels and slide pads, spring connections of plough's wings and beam and the floating position ensure soft transition over obstacles. The axial tilt system enables the plough to follow the configuration of the surface that is being cleared, and the anti-snow protective tarpaulin protects the windshield from snow spray and ensures safe and steady ploughing at higher speeds.

In order to ensure safe traffic flow, ploughs can be equipped with raised headlamps, additional reflective marks on the rear side of the plough and direction indicator lights mounted on outline lighting carrier.

Attack angle on KALNIK ploughs can be 22° or 15°. For more intense ploughing and easier clearing of heavier snowfall are recommended ploughs with a larger attack angle of 22°, while ploughs with attack angle of 15° are suited for less intense ploughing of snow at higher speeds.

- Steel scrapers
- Polyurethane scrapers
- Combined scrapers
- Rubber scrapers
- Clamping strips for scrapers
- Scraper swiveling elements
- Attach. system with lifting cylinder for front plate
- Attach. system for tractor three-point front hydraulic levers
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs
- Storage legs with auxiliary wheels
- Electrohydraulic power unit
- Lateral wing extension





3.0 – 4.5 m



Intended for clearing moderate snowfall.



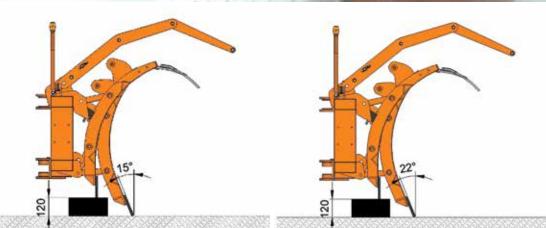
Simple mounting on tractors, trucks and multi-purpose vehicles.



Wide application for motorways, expressways, national, regional and local roads.







Efficiency at work

RASCO PRODUCT PROGRAM CONSISTS OF A WIDE RANGE OF SNOW PLOUGHS ADAPTED FOR EFFICIENT SNOW CLEARING.

The main elements of plough wing construction include multi-segmented design, attack angle and wing curve. Multi-segmented RASCO ploughs are able to overcome obstacles easily without compromising the quality of clearing snow. Deep and hard-packed snow is removed from roads with ploughs for aggressive ploughing with a larger wing attack angle, and raised side wings secure efficient ploughing of deep snow and the removal of cleared snow. The wing curve of RASCO ploughs ensures the removal of snow even at small speeds, which prevents the formation of snow banks by the side of roads. The axial tilt mechanism enables adjustment of the snow plough to the cleared surface. The plough follows the tilt of roads, which ensures a higher quality of clearing snow.

The selection of scrapers with which the plough is equipped improves the quality of clearing snow and reduces wear of the cleared surface. RASCO snow ploughs can be equipped with steel, rubber, polyurethane and combined scrapers.

The large RASCO product program of snow ploughs enables correct and easy selection of ploughs for all types of roads and weather conditions. The key functional characteristics of RASCO ploughs that contribute to their operation quality include the construction of plough wings, axial tilt, supporting elements and scraper type.





MOSOR PK

Quiet ploughing with wide application

MOSOR PK ploughs are highly elastic ploughs with a wide range of application, from open roads to narrow city streets. The system of elastic polyurethane connections of the plough's wings and beam enables very good adjustment to the road surface and good snow removal.

The plough is intended for operation on roads with a large number of obstacles, shafts, potholes, speed bumps and curb endings. Elastic connections between the plough's wings and beam significantly reduce vibrations during work and enable quieter operation. Reduced ploughing noise is accomplished through the use of a special material forming elastic connections that enable the return of the snow plough wing to the original position after an obstacle is crossed. Elastic connections of the plough's wings and beam, in combination with side bumpers which prevent the impact of side obstacles on wings, and polyurethane or rubber scrapers efficiently absorb vibrations and impacts and make MOSOR PK suitable for use in settlements and cities.

The plough's signalization and marking is performed in accordance with legal regulations in force in the country of use.

MOSOR PK ploughs can be mounted on tractors, trucks and Unimog vehicles, which makes this plough the universal solution for open roads, as well as for urban and rural areas.

- Steel scrapers
- Polyurethane scrapers
- Combined scrapers
- Rubber scrapers
- Clamping strips
- Attach. system with lifting cylinder for front plate
- Attach. system for tractor three-point front hydraulic levers
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs
- Storage legs with auxiliary wheels
- Electrohydraulic power unit











2.7 – 5.0 m



Removal of moderate snowfall.



Simple mounting on tractors, trucks and multi-purpose vehicles.



A wide performance range makes this plough an excellent choice for all types of roads.



Designed for variable road conditions

The MSP plough is intended for maintenance of various surfaces and clearing different types of snow. It is characterized by the combination of a steel grid structure and especially firm polyethylene wing surface, which accomplishes an optimal ratio of the plough's weight and robustness. The design of the wing curve enables better lateral removal of snow, and double swiveling scrapers ensure adaptability to all types of snow.

The single segment plough MSP is equipped with multiple safety elements for obstacles, which prevents damage to the plough and enables safe ploughing. The axial tilt mechanism enables complete adjustment to the surface that is being cleared, without damage to the surface, while the reflective marks, signalling devices and flags enable visibility of the plough and vehicle. Special design of the double swiveling scraper mechanism enables simple adjustment of the MSP plough to road conditions. The second row of scrapers can be hydraulically raised or lowered as required, so that the MSP plough can be configured for clearing hard-packed or melted snow.

The combination of steel and rubber or polyurethane scrapers and high resistance to torsion and bending make the MSP plough a suitable and safe choice for all types of surfaces and removal of all types of snow, including fresh, hard-packed and melted snow.

The MSP snow plough is available in two versions: standard and lighter (MSP-L). The lighter version is characterized by lower total weight of the plough and a choice between 3 different wing heights. Therefore, the MSP-L is suitable for mounting on lighter vehicles and clearing smaller amounts of snow.

- Steel scrapers
- Rubber scrapers
- Steel + polyurethane scrapers
- Rubber + steel scrapers
- Scraper swiveling elements
- Slide pads
- Auxiliary wheels
- Lateral wing extension
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Electrohydraulic power unit
- Plough wing height extension with protective rubber aprons (MSP L)
- Storage legs with auxiliary wheels (MSP L)







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Clears moderate snowfall with ease.



Simple mounting on tractors, trucks and multi-purpose vehicles.



Intended for maintenance of expressways, national, regional and local roads, as well as city roads.







Safe ploughing

MULTIPLE MECHANISMS PROTECT RASCO PLOUGHS AND VEHICLES FROM DAMAGE AND PROVIDE SAFETY TO THE USER.

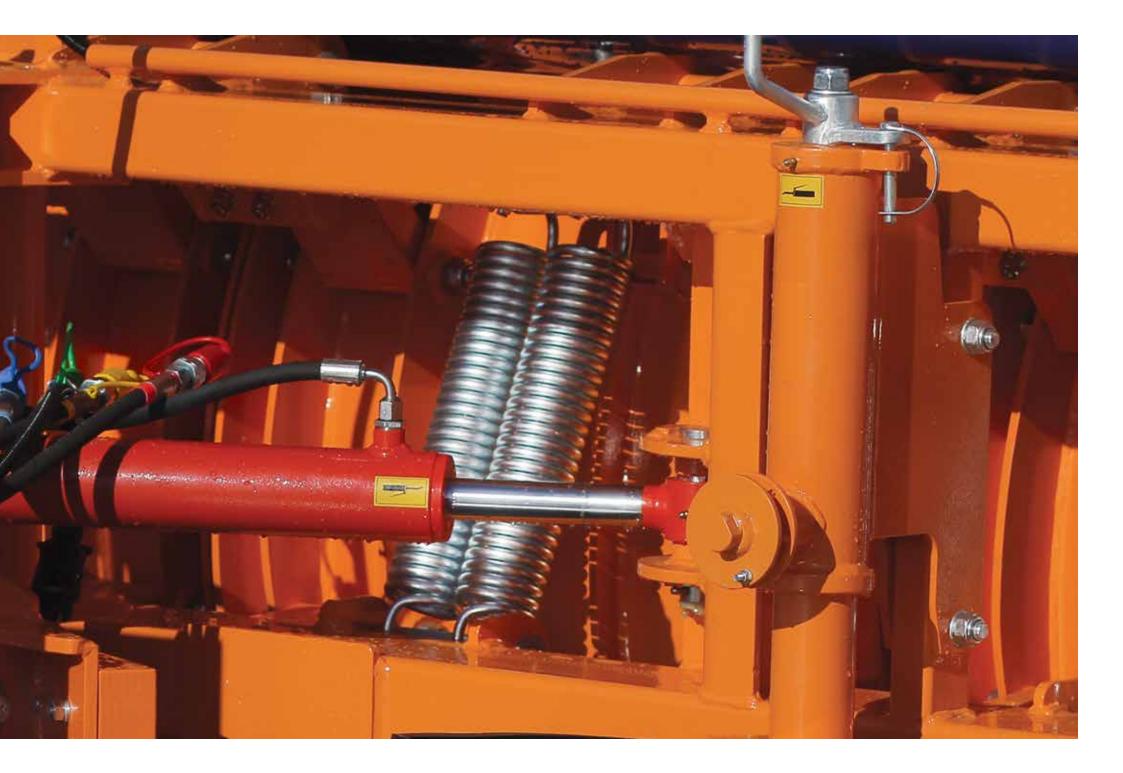
RASCO snow ploughs have a range of mechanisms for overcoming obstacles which are activated according to the height of obstacles that the plough encounters. If used correctly, mechanisms for overcoming obstacles which include supporting elements of the plough, swiveling scrapers, elastic connections of the plough's wings and beam and the floating position, protect the plough and vehicle from damage and guarantee user safety. Supporting elements (slide pads and wheels) prevent the plough from digging into the soft surface and extend the lifespan of scrapers. Swiveling scrapers are activated when smaller obstacles are encountered. Multisegmented wings and elastic connections with the plough's beam minimize the plough's vibrations when more demanding obstacles are encountered, and the floating system position elevates the whole plough in case of high obstacles.

For safe traffic conditions when snow is ploughed at higher speeds, an anti-snow protective tarpaulin serves to protect the windshield from the spraying of fine snow. Visibility of the vehicle and plough is secured with reflective marks on the plough's rear side, turn indicators on the outline lighting carrier and raised headlamps. These elements are implemented in accordance with the legal provisions in force in the country of use.

The exceptional work safety of RASCO snow ploughs is also confirmed by the CE certificate and the stringent german GS certificate.

RASCO snow ploughs are equipped with safety mechanisms which prevent damage to the cleared surface and protect the plough and vehicle, as well as ensure the driver's safety during work. The main safety elements of ploughs include mechanisms for overcoming obstacles, supporting elements, protection from snow spray and elements for ensuring plough and vehicle visibility.







Robust solution for local and regional roads

The SPTT snow plough is a universal plough of wide application. This multi-segmented plough with three independent segments which form the plough's wing is an excellent choice for clearing city streets and regional roads. The spring connection of the plough's wings and beam makes the SPTT plough a medium elastic plough and provides it with enough elasticity for transition over various obstacles, which is especially useful when clearing city streets.

When ploughing snow at higher speeds, an anti-snow protective tarpaulin serves to protect the windshield from the spraying of fine snow and ensures safe and steady ploughing. The snow plough and vehicle are protected from obstacles through the use of multiple safety elements, which, if used correctly, prevent damage to the snow plough and vehicle and keeps the user of the plough safe. In order to ensure safe traffic flow, the SPTT plough can be equipped with additional reflective marks on the rear side of the plough and turn indicators on the outline installation carrier.

Supporting elements are one of the safety elements installed on the plough. They are activated when the plough becomes unable to move due to the terrain constitution and prevent the plough's lodgement in the ground.

The plough can be mounted on a wide range of vehicles, which makes SPTT the universal solution for clearing regional and city roads.

- Steel scrapers
- Polyurethane scrapers
- Combined scrapers
- Rubber scrapers
- Scraper swiveling elements
- Attach. system with lifting cylinder for front plate
- Attach. system for tractor three-point front hydraulic levers
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs
- Storage legs with auxiliary wheels
- Electrohydraulic power unit





2.4 – 3.2 m



Easy clearing of moderate snowfall.



Fast and simple mounting on tractors, trucks and multi-purpose vehicles.



Intended for maintenance of expressways, national, regional and local roads, as well as city roads.







KOMBI

Professional ploughs for construction machines

Snow ploughs KOMBI are intended for removing snow from uneven roads in rural areas and from hard access terrains where construction machines are used. They are ideal for clearing snow-covered access paths of farms, remote households, forest paths and similar uneven terrains.

KOMBI ploughs are able to pass obstacles easily due to multisegmented wings which are raised to overcome obstacles in accordance with the terrain configuration. This plough characteristic is especially important on uneven terrains such as forest or mountain paths or farm pathways. Supporting elements in the form of wheels and slide pads prevent the plough from lodging into the ground, and encountering a larger obstacle activates the floating position of front levers of the vehicle on which the plough is mounted. The floating position system raises the plough in order to overcome the obstacle.

KOMBI ploughs are quickly and easily mounted on front attachment systems of construction machines, turning them into efficient winter service machines suited for a wide range of applications.

- Steel scrapers
- Polyurethane scrapers
- Combined scrapers
- Rubber scrapers
- Scraper swiveling elements
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs
- Storage legs with auxiliary wheels





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2.7 – 3.0 m



Enables clearing of moderate snowfall.



Mounting on construction machines.



Intended for maintenance of regional and local roads as well as city roads.





Product durability

COMPLETE CONTROL OF THE PRODUCTION PROCESS, FROM THE CONCEPT TO THE FINAL PRODUCT, RESULTS IN ROBUST AND LASTING RASCO PLOUGHS.

Robust design and the use of materials of proven quality guarantee the durability of RASCO snow ploughs. Plough wings are suspended on a double beam that ensures the plough's robustness and enables safe and quality ploughing. Due to their robustness, all RASCO snow ploughs are extremely durable and can be used even in the hardest working conditions.

Product durability is secured using the robotic welding technology. Ploughs are made using only full continuous weld seams, without "dead angles". Welding quality is achieved due to the use of robots in the process of welding all key plough elements. This is why all RASCO snow ploughs are strong, robust, long-lasting and stable during operation in the most demanding conditions and when overcoming obstacles.

The surface protection system SurfaceArmour enables strong protection from corrosion, as well as active and passive protection from abrasions, which guarantees a long lifespan of products even in the hardest working conditions. The use of epoxy and polyurethane paint signifies that RASCO products offer unparalleled protection from corrosion.

RASCO snow ploughs are designed for long-term use in the hardest working conditions. The durability is a result of the robust construction, high quality of built in elements, robotic welding technology and the leading system for surface protection.





MOSOR Light

Quiet ploughing of narrow roads

MOSOR Light is a light and swift plough intended for the maintenance of narrow roads. Due to the special construction of the ploughs wing curve, it enables fast and easy removal of snow from small and narrow areas. Despite its small dimensions, the plough is strong and robust and can easily overcome all obstacles that are characteristic for city roads.

Intended for clearing narrow surfaces, MOSOR Light has a range of elements that enable safe and efficient operation. Axial tilt, attack angle and the floating position enable complete adjustment to the cleared surface and efficient removal of snow. Side bumpers on wings protect the plough from damage due to curb impacts, while the supporting elements keep it from becoming lodged in the soft ground. Two independent wings with elastic polyurethane connections, outline lights, turn indicators and flags offer a high degree of work safety.

Unique elastic connections between the wing and beam of the MOSOR Light plough enable simple and quiet transition over obstacles and reduce vibrations, which, in addition to extremely quiet ploughing, enables high user comfort, thus making this plough an indispensable piece of equipment of city winter services.

- Steel scrapers
- Polyurethane scrapers
- Combined scrapers
- Rubber scrapers
- Attach. system with lifting cylinder for front plate
- Attach. system for tractor three-point front hydraulic levers
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Storage legs
- Electrohydraulic power unit







2.4 – 2.7 m



Simple removal of light snowfall.



Simple mounting on tractors and multipurpose vehicles.



Intended for removing snow from local and city roads.

BILO

Small dimensions and high efficiency

As the smallest plough in the product range, the BILO plough with compact dimensions is used on smaller and lighter vehicles, which entails easy manoeuvring in tight and narrow spaces. Designed as a single segment plough, it is ideal for removing snow at small distances.

BILO is equipped with a mechanism with triple security – swiveling scrapers enable the simple transition over obstacles, supporting elements in the form of wheels prevent the plough's lodgement, while the hydraulic system becomes activated when the plough has to be raised due to encountering large obstacles. The integrated system for absorbing impacts ensures minimal stress for the vehicle and its operator, while the side bumpers prevent damage to the plough due to contact with curb endings. Safety is also enhanced by the reflective marks and flags which make the plough noticeable and clearly visible to all traffic participants.

Multisegmented swiveling scrapers of the BILO plough enable excellent adherence to the surface, ensuring exceptional results of clearing snow and slush, while the axial tilt mechanism enables BILO to adapt to any surface. All of the above makes the BILO plough an indispensable tool for simple manoeuvring on sidewalks, parking lots and narrow streets in urban and rural areas.

- Steel scrapers
- Polyurethane scrapers
- Rubber scrapers
- Scraper swiveling elements
- Auxiliary wheels
- Outline signalling
- Flags
- Supporting leg
- Three-point attachment to levers of front tractor hydraulics
- Utility triangle
- Mounting adaptations for various small multifunctional vehicles
- Electrohydraulic power unit
- Attach. system with lifting cylinder for front plate













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1.6 – 2.4 m



Fast and simple removal of light snowfall.



Mounting on tractors and multi-purpose vehicles.



Intended for maintaining local and city roads – squares, sidewalks, bike paths, parking lots.

Simplicity of use

ALL RASCO SNOW PLOUGHS ARE CONSTRUCTED FOR SIMPLE USE AND MAINTENANCE.

The plough is controlled directly from the vehicle cabin. Plough control can be achieved through installed vehicle hydraulics or the electrohydraulic power unit installed directly on the snow plough. The basic functions for plough control include lifting, lowering, left and right rotation and setting in the floating position. Depending on the options of the drive system, all RASCO ploughs have the possibility of relieving overload which reduces pressure on the cleared surface. This reduces consumption of fuel and improves vehicle manoeuvrability.

Mounting of the plough on the vehicle is fast and simple. Standardized attachment systems for mounting plates and three-point attachments ensure fast mounting to all types of vehicles, from heavy trucks, tractors and construction machines, to multi-purpose and small utility vehicles. Placement of ploughs on storage legs or auxiliary carts facilitates storage outside the season, manipulation and remounting, and protects rubber and polyurethane scrapers from deformation. The attachment of scrapers to wings by means of screws or steel clamps enables fast and simple replacement of scrapers that can be done by one person.

All RASCO snow ploughs are constructed for simple maintenance with minimal costs.

Control, manner of mounting and demounting, possibility of use on all types of vehicles and easy scraper replacement are the key elements for the simple use of RASCO snow ploughs.





VERTUS

Variable geometry ploughs

VERTUS ploughs are intended for a wide range of applications due to variable wing geometry which enables several different plough configurations. In the diagonal position, the plough removes snow to the left or right side; the position "A" is used for first passage through deep snow and clearing narrow passes, while the "V" position is intended for snow collection without lateral removal.

Intended for clearing snow in urban areas, the VERTUS ploughs have numerous mechanisms that guarantee safe and efficient clearing of snow. The swiveling scraper mechanism ensures simple transition over obstacles without damage to the road surface, supporting elements prevent the plough from digging into the ground and protect the scrapers from damage, while reflective marks make the plough visible even in the most difficult weather conditions. Bumpers on each wing protect the plough from damage when encountering obstacles such as walls or high curbs.

Variable geometry of VERTUS ploughs makes them suitable for performing several different winter service tasks, from a plough for making passages to a plough for collecting snow. The plough is primarily intended for cities with narrow streets, mostly covered with parked vehicles, where its variable geometry and adaptability to the width of the area being cleared is put to best use.

CHOICE OF PLOUGH EQUIPMENT

- Steel scrapers
- Combined scrapers
- Rubber scrapers
- Scraper swiveling elements
- Attach. system with lifting cylinder for front plate
- Attach. system for tractor three-point front hydraulic levers
- Attach. system for various small multifunctional vehicles.
- Slide pads
- Auxiliary wheels
- Protection from snow
- Reflective marks
- Turn indicators
- Outline lights
- Flags
- Electrohydraulic power unit
- Ploughing control BASIC
- Ploughing control SYNCRO
- Ploughing control RASCOMATIC



I◀

1.8 – 3.6 m



Variable wing geometry enables clearing high snow.





Ploughs from the VERTUS family can be mounted on trucks, tractors and multi-purpose vehicles.



Intended for clearing airports, regional and local roads, as well as city streets and areas.

BSP

High productivity for clearing motorways

The lateral snow plough BSP is intended for fast and efficient removal of snow from motorways. A vehicle with a built in front and side plough accomplishes a larger total width of clearing snow, which increases the efficiency during each passage. The plough is mounted on the right side of the vehicle by attachment to the side mounting plate. The attachment and the plough are designed in such a way to transfer load when clearing snow to the vehicle chassis without the risk of damage and deformation

For high efficiency and safety at higher speeds of ploughing, the BSP plough is equipped with swiveling scrapers that enable transition over obstacles, while the axial tilt enables adjustment to the surface that is being cleared. Reflective marks and additional lights on the plough enable safe traffic flow for all participants.

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

CHOICE OF PLOUGH EQUIPMENT

- Steel scrapers
- Combined scrapers
- Scraper swiveling elements
- Hydraulic protection during transport
- Reflective marks









3.4 m



Clears moderate snowfall.



Intended to be mounted on trucks.



Ideal for removing snow from motorways in combination with a front plough.

OTHER EQUIPMENT Snow clearing brushes

Aside from professional snow ploughs, RASCO's product program also includes brushes for clearing snow from traffic surfaces. The design of these devices is adjusted for mounting on various types of trucks.

The choice of brush model depends on the needs of users and snow clearing conditions. RASCO offers several different brush designs, intended for clearing various snow types and for various conditions on surfaces to be cleared.

The MKK intermediate shaft brush for trucks is available in several dimensions, and it is used for clearing leftover snow after the passage of snow ploughs or for independent clearing of smaller amounts of fresh and dry snow.

All RASCO brushes are designed and constructed for efficient, simple and safe removal of snow from roads, and their quality of construction and robustness serve as a guarantee of durability.







Intermediate shaft brush for trucks

The MKK intermediate shaft brush for trucks is intended for thorough cleaning of public traffic surfaces. It is specially designed for clearing snow remaining in uneven parts of roads after the passage of snow ploughs, but can alternatively be used as an independent device for clearing snow when there are smaller amounts of fresh and dry snow on the road.

MKK is available in two widths and two diameters and is equipped with a number of mechanisms, making it perfectly safe for work, both for the user and the surroundings. The clearing is always performed in the floating position, preventing overload of brush elements and possible damage. The device also has an axial tilt system that enables adjustment to the surface tilt in relation to the vehicle by $\pm 2.5^{\circ}$. For protection from small sputtering particles, especially at higher vehicle speeds, the brush is equipped with a front rubber curtain and an upper steel sheath.

For maximum efficiency when clearing snow from uneven surfaces, the MKK brush is used with a front snow plough. By clearing leftover snow after the passage of snow ploughs, the amount of salt required for subsequent spreading is reduced, thus reducing operative costs and protecting the environment and traffic infrastructure.







Clearing of fresh and dry snow.



Simple mounting on trucks.



Ideal for removing snow from expressways and regional roads.

UPGRADES

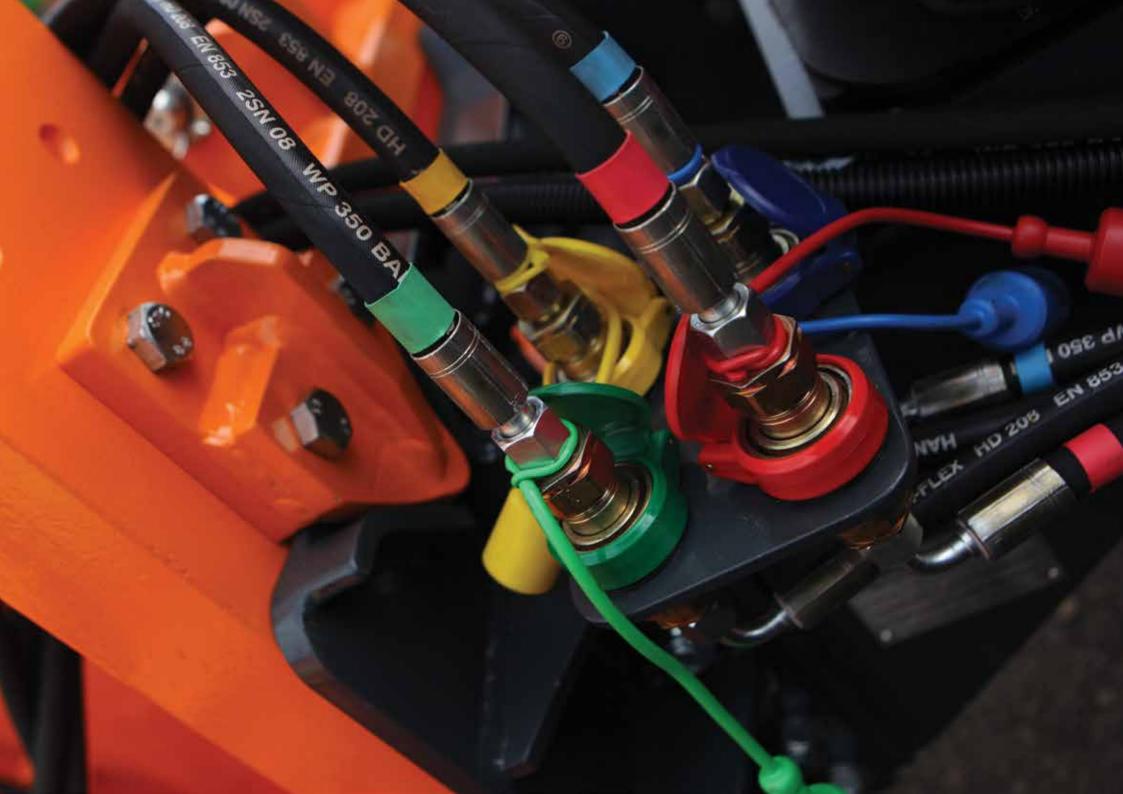
Upgrades for all types of vehicles

Efficiency, safety, durability and simplicity of use of RASCO snow ploughs largely depends on the manner of their mounting on vehicles, vehicle and plough marking and steering mode. Within its product range, RASCO offers a wide range of upgrades for different types of vehicles in the form of front and side mounting plates, hydraulic systems and electrical installation upgrades.

Front and side mounting plates made in accordance with the current standards enable simple and fast mounting of snow ploughs and ensure safety during ploughing. Hydraulic systems provide ploughs with necessary drive power and guarantee simple control of attachments, while electrical installation upgrades provide very good visibility of the vehicle and snow plough even in the most difficult working conditions.

RASCO experts approach each project of adding upgrades to the vehicle individually in order to secure complete adjustment of the upgrade to the vehicle and avoid damage and unnecessary strain of the chassis, power train and other elements of the vehicle.





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 mounting of snow ploughs on all types of vehicles.







Electrical installation upgrades

For complete efficiency and uncompromised safety during work, RASCO offers the possibility of installing additional electrical installations that provide better visibility of the device and attachment for all traffic participants. Rotating signal lights are mounted on the vehicle cabin in order to ensure better visibility of the vehicle in traffic.

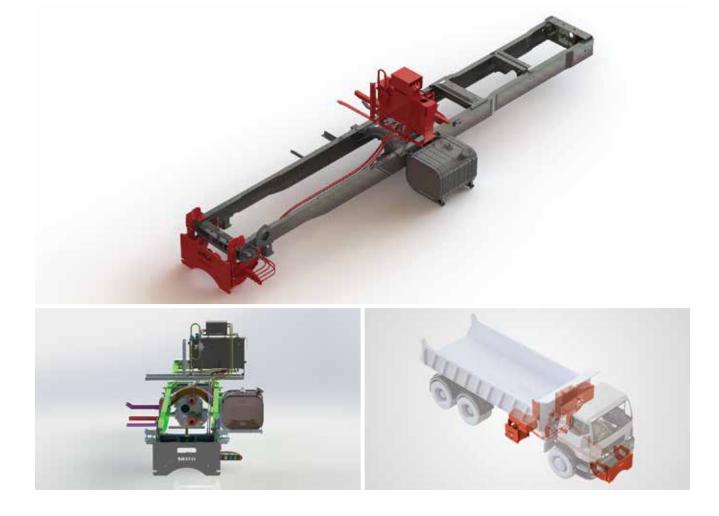
Raised headlamps, mounted on the vehicle above attachments, provide the user with a better overview of the clearing area in front of the vehicle.

Mounting of outline lights that guarantee snow plough visibility is possible after the installation of an adequate socket on the vehicle.



Hydraulic systems

RASCO offers a wide choice of hydraulic upgrades made according to the current standards and designed to power devices such as front and side snow ploughs, intermediate shaft brushes, rotary salt spreaders, front ramps for washing roads, vacuum cleaners and spreaders for liquid spreading. The hydraulic system is constructed in accordance with the number and type of connections and an appropriate control unit is added to it depending on its design. High quality design of the hydraulic system in combination with the appropriate control unit guarantees simple use of all connections in all work conditions.



EDH 5







EDH 11



KH5R



LS 3







POST-SALES SUPPORT

Along with a high-quality product, every RASCO solution also offers a fast and reliable post-sales support

Post-sales support is provided by educated staff and based on an IT system that guarantees consistent processing of customer claims. All employees in the Customer support department have passed through all manufacturing stages during their career in RASCO and are very well acquainted with the functionality of RASCO machines and equipment. The post-sales team is always ready to respond to all claims and inquiries of RASCO equipment users. A special group of RASCO service experts trains the service staff of RASCO partners across Europe, in order to secure the same level of service in all represented markets.

The educated consulting team with many years of experience is available for any inquiries related to devices, the service team resolves device malfunctions, while spare part warehouses guarantee a minimised time from the occurrence of malfunctions to the return of device functionality.

Constant focus on customer and partner support for the duration of product lifespan is the key to RASCO's success. This is why resolving malfunctions are followed by a detailed investigation of causes in order to take corrective measures to avoid any future occurrence of such malfunctions. Information gathered from customers is used to improve products and the manufacturing process.

	Minimum mass of device (kg)*	Clearance width (m 30º	m) at an angle of 36º	Width at the scrapers (mm)	In	Plo nner wii	ough he ng		ım) uter wiı	ng	Number x width of section (mm)	Atta	ack an	ngle	Rotation angle
KALNIK XL	,	· · · · · ·		· · · · · · · · · · · · · · · · · · ·											
5.0	1350	4330	-	5000		1100		Left: 1	100 Right	:1200	5 x 1000	8	3° / 15'	0	30°
VELEBIT															
3.0	1050	2600	2430	3000	_						3 x 1000				
3.2	1140	2770	2590	3200							4 x 800				
3.4	1160	2950	2750	3400							2 x 800 + 2 x 900				
3.6	1200	3120	2910	3600		1200			1350		4 x 900		25°		30° ÷ 36°
4.0	1250	3460	3240	4000							4 x 1000				
4.5	1390	3900	3640	4500							5 x 900				
KALNIK															
3.0	940	2600	2430	3000	_						3 x 1000				
3.2	1000	2770	2590	3200							4 x 800	450 (220			
3.4	1035	2950	2750	3400							2 x 800 + 2 x 900				
3.6	1075	3120	2910	3600		1100			1200		4 x 900	15° / 22º		-	30° ÷ 36°
4.0	1140	3460	3240	4000							4 x 1000				
4.5	1200	3900	3640	4500							5 x 900				
MOSOR PK															
2.7	700	2340	2180	2700							3 x 900				
3.0	840	2600	2430	3000					3 x 1000						
3.2	900	2770	2590	3200							4 x 800				
3.2/3	900	2770	2590	3200							2 x 1000 + 1 x 1200				
3.4	940	2950	2750	3400		1100		1200			2 x 800 + 2 x 900	15° / 22°		<u>)</u> 0	30° ÷ 36°
3.6	980	3120	2910	3600							4 x 900				
4.0	1100	3460	3240	4000							4 x 1000				
4.5	1250	3900	3640	4500							5 x 900				
5.0	1320	4330	4050	5000							5 x 1000				
MSP												S	SP	RS	
2.7	810 ÷ 850	2340	2190	2700							3 x 900				
3.0	830 ÷ 870	2600	2430	3000							3 x 1000				
3.2	850 ÷ 890	2780	2590	3200	1(000/110	10	1	050/115	0	4 x 800	15°	15°	-5°	30° ÷ 36°
3.4	870 ÷ 910	2950	2750	3400	1	0007110	50	1	0007112	0	2 x 800 + 2 x 900	1.5	45°	/ 15	20 . 20
3.6	880 ÷ 930	3120	2920	3600							4 x 900				
4.0	930 ÷ 950	3460	3240	4000							4 x 1000				
MSP L					S	R	RS	S	R	RS		S	R	RS	
2.7	550 ÷ 700	2340	2185	2700							3 x 900				
3.0	580 ÷ 730	2600	2425	3000	1070	000	1050				3 x 1000				
3.2	600 ÷ 760	2770	2590	3200	1070 /	990 /	1050	870	790	850	4 x 800	15°	-7,5°	-7,5° /	30° ÷ 36°
3.4	630 ÷ 790	2945	2750	3400	, 1170	1090		0/0		0.50	2 x 800 + 2 x 900		.,	15	50 . 50
3.6	670 ÷ 840	3120	2910	3600							4 x 900				
4.0	700 ÷ 870	3465	3235	4000							4 x 1000				

	Minimum mass of device (kg) *	Clearance width (30°	mm) at an angle of 36°	Width at the scrapers (mm)	Plough height Inner wing Outer wing	Number x width of section	Attack angle	Rotation angle
SPTT								
2.4	820	2080	1940	2400		3 x 800		
2.7	860	2340	2180	2700	1100	3 x 900	- 18°	30° ÷ 36°
3.0	900	2600	2430	3000	1100	3 x 1000		30" - 36"
3.2	920	2770	2590	3200		2 x 1100 + 1 x 1000		
КОМВІ								
2.7	700	2340	-	2700	1100	3 x 900	18°	30°
3.0	750	2600	-	3000	1100	3 x 1000		
MOSOR Light								
2.4	400	2080	-	2400	200	2 x 1200	- 15°	30°
2.7	460	2340	-	2700	800	2 x 1350	15	
BILO								
1.6	230	1385	-	1600		4 x 400		
1.8	245	1560	-	1800		2 x 400 + 2 x 500		
2.0	255	1730	-	2000	750	5 x 400	20°	30°
2.2	275	1905	-	2200		3 x 400 + 2 x 500		
2.4	295	2080	-	2400		6 x 400		

	Minimum mass	Width at the scrapers	Plough	height	Attack angle	Rotation angle		
	of device (kg) *	width at the scrapers	Inner wing	Outer wing	Attack aligie	Rotation angle		
VERTUS								
1.8	290	1800	660	800	0°			
2.0	330	2000	660					
2.4	350	2400	750	920				
3.0	780	3000	960	1100		40°		
3.2	820	3200	960					
3.4	850	3400	1100	1250				
3.6	890	3600	1100					

	Minimum mass	Plough height		Clearance width (mm)	Width at the scrapers	Attack angle	Rotation angle	
	of device (kg) *	Inner wing	Inner wing Outer wing		(mm)	Attack aligie		
BSP								
3.4	730	810	1250	2400	3400	25°	45°	

	Total width of brush (mm)	Clearance width (mm) at an angle of 30°	Brush diameter (mm)	Working revolution speed (rpm)	Maximum operating speed (km / h)	Minimum mass of device (kg) *
МКК						
2.7 - 450	2700	2050	450	300 - 500	30 -	275
2.7 - 550	2700	2050	550			295
3.2 - 450	3200	2400	450			290
3.2 - 550	3200	2400	550			310



