

25 YEARS

MACHINES FOR CONSTRUCTION AND MAINTENANCE OF ROAD AND AIRPORT SURFACES

INCREASE EFFICIENCY. TAKE THE ADVANTAGE.
PRODUCTION PROGRAM 2014



HYDROG



ABOUT US

HYDROG ZBM IS ONE OF THE LEADING EUROPEAN MANUFACTURERS OF SPECIALISED MACHINES AND TOOLS FOR CONSTRUCTION AND MAINTENANCE OF ROAD AND AIRPORT SURFACES. THE COMPANY WAS ESTABLISHED IN 1989 AND HAS BEEN CONSISTENTLY BUILDING ITS BRAND IMAGE EVER SINCE.

The company's main attributes include: production at the level of around a thousand machines per year, deliveries to markets in Europe, Asia and Africa, 3 production halls, three-dimensional support system for engineering processes, modern technical infrastructure, a few dozen thousand positions in warehouses of spare parts, immediate reacting service. These strengths ensure that purchasing Hydrog machines is the best investment.

All the machines are prepared and improved to ensure that they increase the efficiency of your work and reduce your costs. All that to achieve even more at smaller expense.

Creation of new innovative solutions is our passion. We assume that a machine is supposed to facilitate and improve your work – therefore development of Hydrog machines results from many years of experience at various construction sites, with various users, with different needs.

The users of Hydrog machines know that we are always available when they need us. The Hydrog brand is supported by the best specialists in the industry of road machines. They work not because of a sense of obligation but because of passion and belief that their commitment will be appreciated by professionals in construction and municipal industry.



HYDROG

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ROAD WIDENERS DG-1500 AND DG-2000



TECHNICAL DATA

Materials	cold aggregate and hot asphaltic mass with temperature 200 °C
Spreading width	200 - 2.500 mm hydraulically adjustable
Spreading height	+300 / -300 mm relative to the road, hydraulically adjustable
Spreading slope	+10 / -10% hydraulically adjustable
Working speed	20 - 50 m/min
Receiving hopper shape	variable geometry - adapts to the tipper
Material transfer	conveyor belt with smoothly adjustable speed
Controls	low voltage ergonomic desktop
Combustion engine	Diesel Perkins 26 HP or 34 HP liquid cooled
Possible carriers	excavator-loader, grader, tractor, Unimog etc.
Equipped with	system of traffic track compensation solid rubber supporting wheels front roller bumper with SOFT CONTACT system
Optionally	rear disc brush blade vibrator control panel in the cabin of the carrier

YOU CAN HAVE MORE THAN YOUR COMPETITORS

Explore the most popular road widener on the market. Benefit from the most robust engineering of its kind and the best power required for spreading both cold aggregates and hot asphaltic mass. Work even more comfortably and safely thanks to the results of the Soft Contact system.

INCREASE EFFICIENCY, EARN MORE

These machines are intended for highly efficient spreading of particular construction layers of different materials: aggregate, broken stone, gravel, destruct and hot asphaltic concrete mass. They significantly increase efficiency of work as compared to manual spreading or using a grader. With the use of a Hydrog road widener, three employees may even spread over ten kilometres of a shoulder within one shift. Aesthetics of the spread layer has no equal and the amount of spread material is exactly adapted to the need.

CHOOSE THE MOST TESTED AND RELIABLE MACHINE

Hydrog was one of the pioneers in road widener production. More than 250 machines work successfully in different countries in Europe and Asia (including Germany, Great Britain, Russia, Lithuania, Latvia, the Netherlands, Romania, Armenia). Hydrog road wideners are chosen by both large multinational companies and also by smaller companies from road construction industry.



ROAD SHOULDER CUTTER HYDROG SP-1200



ROAD AND CONSTRUCTION MACHINES

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TECHNICAL DATA

Cutting width	1.200 mm
Cutting depth	12 cm hydraulically adjustable
Shoulder slope	up to 20% hydraulically adjustable
Cutting speed	200 - 1.600 m/h
Cutting tool	milling auger + shaping disk
Components drive	hydraulic pumps driven by tractor PTO shaft
Efficiency	up to 100 m ³ /h
Transfer of material	on conveyor directly into waiting truck
Control	the control panel in the cabin of the carrier
Weight	2.600 kg + conveyor 650 kg
Optional	cylindrical rear brush

ROAD DRAINAGE - UNDERESTIMATED BUT VERY IMPORTANT

Hydrog SP road shoulder cutters are intended for cutting and shaping roadside verges in order to prevent water ponding. After the road shoulder is cut the destructive impact of ponding and freezing water on the road surface is practically eliminated. The total investment value of purchasing and exploitation of the tractor together with the Hydrog SP road shoulder cutter is significantly lower than the costs of reconstruction of the road surface which was destroyed by the ponding water. The tractor can of course also be used as a carrier for other tools.

NEW ROAD SHOULDER CUTTER - STRONGER AND MORE EFFICIENT

The high efficiency of Hydrog SP road shoulder cutter has been confirmed by many users in Polish and German markets. The latest version of the cutter has a reinforced structure and easily copes with shaping of neglected roadsides. The new shape of auger cutter overlays guarantees more efficient cutting than ever before. The shaping disk leaves edges of the roadside flat and neat. Smooth adjustment of the conveyor ejection range enables filling of the entire drop side load body of the waiting truck with removed material. Hydrog SP road shoulder cutter can be equipped with a rear cylindrical brush for sweeping the road surface behind the cutter.



EMULSION SPRAYERS HYDROG SH PREMIUM



TECHNICAL DATA

Capacity	3.000, 5.000, 6.000, 8.000, 10.000, 12.000 l
Spraying tool	double rear bar or manual lance
Spraying width	from 1 nozzle up to 5 meters
Width adjustment	stepless, hydraulic (double covering system)
Spraying performance	0,10 - 2,55 kg/m ² with max. width
Performance adjustment	automatic, independent from driving speed
Control	from the driver's cab - a desktop with touch panel
Emulsion heating	automatic - oil burner
Circulation cleaning	automatic, with compressed air (own compressor)
Combustion engine	Diesel Perkins 34 HP liquid cooled
Spraying reports	recording in the memory and printing on the printer

YOU TOO CAN AFFORD PREMIUM CLASS

Hydrog SH emulsion sprayers from the Premium product line produce the highest standards in the range of: structure modernity, spraying precision, automatic spraying efficiency adjustment, comfort and protection against operator error from within the driver's cab, and in particular - reliability.

EXTRA PRECISE EMULSION DOSING

These machines meet the stringent requirements related to the emulsion dosage per square meter both in interlaminar spraying and surface regeneration with the so-called surface dressing method.

INNOVATIONS THAT REDUCE OPERATING COSTS

Unusual innovative market solutions make SH sprinklers from the Premium product line even more environmentally friendly and cost effective, resulting in higher profit for you. For example, during the heating of a full emulsion tank, the burner will consume approx. 10 l of oil less than sprayers of other producers. After sprinkling the machine will automatically clean the pump, installations, and spraying bars from the emulsion remnants. And this is not all. Many other modern solutions will positively surprise you.



MODERN AND EXTRA PRECISE



ROAD AND CONSTRUCTION MACHINES 05

THE WIDEST RANGE OF PERFORMANCE

Adjustable spraying efficiency 0,10 - 2,55 kg/m² (full width) -both interlaminar spraying and surface dressing method.

REAR SPRAY BAR

Hydraulically extendible, double. Spraying width continuously adjustable up to 5 meters. Automatic switching on of nozzles while unfolding. Effective pneumatic cleaning with 100% recovery of the emulsion.

MANUAL LANCE

With a separate emulsion circuit (2 machines in 1). Power cord with swivel to prevent tangling. Easy access from the side of the sprinkler.

COMBUSTION ENGINE

Perkins Diesel 34 HP, liquid cooled, 3-cylinder. One of the most enduring and most economical units in it's class in the world.

EMULSION TANK

Elliptic reinforced inside. Insulation and aluminum cover. Capacities: 3, 5, 6, 8, 10, 12 thousands of liters. Chassis load compensation system.

EMULSION PUMP

Rotational positive displacement pump. Extra tight, hydraulic drive. EASY START system and self-cleaning.

COMPRESSOR

Built-in, automatic, activates only if the air pressure drops. Chassis pneumatics is not used.

MOST EFFICIENT HEATING

Super efficient system with an automatic burner, and double fire protection. Operation also possible with power supply from the outside 230 V 50 H.

CONTROL AND TV VIEW

Desktop with an LCD touch panel and a printer. Spray bar control from the driver's cabin. Intuitive system excludes operator error. View on spraying on the monitor in the cabin.

ON-BOARD COMPUTER

It shows the real spraying performance, emulsion quantity, engine rotations, pump rotations, pressure of compressed air. Registration of parameters in the memory.

OPERATING HOURS COUNTERS

Separate for combustion engine and burner. Full control over fuel consumption. Optional GPS modules. As standard interface for computer diagnostics significantly accelerating maintenance of the machine.

SPRAYING ACCURACY

38 linear nozzles in the double covering system. No striping effect. Spraying with the optimal pressure limiting emulsion dusting.

SPRAYING BAR HEATING

Circulatory, with heated emulsion. Labyrinth system with uniform flow of emulsion stream at each nozzle.

MOUNTING ON CHASSIS

Mass distribution complies with the limit of chassis allowable load, provides comfort and safety. Registration as a special vehicle. Side slats, anti-roll-over bar, rear signs, road lighting and others.

EMULSION SPRAYER HYDROG SR KOMPAKT



TECHNICAL DATA

Capacity	2,000, 3,000, 4,000 l (depending on the version)
Spraying tool	rear spray bar or manual lance
Spraying width	from 1 nozzle up to 2,5 m. + 1 meter optional widening
Width adjustment	gradual, every 25 cm
Spraying performance	0,10 - 1,55 kg/m2 with maximum width
Performance adjustment	manual by pump rotation and by driving speed
Control	from the driver's cab and desktop at the back
Emulsion heating	automatic - oil burner
Circulation cleaning	manual - compressed air
Combustion engine	Briggs & Stratton Vanguard 23 HP petrol or Diesel Perkins 26 HP
Chassis	GVM 6-8 t truck or trailer

SOMETIMES SIMPLER MEANS BETTER

If you do less demanding work on local roads or construction sites not requiring sprinkling reports, Hydrog SR Kompakt sprayers are just for you. Their features include: sprinkling at the width of 2.5 m, automatic emulsion heating, automatic compressor, smooth emulsion pressure adjustment, and pump rotational speed. The machine has a simple structure whilst the components are of the highest quality. All that comes at a very affordable price.

PRECISE EFFICIENCY OF SPRAYING

Hydrog SR Kompakt sprinklers are equipped with a precise digital indicator of current sprinkling performance. On the basis of the speed and emulsion pressure sensors and the sprinkling width, it calculates the value of the performance. The sprinkler requires only one-off factory calibration of the system. This ensures that there is exactly as much emulsion on the surface as it is necessary, not too much, not too little.

SIMPLE AND INTUITIVE CONTROL

To operate Hydrog SR Kompakt sprinklers only one driver/operator is needed. Spray bar control is in the cabin. The operator can activate sprinkling nozzles in any configuration, both before sprinkling and dynamically during the operation. Spraying performance is adjustable by emulsion pressure in the system.



EMULSION SPRAYERS HYDROG SK MINI



ROAD AND CONSTRUCTION MACHINES

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TECHNICAL DATA

Emulsion tank	500 / 1.500 / 2.000 l (depending on the version)
Spraying tool	with emulsion level indicator on the cover manual lance with linear or circumferential nozzle with the turntable and the shut-off valve
Emulsion pump	gear pump
Pump drive	separable mechanic (or optional hydraulic)
Burner	oil, automatic with digital controller
Combustion engine	Briggs & Stratton Vanguard 13 HP petrol or diesel Yanmar 9 HP
Optionally	compressor with compressed air tanks
Lighting	working, warning, road
Chassis	1- or 2-axis trailer or truck

IF YOU NEED ONLY MANUAL LANCE

Hydrog SK Mini sprinklers are very popular among companies involved in ongoing maintenance of local roads, partial repairs etc. Their features include: insulated emulsion tank, automatic heating of emulsion by a safe oil burner, pump performance matched with the sprinkling by manual lance. In many cases this will be the machine that will satisfy the users needs without any problems.

RELIABLE SOLUTIONS

Despite the fact that these are the smallest machines in the Hydrog sprayers product line, the quality of components and accuracy of execution do not differ from larger sprayers. The machine is driven by a reliable engine: either Briggs & Stratton petrol or Yanmar diesel. The sprinkler can either have its own built-in compressor working in automatic mode, or instead use the towing vehicle pneumatics. The manual lance is located on the machine side. It is equipped with swivel connector to prevent the wire from tangling.

IT IS JUST THE QUALITY OF HYDROG

The aesthetics of execution will not raise any reservations. The tank cover is made of aluminium. The steel structure is painted with three layers after an earlier shot blasting. The combustion engine chamber is designed with clear, easy access to the components which require regular maintenance.



CRACKSEALING MACHINES HYDROG ZSK-300 AND ZSK-500



TECHNICAL DATA

Capacity	300 l or 500 l (depending on the version)
Mass loading	through the top opening with splash-proof opening cover
Mass heating	indirectly by oil-jacketed tank
Burner	oil, automatic controlled
Heating temperature	maximum up to 240 °C
Mass mixing	vertical mixer with hydraulic drive
Mass dosing drive	pump with hydraulic drive
Mass dosing tool	heated manual lance
Combustion engine	Briggs & Stratton Vanguard 23 HP petrol or Perkins Diesel 26 HP
Optionally	compressor with compressed air tanks
Weight without chassis	1.220 kg (ZSK-300) and 1.680 kg (ZSK-500)

INTENDED USE

Hydrog ZSK-300 and ZSK-500 cracksealing machines are designed for joint sealing, closing the surface structure on the edges, crack repairs, sealing of elements' edges built in the road for example tram induction loops, sealing of "rail - concrete" joints etc.

APPLICABLE SEALING COMPOUND

Hydrog ZSK-300 and ZSK-500 cracksealing machines can use sealing compound in solid form (i.e. in cubes) and liquid form, asphalt (also modified with polymers) or other similar materials which operating temperature is compatible with the capabilities of the machine. These cracksealing machines can successfully use the densest sealing compounds available on the market.

PRINCIPLE OF OPERATION

The operator loads the sealing compound to the tank through a safe splash-proof opening cover. Mass heating to working temperature is carried out indirectly in an oil-jacketed tank - without the risk of overheating or scorching. At the same time the manual lance and the mass pump are being heated in the starting compartment. Molten sealing compound is precisely applied by a lance using one of the available tips. The slot may be pre-cleaned with compressed air from the optional compressor.



CRACKSEALING MACHINES HYDROG ZSK-40



ROAD AND CONSTRUCTION MACHINES

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TECHNICAL DATA

Capacity	40 l
Working element	drain nozzle
Performance adjustment	manual, continuous (by opening the nozzle)
Mass heating	indirect gas
Burner fuel	propan butan
Max. temperature	240 °C
Heating time	30-40 minutes (full tank, depending on mass type)
Equipment	mass temperature indicator hand-held torch for starting and slot heating mass mixer module for filling of edges module for filling of joints (road seams)
Dimensions / weight	1.260 x 550 x 1.020 mm / 95 kg

INTENDED USE

Hydrog ZSK-40 cracksealing machines are designed to fill slots, grooves, dilatation and cracks by liquid cold and hot sealing compound. They are often used on roads, bridges, near the railway and tram tracks, in repairs of airport surfaces, and building of inductive loops.

PRINCIPLE OF OPERATION

Sealing compound is heated by the main gas burner located under the tank (indirect heating by hot plate). Machine has a security gas shutoff when the flame goes out. Mass is continuously dosed by the stepless opened drain nozzle into the slot or on the edge. Tank is equipped with the mixer and mass thermometer.

PRECISE FILLING OF THE CRACK

The cracksealing machine has three solid rubber support wheels (including torsional), which enable precise handling of the machine even over the most irregular cracks. Additional hand-held torch is used to initiate heating of the nozzle and slots before sealing. The machine is equipped with a gas bottle with a capacity of 11 kg.



ASPHALT HOT BOXES WITH FEEDING SCREW

HYDROG TR-3H, HYDROG TR-4H



TECHNICAL DATA

Capacity	asphaltic concrete: 3,0 or 4,5 m ³ bitumen emulsion: 220 l (optional)
Insulation and covering	100 mm mineral wool + aluminum sheet
Asphalt loading	through the upper loading opening with hydraulic cover
Asphalt feeding system	feeding screw with reverse
Feeding screw drive	hydraulic with overload protection
Heating	oil burner with automatic control
Combustion engine	Briggs & Stratton Vanguard 23 HP petrol or diesel Perkins 26 HP
Additional equipment	hydraulic output (20 l/min, 150 bar) bituminous emulsion sprayer with lance compressor with compressed air tanks trailer or truck GVW > 18 t
Chassis	
Weight without chassis	TR-3H: 2,1 - 3,0 t / TR-4H: 2,3 - 3,2 t

UNIQUE ASPHALT HOT BOXES

After being retro-fitted on the compactor, Hydrog TR hot boxes became a complete road repairing machine intended for road repairs with hot asphalt concrete. They can be supplied with a hydraulic power unit to drive the hammer or the diamond saw. They can also be supplied with an emulsion sprayer with a lance and a compressor. The machine is driven by modern combustion engines - petrol or diesel, both of which can be chosen by the customer. The main working components, including the screw feeder and the emulsion pump, are hydraulically driven.

POWER TRANSLATES TO EFFICIENCY

High power of the combustion engine translates to greater feeding screw efficiency. Feeding screw speed is adjustable. If necessary, the reverse, i.e. the 'left' rotation can be used. The feeding screw is made of wear-resistant steel to maximize its durability.

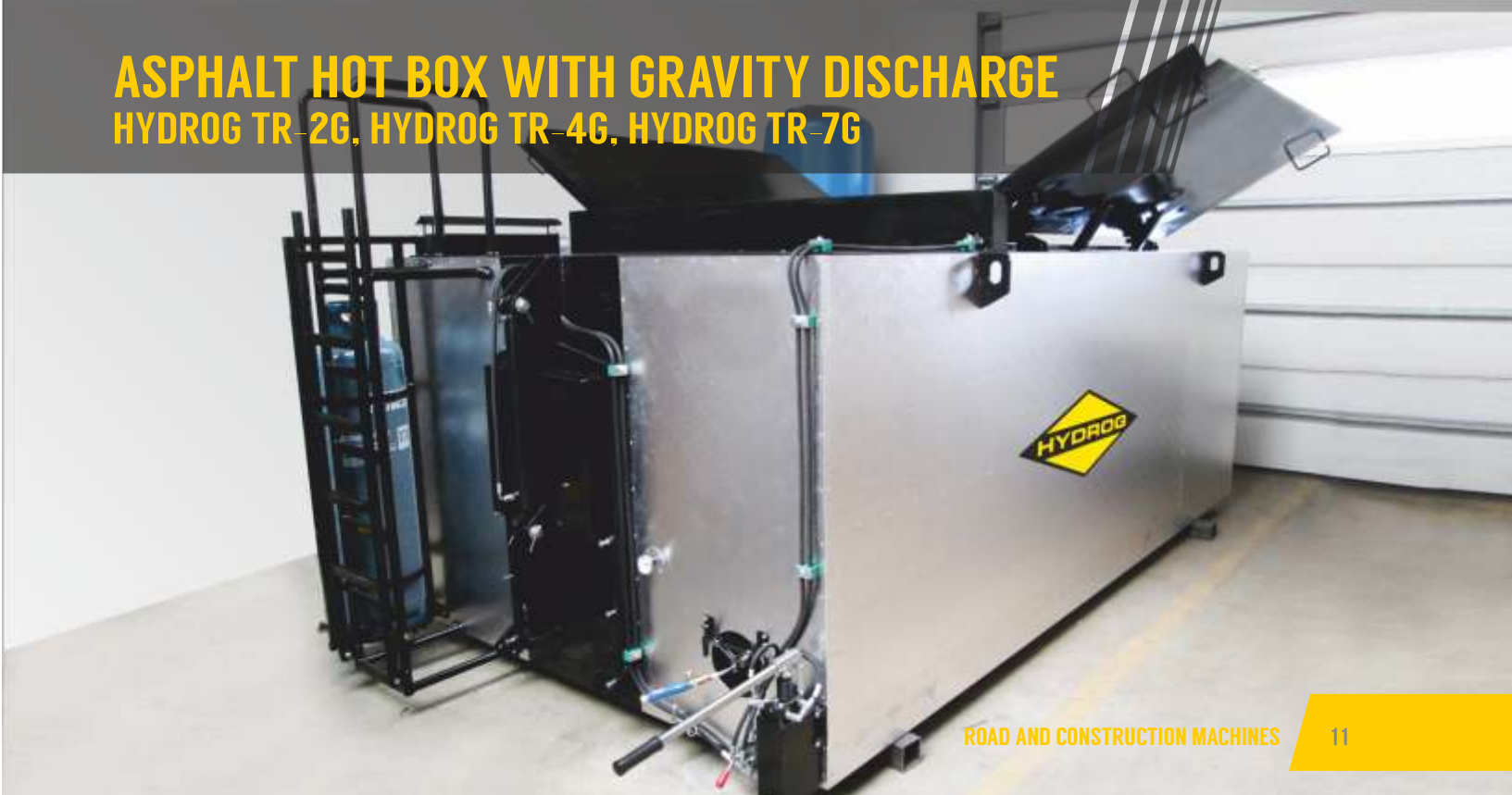
TESTED SAFE SOLUTIONS

Automatic burner shut-off after reaching the set temperature, the possibility of separate asphalt and emulsion temperature adjustment and the biggest loading opening with a hydraulic cover on the market makes working with the Hydrog TR asphalt hot box safe.



ASPHALT HOT BOX WITH GRAVITY DISCHARGE

HYDROG TR-2G, HYDROG TR-4G, HYDROG TR-7G



ROAD AND CONSTRUCTION MACHINES

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TECHNICAL DATA

Capacity	2,0 / 4,5 / 7,0 m3 (depending on the version)
Insulation and covering	100 mm mineral wool + aluminum sheet
Loading	through the loading top opening
Opening of the cover	manual or hydraulic (depending on the version)
Emptying	by lifting of the hot box through discharge opening
Discharge opening	hydraulic
Raising	by raising a tipper or by its own hydraulic lift
Heating	propane-butane gas burner
Lihgting	working + warning
Optional	oil burner
Chassis	frame with hydraulic lift of the hot box truck - tipper or frame to be built over

INTENDED USE

Hydrog TR-G asphalt hot boxes are designed for transporting and dispensing of hot asphalt concrete mass at the destination, for example during asphalt pothole repairs.

PRINCIPLE OF OPERATION

Hot asphaltic concrete mass is loaded into a hot box in the asphalt mixing plant. Emptying is done either by gravity after lifting of the tipper or by using its own hydraulic lift. Both the loading opening cover and the spout hole bolt can be opened manually or hydraulically.

OPTIMAL SOLUTIONS FOR SAFE AND EFFICIENT WORK

HydrogTR-G asphalt hot boxes have the loading opening large enough to seamlessly work with any asphalt mixing plant. Tank insulation made of mineral wool and a gas burner (optional oil) ensure maintaining of mass operating temperature even for a dozen hours. In each version of the Hydrog TR-G operation of the opening cover is extremely safe. In order to raise or lower the cover, the operator does not have to climb up the ladder and is therefore not exposed to the risk of falling.



POTHOLE BLOW PATCHERS HYDROG PA-5000



TECHNICAL DATA

Aggregate	tank aggregate with fraction A: 2,5 m3 (or other) tank aggregate with fraction B: 2,5 m3 (or other)
Aggregate feeding	2 feeding screws made of abrasion-resistant steel
Feeding screws drive	hydraulic with independent adjustment performance
Bitumen emulsion	insulated tank 1.400 l
Emulsion heating	oil burner with automatic control
Emulsion temperature	maximally up to 85 °C
Combustion engine	Perkins 44,6 HP diesel 4-cylinders liquid cooled
Emulsion pump drive	hydraulic
Blower	driven by a belt transmission
Performance adjustment	combustion engine rotation
Working boom	4,5 meters in the front or at the rear of the vehicle
Control	desktop on working boom next to the operating head
Weight without chassis	2.480 kg

INTENDED USE AND PRINCIPLE OF OPERATION

Hydrog PA-5000 Patcher is intended to repair bituminous surfaces by filling and sealing potholes with stony grit coated with bitumen emulsion. The aggregate is dispensed with compressed air through the tube into the operating head, in which it is coated with bitumen emulsion. The device can work with different types of grit at the same time.

STAGES OF SURFACE REPAIR BY HYDROG PA-5000 PATCHER

- cleaning of the pothole with compressed air,
- spraying of the pothole with bitumen emulsion,
- filling of the pothole with aggregate coated with bitumen emulsion,
- sealing with a thin layer of the emulsion,
- strewing of the repaired surface with dry grit

DESIGN VERSIONS OF THE BOOM WITH A WORKING HEAD

- 1) at the rear of the vehicle,
- 2) in front of the vehicle - control by a separate operator,
- 3) in front of the vehicle - by one operator (the driver)



WITH WORKING BOOM IN FRONT OR AT THE REAR



ROAD AND CONSTRUCTION MACHINES

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COMBUSTION ENGINE

Perkins Diesel 44 HP, liquid cooled, 4-cylinder in-line. High power is needed for greater efficiency of the patcher.

WORKING AND WARNING LIGHTS

As standard patcher equipped with working lights and orange flashing warning lights. Optionally it can be equipped with dual LED pulsating arrow lights.

EXTRA EFFICIENT EMULSION HEATING

Reliable based on oil burner system with automatic controller. The shape of the heater optimized for maximum heating efficiency.

AGGREGATE TANK

Two separate hoppers designed for two different aggregate fractions - allow for the perfect choice of aggregate type for the potholes repairs.

CONTROL AND TV VIEW

LCD monitor in the truck cabin (option) with the preview on working boom. ergonomic control on the boom, in the version with boom in front of vehicle, patcher can be fully controlled by the driver without additional operator.

WORKING BOOM

The standard reach of boom - 5 m. On request, possibility to change the reach length. Depending on the version boom is either manually or by actuators controlled.

AGGREGATE DOSING

The shape of the cables which transport the aggregate is optimized for efficient work without aggregate clogging - ensures smooth dosing.

ADDITIONAL EQUIPMENT

Optionally, the patcher boom can be equipped with a pothole heating system before the filling, which is based on secure propane butane gas burner.

PROTECTION AGAINST CORROSION

Machine structure shot blasted and painted with three layers:
1) reactive zinc primer,
2) epoxy primer,
3) polyurethane varnish.

POSSIBLE CHASSIS

- trucks - directly on the frame,
- trucks - on the box tipper,
- trucks trailers,
- tractors trailers.

Permanent mounting or mobile version.

MOUNTING ON CHASSIS

Mass distribution complies with the limit of chassis allowable load ensures comfort and safety. Registration as a special vehicle. Side slats, anti-roll-over bar, warning signs.

VERTICAL MASTIC ASPHALT BOILERS HYDROG KA-4400



TECHNICAL DATA

Capacity	4,4 m3
Insulation	90-100 mm
Covering	aluminium
Discharge opening	at the rear - hydraulically raised latch
Asphalt dosing	main gutter + bottom dosing gutter with the turntable
Boiler loading	top loading opening 1.100 x 800 mm
Opening of discharge chute	manual without going up the ladder
Combustion engine	diesel Perkins 44,6 HP 4- cyl., liquid-cooled
Mixer	6-arm vertical
Mixer drive	hydraulic, by chain transmission
Heating	automatic oil burner
Boiler weight	approx. 4.600 kg (without chassis)
Chassis	trailer towed by truck or by a tractor truck GVW 26 t

MASTIC ASPHALT SURFACES

Mastic asphalt is a self-compacting closed bitumen structure which is transported in special boilers and spread with mastic asphalt spreaders specially designed for that purpose. Mastic asphalt is usually spread over bridges, viaducts, track ways, in multi-level parking lots, and wherever the use of heavy vibratory rollers is not possible. Bicycle paths, park alleys, pavements, decorative floors etc. are also built using mastic asphalt in various colours. Hydrog offers a complete range of machines required for mastic asphalt handling.

MIXER POWER AND STRENGTH OF THE STRUCTURE

Hydrog KA-4400 boilers are intended for transport and preparation of even the densest mastic asphalt, which is modified with polymers and has poor workability. Tanks made of abrasion-resistant steel, mixers with market leading torque, high-efficiency heating systems, optimally matched components of the hydraulic systems, and a range of solutions that ensure high levels of safety place Hydrog boilers at the forefront of such machines on the European market.



MASTIC ASPHALT FINISHERS

HYDROG RAL-5000, HYDROG RAL-7500



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TECHNICAL DATA

Spreading width	RAL-5000 - any up to 5,5 m. RAL-7500 - any up to 7,5 m.
Width adjustment	gradual every 1,0 m + smooth with side panel
Spreading height	-300 mm, +200 mm from the level of working wheels
Height adjustment	hydraulic and manual
Drive	hydraulic independent for both sides
Combustion engine	RAL-5000: diesel Hatz 1D81C Silent Pack RAL-7500: diesel Hatz 2L41C Silent Pack
Blade heating	gas burners for propane-butane
Supporting wheels	working wheels for riding on rails and transport wheels
Additional equipment	the auger for distributing the asphalt in front of the blade attachable chip spreader

INTENDED USE AND PRINCIPLE OF OPERATION

Hydrog RAL-5000 and RAL-7500 finishers are designed to spread mastic asphalt using a heated levelling blade. Optionally, the auger pulls apart the asphalt in front of the blade, eliminating the need for manual work. Hydrog RAL finishers have a modular structure. The required spreading width is obtained by adding expanding segments to the base bar.

PROVEN SOLUTIONS ON VARIOUS MARKETS

The blade independent height adjustment allows Hydrog RAL finishers to spread a strip of surface with any cross profile on each module. In the latest version of our finishers the working wheels are hidden within the outline of the driving mechanisms. This solution enhances the capabilities of the machine, for example, it allows spreading closer to a curb or wall.

TAKE ADVANTAGE OF ALL THE POSSIBILITIES

Both types of finishers are equipped with an operator platform with safety barriers. The built-in hydraulic lifts in driving mechanisms enables installation of working wheels and transport wheels.



CHIPPING SPREADER FOR ROAD SURFACE DRESSING HYDROG RPU-3000



TECHNICAL DATA

Capacity	1,7 m ³
Aggregate fraction	up to 31 mm
Spreading width	0,25 - 3,00 m.
Width adjustment	gradual every 0.25 m.
Method of adjustment	pneumatic actuators on all sections
Actuators power supply	from pneumatic system of the emulsion sprinkler
Shaft drive	from spreader supporting wheels
Supporting wheels	2 double, on both sides of machine, solid rubber tires
Operator station	control panel on the left side of the machine
Hitch on the sprinkler	pneumatically controlled blockade
Optional	digital indicator of sprinkling performance additional operator position on the right side
Dimensions	2.900 x 3.300 x 2.000 mm
Weight	1.540 kg

INTENDED USE

Hydrog RPU-3000 grit spreaders, together with emulsion sprinklers form a set to perform road maintenance treatments, so-called road surface dressing (emulsion + grit). This set will perform the same work as heavy surface dressing machinery whereas emulsion sprayer can also be used for other road works.

PRINCIPLE OF OPERATION

The chipping spreader is attached and towed by the emulsion sprinkler. Emulsion spraying and grit spreading is done in one passage. The grit is spread by the rotating feeding shaft which is situated under the tank. The spreader tank is filled by the tipper on an ongoing basis. The slot width over the roller, i.e. The spreading width, is adjusted by the operator on the control panel and relies on the pneumatic opening of the relevant spreading sections. The feeding shaft is driven from the spreader wheels. The machine can be transported by a truck-sprinkler on a trailer that is specially designed for this purpose.



CHIP SPREADER FOR ROAD ROLLERS

HYDROG RG-1700



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TECHNICAL DATA

Type of spreader	roll feeder
Hopper capacity*	0,7 / 0,9 / 1,0 m ³
Spreading width*	1.700 mm / 2.000 / 2.100 mm
Width adjustment	gradual - by sections of nozzles
Spreading performance	0,5 - 15 kg/m ²
Performance adjustment	by roll feeder speed
Aggregate fraction	up to 15 mm
Control	from the roller cabin
Additional equipment	scarifying shaft inside the tank vibrator digital indicator of spreading performance
Mounting	mounting bracket and hydraulic line installed permanently grit tank quickly removable

* (depending on the version)

For selected rollers we offer also trimmers for cutting and kneading.

INTENDED USE AND PRINCIPLE OF OPERATION

Hydrog RG chip spreaders for road rollers are intended for roughening the last wearing course of asphalt concrete by evenly spreading the grit (mostly granite or basalt) in the first pass of the roller behind the bituminous mass spreader. The drum of the roller presses the grit into the freshly distributed hot bituminous mass. The feeding shaft which is used in the spreader ensures uniform performance across the entire spreading width.

BELIEVE IN THE KNOWLEDGE AND TRUST THE EXPERIENCE OF PROFESSIONALS

Installation of the chip spreaders requires an intervention in the hydraulic system of the roller. It is necessary for example: to install a separate hydraulic line with appropriate parameters designed for spreader powering - with the proviso that work of the spreader will not interfere, and what is more, damage any of the roller's working systems. Hydrog RG spreaders are produced in packages intended for specific models of rollers and according to the manufacturers guidelines (installation does not result in loss of warranty on the roller). On many markets, these spreaders are available as official equipment for road rollers. Hydrog offers spreaders for most of the rollers of the following brands: Hamm, Bomag, Ammann, Dynapac, Caterpillar, Volvo.



ASPHALT AND CONCRETE MILLERS

HYDROG FA 300, HYDROG FA 450



TECHNICAL DATA

Type	FA-300	FA-450
Milling width	300 mm	450 mm
Milling depth	do 130 mm	do 130 mm
Depth adjustment	stepless	stepless
Drive	hydraulic	hydraulic
Oil flow	80-120 l/min	100-150 l/min
Oil operating pressure	190-220 bar	190-220 bar
The maximum pressure	240 bar	240 bar
Support wheels	4 pcs	4 pcs
Suggested carrier weight	4-10 t	5-12 t
Miller weight*	530 kg	650 kg
Dimensions	980 x 910 x 630 mm	980 x 910 x 720 mm

*without the mounting bracket

INCREASE THE CAPABILITIES OF YOUR EQUIPMENT

Retro-fit your construction machine in one of two types of asphalt and concrete hydraulic Hydrog FA millers. This equipment is offered in versions intended for most commercially available backhoe loaders, excavators, and loaders. They are mounted in place of an excavator bucket or on the loader arms. They are used for precise milling when performing the so-called partial repairs of roads, or are complementary of self-propelled millers, and can even replace them.

WHY HYDROG MILLING MACHINE IS BETTER

The hydraulically driven milling drum is equipped with rotary cutters intended for concrete or asphalt. The extra thick structure of the milling drum increases rigidity and inertia. The heavier drum acts as the flywheel as it reduces vibration and enhances the milling force.

EARN MORE THANKS TO HYDROG MILLERS

The result of surface repair using Hydrog FA millers are neat rectangular patches and labour productivity that is noticeably larger than in the case of the same work performed by a diamond cutter. The costs are also usually much lower.



MILLING MACHINE FOR CRACKS AND EXPANSION GAPS

HYDROG MS-60



ROAD AND CONSTRUCTION MACHINES

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TECHNICAL DATA

Cutting tool	widia cutters	discs and diamond cutters
Milling width	up to 40 mm	up to 40 mm
Milling depth	up to 40 mm	up to 56 mm
Cutters diameter	120 mm	400 mm
Combustion engine	Kohler petrol, 25 HP power	
Starting of engine	electric starter	
Tool drive	by electromagnetic clutch	
Lowering of the tool	smooth by electric actuator controlled from the desktop drive switch off after releasing the handles and emergency STOP button	
Safety features	module for milling around the manholes	
Optionally	1.780 x 890 x 1.060 mm	
Dimensions	220 kg	
Weight		

INTENDED USE AND PRINCIPLE OF OPERATION

Hydrog MS-60 millers are intended for creating grooves as well as expanding gaps and road cracks before filling them with a sealing compound. The machine is operated by a single operator. The internal combustion engine drives the spindle with the milling tool through a belt transmission and an electromagnetic clutch.

MILLING TOOLS

- 1) **widia cutters** - milling during surface repair
- 2) **diamond routers discs** - precise milling when performing gap expansions
- 3) **diamond cutting discs (from 1 up to 5 pcs)**

COMFORTABLE AND SAFE SOLUTIONS

Milling cutters are lowered smoothly by an electric actuator. The spindle drive can only be activated if the operator of the machine holds at least one of the operating handles. Releasing the handles automatically disconnects the drive. Additionally, the miller is equipped with an emergency STOP button.



SIDE SWEEPERS FOR ROAD SWEEPING AND SNOW CLEARING

HYDROG OCN / OSN



TECHNICAL DATA

Brush width*	1,2	1,5	1,8	2,1	2,4	m
Sweeping width*	1,0	1,3	1,6	1,8	2,1	m
Brush material	100% wear-resistant steel wire					
Drive	hydraulic					
Oil flow*	20 - 60 l/min					
Right/left adjustment	manual (optional hydraulic)					
Support wheels	optional					
Water sprinkling system	optional (tank, water pump, sprinklers)					
Mounting brackets*	on tractor - on the front 3-point linkage on tractor not equipped with front 3-point linkage on (backhoe) loader, forklift on Unimog, Multicar etc. on truck equipped with hydraulic pump					

* depending on the version

FOR THE MOST DEMANDING

Hydrog hydraulic sweepers are designed for even the most demanding users, for whom efficiency and reliability of the machines are vital. These sweepers are used to clean surfaces on which bituminous mass is to be applied but also wherever sweeping to the side is possible. They are also frequently used by municipal companies for cleaning roads and pavements.

25 YEARS' EXPERIENCE

Take advantage of the Hydrog's experience in the manufacturing of detachable cleaning equipment designed to work even in the harshest conditions. These sweepers stand out from others available on the market because of their robust design, very durable brush refills (inserts) made of wear-resistant steel with hardness adjusted to the nature of the work, support wheels which withstand the loads several times exceeding the weight of the sweeper, and 3-step anti-corrosion protection.

PERFECTLY MATCHED TO THE CARRIER

Hydrog sweepers can be attached to the following vehicles: tractors, loaders, backhoe loaders, forklift, some trucks and other vehicles equipped with hydraulic system.



HYDRAULIC SWEEPERS HYDROG OCP WITH COLLECTING OF IMPURITIES TO THE TANK



TECHNICAL DATA

Main brush width*	1,2 1,5 1,8 2,1 2,4 m
Cylindrical brush material	wire 100% wear-resistant steel
Sweeper drive	hydraulic
Oil flow*	20 - 60 l/min
Collecting of impurities	into the tank prior to cylindrical brush
Tank emptying	hydraulic
Side disc brush	optional
Support wheels*	3 or 4 pcs
Water sprinkling system	optional (tank, water pump, sprinklers)
Mounting brackets*	on tractor equipped with front 3-point linkage on tractor not equipped with front 3-point linkage on backhoe loaders, on forklift on Unimog, Multicar etc. on a truck equipped with a hydraulic pump

* depending on the version

INTENDED USE

Hydrog OCP sweepers are intended for removing impurities such as sand, grit, stones, leaves, mud, and snow from road surfaces, squares, pavements, park alleys etc. These sweepers collect impurities into a built-in tank. The machine is controlled from the carrier cabin using both hydraulic distributor and control panel.

VARIOUS VERSIONS FOR VARIOUS APPLICATIONS

Hydrog OCP sweeper can be ordered in several different configurations. Hydraulic motors of the brushes are always individually matched to the hydraulic parameters of the carrier in order to achieve the most optimal rotational speeds of the brushes. Characteristics of the cylindrical brush are matched to the type of surface it is to be used on in order to ensure the most effective sweeping and the best possible durability of the brush. Optional side disc brushes allow precise cleaning of the surface along a curb or a wall. They can either be made of 100% steel or steel mixed with plastic. Water sprinkling system with an electric water pump, a tank and sprinklers minimise the effects of dusting during sweeping.



2-FUNCTION SWEEPERS HYDROG OKP DUO



TECHNICAL DATA

Width of sweeping into the tank*	2,1	2,4	m
Width of sweeping to the side*	1,8	2,1	m
Material of cylindrical brush	100% steel wear-resistant wire		
Sweeper drive	hydraulic		
Oil flow*	40 - 80 l/min		
Collecting of impurities	into the tank prior to cylindrical brush		
Tank emptying	hydraulic		
Side disc brush	optional		
Support wheels	4 pcs reinforced		
Water sprinkling system	optional (tank, water pump, sprinklers)		
Mounting brackets*	on (backhoe) loader on the tractor front 3-point linkage on Unimog, Multicar etc. on the truck front mounting plate		

* depending on the version

UNIVERSAL MACHINE FOR EVERY ROAD

Hydrog OKP DUO sweepers can be used in two ways: collection of impurities into the tank or sweeping them to the side right or left. They are characterized by the strongest structure in a range of Hydrog sweepers range and are designed to work in all, even the harshest conditions.

FORGET ABOUT CONTINUOUS AND EXPENSIVE REPLACEMENTS OF SUPPORT WHEELS

Hydrog OKP DUO sweeper is the only machine on the market with such strong support wheels. They can carry loads several times greater than the weight of sweeper. Four wheels increase the reliability of the machine even on roads with ruts.

EFFECTIVE WORK WITHOUT UNNECESSARY COSTS

The sweepers are equipped with known for its high durability, steel cylindrical brush made of wear-resistant corrugated, galvanized wire protected against corrosion. Brushes can be made in different hardness for various applications.



WEED REMOVAL MACHINES HYDROG SCZ-900



ROAD CLEANING MACHINES

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TECHNICAL DATA

Brush diameter	960 mm
Direction of rotation	right / left, selectable by operator
Boom ejection	hydraulic
Cleaning side	right / left (manually operated boom)
Drive	hydraulic from carrier hydraulic system
Oil flow	55 - 80 l/min
Oil pressure	160 bar
Control	from the carrier cabin
Optionally	water sprinkling system (tank, water pump, sprinkling system instalation, control)
Mounting brackets*	on tractor - on the front 3-point linkage on the tractor not equipped with 3-point linkage to (backhoe) loader, on forklift on Unimog, Multicar etc. on truck equipped with a hydraulic pump

* depending on the version

INTENDED USE

Hydrog SCZ-900 weed removal machines are designed for:

- removal of ingrown weeds in between cobblestones, pavements etc.
- sweeping road shoulders on the right- or the left hand side of the road.

INTENDED USE

- 1) A brush with its own hydraulic boom can be attached by a mounting bracket to tractors, Unimog, Multicar etc.
- 2) A brush without its own boom (just a working head with a hydraulic engine) can be carried by backhoe loaders or hydraulic tractors.

PRINCIPLE OF OPERATION

Hydrog SCZ-900 weed removal machine tears off any hard to remove impurities, plants, winter residue etc. The impurities are then collected by a sweeper which is towed by the same vehicle. Comparing to manual work, cleaning with Hydrog SCZ-900 brush is more efficient and generally much cheaper.



WINTER SPREADERS HYDROG P3000 – 10000 FOR SAND, SALT AND SAND AND SALT MIXTURES



TECHNICAL DATA

Type	P-3000	P-5000	P-8000	P-10000
Sand/salt hopper	3,0 m3	5 m3	8 m3	10 m3
Brine hopper	option for each spreader size			
De-icing and gritting materials	sand, salt, sand and salt mixtures			
Performance adjustment	automatic with retaining the set value regardless of the change of the vehicle speed			
Spreading width	adjustable in range 2-12 m			
Asymmetry of spreading system	adjustable by the electric actuator			
Material dispensing system*	conveyor belt, scraper or screw			
Brine dispensing	by pump			
Chute and spreading disc*	stainless steel / plastic			
Spreader drive*	Diesel engine or from PTO of the truck			
Control	LCD color touch screen, PLC controller			
Control modes	automatic and manual			

* depending on the version

INTENDED USE

Product line of spreaders of sand/ salt, sand and salt mixtures, and other de-icing and gritting materials is designed for removal of black ice and for winter maintenance of road surfaces. Each machine can be equipped with a module for the distribution of brine and a brine generator.

DESIGN AND SOLUTIONS APPLIED

Spreader hoppers are offered in versions with stainless steel or with ordinary professional corrosion protection. There are three types of feeders: conveyor belt, scraper or screw. There is an optional de-agglomerating module over the feeder. The shape of the chute prevents wedging of the material on the spreading disc. Simultaneously with the dispensing of gritting materials onto the spreading disc, the brine is dosed in proportions selected by the operator. The conveyor and the spreading disc are driven hydraulically. Each spreader can be equipped with a precise spreading capacity control and an asymmetric spreading system.

CONTROL

Hydrog sand and salt spreaders are equipped with a PLC controller-based automatic control, color touch screen and "all in one joystick" system. The spreader control is integrated with the snowplough.



SNOWPLOUGHS HYDROG POH PREMIUM SINGLE MADE OF POLYETHYLENE BLADE. ON A STEEL FRAME



WINTER MAINTENANCE OF ROADS

25

TECHNICAL DATA

Type	POH-3000	POH-3200
Blade width	3,0 m	3,2 m
Snow clearing width	2,6 m	2,8 m
Blade type	uniform with tiltable bottom blades	
Blade material	polyethylene on steel frame	
Lifting	hydraulic	
Right/left turn	hydraulic	
Pressing to the ground	by weight of the snowplough or hydraulic	
Actuators drive	its own electrohydraulic unit	
The electrical supply	from carrier - 24 V or 12 V	
Control	with remote control in the carrier cabin	
Snowplough protection	blade side oscillation system	
Support wheel	2 pcs with an increased carrying capacity	
Lighting	road lights LED outline lights turn-signals	
Mounting	on the truck front mounting plate in accordance with DIN 76060	

INTENDED USE

Snowploughs for trucks with the strongest structure of the frame on the market. They are used as basic snowploughs for snow removal both on urban and non-urban roads. They are chosen by demanding users, for whom both: efficient snow removal by relatively heavy snowplough and the greatest possible resistance to damage are equally important. At the end, that is exactly what has the greatest impact on the continuity of snowplough work in the winter season.

STRUCTURE

The polyethylene blade built on a solid steel frame. Its profile allows efficient snow removal even at a speed of 60 km/h without throwing of the snow on the truck windshield. The steel structure is blasted and painted in special cabin-dryer with three layers: a reactive zinc primer, epoxy primer, and a polyurethane varnish. There are amortized tiltable blade segments at the bottom which are able to evade the obstacles that the snowplough runs into.

BLADE SIDE OSCILLATION SYSTEM

This is a unique solution in this product line of snowploughs. It allows lateral movements of the snowplough, relative to the front plat which are caused by centrifugal force and driving over potholes. This system significantly increases the durability of both support wheels and the whole snowplough.



SNOWPLOUGHS HYDROG PS PREMIUM

STEEL BLADE DEVIDED INTO SEGMENTS. TILTABLE BOTTOM BLADES



TECHNICAL DATA

	PS-3000	PS-3200	PS-4500
Type	PS-3000	PS-3200	PS-4500
Blade width	3,0 m	3,2 m	4,5 m
Snow clearing width	2,6 m	2,8 m	3,9 m
Blade type	multi-segment with tilttable blades		
Blade material	steel shot blasted and painted with 3 layers		
Lifting	hydraulic		
Turn left/right	hydraulic		
Pressing to the ground	by weight of the snowplough		
Snowplough actuators drive	its own electrohydraulic unit		
Power supply	from the carrier - 24 V or 12 V		
Control	with remote control in the carrier cabin		
Security features	blade side oscillation system		
Support wheels	2 pcs with an increased carrying capacity		
Lighting	road lights LED outline lights trun-signals		
Mounting	on the truck front mounting plate in accordance with DIN 76060		

INTENDED USE

Hydrog PS Premium is a segmented snowplough fully made of steel intended for work especially on roads with ruts. The 4,5 meters version of this snowplough is also used on multi-lane roads and highways.

SEGMENTAL STRUCTURE OF SNOWPLOUGHS

The steel blade of the snowplough is divided into segments independently suspended on springs. Due to this fact, the snowplough adapts perfectly to the road increasing the effectiveness of snow removal. Bottom blades of the snowplough are also tippable - they evade after the snowplough runs into the obstacle, protecting the snowplough against damage. The actuators are driven by its own electrohydraulic unit. The entire plough is shot blasted and painted with three layers (i.e. reactive zinc primer, epoxy primer, and polyurethane varnish).

BLADE SIDE OSCILLATION SYSTEM

This is a unique solution in this product line of snowploughs. It allows lateral movements of the snowplough, relative to the front plate which are caused by centrifugal force and driving over potholes. This system significantly increases the durability of both support wheels and the whole snowplough.



SNOWPLOUGHS HYDROG PV AND POV PREMIUM

STEEL BLADE. WITH ADJUSTABLE WING GEOMETRY. TILTABLE BOTTOM BLADES (PREMIUM). FOUR WORKING POSITIONS



WINTER MAINTENANCE OF ROADS

27

TECHNICAL DATA

Type	PV-1400	PV-2300	POV-2600	POV-3300
Blade width	1,4 m	2,3 m	2,6 m	3,3 m
Snow cleaning width	1,1 m	2,0 m	1,8 ÷ 2,3 m	2,3 ÷ 2,9 m
Blade type	steel with adjustable wing geometry			
Working positions	„V” / inverted „V”, straight right / straight left			
Raising and turning	hydraulic			
Pressing to the ground	by weight of the snowplough			
Snowplough actuators drive	from the carrier or from its own electrohydraulic unit 24 V or 12 V			
Control	with distributor levers and remote control in cabin of the carrier			
Supports	support legs with discs or support wheels			
Optional lighting	road lights LED outline lights turn-signals			
Mounting on carrier	on tractor, on loader, on Unimog, Multicar, on truck			

INTENDED USE AND CAPABILITIES

Hydrog PV (series Standard) and Hydrog POV (series Premium) snowploughs are universal devices for snow removal from roads, squares, sidewalks etc. These snowploughs allow working in **four different positions** : inverted “V” position for breaking through the drifts, “V” position for gathering snow, clearing parking places etc. and **straight right** and **straight left** positions for regular snow removal to the side .

STRUCTURE AND FEATURES

Both Hydrog PV and POV are hydraulically controlled from the carrier cabin. Hydrog POV snowploughs are highly ranked machines in the series of snowploughs with variable geometry. They shall be directed towards users for whom, both high efficiency of snow removal in all winter conditions and application on any surface are important. Two working angles of blades (30° and 45°) allow the operator to adjust the working width to the current conditions and change it when it is needed. POV snowplough are equipped with tiltable amortized blade made of reinforced rubber, abrasion-resistant elastomer or abrasion-resistant steel. Blade side oscillation system prevents the damage of the snowplough on potholes and turnings. The blades of the POV snowplough have a very strong additionally reinforced structure with extra security - damper of the whole snowplough tilting after the snowplough runs into the obstacle.



HIGHWAY SNOWPLOUGHS HYDROG PLA-4500 WITH FOLDING SYSTEM



TECHNICAL DATA

Positions of folding module	stowed	spread out
Blade width	3,8 m	4,5 m
Snow cleaning width	3,2 m	3,9 m
Lifting	hydraulic	
Turn right/left	hydraulic	
Folding module operation	hydraulic	
Snowplough actuators drive	own electrohydraulic unit from carrier electric system with remote control in the carrier cabin	
Power supply		
Control		
Security features	side oscillation dampers	
Support wheels	3 pcs with an increased load capacity	
Lighting	road lights LED outline lights turn-signals	
Mounting	on the truck front mounting plate in accordance with DIN 76060	
Location of folding module	left (standard) right (optional)	

SNOWPLOUGH WITH CHANGEABLE WIDTH OF SNOW REMOVAL

Hydrog PLA-4500 snowploughs are designed for winter maintenance of expressways and highways and other roads which demand extra-wide snow removal. They have a hydraulic folding module. They can remove snow in two positions: stowed and spread out. After unfolding, the blade has a flat surface. This allows snow removal in both directions - right and left.

ABRADABLE BLADE IN DIFFERENT VERSIONS

At the bottom of the blade there are six segments that are spring cushioned and when the snowplough runs into the obstacles, they tilt. Abradable (black) blades are offered in different versions: among others reinforced and abrasion-reinforced elastomer.

BLADE SIDE OSCILLATION SYSTEM

The polyethylene blade is built on a strong steel frame. The blade shape is specially designed to effectively remove snow at speeds even up to 80 km / h. PLA snowploughs are equipped with a blade side oscillation system that allows lateral movements of the snowplough relative to the front plate. This system significantly increases the durability of both support wheels and the whole snowplough.



AIRPORT SNOWPLOUGHS HYDROG PL FOR TRUCKS OR TRACTORS



WINTER MAINTENANCE OF ROADS

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TECHNICAL DATA

	PL-5500	PL-6500
Type		
Blade width	5,5 m	6,5 m
Snow clearing width	4,5 m	5,5 m
Weight	approx. 1.400 kg	approx. 1.670 kg
Type and material of the blade	multisegmented, steel (each segment suspended independently and cushioned)	
Lifting / lowering	hydraulic	
Blade turning	hydraulic	
Actuators drive	electrohydraulic unit 24 V or 12 V or the hydraulic pump or carrier	
Snow removal speed	up to 70 km/h	
Working supports	support wheels with adjustable height	
Lighting	working lights LED outline lights	

INTENDED USE

Hydrog PL steel airport snowploughs are designed for snow removal from airfield runways surfaces. The plough, together with the carrier and (Hydrog OLH or Titan) airport cleaner forms the complete set for maintenance of airports in the winter.

DESIGN AND SOLUTIONS APPLIED

The snowplough blade is made of independent spring cushioned segments. This allows the snowplough to perfectly adjust to the shape of the surface during operation. The special shape of blade in combination with against snow protecting top cover ensure efficient snow clearing of runways. At the bottom of each segment there are blades made of hardwearing elastomer.

CARRIERS AND THE SOURCE OF ACTUATORS DRIVE

Hydrog PL snowploughs can be mounted on trucks, tractor units or regular tractors. In the standard version snowploughs are adapted to be mounted on the front plate standardized in accordance with DIN 76060. Upon request of the Purchaser, they can be also mounted on other carriers. The source of hydraulic actuators drive is a built-in electrohydraulic unit or the hydraulic pump of the carrier.



SNOWPLOUGHS HYDROG PCL STRONG

STEEL AND RIGID - FOR THE TOUGHEST WINTER CONDITIONS



TECHNICAL DATA

Blade width	1,5	1,8	2,1	2,4	2,6 m
Snow clearing width	1,3	1,6	1,8	2,1	2,3 m
Blade material	100% steel				
Blade structure	STRONG - super strong and rigid				
Bottom blade	reinforced rubber or elastomeric				
Plough raising	hydraulic (via a carrier or own actuator)				
Turn right / left	hydraulic				
Mounting on carriers	on tractor - on the front 3-point linkage on tractor not equipped with 3-point linkage on (backhoe) loader on Multicar etc. on the forklift				

EXTRA STRONG STEEL PLOUGHS

Hydrog PCL snowploughs are designed for the most demanding users to work in toughest conditions when removing stagnant and frozen snow. The steel blade of the snowplough is additionally reinforced. Hydrog PCL snowplough as one of the few on the market, is highly resistant to bending and deforming in case of running into an obstacle. Turning of the plough to the right or left is set hydraulically by two actuators.

SUITABLE FOR MOST TRACTORS AND LOADERS

Hydrog PCL snowploughs are mounted on carriers on mounting brackets. These mounting brackets can be equipped with their own hydraulic lift - therefore Hydrog PCL snowploughs are very often mounted on the tractors which do not have the front three point linkage. Not less common carriers are also loaders, mini loaders, and backhoe loaders.



SNOWBLOWER HYDROG PWF YETI

WITH MECHANICAL OR HYDRAULIC DRIVE



WINTER MAINTENANCE OF ROADS 31

TECHNICAL DATA

Type	PWF-1300	PWF-1500	PWF-2000	PWF-2500
Snow clearing width	1,3 m	1,5 m	2,0 m	2,5 m
Snow clearing speed	0,5 - 2,5 km/h			
The direction of snow ejection	right / left (adjustable turn of the chimney)			
Auger drive	hydraulic (approx. 25-60 /min, 100 bar)			
Fan drive	mechanical from PTO shaft or hydraulic (120 l/min, 150 bar)			
Optional	chimney for loading the snow on trailer support wheels instead of slide pads hydraulically controlled ejection distance			
Mounting brackets	on the tractor front 3-point linkage on the tractor without front 3-point linkage on loader, on Unimog, Multicar etc.			

INTENDED USE

Hydrog PWF Yeti snowblowers are designed for efficient clearing of roads from high snow, removal of snow drifts, and current work during heavy precipitation. Snow can be thrown out to the side or loaded on the body of a truck or trailer which drives alongside.

DESIGN AND PRINCIPLE OF OPERATION

Snowblowers mill the snow with the milling auger and throw it through the chimney using a fan. As standard, snowploughs are equipped with chimneys for throwing the snow to the side. Optional equipment is a long chimney for loading of the snow on the trailer.

TYPES OF DRIVES

- 1) Hydraulic auger drive from the carrier pump, the fan drive from the front PTO
- 2) Full hydraulic drive from the carrier (if performance of the carrier hydraulics allows it)
- 3) Full hydraulic drive from an additional hydraulic power supply driven from the rear shaft (PTO) tractor





TECHNICAL DATA

Type	Sharky-350	Sharky-351	Sharky-400	Sharky-500
Blade diameter	350 mm	350 mm	400 mm	500 mm
Cutting depth	115 mm	115 mm	135 mm	180 mm
Smooth depth adjustment	yes	yes	yes	yes
Blade rotations	3.100 r/min	3.100 r/min	2.800 r/min	2.200 r/min
Honda engine	GX-160	GX-200	GX-270	GX-390
Power	4,8 HP	5,5 HP	8 HP	11 HP
Weight	54 kg	54 kg	85 kg	90 kg
Water tank	15 l	15 l	35 l	35 l

All machines are equipped with the cutting line indicator.
Machines can be purchased also in an selected authorized dealers of Honda brand in Europe.

DIAMOND CUTTERS HYDROG HONDA SHARKY

TECHNICAL DATA

Type	WH-160	WH-300
Maximum drill diameter	160 mm	300 mm
Maximum drilling depth	400 mm	400 mm
Drive	hydraulic	hydraulic
Oil flow	20-26 l/min	20-30 l/min
Oil pressure	150 bar	150 bar
Hydraulic quick couplers	Flat Face 3/8"	Flat Face 3/8"
Drill fixing	1 1/4"	1 1/4"
Dimensions	790 x 280 x 1.020 mm	860 x 240 x 1.020 mm

Both types of machines are equipped with drilling angle adjustment, a connector for connecting the cooling water.



DIAMOND DRILLING MACHINES HYDROG WH



TECHNICAL DATA

Type	ASE-50
Drive	Briggs & Stratton 9 HP combustion engine
Starting	manual
Pump type	rotational positive displacement pump
Performance	up to 250 l/min
The pumped fluid	bituminous emulsion
Fluid temperature	up to 85 °C
Drive transfer	cast iron cover galvanized screws accurate and durable gear wheels

The pump also available with hydraulic drive.

PUMPS FOR BITUMEN EMULSION HYDROG ASE-50

AIRPORT CLEANING MACHINES

HYDROG OLH-3850. HYDROG TITAN-6500



AIRPORT CLEANING MACHINES

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TECHNICAL DATA

	OLH-3850	TITAN-6500
Type		
Brush length	4,50 m	6,50 m
Cleaning width	3,85 m	5,60 m
Brush shaft rotational speed	up to 13 r/sec	up to 13 r/sec
Brush rotational speed adjustment	automatic	automatic
Brush drive	hydraulic	hydraulic
Brush trace adjustment	manual	automatic
Fan performance	8 m3/sec	12 m3/sec
Fan drive	hydraulic	hydraulic
Lowering the magnetic plate	hydraulic	hydraulic
Combustion engine	Iveco 300 HP	Iveco 450 HP
Control	PLC controller, touch panel + "all in one joystick" system	

INTENDED USE

Hydrog OLH-3850 and Hydrog Titan-6500 airport cleaning machines are popular at the airports machines, designed for cleaning the airfield runways - both in summer and winter. Together with Hydrog PL snowploughs and their carriers form a complete high-performance cleaning sets.

DESIGN AND SOLUTIONS APPLIED

Depending on the version, airport cleaners can have a design of a trailer connectable to a truck (or tractor) - or semi-trailer to the tractor unit. They can also be ordered in the compact version as a completely built-up vehicles. The machines have following working elements: cylindrical brush, efficient fan and a magnetic plate. They are driven by their own internal combustion engine and their drive is independent from the towing vehicle. The roller brush has a modern cassette structure. Replacing of the cassettes is performed without disassembling of the shaft, after which the brush does not require re-balancing. Intuitive control based on PLC controller, color touch screen and the "all in one joystick" system prevent operator's error. Airport cleaner control is integrated with Hydrog PL snowplough control.





HYDROG Zakład Budowy Maszyn Eksport Import
119BC Demokratyczna Str., 93-348 Łódź, Poland
tel. +48 42 645 77 42, fax +48 42 645 87 42
hydrog@hydrog.com
www.hydrog.com

Your local dealer:



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