

**COMMERCIAL RADIO CONTROLLED MOWERS** 

# CATALOG







AFETY
PRODUCTIVITY
NNOVATION
SIGN
NVIRONMENT
EVENUE

# **About DVOŘÁK company**



### **General information**

The DVORAK - svahové sekačky Ltd. (DVORAK - machine division) was founded on July 1, 2004 by its current owner – Mr. Lubomír Dvořák – as a machine division of the Dvořák consortium. The patent protected radio controlled slope mower Spider is the dominant product of the company.

Thanks to the revolutionary design the product the Dvořák company holds a very special position at the municipal equipment market. During the first year from the launch of production the company has won appreciation and respect of both consumers and specialists throughout Europe, USA and Japan. The Dvořák company is fully aware of its constructional potential and put a lot of effort into further development of products with high design and safety standards. Satisfaction of clients is our primary goal

# **Company mission**

The mission of our enterprise is a continuous innovative process. Our goal is to seek for gaps in the market and to address customers with new, innovative products, which are not offered by our competitors.

# **Quality policy**

Our mission is to be a reliable supplier of municipal machinery for both domestic and international customers, and to meet the requirements of our clients in terms of volume, quality and timing of our deliveries. Our quality policy is to improve the quality management system in compliance with EN ISO 9001:2001





www.slope-mower.com



# **Spider** mowers

# What is a Spider mower?

Spiders are versatile commercial radio controller mowers with a unique climbing ability, low cost operation, high operator's safety and larger field of application. Spider mowers enjoy patent protection in major countries around the world.

# **Applications for Spider mowers**

Spider mowers can be used for the maintenance of flat and nicely cut areas as well as extreme slopes with thick brush. With just one mower you can thus cut almost all areas, which previously required various specialized equipment. You would hardly find a more versatile mower in the market than the Spider.

# Design

Light aluminum-alloy structure of main frame ensures low total weight of the machine and thus low fuel consumption and great climbing ability. The internal combustion engine drives the travel wheels through a hydrostatic transmission. The cutting deck is engaged by an electromagnetic clutch. Steering and height of cut adjustment are powered by electric motors. Simple and comprehensible technical design of Spider mowers ensure trouble-free servicing and maintenance.

### Dance step

The patented drive system called the "dance step" can be described as a combination of a full forward and reverse all-wheel drive in combination with unlimited continuous 360 degree all-wheel steering. Thank to this system the Spider mowers can easily move on slopes or in wet areas and change driving directions while preserving the all-wheel drive. The Dance step makes Spider mowers very stable, maneuverable and gentle to the terrain as the machine does not have to skid steer like many other (mainly track-driven) machines. In areas with rapidly changing slopes and in places where other machines can hardly move, the Spider mowers and their "dance step" are absolutely unsurpassable.

# Radio control

The industrial remote control transmitter ensures necessary comfort and safety for the operator, especially when working in heavy and sloping terrain. The reach of the remote control exceeds 300 feet. The transmitter is powered by a battery, which allows for up to 20 hours of work. The charging time is roughly 3 hours. The transmitter comes with a spare battery and a 12V car charger.

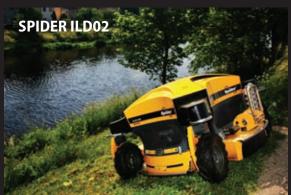
# The remote controller allows the operator to control the following functions:

- Engine start and shut off
- Speed range adjustment (turtle / rabbit)

- Cutting deck engagement / disengagement
- Engine speed regulation
- Height of cut adjustment
- Speed and drive direction control
- Wheel steering (360°)
- Skid steering
- Frequency channel selection
- Emergency shut down

The microprocessor-operated radio control system complies with all relevant standards and high safety criteria. Controller's failure to observe instructions or the loss of signal due to the excess of safe distance are evaluated as a critical state by the microprocessor, which consequently shuts down the whole system.





# **Patent protection**

The design of Spider mowers enjoys patent protection in Europe, USA, Japan as well as in other countries.

# *Spider*° ILD01

The radio controlled slope mower SPIDER ILD01 was designed for the maintenance of uneven and inaccessible terrain with slopes of up to 40 degrees (55 degrees with the stabilizing winch). The mower can deal with rough brush, wild growth and unkempt grass.

It is invaluable especially during the maintenance of ditches and slopes surrounding roads, for the mowing of fruit orchards and forest nurseries, landfills, areas around power stations, airports or mountain hotels, downhill runs and parks.

Due to the unique drive system it is very suitable for the maintenance of areas surrounding water reservoirs, rivers, waterworks and dams. The 4-wheel drive system allows the use of the mower in wetlands and in protected natural protected areas.

Spider ILD01 mower will find its place wherever you need to cut an inaccessible or unmaintained area. It is designed mainly for professional use, but is suitable even for consumers who need to mow larger pieces of land.



# **Technical specifications:**

### **Power unit:**

Engine Performance Cubic capacity Ignition Fuel capacity Fuel

**Drive system:** Transmission Oil tank Speed Steer Tires

# **Mower:**

Mowing width Height of cut

Blade clutch

# Performance / Consumption:

Work productivity

Fuel consumption Climbing ability Dimensions

Weight

Kawasaki FH 500V 17 HP 494 ccm

electronic 3,2 gallon (12 liter) unleaded gasoline

hydrostatic 1.7 gallon (6,5 liter) 0 - 5 mph (0 - 7 km / hod)360 degree, 4-wheel

16 x 6.5 - 8

32 inch (80 cm)

 $2\frac{1}{2} - 4\frac{1}{2}$  inch /  $1\frac{1}{4} - 3\frac{1}{4}$  inch (6 - 11 cm / 3 - 8 cm)

electromagnetic with friction brake

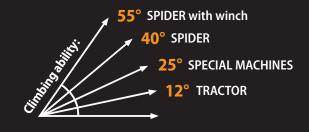
up to 0.75 acre per hour (3000 m<sup>2</sup> per hour)

0.7 gallon per hour (2.5 liter per hour) 40 degrees / 55 degrees with winch

47¼ x 53½ x 36 inch (1200 x 1356 x 913 mm) 540 lbs (245 kg)

# **Productivity:**





# *Spider*° ILD02

The radio controlled slope mower SPIDER ILD02 is designed for the maintenance of uneven and inaccessible terrain with slopes of up to 41 degrees (55 degrees with the stabilizing winch). Is it however also excellent for the mowing of flat areas. The construction of the mower allows it to deal with rough brush, wild growth and unkempt grass, but also with well maintained park areas, where high quality of cut is required. In general Spider ILD02 is intended for the mowing of larger areas.

Spider ILD02 mower is extremely useful especially during the maintenance of ditches and slopes surrounding roads and military areas (hangars, ammo depots, weapon testing sites). Furthermore it can be used for the maintenance of agricultural and farming areas (orchards), power plants, airports, mountain hotels, downhill runs and parks. It is often used for the mowing of golf courses and other sports grounds.

The mower is also very suitable for the maintenance of areas surrounding water reservoirs, rivers, waterworks, dams and flood walls. Spider ILD02 can easily be used in wetlands and in protected natural protected areas.

Spider ILD02 mower will find its place wherever you need to cut an inaccessible or unmaintained area, but also in places where high mowing frequency and good quality of cut are required. Spider ILD02 is an absolutely versatile mower designed primarily for professional use.

# **Technical specifications:**

### **Power unit:**

Kawasaki FS 691 Engine Performance 24 HP Cubic capacity 675 ccm Ignition electronic **Fuel** capacity 4.5 gallon (17 liter) Fuel unleaded gasoline

# **Drive system:** Transmission

Hydrostatic Oil tank 2.4 gallon (9 liter) 0 - 5 mph (0 - 8 km per hour) Speed Steer 360 degree, 4-wheel 16 x 6.50 - 8 Tires

Mowing width 48½ inch (123 cm) Height of cut (9 - 14 cm / 7 - 12 cm)Blade clutch electromagnetic

Work productivity up to 1,75 acre per hour (7000 m2 per hour)

0,8 gallon per hours (3 liter per hour) 41 degrees / 55 degrees with winch 64½ x 56¼ x 36 ¼ inch

(1640 x 1430 x 920 mm) 716 lbs (325 kg)

# Performance / Consumption:

Fuel consumption Climbing ability Dimensions

Weight





# Advantages and features of **Spider** mowers

# **Productivity**

High work productivity is apparent especially in difficult terrain where Spider ILD02 can replace as many as 15 workers with weed-eaters or 1 boom mower carried by a tractor. The unique drive system makes every move productive and Spider mowers do not waste any time by turning around while starting to cut a new row or while cutting around obstacles. The resulting productivity is higher than what other machines can offer.

# **Safety**

The market does not offer a safer machine than the Spider. Thanks to the remote control the operator is away from the dangerous working area and isn't exposed to vibrations of excessive noise. The work safety can be increased by using the hydraulic winch, which ensures maximum possible stability and protection from undesired movements even on extreme slopes. Spider mowers bring safe operation even in the toughest conditions.



# **Low-cost operation**

Light structure of the Spider slope mower means low fuel consumption, which is – with regards to the possible mower application and high productivity – unmatched. Together with low maintenance cost this means a rapid return of investment.

# **Unique drive system**

The patented drive system "Dance step" ensures superb maneuverability in terrain while preserving all-wheel drive, maximum gentleness to turf, great climbing ability and high user comfort.

# **Versatility of application**

Spider mowers in just one set-up can be used for intensive mowing of short grass and park areas as well as for cutting of rough and thick shrub. They are also suitable for mowing both flat areas and the steepest slopes. With Spider mowers you can cut all areas and do not need various specialized equipment.

# **Climbing ability**

Low weight and a unique drive system allow Spider mowers to drive on extremely steep slopes with an incline up to 40 degrees. With the hydraulic stabilizing winch it is possible to safely cut slopes up to incredible 55 degrees while preserving the optimum position of the engine and its proper lubrication. Spider mowers can be used even on such slopes where walking is difficult if impossible.

# **Environmental friendliness**

Thank to its wheeled chassis Spider mowers are very gentle to turf and do not cause its erosion. Low fuel consumption of the engine results in minimum emissions. Spider mowers can furthermore be equipped with biologically degradable fluids, which are suitable for the maintenance of ecologically sensitive areas such as water reservoirs and river banks.

# **Quality of cut**

High quality of cut allows for Spider mowers application even on park grass and larger lawns. The cutting deck mulches the grass, which consequently falls back to the roots and fertilized the lawn for further growth.



# Accessories

# **Hydraulic stabilizing winch HSN02**

Spider ILD01 and ILD02 mowers can be equipped with a hydraulic stabilizing winch, which further broadens the field of their application. The hydraulic drive is fully synchronized with the wheel drive and works automatically. Using of the winch brings numerous advantages:

The winch helps to stabilize the mower in problematic terrain and in steep inclines. As the mower is firmly anchored by the winch, the risk of tipping over and falling from slope is minimized.

The winch stabilizes the mower and helps it climb steep slopes. With the winch engaged the mower can climb slopes with tile up to 55 degrees.

As the mower is secured by the winch and as the winch helps to pull the mower up, it is possible to cut steep slopes quicker than without the winch.

After its engagement the winch works automatically and is fully synchronized with the wheel drive. The operator does not need to control the winch separately.

The hydraulic winch lowers the wheel load and aids to a gentle behavior of the mower to the turf in steep slopes.

# **Snow plow SPL01**

The snow plow was developed as an attachment to Spider ILD02 mower for the purpose of clearing snow in winter seasons. The plow can be adjusted in 3 positions: 0°, 30°, -30°. A lifting wheel lifts the plow when reversing. A lifting lever secures the plow in a transport position. Working width of the plow is 55 inches (140 cm).

# **Transport trailer**

A special trailer for the transportation of Spider mowers behind a car includes integrated ramps and a locking system preventing the mower from movement.





**Hydraulic stabilizing winch HSN02** 





**Snow plow SPL01** 





**Transport trailer** 

# **Application of Spider mowers**



**Highway maintenance** 



**Railway corridors** 



**Landfills and mines** 



**Municipal applications** 



Military areas and airports



Dams and water reservoirs



Orchards and vineyards



Winter maintenance

# **Manufacturer:**



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# **Awards:**







**CivEnEx**Australia
Most Innovative Product



**IoG SALTEX**England
Best New Landscape Product



**Design Centrum**Czech Republic
Best Product of 2005:
Excellent Design Award



**Demo Park** Germany Silver Medal



**GALABAU**Germany
Best Innovative Product



**Red Dot Award**Germany
High Design Quality Distinction



**Techagro** Czech Republic Best Product



**MSV Nitra** Slovakia Trade Fair Award



**ÖGA**Switzerland
Best Innovative Product