



ACE-ASP

Airport Combination Machine



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The ACE-ASP was developed for de-icing airport runways, taxiways and aprons. It applies liquid and solid de-icing agents very precisely via combi discs and spray nozzles. The maximum spraying and spreading width is 24 metres.

Construction and Technology

The ACE-ASP comprises of four components: the modular polyethylene fluid tanks and drive unit, the separate hopper, two side-mounted spray arms with air-injected and projection nozzles, as well as, two rear-mounted special combi discs. The stable and low maintenance combi discs were specially developed for applying both liquid and solid de-icing materials. There are very few wearing elements. The high-quality air-injected nozzles are arranged in two or three rows. Each row is turned on or off depending on the speed and the dosage level. The spraying arms are suspended via a special parallel structure. Spring mounted support wheels prevent the spraying arms from coming into contact with the ground through large vibrations. The spraying arms can also be completely retracted. The entire machine is coated with a specially developed corrosion protection. The spray tubes are made of stainless steel. Specially designed for mounting on large carrier vehicles or semi-trailers, the combination machine is powered by the vehicles' hydraulics or a separate diesel engine. The modular design makes a wide variety of assembly options for the ACE-ASP possible. This ensures that it can be easily customised to meet the individual needs of the various airports.

In Operation

The ACE-ASP tackles icy surfaces using anti-icing and de-icing methods with a road speed related control of up to 30 km/h. The spreading width of the two rear combi discs is 6–24 m. During spraying it is 3–14 m. Together with the completely extended spraying arm, a spraying width of 24 m is achieved. Applying up to 50 g/m² of the de-icing liquid is done with high precision and a good coverage efficiency. Up to 50 % of solid spreading material with an admixture of liquid de-icing agent can be applied. Switching to the application of de-icing fluid is made possible by the unique Schmidt low-pressure pump system with its air-injected nozzles and low spraying pressure. The nozzles form large drops and are positioned just 300 mm above the surface of the ground. This reduces turbulence to a minimum. The rear nozzles are laterally set and close together creating overlapping spraying patterns.

Spraying is controlled by an easy-to-operate control panel located in the operator's cabin. This enables both the spraying width and dosage to be regulated quickly and concisely. Even if an emergency stop at a speed of 40 km/h is made, the ACE-ASP's spraying arms remain in the same position.

Technical Data

Tank capacity	according to customer requirement
Spreading width	6 m–24 m
Spraying width	3 m–14 m / 24 m
Operating speed	up to 30 km/h road speed related
Dosage	up to 50 g/m ²
Distribution	2 special combi discs, air injected nozzles
Drive unit	vehicle hydraulics or diesel engine
Construction	truck (fix-mounted or de-mountable system)

