

# Vertical Spray Trolley

Integration of standardization in R+D project to design and develop new plant protection product (PPP) application equipment

Investment in PPP application equipment—either in its design or in the way of the application is carried out using new technologies— will result in lower consumption and exposure levels and improved effectiveness on the crops.

Safe Use Initiative

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The “Safe Use Initiative” (SUI) is a pilot project carried out by ECPA (European Crop Protection Association) to improve the safety and health of applicators of PPP. New application techniques that aim to prevent worker exposure by distancing the source or automating the application were identified.

Exposure study

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This is the case of the vertical spray trolley (VST) which produces more localised spraying and reduces worker exposure, according to a field exposure study sponsored by AEPLA (Spanish Crop Protection Association) in 2012, as the spray cloud that is generated is far from the operator and moves in the opposite direction.

Working group

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A working group including manufacturers, Universities of Almería and Córdoba, AEPLA and INSHT has been established to analyse the VST pre-commercial prototype and to elaborate a guidance to help to VST manufacturers to design a safe product.

Other hazards

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However, in addition to the hazard arising from the exposure to PPP, other hazards should be taking into account referring to safety and environmental protection.

Similar sprayers

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First of all, similar application equipment in the market (boom sprayer, atomiser, semi-mobile sprayer) were selected in order to find differences and similarities between their designs and the VST pre-commercial prototype.

Comparison to standards

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In order to determine hazards and requirements for safety and environmental protection a comparison to the specifications of existing standards was carried out.

Recommendation guide

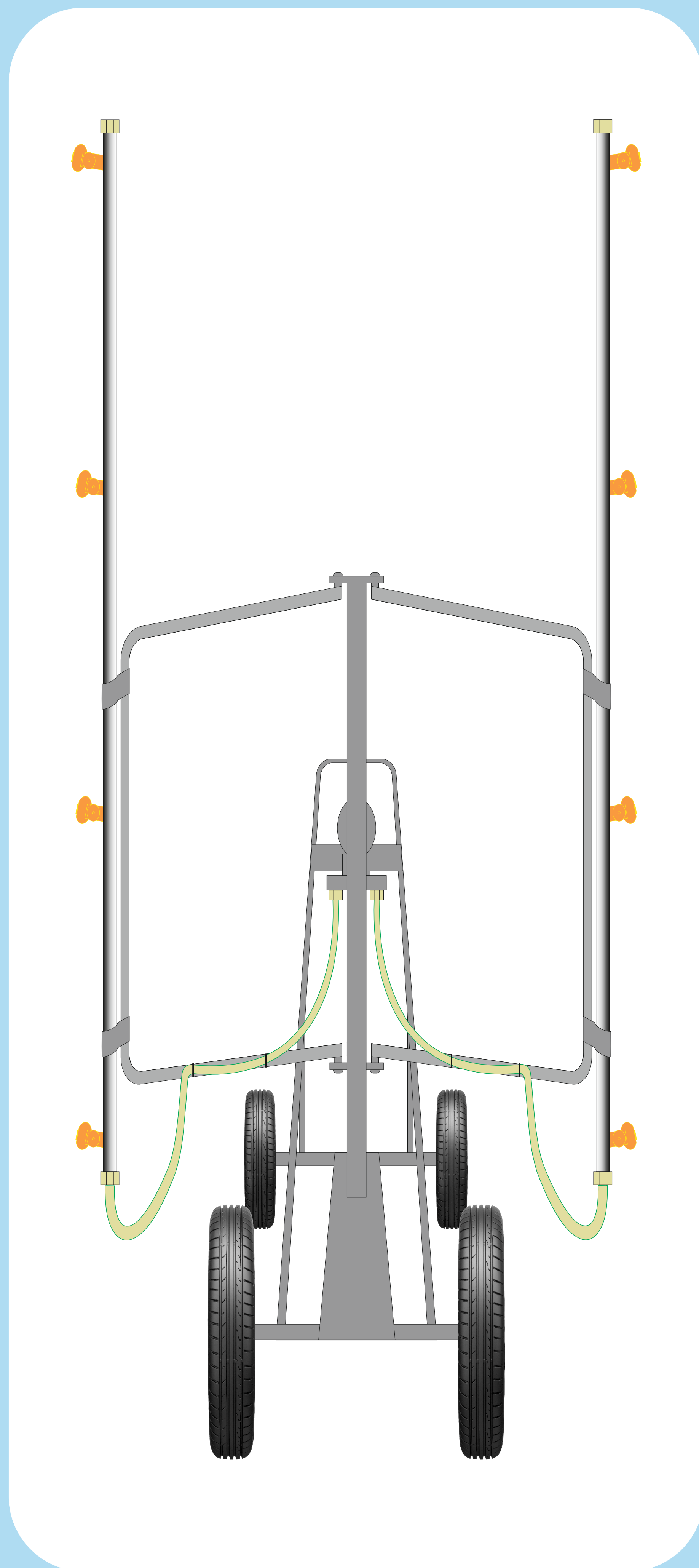
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Nowadays, these lists of hazards, protection measures and inspection requirements are the basis of a recommendation guide under development for VST design.

Hazards and protection

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A list of common significant hazards to be applied to VST was developed, other specific significant hazards not included in the analysed standards were identified and a list of protection measures was established. Also, requirements for VST inspection were considered.



GOBIERNO DE ESPAÑA

MINISTERIO DE EMPLEO Y SEGURIDAD SOCIAL



INSTITUTO NACIONAL DE SEGURIDAD E HIGIENE EN EL TRABAJO

