

## Electro-Hydraulic Spreader

Y/N

<ol style="list-style-type: none"><li>1. The tool shall be a tool designed hydraulically activated piston with two equal, opposite light metal alloy spreader arms that are symmetrically opened by mechanical joints, thereby spreading objects. Closing the spreader arms is also carried out hydraulically and mechanically by reverse order of the piston.</li><li>2. Electro-hydraulic devices shall not need to be connected to an external hydraulic source. Generation of the required hydraulic pressure takes place within the body of the device by either a quick exchange battery or an external power supply. ( see spec on external power supply)</li><li>3. The electro-hydraulic tool shall be equipped with lights to facilitate work under poor lighting conditions. For simplicity, the lights shall be powered by the same battery that powers the electro-hydraulic tool and not a secondary battery.</li><li>4. The cylinder of the tool shall be one piece design made of anti-corrosive light aluminum allow for its lightweight, strength and long life. The body of the tool shall have a high impact, non-metallic housing. The housing shall have ventilation holes on both sides of the unit for cooling the motor.</li><li>5. The spreader shall produce a maximum spreading force of up to 145,000 lbf.</li><li>6. The tool shall produce a maximum spreading distance of 28 inches.</li><li>7. According to NFPA testing standards the HSF test point produced shall be a minimum of 16,000 lbf, the LSF test point produced 11,000 lbf.</li><li>8. To maximize the capability of the spreader the unit shall include an optional chain and shackle package for pulling operations. This shall not require the removal of the tips for attachment. According to NFPA testing standards the HPF test point produced a minimum of 10,000 lbf , the LPF test point produced 6,000 lbf.</li></ol>	
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9. The tool shall produce a pulling distance of 22inches.
10. The tips shall be removable, multifunctional tips that can be used for spreading, squeezing and pulling without the need to be changed.
11. The tips shall be easily removed.
12. The arms of the tool shall be made of aluminum alloy and attach via removable links for ease of repair, efficient power transmission and smooth operation. The arms shall include a metal protective and gripping squeezing plate on both the inside and the outside of each arm.
13. The control mechanism shall have a control actuator for ease of operation by allowing 360 degree operations in any position. The mechanism shall be separate and independent from the handle to provide added control in close-quarter operation.
14. The tool must provide a "dead man" actuator, whereby the unit stops functioning when thumb pressure is released.
15. The tool shall be equipped with a dual pilot check valve. This is to prevent accidental movement of the arms in the event of power loss.
16. The tool shall be protected by a pressure relief valve that prevents it from being over pressurized.
17. The tool dimensions without the battery shall not be longer than 40 inches, wider than 12 inches or higher than 12 inches.
18. The normal electrical voltage (with power supply) is a minimum of 24 V. The nominal electrical voltage (with lithium/ion battery) is minimum of 24V.
19. The tool shall be able to tolerate an ambient temperature range of -5°F up to +130°F.
20. The tool shall be NFPA 1936; 2015 Edition certified and shall be labeled as such bearing the mark of the testing agency.
21. The tool shall not weigh more than 45 lbs excluding the power supply.