Data Sheet

SPIDER
Lighting Suspension System

Mod. 8150

Data Sheet

FEATURES

- SAFETY: The **SPIDER** complies with all safety standards set forth by the Internationally recognized testing authorities, is approved by TÜV to the German Standards DIN 15560 part 46, and by UL laboratories. These standards are directly associated with the safety of suspensions systems mounted above an assembly of people.
- FLEXIBILITY: The **SPIDER** is made up from a double scissor arms structure and a winch unit that recess within it to obtain very compact closed dimensions of the whole machine, and consequently occuping very small studio height. A Patented mechanisms, provide a stabilization of the moving part, to optimize the use of the SPIDER with Moving Lights, Cameras or un-balanced loads. The SPIDER is factory pre-configured for different extensions, up to 30'.
- MECHANICAL: The **SPIDER** can be specified for up to 30' net extension and can carry loads up to 132 lbs (60 kg) SWL (Safe Working Load). The top part includes a flange to fit either trolleies or clamps for grid mounting. The bottom part can be either a standard 1 ⅛" spigot receiver, a 6 ½' cross pipe or rail, or a special bracket with adjustable PAN and TILT for VIDEO PROJECTORS; CAMERAS or SPEAKERS.
- ELECTRICAL: The **SPIDER** can carry a maximum of 4 separate 20A circuits and DMX. In case of special application it can be equipped, on request, with most standard data cables available in the market (Audio, Video, Ethernet). The Monoblock motorized winch unit houses a 400 W motor 3 Phase 208 volt. It is available an option to fit an INVERTER at the input of the SPIDER and obtain a soft start and soft stop on the vertical movement (ideal when the suspension is used as a VIDEO CAMERA support).
- OPTIONAL FEATURES The De Sisti **SPIDER** offers several unique optional features:
    1. **Memorized Positioning Control**, memorizes and recalls the position of each SPIDER and records the information into a preset.
    2. **DMX Up/Down and Positioning Control** via a standard lighting control board or any DMX control system

SPECIFICATIONS

The De Sisti "Spider Hoist" shall be a single point suspension system incorporating a double-scissor design mechanism made up of extruded alluminum profiles. The frame structure shall be specifically designed to extend up to 30' (9.1 meters) and retract to as little as 2' 3 ½" (0.7 meters). It shall have 2 stainless steel wire rope lifting cables of 3 mm. diameter 7 x 19 construction, capable of carring loads up to 132 lbs (60 kg.), and shall carry up to 4 x 20 amp Circuits, DMX or VIDEO feeds to a terminal box at the bottom of the scissor.
The scissor arms shall be joined by screws and self locking nuts with brass spacing for accurate control of pivot. Lateral sway is restricted by means of a patented stabilizing geared device installed at the top and bottom of the double scissors framework.
The entire mechanism shall be designed to provide rigidity and stabilization of all moving parts.
Incorporated into the scissor structure is a winch drive unit of monoblock design.

Data Sheet

CHARACTERISTICS & PERFORMANCE DATA

Lifting capacity:	Max. 60 kg / 136 lbs. Load sensors tunable at lower loads			
No. of lift cables:	2			
Lift cables:	3 mm. diameter, 7 x 19 construction, stainless steel wire ropes, specific resistance class 150 kg. : sq.mm. UNI 7293-74. Minimum breaking load 626 kg. / 1.380 lbs.			
Lifting speed (average):	**With 3 phase motor**		**With 3 phase motor & inverter**	
	7,8 m/min. - 25' 7"/min.		9 m/min. – 29' 6"/min.	
Winch Unit specs for Vertical lift:	Transmission ratio 1: 178,57 Automatic interlock: **Sd** Dynamic automatic interlock (Dynamic self sustaining). Motor speed n1 = 2750 rpm. Output speed n2 = 15,4 rpm. Nominal Output Torque = 88 Nm.			
Winch unit motor Electrical specs:	Three Phase supply: 400 W			
	Type of input voltage	**220/380V 50 Hz +/- 5 %**	**120/208V 60Hz +/- 5%**	
	Nominal Steady state current per phase	2,1A @ 220V 1,25A @ 380V	4,1A @ 120V 2,4A @ 208V	
	Inrush current	5A @ 220V 3A @ 380V	16A @ 120V 9A @ 208V	
	Cos **F**	0,7	0,7	
Inverter for motor supply in single phase:	Power: 750 W Input: Single phase 220 V 50 Hz. Output: 3 phase 220 V Frequency 0-60 Hz. Soft start and stop 0,5 sec. Motor direction reversing			
Load Sensing:	Over/under load sensing mechanism independent on each lift cable.			
Closed dimensions (depending on extension)	**Minimum**		**Maximum**	
	700 mm. – 2' 3-1/2"		1.000 mm. – 3' 3-3/8"	
Max extension available (special versions on request):	9.1 m. – 30' To determine hanging point please add 1 m. closed dimension and 1,5 m. from the floor as bottom limit position.			
Self weight of SPIDER	**Minimum**		**Maximum**	
	50 kg. – 110 lbs.		65 kg. – 143 lbs.	
Control systems available	**PBS-HMC**	**HDC-HRC**	**DMX**	**ICARUS 2000/DMX**
Travel limit system	TÜV approved mechanism, including 4 fine adjustable safety switches (resolution of 3 mm. in a 10,5 m. travel), including: EXTRA TOP LIMIT , TOP LIMIT, BOTTOM LIMIT, EXTRA BOTTOM LIMIT The mechanism can be easly retrofitted with positioning sensor.			

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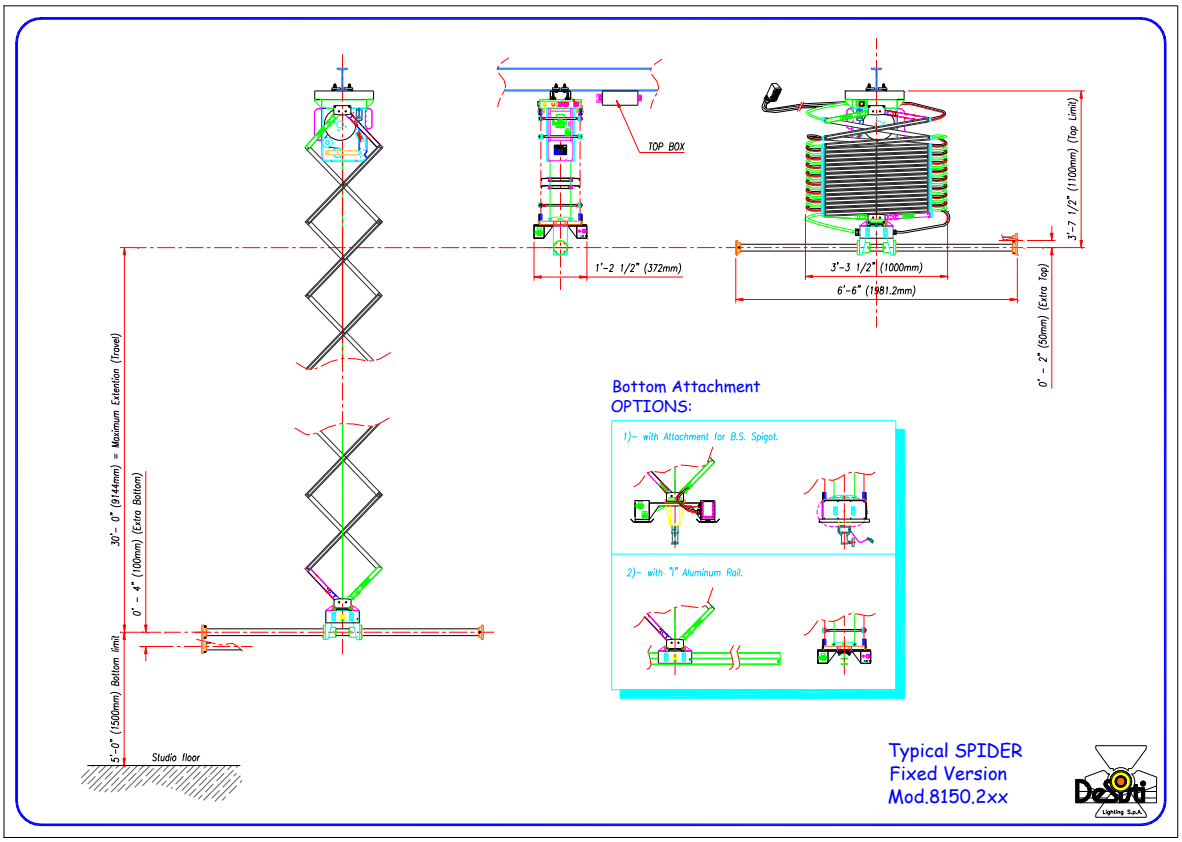
TYPICAL SPIDER DRAWING



APPLICATION EXAMPLES