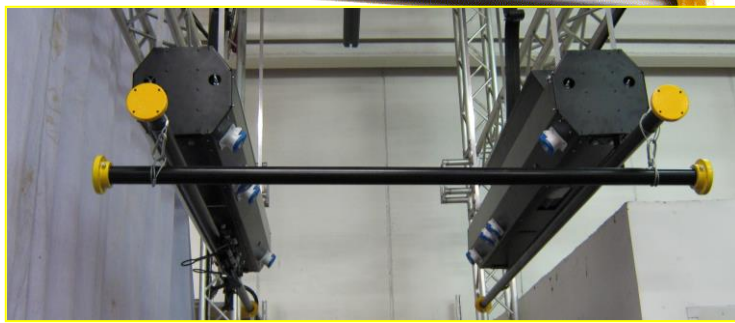
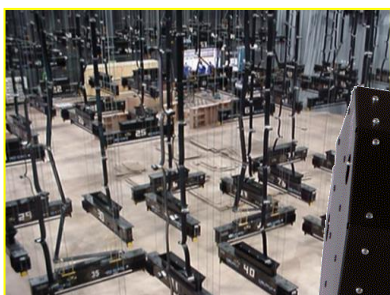
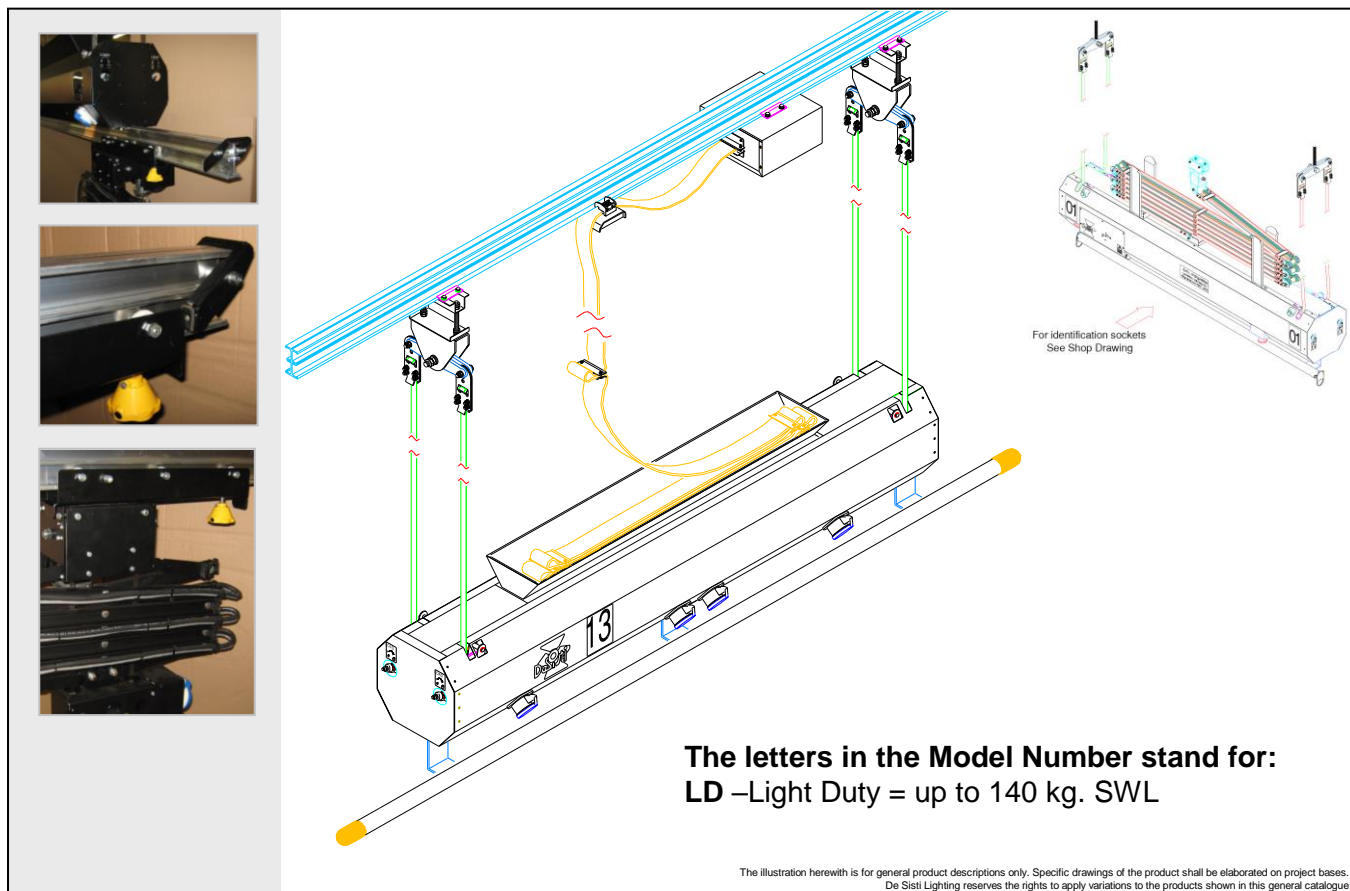




SELF CLIMBING HOIST BAND TECHNOLOGY LD - Light Duty - 140 kg. SWL





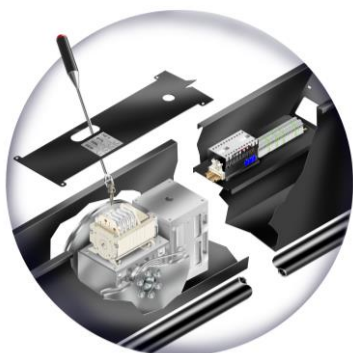
FEATURES

- SAFETY** The **SELF CLIMBING HOIST "LD"** complies with all safety standards set forth by the Internationally recognized testing authorities of TÜV to the German standards and by UL laboratories standards. These standards are directly associated with the safety of suspensions systems mounted above an assembly of people. The safety features incorporated into the **SELF CLIMBING HOIST "LD"** include, a static self sustaining worm-gear set motor with 2 independent brakes normally engaged and only released during motion, to prevent dynamic back winding. Four independent stainless steel FLAT BANDS, with the breaking force of each band being 948 kg for the HD version. There are four Safety Micro Switches, one for the top limit plus an extra emergency safety switch and one for the bottom limit, plus an extra emergency safety switch. The **SELF CLIMBING HOIST "LD"** has both overload and slack line detection on each Lifting Band.
- FLEXIBILITY** The **SELF CLIMBING HOIST "LD"** is available in standard lengths of up to 3 meters, but longer versions are available on request. It is designed for either fixed positions in Television, Stage or Architectural applications or as a Trackable Hoist System with the ability to be moved into the set area via a tracks mounted to the sub-structure and running the length of the studio, either manually or motorized. Because the **SELF CLIMBING HOIST "LD"** overall assembly height is only 1 m. (it could be less, depending on vertical extensions) , it is ideal to reduce the occupancy of studio heights from the motorized rigging and it can also be used in contained ceiling heights. The **SELF CLIMBING HOIST "LD"** can travel up to 15 meters (longer drops are also possible on request), carry a wide combination of load circuits and retract to 1 meter. Using the Trackable Hoist System, not only can the hoists be moved into the set area but can also be angled to conform to the angle of the set pieces for improved lighting positions. Motorized tracking is also available.
- MECHANICAL** The mechanical design of the **SELF CLIMBING HOIST "LD"** incorporates a special frame that maintains a clear separation between the moving parts (mechanical elements in motion), like Bands, winding discs, diverter pulleys, load sensor mechanisms) and the electrical components (electrical wiring, motor switch-gears, safety micro switches, electrical and data sockets, travel limit device). The separation of these elements allows maintenance procedures to be performed safely and the electrical components maintained in a clean environment. The special cable management system makes the load circuit handling neat and easily managed when the hoist is raised or lowered.
- OPERATIONAL** The **SELF CLIMBING HOIST "LD"** is capable of lifting a (SWL) safe working load of 140 kg plus the self-weight of the hoist which is based on the travel distance and the optional features included. The maximum travel distance is 15 meters (meaning that the machine can be installed in heights of 17,5 m. in its standard version), longer drops are available on request.
- OPTIONAL FEATURES** The De Sisti **SELF CLIMBING HOIST "LD"** offers several unique optional features:
 - Positioning Control** memorizes and recalls the position of each hoist recorded in preset.
 - Speed and synchronized Group Control** only in combination with the Positioning Control system.
 - DMX Up/Down and Positioning Control** via a standard lighting board or any DMX control, for special applications
 - HDC Group control**

CHARACTERISTICS & PERFORMANCE DATA

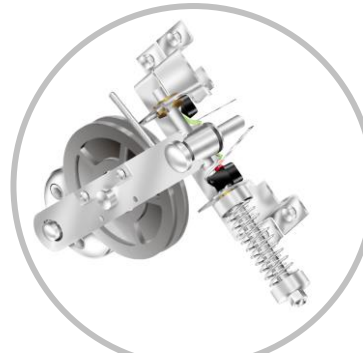
PRODUCT	DE SISTI SELF CLIMBING HOIST “LD” (Light Duty)
S.W.L. Net lifting capacity of HOIST (PAYLOAD):	140 kg. <small>(with self weight of moving batten & cable management of max. 100 kg.)</small>
Lift Bands:	4 independent STAINLESS STEEL METAL BANDS 20x0,3 mm. cross section, minimum breaking load per band 948 kg. Rounded edges.
Winch Unit specs for Vertical lift:	1.1 kW, 3 phase AC primary supply: either one of the 3 following voltages are available 240/415 V 50 Hz +/- 5 %, 220/380V-50 Hz +/- 5 %, 120/208 V 60 Hz +/- 5 %. Statics automatic interlock and Double Independent Brake (BGV – C1).
Lifting speed (average):	6.4 m/min. <small>(if combined with Vectorial Inverter + 15% to 20%)</small>
Load Sensing:	Over/No load (Slack Line) sensing mechanism independent on each lift band
Travel limit system	TÜV approved mechanism, including 4 fine adjustable safety switches (resolution of 3 mm. in a 10.5 m. travel), including: ET = EXTRA TOP LIMIT TL = TOP LIMIT BL = BOTTOM LIMIT EB = EXTRA BOTTOM LIMIT

DETAILS SELF CLIMBING HOIST “LD” WITH BANDS



**HIGH PRECISION
TÜV APPROVED
TRAVEL LIMIT
MECHANISM.**

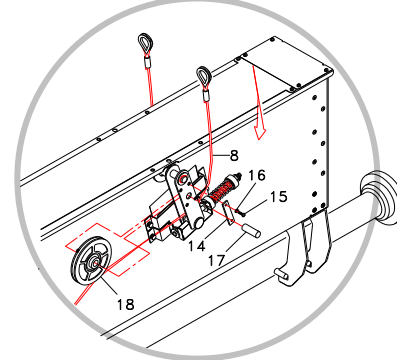
**3mm. Resolution
on full extension**



**INDIVIDUAL LOAD
SENSING
MECHANISM ON
EACH OF THE 4
STAINLESS STEEL
FLAT BANDS**



**HIGH PRECISION
& SAFE
TRANSMISSION
SYSTEM FOR
TRAVEL LIMIT
MECHANISM.**



**SPECIAL SIDE
SUPPORTS FOR
THE LIGHTING
PIPE TO ALLOW
BARREL
TROLLEY
ROLLING ON
THE FULL
LENGTH OF THE
PIPE ITSELF**

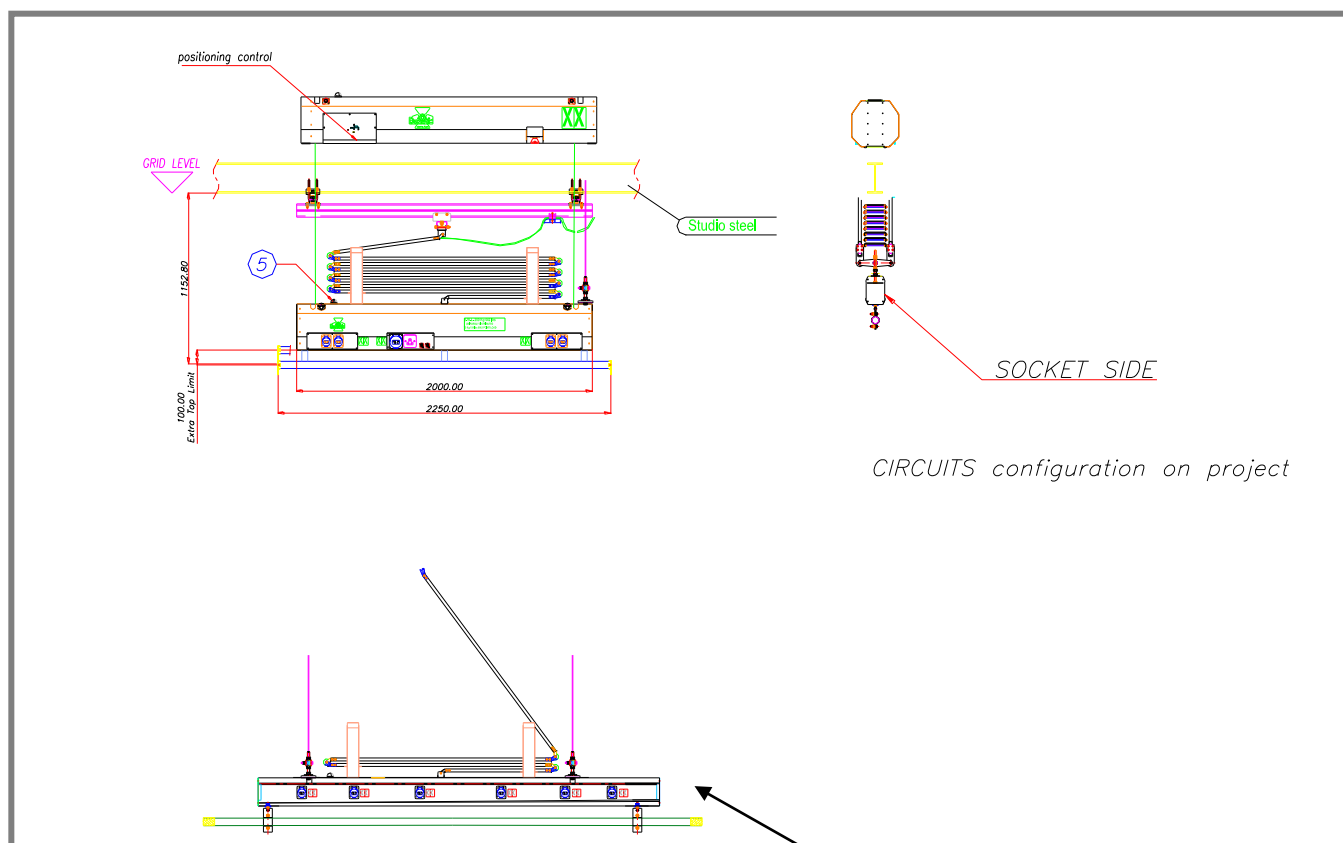
OVER GRID HOIST “LD” WITH BANDS

The product is also available in an OVER GRID VERSION, in which the MOTOR, SENSORS, ELECTRONICS and MOST parts subject to Inspections are mounted on a FRAME above the grid.

The BAND Technology is a perfect solution replacing HELICALLY GROOVED Drums, in fact the precise winch using the FLAT STAINLESS STEEL BANDS provides practically constant lifting speed and precise leveling of the moving parts, yet with SELF WEIGHT reduction if compared to linear drums winch systems.

The following is a typical drawing, but the most common practice is to Customise the support of the OVERGRID part with the existing or designed Studio grid.

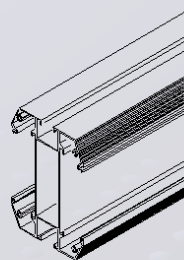
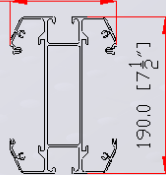
The moving part of the HOIST is formed by a special DE SISTI Aluminium Extrusion, that contains the LOAD Circuits, but with a SLICK design and an optimized segregation of relevant safety circuits:



LOADING CHART ON BATTEN EXTRUSION



130.0 [5"]



MATERIAL = 6005

WEIGHT = 6.9 kg./m. = 4.63 Lbs./Foot

BATTEN EXTRUDED PROFILE (Dimensions 190mm x 130mm)

SPAN	feet	3' 3"	4' 11"	6' 6"	8' 2"	9' 9"	11' 6"	13' 2"	14' 9"	16' 5"	18'	19' 8"	21' 4"	23'	24' 7"	26' 3"
SPAN	meter	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
POINT LOAD																
Point load (N)		18541	12263	9221	7308	6082	5150	4513	3924	3532	3139	2845	2600	2403	2207	2011
Point load (kg)		1890	1250	940	745	620	525	460	400	360	320	290	265	245	225	205
Point load (Lbs)		4158	2750	2088	1639	1364	1155	1012	880	792	704	638	583	539	495	451
Deflection (mm)		0.75	1.69	3.02	4.72	6.8	9.27	12.13	15.38	19.03	23.08	27.54	32.41	37.7	43.42	49.57
Deflection (Inches)		0.030	0.067	0.119	0.186	0.268	0.365	0.478	0.606	0.749	0.909	1.084	1.276	1.484	1.709	1.952
DISTRIBUTED LOAD																
Distributed load (N/m)		37082	16448	9221	5866	4055	2943	2256	1766	1413	1159	965	807	687	589	509
Distributed load (kg/m)		3780	1677	940	598	413	300	230	180	144	118	98	82	70	60	52
Distributed load (Lbs/Foot)		2535	1125	630	401	277	201	154	121	97	79	66	55	47	40	35
Deflection (mm)		0.94	2.12	3.76	5.88	8.46	11.52	15.05	19.04	23.51	28.45	33.86	39.74	46.08	52.9	60.19
Deflection (Inches)		0.037	0.083	0.148	0.231	0.333	0.454	0.593	0.750	0.926	1.120	1.333	1.565	1.814	2.083	2.370

CONTROLS SYSTEMS OPTIONS



PBS - Push Button System (up to 4 hoists)



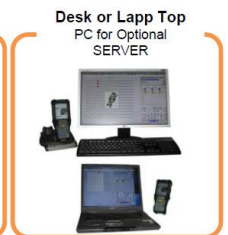
HMC - Hoist Manual Control (from 4 to 12 hoists)



HDC - Hoist Digital Control (from 12 to 312 hoists)
Mark 1 as shown
Mark 2 with Colour Touch Screen

POSITIONING CONTROL SYSTEM

CONTROLS User Interfaces



STANDARD LAN
At 10/100 Mbps
All the control devices have
their own IP

CAT 5 or 6

DATA HANDLING Signal Processing

Signal Distribution including:

CAN OUTPUT signal
Patch bay

Emergency & movement
Confirmation (dead man handling)

LAN/CAN HUB «Net Port»

Wi-fi
Access Point



CAN bus 2.0 at 50 Kbps.
The Netport decrypt data from
CONTROLS to RIGGING and
encrypt data from RIGGING to
CONTROLS

CAT 5 FTP (shielded) or SPECIAL BUS BAR (Power Rail with sliding contacts)

RIGGING & LIGHTING DEVICES

DE SISTI distributed electronics at
each device, with the following
IN/OUT features:

- Contactor or INVERTER control
- Potentiometer or Encoder reading.
- Safety Switches Monitor
- Local Control
- Grey Code SCSII interface (APOS)
- Blinking Lamp handling



DE SISTI ITGB card
Distributed on rigging & lights.

- 16-bit CPU SIEMENS 167CR, 20 MHz, with integrated CAN controller
- 4 digit display & 4 key control panel to set and/or monitor the configuration
- Integrated Monitor on RS232 communication port
- local and remote setting of operating parameters, with on board storage
- multi-tasking environment for concurrent processing of data items
- code produced with high level C language by Keil Corporation

Self Climbing or Grid Hoists



Spiders & Telescopes w/ mot. trolleys



Scenery Hoists w/ mot. Trolleys
or TOP GRID rack systems





**SELF CLIMBING HOIST
BAND TECHNOLOGY
LD 140 kg. SWL**

DeSisti