**FEATURES**

- **SAFETY** The SELF CLIMBING HOIST “EHD” 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 “EHD” 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 “EHD” has both overload and slack line detection on each Lifting Band.

- **FLEXIBILITY** The SELF CLIMBING HOIST “EHD” 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 Televison, 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 “EHD” 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 “EHD” 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 “EHD” 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 “EHD” is capable of lifting a (SWL) safe working load of 210 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 “EHD” offers several unique optional features:
  1. Positioning Control memorizes and recalls the position of each hoist recorded in preset.
  2. Speed and synchronized Group Control only in combination with the Positioning Control system.
  3. DMX Up/Down and Positioning Control via a standard lighting board or any DMX control, for special applications
  4. HDC Group control
## Characteristics & Performance Data

<table>
<thead>
<tr>
<th><strong>Product</strong></th>
<th><strong>De Sisti Self Climbing Hoist “EHD” (Extra Heavy Duty)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>S.W.L.</td>
<td>210 kg. (Net lifting capacity of HOIST (PAYLOAD))</td>
</tr>
<tr>
<td></td>
<td>(with self weight of moving batten &amp; cable management of max. 100 kg.)</td>
</tr>
<tr>
<td>Lift Bands</td>
<td>4 independent STAINLESS STEEL METAL BANDS 20x0.3 mm. cross section, minimum breaking load per band 948 kg. Rounded edges.</td>
</tr>
<tr>
<td>Winch Unit specs for Vertical lift:</td>
<td>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).</td>
</tr>
<tr>
<td>Lifting speed (average):</td>
<td>6.4 m/min. (if combined with Vectorial Inverter + 15% to 20%)</td>
</tr>
<tr>
<td>Load Sensing:</td>
<td>Over/No load (Slack Line) sensing mechanism independent on each lift band <strong>OPTIONAL:</strong> Load Measuring with STRAIN GAUGES implementation (only in combination with positionning control system)</td>
</tr>
</tbody>
</table>
| 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 “EHD” 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.**
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 exhisting 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 optimized segregation of relevant safety circuits:
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

User Interfaces

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

DATA HANDLING
Signal Processing

CAN bus 2.0 at 50 Kbps.
The hotspot decrypts data from
CONTROLS to RIGGING and
except data from RIGGING to
CONTROLS

RIGGING & LIGHTING DEVICES
DE SISTI distributed electronics at
each device, with the following
IN/OUT features:
- Contractor or WARRIER control
- Potentiometer or Encoder reading.
- Safety Switches Monitor
- Local Control
- Grey Code SCII interface (APOS)
- Blinking Lamp handling

DE SISTI: (TCP) card
- Control unit (on/off & lights).
- User CAN access (10/100 Mbps)
- 8 backchannel 5A ELCOs control
- 4 digital & 4 analog control
- 4 digit LED display & 4 file control
- 4 digital LED display & 4 file control

DE SISTI: (HC) card
- Contractor unit (on/off & lights).
- User CAN access (10/100 Mbps)
- 8 backchannel 5A ELCOs control
- 4 digital & 4 analog control
- 4 digital LED display & 4 file control
- 4 digital LED display & 4 file control

Spiders & Telescopes w/ mot. trolleys
Fixed or manual trackable
Motorized trackable

Scene Hoists w/ mot. Trolleys
or TOP GRID rack systems
SELF CLIMBING HOIST
BAND TECHNOLOGY
LD 210 kg. SWL
DeSisti