



Intelligence Options For Crane



ABOUT US

With the target of "technology-driven, quality seize the market", Clescrane was established as a systems engineering company in the field of material handling in the year of 2012. Our services cover a wide range of industries, which includes manufacturing industry, processing industry, energy regeneration and so on.

We have been working with the international well-known electrical companies in order to look for cooperation of intelligence hoisting machinery equipment. At the same time, our technical engineers are constantly providing customized designs to meet our customers' needs. Our equipment supervision team ensures the best quality of equipment for our customers. Our professional technical service team will provide zero-distance service to our customers. Clescrane is just on your side to help enhance your business and get sustainable development.

Technology is Clescrane survival principle, quality is the basic foundation of Clescrane survival. Depending on our own technology strength and supervision team, Clescrane has the professional sub-contractor who can provide us the good quality crane parts and control the whole cost in the competitive level. Clescrane intends to create an innovative lifting equipment export service companies and provide customers with the best solution and high-quality manufacturing products. With spirit of "customer first" business philosophy, Clescrane strategic objectives are not for the short-term interests instead of sacrificing the future. CLES people will wholeheartedly provide dedicated service for worldwide customers. When you choose Clescrane, you also increase security and efficiency for your business development at the same time.

Cranes in Tandem



Cranes in Tandem

Crane interlocking feature includes

1. FIX radio system: 2×transmitter + 2×receiver.
2. Transmitters and receivers including external antennas.
3. Connection cable from transmitter and receiver to interlocking panel.
4. Relays and RC-circuit assembly and wiring to bridge panel.
5. Electrical engineering and drawings.

Tandem and Synchronisation



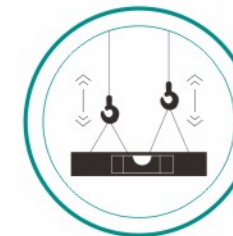
Tandem

Standard, EC Master Tandem

1. Electronic monitoring of safe tandem operation of two hoist.
2. Signal transmission between hoists via BUS cable.
3. Load summarization and crane overload.

Options

1. Anti collision device
2. LED load display, Sum load
3. Lifting speed synchronization via inverter of two or more same hoist motors on the crane



Synchronisation

Functionality

1. When lifting a load simultaneously with two hooks of the same crane, Hoisting Synchronization supervises and controls both hooks so that they run at exactly the same speed.
2. Also works with imbalanced loading between the hoists.
3. Synchronization of hoisting is always activated, when the operator selects common hoist mode.

Benefits

1. Hoisting Synchronization keeps the height difference of the hooks constant during hoisting.
2. Load does not tilt during lifting and lowering.
3. Increases both safety and productivity.



Load Floating

Functionality

1. Holds the load at zero speed for a predefined time after the hoist motion stops.
2. Hoist motor provides the needed torque at the zero speed, hoist brake does not close.
3. Transition from hoisting to lowering takes place faster.
4. Starting the motion again is fast and smooth as the brake is already open.
5. The floating time can be adjusted: typically 1~2 sec.
6. Similar Floating function is available to travelling motion.



Shock Load

Functionality

1. Shock load prevention ensures smooth load pick-up.
2. The hoist drive monitors the load and when a quick load change is detected (when slack chains or slings become tight) the system slows down until the load is lifted.
3. Impact due to abrupt load pick-up is minimized.



Load Floating and Shock Load

Benefits:

Longer lifetime of

1. Crane's steel structure
2. Mechanical components
3. Wire ropes
4. Lifting devices and slings
5. Runway structure

Stability, Smooth load pick-up

1. Makes the load movements more stable and safer
2. Protects fragile loads

Inching and Micro Speed

Micro Speed

Functionality

1. Microspeed makes load control more precise.
2. Available for hoist motion or for all three motions.
3. Microspeed turns large joystick movement at the controls into slow and precise load movements.
4. The maximum microspeed can be preset from 1% to 99% of full motion speed.
5. Each motion can have different maximum microspeed.
6. Activated by On/Off selector in radio or pendant.

Benefits

1. Microprecisely in tight spaces, increasing safety and protecting peed helps the operator control the load.
2. Useful in heavy lifting assembly applications, where very high load positioning accuracy is needed.



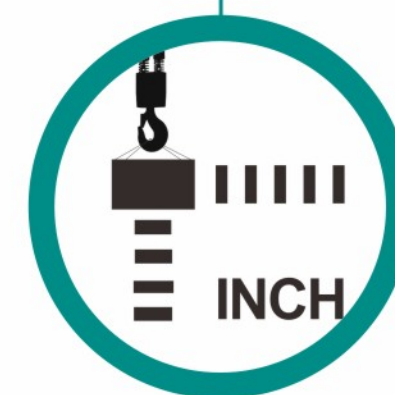
Inching

Functionality

1. Inching provides a way for accurate load positioning.
2. Available for hoist motion or for all three main motions.
3. Inching increments can be preset ranging from 2 to 100mm: - Each motion can have different Inching Increment
4. Each activation of the joystick moves the motion the preset Inching Increment.
5. Activated by On/Off selector in radio or pendant.

Benefits

1. The load is easier to put into position with the predefined inching incremental control
2. Makes accurate load positioning more efficient and reduces risk of collisions



Sway Control

Functionality

Sway Control takes the crane operator's speed command at the control and brings the load to the required speed while minimizing sway caused by acceleration and deceleration.

Benefits

Increased productivity

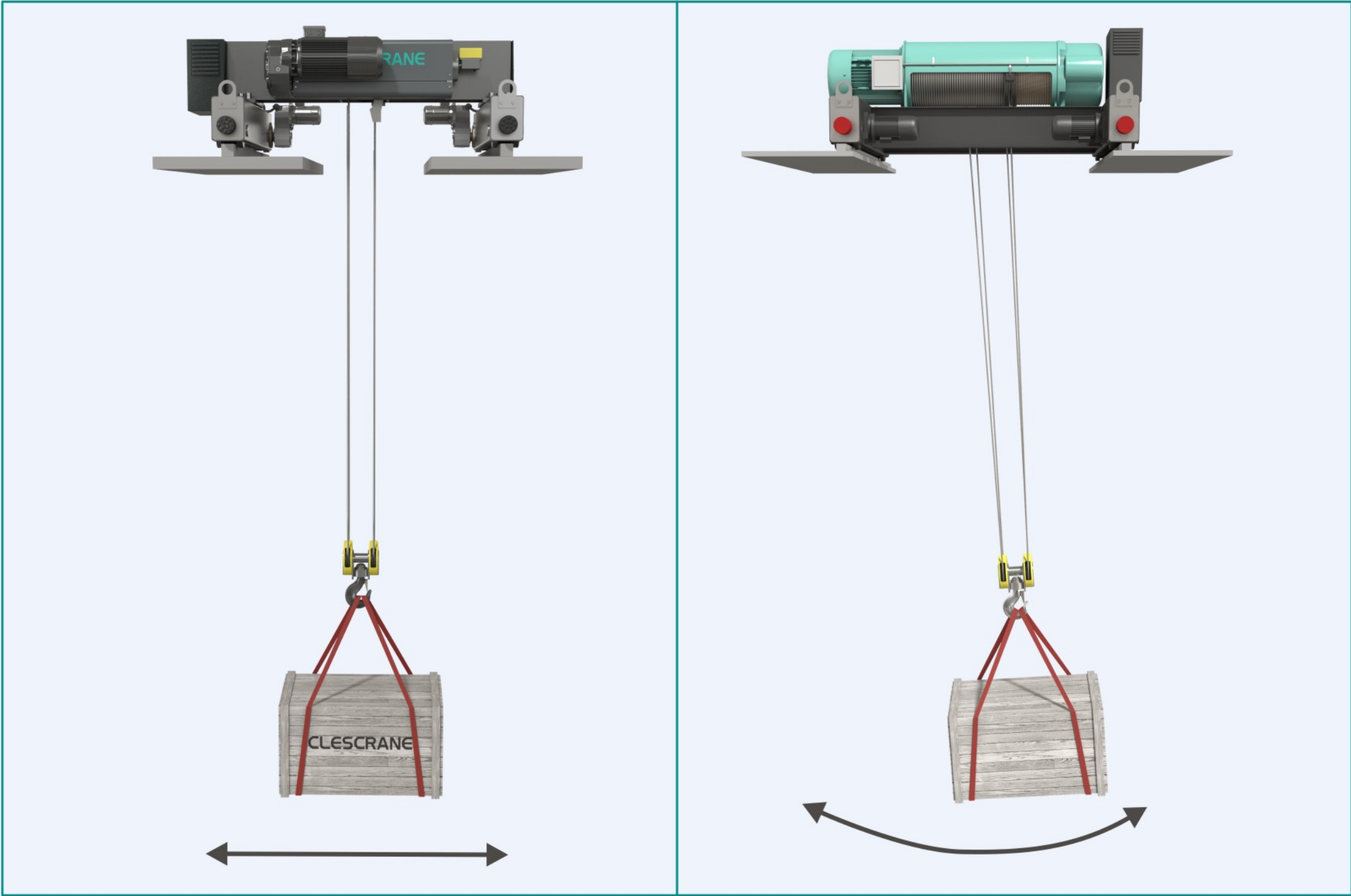
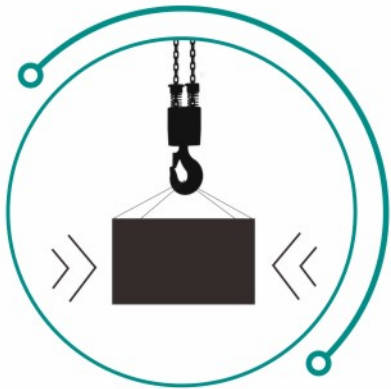
- 1. Higher speeds and faster acceleration rates can be used.
- 2. Better positioning accuracy as the load is not swaying when travel motion is stopped.

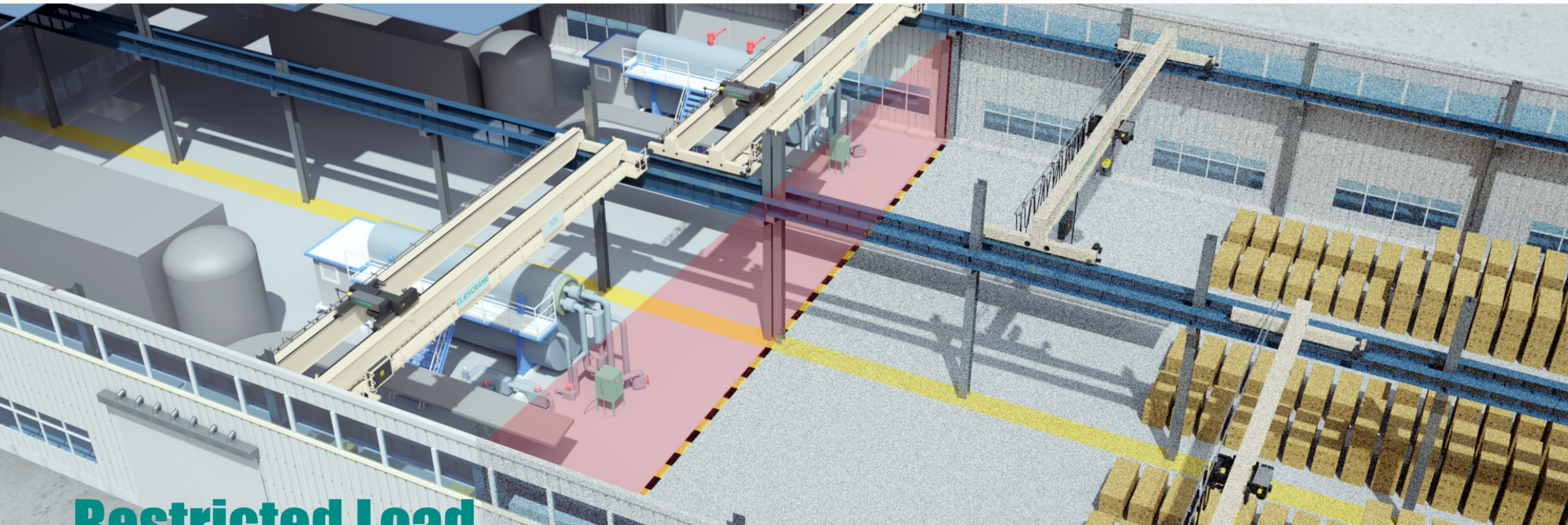
Increased safety

- 1. Crane operator can focused on safety of load handling while not worrying about the load swing.
- 2. Reduced risk of collisions due to reduced load sway.

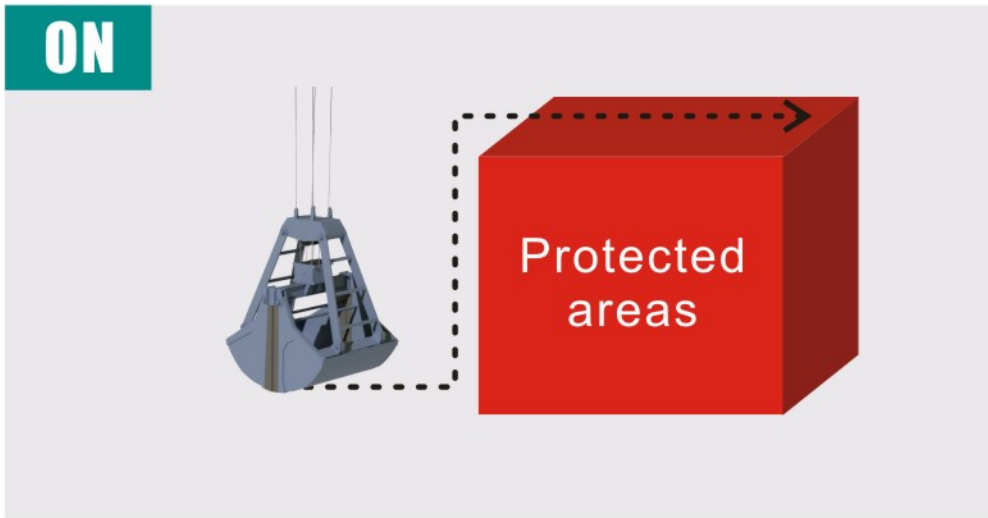
Less training needed for crane operators to reach proficient level of

- 1. Positioning accuracy
- 2. Load handling safety





Restricted Load



Restricted Load

Functionality

Load restricted area can be in trolley movement direction or in bridge movement direction or both directions. Load restriction area can be symmetrical on both sides or single side restriction.

Common for both areas is that the restriction beginning from certain point until end of crane structure. This point is done with magnetic limit switch on runway or crane.



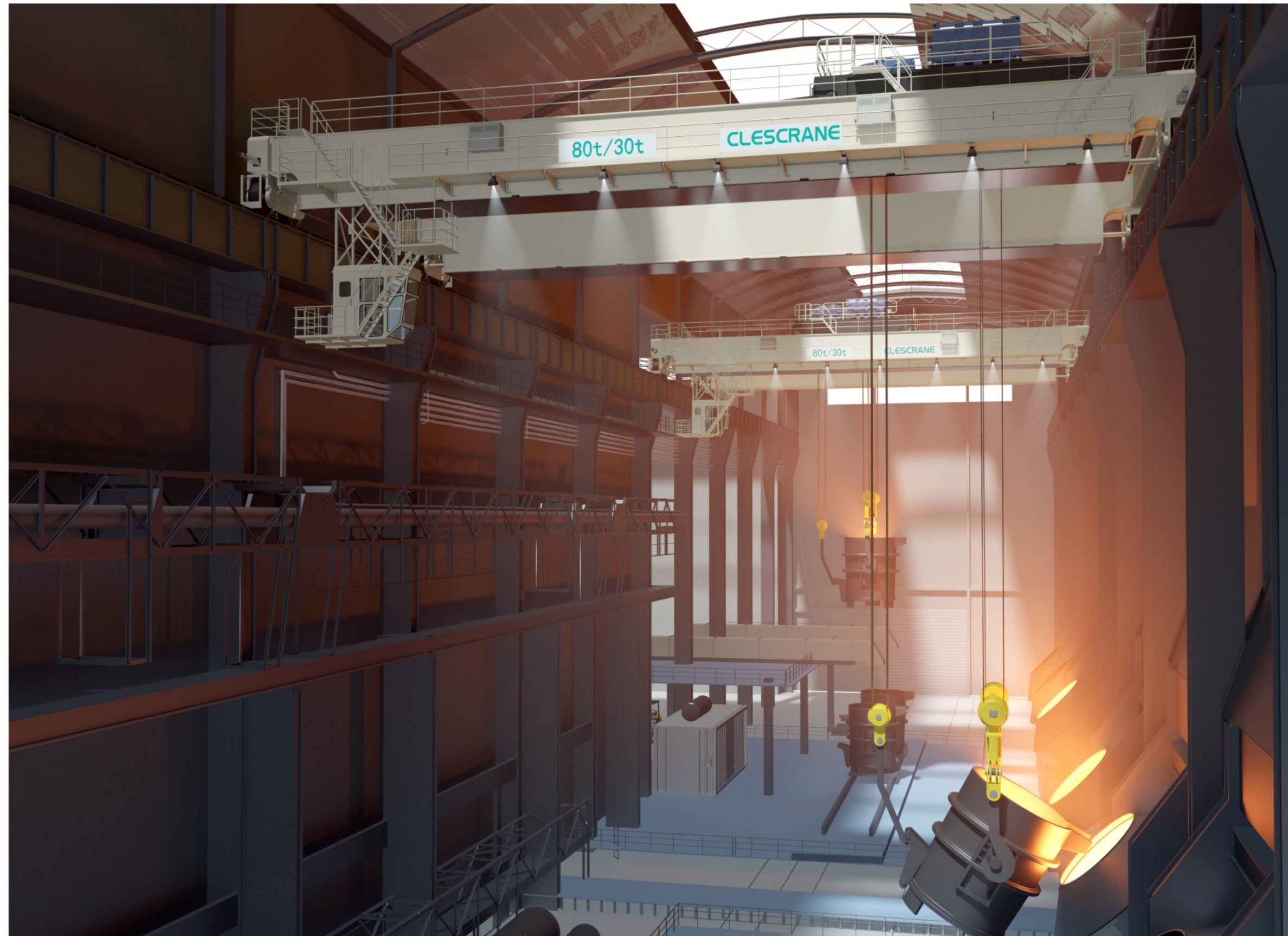
Slack Rope Prevention

Functionality

1. Slack Rope Prevention is an important safety and productivity feature when lifting devices such as lifting beams are used.
2. When the load is lowered, the hoist drive detects when load has arrived on the ground and stops lowering motion. -Lifting device weight must be min. 10% of nominal load.
3. The ropes do not get slack. Ropes do not slip out the hook block. Proper connection of hook attachments to hook is ensured.

Benefits

1. Increased productivity
 - Optimizes load handling cycle by stopping the lowering motion when the load is landed before the ropes go slack.
2. Increased safety
 - Reduces risk of accidents caused by lifting devices falling over
 - Minimizes wire rope damages by preventing excessive slack rope coming off the rope sheaves
3. Minimizes risk of damaging load with lifting device
 - Example: Lowering coil tong too far can damage the landed coil



Extended Speed Range (ESR)



Extended Speed Range (ESR)

Functionality

1. Extended Speed Range allows higher lifting and lowering speeds with partial loads.
2. With loads less than 20% of capacity, the hoist can be operated up to twice the speed at rated load.
3. Stepless ESR – The maximum allowed speed is automatically calculated based on the measured load.

Benefits

1. Full power of the crane can be used all the time
Heavy loads – nominal speeds
Light loads – extended speeds (up to 200% of nominal speed)
2. Maximized productivity
No need to oversize larger mechanical and electrical components
3. Significant time savings
If majority of lifts requires loads less than 20% of rated load.
Particularly beneficial with long lifting height



SERVICE

Our service solutions are specially made based on different requirements of individual clients. Meeting their standards could remove any of their worries. Including:

- Customized solutions
 - Reliable, efficient and safe crane equipment
 - High quality packaging
 - Installation and Assembly & Test running
 - Professional training
 - Plenty of spare parts
 - Maintenance
 - Analysis and Suggestions
 - Intelligent crane design software
 - The experienced team of engineers
- Clescrane's service pack is safe and costs less.
Clescrane's service pack also applies to cranes and hoists produced by other manufacturers.