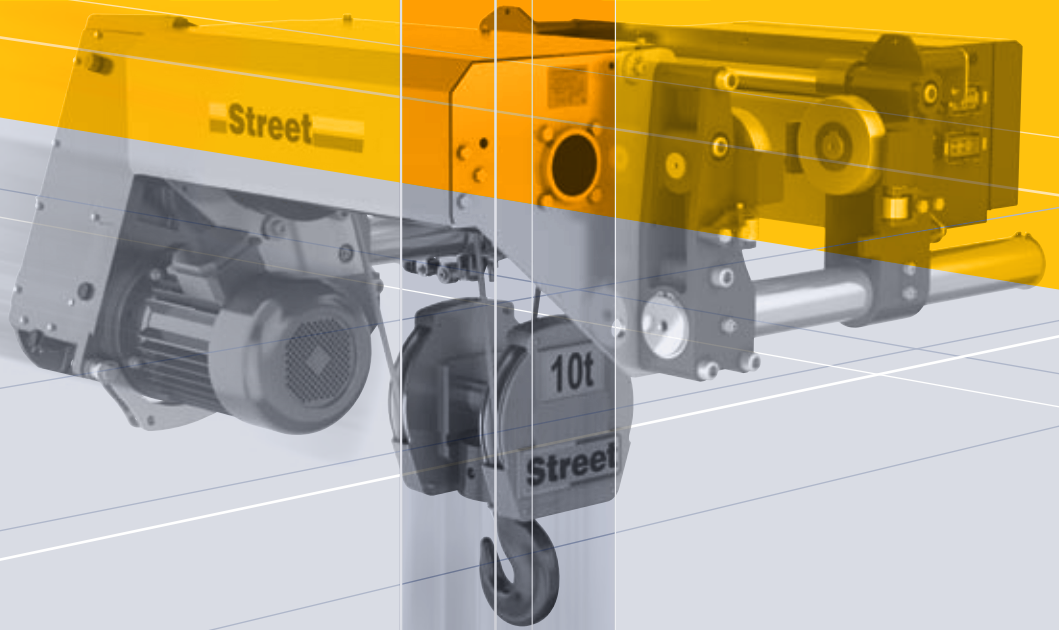


# HOIST



THE BEST JUST GOT BETTER

**Street**

# PERFORMANCE THROUGH EVOLUTION AND INNOVATION

**Street**



“To achieve the highest possible levels of performance and reliability it is necessary to continuously learn from experience...



...Invest in R&D and pay attention to even the smallest possibility for improvement. Only then can new bench marks for efficient performance and operating reliability be set. Only then can a technology be said to be truly proven.”



## ZX HOIST: the next generation.

The new ZX hoist generation evolved from the most rigorous application of this philosophy. The original ZX hoist which was launched 10 years ago established Street as a world leader in hoisting technology and has been the company's best ever selling product with an unparalleled record for reliability and endurance in a vast range of applications and environments worldwide. When it came to developing the next generation it was therefore completely logical to retain the best aspects, such as the highly successful parallel configuration of the motor and drum. Every function of the hoist was reviewed and a whole series of innovations applied to provide new levels of user-friendliness and performance.

Finally we optimised every component using the latest finite element design techniques and a passionate commitment to every performance detail. The result is an easy to operate high endurance hoist incorporating state-of-the-art technology.

A hoist designed to fulfill expectations and improve our customer's productivity. A hoist for tomorrow's world in which only the most productive will prosper.

### **The new ZX Hoist formula for safe and efficient lifting**

The new ZX hoist sets the benchmarks in the crane industry. It provides a series of unique benefits for the user. ZX epitomises intelligent design - for easy load handling - impressive performance - exceptional safety levels.

We invite you to compare the following hoist specification with any in the world and we think you will agree ZX represents unbeatable value for money and great investment.

*"A hoist for tomorrow's world in which, only the most productive will prosper."*



Precision engineered hoist gearbox with all gears oil immersed in a cast aluminium gearbox case.

- Gears permanently immersed in oil for safety and reliability year after year.
- The hollow shaft gearbox directly drives the hoist drum shaft, avoiding the need for final reduction by an overhung pinion and barrel spur arrangement outside the gearbox.
- Gears are case hardened and precision ground with special tip relief and crowning for smooth running and high reliability.
- Gear train can be viewed through a removable hoist gearbox inspection cover.

Trolley reaction roller avoids the need for a counter weight to increase wheel life.

- Sprung roller acting on the underside of the beam eliminates the need for a counterweight.
- Increases life of the wheel rolling surface as a result of lighter hoist weight.
- Pre-loading on the mechanism significantly reduces wheel slip on light load or no load start up.
- Reduced shipping and transport cost as a result of lower weight and volume.
- Caters for beam flange thickness up to 35mm.

Torque arm safe load cut-out device (capacity restrictor) prevents the operator inadvertently overloading the hoist and crane structure.

- Protects the operator and the machine.
- Measures all the load the hoist mechanism is transmitting (not just the load in one or two ropes).
- Can be easily adjusted to the required capacity.
- Does not reduce available height of lift.
- Activated directly by the load, does not rely on measuring electrical current.





Heavy duty rope guide ensures positive rope scrolling and prevents damage in 'slack-rope' conditions.

Designed for improved ventilation and easy access to key components.

Direct drive trolley with flangeless cross travel wheels and side rollers for high durability and reduced wear.

- Robust functional design - the product of 60 years experience.
- Specially selected oil impregnated nylon material, highly resistant to breaking or permanent distortion. The material properties include self-lubrication and a good elastic memory range.
- Spring loaded inner clamping band to prevent rope build up damaging the rope guide if the operator lowers the hook block onto an object and causes slack in the ropes.
- Rope guide reduces wear on the hoist rope and drum.
- Easy to install.

- External hoist motor to optimise cooling and maximise accessibility.
- Remote mounting of the hoist motor and brake prevents heat transfer in either direction.
- Heavy duty two speed hoist motor with built in protection against over-heating.
- Cylindrical rotor fan cooled design.
- Close coupled hoist motor mounting with vibration damping coupling prolongs motor and gearbox life.
- Overheating protection in the motor winding is standard.
- Class "F" insulation.
- I.P 55 protection against ingress of dust particles and water.

- The monorail trolley design is an outstanding feature of the Street design concept.
- It is proven by experience and generally accepted in the industry that for long term reliability and durability in travel gearing the trolley wheel should be directly driven, avoiding the need for an overhung pinion driving a spur on the trolley wheel.
- Direct drive via hardened and precision ground gears permanently immersed in oil.
- The traverse drive is removable without the need to remove or interfere with gearing or travel wheels. The trolley wheels are also easily removable.
- Sealed for life self aligning permanently lubricated bearings in the trolley frame ensure long life even under maximum loading.
- Sturdy flangeless steel wheels and guide rollers eliminate the problem of wheel flange wear and increase beam life.



**ZX HOIST:** operating and safety features.



# HOIST



### Superior Load Safety.

- A unique hoist brake, motor and gearbox configuration ensures enhanced load safety compared to other hoists.
- Hoist brake acts on a gearbox shaft - not on the motor shaft as is the case on competitor hoists.
- When the hoist brake is applied the load will remain secure even if the motor is removed or if for any reason the motor connection or motor shaft is damaged or broken.
- Automatic braking in the event of a power failure.

### Improved protection against the environment.

- Temperature protection can be specified for ambient temperatures up to either 40 degrees C or 50 degrees C. Special models are available for ambient temperatures above 50 degrees C.
- Corrosion protection on all exposed components on the hoist mechanism is provided by either powder coating or zinc passivation.
- Suitable for normal indoor or outdoor environments (none saline).

### Bottom Block.

- New ergonomic design for improved safety and handling.
- "Sealed for life" maintenance free bearings fitted in all sheaves.
- Robust cast aluminium sheave covers.
- Spring loaded safety catch fitted as standard.

### High-strength galvanised wire ropes.

- Compact strand structure with improved tensile strength.
- Enhanced fatigue strength for durability under cyclic bending.
- Galvanised steel rope strands for maximum corrosion protection.

### Long life hoist brake.

- Low maintenance DC disc brake.
- Hand-release mechanism fitted as standard.
- Health and safety compliant asbestos free brake linings.
- Hoist brake completely accessible - not mounted inside the motor cover as is the case with competitor's hoists.





### Heavy Duty Fan Cooled Trolley Motor.

### Over-hoisting and over-lowering limit switches.

### IP 55 steel electrical control cubicle.

- Fan cooled with cast aluminium cooling fins for enhanced thermal capacity.
- Traverse motors are fitted with D.C. disk brakes rated for the designated duty classification as well as for emergency stop.

- Over-hoisting and over-lowering of the hook are prevented by individual shunt limit switches (one for over-hoist and one for over-lower). The switches are activated by the rope guide as it travels along the drum and the cut-out positions can be adjusted to suit the application.

- Functional design with hinged door makes all components accessible.
- Quick release heavy duty plug and socket connections.
- Hours in service meter records the total time the hoist motor is energised.
- A phase failure relay prevents movement of the hoist if either the phase sequence is incorrect or one or more phases of the electrical supply fails. The relay provides further protection by preventing movement of the hoist in the event of connection to under or over voltage.
- Mechanical over-speed switch on the second gearbox reduction (optional) which de-energises the hoist if the gearbox shaft is running more than 10% over normal speed. The operation of this device is not dependent on software or a micro-processor.
- Better heat dissipation by the finned aluminium heat-sink to transfer heat out of the control cubicle when inverters are used on traverse.
- Panel wiring is ferruled and fully identified to the connection terminal.



**ZX HOIST:** operating and safety features.

# HOIST

# single girder



ZX6 LOW HEADROOM HOIST

Few, if any, of the world's wire rope hoist manufacturers offer such an extensive range of single girder monorail hoists.

The advanced modular design of ZX Hoists provides a huge number of standard hoist combinations from a relatively small number of sub-assemblies

ZX8 LOW HEADROOM HOIST



Low headroom construction is a standard design feature of ZX monorail hoists with capacities ranging from 0-5 tonne for ZX6 models and 0-25 tonne for the ZX8.

At each capacity we offer a huge combination of lifting speeds and lifting heights giving the user maximum flexibility.

All popular capacities are available with M5 duty ratings (FEM 2m) and in most capacities duty ratings of M6 (FEM 3m) and M7 (FEM 4m) are also available.

Low headroom models are fully adjustable to accommodate a wide range of beam flanges:

ZX6 - 150mm - 500mm\*

ZX8 - 200mm - 500mm\* (0-12.5t)

ZX8 - 300mm - 700mm\* (12.5-25t)

\*Special solutions available for beams outside these ranges



# der monorail hoists

capacities up to 25 tonnes



All low headroom models have improved headroom dimensions giving a lower roof height requirement.

The compact design of the hoists provides optimal top hook position, ideal for modern low profile buildings.

Side and end hook approaches have been designed to maximise factory floor coverage for a more productive work space.

One of the many technical advantages which ensures the high efficiency and reliability of this range of single girder hoists is the use of direct drive travelling machinery with no open gears or wheel flanges.





**GLOBAL DISTRIBUTION NETWORK:**  
Over 50 sales and service outlets worldwide



Street Crane supports a network of sales and service partners worldwide.

Each is specifically selected for their crane expertise and specialist product knowledge.

Our aim is to provide the very best crane and hoist solutions and then after sales care to the highest standards.



# double girder



BASE MOUNTED HOIST



This new generation of hoists sets a bench mark for lifting and material handling in the 21st century.

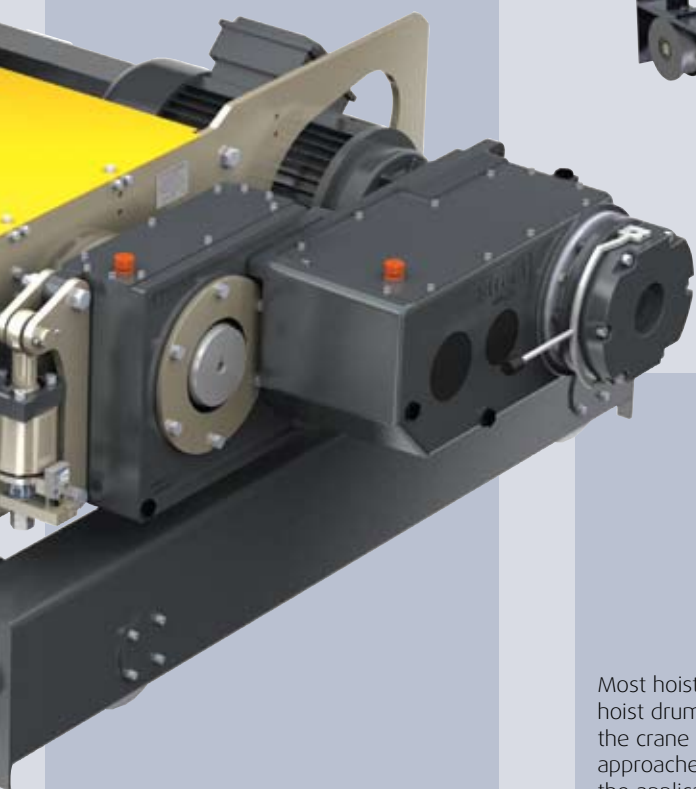
The design concept of a single scrolled hoist drum provides the most efficient and cost effective solution for double girder and base mount applications in capacities up to 32 tonnes.



# girder

## single rope hoists

capacities up to 32 tonnes



12.5 TONNE DOUBLE GIRDER TROLLEY

The unique low profile design of this range of double girder hoists is achieved by off-setting the rope diverter to allow a higher top hook position.

Multiple gearbox ratios, motor powers and hoist drum lengths provide standard ZX Hoist solutions for an exceptionally wide range of customer requirements.

Most hoist versions are available with the hoist drum parallel or perpendicular to the crane beams allowing side hook approaches to be optimised to best suit the application.

To ensure high performance and long-life, all travelling machinery incorporates direct drive technology with power transmission through a spline or shaft connection.



**ZX HEAVY DUTY HOISTS:** unparalleled endurance



## ZX Service and Maintenance

In seeking ever lower costs the designers of some competitor hoists have made access to critical components very difficult and employed 'black box' electronics which require expensive specialists to fix problems.

In contrast, our design team have gone to great lengths to ensure all ZX hoists have an open layout making servicing and maintenance easier.

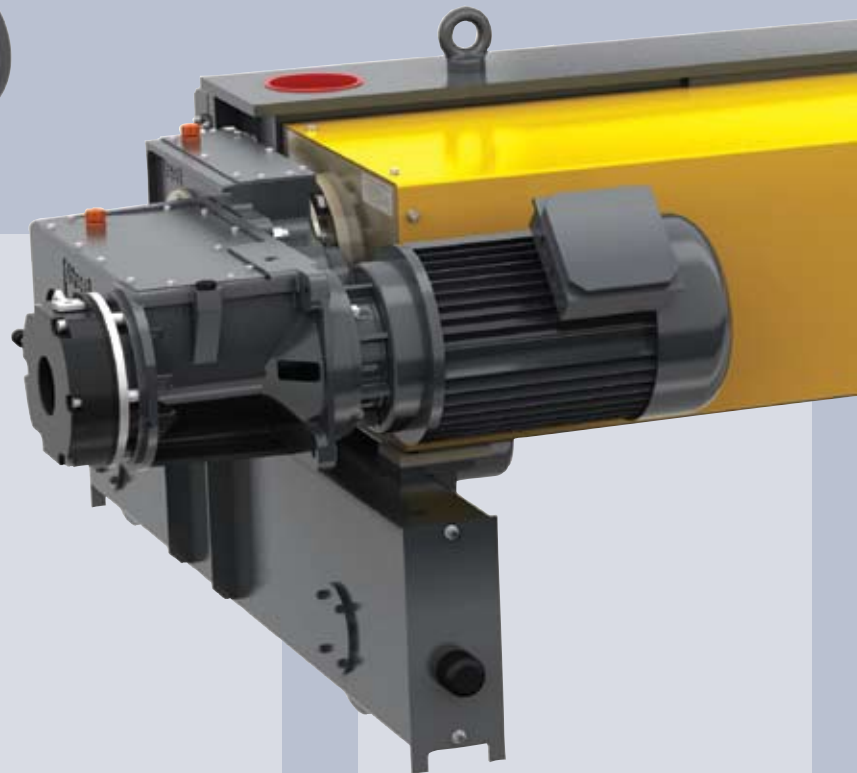
Almost every other hoist on the market has the hoist brake inside the motor cover making access very difficult. Both the hoist brake and the hoist motor are external on ZX hoists.

The hoist gearbox has a large inspection cover and the trolley wheels are easily changed.

The standard ZX hoist employs conventional and reliable electrical systems.



# double g



These hoists sit at the top of the ZX range for the highest lifting capacities or for very heavy duty ratings.

Faster lifting speeds and greater lifting heights at lesser capacities are also available.

Key features include double scrolled hoist drum and genuine true vertical lift for enhanced safety and precision handling.

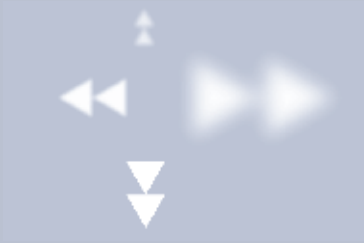
Zero lateral hook movement over the full lifting height results in equal trolley wheel loads. This, in-turn, allows the crane designer to optimise the dimensions and weight of the crane structure generally resulting in savings in the building structure or supporting steelwork.



# irder

## twin rope hoists

capacities up to 50 tonnes



This range of hoists is available in a robust heavy duty open winch format with drum flanges instead of rope guides.

As an optional safety enhancement, true vertical lift models of ZX hoists are available with separate ropes in the left and right hand scrolls with a compensating bar rather than a sheave.



## ZX HOIST: optional features/equipment.

- SC Smartdrive on traverse motions minimises load swing.
- Fast and extra fast hoist speeds for shorter handling times.
- 10:1 hoist creep speed for the most precise handling.
- Special voltages.
- One step traverse limit switches (slowdown or stop).
- Two step traverse limit switches (slowdown and stop).
- Load Indication Display.
- Load summation between two hoists.
- Push-button pendant on hoist.
- Visual or audible overload warning.
- Second hoist brake mounted on hoist motor.
- Standby heaters in hoist and trolley motor.
- Standby heaters in control panel.
- Frequency inverter on hoist motor.
- Non-standard traverse speeds.
- Overspeed switch applies the hoist brake if the gearbox shaft is running more than 10% over normal speed.



## SC Smartdrive Technology.

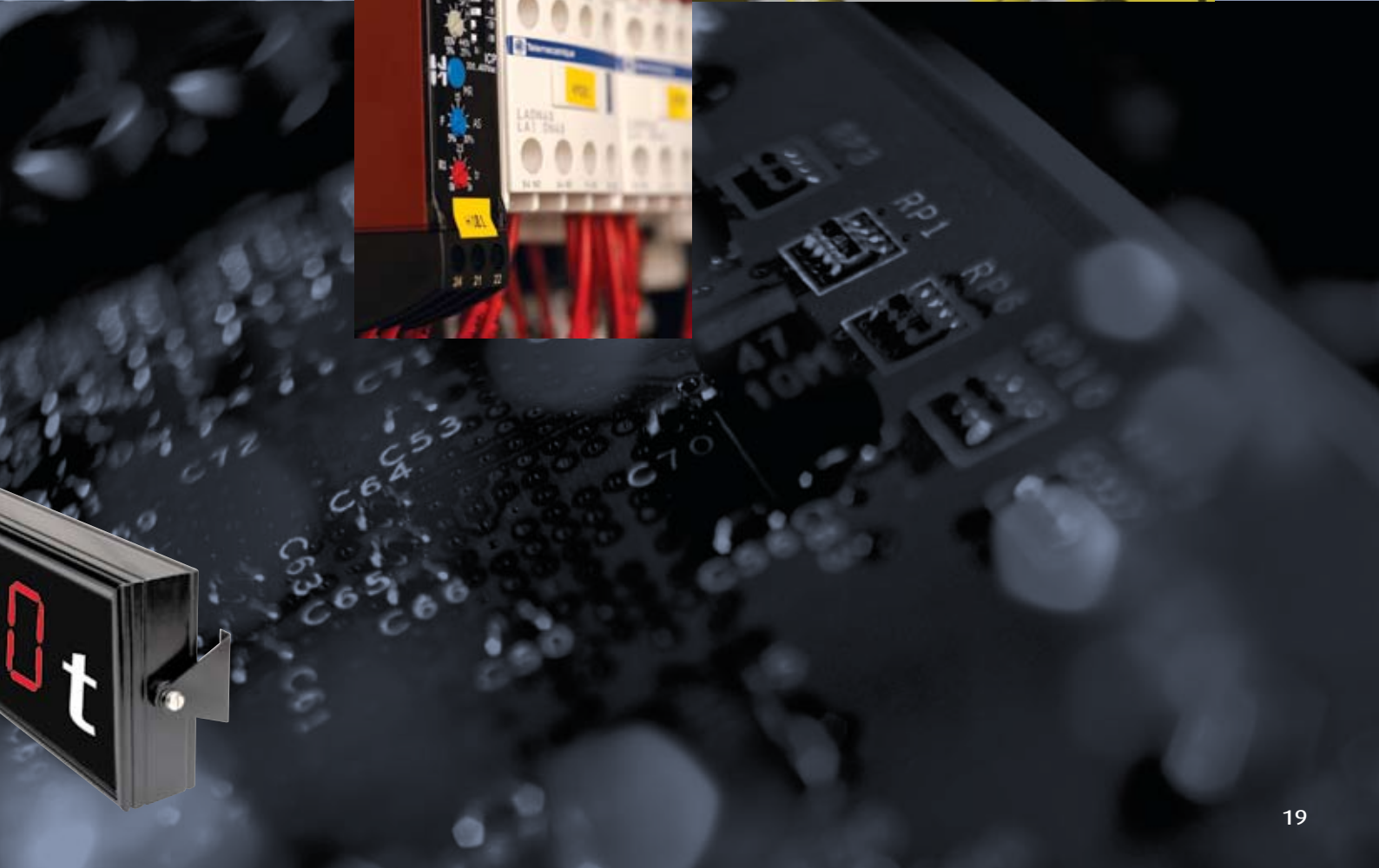
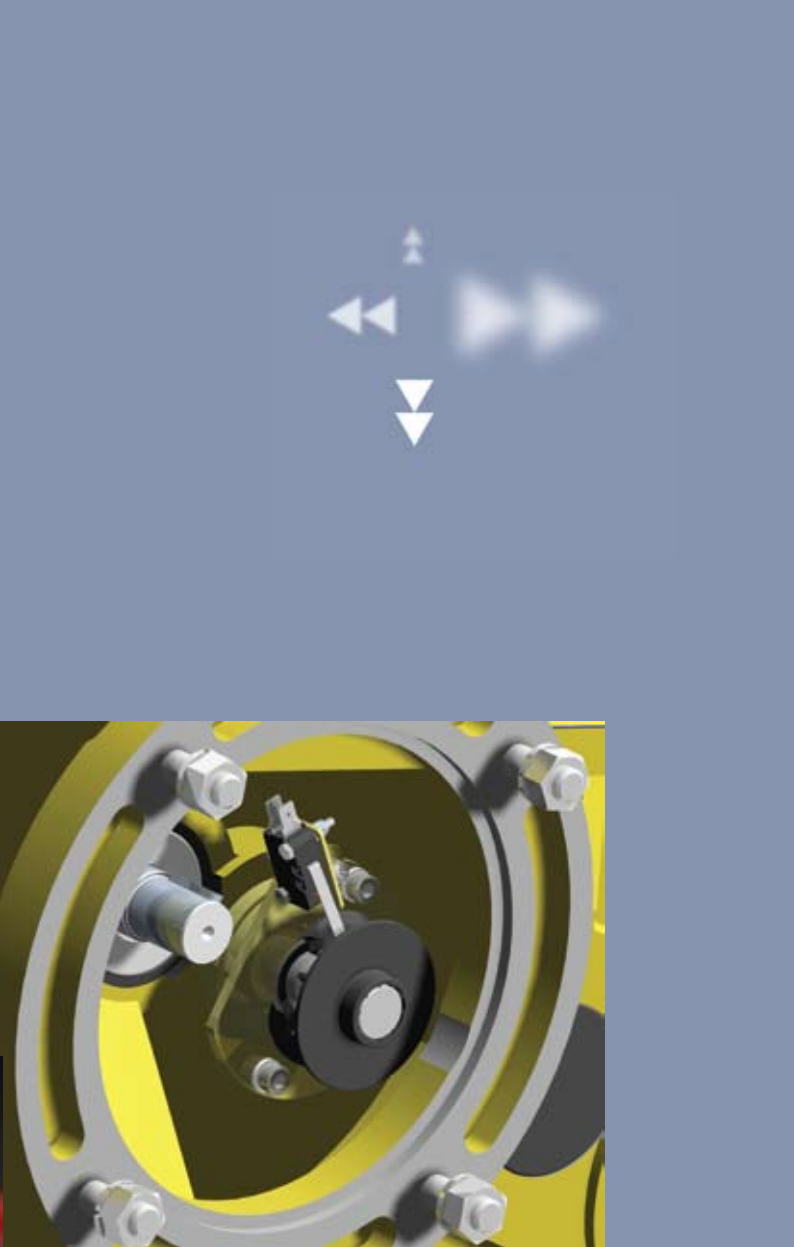
The New ZX hoist incorporates SC SMARTDRIVE, the latest, most advanced traverse speed control technology to give the superior performance you might expect from a world leader.

ZX beats the competition by employing a full frequency inverter and current vector control for minimum load swing and easy, more accurate load positioning for greater safety and productivity.

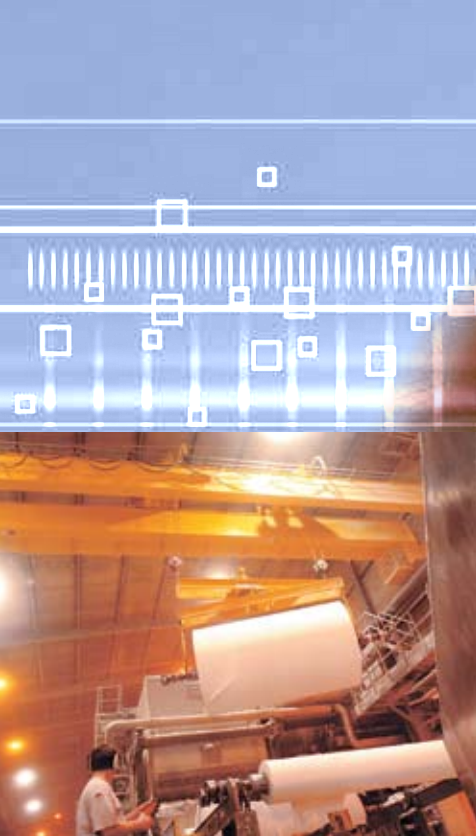


- SC SMARTDRIVE is based on the latest inverter technology utilising dual CPU control and S-Ramp profiles on travel drives, to ensure smooth acceleration and controlled stopping with minimised load swing and increased efficiency and safety.
- Sensorless Current Vector method of motor control out-performs the Voltage Frequency method used by some competitors with respect to starting torque, speed holding and consistent slow speed performance.
- The SC SMARTDRIVE Inverter includes an LED status display to access a series of diagnostic and condition monitoring data, including Safe Working Period calculation.
- Mechanically more robust inverter unit with increased vibration resistance (up to 0.65g at 20 to 50 Hz).
- Plug-in Control Terminal Board with memory is another significant advantage and another uncommon feature on standard cranes and hoists. It provides for a simple change in the unlikely event the inverter fails with no need for any re-programming tools.
- Inverter is CE UL cUL and TUV approved and is suitable for environments with Relative Humidity of 95% (none condensing). It has a broad input range of 380 - 480 Volts -15% +10%.
- SC SMARTDRIVE Standard programming is for 2 speeds with standard smooth acceleration and deceleration ramps but the inverters are fully programmable for different speeds and accelerations, multiple speeds, ramp and hold or infinitely variable between full speed and 10% of full speed.





The ZX hoist has an unparalleled record for reliability and endurance in a vast range of applications and environments worldwide.



**ZX HOIST:** working harder.



# Crane Kits

ZX hoists can be supplied to crane builders as part of a complete crane kit with all the components required to build a crane except the beam(s).

Street Crane Kits comprise:

- Hoist Unit including trolley mechanism and electrical control panel.
- End Trucks.
- Beam Connection Plates.
- Travel Drives.
- Bridge Control Panel.
- Push button pendant.
- Cable Kit.
- Fixings and Accessories.

The crane manufacturer has only to fabricate crane beams, assemble and paint.

Street Crane standard crane kits incorporate the most up-to-date innovations in lifting and travelling technology. We include a long list of safety and operating features.



## Control Panels and Cable Kits

- All flatform festoon cables and travel drive cables incorporate heavy duty quick release plug and socket cable connectors for fast and simple assembly.
- Coding pins are supplied as standard to prevent incorrect cable connections.

## End Trucks

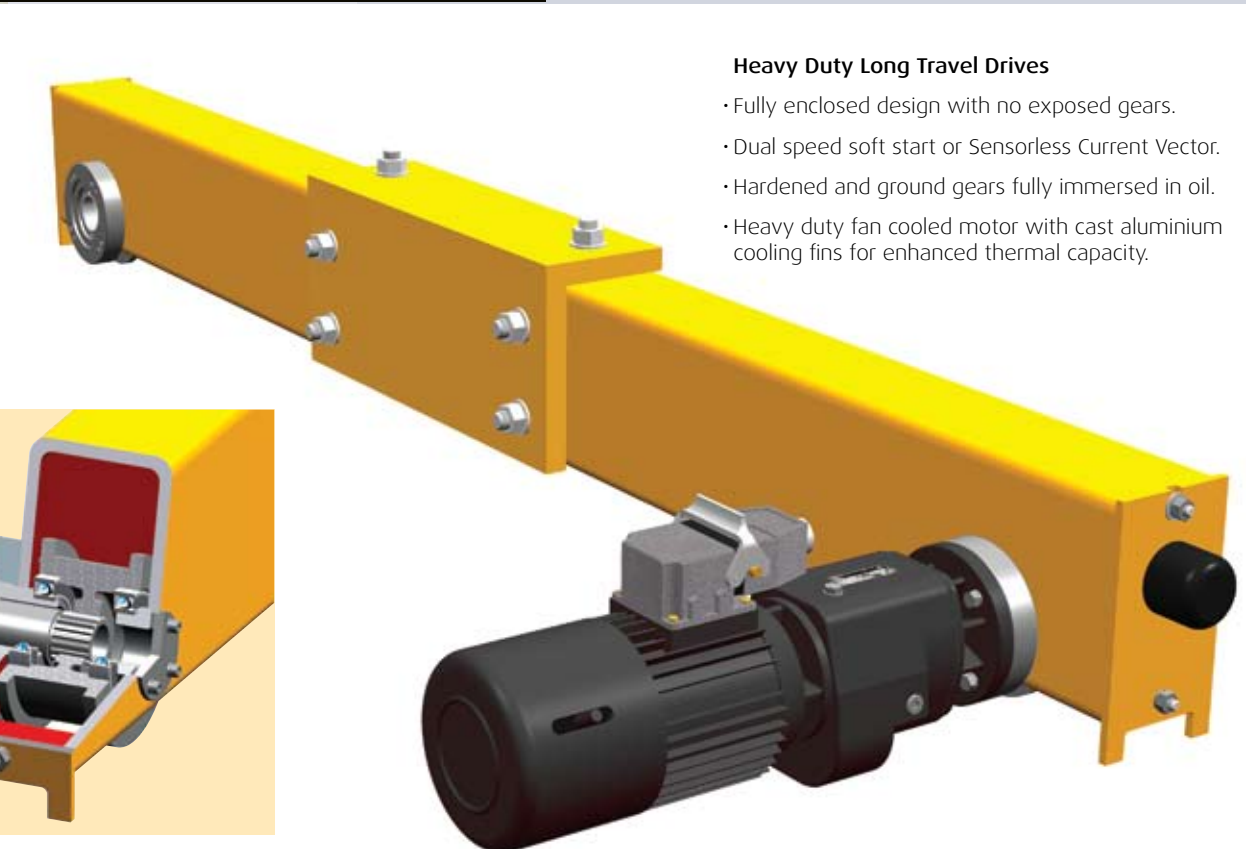
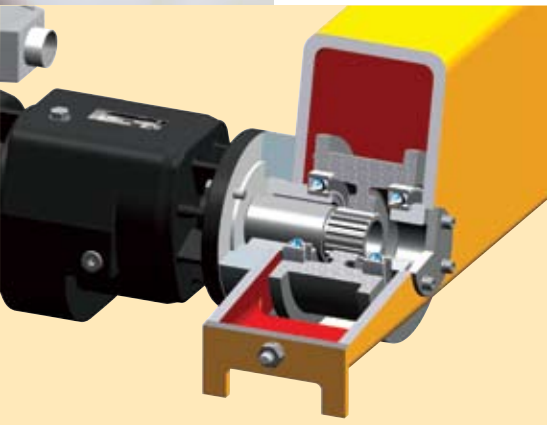
- Rigid box section construction.
- Flexible beam connection system to allow optimisation of available space.
- Long-life S.G. Iron wheels.
- Removable end plate for access to crane wheels.
- High impact rubber buffers.
- End trucks machined in one setting for precise geometric wheel alignment.





#### Double Insulated Push Button Pendant

- Push-button durability: 1 million operations.
- Mechanical interlocks on the crane motions.
- Supplied with quick release plug and socket connection on the pendant cable.
- Integral strainer wire in the pendant cable.
- International direction labels.



#### Heavy Duty Long Travel Drives

- Fully enclosed design with no exposed gears.
- Dual speed soft start or Sensorless Current Vector.
- Hardened and ground gears fully immersed in oil.
- Heavy duty fan cooled motor with cast aluminium cooling fins for enhanced thermal capacity.

[www.streetcrane.co.uk](http://www.streetcrane.co.uk)

**Street**

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