

G-Force™ Intelligent Crane Device

Gorbel Inc. remains the leader in industrial ergonomic solutions with the introduction of our state-of-the-art **G-Force™ Intelligent Crane Device**.

This servo-powered crane system combines human control with technologically enhanced mechanical power to move large awkward loads across the X and Y axes with minimal human effort.

The **G-Force™ Intelligent Crane Device** is the latest in our new line of Intelligent Assist Devices. This new Material Handling classification consists of devices that are hybrids of human movement and computer controlled mechanical devices.

Our first Intelligent Assist Device was the G-Force™ Intelligent Lifting Device. This servo-powered lifting device serves as an extension of the operator's arm. It lifts the majority of the load so the operator exerts less effort to position heavy loads.

The **G-Force™ Intelligent Crane Device** builds upon this technology and applies it to the *north-south and east-west* travel of a crane system.



The **G-Force™ Intelligent Crane Device** is a servo-powered system controlled by the “directional intent” of the operator:

1. As the operator begins to push or pull on the load, a sensing device mounted between the crane and the hoist determines which direction the operator wants to travel and approximates the desired speed.
2. This information is sent to a servo-controller that processes the data and sends information back out to the servo motors.
3. This data provides the proper amount of torque and speed to move the crane and load where the operator wishes with higher accuracy and significantly reduced human effort.

Simply put, adding intelligence to the crane enables the operator to start, direct, and stop the load with minimal effort. It enables any operator to move a load across a work cell with more ease, control and precision than is possible with any other type of crane system.

Ideal Applications:

- ◆ Applications that require precise positioning by the operator
- ◆ High cycle applications
- ◆ Applications where fast, safe direction changes are needed

It effectively increases safety and productivity by reducing operator injuries and the resulting cost of workers' compensation claims.



The G-Force™ Intelligent Lifting Device was the first product in Gorbel's line of Intelligent Assist Devices.

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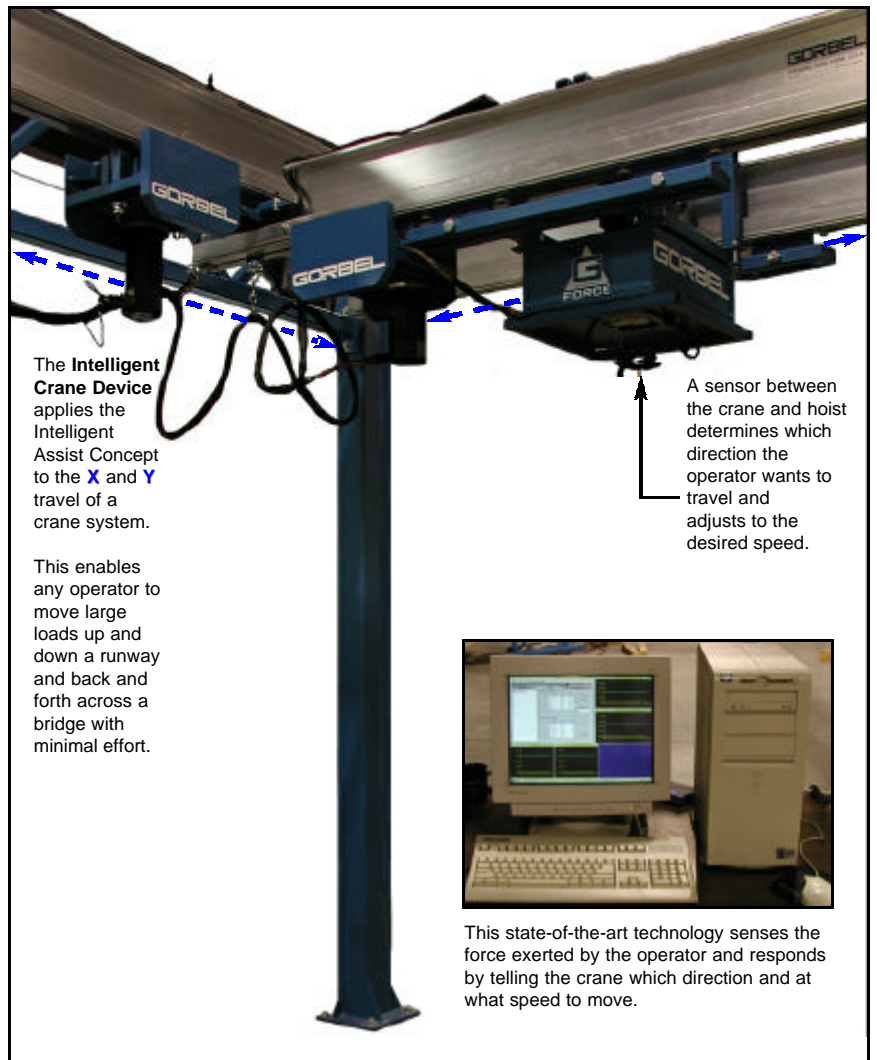
Gorbel's **G-Force™ Intelligent Crane Device** is the ideal ergonomic solution:

- To move large awkward loads that are difficult to maneuver
- For applications that require operators to move a load with minimal effort, move very short distances or move slowly to precisely position a load
- Requires virtually no effort to change load direction
- Is compatible with any type of lifting device, including Gorbel's G-Force™ Intelligent Lifting Device
- Has capacities up to 150 lbs. with speeds up to 275 fpm
- Manages the inertia of the crane and load so the operator can focus on the task

The **G-Force™ Intelligent Crane Device** can have added functionality when used in conjunction with the **G-Force™ Intelligent Lifting Device**.

Used together, this ergonomic system provides a safe, effective and efficient way to move loads quickly and with precise placement over the X, Y, and Z axes.

With the launch of the **G-Force™ Intelligent Crane Device**, Gorbel has firmly established itself as the industry leader in Intelligent Assist Devices.



The **Intelligent Crane Device** applies the Intelligent Assist Concept to the **X** and **Y** travel of a crane system.

This enables any operator to move large loads up and down a runway and back and forth across a bridge with minimal effort.

A sensor between the crane and hoist determines which direction the operator wants to travel and adjusts to the desired speed.



This state-of-the-art technology senses the force exerted by the operator and responds by telling the crane which direction and at what speed to move.