

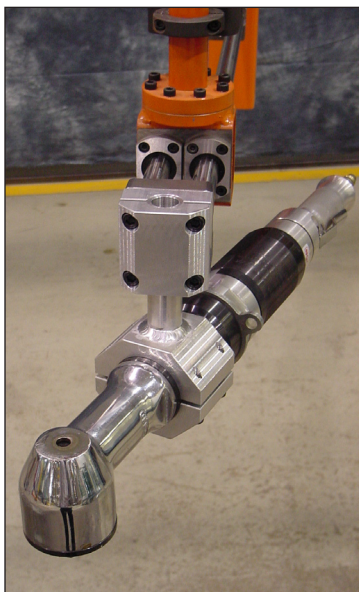
# **HENSHAW** ERGONOMIC LIFT ASSIST SYSTEMS

## **Built from the Start with the End User in Mind**

- **Higher productivity**
- **Fewer injuries**
- **Reduce loss of time**

Henshaw offers a whole product solution for advanced manufacturing and material handling environments. The entire line of Henshaw's ergonomic lift assist systems is based on over 20 years of experience and a solid understanding of what it takes to increase the productivity and safety of operators. Henshaw Ergonomic Lift Assist Systems provide operators with the ability to lift, move, balance, rotate, and position most tools or materials – from less than 10 pounds up to 500 pounds – with a minimum of effort.

With any installation, using a Henshaw Ergonomic Lift Assist can help reduce fatigue, back strain, and other common accidents that cause work place injuries and loss of work. As a result, manufacturing costs can be reduced and production volume is more consistent. In addition to the “standard” lift assist systems, Henshaw can solve your material handling requirements by designing and manufacturing a custom lift assist system for your “non-standard” application.



Light-duty Manipulating Arm with Dual Smooth™ shafts for torque reaction application

that allows the operator to reach the entire work area. Larger Manipulating and Articulating Arms feature our unique Tri-Tube Stability System™. Henshaw Manipulating and Articulating arms can be floor mounted, tabletop mounted, or suspended from a Henshaw four-trolley carriage to run on an overhead rail system.

**Henshaw Vertical Balancers** are designed to assist the operator in material handling tasks. The three models of Henshaw Vertical Balancers, with load ranges up to 350 pounds, feature our unique Dual Smooth™ vertical torque shaft system and a pneumatic balance cylinder. This system maintains proper part orientation when the load is offset to the shafts. These Vertical Balancers can be used with a variety of rail systems and will swivel 360-degrees to allow coverage of the entire work area.

### **Near Effortless Travel**

Our engineered ergonomic solutions leverage a component-based strategy to best meet our customers' specific needs and feature technologies that provide near effortless travel. The Henshaw line includes:

**Henshaw Manipulating and Articulating Arms** are used to suspend fastening tools and for material handling applications (up to 500 pounds), and feature parallelogram tubes and a pneumatic balance cylinder. The base of these arms is attached to a 360-degree swivel bearing that allows the operator to reach the entire work area.

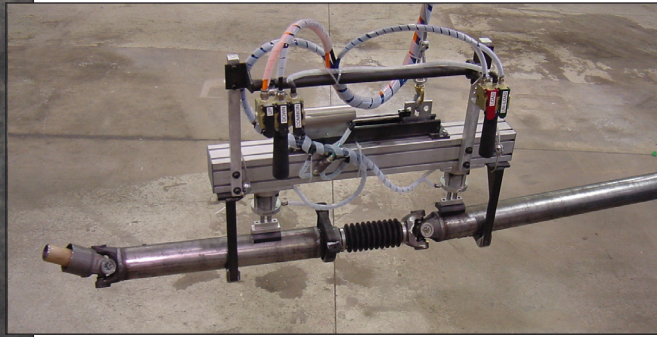
Henshaw Manipulating Arms feature an exclusive Dual-Smooth™ double telescoping torque shafts that absorb torque reaction from fastening tools in all axes and extend the operator's reach with fluid movement. Henshaw Articulating Arms feature a second vertical axis pivot at the end of the parallelogram tubes along with an extension



Medium-duty Vertical Balancer handling front sub frame



Henshaw Torque Tube



Custom-designed drive shaft holding fixture

**Henshaw Torque Tubes** are designed and manufactured to be a cost effective method for absorbing the torque reaction and balancing the weight of fastening tools. Henshaw Torque Tubes can be suspended from a variety of overhead rails or table top mounted.

### **End of Arm Tooling**

To complete our lift assist systems, we offer custom designed End of Arm Tooling or “grabs” – mechanical devices that grasp or secure the material or tool to be moved or repositioned.

### **Options to Enhance System Utility**

- Vertical Axis Disc Brakes
- Air and Electric Tractors
- PLC and Pneumatic Controls
- Automatic Return to Home
- PLC and Pneumatic Safety Release Interlock
- Dual Control Handle Locations
- Overhead Rail Brakes

### **Henshaw Ergonomic Lift Assist Components**

Henshaw offers several components that are developed to enable companies to construct ergonomic material handling devices in-house. These components are designed utilizing the latest CAD software available and built with the same attention to detail as all of Henshaw’s proprietary products. Available components include:

- Four-trolley carriage
- Overhead pivot bearings
- Mid-pivot bearing package with adjustable stops
- Our Henshaw Intuitive Touch-screen Station™ (HITS™)  
HITS™ makes nearly all ergonomic material handling systems user-friendly and reduces the learning curve for an operator to become fully efficient with the device.

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**Call today at (586) 752-0700** to have our Application Engineers and Design Engineers evaluate your application to determine the best solution for your production challenges.

To learn more about Henshaw's complete portfolio of advanced manufacturing and material handling solutions – custom automation, machine controls and vision system integration – visit [www.henshawusa.com](http://www.henshawusa.com).

Dual-Smooth™, Tri-Tube Stability System™ and Henshaw Intuitive Touch-screen Station™ are trademarks of Henshaw.

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