



ACHIEVING ASSEMBLY EXCELLENCE

Ergonomics in the Assembly Process



INTRODUCTION

The number of employees who suffer from a repetitive stress injury or disorder (also referred to as RSD) is on the rise.

RSDs (also called cumulative trauma disorders) now account for about 60% of all job-related injuries, and one in eight American workers has been diagnosed with an RSD at one time or another. These injuries are not only costly to the employer but also greatly hinder productivity and performance in the assembly line.

The most common types of RSD's include carpal tunnel syndrome, tendonitis, trigger finger, and aggravation of existing conditions such as arthritis. Over time, these injuries may cause permanent damage to muscles, tendons, nerve damage, as well as ligament damage.

RSDs are the most prevalent lost-time injuries and illnesses in almost every industry, not excluding the Assembly industry. They're also the most costly. If employees are faced with surgery due to RSDs, they may face permanent disability.

PREVENTION

Effective ergonomics in the workstation, as well as in the tools being used, is the key to preventing RSDs from occurring.

Ergonomics is AIMCO's driving force behind the tools that we manufacture and market. Providing Users with the tools to keep not only their employees healthy and free of injury, but also to decrease costs due to employee injuries, is AIMCO's focus. By doing so, this results in increased revenue due to enhanced production.

AIMCO provides a complete line of tools with ergonomics and safety in mind. The following are product offerings that provide the end user with the best ergonomic strategies for applications at risk of causing a RSD injury.

ERGONOMIC SOLUTIONS

Power Tools

AIMCO offers pneumatic, cordless and electric **pulse tools** that provide **good power to weight ratio** enabling the user to comfortably hold the tool with ease. These tools offer **no torque reaction** and, due to the pulsing action, offer **minor vibration** thusz reducing stress on the user.

These tools offer the best performance on medium to hard joint types.

In addition to our pulse tool line, AIMCO offers a line of pneumatic, cordless and electric **clutched drivers**. Although, torque reaction with these tools must be considered, these offer a

lower power to weight ratio than our discontinuous options. Because of the continuous application of torque, these tools have **no vibration** which greatly reduces stress to the user.

Controlled Tools

As in our Power Tool line, AIMCO offers pneumatic and electric **pulse tools**. These also offer a **good power to weight ratio, no torque reaction** and **minimal vibration** due to the pulsing action.

These tools offer the best performance on medium to hard joint types.

AIMCO's Electric Nutrunners offer a continuous drive, **lower power to weight ratio** than the discontinuous option and **completely eliminates vibration** issues due to continuous torque application.

Tool Support Systems

Tool Support Systems play a vital role in decreasing RSD injuries. AIMCO's full line of Tool Support products include Balancers, Retractors and Arms.

Zero gravity balancers have **no tension build-up** that may cause worker fatigue. There is virtually **no resistance** in the cable when bringing the tool to the application or lifting it from the application. The 360 degree upper swivel offers the user **increased ease in movement**.

The ASB-Series of balancers provide **built-in safety features**; the cable, drum and enclosed spring are fully visible without opening the unit for easy and convenient safety checks. The sturdy spiral spring is enclosed for **greater control** and **safety**.

Because of the extended cable, the user has more **freedom in movement** with an extended reach on applications. There is **no recoil** and **very low resistance** enhancing the ergonomic benefits.

Retractors are another opportunity to enhance ergonomics and reduce worker injury. Retractors **minimize worker fatigue** and **reduce repetitive motion injuries**.

While the intended use is to retract-in-place a tool used within a work area, retractors also provide ergonomics and life cycles, allowing workers to keep tools in working position with minimum effort.

Arm tool support systems **reduce operator fatigue** by offering ergonomic support for electric and pneumatic tools greatly reducing any risk of repetitive motion injuries while substantially increasing productivity, consistency and accuracy. As an added benefit, the tools are constantly secured, keeping expensive tools from being dropped or misplaced.

AIMCO offers a large line of arm support systems including our Ergo-Arm Tool Support System with corresponding accessories as well as our Carbon Tool Arm line. These can be designed for

Zero Gravity to aid in managing tool weight handling torque reaction. They can also be designed for larger tools and be floor mounted.



AIMCO CORPORATE HEADQUARTERS

10000 SE PINE STREET
PORTLAND, OREGON 97216

PHONE: (503) 254-6600
TOLL FREE: 1-800-852-1368

AIMCO CORPORATION DE MEXICO SA DE CV

AVE. CRISTOBAL COLON 14529
CHIHUAHUA, CHIHUAHUA. 31125
MEXICO

PHONE: (01-614) 380-1010
FAX: (01-614) 380-1019

AIMCO CHINA

ROOM 607, NO.3998 HONGXIN RD DIBAO PLAZA,
MINHANG DISTRICT, SHANGHAI

PHONE: 0086-21-34319246
FAX: 0086-21-34319245

AIMCO EUROPE

AVENIDA RÍO GALLO, 431
19174 GALÁPAGOS - GUADALAJARA
SPAIN

PHONE: + 34 673 34 99 25

VISIT OUR NEW WEBSITE:

WWW.AIMCO-GLOBAL.COM