

# WHY ELSCO?



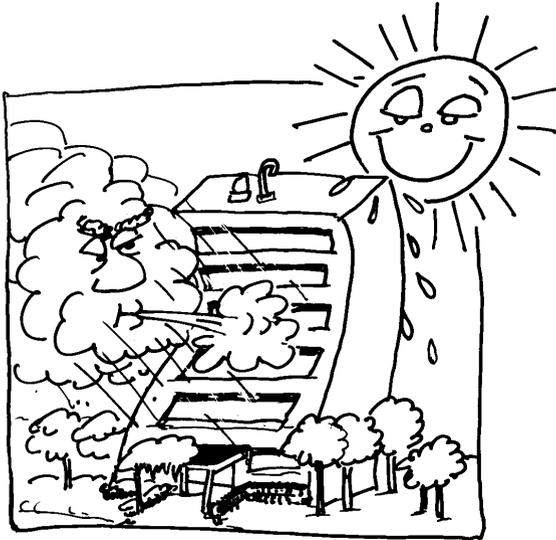
## **WHAT'S LURKING IN YOUR HOISTWAY?**

**WHENEVER AN ELEVATOR RUMBLES, BUMPS, OR VIBRATES, PASSENGERS FORM A QUICK, BUT LASTING NEGATIVE IMPRESSION OF THE BUILDING AND ITS MANAGEMENT. WHILE THE CONCERN FOR SAFETY IS GENERALLY UNWARRANTED, A POOR RIDE OR NOISY PERFORMANCE CAN IMPACT THE PERCEIVED VALUE OF THE BUILDING. IS POOR RIDE QUALITY MAKING AN UNFAVORABLE IMPRESSION ON YOUR VISITORS, TENANTS, AND PROSPECTIVE CLIENTELE?**

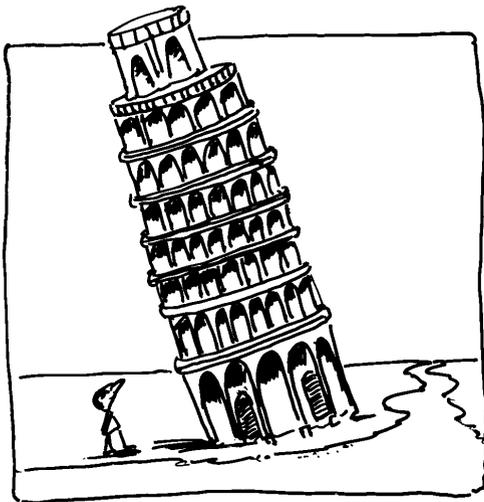


## WHAT CAUSES POOR RIDE QUALITY?

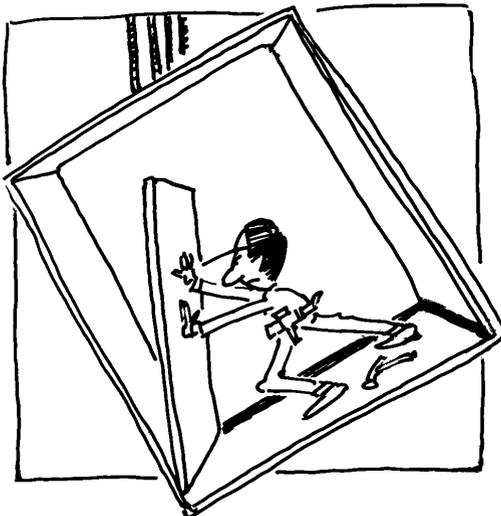
Poor ride quality is characterized by vibration, sudden unexpected motion, and noise. Two of the most common enemies of a smooth ride are rail misalignment and unbalanced cars. While the tendency is to point the finger at the elevator contractor, the real culprits are often in Mother Nature's hands.



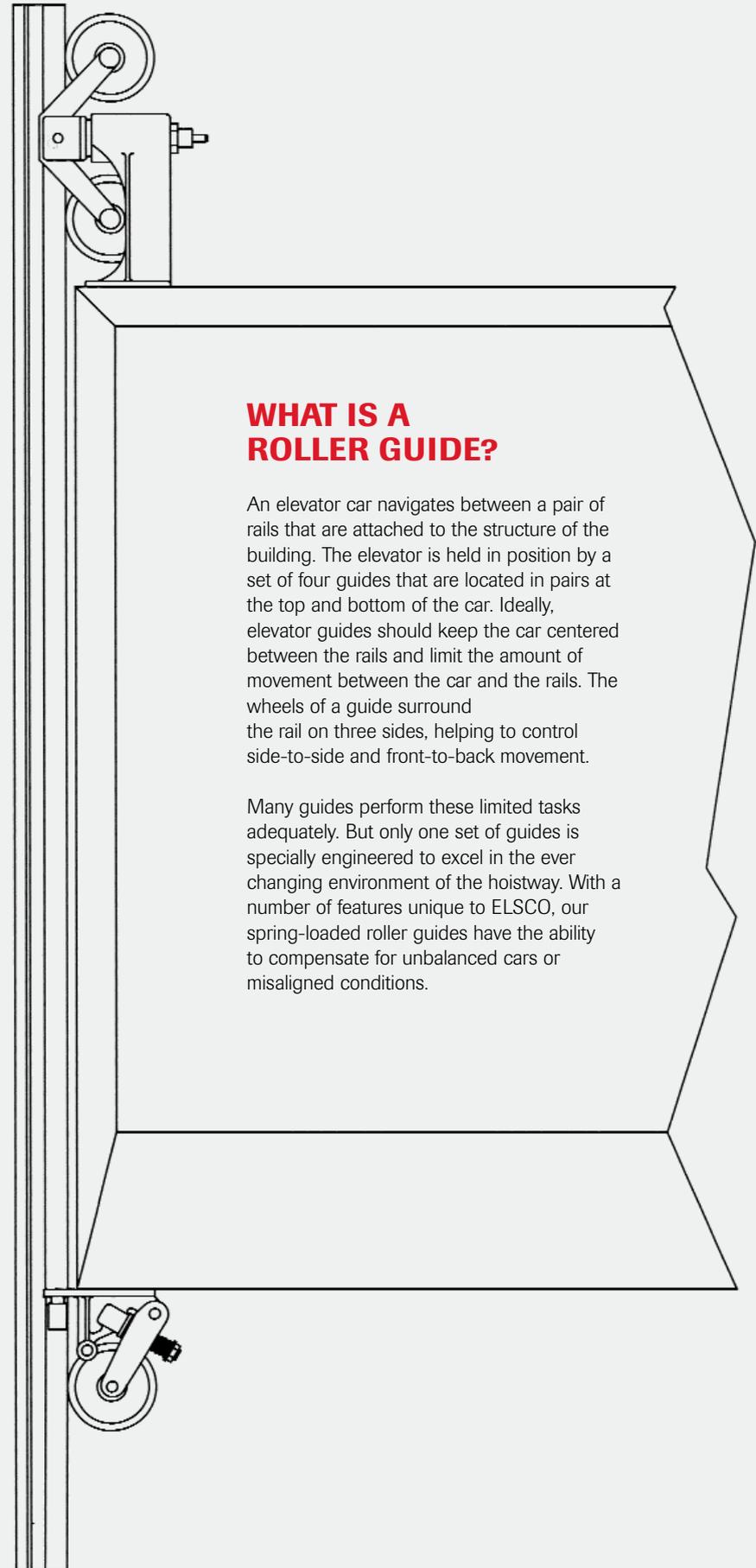
In high winds, some high-rise buildings sway as much as 18 inches off center, for a total sway of three feet (~1m). Over time, wind load can cause rails to misalign due to this constant flexing action. Rail alignment can also be affected by expansion and contraction of the building caused by temperature variations produced by exposure to extremes of sun and shade.



All buildings settle. While Italy's famous Tower of Pisa may set the record, typical settling movement can bow rails and buckle joints that hold sections of rail together, resulting in misaligned conditions. Even fractions of an inch can dramatically affect ride quality.



Updating the look or mechanics of an elevator can drastically affect its essential balance. Out-of-balance cars are noisier, ride rougher, and accelerate roller wheel wear, thus requiring more maintenance.



## WHAT IS A ROLLER GUIDE?

An elevator car navigates between a pair of rails that are attached to the structure of the building. The elevator is held in position by a set of four guides that are located in pairs at the top and bottom of the car. Ideally, elevator guides should keep the car centered between the rails and limit the amount of movement between the car and the rails. The wheels of a guide surround the rail on three sides, helping to control side-to-side and front-to-back movement.

Many guides perform these limited tasks adequately. But only one set of guides is specially engineered to excel in the ever-changing environment of the hoistway. With a number of features unique to ELSCO, our spring-loaded roller guides have the ability to compensate for unbalanced cars or misaligned conditions.

## HOW CAN ELSCO HELP?

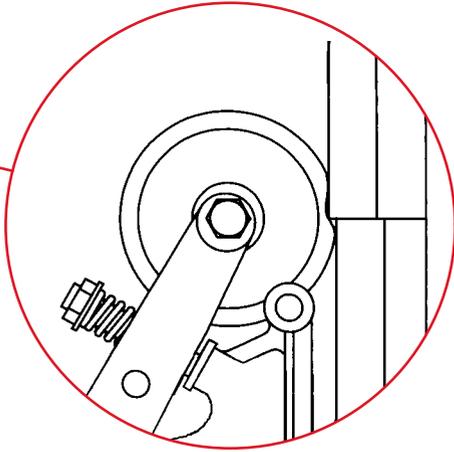
The root-cause fixes to these problems are labor-intensive, time-consuming, and expensive. Rail re-alignment is a less-than-ideal solution: the process requires many hours of expensive labor, causing significant elevator down-time. Furthermore, the results never achieve perfection. Car re-balancing is similarly expensive and adds weight to the system. Noise problems are sometimes never reliably diagnosed, and can be caused or exacerbated by construction methods that may be impossible to remedy.

There is an easier way. ELSCO roller guides and swivel sliding guide shoes have been specially engineered to compensate for the challenges posed by the ever-changing hoistway environment. ELSCO roller guides can dramatically improve ride quality and reduce noise at a fraction of the cost of more expensive root-cause fixes.

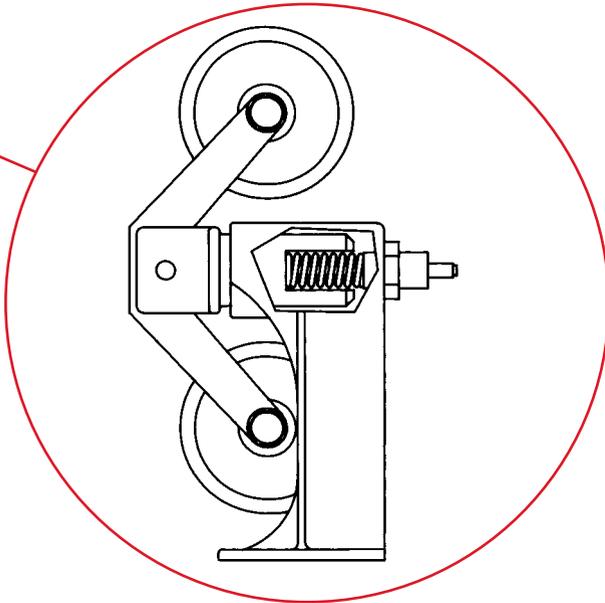


## ANATOMY OF AN ELSCO GUIDE

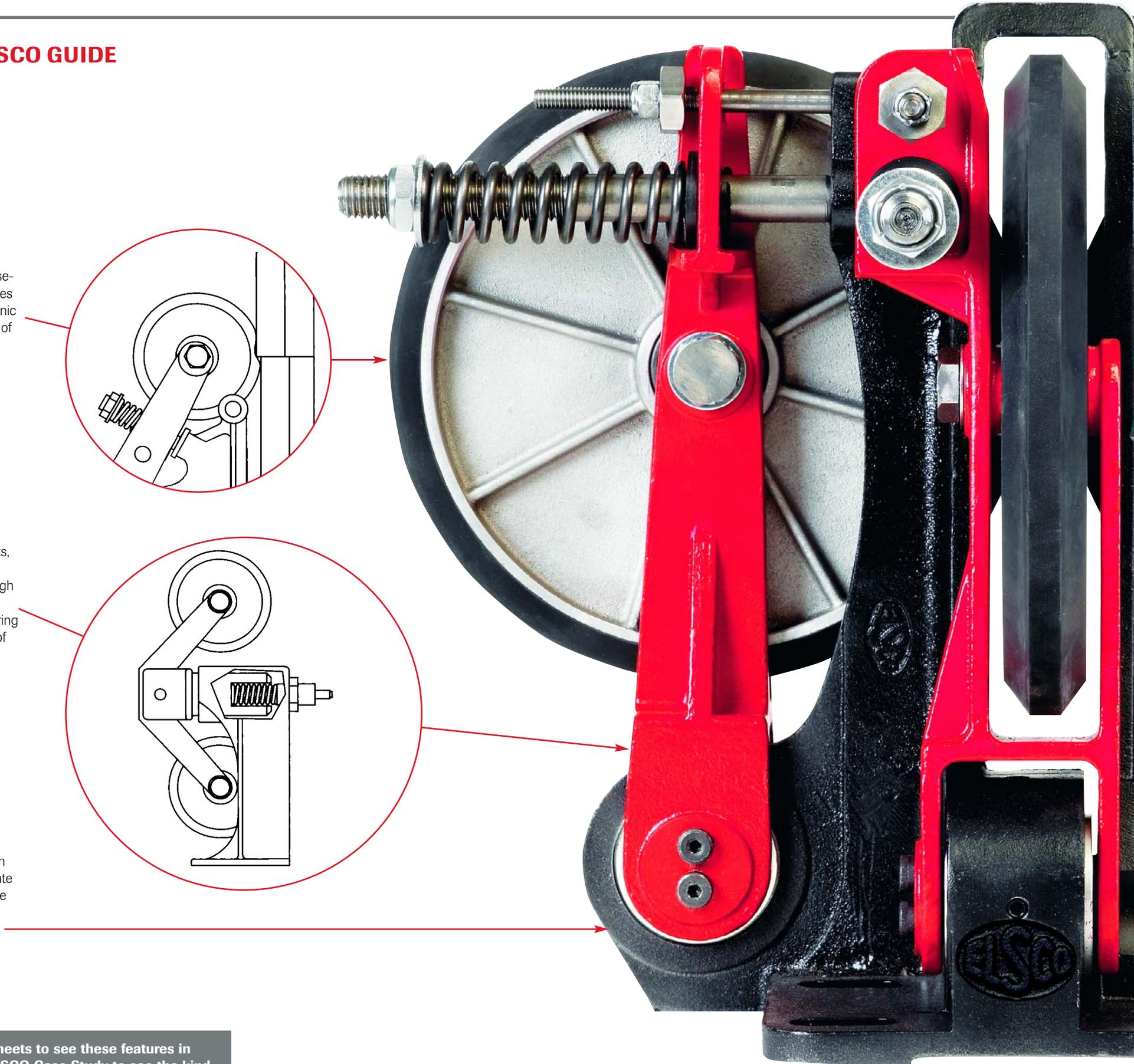
Only genuine ELSCO roller guides use engineered neoprene rubber tires. With special shock-absorbing and noise-insulating properties, only neoprene tires flex to dampen vibration and create sonic isolation between the car and the rest of the building, resulting in the smooth, silent ride characteristic of ELSCO guides.



ELSCO roller guide designs are engineered to produce superior ride quality. Our iconic six-wheel designs feature unique "walking beam" action that compensates for rail misalignments, and our spring-loaded, three-wheel designs have proven themselves through decades of reliable use. Every component, tolerance, and manufacturing technique benefits from our 50 years of experience improving elevator ride comfort.



Innovations such as our patent-pending elastomeric bushings, found in our Express-3 roller guides, demonstrate ELSCO's latest contribution to the state of the art. These bushings dampen vibration and eliminate metal-to-metal contact for the smoothest, quietest possible ride.



Refer to specific product cut sheets to see these features in greater detail, or consult an ELSCO Case Study to see the kind of improvements that ELSCO guides can make in your hoistway.

ELSCO Express-3 Roller Guide

## Precision Engineering

ELSCO's 50 years of experience improving ride quality and reducing noise in elevators have led to the development of a comprehensive line of roller guides and swivel sliding guide shoes that meet virtually all elevator load, speed, and dimensional requirements. From our unique six-wheel "walking beam" designs to our innovative, patent-pending elastomeric bushings, every detail has been carefully engineered to provide optimum ride quality and rugged durability in even the most challenging installations.

## Quality Materials and Manufacturing

ELSCO roller guides are fabricated from the best materials available. Roller tires are made from neoprene rubber that has been specially engineered to dampen noise and vibration. The use of high-tolerance electric motor bearings guarantees years of silent, trouble-free operation. Castings are made from high-tensile-strength ductile iron and aluminum for strength, durability, and light weight. High quality guide hardware ensures long life and ease of adjustment in the field.

Each stage of guide fabrication integrates advanced technology with proven ELSCO manufacturing techniques. Computer-aided machinery grinds each wheel and inserts each ball bearing to exacting standards for perfect concentricity. Rigorous quality inspections include 100% inspection of roller tires for proper tire adhesion.

## Commitment to Service

ELSCO's commitment to service is demonstrated by our prompt, courteous, and knowledgeable guide specialists, our policy to stock guides and accessories for next day shipment of rush orders, and our quick turnaround of large guide orders.

From each precisely milled casting to the timely delivery of finished product, you can count on ELSCO for the industry's premier elevator roller guides.

**Check out our full range of high-performance roller guides, designed to reduce noise and improve ride quality in every elevator application. Our fifty years of supplying top quality product to the industry prove that, at ELSCO, We are ride quality.**



*Express 6*



*Express 3*



*Model A*



*Model B*



*Model C*



*Model D*



*Model E*



*Sliding Guide Shoes*

