

ROLLERS



ENDLESS POSSIBILITIES

Our OT, NT, T Series rollers can withstand high static loading over long periods of time, often carrying the full load weight for years with no adverse effects. Because loads are spread over a wide area and carried by the load plate and the contact rolls, rollers are ideal for many applications requiring the frequent movement of heavy loads.

OT, NT, T



OT, NT, T Rollers are fabricated from high strength steel. Load plates of 37.5-ton and higher capacities undergo a special machine process to minimize side-to-side movement of chain. The rollers can also be used inverted, as static conveyors.

SHD



Super Heavy Duty Rollers are the highest capacity rollers that Hilman offers as standard models. 150 & 200 Ton frames come in Long (L) or Wide (W). Wide frame versions are offered with one complete (wide) chain or with two individual chains with a center plate (C) dividing them.

LOW COEFFICIENT OF FRICTION

The combination of a hard steel load plate with a chain of concentrically grouped, hardened steel rolls provides optimal low-friction performance under ideal conditions. These ideal conditions include an evenly centered load on the rollers and a hardened steel rolling surface that is smooth, level, and free of debris. Under such conditions, our rollers have been tested and demonstrate a coefficient of friction between 1% and 2%.



SUPERIOR WEIGHT DISTRIBUTION

This roller design creates an even load bearing area or footprint. The wide footprint spans gaps in running plates and small cracks in a floor surface, allowing for an uninterrupted move. Due to the multi-rolled concept, if a roll should break, the load won't fall because there are other contact rolls on the chain to compensate.



ROLLERS ADVANTAGES

These rollers come in a variety of capacities, frame and top styles. They can easily be modified for any application.



OVERSIZED TOP (OT)
overhang side to side

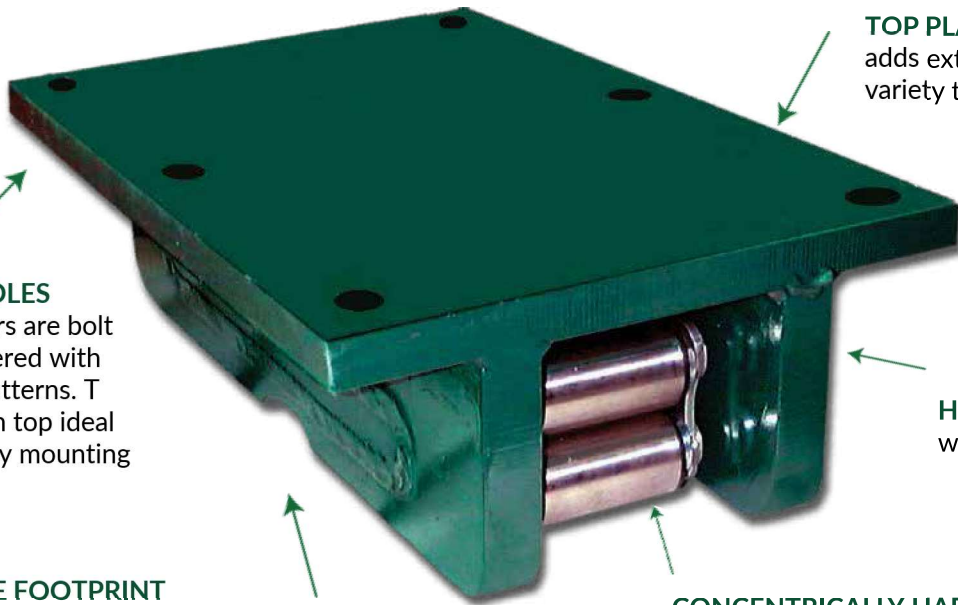


NARROW TOP (NT)
overhang front to back



FLUSH TOP (T)
add extra strength to the frame and offer a variety of mounting capabilities

TOP STYLES



MOUNTING HOLES
OT and NT rollers are bolt on style and offered with standard hole patterns. T rollers have flush top ideal for weld or cavity mounting

WIDE FOOTPRINT
The wide footprint spreads load over greater area

TOP PLATE
adds extra strength to the frame and variety to mounting capabilities

LOW FRICTION
3-5% depending on rolling surface

HIGH STRENGTH STEEL FRAME
with inner-locking construction

CONCENTRICALLY HARDENED STEEL ROLLS
offer low friction

EASILY MODIFIED
endless number of custom configurations

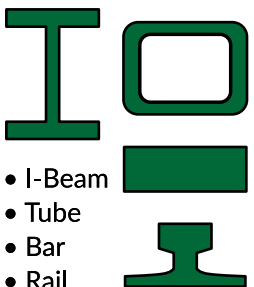
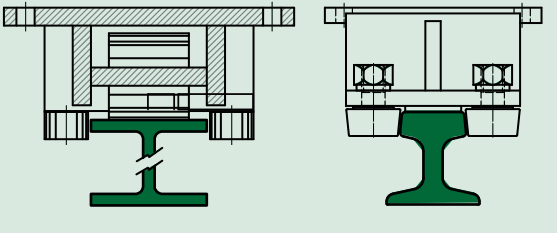

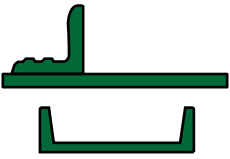
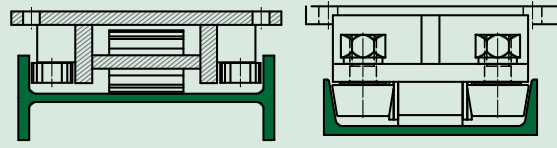

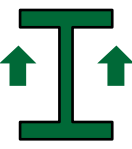
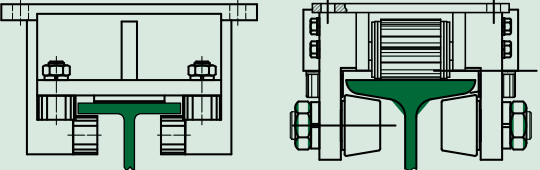


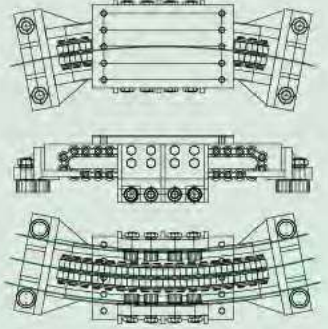



ACCU-ROLL

Hilman's Accu-Roll Guidance System is a positive external alignment system. Most often used on OT/NT/T and SHD Series Hilman Rollers, Accu-Roll can be added to any Hilman Roller and custom designed to interface with almost any type of track. Common tracks are I-beams, wide-flanged beams, channels, rails, steel flat bars, tubes, and trenches. Accu-Roll Systems are an ideal solution where load alignment is critical, a close tolerance must be maintained, where load movement is repetitive, or where dynamic uplift prevention is desired.

Because there are virtually thousands of possibilities with regards to tracks, each Accu-Roll System is custom designed and built to fit the chosen track. Once the track size has been selected and the preferred width and depth locations for the Accu-Roll guides are known, drawings are prepared for customer approval.

Accu-Roll Systems may have one to four or more guide rolls per roller to guide on the track or to ensure that the rollers follow the intended path of travel. Typical roller lateral guides are designed to withstand a maximum of 15-20% of the vertical capacity as lateral roller on most roller sizes; higher and lower capacities can also be designed.

Track Type	Accu-Roll Type	Application Guidelines
 <ul style="list-style-type: none"> • I-Beam • Tube • Bar • Rail 	<p>Type R</p>  <p>STRAIGHT ANGLE</p>	<ul style="list-style-type: none"> • Most common system for guidance on OUTSIDE of track • Can consist of one to four Accu-Rolls, mounted to Roller • Ideal for any system, permanent or temporary • Flat bar mounted to factory floor provides low height, accessible rolling system with minimal floor surface obstacles  <p>Type R - Type U</p>
 <ul style="list-style-type: none"> • Fabricated Track • Channel 	<p>Type C</p>  <p>STRAIGHT ANGLE</p>	<ul style="list-style-type: none"> • Common System for Guidance INSIDE a track or a track embedded in concrete floors • Can consist of one to four Accu-Rolls; two can be installed on one end or on one side, or in center of Roller frame side • Track can be standard channel, inside flanges of H-Beam, fabricated track from back-to-back angles, etc.  <p>Type C</p>
 <ul style="list-style-type: none"> • Uplift 	<p>Type RU</p>  <p>STRAIGHT ANGLE</p>	<ul style="list-style-type: none"> • Often added to Type R System • Can consist of one or more Accu-Rolls per side • Prevents UPLIFT in dynamic condition • Resistance against wind and buoyancy • Protection against overturning moment • Aids in moving top-heavy or eccentrically loaded equipment  <p>Type U</p>
 <ul style="list-style-type: none"> • I-Beam • Rail • Bar • Any Radius Track 	<p>Type TR</p> 	<ul style="list-style-type: none"> • Accu-Roll System for FIXED RADIUS TRACK Applications: turntables, revolving or rotation machinery, or equipment moving in fixed radius • Usually consists of three Accu-Rolls, two mounted on one side, with one in the center of opposite side • Roller chains are also modified to fit the required radius • Rollers of the 37.5 OT size and larger can track on diameters as tight as 8 feet (2.5 meters)  <p>Type TR</p>



TOP MODIFICATIONS

Modifications to the top plates of Hilman Rollers can range greatly. Some relatively simple top modifications might be special drilled and trapped tapped hole patterns, connecting studs, or tops machined to close tolerances. Top clamps, hinged adaptations or container fittings can be added to the rollers, as well as other types of attachments, for the purpose of mounting to a specific type of footing or pad.



CHAIN MODIFICATIONS

There are several different modifications that Hilman can do to the chains. Tapered roller chains allow Hilman Rollers to follow a fixed radius, while Keyway chains have an internal guidance feature to maximize chain life. In highly repetitive applications or where rollers encounter bursts of speed, the Keyway feature keeps the chain centered in the roller frame. Concave and Convex chain and frame solutions are also possible. Hilman can even design specially contoured chain where the rolls are machined to match the contour of crowned rails, ensuring sufficient contact area.



FRAME MODIFICATIONS

Roller frames and tops can be modified in any number of ways to suit specific requirements. Special materials can be used for corrosive resistant or non sparking applications. Mounting surfaces can have custom hole patterns or machined finishes.



TRACK WIPER OR DIRT SHIELDS

Many wiper and shield styles can be added to Rollers to remove debris from the roller path, eliminating unnecessary wear and maintenance.



SPECIAL MATERIAL & COATINGS

Many different alloys and coatings are available so that Hilman rollers meet the requirements of different applications. Alloys to resist varying levels of corrosion, high heat, and non-sparking conditions are just some of what is available for the chain assembly. Special coatings, paint finishes, galvanizing processes, or platings can be applied to help in a variety of environments. Hilman typically uses the highest grade alloys and stainless steels available to ensure that the rollers operate continuously in the manner intended.



OTHER MODIFICATIONS

Hilman's extensive experience in custom modifications of rollers and rolling systems design covers a broad spectrum of applications. Below are some of our more elaborate modifications.

