

HOW TO SIZE YOUR CARRIER

STEP 1: List all cables and hoses.

STEP 2: Determine minimum cavity height (**dimension B**) by adding a safety factors to the outer diameter of the largest cable or hose.

Safety Factors

- Cables: + 10%
- Hoses: + 20%
- Total ideal fill: 60%

STEP 3: Determine cavity width (**dimension A**) by adding the outer diameters and appropriate safety factors (see Step 2) of all cables and hoses. If using vertical cavity separators, add separator width. If using horizontal cavity dividers, be sure that the same safety factors apply and there is adequate vertical space between dividers. (See page 98 for carrier installation instructions.)

STEP 4: Consult sizing index of the Quick Selection Guide for pre-selection of appropriate series.

- Plastic Carriers Quick Selection Guide: See pages 114-115
- Metal Carriers Quick Selection Guide: See pages 156-157

STEP 5: Check outer width (**dimension C**) and outer height (**dimension D**) dimensions against potential space restrictions.

STEP 6: Select carrier bend radius (**dimension R**) of carrier by consulting cable/hose manufacturer's specifications.

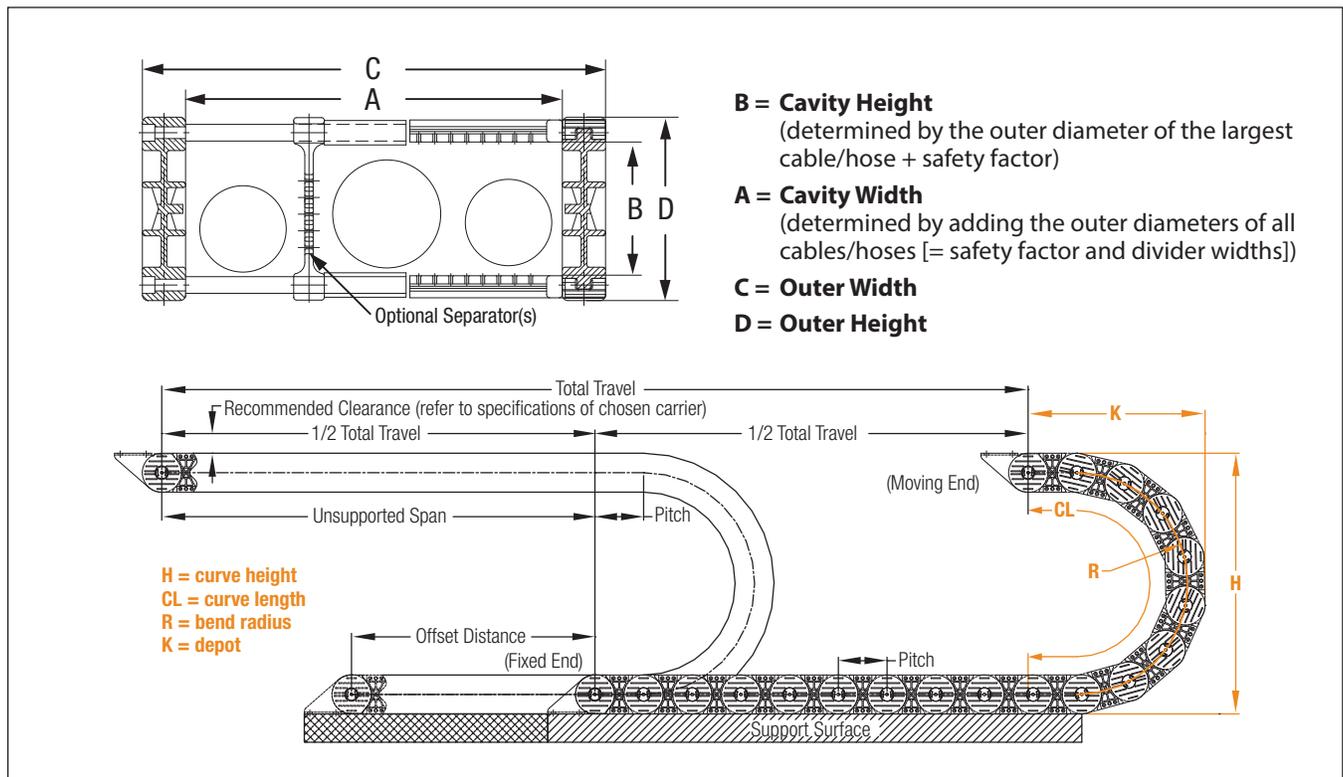
STEP 7: Check depot (**dimension K**) and curve height (**dimension H**) dimensions against potential space restrictions*.

STEP 8: Determine total required machine travel (total travel). To minimize carrier length, fixed end of carrier should be mounted at center of travel, when possible.

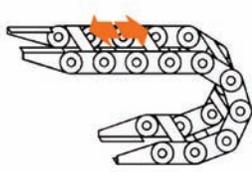
STEP 9: Consult the specifications page for curve length (**dimension CL**) of the chosen carrier.

STEP 10: Calculate Carrier Length:
Carrier Length = (Total machine travel/2) + CL (curve length) + Offset distance from center of travel*

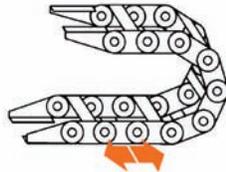
*If fixed end is not mounted at center of travel. For minimum carrier length, moving bracket should be mounted directly above fixed bracket when machine is in center of travel. Offset is the dimension between fixed and moving bracket at center of travel.



TYPICAL APPLICATIONS



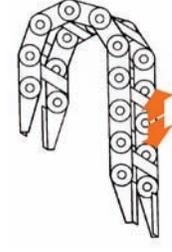
Horizontal Lower-Flange Fixed



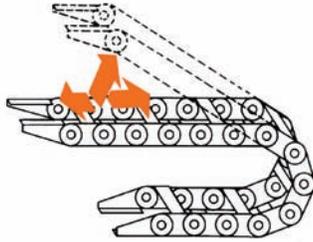
Horizontal Upper-Flange Fixed



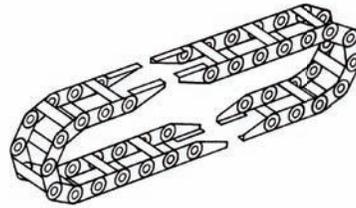
Vertical Curve Down



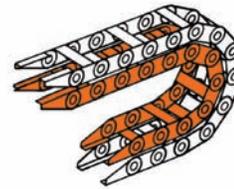
Vertical Curve Up



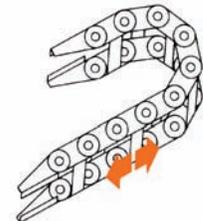
Combination Vertical and Horizontal



Opposed



Nested Configuration



Side Mounted

TERMS AND DEFINITIONS

Carrier Length = (Total Machine Travel/2) + Curve Length + Offset

For minimum carrier length, moving bracket should be mounted directly above fixed bracket when machine is in center of travel. Offset is the dimension between fixed and moving bracket at center of travel.

Curve Height (H)

The overall height of the carrier at the loop. While (H) is the designed height at the loop, clearance should be provided above the carrier. This will be true of either metal or plastic carrier to account for built-in camber. Gortrac® carriers have a positive camber or pre-tension designed into the links in order to provide additional self-supporting length in horizontally oriented applications. This camber adds to the clearance required above the track. (See "Recommended Clearance" specification). In applications with limited space or non-horizontal orientations, this camber can be reduced or eliminated. For details, including any resulting reductions in unsupported span, please contact your Dynatect representative.

Carrier Bend Radius (R)

Minimum bend radius of the cable and hose carrier should be larger than the recommended bend radius of the stiffest cable or hose installed in the carrier. Consult with cable or hose manufacturer for recommended bend radius.

Curve Length (CL) = (π x Radius 'R') + (Pitch x 2)

Curve length is dependent on radius and link pitch – refer to Series specifications.

Pitch

Refers to the distance between the pivot point centerlines of adjacent links.

Depot (K)

The centerline from the first link pivot point to the end of the carrier in retraction.

Load

The total weight of the cables and hoses within the carrier. This is usually called out in pounds per foot. If hoses will contain liquid, please include that weight.

Maximum Speed

The maximum velocity of the moving end of the carrier during its travel.

Maximum Acceleration

The maximum acceleration of the moving end of the carrier during its travel.

Unsupported Span

Every carrier has an unsupported span. This span is a condition of link construction and the fill weight of the cables and hoses being carried. As the unsupported span of the carrier is exceeded, the carrier begins to sag. Dynatect will recommend proper support guidance when carrier fill weight exceeds its free carrying length. Refer to Series specifications for load charts.

Metal vs. Plastic Carriers

Dynatect offers plastic, metal and hybrid carriers to satisfy the broadest range of applications. In general, use Gortrac steel carriers with elevated operating temperatures or when heavy loads exceed the maximum unsupported travel of plastic carriers. Use Gortrac steel carriers with lower speeds; however, higher speeds have been achieved with control of acceleration and deceleration. Plastic carriers are usually the first choice in applications requiring higher speeds and accelerations and long travel.

Gortrac steel link carriers have the highest strength-to-weight ratio and maximum unsupported span capability. Dynatect offers several lightweight steel carriers that are competitively priced with plastic, while providing significantly greater strength than similar-sized plastic carriers.

Open-Style vs. Enclosed-Style Carriers

Dynatect offers both open and enclosed style options. Open-style carriers provide easy cable/hose inspection, while enclosed-style carriers offer protection from damaging outside elements such as hot chips.

CABLE CLAMPING AND STRAIN RELIEF

Proper installation in conjunction with clamping cables ensure that the proper length of cable stays consistently in the carrier. Cables ideally should ride as close to the neutral axis of the carrier as possible. Cables that are not clamped can either pull against the inner radius, causing jacket and crossbar wear, or; they will pull cables into the carrier causing them to snake and bunch through crossbars at the radius. Cable clamping is recommended at both moving and stationary ends of a carrier; however in applications with high pressure hydraulic hoses, we recommend clamping at moving end of the carrier only.

Dynatect offers a variety of clamp styles and designs, as well as mounting brackets with incorporated strain relief fingers

for a quick and easy zip tie clamping solution. Standard and custom designs are available. Ready to install assemblies can be shipped complete with cables/hoses and necessary clamping.

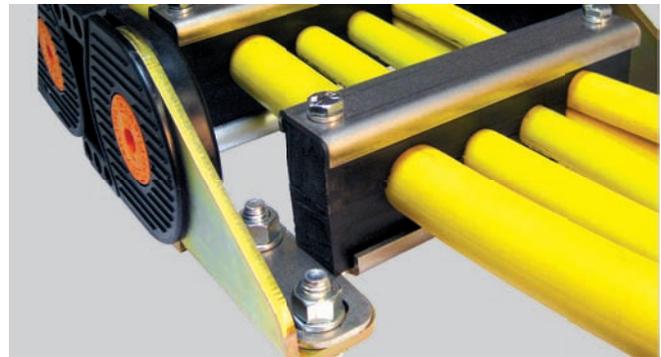
OPTIONS

- Traditional saddle clamps/rail clamping arrangements (see opposite page for specs)
- Custom UHMW clamps
- Zip tie bracket bar
- Strain relief mounting brackets with integral zip tie fingers



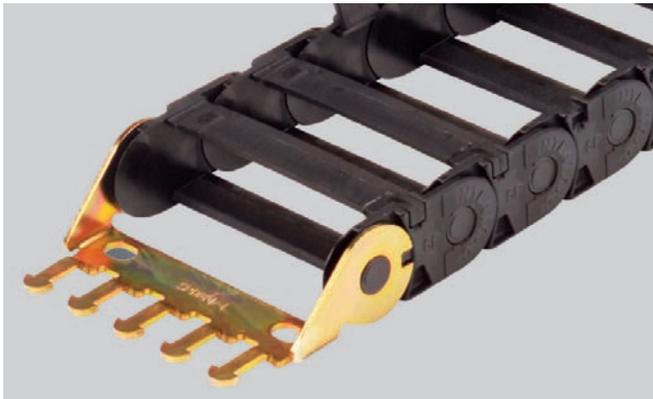
Gortrac Rail Clamping System

- Can be integrated into most carriers
- Quick installation
- Stackable design provides space efficiency
- Available for 1, 2, or 3 stacked cable configurations
- Custom spacers can be designed to accommodate cables/hoses too small for clamp range
- Clamp material: hot-dipped galvanized steel (stainless steel available upon request)



Custom UHMW Clamps

- Can be integrated into most carriers
- Quick installation



Integrated Strain Relief Mounting Brackets

- Optional on most cable carriers
- Cables secured to tabs using zip ties



Zip Tie Bar for Mounting Brackets

- Zip tie bars integrated into mounting brackets
- Tiered structure for easy access
- Double rows of large fingers hold more zip ties
- Anti-slip ridges on bar prevent cable slippage

GORTRAC® RAIL CLAMPING | SPECIFICATIONS

SINGLE STACK CLAMPS

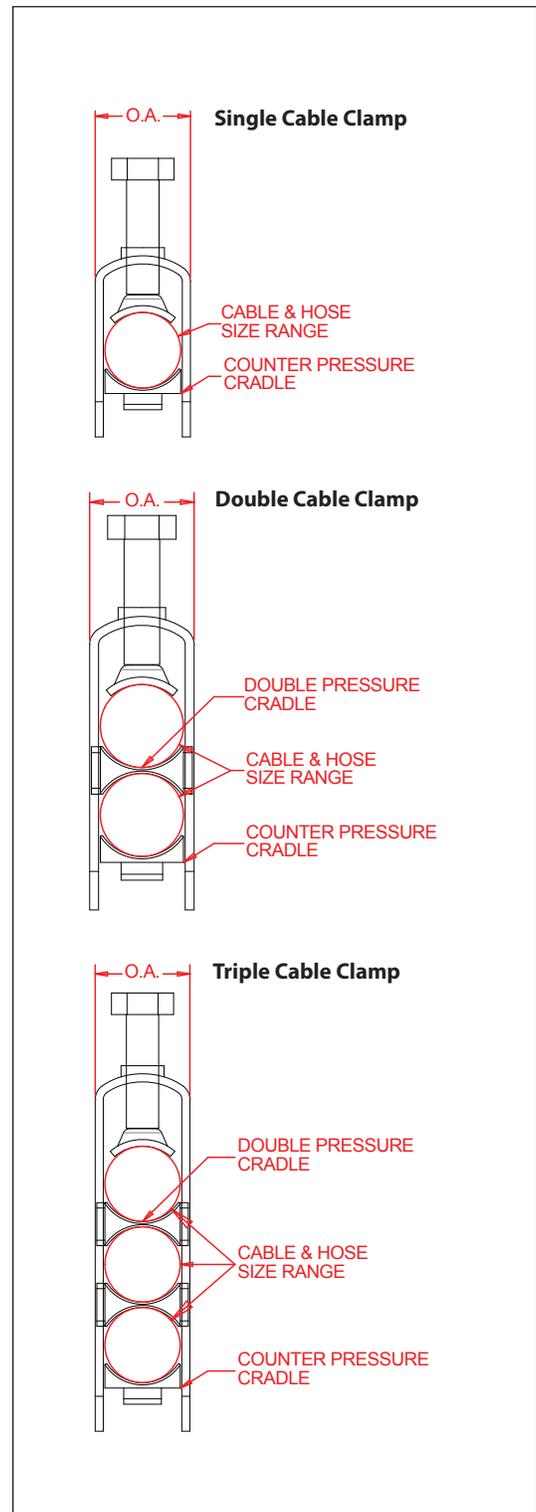
CABLE/HOSE DIAMETER RANGE inches (mm)	OVERALL WIDTH DIM. "O.A." inches (mm)	GORTRAC PART NO.
0.24 (6) - 0.47 (12)	0.61 (16)	HN0003-12.1
0.31 (8) - 0.55 (14)	0.69 (18)	HN0003-14.1
0.31 (8) - 0.63 (16)	0.77 (20)	HN0003-16.1
0.31 (8) - 0.71 (18)	0.85 (22)	HN0003-18.1
0.43 (11) - 0.86 (22)	1.01 (26)	HN0003-22.1
0.67 (17) - 1.02 (26)	1.17 (30)	HN0003-26.1
0.87 (22) - 1.18 (30)	1.32 (34)	HN0003-30.1
0.87 (22) - 1.34 (34)	1.48 (38)	HN0003-34.1
1.10 (28) - 1.50 (38)	1.65 (42)	HN0003-38.1
1.18 (30) - 1.65 (42)	1.81 (46)	HN0003-42.1
1.57 (40) - 1.81 (46)	2.03 (52)	HN0003-46.1
1.65 (42) - 1.97 (50)	2.18 (56)	HN0003-50.1
1.73 (44) - 2.13 (54)	2.34 (60)	HN0003-54.1
1.97 (50) - 2.28 (58)	2.50 (64)	HN0003-58.1
2.13 (54) - 2.52 (64)	2.74 (70)	HN0003-64.1
2.28 (58) - 2.76 (70)	2.97 (76)	HN0003-70.1
2.52 (64) - 2.99 (76)	3.21 (82)	HN0003-76.1
2.76 (70) - 3.23 (82)	3.44 (88)	HN0003-82.1
2.91 (74) - 3.54 (90)	3.76 (96)	HN0003-90.1
3.23 (82) - 3.94 (100)	4.15 (106)	HN0003-100.1
3.70 (94) - 4.33 (110)	4.55 (116)	HN0003-110.1

DOUBLE STACK CLAMPS

CABLE/HOSE DIAMETER RANGE inches (mm)	OVERALL WIDTH DIM. "O.A." inches (mm)	GORTRAC PART NO.
0.31 (8) - 0.47 (12)	0.61 (16)	HN0002-12.2
0.39 (10) - 0.55 (14)	0.69 (18)	HN0002-14.2
0.47 (12) - 0.63 (16)	0.77 (20)	HN0002-16.2
0.55 (14) - 0.71 (18)	0.85 (22)	HN0002-18.2
0.63 (16) - 0.86 (22)	1.01 (26)	HN0002-22.2
0.79 (20) - 1.02 (26)	1.22 (31)	HN0002-26.2
0.94 (24) - 1.18 (30)	1.38 (35)	HN0002-30.2
1.02 (26) - 1.34 (34)	1.54 (39)	HN0002-34.2
1.26 (32) - 1.50 (38)	1.71 (44)	HN0002-38.2
1.42 (36) - 1.65 (42)	1.87 (48)	HN0002-42.2
1.50 (38) - 1.81 (46)	2.03 (52)	HN0002-46.2
1.69 (43) - 1.97 (50)	2.18 (55)	HN0002-50.2

TRIPLE STACK CLAMPS

CABLE/HOSE DIAMETER RANGE inches (mm)	OVERALL WIDTH DIM. "O.A." inches (mm)	GORTRAC PART NO.
0.35 (9) - 0.47 (12)	0.61 (16)	HN0004-12.3
0.47 (12) - 0.55 (14)	0.69 (16)	HN0004-14.3
0.51 (13) - 0.63 (16)	0.83 (21)	HN0004-16.3
0.63 (16) - 0.71 (18)	0.89 (23)	HN0004-18.3
0.71 (18) - 0.79 (20)	0.99 (25)	HN0004-20.3
0.71 (18) - 0.86 (22)	1.06 (27)	HN0004-22.3
0.86 (22) - 1.02 (26)	1.22 (31)	HN0004-26.3
0.94 (24) - 1.10 (28)	1.30 (33)	HN0004-28.3
1.10 (28) - 1.18 (30)	1.38 (35)	HN0004-30.3

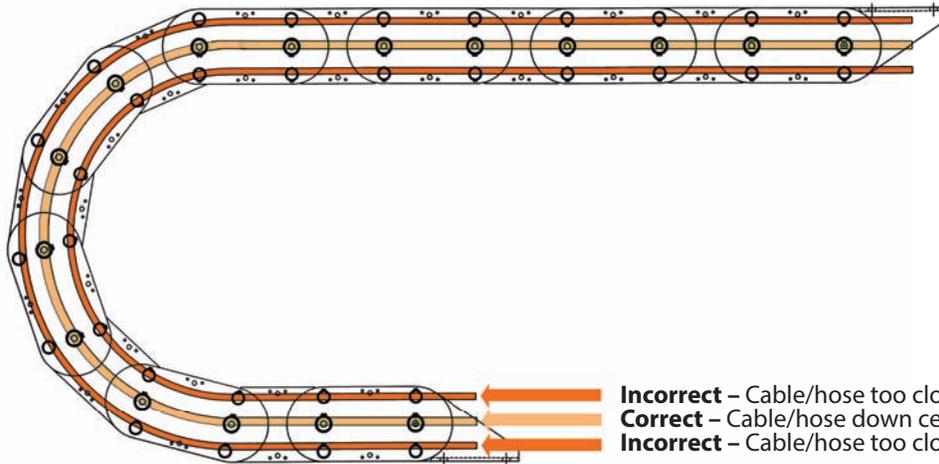


Note: Counter pressure cradles are supplied with all clamps. When clamp rail specified, length is determined by cable carrier width, number of cable clamps and/or customer-specified space requirements.

CABLE/HOSE CARRIER | INSTALLATION GUIDE

Special care and consideration should be taken while installing cables and hoses. The correct installation of cables and hoses is one of the most important aspects of the entire system. Proper installation will greatly affect the cable

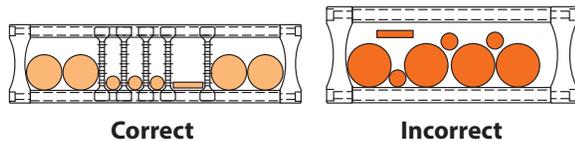
carrier system cycle life, as well as the cycle life of the cables and hoses. The following guidelines should be followed to maximize the life of the cables and cable carrier system.



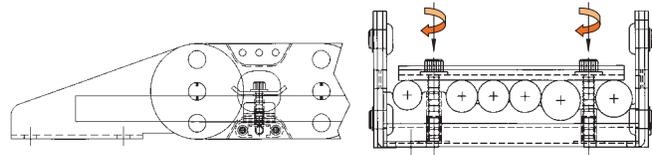
Incorrect – Cable/hose too close to inner diameter
Correct – Cable/hose down centerline of carrier
Incorrect – Cable/hose too close to outer diameter

Recommended Cable/Hose Placement

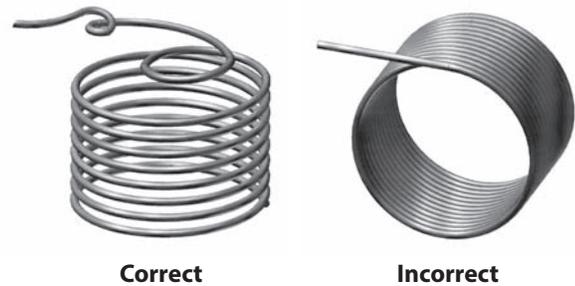
The cables/hoses must not be twisted and should be free of kinks or other irregularities. When stacking cables/hoses, care should be taken to ensure enough slack has been provided to allow cables/hoses to travel freely on top of one another.



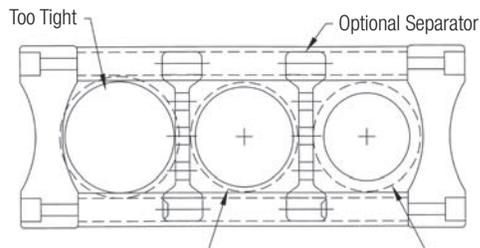
The stacking or direct side-by-side placement of cables and hoses with large cross-sectional differences is not recommended.



All cables and hoses should be secured at both the fixed and moving ends. Please do not pinch the cables/hoses excessively while clamping the ends in place. In applications with high pressure hydraulic hoses, we recommend clamping only at the moving end of the carrier.



Make certain that the cable/hoses are laid into the carrier "twist-free". Cables/hoses supplied in rolls or on roll reels should be unrolled, not pulled sideways or off the top of the coil.



Recommended 10% Clearance for Cables Recommended 20% Clearance for Hoses

Dynatect recommends a minimal 10% clearance for each cable overall diameter and 20% clearance for each hose overall diameter. (60% total cavity fill optimal)

GORTRAC® | DYNATECT ADVANTAGES ADD VALUE

In addition to providing cable and hose carriers, Dynatect offers complete value-added services and programs for our customers. These services range from basic procurement and installation of cables and hoses into carrier assemblies to process support like Kanban, JIT and vendor-managed

inventory programs, to the design and manufacture of turn-key, engineered assemblies. With six plants in North America and divisions in Asia and Europe, we have the capacity and capabilities to support the requirements of high volume OEM programs, as well as large, complex projects.

PRE-ASSEMBLED CARRIERS

Dynatect can deliver carrier assemblies pre-loaded with cables and hoses or complete harnesses with connectors and fittings for plug-and-play installation. Cables, hoses and fittings can be purchased by Dynatect to your specification or dropped shipped from your vendor. Either way, our installation team will ensure that the final

product arrives on your floor correctly and on time. All pre-loaded systems pass through quality and inspection checks as part of the installation process, confirming arrangement, conformance and cut off lengths, before they leave our facilities.



Nylatrac® carrier system pre-loaded on Dynatect-designed reels for quick installation.



Ready-to-install Nylatrac NSB carrier.

Steel SRC carrier pre-loaded with steel hoses.



GORTRAC® | DYNATECT ADVANTAGES ADD VALUE

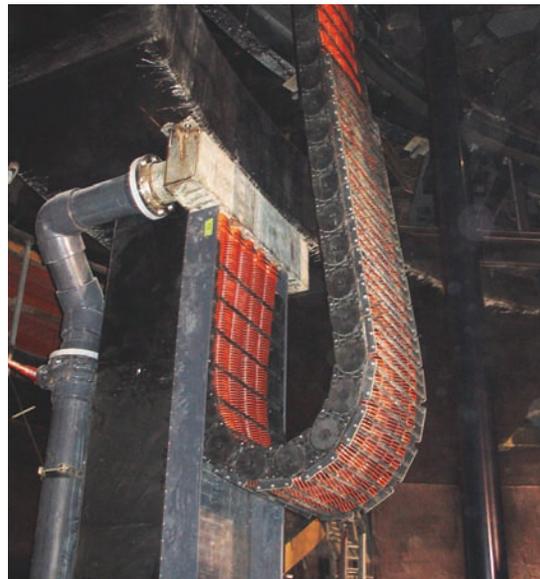
TURN-KEY ENGINEERED ASSEMBLIES

Whether you require a simple modification to a standard mounting bracket for a drop-in replacement, or you would like us to design and deliver a complete, Turn-key engineered assembly, Dynatect has the value-added solution you are looking for. In addition to completely harnessed carrier systems, we can fabricate manifolds and junction boxes, tow arm assemblies, guidance and support systems, safety mechanisms, shrouds and

enclosures, and other associated components. We can also incorporate other Dynatect products such as protective covers, roll-up doors, slip clutches and motors and ball or lead screws into our designs and our network of plants provide a wide range of manufacturing and fabrication capabilities. This vertical integration allows us to provide specialized assemblies cost effectively and on time.



Blow-molding application with steel XL carrier with patented "Walker" support system to reduce shock load by preventing link lock-out.



Dynatect-designed cable carrier, guidance and manifold system for hydraulic cylinder lifting platform in the entertainment industry.

Stainless steel LRC Series carrier, designed for outdoor-duty, supplied with pre-installed cables and hoses and custom mounting brackets with incorporated bulk-head plates.



GORTRAC® | DYNATECT ADVANTAGES ADD VALUE

ORDERING MADE EASY

In addition to delivering complete assemblies, Dynatect offers a variety of services designed to make specification and procurement easier:

- Using our free web conferencing service, we can quickly put together design teams to facilitate solutions to complex opportunities. More than just video conferences, these meetings allow our engineers to share photo, video and documents with your design team in real time. Design and print approvals can be accomplished online, increasing productivity and shortening the design cycle.
- We can customize a Kanban or JIT program to ensure delivery with minimized inventory requirements. We can

also set up a vendor-managed inventory and tool crib replenishment program designed to directly integrate into your manufacturing process.

- We offer educational forums both in person and online designed to improve your assembly and take time and to pass on best practices for cable and hose management and system design. We can also provide on-site installation supervision.

Dynatect has the experience and capabilities to design and deliver a valued-added carrier system for your next application. Let us show you how easy it is. Call us today and ask to speak to one of our application's engineers.



Dynatect can customize a Kanban or JIT program to ensure delivery with minimized inventory requirements.



Nested steel carrier assembly supplied complete with long travel guide trays and trolley system, and custom steel crossbars.



GUIDE TROUGH SYSTEMS | PLASTIC CARRIERS

UNSUPPORTED SPAN IN CARRIER OPERATION

Every cable carrier has an unsupported span. This span is a condition of link construction and the fill weight of the cables and hoses being carried. As the unsupported span of the carrier is exceeded, the carrier begins to sag. In plastic carrier systems, support guidance is required when sag reaches the point where the upper (moving) section of the carrier contacts the lower section.

GUIDE TROUGHS

The most common method of support in plastic carrier applications where unsupported spans are exceeded is to install a guide trough to prevent lateral movement during travel. In a center mounted application, the trough consists of two sections: deep and shallow. As the carrier begins to travel from the retracted position, it initially sags and rides on itself. When the gliding section passes the center point, it transitions to the shallow trough segment.

Features/Benefits:

- Prevents lateral movement during travel
- Modular: Easy to add/remove sections
- Fast, easy assembly
- Designed for center mount, offset mount, or opposed travel

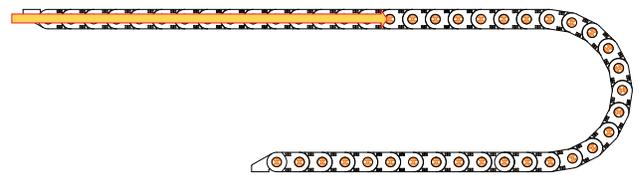


LOWERED MOUNTING HEIGHT

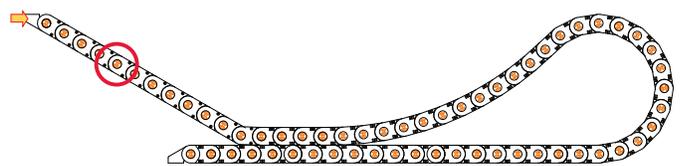
An important consideration for applications requiring plastic carriers in a guide trough is the bending moment that occurs at the moving end as the carrier is pushing, particularly when high velocities/accelerations and heavy fill weights are introduced.

A potential solution for this problem is lowering the mounting height of the carrier, thereby reducing the bending moment. In a lowered mounting height design, the moving end begins gliding immediately as it begins to push. The lowered mounting height is achieved by adding reverse bend links, extending the 'K' dimension of the carrier. Dynatect Engineering can run tow force calculations on an application to determine whether a lowered mounting height is advisable.

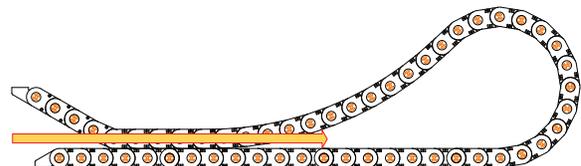
In cases where the moving end cannot be lowered due to application restrictions, a "push plate" may be utilized. If the moving end cannot be mounted at the recommended mounting height, a push plate provides additional support to the carrier system at the bending moment that occurs at the moving end as the carrier is pushing.



When the carrier performs under normal operation without sag, force is applied in a straight trajectory along the moving section.



As sag is introduced, the mass of the carrier falls below the force plane, creating a bending moment on the links at the moving end.

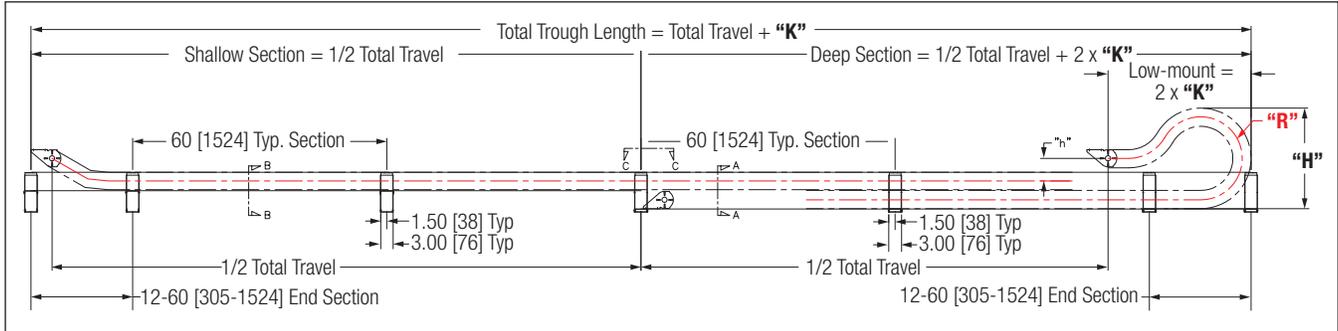


In a long travel carrier system configured for a lowered mounting height, the sag is eliminated, redirecting the force vector back to a straight trajectory. Furthermore, the loading that the carrier introduces as it is dragged over the bottom carrier section is replaced with a more even wear pattern. The force is distributed over the entire system instead of just the first few links at the moving end.

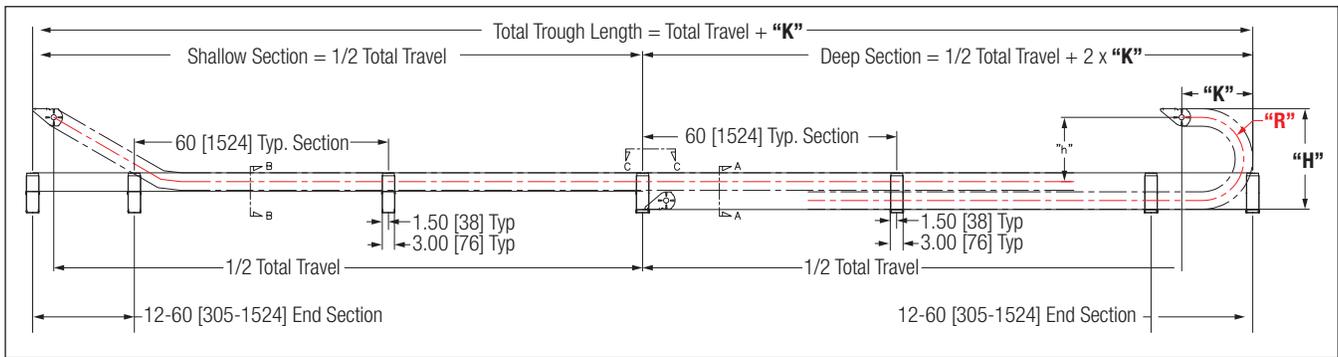
GUIDE TROUGH SYSTEMS | PLASTIC CARRIERS

GUIDE TROUGH SYSTEM (LOWERED MOUNTING HEIGHT)

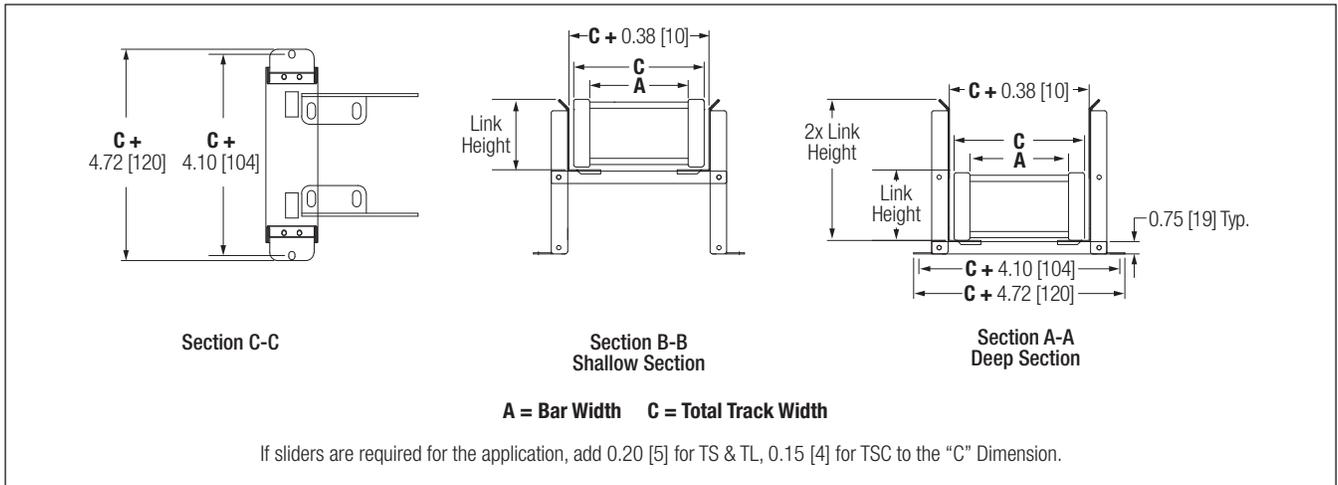
Dimensions in inches (mm)



GUIDE TROUGH SYSTEM (REGULAR MOUNTING HEIGHT)



GUIDE TROUGH SYSTEM END VIEWS



MODULAR LOW-FRICTION SLIDERS

Available on Nylatrac® Modular Series TSC, TS, and TL, modular slider components are often used in long travel applications in which chain bands glide on each other. Sliders are manufactured from special plastic

material that is highly wear resistant and offers extremely good coefficient of friction values. Not only do they reduce tow force and wear, but they are removable and easy to replace.



STATIONARY SUPPORT ROLLERS | PLASTIC AND METAL CARRIERS

STATIONARY SUPPORT ROLLERS

Stationary support rollers are available for unsupported spans that exceed the maximum lengths listed on a specific track series load chart. Available on both plastic carriers and metal carriers.

Support Rollers for Metal Carriers

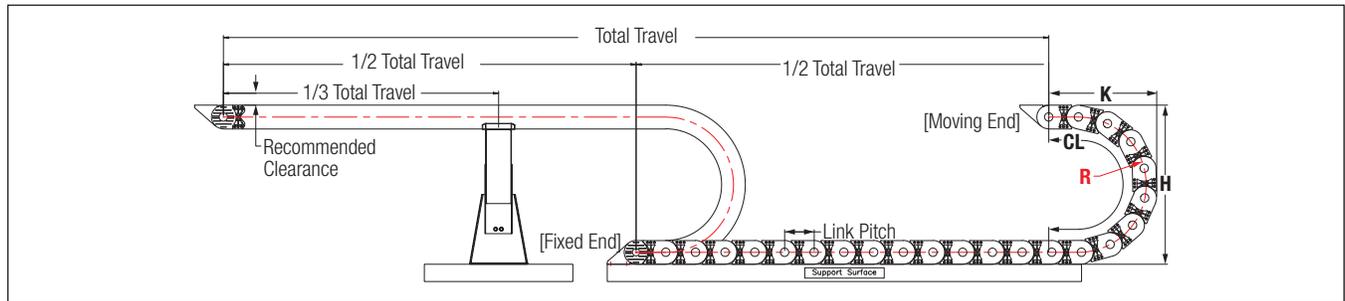
- Single support roller systems provide maximum travel 3 times the recommended travel length (1.5 times unsupported span)
- Double support roller systems provide maximum travel 4 times the recommended travel length (2 times unsupported span)

Support Rollers for Plastic Carriers

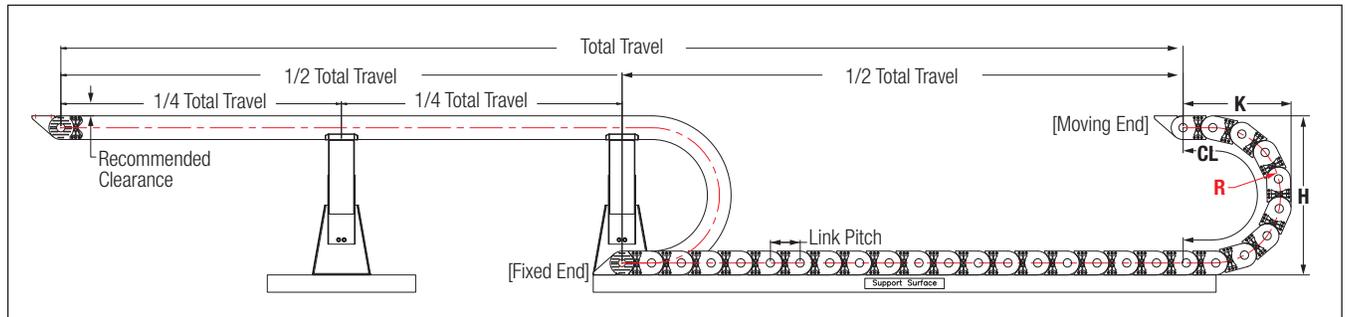
- Single support roller systems provide maximum travel 2.5 times the recommended travel length (1.25 times unsupported span)
- Double support roller systems provide maximum travel 3.5 times the recommended travel length (1.75 times unsupported span)



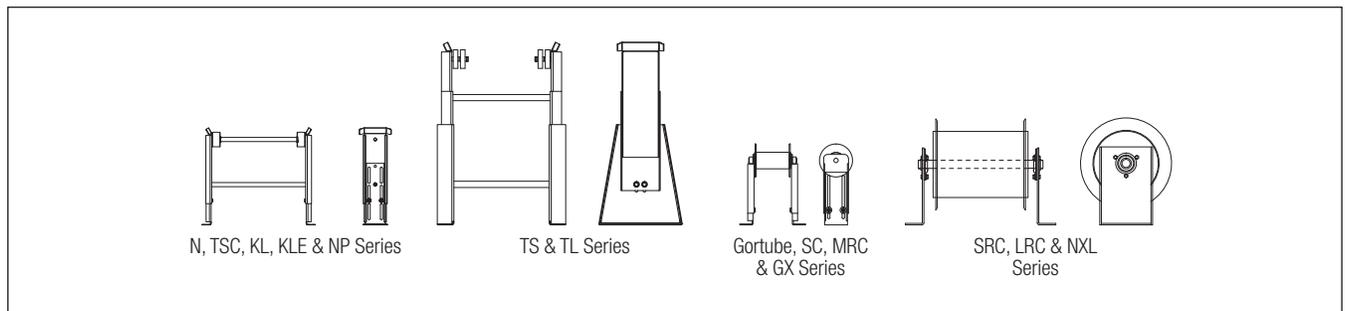
SINGLE SUPPORT ROLLER SYSTEM



DOUBLE SUPPORT ROLLER SYSTEM



SUPPORT ROLLER END VIEWS



ROLLING CARRIAGE SUPPORT SYSTEM | PLASTIC AND METAL CARRIERS

ROLLING CARRIAGE SUPPORT SYSTEM

A rolling style carriage support system is available for high speed and long travel applications when the cable/hose load exceeds the limits available with fixed support rollers or when tow forces exceed the limits available with a traditional gliding application. Rolling carriage support systems consists of rollers, conveyor supports and a moving rail framework that supports the carrier throughout the complete length of travel. The entire system is guided by channels that ensure accuracy and dependability, even at extremely high loads and velocities. The system can be self-guiding for travels under 50 feet. Guide channel required for travels over 50 feet. Depending on mounting location, a guide channel is recommended for all lengths of carrier travel to prevent outside interference.

Features/Benefits:

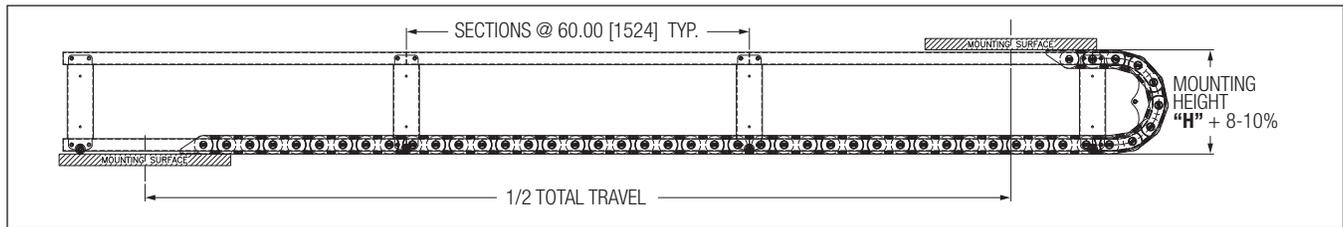
- **Lightweight:** Reduced tow forces vs. conventional carriage systems
- **Modular:** Easy to add/remove length
- **Easy assembly:** Most components are bolted together
- **Quiet:** Molded nylon wheels used for low noise
- **Track drives/returns carriage without use of cable**
- **Can be used with both metal and plastic carrier systems**



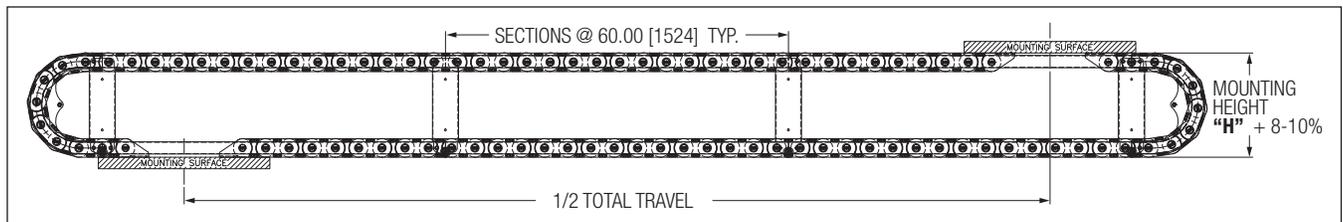
Shown: A customized, low-mounted rolling carriage support system designed to fit a pre-existing mounting envelope.

ROLLING CARRIAGE SYSTEM (SINGLE CARRIER)

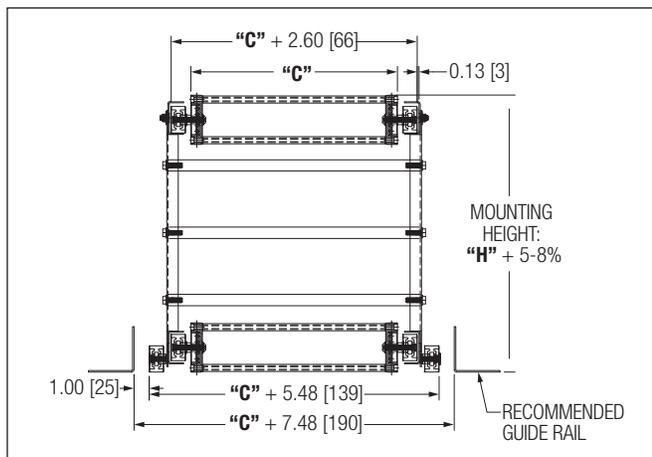
Dimensions in inches (mm)



ROLLING CARRIAGE SYSTEM (OPPOSED)



CARRIAGE VIEW END



Shown: An opposed rolling carriage with a Nylatrac® Modular carrier (TS Series) designed for high-velocity/long travel in a steel mill.

DRUM-STYLE CARRIAGE SUPPORT SYSTEM | METAL CARRIERS

DRUM STYLE CARRIAGE SUPPORT SYSTEM

A Drum Style carriage support system is available for long travel applications when the cable/hose load and travel exceed the limits available with fixed support rollers. Carriage support systems consists of a moving framework that has major rollers (Drums) at each end and intermediate conveyor supports between the major rollers, which support the cable carrier for the complete length of travel. The entire system rolls on "c"-channels on the floor (or a bridge). Single carrier carriage systems require a return cable assembly. For use with metal carriers only.

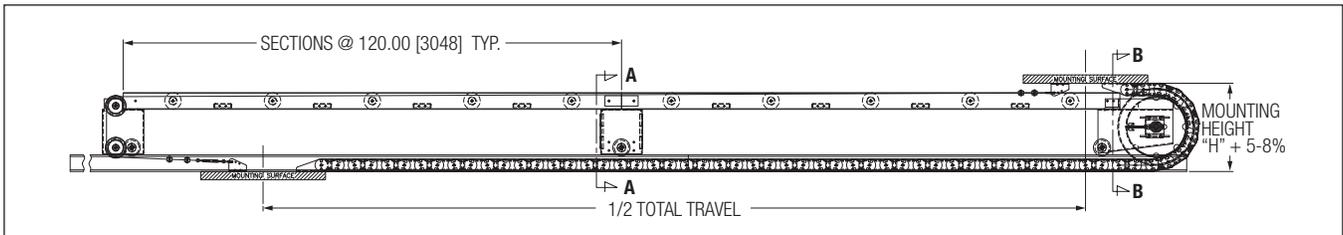


Features/Benefits:

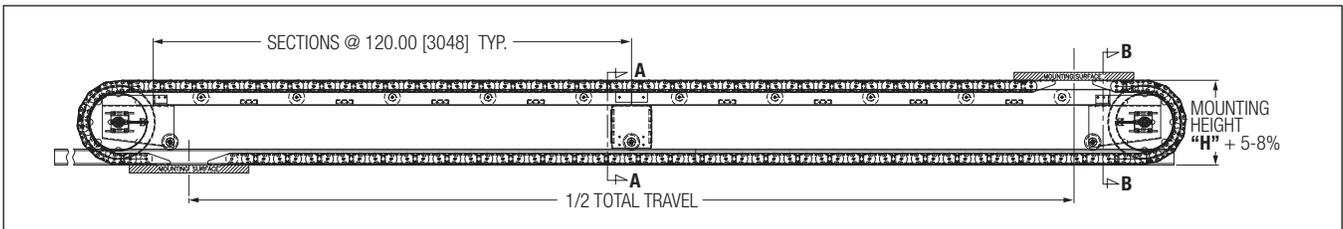
- Robust-designed for heavy-duty operation with steel carriers
- Modular: Easy to add/remove length
- Easy assembly: Most components are bolted together

DRUM STYLE CARRIAGE SYSTEM (SINGLE CARRIER)

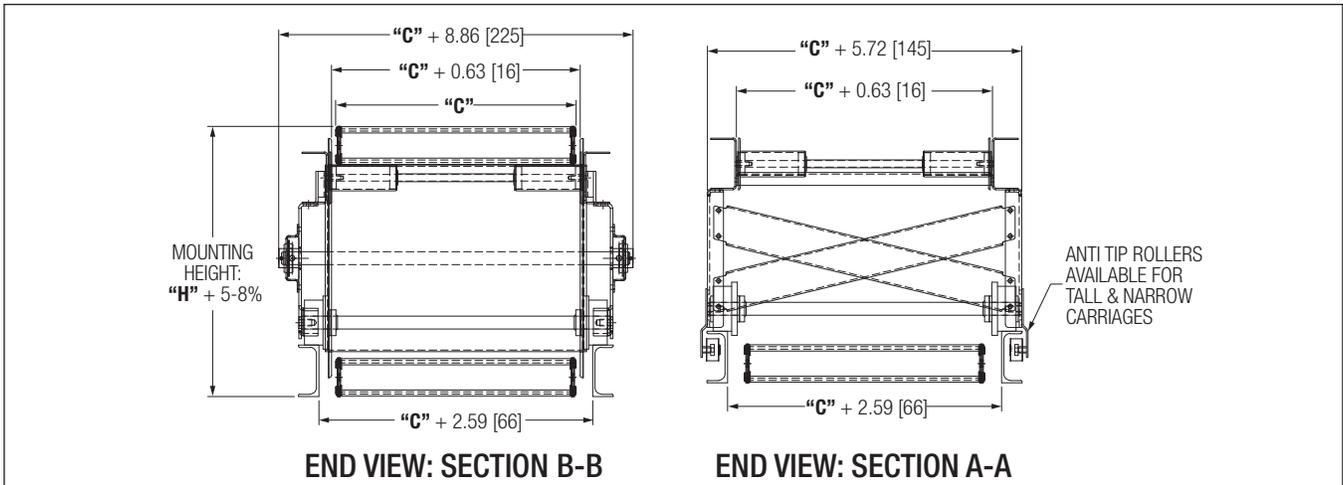
Dimensions in inches (mm)



DRUM STYLE CARRIAGE SYSTEM (OPOSED)



CARRIAGE END VIEW



MARATHON™ LONG TRAVEL SUPPORT SYSTEM | PLASTIC CARRIERS

MARATHON LONG TRAVEL SUPPORT SYSTEM

Available on Nylatrac® Modular TS and TL Series plastic carriers, the Marathon system is a custom solution for specialty applications involving high velocities and accelerations. Unlike traditional systems where the carrier glides on itself, the Marathon utilizes a patented retractable roller system that rides on a simple rail system. How it works: Using the carrier's polygonal effect, the rollers are lifted from the guide rail and pulled inward as the links pass through the radius. On the return travel, the roller sets are pushed back out and sit down on the rail providing rolling support through the complete travel.

For additional design considerations, contact Dynatect's Sales Department at 800-298-2066 to discuss your application.



Features/Benefits:

- Reduction of Tow Force up to 90%
- Travel speed up to 5 meters/second
- No gliding friction on carrier links

ROTATIONAL APPLICATIONS

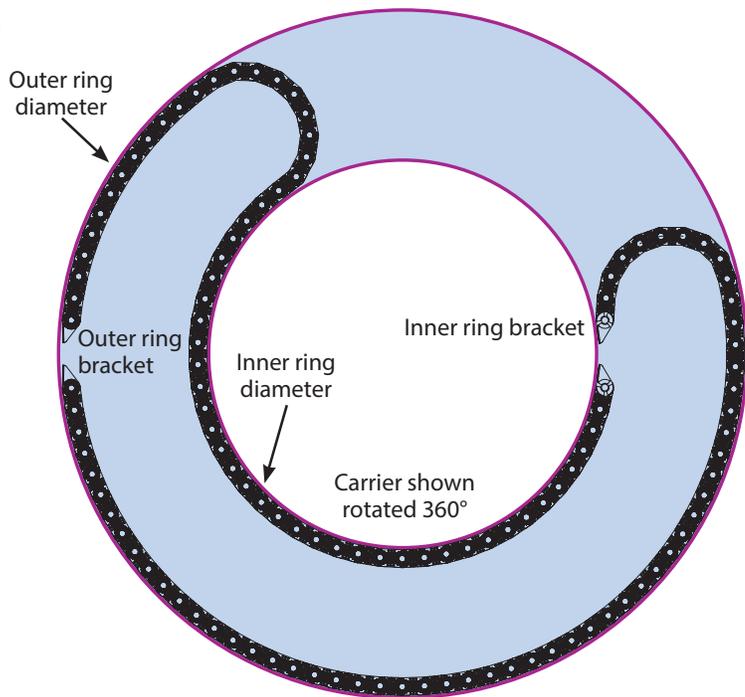
ROTATIONAL APPLICATION

Rotational applications are achieved by running a carrier that has been modified for reverse bending movement on its side. The carrier can be equipped with polymer slide blocks or casters for low-friction gliding. The carrier is also modified to maintain maximum control of travel path.

Design Specifications

The following information is required to design a rotational carrier assembly:

- Degree of rotation
- Inner ring diameter
- Outer ring diameter
- Velocity
- Operating environment and duty cycle
- Fill package
- Mounting location
- Specify which bracket (inner/outer) is rotating



Field Application

An automatic storage/retrieval system (ASRF) at a California winery provided consistent, worry-free operation using a 140-ft long Nylatrac Modular (TL-200) carrier assembly. In this side-mounted rotational application, the carrier incorporates both primary and reverse bend radius links where necessary to provide free movement in both directions. Components and accessories were selected to minimize wear and prevent tangling and corkscrewing of cables. (Equipped with poly roller crossbars, low-friction sliders, cavity separators and cable clamps at each end.)



CABLE/HOSE CARRIERS | QUOTE REQUEST FORM

Date _____ Address _____
 Company Name _____ City _____ State/Prov. _____
 Contact _____ Country _____ Zip/Postal Code _____
 Quantity _____ Telephone _____ Fax _____
 Email _____

1. Quote For

New Design: Specify Gortrac® Part Number: _____ Dynatect Recommendation* (*please provide design data)
 Existing Design: Brand: _____ Part #: _____ Length: _____ Drawing Provided?
 Comments: _____

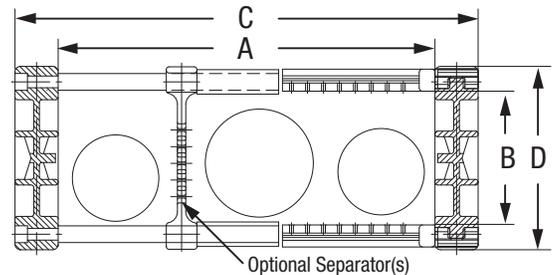
2. Cables/Hoses

List type of cable(s) and/or hose(s) below.

TYPE OF CABLE/HOSE	OUTSIDE DIAMETER	QUANTITY	MINIMUM BEND RADIUS	WEIGHT/FOOT	COMMENTS

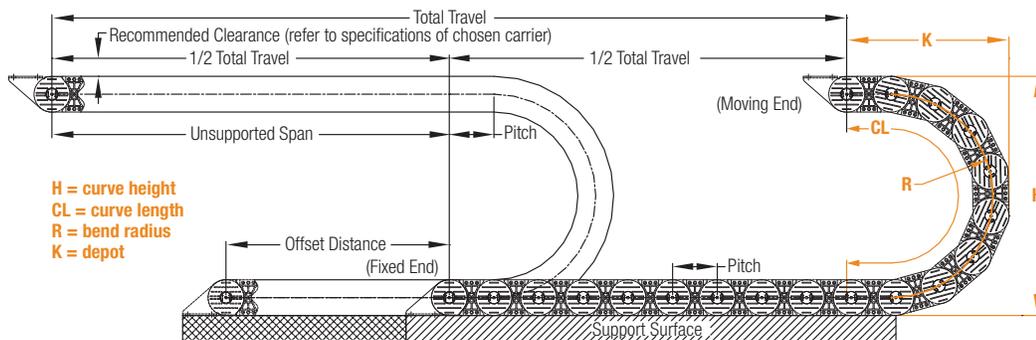
If dimensions A, B, C and D are left blank, Dynatect will determine the correct carrier sizing based on the cables/hoses specified above.

A = Cavity Width: _____
 (determined by adding the outer diameters of all cables/hoses + appropriate safety factors and divider/separator widths)
B = Cavity Height: _____
 (determined by the outer diameter of the largest cable/hose + safety factor)
C = Outer Width: _____
 (please specify any space restrictions)
D = Outer Height: _____
 (please specify any space restrictions)
 Cable/Hose Safety Factor:
 Cables: +10% Hoses: +20%
 Separators? Yes No (Quantity: _____)



3. Travel Requirements

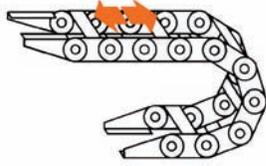
Dimensions specified in: Inches Millimeters



Total Travel Length: _____ Will Fixed End be the Center of Travel? Yes No (offset distance from center: _____)
 Maximum Travel Speed: _____ Acceleration: _____ Duty Cycle: _____
 List Space Restrictions (mounting height "H", depot "K"): _____

CABLE/HOSE CARRIERS | QUOTE REQUEST FORM

4. Travel Orientation



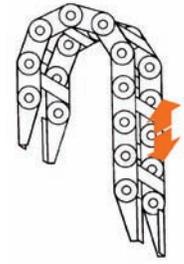
Horizontal Lower-Flange Fixed



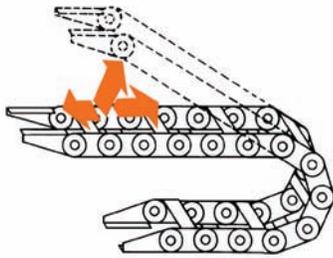
Horizontal Upper-Flange Fixed



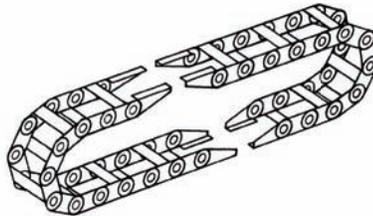
Vertical Curve Down



Vertical Curve Up



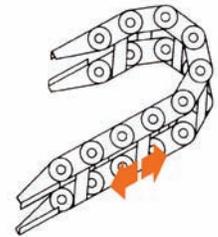
Combination Vertical and Horizontal



Opposed



Nested Configuration



Side Mounted

5. Application

Operating Temperature Range: Ambient: _____ Minimum: _____ Maximum: _____

Describe Operating Environment (debris, moisture, chemicals, etc.): _____

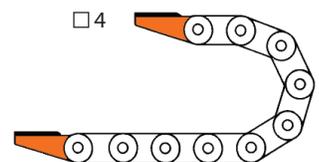
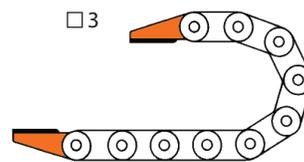
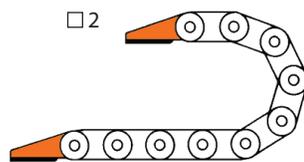
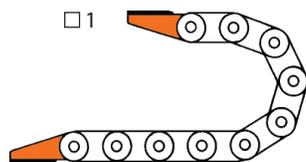
Application Details: _____

Material Preference: Steel Plastic No Preference Other: _____

Style Preference: Enclosed Open

6. Bracket Configuration

Note: Default bracket configuration is #1-Inward.

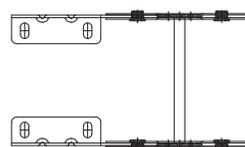


Mounting Holes Inward or Outward of Link:

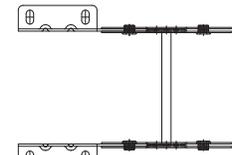
Fixed End: In Out

Moving End: In Out

Non-Standard Mounting Brackets (provide drawing)



Brackets Inward



Brackets Outward