35 Years of material handling solutions

Omtec

Ergonomic Transfers™

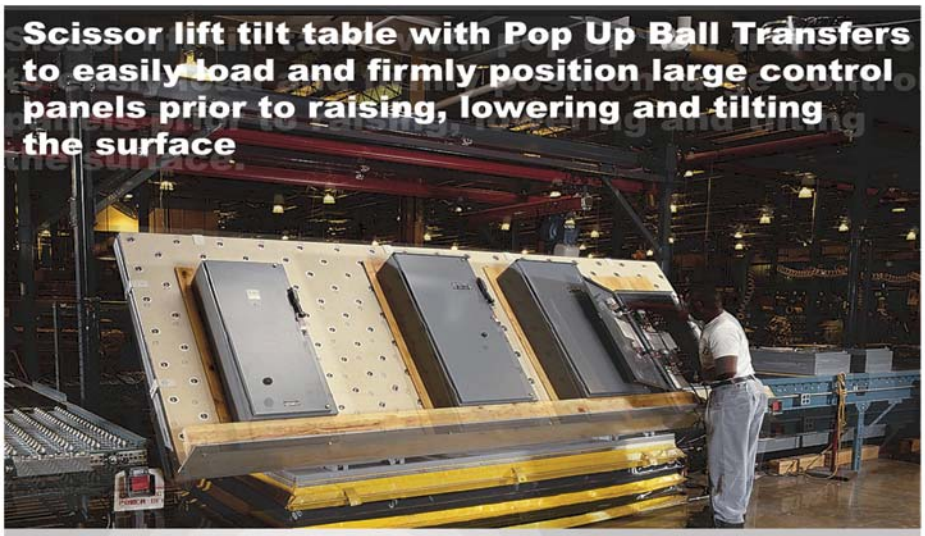
Free technical support is only a phone call away!

www.omtec.com info@omtec.com

Tel:(508) 481-3322 Fax:(508) 460-0105

181 Liberty Street Marlboro, Ma. 01752 U.S.A.

*Covered under one or more U.S. or international patents or patent applications. © Omtec Corp. 2004



Application is limited only by...

your magination!

Unique Solutions for Unique Applications

Sealed inert atmosphere transfer carts

Omtec Pop-Up Ball Transfers raised are used for easy loading and unloading.

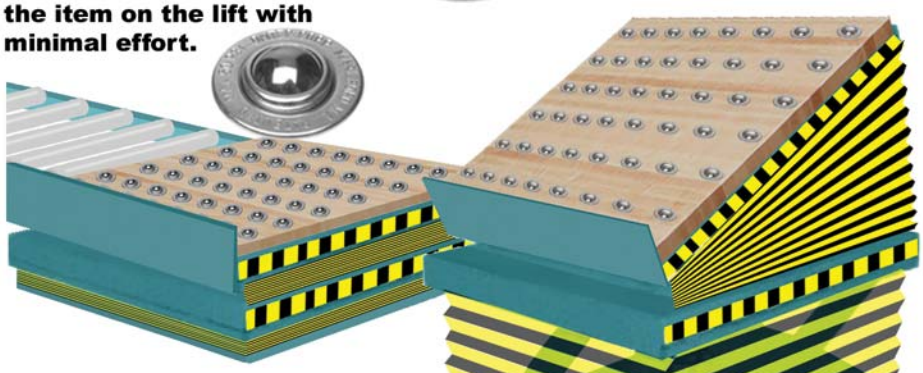
When the balls are retracted items are firmly located while carts are moved about.

Put our extensive field experience to work for you!

Omtec *Patented Ergonomic Work Surfaces

Omtec Balls retract to solidly and firmly locate item while lift is lifting and tilting or while the item is worked on.

Omtec Pop Up Ball Transfers raise to move and position the item on the lift with minimal effort.

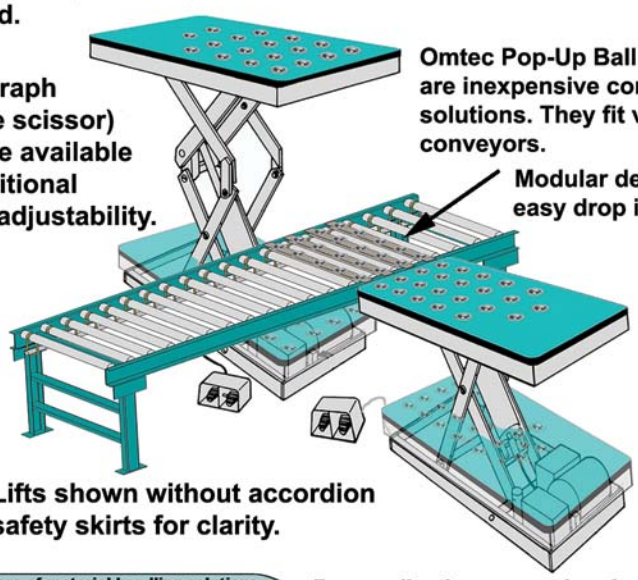


Scissor Lifts can be utilized when products are to heavy for workbenches. They are also used where extremely low height adjustability is required.

Pantograph (double scissor) Lifts are available for additional height adjustability.

Omtec Pop-Up Ball Transfer Strips are inexpensive conveyor transfer solutions. They fit virtually all roller conveyors.

Modular design for fast, easy drop in installation.



Lifts shown without accordion safety skirts for clarity.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

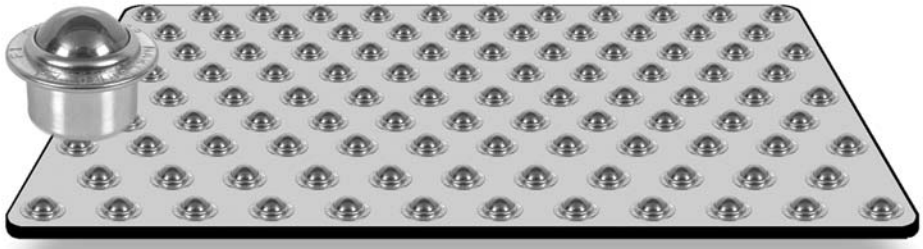
Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

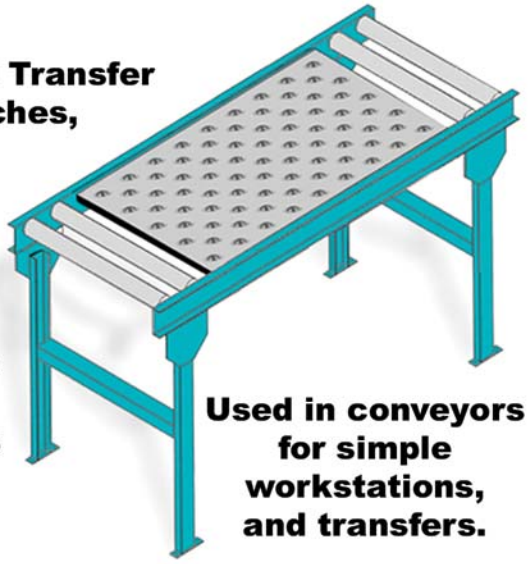
Omtec Fixed Ball Transfers



Any size - Any shape - Metal - Wood - Plastic - Surfaces

These ball transfers do not raise and lower.

Inexpensive Fixed Ball Transfer surfaces for work benches, conveyors, etc...



Ball transfers and/or complete surfaces are easy to retro-fit on existing work benches and applications.

Used in conveyors for simple workstations, and transfers.

Carbide Tipped Boring Bit

3/8 drill shank

Use in 1/2 inch Drill

For retro-fitting existing work benches...

Omtec has available custom size carbide bits to bore and if needed recess the holes in plastic, plastic laminated and wood surfaces.

1/4 shank Carbide tipped Rabbeting Bit

Use in small router.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications. © Omtec Corp. 2004

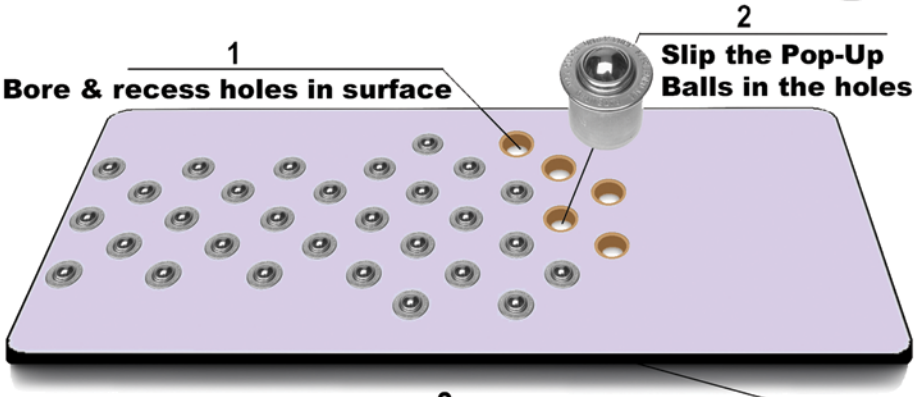
Retro-Fit Kits are available to convert existing work benches into . . .

production workstations

with Omtec patented Pop-Up Ball Transfers!

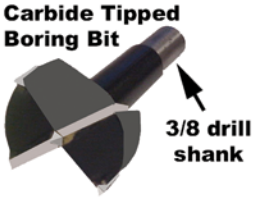
At the "flick" of a switch the Pop-Up Balls raise to easily move a product onto and off of a surface. If needed the product can be orientated and positioned while the balls are raised.

"Flip" the switch again and the Pop-Up Balls retract so the product is solidly and firmly resting on the surface and will not move while the operator performs the required task.



Simple 3 step installation.

Carbide Tipped Boring Bit



Use in 1/2 inch Drill

For retro-fitting existing surfaces

Omtec has available custom size carbide bits to bore and if needed recess holes in plastic, plastic laminated and wood surfaces.

1/4 shank Carbide tipped Rabbeting Bit

Use in small router.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

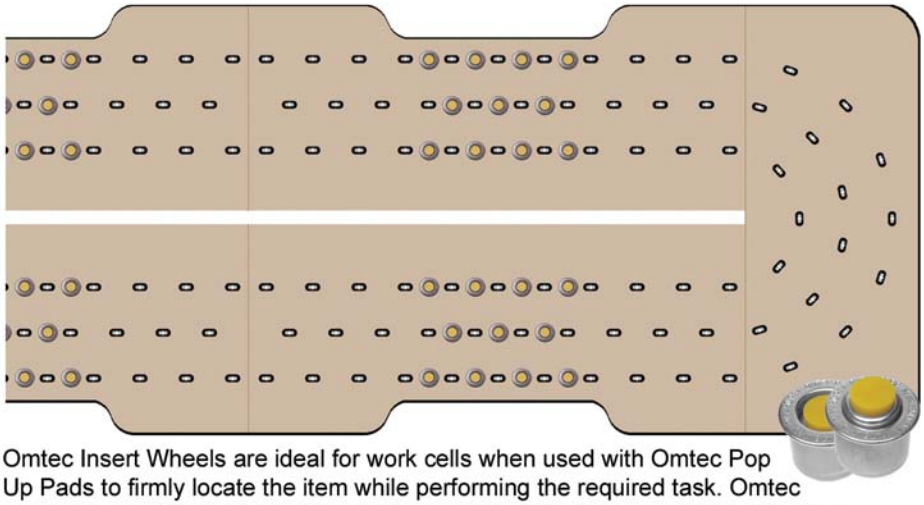
*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Work Cell Assembly Stations using...

Omtec *Patented Insert Wheels, Pop-Up Balls & Pop-Up Pads

Omtec Insert Wheels and Pop Up Ball Transfers
Raise the Omtec Balls to orient the item and bring it forward, lower them to to firmly stabilize the item on the work surface.



Omtec Insert Wheels are ideal for work cells when used with Omtec Pop Up Pads to firmly locate the item while performing the required task. Omtec Pop-Up Balls, Pop-Up Pads and Insert Wheels may be used in any combination.

I W L - 1
Insert Wheel (mounted) Low

Omtec Pop Up Pads raise above the Omtec IWL-1 Insert Wheel (low), Omtec PBT-1 Pop Up Balls and Omtec F-1 Fixed Ball Transfers.

Omtec PBT-1 Pop Up Balls raise above the Omtec IWL-1 Insert Wheels (low).

I W H - 1
Insert Wheel (mounted) High

Omtec IWH-1 Insert Wheels (high) are the same height as the Omtec PBT-1 Pop Up Balls and Omtec F-1 Fixed Ball Transfers.

35 Years of material handling solutions
Omtec
Ergonomic Transfers™
www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

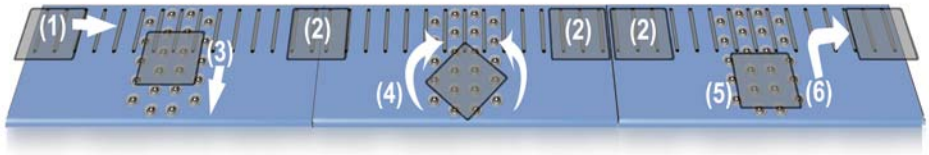
*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Progressive Assembly using...

Omtec *Patented Pop-Up Balls & Rollers

This design is ideal for progressive assembly lines utilizing multiple work benches attached end to end.



(1) The product enters from the left and moves along the series of rollers at the back of the surfaces.

(2) Notice the ability to queue products on the surfaces between the work areas.

(3) The operator raises the balls under the product and brings it forward on the surface.

(4) At the same time conveniently orientating and positioning the product.

(5) The balls are lowered to firmly locate the product while the required task is performed.

(6) The procedure is reversed to move the product to the next in line workstation.

35 Years of material handling solutions
Omtec Ergonomic Transfers™
www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

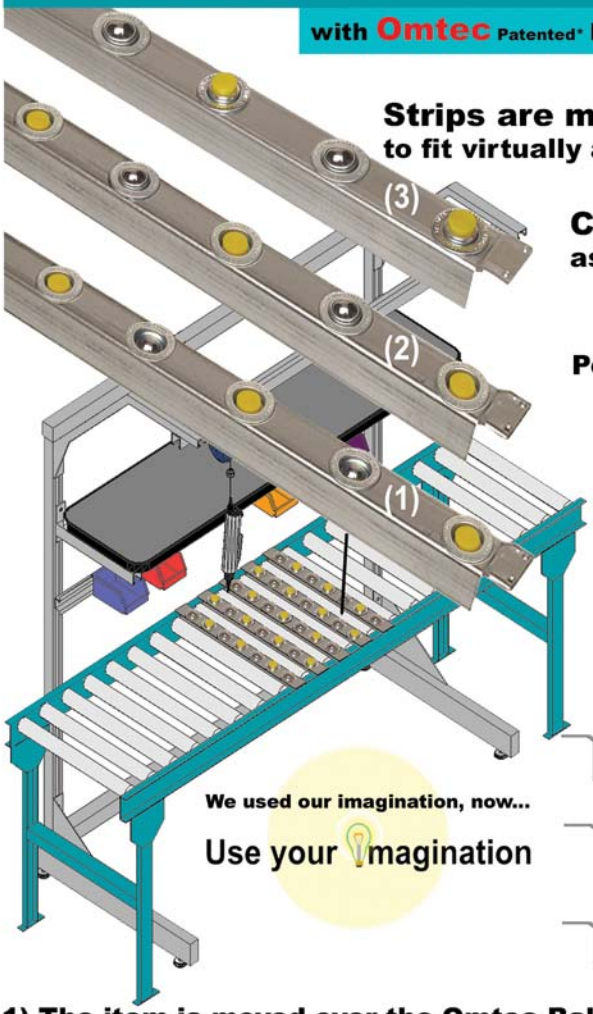
Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications. © Omtec Corp. 2004

Create flexible assembly lines in conveyors

with Omtec Patented* Pop-Up Ball & Pad Strips



Strips are modular design
to fit virtually all roller conveyors.

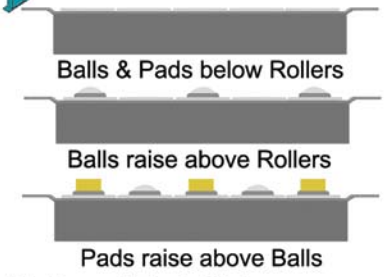
Cost effective
assembly line solutions.

Omtec
Pop-Up Ball Transfers &
Pop-Up Pads have
no "pinch points"

A conveyor work station organizer can provide all the needed support tools, hardware and lighting required on an assembly line.

We used our imagination, now...

Use your Imagination



1) The item is moved over the Omtec Ball and Pad Strips.

2) The Pop-Up Balls are raised above the rollers to allow the operator to orient and conveniently position the item.

3) The Pop-Up Pads raise above the balls and rollers to firmly hold the item in position while the required task is performed.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

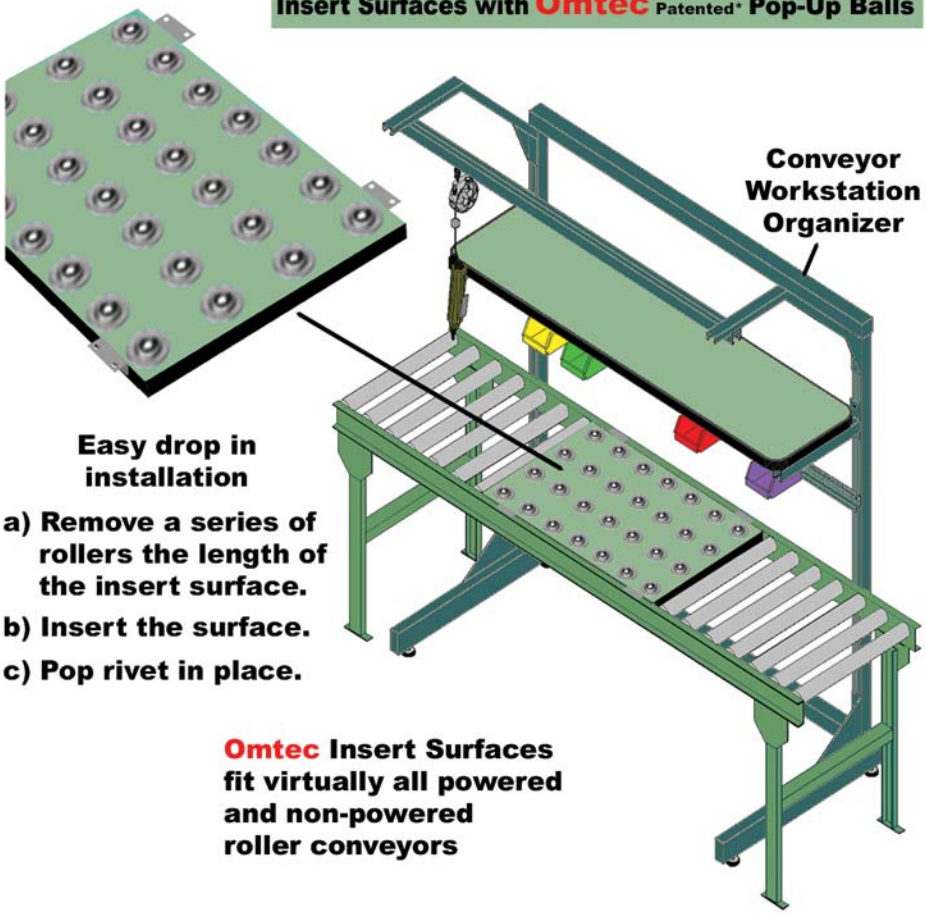
*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Convert existing roller conveyors into

ppppppppppproduction assembly lines

Insert Surfaces with Omtec Patented* Pop-Up Balls



Easy drop in installation

a) Remove a series of rollers the length of the insert surface.

b) Insert the surface.

c) Pop rivet in place.

Omtec Insert Surfaces fit virtually all powered and non-powered roller conveyors

1) Pop-Up Balls when raised are even with the top of the rollers so the product can be easily moved on to the surface and oriented at the same time.

2) When the balls are retracted the product is firmly located on the surface while the operator performs the required task.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

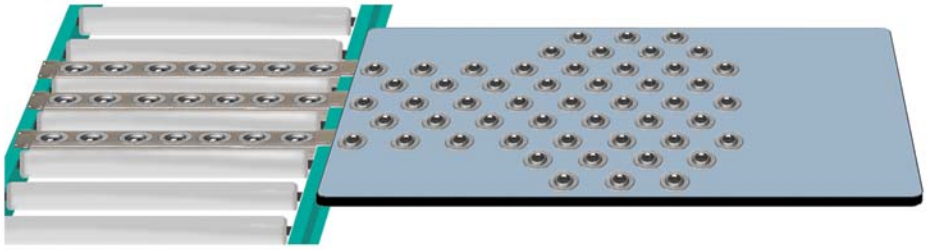
*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Integrate conveyors and production work surfaces using

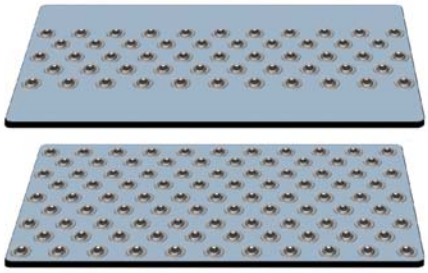
Omtec *Patented Pop-Up Ball Transfer Strips

Use for Assembly, Packing and Shipping Lines.

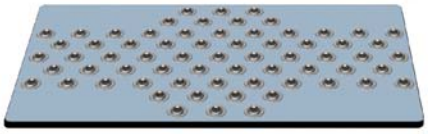


Omtec Pop-Up Ball Transfer Strips and Omtec Pop-Up Ball Surfaces may be operated separately allowing items to progress uninterrupted along conveyor when the Pop-Up Ball Transfers on the surface are raised.
For more on strips see pages 11 and 12.

Application is limited only by your Imagination



These ball patterns are the most common, others available.



35 Years of material handling solutions
Omtec
Ergonomic Transfers™
www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!
Field support phone number is on page 18

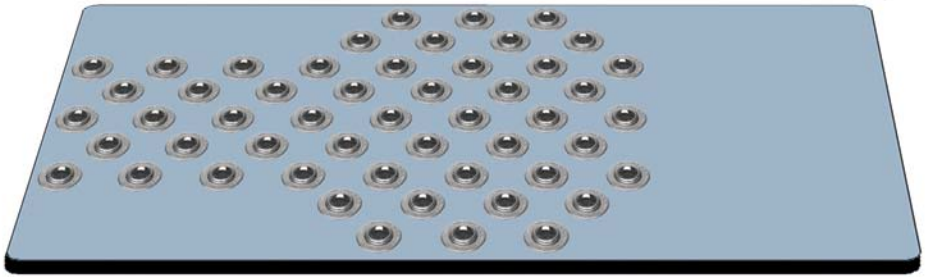
*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Omtec *Patented Pop-Up Ball Transfers

Ergonomic work surfaces to fit virtually any application or work bench

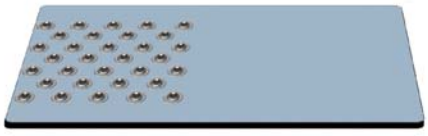
At the flick of a switch the Pop-Up Ball Transfers raise above surface to easily move items onto and off of the work surface while at same time allowing the item to be oriented/positioned.



Flip the switch again and the Pop-Up Ball Transfers retract. The item is solidly and firmly located on the work surface. Now the task required can be performed on the item with out allowing it to move around!

Omtec Ergonomic Work Surfaces are easily integrated with conveyors.

Infinite ball patterns are available to fit any application



35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

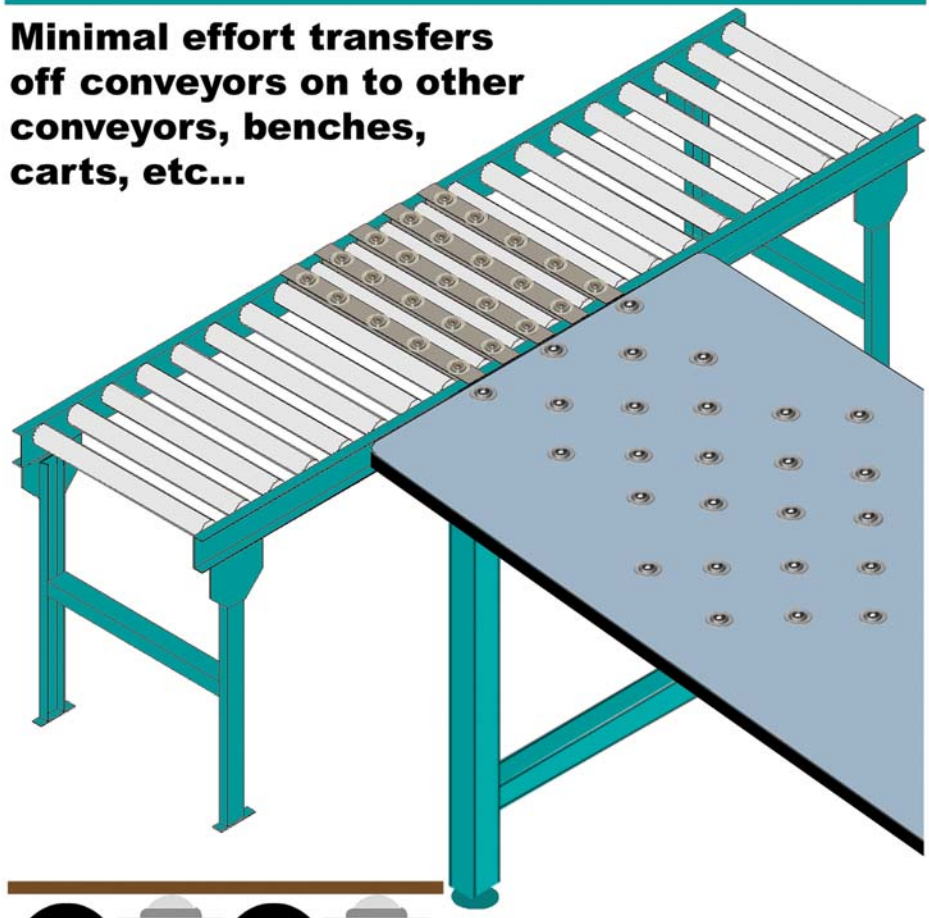
Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Conveyor Transfer Solutions using

Minimal effort transfers off conveyors on to other conveyors, benches, carts, etc...



Omtec Pop-Up Balls are above rollers when raised

Omtec Pop-Up Balls are below rollers when lowered

Omtec Pop-Up Ball Transfer Strips fit virtually any powered or non-powered roller conveyor.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications.

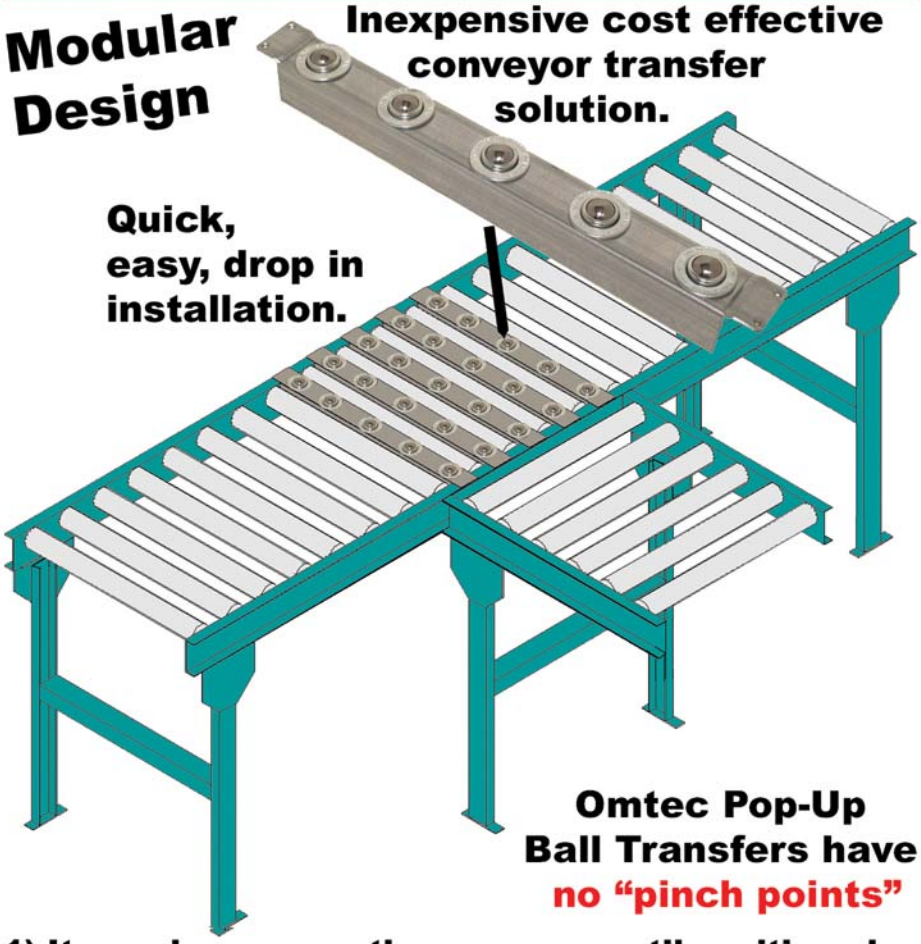
© Omtec Corp. 2004

Omtec *Patented Pop-Up Ball Transfer Strips

Modular Design

Inexpensive cost effective conveyor transfer solution.

Quick, easy, drop in installation.



Omtec Pop-Up Ball Transfers have no "pinch points"

1) Item advances on the conveyor until positioned over transfer strips.
2) The operator utilizing a foot or hand valve raises the balls under the item and easily pushes it on to adjoining conveyor, bench, cart, etc...
3) If needed the item can be easily oriented during the transfer.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

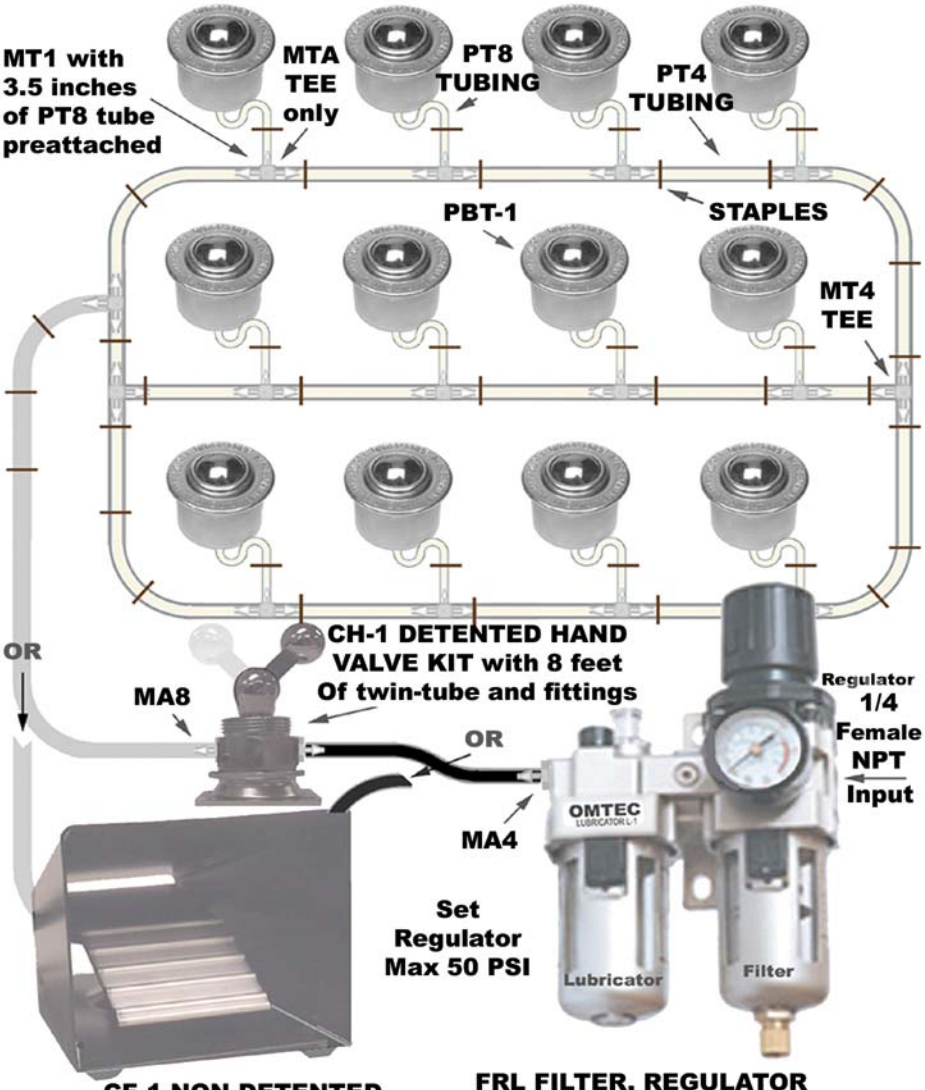
Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Manifold Components



35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

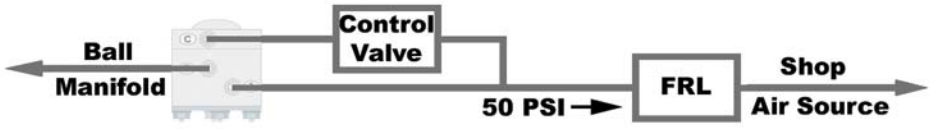
*Covered under one or more U.S. or International patents or patent applications. © Omtec Corp. 2004

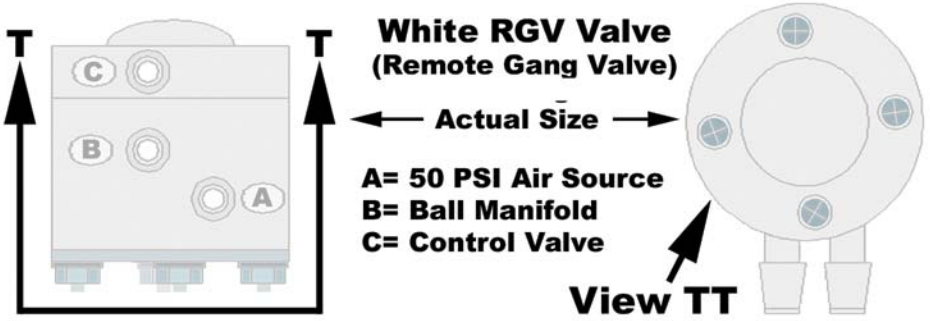
Omtec *Patented Pop-Up Ball Transfers

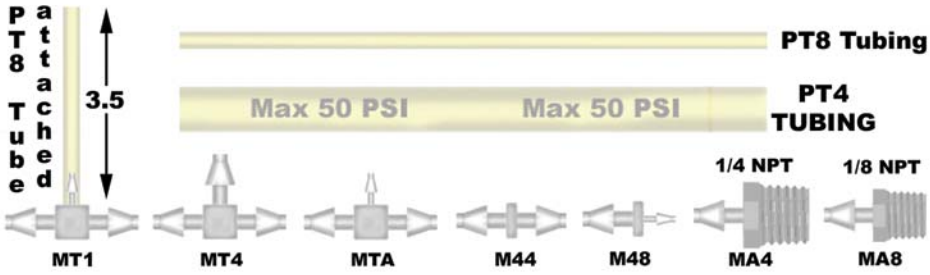
Pop-Up Ball Transfers like Air Cylinders require Filtered Regulated and Lubricated compressed air.

Although a Hand Valve and a Foot Valve are shown in the picture at the left only one control valve is required.

When 30 or more Pop-Up Balls are used with a common manifold RGV valves should be considered. Ask and an Omtec engineer will advise.







35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

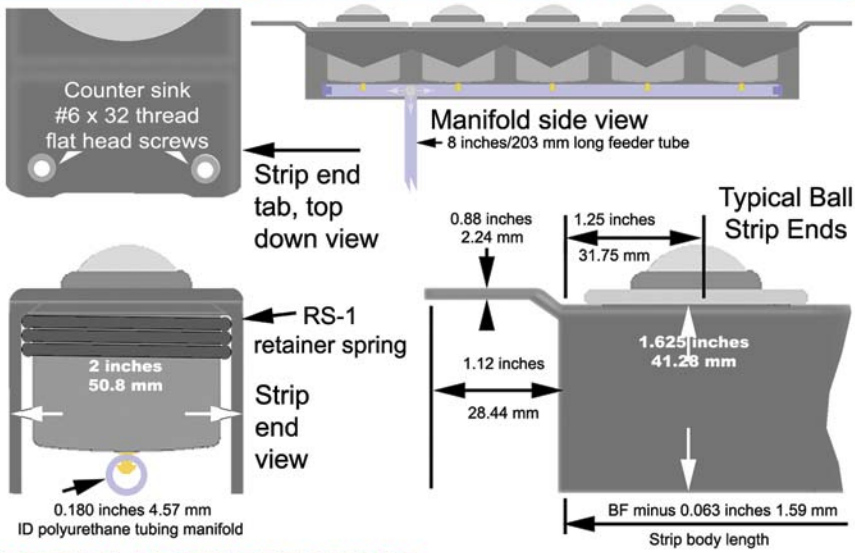
Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

*Covered under one or more U.S. or International patents or patent applications.

© Omtec Corp. 2004

Omtec Technical Data



OMTEC BALL TRANSFER STRIPS

Omtec retractable pneumatic or fixed ball transfer strips can be any length. The number of balls on a strip can be varied, and can be located on any center lines desired, the minimum center line is 2 inches (50.8 mm).

Omtec standard is to place the first and last ball 1.25 inches (31.75 mm) from each end of the main body (between frame) dimension, all other balls are evenly spaced. Other patterns are available.

The air infeed line is a single 0.180 I.D. x 0.265 O.D. (4.572 ID x 6.731 OD mm) polyurethane tubing under the strip between the first and last ball. The standard infeed tube is 8 inches (203 mm) long attached between the first and second ball but can be any length and location.

#6 x 32 threads per inch, flat head counter sink mounting screws with lock washer and nuts are supplied.

OMTEC BALL TRANSFER TOPS

Omtec standard pop up or fixed ball transfer tops are 1.25 inches 31.75 mm thick. Press wood core with high pressure plastic (gray color) laminate top surface and a phenolic resin backer sheet. Other colors and thicknesses are available.

Omtec also offers electro static dissipative surfaces with optional grounding bolts and wrist jacks.

Ball flanges can be either **recessed** or **above surface.**

Surfaces may be solid steel, aluminum, plastic and metal covered core board to accommodate any application requirement.

35 Years of material handling solutions

Omtec Ergonomic Transfers™

www.omtec.com MARLBOROUGH MA. U.S.A.

Free application support is only a phone call away!

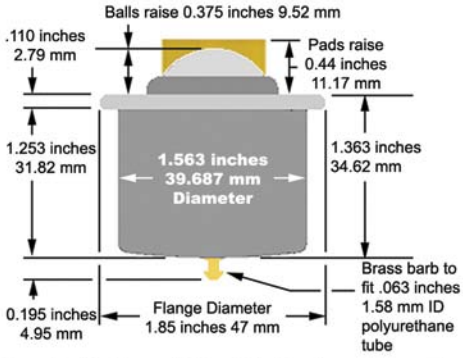
Filling out the information prompt sheets on pages 17-18 will help us give you a quick response!

Field support phone number is on page 18

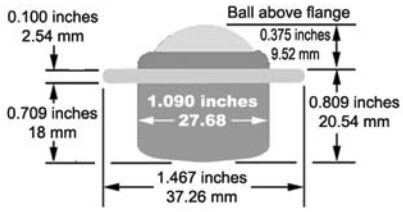
*Covered under one or more U.S. or International patents or patent applications. © Omtec Corp. 2004

Omtec *Patented Pop-Up Balls and Pop-Up Pads

PBT-1 Pop-Up Ball
and PPD-1 Pop-Up Pad



F-1 Fixed Ball
(Non-pop up)



Ball diameter is 1 inch or 25.4 mm

Pad diameter is 0.086 inch or 21.8 mm

Pop Up Balls and Pop Up Pads use very low volume 50 PSI or 3.5 kg/cm2(3.4 bar) filtered, regulated and lubricated compressed shop air to operate.

BALL TRANSFER LIVE LOADING

The following factors should be considered to determine the live loading of ball transfers:

1. Weight (is it evenly distributed)
2. Foot print (bottom size)
3. Bottom surface characteristics. (is it hard/solid, flat/smooth and conveyable. Are the balls likely to indent the bottom surface. Will bottom surface break down over time from constant use.)

EXAMPLES:

A heavy product in a light duty corrugated carton that is likely to deform would suggest a live loading of 10 lbs. (4.54 kg) or less per ball. The same product on a smooth/hard, solid/flat plastic tray would indicate a reasonable live loading of 30 lbs. (13.62 kg) per ball, for successful, minimum effort, movement.

Experience indicates that the most successful live load ratings of ball transfers fall between 10 to 30 lbs. (5.4 to 13.62 kg) per ball, when all of the above factors are considered.

OMTEC CONTROLS

Virtually any air control device may operate Omtec Pop Up Ball Transfers and Pop Up Pads. Controls are available for foot or hand operation with no electric wiring required. If needed they may also be set up for sensing device operation using electric solenoid valves. **Control kits are available.**

OMTEC INDIVIDUAL COMPONENTS

Omtec components are available either as kits or individually for your own projects or applications. These include Omtec Pop Up Ball Transfers, Omtec Pop Up Pads, Omtec Fixed Ball Transfers, controls, manifolds components, predrilled tops and surfaces.

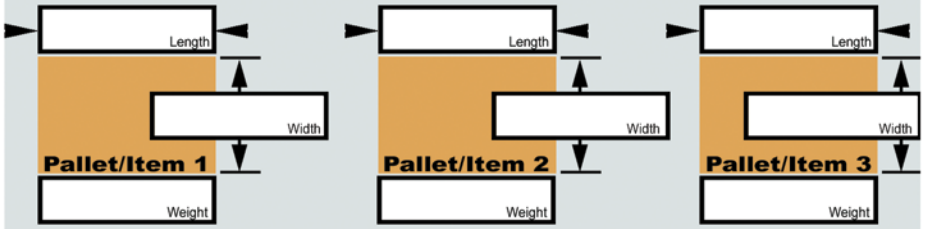
Omtec manifolds can be custom designed for your own configuration, supplied pre-assembled or as individual fittings.

Application is limited only by your imagination!

©Copyright Omtec 2004

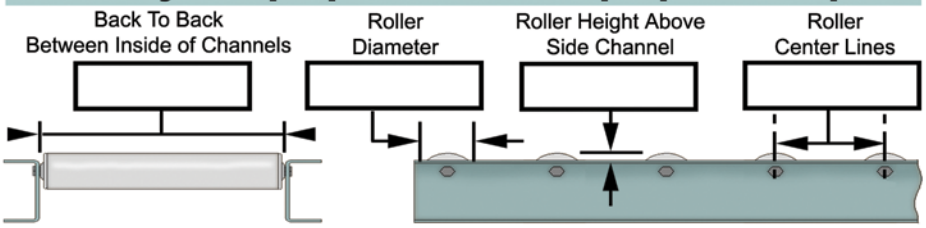
Make a copy of both pages and complete all required information.

Omtec Application Support Request Form



Information in shaded area on both pages is required for all applications!

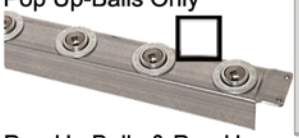
▼ Conveyor Pop-Up Ball and/or Pop-Up Pad Strips ▼



Type of conveyor: Non-Powered Roller ☐ Line Shaft Roller ☐

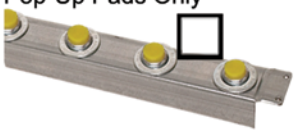
Other describe: _____

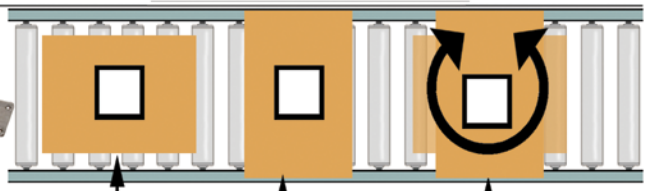
Pop Up-Balls Only



Pop-Up Balls & Pop-Up Pads

Pop-Up Pads Only





Check orientation of the item on the conveyor. Both may be checked.

Check if the item needs to orientate while being transferred

Your Name: _____

Company Name: _____

Phone: _____ **Fax:** _____

E-mail Address: _____

*Covered under one or more U.S. or International patents or patent applications. © Omtec Corp. 2004

Use additional sheet if needed and fax to below.

Answering all questions will help us to give you a quick response.

Is the environment clean and dry with no grit, grease, oil or water: Yes ☐ No ☐

If above is no then describe:

Bottom material is: Cardboard box☐ Plastic☐ Metal☐ Plywood☐ Other describe:

Bottom is: Hard☐ Flat☐ Solid☐ No Holes☐ If all on this line not checked describe:

Describe items being handled:

▼ Surface Information ▼

Pallet/Item path on the surface relative to below sketch:

Enter from: Left ☐ Right ☐ Front ☐ Back ☐ More than one may be checked

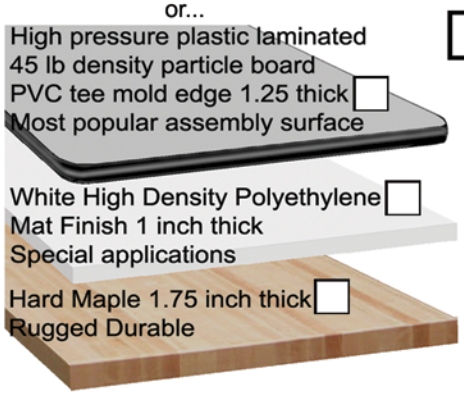
Exits to: Left ☐ Right ☐ Front ☐ Back ☐ More than one may be checked

Will orientate ↻ on surface ☐ Will not orientate on surface ☐

Will be worked on at center of surface ☐ Any Where ☐ Other describe below:

Please recommend to me the best surface for this application ☐

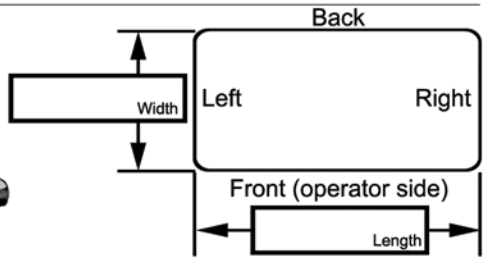
or...



High pressure plastic laminated
45 lb density particle board
PVC tee mold edge 1.25 thick ☐
Most popular assembly surface

White High Density Polyethylene ☐
Mat Finish 1 inch thick
Special applications

Hard Maple 1.75 inch thick ☐
Rugged Durable



◀ Surfaces may be any shape or size, if not square or rectangular then sketch it on opposit page.

◀ Virtually any type of surface is avaialable, please specify what is required...

Pallet/item delivered to surface by:

Conveyor ☐ Cart ☐ Hoist ☐ Person Manually loads ☐ Other describe...

ESD (Electro Static Dissipative) work surface ☐ ESD Ground Bolt ☐ ESD Wrist Jacks ☐

Surface for: Cart ☐ Scissor lift ☐ Bench ☐ Conveyor insert surface ☐ Other describe...

35 Years of material handling solutions

Omtec

Ergonomic Transfers™

Free technical support is only a phone call away!

www.omtec.com info@omtec.com

Tel:(508) 481-3322 Fax:(508) 460-0105

181 Liberty Street Marlboro, Ma. 01752 U.S.A.

*Covered under one or more U.S. or international patents or patent applications. © Omtec Corp. 2004