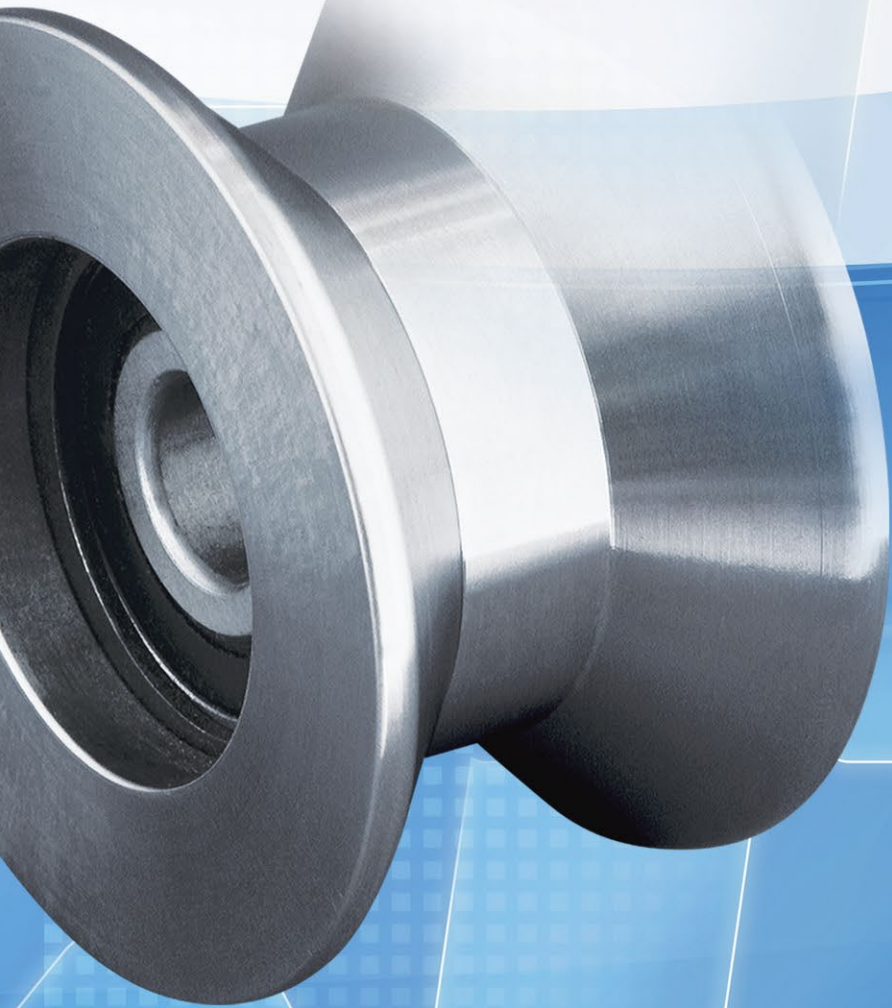


The Best Pushback System Ever Designed



MICREF-RICTION[®]



US PATENT NO. 7,114,904

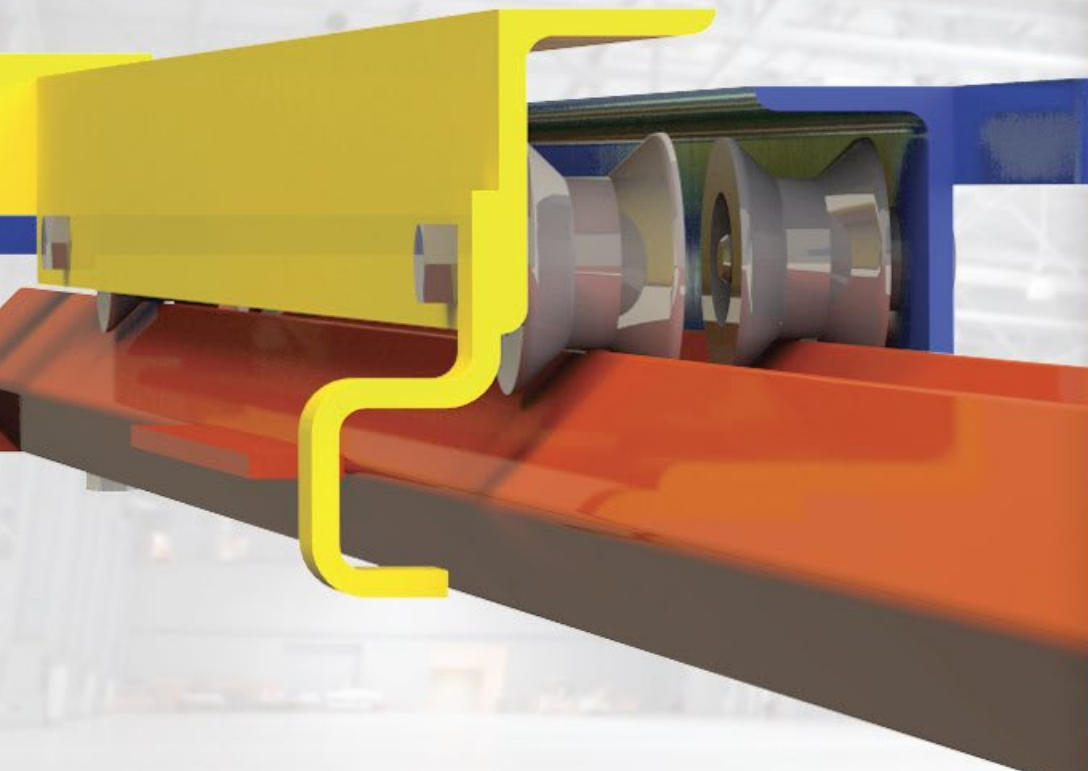
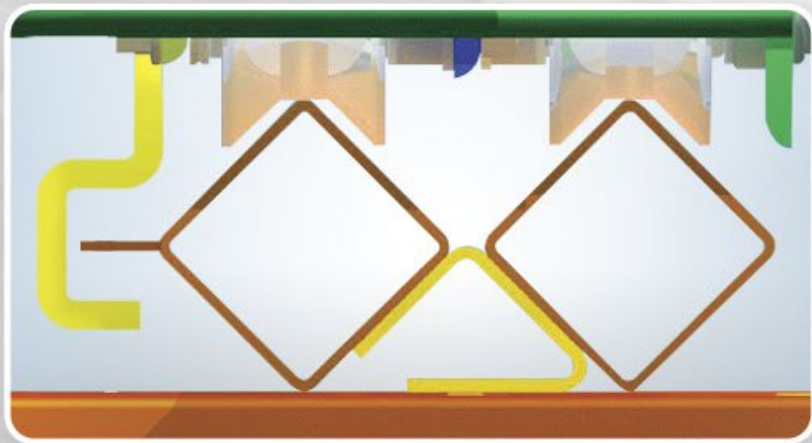


CANADIAN PATENT NO. 2440916

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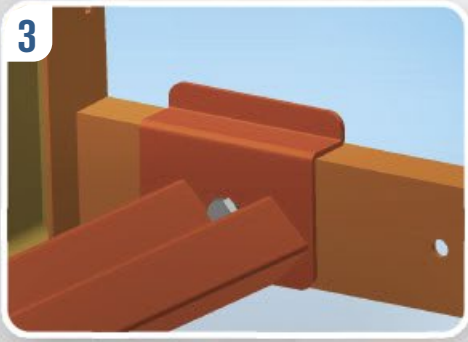
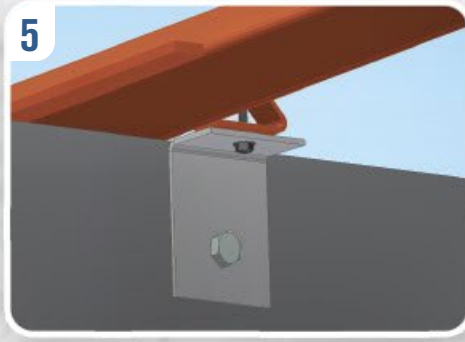
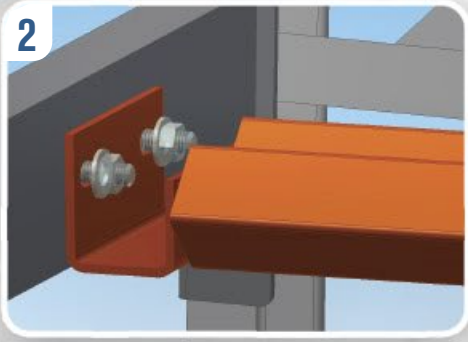
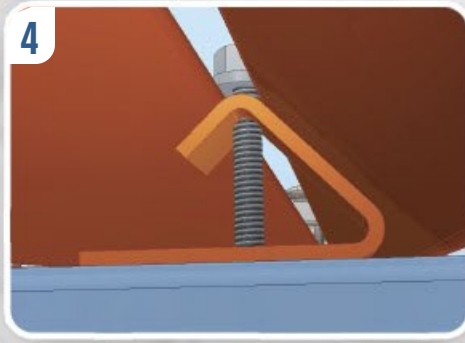
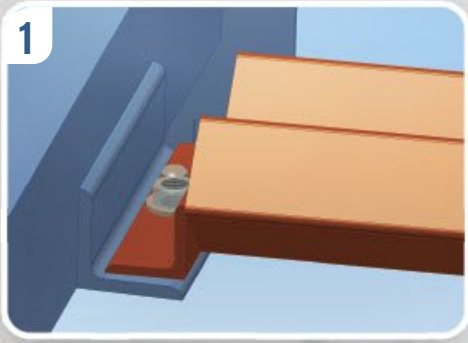
The Rail



Micro-Friction™: Diamond Shaped Rail

- The only self cleaning Pushback rack available on the North-American market
- Eliminates debris accumulation from broken pallet & loads at its contact points
- Reduces system down-time & increases efficiency
- Minimizes cart blockages on its rolling path for enhanced safety

The Rail



Rail Front Connections

- 1 Standard welded angle bracket connection
- 2 Bolted U bracket connection
- 3 Bolted Plate-stopper connection

Secondary Beam Connections

- 4 Standard Tek screwed on
- 5 Bracket bolted on

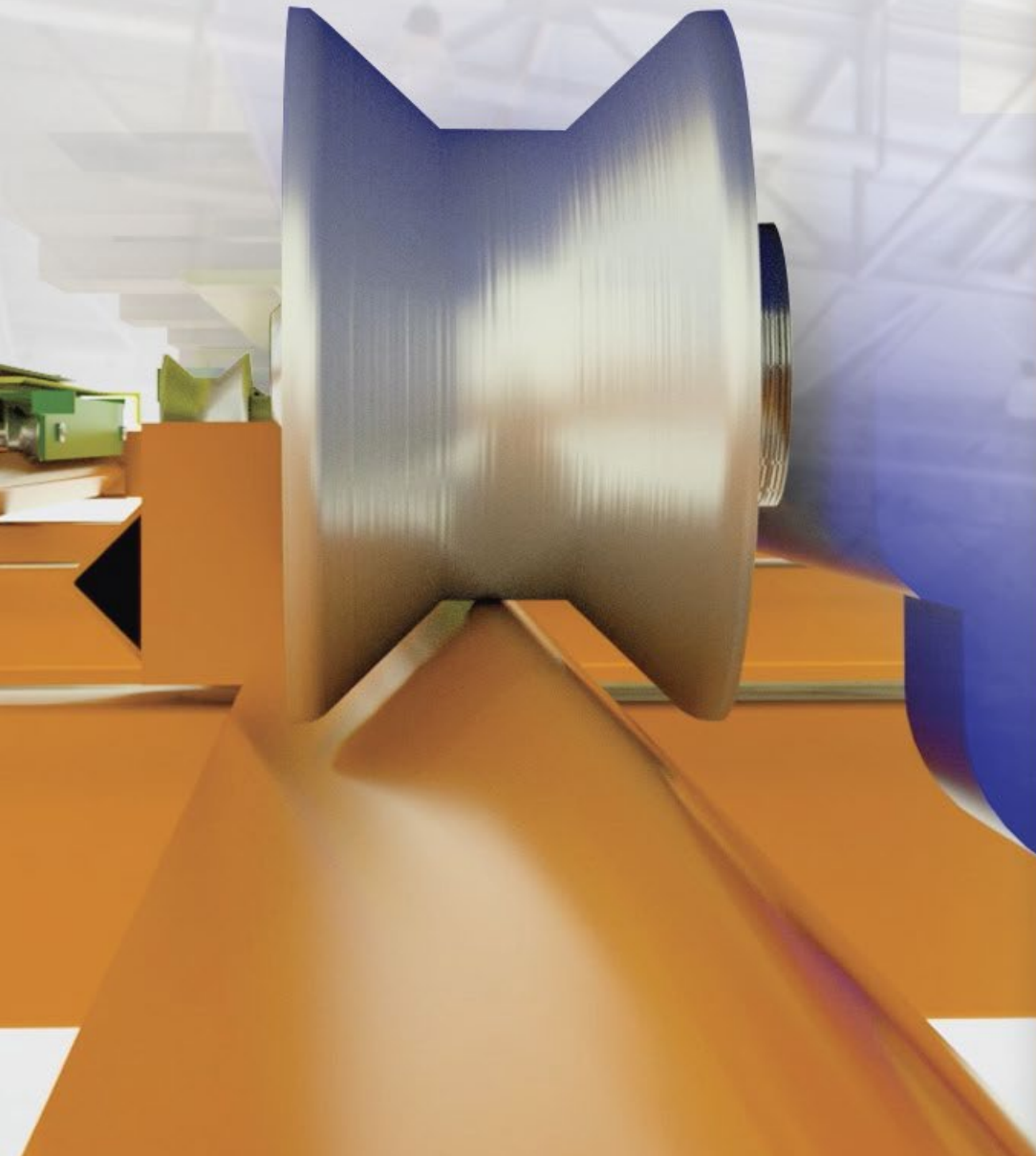


The Wheel

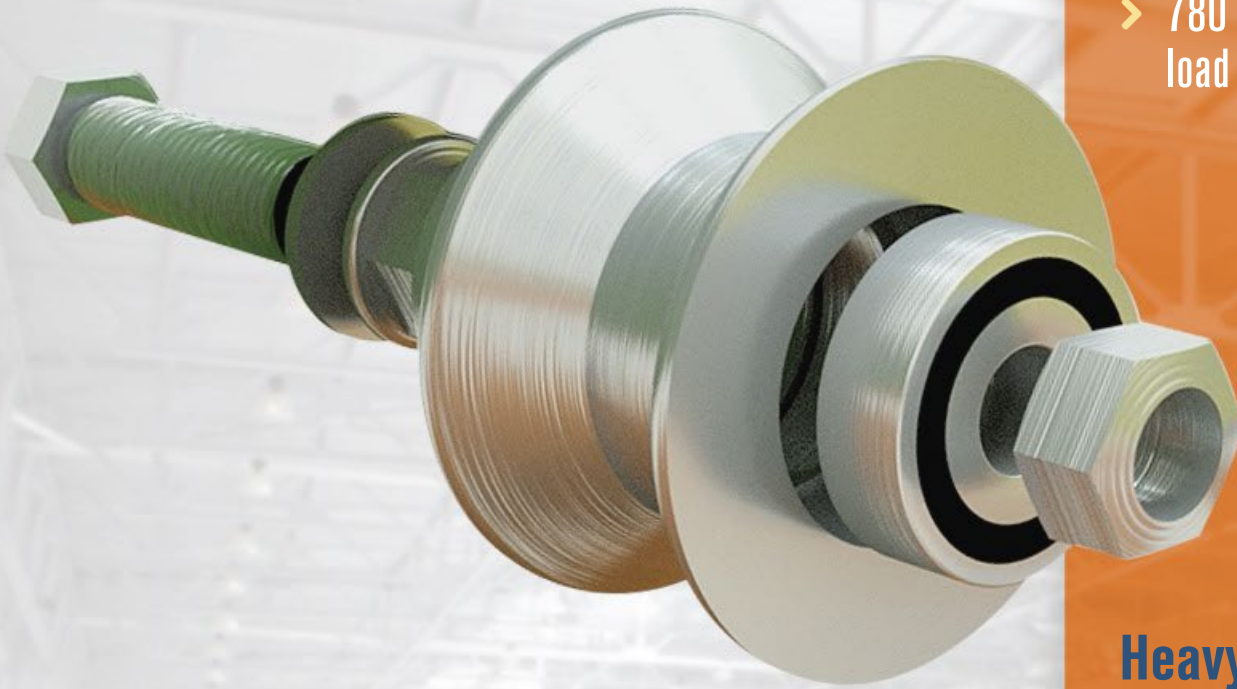


The Unique Micro-Friction™ Wheel

- Sealed with low temperature grease
Longer life span than regular pushback wheels
- Minimum friction means more efficient
loading & unloading operations
- Trademarked V-shaped wheel with
US & Canadian patents



The Wheel



High Impact Resistance

- 780 lbs static / 1250 lbs dynamic load rating per bearing

Heavy Duty Bearing

- Double bearing sealed with low temperature grease

The Carts

Heavy Duty

- At least ¼" section
- Structural steel section

High Impact Resistance

- Tests under real operating conditions
- ¼" welding pass

The Carts

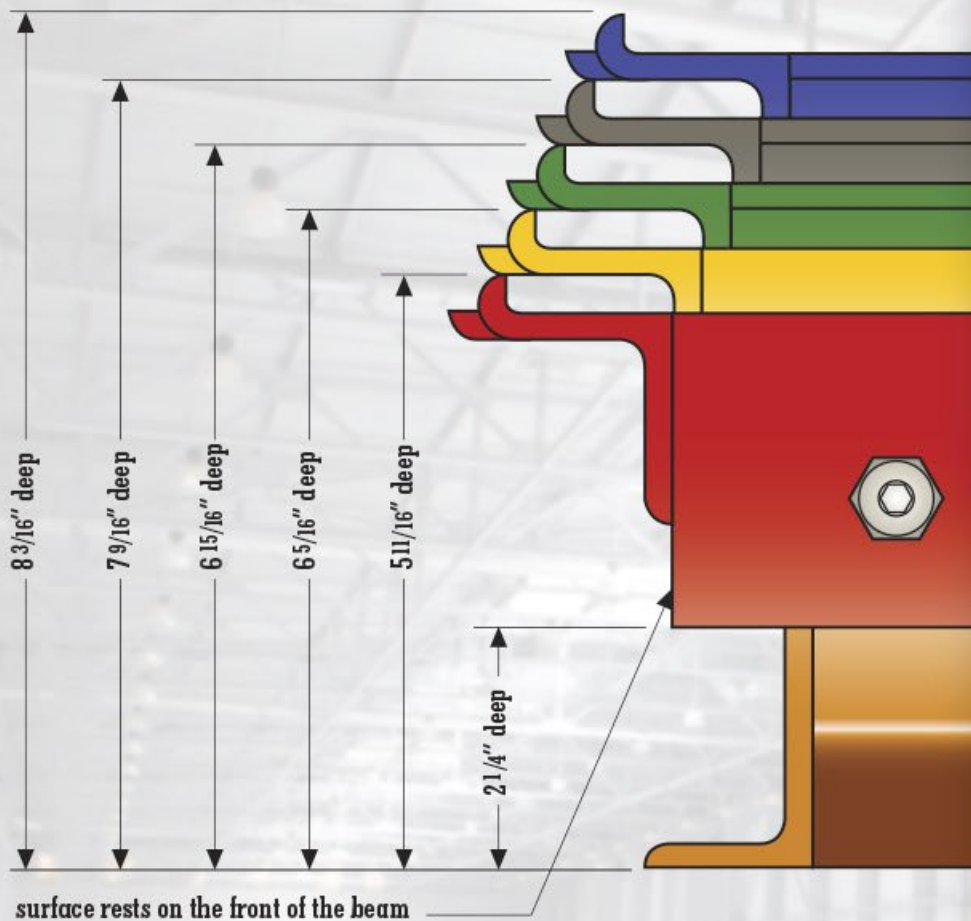


Precision Engineering

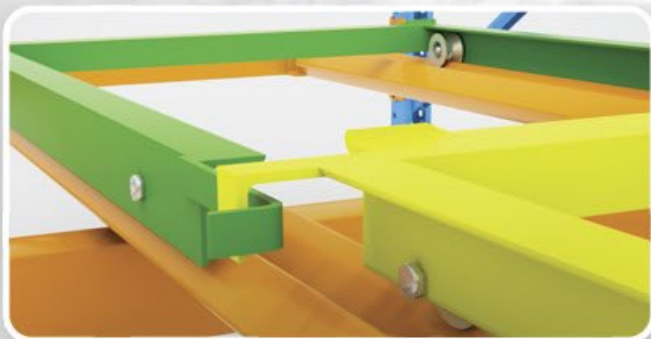
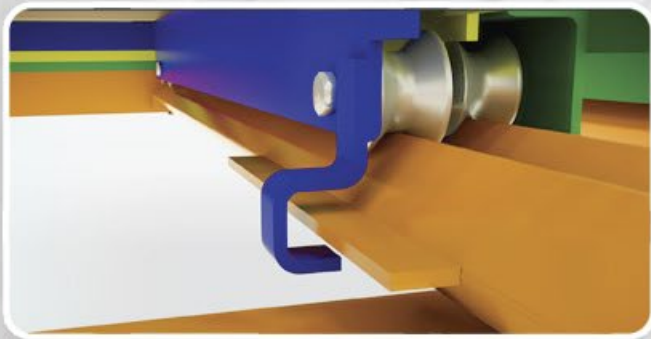
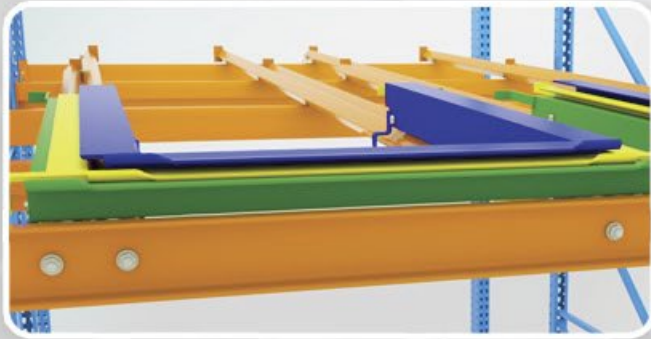
- Safety factor of 1.5
- Exact amount of steel
- Variable length and width
- Computer aided design

Compact System

- Low profile type to maximize height usage
- 1/2" between each cart
- More space saved



The Carts



Smart Cart Features

- Lift-out protection & front pallet safety stop ensure safer work environment during unloading operations
- Carts are colour-coded & linked to force all carts to follow the movement to the front
- The wheels never touch each other
- No contact between the carts for controlled loading & unloading

The Finish



Quality Control

- Over 30 years of experience
- Latest in computer simulation technology
- Parts fully inspected before shipping

Powder Coated

- Durable
- Scratch resistance
- Long lasting
- Large choice of colors

The System



Reliable & Durable

- > Used in many industries
 - ✓ Printing
 - ✓ Distribution center
 - ✓ Aeronautic
 - ✓ Cool storage warehouse
 - ✓ Food & beverage
 - ✓ Electronic
 - ✓ Pharmaceutical
- > 1st commercialized in 2001
- > Very low maintenance!

The System



Efficient & Adaptable

- > Pushing force on loading
- > Slope of 1.8°

# OF SKID		2	3	4	5	6
WEIGHT (lbs)	1000	41	82	123	164	205
	2000	82	164	246	328	410
	3000	123	246	369	492	615

The System

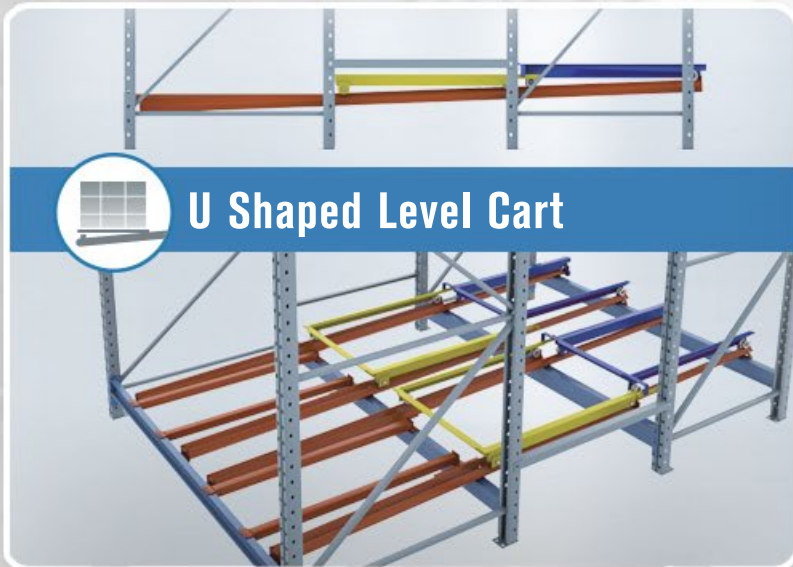
CUSTOMIZED CART APPLICATIONS



Standard U-Shaped Cart



U Shaped Level Cart



- ✓ Lowest profile ever designed
 - ✓ Pallets must be of good quality with good bottom support
 - ✓ Consistency and standardized pallet type with a minimum quality required
-
- ✓ Pallets must be of good quality with good bottom support
 - ✓ Commonly used with high pallets where stability is essential. Center of gravity remains in the middle of pallet
 - ✓ Ideal for liquid products

The System

CUSTOMIZED CART APPLICATIONS



Ladder Inclined Closed Cart



Level Ladder Cart

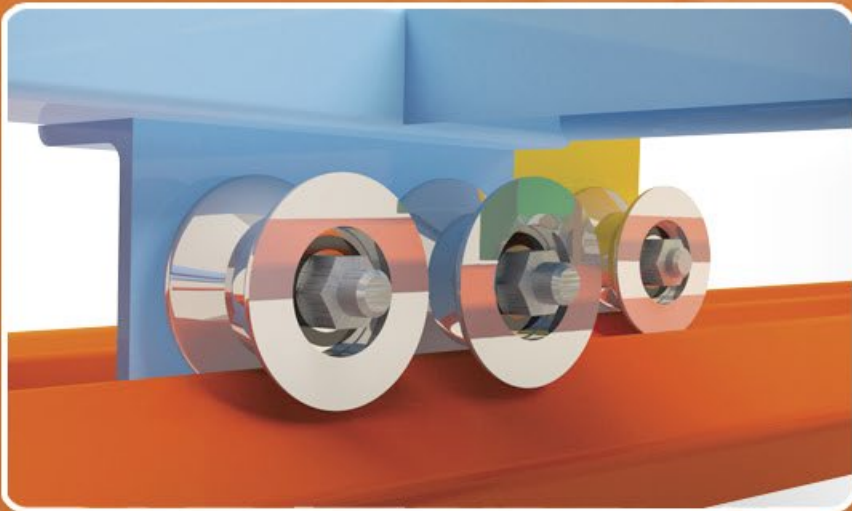
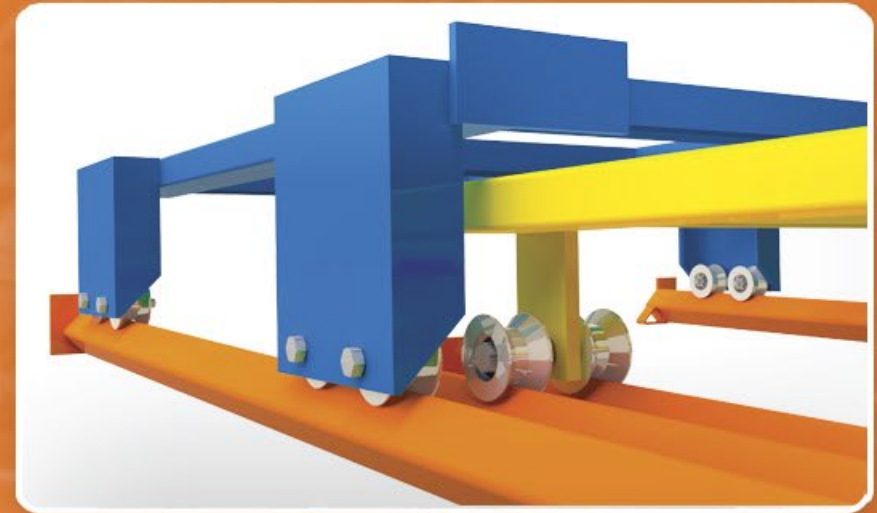
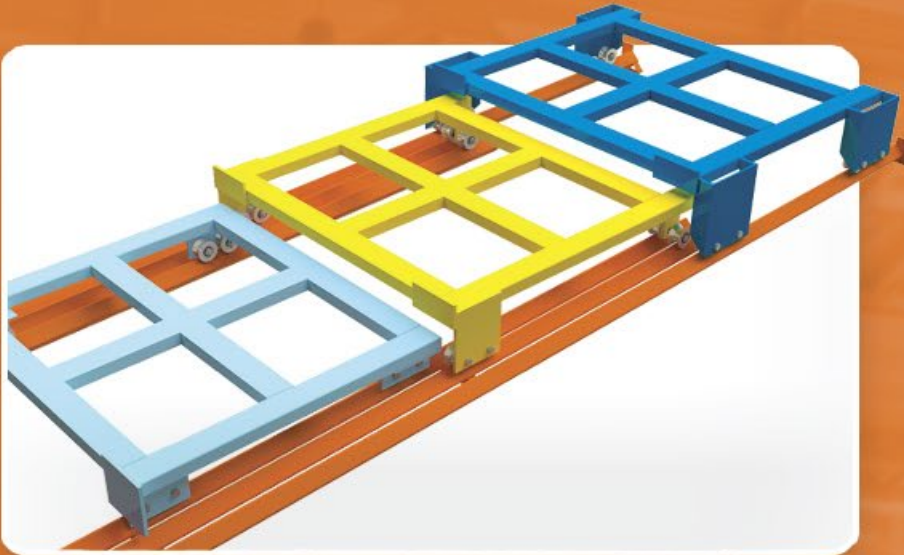


- ✓ Ideal for pallets with poor bottom support
- ✓ Ideal for non-standard sizes and where stock needs to be level for stability
- ✓ Commonly used with 9 pod pallets

-
- ✓ Ideal for pallets with good bottom support while also requiring support on all 4 sides
 - ✓ Can also be of closed type with extra support in the middle and covered with mesh or steel plate

The System

CUSTOMIZED CART APPLICATIONS



**Extra Heavy Duty Micro-Friction™
with 4,500lbs Load Capacity**

Our Clients



Mondelez
International



Saputo

BMR


Labatt



Jean Coutu

Interested in Purchasing a Micro-Friction™ System?

Our growing list of high profile clientele is a testament to the superior standards and reliability of the Micro-Friction™, a pushback rack designed and manufactured by COSME.

The Micro-Friction™ represents an immediate and guaranteed return on your investment. Rethink your storage area and make a smart choice.

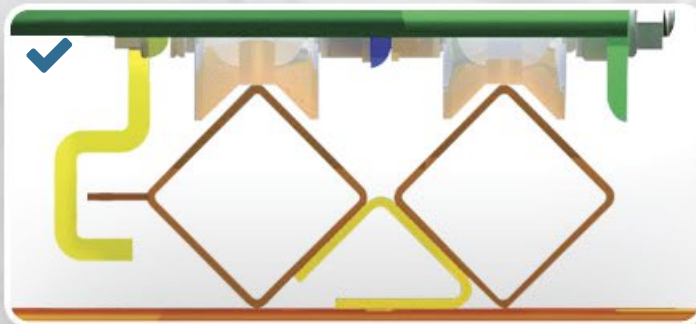
Call one of our representatives today.

Annex 1

COSME vs the Competition

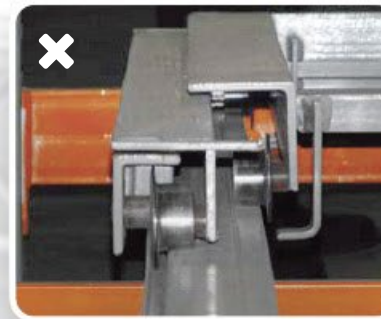
- ✓ **Designed to minimize contact on the rails**

Advantage: Less effort on cart movement and requires a lower slope on the rail



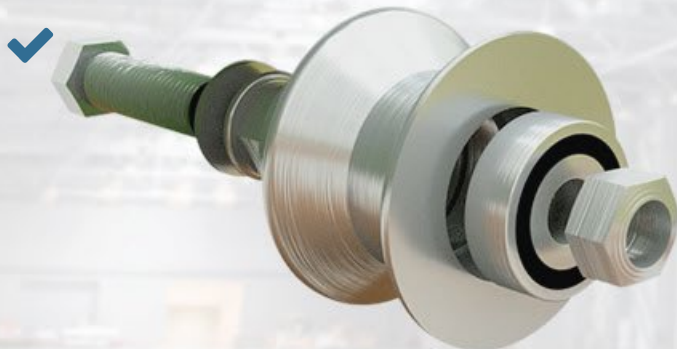
- ✓ **Rails positioned to eliminate debris**

Advantage: Eliminate the possible blockage of the carts



- ✓ **Wheels designed to add a second bearing, hence increasing wheels capacities**

Advantage: Allows for heavier load than the competition

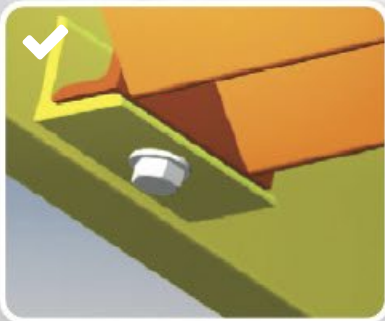


Annex 2

COSME vs the Competition

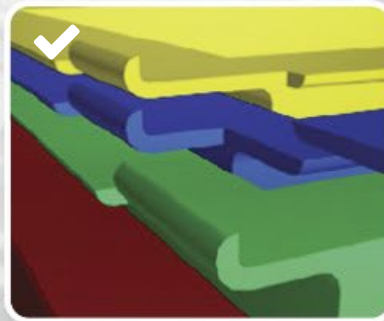
✓ Front beams required to be special, structural or roll-form with angle welded

Advantage: Reduce cost of system



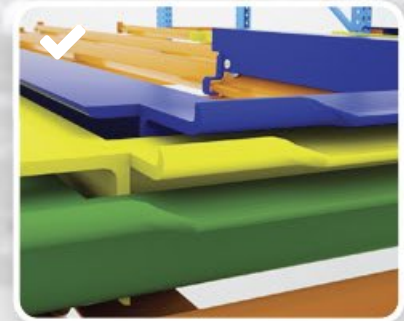
✓ Carts stop at more or less 1/2" from the outside face of the front beam

Advantage: Easy access for the lift truck operator



✓ Pallet stopper on every cart

Advantage: Regulates the manoeuvre for the lift truck operator

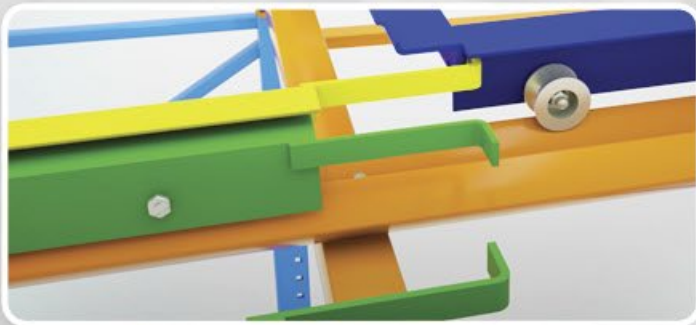


Annex 3

COSME vs the Competition

- ✓ All the carts are linked to each other

Advantage: No risk that a pallet jams at the end of system

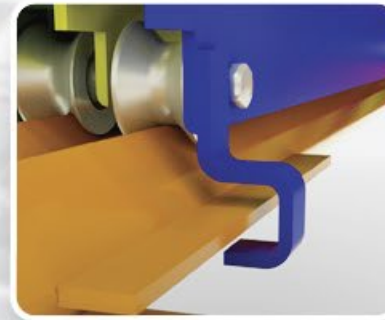


- ✓ Standard slope of $\frac{3}{8}$ " per foot.
All beams are either welded flush or 1.5" down

Advantage: With the exception of the front beam there are only 2 different beams. Reduce cost for production & installation.

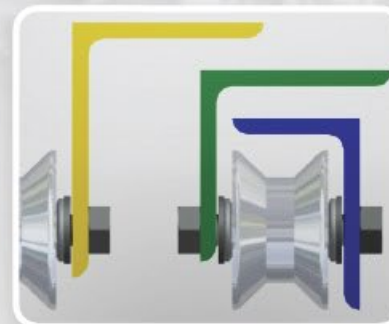
- ✓ Low profile type

Advantage: Uses less height



- ✓ Holding system (anti-tilt) operational on full length of system

Advantage: Avoids the risk of accidents





Cantilever



Mezzanine



Pushback



Pallet Racking

**YOUR SPECIALIST IN
COMMERCIAL & INDUSTRIAL
STORAGE SYSTEMS**

**THE MICRO-FRICTION IS
DESIGNED & MANUFACTURED
BY**



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