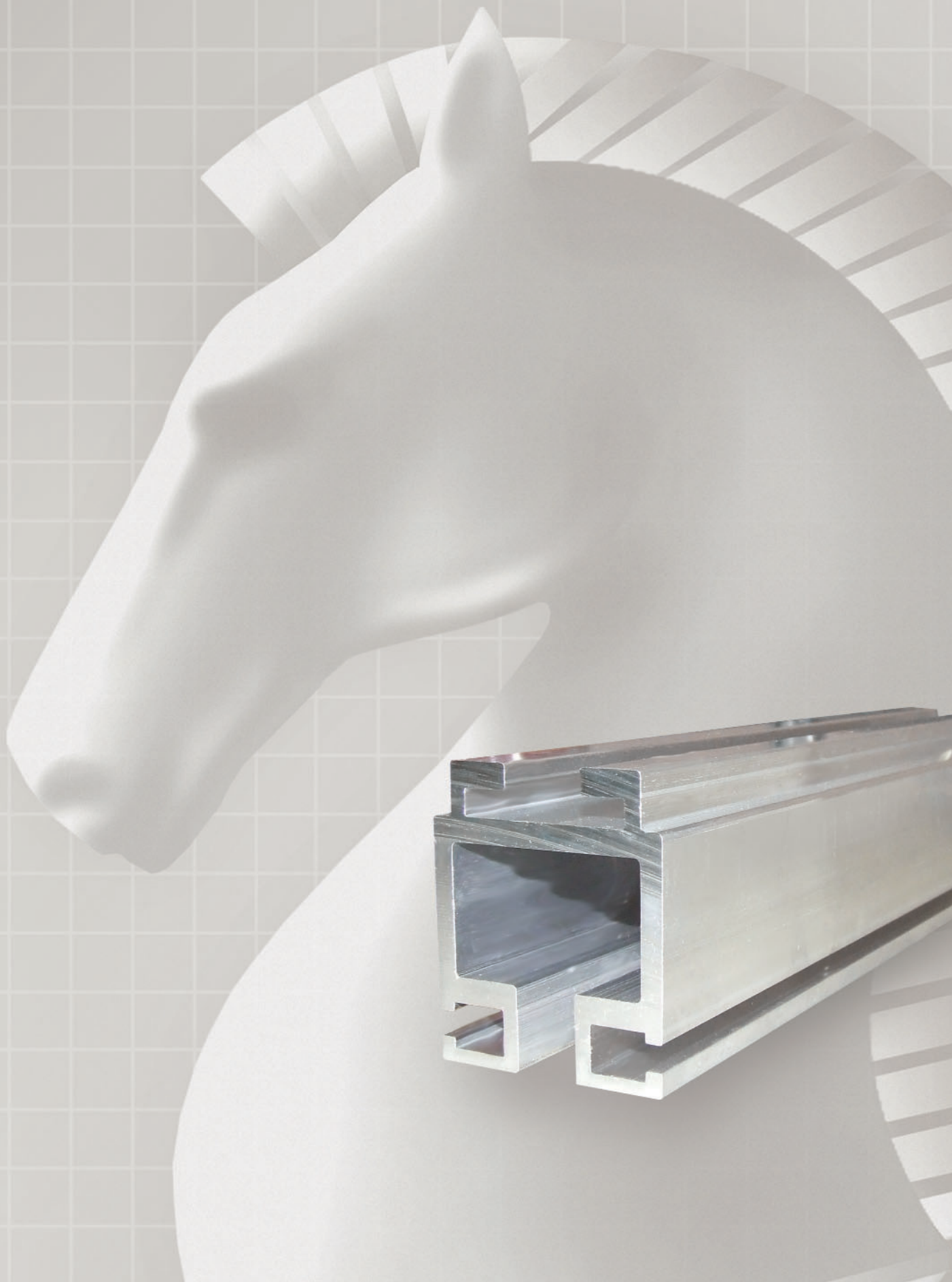


**KNIGHT**

**PROVEN INNOVATORS**  
of Material Handling Systems

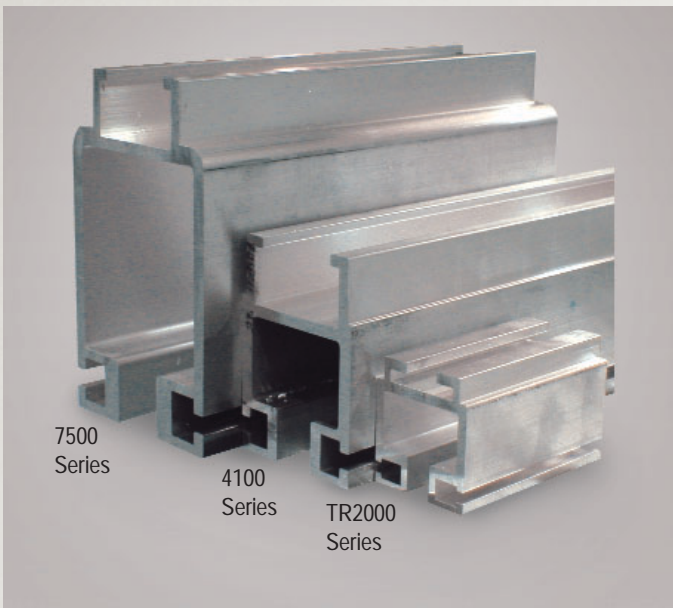
# TR2000 Aluminum Rail System



# TR2000 Aluminum Rail

The Knight TR2000 2" Aluminum Rail System is a streamlined design ideal for applications under 550 lbs/249 kg capacity. The customer no longer needs to utilize oversized rail for lighter duty applications

This innovative system allows festooning trolleys/plant utilities to be attached to the main line rail system. This provides for more travel on your main line rail system.



## PRODUCT FEATURES

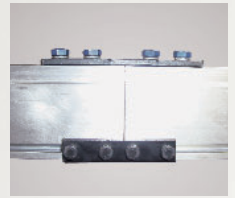
### Applications

Light-duty weld guns, work benches/stations, filter/regulator/lubrication (FRL), festooning, light fixtures, and weld curtains.



### Weld-Free Splice

Splices are designed to eliminate welding which allows rail sections to be easily bolted together. Extensions or modifications can be made with minimum effort, thus improving the life cycle of the rail. ▲ TRS2067



### Access Gates

Provides easy access for preventative maintenance and replacement of trolleys and end trucks. ▲ TRA2449

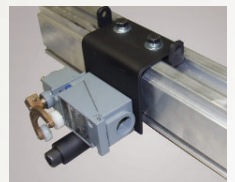


### Pre-Assembled Components

Trolleys, end trucks, and hangers are pre-assembled prior to shipment.

### Tool Rail Channel

The versatile tool rail channel allows custom mounting of plant accessories. Accessories can be positioned along the rail where needed, no welding required.

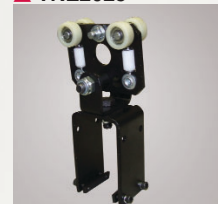


### Certifications and Drawings

Professional Engineering (P.E.) certifications and engineering drawings are available.

### Trolleys

▲ TRE2025



End Truck

▲ TRT2001



Load Trolley

▲ TRM2019



Hose Trolley

## Hanger Types

Various hanger types are available to meet application needs.

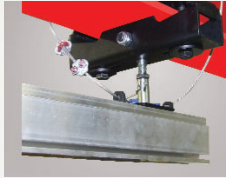
### I-Beam Hanger:

Available in flange widths from 2" to 11"

#### Short stack rod and ball

Leveling Adjustments up to 3/8" (used for direct loads).

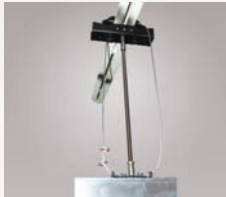
- ▲ TRH2036 (2"-5") ▲ TRH2043 (7"-9")
- ▲ TRH2037 (5"-7") ▲ TRH2045 (9"-11")



#### Extended stack rod and ball

Leveling Adjustments up to 3/4". 6" standard rod (used for direct loads).

- ▲ TRH2047 (2"-5") ▲ TRH2051 (7"-9")
- ▲ TRH2049 (5"-7") ▲ TRH2053 (9"-11")



#### Rigid Adjustable

Leveling Adjustments up to 1 1/2". (used for cantilevered or direct loads). Adjustable heights in 1/4" increments.

- ▲ TRH2038 (2"-5") ▲ TRH2218 (7"-9")
- ▲ TRH2039 (5"-7") ▲ TRH2242 (9"-11")



### C-Channel Hangers:

#### Rod and Ball

Leveling Adjustments up to 3/4". 6" standard rod (used for direct loads).

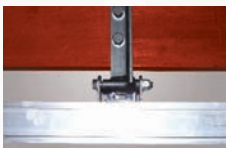
- ▲ TRH2034



#### Bolt on: Non-Adjustable

(used for cantilevered or direct loads).

- ▲ TRH2035



### Others:

#### Universal Threaded Rod Hanger

Customized to any length for custom hanging applications.

- ▲ TRH2005



#### Festooning Rail Hanger Bracket:

Hangs in tandem with our larger rail systems.

- ▲ TRH2020



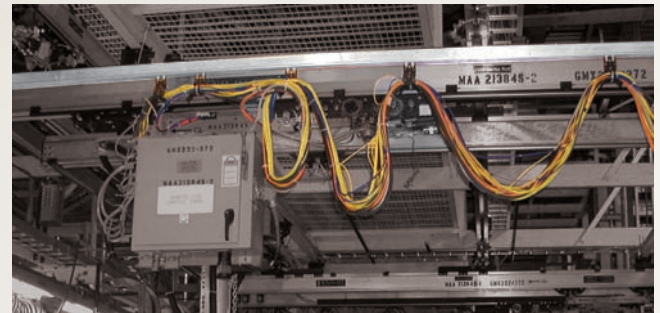
NOTE: A sway brace is recommended for threaded rod hangers that exceed 12".

## CASE STUDY

INDUSTRY: Automotive

PROBLEM:

- Customer's existing rail was not suitably sized for application.
- Incompatible rail systems were located throughout the facility.
- Delivery lead times extended beyond 6 weeks.
- Safety cable installation required drilling. Splice kits on current product were labor intensive and required welding.



SOLUTION:

The Knight TR2000 is specifically sized for smaller range loads up to 550lbs/249kg. The rail profile has a total height of only 2.75" yet can be placed in tandem with larger load bearing rail to run festooning.

Knight provides an outstanding selection of load bearing rail to meet industry needs. The TR2000 Rail System is the most recent introduction in the series.

On-site product storage with same day shipping capabilities minimizes lead time.

The TR2000 safety cable system requires no drilling. Splice kits are simple to install, maintenance friendly, and does not require welding. This unique feature allows changes to be made easily in the field, thus improving the life cycle of the product.

# TR2000 Aluminum Rail

## ENGINEERING DATA

**Weight:** 2.3lbs/1.04 kg per foot

**Maximum Capacity:** 550 lbs./249.5 kg

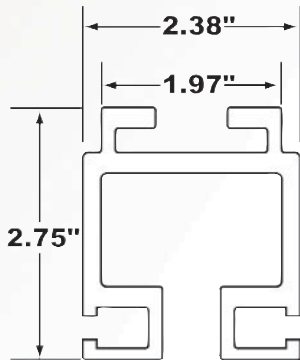
**Maximum Hanger Span:** 17' (5 meters)

**Mechanical Properties:** ASTM B221 6000 Aluminum

**Rail Length:** Available in lengths up to 25'  
(Without the need for a splice)

## CAPACITY RATING

HANGER SPAN		Deflection Criteria					
		1":350"		1":450"		1":550"	
Ft.	M	Lb.	Kg.	Lb.	Kg.	Lb.	Kg.
5	1.5	550	250	470	213	400	181
6	1.8	400	181	340	154	285	129
7	2.1	350	159	295	134	250	113
8	2.4	250	113	210	95	180	82
9	2.7	200	90	170	77	145	66
10	3.0	175	80	150	68	125	56
11	3.3	160	72	135	61	115	52
12	3.6	135	61	115	52	100	45
13	3.9	125	57	105	47	90	40
14	4.2	115	52	95	43	80	36
15	4.5	90	40	75	34	65	30
16	4.8	75	34	65	30	55	25
17	5.1	65	30	55	25	45	20

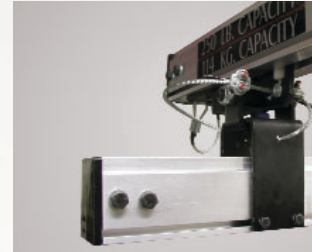


## SAFETY FEATURES

### Safety Cable

End trucks, hangers, trolleys, and mid-rail stops are designed to accommodate 1/8" galvanized steel safety cable.

*Optional Safety Cable Kits are available.*



### 5:1 Safety Factor

All hardware components for the tool rail have been designed with a 5:1 safety factor and have been verified through load testing at Knight Industries. Our rating standards comply with Material Handling Industry of America Standards (ANSI MH27.2) in determining capacity ratings.

### Trolley Wheels

Engineered to improve load-bearing characteristics.

### Trolley Redundant Safety Provision

Load trolleys and end trucks are designed with a redundant safety provision that prevents the trolley from being pulled through the rail.

### End Stops

Primary and secondary end stops are available.

