

# Manual push-pull overhead conveyor

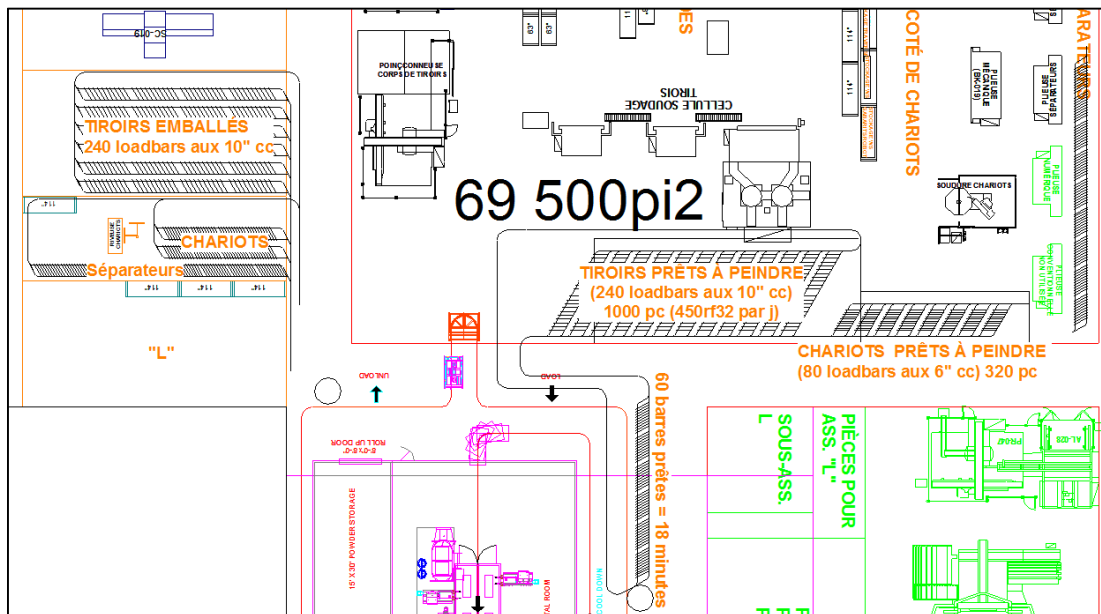
I am currently designing an overhead conveyor to transport and accumulate parts between fabrication and powder coating, and then from powder coating to assembly lines.

## My goals with this request are:

- 1- Find a supplier for manual push-pull trolleys and enclosed track
  - a. Trolleys length evaluated: 6" ideally  
(6" with bumpers extensions to 10" would be ideal.)
  - b. Capacity required: 300 lbs/trolley
- 2- Gather information on their options
  - a. Stops – Switches – Anti back-up devices
  - b. Turn sections
  - c. Auto routing from inline to 60° bank
- 3- Gather information on their automation capabilities
  - a. Possible to add automation on some sections: motorize some FIFO banks
  - b. Our goal would be to add automation by phases
- 4- Get budgetary prices for components

## System information (preliminary)

- 1- 820 loadbars: 420 before powder coating process, 420 after
- 2- 1640 trolleys in system (2000 trolleys for budgetary evaluation)
- 3- 2400 feet of enclosed track
- 4-  $\pm 60$  diverter switches (from straight to 60°)
- 5-  $\pm 60$  escapement (merging) switches
- 6- Multiple Horizontal curves (monoplane system)
- 7-  $\pm 4$  Vertical curves for empty trolley accumulation on higher level.




## Model T14:

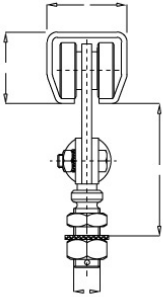
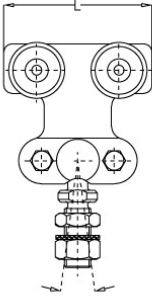
- Interesting trolley if the ball joint rotates freely under load
- No bumper for accumulation...
- The #26 profile trolley is 134 inches long (little short) but oversized with 400 kg capacity
- The #24 profile trolley would be better for load but is too short with only 110 mm

### 4-Wheel trolley with rotating screw

**.T14**

With a special ball joint in order for the screw to rotate and oscillate 15°.



NIKO Profile No.	23.000	24.000	25.000	26.000	27.000
Item Ref.	23.T14	24.T14	25.T14	26.T14	27.T14
SWL Kg	40	80	200	400	800
H max (mm)	68	79	107	134	153
H min (mm)	62	70	96	118	123
h (mm)	35	43,5	60	75	110
b (mm)	40	48,5	65	80	90
L (mm)	70	90	110	140	200
d (mm)	M12	M16	M20	M24	M30

## Model T41

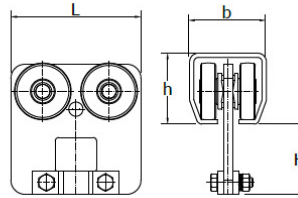
- Interesting model because I can put my own bearing for the swivel attachment
- The #26 profile trolley has 150 mm long which is good
- I assume the capacity is the same as trolley T14 (400 kg)?
- I don't have the diameter of the vertical hole for my attachment...???

### 4-Wheel trolley without a rotating eyenut

.T41



NIKO Profile No.	24.000	24.000	25.000	26.000	27.000
Item Ref	23.T41	24.T41	25.T41	26.T41	27.T41
L (mm)	68	90	110	150	200
b (mm)	40	48,5	65	80	90
h (mm)	35	43,5	60	75	110
H (mm)	32	46,5	50	75	90



## Model T48

- Interesting model because of the bumpers to accumulate parts
- The #26 profile trolley has 152 mm long which is good

