

podis[®] - power distribution system

Powerbus Systems

for Airport Applications

podis[®] is a modular, pluggable power bus system for decentralized power distribution and **simplifies** the

- Planning and Design
- Procurement and Material Flow
- Installation and Set-up
- Maintenance and Service

podis[®] replaces traditional conduit, junction boxes and the need to pull wire and cable through ridged metal tubing.

podis[®] reduces electrical installation costs by up to 75 percent vs. traditional wiring methods.



The special features of *podis*[®] provide unique advantages in the applications of airport baggage conveyors.

These features also provide similar advantages in automated assembly production and wind turbine tower illumination.



Advantages of decentral installations

- Less wiring, fewer cables
- Simplified structures
- Dedicated for extensive machines and plants



Note:

The longer the cables and the more drives applied, the more podis pays out its advantages.



podis[®] CON

Decentral Power
Distribution



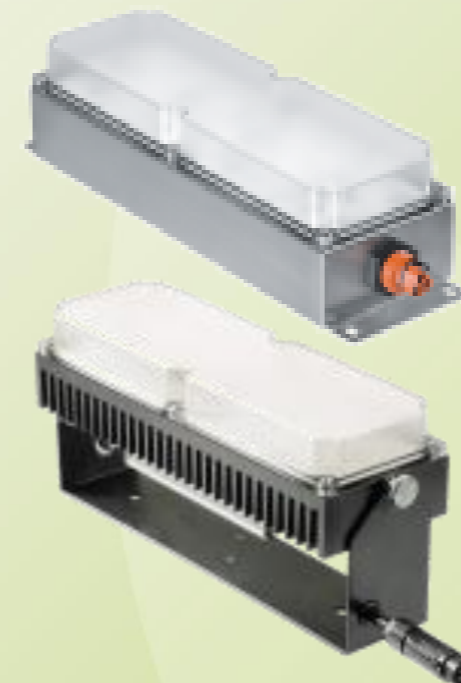
podis[®] EFC

Electronic Field
Components



podis[®] LED

LED-Luminaires,
Emergency light

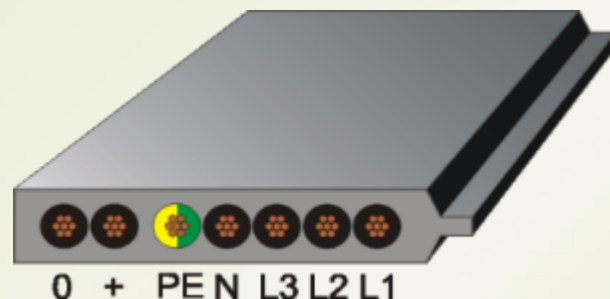
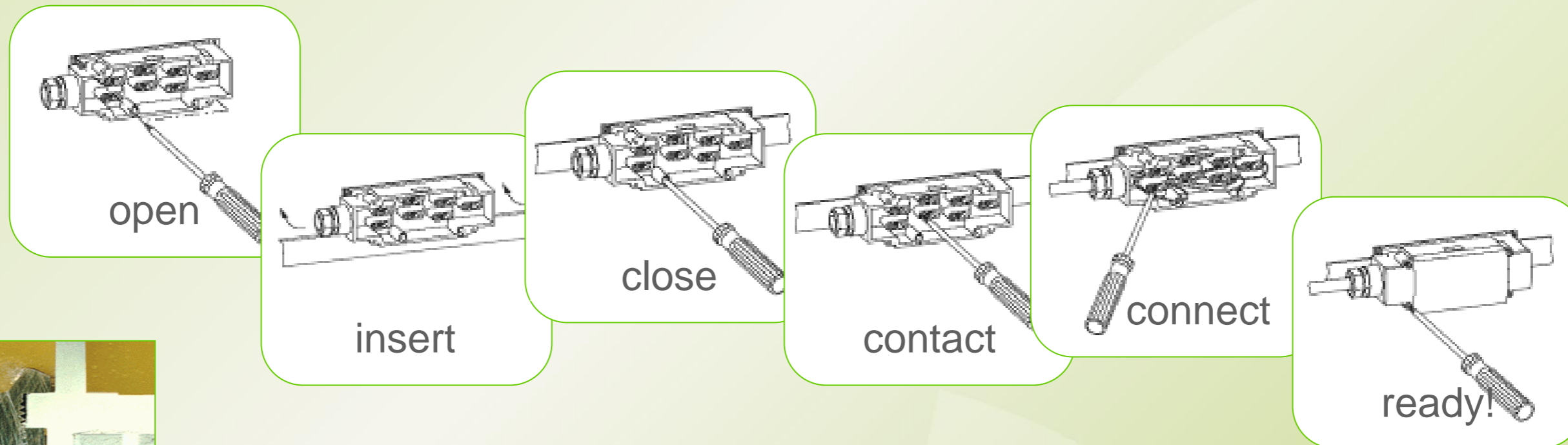


podis[®] S+A

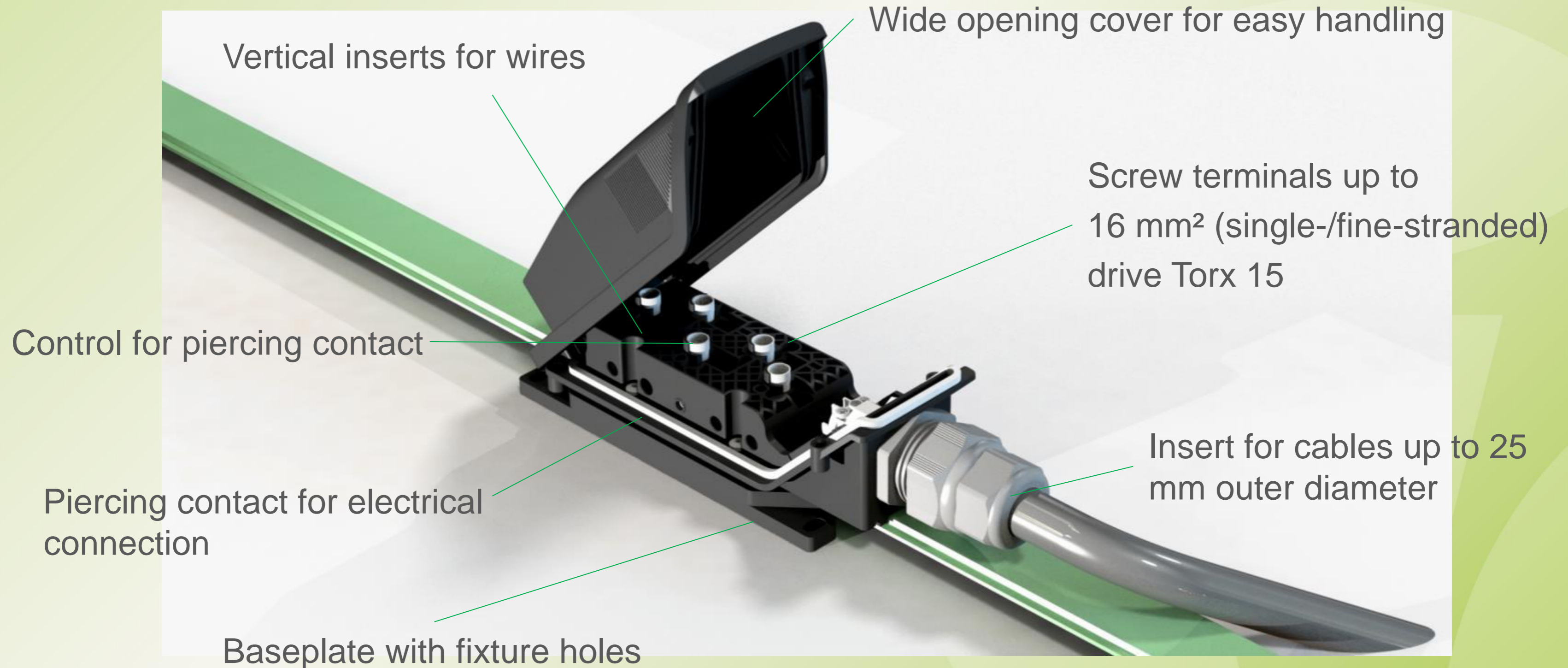
Specialties and
Accessories



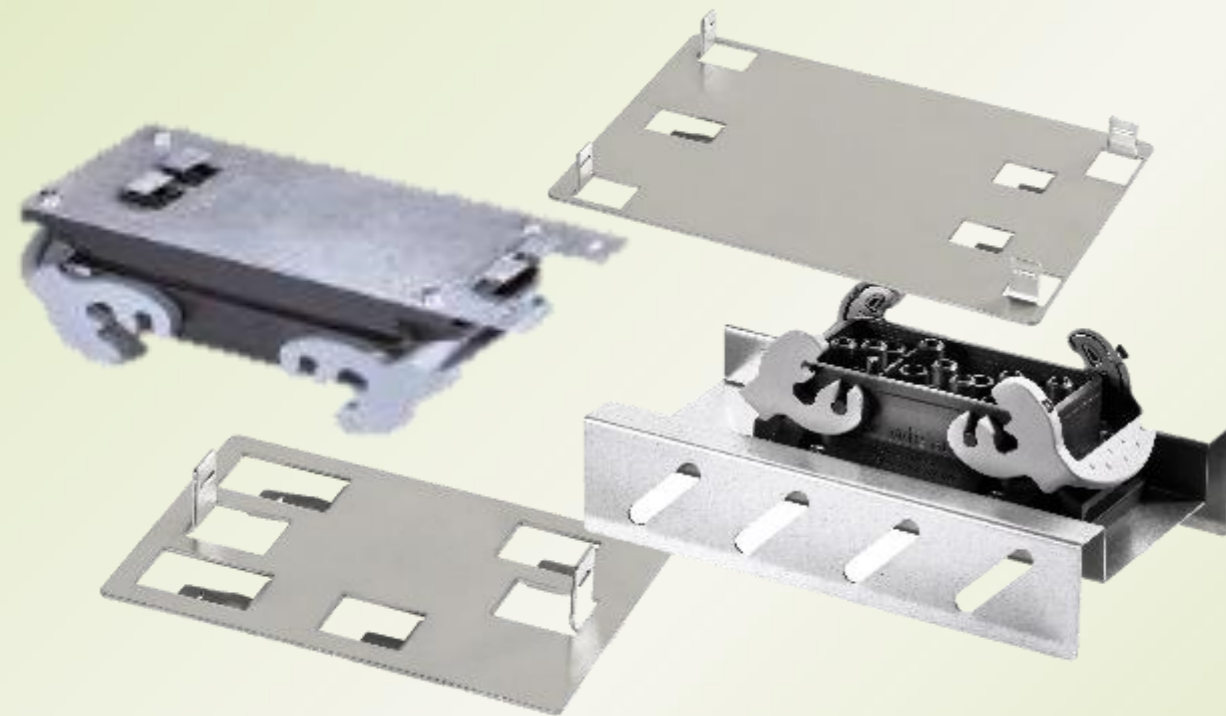
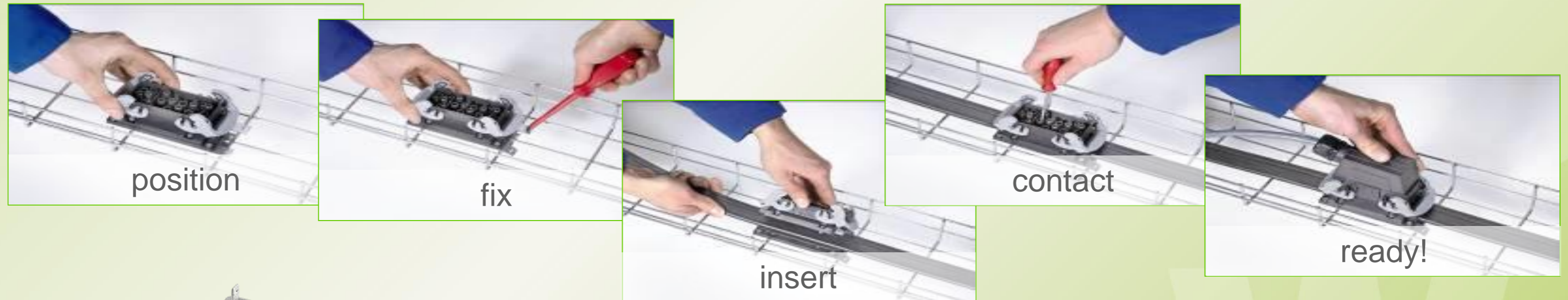
The fastest, easiest, faultless, and waste-free installation method.



The connecting devices are contacted by piercing contacts to the TC-ER cable power bus.
Dismantling and cable striping is no longer required.
Errors are ruled out by the mechanical coding of the TC-ER cable.
You simply can not install faster, easier, and with more flexibility than with *podis*® power bus.



The fastest, easiest, faultless, and waste-free installation method.



Installation in a mesh cable tray, *podis*® enables doing it in the same way – fast and easy.

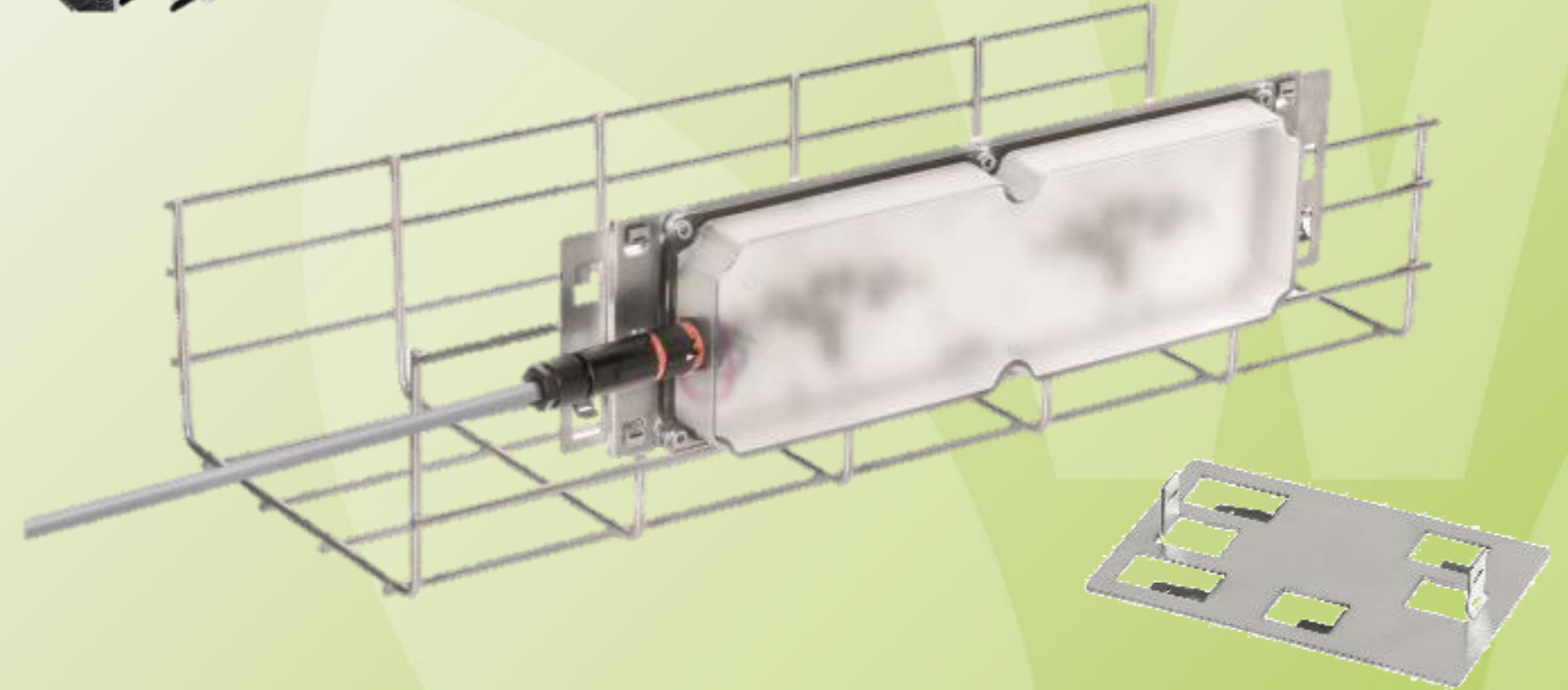
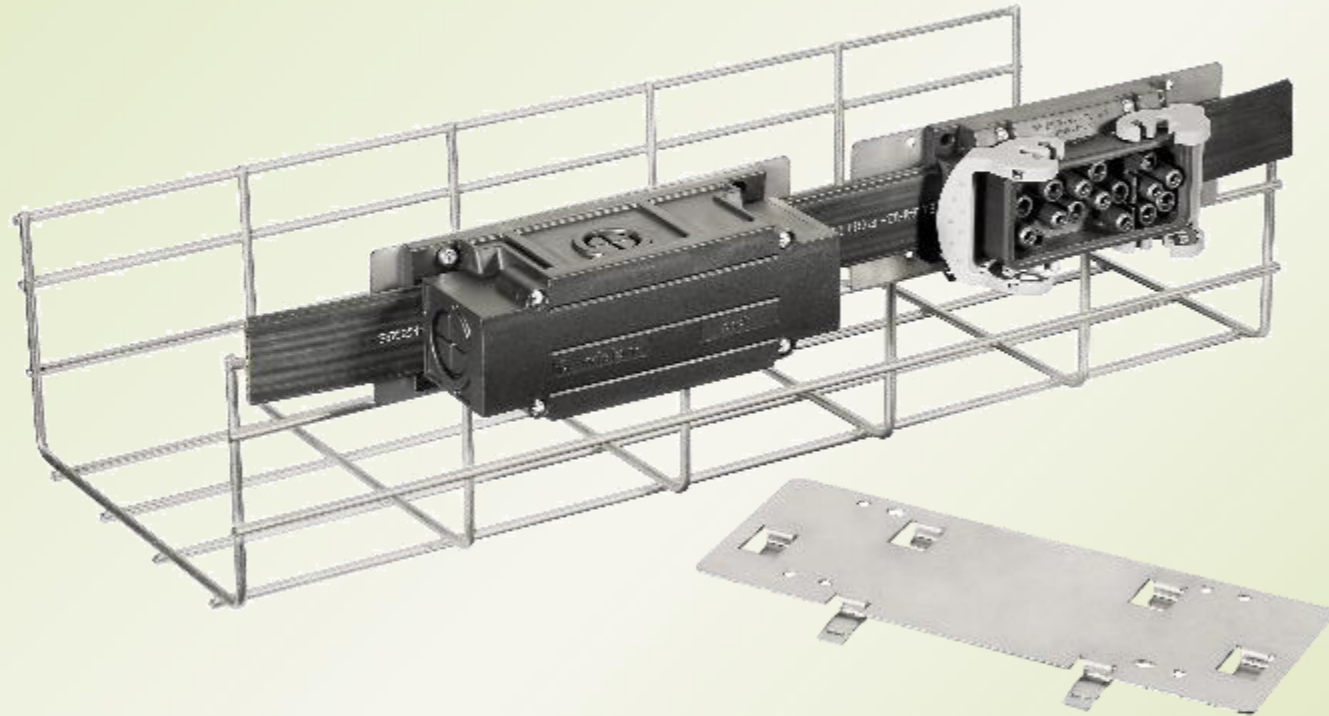
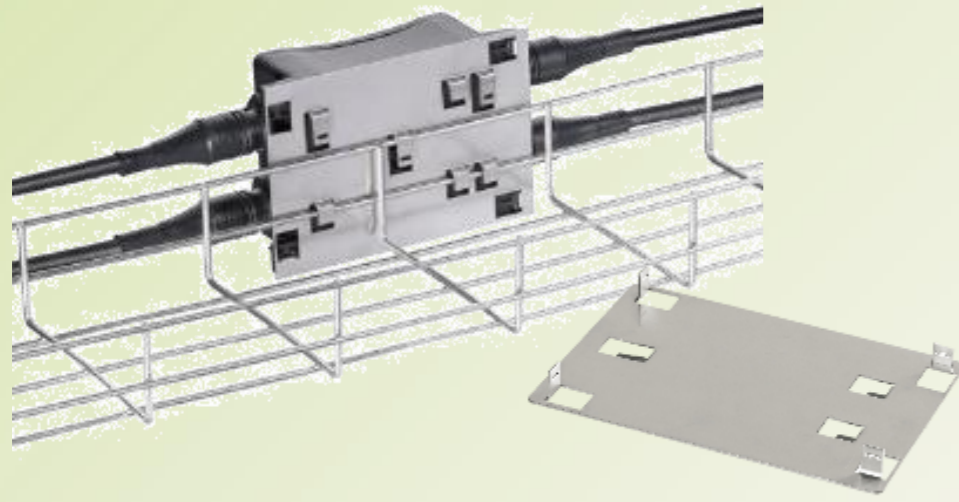
The *podis*® components are equipped with a mounting fixture, ready to install.

The only tool required is a simple screwdriver.

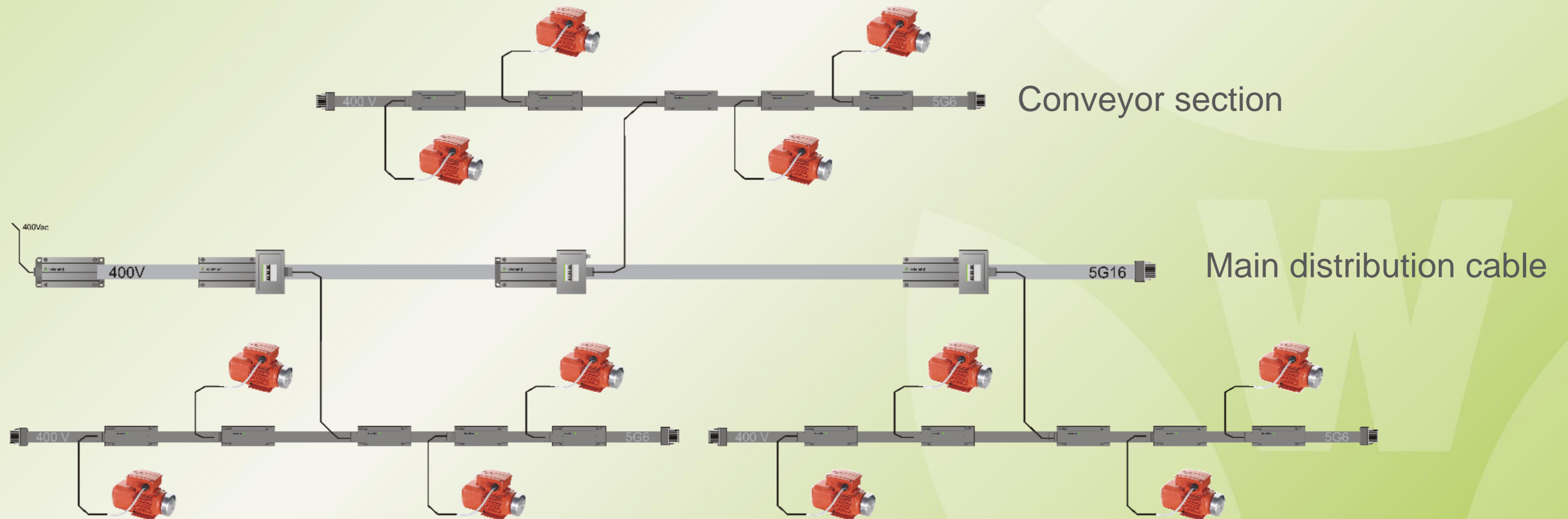
podis® Piercing Contacts



The fastest, easiest, faultless, and waste-free installation method.



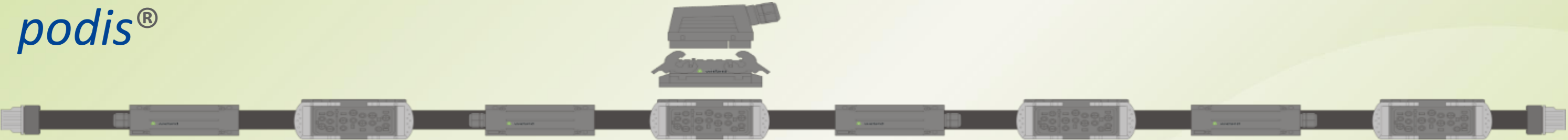
Example system configuration, Conveyor System





podis® Installation Comparison, Length 12M, 8 Motor Drops

podis®



10 min.

56 contacts

low

Installation time

Number of contacts (480 V AC + 24 V DC)

Potential for failures

Traditional Conduit



75 min. Installation time

112 contacts

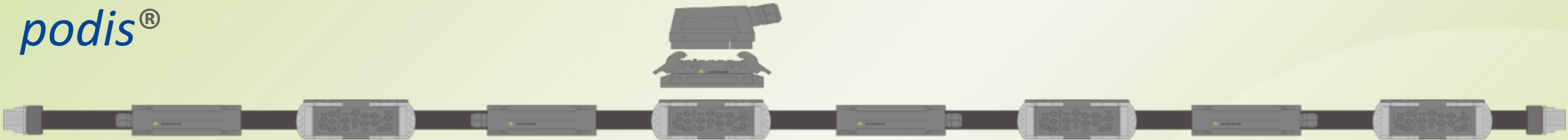
Number of contacts (480 V AC + 24 V DC)

very high Potential for failures



podis® Comparison of labor cost.

podis®



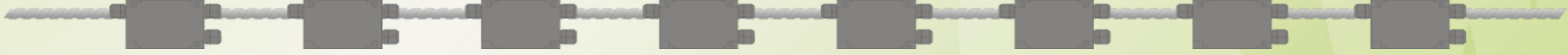
10 min.

.16 Hrs.

Installation time

Cost \$8.00 - \$17.6 (.16 Hours at \$50/\$110 Hr)

Traditional Conduit



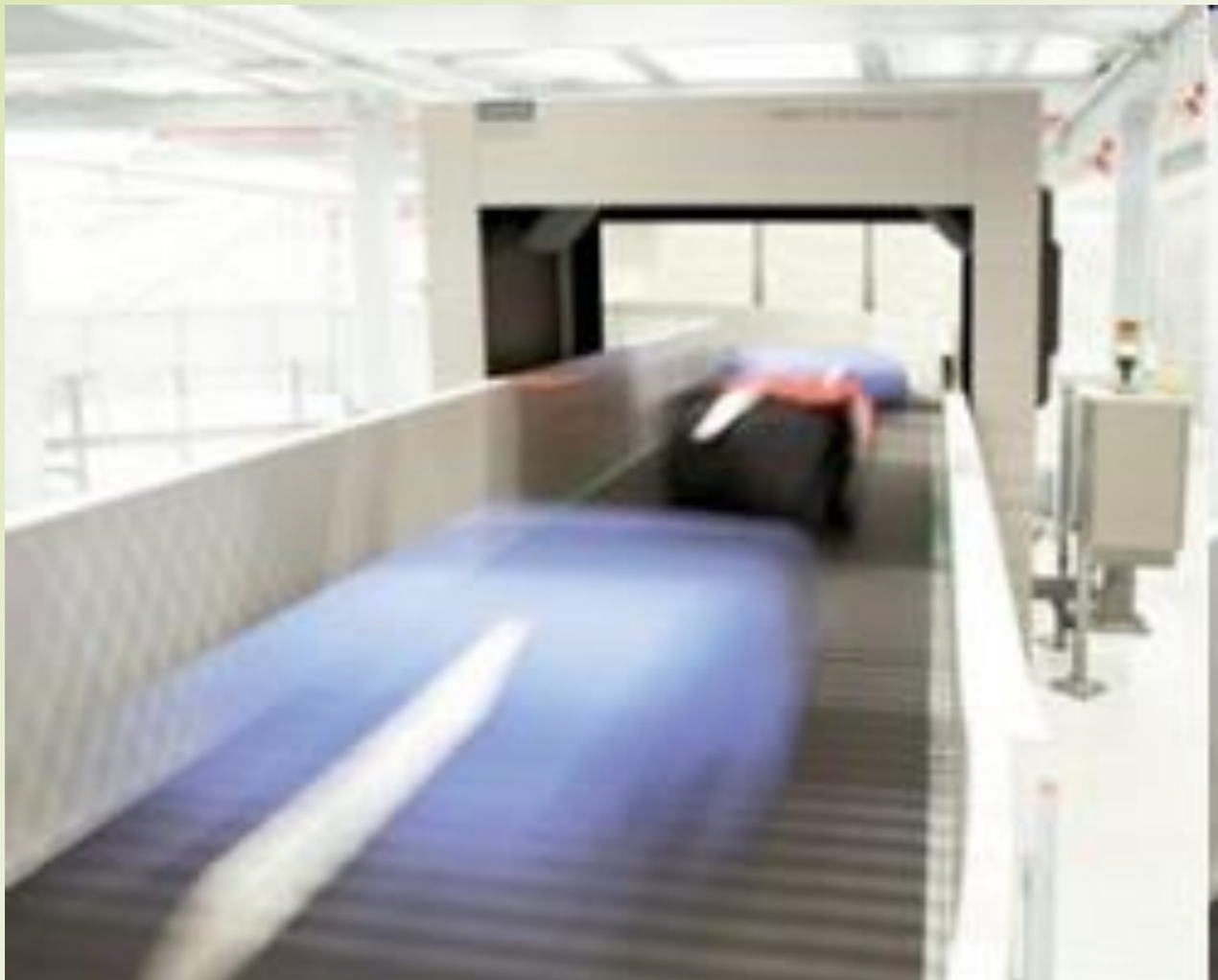
75 min. Installation time

1.25 Hours

Cost \$62.50 - \$137.50 (1.25 Hrs at \$50/\$110 Hr)

very high 750% higher cost

Luggage handling systems on airports



- Terminals
- X-ray areas
- Backtracks



- Tray cable
- Connection module
- Pluggable tap-off modules

podis® CON
podis® CON

Jeddah King Abdulaziz International Airport, Saudi Arabia, 2012



- Luggage handling system
- more than 50.000 m cable
- more than 5.000 connection modules

- Tray cable
- Connection module
- Pluggable tap-offs

podis® 7G4
podis® CON
podis® CON

London Heathrow, Great Britain



- Luggage handling system
- close to 10.000 connection modules
- BAA does not keep podis® spare parts!

- Tray cable
 - Connection module
- Because of highest reliability!

podis® 7G4
podis® CON

Toronto, Canada, 2015



- Luggage handling system
- UL and CSA approval
- Power distribution for drives, + LED-lights

- Tray cable
- Connection module
- LED-lights

podis® 7G4
podis® CON
podis® LED

podis® Powerbus System – References

Vancouver, Canada, 2015



- Baggage Handling System, 6,000m
- UL and CSA approval, 2100 motor drops

- Tray cable
- Connection module

podis® 7G4
podis® CON

Macau Ferry Terminal and Guiyang Airport, China, 2012



- Luggage handling system
- Power distribution

- Tray cable
- Connection module

podis® 7G4
podis® CON

Singapore Changi Airport, Singapore



- Luggage handling system
- Power distribution
- 3.000 connections in T1 and T3

- Tray cable
- Connection module

podis® 7G4
podis® CON

The fastest, easiest, error-free and waste-free way of installation.

- ⬇️ Planning time
- ⬇️ Planning complexity
- ⬇️ Procurement effort
- ⬇️ Effort in material flow
- ⬇️ Installation complexity
- ⬇️ Installation effort
- ⬇️ Installation time
- ⬇️ Labor cost
- ⬇️ Cable length
- ⬇️ Offcuts, waste
- ⬆️ Operational safety
- ⬆️ Service friendliness
- ⬆️ Availability
- ⬇️ Service time
- ⬇️ Start-up time
- ⬆️ Corrosion resistance
- ⬆️ Higher current, higher load
- ⬇️ Lower voltage drop
- ⬆️ Longer cable sections
- ⬆️ More drives per segment
- ⬇️ Fewer feed-in connections, fewer feeder cables
- ⬆️ Material cost



Many thanks

www.wieland-electric.com