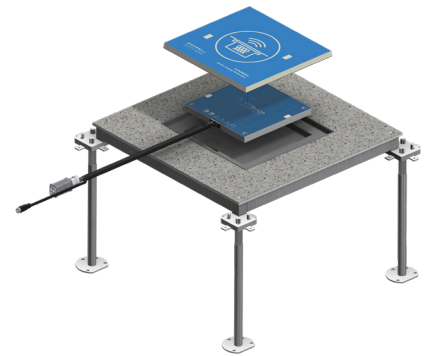


WCPS-R-3013™ In-Floor Protection System



WCPS-Ramp™ On-Floor Protection System



WCPS-RF™ Raised-Floor Protection System

# JORDAHL® WCPS™

## Wireless Charging Protection Systems

# In-Process Wireless “Opportunity” Charging

## Optimized Energy Management

The efficiency of autonomous logistics depends significantly on optimized energy management and when vehicles are charged as part of the working process, enormous productivity gains can be achieved. Autonomous transportation systems, EVs, AGVs & AMRs, are part of interlinked and highly efficient value chains where reliable and harmonized energy supplies are essential.

When the decision is made to automate intralogistics processes by using autonomous vehicles, it is imperative to integrate the appropriate charging methodology as a part of the working process.

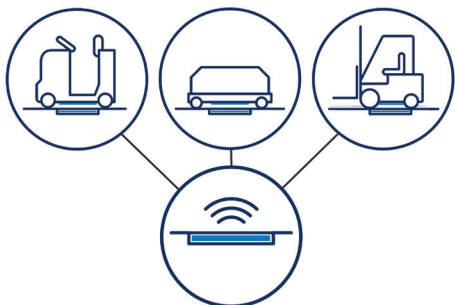
An efficiently planned energy supply has a large impact on the optimal deployment and availability of the fleet as well as their operational readiness in the workflow. Addressing the power supply of vehicles early and opting for contactless wireless charging technology unleashes the full potential of your autonomous fleet.

Implementation of in-process opportunity charging allows for optimized fleet management and significantly improved vehicle uptime while smaller fleet sizes with higher utilization result in increased efficiency throughout the entire process.

## Opportunity at Every Stop

Charging coils are placed in the ground under a protective cover and are activated only when a matching receiving coil is positioned above it.

Charging begins immediately and ends as soon as the 2 coils are no longer in position. More locations equal more opportunity to charge and intelligently planned charging points ensure a stable high state of charge and maximum utilization.



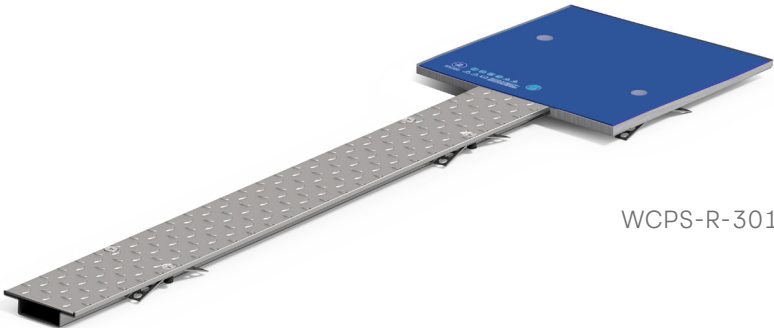
## Flexible, Scalable & Industry Ready

By eliminating restricted areas and detours for off-line charging, each process can be ideally interlocked optimally combining vehicle types with one another to create a smoother, more reliable and safer process.

# Protected by Jordahl®

## Introducing the WCPS™

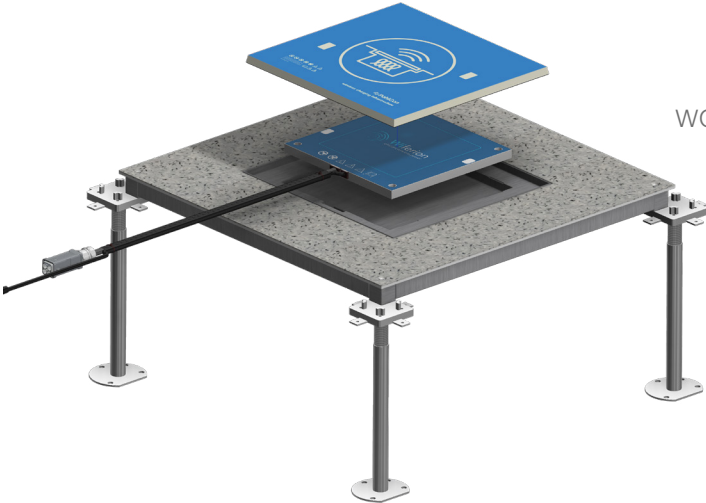
Introducing the heavy duty, industry ready, In-Floor WCPS-R-3013, On-Floor WCPS-Ramp and Raised-Floor WCPS-RF Wireless Charging Protection Systems (WCPS) from Jordahl.



WCPS-R-3013™, In-Floor



WCPS-Ramp™, On-Floor



WCPS-RF™, Raised-Floor

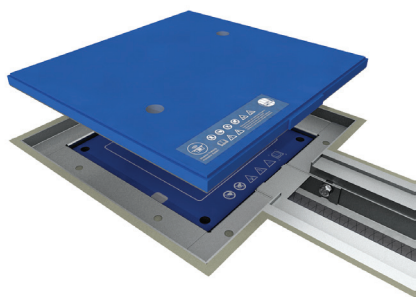
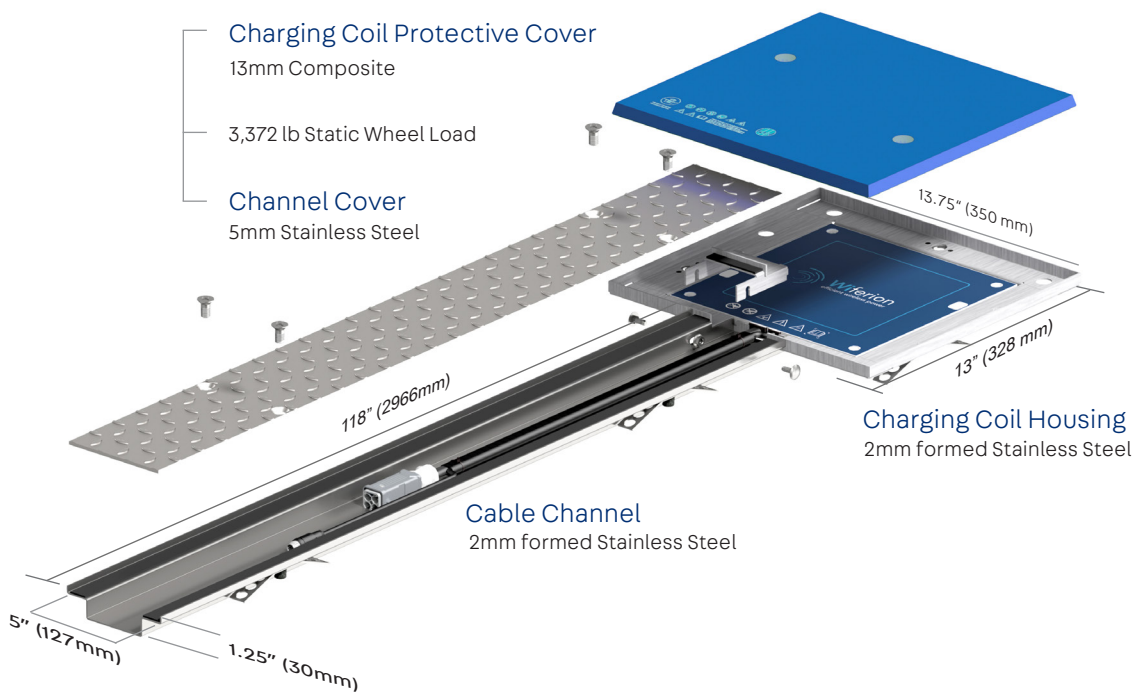


# Jordahl® WCPS-R-3013™

## In-Floor, Wireless Charging Protection System

WCPS-R-3013™ The heavy duty, industry ready protection system for in-floor installation of wireless charging coils. The WCPS-R-3013 can be used as a stand-alone solution or in conjunction with other floor-mounted or vertically mounted charging solutions. Designed with mixed use traffic in mind and a static wheel load rating of 3,372lbs, the WCPS-R-3013 can be approached from all sides and easily tolerates cross traffic from other industrial vehicles providing maximum flexibility for the entire autonomous fleet.

The WCPS-R-3013 consists of 4 primary components, the charging coil housing, the cable channel, channel covers and the charging coil cover.



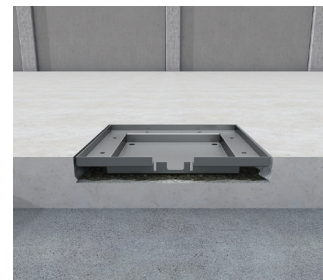
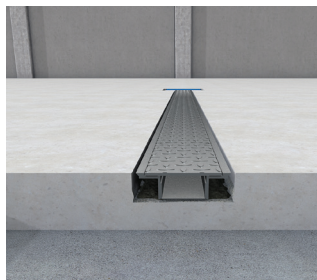
### The WCPS-R-3013™ Advantage

- VDE certified, IP65 protection class
- 15kN (3,372lb) static wheel load
- Heavy Duty protection
- Made for industry & demanding environments
- Flush mounted, safe and cross traffic ready
- Superior safety with fewer restrictions
- Highly resistant to external elements

### Integrated & Industry Ready

At only 30 mm deep, the WCPS-R-3013 can be easily integrated into new or existing construction.

*(See additional single channel and multi-channel installation examples on page 10)*



# WCPS-R-3013™

## Specifications

### WCPS-R-3013 In-Floor Specifications

#### Item: WCPS-R-3013

#### Primary Channel Sections:

- Material thickness: 2mm (0.08")
- Material type: Steel 1.0226 (Z275)
- Coating: Hot-dip Galvanized
- Depth: 30mm (1.25")
- Width Outer: 127.2mm (5")
- Length: 2,966mm (116.75")
- Weight: 24.9kg (54.9 lbs) \*including covers below

#### Certifications & Ratings:

- IP65 Rating
- CE Certified
- VDE Certified (DIN EN 50085-2-2)
- Flame retardant cover plate (Bfl-S1)

#### Channel Cover(s):

- Static Wheel Load: 15kN (3,372lbf)
- Thickness: 6mm (0.25")
- Material type: Steel 1.0122 (S235JRC)
- Coating: Hot-dip Galvanized
- Dimensions: 1000 x 120 x 5 mm (39.5" x 4.75" x 0.25")

#### Extension Channels

- Material thickness: 2mm (0.08")
- Material type: Steel 1.0226 (Z275)
- Coating: Hot-dip Galvanized
- Depth: 30mm (1.25")
- Width Outer: 127.2mm (5")
- Length: 3,000mm (118")
- Weight: 24.9kg (54.9 lbs) \*including covers

#### Charging Coil Housing:

- Depth: 30mm (1.25")
- Dimensions: 350 x 328 x 30 mm (13.75" x 13" x 1.25")
- Thickness: 2mm (0.08")
- Material type: Stainless Steel (1.4301)
- Weight: 2.2 kg (4.85 lbs)

#### Charging Coil Protective Cover:

- 322 x 344 x 13 mm (12.67" x 13.5" x 0.5")
- Dynamic surface pressure: 8MPa
- Certified static load 15kN (3,372lbf)
- Interference free cover 13mm (0.5")
- Chemical resistant
- Weight: 4.3kg (9.5 lbs)

# Jordahl® WCPS-RAMP™

On-Floor, Wireless Charging Protection System



WCPS-Ramp, Stage K1

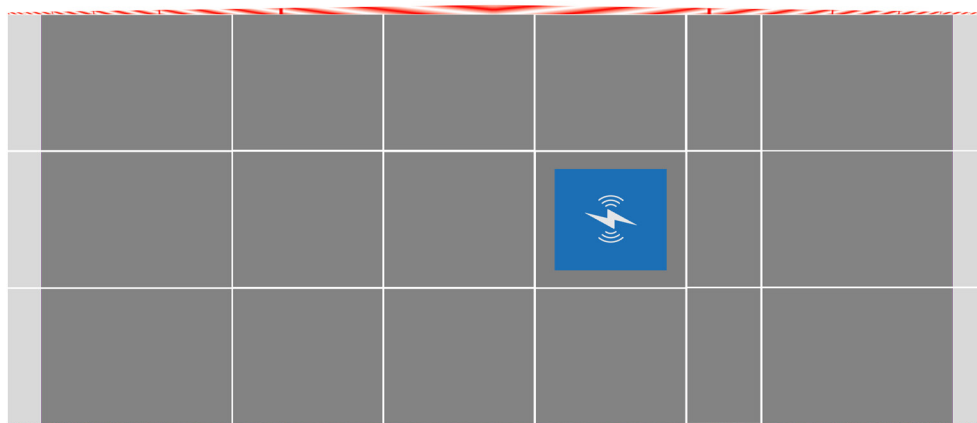
The WCPS-RAMP™ The on-floor wireless charging protection system for wireless charging coils. Designed specifically for demanding on-floor applications in industry, manufacturing, logistics, laboratories, clean rooms and warehouses, the stainless steel WCPS-RAMP is a repositionable, modular, expandable, safe, flexible, industry ready solution for protecting wireless charging systems.

## The WCPS-RAMP™ Advantage

- Safe, Secure, Work-Flow Optimized
- Easy Installation and Set Up
- Customizable, Expandable
- Repositionable Non-Invasive Installation
- Bfl-S1 Fire Protection Rating
- Slip Class: R9 (DIN 51130)
- ISO3 Clean Room Compatible
- Electroconductive (DIN EN 108)
- 2721 kg (6,000lb) Load capacity
- Only 21mm (0.82 in) high with a 3% slope
- Positionable Charging Coil Panel



WCPS-Ramp, Stage K1 2088 x 800 mm



WCPS-Ramp, Stage K3, 2688 mm x 1200 mm

The WCPS-RAMP™ can be easily expanded in length and width by adding additional panels.

As shown: 2688 x 1200 mm  
(more samples, on page 11)

sample at left consists of:

- 6 x Ramp Panels
- 8 x Square Panels,
- 3 x Rectangle Panels,
- 1 x Coil Panel

# WCPS-RAMP™

## Specifications

### WCPS-RAMP On-Floor Specifications

#### Item: WCPS-Ramp

#### Ramp Structure:

- Standard Dimensions: 2688 mm x 800 mm \*Customizable
- Material: Stainless Steel (1.4301)
- Slope: 3%
- Load Capacity: 2721 kg (6000lb)
- Height: 21 mm (0.82 in)

#### Charging Coil Housing:

- Height: 21mm (.75")
- Dimensions: 350mm x 328mm x 21mm (13.75" x 13" x .75")
- Thickness: 2mm (.08")
- Material type: 1.4301 Stainless Steel

#### Charging Coil Protective Cover:

- Dimension: 310 x 310 x 6 mm
- Certified static wheel load 500kg (1,102lb)
- Interference free
- Chemical resistant
- Surface Covering, ISO 3

#### Ramp Surface Covering

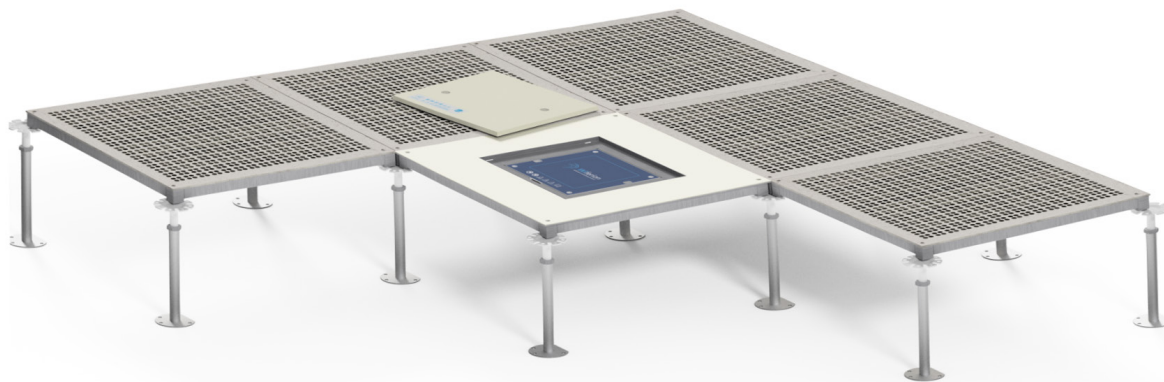
- Slip Protection: Bfl-S1 / Cover UL-94-V0
- Fire Protection: R9 (DIN 51130)
- Clean Room Compatible: ISO 3
- Load Category: 43 (Heavy)
- Electrically Conductive: DIN EN 1081

#### Trip Protection Modules

- Material: Stainless Steel (1.4301)
- Cover material: ISO 3

## Jordahl® WCPS-RF™

### Wireless Charging Protection System for Raised Floors

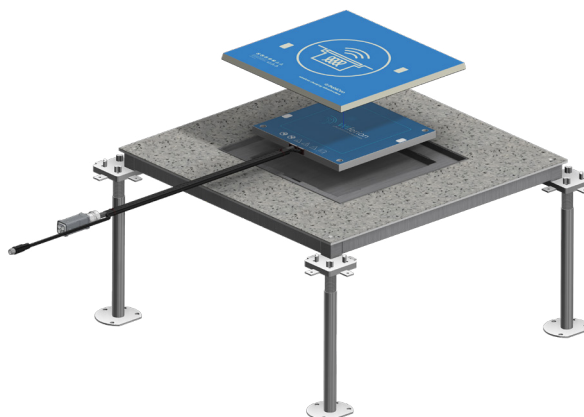


The WCPS-RF™ is a fully integrated wireless charging protection system designed specifically for raised floor applications in industry, logistics, laboratories and clean rooms. The WCPS-RF consists of 3 primary components, the protective charging coil housing, the integrated floor panel and the protective PCX charging coil cover.



### The WCPS-RF™ Advantage

- Integrated Floor Panel (DIN 51130)
- Protective Charging Coil Housing
- PCX Protective Coil Cover
- Load rated to 1,124 lbs (DIN 12825)
- Bfl-S1 Fire Protection Rating
- ISO 3, Clean Room Certified
- Electroconductive (DIN EN 1081)





# WCPS-RF™

## Specifications

### WCPS-RF Raised Floor Specifications

Item: WCPS-RF-610

#### Floor Panel:

- Dimensions: 610 x 610 x 36 mm (24" x 24" x 1.42")
- Material type: Stainless Steel (1.4301)
- Certified static wheel load 500kg (1,102lb)
- Weight: 20kg (44lbs)

#### Charging Coil Housing:

- Depth: 36mm (1.42")
- Dimensions: 358 x 356 x 36 mm (14.1" x 14" x 1.42")
- Thickness: 2mm (0.08")
- Material type: Stainless Steel (1.4301)

#### Charging Coil Cover:

- Dimension: 344 x 322 x 13 mm (13.5" x 12.68" x 0.5")
- Material type: Composite
- Interference free
- Chemical resistant

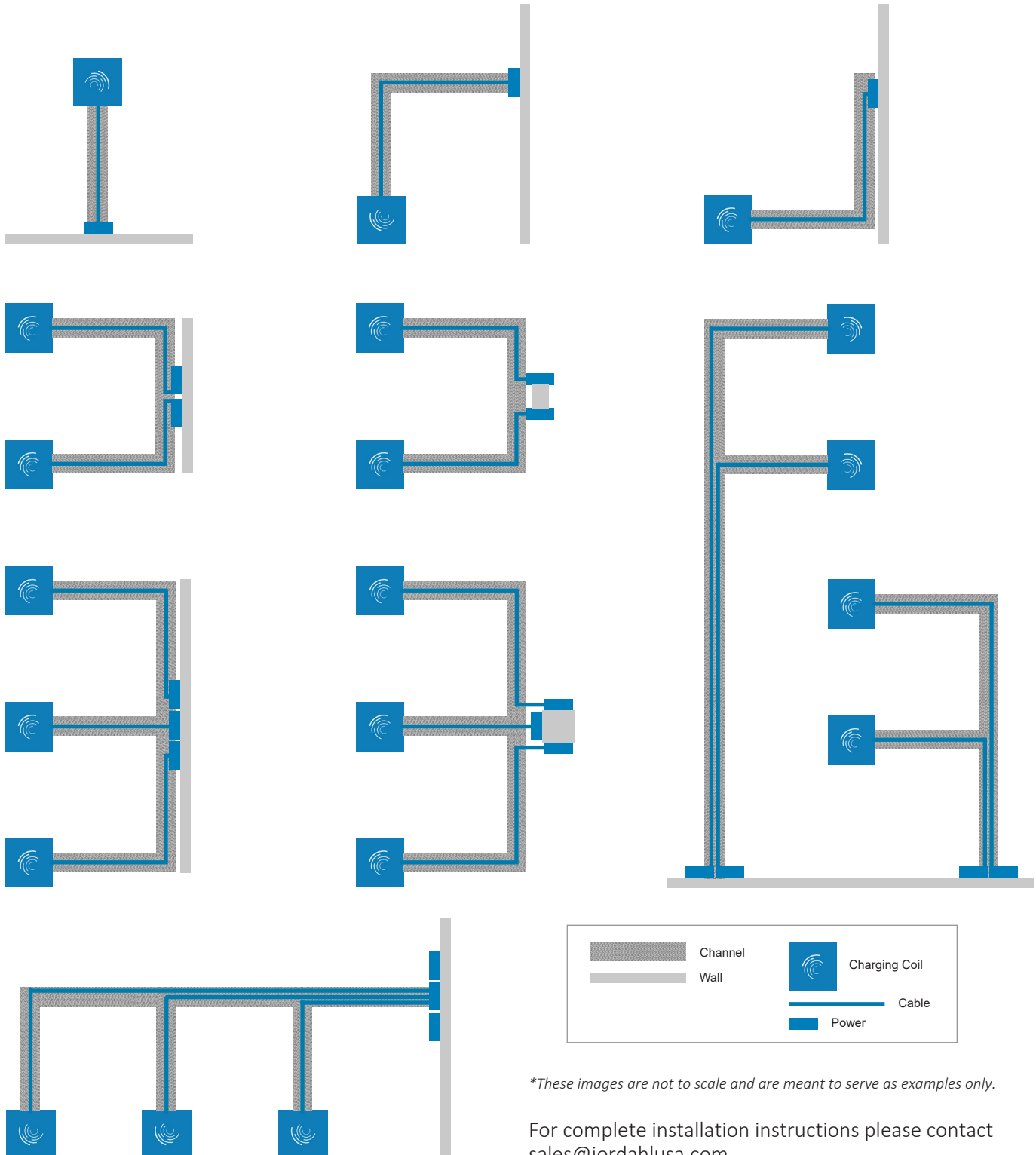
#### Surface Covering

- Slip Protection: Bfl-S1 / Cover UL-94-V0
- Fire Protection: R9 (DIN 51130)
- Clean Room Compatible: ISO 3
- Load Category: 43 (Heavy)
- Electrically Conductive: DIN EN 1081

# WCPS-R-3013™

## Configuration Examples

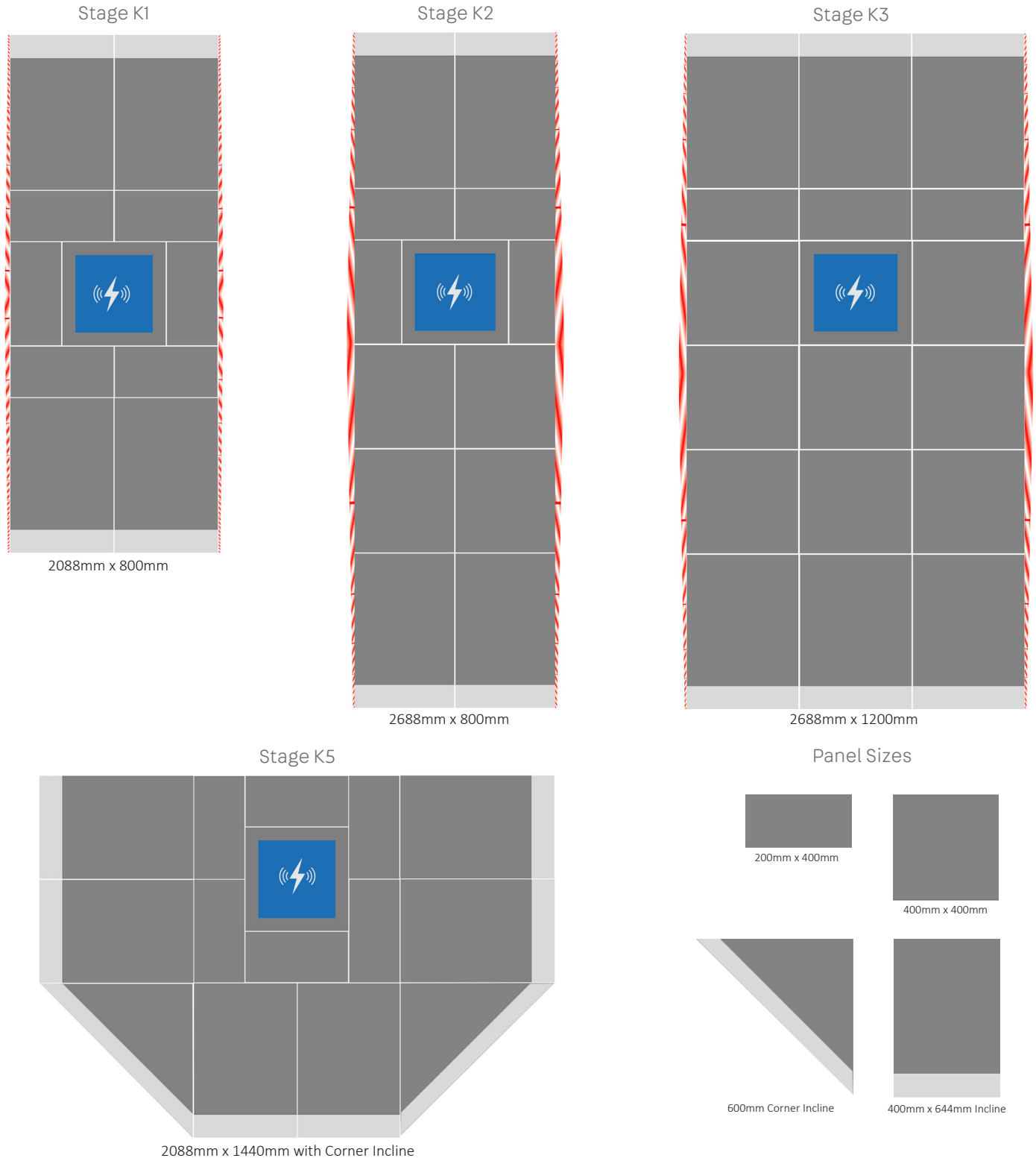
The WCPS-R-3013 can be configured in a variety of ways including adding multiple charging stations off of a main channel, using right angle channels and adding extensions. The channels and channel covers can be cut to length and angle as desired. The charging module can be mounted to walls, columns, posts, pillars, racks or stands. Below are several possible installation scenerios for the WCPS-R-3013.



# WCPS-Ramp™

## Configuration Examples

There are several standard ramp sizes available which accommodate most AGVs & AMRs and due to its modular construction and simple assembly, the WCPS-Ramp can be easily customized to your specific needs. Ramp panels come in several sizes and can be added to easily expand the width or length of the ramp including the ability to add multiple charging stations in a single configuration or queue.



[jordahlusa.com/wcps](http://jordahlusa.com/wcps)



**Blaine Transue**

WCPS Account Manager  
(760) 750-2205

[blaine.transue@jordahlusa.com](mailto:blaine.transue@jordahlusa.com)

**United States**

Jordahl USA, Inc.  
34420 Gateway Drive  
Palm Desert, CA 92211  
Tel: (866) 332-6687  
[jordahlusa.com](http://jordahlusa.com)



[sales@jordahlusa.com](mailto:sales@jordahlusa.com)

**Canada**

Jordahl Canada, Inc.  
35 Devon Road  
Brampton, Ontario, L6T 5B6  
Tel: (800) 363-3266  
[jordahl.ca](http://jordahl.ca)