

# Cable to Steel, Rail

## Data Solutions



nVent ERICO Cadweld applications for railway properties utilize the nVent ERICO Cadweld Plus F80 and the nVent ERICO Cadweld F80 welding material alloys. nVent ERICO Cadweld exothermically welded connections are engineered to provide a permanent, molecular bond that will not loosen or corrode, enabling connection of dissimilar materials. The connections are designed to perform for the life of the conductor and/or installation. The nVent ERICO Cadweld connection has a current carrying capacity equal to or greater than that of the conductor and will withstand repeated fault currents without failing during operation. Once completed, installers can clearly ensure quality by visually inspecting the new connection.

### FEATURES

- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

### SPECIFICATIONS

Table 1/2

Catalog Number	Mold Family	Connects To	Conductor Size	Conductor Outer Diameter, Nominal	Outer Diameter	NB/DN
PB10VN1GRH2	VN Mold Family	Steel Pipe	#6 Solid	4.11mm	60.3mm	50
SB01VS6M	VS Mold Family	Steel Pipe or Flat Surface	#6 Solid	4.12mm	609.6mm min	600 min
PB10VS1H	VS Mold Family	Steel Pipe or Flat Surface	#6 Concentric	4.67mm	609.6mm min	600 min

Catalog Number	Mold Family	Connects To	Conductor Size	Conductor Outer Diameter, Nominal	Outer Diameter	NB/DN
SB01VS4M	VS Mold Family	Steel Pipe or Flat Surface	#4 Solid	5.18mm	609.6mm min	600 min
PB10VS1L	VS Mold Family	Steel Pipe or Flat Surface	#4 Concentric	5.89mm	609.6mm min	600 min
PB41HA1L	HA Mold Family	Steel Pipe or Flat Surface	#4 Concentric	5.89mm	609.6mm min	600 min
PB20VT1L2.50	VT Mold Family	Steel Pipe	#4 Concentric	5.89mm	73mm	65
PB10VB1L	VB Mold Family	Steel Pipe or Flat Surface	#4 Concentric	5.89mm	609.6mm min	600 min
PB10HS1L	HS Mold Family	Steel Pipe or Flat Surface	#4 Concentric	5.89mm	609.6mm min	600 min
PB10VS1T	VS Mold Family	Steel Pipe or Flat Surface	#2 Solid	6.53mm	609.6mm min	600 min
PB10VB1H	VB Mold Family	Steel Pipe or Flat Surface	#6 Concentric	7.42mm	609.6mm min	600 min
PB10VB1V	VB Mold Family	Steel Pipe or Flat Surface	#2 Concentric	7.42mm	609.6mm min	600 min
PB41HA1Y	HA Mold Family	Steel Pipe or Flat Surface	#1 Concentric	8.43mm	609.6mm min	600 min
PB10VB2GV1.50	VB Mold Family	Steel Pipe	2/0 Concentric	10.62mm	48.3mm	40
PB10VB2G	VB Mold Family	Steel Pipe or Flat Surface	2/0 Concentric	10.62mm	609.6mm min	600 min
PB10VB2GV3C	VB Mold Family	Steel Pipe	2/0 Concentric	10.62mm	60.3 – 114.3mm	50 – 100
PB10HS2G	HS Mold Family	Steel Pipe or Flat Surface	2/0 Concentric	10.62mm	609.6mm min	600 min
PB03VGY4	VG Mold Family	Steel Pipe or Flat Surface	70 mm <sup>2</sup> Concentric	10.92mm	609.6mm min	600 min
PB10VS2Q	VS Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min
PB10HS2Q	HS Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min

Table 2/2

Catalog Number	Mold Family	Connects To	Conductor Size	Conductor Outer Diameter, Nominal	Outer Diameter	NB/DN
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PB10VN2QRH	VN Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min
PB10VB2Q	VB Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min
PB13VV2Q	VV Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min
PB13VF2Q	VF Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min
PB10VS2QV3C	VS Mold Family	Steel Pipe	4/0 Concentric	13.41mm	60.3 – 114.3mm	50 – 100
PB10VN2QLH	VN Mold Family	Steel Pipe or Flat Surface	4/0 Concentric	13.41mm	609.6mm min	600 min
PB10VS3D	VS Mold Family	Steel Pipe or Flat Surface	350 kcmil Concentric	17.3mm	609.6mm min	600 min
PB10HS2W	HS Mold Family	Steel Pipe or Flat Surface	250 kcmil Ropelay	19.05mm	609.6mm min	600 min
PB10HS4M	HS Mold Family	Steel Pipe or Flat Surface	#24 Ropelay	19.02mm	609.6mm min	600 min
PB13VB3Q	VB Mold Family	Steel Pipe or Flat Surface	500 kcmil Concentric	20.65mm	609.6mm min	600 min
PB10HS3S	HS Mold Family	Steel Pipe or Flat Surface	500 kcmil Ropelay	26.42mm	609.6mm min	600 min

## ADDITIONAL PRODUCT DETAILS

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For applications such as computer room, tunnel or other low-ventilation areas, specify a smokeless nVent ERICO Cadweld Exolon mold. Add an XL prefix to the standard mold part number when ordering (for example, a PB10GR162G becomes XLPB10GR162G). Similarly, nVent ERICO Cadweld Exolon welding material is also designated by the XL prefix (for example, PB90 becomes XLPB90).

A test weld should be made to check for the possibility of burn through on thin sections and to determine detrimental metallurgical effects.

W-XXXX-XX-XX-LH-XX-L-M		
W*	Wear Plates	Reduce mechanical abrasion of molds at cable entry points
XXXX	Price Key	
XX	Mold Family	
XX	Conductor Size	
LH	Weld End	LH = Weld on left end of conductor RH = Weld on right end of conductor (For VN Mold Family only)
XX	Pipe Size	
L*	Split Crucible	Crucible section is split on molds designed with horizontal opening for easier cleaning
M*	Mold Only	

\* Empty if none

## WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.



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