SECTION C

CONNECTORS

Wedge Type Tap Connectors

C01

CPI wedge connectors consist of a spring 'C' body and wedge combined with a 'shear head' bolt and offer a high performance connection that has low resistance, is durable and easy to install. The spring body of the connector will flex and maintain a constant force as thermal cycling causes conductors to expand and contract. During installation, when the correct spring tension is achieved, the shear head bolt will break off giving the installer a positive indication of a correctly completed connection. If necessary the connector can be removed by unscrewing the bolt.

Fig 1

Fig 2

Fig 3

Features

- Utilises the industry proven wedge connecting principle and is quick and easy to apply using only a spanner, ratchet wrench or impact wrench.
- The spring like qualities of the 'C' body ensure permanent connection and maintains consistent pressure on the conductor.
- Can be used easily for live line connections using hot sticks.
- High conductivity grit type corrosion inhibitor is factory applied for ease of installation and longevity while the connector is in service.
- Meets or exceeds the current carrying capacity of the conductors being connected.
- Easy to remove and reuse without damage to the conductor.
- Full range of sizes available to accommodate all combinations of conductor and tap.
- Available in aluminium body (fig 1) with high conductivity aluminium alloy interface or copper and bronze alloys (fig 2) with pure copper interface and can be tin plated for bi-metal connections (fig 3).
- Bail type wedge connectors (fig 4) are used to protect the main line conductor from damage and arcing when hot line clamps are used in live working applications. Bail type wedge connectors are extremely beneficial where quick and easy disconnections and reconnections are required.
- Copper bail or whole connector can be tin plated for bi-metal applications.
- Available as a pad tap connector (fig 5) for fixing NEMA standard fittings such as paddle stirrups, for ease of making live line connection using hot line clamps.
- Paddle stirrups (fig 6) are of bi-metallic construction allowing connection between aluminium components and bronze hot line clamps or other copper/ bronze connectors.

Fig 4

Fig 5

Fig 6

Find videos and additional resources for this product at **www.horizonutilitysupplies.com**

Hot Line Tap Connector

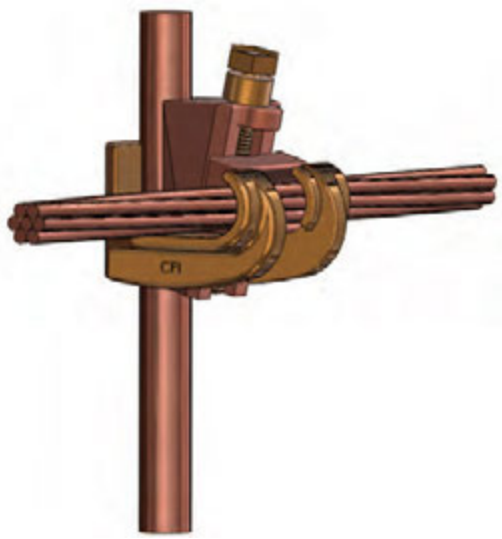
Designed for use as a permanent or temporary connector on aluminium or copper conductor. By utilising the wedge principle the HTC series tap maximises the connecting force on the conductor and creates a self maintaining spring wedge connection ensuring the tap stays tight during its service life by overcoming the problems associated with heat cycling.

Hot Line Bail Tap Connector

Where protection against damage of the main line conductor caused by arcing during live connections is required, the HTC B series of taps is available with a copper bail which can be tin plated for bi-metal applications. This bail can be utilised for connecting a standard hot line clamp.

CPI Auto Splice

Designed as a permanent or temporary connection on aluminium and ACSR conductors in full or partial tension. The unique open design helps overcome the two most common reasons for failures associated with traditional automatic splices, improper installation and corrosion. The window allows the installer to see when the conductor is fully inserted and prevents water and contamination from building up inside the connector. Manufactured from the finest extruded aluminium alloys for optimal conductivity and corrosion resistance.



Earth Grid Connector

Safe, dependable and fast method of making permanent connections between conductors and earth rods in a range of earthing applications. Uses a shear head bolt to drive a wedge into the connector to ensure a consistent installation every time and positive verification that the connection is complete. Quick and easy to apply using only a spanner, ratchet wrench or impact wrench. Constructed using the highest quality copper and bronze alloys to ensure conductivity and durability for reliable performance.

Running Rail Connector

Designed as a permanent connection for copper conductor onto rails of a variety of profiles used in heavy rail mass transit systems. Constructed using heavy duty aircraft quality steel spring member, copper cable nest indentor, hex head bolt and locking nut. The clamp is an active spring that applies a consistent force on the conductor ensuring a positive connection through heat cycling and train vibration.

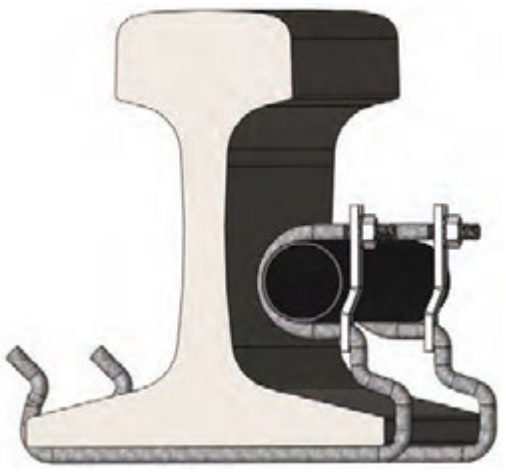
Avoids the need to drill holes in the rail. The rail is not therefore subjected to warping by excessive heat or weakened by drilling. Extremely quick installation can save many man hours. The "J" shaped spring member of the connector helps overcome loosening problems associated with harsh train vibrations by flexing rather than breaking. The consistent spring pressure also prevents moisture and contamination from seeping into the connection. All copper components are tin plated and steel components are galvanized.

Contact Rail Connector

Designed with all the features of the Running Rail Connector but profiled to the contact or third rail for electrical feed or earthing.

Rail Bonding Connector

Fully adjustable connector designed to accommodate any size of running rail for bonding and earthing applications. The rail bond connector is easy to install and remove and can be reused.



Support Spring Rail Clips

Designed to support and hold a wide range of conductors and signal or communication cables in close proximity to the rail. Tempered steel wire construction assures positive grip on the rail. Extremely quick and easy to install, removable and reusable.

Available in different configurations to accommodate different size rails and multiple conductor combinations.

Hot Line Clamps

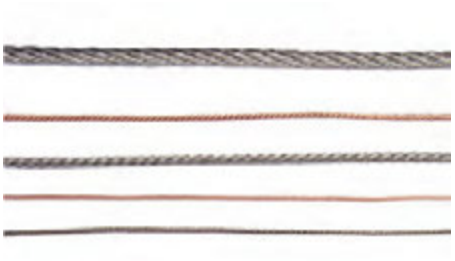
Used for making permanent or temporary connections on overhead power lines and are easily installed using live line tools compatible for distribution tap connections. Available in bronze alloy and aluminium alloy castings offering high strength, corrosion resistance, and conductor compatibility. Extended jaw width gives excellent conductor contact, reduced joint temperature, minimal conductor cold flow and reduced twisting of the conductor during installation. Spring loaded feature compensates for cold flow and offsets tightening torque vibrations. Forged eyebolts provide corrosion free strength and uniformed expansion under loading.

Two standard sizes available in both bronze and aluminium to cover full range of copper, ACSR and aluminium conductors. Tin plated clamps available on request for bi-metal connections.

CAT NO	CONDUCTOR TYPE	MAIN LINE DIAMETER	TAP DIAMETER
P1520CC	Copper	3.25mm to 10.5mm	3.25mm to 10.5mm
P1520AL	Aluminium	3.25mm to 10.5mm	3.25mm to 10.5mm
P1530CC	Copper	4.11mm to 18.9mm	3.86mm to 17.3mm
P1530AL	Aluminium	4.11mm to 18.9mm	3.86mm to 17.3mm

Copper and Aluminium Flexible Conductor

Ideal for making temporary or permanent jumpers or for bonding and earthing applications. Available on request with insulated PVC jacket.



Flexible Strands

Some applications benefit from wire being stranded rather than woven into a braid. Flexible strand or rope is well suited to cope with complex flexing movements. The ability of individual wires to flex without work hardening is why strand is suitable where vibration or movement is likely to exist. The tight bend radius makes it ideal where alignment problems exist or where space restrictions apply.

Flat/Circular Braid

The range of flat/circular braids is extensive, from very fine single braids to heavy duty multiple braids. The ability of individual wires to flex without work hardening is why braid is suitable where conditions of vibration or movement are likely to be present. The tight bend radius makes it ideal where alignment problems exist or where space restrictions apply.

Flexible Connectors

Flexible assemblies, earth bonding, groundstraps and braided links are custom made for form and fit to meet individual unique applications. Flexible connectors are made from either braid or strand and suitably terminated. When called for, flexible connectors are supplied insulated for protection and identification purposes.

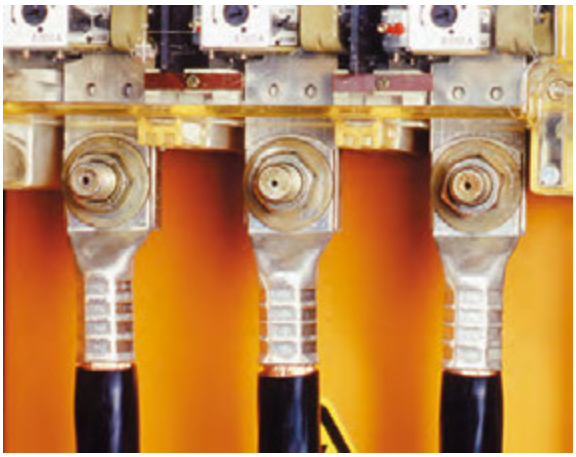
Klauke Connectors

As a world class manufacturer of connector solutions, Klauke produces a wide range of fully traceable compression connectors, accredited to international standards. Please contact us for your individual requirements

KLAUKE® A Textron Company

- Connectors from pure electrolytic copper
- Including single and two hole solutions
- LV and MV applications

- Tension and non-tension connectors for Cu and Al applications



- Special material connectors including stainless steel for aggressive environments and solid nickel for high temperature applications

- Bi-metal connectors for cable transitions or where aluminium cables are required to be terminated onto copper or brass bushings

- A comprehensive range of tap connectors including C-taps, H-taps and split bolt line taps