

CORNER



SYSTEMS



# Shorting Frames

G Corner designs and manufactures a unique range of shorting frames, sometimes called Jumper frames, for electrowinning refineries of base metals such as Copper & Nickel.

Shorting frames are used to allow the current flowing through the cell line to by-pass one or two cells, these cells can then be worked on for maintenance.

Our shorting frames are designed from laminations of copper plate busbars, formed into a rectangle and the busbars are sized allowing a current density of between 1.3 – 1.5 Amps per mm sq depending on the prevailing ambient temperature. The size of the shorting frame is relative to the size of the cells, the frame will usually be around the same length as the cells but slightly wider than one cell in the case of a single cell frame or two cells in the case of a double cell frame as the frame must make contact with the anode and cathodes in the adjacent cells to the cell being shorted out. In addition the frame must also be wide enough to allow for the removal of the anodes and cathodes while the frame is in place.

G Corner shorting frames are designed with individual spring loaded contact pins pitched at the same distance as the spacing of the anode and cathode hanger bars so each Hanger bar makes contact with its own contact pin on the frame. This ensures that all the hanger bars make an effective contact with the frame, with the spring loaded contact pins making an allowance for any height variation in the hanger bars. The spring loaded contact pins are electrically connected to the shorting frame through special laminated or braided copper connectors.

For certain electrowinning refineries it may be preferable to fit the shorting frame with high current air or vacuum switches. This will allow the shorting frame to be positioned on the cell line without any reduction in operating current which is usually the case with un-switched shorting frames.

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# Shorting Frames for electrowinning refineries of base metals

