Introduction

Promat® Helical CD welded pins can be applied to structural beam and columns prior to blasting and priming. This procedure must be read in conjunction with the Promat FENDOLITE® MII & FENDOLITE® TG Petrochemical Application Manual.

Materials and Equipment

1. PROMAT® Helical CD Weld Pins. No clips are required.
2. PROMAT® Helical chuck.
3. PROMAT® Helical pin test tool.
4. Angle grinder.
5. CD welder.



Figure 1: PROMAT® Helical CD Weld Pins (left) and CD welder (right)

Workmanship

Execution of the work must be in strict accordance with the current Promat FENDOLITE® MII & FENDOLITE® TG Energy Industries Application Manual. The sequence of operations is to be carried out as follows.

Marking the locations

The PROMAT® Helical CD Weld Pins should be installed at maximum 400mm centres in a diamond pattern. Mark the pin fixing location on the steel faces to be coated in Promat FENDOLITE®MII & FENDOLITE® TG using a wooden template. The template is normally manufactured from 5mm(minimum) MDF and cut slightly smaller than the 400mm to ensure that no pin exceeds the 400mm limit.

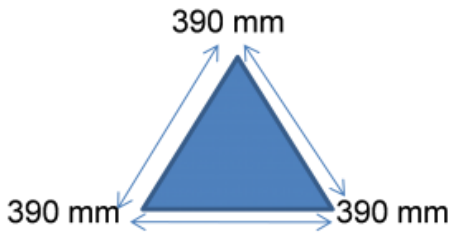


Figure 2: Dimensions of the template for marking pin locations

Steel sections up to and including 203mm x 203mm are normally protected by the solid fill method. For these applications the PROMAT® Helical CD Weld Pins may be omitted from the web areas.

Grinding the steel

At the marked locations grind back the steel to bright metal. In the middle of the item being pinned grind back the steel to bright metal for the CD welder negative terminal clamp.

Welding the pins

Weld a PROMAT® Helical CD Weld Pin at each location using the lowest possible power setting required to achieve a satisfactory weld, typically this will be between 50 – 65volts. Test the first 10 pins by twisting them 90 degree and back again using a PROMAT® Helical pin test tool. Once the correct power setting is established test check 1 in 20 pins to ensure that a satisfactory weld is being achieved.



Figure 3: Welded pins

The information given in this Application Procedure is based on practical experience, independent and other tests and represents, in Promat's opinion, the best technical advice available. Since the products are applied under circumstances beyond our control, Promat can accept no direct or consequential liability, whether in contract or in tort, for the interpretation of such recommendations and reserves the right to modify the recommendations as necessary. Should it be unclear as to the meaning of any of the instructions given above, or if further information is required, please consult Promat.