

ABSTRACT

MECHANICAL JOINT, JOINT-EQUIPPED STEEL PIPE, METHOD FOR
MANUFACTURING JOINT-EQUIPPED STEEL PIPE, STRUCTURE, METHOD
FOR INSTALLING STRUCTURE, AND METHOD FOR DESIGNING
MECHANICAL JOINT

The object is to reduce a push-in load required for fitting without bringing about an increase in processing costs and a reduction in strength. A mechanical joint 1 according to the present invention includes an inner joint pipe 5 and an outer joint pipe 7 and includes split pieces 11 that can bend in a radial direction, a protrusion 13, an engagement part 17, and a guide part 19. The split pieces 11 are grouped into a plurality of groups satisfying the following conditions (1) and (2), and timing to reach maximum bending is shifted for each split pieces 11 of the same group in a fitting process: (1) the axial positions of the split pieces belonging to the same group causing the maximum bending on the guide part are the same, and the axial positions are different for each group; and (2) in the split pieces belonging to the same group, connecting adjacent circumferential centers to each other with a straight line forms a straight line passing through a pipe center or a polygon whose center of gravity matches the pipe center.

(FIG. 1)