

ABSTRACT

AUTOMATIC AND ACCURATE ADJUSTMENT DEVICE, METHOD AND SYSTEM FOR PREFABRICATED BEAM BODY FORMWORK

Disclosed are an automatic and accurate adjustment device, a method and a system for a prefabricated beam body formwork, which relate to the technical field of automatic and accurate adjustment of formworks. Said device comprises: a calibration assembly, an adjustment assembly, a measurement assembly and a calculation control assembly; the calibration assembly comprises a plurality of calibration units, the plurality of calibration units being arranged at intervals on a plurality of inspection sections on an outer mold side of the prefabricated beam body formwork, and each calibration unit being provided with a calibration point; the adjustment assembly comprises a plurality of adjustment units in one-to-one correspondence with the calibration units; the measurement assembly is used for measuring and obtaining actual three-dimensional coordinates of each calibration point; and the calculation control assembly is used for calculating differences between the actual three-dimensional coordinates of each calibration point and preset theoretical three-dimensional coordinates thereof, and automatically controlling the adjustment assembly to adjust the actual three-dimensional coordinates of the corresponding calibration point, such that the differences corresponding to each calibration point fall within a preset range. The present invention can automatically and accurately adjust the deviation value of the prefabricated beam body formwork, greatly improving the construction efficiency.

Fig. 1