

## Multifunctional Bending and Straightening Machines for Shipbuilding

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**Abstract :** At present, one of the main tasks of Russian shipbuilding yards is implementation of new technologies and replacement of main process equipment. In particular, conventional bending technologies with dies are being replaced with resource-saving methods of rotation (roller) banding. Such rolling bending is performed by multiple rolling of a plat in special bending rollers. Studies, conducted in JSC SSTC, allowed developing a theory of rotation bending, methods for calculation of process parameters, requirements to roller presses and bending accessories. This technology allows replacing old and expensive presses with new cheaper roller ones, having less power consumption and bending force. At first, roller presses were implemented in ship repair, however now they are widely employed at major shipbuilding yards. JSC SSTC develops bending technology and carries out design, manufacturing and delivery of roller presses.

**Keywords :** bending/straightening machines, rotational bending, ship hull structures, multifunctional bending

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