



Multiple Stud Tensioning Machine

incl. rotating test & storage stand
PWR-EPRTM 1600 MW



Siempelkamp

NIS Ingenieurgesellschaft

- Pretensioning force at all 52 RPV studs (M210 x 6 mm) simultaneously
- Continuous monitoring of pretensioning process
- Max. Force: 9.789 kN - 2.200.656 lbf - 998.200 kp
- Max. Hydraulic pressure: 1.900 bar - 27.557 psi - 190.000 kPa
- Homogeneous tensioning of RPV cover
- Elongation recording accuracy (1/1000 mm) of all RPV studs simultaneously and monitoring during tensioning process
- Rotating test & storage stand for limited areas
- Opening or closing of RPV in less than 4 hours, incl. RPV stud turning / 52 RPV studs transportation in the MSTM
- 2 Double stud turning robots, means 4 RPV studs will be turned in or out simultaneously
- RPV stud turning with torque monitoring and weight compensation
- Redundant hydraulic system
- Operating from pool floor level
- Less dose for NPP staff compared to single stud tensioners / less operation time incl. storage area for test studs
- Automatic levelling transport cylinders
- Unloading of RPV studs for cleaning from the machine and reloading with an integrated hoist system



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