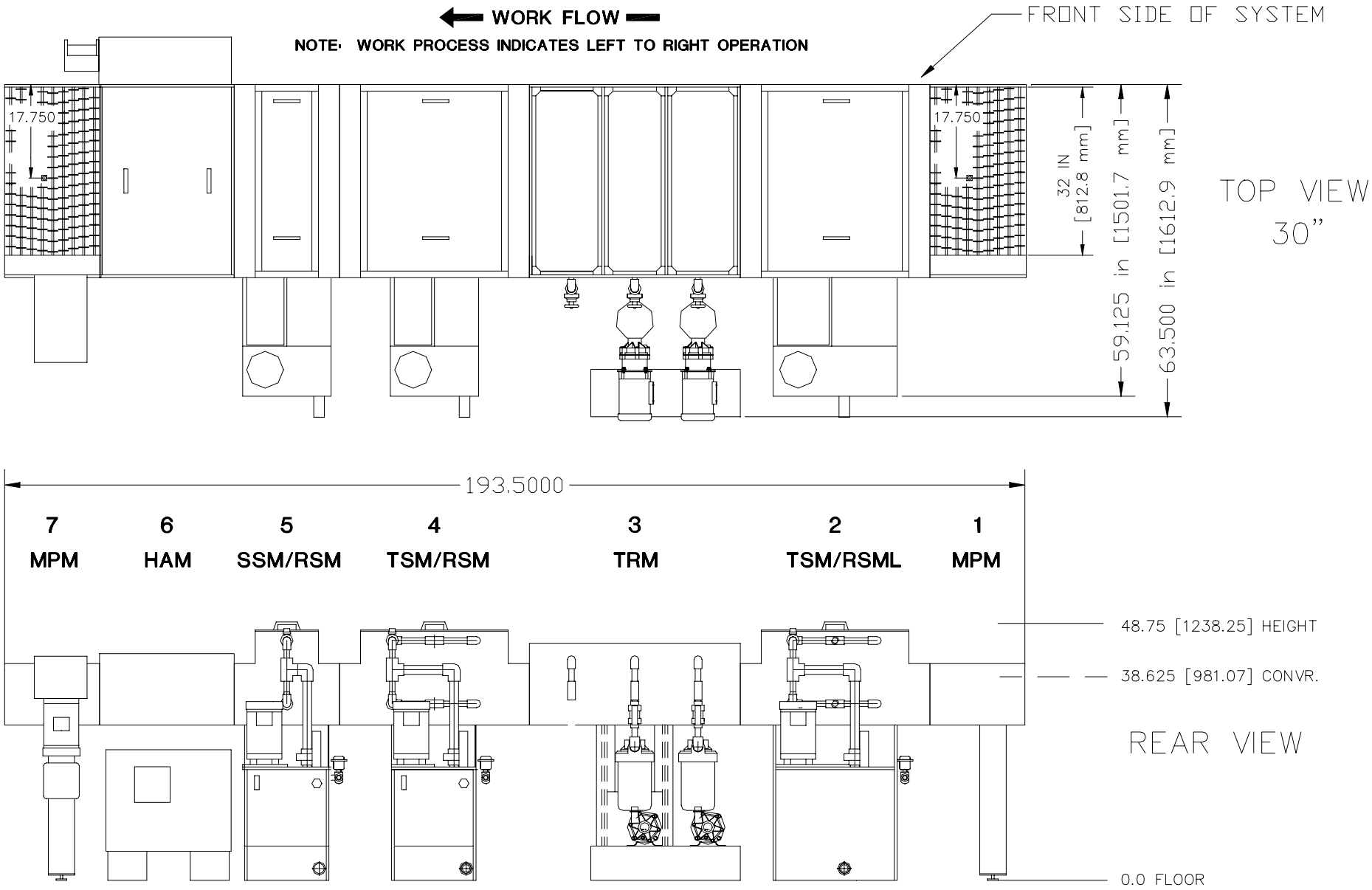DUAL STAGE CHEM CLEAN