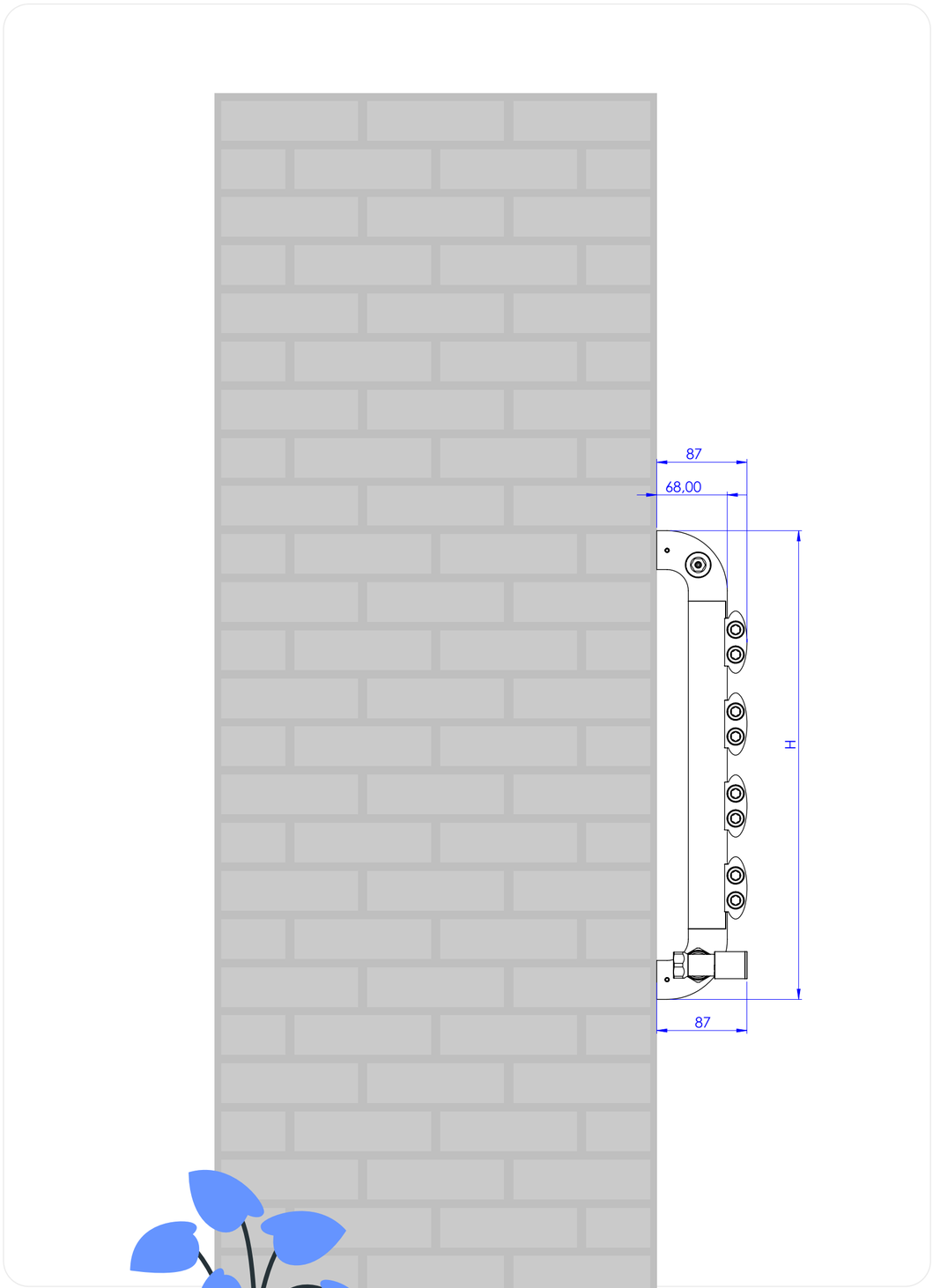QA-RF-ASM