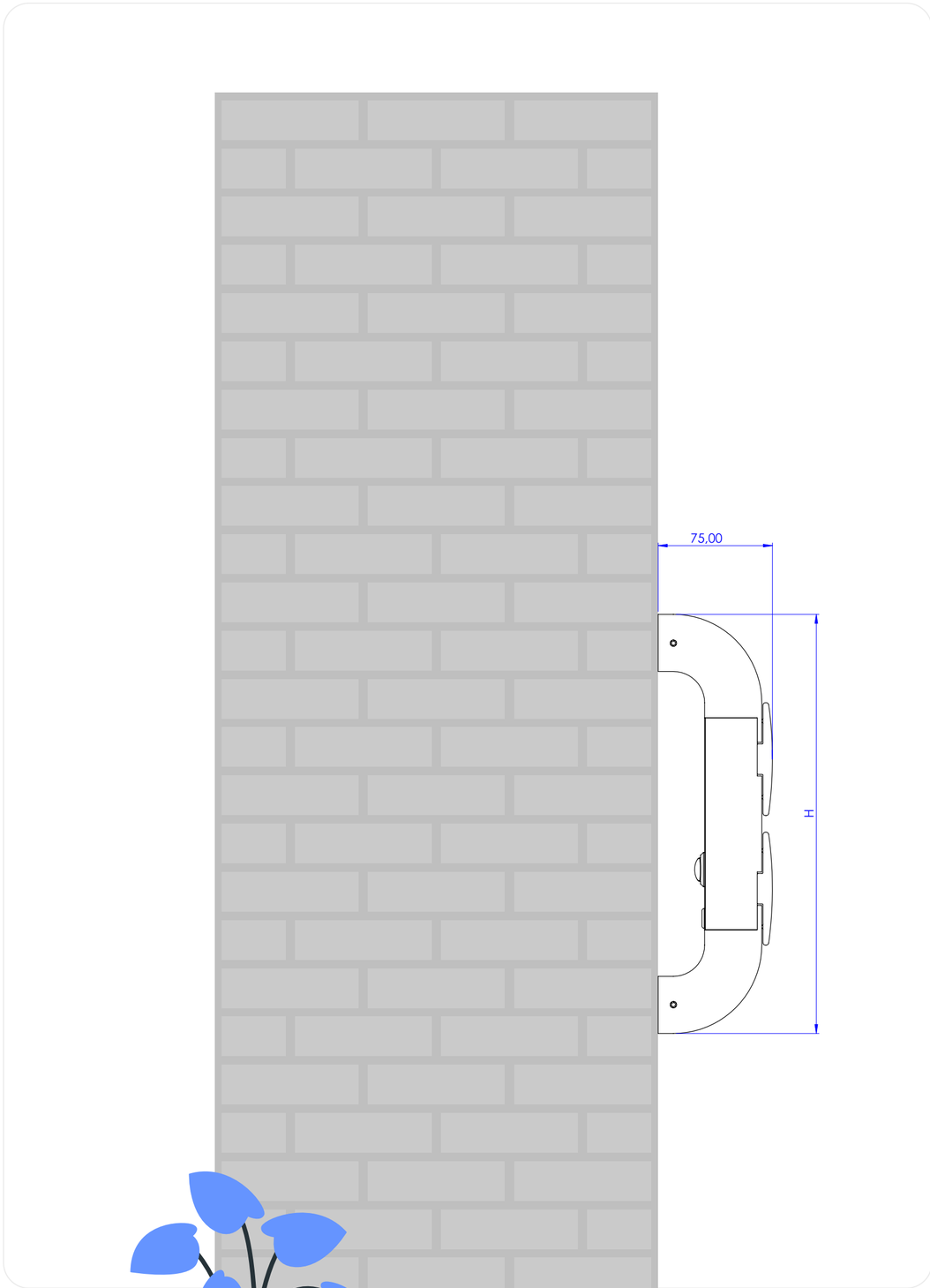QA-VE-ASM