

4. Working principles

A combustion engine drives the side channel blower by 2 x V-belts. The side channel blower is maintenance free and corrosion resistant. Compressed air operated from the side channel blower is well matched to the narrow-bore solution nozzle, bringing about the advantage of producing comparatively small air throughput at a high compression ratio.

The spray nozzle (atomizer) works in two stages: the first step is to break up the liquid at a high velocity. Then at the end of a short conical diffuser, compressed air enters again acting in an opposite direction and provides a better break up of the droplets. The stream of droplet is dispersed without touching the inner surface of the solution nozzle. Thus wettable powder suspensions can be applied without the danger of blocking nozzle.

Control of the throughput is done by a flow meter in which a regulating valve permits an infinitely variable output max. 60 l/h showing by a transparent tube with scale and a floating ball.

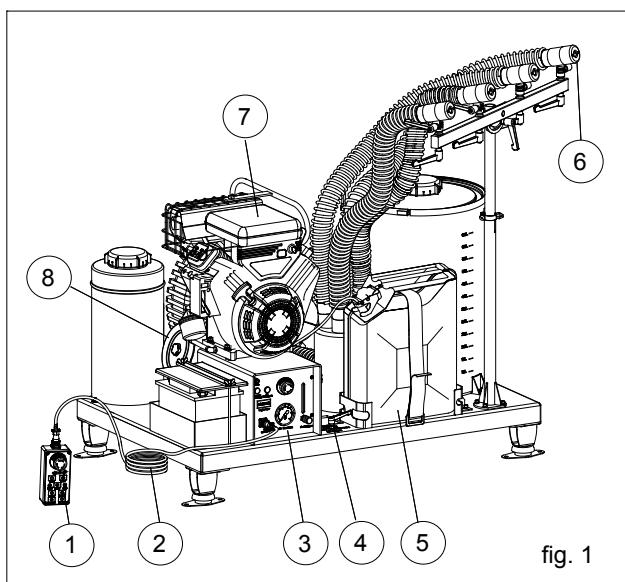


fig. 1

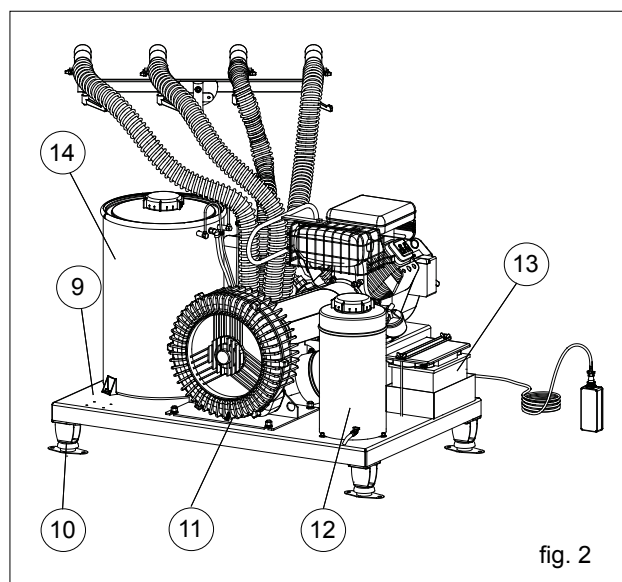


fig. 2

1. remote control
2. connecting cable
3. control box
4. solution valve
5. fuel tank
6. spray nozzle
7. engine

8. air filter
9. chassis
10. rubber buffer
11. side channel blower
12. cleaning/flushing tank
13. battery
14. solution tank