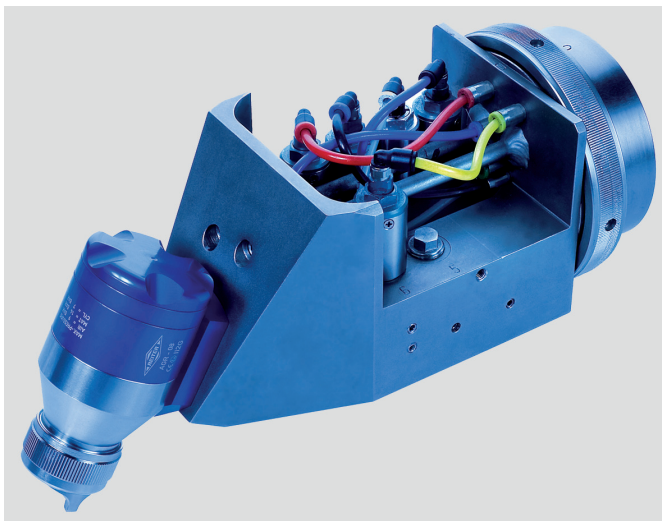


REDOS

Reiter dosing system with material recovery



The number of colours demanded by the consumers rises very strongly in many parts of the industrial painting processes. Especially in the automotive and its supplier industries the number of different colours processed in a painting lines reaches a level where the use of automatic colour change technology is required. In addition the ecological and economic pressure to minimize the loss and consumption of paint material and solvents is mounting.

High precise gear pumps are used for the exact dosing of materials. A typical installation consists of hose or tube connection from the colour change manifold to the gear pump and further to the spray application equipment.

When changing the materials the material situated the lines in front of and after the pump is normally dumped. To avoid these material losses, a number of system were developed in the field of painting technology. A pig is pushed with help of a medium between its reception and

transmitting station located between the applicator and the gear pump thus the material is pushed back into the supply line. With these systems an additional equipment is required to recover the paint.

With the Reiter REDOS system there is no additional hardware required. The task of pushing back the material between the colour changer and applicator into the supply line this is taken on by the gear pump by reversing its direction. For shorter cycles the material is additionally pressurized with compressed air or solvent.

The recovery cycle is followed by a standard flushing cycle and loading of the new colour completes the colour change cycle. The normal time is therefore not extended. The recovery quota is typically 75% of the paint volume in the line. Through this amortisation times of only a few months are possible.

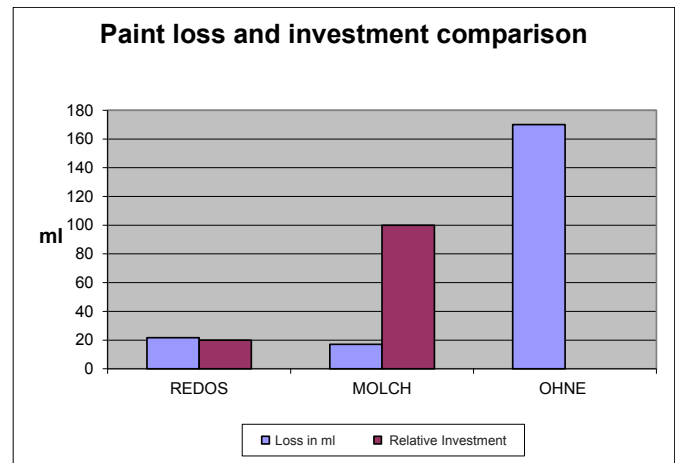
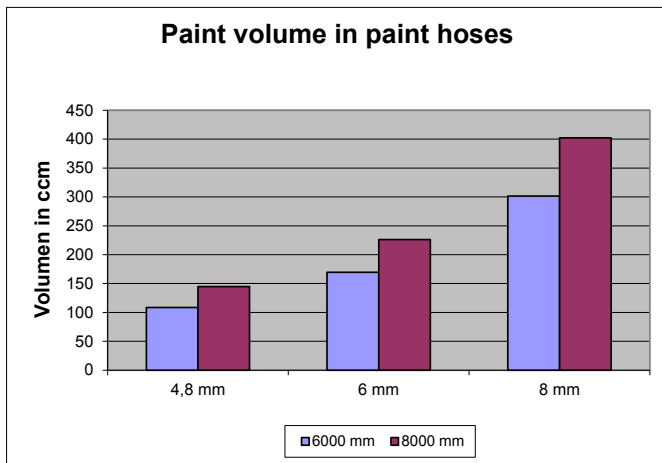
Advantages

- Use of paint hoses with small diameter and thus less volume is possible.
- No pig system necessary
- Advantages of the gear pump systems utilizable
- Simply to fit to existing systems
- No additional sensors are needed

Applications

- Robot painting systems, reciprocator systems
- Manual painting stations
- Solvent borne-, water borne paints, hardeners
- Air spray guns, high rotation spraying systems

PERFECT FINISH PAINTED BY THE SPECIALIST.

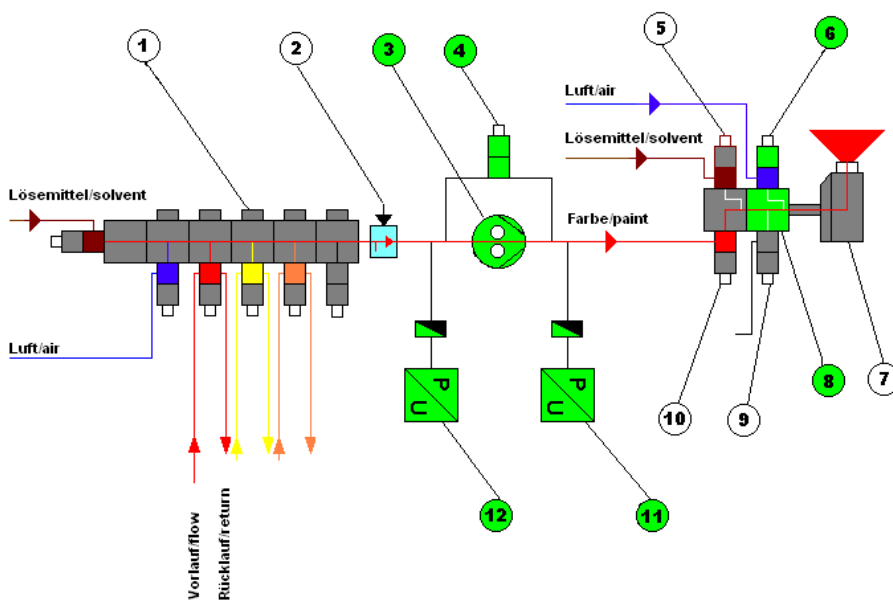


Use of paint hoses with small nominal diameter and thus less volumes is possible.

- 36% less paint volume in comparison with 6 mm
- 64% less paint volume in comparison with 8 mm

By use of a paint hose with an inside diameter of 4.8 mm a considerable saving of the paint volume compared to the conventional inside diameter of 6 mm or 8 mm is achieved.

This means lower paint use from the beginning. Less solvent consumption to clean the smaller surface. Patent pending.



System construction for recovery

1. Colour change block with flow and return connections
2. Pressure regulator to set pump pressure
3. Gear pump
4. Bypass valve for quick cleaning cycles
5. Solvent valve at the atomizer
6. Air valve at the atomizer
7. Atomizer
8. Valve block behind the atomizer
9. Medium valve for 2nd component
10. Medium valve main path
11. Pressure sensor pump exit
12. Pressure sensor pump inlet