Assembly and Operating Instructions

SuperCorona®
Retrofit set for the PG 1 Manual Powder Gun

An ITW Company
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About these assembly and operating instructions

These assembly and operating instructions contain important information which is required to operate the SuperCorona®. In order to be able to exploit all the advantages of the SuperCorona® the user should already be familiar with the working techniques and functioning of the powder coating equipment. It is not the purpose of this manual to give instruction on how to use powder coating equipment. If, however, problems do arise which are connected with the PG 1 manual powder gun or with the PGC 1 Powder Gun Control while working with the SuperCorona®, then the corresponding operating instruction manual should be consulted.

Field of application

SuperCorona® is a retrofit set for the proven PG 1 Powder gun with a Flat Spray Nozzle, with which an even better surface quality can be achieved when manual powder coating. When coating wheel rims, drawers, radiators, lamps etc it is shown that the surface quality is exceptional also in the places where the coating is thicker. With many powder types an “orange peel” finish can be avoided completely. The performance of the PG 1 Powder gun with SuperCorona® is convincing due to its very good charging and very high deposit rate as well as improved penetration in “Faraday cages”. The distance between nozzle and workpiece can be reduced to 100 mm without influencing the surface finish. Due to the modular construction of the PG 1 Manual Powder Gun the light-weight SuperCorona® (approx. 60 g) can be fitted very quickly and easily. Even after retrofitting the PG 1 remains maintenance and repair-friendly.

Scope of delivery

The SuperCorona® retrofit set (Order No. 352 730) consists of:

1. SuperCorona® Ring - complete (for 40 mm nozzle only - other lengths on request) 352 470
2. Milled screw - M4 x 8 mm 245 313
3. Gun hand grip - complete 352 829

Fig. 1
Fitting the SuperCorona®

Before operating the SuperCorona® it is necessary to replace the original gun hand grip of the PG 1 with the modified gun hand grip supplied with the SuperCorona®.

**Important:** Before disassembling the gun, switch off the control module and detach the gun connector at the gun socket (A Gun).

a) Replacing the gun hand grip

The new gun hand grip can be left on the PG 1 even when the SuperCorona® is not being used.

1. Remove the powder hose from the powder hose connection (15)
2. Remove the rinsing air hose from the connection (16)
3. Remove the threaded sleeve
4. Unscrew the locking screw (10)
5. Turn the gun connection cable (12) a 1/4 turn to the left (mark over the mark) and pull straight out
6. Screw in the locking screw provisionally
   **Attention:** This can be easily lost.
7. Unscrew the plastic screw (7) and remove the cover plate (5)
8. Place the extractor tool (28 - supplied in the spare parts set) in the front end of the shaft (3)
9. Remove the hand grip (8) from the shaft by pushing the extractor tool into the hole at the front of the shaft
10. Pull the powder tube (19) out of the hand grip (8)
11. Check the rinsing air gasket (8) and replace, if necessary
12. Fit the powder tube into the new hand grip
13. Reassemble the gun in the reverse order to that described above
   - Careful handling must be observed!
   - If the gun cable connection (12) has to be inserted and turned with force, then the gun must be dismantled and reassembled

After assembly check that:

- the gun cable connection (12) sits correctly and the locking screw (10) must screw completely into the countersink
- there are no gaps at the joins
- the gun trigger operates smoothly and returns to its original position on its own
Replacing the gun hand grip

3. Shaft
5. Cover with hook
7. Plastic bolt
8. Hand grip
9. Grounding plate
10. Locking screw
12. Gun connector
13. Cable connector
15. Powder hose connection
16. Rinsing air hose connection
17. Trigger
18. Spring
19. Powder tube
20. O-ring gasket
21. O-ring gasket
22. O-ring gasket
23. O-ring gasket
24. Reed contact
25. Powder hose
26. Rinsing air hose
27. Quick-release connection
28. Special extractor tool
b) Fitting the SuperCorona® ring

A prerequisite for the following steps is that the new gun hand grip must already be fitted (according to section “a) Replacing the gun hand grip”). Before fitting the SuperCorona® make sure that the rod and the sleeve in the rod clamp block are free from contamination otherwise the electrical contact cannot be guaranteed.

Fig. 3

1. Pass the PG 1 threaded sleeve through the SuperCorona® ring and at the same time position the rod in the corresponding hole (to the stop) in the rod clamp block.
2. Place the milled screw in the rod clamp block and
3. Screw tight.
Cleaning

Conscientious maintenance at regular intervals increases the service life of the coating equipment and will result in uniform coating quality over a longer period!

**Important:**
- Before cleaning the gun, switch off the control module and detach the gun connector at the gun socket (A Gun).
- The compressed air used for cleaning should be free of oil and water.

Daily:
1. Clean the outside of the gun and SuperCorona®

Weekly:
1. Unscrew the milled screw in the rod clamp block and remove the SuperCorona® from the gun.
2. Detach the powder hose at the connector
3. Detach the nozzle from the gun and clean it
4. Blow out the gun through the powder inlet in the direction of flow
5. Clean the gun tube with the spiral brush supplied
6. Blow out the gun with compressed air again
7. Clean the powder hose
8. Reassemble and reconnect the gun