





# STATIC SPRAY PATTERN TEST

# The static spray pattern test is undertaken to ensure the consistency and the size of the spray pattern

Procedure: make a horizontal spray pattern by holding the trigger until sagging occurs (see examples below for analysis)



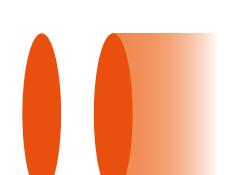
GOOD





**BAD** 





## **DEFECT FREE SPRAY PATTERN**

NOZZLE OR CAP DIRTY OR DEFECTIVE

• CLEAN NOZZLE AND AIR CAP

- GOOD SPRAY PATTERN DIMENSIONS
- SYMMETRICAL

**SOLUTIONS** 

RENEW AIR CAP

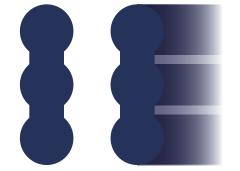
• UNIFORM (SEE STATIC SPRAY PATTERN TEST)

TROUBLESHOOTING POSSIBLE REASONS

• ROTATE THE CAP ONE-HALF TURN. IF THE DEFECT IS

NOT INVERTED, RENEW NOZZLE, IF IT IS INVERTED

TROUBLESHOOTING POSSIBLE REASONS



### TROUBLESHOOTING POSSIBLE REASONS

FLUID FLOW TOO HIGH, OR VISCOSITY TOO LOW



- REDUCE FLUID PRESSURE OR THE NOZZLE DIAMETER
- CHANGE THE FLUID VISCOSITY





- CHANGE TO A SMALLER NOZZLE
- REDUCE FLUID FLOW (NEEDLE/REGULATOR) • REDUCE ATOMISATION AIR



### • NOZZLE OR CAP DIRTY OR DEFECTIVE

- **SOLUTIONS** • CLEAN NOZZLE AND AIR CAP
- ROTATE THE CAP ONE-HALF TURN. IF THE DEFECT IS NOT INVERTED, RENEW NOZZLE, IF IT IS INVERTED RENEW AIR CAP



### TROUBLESHOOTING POSSIBLE REASONS

- FLUID FLOW TOO LOW • PRESSURE TOO HIGH
- CAP CENTER BLOCKED

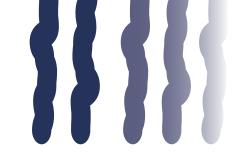
### **SOLUTIONS**

- **Gravity Spray Gun:** Reduce air pressure or INCREASE THE NOZZLE DIAMETER
- PRESSURE SPRAY GUN: VARY THE AIR PRESSURE. INCREASE FLUID PRESSURE OR NOZZLE DIAMETER. CLEAN THE CAP OR CHANGE IT IF THE DEFECT PERSISTS



- MATERIAL TOO THICK, FLOW TOO HIGH
- AIR CAP HORN HOLES BLOCKED CAP CENTER DEFECTIVE

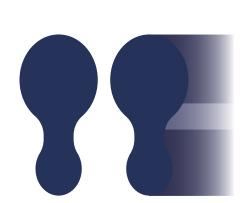
- **SOLUTIONS** • DILUTE THE FLUID
- REDUCE THE FLUID PRESSURE OR THE NOZZLE DIAMETER
- CLEAN THE CAP OR CHANGE IT IF THE DEFECT PERSISTS



Electrostatics



- **SOLUTIONS**
- TIGHTEN OR REPLACE THE NEEDLE PACKING
- TIGHTEN NOZZLE • CLEAN FLUID PASSAGE
- TIGHTEN OR REASSEMBLE THE FLUID CUP ASSEMBLY





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