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*A Division of General Sullivan Group, Inc.*

**Graco Maxim  
Paint Sprayer**

## APPLICATION

**Needle Bearing Mount in  
Sintered Powdered Metal  
Housing of Connecting Rod**

**USA**

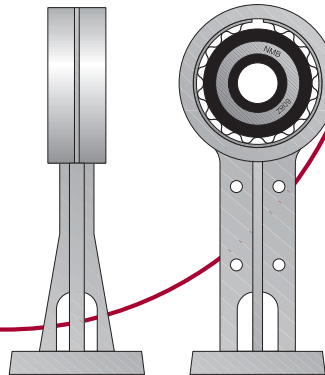
**CASE STUDY**

## PROBLEM



**C**ost of grinding the powdered metal housing to provide accurate tolerance for mounting of needle bearing. Concern over retention of bearing OD under thermal cycling and loading conditions.

## SOLUTION



**T**olerance Ring eliminated need for any secondary operation of the sintered part and the costs associated with these operations. Assured bearing retention under all thermal and loading conditions.

## BENEFITS

Ease of assembly

## STATUS

Production since 2000.