

Customized Bearing

Turbojet bearing-709V/P4 HV3 HQ1



|         |                        |
|---------|------------------------|
| B       | <b>709V/P4 HV3 HQ1</b> |
| D       | <b>9</b>               |
| d       | 24                     |
| Bearing | <b>7</b>               |
| Brand   | MONTON                 |

MONTON can supply full ceramic turbine bearings for the model gas jet turbine fraternity.

The standard size bearing has been used persistently during the development of many gas turbine models.

As the bearing plays a vital role, its accuracy and durability are key in making sure that your hobby continues with minimal costs.

For this reason we have spent considerable time in trying to move one step beyond high precision steel/ceramic hybrid bearings.

Full ceramic bearing solutions for most model gas turbines we can now offer a full complement (no cage/retainer) ceramic solution with an ABEC 7 tolerance (also denoted as P4) and pricing which is competitive with their steel counterparts! The Si<sub>3</sub>N<sub>4</sub> (Silicon Nitride) ceramic grade is used as this is most suitable for high speed, long endurance applications.

With reduced weight, reduced ball inertia and massive improvements in low lubrication scenarios these full ceramic possibilities offer significant improvements on component life, especially when you consider what happens to various engine components when steel/hybrid bearing lubrication systems fail. Due to the nature

of ceramic balls rolling on a ceramic inner and outer rings, the high hardness values dictate higher life and far more stable running characteristics. This ceramic on ceramic system also provides significant resistance against hard particles being rolled into the raceways (unlike their steel counterparts). Corrosion resistance is 100% of course with no ferritic content at all.

## Introduction:

**Inner and outer ring material:** All models are made of high nitriding stainless steel (X30N material)

**Ball material:** Si3N4 ceramic ball High-performance ceramic ball roller

**Cage:** full ball or high strength alloy steel surface silver plated cage

**Heat treatment :** special heat treatment and cold treatment process

**Bearing type:** Full ball no cage angular contact bearing

**Accuracy:** Europe P4, the United States ABEC7

**Single bearing up to the limit speed:** 156,000 RPM, 200,000 RPM (oil lubrication)

**Lubrication:** jet aviation kerosene lubrication while reducing the temperature

**Working temperature:** 250-450 degrees Celsius Application conditions: short time high-speed high temperature operation model jet engine.

## Parts of MONTON Turbojet bearing code

| Bearing   | d  | D  |  |
|-----------|----|----|--|
| MTSV7000  | 10 | 26 |  |
| MTSV708   | 8  | 22 |  |
| MTSV788   | 8  | 16 |  |
| MTSV7001  | 12 | 28 |  |
| MTSV7002  | 15 | 32 |  |
| MTSV71904 | 20 | 37 |  |

Welcome contact with us for more technical information.

In addition, we can also manufacture  $\phi 8-40$ mm turbojet high-speed and high temperature bearings.

