

# MASTER ABRASIVES

CASE STUDY

#1011

## ZIPP Pencil Grinder HAV Tests

The new ZIPP ZPD212 pencil grinder has now been added to our extensive stock range of ZIPP tools. The pencil grinder has a twist throttle offering variable speed control up to 60,000RPM. Its alloy steel made cylinder gives it durability and the high-grade ball bearings used provide a smooth low-vibration operation.

The ZPD212 has been successfully trialled and approved at several leading aerospace companies and we have also carried out a series of Hand Arm Vibration (HAV) tests with it and two of the market leading pencil grinders to achieve a true comparison. The tests were carried out on a steel turbine blade using a range of mounted points and tungsten carbide burrs that we supply into the UK turbine blade sector.

The tools' performances for stock removal and finishing were like-for-like but the ZIPP ZPD212 proved to have extremely low vibration levels in comparison to the other two tools. Results from this test are in the table below:

|                     | Mounted Points        |                       |                       | Carbide Burrs         |                       |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                     | W163 3mm              | C410<br>3 x 50mm      | C410 3mm              | C031403               | D040403               |
| ZIPP ZPD212         | 0.62 m/s <sup>2</sup> | 0.81 m/s <sup>2</sup> | 0.66 m/s <sup>2</sup> | 0.86 m/s <sup>2</sup> | 0.93 m/s <sup>2</sup> |
| Alternative Brand 1 | 1.22 m/s <sup>2</sup> | 2.20 m/s <sup>2</sup> | 1.30 m/s <sup>2</sup> | 2.12 m/s <sup>2</sup> | 2.28 m/s <sup>2</sup> |
| Alternative Brand 2 | 1.07 m/s <sup>2</sup> | 1.40 m/s <sup>2</sup> | 1.26 m/s <sup>2</sup> | 1.11 m/s <sup>2</sup> | 1.17 m/s <sup>2</sup> |

The tool comes with the standard ZIPP warranty which is valid for a year after purchase (full terms online). By selecting low-vibration tools from the ZIPP range, companies can save costs and find an affordable solution for reducing the risk of HAV Syndrome in the workplace.



Copyright © 2020 Master Abrasives Ltd

CONTACT US FOR MORE INFORMATION

MASTER  
ABRASIVES

T:01327-703813

sales@master-abrasives.co.uk

www.master-abrasives.co.uk