Carborundum Universal Limited India, popularly known as CUMI, a large abrasive manufacturing company from India with footprints across the globe will be featuring its recently developed high grinding force regime vitrified bond – V600 in the Motion + Power Technology Expo from September 14 – 16, 2021 at America’s Center, St. Louis, MO.

**V600 – Bond for High Grinding Force Regime**

The V600 series bond system, with a unique combination of superior ceramic materials, is designed to have a thinner albeit strong bond post that will hold the grain against very high grinding forces. The thin bond post ensures that it occupies a lower volume and hence minimal interference with the workpiece during the grinding operation. A minimal bond volume also ensures that the grain is exposed and utilized fully.

V600 bond wheel has given excellent results in terms of enhanced cutting action, lower specific cutting energy, good form holding, improved dressing skips, higher material removal rates and significantly longer wheel life. The parts ground out of V600 bonded wheel has excellent geometry control and less thermal damages even at high material removal rates. This also enhances the OEE of the machine – effect of higher MRR & more parts per dress.

The V600 bonded wheel is available for various applications as mentioned below. Best results expected from High Surface Area Contact applications.

**Centerless | Cylindrical | Angular | Gear | Creep feed | Internal Grinding**

The wheels are available in various grain combinations including microcrystalline alumina, monocrystalline alumina, pink, white and brown aluminium oxides. They are available in various grits ranging from #24 to #320.
FEATURES AND BENEFITS

- Strong and thin bond posts improve Abrasive-Part interaction, resulting in improved chip clearance, enhanced coolant flow and reduced part loading
- Lower Specific cutting energy arising out of higher natural porosity ensure burn free and stress free components
- Higher productivity due to higher material removal rates
- Lower Cost per component

![Engine Valve Rough Centreless for Exhaust valve – 20 x 4 x 12 inch](image1)

![Crank Shaft Journal Grinding – 42 x 1.5 x 12 inch](image2)

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<thead>
<tr>
<th>Dressing Frequency</th>
<th>Total Output</th>
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<tbody>
<tr>
<td>Existing</td>
<td>30 Nos</td>
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<tr>
<td>V600 Bond</td>
<td>40,000 nos</td>
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<tr>
<th>Dressing Depth</th>
<th>Total Output</th>
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<tr>
<td>Existing</td>
<td>80 Microns</td>
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<tr>
<td>V600 Bond</td>
<td>550 Cranks</td>
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About CUMI

Carborundum Universal Limited (CUMI), a 383 Million USD company was founded in 1954 as a tripartite venture between the Murugappa Group, Carborundum Inc, USA and the Universal Grinding Wheel Co Ltd, UK.

CUMI pioneered the manufacture of coated and bonded abrasives in India, besides super refractories, electro minerals, industrial ceramics and ceramic fibres. The widening product portfolio includes high technology products like Metallized Cylinders (among the top three producers in the World), Silicon Carbide grains (second-largest producer in the world). The company manufactures over 20,000 varieties of products at 25 locations across India, Russia, South Africa, Australia, China and Thailand. CUMI exports to over 42 countries spread across the globe. About 47% of the consolidated revenue is generated outside India. All the manufacturing facilities of CUMI are ISO 9001:2008 and ISO 14001: 2004 certified for quality standards and environmentally friendly manufacturing practices.

CUMI is equipped with a state-of-art Research and Development centre that works aggressively on product development and efficiency enhancement. Its in-house R&D and collaborative research with leading research institutions have ensured market leadership in India and abroad. CUMI has manufacturing practices like Lean and Six Sigma in place to improve its cost and operational competitiveness. Two of CUMI’s plants have won the prestigious TPM Excellence Award by JIPM - Japan Institute of Plant Maintenance.

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