RX 120

rotor grinding machine

KAPP NILES
precision for motion
RX 120

rotor grinding machine

- generating and profile grinding of rotor profiles
- suitable for batch production
- concept for high-productive manufacturing
- non-dressable CBN tools
- + optimised loading concept
- + deburring parallel to grinding operation (optional)

The patented rotor grinding machine RX 120 offers the advantages of continuous generating grinding in manufacturing rotor profiles. Generating grinding is used for roughing of the rotor, or, alternatively, discontinuous profile grinding. For the finishing operation profile grinding is used only. Applying this process combination up to 40% reduction of grinding times can be realised compared to conventional grinding times on established machine concepts.

The rotor grinding machine RX 120 is designed for high productive and economic series production of small and midsize screw compressors. The machine is equipped with direct driven tool and workpiece axes for minimised main and non-productive times during the grinding process.

The RX 120 uses only non-dressable CBN tools.

control and software
The control system Siemens Sinumerik 840D is equipped with an operator-friendly menu-driven user interface, developed by KAPP NILES to match the specific machining requirements.

machine concept
The following options are available, including:
- alignment of pre-machined rotors using a non-contact sensor or measuring-probe in reference to one or all gaps
- runout inspection on bearing journal at tailstock side
- adaptive control of the feed axis depending on the power input of the grinding spindle motor, to prevent overloading the grinding process due to excessive stock amounts

measuring system
The optional measuring device allows to measure and to evaluate profile parameters against specifications. This functionality is mainly used to optimise the set-up processes in the machine, particularly in order to eliminate non-operational periods due to external measuring processes as far as possible. Alternatively, random samples can be tested during processing.

automation
The RX 120 was specially designed for the connection of an automation system, providing a simple and cost-effective integration of a deburring station for the ground rotors as well.

<table>
<thead>
<tr>
<th>type</th>
<th>max. profile OD [mm]</th>
<th>max. profile length [mm]</th>
<th>max. profile width [mm]</th>
<th>max. profile height [mm]</th>
<th>max. workpiece length [mm]</th>
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<tr>
<td>RX 120</td>
<td>120</td>
<td>220</td>
<td>120</td>
<td>30</td>
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