

**Test report  
of milling system F1210**

**Machine No.** \_\_\_\_\_

**Year of manufacture** \_\_\_\_\_

**Tested by** \_\_\_\_\_

**Area to be tested:**

Flatness of the clamping surface

Test to see that the clamping surface is square with the vertical movement of the headstock

Check to see that the clamping surface is parallel to the movement of the carriages

Test to see that the movement of the inside cone on the spindle is completely round

Test to see that the axle of the spindle is at right angle to the clamping surface

Area to be tested	Diagram	Test equipment	Testing instructions	Deviations	
				acceptable	measured
Flatness of clamping surface		Ruler as per DIN 874 Part 1	<p>Clamp longitudinal and cross carriages in a central position</p> <p>Place a level (with ruler) lengthwise a-b and crosswise c-d and read off value</p> <p>The number of test measurements depends on how big the clamping surface is</p>	0.05 mm up to 300 mm	<p>a-b maximum deviation</p> <p>_____</p> <p>_____</p> <p>c-d maximum deviation</p> <p>_____</p> <p>_____</p>
<p>Test to see that the clamping surface is square with the vertical movement of the headstock</p> <p>a longitudinally b transversely</p>		Angle measurement as per DIN 875	<p>a and b</p> <p>Clamp longitudinal and cross carriages in a central position</p> <p>Position set square</p>	<p>a</p> <p>0.05 mm per 200 mm</p> <p><math>\alpha \leq 90^\circ</math></p> <p>b</p> <p>0.10 mm per 200 mm</p>	<p>a</p> <p>_____</p> <p>b</p> <p>_____</p>
<p>Check to see that the clamping surface is parallel to the movement of the carriages</p> <p>a crosswise b lengthwise</p>		<p>Measuring post</p> <p>Precise gauge as per DIN 879 Part 1</p>	<p>a</p> <p>Clamp headstock, place test blocks on ruler, fix measuring post with precision gauge on to headstock set the measuring bolts on the precision gauge position on the ruler, move the crosswise carriage along it's measuring length and take a reading</p> <p>b</p> <p>repeat test for lengthwise carriage clamp the non-moving carriage</p>	<p>a and b</p> <p>0.05 mm per 300 mm</p> <p>Maximum deviation 0.1 mm</p>	<p>a</p> <p>_____</p> <p>b</p> <p>_____</p>
<p>Test to see that the movement of the inside cone on the spindle is completely round at a1 (near to the spindle bore) and a2 (at a distance of 300mm from the spindle nose)</p>		<p>Measuring post</p> <p>Precision gauge as per DIN 879 part 1</p> <p>Mandrel</p>	<p>Put in the test mandrel</p> <p>Put on the measuring post with precision gauge</p> <p>Put the measuring post with precision gauge up against the mandrel at a1 turn the spindle and take a reading</p> <p>Repeat the test at a2</p>	<p>a1</p> <p>0.02 mm</p> <p>a2</p> <p>0.04 mm</p>	<p>a1</p> <p>_____</p> <p>a2</p> <p>_____</p>
<p>Test to see that the axle of spindle is at right angle to the clamping surface</p> <p>a crosswise b lengthwise</p>		<p>Turning arm</p> <p>Precision gauge as per DIN 879 Part 1</p> <p>Testing mandrel</p>	<p>Clamp the longitudinal and transverse carriages in a central position.</p> <p>Fix the turning arm with the precision gauge on the spindle(test mandrel).</p> <p>Put the measuring bolt of the precision gauge crosswise at a1 and after turning the arm over read off the difference in the reading at a2.</p> <p>Then test the longitudinal movement at b1 and b2.</p>	<p>a</p> <p>0.05 mm per 200 mm</p> <p><math>\alpha \leq 90^\circ</math></p> <p>b</p> <p>0.05 mm per 200 mm</p> <p>200 mm distance between the centers a1, a2 and b1, b2</p>	<p>a</p> <p>_____</p> <p>b</p> <p>_____</p>