Procedure for Leveling/Aligning the Adjustable THS223 Platen

Objective: To ensure the platen is parallel and accurately aligned under operational load.

Required Tools: Set of gauge blocks, wrench.

Visual Reference: A video demonstration of this procedure is available here:

https://www.youtube.com/watch?v=b91ep23_CEs

Note: This procedure describes the method used by the manufacturer. The final acceptable tolerance may be defined by the customer's specific requirements.

Step-by-Step Instructions:

1. Initial Setup

- Loosen the mounting nuts until the THS223 platen can rotate freely.

2. Initial Shim Placement

- Place three gauge blocks with the same height under the platen, spacing them evenly at 120° intervals. This provides a preliminary leveling plane.

3. Sequential Leveling Under Load

- **Step 1 (200 N):** Apply a 200 N force. Slowly rotate the platen to find its balanced, stable position.
- **Step 2 (400 N):** Increase the load to 400 N. Rotate the platen again to re-balance it.
- **Step 3 (600 N):** Increase the load to 600 N and repeat the rotation/balancing step.
- **Step 4 (2 kN):** Increase the load to the operational load of 2 kN (2000 N). The platen should remain stable and level.

4. Final Securing (Critical Step)

- **With the full 2 kN load still applied**, tighten the mounting nuts.
- **Torque Specification:** Target torque is **10 N·m***
    - A torque wrench is recommended for accuracy.

    *The torque moment should be chosen in accordance with a type of used platens:

    ~THS223k – 5 Nm;

    ~THS223g – 10 Nm;

~THS223w – 20 Nm.

- **Tightening Sequence:** Tighten the nuts in a **cross-pattern (diagonal sequence)** to ensure even clamping and prevent distortion.

5. Verification & Manufacturer's Results

- After tightening, verify alignment by taking measurements at four points around the platen's perimeter.
- **Result Achieved:** During our factory procedure and testing, this method resulted in a measured parallelism error within **0.02 mm**.