MASTER CATALOG

HAIMER®

GRINDING WHEEL ADAPTERS

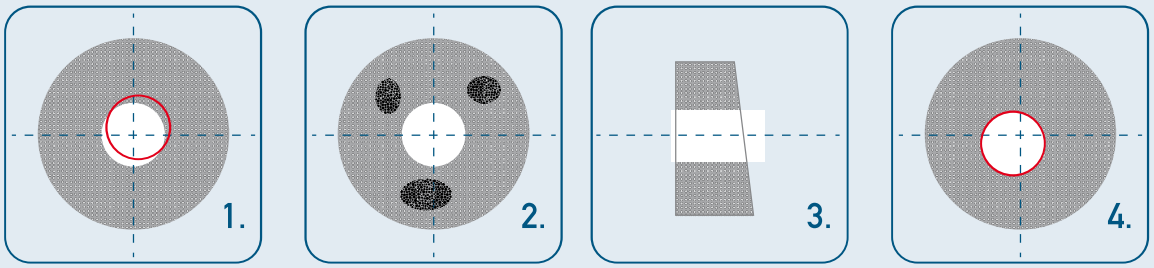
WHY BALANCE GRINDING WHEELS?

Why balance grinding wheels?

Dressing ≠ Balancing

Balancing of grinding wheels is essential no matter if you dress them or not!

Causes of unbalance on a grinding wheel:



1. Tolerance of the grinding wheel bore
2. Uniformity of the grinding wheel
3. Parallelism of the grinding wheel
4. Concentricity of the grinding wheel

– Tolerance of the grinding wheel arbor
– Dressing of the grinding wheel
– Wear of the grinding wheel
– Profiling of the grinding wheel

Consequences of unbalance

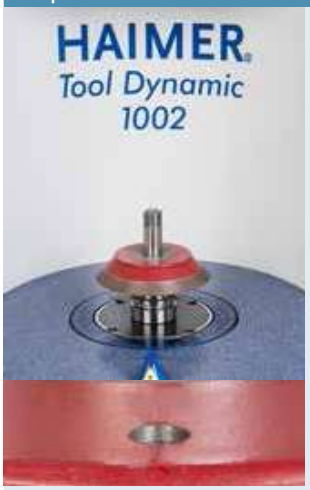
1. Reduced surface quality ➔ Chatter marks
2. Reduced dimensional accuracy on the work piece ➔ Increased costs for wheel dressing
3. Extremely high grinding wheel wear ➔ Reduced tool life
4. Spindle head wear out ➔ Danger of machine down time ➔ Unnecessary repairs ➔ Expensive inspections

As a result, the grinding parameters are reduced and productivity is decreased

HOW TO BALANCE AND DRESS YOUR GRINDING WHEELS CORRECTLY

Guideline for initial balancing of a new grinding wheel pack

Step 1

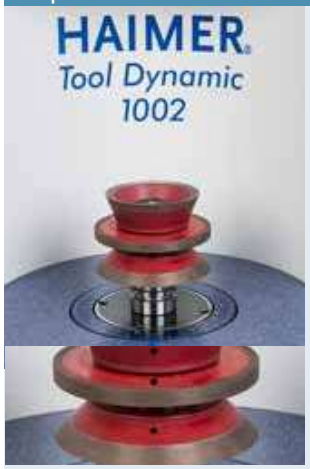


1. Add first grinding wheel on arbor
2. Add distance disk
3. Tighten nut
4. Measure unbalance
5. Correct unbalance (e.g. by axial drilling)

Step 2

1. Add 2nd grinding wheel to arbor
2. Add position reference marking on both grinding wheels
3. Tighten nut
4. Measure unbalance
5. Correct unbalance (e.g. by axial drilling)

Step 3



1. Add 3rd grinding wheel to arbor
2. Add position reference marking on all three grinding wheels
3. Tighten nut
4. Measure unbalance
5. Correct unbalance (e.g. by axial drilling)

→ Prebalancing finished

Step 4

1. Dressing of complete grinding wheel
2. Measure unbalance
3. Correct unbalance
   (e.g. by balancing screws see page 522)

→ Fine-balancing and dressing finished