Testing of ASIC replacement on the Barrel Kapton hybrid

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• Jig:
  - 8 mm x 8 mm x 12 mm Cu block
  - Trench of 6.5 mm width and 0.3 mm depth
  - Cu block attached to the soldering tip

• Sample:
  - K1 hybrid with Carbon/carbon bridge
  - 5 Dummy IC’s (silicon) glued (with conducting epoxy) on the hybrid
  - PT100 glued on the backside of the bridge
  - Hybrid attached to a fixture with a 1 mm silicon rubber sheet

• Process:
  - Temperature of the Cu block = 250 °C
  - Touch the ASIC and gently apply “twist”, until the chip moves
  - Time required and temp. of the backside of the bridge
    (7 s, 62 °C), (5 s, 52°C), (4 s, 48°C), (4 s, 50°C), (7 s, 61°C)

• Conclusion:
  - Could remove the IC, easier when the chip was heated faster
  - “Twist” is important
  - Future plan: make a vacuum chuck to take the chip off