49th ISO TC184/SC4 meeting

Industry Day

Machining Process Traceability in STEP-enabled Manufacturing
Traceability into STEP.

- **Traceability Activities & Traceability data Flow**
  - Configuration
  - Recording
  - Data Management

- **Traceability user requisites**
  - CAD System: AP203 Ed 2/ AP224
  - CAM System: AP238
  - Configuration requirements
  - Recording requirements
  - Data Management requirements

- **Traceability Database**

- **Execution Times**
  - Tool ID data
  - Machine ID
  - Product ID
  - Raw Materials

- **CNC Controller**
Benefits:
Traceability Activities Automation.

- Traceability Configuration Automation.
  - No additional time to set up traceability.
- Data Collection Automation.
  - Data Reliability.
- Data Communication Automation.
  - Data Availability (data is in standard format)
    - No need for future contact with machining facilities.
- Data Post Processing Automation.
  - Data Understandability (data is integrated/linkd with STEP APs).
    - No need for future contact with machining facilities.
  - Real Time/Early Time Data Checking & Auditing.

Hole 1:
Execution time: 10 min 34 s.
Tool id: LOT #00001

Hole 2:
Execution time: 05 min 20 s.
Tool id: LOT #00002

Hole 3:
Execution time: 12 min 13 s.
Tool id: LOT #00001

CAD/CAM SYSTEM
MACHINING FACILITY

Execution Times
Tool Data Identification

AP238 + Traceability

CNC CONTROLLER + TRACEABILITY

Chek & Audit