

Poka Yoke

Error Proofing

Poka-Yoke = Error Proofing



DEFINITION

A device which prevents a process from

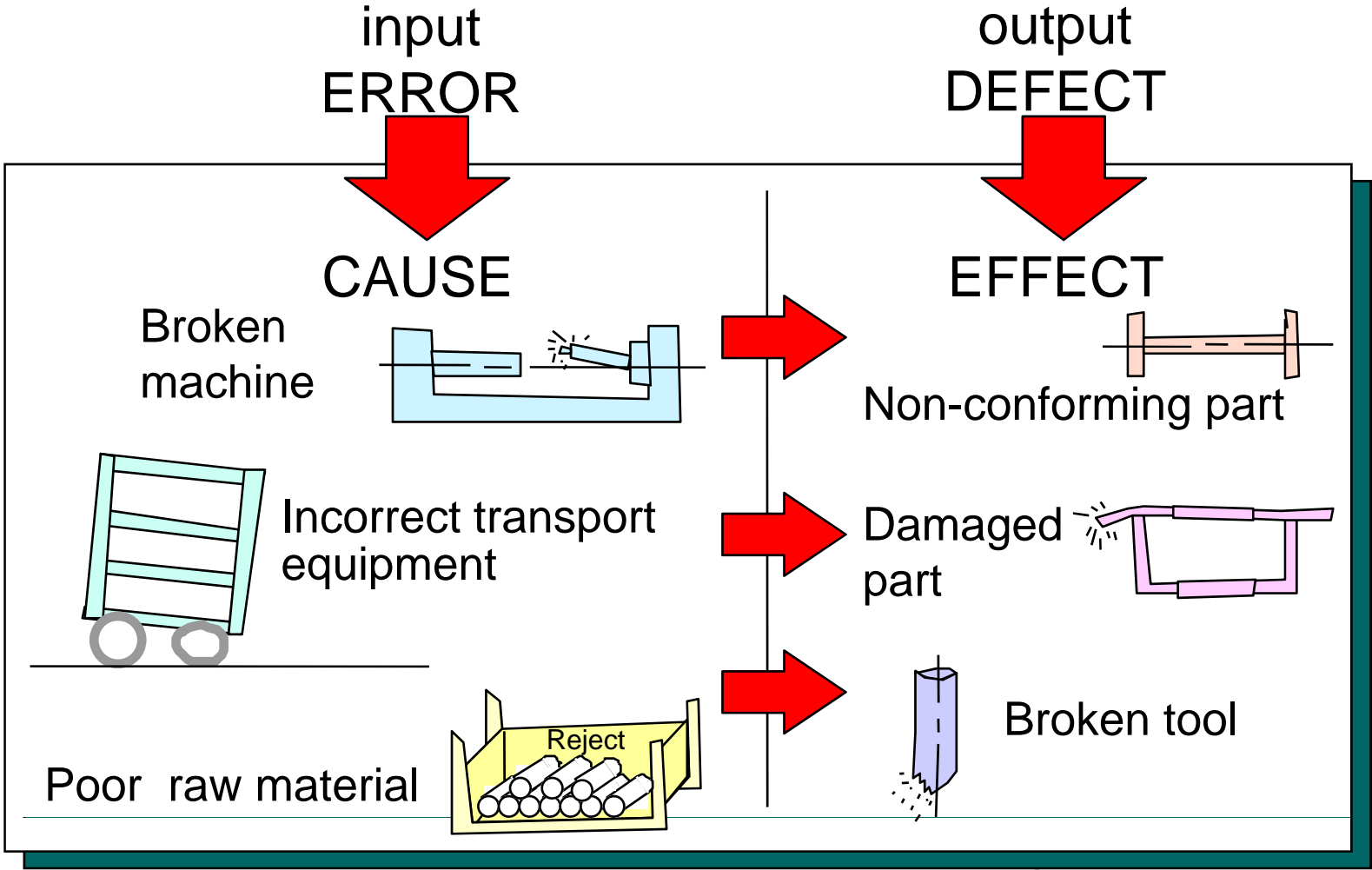
- making an error or → **prediction**
- passing a defect to user → **detection**

When a defect is predicted or an error detected:

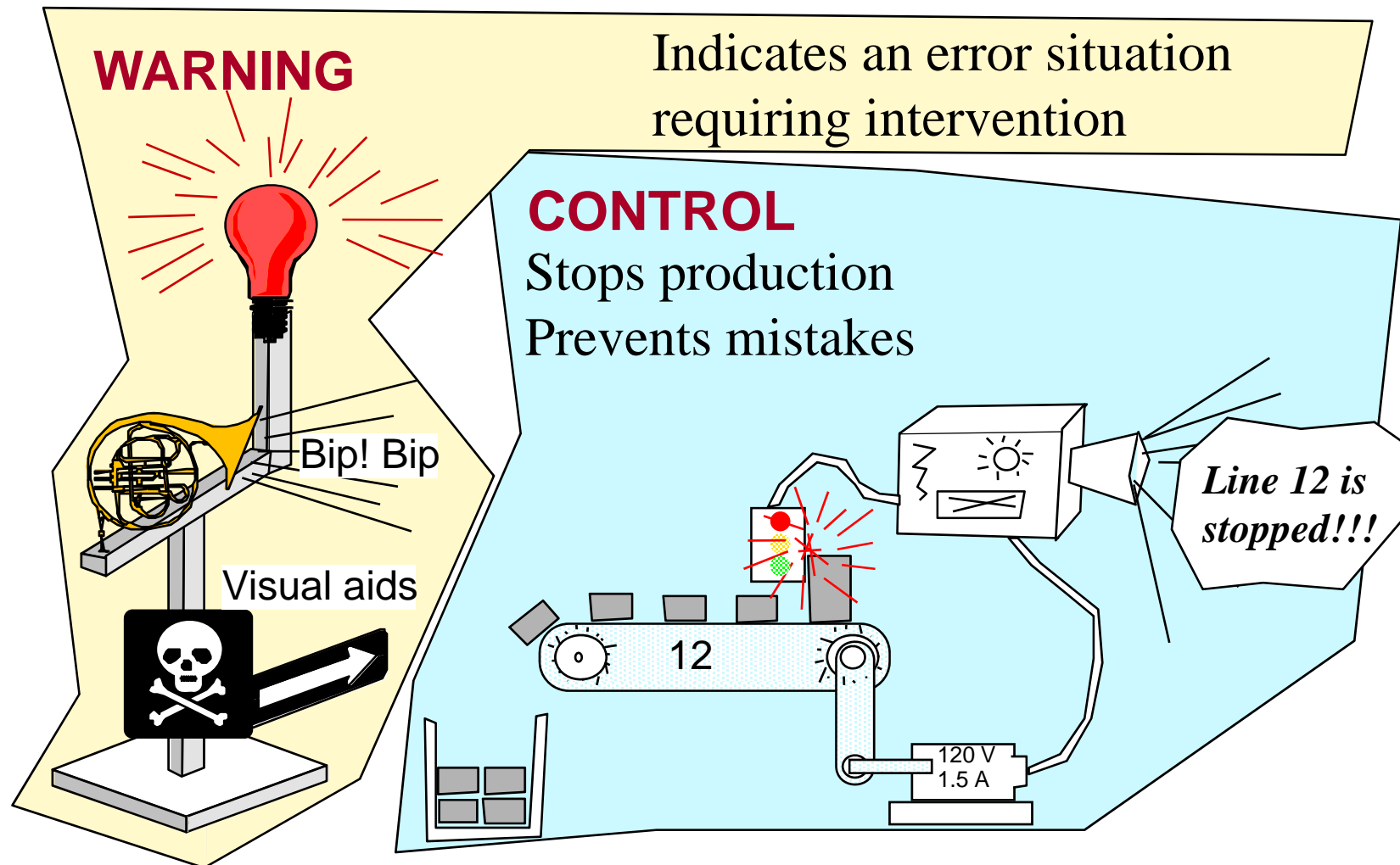


- the process is **shut down** or
- a **control** prevents going ahead or
- a **warning** is sent

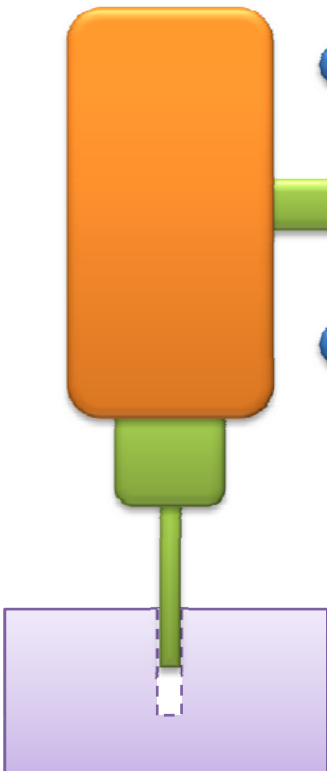
Errors are the root causes – Defects are symptoms



Two types of Poka-Yoke



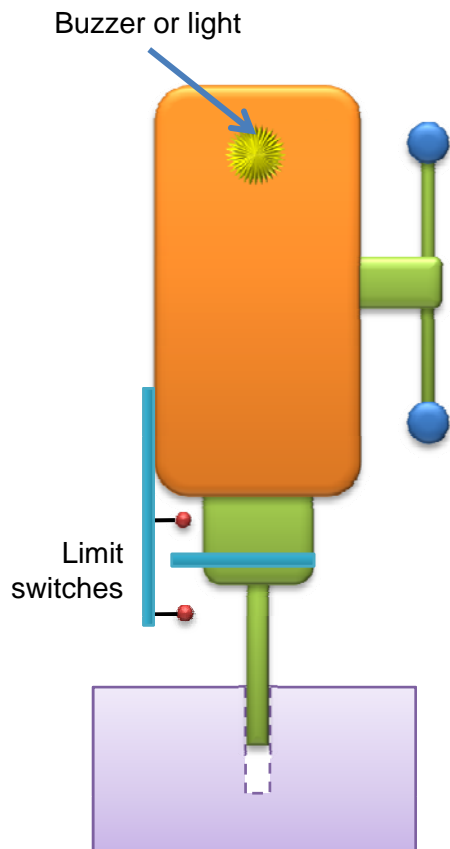
Drill Poka Yoke



No Poka Yoke

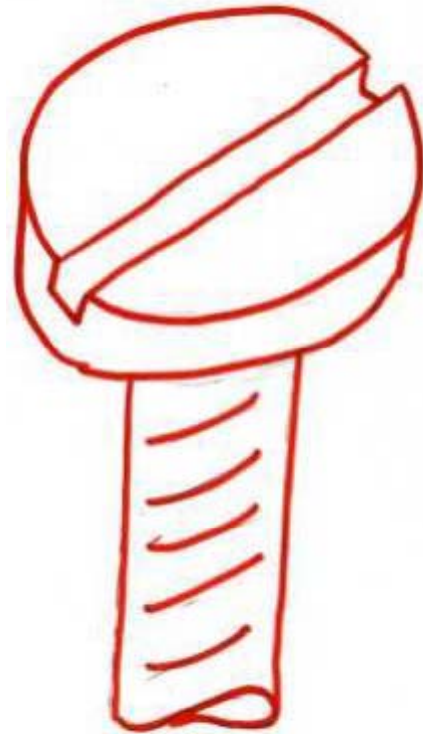


Stop Poka Yoke

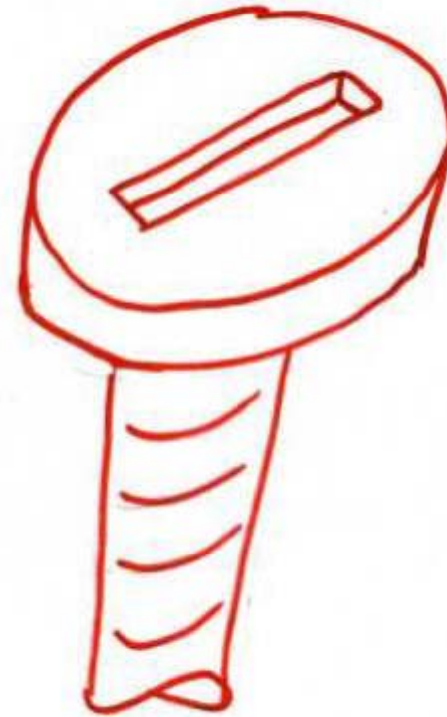


Warning Poka Yoke

Screw Poka Yoke

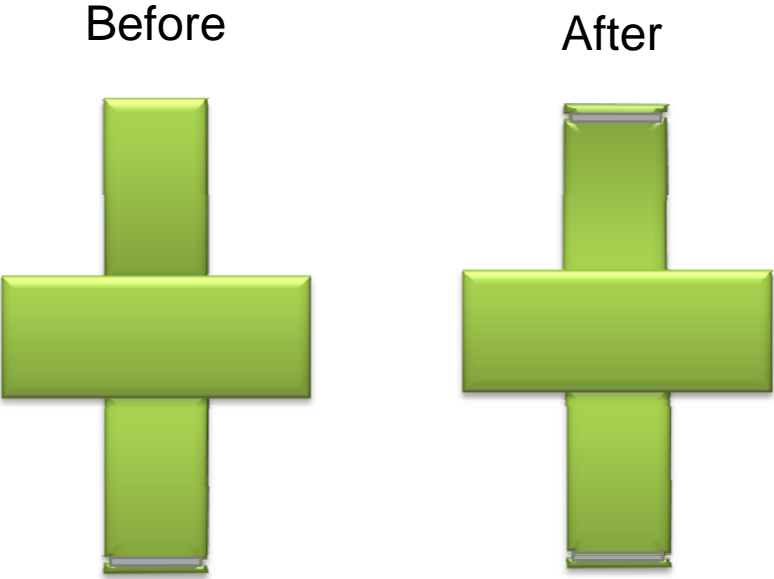


Screwdriver can slip and scratch surface

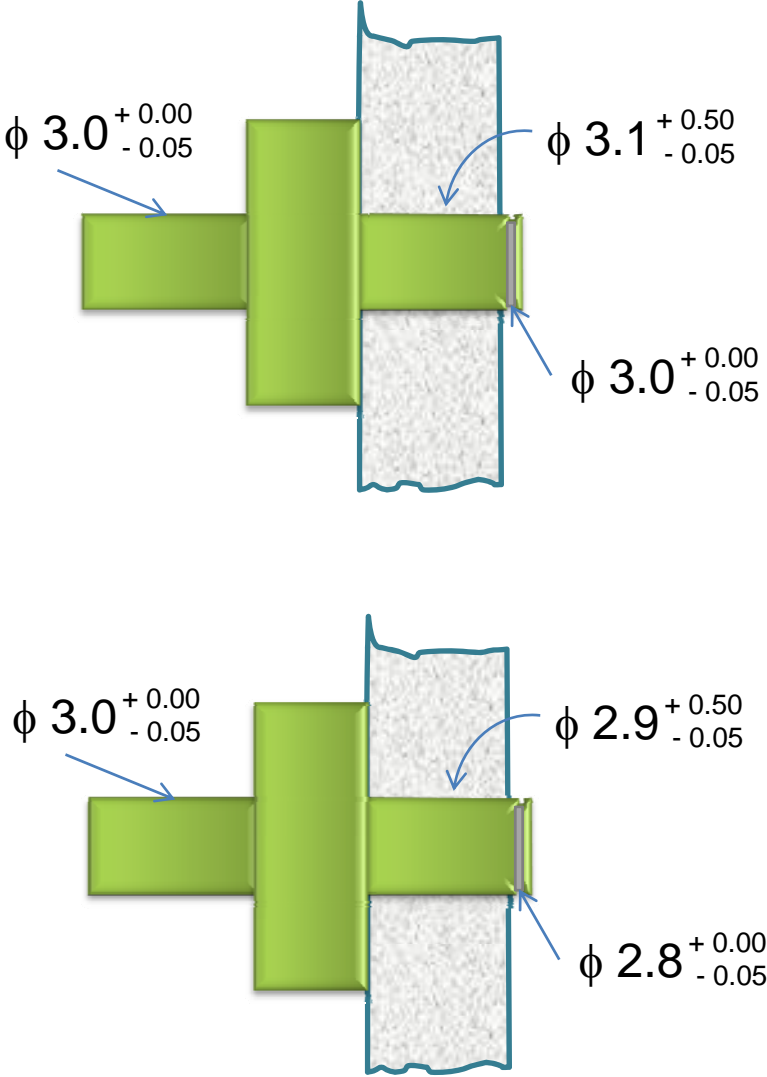


Screwdriver can't slip and scratch surface

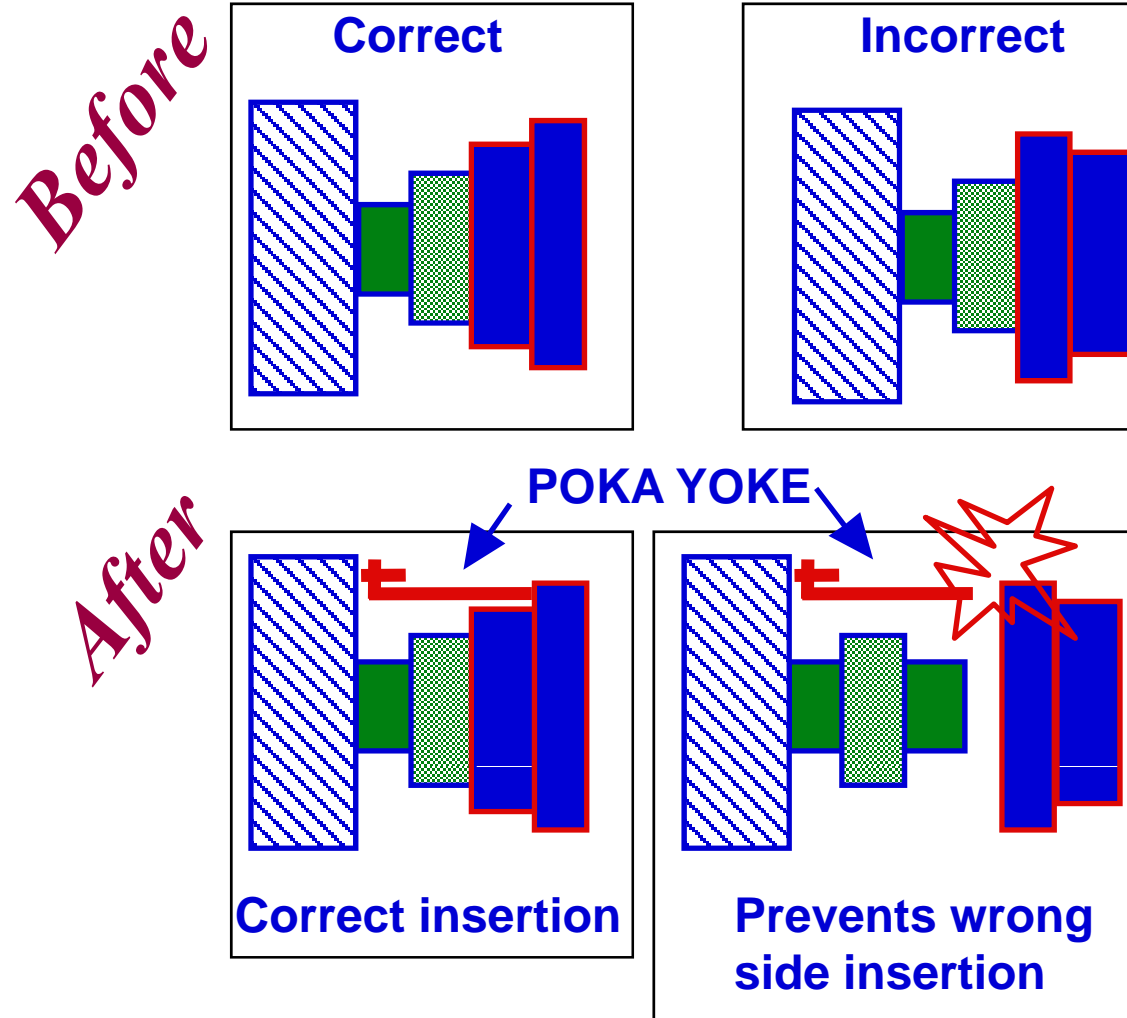
Go-Nogo Poka Yoke



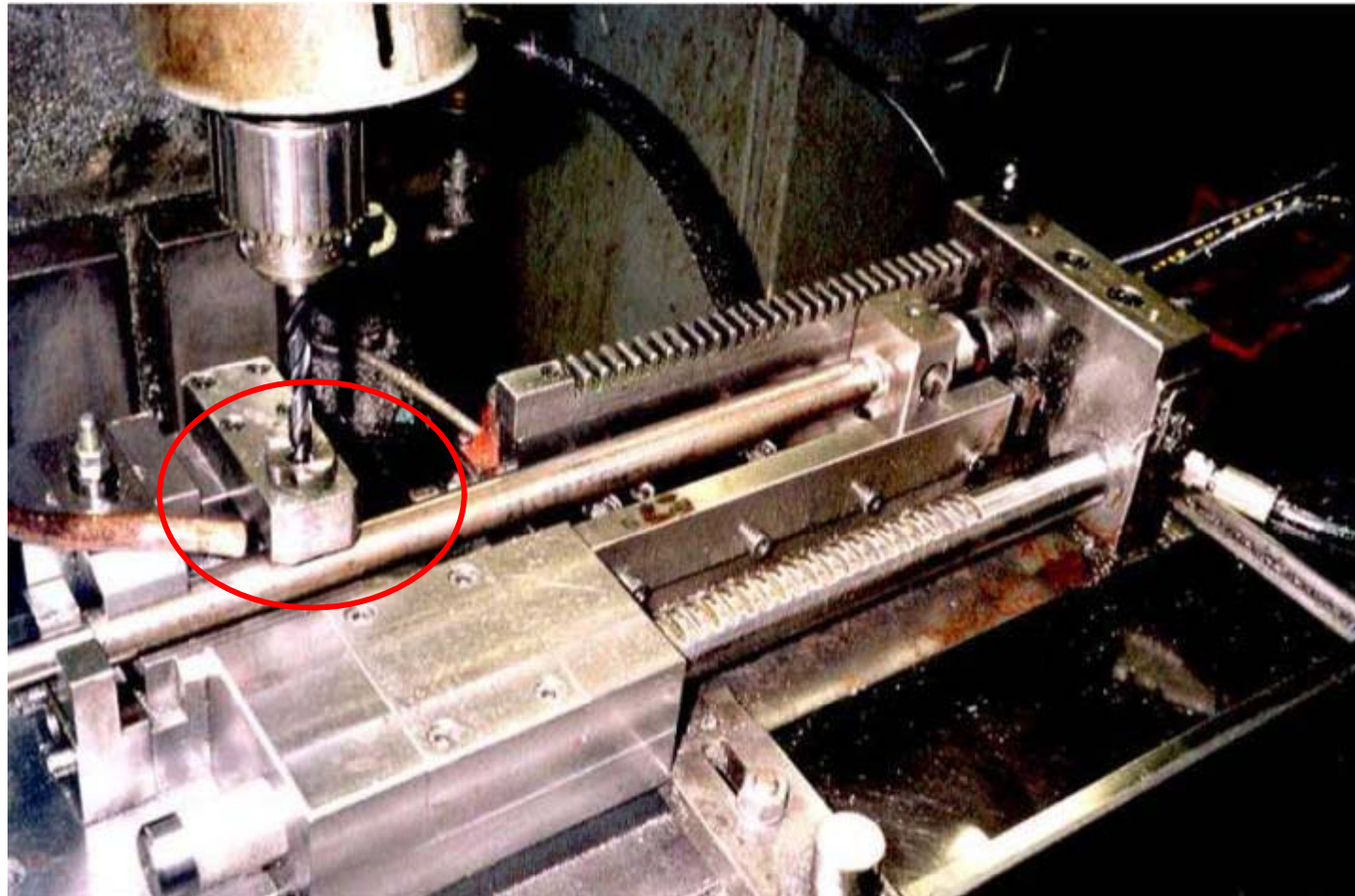
Make both sides the same so it can't be assembled incorrectly



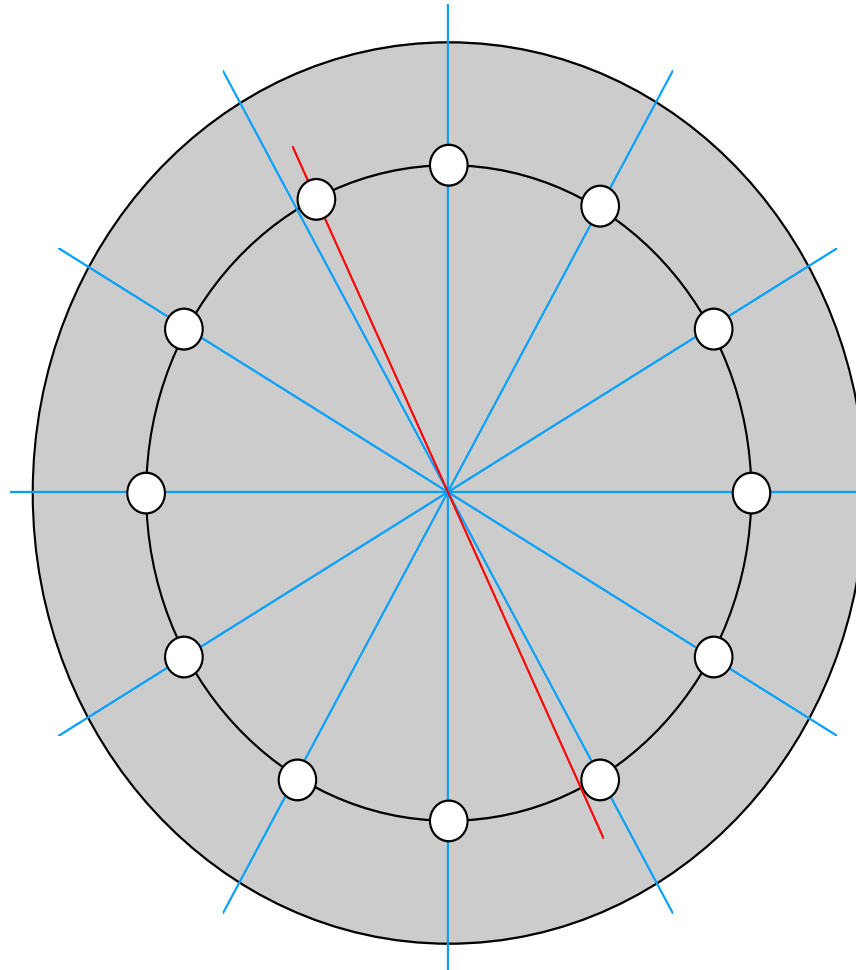
Poke-Yoke



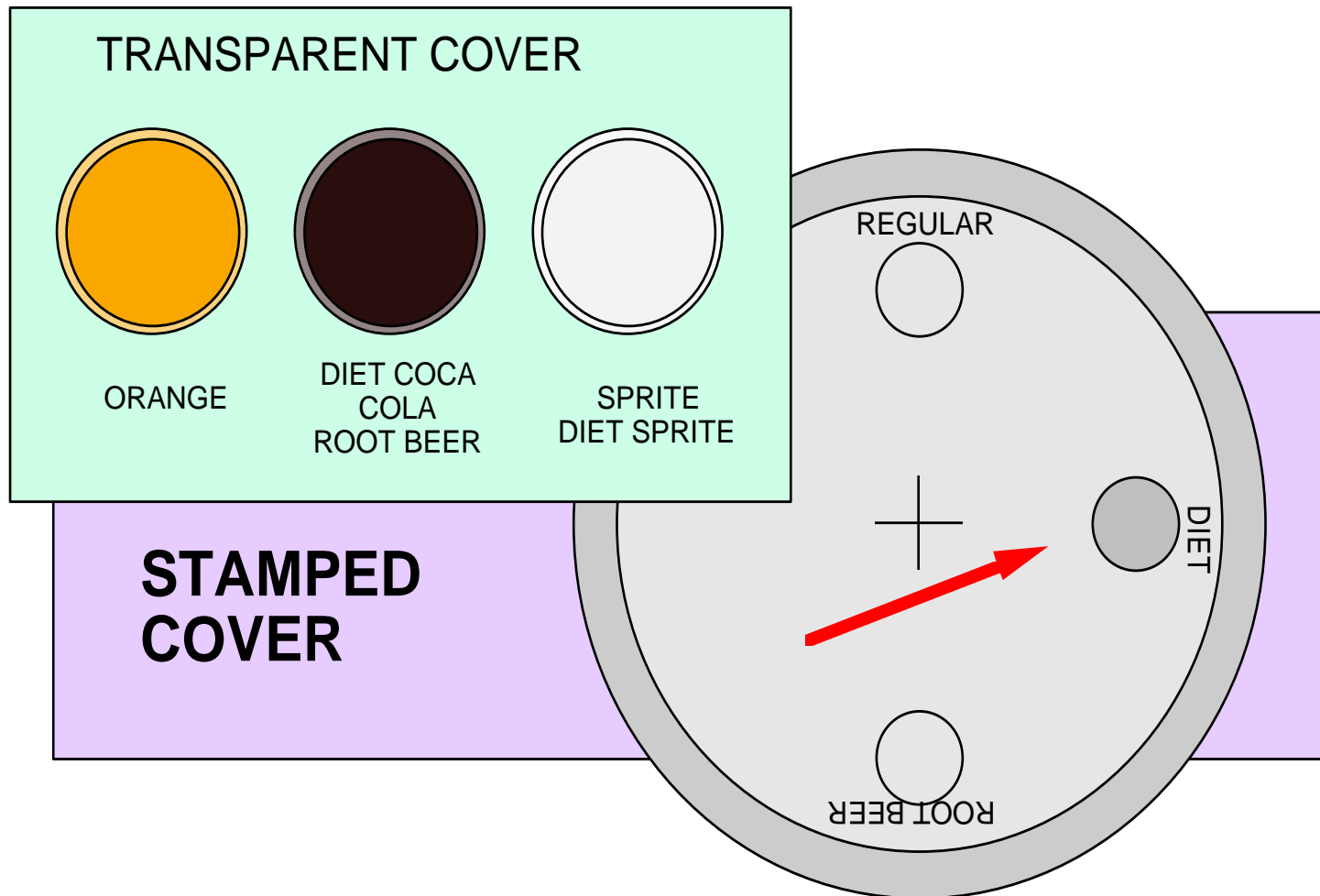
Drill Guide



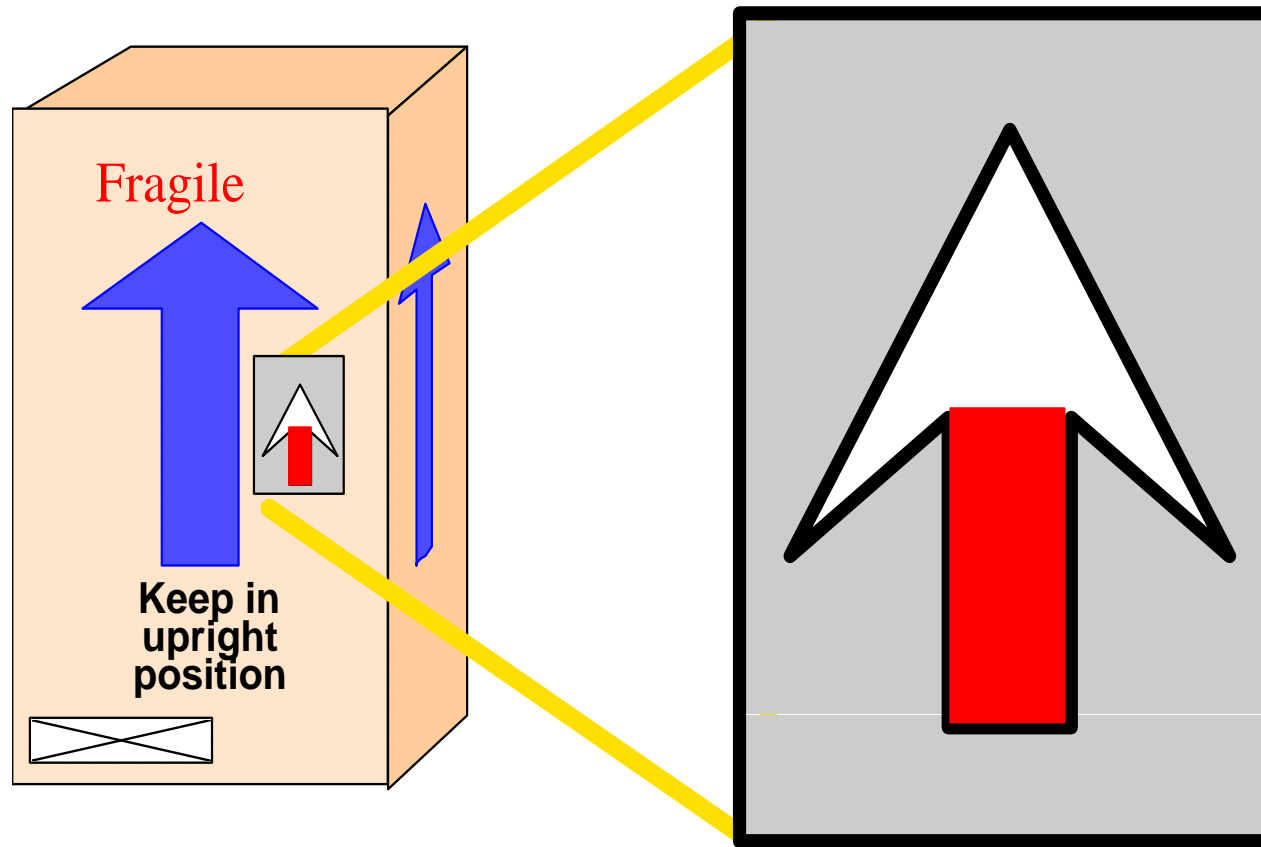
Dowel Pin Checks



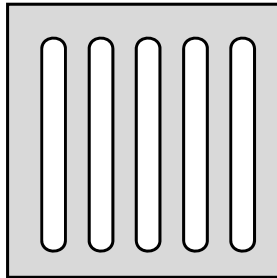
Diet or regular cola?



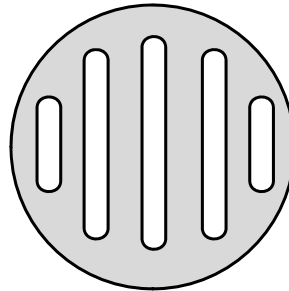
Position detector



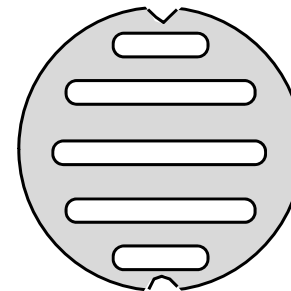
Street Grate



The cover can fall in the sewer (when moved)



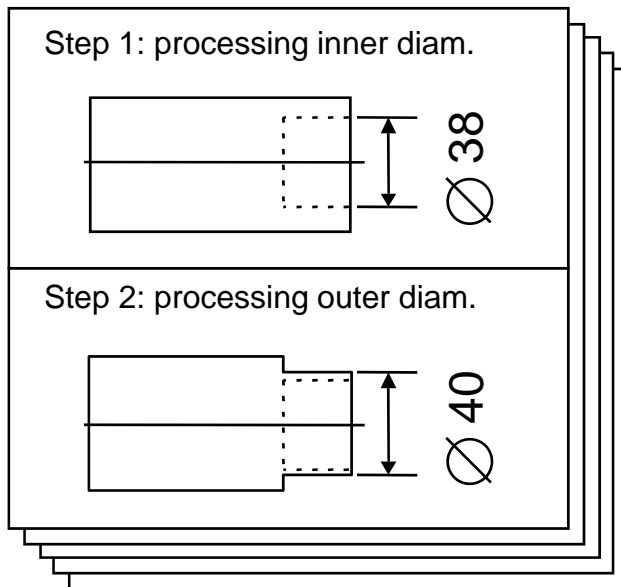
The cover cannot fall in the sewer. But it can be dangerous for cyclists.



This cover is error proof

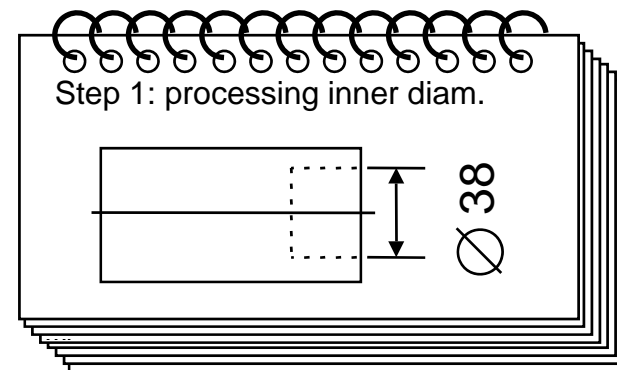
Document Poke-Yoke

Ten operations are covered by a group of instruction charts



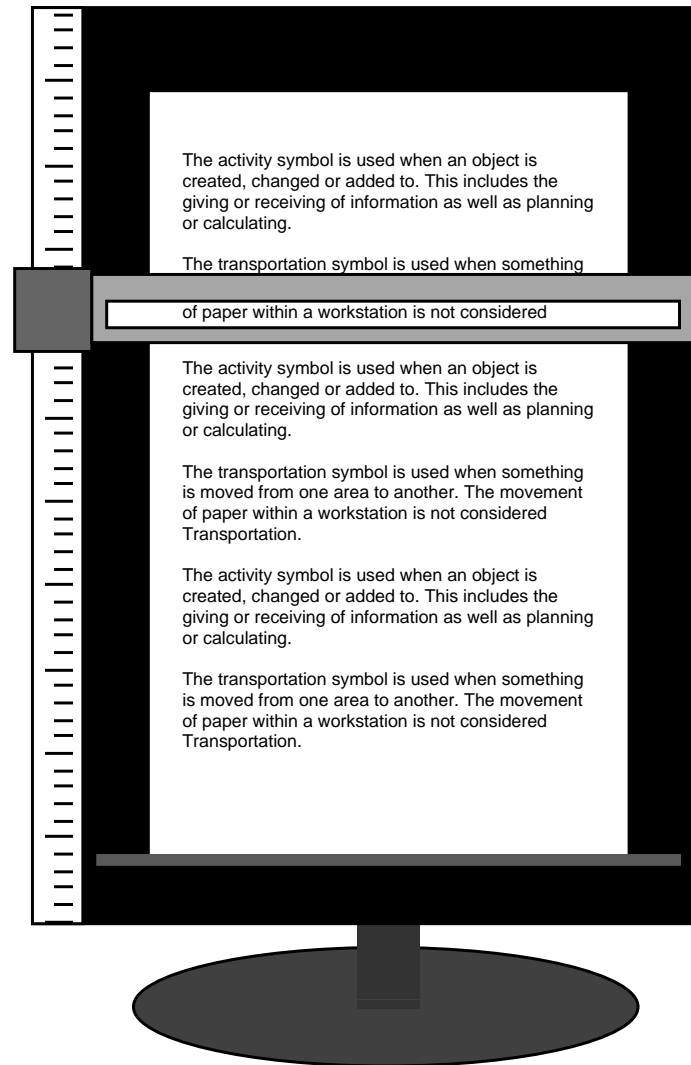
Operator accidentally uses the dimensions for Step 2 while performing Step 1

Poka Yoke:
Bound the instruction charts so the operator can see only the operation being performed



Poke-Yoke

Typist Stand



Quality Files Present and Ordered



Others



- Opening more than one filing cabinet drawer
- Inserting a CD/DVD the wrong way up
- Putting diesel pump nozzle in an unleaded petrol tank
- Over tightening a cap with a ratchet system on it
- Loosing a tool that is attached by a chain to its point of use

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