

Customized solutions
for CAP Testing



PADchecker®

Print layout control
100% quality assurance for your production



The way to a perfect cap

During the past three years, camera-supported cap control has paved its way onto the factory floors of cap manufacturers. Many manufacturers automatically equip every new die-casting machine with this kind of testing system. Whoever wishes to deliver a perfect cap cannot, however, just stick to the shape test. Printing is also a significant feature of the product. Automatic print layout control is therefore the topic of the day. Who has the best technology for this type of testing? We maintain that the **PADchecker®** has taken the lead position.

Why? Because, in comparison to many pseudo colour systems, the familiar methods of histogram processing, really do manage the colour. It also detects the smallest of print defects and printing plate offset, thanks to its unique true colour pattern matching, not found on the global market until now. For the first time, the manufacturer's specifications can now be met – and that is really new. You may want to take advantage of this process as well!

This is how the PADchecker® works:

- The print layout is fed in by means of menu control. Depending on the testing parameters set, production-related print variations can also be entered (bold / narrow print, different colour levels) and accepted.
- For the print layout check, first the position of the print layout is defined and then the current print layout is compared to the reference patterns.
- The PADchecker® works with true colour processing and with revolutionary pattern matching

techniques. Hence, the print offset can then also be checked when the moved prints do not merge with each other.

- In addition, even the smallest print defects can be detected.
- The simultaneously applied colour histogram method also enables fine colour changes to be checked.
- Defective parts are traced precisely and a sort-out signal is triggered in due time.

The technical data in brief

Test criteria for plastic, aluminium and crown cork caps

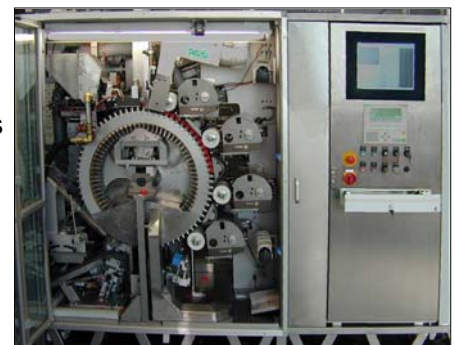
- | | |
|----------------------|--|
| ○ Off-centre | decoration centralised |
| ○ Lithography offset | "Pass fault" |
| ○ Colour fluctuation | genuine colour check, not only grey values |
| ○ Colour spots | also smears in the edge areas |
| ○ External cap | incorrect decoration |
| ○ Soiling | dirt in the granulate, burns |
| ○ Smallest defects | down to the pixel size |
| ○ Scratches | on visible surfaces |
| ○ Rock testing | in crown corks |
| ○ Adhesive compound | in crown corks |

Integrated tracking and sorting function

- Precise tracking from the camera to the sorting nozzle
- No SPS required, most simple activation

High test reliability

- Automatic sorting when the testing time is exceeded (too little distance)
- Automatic detection of double caps (no distance)
- There are no unchecked caps in the bulk packing container!



triplePADchecker® installed in tampoflex triplex printing unit

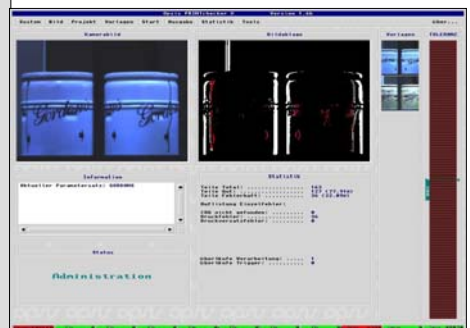


Crown cork testing on the conveyor

Versions:

Most of the below listed versions have been field-tested during many years of operation, **new** is the aroundPADchecker® e.g. for 360° all-round check of aluminium long caps

- Plastic:**
- single PADchecker®, 120 u / h, testing **on conveyor**, any turning position
 - dual PADchecker®, 80 u / h, tampoprint 2-belt, **in printing unit**
 - dual PADchecker®, 80 u / h, tampoflex 2-belt, **in printing unit**
 - triple PADchecker®, 120 u / h, tampoflex 3-belt, **ramp** (worm gear)
 - quadro PADchecker®, up to 240,000 / h tampoprint 4-belt, 2 cameras
- Aluminium:**
- single PADchecker®, 200 u / h, **on conveyor**, any turning position
 - single PADchecker®, 150 u / h, **in the stern**, any turning position
 - around PADchecker®, cover surface testing of long caps, up to 72 u / h testing **in the stern or on conveyor**, any turning position
- Crown corks:**
- single PADchecker®, up to 150 u / h **on conveyor**, any turning position
 - single PADchecker®, up to 150 u / h **in the stern**, any turning position



The new aroundPADchecker® e.g. for 360° all-round check of aluminium long caps

Take advantage of the worldwide unique Pattern Matching colour processing technology!