

# Tetra Pak® Services

Our services secure  
food safety and quality





## Tetra Pak® Services

Tetra Pak® Services cover every aspect of your food production, from daily routines to business insights. Our tailored service solutions improve performance, optimise costs and ensure food safety throughout the lifecycle of your operation. With Tetra Pak as your partner, you get the people, portfolio and presence to achieve your performance goals.



**Tetra Pak®**  
Training Services



**Tetra Pak®**  
Expert Services

TRAINING SERVICES

EXPERT SERVICES





# Tetra Pak® Training Services

Quality assurance training courses build and maintain your staffs skills to consistently **secure your desired product quality**

## TRAINING OUTCOMES:

- Understand food **safety** and **hygiene guidelines**
- **Meet Food** safety and **Food quality** legislation
- Avoid product quality problems
- Reduce cost caused by quality deviations
- Build awareness of quality and it's impact in your daily production



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# Tetra Pak® Training Services



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# Basic Aseptic Technology



## TARGET GROUP

Operators, Technicians, QA/QC, Supervisors, Managers

## DURATION

3 days

## DESCRIPTION

This training block is designed to give the theoretical knowledge of aseptic processing and packaging.

It covers through the fundamentals of each process stage of aseptic production.

## CONTENT

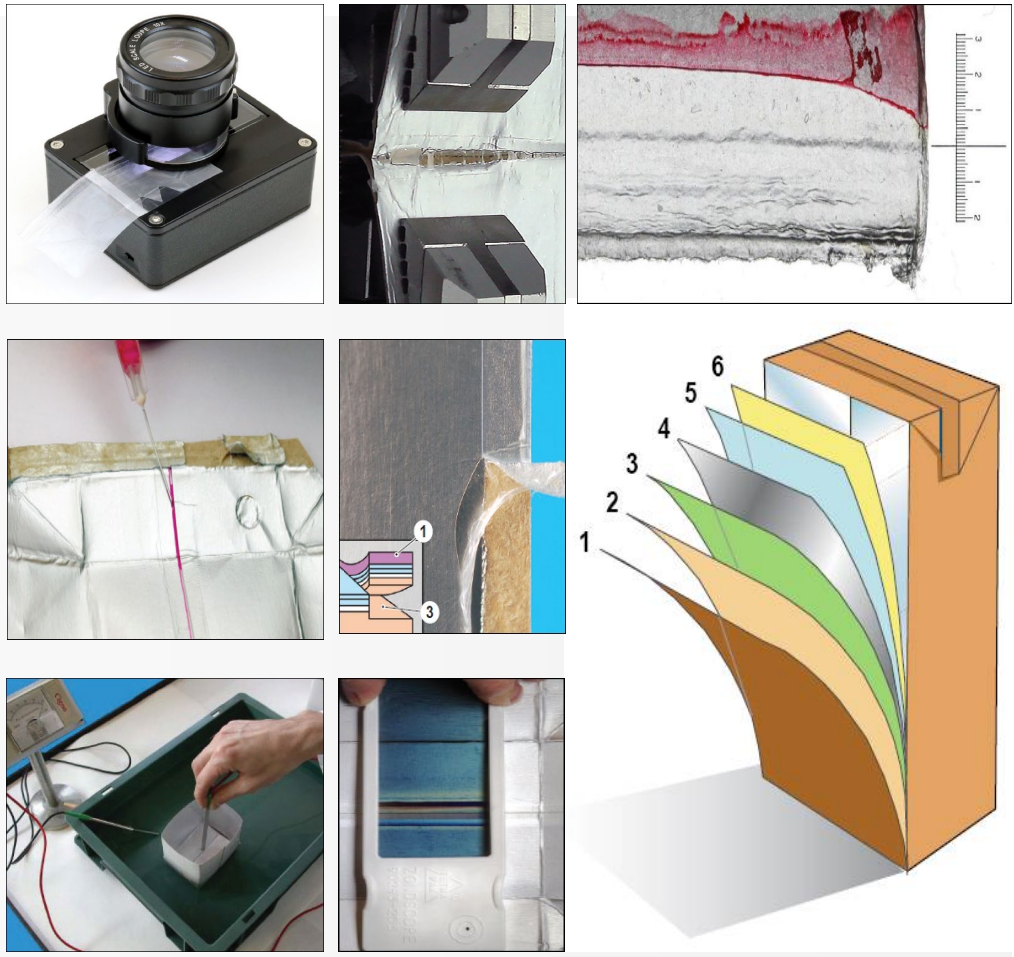
- Introduction of aseptic production
- Plant hygiene
- Hygienic design of aseptic production line
- Cleaning
- Raw materials
- Pre-processing
- UHT process
- Aseptic transfer
- Aseptic filling and packaging

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# Package Integrity



## TARGET GROUP

QA/QC, Supervisors, Managers

## DURATION

3 days

## DESCRIPTION

This training block is designed to give the theoretical & practical knowledge of Package Evaluation.

It covers hands on activities with defective packages, layers of packaging material, types of defects, troubleshooting and best practices.

## CONTENT

- Foundation (aseptic principle, packaging material structure)
- Basic understanding of sealing systems.
- Package forming
- Transversal sealing
- Longitudinal sealing
- Conductivity and red ink testing
- Opening and closures
- Troubleshooting on PE issues
- PE sampling & checks schedule.
- Best practices.

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# Good Manufacturing Practices



## TARGET GROUP

QA/QC, Supervisors, Managers

## DURATION

3 days

## DESCRIPTION

This training block improves competence on daily and weekly care and give an insight on what could go wrong if practices are not followed.

## CONTENT

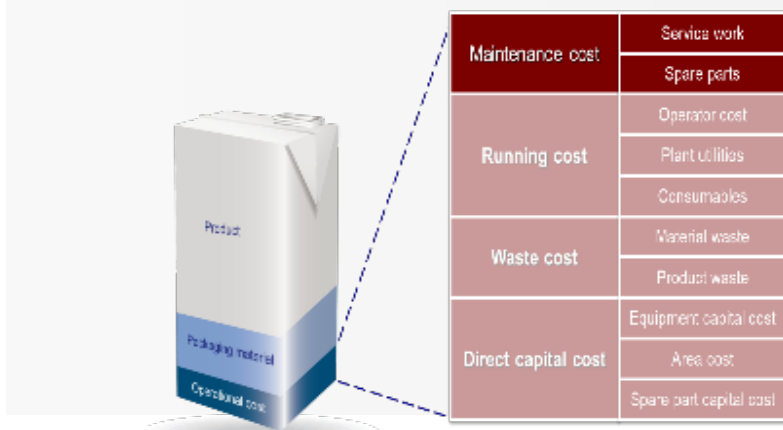
- Basics for Aseptic processing and packaging
- Production line from raw material to finished product
- Principles of obtaining a microbiologically safe product
- Quality assurance versus quality control
- Importance of cleaning and hygienic practices in food processing plant
- The basics steps of a whole production cycle
- Critical control points in aseptic environment
- Package Integrity best practices

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# Manage Aseptic Production



## TARGET GROUP

Plant manager, Production Supervisor/Team leader, Maintenance & Quality Supervisor

## DURATION

3 days

## DESCRIPTION

This training block is designed to provide increased understanding of aseptic processing and packaging, with the goal of producing long life products with high and consistent level of quality to an optimal cost. It analyzes real-world cases and examples to gain insight into factors that impact aseptic product quality and production performance, ultimately influencing operational cost.

## CONTENT

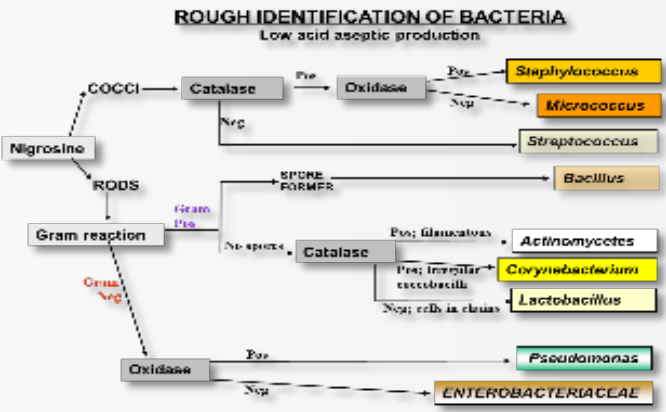
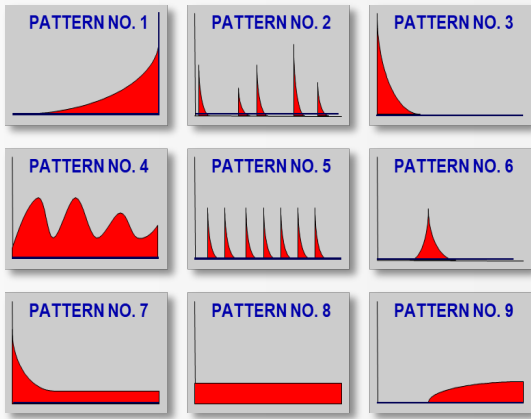
- A practical approach to aseptic production gives an overview of aseptic production principles. The complete product line will be addressed, from raw material to external handling & storage.
- Quality systems, competence development and maintenance management helps participants identify where their operations stand in terms of aseptic performance and where they want to go. Improvement opportunities, best practices and industry benchmarks are presented and discussed.
- Operational cost analysis is focused on improvement identification and priority, based on the theory behind Operational Cost Reduction.

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# Systematic Troubleshooting



**TARGET GROUP**

Production Supervisor, Technicians, QA/QC

**DURATION**

5 days

**DESCRIPTION**

This training block is designed to give an overview of systematic troubleshooting.  
It covers general microbiology theory, principles of systematic troubleshooting, cleaning systems and case studies.

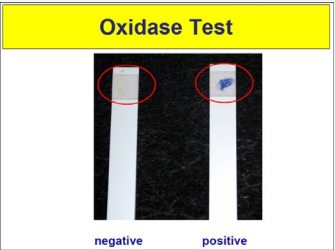
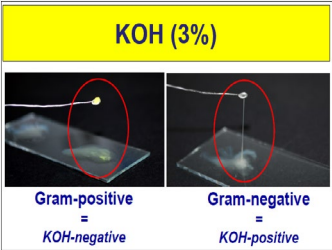
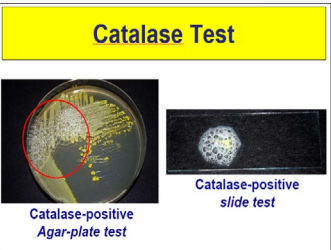
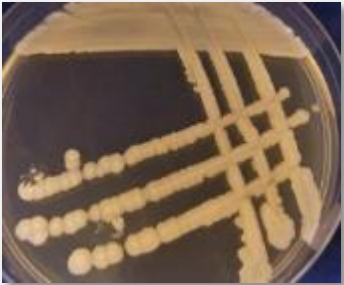
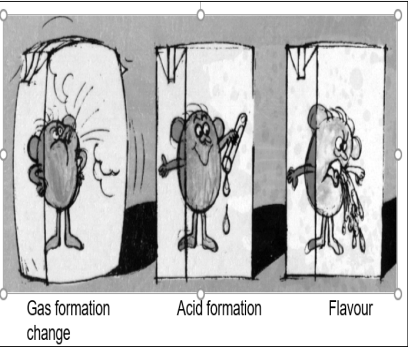
**CONTENT**

- Systematic troubleshooting
- Basic microbiology and possible causes of contamination
- Rough identification of spoilage flora
- General aspects of Quality control, Quality assurance
- Type of product deterioration problem
- Trigger mechanisms
- Hazard Analysis Critical Control Point (HACCP) concept
- Critical Control points on (CIP, Manual cleaning, UHT, FM)
- Cases study from microbiological troubleshooting

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TARGET GROUP

QA/QC Staff

DURATION

5 days

DESCRIPTION

This training block is designed to give theoretical and practical knowledge of rough identification of bacteria. It covers general microbiology, rough identification and principles of systematic troubleshooting.

CONTENT

- Introduction to Aseptic Processing and Packaging
- Quality Assurance for Low Acid Foods and/or High Acid
- Laboratory Techniques
- Media Preparation
- Laboratory Practical Work
- Rough Bacterial Identification
- Introduction to microbiological problem solving
- Package Integrity best practices
- Incubation Sampling Plan

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# Tetra Pak® Expert Services provides expertise to meet high demands

Our experts around the globe can help you to **analyse** and **improve your operations** to deliver safe and high-quality products.



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# Tetra Pak<sup>®</sup> Expert Services

Start up  
Quality



Aseptic  
Process Review



Plant  
Quality Review



CIP  
Validation



Consumer  
Complaint  
Analysis



Digital Quality  
Sampling System



Laboratory  
Services\*



Quality  
Assessment



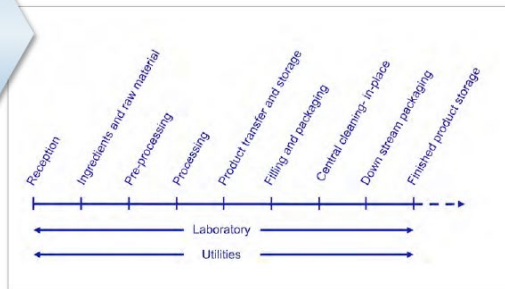
*\*Laboratory Services available  
only in South Africa*

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- ▶ Quality control points
- ▶ Sampling routines
- ▶ Record keeping
- ▶ Traceability
- ▶ Release procedures



## CUSTOMER PROFILE

This service is primarily for new customers & can also be relevant for existing customers that change their production to new more complex/sensitive products or new equipment/technology.

## DESCRIPTION

Start-up Quality is an on-site activity to support the customer to implement relevant best practice quality routines and procedures.

## DELIVERY

- Implement quality routines & procedures based on customer situation
- Establish routines & procedures based on Tetra Pak best practice
- Train and Coach QA/QC personnel and operators to ensure implementation
- Follow-up implementation

## CUSTOMER BENEFITS

- Consistent and desired end-product quality from the start
- Increased productivity during start-up
- Enhanced quality competence and awareness
- Efficiently implemented best-practice quality routines and procedures





# Aseptic Review Process

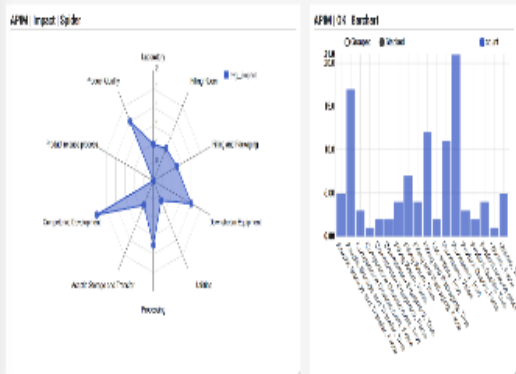


## What areas are covered?

- ✓ Raw material reception
- ✓ Preparation and formulation
- ✓ Pre-processing
- ✓ Pasteurization/UHT - processing
- ✓ Aseptic transfer line
- ✓ Filling system
- ✓ Quality control routines
- ✓ Quality operation routines
- ✓ Building requirements
- ✓ Final product warehousing



## APIM Dashboard



Item	Category	Score	Target	Weight	Weighted Score
1. Raw material reception	100	100	100	10	100
2. Preparation and formulation	100	100	100	10	100
3. Pre-processing	100	100	100	10	100
4. Pasteurization/UHT - processing	100	100	100	10	100
5. Aseptic transfer line	100	100	100	10	100
6. Filling system	100	100	100	10	100
7. Quality control routines	100	100	100	10	100
8. Quality operation routines	100	100	100	10	100
9. Building requirements	100	100	100	10	100
10. Final product warehousing	100	100	100	10	100

## CUSTOMER PROFILE

For customers who would like to have a quick overview of certain areas in their plant with respect to quality parameters.

## DESCRIPTION

This service offers a standardized review on plant with high level recommendations based on biggest impact and quickest results.

## DELIVERY

- Areas of the plant that are critical to the aseptic process are reviewed scoring each area according to a framework of best practices.
- The specialist summarizes the review in an executive summary that includes a suggested action list. A dashboard is also provided which helps monitoring of improvements.
- After six-months follow-up is recommended for low-scoring areas. The scores and executive summary are updated after the follow-up in order to track quality progress.

## CUSTOMER BENEFITS

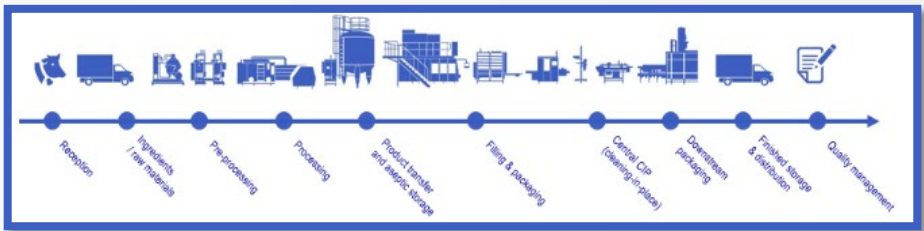
- Standardized review focusing on achieving quick results
- Short review for minimal disruption.
- Suggested action list is shared after the review
- A dashboard is provided to monitor the improvements

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# Plant Quality Review (PQR)

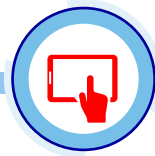


The PQR evaluates the above modules using the following criteria:

- ▶ Procedures (written and applied)
- ▶ Production / Operation
- ▶ Process controls
- ▶ Staff, competence
- ▶ Quality Assurance
- ▶ Quality Control
- ▶ Cleaning procedures
- ▶ Hygiene / Housekeeping
- ▶ Recording systems

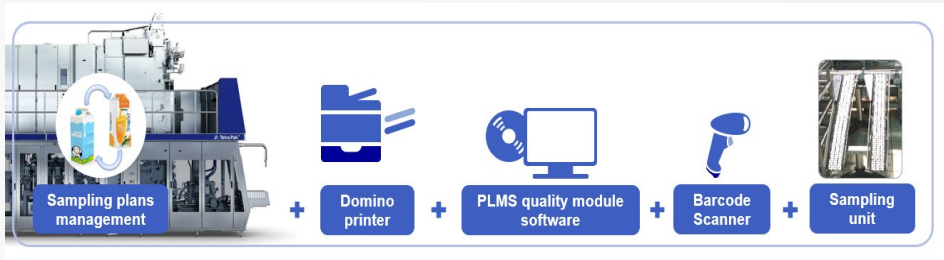
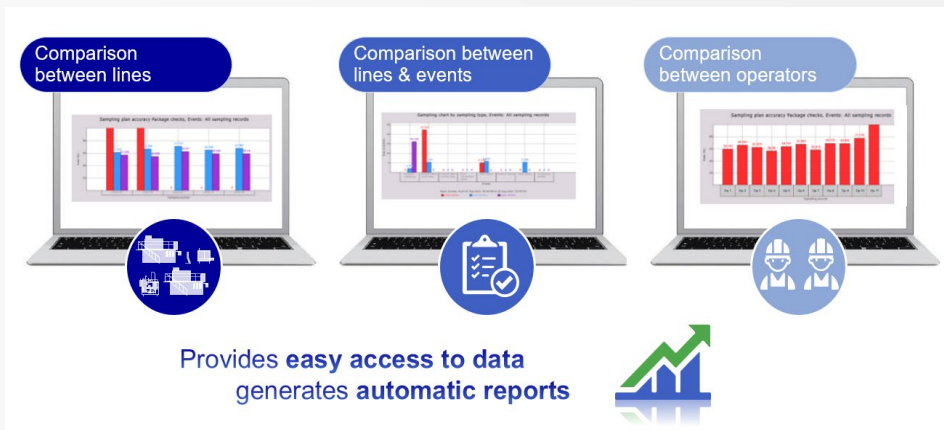
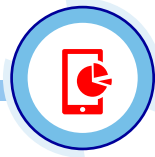
CUSTOMER PROFILE	For customers who suffer from quality issues, having high and unknown cost of quality, runs high risk of food spoilage and recently changed leadership.
DESCRIPTION	A thorough analysis of quality operations across the plant from raw material to end product based on various criteria.
DELIVERY	<ul style="list-style-type: none"> <li>• Pre-agreed areas of the plant are reviewed in detail based on criteria varying between process control to quality control.</li> <li>• Review is done with interviews, site visit and production observations.</li> <li>• After the service, a thorough quality report, including gap analysis, observations, comments and improvement opportunities as well with a detailed recommendation list is shared.</li> <li>• Periodic follow-up is recommended to support in turning recommended actions into long-term improvements.</li> </ul>
CUSTOMER BENEFITS	<ul style="list-style-type: none"> <li>• Identifies plant critical areas</li> <li>• Compares the customer's quality procedures to known best practice, identifying gaps</li> <li>• Assesses the staff capability with regard to quality procedures</li> <li>• Outlines practical actions to improve quality and lower risk of quality issues occurring</li> </ul>

# Consumer Complaint Analysis



CUSTOMER PROFILE	Customers having a recent rise in consumer complaints or interested to improve quality KPI on the number of claims being received.
DESCRIPTION	Analysis of existing consumer complaint data and updating of consumer complaint categorisation, to ensure for better traceability.
DELIVERY	<ul style="list-style-type: none"> <li>• Pre-agreed areas of the plant are reviewed in detail, based on FPS Specialist thoroughly monitors consumer claims and incubation data in the plant.</li> <li>• Claims and incubation result relation to equipment and filling machine data is cross checked.</li> <li>• Based on analysis result, points to focus on are determined (i.e. Filling operations, processing or laboratory practices)</li> <li>• Actions and follow up items are defined.</li> </ul>
CUSTOMER BENEFITS	<ul style="list-style-type: none"> <li>• Opportunities to reduce number of claims</li> <li>• Reduced cost of non-quality</li> <li>• Basis for continuous improvement plan for claims</li> </ul>

# Digital Quality Sampling System



## CUSTOMER PROFILE

Customers who would like to follow aseptic performance of their lines in an accurate and automated manner.

## DESCRIPTION

DQSS is a quality module software connected to PLMS capturing quality data throughout the value chain. Production line & laboratory database are integrated with warehouse and market data.

## DELIVERY

- System requirements are analysed and necessary hardware requirements to be shared. (i.e. Sampling unit, barcode reader, Domino printer)
- Data on sampling & resampling, package check routines, claims handling procedures are collected to set the system.
- Installation of necessary hardware and software is done.
- Staff (i.e operators and lab personel) are trained.
- Data collection is initiated.
- Joint reviews can be done quarterly or monthly to analyse the data reported and improvement actions can be put forward.

## CUSTOMER BENEFITS

- User friendly quality module to track aseptic performance
- Detailed measurement of sampling effort and accuracy
- Manual data entry minimised as well as risk of human errors
- Data is easily accessed to review quality performance
- Regular reviews support execution of identified improvements

# CIP Validation



## CUSTOMER PROFILE

Customers having: a. new lines installed requiring new CIP procedures to be developed. b. new mix of products & need to secure good cleaning. c. capacity constraints & want to increase available running time without compromising the CIP result.

## DESCRIPTION

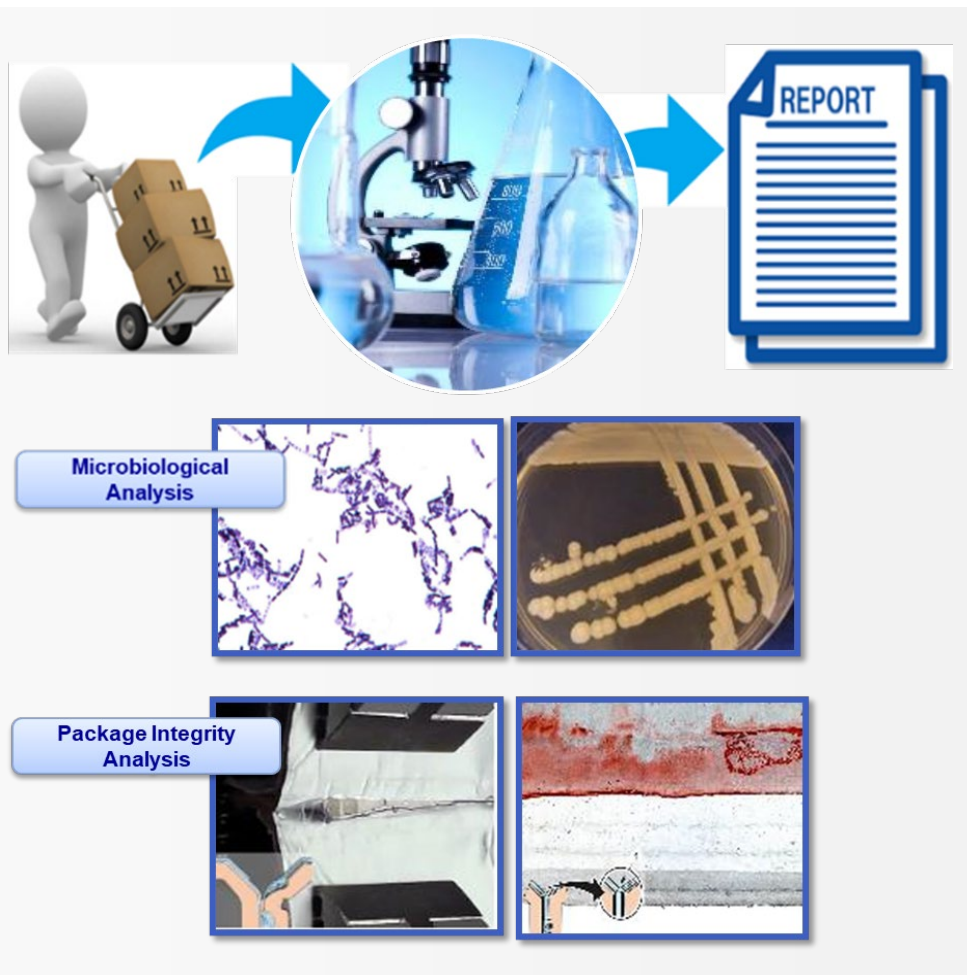
Cleaning Validation is a service to verify the effectiveness of the cleaning procedure for removal of product residues & to establish a documented evidence that the cleaning process removes residues to predetermined acceptable level.

## DELIVERY

- Mapping of CIP activities across the plant as well checks on CIP utilities are done.
- Over an agreed period of time follow ups are conducted presenting a report on;
  - Progress on implementation of actions
  - Analysis of CIP data since first visit

## CUSTOMER BENEFITS

- Reduced risk of unsterilities due to poor cleaning
- Reduced production interruptions due to poor cleaning
- Documented CIP procedures



## CUSTOMER PROFILE

Customers who is interested to have an expert opinion on microbiological and package integrity analysis or not having enough competence for self evaluation

## DESCRIPTION

Rough identification of total spoilage organisms as well as sealing evaluation can be conducted in our laboratory located in Pinetown, South Africa. Analyzes results are presented in a report.

## DELIVERY

- **Rough microbial identification** of total spoilage organisms; e.g. Enterobacteriaceae, Bacillus, Micrococcus, Coryneform
- Acetic Acid Bacteria e.g. Gluconobacter
- Alicyclobacillus
- Lactic acid bacteria
- Heat resistant spores
- **Package Integrity:** red ink test
- Tear down test: Longitudinal (LS) and Transversal Sealing (TS)
- Red ink injection on LS
- Dissolving test

## CUSTOMER BENEFITS

- Quick results with dedicated resource
- Aseptic production know-how
- Ability to link analysis results with possible root-causes

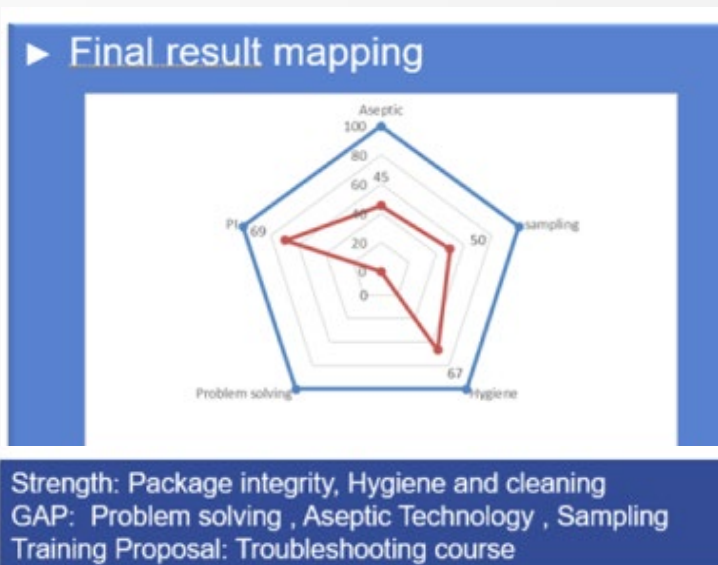
# Quality Assessment



**Written test**



**Practical Assessment**



## CUSTOMER PROFILE

Customers who would like to understand the competence development needs of their operators and QA/QC staff when it comes to aseptic production.

## DESCRIPTION

A service to evaluate the operators and QA/QC staff with a written and practical assessment to be able to see the improvement areas and to create the correct competence development map.

## DELIVERY

- Operators and QA/QC staff are assessed with a written test about aseptic technology, sampling, hygiene & cleaning, problem solving and package integrity.
- Operators are practically assessed on Package Integrity where they need to demonstrate necessary tests as well to answer certain questions verbally.
- QA/QC staff will be assessed on bacterial identification as well as package integrity (in case they do conduct tests in the lab)
- Recommended competence development activities will be provided as a result of the assessments

## CUSTOMER BENEFITS

- Increase workforce competence, safety and motivation
- Ensure food safety
- Get a clear competence development map



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or visit our website.

[www.tetrapak.com/contact](http://www.tetrapak.com/contact)

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