



FOOD INDUSTRY

Chemical-Free Steam System Success Story Taipei, Taiwan

HydroFLOW® treatment enabled continuous scale control in a food grade steam system where chemical descaling was prohibited, restoring reliability and improving steam release performance.

20%

Steam Release Increase

0

Chemical Descaling Required

24/7

Scale Protection

13+ Year

Operational Reliability

BEFORE & AFTER

BEFORE

- ✗ Critical scale buildup in boiler system
- ✗ Safety valve failures occurred
- ✗ Chemical descaling prohibited onsite

AFTER

- ✓ Existing scale removed continuously
- ✓ Steam release improved by 20%
- ✓ Valve reliability restored



BEFORE

Heavy scale buildup in pipework

AFTER

Scale removed from steam system

OVERVIEW

A food manufacturing facility in Taipei, Taiwan experienced severe scale buildup within its steam boiler system. The deposits caused safety valve failures and eventually resulted in catastrophic boiler system loss. Due to strict food safety regulations, chemical descaling could not be used onsite, leaving the plant exposed to repeated downtime and equipment damage. *HydroFLOW*® treatment was selected to remove existing scale while protecting the system continuously without chemical additives.

CHALLENGE

Severe scale buildup caused valve failures and major boiler system damage.

- Scale buildup restricted steam system performance
- Safety valve failures created operational risk
- Chemical cleaning was prohibited by food regulations
- Frequent downtime disrupted production

SOLUTION

A *HydroFLOW*® P Range unit was integrated into the steam boiler system to remove existing scale deposits and provide continuous scale control without chemicals.

UNIT INSTALLED

1x *HydroFLOW*® P Range

APPLICATION

Food grade steam boiler system

INSTALLATION LOCATION

Taipei food manufacturing facility

OPERATIONAL SINCE

2011

RESULTS

Heat Transfer Improved

Steam release speeds increased by 20% after scale removal

Valve Reliability Restored

Scale-related valve malfunctions were eliminated

Chemical-Free Treatment

The project operated without chemical descaling additives

Maintenance Reduced

Cleaning frequency and maintenance demands were reduced

Continuous Scale Control

HydroPath treatment provided 24/7 scale prevention

Long-Term Operation

The steam system operated with zero environmental impact

KEY TAKEAWAY

Summary

HydroFLOW® treatment restored operational reliability at a food manufacturing steam system in Taipei by removing severe scale buildup without chemicals. The project improved heat transfer efficiency and increased steam release speeds by 20% while eliminating scale-related valve failures. Continuous *HydroFLOW*® treatment reduced maintenance demands and enabled long-term food grade operation without chemical descaling.

20%

STEAM RELEASE INCREASE

24/7

SCALE CONTROL

0

CHEMICAL DESCALING REQUIRED



ADDITIONAL PHOTO EVIDENCE



BEFORE

Severe scale deposits inside steam pipe



AFTER

Scale extraction during maintenance

RELATED SUCCESS STORY

McCain Potato Fries Factory Case Study

Lewedorp, Netherlands

HydroFLOW® units were installed at the McCain potato processing factory in the Netherlands, dramatically extending maintenance intervals from 500 to 1,500 hours and eliminating the need for acid cleaning since installation, resulting in a 6x reduction in cleaning frequency.

3x Longer Intervals

Maintenance intervals extended from 500 to 1,500 operating hours

No Acid Cleans

Complete elimination of acid cleaning procedures since installation

6x Less Cleaning

Dramatic reduction in overall cleaning frequency and downtime

HYDROPATH

Ready to reduce scale buildup in your steam system?

Get a free consultation for your facility.

✉ sales@hydropath.com ☎ +44 (0)115 986 9966 🌐 hydropath.com

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✓ ISO 9001:2015

✓ GREENPRO

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