WASTE WATER

Belt Press Floc Stability Case Study Banbury, UK

*Hydro*FLOW® improved floc stability on a belt press, enabling reduced polymer dosing while maintaining consistent operation.

200l/hr	18%	✓	✓
Polymer Saved	Cake Solids Maintained	Instant Floc Response	Improved Process Control

⇄ BEFORE & AFTER

BEFORE

- ✗ Floc unstable at lower dosing
- ✗ High polymer required
- ✗ Risk of floc breakdown

AFTER

- ✓ Stable floc at reduced dosing
- ✓ Improved consistency
- ✓ Clear response to treatment

OVERVIEW

A belt press trial at Thames Water Banbury assessed Hydropath treatment on floc stability during sludge dewatering. The aim was to reduce polymer dosing while maintaining stable operation.

⚠ CHALLENGE

Maintaining floc stability at lower polymer dosing led to instability and poor performance.

- High polymer usage required
- Floc breakdown at low dosing
- Unstable belt press operation

SOLUTION

i120 *Hydro*FLOW® unit was installed and tested across varying dosing levels to observe floc stability and system response.

UNIT INSTALLED
1 x i120 *Hydro*FLOW® unit

SYSTEM TYPE
Belt press

TEST METHOD
Stepwise dosing reduction

FOCUS
Floc stability

INSTALLATION
i120 on Sludge Feed Pipe

SITE
Cake Output

SITE
Belt Press Top Deck

RESULTS

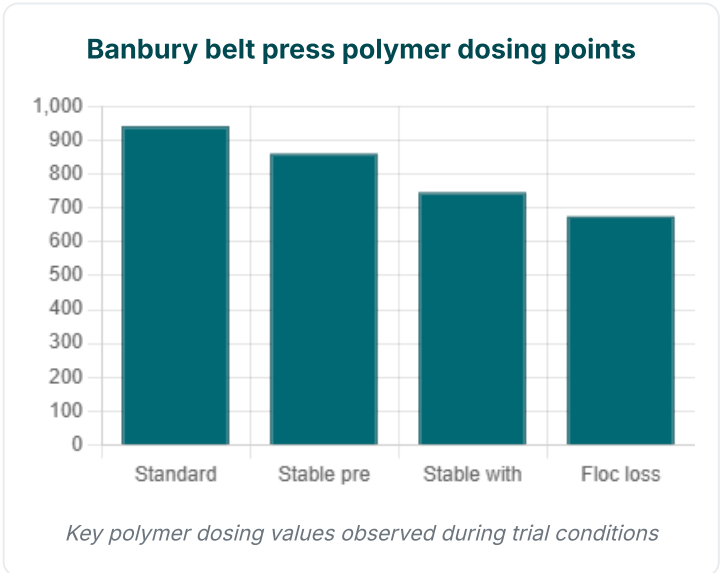
Stable at 745l/hr
Stable operation achieved at reduced polymer dosing.

Floc loss without treatment
Floc broke down rapidly when the *Hydro*FLOW® was turned off.

Improved stability range
Stable operation achieved over wider dosing range.

Clear cause-effect
Immediate response when switching treatment on or off.

GRAPHS



Key polymer dosing values observed during trial conditions

KEY TAKEAWAY

Summary

At Banbury WWTP, *Hydro*FLOW® improved floc stability, allowing reduced polymer dosing while maintaining operation. Floc breakdown occurred quickly when the unit was turned off, confirming the treatment effect.

200l/hr	↓	✓
POLYMER SAVED	POLYMER DEMAND	INSTANT FLOC RESPONSE