

HK INSTRUMENT SYSTEMS

PITTSBURGH, PA

INDUSTRY: SUGAR REFINING

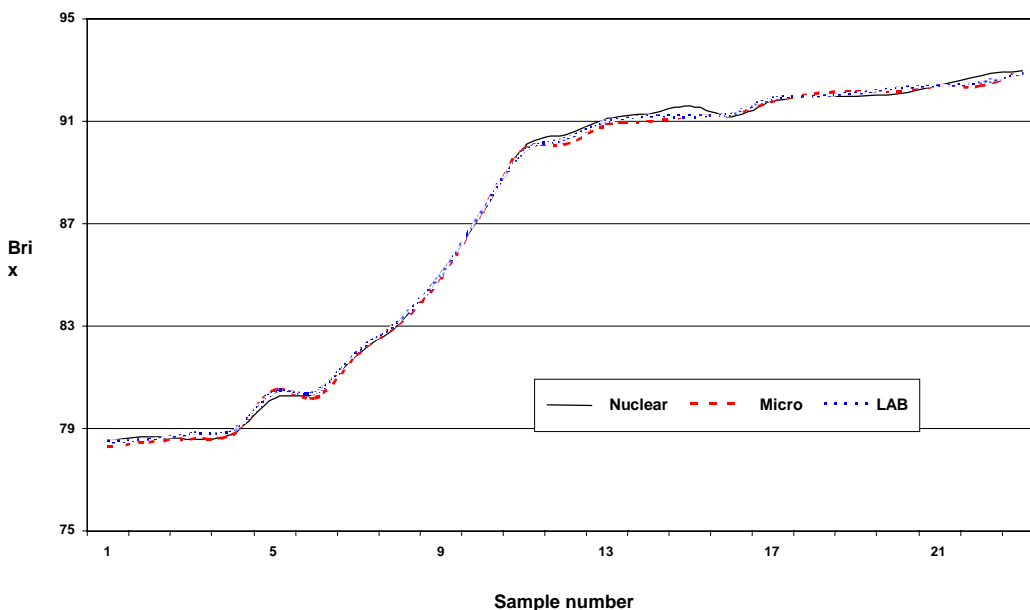
APPLICATION: TO MONITOR AND CONTROL THE °BRIX OF A SUGAR SOLUTION DURING VACUUM CRYSTALLIZATION. THIS IS A BATCH PROCESS.

INSTALLATION: THE HK-2 COMPACT UNIT IS INSTALLED ON A VACUUM CRYSTALLIZATION PAN USING A 2-1/2 INCH MOUNTING FLANGE. THE MICROWAVE TRANSMITTER AND SENSOR PINS ARE INSTALLED UNDER THE PAN FLOOR AND CALIBRATED FROM ABOVE THE PAN FLOOR WITH A REMOTE KEYPAD.

TESTING: **LAB -** SAMPLES ARE COLLECTED FROM THE VESSEL AND ANALYZED IN THE LAB WITH A TEMPERATURE COMPENSATED REFRACTOMETER.
ONLINE - READINGS FROM A NUCLEAR GAGE WHICH HAS BEEN INSTALLED IN THE VACUUM PAN ARE PRESENTED ON THE GRAPH.

RESULTS: **LAB -** CORRELATION BETWEEN LAB SAMPLES AND MICROWAVE READINGS IS EXCELLENT.
ONLINE - CORRELATION BETWEEN THE NUCLEAR GAGE AND THE HK-2 COMPACT UNIT IS EXCELLENT.

WHITE SUGAR VACUUM CRYSTALLIZATION PAN



ADDITIONAL APPLICATIONS:

CONTINUOUS VACUUM PANS

PIPELINES OF ANY SIZE

EVAPORATORS

MILK OF LIME

CONCLUSIONS: THE HK-2 MICROWAVE INSTRUMENT SYSTEM IS AN EXCELLENT TOOL THAT CAN BE USED TO MONITOR AND CONTROL THE °BRIX OF ANY SUGAR SOLUTION. THESE SYSTEMS CAN BE USED IN:

- PIPELINES AND VESSELS
- BATCH OR CONTINUOUS SYSTEMS
- ANY GRADE OF SUGAR FROM A MOLLASSAS TO A FIRST WHITE SUGAR