

HK INSTRUMENT SYSTEMS

Pittsburgh, PA

PROCESS CHEESE PRODUCTION

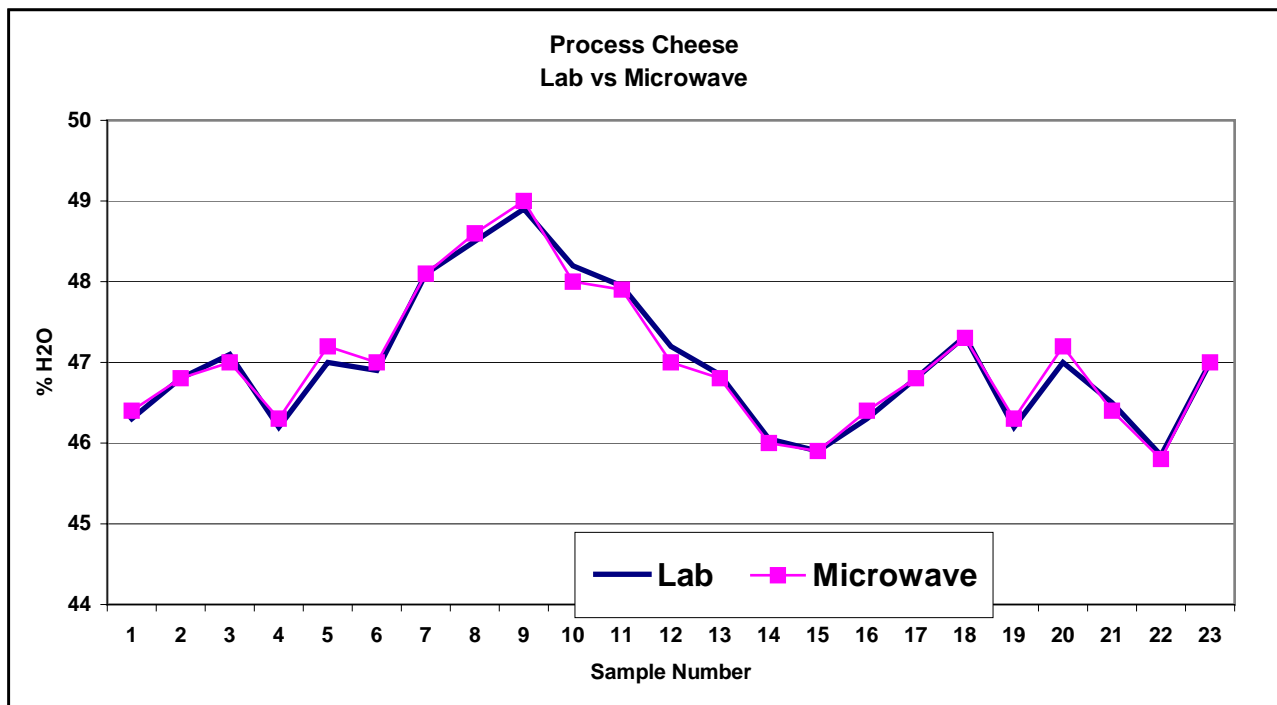
APPLICATION: TO MEASURE THE % MOISTURE OF A PROCESS CHEESE PRODUCT DURING PRODUCTION.

INSTALLATION: THE MICROWAVE SENSORS ARE ALWAYS INSTALLED WITH A **PROPRITARY 3A SANITARY SPOOL PIECE** WHICH WILL BE MOUNTED VERTICALLY. TEMPERATURE COMPENSATION WILL ALWAYS BE INSTALLED.

TESTING: A GRAPH OF LAB vs MICROWAVE READINGS IS PRESENTED BELOW. SAMPLES WERE COLLECTED AND DRIED IN A LAB OVEN TO DETERMINE % MOISTURE BY LOSS OF WEIGHT. READINGS OF THE HK-1 MICROWAVE INSTRUMENT SYSTEM WERE RECORDED EACH TIME A SAMPLE WAS COLLECTED.

RESULTS: CORRELATION BETWEEN LAB SAMPLES AND MICROWAVE READINGS IS EXCELLENT FOR THE ENTIRE MEASUREMENT RANGE. THE R-SQUARED VALUE IS 0.95.

LAB OVEN VS MICROWAVE



CONCLUSIONS: THE HK-1 MICROWAVE INSTRUMENT SYSTEM IS AN EXCELLENT TOOL THAT CAN BE USED TO MONITOR AND CONTROL THE % MOISTURE OF ANY PROCESS CHEESE PRODUCT.