HOOD AIR SYSTEMS SUMMARY SHEET

19 April 2011 9:42am

MILL	NAHEOLA ALABAMA
PAPER MACHINE	#NO. 3 BOARDMACHINE
HOOD TYPE	HIGH HUMIDITY CLOSED HOOD

MAIN HOOD EVAPORATION	57,718	lbs/hr
MAIN HOOD BONE DRY PRODUCTION	40,743	lbs/hr
MILL ELECTRICAL COST	$0.0388	/KWH
MILL STEAM COST	$3.00	/MMBtu
MACHINE OPERATING HOURS PER YEAR	8,400	hrs
AMBIENT DRY BULB TEMPERATURE (TDB)	85	Degrees F
EXHAUST DRY BULB TEMPERATURE (TDB)	185	Degrees F
EXHAUST ACTUAL FLOW	132,959	ACFM
EXHAUST STANDARD FLOW	100,167	SCFM
EXHAUST MASS FLOW	384,787	lb da/hr
POCKET HUMIDITY RATIO	0.2000	lbs w.v/lb d.a
EXHAUST FAN STATIC PRESS. TOTAL (HOT)	1.75	in. w.c.
EXHAUST FAN BRAKE HORSEPOWER (HOT)	61.01	bhp
EXHAUST FAN ELECTRICAL CONSUMPTION	52.08	kwh
EXHAUST FAN ANNUAL ELECTRICAL CONSUMPTION	437,454	kwh
EXHAUST FAN ANNUAL OPERATING COST	$16,973	/yr
EXHAUST - SENSIBLE HEAT	14,203,839	btu/hr
EXHAUST - LATENT HEAT	75,204,960	btu/hr
EXHAUST - TOTAL HEAT	89,408,800	btu/hr

HOOD SUPPLY AIR

SUPPLY FAN DISCHARGE FLOW DRY BULB TEMP. (TDB)	180	Degrees F
SUPPLY ACTUAL DISCHARGE FLOW	89,869	ACFM
SUPPLY STANDARD DISCHARGE FLOW	73,367	SCFM
SUPPLY MASS DISCHARGE FLOW	323,223	lb da/hr
SUPPLY FAN STATIC PRESS. TOTAL (HOT)	15.00	in. w.c.
SUPPLY FAN BRAKE HORSEPOWER (HOT)	353.48	bhp
SUPPLY FAN ELECTRICAL CONSUMPTION	301.72	kwh
SUPPLY FAN ANNUAL ELECTRICAL CONSUMPTION	2,534,407	kw/yr
SUPPLY FAN ANNUAL OPERATING COST	$98,335	/yr
SUPPLY AIR ANNUAL HEATING COST	$193,915	/yr
SUPPLY - SENSIBLE HEAT ADDED	7,422,511	btu/hr
SUPPLY - LATENT HEAT ADDED	272,517	btu/hr
SUPPLY - TOTAL HEAT ADDED	7,695,028	btu/hr
SUPPLY AIR ENERGY PER lb EVAPORATED	133.32	btu/lb evap
STEAM PRESSURE	50.00	psig
STEAM USAGE	8,439	lbs/hr
SUPPLY AIR TO EXHAUST AIR RATIO	0.84	lb s.a/lb e.a

OPERATING COST SUMMARY

EXHAUST FAN - ANNUAL ELECTRICAL	$16,973	/yr
SUPPLY FAN - ANNUAL ELECTRICAL	$98,335	/yr
SUPPLY AIR - ANNUAL HEATING	$193,915	/yr
SUPPLY AIR TOTAL OPERATING COST	$309,223	/yr
HOOD OPERATING COST PER B.D. TON	$1.81	/ton