

DESIGN SPECIFICATION

# ECONOMIZER



## INFORMATION

Service - Economizer Counter  
Current Flow

## NOTES

- 10 GA. INNER CASING
- 3 IN. 1200 °F BLOCK INSULATION
- 0.016 THK. CORR. GALV. OUTER CASING
- 1 SET WALLBOX AND DISTAL BEARINGS REQUIRED IN 1 CLEANING LANE
- ESI RECOMMENDS PREHEATING THE FEEDWATER WHEN USING SULFAR BEARING FUELS

## PERFORMANCE FIRING - NAT. GAS & #2 OIL

	<u>TUBE</u>	<u>SHELL</u>		
FLUID	WATER	FLUE GAS	DESIGN PRESSURE	500 PSI
FLOW - LBS/HR	75,600	85,800	DESIGN TEMP	700 °F
TEMP-IN °F	228	585	NO. OF TUBES	120
TEMP-OUT °F	301.2	332.6	NO. TUBES WIDE	12
PRES.DROP-PS/IN. WC	12.08	0.71	NO. ROWS DEEP	10
DESIGN PRES-PSI	500	0.35	NO. OF STREAMS	4
OPER.PRES-PSI	375	*	EFF. TUBE LENGTH	7.5 FT
VELOCITY-FT/SEC	5.54	36.26	TUBE O.D.	2 IN
FOULING FACTOR	0.001	0.003	AVG. TUBE WALL	0.137 IN
HEAT TRANSFERRED BTU/HR		5,604,280	TUBE SPEC.	5A53B/SA178A
RATE BTU/HR/HQ.FT-°F		6.3147	FIN MATERIAL	CS, SOLID
LMTD-°F		179.51	FIN HEIGHT	0.75
EXT. SURFACE - FT <sup>2</sup>		4,944	FIN THICKNESS	0.06
OVERALL DIMENSIONS	10.5' (L) x 5.38' (W) x 6.46' (H)		FINS/INCH	4.50/IN
DUCT OPENING	7.5' (L) x 4.25' (W)		HEADER SIZE	4 I.P.S. 600 RFWN