

**Brand New  
700 HP, 150 psi Design  
Williams and Davis Firetube Boiler**



**DESIGN SPECIFICATIONS**

MODEL NUMBER	3700D-150S-01
DESCRIPTION	3 PASS 700 HP DRY BACK, 150 PSI STEAM, V01
ASME BPVC SECTION	I
MAXIMUM VESSEL PRESSURE	150 PSI
MAXIMUM RECOMMENDED OPERATING PRESSURE	143 PSI
MAXIMUM DESIGNED STEAM CAPACITY	24,150 LBS/HR FROM AND AT 212°F
SAFETY RELIEF VALVE CAPACITY, TYP.	28,000 LB/HR
OUTPUT, BOILER HORSEPOWER	700 HP
OUTPUT, BOILER, BTU	23,432,500 BTU/HR
WATER CONSUMPTION, TYP.	48.3 GPM
HEATING SURFACE	3,500 SQ. FT.
EXHAUST TEMPERATURE	450°F, TYP. HIGH FIRE
EXHAUST FLOW, TYP.	10,489 CFM
BURNER MODEL	ELG-294
BURNER EMISSION STANDARD RATING	STANDARD, 60 PPM NOX
ENVIRONMENTAL RATING	NEMA 1



FIRING RATE CONTROL	INTERNAL ADJ., E/M, L91B
OPERATING RANGE CONTROL	INTERNAL ADJ., E/M, L404F
HIGH STEAM PRESSURE LIMIT CONTROL	INTERNAL ADJ., E/M, L4079B
PUMP CONTROL	FLOAT TYPE, E/M, 1 EXTERNAL SYS CONTACT
VOLTAGE	480VAC/3PH/60HZ
MAX CONTINUOUS AMPERAGE	35.0 Amp
PRIMARY FUEL TYPE	NATURAL GAS
SECONDARY FUEL TYPE	FUEL OIL #2
IGNITION FUEL TYPE	NATURAL GAS
PRIMARY FUEL MAXIMUM DESIGN PRESSURE	10.0 PSI
PRIMARY FUEL MINIMUM SUPPLY PRESSURE	4.3 PSI
PRIMARY FUEL MAXIMUM SUPPLY RATE	20,400 CFH
SECONDARY FUEL SYSTEM OPERATING PRESSURE, TYP.	N/A
SECONDARY FUEL SYSTEM MAXIMUM INLET PRESSURE	N/A
SECONDARY FUEL FLOW MAXIMUM RATE	N/A
SECONDARY FUEL SYSTEM BYPASS RETURN PRESSURE	N/A
NOMINAL WATER CAPACITY	4,431 GAL
FLOODED WATER CAPACITY	5010 GAL
SHIPPING WEIGHT	55524 LBS
NOMINAL OPERATING WEIGHT	92440 LBS
FLOODED WEIGHT	97262 LBS
CERTIFICATIONS, BOILER AND/OR BURNER	ASME, NATIONAL BOARD, UL

CONNECTION LIST		
ITEM	Description	Size
1	EXHAUST OUTLET, TO OUTSIDE ATM	24" FLG
2	STEAM OUTLET, TO PROCESS HEADER	8" CL300 FLG
3	SURFACE BLOWDOWN OUTLET, TO BLOWDOWN SYSTEM AS REQ'D	½" FNPT
4	COLUMN/AUXILIARY FEED WATER INLET, TO	1" FNPT
5	FEED WATER SUPPLY SYSTEM	2" FNPT
6	BOTTOM BLOWDOWN OUTLET, TO	2" FNPT
7	BLOWDOWN SYSTEM	2" FNPT
8	AUXILIARY	2-1/2" FNPT
9	PRIMARY FUEL SYSTEM INLET, TO FUEL SUPPLY	1-1/4" FNPT
10	PRIMARY FUEL SYSTEM N.O. VENT VALVE, TO OUTSIDE ATM	1/8" FNPT
11	PRIMARY FUEL SYSTEM PILOT REGULATOR VENT, TO OUTSIDE ATM SECONDARY FUEL SUPPLY CONNECTION	1" FNPT
12	SECONDARY FUEL RETURN CONNECTION	1" FNPT
13	SAFETY RELIEF VALVE OUTLET, TO OUTSIDE ATM	2-1/2" FNPT
14	ELECTRICAL SUPPLY CONDUIT CONNECTION,	1"
15	CONNECT CABINET TERMINAL BLOCKS TO SUPPLY POWER	12" X 16" ELL
16	MANWAY INSPECTION OPENING MANWAY	24" DIA
17	INSPECTION OPENING ASME CODE STAMP LOCATION	-

