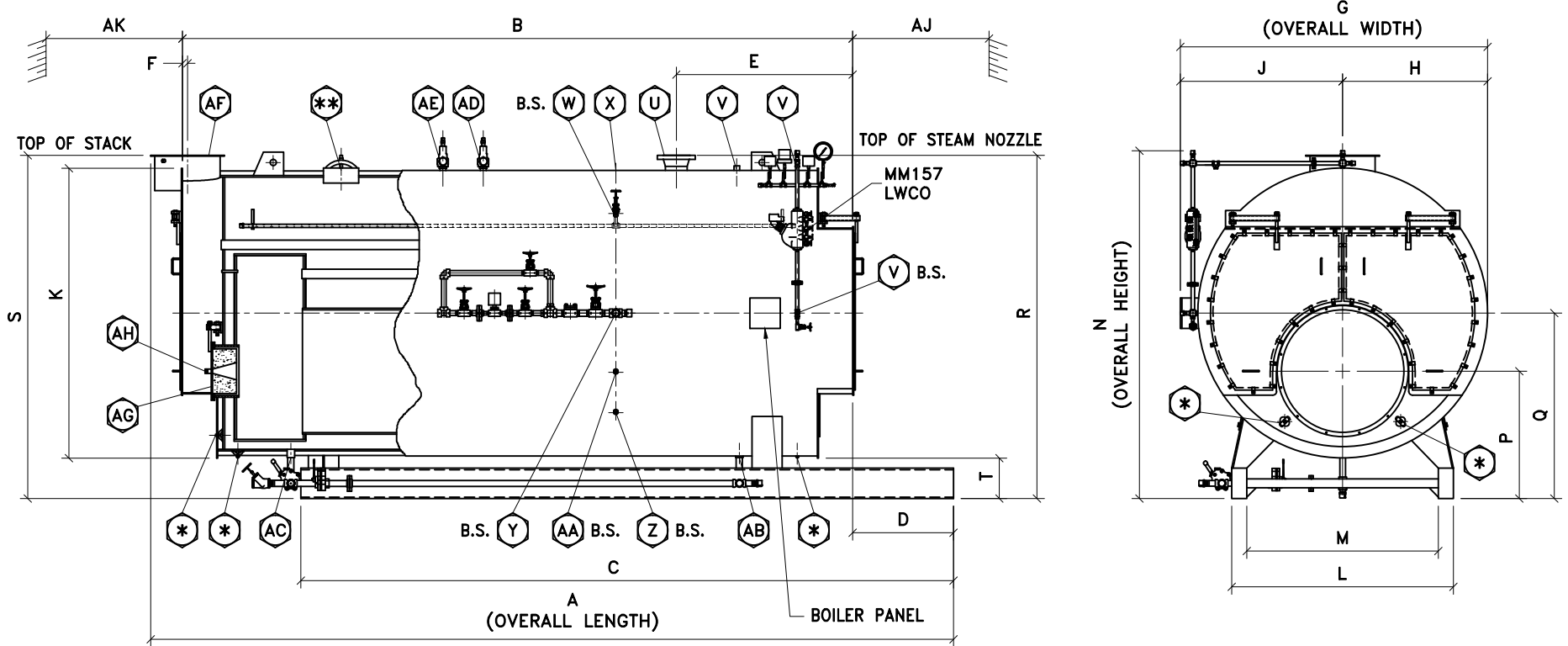


150 PSIG 3-PASS WET BACK
SCOTCH MARINE BOILER
DIMENSIONS & DATA CHART



FOR ALL BOILER MODELS
 B.S. - ON BOTH SIDES OF BOILER
 U - 300# WELDNECK FLG
 * - (5) 3" x 4" HANDHOLE
 ** - (1) 12" x 16" MANWAY

DIMENSIONS CHART

| BOILER MODEL | | F3-200 | F3-250 | F3-300 | F3-350 | F3-400 | F3-500 | F3-600 | F3-700 | F3-750 | F3-800 | F3-900 | F3-1000 | F3-1100 | F3-1200 | F3-1300 | F3-1400 | F3-1500 | F3-1600 | F3-1700 | F3-1800 | F3-2000 | F3-2200 | F3-2500 |
|-------------------------------|----|-----------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|
| BOILER HORSEPOWER | | 200 | 250 | 300 | 350 | 400 | 500 | 600 | 700 | 750 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 2000 | 2200 | 2500 |
| HEATING SURFACE (ASME) (SqFt) | | 1008 | 1273 | 1519 | 1757 | 2001 | 2505 | 3020 | 3563 | 3799 | 4073 | 4582 | 5050 | 5634 | 6129 | 6625 | 7103 | 7694 | 7844 | 8232 | 8786 | 9495 | 10482 | 11899 |
| OVERALL LENGTH | A | 18'-0" | 20'-7" | 23'-0" | 23'-4" | 22'-1" | 25'-7" | 25'-2" | 24'-9" | 25'-10" | 27'-1" | 24'-7" | 26'-3" | 25'-9" | 27'-3" | 28'-9" | 27'-3" | 28'-9" | 33'-5" | 34'-7" | 36'-3" | 35'-9" | 38'-5" | 42'-3" |
| SHELL LENGTH | B | 13'-10" | 16'-5" | 18'-10" | 19'-0" | 17'-9" | 21'-3" | 20'-9" | 20'-4" | 21'-5" | 22'-8" | 20'-2" | 21'-10" | 21'-2" | 22'-8" | 24'-2" | 22'-0" | 23'-6" | 28'-8" | 29'-10" | 31'-6" | 30'-10" | 33'-6" | 37'-4" |
| SKID LENGTH | C | 13'-7" | 16'-2" | 18'-7" | 18'-10" | 17'-6" | 21'-1" | 20'-6" | 19'-9" | 20'-10" | 22'-1" | 19'-7" | 21'-3" | 20'-7" | 22'-1" | 23'-7" | 21'-5" | 22'-11" | 27'-5" | 28'-7" | 30'-3" | 29'-6" | 32'-2" | 36'-0" |
| BOILER FRONT TO SKID FRONT | D | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" | 3'-4" |
| BOILER FRONT TO STEAM NOZZLE | E | 4'-7" | 4'-7" | 4'-7" | 5'-4" | 5'-5" | 5'-5" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 5'-10" | 6'-6" | 6'-6" | 6'-6" | 7'-8" | 7'-8" | 7'-8" |
| BOILER REAR TO STACK | F | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 1" | 1" | 1" | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 3" |
| OVERALL WIDTH | G | 7'-7" | 7'-7" | 7'-7" | 8'-1" | 9'-0" | 9'-0" | 9'-6" | 10'-2" | 10'-2" | 10'-2" | 10'-10" | 10'-10" | 11'-8" | 11'-8" | 11'-8" | 12'-10" | 12'-10" | 12'-10" | 12'-10" | 12'-10" | 13'-0" | 13'-0" | 13'-0" |
| CENTER TO SMOKEBOX O.D. | H | 3'-6" | 3'-6" | 3'-6" | 3'-9" | 4'-3" | 4'-3" | 4'-6" | 4'-10" | 4'-10" | 4'-10" | 5'-2" | 5'-2" | 5'-7" | 5'-7" | 5'-7" | 6'-2" | 6'-2" | 6'-2" | 6'-2" | 6'-2" | 6'-3" | 6'-3" | 6'-3" |
| CENTER TO PANEL | J | 4'-1" | 4'-1" | 4'-1" | 4'-4" | 4'-9" | 4'-9" | 5'-0" | 5'-4" | 5'-4" | 5'-4" | 5'-8" | 5'-8" | 6'-1" | 6'-1" | 6'-1" | 6'-8" | 6'-8" | 6'-8" | 6'-8" | 6'-8" | 6'-9" | 6'-9" | 6'-9" |
| JACKET DIAMETER | K | 6'-10" | 6'-10" | 6'-10" | 7'-4" | 8'-3" | 8'-3" | 8'-9" | 9'-5" | 9'-5" | 9'-5" | 10'-1" | 10'-1" | 10'-11" | 10'-11" | 10'-11" | 12'-1" | 12'-1" | 12'-1" | 12'-1" | 12'-1" | 12'-3" | 12'-3" | 12'-3" |
| SKID WIDTH OUTSIDE | L | 5'-6" | 5'-6" | 5'-6" | 5'-11" | 6'-10" | 6'-10" | 7'-4" | 7'-4" | 7'-4" | 7'-4" | 7'-11" | 7'-11" | 8'-9" | 8'-9" | 8'-9" | 9'-11" | 9'-11" | 9'-11" | 9'-11" | 9'-11" | 9'-11" | 9'-11" | 9'-11" |
| SKID WIDTH INSIDE | M | 4'-10" | 4'-10" | 4'-10" | 5'-3" | 5'-10" | 5'-10" | 6'-4" | 6'-4" | 6'-4" | 6'-4" | 6'-11" | 6'-11" | 7'-9" | 7'-9" | 7'-9" | 8'-11" | 8'-11" | 8'-11" | 8'-11" | 8'-11" | 8'-11" | 8'-11" | 8'-11" |
| OVERALL HEIGHT | N | 8'-7" | 8'-7" | 8'-7" | 9'-1" | 10'-4" | 10'-4" | 10'-10" | 11'-6" | 11'-6" | 11'-6" | 12'-2" | 12'-2" | 13'-0" | 13'-0" | 13'-0" | 14'-2" | 14'-2" | 14'-2" | 14'-2" | 14'-2" | 14'-4" | 14'-4" | 14'-4" |
| FLOOR TO CENTER OF FURNACE | P | 3'-3 1/2" | 3'-3 1/2" | 3'-3 1/2" | 3'-4 1/2" | 3'-11 1/2" | 3'-11 1/2" | 4'-1 1/2" | 4'-2 1/2" | 4'-2 1/2" | 4'-2 1/2" | 4'-4 1/2" | 4'-4 1/2" | 4'-8 1/2" | 4'-8 1/2" | 4'-8 1/2" | 5'-0 1/2" | 5'-0 1/2" | 5'-0 1/2" | 5'-0 1/2" | 5'-0 1/2" | 4'-10 1/2" | 4'-10 1/2" | 4'-10 1/2" |
| FLOOR TO CENTER OF BOILER | Q | 4'-6" | 4'-6" | 4'-6" | 4'-9" | 5'-6 1/2" | 5'-6 1/2" | 5'-9 1/2" | 6'-1 1/2" | 6'-1 1/2" | 6'-1 1/2" | 6'-5 1/2" | 6'-5 1/2" | 6'-10 1/2" | 6'-10 1/2" | 6'-10 1/2" | 7'-5 1/2" | 7'-5 1/2" | 7'-5 1/2" | 7'-5 1/2" | 7'-5 1/2" | 7'-6 1/2" | 7'-6 1/2" | 7'-6 1/2" |
| FLOOR TO STEAM NOZZLE | R | 8'-4" | 8'-4" | 8'-4" | 8'-11" | 10'-2" | 10'-2" | 10'-8" | 11'-4" | 11'-4" | 11'-4" | 12'-0" | 12'-0" | 12'-10" | 12'-10" | 12'-10" | 14'-0" | 14'-0" | 14'-0" | 14'-0" | 14'-0" | 14'-4" | 14'-4" | 14'-4" |
| FLOOR TO STACK OUTLET | S | 8'-4" | 8'-4" | 8'-4" | 8'-11" | 10'-2" | 10'-2" | 10'-8" | 11'-4" | 11'-4" | 11'-4" | 12'-0" | 12'-0" | 12'-10" | 12'-10" | 12'-10" | 14'-0" | 14'-0" | 14'-0" | 14'-0" | 14'-0" | 14'-4" | 14'-4" | 14'-4" |
| FLOOR TO BOTTOM OF SMOKEBOX | T | 1'-0" | 1'-0" | 1'-0" | 1'-0" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" | 1'-4" |
| STEAM NOZZLE CONNECTION | U | 4" | 6" | 6" | 6" | 6" | 6" | 8" | 8" | 8" | 8" | 8" | 10" | 10" | 10" | 10" | 10" | 12" | 12" | 12" | 12" | 12" | 14" | 14" |
| AUXILLARY CONNECTION | V | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" |
| SURFACE BLOWDOWN CONNECTION | W | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" |
| VENT CONNECTION | X | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| FEEDWATER CONNECTION | Y | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 3" |
| LOW FIRE HOLD CONNECTION | Z | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" |
| CHEMICAL FEED CONNECTION | AA | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" |
| BLOWDOWN FRONT CONNECTION | AB | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| BLOWDOWN REAR CONNECTION | AC | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| SAFTEY VALVE CONNECTION | AD | | | | | | | | | | | | | | | | | | | | | | | |
| SAFTEY VALVE CONNECTION | AE | | | | | | | | | | | | | | | | | | | | | | | |
| FLANGED STACK I.D. | AF | 20" | 20" | 20" | 24" | 24" | 24" | 26" | 26" | 26" | 26" | 26" | 26" | 28" | 28" | 28" | 36" | 36" | 36" | 36" | 36" | 40" | 40" | 40" |
| CLEAN OUT PORT | AG | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" | #24" |
| SIGHT PORT CONNECTION | AH | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE | 2" PIPE |
| MIN. TUBE REMOVAL FRONT | AJ | 12'-6" | 15'-1" | 17'-6" | 17'-8" | 16'-5" | 19'-11" | 19'-5" | 19'-0" | 20'-1" | 21'-4" | 18'-10" | 20'-6" | 19'-10" | 21'-4" | 22'-10" | 20'-8" | 22'-2" | 26'-8" | 27'-10" | 29'-6" | 28'-10" | 31'-6" | 35'-4" |
| MIN. TUBE REMOVAL REAR | AK | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" |

DATA CHART

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| GROSS OUTPUT (MBH) | 6686 | 8357 | 10028 | 11700 | 13371 | 16714 | 20056 | 23399 | 25071 | 26742 | 30085 | 33428 | 36770 | 40113 | 43456 | 46799 | 50141 | 53484 | 56827 | 60170 | 66855 | 73541 | 83569 |
| STEAM OUTPUT (FROM & 212 °F) (LBS/HR) | 6900 | 8625 | 10350 | 12075 | 13800 | 17250 | 20700 | 24150 | 25875 | 27600 | 31050 | 34500 | 37950 | 41400 | 44850 | 48300 | 51750 | 55200 | 58649 | 62100 | 69000 | 75900 | 86249 |
| RATED INPUT (MBH) | 8590 | 10550 | 12530 | 14590 | 16730 | 20690 | 24820 | 28940 | 30940 | 32930 | 37180 | 41170 | 45310 | 49300 | 53300 | 57540 | 61510 | 65930 | 69950 | 73910 | 82200 | 90160 | 102180 |
| FURNACE VOLUME (CuFt) | 54.89 | 71.90 | 87.82 | 100.67 | 120.68 | 155.16 | 179.85 | 192.44 | 204.22 | 220.09 | 223.35 | 248.17 | 293.02 | 318.03 | 345.55 | 376.06 | 409.57 | 502.98 | 529.45 | 567.27 | 582.89 | 647.21 | 739.67 |
| TURNAROUND VOLUME (CuFt) | 42.09 | 42.09 | 42.09 | 43.36 | 61.67 | 61.67 | 69.03 | 77.09 | 77.09 | 77.09 | 80.45 | 80.45 | 113.33 | 113.33 | 113.33 | 123.84 | 123.84 | 123.84 | 123.84 | 123.84 | 135.33 | 135.33 | 135.33 |
| STEAM VOLUME (CuFt) | 24.33 | 30.02 | 35.35 | 43.2 | 61.99 | 76.5 | 94.42 | 115.02 | 122.13 | 130.32 | 128.59 | 140.93 | 131.15 | 141.86 | 152.56 | 196.38 | 211.74 | 250.97 | 262.91 | 279.97 | 313.79 | 345.12 | 390.16 |
| STEAM RELEASE AREA (SqFt) | 46.07 | 56.85 | 66.93 | 73.77 | 81.55 | 100.63 | 107.6 | 115.67 | 122.82 | 131.06 | 122.31 | 134.04 | 132.64 | 143.87 | 154.3 | 160.64 | 173.2 | 205.3 | 215.06 | 229.02 | 233.9 | 257.25 | 290.82 |
| GALLONS OF WATER FULL (Gal) | 1569 | 1969 | 2343 | 2821 | 3260 | 4072 | 4314 | 5001 | 5325 | 5699 | 5518 | 6070 | 6753 | 7333 | 7913 | 8908 | 9635 | 11525 | 12092 | 12901 | 12496 | 13781 | 15629 |
| GALLONS OF WATER @ NWL (Gal) | 1387 | 1744 | 2078 | 2498 | 2796 | 3500 | 3607 | 4141 | 4412 | 4724 | 4556 | 5016 | 5722 | 6272 | 6771 | 7439 | 8051 | 9647 | 10125 | 10807 | 10148 | 11199 | 12710 |
| POUNDS OF WATER FULL (Lbs) | 13046 | 16374 | 19486 | 23467 | 27117 | 33872 | 35884 | 41602 | 44296 | 47403 | 45902 | 50492 | 56170 | 60993 | 65817 | 74100 | 80142 | 95862 | 100576 | 107310 | 103936 | 114628 | 129998 |
| POUNDS OF WATER @ NWL (Lbs) | 11532 | 14505 | 17287 | 20778 | 23259 | 29112 | 30009 | 34445 | 36697 | 39295 | 37901 | 41724 | 48009 | 52167 | 56324 | 61881 | 66967 | 80246 | 84217 | 89890 | 84412 | 93154 | 105722 |
| SHIPPING WEIGHT WITHOUT BURNER (Lbs) | 23,800 | 26,450 | 29,000 | 31,200 | 34,700 | 39,700 | 43,000 | 46,700 | 49,720 | 52,150 | 56,800 | 60,900 | 65,810 | 71,250 | 75,600 | 80,900 | 85,200 | 93,600 | 98,000 | 102,250 | 104,500 | 103,200 | 125,900 |

NOTES:

- VICTORY ENERGY, L.L.C. RESERVES THE RIGHT TO CHANGE DIMENSION DUE TO PRODUCT REVISION OR JOB REQUIREMENTS.
- PRELIMINARY DIMENSIONS AND MAY BE USED FOR LAYOUT ONLY.
- BOILER INSULATED WITH 2"-3# DENSITY MINERAL FIBER INSULATION WITH 22 GAUGE STEEL JACKET.

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