

Boiler Model  
**LXH-300SGN-350P-A**

Document Number  
 EN-SC-031-00

| Boiler Output                           |                 |                                                              |
|-----------------------------------------|-----------------|--------------------------------------------------------------|
| Description                             | -               | High Pressure, Low NOx                                       |
| Boiler Type                             | -               | Multiple water tube, once through, forced flow, steam boiler |
| Boiler Capacity                         | BHP             | 300                                                          |
| Design Pressure                         | PSIG            | 350                                                          |
| Operating Pressure Range <sup>1,2</sup> | PSIG            | 240-315                                                      |
| Boiler Heating Surface Area             | ft <sup>2</sup> | 598                                                          |

| Air and Fuel Requirements                     |          |             |         |        |
|-----------------------------------------------|----------|-------------|---------|--------|
| Fuel                                          | -        | Natural Gas | Propane | #2 Oil |
| Fuel Supply Pressure                          | PSIG     | 3-5         | -       | -      |
| Maximum Heat Input                            | BTU/hr   | 11,814,706  | -       | -      |
| Maximum Heat Output                           | BTU/hr   | 10,042,500  | -       | -      |
| Maximum Fuel-to-Steam Efficiency <sup>3</sup> | %        | 85.0%       | -       | -      |
| Equivalent Output <sup>4</sup>                | lb/hr    | 10,350      | -       | -      |
| Turn-Down                                     | -        | 4:1         | -       | -      |
| Flue Gas Excess Oxygen                        | %        | 6.0%        | -       | -      |
| Flue Gas Temperature <sup>3</sup>             | °F       | 245         | -       | -      |
| Fuel Consumption <sup>5</sup>                 | SCFH/GPH | 11583       | -       | -      |
| Combustion Air Volume                         | SCFH     | 155,970     | -       | -      |
| Flue Gas Volume - Wet                         | SCFH     | 167,550     | -       | -      |
| Flue Gas Volume - Dry <sup>6</sup>            | SCFH     | 144,340     | -       | -      |
| Flue Gas Velocity                             | ft/s     | 29.6        | -       | -      |

| Emissions <sup>7</sup>       |           |             |         |        |
|------------------------------|-----------|-------------|---------|--------|
| Fuel                         | -         | Natural Gas | Propane | #2 Oil |
| NOx                          | ppm       | 12.0        | -       | -      |
| NOx                          | lbs/MMBTU | 0.0146      | -       | -      |
| CO                           | ppm       | 50.0        | -       | -      |
| CO                           | lbs/MMBTU | 0.0369      | -       | -      |
| CO2                          | lbs/MMBTU | 117.6       | -       | -      |
| VOC                          | lbs/MMBTU | 0.0054      | -       | -      |
| TOC                          | lbs/MMBTU | 0.0108      | -       | -      |
| SO <sub>2</sub> <sup>8</sup> | lbs/MMBTU | 0.0006      | -       | -      |
| PMt                          | lbs/MMBTU | 0.0075      | -       | -      |
| PMf                          | lbs/MMBTU | 0.0019      | -       | -      |
| PMc                          | lbs/MMBTU | 0.0056      | -       | -      |

| Weights & Capacities                   |         |                                   |
|----------------------------------------|---------|-----------------------------------|
| Shipping Weight                        | lbs     | ~13000, pending final measurement |
| Operational Weight                     | lbs     | ~14000, pending final measurement |
| Operational Water Content <sup>9</sup> | Gallons | 135                               |

| Inlet & Outlet Connections        |            |                                 |
|-----------------------------------|------------|---------------------------------|
| Economizer Drain (If Equipped)    | in NPT     | 2                               |
| Main Steam Outlet                 | NPT Flange | 4 (300#)                        |
| Safety Valve Outlet <sup>10</sup> | in NPT     | (2) 1 1/2                       |
| Drip Pan Elbow Vent               | in NPT     | (2) 3                           |
| Drip Pan Elbow Drain              | in NPT     | (2) 1/2                         |
| Feedwater Inlet                   | in NPT     | 1-1/2                           |
| Fuel Gas Inlet                    | in NPT     | 2-1/2                           |
| #2 Oil Inlet                      | in NPT     | N/A                             |
| Automatic "Surface" Blowdown      | in NPT     | Tees into Bottom Blowoff Piping |
| Bottom Blow-Off                   | in NPT     | 1.25                            |
| LVC Blow-Off                      | in NPT     | Tees into Bottom Blowoff Piping |
| Chimney Diameter                  | in OD      | 20                              |

| Electrical Ratings at 460V <sup>11</sup> |   |                  |                |         |
|------------------------------------------|---|------------------|----------------|---------|
| Feedwater Configuration <sup>12</sup>    | - | Std. Check Valve | MI Check Valve | No Pump |
| Electrical Rating                        | A | 66.1             | 66.1           | 41.1    |
| Min. Circuit Ampacity                    | A | 76.1             | 76.1           | 51.1    |

| Electrical Components & Controls |    |                                                      |
|----------------------------------|----|------------------------------------------------------|
| Power Supply                     | -  | 575, 460 or 208 Volts, 3 Phase, 60 Hz                |
| Blower Motor                     | HP | 30                                                   |
| Water Pump Motor <sup>13</sup>   | HP | 10                                                   |
| Water Booster Pump Motor         | HP | 7.5                                                  |
| Oil Pump Motor                   | HP | 0                                                    |
| Control Amperage                 | A  | 1.1                                                  |
| Combustion Control               | -  | 3-Position Step Burner (High - Low - Off)            |
| Combustion System                | -  | Forced Draft Burner                                  |
| Ignition System                  | -  | Electric Spark Ignited, Interrupted Gas Pilot        |
| Flame Safeguard                  | -  | Miura BL Microcontroller with Miura ZUV Flame Sensor |
| Low Water Protection             | -  | Primary and Secondary Low Water Cutoff Electrodes    |
| Miura Online Maintenance (M.O.M) | -  | Analog Phone Line or 3G Cellular, Optional           |

| Notes                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) Operating within this range ensures proper steam quality and limited relief valve leakage.                                                                                                                                                                                                                                                   |
| 2) Setpoint must be below the listed maximum operating pressure to accommodate overshoot. Contact your Miura representative to confirm operating pressure range for your specific application.                                                                                                                                                  |
| 3) Based on 68°F feedwater, 80°F combustion air, and minimum steam pressure. Feedwater temperature during normal operation must be ≥140°F. Efficiency decreases and flue gas temperature increases with increasing feedwater temperature and steam pressure. Contact your Miura representative to confirm values for your specific application. |
| 4) Equivalent output is calculated based on conversion of 212°F feedwater to 212°F steam.                                                                                                                                                                                                                                                       |
| 5) Fuel consumption assumes 1,020 BTU/SCF for natural gas, 91,500 BTU/US gal for LPG, and 140,000 BTU/US gal for #2 oil.                                                                                                                                                                                                                        |
| 6) Dry flue gas volume is corrected for the operating O <sub>2</sub> percentage and assumes F-factor of 8,710 SCF/MMBTU for natural gas/LPG and 9,190 SCF/MMBTU for #2 oil.                                                                                                                                                                     |
| 7) NO <sub>x</sub> and CO emissions are based on empirical test data corrected to 3% excess oxygen, all others are calculated using EPA factors.                                                                                                                                                                                                |
| 8) SO <sub>2</sub> factor assumes 0.002 grains/SCF for natural gas, 0.005 grains/SCF for LPG, 15ppm for #2 oil.                                                                                                                                                                                                                                 |
| 9) Operational water content is the average water content during normal operation for the entire boiler assembly including economizer.                                                                                                                                                                                                          |
| 10) Boiler safety valve outlet size is subject to change based on specific operating pressure.                                                                                                                                                                                                                                                  |
| 11) Convert to amps at a different voltage by multiplying value by the ratio of 460V/new voltage.                                                                                                                                                                                                                                               |
| 12) Multiple installation (MI) check valve is required with higher feedwater pressures (i.e. when using DA tank) and may require a larger pump.                                                                                                                                                                                                 |
| 13) Water pump size may vary depending on feedwater piping options.                                                                                                                                                                                                                                                                             |