NSWC
Dahlgren
Facilities Engineering Division

PERFORMANCE WORK STATEMENT

Building 218
Replace Boiler and Reconfigure Primary Pumps

Design Manager: John Lee 10/21/2025

1. PROJECT DESCRIPTION:

This project calls for replacing the existing boiler, with a new fire tube steel boiler that is of the same capacity and configuration. The boiler replacement is needed due to the age and operation efficiency of the existing boiler. Install new pressure and temperature gauges on the boilers supply and return piping.
Replace all disturbed insulation using like and kind fiberglass 2.0" insulation.
The Hot Water Primary pumps are currently configured/piped in a one for one with each pump dedicated to an individual boiler.
The current configuration does not allow for an N+1 pump sequence. This project will also require reconfiguring of the primary piping at the primary pumps header to include the addition of tees and valves that will allow for N+1 operation of the primary pumps. Replace existing Combustion Air and mechanical ventilation fans, controls, dampers, damper actuators, fans and fan controls. The new combustion dampers shall be hard wire interlocked with the boilers "On" command and shall also be controlled by a wall mounted thermostat that will activate the fan and the make up air damper when the space temperature is above 80 deg f (ADJ) or there is a call for the boiler to be on. Dampers are to close when the boilers are off and the room temperature set point has been satisfied.
Install new service lighting and fixtures (See the Basis Of Design), the lighting shall be LED lights fastened to the closest vertical structure seven (7) feet Above the finished floor. The LED shall have an articulating arm and be adjustable in all angles. Install and mount on the nearest vertical structure (Final Location to be coordinated) a twenty-five (25') foot retractable drop light. Both lights (Fixed/Retractable) are to be mounted in the same location. The power for this lighting shall come out of Panel B218A ME. The Panel Board is located on the North West wall of the mechanical room approximately 6 feet away from Boiler #1 and Three feet away from Boiler #2
The above service lighting requirement shall be for both boilers

The existing chimney/Flue shall be cleaned once the existing boiler has been removed and before the new boiler flue is re-connected to the existing flue stack. The contractor shall supply and install any and all flue piping needed to connect the new boiler to the existing flue stack. Any and all debris attached to the chimney cap shall be removed, to include nesting material. The new chimney cap shall be nest resistant to prevent future nesting.
The contractor shall install two carbon Monoxide detectors. Each detector shall be mounted five(5) feet above the finished floor. Mount one sensor per boiler on the west wall within 10 feet of each boiler.

All work is to take place at **Naval Support Activity South Potomac** (NSASP) Dahlgren, VA Building 218. All work shall occur during normal working hours and shall be performed in a manner that will minimize disturbance to the buildings occupants. Normal working hours are defined as Monday – Friday 0600-1600. Building escorts will not be required

APPLICABLE CODES AND STANDARDS:

The design and construction shall be in accordance with the latest revision/edition of the following referenced codes and standards. The term "Latest Revision/Edition" is defined as the version as of the project award date.

1. International Mechanical Code (IMC)
2. International Building Code (IBC)
3. National Electrical Code (NEC)
4. International Plumbing Code (IPC)
5. Unified Facilities Guide Specifications (UFGS)
6. Unified Facilities Criteria (UFC)
7. ASHREA Standards
8. US Army Corps of Engineers Safety and Health Requirements Manual EM 385

Existing Boiler Name Plate Info

Model # - ICB-100-100-030
Serial# - 0L105757
100 HP

Mechanical Work:

Demolition

- Lock out tag out equipment
- Demo the existing boiler.
- Demo all existing piping from the boiler connections
- Demo flue piping from the chimney to the boiler.
- Demo all insulation on the heating hot water piping that will be a part of this project
- Demo all building automation controls from the boiler.
- Demo the oil lines from the boilers burner to the first shut off fitting at systems fuel pump station.
- Demo existing fuel filter and fuel filter isolation valves
- Cut and remove all piping and insulation needed to reconfigure primary pump piping.
- Remove any piping needed to reconfigure primary pump piping configuration

4. New Work Boiler – See Basis Of Design

- Install a new boiler (See Basis Of Design) that matches the existing boilers heating capacity and foot print. The new boiler shall be a steel Firetube type boiler. All manufacturer minimum clearances around the boiler shall be adhered to.
- On a call for heat from the boiler controller, the damper shall be powered open and when the damper has proven open (through the use of an end switch). The boiler shall be energized and allowed to operate under its local temperature control. The boiler shall not be permitted to operate until the combustion damper end switch indicates the damper is at its full open position. Should the damper not reach the full open position, the boiler shall be inhibited from operating and send an alarm through DDC to show the combustion damper has not proven open. The boiler will not operate until the damper has been proven open. The alarm shall be manually reset through the DDC system. The manual reset of the combustion damper shall not reset the boiler until the damper has proven open.
- Install all necessary piping to reconnect the new boiler to the existing hot water system, install new temperature and pressure gauges on the supply and return side of the Hot water pump.
- All flue piping shall be cleaned from the mechanical room to the flue weather cap. Replace flue weather cap. Upon completion, the contractor will be required to show the Government the flue is clean and free of all debris and soot, prior to re-connecting the flue piping to the new boiler.
- Make all necessary connections to connect the new boilers flue piping back to the existing flue riser. All new flue piping shall be made airtight to prevent flue gases from entering the boiler room.
- Reinsulate flue piping using high temperature insulation and wrap. Match existing insulation type and R-value
- Reinsulate all hot water piping from the boiler to the building hot water riser. All new insulation shall match the type and R-value of the existing (2-inch Fiberglass) labeled identifying it as supply or return piping and flow direction using pipe placards.
- Boiler Relief valve shall be installed in such a manner that it is easily removed for annual pressure testing. The use of a union to attach safety relief to the boiler will be required
- Reconnect all building automation (DDC) wiring and controls back to the new boiler. Install new boiler supply temperature sensor and return temperature sensor. Verify sensor accuracy and make all necessary programing changes so all new sensors are viewable on the BAS graphical interface.
- Wire and confirm existing boiler isolation valve is operating properly

- Install new mercury style thermometers and pressure gauges on the supply and return heating pipes at the pumps piping. Install gauges/gauge isolation valves in a manner that allows replacement without loss of water.
- All building automation (DDC) points shall be viewable from the users graphical interface at building 182. The boiler start stop point shall be commandable from the users graphical interface at building 182.

- Install a new spin on (*automotive style*) oil filter on the supply oil line before the burner oil pump. The new filter shall have a suction pressure gauge installed on the body portion of the filter housing. Make all necessary connections to connect the existing oil lines back to the new oil filter and boilers. The boiler fuel supply line from the filter to the oil pump shall be a flexible fuel line rated for fuel oil at the designed fuel pressure.
- Supply and return fuel lines shall have ball valve type isolation valves installed (1) upstream of the fuel filter and (1) downstream of the fuel pump and one isolation valve shall be installed on the return oil line at the connection between the new flexible lines and the existing copper fuel lines.
- The boilers new supply/return fuel lines shall be flexible and installed from the existing copper lines to the boiler. Supply flexible line shall be from the outlet of the new spin on type filter to the boiler pump connection. The return oil line shall be flexible from the new ball valve isolation valve to the return connection on the fuel pump.
- Provide two new replacement oil nozzles sized to match the manufacturers original size type and angle. The replacement nozzles shall be turned over to the Government as part of the Operational and Maintenance (O&M) deliverables
- Install new primary pump piping according to Drawing 1.1
- Install an automatic valve(Line size) on the new shared return line at the hot water primary pumps. The new valve shall be controlled using a manual switch mounted beside the DDC panel. This switch shall be labeled “Pump Changeover”. The valve shall be two position and controlled using low voltage(24V A/C)

Hydronic Testing

- The contractor shall perform a hydro test to assure the pressure vessel does not have any leaks. The test must be witnessed and signed off as satisfied by a Government official.
- The contractor shall balance the primary Hot Water loop to assure minimum flow through the boiler in the bypass open position and the bypass closed position.

Combustion Air and Exhaust Air Fans

There are currently three (3) fans in the mechanical room. The north wall fan is used for combustion intake and mechanical room ventilation; the south wall, has two separate fans. One fan is used to exhaust the mechanical room while the second south wall fan is used for makeup air during an exhaust event. The three fans will be replaced as part of this project. When mechanical room space temperature exceeds the thermostat setting, the north and south side fans shall energize and operate until the room temperature is at or below the thermostat setpoint. During a call for heating, the combustion damper (North Wall Fans damper) will open and when the damper end switch activates(At 100% open) the boiler will be enabled to operate. The south side

fans will not be energized during a call for heat unless the call for heat and the temperature set point have been exceeded.

The fans will be replaced with Like in Kind replacements. The south side fans will operate via a wall mounted thermostat located central to the mechanical room. The thermostats shall be mounted five (5) feet above the finished floor.

New Hot Water Pump Piping

Install new piping and Normally Closed valve with actuator to allow for the operation of either P1 or P2 Hot Water Primary Pump to operate with either boiler. See piping Diagram. Actuator shall be powered by 24V volt with a command of open or closed.

Sequence of Operation – Pump Change over Valve – Valve to be Normally Closed The isolation valve shall be initiated/terminated manually at a local switch mounted beside the DDC panel. The valve actuator shall also have a manual override integral to the actuator's body. The valve shall be normally closed and only open when the push button has been activated. When the push button is pressed again, the valve shall close. The push button shall illuminate when in the active position. The active position shall be anytime the manual override has been initiated. The illuminating button shall be deenergized when the override has been released to its Normal position.

Electrical Work:

- Demolition
- Disconnect all power wiring to the boilers.
- Demo and remove the safety disconnect on the boiler.
- Remove power from the Hot Water pump. Lockout/Tag Out
- Disconnect combustion and relief fan(s) from Power

New Work – See Basis Of Design

- Reconnect the boiler to the existing boiler power circuit.
- Install a new service disconnect/safety switch at the boiler.
- Install a new adjustable LED light to the structural post next to the boiler. Mount light at 7’ AFF
- Install a new 25’ foot reeled retractable drop light
- Provide all wiring for the new combustion and relief fans to include new fan disconnect switches
- Provide and wire new blade type disconnects for combustion and mechanical room exhaust (1) one disconnect per fan. Line and load side

Push Button For Manual Pump Changeover

The new push button shall be installed next to or attached to, the DDC panel within B218A (Mechanical Room). The push button shall have an LED that lights up indicating the valve has been requested “On/Open”. The valve shall stay in the open position until the push button is once again pushed, deactivating/closing the valve. Once the button has been deactivated, the Light will go out. The push Button shall be labeled “ Primary Pump Switchover Valve”

COMMISSIONING:

- Contractor shall have a factory startup completed by a certified representative of the boiler manufacturer and submit all startup documents to the government. This report will be referred to as a startup report. The startup report shall be submitted to the project Construction Manager (CM) no later than one week after startup has been completed This report shall be included in the O&M manual.
- Contractor shall perform a combustion analyses report as part of startup and startup report. This report shall include flue temperature, flue draft, over fire draft and combustion efficiency. This shall be included in the O & M manual

- Contractor shall be responsible for the installation, startup of the new boiler and new valve in accordance to manufacturer recommendation.
- Contractor is responsible to coordinate the NAVFAC boiler certification through the NSWC CM. Contractor must provide at least a two-week notice of boiler startup to provide the Government time to assist in coordinating the boiler inspection.
- If required, the contractor shall return after initial startup to assist in the mandatory boiler certification. The Government will provide at least one week notice to the contractor of the pending certification date and time. The contractor should allow 8 hours for the boiler certification.
- DDC contractor shall submit to the government Point to Point verification that verifies the DDC sensor accuracy. This report shall be submitted to the project Construction Manager (CM) no later than two weeks after Point-to-Point verification has been completed for government review. This shall be included in the O & M manual
- The Government must witness the hydro testing of the boiler prior to acceptance.

CONTRACTOR CLEANUP:

- Contractor shall be responsible of and not limited to:
- Cleaning up debris on project site at the end of each working day.
- Properly dispose of removed materials and debris at completion
- Disposal of demoed material and equipment.
- The contractor is responsible for disposing all project demolition that the government does not want to keep.

OTHER PROJECT REQUIREMENTS:

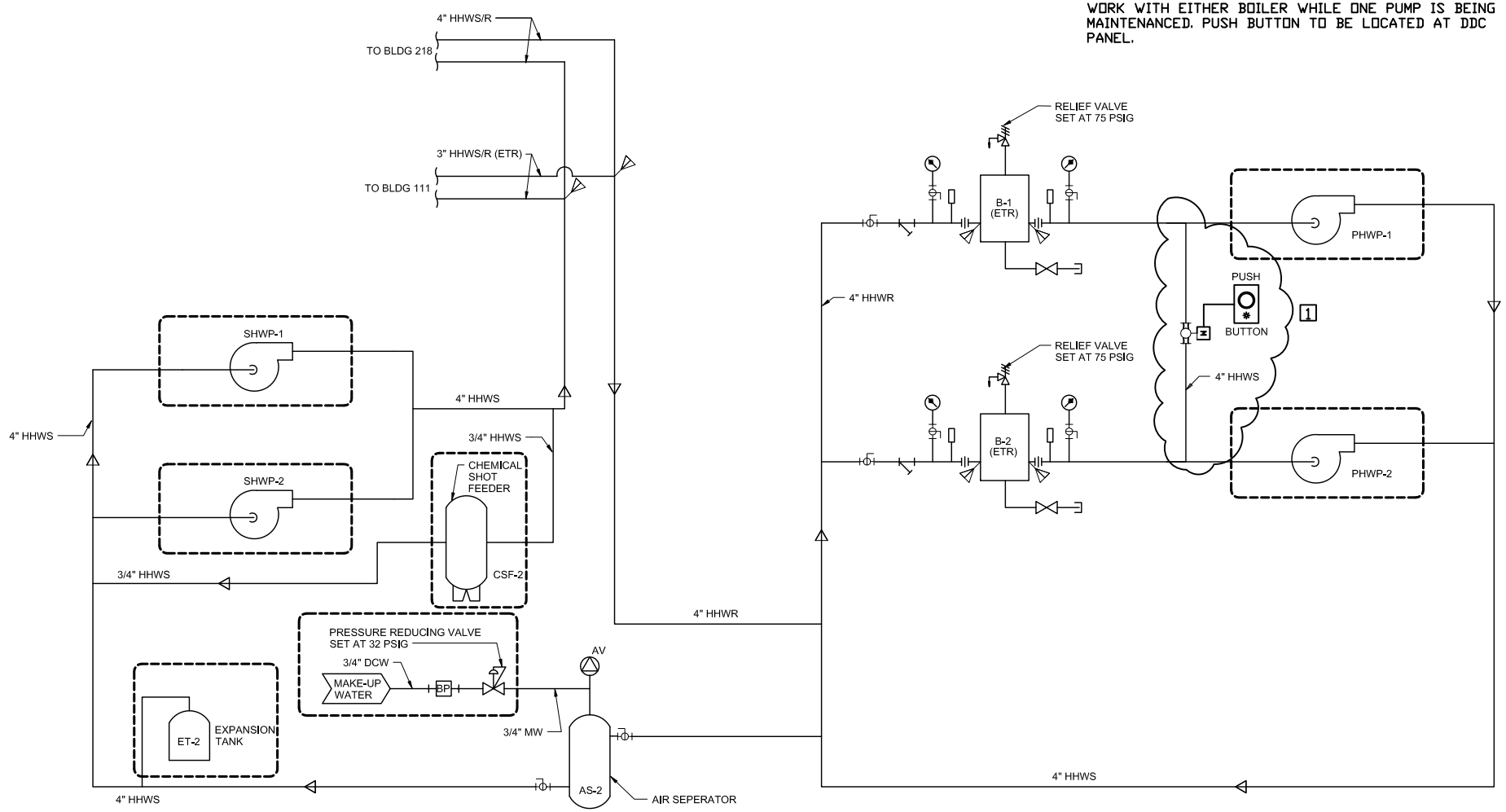
- Complete the CIMU Building Component Flat File for Dynamic and Non-Dynamic equipment. Government construction representatives shall post the form in a readily available location for easy viewing. The form should be updated as new materials and equipment are delivered to the construction site. The purpose of the form is to assist the Navy's Asset Management office maintain an accurate and current database of all materials and equipment in buildings on the base for future maintenance or repair actions.
- Contractor shall notify the projects Construction Manager (CM) at minimum five days before boiler demo so the boiler shop can be notified to recover any parts of use from boiler after boiler has been removed.

- **<u>Required Contractor Submittals:</u>**

- Boiler
- Building Automation (DDC) Controls
- Pipe Insulation
- Flue pipe
- Service Disconnect for boiler
- O&Ms 3 Hard copies and 3 electronic copies on a CD disk
- Push Button
- Valve
- Valve Actuator
- Retractable Drop Light
- Articulating LED light
- Combustion and Mechanical Room Fan(s) /Damper(s)/Thermostat(s)
- Anti Nesting all Weather Chimney Cap

GENERAL NOTES

[1] PROVIDE & INSTALL TWO 4" TEE'S, A 4" AUTOMATIC ISOLATION VALVE, AND ADDITIONAL PIPING, ABOVE THE PUMP MANUAL SHUTOFF VALVES TO ALLOW PUMPS TO BE MANUALLY (VIA PUSH BUTTON) CONFIGURED TO WORK WITH EITHER BOILER WHILE ONE PUMP IS BEING MAINTENANCED. PUSH BUTTON TO BE LOCATED AT DDC PANEL.



BLDG 218/ 111 HOT WATER FLOW DIAGRAM

Boiler House Repairs

ARCHITECTURAL DEMOLITION WORK:

1.) Remove and dispose of the existing asphalt shingle roofing and organic base sheet + all gutters and downspouts on B218A (Boiler House) it their entirety. The Contractor shall be responsible for all dumpsters and provide the total weight of all roofing removed to the Government. The contractor shall inspect underlying plywood roof decking once asphalt shingles and base sheet have been removed to determine if there is any damage to the decking material. If, following inspection of the plywood roof sheathing by both the contractor and government representative, portions of the decking are determined to need replacing, the Contractor shall replace roof decking, like in kind, prior to installation of the new asphalt roof system.

2.) Remove and dispose of the following at all exterior elevations of the boiler house
   a.) All vinyl siding and vinyl siding trim pieces.
   b.) Wood fascia and vertical wood trim at the (4) corners of the building.
   c.) Wood trim surrounding each exterior louver.

ARCHITECTURAL NEW WORK:

1. Provide all labor and materials necessary to install new asphalt roof shingles over a minimum 30-pound non-perforated asphalt saturated roofing felt meeting ASTM D226/D226M Type 2 or ASTM D4869/D4869M Type 4. The underlayment shall be applied over the entire roof deck prior to the installation of the new asphalt shingles. Provide and install 4-inch ogee style gutters along the entire perimeter roof edges and downspouts (6 total) at the same locations where existing downspouts are located and called to be demolished. Install an ice-dam protection membrane at the roof's eaves and extending upslope a minimum of 36 inches.
2. The color of the asphalt roofing shingles, gutters and downspouts shall be selected by the government from the manufacturer's full range of standard color options and shall meet the requirements of the base Installation Appearance Plan (IAP).
3. Provide and install roof flashing and counter flashing at roof ridges, eaves, valleys, rakes etc. per requirements and specifications noted in the current edition of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual at all roof penetrations (i.e pipe vents, mechanical vents, attic vents, equipment curbs etc., if any).
4. The asphalt roof shingles shall meet the requirements and design criteria of the International Building Code (IBC), current edition, for wind resistance/uplift.
5. Provide manufacturer's 25-year roof warranty at the completion of the work.
6. Provide/install new wood fascia and wood trim at building corners and wood trim surrounds at all exterior louvers. New wood fascia, corners and trim pieces shall match the dimensions (width, thickness, length etc.) and material of the existing wood that is to be demolished. Prep and paint new wood fascia, wood trim pieces and wood surrounds at louvers to match the new vinyl siding color. The government shall select the paint color from the manufacturer's full range of color options. Refer to and comply with all requirements of UFC 3-190-06 (Protective Coatings and Paints) for all exterior painting.
7. Provide all labor and materials necessary to install new vinyl siding and vinyl trim pieces along each exterior elevation of the boiler house. All work shall comply with Unified Facilities Criteria (UFC 1-200-01) and the International Building Code (IBC, current edition). Vinyl siding must be:
   - Certified and labeled as compliant with ASTM D3679 by an approved quality control agency.
   - Made primarily from rigid polyvinyl chloride (PVC) and designed as an exterior wall covering.
   - Installed according to the manufacturer's instructions.
   - Adhere to the IBC's wind pressure limits (e.g., 30 psf)
   - Provide/install a water-resistive barrier (WRB). Siding must be installed over sheathing and a code-compliant water-resistive barrier to protect the building from moisture.
   - **Fasteners:** Corrosion-resistant fasteners must meet specific dimensional requirements and penetrate the nailable substrate by at least 1-1/4 inches.

The ASTM D3679 standard covers the material specifications for rigid PVC siding. Products adhering to this standard must meet specific performance requirements for:

- **Material properties:** Tensile strength, impact resistance, and weather resistance.
- **Heat resistance:** The ability to withstand heat without warping or deforming.
- **Dimensional stability:** The ability to maintain shape and size through temperature changes.
- **Appearance:** Color uniformity, surface opacity, and color retention.

SUBMITTALS:

Submit (4) copies of the following for government review and approval prior to proceeding with work:

Pre-Construction Submittals:

1. Accident Prevention Plan (APP)
2. Activity Hazard Analysis (AHA)
3. Asphalt Roofing System Product Data (including gutters and downspouts)
4. Asphalt roofing color samples and paint color samples for the gutters and downspouts
5. Vinyl siding product data and color samples
6. Paint color samples for wood trim

Construction Submittals:

1. Roof Warranty

HURST

BOILER & WELDING CO., INC.

AVAILABLE WITH LOW NOX

HURST SERIES LPW

3-PASS MODIFIED SCOTCH DESIGN
Compact Fire Tube Construction

Hot Water Applications
30 PSI Standard
60 PSI Water Optional

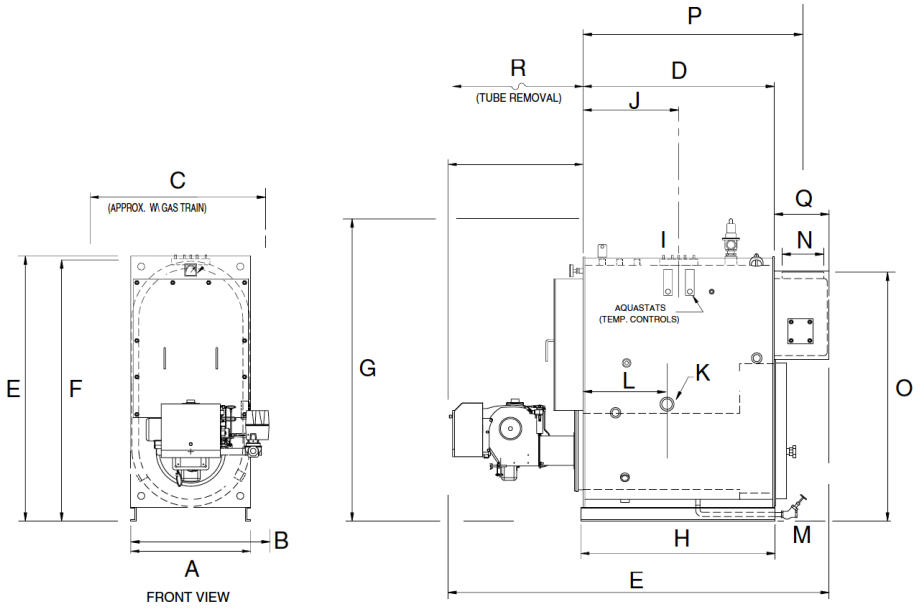
THROUGH THE DOOR DESIGN!

LOW PRESSURE BOILER
Capacities from 30 to 125 BHP.
1260 to 5250 MBTU/HR.

SKID MOUNTED
MODULAR PACKAGED

HURST PERFORMANCE SERIES BOILERS

SERIES LPW



BOILER SPECIFICATIONS

	BOILER HORSEPOWER			30	40	50	60	70	80	100	125	
	FIRESIDE HEATING SURFACE		SQ. FT.	120	160	200	235	284	338	418	511	
	FURNACE VOLUME		CU. FT.	7.85	9.88	11.9	16.5	19.4	22.4	25.3	29.0	
	GROSS OUTPUT		MBH	1004	1339	1674	2009	2343	2678	3348	4184	
	FIRING RATE GAS	1,000 BTU CU./FT.	CFH	1260	1680	2100	2520	2940	3360	4200	5250	
	FIRING RATE LIGHT OIL	140,000 BTU	GPH	9	12	15	18	21	24	30	37.4	
A	WIDTH WITHOUT TRIM		IN	31	31	31	34.5	34.5	34.5	34.5	34.5	A
B	WIDTH WITH TRIM		IN	38	38	38	42	42	42	42	42	B
C	OVERALL WIDTH W/ GAS TRAIN		IN	49	49	49	52	52	52	52	52	C
D	BOILER LENGTH		IN	37	49	61	55	67	79	91	106	D
E	OVERALL LENGTH W/ STD. BURNER		IN	86	98	114	111	123	140	152	169	E
F	SUPPLY HEIGHT		IN	71.5	71.5	71.5	76.625	76.625	76.625	76.625	76.625	F
G	HEIGHT WITH TRIM		IN	80	80	83	88	88	88	93	93	G
H	LENGTH OF SKID		IN	37.5	49.5	61.5	55.5	67.5	79.5	91.5	106.5	H
I	SUPPLY SIZE		IN	4	4	4	6	6	6	6	6	I
J	SUPPLY LOCATION		IN	18.5	24.5	30.5	17.5	33.5	39.5	45.5	50.5	J
K	RETURN SIZE		IN	4	4	4	4	4	4	4	4	K
L	RETURN LOCATION		IN	27.25	27.25	27.25	32	32	32	32	32	L
M	BOILER DRAIN SIZE		IN	1	1.25	1.25	1.25	1.5	1.5	1.5	1.5	M
N	STACK DIAMETER, O.D.		IN	10	10	10	12	12	12	12	14	N
O	STACK HEIGHT		IN	66.75	66.75	66.75	70.25	70.25	70.25	70.25	72	O
P	TO CENTER OF STACK		IN	6.875	6.875	6.875	8.25	8.25	8.25	8.25	9.25	P
Q	REAR SMOKEBOX DEPTH		IN	13.75	13.75	13.75	15.75	15.75	15.75	15.75	17.75	Q
R	TUBE PULL SPACE		IN.	38	50	62	56	68	80	92	107	R
	SHIPPING WEIGHT		LBS	3050	3800	4500	4500	5285	6100	6950	8010	
	WATER CONTENT - WATER		GAL.	134	180	232	243	298	376	404	463	
	BOILER HORSEPOWER			30	40	50	60	70	80	100	125	

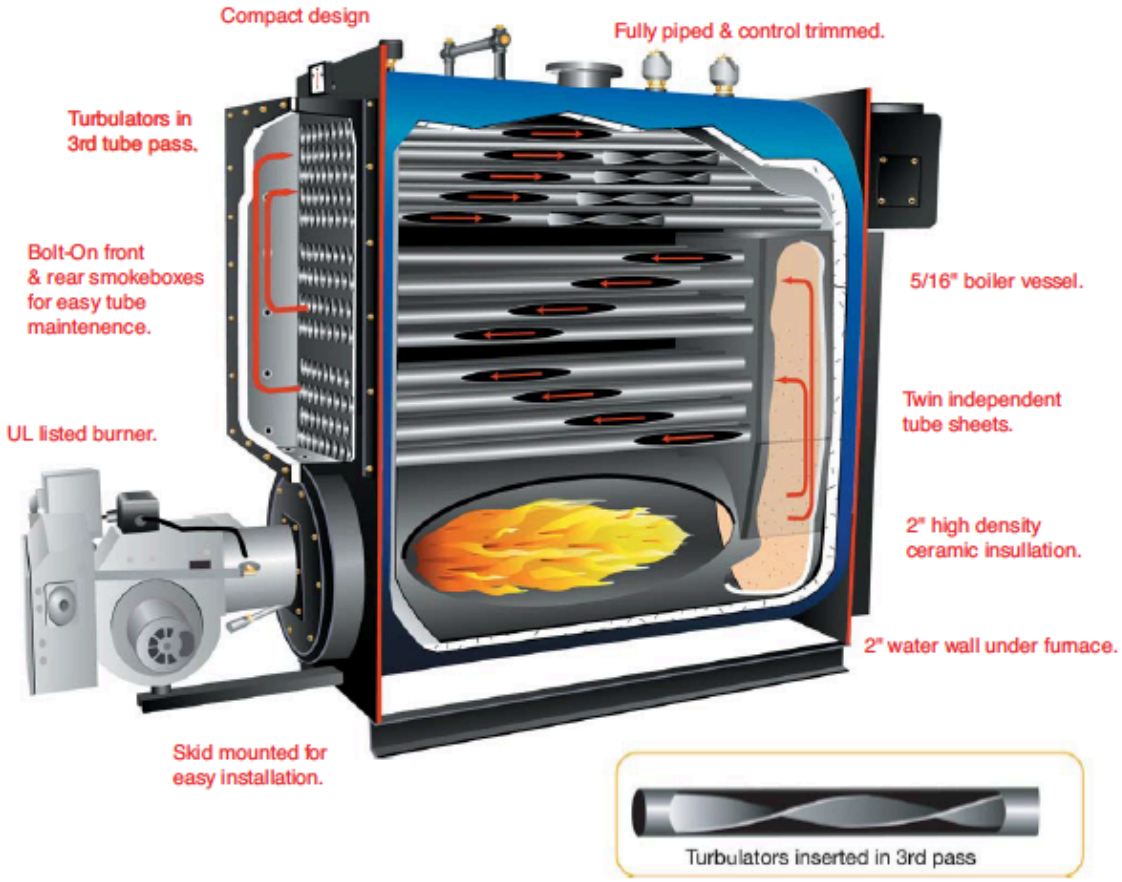
Designed, constructed and stamped in accordance with the requirements of the ASME Boiler Codes.

Inspected and registered with the National Board of Boiler & Pressure Vessel Inspectors.

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE, CERTIFIED DRAWINGS AVAILABLE ON REQUEST
4" CONNECTIONS ARE FEMALE THREADED, 6" CONNECTIONS ARE 150 LB. STUDD'G.FLG.

Through The Door Design

Low Pressure Three Pass Design



STANDARD EQUIPMENT

BOILER: Three pass design for 30 psi hot water (available for 60 psi water). Factory assembled with trim and, tested in accorance with ASME code, UL, and CSD-1 codes. Steel turbolators inserted in third pass for maximum heat-transfer control.

STANDARD BOILER TRIM: Kunkle safety relief valve, operating temperature control, high limit temperature control with manual reset, 3 1/2" combination pressure & temperature gauge, M&M 750 low water cut-off control with manual reset.

BURNER: UL listed with pre-piped, wired and factory tested forced draft power burners for:

- Natural Gas
- Propane (LP) Gas
- No. 2 (Diesel) Oil
- Combination Gas/Oil.

HURST

- Factory Assembled, Pre-wired and Tested
- No Field Assembly Required
- UL Listed Boiler/Burner Packages Available
- Fully Assembled, Pre-piped, Pre-wired, Pressure Tested Gas Trains
- Complies with ASME, UL, CSD-1 and ASHRAE Standards
- High Efficiency, Low Stack Temperatures
- Customer Service Support Through National Network of Sales, Service, Start-up Training and Parts by Factory Representatives

Modified Scotch Designed To Fit Through A Standard 36" X 80" Door Opening Up To 100hp (3,348 Mbh Output).

- Welded steel fire tube boiler, the LPW has extra-heavy 13-gauge tubes for extended life. All tubes are sealed to the tube sheets by rolling and flaring. There are no welded tubes in the LPE.
- Thickest materials used in the industry . . .
  Boiler shell is 5/16" thick boiler plate 20-40 HP / 3/8" 50-100 HP.
- Twin boiler tube sheets are 1/2" thick boiler plate.
- Insulation is 2" mineral wool and is lagged with 22-gauge boiler jacket.
- Extra heavy 4" channel iron boiler skids.
- Designed to last with special industrial grade features . . .
  A. Couplings are 3,000 psi.
  B. Flanged, detachable front and rear smoke boxes.
  C. Brass nuts on access panels, brass plugs installed in inspection, crosses and tees on water and steam piping trim.

08/2018

HURST BOILER
& Welding Co., Inc.
100 Boilermaker Lane • Coolidge, GA 31738-0530
Tel: (229) 346-3545 • Fax: (229) 346-3874
email: info@hurstboiler.com

60W DORVAN | LED DOCK LIGHT

PRODUCT DESCRIPTION

THE DORVAN SERIES IS THE BEST IN WORK LIGHTING WITH ITS ALL-NEW ADJUSTABLE ARM IT ALLOWS YOU TO LIGHT UP YOUR WORKSPACE PERFECTLY FOR YOU NEEDS!

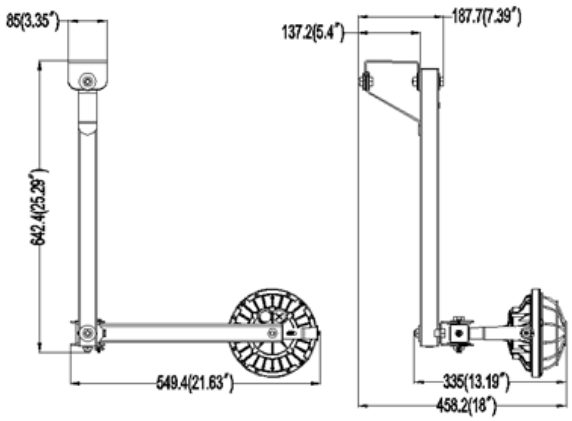
RGL-DORVAN-60W

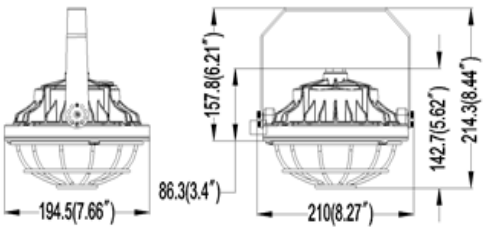
PRODUCT FEATURES & COMMON USE APPLICATIONS

- ✓ UL cUL
- ✓ Input voltage 120-277Vac
- ✓ No UV or IR in the beam
- ✓ Easy to install and operate
- ✓ Energy saving, long lifespan
- ✓ Instant start, NO flickering, NO humming
- ✓ Green and eco-friendly without mercury
- ✓ Surge 4kv-6kv.

- ✓ Construction Site
- ✓ Residential renovations
- ✓ Dock etc.
- ✓ Shipyard, Airport, wharf

PRODUCT DIMENSIONS





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Industrial Grade Solutions

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sales@ruggedgrade.com

60W DORVAN | LED DOCK LIGHT

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PRODUCT TECHNICAL SPECIFICATIONS

OPTICAL	Input Power (Tolerance: ±10%)	60W 3000K/4000K/5000K (CCT adjustable)		
	Color Temperature	3000K	4000K	5000K
	Lumen (Tolerance: -10%)	7200 LM	7500 LM	7800 LM
	Efficacy (Tolerance: -3%)	130 LM/W		
	CRI	>80		
	Distribution Pattern	NA		
	Beam Angle (50%) (Tolerance: ±15%)	15° /80° /110°		
	Input Voltage and Frequency	120VAC, 50/60Hz		
	PF (Tolerance: -3%)	≥0.9		
ELECTRICAL	THD (Tolerance: +5%)	≤20%		
	Flicker Percent	<5%		
	Driver Brand	RG Driver		
	Driver Model	NA		
	Driver Surge protection	L/N-PE: 4kV, L-N:4kV		
	Dimming	No		
	Optional Accessory	None		
	LED Brand	Lumileds		
	LED Type	SMD2835		
MATERIALS	LED QTY	162 PCS		
	Housing	aluminum		
	Housing Color	Special Orange		
	EPA	Call for more info		
	Waterproof Rating	WET（IP65）		
	Operating Temperature	-40℃ TO 45℃		
	Storage Temperature	-40℃ TO 80℃		
OTHERS	Operating Humidity	10% - 90% RH		
	Storage Humidity	10% - 75% RH		
	Warranty	5 years warranty with 24/7 operating hours Luminaire lifetime at 25℃.		

PRODUCT ACCESORIES

60W DORVAN | LED DOCK LIGHT

PRODUCT IMAGES & ACTUAL INSTALLATIONS

Alert Reel Manufacturing, LLC
2 Grimsby Drive, Hamburg, NY 14075

1500 Lumen COB LED Cord Reel Work Light

SKU: 8150MM

Product Description

- 14W COB LED
- 1500 Lumens
- Heavy-duty industrial grade thermo plastic reel
- 50ft 14/3 SJT Cord
- Grounded Outlet and ON-OFF Switch in Handle
- Power "ON" Indicator Light
- Integrated Magnet
- Folding Swivel Hook
- Top Protective Bumper
- Over-Molded Rubber Handle
- Heavy Duty Steel mounting bracket
- Guide rollers for easier retraction
- Convenient carrying handle

Additional Information

CORD LENGTH	50 Ft
CORD TYPE	SJT
GAUGE	14/3
LUMENS	1500
MASTER PACK	4
MASTER PACK WEIGHT	30.4 lbs
TOTAL MAX. RATING	1625W, 13A, 125V
UPC	0-40082-43116-3

Contact Us: 716.648.1048
Info At: www.alertreels.com