RECEIVED

FEB 9 REC'D

[redacted]

CONSTRUCTION PERMIT APPLICATION

BUILDING

I. IDENTIFICATION

1. Proposed Work at: 732 Lions Lane; Bricktown, N.J.
2. Owner Name: Steve Desmond Te [redacted]
   Address 732 Lions Lane; Bricktown, N.J.
3. Principal Contractor: Marc Energy Corp. Tel. (800) 822-6687
   Address P. O. Box 68; Riverton, N.J. 08077
   Lic. No. or Builder Reg. No. _____ Federal Emp. No. 22-2386806
4. Architect or Engineer: Bradley R. Davis Tel. (800) 822-6687
   Address P. O. Box 68; Riverton, N.J. 08077
5. Responsible Person in Charge of Work Bradley R. Davis Tel. (800) 822-6687

II. PROPOSED WORK

A. TYPE OF WORK

1. ☐ Minor Work (Single Trade)
2. ☐ Small Job ($5,000 and no Prior Approvals)
   Complete only II.B., III and IV.A. and Page 2
3. ☐ New Building
4. ☐ Addition
5. ☐ Alteration
6. ☐ Repair, Replacement
7. ☐ Demolition
8. ☐ Other: Elec. To Gas Conversion

B. CATEGORIES OF WORK

Permit/Category		Estimated
1. ☐	Building/ Structural	$ _____
2. ☒	Plumbing	_____
3. ☒	Electrical	_____
4. ☒	Fire Protection	_____
5. ☐	Other _____	_____
6. ☐	Other _____	_____
	TOTAL COST	$ STAT

C. DO YOU WANT:

1. ☐ Partial Releases 2. ☐ Prototype Processing

D. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Dumbwaiters
2. ☐ High-Pressure Boilers
3. ☐ Refrigeration Systems
4. ☐ Pressure Vessels
5. ☐ Hazardous Uses/Places of Assembly
6. ☐ Cross-connections/ Backflow Preventors
7. ☐ Sprinklers
8. ☐ Smoke Control Systems in Open Wells

III. DESCRIPTION OF BUILDING USE (USE GROUPS)

A. RESIDENTIAL

1. ☐ Hotels (R–1)
2. ☐ Multi-Family (R–2) HMD Reg. No.: _____
3. ☐ Two Family (R–3b)
4. ☒ One-Family (R–3a)

If new construction, enter no. of dwelling units _____

If other than new construction, enter no. of dwelling units:

Before Construction: _____

After Construction: _____

Net Gain (or loss): _____

B. NON-RESIDENTIAL

5. ☐ Theatres with Stage (A–1–A)
6. ☐ Movie Theatres (A–1–B)
7. ☐ Night Clubs (A–2)
8. ☐ Restaurants, Libraries, Museums (A–3)
9. ☐ Religious Assembly (A–4)
10. ☐ Outdoor Assembly (A–5)
11. ☐ Business (B)
12. ☐ Educational (E)
13. ☐ Moderate-Hazard Factory (F–1)
14. ☐ Low-Hazard Factory (F–2)
15. ☐ High-Hazard (H)
16. ☐ Institutional Detention Center (I–1)
17. ☐ Hospitals, Infirmaries (I–2)
18. ☐ Group Homes (I–3)
19. ☐ Mercantile (M)
20. ☐ Moderate-Hazard Warehouse (S–1)
21. ☐ Low-Hazard Warehouse (S–2)
22. ☐ Temporary, Misc. (U)
23. ☐ Other _____

State Specific Use: _____

If Change in Use Group, Indicate Former: _____

IV. BUILDING CHARACTERISTICS

A. OWNERSHIP

1. ☒ Private (Individual, Corp., Non-profit Inst., Etc.)
2. ☐ Public (State, County or Local Govt.)

B. HEATING FUEL

	Principal	Secondary	Type
3.	☒	☐	Gas
4.	☐	☐	Oil
5	☐	☐	Electric
6.	☐	☐	Solid (Wood,Coal,Etc.)
7.	☐	☐	Propane
8.	☐	☐	Solar
9.	☐	☐	Other _____

C. TYPE OF SEWAGE DISPOSAL

10. ☐ Public or Private Company
11. ☐ Private (Septic Tank, Etc.)

D. TYPE OF WATER SUPPLY

12. ☐ Public or Private Company
13. ☐ Private (Well, Etc.)

E. BUILDING CHARACTERISTICS

14. No. of Stories _____
15. Height of Structure _____ Ft.
16. Area–Largest Floor _____ Sq. Ft.
17. Bldg. Area–All Fls. _____ Sq. Ft.
18. Volume of Structure _____ Cu. Ft.
19. Total Land Area Disturbed _____ Sq. Ft.

LDS BR 10511774

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION

I hereby certify that I am the owner of the property listed on Page 1. This dwelling is to be occupied by myself and is not to be used for any purpose, other than single family residential use.

A. ☐ I further certify that I prepared the plans submitted. This statement is made in accordance with the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)vii.

B. ☐ I further certify that I will perform the work below.

B1. ☐ Building B2. ☐ Electrical B3. ☐ Plumbing

C. ☐ I further certify that a new home will be constructed on this property, for my use and occupancy. I attest that all design, construction, plumbing, or electrical work will be done by me or by subcontractors under my supervision, in accordance with all applicable laws; and further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.A.C. 46:3B-1 et. seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

SIGNATURE _____ DATE _____

II. AGENT SECTION

I hereby certify that the work is authorized by the owner of record and I have been authorized by the owner to make this application as his agent.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ **Check if contractor.**

AGENT NAME Bradley R. Davis TEL.(800 822-6687

ADDRESS P. O. Box 68

Riverton, N.J. 08077

SIGNATURE Brad Davis, Pres/Dep

BLOCK NO. 673.13 LOT NO. 10 SUBDIVISION _____ PERMIT NO. 227

PRIOR APPROVALS CHECKLIST

APPROVALS	LOCAL				COUNTY				REGIONAL				STATE				COMMENTS
	Prelim. Approval		Final Approval		Prelim. Approval		Final Approval		Prelim. Approval		Final Approval		Prelim. Approval		Final Approval		
	Init.	Date	Init.	Date	Init.	Date	Init.	Date	Init.	Date	Init.	Date	Init.	Date	Init.	Date	
☐ Planning Board																	
☐ Zoning Board																	
☐ Sewer Authority																	
☐ Water Authority																	
☐ Fire Department																	
☐ Police Department																	
☐ Health Department																	
☐ Soil Conservation																	
☐ N.J. Dept. of Community Affairs																	
☐ N.J. Dept. of Transportation																	
☐ N.J. Dept. of Environmental Protection																	
☐ Other: _____																	
☐ _____																	
☐ _____																	
☐ _____																	
☐ _____																	
☐ _____																	
☐ _____																	

SUBCODES AND SPECIAL REGULATIONS APPLICABLE:

	EDITION OF CODE		EDITION OF CODE		
☐ One and Two Family Dwellings	_____	☐ Mechanical	_____	☐ Flood Hazard	_____
☐ Building	_____	☐ Energy	_____	☐ As Built Elevation Certification	_____
☐ Electrical	_____	☐ Barrier Free	_____	☐ Other	_____
☐ Plumbing	_____	☐ Other	_____		_____

PERMIT CONTROL

I. PLAN REVIEW STATUS

Updated at time of receipt of drawings and when plans are approved.

☐ PARTIAL RELEASES
☐ PROTOTYPE PLAN – FILE LOCATION AND NO. _____

Plan Review Required	Type of Work	Plans Received By Date	Plans Received By Receiver	Approval Date	Reviewer	Comments
☐	BUILDING					
	Footings/Foundations					
	Framing					
	Architectural					
	Other _____					
☒	PLUMBING			2-10-88	JE	
☐	ELECTRICAL					
☒	FIRE PROTECTION			2-10-88	JE	
☐	OTHER _____					

II. PERMIT/INSPECTION STATUS

Updated at time of permit and after final approvals.

Issue Date	Category	Revisions			Final Inspection	Comments
_____	ALL CONSTRUCTION					
_____	BUILDING					
_____	Footings/Foundations					
_____	Framing					
_____	Architectural					
_____	Other _____					
✓	PLUMBING				3-1-88 DM	
_____	ELECTRICAL					
✓	FIRE PROTECTION				3-1-88 JE	
_____	OTHER _____					

III. CERTIFICATES ISSUED

CERTIFICATES TO BE ISSUED:	Date Issued
☐ Temporary Certificate of Occupancy Date Expired _____	_____
☐ Temporary Certificate of Occupancy Date Expired _____	_____
☐ Certificate of Occupancy No. _____	_____
☐ Certificate of Continued Occupancy No. _____	_____
☐ Certificate of Approval No. _____	_____
☐ None	

IV. ON-GOING INSPECTIONS

On-going Inspections Required (See Page 1, II.D.)	Date Posted to Log and Tickler

V. FEE SUMMARY

Initial fee collection recorded in A; all others in section B.

A. COLLECTED AT TIME OF CONSTRUCTION PERMIT ISSUANCE

	AMOUNT
BUILDING	$ _____
PLUMBING	45.00
ELECTRICAL	_____
FIRE PROTECTION	15.00
OTHER _____	_____
SUBTOTAL	$ 60.–
– LESS: 20% of subtotal (when plan review performed by state agency).	(_____)
D.C.A. TRAINING FEE .0006 x _____ =	_____
CERTIFICATE OF OCCUPANCY	20.–
OTHER _____	_____
OTHER _____	_____
TOTAL COLLECTED WHEN PERMIT ISSUED	$ 80.–

DATE 2/15/88 Collected By JE CR

B. COLLECTED AFTER CONSTRUCTION PERMIT ISSUANCE

	Date	Collected By	AMOUNT
CERTIFICATE OF OCCUPANCY			
OTHER			
OTHER			
– LESS: Refunds			( )
TOTAL COLLECTED AFTER PERMIT ISSUED			$

C. TOTAL CONSTRUCTION FEES COLLECTED

	AMOUNT
COLLECTED WITH PERMIT (VA)	$
COLLECTED AFTER PERMIT (VB)	
TOTAL	$

ELECTRICAL SUBCODE TECHNICAL SECTION

NEW JERSEY UNIFORM CONSTRUCTION CODE

PERMIT NO. _____
DATE ISSUED _____
REVISION DATE 6.13.13 /17
Block _____ Lot _____
Subdivision _____

A. IDENTIFICATION

APPLICANT – *Complete unshaded areas only*

When changing contractors, notify this office

Owner Steve Desmond
Address 732 Lions Lane Bricktown, N.J.
Tel. [redacted] Same

Contractor Marc Energy Corp.
Address P. O. Box 68 Riverton, N.J. 08077
Tel. (609) 786-1240
Lic.No./Bus. Permit 22-2386806
Federal Emp. No. _____

Work Site Address _____

CERTIFICATION IN LIEU OF OATH:

(Complete for Minor Work and Small Job Only)

I hereby certify that the proposed work is authorized by the owner of record and I have been authorized by the owner to make this application as his agent.

Marc Energy Corp.
AGENT SIGNATURE

B. TECHNICAL SITE DATA

List all wiring and equipment and provide necessary data

TYPE OF WORK:

No.	Item	Fee	No.	Item	Fee
	Switching Outlets	$	1	H.V.A.C. Equipment	$
	Lighting Outlets			Switching Devices	
	Receptacle Outlets			Transformers	
	Range/Oven			Motors/Generators/ Compressors *(state no. and size of each)*	
	Dryer, Electric				
	Water Heater, Electric				
	Heating, Electric				
	Switches				
	Lighting Fixtures			Other	
	Receptacles			Other	
	Bonding, Pool/Vault			Other	
	Service/Feeders			Other	
	COLUMN 1	$		COLUMN 2	$

Fee	
COLUMN 1	$
COLUMN 2	
SUBTOTAL	$
Minimum Electrical Fee (If applicable)	$
Total Electrical Fee *(Greater of Minimum or Subtotal)*	$

M-15, #7661

C. ELECTRICAL CHARACTERISTICS

USE GROUP: _____ Present _____ Proposed

Service: _____ Amps _____ Phase _____ System Type

_____ Wire _____ Volts _____ Wiring Method

Total No. of Meters: _____

Estimated Cost of Electrical Work: $ 5825.00

D. COMMENTS

Installation of a Weil McLain HE 4 gas boiler and a Hydromate indirect water heater.

☐ Partial Releases ☐ Prototype Processing

FIRE SUBCODE TECHNICAL SECTION

PERMIT NO. 227
DATE ISSUED 2-15-88
REVISION DATE
Block 673.13 Lot 10
Subdivision

A. IDENTIFICATION

APPLICANT — *Complete unshaded areas only* — When changing contractors, notify this office

Owner: Steve Desmond
Address: 732 Lions Lane, Bricktown, N.J.
Tel. [redacted]
Work Site Address: Same

Contractor: Marc Energy Corp.
Address: P. O. Box 68, Riverton, N.J. 08077
Tel. (800) 822-6687
Lic. No.
Federal Emp. No. 22-2386806

CERTIFICATION IN LIEU OF OATH:

(Complete for Minor Work and Small Job Only)

I hereby certify that the proposed work is authorized by the owner of record and I have been authorized by the owner to make this application as his agent.

AGENT SIGNATURE

B. TECHNICAL SITE DATA

B1. SPRINKLERS

TYPE: ☐ Wet ☐ Dry ☐ Other
Area Sprinkled: ☐ Full ☐ Partial (specify in comments)
No. of Heads: No. of Spare Heads:
☐ Valves Supervised — Method:
Water Supply — Source: Size:
FD Connection Location:
Estimated Cost of Work: $

FEE $

B2. SPECIAL SUPPRESSION SYSTEMS

TYPE: ☐ Dry Chemical ☐ CO_2 ☐ Halon ☐ Foam ☐ Other
Manual Pull: ☐ Yes ☐ No
Locations:
Estimated Cost of Work: $

$

B3. ALARM

TYPE: ☐ Manual ☐ Automatic
Supervision Type: ☐ Local ☐ Central ☐ Proprietary ☐ Remote Location
Estimated Cost of Work: $

FEE $

B4. STAND PIPES

Pipe Size: Pump Size:
Water Source: Size:
FD Connection Location:
Hose Station: ☐ Yes ☐ No
Estimated Cost of Work: $

$

B5. OTHER

Installation of a Weil McLain HE 4 gas boiler and a Hydromate indirect water heater. $ 15

Subtotal $

Minimum Fire Protection Fee (If Applicable) $

Total Fire Protection Fee (*Greater of Minimum or Subtotal*) $ 15

C. FIRE PROTECTION CHARACTERISTICS

USE GROUP Present Proposed
Heating Systems — Location:
Type: ☐ Gas ☐ Oil ☐ Electrical ☐ Solar ☐ Other
Fuel Storage Tank — Location: Fuel Type: Capacity:
Total Estimated Cost of Fire Protection Work: $ 5825.00

D. COMMENTS

☐ Partial Releases ☐ Prototype Processing

U.C.C. Form F-140 (8/83) Green = Office Copy White = Applicant Copy Pink = Inspection Copy

[redacted]

PLUMBING SUBCODE TECHNICAL SECTION

NEW JERSEY UNIFORM CONSTRUCTION CODE

PERMIT NO. 221
DATE ISSUED 2-15-85
REVISION DATE
Block 673.13 Lot 10
Subdivision

A. IDENTIFICATION

APPLICANT – *Complete unshaded areas only*

When changing contractors, notify this office

Owner Steve Desmond
Address 732 Lions Lane
Bricktown, N.J.

Tel. [redacted]
Work Site Address Same

Contractor Arthur Arbuthnot
Address 110 Front St.; Keyport, N.J.
P. O. Box 68; Riverton, N.J.

Tel. (800) 822-6687 or (201) 290-8420
Lic.No./Bus. Permit 1697
Federal Emp. No. 22-2386806

CERTIFICATION IN LIEU OF OATH:
(Complete for Minor Work and Small Job Only)

I hereby certify that the proposed work is authorized by the owner of record and I have been authorized by the owner to make this application as his agent.

AGENT SIGNATURE

B. TECHNICAL SITE DATA

List all fixtures

TYPE OF WORK:

No.	Fixture	Fee	No.	Fixture	Fee
	Water Closet/Bidet/Urinal	$		Garbage Disposal	$
	Bathtub			Air Conditioner Unit	
	Lavatory/Sink			Indirect Connection	
	Shower/Floor Drain			Sewer Ejector	
	Washing Machine			Grease Trap	
	Dishwasher			Interceptor	
	Commercial Dishwasher			Backflow Device	
1	Water Heater	5.-		Reduced Pressure Backflow Device	10.-
1	Domestic Boiler/ Furnace	15.-		Vent Stack	
	Steam Boiler			Solar System	
	Water Util. Connection			Other GAS PIPING	15.-
	Sewer Util. Connection			Other	
	Hose Bibb			Other	
	Water Cooler			Other	
	COLUMN 1	$ 20.-		COLUMN 2	$ 25.-

Fee	
COLUMN 1	$ 20.-
COLUMN 2	$ 25.-
SUBTOTAL	$
Minimum Plumbing Fee (If applicable)	$
Total Plumbing Fee *(Greater of Minimum or Subtotal)*	$ 45.-

C. PLUMBING CHARACTERISTICS

USE GROUP: _____ Present _____ Proposed

Drainage – Material _____ Size _____
Building Sewer – Material _____ Size _____
Water Service – Material _____ Size _____
Venting – Material _____ Size _____

Estimated Cost of Plumbing Work: $ 5825.00

D. COMMENTS

Installation of a Weil McLain HE 4 gas boiler and a Hydromate indirect water heater.

☐ Partial Releases ☐ Prototype Processing

U.C.C. Form F-130 (8/83) Green = Office Copy White = Applicant Copy Blue = Inspector Copy

FIRE SUBCODE
TECHNICAL SECTION

UNIFORM CONSTRUCTION CODE — NEW JERSEY

PERMIT NO. 127
DATE ISSUED 2-15-88
REVISION DATE
Block 673.13 Lot 10
Subdivision

A. IDENTIFICATION

APPLICANT — *Complete unshaded areas only* — When changing contractors, notify this office

Owner: Steve Desmond
Address: 732 Lions Lane
Bricktown, N.J.
Tel. [redacted]
Work Site Address: Same

Contractor: Marc Energy Corp.
Address: P. O. Box 68
Riverton, N.J. 08077
Tel. (800) 822-6687
Lic. No.
Federal Emp. No. 22-2386806

CERTIFICATION IN LIEU OF OATH:

(Complete for Minor Work and Small Job Only)

I hereby certify that the proposed work is authorized by the owner of record and I have been authorized by the owner to make this application as his agent.

AGENT SIGNATURE

B. TECHNICAL SITE DATA

B1. SPRINKLERS

TYPE: ☐ Wet ☐ Dry ☐ Other _____ FEE
Area Sprinkled: ☐ Full ☐ Partial (specify in comments)
No. of Heads: _____ No. of Spare Heads: _____
☐ Valves Supervised — Method: _____
Water Supply — Source: _____ Size: _____
FD Connection Location: _____
Estimated Cost of Work: $ _____ $ _____

B2. SPECIAL SUPPRESSION SYSTEMS

TYPE: ☐ Dry Chemical ☐ CO_2 ☐ Halon ☐ Foam ☐ Other _____
Manual Pull: ☐ Yes ☐ No
Locations: _____
Estimated Cost of Work: $ _____ $ _____

B3. ALARM

TYPE: ☐ Manual ☐ Automatic FEE
Supervision Type: ☐ Local ☐ Central ☐ Proprietary ☐ Remote Location
Estimated Cost of Work: $ _____ $ _____

B4. STAND PIPES

Pipe Size: _____ Pump Size: _____
Water Source: _____ Size: _____
FD Connection Location: _____
Hose Station: ☐ Yes ☐ No
Estimated Cost of Work: $ _____ $ _____

B5. OTHER

Installation of a Weil McLain HE 4 gas boiler and a Hydromate indirect water heater. $ 15

Subtotal $
Minimum Fire Protection Fee (If Applicable) $
Total Fire Protection Fee (*Greater of Minimum or Subtotal*) $ 15

C. FIRE PROTECTION CHARACTERISTICS

USE GROUP _____ Present _____ Proposed
Heating Systems — Location: _____
Type: ☐ Gas ☐ Oil ☐ Electrical ☐ Solar ☐ Other _____
Fuel Storage Tank — Location: _____ Fuel Type: _____ Capacity: _____
Total Estimated Cost of Fire Protection Work: $ 5825.00

D. COMMENTS

☐ Partial Releases ☐ Prototype Processing

PLAN REVIEW AND INSPECTION — FIRE

DATE	JOB CONDITION/COMMENTS

JOB SUMMARY

☐ No Plans Required
☒ Plan Review Approved
Date: 2-10-88
Approved By: JE

INSPECTIONS FINAL

☒ CO ☐ CCO ☐ CA
Date: 3-1-88
Inspected By: JE

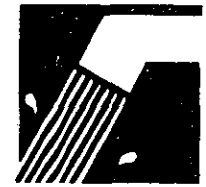
INSPECTIONS

Type	Failure Date			Approval Date
☐ Fire Suppression Test				
☐ Fire Alarm Test				
☐ Smoke Test				
☐ TCO				
☒ Other Final				3-1-88
☐ Other				
☐ Other				
☐ Other				

U.C.C. Form F-140 (8/83)

[redacted]

PLUMBING SUBCODE
TECHNICAL SECTION



PERMIT NO. [illegible]
DATE ISSUED [illegible]
REVISION DATE [illegible]
Block 373.13 Lot 10
Subdivision [illegible]

A. IDENTIFICATION

APPLICANT – *Complete unshaded areas only* — When changing contractors, notify this office

Owner Steve Desmond
Address 732 Lions Lane, Brielle, N.J.
Tel. [redacted] Same
Work Site Address [illegible]

Contractor Arthur Arbuthnot
Address P. O. Box 68; Riverton, N.J.
Tel. (800) 822-6687 or (201) 290-8420 1697
Lic.No./Bus. Permit [illegible]
Federal Emp. No. [illegible]

CERTIFICATION IN LIEU OF OATH:
(Complete for Minor Work and Small Job Only)
I hereby certify that the proposed work is authorized by the owner of record and I have been authorized by the owner to make this application as his agent.

AGENT SIGNATURE

B. TECHNICAL SITE DATA

List all fixtures

TYPE OF WORK:

No.	Fixture	Fee	No.	Fixture	Fee
	Water Closet/Bidet/Urinal			Garbage Disposal	
	Bathtub			Air Conditioner Unit	
	Lavatory/Sink			Indirect Connection	
	Shower/Floor Drain			Sewer Ejector	
	Washing Machine			Grease Trap	
	Dishwasher			Interceptor	
	Commercial Dishwasher			Backflow Device	
1	Water Heater			Reduced Pressure Backflow Device	
1	Domestic Boiler/ Furnace	10.-		Vent Stack	
	Steam Boiler			Solar System	
	Water Util. Connection			Other GAS PIPING	
	Sewer Util. Connection			Other	
	Hose Bibb			Other	
	Water Cooler			Other	
	COLUMN 1	$ 20.-		COLUMN 2	$ 5.-

Fee	
COLUMN 1	$ 20.-
COLUMN 2	$ 5.-
SUBTOTAL	$
Minimum Plumbing Fee (If applicable)	$
Total Plumbing Fee (Greater of Minimum or Subtotal)	$ 45.-

C. PLUMBING CHARACTERISTICS

USE GROUP: _____ Present _____ Proposed

Drainage — Material _____ Size _____
Building Sewer — Material _____ Size _____
Water Service — Material _____ Size _____
Venting — Material _____ Size _____

Estimated Cost of Plumbing Work: $ 5825.00

D. COMMENTS

Installation of a Weil McLain ΠE 4 gas boiler and a Hydromate indirect water heater.

☐ Partial Releases ☐ Prototype Processing

PLAN REVIEW AND INSPECTION – PLUMBING

DATE	JOB CONDITION/COMMENTS

JOB SUMMARY

☒ No Plans Required
☐ Plan Review Approved

Date: 2-10-88

Approved By: J. W. Spl

INSPECTIONS FINAL

☒ CO ☐ CCO ☒ CA

Date: 3/1/88

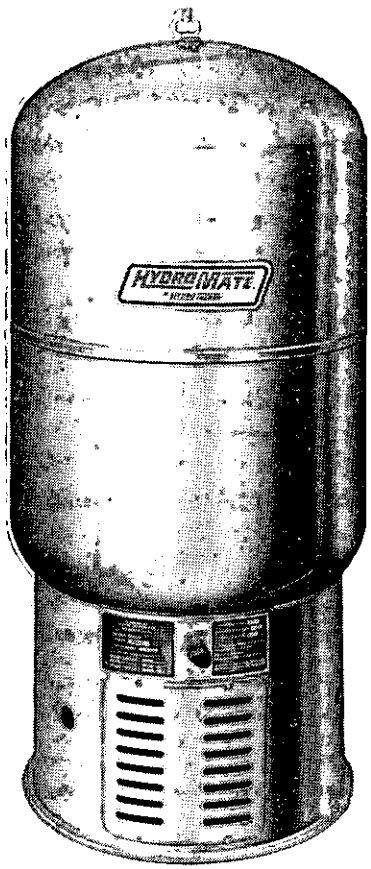
Inspected By: D. Rudolph

INSPECTIONS

Type	Failure Dates			Approval Date
☐ Slab				
☐ Rough				
☐ Water				
☐ Sewer				
☐ Energy				
☐ Mechanical				
☐ TCO				
☐ Other _____				

H

HYDRO THERM

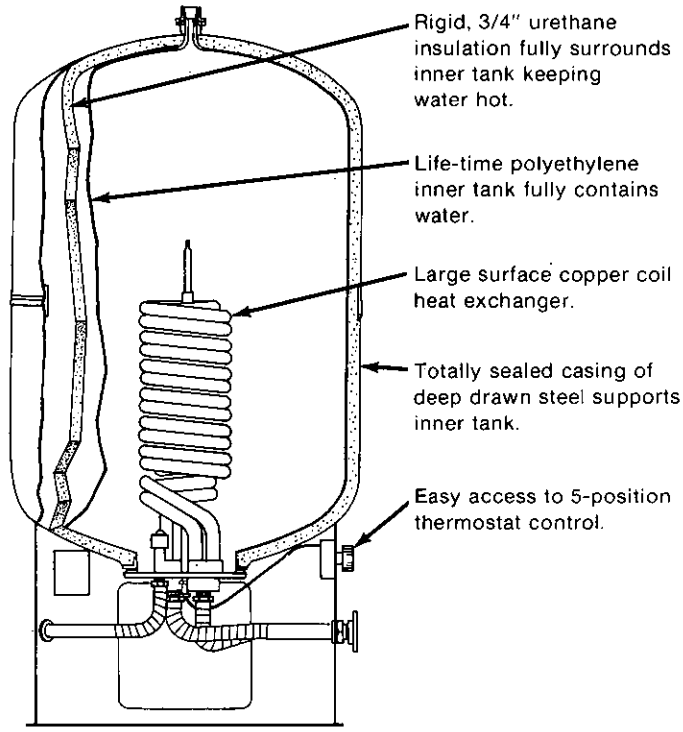


MOST EFFICIENT SYSTEM AVAILABLE: The Hydro-Mate™ is an indirect-fired storage water heater which can be combined with any boiler to meet residential or light commercial applications. And when matched with Hydrotherm's unique Hydro-Pulse® boiler (over 90% seasonally efficient), provides the most efficient system available for combination space and domestic water heating or domestic water heating only needs.

SAVES ENERGY COSTS: Eliminates need for a tankless coil boiler or separate direct-fired residential water heater, both of which run frequently to keep system water hot. Because the Hydro-Mate stores heat more efficiently. ...about 1° F loss per hour. . .boiler on-off cycling is minimal. Boiler stays off unless there's call for hot water. Hydro-Mate Water Heating System requires no flue or stack, and when combined with Hydro-Pulse boiler, no chimney — associated heat losses are eliminated. These advantages can cut domestic water heating costs by up to 40% annually; up to 60% in summer.

AMPLE HOT WATER: Hydro-Mate provides abundant domestic hot water by circulating heated boiler water through an internal copper coil, which transfers heat to water in the storage tank. Outstanding recovery rate assures enough hot water, for example, to do laundry, run a dishwasher and bathe the kids — all at the same time. Stored hot water meets immediate demand. After 20 gallons of use, Hydro-Mate turns on boiler to maintain recovery rate. Operating in a separate zone, Hydro-Mate is able to use full output of boiler.

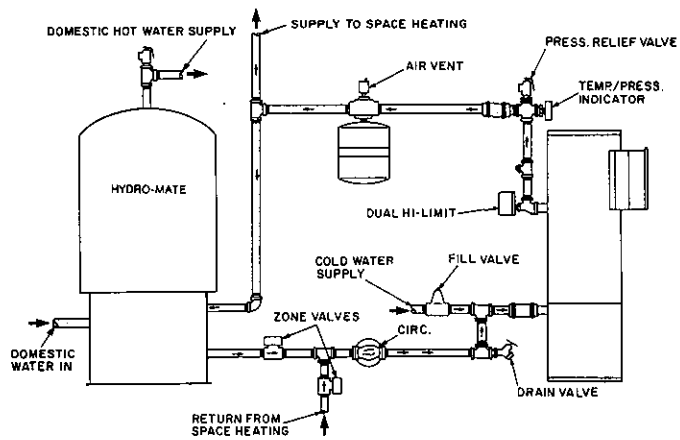
ECONOMICAL SUMMER OPERATION: Through automatic relay, Hydro-Mate energizes boiler only when hot water is needed. Minimizes standby boiler heat loss.



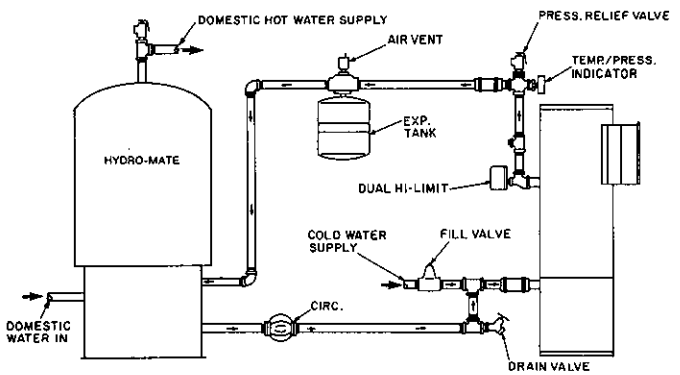
EASY INSTALLATION: Simply place Hydro-Mate in desired position and connect supply/return water piping and color-coded wiring.

LESS MAINTENANCE: Domestic water never comes in contact with surfaces directly heated with high-temperature flue gases. Reduces scale formation problems, providing longer operating life. In hard water areas, only minimum periodic maintenance is required.

Typical Combination Space/Domestic Water Heating System Piping



Typical Domestic Water Heating Only System Piping



MODEL	STORAGE CAPACITY (GALS)	HEATING SURFACE AREA (SQ. FT.)	RECOVERY RATE (GALS/HR) (1) BTU/HR INPUT (MBH) 45	90	120	WORK PRESS. (PSI)	DIMENSIONS HEIGHT	DIA.	PIPING CONNECTIONS COLD WATER INLET	HOT WATER OUTLET	BOILER RETURN	BOILER SUPPLY	SHIP WT. (LBS)
HM-4020	41	20	60	120	160	150	47"	22"	1/2"	3/4"	3/4"	3/4"	134

(1) Based on 40F/130F domestic water. Boiler water not to exceed 200F. NOTE: Hydrostatically pressure tested at 300 psi.

STANDARD EQUIPMENT: Storage tank with internal heating coil, thermostat and basic controls. less circulator.

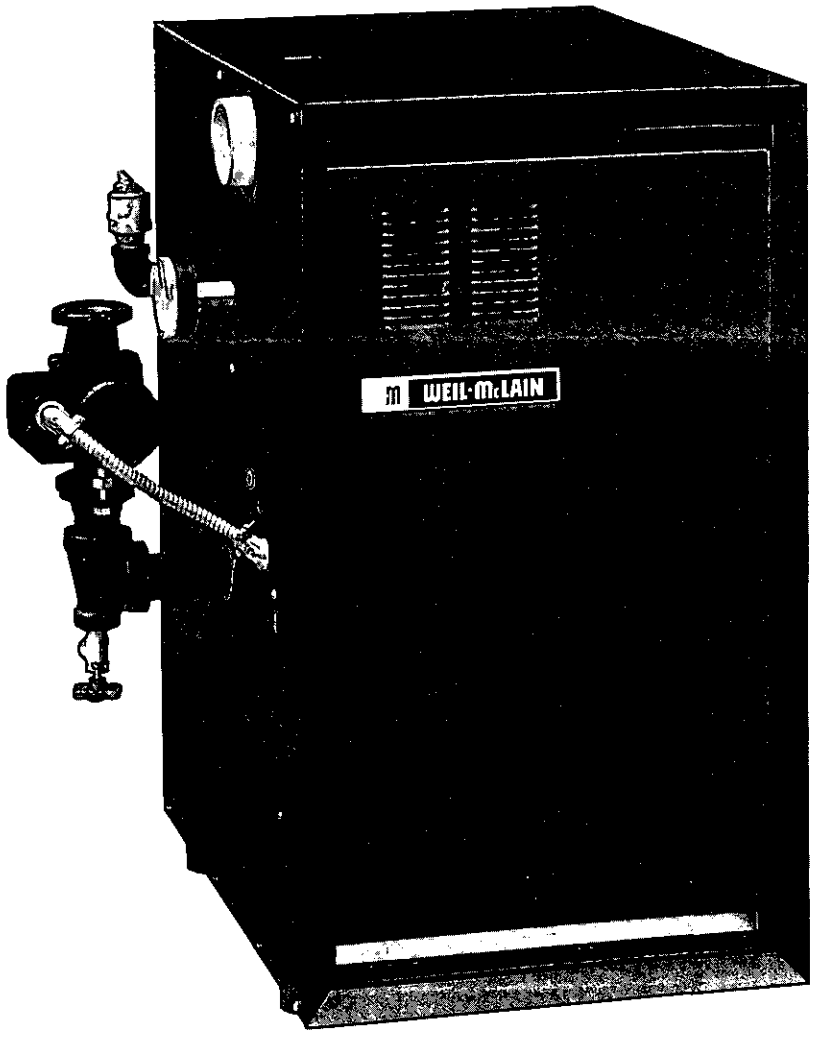
Innovators in energy conservation®

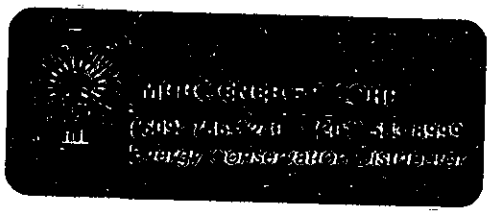
HYDROTHERM
A Division of Automation Industries, Inc.

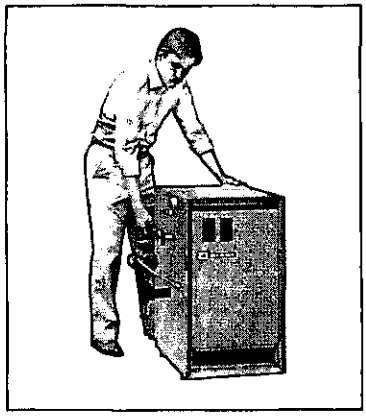
ROCKLAND AVE.
NORTHVALE, N.J. 07647
(201) 768-5500/TELEX 13-5357

6860 REXWOOD ROAD
MISSISSAUGA, ONT. L4V 1L8 CANADA
(416) 678-9383/TELEX 06-968893

WEIL-McLAIN







AMERICA'S MOST COMPLETE LINE OF CAST IRON BOILERS
RESIDENTIAL...COMMERCIAL...INDUSTRIAL...INSTITUTIONAL

TYPE HE

SERIES 3

HIGH-EFFICIENCY GAS BOILER

NET LOAD RANGE

HOT WATER:
47,800 to
119,100 BTU/Hr.

Design certified by
American Gas Association

Net ratings are approved by
The Hydronics Institute

DOE

Heating capacities based on standard test procedures prescribed by the United States Department of Energy

Built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code

Before purchasing this appliance, read important energy cost and efficiency information *available from* your retailer.

TYPE HE
HIGH-EFFICIENCY GAS BOILER

WEIL-McLAIN
MICHIGAN CITY INDIANA

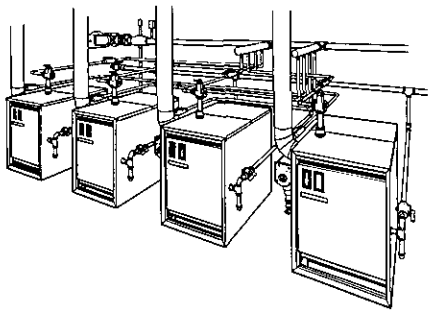
The Weil-McLain HE boiler represents a notable improvement in cast iron gas boiler design and engineering. The unit incorporates an induced draft combustion system, pilotless ignition, and other energy-saving features to attain over 82% seasonal operating efficiency. This compares to a typical installed boiler that may operate at only 60% seasonal efficiency. The HE boiler can pay for itself in fuel savings in a few short years!

The unit is available in four sizes with net I-B-R ratings from 47,800 to 119,100 BTU/Hr. It is designed for forced hot water heating systems in new homes ... or for replacement of older, inefficient heating equipment. The boiler is also ideally suited for individual metering in apartments and condominiums.

The HE boiler features high operating efficiency *without* compromising quality and dependability. Outstanding features include modern, compact design; proven combustion technology; standard, uncomplicated controls; direct venting; factory testing; and durable cast iron construction.

Most important, the HE is made by Weil-McLain, the leading name in cast iron boilers for over 100 years.

MULTIPLE BOILER SYSTEMS

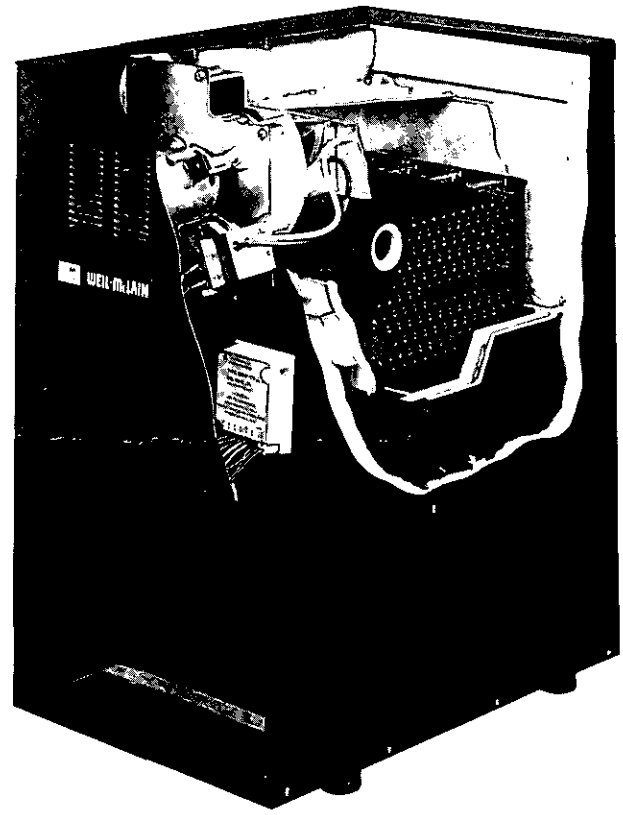


Two or more HE boilers can be used in place of one large-capacity boiler to meet the space heating requirements of larger buildings.

With multiple HE boilers, system operating efficiency is increased since the boilers can be sequenced so only those required to meet the heating load are fired. In addition, individual boilers may be isolated from the system if service is ever required and additional boilers may be added if heating requirements increase.

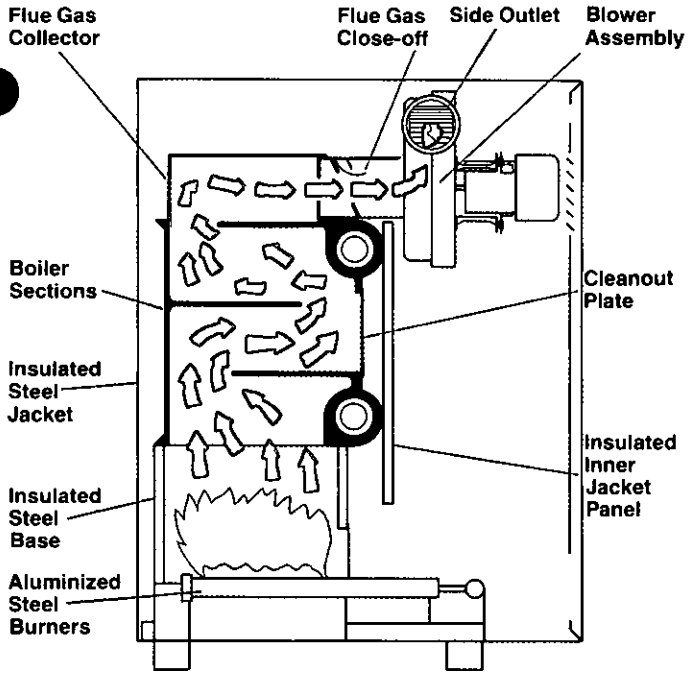
Contact the Weil-McLain Applications Engineering Department for information on multiple boiler systems.

DESIGN FEATURES



1. **82% OPERATING EFFICIENCY** can save 15% or more on annual gas consumption.
2. **INDUCED DRAFT COMBUSTION SYSTEM.** Power venting increases flue gas velocity through the boiler for greater heat transfer, higher efficiency. No automatic vent damper required.
3. **NO CHIMNEY REQUIRED.** HE boiler may be vented directly through an outside wall or through the roof. It also may be vented into a chimney.
4. **HOT SURFACE IGNITION SYSTEM** saves energy. No pilot required.
5. **COMPACT DESIGN** saves valuable living space. Boiler is only 32 inches high, 25 inches deep. Power venting eliminates the need for a draft hood.
6. **CONVENIENT SERVICING.** Accessible controls ... simplified wiring ... front cleanout plate ... vertical flueways.
7. **FACTORY-TESTED.** Each boiler is water and fire-tested before shipping to assure reliable operation. Factory assembly of all parts saves installation time and cost.
8. **INDUSTRY APPROVED.** Design certified by the American Gas Association for natural and propane gas. Built in accordance with the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Heating capacities based on standard test procedures prescribed by the U.S. Department of Energy. Ratings approved by The Hydronics Institute.
9. **STEEL JACKET** finished in attractive blue enamel ... insulated to retain heat and clear of the floor to prevent rust.
10. **ALUMINIZED STEEL BURNERS** feature quiet ignition and extinction. Burners provide fixed primary air ... no adjustment required.
11. **CAST-IN AIR ELIMINATOR** saves the cost of a separate device.
12. **TOP-QUALITY ACCESSORY EQUIPMENT** for fully automatic, trouble-free operation. Available with Fill-Trol package.

HIGH EFFICIENCY



The induced draft combustion system increases flue gas velocity through the boiler sections, resulting in rapid heat transfer to the circulating water for higher efficiency and lower fuel consumption.

As shown in the diagram, gases are *pulled* through the boiler sections and flue gas collector and are discharged through the side outlet into the venting system.

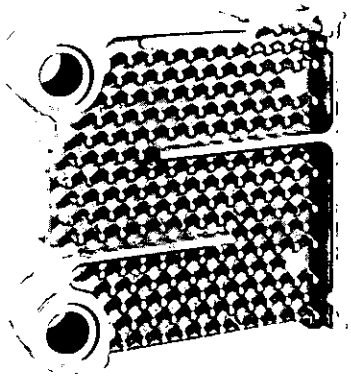
The flue gas close-off automatically shuts when the blower fan is not operating. This exclusive feature retains heat in the boiler, increases efficiency, and eliminates the need for a mechanical vent damper.

CAST IRON CONSTRUCTION

Boiler sections are made of cast iron for strength and long life. It's not uncommon for Weil-McLain cast iron boilers to last 35 years or more.

The integral baffles in the vertical flue passages increase flue gas velocity for greater heat transfer and improved efficiency.

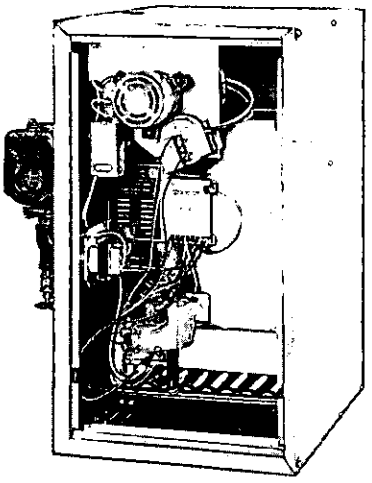
A special high-temperature sealant between boiler sections assures a gastight assembly and consistently high efficiency. The flexible sealant allows for expansion and contraction, is impervious to heat and moisture, and will last the life of the boiler. A flexible elastomer sealing ring in each port opening assures a permanent, watertight seal.



STEEL BASE

The cast iron sections are mounted on a heavy steel base. The inner sides are insulated to protect the base from flame radiation and to retain heat in the combustion area for greater efficiency.

HOT SURFACE IGNITION



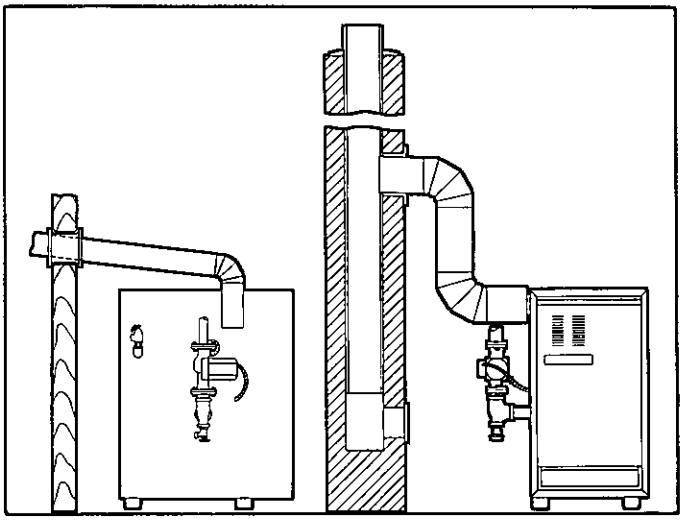
The HE features a hot surface ignition system—no pilot required.

When the thermostat calls for heat, the circulator and blower start. After the pressure switch proves safe airflow, the ignition control energizes the ignitor. After 45-second warm-up, the step-opening gas valve opens to the low-fire position and the ignitor lights the main burners. Flame is proven through flame rectification and the gas valve switches to the high-fire position.

When the thermostat is satisfied, burners, blower, and circulator stop. If boiler water temperature reaches the high-limit setting, the burners and blower stop, but the circulator runs as long as there is a call for heat. Burners and blower recycle as necessary.

The hot surface ignition system assures fail-safe operation with 100% non-recycling shutoff in the event of flame failure during trial for ignition. The system has been design certified by A.G.A. and all components are U.L.-Listed.

VENTING



Direct Venting Chimney Venting

The HE boiler may be vented directly through an outside wall or through the roof using standard 3-inch galvanized vent pipe. This feature is particularly valuable for new homes and apartments.

In addition, the boiler may be vented into a chimney inside the building, with or without other gas appliances, using 5-inch galvanized vent pipe.

For extended runs through cold areas—or when venting into a chimney on an outside wall—Type 304 or 316 stainless steel vent pipe must be used. When venting into an outside chimney, the stainless steel vent pipe must run through the entire length of the chimney.

TYPE HE
HIGH-EFFICIENCY GAS BOILER

WEIL-McLAIN
MICHIGAN CITY INDIANA

RATINGS

DOE

Water Boiler Number	A.G.A. Input BTU/Hr.	DOE Heating Capacity BTU/Hr.†	Net I-B-R Ratings-Water BTU/Hr.*	DOE Seasonal Efficiency Percent (AFUE)	Chimney Size**
▲ HE-3	67,000	55,000	47,800	82.4	4" x 20'
▲ HE-4	100,000	82,000	71,300	82.3	5" x 20'
▲ HE-5	133,000	109,000	94,800	82.2	5" x 20'
▲ HE-6	167,000	137,000	119,100	82.2	5" x 20'

▲ Add "P-" to designator for boiler with Fill-Trol system (Example: P-HE-3).

† Based on standard test procedures prescribed by the United States Department of Energy.

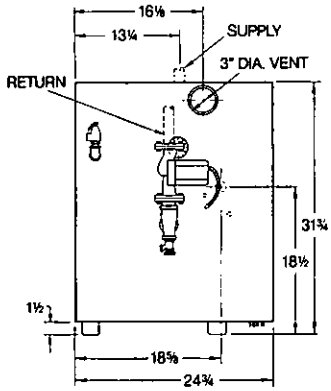
* Net I-B-R ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pick-up. Ratings are based on a piping and pick-up allowance of 1.15. An additional allowance should be made for unusual piping and pick-up loads.

** In special cases where surrounding conditions permit, chimney height may be reduced to 10 feet. HE boiler may also be vented directly outside using 3-inch-diameter galvanized vent pipe.

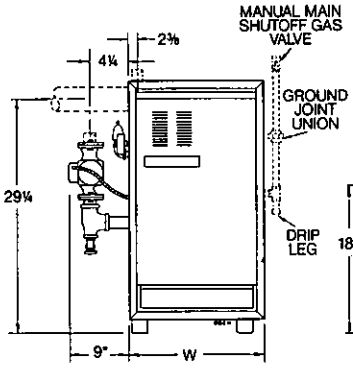
NOTE: HE boilers for residential radiant panel systems, converted gravity heating systems, or other low-water temperature applications should be installed with by-pass piping equal to the supply and return size, with balancing valves to avoid excessive flue gas condensation due to lower operating water temperatures.

NOTE: HE boilers not available for millivolt systems. A.G.A. design certified for installation on combustible flooring. Tested for 50 PSI working pressure. Available for natural and propane gas.

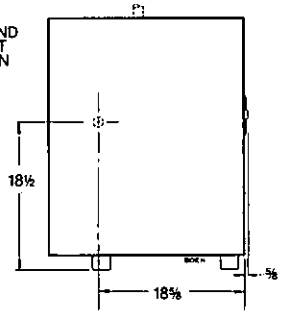
DIMENSIONS



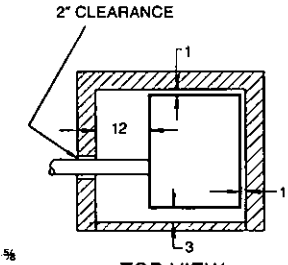
LEFT END



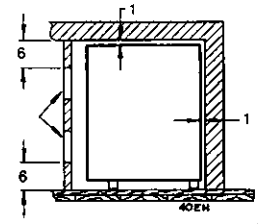
FRONT



RIGHT END



TOP VIEW



SIDE ELEVATION

MINIMUM CLEARANCE FOR CLOSET INSTALLATION

*With Fill-Trol tank, add 4¼" (HE-6 only).

Water Boiler Number	Supply (NPT)	Return (in circulator)	Boiler Width W	Natural Gas Connection Size*	Crate Dimensions (outside measurements-in.)			Approx. Shipping Wt.-Lbs.
					Length	Width	Height	
HE-3	1¼"	1"	11¼"	½"	28	34	35	195
HE-4	1¼"	1"	14¼"	½"	28	34	35	240
HE-5	1¼"	1"	17¼"	½"	28	34	35	280
HE-6	1¼"	1"	20¼"	½"	28	34	35	325

*Gas piping from meter to boiler to be sized according to local utility requirements.

STANDARD EQUIPMENT

- Insulated Steel Jacket
- Flue Gas Collector Assembly with Close-off
- Blower and Motor Assembly
- Aluminized Steel Burners
- Combination Step-Opening Gas Control Valve (includes main valve, redundant valve, pressure regulator, pilot filter, and manual main shutoff valve) for 24 Volt
- Hot Surface Ignition System
- Pressure Switch
- Electrical Junction Box
- Combination Relay Receptacle and 40 VA Transformer
- Plug-in Circulator Relay
- High-Limit Temperature Control
- Circulator—1-Inch, All Sizes
- Built-in Air Eliminator
- 30 PSI ASME Safety Relief Valve
- Combination Pressure-Temperature Gauge
- Drain Valve
- Fill-Trol System (compression tank, fill and check valve, automatic air vent, and fittings—#109 Sizes 3 through 5; #110 Size 6) for P-HE Only—Shipped in Separate Carton

ADDITIONAL EQUIPMENT

- Weil-McLain DWS Domestic Water Heating System (includes heat exchanger and circulator/adapter)

In the interest of continual improvement in products and performance, Weil-McLain reserves the right to change specifications without notice.

WEIL-McLAIN® Michigan City, Indiana 46360 □ A Marley Company WM

In Canada: Marley Fluid Systems, 126 East Dr., Brampton, Ontario L6T 1C2

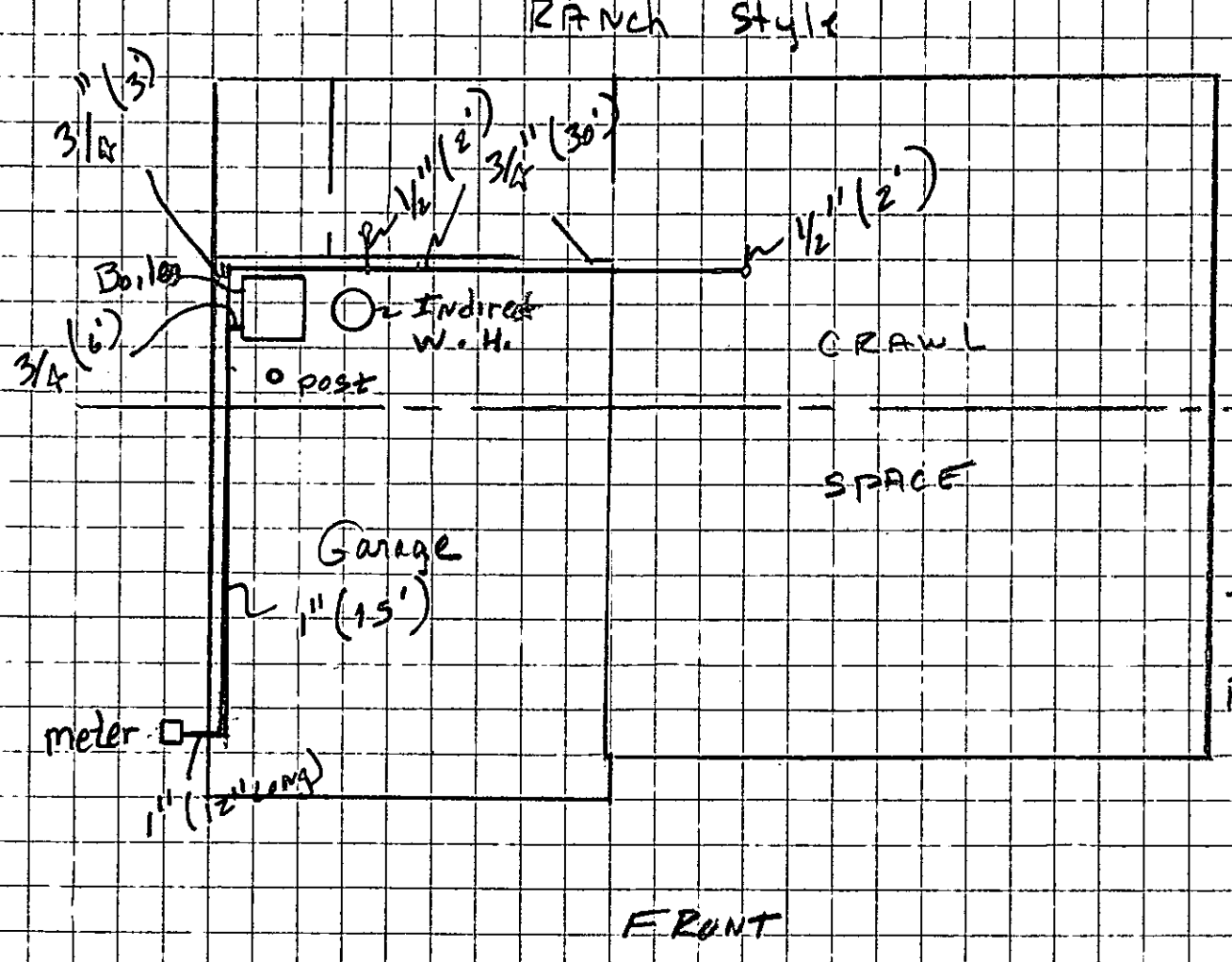
Form No. C-669R1(287)

Litho in U.S.A.

DESMOND Residence
732 LION'S LANE

BLK - 673.13

LOT - 10



INPUT	
Boiler	100,000 BTU
Dryer	35,000
Range	65,000
Total	200,000