

NOTE:
ALL ELECTRICAL CIRCUITS WITHIN THE POOL AREA ARE TO BE PROVIDED WITH GROUND-FAULT-INTERRUPTERS (GFI).
THE POOL AREA IS DEFINED AS THE FENCED IN AREA INCLUDING THE TOILET FACILITIES, EQUIPMENT ROOM, CHEMICAL STORAGE, ETC.

MINIMUM ROOM SIZE CALCULATIONS		
CHEMICAL ROOM		
POOL VOLUME		10,959
5 S.F.	1ST	10,000
1 S.F.	BALANCE GALLONS	950
6 S.F.	MIN. REQ. STORAGE SPACE	

NOTE:
PER SECTION 2534
A SEPARATE ROOM FOR STORAGE OF POOL CHEMICALS MUST BE PROVIDED.
MINIMUM REQUIRED STORAGE SPACE 8 S.F.
PROVIDED STORAGE SPACE 24 S.F.
ONLY CHEMICALS USED IN THE OPERATION OF THE POOL SHALL BE STORED IN THE CHEMICAL ROOM.

SEE MECHANICAL PLANS FOR
POOL EQUIPMENT ROOM AND CHEMICAL ROOM VENTILATION

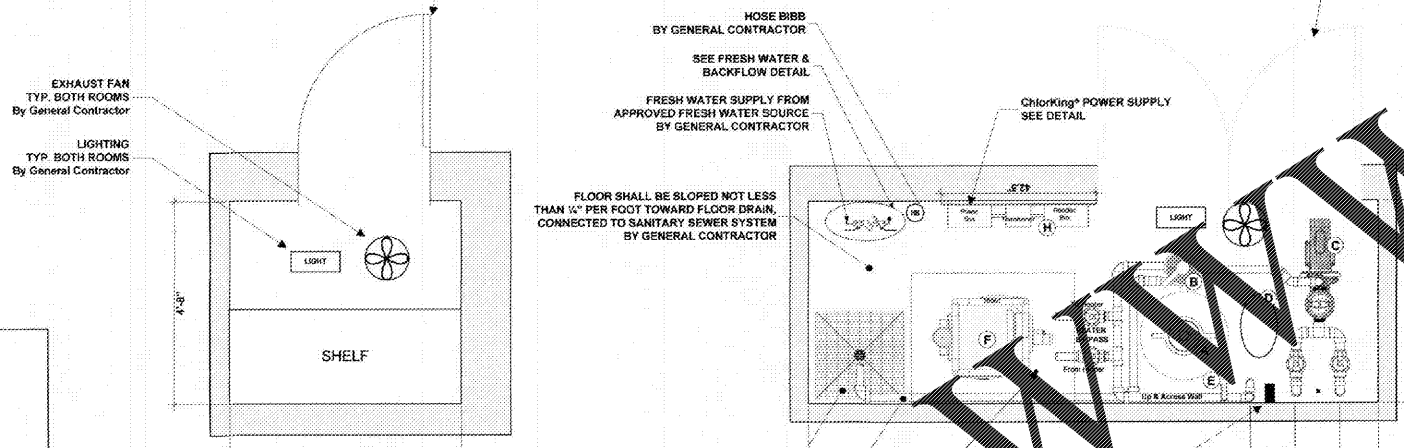
NOTE:
PER NC DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL HEALTH RULES AND REGULATIONS (15A NCAC 18A.2506) EACH ROOM IS REQUIRED TO BE PROVIDED WITH NATURAL OR FORCED AIR VENTILATION. CROSS DRAFT VENTILATION IS RECOMMENDED.
FANS MUST BE WIRED TO OPERATE CONTINUOUSLY. DO NOT WIRE FAN WITH LIGHT SWITCH.
BY GENERAL CONTRACTOR

EQUIPMENT & CHEMICAL ROOMS EXHAUST FANS
EXHAUST FANS SIZED FOR 10 AIR CHANGES/HOUR VENT TO ROOF AND AWAY FROM POOL AREA.
NATURAL OR FORCED AIR VENTILATION IS REQUIRED. CROSS DRAFT VENTILATION IS RECOMMENDED.
FANS MUST BE WIRED TO OPERATE CONTINUOUSLY. DO NOT WIRE FAN WITH LIGHT SWITCH.
THE ABOVE BY GENERAL CONTRACTOR

TO ENSURE PROPER VENTILATION OF EQUIPMENT AND CHEMICAL ROOMS IN ADDITION TO THE EXHAUST FANS THE DOORS MAY NEED TO BE PROVIDED WITH LOUVERS BY GENERAL CONTRACTOR

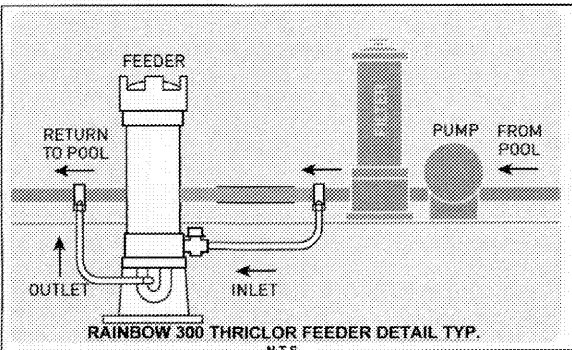
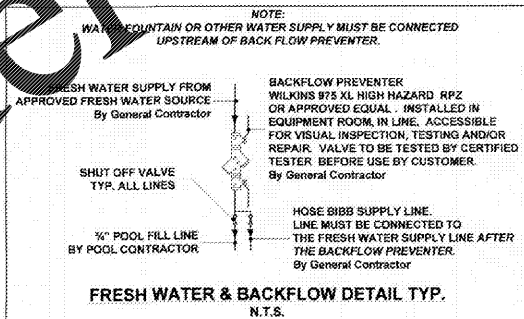
LOCKABLE DOOR TO PREVENT ACCESS BY UNAUTHORIZED PERSONS. TYP. BOTH ROOMS BY GENERAL CONTRACTOR

LOCKABLE DOOR TO PREVENT ACCESS BY UNAUTHORIZED PERSONS. TYP. BOTH ROOMS BY GENERAL CONTRACTOR



POOL EQUIPMENT & CHEMICAL ROOM LAYOUT
SCALE 1/2" = 1'

EQUIPMENT BONDING PER NEC ARTICLE 680 AND RELEVANT LOCAL ELECTRICAL CODES. COPPER CONDUCTOR NOT LESS THAN #10 AWG
NOTE: ALL PUMPS SHALL BE INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC)
NOTE: ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS



VENTING REQUIREMENTS

EQUIPMENT ROOM VOLUME:	545 CF
EQUIPMENT ROOM EXHAUST:	51 CFM FAN
CHEMICAL ROOM VOLUME:	223 CF
CHEMICAL ROOM EXHAUST:	37 CFM FAN

VENTILATION CALCULATIONS

POOL EQUIPMENT ROOM	
4'-8" x 13'-0"	60.58
4.66 x 13.0	na
Minus Chemical Room	80.58
Ceiling Height	8.00
Cubic Feet	545.20
10 Air Changes Per Hour	= 6
Equipment Room Exhaust	50.8 CFM Fan
CHEMICAL ROOM	
4'-8" x 5'-4"	24.80
4.66 x 5.33	na
Ceiling Height	9.00
Cubic Feet	223.20
10 Air Changes Per Hour	= 6
Chemical Room Exhaust	37.2 CFM Fan

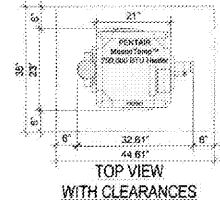
EQUIPMENT ROOM NOTES:
FLOOR DRAIN SHALL BE CONNECTED TO SANITARY SEWER SYSTEM
AN ON/OFF SWITCH SHALL BE PROVIDED WITHIN ARMS LENGTH OF EACH PUMP. PUMPS SHALL NOT BE ACTIVATED BY PANEL CIRCUIT BREAKER
LIGHT FIXTURES REQUIRED MINIMUM 100 WATTS POOL EQUIPMENT ROOM 100 WATTS CHEMICAL STORAGE ROOM
EQUIPMENT AND CHEMICAL STORAGE ROOMS TO HAVE A MINIMUM SEVEN FOOT CEILING HEIGHT
BY GENERAL CONTRACTOR
NOTE:
ALL PIPING IN PUMP/EQUIPMENT ROOM SHALL BE 40 PVC. 2" LINE UNLESS NOTED OTHERWISE.
VALVES SHALL BE PERMANENTLY TAGGED AND VALVE OPERATION INSTRUCTIONS AND SCHEDULE SHALL BE PERMANENTLY POSTED ON EQUIPMENT ROOM WALL IN WATERPROOF ENCLOSURE.

IT IS RECOMMENDED THAT A CARBON MONOXIDE (CO) ALARM BE INSTALLED IN ALL ENCLOSED SPACES CONTAINING COMBUSTION APPLIANCES.

FIELD LOCATE ALL EQUIPMENT TO PROVIDE 3 FOOT SERVICE CLEARANCE PER NC DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL HEALTH RULES AND REGULATIONS 15A NCAC 18A.2533(c)

NOTE: PER BUNCOMBE COUNTY DEPARTMENT OF HEALTH
HEATER TO BE SET NOT TO EXCEED MAXIMUM OPERATING TEMPERATURE OF 90° F

- EQUIPMENT ROOM LEGEND
- A Pool Filter with ARV & PI, Typ.
 - B Multi-Port Control Valve
 - C Pool Circulation Pump & Motor
 - D Pool Chlorinator
 - E Pool Flow Meter
 - F Pool Heater
 - G Sight Glass
 - H Saline system



AIR SUPPLY REQUIREMENTS GUIDE FOR MasterTemp® Heater

Model	Combustion Vent	Vert
250	63 sq. in.	83 sq. in.

*Area indicated is for one of two openings.
One within 12" of floor combustion and one within 12" of ceiling for ventilation

NOTE:
HEATER IS PROVIDED WITH THERMOSTAT CONTROL WITH AN AUTOMATIC CUT-OFF ASSURING WATER DOES NOT EXCEED 104°

NOTE:
MAXIMUM OPERATING TEMPERATURE HEATED POOL NOT TO EXCEED 90° F

NOTE:
HEATERS VENT SIZE AND LOCATION PER MANUFACTURER'S REQUIREMENTS
POWER VENTING IF NECESSARY BY HVAC CONTRACTOR

NOTE:
THE HEATER'S AUTOMATIC FLOW CONTROL VALVE MAINTAINS THE PROPER FLOW THROUGH THE HEATER AT RATES UP TO APPROXIMATELY 125 GPM

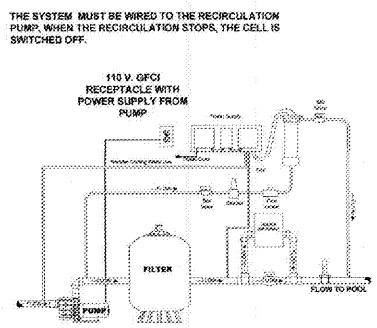
INFORMATION ON THE CHEMICAL AND EQUIPMENT ROOM EXHAUST FAN'S DUCT TERMINATION POINTS, POOL HEATER GAS PIPING SIZE, WHERE COMBUSTION AIR IS DRAWN FROM AND GAS HEATER FLUE LOCATIONS AND TERMINATION POINT TO BE PROVIDED BY BUILDING MECHANICAL ENGINEER.

Pentair Water Pool and Spa, Inc. does not recommend indoor installations that do not provide combustion air from outside the building.

INDOOR VENTING- General Requirements
This heater may be installed as a Category I or Category III appliance.
Vented Appliance (Category I)- Vertical only
An appliance that operates with a nonpositive vent static pressure and with a vent gas temperature that avoids excessive condensate production in the vent. See MasterTemp® Operation & Installation Manual, pages 20-22
Vented Appliance (Category III)- Vertical or Horizontal
An appliance that operates with a positive vent static pressure and with a vent gas temperature that avoids excessive condensate production in the vent. See MasterTemp® Operation & Installation Manual, pages 23-25
The vent pipe must be the same size or larger. The MasterTemp® heaters are capable of a 273-degree discharge rotation and operate with a positive vent static pressure with a vent gas temperature less than 400°F. The total length of the horizontal run must not exceed the length that is listed in MasterTemp® Operation & Installation Manual, table 6, or page 23
For indoor installation, the heater location must provide sufficient supply for proper combustion and ventilation of the surrounding area. See MasterTemp® Operation & Installation Manual, table 6, page 23
The minimum requirements of the vent supply specify that the room in which the heater is installed should be provided with two permanent air supply openings: one (1) within 12 inches of the floor and one (1) within 12 inches of the ceiling. The room shall be provided with a minimum of 12 inches of the floor for combustion air supply and a minimum of 12 inches of the ceiling for combustion air supply. See ANSI Z223.1, or the National Fuel Gas Code, section 9.4.14.1, and the International Residential Code, as applicable, and any local codes that may apply. These openings shall directly, or through duct, open to outdoors.
Pentair Water Pool and Spa, Inc. does not recommend indoor installations that do not provide combustion air from outside the building.
NOTE:
HEATER SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL BUILDING CODE INCLUDING VENTILATION.
HEATER INSTALLATION BY POOL CONTRACTOR - WATER TO WATER CONNECTIONS ONLY
HEATER GAS SUPPLY LINE, CLEAN AIR FOR COMBUSTION AND VENTILATION AND VENTING BY MECHANICAL CONTRACTOR
ELECTRICAL SUPPLY FOR ELECTRONIC IGNITION BY ELECTRICAL CONTRACTOR
NOTE:
FOR ADDITIONAL INFORMATION SEE HEATER MANUFACTURER'S ATTACHED "INSTALLATION AND OPERATION MANUAL"

NOTE:
ELECTRICAL DATA IS FOR COORDINATION AND INFORMATION ONLY

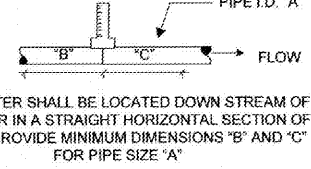
EQUIPMENT ELECTRICAL REQUIREMENTS			
UNDERWATER LIGHTING			
QTY	DESCRIPTION	VOLTS	AMPS
1	500 Watt Underwater Light	120	4.2
POOL FILTRATION			
QTY	DESCRIPTION	VOLTS	AMPS
1	1/2 HP Challenger® Pump & Motor, Filtration System	115/230	14.2/7.1
1	MasterTemp® 250K BTU/HR, Natural Gas Heater, Electronic Ignition	120/240	15



ChlorKing® STANDARD INSTALLATION
NOT TO SCALE

SCHEDULE

"A"	"B"	"C"
1 1/2"	15"	6"
2"	20"	6"
2 1/2"	25"	10"
3"	30"	12"
4"	40"	16"
6"	60"	24"
8"	80"	32"



FLOWMETER DETAIL
N.T.S.

NOTE:
PLANS ARE FOR POOL CONSTRUCTION ONLY.
ALL BUILDING, EQUIPMENT & CHEMICAL ROOM NOTES AND SPECIFICATIONS ARE FOR COORDINATION AND INFORMATION ONLY.
ELECTRICAL DATA IS FOR COORDINATION AND INFORMATION ONLY
IT IS THE RESPONSIBILITY OF OTHERS TO PROVIDE ANY REQUIRED REVISED CONSTRUCTION DRAWINGS INCLUDING BUT NOT LIMITED TO PLUMBING, MECHANICAL AND ELECTRICAL CHANGES NECESSARY FOR POOL PERMIT AND INSTALLATION.

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pazdan
smith
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864.676.9544 (FAX)

WINDSOR AUGHTRY
HOME2 ASHEVILLE
390 AIRPORT ROAD
ARDEN, NC 28704

SHEET ISSUE
07/30/16
FOR CONSTRUCTION

REVISIONS		
NUMBER	DESCRIPTION	DATE

PRINCIPAL IN CHARGE:
PROJECT ARCHITECT.
DRAWN BY:
SHEET TITLE:

EQUIPMENT & CHEMICAL ROOMS

PROJ. NO.