

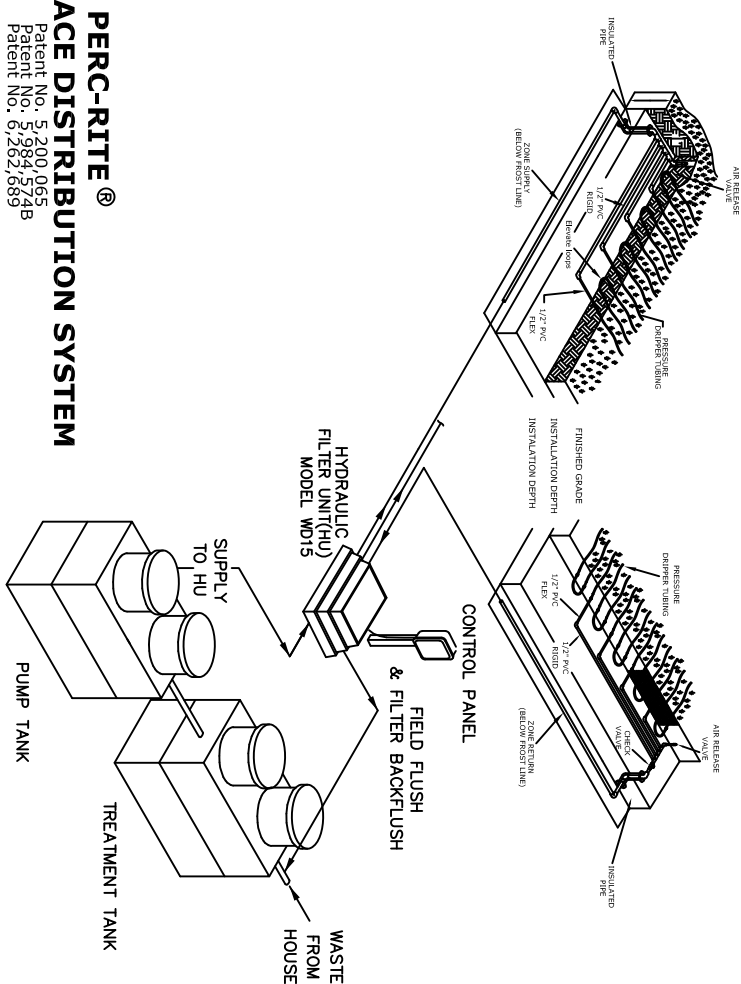
LOCATION MAP

SITE DIRECTIONS

PERC-RITE®

SUBSURFACE DISTRIBUTION SYSTEM

Patent No. 5,200,065
Patent No. 5,984,574B
Patent No. 6,262,689



SCOPE: Household Sewage will flow by gravity through a treatment tank, then to a drip dispersal equalization pump tank. From the drip pump tank the effluent is filtered through a 115 micron disc filter and dispersed through a drip dispersal piping network. The network is composed of pressure compensating drip tubing laid on contour and managed by the Perc-Rite® process.

has designed the drip dispersal system for the specific site in accordance with findings recommendations with the site evaluator/soils evaluator, who is the consultant for the owner. American's pre-engineered system has been selected for the site by the owners representative. American only certifies the system mechanical application for this site and makes no representation for soil suitability or other site engineering code requirements.

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Page 2 Site Layout Plan

Page 3 Hydraulic Profile, Pump Tank, & Zone Details

Page 4 Control Details, Pump Curve, & Cool Guide

Page 5 Drip Hydraulic Unit Details

Page 6 Drip Detail Schematics

Page 7 Drip Calculation Sheet

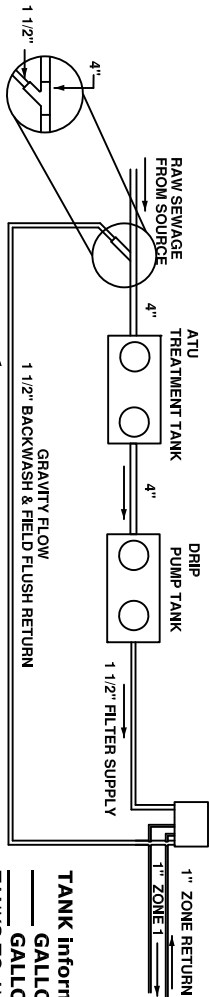
Page 8 Construction Notes

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PROJECT NAME :	DRAFTER: DATE:
JOB NAME	CHECKED: DATE:
	APPROVED: DATE:
COUNTY :	TITLE :
COUNTY, STATE	COVER SHEET
	PERC-RITE® DRIP
	DESIGN
SCALE : NTS	SHEET: 1 OF 8

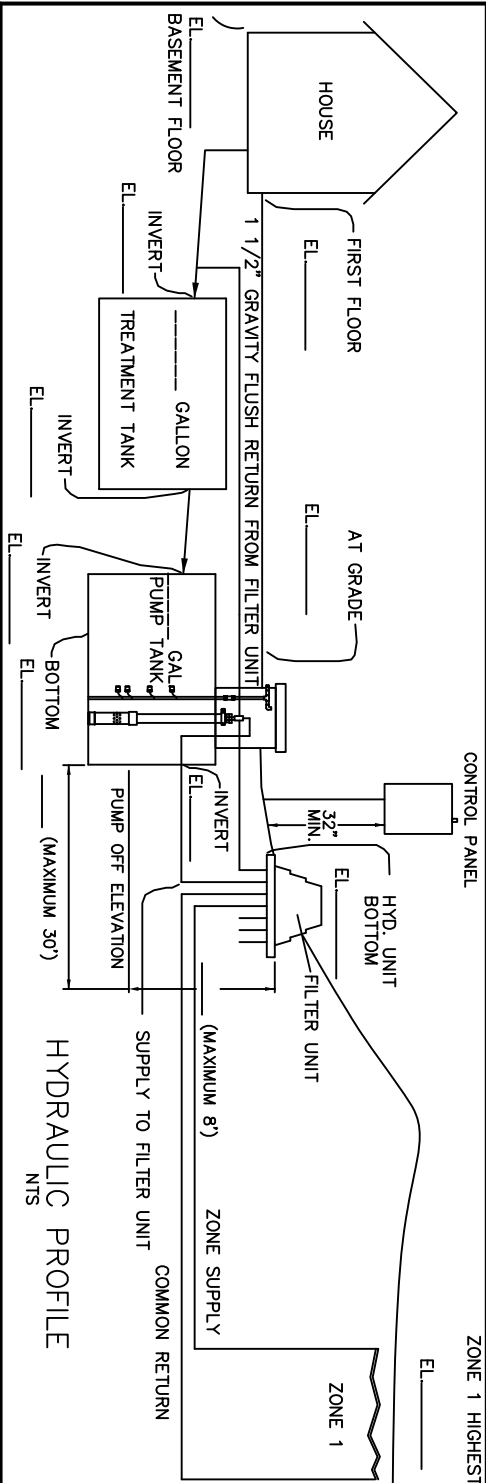
SITE PLAN (SYSTEM LAYOUT SKETCH)

SCALE: 1" = _____' ±



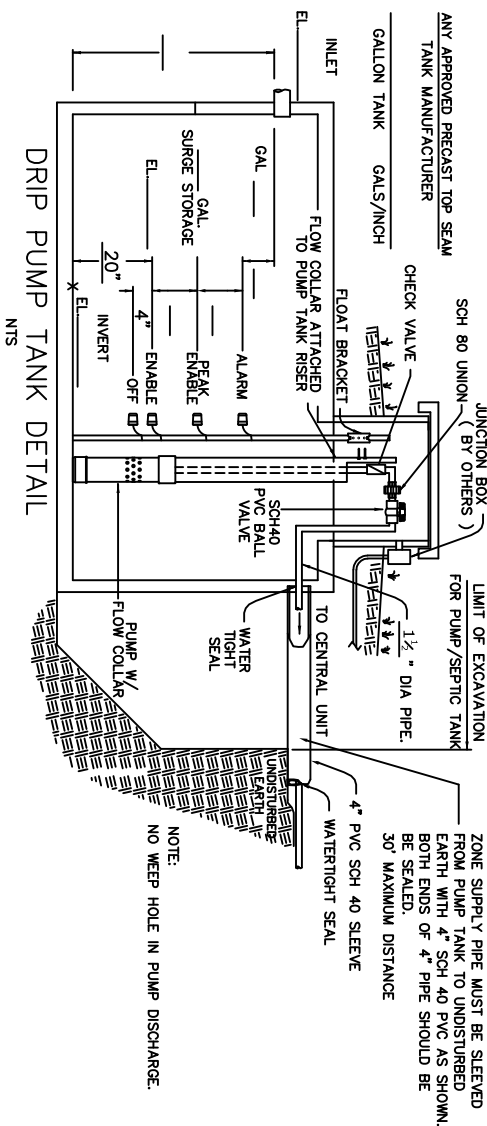
TANK Information:
_____ GALLON _____ TANK,
_____ GALLON DRIP PUMP TANK, INSTALL
TANKS TO AVOID SWALES OR LOW LYING
AREAS!

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PROJECT NAME :		DRAFTER:	DATE:
JOB NAME		CHECKED:	DATE:
		APPROVED:	DATE:
		TITLE :	
COUNTRY :		SITE LAYOUT PLAN	
COUNTY, STATE		SCALE :	SHEET: 2 OF 8



Elevations are based on referenced site plan. During installation elevations must be checked to verify that system will function as designed. There must be at least 2% gravity fall from House Sewer main to Pretreatment Tank inlet. There must be at least 2% gravity fall from the base of Filter Unit to the Pretreatment Unit and the off float in the pump tank should not exceed 8' vertical elevation from base of Filter Unit.

ZONE DETAIL Z
(NOT TO SCALE)



NOTE: Install tubing on contour at ___" depth.
Install Supply and Return Lines at ___' (Below frost line) Minimize site activity, NO machinery on site except minimum required to install tubing.
SITE PROTECTION IS VERY IMPORTANT!

NOTE: Zone drip detail (Z___) with ___ laterals, ___ tubing runs per lateral for a total of ___ tubing runs @ ___' length = ___ total LF tubing.

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PROJECT NAME :

DRAFTER: DATE:

CHECKED: DATE:

APPROVED: DATE:

TITLE :

JOB NAME

COUNTY :

COUNTY, STATE

HYDRAULIC PROFILE,
DRIP & ZONE
DETAILS

SCALE : NTS

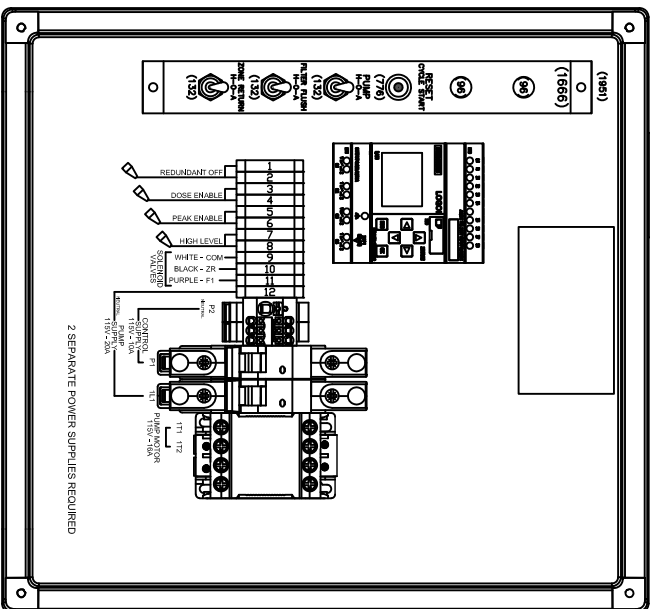
SHEET: 3 OF 8

American Manufacturing Co., Inc., Box 97 Elkwood, VA 22718
Simplex 1 Zone PERC-RITE Drip System

AMERICAN ONSITE CONTROLS

AMERICAN MANUFACTURING COMPANY INC.
P.O. BOX 97 ELKWOOD, VA 22718
(800) 345-3132 www.americanon-site.com

ALL POWER SUPPLY
BRANCH CIRCUIT PROTECTION
PROVIDED BY OTHERS

[illegible]

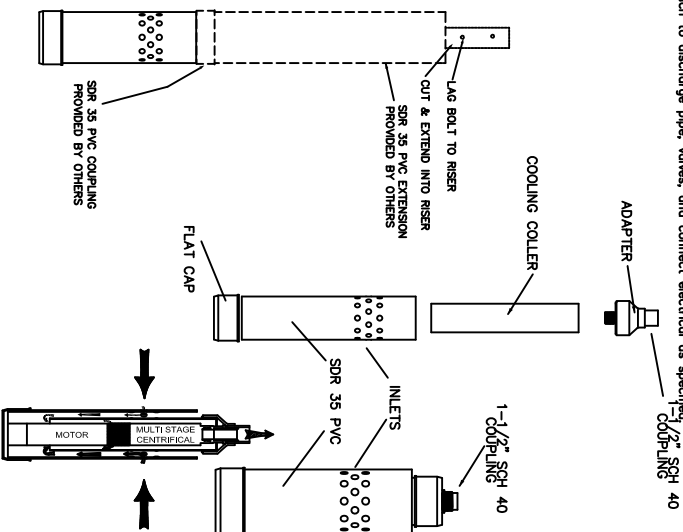
DRIP CONTROL SYSTEM INSTALLATION GUIDE FOR "DTF" SERIES CONTROL 1 PHASE, 150V, NEMA 4X	
MODEL DP01-SAB11-4-LR(A)	REMARK - - -
DTFNO X9505	DATE 08/07/25
UNIT MPH	APPROVED -
202505 DVGs, JMC Residential Plans sets 8-26-2025AWD1-10-25-21 PAGE	

FLOW COLLAR (COOL GUIDE)

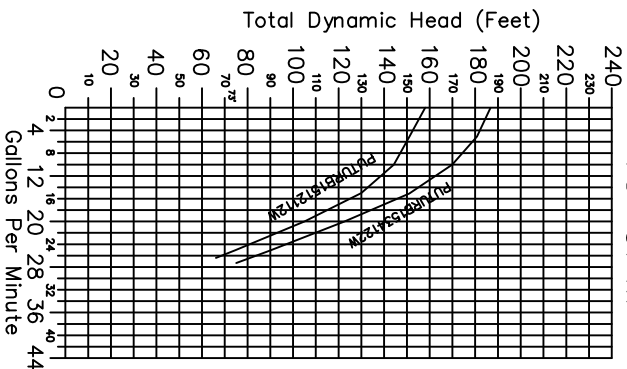
The laminar flow collar shall be made of non-corrosive, glueable PVC and have sufficient holes in the outer guide tube to ensure laminar flow for the rated capacity. The inner flow collar shall extend near the bottom to provide sufficient cooling flow for the motor. The dimension between the inner collar and the pump motor shall not restrict flow to the pump intake, but will provide for scouring of surfaces. The laminar flow collar shall be a "Cool Guide" as manufactured by American Manufacturing Company, Inc. Patent # 6,262,669.

"COOL GUIDE" INSTALLATION INSTRUCTIONS

1. Measure the distance from the bottom of the tank to 6" down from the top of the riser. Cut the extension pipe (by others) to the length necessary to reach this height. Cut 1/2 of the pipe down 12" to 18" away from the top of the pipe for pump discharge pipe.
3. Glue the extension coupling (by others) to the extension pipe and to the Cool Gulate.
4. For repairs: glue on the Cool Gulate half cap and place the Cool Gulate firmly in the tank. Attach the extension to the riser, with the anchors as shown.
5. To hold Cool Gulate and extension: The cap to bottom of the tank in the proper location to hold Cool Gulate and extension. The cap may or may not be glued to the device. Attach the extension to the riser with the anchors as shown.
6. Place the pipe claps on the Cool Gulate adapter threads and thread them into pump discharge.
7. Attach cooling coil to adapter with set screw provided.
8. Glue pipe into flow collar and with pump attached, lower into the guide tube.
9. Attach to discharge pipe, valves, and connect electrical as specified, see CNU 40.



15 GPM



PUTURB1512112W	1/2HP, 115V, 1PH, 2WIRE
PUTURB1512122W	1/2HP, 230V, 1PH, 2WIRE
PUTURB1534122W	3/4HP, 230V, 1PH, 2WIRE

15 GPM @ 125 FT
BACKWASH TDH

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PROJECT NAME :	DESIGNER:	DATE:
	CHECKED:	DATE:
	APPROVED:	DATE:
	TITLE :	
JOB NAME	CONTROL, COOL GUIDE & PUMP CURVE DETAILS	
COUNTY :		
COUNTY, STATE		

COUNTY :
COUNTY, STATE

SCALE : NTS	SHEET: 4 OF 8
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AMERICAN PERC-RITE® CONTROLS

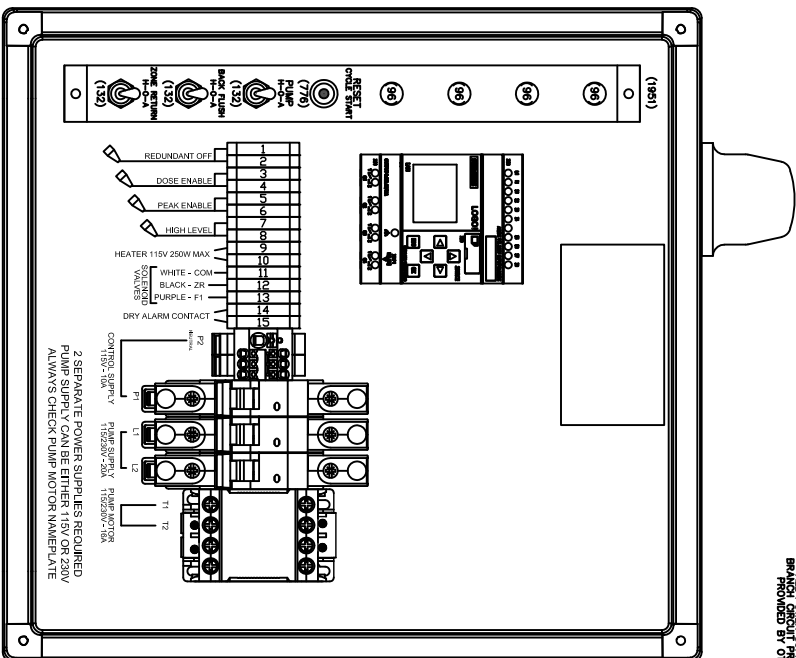
American Manufacturing Co., Inc. P.O. Box 97 Elkwood, VA 22718
Simplex 1 Zone PERC-RITE Drip System



AMERICAN ONSITE CONTROLS
AMERICAN MANUFACTURING COMPANY, INC.
P.O. BOX 97 ELKWOOD, VA 22718
(800) 345-3132 www.americanonsite.com

TORQUE SETTINGS	
TERMINAL	1/8" NPT
1/8" NPT	1/2" NPT
1/2" NPT	3/4" NPT
3/4" NPT	1" NPT
1" NPT	1 1/2" NPT
1 1/2" NPT	2" NPT

ALL POWER SUPPLY
BRANDS CIRCULATED
PROVIDED BY OTHERS



INSTALLATION NOTES:
PLEASE REVIEW ALL PAGES AND INSERTS IN THIS MANUAL BEFORE ATTEMPTING TO INSTALL ANY CONTROL.
1. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
2. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
3. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
4. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
5. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
6. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
7. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
8. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
9. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.
10. PREWIRE IN EACH SYSTEM COVERED BY THIS MANUAL.



DRIIP CONTROL SYSTEM	
INSTALLATION GUIDE FOR DCP SERIES CONTROL	
1 PHASE, 115/230V, NEMA 4X	
MODEL	DP011-SAB124-AL(R)(X)21.34
TYPE	X9500
DATE	08/07/25
DESIGNED BY	MPH
APPROVED	
REVISION	
PAGE	

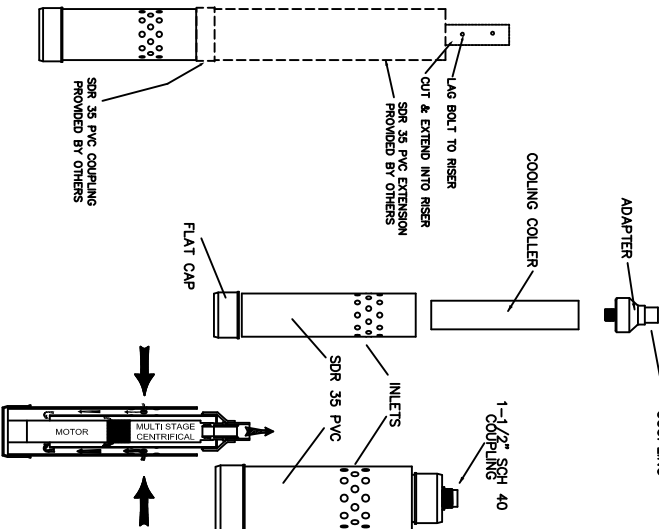
COOL GUIDE

FLOW COLLAR (COOL GUIDE) SPECIFICATION

The laminar flow collar shall be made of non-corrosive, glueable PVC and have sufficient length to extend from the bottom of the riser to the pump intake. The inner flow collar shall extend near the bottom to provide sufficient cooling flow for the motor. The dimension between the inner collar and the pump motor shall not restrict flow to the pump intake, but will provide for scouring of surfaces. The laminar flow collar shall be a "Cool Guide" as manufactured by American Manufacturing Company, Inc. Patent # 6,262,689.

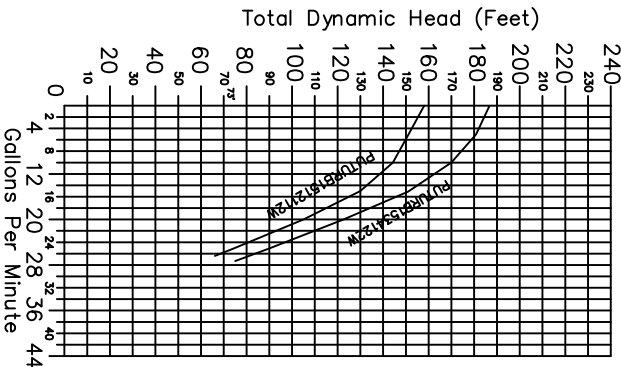
"COOL GUIDE" INSTALLATION INSTRUCTIONS

1. Measure the distance from the bottom of the tank to 6" down from the top of the riser. Cut the extension pipe (by others) to the length necessary to reach this height. Cut 1/2" of the pipe down 12" to 18" away from the top of the pipe for pump discharge pipe.
2. For repair: glue on the Cool Guide flat cap and place the Cool Guide firmly in the for tank. Attach the extension to the riser, with the anchors as shown.
3. For new construction: Anchor the flat cap to the bottom of the tank in the proper location for pump discharge. Attach the extension to the riser with the anchors as shown. Do not glue the extension to the riser with the anchors as shown.
4. Place the pipe dope on the Cool Guide adapter threads and thread them into pump discharge.
5. Attach cooling collar to adapter with set screw provided.
6. Attach to discharge pipe, valves, and connect electrical as specified.
7. Attach to discharge pipe, valves, and connect electrical as specified.
8. Attach to discharge pipe, valves, and connect electrical as specified.



PUMP CURVE

15 GPM



PUTURB151212W 1/2HP, 115V, 1PH, 2WIRE
PUTURB1512122W 1/2HP, 230V, 1PH, 2WIRE
PUTURB1534122W 3/4HP, 230V, 1PH, 2WIRE
15 GPM @ 125 FT
BACKWASH TDH

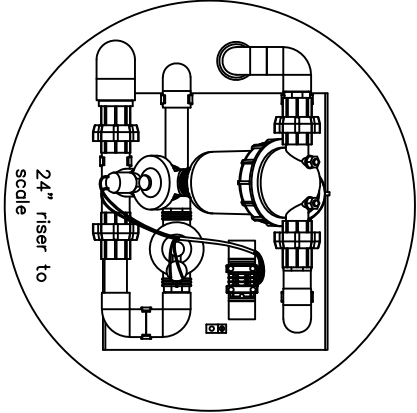
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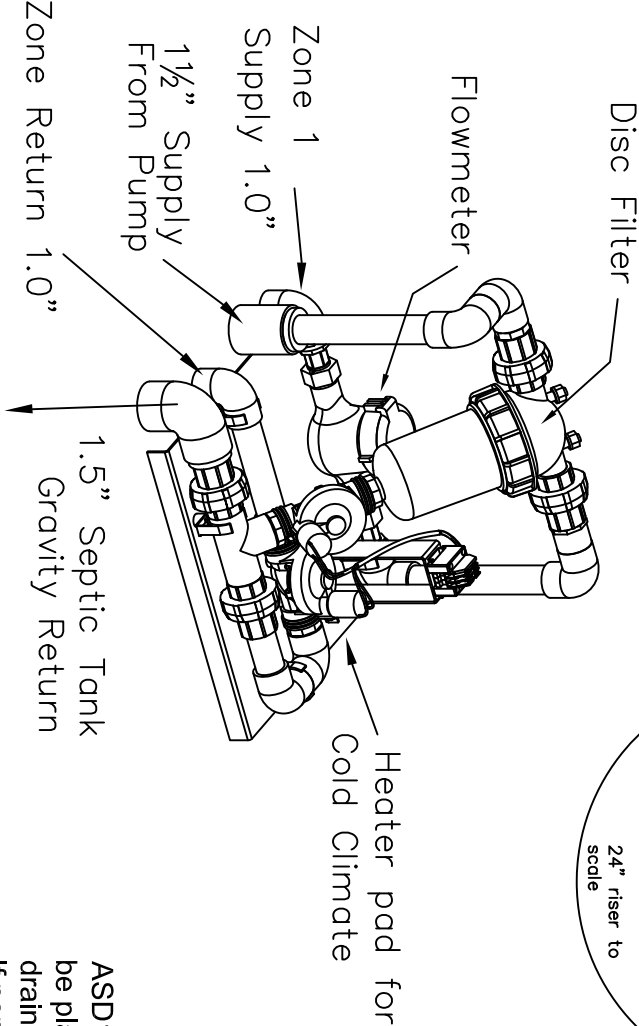
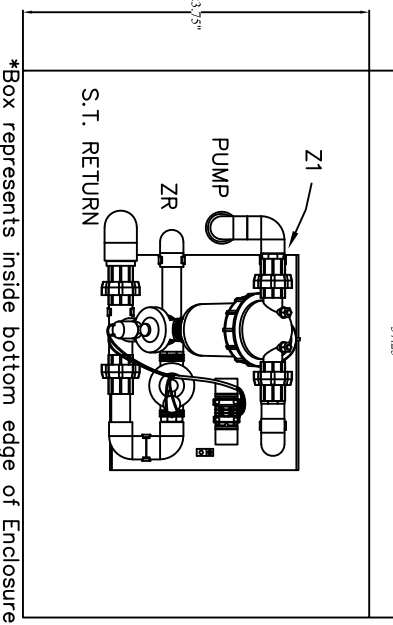
PROJECT NAME :	DRAFTER:	DATE:
JOB NAME	CHECKED:	DATE:
COUNTRY :	TITLE :	
COUNTRY, STATE	CONTROL, COOL	
	GUIDE & PUMP	
	CURVE DETAILS	

AMERICAN MFG. COMPANY
WASHDOWN-FILTER – 15 GPM
HYDRAULIC UNIT

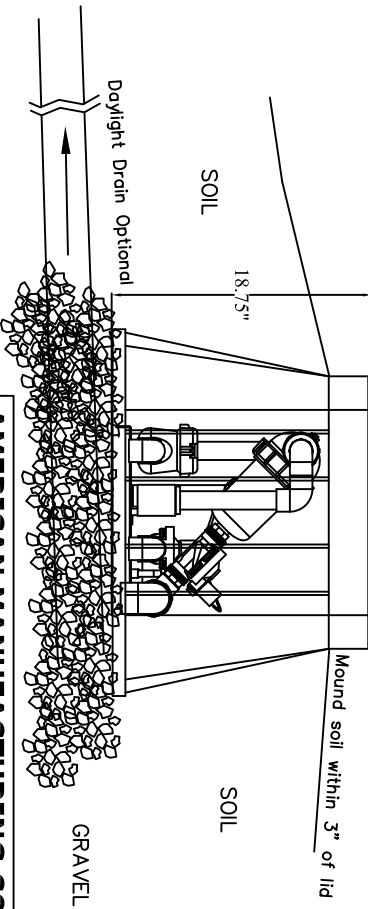
*Riser Enclosure
Provided by others



PLAN VIEW*



ASD15 HYD. UNIT INSULATED ENCLOSURE #NSENCELOSURE
PLACE ON GRAVEL WITH DRAINAGE

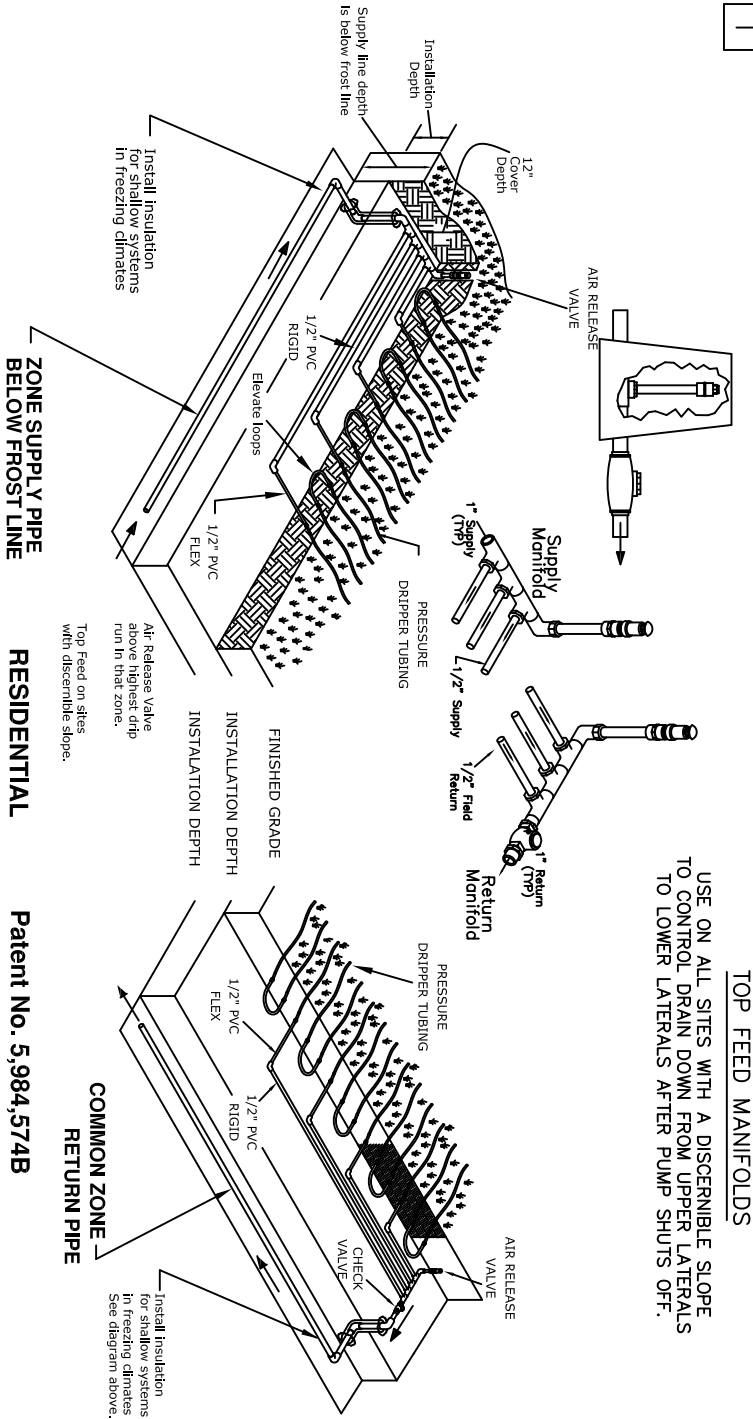


ASD15 & WD15 Hydraulic units to be placed on a bed of gravel for drainage.
If ponding or groundwater is a possibility, a screened drain to daylight is required beneath hydraulic unit.

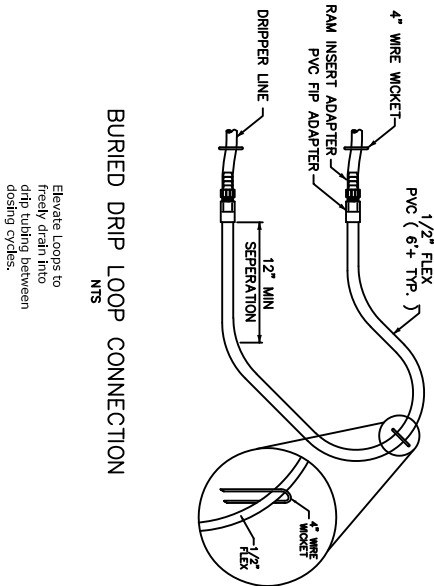
AMERICAN MANUFACTURING CO.	
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PROJECT NAME :	DRAFTER: DATE:
JOB NAME	CHECKED: DATE:
	APPROVED: DATE:
TITLE :	
DRIIP HYDRAULIC UNIT DETAILS	
COUNTY :	COUNTY, STATE
SCALE : NTS	SHEET: 5 OF 8

STANDARD RESIDENTIAL DRIP SYSTEM DETAILS

1



2



Tubing and Supply Pipe Installation:

1. All tubing shall be installed along the site contour (each pull of drip tubing to follow grade).
2. All PVC pipe and fittings shall be PVC SCH 40 Type 1 rated for pressure applications.
3. All glued joints shall be cleaned, deburred and primed with colored (dyed) PVC primer prior to being glued.
4. All cutting of PVC pipe, flexible PVC and dripper tubing of size 1 1/2" or smaller shall be accomplished with ratcheting or powered blade type pipe cutters approved by American Manufacturing Co., Inc. **No sawing of PVC, flexible PVC or dripper tubing of size 1 1/2" or smaller allowed.**
5. All PVC pipes, flexible PVC and dripper tubing in the work area shall have the ends covered with duct tape prior to final gluing to prevent construction debris from entering the pipe. Prior to gluing, all joints shall be inspected for and cleared of any construction debris. Pipe must be clear of debris, gravel, dirt, etc.
6. Drip supply and return lines and manifolds to be installed at adequate depth to prevent freezing.
7. Drip manifolds must be installed according to design for proper air and vacuum release functions.
8. Horizontal spacing between the dripper lines and the installation depth to be as specified in design.
9. All force mains shall be flushed and tested for leaks during system startup. Uncovered force mains shall be visibly inspected for leaks.

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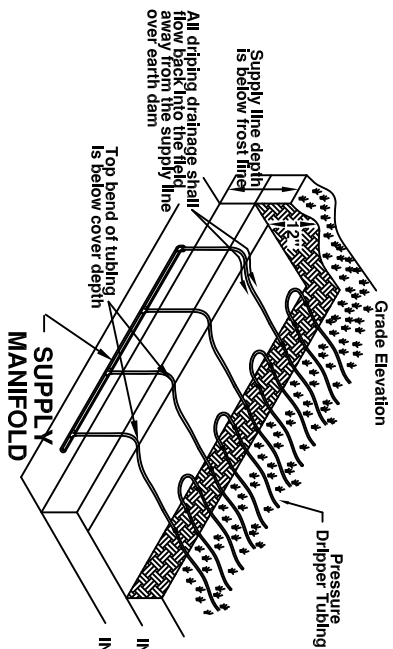
PROJECT NAME :	DRAFTER:	DATE:
JOB NAME	CHECKED:	DATE:
	APPROVED:	DATE:
	TITLE :	
COUNTRY :	DIP DETAIL SCHEMATICS	
COUNTY, STATE	SCALE : NTS	SHEET: 6 OF 8

SIDE FEED MANIFOLD SITES WITH NO DISCERNIBLE SLOPE

Air Release Valve
above highest drip
run in that zone.

The diagram shows a cross-section of a pipe with an air release valve installed. The valve is positioned above the highest point of the pipe, ensuring that air can be released from the system. A label points to the valve with the text: "Air Release Valve above highest drip run in that zone."

Air Release Valve
above highest drip
run in that zone.



1. All tubing shall be installed along the site contour (each pull or drip tubing to follow grade).
2. All PVC pipe and fittings shall be PVC SCH 40 Type 1 rated for pressure applications.
3. All glued joints shall be cleaned, deburred and primed with colored (dye) PVC primer prior to being glued.
4. All cutting of PVC pipe, flexible PVC and drip tubing of size 1 1/2" or smaller shall be accomplished with ratcheting or powered blade type pipe cutters approved by American Manufacturing Co., Inc. **No sawing of PVC, flexible PVC or drip tubing of size 1 1/2" or smaller allowed.**
5. All PVC pipes, flexible PVC and drip tubing in the work area shall have the ends covered with duct tape prior to final gluing to prevent construction debris from entering the pipe. Prior to gluing, all joints shall be inspected for and cleared of any construction debris. Pipe must be clear of dents, gravel, dirt, etc.
6. Drip supply and return lines and manifolds to be installed at adequate depth to prevent freezing.
7. Drip manifolds must be installed according to design for proper air and vacuum release functions.
8. Horizontal spacing between the dripper lines and the installation depth to be as specified in design.
9. All force mains shall be flushed and tested for leaks during system startup. Uncovered force mains shall be visibly inspected for leaks.

A cross-sectional diagram showing a trench dam installation. A 'FINISHED GRADE' line is shown at the top. Below it, a 'PVC PIPE' is laid in a trench, with a 'PVC TEE' fitting. A 'DRIPPER LINE' is shown running parallel to the pipe, with arrows indicating water flow. An 'EARTHEN DAM IN TRENCH' is shown as a raised earthen structure. A 'FLEX PVC LOOP' is shown as a loop of pipe that goes under the earthen dam and connects back to the main pipe. Arrows indicate the flow of water from the dripper line, through the loop, and back into the main pipe.

DRIPPER LINE SECTION DETAIL

**SIDE FEED OPTION
FLAT SITES ONLY.**

**SIDE FEED OPTION
FLAT SITES ONLY.**

DRIP LINE CONNECTION TO MANIFOLD
NTS

4" WIRE MOUNT

RAIN INSERT ADAPTER

PVC IP ADAPTER

DRIPPER LINE

12" MIN.

1/2" FLEX. PVC (3/8" THK.)

1/2"

1/2"

BURIED DRIP LOOP CONNECTION

MIS

BURIED DRIP LOOP CONNECTION

**Elevate Loops to
freely drain into
drip tubing between
dosing cycles.**

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CHECKED:	DATE:
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DATE:

MED:	DATE:
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DRIP DETAIL SCHEMATICS

SHEET: OF

PERC-RITE DRIP CALCULATION SHEET

1)_____ GALLONS PER DAY _____ BEDROOMS

2)_____ FT. x _____ FT. AREA FOR DISPOSAL LAYOUT

2a)_____ FT2 +/-

3)_____ GPD/SQ FT SOIL LOADING RATE PROVIDED (#1/#2a)

4)_____ ZONES

5)_____ TOTAL DRIPPER LINE PROVIDED

6)_____ SEPTIC TANK SIZE (ATU)

7)_____ DOSING TANK SIZE

8)_____ GALLONS PER INCH DOSING TANK

9) ZONE ONE

10)_____ TOTAL ABSORPTION AREA SQ FT

11)_____ LINEAR FEET DRIPPER LINE

12)_____ LONGEST LATERAL LENGTH FT

13)_____ DOSING FLOW RATE (GPM)

14)_____ NUMBER OF RETURN FIELD FLUSH CONNECTIONS

15)_____ FIELD FLUSH FLOW RATE (GPM)

16)_____ TOTAL FLOW REQUIRED (GPM)[#3 & #15]

17) ZONE TWO

18)_____ TOTAL ABSORPTION AREA SQ FT

19)_____ LINEAR FEET DRIPPER LINE

20)_____ LONGEST LATERAL LENGTH FT

21)_____ DOSING FLOW RATE (GPM)

22)_____ NUMBER OF RETURN FIELD FLUSH CONNECTIONS

23)_____ FIELD FLUSH FLOW RATE (GPM)

24)_____ TOTAL FLOW REQUIRED (GPM)[#21 & #23]

25) ZONE THREE

26)_____ TOTAL ABSORPTION AREA SQ FT

27)_____ LINEAR FEET DRIPPER LINE

28)_____ LONGEST LATERAL LENGTH

29)_____ DOSING FLOW RATE (GPM)

30)_____ NUMBER OF RETURN FIELD FLUSH CONNECTIONS

31)_____ FIELD FLUSH FLOW RATE (GPM)

32)_____ TOTAL FLOW REQUIRED (GPM)[#29 & #31]

33) ZONE FOUR

34)_____ TOTAL ABSORPTION AREA SQ FT

35)_____ LINEAR FEET DRIPPER LINE

36)_____ LONGEST LATERAL LENGTH FT

37)_____ DOSING FLOW RATE (GPM)

38)_____ NUMBER OF RETURN FIELD FLUSH CONNECTIONS

39)_____ FIELD FLUSH FLOW RATE (GPM)

40)_____ TOTAL FLOW REQUIRED (GPM)[#37 & #39]

41)_____ MAXIMUM DESIGN FLUSHING FLOW (GPM)

42)_____ FEET HEAD LOSS HYDRAULIC UNIT (FROM TABLE 2A BASED ON #41)

43) HYDRAULIC UNIT SUPPLY LINE SIZE (1-1/2" TYPICAL)

44)_____ INCH PIPE DIA.

45)_____ LENGTH SUPPLY PIPE FT

46)_____ FT. STATIC LIFT (CENTRAL UNIT ELEVATION - OFF FLOAT ELEVATION)

47)_____ TOTAL FEET HEAD LOSS LINE (DYNAMIC HEAD LOSS + #46)

48) FORCE MAIN SUPPLY LINE PIPE SIZE & LENGTH [BASED ON TOTAL FLOW]

49)_____ "Ø ZONE ONE SIZE, _____ ZONE ONE LENGTH _____ FEET HEAD LOSS

50)_____ "Ø ZONE TWO SIZE, _____ ZONE TWO LENGTH _____ FEET HEAD LOSS

51)_____ "Ø ZONE THREE SIZE, _____ ZONE THREE LENGTH _____ FEET HEAD LOSS

52)_____ "Ø ZONE FOUR SIZE, _____ ZONE FOUR LENGTH _____ FEET HEAD LOSS

53) RETURN FLUSH LINE PIPE SIZE & LENGTH

54)_____ "Ø ZONE ONE SIZE, _____ ZONE ONE LENGTH _____ FEET HEAD LOSS

55)_____ "Ø ZONE TWO SIZE, _____ ZONE TWO LENGTH _____ FEET HEAD LOSS

56)_____ "Ø ZONE THREE SIZE, _____ ZONE THREE LENGTH _____ FEET HEAD LOSS

57)_____ "Ø ZONE FOUR SIZE, _____ ZONE FOUR LENGTH _____ FEET HEAD LOSS

58)_____ FEET HEAD LOSS TOTAL STATIC (VERTICAL LIFT)

59) TOTAL PRESSURE LOSS (ADD ITEMS: 42,47,49-52,54-57,58,+FLUSHING TABLE 3A)[HIGHEST EMITTER--ELECTRICAL UNIT ELEV.]

60)_____ ZONE ONE HEAD LOSS, INCLUDES _____ FEET FLUSHING

61)_____ ZONE TWO HEAD LOSS, INCLUDES _____ FEET FLUSHING

62)_____ ZONE THREE HEAD LOSS, INCLUDES _____ FEET FLUSHING

63)_____ ZONE FOUR HEAD LOSS, INCLUDES _____ FEET FLUSHING

64) PUMP SIZING

65)_____ MAXIMUM PRESSURE LOSS TOTAL (HIGHEST FEET 60-63)

66)_____ DISC FILTER BACKFLUSH (#47 + 115' @15 GPM)

67)_____ GPM @ _____ FEET (LARGER OF 65 & 66)

68) PUMP MODEL: _____

69)_____ GPM @ _____ FEET _____ VOLTS _____ PHASE _____ HP

70) TIME DOSING PER ZONE: _____ Standard Rest Time: _____m

_____m

Peak Rest Time: _____m

71) ZONE ONE _____ GPM _____ MIN/DOSE _____ GAL/DOSE _____ AVE CYCLES _____ PEAK CYCLES

72) ZONE TWO _____ GPM _____ MIN/DOSE _____ GAL/DOSE _____ AVE CYCLES _____ PEAK CYCLES

73) ZONE THREE _____ GPM _____ MIN/DOSE _____ GAL/DOSE _____ AVE CYCLES _____ PEAK CYCLES

74) ZONE FOUR _____ GPM _____ MIN/DOSE _____ GAL/DOSE _____ AVE CYCLES _____ PEAK CYCLES

(60%)AVERAGE _____ GPD, PEAK _____ GPD, TOT. AVE CYCLES _____, TOT. PEAK CYCLES _____

FROM TABLE 3A

BASED ON LONGEST LATERAL

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PROJECT NAME :

JOB NAME

DRAFTER: _____ DATE: _____

CHECKED: _____ DATE: _____

APPROVED: _____ DATE: _____

TITLE :

COUNTRY :

COUNTY, STATE

CALCULATION SHEET

SCALE : NTS

SHEET: 7 OF 8

COLD WEATHER INSTALLATION NOTES

Minimum construction techniques for all American Perc-Rite Drip systems in cold weather climates:

Top feed manifolds should be used on all sites with a discernible slope to allow for proper drainage of the manifolds and the 1/2" lateral connectors into the drip tubing. The main supply and return lines shall be installed below the frost line and shall feed the shallow "top feed" manifolds with a single vertical section of insulated sch 40 PVC pipe. Insulation shall be minimum 1/2" thick foam insulation (or equivalent). On flat sites where "top feed" manifolds will not drain therefore requiring the use of side feed manifolds, 12" cover is recommended between highest point of 1/2" black flexible PVC pipe (on loop connections) and final grade. On drip tubing installations less than 12" this would require additional cover over the header ditch area to create the 12" separation. Any additional cover is it to be graded and tapered into landscape. Please see note on loop connections below. Dense vegetation turf cover to be established over supply trench, return trench and tubing prior to 1st exposure to cold weather. If vegetation cannot be established, then trenches and tubing to be covered with a thick layer (minimum 6") of mulch, straw/hay, etc. until such turf cover is established. Cover must be stabilized and maintained until dense vegetative turf is established. Amount of cover may need to be adjusted to account for settling. All valve boxes that house "remote zone valves" shall be insulated by contractor. Insulation to consist of either blue board, bagged Styrofoam peanuts or equivalent. If fiberglass insulation is used it must be sealed to prevent it from becoming saturated. The "remote valves" shall be placed on a bed of gravel or screenings (4"-6"). Positive grade away from valve boxes is encouraged to reduce the volume of groundwater that may collect in valve box. Certain sites may require positive drains to daylight. All loops connecting drip runs with 1/2" flexible PVC shall be slightly elevated (minimum 1"-2") so that they drain into the drip tubing after the pump shuts off. It is contractor's responsibility to ensure these loops stay elevated during and after the loops are backfilled.

All main supply and return trenches to be installed below the local frost line. If this is not possible due to site restrictions then adequate soil must be added over the top of the trenches so that the effective depth remains below the frost line after settling occurs. The added soils must be prepared for turf cover and stabilized. If vegetation cannot be established then trenches are to be covered with an additional layer (minimum 6") of mulch, straw/hay, etc. until such turf cover is established.

Sufficient ground cover around the hydraulic unit is required to insulate the unit. All pipes entering and leaving the hydraulic unit shall elbow vertically down 90 degrees to a depth below the frost line prior to extending away from the unit horizontally. Additional insulation inside the hydraulic unit is encouraged. Insulation to consist of either blue board, bagged Styrofoam peanuts or equivalent. If fiberglass insulation is used it must be sealed to prevent it from becoming saturated.

All conduit entering into the control panel shall be sealed to prevent condensation inside the panel.

Established vegetation height shall be minimum 4"-6" throughout winter months.

Air release valves shall be placed below the ground surface inside a valve box but at an elevation above the highest drip line in that particular zone.

SITE CLEARING GUIDELINES

General guidelines for preparing/clearing a site for installation of an American Mfg. "Perc-Rite®" Drip System:

GENERAL REQUIREMENTS:

The preservation of the original structure of the soil in the absorption area is essential to maintaining the percolative capacity of the soil. **No** activity other than the construction of the system is permitted within the absorption area. On sites where a majority of the vegetation needs to be removed, care must be taken to minimize the impact on the soils natural permeability. There shall be **no** cutting, filling, or storage of material on or within 20' of the adsorption area. Site clearing and preparation shall be performed by the installation contractor for the wastewater dispersal system. The absorption system is **not** to be constructed during periods of wet weather when the soil is sufficiently wet at the depth of installation to exceed its plastic limit. The plastic limit is exceeded when the soil can be rolled between the palms of the hands to produce threads 1/8 inch in diameter without breaking and crumbling.

After installation of the dispersal system, or if after clearing installation is not to be performed for 60 days, seed the area liberally with native grasses. The standard Department Of Transportation specification is acceptable consisting of perennial rye and fescue. At all times protect the installation area from erosion. Local codes shall apply for best management practices to control runoff.

SHALLOW INSTALLATIONS (surface to 8"):

Clearing and removal should be by hand with minimal machine assistance and under optimum soil moisture conditions. Track machines are preferred to those with rubber tires and should only be used around edges of installation. Soil moisture conditions need to be confirmed prior to beginning clearing and system installation by the soil scientist of record.

MID RANGE INSTALLATIONS (12" TO 24"):

All trees and brush, as necessary, should be "pulled out" (grubbed out) or cut flush with the ground surface. Stumps may be ground to two inches below the installation depth and the hole backfilled with sandy material to 6" above installation depth and the remainder with natural soil. When the soil is disturbed at the installation depth by pulling a stump, backfill the hole with sandy material to 6" above installation depth and the remainder with natural soil. Digging and pushing over trees may be more detrimental to the soils infiltrative characteristics. Track machines are preferred to those with rubber tires and should only be used during optimal soil moisture conditions. Soil moisture conditions need to be confirmed prior to beginning clearing and system installation by the soil scientist of record.

DEEP INSTALLATIONS (30" and deeper):

All trees and brush, as necessary, should be removed. When the soil is disturbed at the installation depth, backfill the hole with sandy material to 6" above installation depth and the remainder with natural soil. Stumps may be ground to two inches below the installation depth and the hole backfilled with sandy material to 6" above installation depth and the remainder with natural soil. Digging and pushing over trees may be more detrimental to the soils infiltrative characteristics than "pulling" and are **not** recommended. Track machines are preferred to those with rubber tires and should only be used during optimal soil moisture conditions. Soil moisture conditions need to be confirmed prior to beginning clearing and system installation by the soil scientist of record.

LARGE SCALE INSTALLATION TESTING:

Larger systems typically do not have water available for zone installation testing on a timely manner. It is desirable to water test an installed zone while the supply and return manifold header ditches are exposed to better inspect for leaks. In order to facilitate site and equipment protection and erosion control, the installation contractor shall provide sufficient water and the means to deliver and monitor the water to both flush and leak test each zone or subzone prior to backfill. The flushing volume shall be five times the volume of the piping network being flushed. The flushing velocity shall be in excess of 2-1/2 feet per second. The leak testing volume shall be at least 3 times the volume of the pipe. The leak test shall continue until steady state flow is achieved and the flow rate is within 6% of the design flow rate or as approved by the manufacturer or engineer. After successful testing and inspection the supply and return pipe connection points shall be sealed and protected from dirt and debris from entering prior to final connection.

American Manufacturing Perc-Rite® Drip Dispersal Systems

General Construction Notes:

1. Installation and construction techniques shall conform to state and county codes pertaining to onsite sewage systems and the permit for the site.
2. The installation of this system shall be in accordance with specifications and procedures as supplied by the manufacturer of the equipment.
3. The installer shall be authorized by American Manufacturing Company, Inc. or qualified representative to install this type of system and shall hold a pre-construction meeting with the individuals responsible for soil evaluation, permitting and inspections prior to site work beginning, to ensure protection of the site conditions and to ensure the system is installed according to design.
4. If site conditions require the installation of the system to deviate from the permitted plans, all work shall stop immediately, and the designer shall be notified. Any ongoing work shall be the sole responsibility of the installation contractor.

Site Protection:

1. The preservation of the original structure of the soil in the absorption area is essential to maintaining the percolative capacity of the soil.
2. **No** activity other than the construction of the system is permitted within the absorption area. On sites where a majority of the vegetation needs to be removed, care must be taken to minimize the impact on the soil's natural permeability.
3. There shall be **no** cutting, filling, or storage of material on or within 20' of the adsorption area. Site clearing and preparation shall be performed by the installation contractor for the wastewater dispersal system.
4. There shall be no equipment of any kind on drained for shallow or surface installations.
5. No activity on drained area other than a minimum required to install the system.
6. Do not park equipment, drive equipment or store materials on drained area
7. The absorption system is **not** to be constructed during periods of wet weather when the soil is sufficiently wet at the depth of installation to exceed its plastic limit. The plastic limit is exceeded when the soil can be rolled between the palms of the hands to produce threads 1/8 inch in diameter without breaking and crumbling.
8. After installation of the dispersal system, or if after clearing installation is not to be performed for 60 days, seed the area liberally with native grasses. The standard Department Of Transportation specification is acceptable consisting of perennial rye and fescue. At all times protect the installation area from erosion. Local codes shall apply for best management practices to control runoff.
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AMERICAN MANUFACTURING CO.			
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PROJECT NAME :		DRAFTER: DATE:	
JOB NAME		CHECKED:	DATE:
		APPROVED:	DATE:
TITLE : GENERAL CONSTRUCTION, COLD WEATHER INSTALLATION & SITE CLEARING NOTES			
COUNTY :	COUNTY, STATE	SCALE : NTS	SHEET: 8 OF 8