Air and Vacuum Issues Gravity Pipeline

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USDA-NRCS
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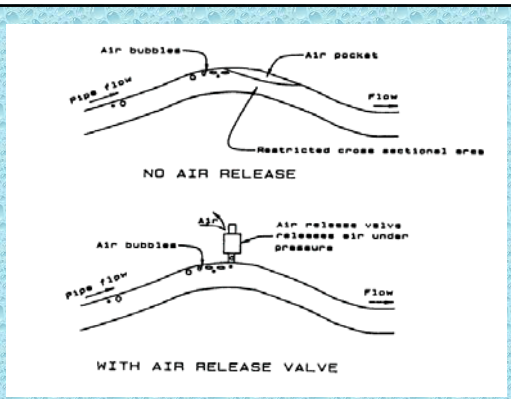
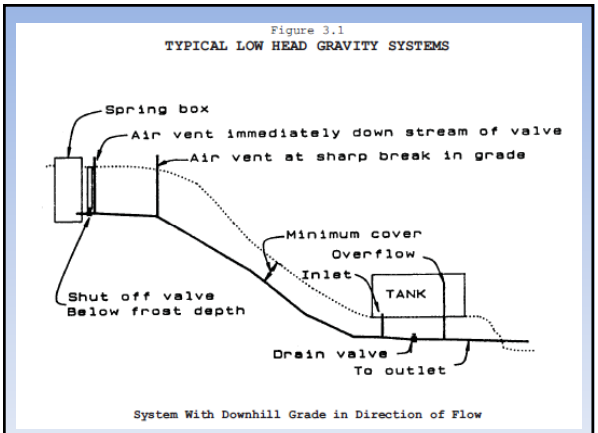


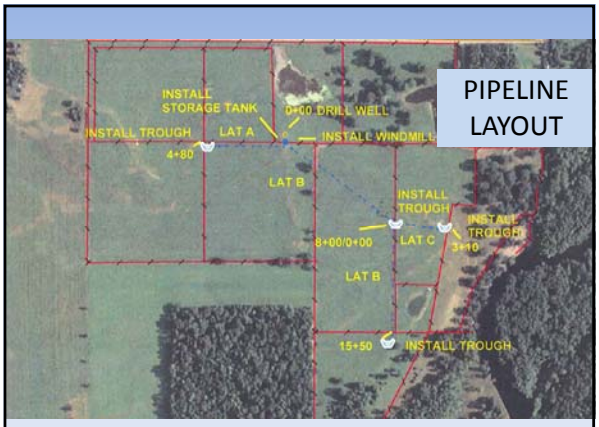
RELEASING AIR FROM PIPELINE
Montana Stockwater Pipeline Manual

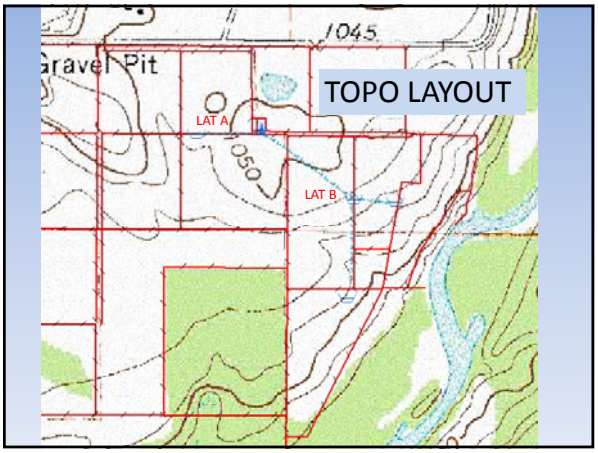
Air in Low Head Gravity Systems

RECOMMENDATIONS

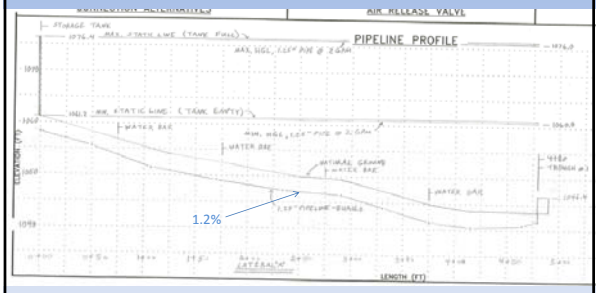
- Install an open air vent at all summits in line
- Install the pipe so there are no summits in the line
- Use minimum 1-1/4 inch pipeline for grades > 1%
- Use 1-1/2 inch pipeline for grades 0.5-1.0%
- Use 2 inch pipeline for grades 0.2-0.5 %



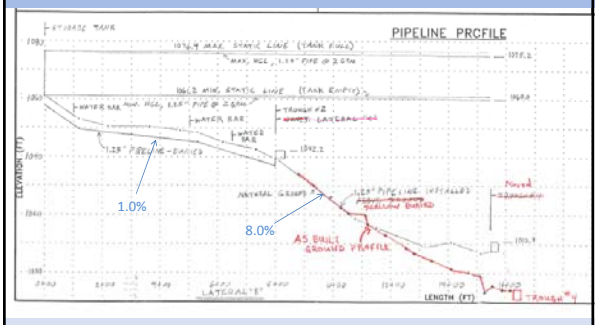




LAT A


PIPELINE PROFILE
1.2%

LAT B


PIPELINE PROFILE
1.0%
8.0%

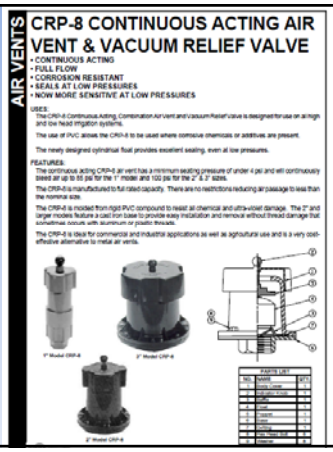
SOURCE

AIR TRAP?
NICE BOOTS

INITIAL FILL – LATERAL A

LAT A – AFTER DRAWDOWN ON LAT B

MIDDLE TROUGH – LAT B



AIR VENTS

CRP-8 CONTINUOUS ACTING AIR VENT & VACUUM RELIEF VALVE

- CONTINUOUS ACTING
- FULL FLOW
- CORROSION RESISTANT
- SEALS AT LOW PRESSURES
- NOW MORE SENSITIVE AT LOW PRESSURES

USES:

The CRP-8 Continuous Acting, Combination Air Vent and Vacuum Relief Valve is designed for use on all high and low head irrigation systems.

The use of PVC allows the CRP-8 to be used where corrosive chemicals or additives are present.

The newly designed cylindrical float provides excellent sealing, even at low pressures.

FEATURES:

The continuous acting CRP-8 air vent has a minimum sealing pressure of under 4 psi and will continuously bleed air up to 55 psi for the 1" model and 100 psi for the 2" & 3" sizes.

The CRP-8 is manufactured to full rated capacity. There are no restrictions reducing air passage to less than the nominal size.

The CRP-8 is molded from rigid PVC compound to resist all chemical and ultra-violet damage. The 2" and larger models feature a cast iron base to provide easy installation and remove without thread damage that sometimes occurs with aluminum or plastic threads.

The CRP-8 is ideal for commercial and industrial applications as well as agricultural use and is a very cost-effective alternative to metal air vents.

1" Model CRP-8

2" Model CRP-8

3" Model CRP-8

PARTS LIST		
NO.	NAME	QTY.
1	Vent Cover	1
2	Diaphragm Plate	1
3	Float	1
4	Cover	1
5	Spring	1
6	Valve	1
7	Seat	1
8	Body	1
9	Anti-Vacuum Seal	1
10	Diaphragm	1

THE END