

Discharge Report

Workspace: 72438-2FSRURegas-9H

Study: FSRU in rigassificazione

Equipment Item: 9H Sovrapressione VX0050

72438-2FSRURegas-9H\FSRU in rigassificazione\9H Sovrapressione VX0050

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 28,28mm

72438-2FSRURegas-9H\FSRU in rigassificazione\9H Sovrapressione VX0050\28,28mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	5155,17	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	12	bar
Initial temperature	-154,5	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	28,28	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	12,7439	kg/s
Release duration	404,522	s



Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-154,825	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	73,2336	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,965303	fraction
Droplet diameter	260,666	um
Expanded diameter	0,0651752	m
Velocity	73,2336	m/s



Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	5155,17	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	12	bar
Initial temperature	-154,5	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	28,28	mm
Discharge coefficient	0,62	fraction

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Velocity at vena contracta (at exit for pipe releases)	73,2336	m/s
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Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,965303	fraction
Droplet diameter	260,666	um
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Velocity	73,2336	m/s
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