

Discharge Report

Workspace: 72438-2FSRURegas-6H

Study: FSRU in rigassificazione

Equipment Item: 6H Vaporizz GN/SW HA1100A

72438-2FSRURegas-6H\FSRU in rigassificazione\6H Vaporizz GN/SW HA1100A

Material	NG/SW	
East	0	m
North	0	m

Scenario (Leak) : 280mm

72438-2FSRURegas-6H\FSRU in rigassificazione\6H Vaporizz GN/SW
HA1100A\280mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	20120,6	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	120	bar
Initial temperature	5	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	280	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	6497,2	kg/s
Release duration	3,09682	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	4,40766	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	177,597	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-51,9896	degC
Liquid mass fraction	0,901516	fraction
Droplet diameter	142,019	um
Expanded diameter	2,12516	m
Velocity	177,597	m/s

Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	20120,6	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	120	bar
Initial temperature	5	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	280	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

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Pressure	1,01325	bar
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Velocity at vena contracta (at exit for pipe releases)	177,597	m/s
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Final Data (after atmospheric expansion)

Temperature	-51,9896	degC
Liquid mass fraction	0,901516	fraction
Droplet diameter	142,019	um
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Velocity	177,597	m/s
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