

Discharge Report

Workspace: 72438-1RiempFSRU-3R

Study: Riempimento FSRU-ME4

Equipment Item: 3R Collettore GNL riempimento FSRU

72438-1RiempFSRU-3R\Riempimento FSRU-ME4\3R Collettore GNL riempimento FSRU

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 120mm

72438-1RiempFSRU-3R\Riempimento FSRU-ME4\3R Collettore GNL riempimento FSRU\120mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	38799,7	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	5	bar
Initial temperature	-160	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	120	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	149,509	kg/s
Release duration	259,514	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,121	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	46,8731	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,998608	fraction
Droplet diameter	319,833	um
Expanded diameter	0,108111	m
Velocity	46,8731	m/s

Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	38799,7	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	5	bar
Initial temperature	-160	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	120	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	149,509	kg/s
Release duration	259,514	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,121	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	46,8731	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,998608	fraction
Droplet diameter	319,833	um
Expanded diameter	0,108111	m



Velocity	46,8731	m/s
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