

Discharge Report

Workspace: 72341-1RiempimFSRU

Study: Riempimento FSRU-ME4

Equipment Item: 4R Linee di caricamento taniche FSRU durante riempimento

72341-1RiempimFSRU\Riempimento FSRU-ME4\4R Linee di caricamento taniche FSRU durante riempimento

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 80mm

72341-1RiempimFSRU\Riempimento FSRU-ME4\4R Linee di caricamento taniche FSRU durante riempimento\80mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	1309,57	kg
----------------	----------------	----

Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	0,25	bar
Initial temperature	-160	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	80	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	14,567	kg/s
----------------	--------	------

Release duration 89,9 s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,007	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	10,7075	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-160,955	degC
Liquid mass fraction	0,993703	fraction
Droplet diameter	612,662	um
Expanded diameter	0,0981738	m
Velocity	10,7075	m/s

Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	1309,57	kg
----------------	---------	----

Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	0,25	bar
Initial temperature	-160	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	80	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	14,567	kg/s
Release duration	89,9	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,007	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	10,7075	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-160,955	degC
Liquid mass fraction	0,993703	fraction
Droplet diameter	612,662	um
Expanded diameter	0,0981738	m



Velocity	10,7075	m/s
----------	---------	-----

