

Discharge Report

Workspace: 72452 Ottimizz-00

Study: FSRU in rigassificazione

Equipment Item: 12R Linea princip riscaldatori

72452 Ottimizz-00\FSRU in rigassificazione\12R Linea princip riscaldatori

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 30mm

72452 Ottimizz-00\FSRU in rigassificazione\12R Linea princip riscaldatori\30mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	49,1518	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	5	bar
Initial temperature	30	degC
Fluid state	Pressurized gas	

Scenario data

Phase to be released	Vapour	
Hole diameter	30	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	0,459004	kg/s
Release duration	107,083	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	3,27323	bar
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Temperature	-9,93417	degC
Liquid mass fraction	0	fraction
Velocity at vena contracta (at exit for pipe releases)	408,27	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	6,73324	degC
Liquid mass fraction	0	fraction
Droplet diameter	0	um
Expanded diameter	0,0512669	m
Velocity	300	m/s

Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	49,1518	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	5	bar
Initial temperature	30	degC
Fluid state	Pressurized gas	

Scenario data

Phase to be released	Vapour	
Hole diameter	30	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	0,459004	kg/s
Release duration	107,083	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	3,27323	bar
Temperature	-9,93417	degC
Liquid mass fraction	0	fraction
Velocity at vena contracta (at exit for pipe releases)	408,27	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	6,73324	degC
Liquid mass fraction	0	fraction
Droplet diameter	0	um
Expanded diameter	0,0512669	m
Velocity	300	m/s

