

Discharge Report

Workspace: 72438-2FSRURegas-9R

Study: FSRU in rigassificazione-ME7

Equipment Item: 9Ra Compressore BOG LD

72438-2FSRURegas-9R\FSRU in rigassificazione-ME7\9Ra Compressore BOG LD

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 75mm

72438-2FSRURegas-9R\FSRU in rigassificazione-ME7\9Ra Compressore BOG LD\75mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	217,763	kg
----------------	----------------	----

Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	7,5	bar
Initial temperature	45	degC
Fluid state	Pressurized gas	

Scenario data

Phase to be released	Vapour	
Hole diameter	75	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	4,07992	kg/s
Release duration	53,3743	s

Orifice or pipe exit data (before atmospheric expansion)



Pressure	4,66424	bar
Temperature	5,41097	degC
Liquid mass fraction	0	fraction
Velocity at vena contracta (at exit for pipe releases)	402,882	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	20,43	degC
Liquid mass fraction	0	fraction
Droplet diameter	0	um
Expanded diameter	0,151586	m
Velocity	300	m/s

Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	217,763	kg
----------------	----------------	----

Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	7,5	bar
Initial temperature	45	degC
Fluid state	Pressurized gas	

Scenario data

Phase to be released	Vapour	
Hole diameter	75	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	4,07992	kg/s
Release duration	53,3743	s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	4,66424	bar
Temperature	5,41097	degC
Liquid mass fraction	0	fraction
Velocity at vena contracta (at exit for pipe releases)	402,882	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	20,43	degC
Liquid mass fraction	0	fraction
Droplet diameter	0	um
Expanded diameter	0,151586	m
Velocity	300	m/s



