

# Discharge Report

**Workspace: 72438-2FSRURegas-9H**

**Study: FSRU in rigassificazione**

**Equipment Item: 9H Sovrapressione VX0050**

72438-2FSRURegas-9H\FSRU in rigassificazione\9H Sovrapressione VX0050

Material	<b>GAS NATURALE</b>	
East	0	m
North	0	m

## Scenario (Leak) : 28,28mm

72438-2FSRURegas-9H\FSRU in rigassificazione\9H Sovrapressione VX0050\28,28mm

**Weather: Category 2/F**

### INPUT DATA

#### Inventory data

Mass in vessel	<b>5155,17</b>	kg
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#### Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	<b>12</b>	bar
Initial temperature	<b>-154,5</b>	degC
Fluid state	<b>Non-saturated liquid</b>	

#### Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	<b>28,28</b>	mm
Discharge coefficient	<b>0,62</b>	fraction

### OUTPUT DATA

Mass flow rate	12,7439	kg/s
Release duration	404,522	s



### Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-154,825	degC
Liquid mass fraction	<b>1</b>	fraction
Velocity at vena contracta (at exit for pipe releases)	73,2336	m/s
Discharge coefficient	0,62	

### Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,965303	fraction
Droplet diameter	260,666	um
Expanded diameter	<b>0,0651752</b>	m
Velocity	73,2336	m/s



## Weather: Category 5/D

### INPUT DATA

#### Inventory data

Mass in vessel	<b>5155,17</b>	kg
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#### Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	<b>12</b>	bar
Initial temperature	<b>-154,5</b>	degC
Fluid state	<b>Non-saturated liquid</b>	

#### Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	<b>28,28</b>	mm
Discharge coefficient	<b>0,62</b>	fraction

### OUTPUT DATA

Mass flow rate	12,7439	kg/s
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Velocity	73,2336	m/s
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