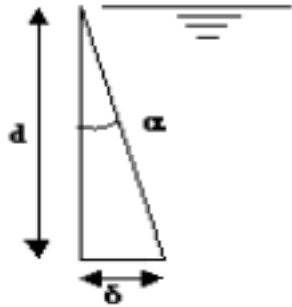


Potential Drop Cone Calculator

06/12/12

Drop Cone Calculator

- Drop cone calculator created to provide a visual reference of the potential Drop cone of an object falling from height, both actual and maximum potential height of drop.
- Help solves the issue around barrier in place and being a control measure (Objects don't drop straight down)
- Allows potential impact force to be known
- Based on the DNV Risk Assessment of Pipeline Protection Drop Probability

Case	Object Shape Description	Weight (tonnes)	Descent Angle Spread (deg)	
1	Flat/long shaped	< 2	15	
2		2 – 8	9	
3		> 8	5	
4	Box/round shaped	< 2	10	
5		2 – 8	5	
6		> 8	3	
7	Box/round shaped	>> 8	2	

POTENTIAL DROP CONE - ACTUAL HEIGHT OF DROPPED OBJECT

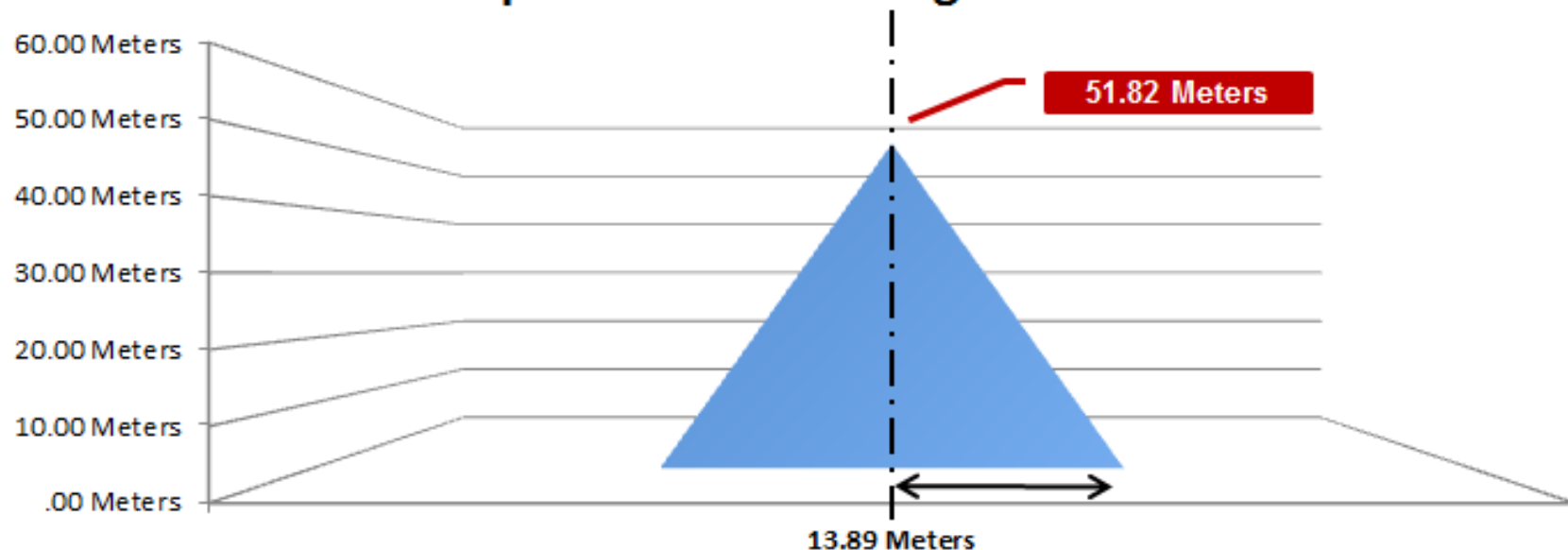
50	KG
15 Deg	Deg

X

51.82 Meters	Drop (m)
13.89 Meters	Drop Cone

Meters	to	Feet	25.00	m	82.02	ft
Feet	to	Meters	82.02	ft	25.00	m
lbs	to	kg	2.00	lbs	0.91	kg
kg	to	lbs	0.91	kg	2.00	lbs

Drop Cone - Actual Height of DROP



Mass of dropped object =	50	Kg
Height of dropped object =	51.82	m
Velocity before impact =	31.87	m/s
Kinectic Energy =	25391.8	J 25.39180 Kj
Depth of Impact =	0	cm/m
Average Impact force	253918	newtons