



# S.C.SABA ENG CO.

Designer and Manufacturer of Overhead, Jib, Gantry and Explosion proof Cranes

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## ATEX Zone

Zone: a place in which an explosive atmosphere is...

### ATEX Zone

Gases

Dusts

continually present

0

20

the event of two faults occurring independently of each other

1

Ex II 1G

Ex II 1D

likely to occur in normal operation occasionally

1

21

the event of one equipment fault

2

Ex II 2G

Ex II 2D

not likely to occur in normal operation and only for very short durations

2

22

normal operation

3

Ex II 3G

Ex II 3D

ATEX ZONE  
VERSUS  
REQUIRED  
EQUIPMENT

CLASSIFICATION  
OF GASES AND  
VAPORS IN  
EXPLOSION  
GROUPS AND  
TEMPERATURE  
CLASSES

## Temperature class and ignition temperature

Explosion group  
(only relevant for EExd)

T1  
450°C

T2  
450° - 300°C

T3  
300° - 200°C

T4  
200° - 135°C

T5  
135° - 100°C

T6  
100° - 85°C

|                                            |                                                                                                                                                         |                                                                                                         |                                                                                                                 |             |  |                  |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------|--|------------------|
| <b>II A</b><br>MESG <sup>1)</sup> > 0.9 mm | Acetone<br>Ethane<br>Ethylchloride<br>Ammonia<br>Benzol<br>Acetic acid<br>Carbon dioxide<br>Methane<br>Methanol<br>Methylchloride<br>Propane<br>Toluene | i-Amylacetate<br>n-Butane<br>n-Buthylalcohol<br>Cyclo-hexanon<br>1,2-Dichloro-ethane<br>Acetic anhydrid | Petroleum products<br>Fuels for internal combustion and diesel engines<br>Jet fuels<br>Heating oils<br>n-Hexane | Acetaldehyd |  |                  |
| <b>II B</b><br>0.5mm ≤ MESG ≤ 0.9mm        | Town gas                                                                                                                                                | Ethylalcohol<br>Ethylene<br>Ethylene oxide                                                              | Hydrogen sulfide                                                                                                | Ethyl ether |  |                  |
| <b>II C</b><br>MESG < 0.5mm                | Hydrogen                                                                                                                                                | Acetylene                                                                                               |                                                                                                                 |             |  | Carbon disulfide |

1) MESG (Maximum Experimental Safe Gaps)

These are code letters signifying an Ingress Protection Rating

IP 68

First Number:  
Level of Protection from Solid Objects

Second Number:  
Level of Protection from Water

|   |  |                                                     |
|---|--|-----------------------------------------------------|
| 0 |  | Not Protected                                       |
| 1 |  | Protected against solid objects greater than 50mm   |
| 2 |  | Protected against solid objects greater than 12.5mm |
| 3 |  | Protected against solid objects greater than 2.5mm  |
| 4 |  | Protected against solid objects greater than 1mm    |
| 5 |  | Protected against dust                              |
| 6 |  | Dust tight                                          |

|   |  |                                                  |
|---|--|--------------------------------------------------|
| 0 |  | Not Protected                                    |
| 1 |  | Protected against vertically dripping water      |
| 2 |  | Protected against dripping water when tilted 15° |
| 3 |  | Protected against spraying water                 |
| 4 |  | Protected against splashing water                |
| 5 |  | Protected against jetting water                  |
| 6 |  | Protected against powerful jetting water         |
| 7 |  | Protected against temporary immersion in water   |
| 8 |  | Protected against continuous immersion in water  |

INGRESS  
PROTECTION (IP)  
RATINGS,  
RESISTANCE  
GRADE OF AN  
ENCLOSURE  
AGAINST THE  
INTRUSION OF  
DUST OR LIQUIDS