

No. of cables per bin

UNITEST

GENERAL

Brand Cimbria
Model Unitest - No. of cables per bin

The Unitest system can be used in all types of grain storage facilities and can be installed in both new and existing installations. The temperature is constantly monitored by means of a number of sensors which are fitted in carrying cables specially designed for installation in harsh environments.

Cables

The number of cables suspended in a silo depends on the diameter of the silo, the stored commodity and the climatic conditions.

There is no mathematic formula to calculate the necessary number of cables per silo, but the table below shows our recommendations.

Our recommendations are based on our experience in the market.

Sensors

The number of sensors in a cable is mainly depending on the length of the cable.

By experience we have learned that the maximum length between sensors is 5 meters. However, the best result is achieved if the distance between the sensors is kept around 3-4 meters.

The final decision on the number of cables and sensors in a silo is always made in close co-operation with the customer.

Table 1 - Suspension

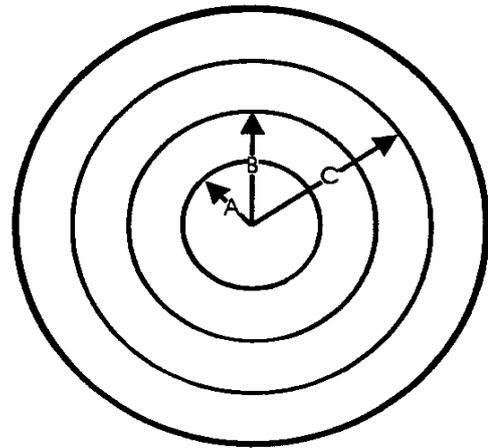


Table 2 - Number of cables

| | | | | | | | | | | | | | | | |
|-------------------------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Silo diameter in meters | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 35 | 40 |
| Total number of cables | 1 | 3 | 3 | 4 | 6 | 7 | 8 | 11 | 12 | 16 | 17 | 19 | 22 | 29 | 34 |

Table 3 - Placement of cables

| | Number of cables placed in centre | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
|------------|-----------------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| Suspension | Distance from centre in meters | | 2.2 | 2.5 | 3.2 | 4.7 | 5.6 | 6.0 | 2.4 | 2.7 | 3.0 | 5.2 | 5.5 | 2.5 | 2.8 | 5.6 |
| Point | Number of cables | | 3 | 3 | 3 | 5 | 6 | 7 | 3 | 3 | 6 | 6 | 6 | 3 | 3 | 5 |
| Radius A | Angle degree between two cables | | 120 | 120 | 120 | 72 | 60 | 51 | 120 | 120 | 120 | 60 | 60 | 120 | 120 | 72 |
| Suspension | Distance from centre in meters | | | | | | | | 7.5 | 8.2 | 9.0 | 10.5 | 10.5 | 7.6 | 8.6 | 11.3 |
| Point | Number of cables | | | | | | | | 8 | 9 | 10 | 10 | 12 | 7 | 10 | 10 |
| Radius B | Angle degree between two cables | | | | | | | | 45 | 40 | 36 | 36 | 30 | 51 | 36 | 36 |
| Suspension | Distance from centre in meters | | | | | | | | | | | | | 12.8 | 14.5 | 17.0 |
| Point | Number of cables | | | | | | | | | | | | | 12 | 16 | 18 |
| Radius C | Angle degree between two cables | | | | | | | | | | | | | 30 | 22.5 | 20 |