

ESX

Junction boxes



Installation

hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)

Classification

Group II - Category 2G 2D

Mechanical characteristics

|                |                                                                                           |
|----------------|-------------------------------------------------------------------------------------------|
| Body           | stainless steel AISI-316L - th. 1,5 mm                                                    |
| Cover          | stainless steel AISI-316L - th. 1,5 mm                                                    |
| Screws         | stainless steel AISI-316L                                                                 |
| Internal plate | stainless steel AISI-316L - th. 1,5 mm                                                    |
| Gasket         | silicon rubber                                                                            |
| Fixing         | stainless steel AISI-316L fixing lugs, adjustable on horizontal / vertical / 45° position |
| Closing        | with key (on demand) / with screws (on standard)                                          |

On Request Accessories

- Hinges system (universal positioning setup)
- External fixing lugs for supplied loose (new positioning setup)
- Padlockable lid system and/or closing with key device
- External epoxy painting with colour on request
- Internal anticondensate painting orange RAL-2004
- Drain and breather valves
- Removable flanges on side walls (see identification table)
- Documents holders and name plate holder
- Different thickness (body - cover - internal plate)

Reference standards

|                                 |                                                                                                                                                                                                                                                                          |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Directive 2014/34/EU            |                                                                                                                                                                                                                                                                          |
| Execution                       | Ⓔ II 2 G Ex e IIB or IIC T6 ÷ T3 Gb<br>Ⓔ II 2 D Ex tb IIIC T85 °C ÷ T200 °C Db                                                                                                                                                                                           |
| Rules of compliance             | EN/IEC 60079-0;<br>EN/IEC 60079-1;<br>EN/IEC 60079-7;<br>EN/IEC 60079-11;<br>EN/IEC 60079-18;<br>EN/IEC 60079-31                                                                                                                                                         |
| EU Type-Examination Certificate | INERIS 02 ATEX 0067X                                                                                                                                                                                                                                                     |
| Protection degree               | IP66                                                                                                                                                                                                                                                                     |
| Ambient temperature             | -60 °C ÷ +60 °C<br>(+160 °C with ceramic terminals)                                                                                                                                                                                                                      |
| Other available certificates    | Component: INERIS 13 ATEX 9028U<br>IECEx: IECEx INE11.0016<br>INMETRO: CEPEL 12.2159X<br>ECASEx: 23-06-22481/Q23-06-048569/NB0002<br>NEC 505: UL 20141112-E465037 -<br>Type rating NEMA 1, 12, 4 and 4X<br>CCC: 2023122304116541<br>KC: in progress<br>RINA: ELE045823CS |



Technical features

| Long side |        | Short side |        | Height |        | Long side flange                | Short side flange               | Type of closing                               | Accessories | Fixing lugs | Internal height | Plate X-Y | Weight | Detail |
|-----------|--------|------------|--------|--------|--------|---------------------------------|---------------------------------|-----------------------------------------------|-------------|-------------|-----------------|-----------|--------|--------|
| Type      | A [mm] | Type       | B [mm] | Type   | C [mm] |                                 |                                 |                                               |             |             | D [mm]          | [mm]      | [kg]   |        |
| 013       | 130    | 013        | 130    | B      | 90     |                                 |                                 |                                               |             |             | 55              | 80-80     | 1,50   | A1     |
| 017       | 170    | 017        | 170    | B      | 90     |                                 |                                 |                                               |             |             | 55              | 120-120   | 2,00   | A1     |
| 022       | 220    | 016        | 165    | A      | 150    | 0<br>1<br>2<br>3<br>4<br>5<br>6 | 0<br>1<br>2<br>3<br>4<br>5<br>6 | CSS<br>CVL<br>CVC<br>SHL<br>SHC<br>PKL<br>PKC | 0<br>T<br>P | 0<br>K      | 115             | 170-115   | 4,00   | A      |
|           |        | 022        | 220    | A      | 150    |                                 |                                 |                                               |             |             | 115             | 170-170   | 4,50   | A      |
| 033       | 330    | 022        | 220    | A      | 150    |                                 |                                 |                                               |             |             | 115             | 280-170   | 5,50   | A      |
|           |        | 033        | 330    | A      | 150    |                                 |                                 |                                               |             |             | 115             | 280-280   | 7,50   | A      |
| 040       | 400    | 040        | 400    | D      | 200    |                                 |                                 |                                               |             |             | 165             | 350-350   | 8,50   | A      |
| 044       | 440    | 033        | 330    | A      | 150    |                                 |                                 |                                               |             |             | 115             | 390-280   | 9,00   | A      |
| 052       | 520    | 042        | 420    | D      | 200    |                                 |                                 |                                               |             |             | 165             | 470-370   | 12,50  | A      |
| 063       | 630    | 048        | 480    | D      | 200    |                                 |                                 |                                               |             |             | 165             | 580-430   | 16,50  | A      |
| 150       | 1500   | 110        | 1100   | G      | 900    |                                 |                                 |                                               |             |             | 865             | 1450-1050 | 145    | A      |
| 200       | 2000   | 180        | 1800   | H      | 600    |                                 |                                 |                                               |             |             | 565             | 1950-1750 | 215    | A      |

Examples

|      |     |     |   |   |   |     |   |   |
|------|-----|-----|---|---|---|-----|---|---|
| ESX# | 013 | 013 | B | 0 | 0 | CSS | 0 | 0 |
|------|-----|-----|---|---|---|-----|---|---|

ESX#013013B00CSS00 = dimensions: 130x130x90, without flanges, closing lid with screws, without accessories, fixing lugs excluded.

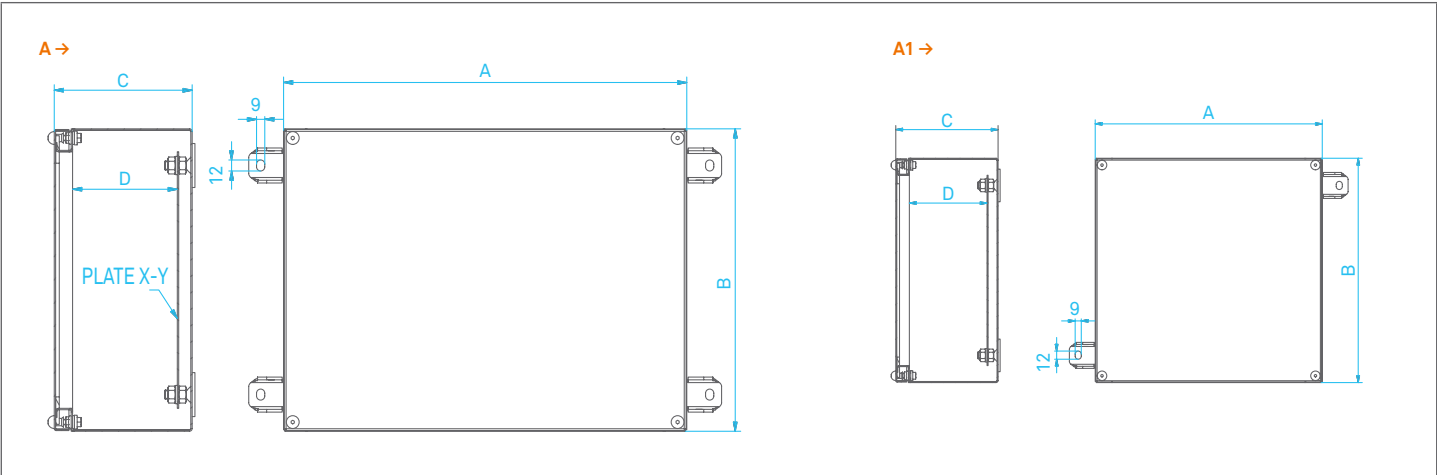
|      |     |     |   |   |   |     |   |   |
|------|-----|-----|---|---|---|-----|---|---|
| ESX# | 044 | 033 | A | 1 | 1 | CVL | T | K |
|------|-----|-----|---|---|---|-----|---|---|

ESX#044033A11CVLTK = dimensions: 440x330x150, 1 flange long side, 1 flange short side, closing lid with hinges and screws long side, with internal documents holder and fixing lugs included.

| N° | Long side flange                      | N° | Short side flange                      | N°  | Type of closing                                 |
|----|---------------------------------------|----|----------------------------------------|-----|-------------------------------------------------|
| 0  | without flanges                       | 0  | without flanges                        | CSS | closing lid with screws                         |
| 1  | n. 1 flange long side                 | 1  | n. 1 flange short side                 | CVL | closing lid with hinges and screws, long side   |
| 2  | n. 2 flanges long side                | 2  | n. 2 flanges short side                | CVC | closing lid with hinges and screws, short side  |
| 3  | n. 1 flange 3 mm thickness long side  | 3  | n. 1 flange 3 mm thickness short side  | SHL | closing lid with hinges and key, long side      |
| 4  | n. 2 flanges 3 mm thickness long side | 4  | n. 2 flanges 3 mm thickness short side | SHC | closing lid with hinges and key, short side     |
| 5  | n. 1 double flange long side          | 5  | n. 1 double flange short side          | PKL | closing lid with hinges and padlock, long side  |
| 6  | n. 2 double flanges long side         | 6  | n. 2 double flanges short side         | PKC | closing lid with hinges and padlock, short side |

| Code | Accessories                    | Code | Fixing Lugs          |
|------|--------------------------------|------|----------------------|
| 0    | without accessories            | 0    | fixing lugs excluded |
| T    | with internal documents holder | K    | fixing lugs included |
| P    | with plateholder               |      |                      |

Reference details



Distance between fixing centers  
Horizontal position

| Enclosure  | a                                                                       | b   | a1  | Detail |
|------------|-------------------------------------------------------------------------|-----|-----|--------|
| ESX#1313   | 180                                                                     | 50  | 205 | B1     |
| ESX#1717   | 220                                                                     | 90  | 245 | B1     |
| ESX#2216   | 270                                                                     | 85  | 295 | B      |
| ESX#2222   | 270                                                                     | 140 | 295 | B      |
| ESX#3322   | 380                                                                     | 140 | 405 | B      |
| ESX#3333   | 380                                                                     | 250 | 405 | B      |
| ESX#4040   | 450                                                                     | 320 | 475 | B      |
| ESX#4433   | 490                                                                     | 250 | 515 | B      |
| ESX#5242   | 570                                                                     | 340 | 595 | B      |
| ESX#6348   | 680                                                                     | 400 | 705 | B      |
| ESX#150110 | * for further details, please contact<br>our technical sales department |     |     |        |
| ESX#200180 |                                                                         |     |     |        |

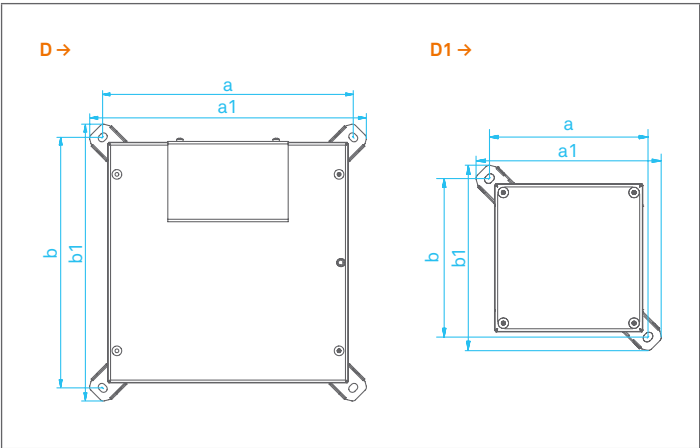
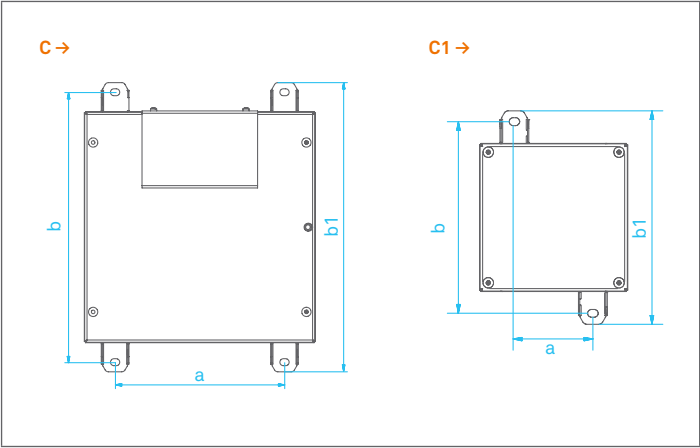
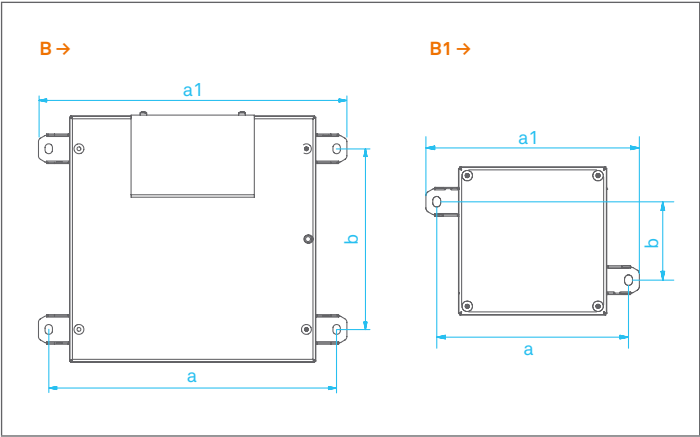
Vertical position

| Enclosure  | a                                                                       | b   | B1  | Detail |
|------------|-------------------------------------------------------------------------|-----|-----|--------|
| ESX#1313   | 50                                                                      | 180 | 205 | C1     |
| ESX#1717   | 90                                                                      | 220 | 245 | C1     |
| ESX#2216   | 140                                                                     | 215 | 235 | C      |
| ESX#2222   | 140                                                                     | 270 | 295 | C      |
| ESX#3322   | 250                                                                     | 270 | 295 | C      |
| ESX#3333   | 250                                                                     | 380 | 405 | C      |
| ESX#4040   | 320                                                                     | 450 | 475 | C      |
| ESX#4433   | 360                                                                     | 380 | 405 | C      |
| ESX#5242   | 440                                                                     | 470 | 495 | C      |
| ESX#6348   | 550                                                                     | 530 | 555 | C      |
| ESX#150110 | * for further details, please contact<br>our technical sales department |     |     |        |
| ESX#200180 |                                                                         |     |     |        |

45° position

| Enclosure  | a                                                                       | b   | a1  | b1  | Detail |
|------------|-------------------------------------------------------------------------|-----|-----|-----|--------|
| ESX#1313   | 143                                                                     | 143 | 175 | 175 | D1     |
| ESX#1717   | 183                                                                     | 183 | 215 | 215 | D1     |
| ESX#2216   | 233                                                                     | 178 | 265 | 205 | D      |
| ESX#2222   | 233                                                                     | 233 | 265 | 265 | D      |
| ESX#3322   | 343                                                                     | 233 | 375 | 265 | D      |
| ESX#3333   | 343                                                                     | 343 | 375 | 375 | D      |
| ESX#4040   | 413                                                                     | 413 | 445 | 445 | D      |
| ESX#4433   | 453                                                                     | 343 | 485 | 375 | D      |
| ESX#5242   | 533                                                                     | 433 | 565 | 465 | D      |
| ESX#6348   | 643                                                                     | 493 | 675 | 525 | D      |
| ESX#150110 | * for further details, please contact<br>our technical sales department |     |     |     | D      |
| ESX#200180 |                                                                         |     |     |     |        |

Reference details

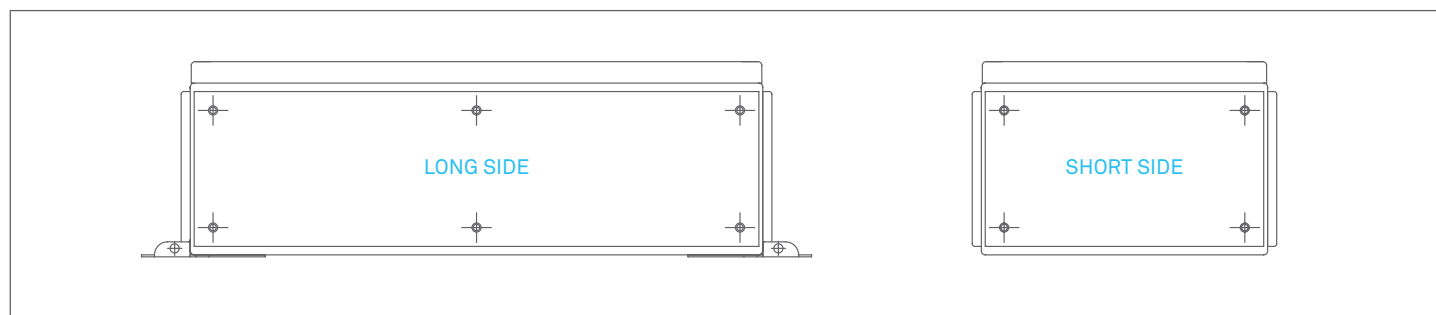


## Removable flanges indicative maximum quantity of holes of the same size

| Drilling area long side |                                                                      |    |    |    |    |    |   |   |
|-------------------------|----------------------------------------------------------------------|----|----|----|----|----|---|---|
| Enclosure code          | Quantity allowed entries for size (from 1 to size 8)                 |    |    |    |    |    |   |   |
|                         | 1                                                                    | 2  | 3  | 4  | 5  | 6  | 7 | 8 |
| ESX#2216                | 8                                                                    | 5  | 4  | 3  | 2  | 2  | 1 | - |
| ESX#2222                | 8                                                                    | 5  | 4  | 3  | 2  | 2  | 1 | - |
| ESX#3322                | 12                                                                   | 8  | 7  | 4  | 4  | 3  | 3 | - |
| ESX#3333                | 12                                                                   | 8  | 7  | 4  | 4  | 3  | 3 | - |
| ESX#4040                | 14                                                                   | 10 | 8  | 6  | 5  | 4  | 3 | - |
| ESX#4433                | 18                                                                   | 13 | 11 | 8  | 6  | 5  | 4 | - |
| ESX#5242                | 30                                                                   | 20 | 18 | 13 | 11 | 8  | 6 | 3 |
| ESX#6348                | 36                                                                   | 26 | 24 | 17 | 15 | 10 | 9 | 4 |
| ESX#150110              | * for further details, please contact our technical sales department |    |    |    |    |    |   |   |
| ESX#200180              |                                                                      |    |    |    |    |    |   |   |

| Drilling area short side |                                                                      |    |    |    |    |   |   |   |
|--------------------------|----------------------------------------------------------------------|----|----|----|----|---|---|---|
| Enclosure code           | Quantity allowed entries for size (from 1 to size 8)                 |    |    |    |    |   |   |   |
|                          | 1                                                                    | 2  | 3  | 4  | 5  | 6 | 7 | 8 |
| ESX#2216                 | 6                                                                    | 3  | 2  | 2  | 1  | 1 | 1 | - |
| ESX#2222                 | 8                                                                    | 5  | 4  | 3  | 2  | 2 | 1 | - |
| ESX#3322                 | 8                                                                    | 5  | 4  | 3  | 2  | 2 | 1 | - |
| ESX#3333                 | 12                                                                   | 8  | 7  | 4  | 4  | 3 | 3 | - |
| ESX#4040                 | 14                                                                   | 10 | 8  | 6  | 5  | 4 | 3 | - |
| ESX#4433                 | 14                                                                   | 9  | 7  | 5  | 4  | 3 | 3 | - |
| ESX#5242                 | 28                                                                   | 18 | 14 | 12 | 8  | 7 | 4 | 2 |
| ESX#6348                 | 30                                                                   | 24 | 20 | 15 | 11 | 8 | 6 | 3 |
| ESX#150110               | * for further details, please contact our technical sales department |    |    |    |    |   |   |   |
| ESX#200180               |                                                                      |    |    |    |    |   |   |   |

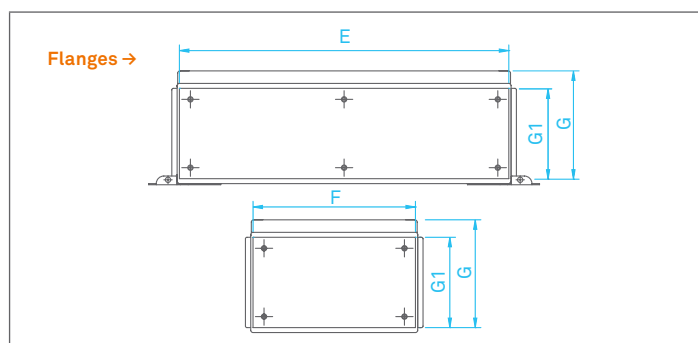
## Flanges drilling area



## Removable flanges dimensions

| Enclosure  | E [mm]                                                               | F [mm] | G [mm] | G1 [mm] |
|------------|----------------------------------------------------------------------|--------|--------|---------|
| ESX#2216   | 214                                                                  | 159    | -      | 119     |
| ESX#2222   | 214                                                                  | 214    | -      | 119     |
| ESX#3322   | 324                                                                  | 214    | -      | 119     |
| ESX#3333   | 324                                                                  | 324    | -      | 119     |
| ESX#4040   | 394                                                                  | 394    | -      | 169     |
| ESX#4433   | 484                                                                  | 359    | -      | 119     |
| ESX#5242   | 514                                                                  | 414    | 212,5  | 169     |
| ESX#6348   | 624                                                                  | 474    | -      | 169     |
| ESX#150110 | * for further details, please contact our technical sales department |        |        |         |
| ESX#200180 |                                                                      |        |        |         |

## Reference details



## Indicative quantity of terminals and relevant section

| Enclosure Code | Sect. 2,5 [sq/mm]                                                    | Sect. 6,0 [sq/mm] | Sect. 10,0 [sq/mm] | Sect. 16,0 [sq/mm] | Sect. 35,0 [sq/mm] | Sect. 50,0 [sq/mm] | Sect. 70,0 [sq/mm] | Sect. 240,0 [sq/mm] | Int. plate X - Y [mm] |
|----------------|----------------------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|-----------------------|
| ESX#1313       | 8 x 1                                                                | 5 x 1             | 4 x 1              | 4 x 1              | 3 x 1              | 2 x 1              | 1 x 1              | -                   | 80 - 80               |
| ESX#1717       | 22 x 1                                                               | 12 x 1            | 10 x 1             | 8 x 1              | 7 x 1              | 5 x 1              | 4 x 1              | -                   | 120 - 120             |
| ESX#2216       | 30 x 1                                                               | 18 x 1            | 14 x 1             | 12 x 1             | 9 x 1              | 8 x 1              | 6 x 1              | 1 x 1               | 170 - 115             |
| ESX#2222       | 30 x 1                                                               | 18 x 1            | 14 x 1             | 12 x 1             | 9 x 1              | 8 x 1              | 6 x 1              | 2 x 1               | 170 - 170             |
| ESX#3322       | 48 x 1                                                               | 30 x 1            | 24 x 1             | 18 x 1             | 15 x 1             | 12 x 1             | 11 x 1             | 2 x 1               | 280 - 170             |
| ESX#3333       | 48 x 2                                                               | 30 x 2            | 24 x 2             | 18 x 2             | 15 x 2             | 12 x 2             | 11 x 1             | 2 x 1               | 280 - 280             |
| ESX#4040       | 70 x 2                                                               | 42 x 2            | 34 x 2             | 28 x 2             | 22 x 2             | 18 x 2             | 16 x 1             | 4 x 1               | 350 - 350             |
| ESX#4433       | 78 x 2                                                               | 50 x 2            | 40 x 2             | 34 x 2             | 26 x 2             | 20 x 2             | 18 x 1             | 8 x 1               | 390 - 280             |
| ESX#5242       | 86 x 2                                                               | 55 x 2            | 44 x 2             | 36 x 2             | 28 x 2             | 22 x 2             | 19 x 2             | 6 x 1               | 470 - 370             |
| ESX#6348       | 108 x 3                                                              | 68 x 3            | 54 x 3             | 46 x 3             | 34 x 3             | 28 x 3             | 26 x 2             | 10 x 1              | 580 - 430             |
| ESX#150110     | * for further details, please contact our technical sales department |                   |                    |                    |                    |                    |                    |                     | 1450 - 1050           |
| ESX#200180     |                                                                      |                   |                    |                    |                    |                    |                    |                     | 1950 - 1750           |

Body enclosures indicative maximum quantity of holes of the same size

| Drilling area long side |                                                                      |    |    |    |    |    |    |   |
|-------------------------|----------------------------------------------------------------------|----|----|----|----|----|----|---|
| Enclosure code          | Quantity allowed entries for size (from 1 to size 8)                 |    |    |    |    |    |    |   |
|                         | 1                                                                    | 2  | 3  | 4  | 5  | 6  | 7  | 8 |
| ESX#1313                | 2                                                                    | 2  | -  | -  | -  | -  | -  | - |
| ESX#1717                | 3                                                                    | 3  | -  | -  | -  | -  | -  | - |
| ESX#2216                | 8                                                                    | 8  | 6  | 5  | 3  | 2  | 2  | 1 |
| ESX#2222                | 8                                                                    | 8  | 6  | 5  | 3  | 2  | 2  | 1 |
| ESX#3322                | 12                                                                   | 12 | 10 | 8  | 4  | 4  | 3  | 2 |
| ESX#3333                | 12                                                                   | 12 | 10 | 8  | 4  | 4  | 3  | 2 |
| ESX#4040                | 18                                                                   | 14 | 12 | 9  | 6  | 4  | 3  | 3 |
| ESX#4433                | 20                                                                   | 18 | 15 | 12 | 8  | 6  | 4  | 4 |
| ESX#5242                | 34                                                                   | 22 | 20 | 17 | 12 | 10 | 8  | 4 |
| ESX#6348                | 42                                                                   | 30 | 26 | 18 | 16 | 11 | 10 | 5 |
| ESX#150110              | * for further details, please contact our technical sales department |    |    |    |    |    |    |   |
| ESX#200180              |                                                                      |    |    |    |    |    |    |   |

| Drilling area short side |                                                                      |    |    |    |    |   |   |   |
|--------------------------|----------------------------------------------------------------------|----|----|----|----|---|---|---|
| Enclosure code           | Quantity allowed entries for size (from 1 to size 8)                 |    |    |    |    |   |   |   |
|                          | 1                                                                    | 2  | 3  | 4  | 5  | 6 | 7 | 8 |
| ESX#1313                 | 2                                                                    | 2  | -  | -  | -  | - | - | - |
| ESX#1717                 | 3                                                                    | 3  | -  | -  | -  | - | - | - |
| ESX#2216                 | 6                                                                    | 6  | 4  | 3  | 2  | 2 | 1 | 1 |
| ESX#2222                 | 8                                                                    | 8  | 6  | 5  | 3  | 2 | 2 | 1 |
| ESX#3322                 | 8                                                                    | 8  | 6  | 5  | 3  | 2 | 2 | 1 |
| ESX#3333                 | 12                                                                   | 12 | 10 | 8  | 4  | 4 | 3 | 2 |
| ESX#4040                 | 18                                                                   | 14 | 12 | 9  | 6  | 4 | 3 | 3 |
| ESX#4433                 | 14                                                                   | 14 | 10 | 8  | 5  | 4 | 3 | 3 |
| ESX#5242                 | 32                                                                   | 20 | 16 | 14 | 10 | 8 | 6 | 3 |
| ESX#6348                 | 40                                                                   | 28 | 22 | 16 | 13 | 9 | 8 | 4 |
| ESX#150110               | * for further details, please contact our technical sales department |    |    |    |    |   |   |   |
| ESX#200180               |                                                                      |    |    |    |    |   |   |   |

Reference details

Body drilling area →



LONG SIDE



SHORT SIDE

REMARK:  
Due to the development of the national and international specifications and of the technology, the above technical characteristics showed on this bulletin can be considered as binding on our confirmation only.