

ChM[®]








ChM Pelvic System
ChARPEL *system*

RECONSTRUCTION PLATES pelvis fixation

- *IMPLANTS*
- *INSTRUMENT SET 40.6000.500*
- *INSTRUMENT SET 40.6000.600*
- *INSTRUMENT SET 40.6000.700*
- *SURGICAL TECHNIQUE*



SYMBOLS DESCRIPTION

| | |
|---|---|
|  | Caution - pay attention to a special procedure. |
|  | Perform the activity under X-Ray control. |
|  | Information about the next stages of a procedure. |
|  | Proceed to the next stage. |
|  | Return to the specified stage and repeat the activity. |
|  | Before using the product, carefully read the Instructions for Use. It contains, among others, indications, contraindications, side effects, recommendations and warnings related to the use of the product. |
|  | The above description is not a detailed instruction of conduct. The surgeon decides about choosing the operating procedure. |

www.chm.eu

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*The manufacturer reserves the right to introduce design changes.
Updated INSTRUCTIONS FOR USE are available at the following website: ifu.chm.eu*

| | |
|---|----|
| I. SELECTION AND CONTOURING OF PLATES | 5 |
| II. IMPLANTS | 6 |
| III. INSTRUMENTS | 25 |
| III.1. INSTRUMENT SET FOR PELVIC FIXATION 40.6000.500 | 25 |
| III.2. INSTRUMENT SET FOR PELVIC FIXATION 40.6000.600 | 28 |
| III.3. INSTRUMENT SET FOR PELVIC FIXATION – REPOSITIONING 40.6000.700 | 31 |
| IV. SURGICAL TECHNIQUE | 33 |
| IV.1. TEMPORARY PLATE ATTACHMENT | 33 |
| IV.2. LOCKING SCREW INSERTION | 34 |
| IV.3. CORTICAL SCREW INSERTION | 36 |
| V. INSTRUMENTS FOR REDUCTION OF BONE FRAGMENTS | 38 |

I. SELECTION AND CONTOURING OF PLATES

Wide size range of plates enables proper plate selection.

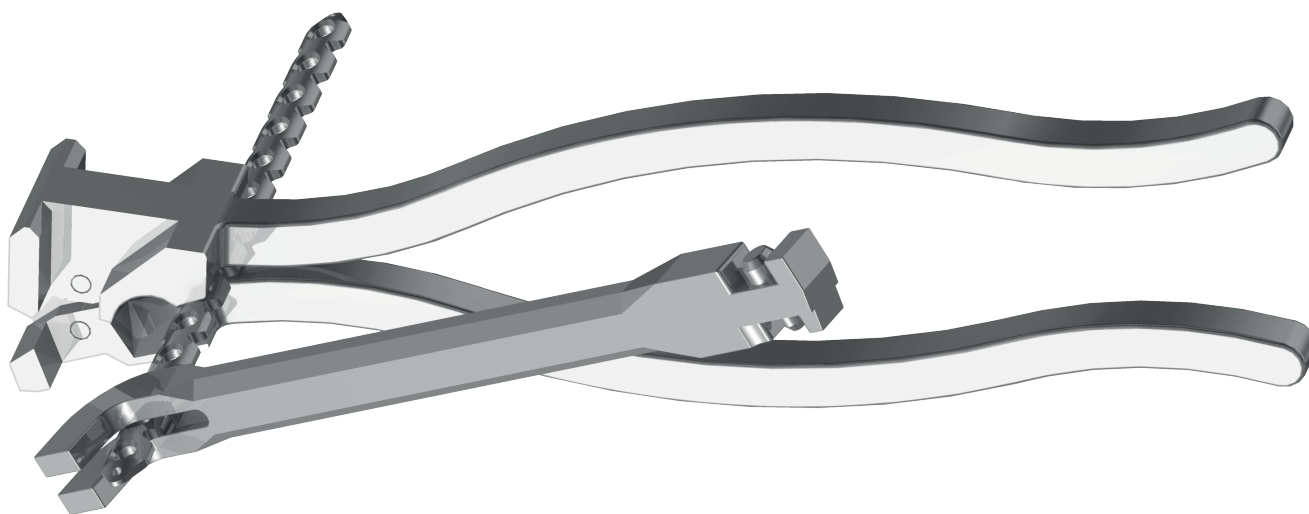
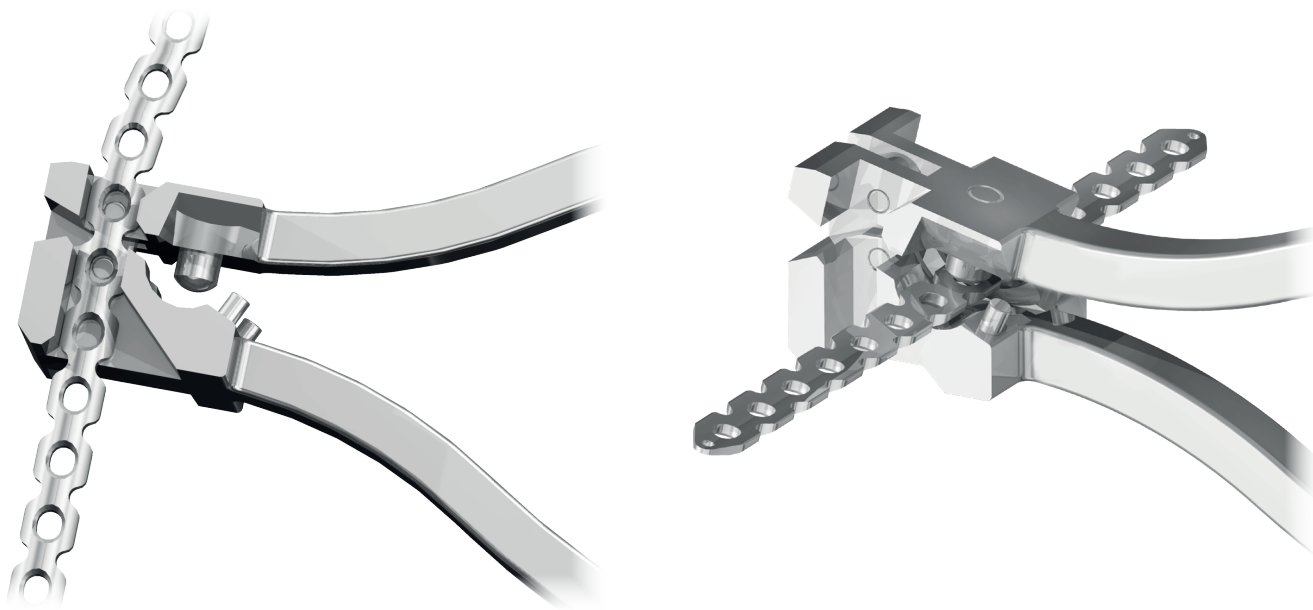
Locking plate contouring is not recommended due to possibility of damaging the threaded holes.

Bottom surface of the plate does not have to be in contact with a bone if locking screws are used. There is no necessity of accurate plates contouring. In most cases, initially contoured plates do not require any additional bending.

If the plate bending is necessary, remember not to deform threaded holes excessively. Plate holes may be slightly deformed; however, it can reduce their locking effectiveness and cause problems in subsequent insertion of a locking screw.

If it is necessary to bend the plate:

- perform bending between locking holes;
- do not bend the plate more than 20° – 25°;
- do not bend the plate back and forth;
- before bending, insert the locking screws in the bending area, as it decreases the threaded holes deformation degree.

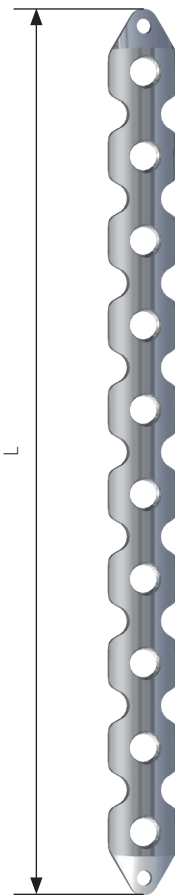


II. IMPLANTS

ChARPEL reconstruction plate 3.5mm straight

| Catalogue No. | | |
|---------------|--------|------------|
| O | L [mm] | Steel |
| 5 | 66 | 1.7052.005 |
| 6 | 78 | 1.7052.006 |
| 7 | 90 | 1.7052.007 |
| 8 | 102 | 1.7052.008 |
| 9 | 114 | 1.7052.009 |
| 10 | 126 | 1.7052.010 |
| 12 | 150 | 1.7052.012 |
| 14 | 174 | 1.7052.014 |
| 16 | 198 | 1.7052.016 |
| 18 | 222 | 1.7052.018 |
| 20 | 246 | 1.7052.020 |
| 22 | 270 | 1.7052.022 |

O - threaded holes number in the plate

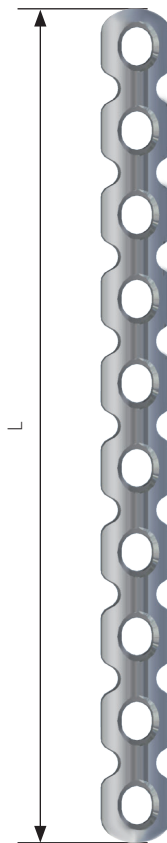


ChARPEL reconstruction plate 3.5 straight

Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 3 | 35 | 1.3118.003 |
| 4 | 47 | 1.3118.004 |
| 5 | 59 | 1.3118.005 |
| 6 | 71 | 1.3118.006 |
| 7 | 83 | 1.3118.007 |
| 8 | 95 | 1.3118.008 |
| 9 | 107 | 1.3118.009 |
| 10 | 119 | 1.3118.010 |
| 12 | 143 | 1.3118.012 |
| 14 | 167 | 1.3118.014 |
| 16 | 191 | 1.3118.016 |
| 18 | 215 | 1.3118.018 |
| 20 | 239 | 1.3118.020 |
| 22 | 263 | 1.3118.022 |

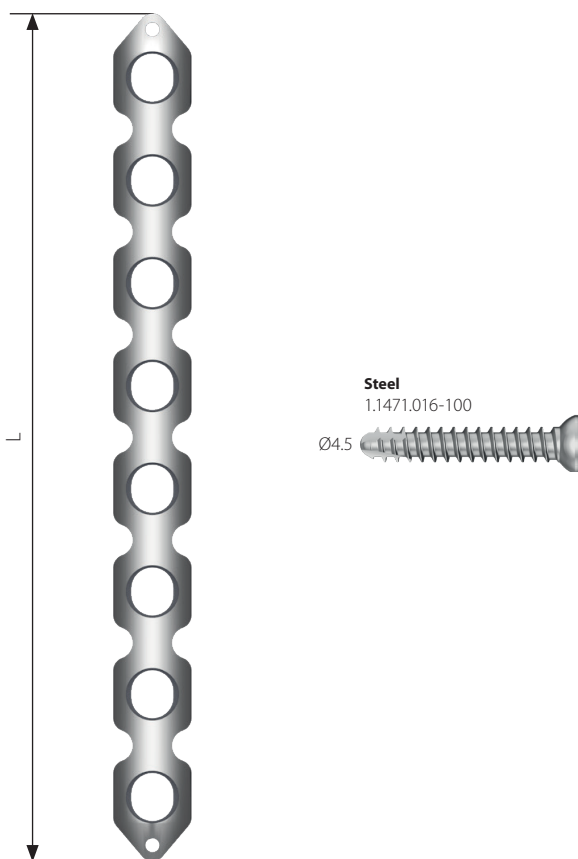
O - holes number in the plate



ChARPEL reconstruction plate 4.5 straight

| Catalogue No. | | |
|---------------|--------|------------|
| O | L [mm] | Steel |
| 3 | 52 | 1.3119.003 |
| 4 | 68 | 1.3119.004 |
| 5 | 84 | 1.3119.005 |
| 6 | 100 | 1.3119.006 |
| 7 | 116 | 1.3119.007 |
| 8 | 132 | 1.3119.008 |
| 9 | 148 | 1.3119.009 |
| 10 | 164 | 1.3119.010 |
| 11 | 180 | 1.3119.011 |
| 12 | 196 | 1.3119.012 |
| 13 | 212 | 1.3119.013 |
| 14 | 228 | 1.3119.014 |
| 15 | 244 | 1.3119.015 |
| 16 | 260 | 1.3119.016 |

O - holes number in the plate



ChARPEL reconstruction plate R108 4.5mm

Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 4 | 72 | 1.3037.004 |
| 6 | 102 | 1.3037.006 |
| 8 | 129 | 1.3037.008 |
| 10 | 154 | 1.3037.010 |
| 12 | 175 | 1.3037.012 |
| 14 | 193 | 1.3037.014 |
| 16 | 208 | 1.3037.016 |

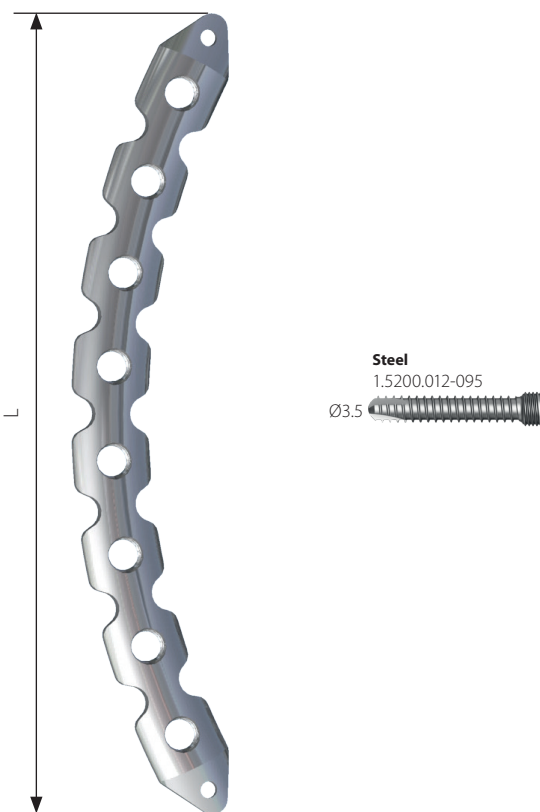
O - holes number in the plate



ChARPEL reconstruction plate 3.5mm R100

| Catalogue No. | | |
|---------------|--------|------------|
| O | L [mm] | Steel |
| 4 | 59 | 1.7053.004 |
| 6 | 82 | 1.7053.006 |
| 8 | 104 | 1.7053.008 |
| 10 | 124 | 1.7053.010 |
| 12 | 143 | 1.7053.012 |
| 14 | 159 | 1.7053.014 |
| 16 | 173 | 1.7053.016 |
| 18 | 185 | 1.7053.018 |

O - threaded holes number in the plate

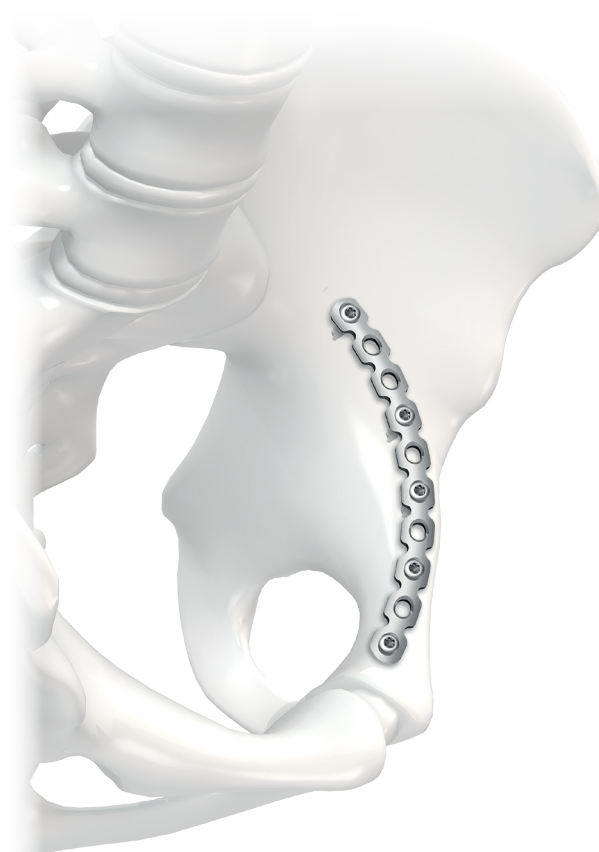
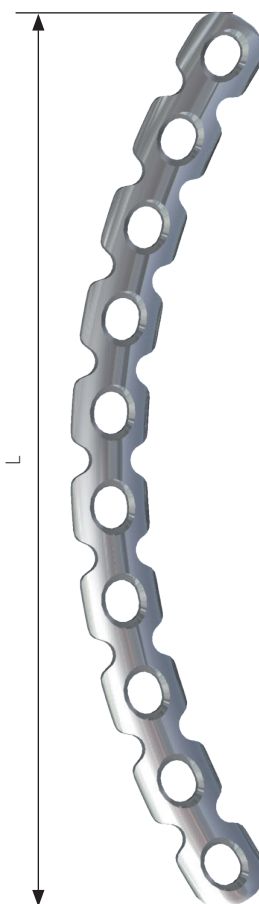


ChARPEL reconstruction plate R100 3.5mm

Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 3 | 35,2 | 1.3117.003 |
| 4 | 47,5 | 1.3117.004 |
| 6 | 71 | 1.3117.006 |
| 8 | 93,9 | 1.3117.008 |
| 10 | 115,4 | 1.3117.010 |
| 12 | 135,3 | 1.3117.012 |
| 14 | 153,4 | 1.3117.014 |
| 16 | 169,3 | 1.3117.016 |
| 18 | 182,8 | 1.3117.018 |

O - holes number in the plate



ChARPEL reconstruction J plate

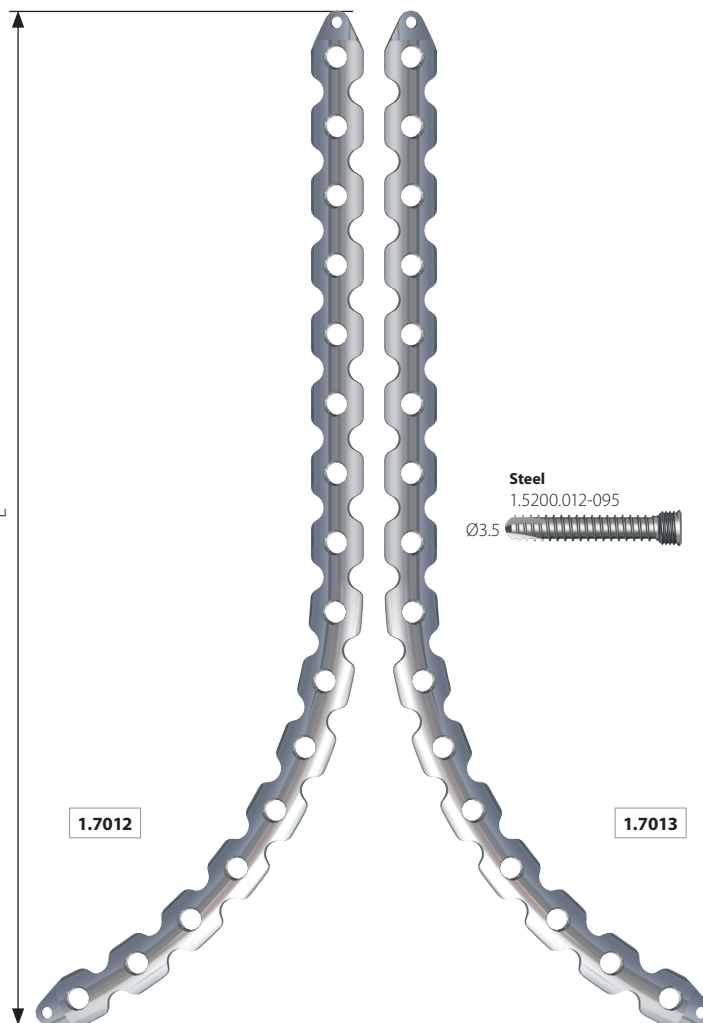
Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 10 | 123 | 1.7013.010 |
| 12 | 143 | 1.7013.012 |
| 14 | 163 | 1.7013.014 |
| 16 | 181 | 1.7013.016 |

Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 10 | 123 | 1.7012.010 |
| 12 | 143 | 1.7012.012 |
| 14 | 163 | 1.7012.014 |
| 16 | 181 | 1.7012.016 |

O - threaded holes number in the plate



ChARPEL reconstruction J plate

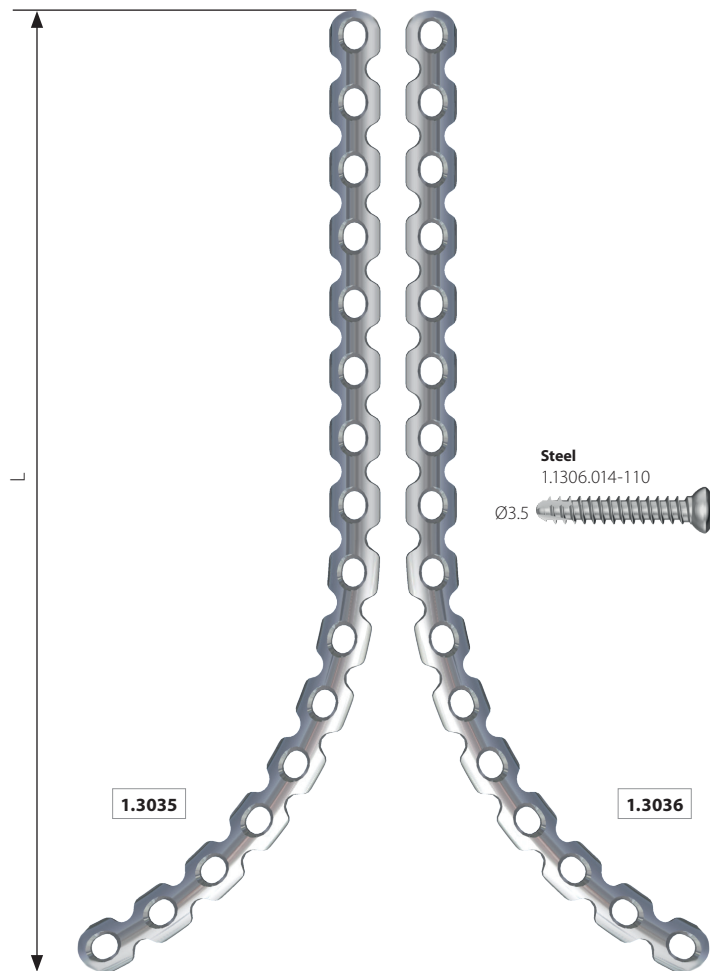
Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 10 | 116,6 | 1.3036.010 |
| 12 | 138 | 1.3036.012 |
| 14 | 158 | 1.3036.014 |
| 16 | 177 | 1.3036.016 |

Catalogue No.

| O | L [mm] | Steel |
|----|--------|------------|
| 10 | 116,6 | 1.3035.010 |
| 12 | 138 | 1.3035.012 |
| 14 | 158 | 1.3035.014 |
| 16 | 177 | 1.3035.016 |

O - holes number in the plate



5.0ChLP symphysic plate

Catalogue No.

| O | L [mm] | Steel |
|---|--------|------------|
| 4 | 56.5 | 1.7046.104 |
| 6 | 83 | 1.7046.106 |

O - holes number in the plate



Reconstruction plate

Catalogue No.

| O | L [mm] | Steel |
|----|------------|------------|
| 16 | 44.5x134.6 | 1.7151.016 |

O - holes number in the plate

1.7151.016

Catalogue No.

| O | L [mm] | Steel |
|----|------------|------------|
| 16 | 44.5x134.6 | 1.7152.016 |

O - holes number in the plate

1.7152.016



5.0ChLP reconstruction plate

Catalogue No.

| O | L [mm] | Steel |
|----|------------|------------|
| 16 | 44.5x134.6 | 1.7251.016 |

O - holes number in the plate

1.7251.016

Catalogue No.

| O | L [mm] | Steel |
|----|------------|------------|
| 16 | 44.5x134.6 | 1.7252.016 |

O - holes number in the plate

1.7252.016

Steel
1.5200.012-095
Ø3.5

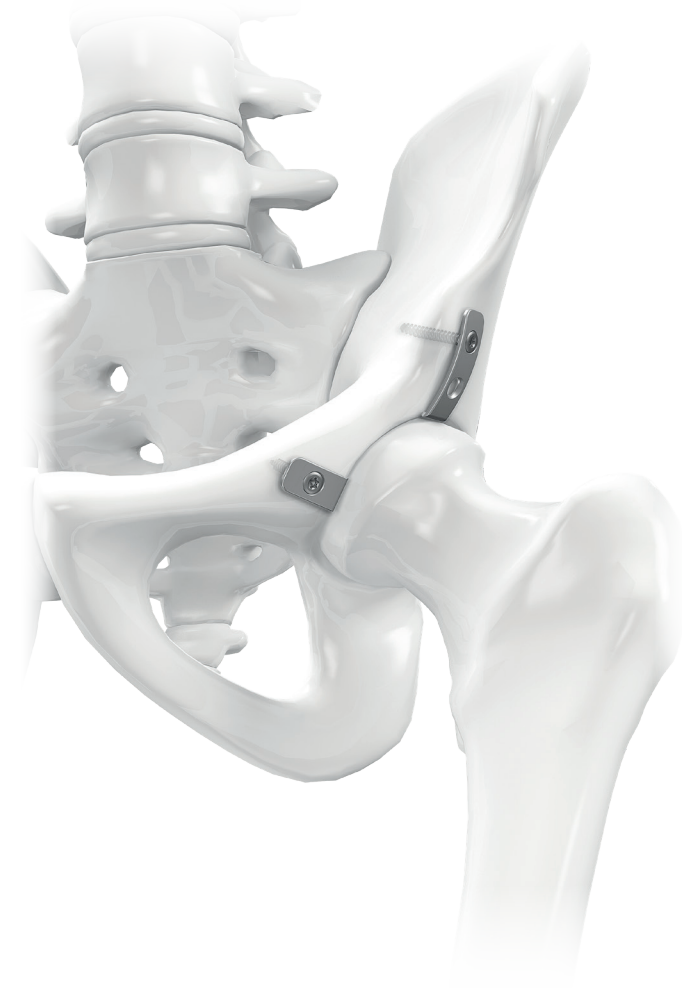


Reconstruction elastic plate 3.5

Catalogue No.

| O | L [mm] | Steel |
|---|--------|------------|
| 1 | 18.5 | 1.3120.001 |
| 2 | 31.5 | 1.3120.002 |
| 3 | 44.5 | 1.3120.003 |

O - holes number in the plate



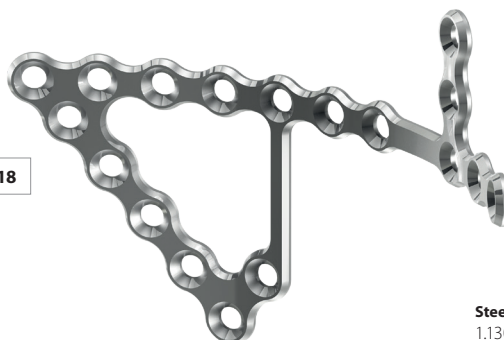
Reconstruction plate

Catalogue No.

| O | Steel |
|----|------------|
| 18 | 1.7151.118 |

O - holes number in the plate

1.7151.118

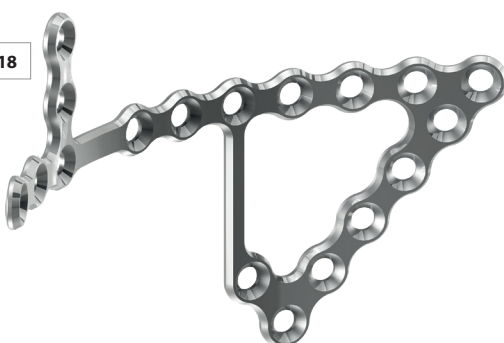


Catalogue No.

| O | Steel |
|----|------------|
| 18 | 1.7152.118 |

O - holes number in the plate

1.7152.118



Reconstruction plate

Catalogue No.

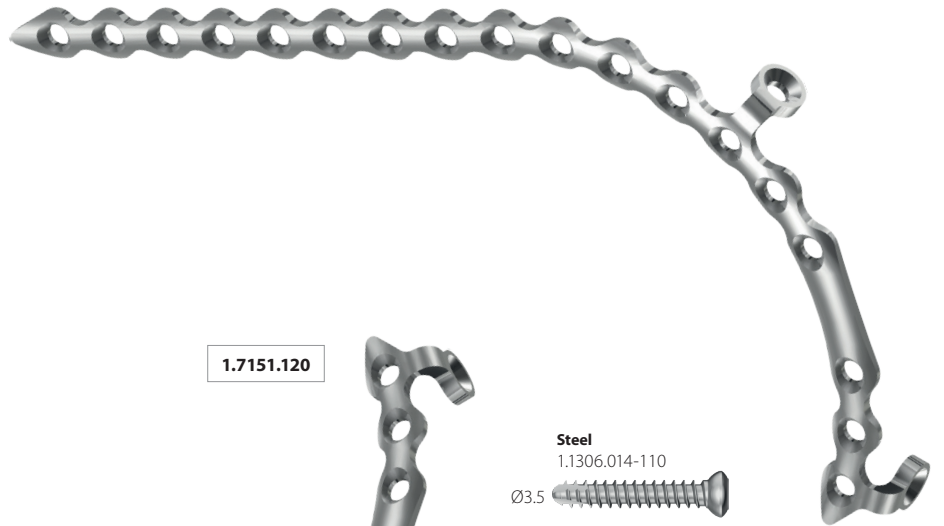
| O | Steel |
|----|------------|
| 20 | 1.7152.120 |

O - holes number in the plate

Catalogue No.

| O | Steel |
|----|------------|
| 20 | 1.7151.120 |

O - holes number in the plate



1.7151.120

Steel
1.1306.014-110
Ø3.5

1.7152.120



Reconstruction plate

Catalogue No.

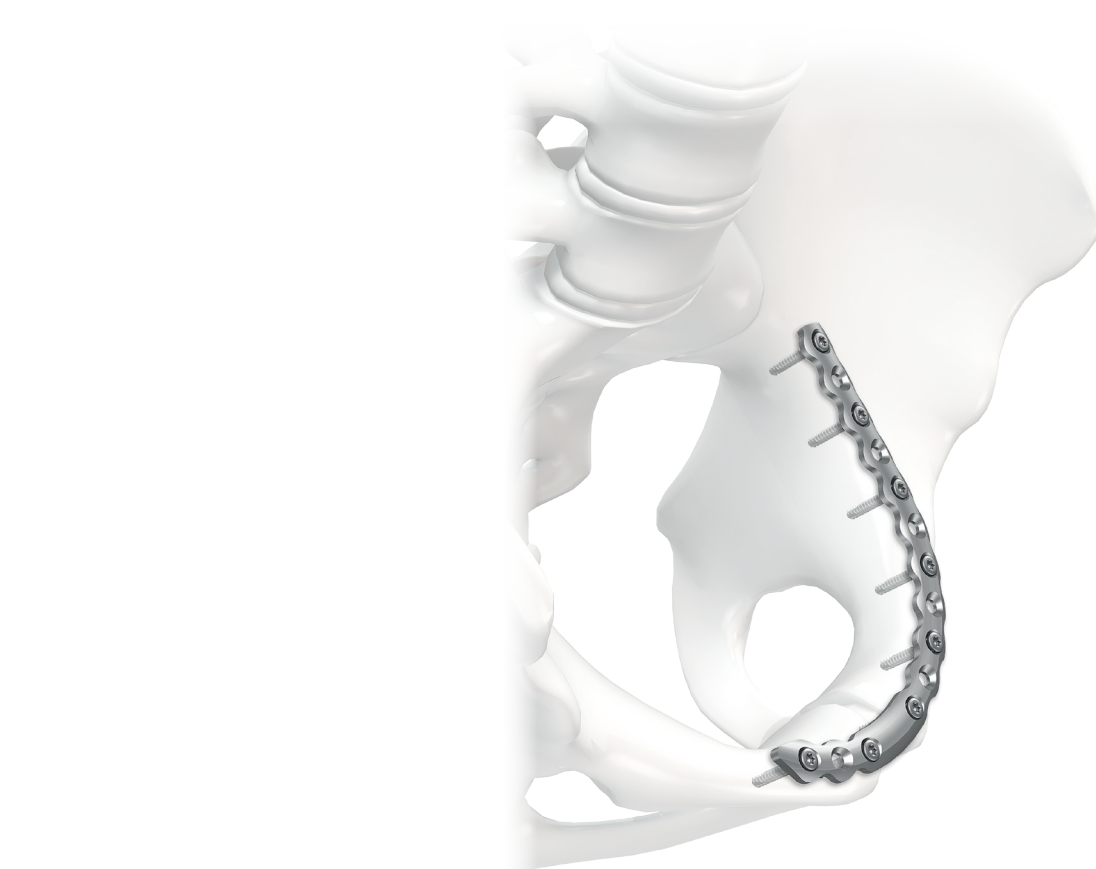
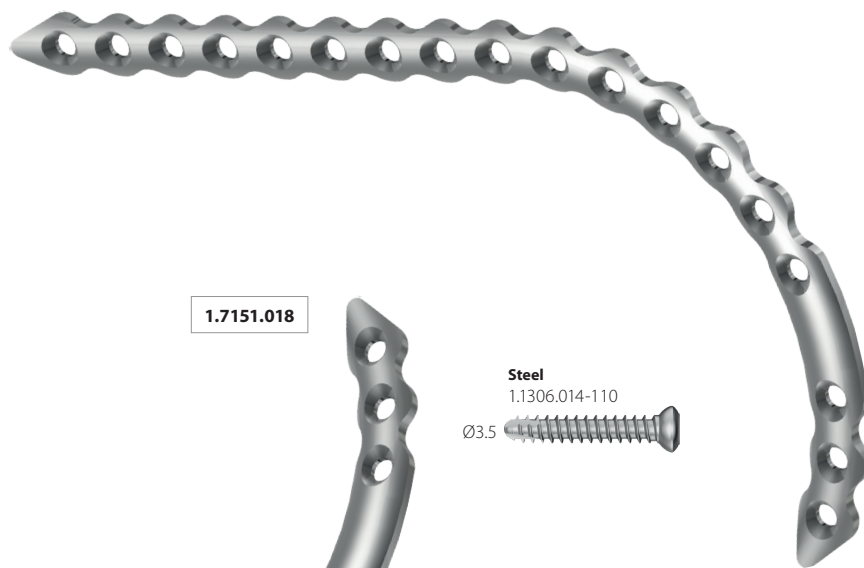
| O | Steel |
|----|------------|
| 18 | 1.7152.018 |

O - holes number in the plate

Catalogue No.

| O | Steel |
|----|------------|
| 18 | 1.7151.018 |

O - holes number in the plate



Reconstruction plate

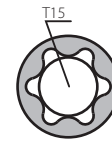
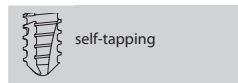
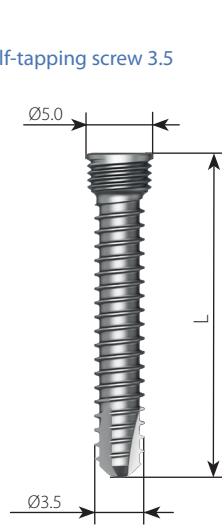
Catalogue No.

| O | Steel |
|----|------------|
| 10 | 1.7151.110 |

O - holes number in the plate



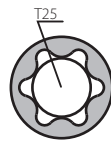
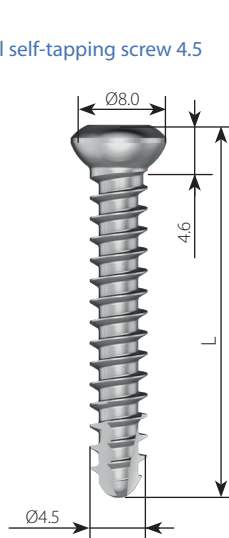
5.0ChLP self-tapping screw 3.5



Catalogue No.

| L [mm] | Steel |
|--------|------------|
| 12 | 1.5200.012 |
| 14 | 1.5200.014 |
| 16 | 1.5200.016 |
| 18 | 1.5200.018 |
| 20 | 1.5200.020 |
| 22 | 1.5200.022 |
| 24 | 1.5200.024 |
| 26 | 1.5200.026 |
| 28 | 1.5200.028 |
| 30 | 1.5200.030 |
| 32 | 1.5200.032 |
| 34 | 1.5200.034 |
| 36 | 1.5200.036 |
| 38 | 1.5200.038 |
| 40 | 1.5200.040 |
| 45 | 1.5200.045 |
| 50 | 1.5200.050 |
| 55 | 1.5200.055 |
| 60 | 1.5200.060 |
| 65 | 1.5200.065 |
| 70 | 1.5200.070 |
| 75 | 1.5200.075 |
| 80 | 1.5200.080 |
| 85 | 1.5200.085 |
| 90 | 1.5200.090 |
| 95 | 1.5200.095 |

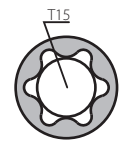
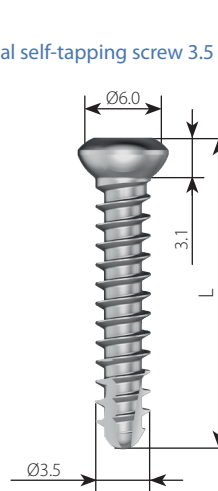
Cortical self-tapping screw 4.5



Catalogue No.

| L [mm] | Steel |
|--------|------------|
| 16 | 1.1471.016 |
| 18 | 1.1471.018 |
| 20 | 1.1471.020 |
| 22 | 1.1471.022 |
| 24 | 1.1471.024 |
| 26 | 1.1471.026 |
| 28 | 1.1471.028 |
| 30 | 1.1471.030 |
| 32 | 1.1471.032 |
| 34 | 1.1471.034 |
| 36 | 1.1471.036 |
| 38 | 1.1471.038 |
| 40 | 1.1471.040 |
| 45 | 1.1471.044 |
| 50 | 1.1471.050 |
| 55 | 1.1471.055 |
| 60 | 1.1471.060 |
| 65 | 1.1471.065 |
| 70 | 1.1471.070 |
| 75 | 1.1471.075 |
| 80 | 1.1471.080 |
| 85 | 1.1471.085 |
| 90 | 1.1471.090 |
| 95 | 1.1471.095 |
| 100 | 1.1471.100 |

Cortical self-tapping screw 3.5



Catalogue No.

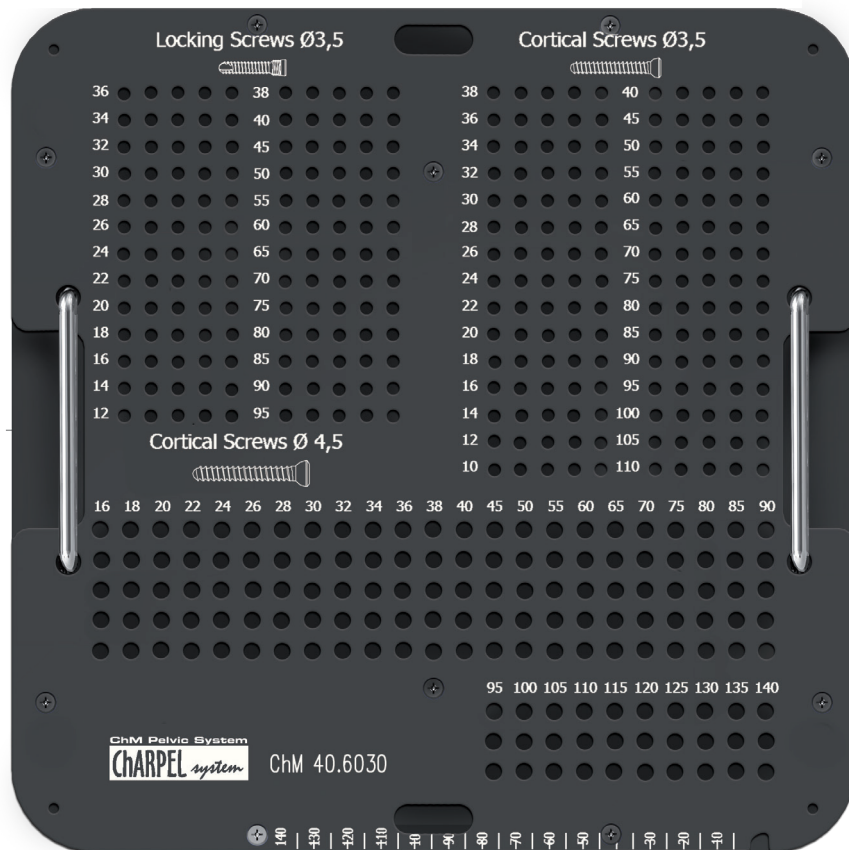
| L [mm] | Steel |
|--------|------------|
| 10 | 1.1306.010 |
| 12 | 1.1306.012 |
| 14 | 1.1306.014 |
| 16 | 1.1306.016 |
| 18 | 1.1306.018 |
| 20 | 1.1306.020 |
| 22 | 1.1306.022 |
| 24 | 1.1306.024 |
| 26 | 1.1306.026 |
| 28 | 1.1306.028 |
| 30 | 1.1306.030 |
| 32 | 1.1306.032 |
| 34 | 1.1306.034 |
| 36 | 1.1306.036 |
| 38 | 1.1306.038 |
| 40 | 1.1306.040 |
| 45 | 1.1306.045 |
| 50 | 1.1306.050 |
| 55 | 1.1306.055 |
| 60 | 1.1306.060 |
| 65 | 1.1306.065 |
| 70 | 1.1306.070 |
| 75 | 1.1306.075 |
| 80 | 1.1306.080 |
| 85 | 1.1306.085 |
| 90 | 1.1306.090 |
| 95 | 1.1306.095 |
| 100 | 1.1306.100 |
| 105 | 1.1306.105 |
| 110 | 1.1306.110 |

Stand for screws

| No. | Name | Catalogue No. | Pcs. |
|-----|---|---------------|------|
| 1 | Stand for screws | 40.6030.100 | 1 |
| 2 | Container solid bottom 1/2 306x272x184mm | 12.0751.103 | 1 |
| 3 | Perforated aluminum lid 1/2 306x272x15mm Gray | 12.0751.200 | 1 |

40.6030.000

implants not included



40.6030.100

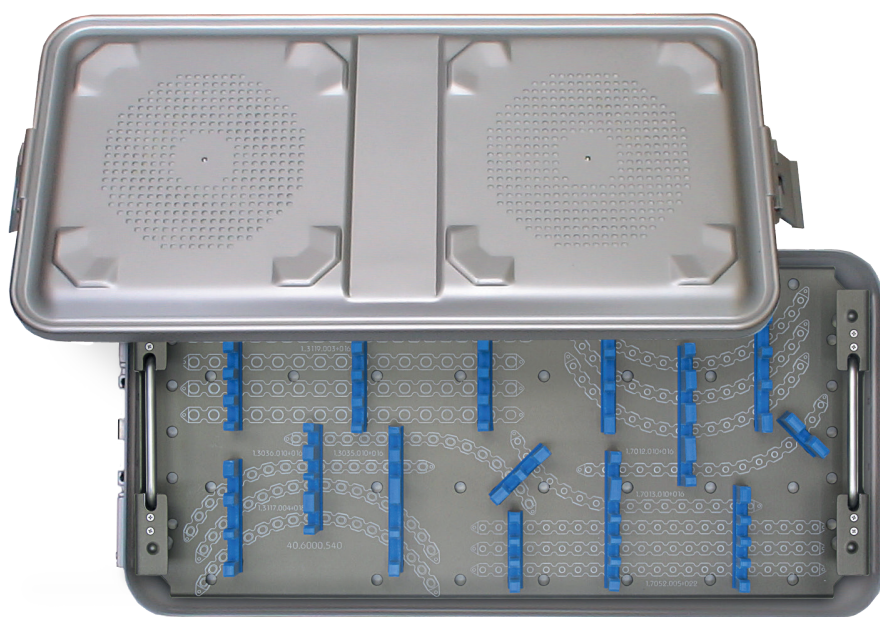


40.6030.000

Palette for implants

| No. | Name | Catalogue No. | Pcs. |
|-----|---|---------------|------|
| 1 | Stand for implants | 40.6018.300 | 1 |
| 2 | Container solid bottom 1/1 595x275x86mm | 12.0750.100 | 1 |
| 3 | Perforated aluminum lid 1/1 595x275x15mm Gray Покрышка алюминиевая перфорированная 1/1 595x275x15мм Серая | 12.0750.200 | 1 |

40.6000.540



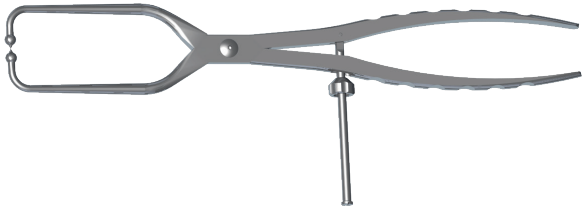
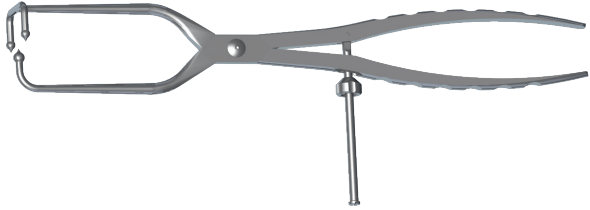
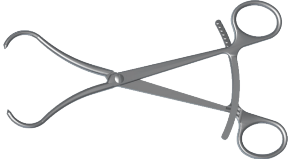

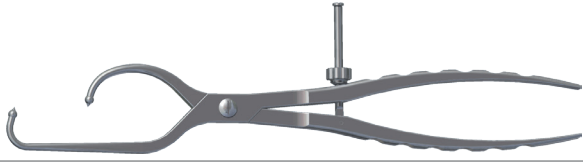
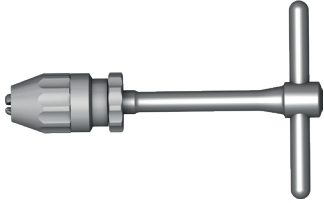
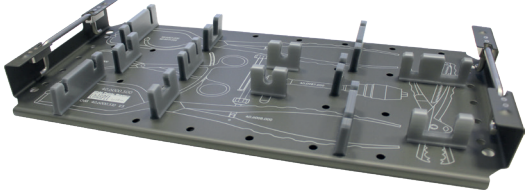



40.6000.540






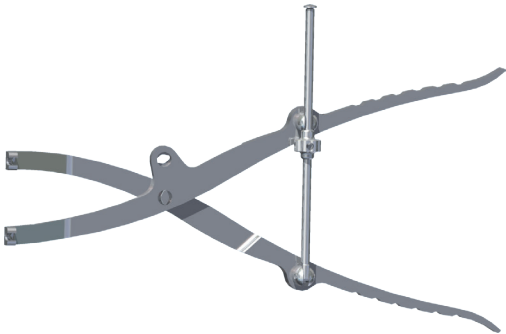


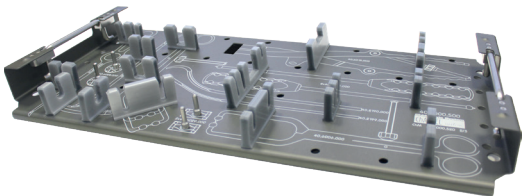







Plate trials









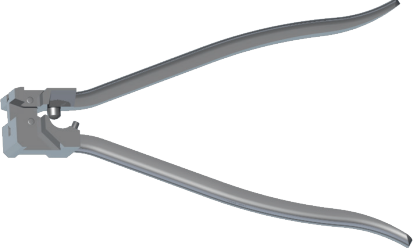



| No. | Catalogue no. | Name |
|-----|---------------|--------------------|
| 1 | 40.6019.000 | Plate 1.3035 trial |
| 2 | 40.6020.000 | Plate 1.3036 trial |
| 3 | 40.6021.000 | Plate 1.3117 trial |
| 4 | 40.6022.000 | Plate 1.3118 trial |
| 5 | 40.6023.000 | Plate 1.3119 trial |

III. INSTRUMENTS

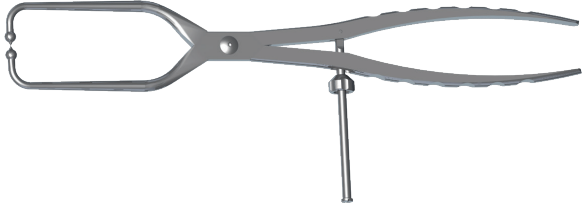
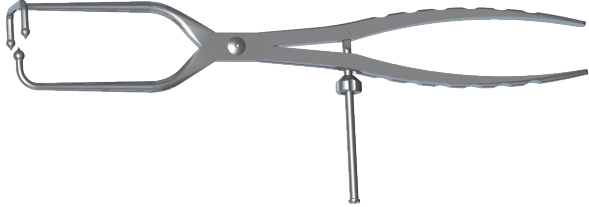
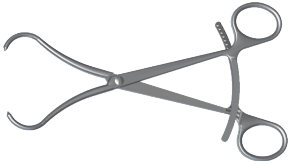


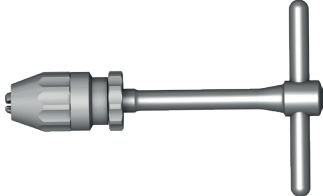
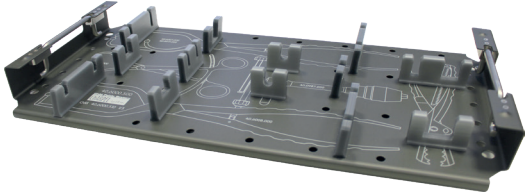




III.1. INSTRUMENT SET FOR PELVIC FIXATION 40.6000.500





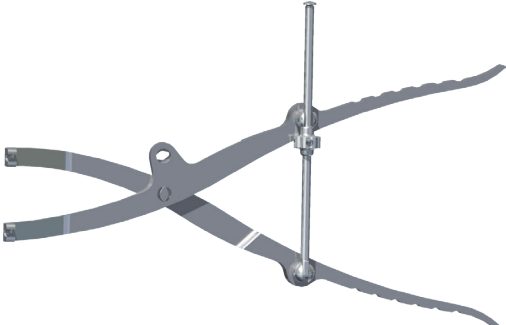


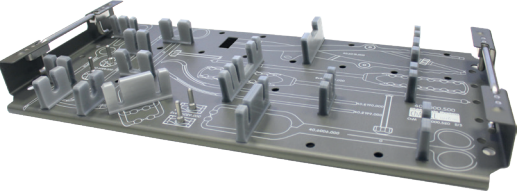







| No. | | Name | Catalogue No. | Pcs. |
|-----|---|--|---------------|------|
| 1 |  | Reduction long forceps 1x1 | 40.6007.000 | 1 |
| 2 |  | Reduction long forceps 2x1 | 40.6008.000 | 1 |
| 3 |  | Reduction ratchet pliers with sharp tips | 40.6009.000 | 1 |
| 4 |  | Compression forceps | 40.6016.000 | 1 |
| 5 |  | Reduction asymmetric pliers | 40.6017.000 | 1 |
| 6 |  | STEINMANN handle | 40.0987.200 | 1 |
| 7 |  | Stand for instrument set for pelvic fixation | 40.6018.100 | 1 |
| 8 |  | Retractor for bone straight | 40.6001.000 | 1 |
| 9 |  | Temporary persuader | 40.6002.000 | 2 |
| 10 |  | Retractor for bone with handle | 40.6003.000 | 1 |





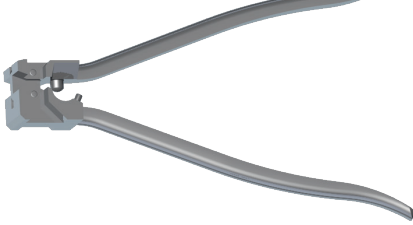

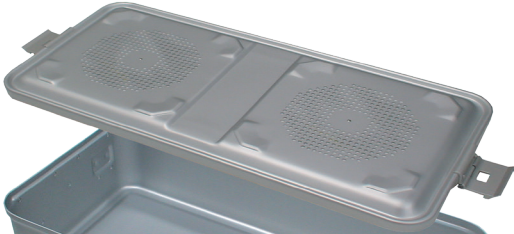
| No. | Name | Catalogue No. | Pcs. |
|-----|--|---------------|------|
| 11 |  Angular reduction curved forceps long | 40.6004.000 | 1 |
| 12 |  Angular reduction curved forceps short | 40.6005.000 | 1 |
| 13 |  Angular reduction straight forceps | 40.6006.000 | 1 |
| 14 |  Latch swinging round | 40.6028.000 | 2 |
| 15 |  Latch swinging rectangular | 40.6029.000 | 2 |
| 16 |  Reduction regulating forceps | 40.6015.000 | 1 |
| 17 |  Elevator 24 | 40.2199.001 | 1 |
| 18 |  LANGE-HOHMANN elevator modif. 30 | 40.2190.001 | 1 |
| 19 |  Stand for instrument set for pelvic fixation | 40.6018.150 | 1 |
| 20 | Drill 2.5/250 | 40.2049.251 | 2 |
| 21 | Drill 3.2/250 | 40.2053.251 | 2 |
| 22 |  Drill 3.5/250 | 40.1363.251 | 2 |
| 23 | Drill 4.5/250 | 40.1387.251 | 2 |
| 24 |  Kirschner wire 2.0/220 | 40.4815.220 | 4 |
| 25 |  Drill with scale 2.8/250 | 40.5653.251 | 2 |
| 26 |  Compression pin 6x200 | 40.6035.200 | 2 |
| 27 |  Setting-compressing screw 2.8/180 | 40.5674.128 | 2 |
| 28 |  Guide sleeve 5.0/2.8 | 40.5673.028 | 4 |
| 29 |  Torque limiting ratchet handle 2Nm | 40.6652.000 | 1 |

| No. | | Name | Catalogue No. | Pcs. |
|-----|---|---|---------------|------|
| 30 |  | Screwdriver tip T15 | 40.5677.150 | 1 |
| 31 |  | Screwdriver tip T 25-3/16 | 40.5684.150 | 1 |
| 32 |  | Compression guide 2.5 | 40.4804.025 | 1 |
| 33 |  | Holder for screws 4.5 | 40.6027.000 | 1 |
| 34 |  | Holder for screws 3.5 | 40.6026.000 | 1 |
| 35 |  | Cortical tap HA3.5 | 40.5926.000 | 1 |
| 36 |  | Cortical tap HA34.5 | 40.5647.100 | 1 |
| 37 |  | Bender for reconstruction plates straight | 40.6013.000 | 2 |
| 38 |  | Multiplane bender for reconstruction plates | 40.6014.000 | 1 |
| 39 |  | Hole depth measure L-150mm | 40.2667.100 | 1 |
| 40 |  | Stand for instrument set for pelvic fixation | 40.6018.200 | 1 |
| 41 |  | Perforated aluminum lid 1/1 595x275x15mm Gray | 12.0750.200 | 2 |
| | | Container with solid bottom 1/1 595x275x135mm | 12.0750.102 | 2 |

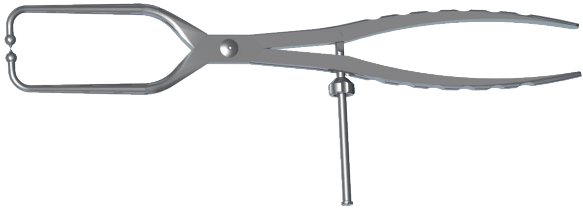
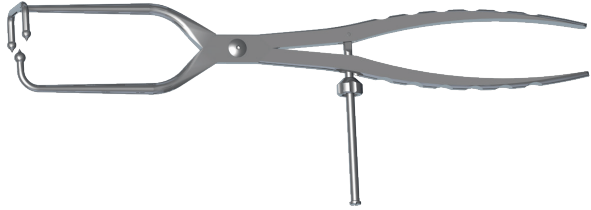
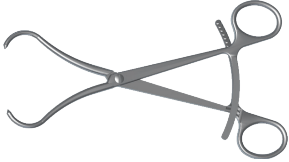

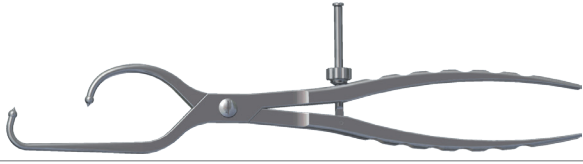
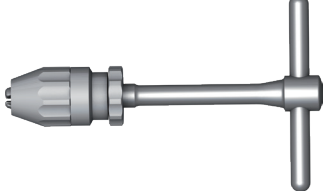
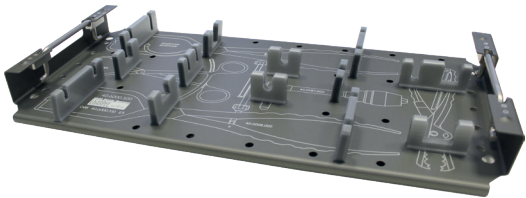



III.2. INSTRUMENT SET FOR PELVIC FIXATION 40.6000.600






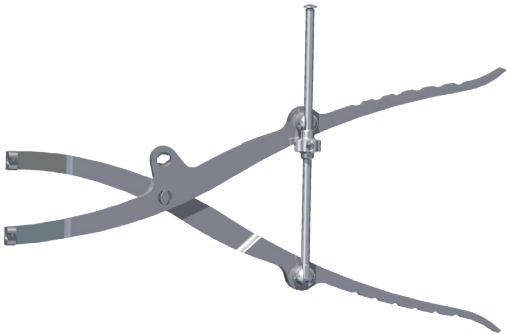


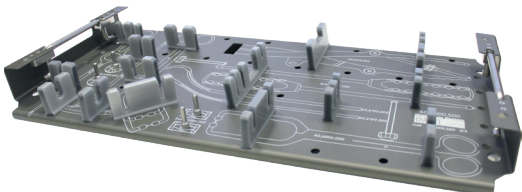

| No. | | Name | Catalogue No. | Pcs. |
|-----|---|--|---------------|------|
| 1 |  | Reduction long forceps 1x1 | 40.6007.000 | 1 |
| 2 |  | Reduction long forceps 2x1 | 40.6008.000 | 1 |
| 3 |  | Reduction ratchet pliers with sharp tips | 40.6009.000 | 1 |
| 4 |  | Compression forceps | 40.6016.000 | 1 |
| 5 |  | Reduction asymmetric pliers | 40.6017.000 | 1 |
| 6 |  | STEINMANN handle | 40.0987.200 | 1 |
| 7 |  | Stand for instrument set for pelvic fixation | 40.6018.100 | 1 |
| 8 |  | Retractor for bone straight | 40.6001.000 | 1 |
| 9 |  | Temporary persuader | 40.6002.000 | 2 |
| 10 |  | Retractor for bone with handle | 40.6003.000 | 1 |
| 11 |  | Angular reduction curved forceps long | 40.6004.000 | 1 |

| No. | Name | Catalogue No. | Pcs. |
|-----|--|---------------|------|
| 12 |  Angular reduction curved forceps short | 40.6005.000 | 1 |
| 13 |  Angular reduction straight forceps | 40.6006.000 | 1 |
| 14 |  Latch swinging round | 40.6028.000 | 2 |
| 15 |  Latch swinging rectangular | 40.6029.000 | 2 |
| 16 |  Reduction regulating forceps | 40.6015.000 | 1 |
| 17 |  Elevator 24 | 40.2199.001 | 1 |
| 18 |  LANGE-HOHMANN elevator modif. 30 | 40.2190.001 | 1 |
| 19 |  Stand for instrument set for pelvic fixation | 40.6018.150 | 1 |
| 20 | Drill 2.5/250 | 40.2049.251 | 2 |
| 21 | Drill 3.2/250 | 40.2053.251 | 2 |
| 22 |  Drill 3.5/250 | 40.1363.251 | 2 |
| 23 | Drill 4.5/250 | 40.1387.251 | 2 |
| 24 |  Kirschner wire 2.0/220 | 40.4815.220 | 4 |
| 25 |  Compression pin 6x200 | 40.6035.200 | 2 |
| 26 |  Torque limiting ratchet handle 2Nm | 40.6652.000 | 1 |
| 27 | Screwdriver tip T15 | 40.5677.150 | 1 |
| 28 |  Screwdriver tip T 25-3/16 | 40.5684.150 | 1 |
| 29 |  Compression guide 2.5 | 40.4804.025 | 1 |
| 30 | Holder for screws 4.5 | 40.6027.000 | 1 |
| 31 |  Holder for screws 3.5 | 40.6026.000 | 1 |

| No. | | Name | Catalogue No. | Pcs. |
|-----|---|---|---------------|------|
| 32 |  | Cortical tap HA3.5 | 40.5926.000 | 1 |
| 33 |  | Cortical tap HA34.5 | 40.5647.100 | 1 |
| 34 |  | Hole depth measure L-150mm | 40.2667.100 | 1 |
| 35 |  | Bender for reconstruction plates straight | 40.6013.000 | 2 |
| 36 |  | Multiplane bender for reconstruction plates | 40.6014.000 | 1 |
| 37 |  | Stand for instrument set for pelvic fixation | 40.6018.200 | 1 |
| 38 |  | Perforated aluminum lid 1/1 595x275x15mm Gray | 12.0750.200 | 2 |
| |  | Container with solid bottom 1/1 595x275x135mm | 12.0750.102 | 2 |

III.3. INSTRUMENT SET FOR PELVIC FIXATION – REPOSITIONING 40.6000.700

| No. | Name | Catalogue No. | Pcs. |
|-----|--|---------------|------|
| 1 |  Reduction long forceps 1x1 | 40.6007.000 | 1 |
| 2 |  Reduction long forceps 2x1 | 40.6008.000 | 1 |
| 3 |  Reduction ratchet pliers with sharp tips | 40.6009.000 | 1 |
| 4 |  Compression forceps | 40.6016.000 | 1 |
| 5 |  Reduction asymmetric pliers | 40.6017.000 | 1 |
| 6 |  STEINMANN handle | 40.0987.200 | 1 |
| 7 |  Stand for instrument set for pelvic fixation | 40.6018.100 | 1 |
| 8 |  Retractor for bone straight | 40.6001.000 | 1 |
| 9 |  Temporary persuader | 40.6002.000 | 2 |
| 10 |  Retractor for bone with handle | 40.6003.000 | 1 |

| No. | Name | Catalogue No. | Pcs. |
|-----|---|---------------|------|
| 11 |  Angular reduction curved forceps long | 40.6004.000 | 1 |
| 12 |  Angular reduction curved forceps short | 40.6005.000 | 1 |
| 13 |  Angular reduction straight forceps | 40.6006.000 | 1 |
| 14 |  Latch swinging round | 40.6028.000 | 2 |
| 15 |  Latch swinging rectangular | 40.6029.000 | 2 |
| 16 |  Reduction regulating forceps | 40.6015.000 | 1 |
| 17 |  Elevator 24 | 40.2199.001 | 1 |
| 18 |  LANGE-HOHMANN elevator modif. 30 | 40.2190.001 | 1 |
| 19 |  Stand for instrument set for pelvic fixation | 40.6018.150 | 1 |
| 20 |  Perforated aluminum lid 1/1 595x275x15mm gray | 12.0750.200 | 1 |
| | Container with solid bottom 1/1 595x275x135mm | 12.0750.102 | 1 |

IV. SURGICAL TECHNIQUE

IV.1. TEMPORARY PLATE ATTACHMENT

When fracture is reduced and the plate position is confirmed, determine its temporary location using Kirschner wires 2.0 [40.4815.220]. Wires can be inserted in proximal holes of the plate and the most distal one.

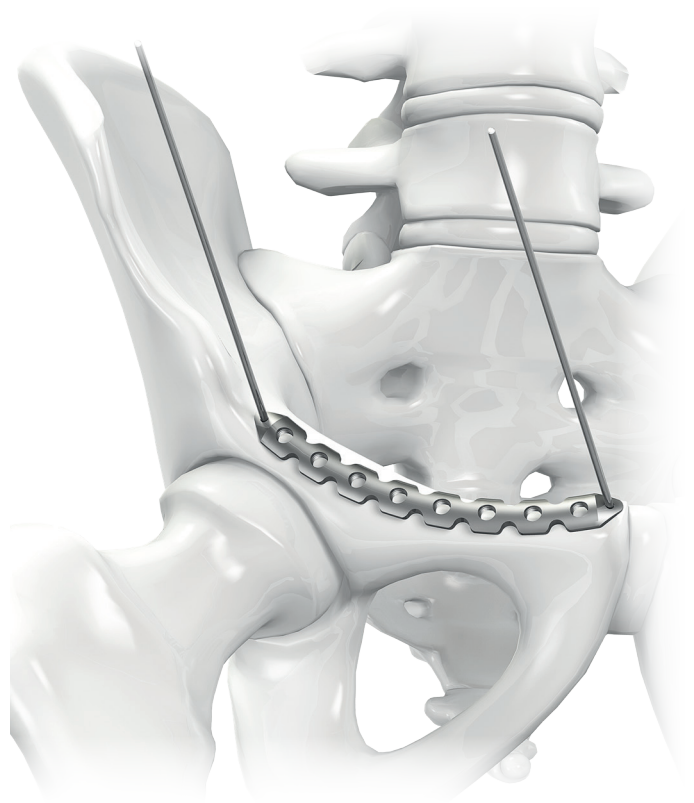


Confirm the plate position is correct by taking X-Ray image.

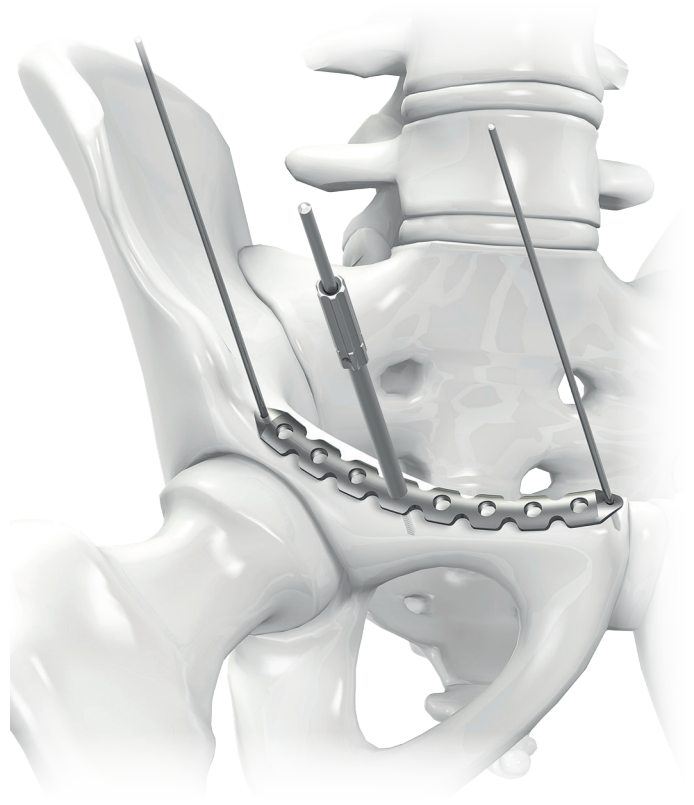


NOTE: The Setting-compressing screw 2.8/180 [40.5674.128] can be used to stabilize and tighten the plate up to the bone for temporary purposes. The screw is to be inserted via the guide sleeve 5.0/2.8 [40.5673.028]

Locking screw Ø3.5 can be inserted in the hole after removal of the setting-compressing screw 2.8/180.



Insert self-drilling pin of setting-compressing screw.



Tightening the sleeve, pull the plate to the bone.

IV.2. LOCKING SCREW INSERTION

IV.2.1. Guide sleeve screwing

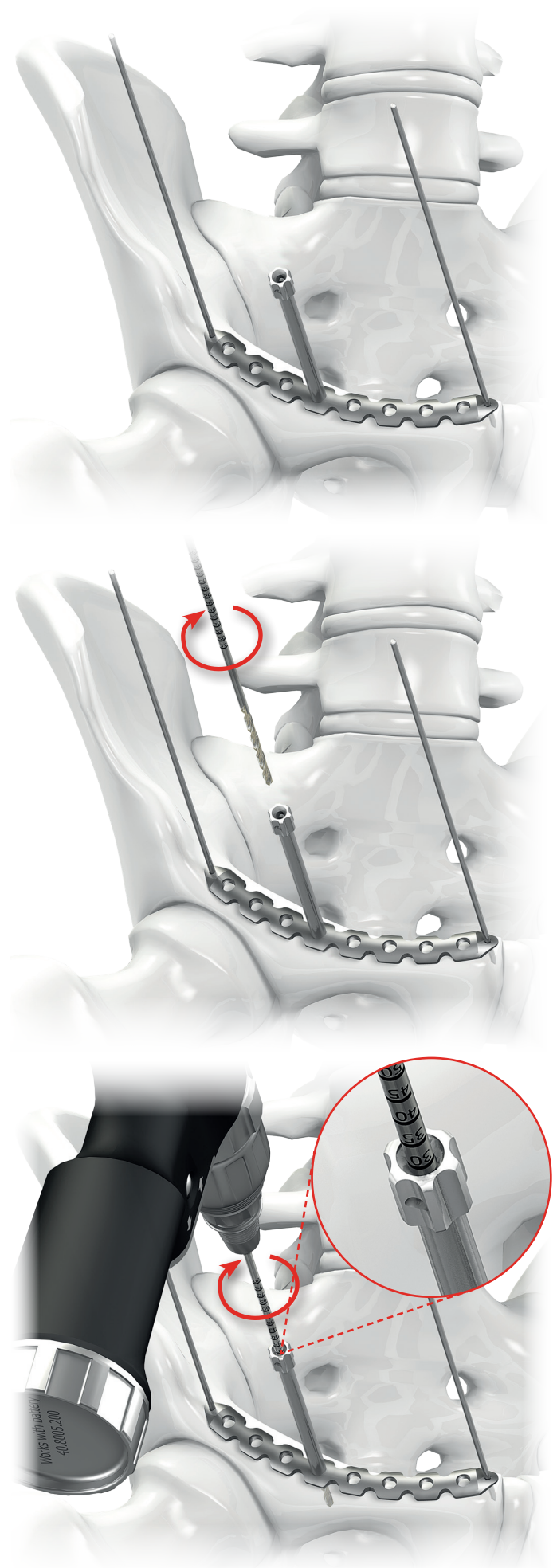
Insert the guide sleeve 5.0/2.8 [40.5673.028] into the plate.

IV.2.2. Drilling the hole

Ream the hole using the drill with scale 2.8/250 [40.5653.251] until the desired depth is reached.

IV.2.3. Hole depth measurement

OPTION I: Read the value on the drill with scale [40.5653.251].



OPTION II: After removal of the guide sleeve 5.0/2.8 [40.5673.028], the screw length may be defined with the use of the depth measure [40.2667.100].



IV.2.4. Screw insertion

Remove the guide sleeve 5.0/2.8 [40.5673.028].

Insert the locking screw using the torque limiting ratchet handle 2Nm [40.6652] and proper screwdriver tip.

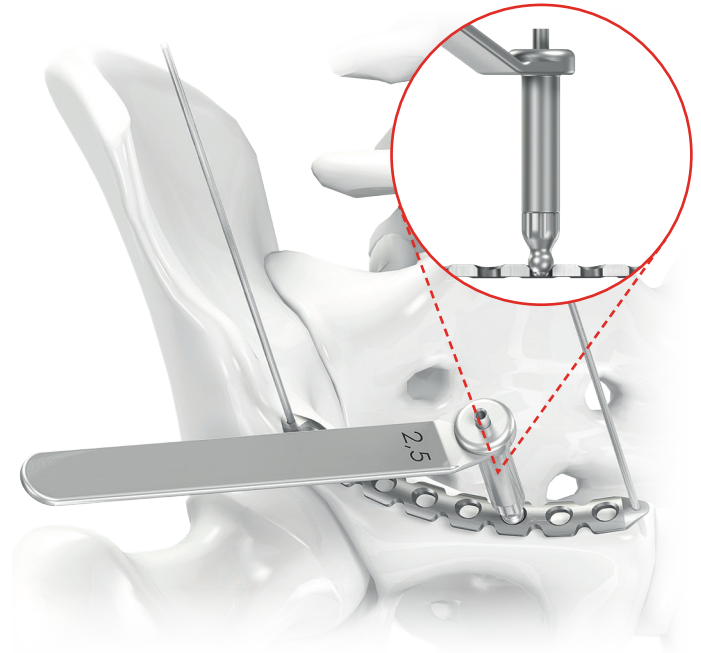
IV.3. CORTICAL SCREW INSERTION

IV.3.1. Compression guide setting

Set the compression guide 2.5 [40.4804.025] in a desired position:

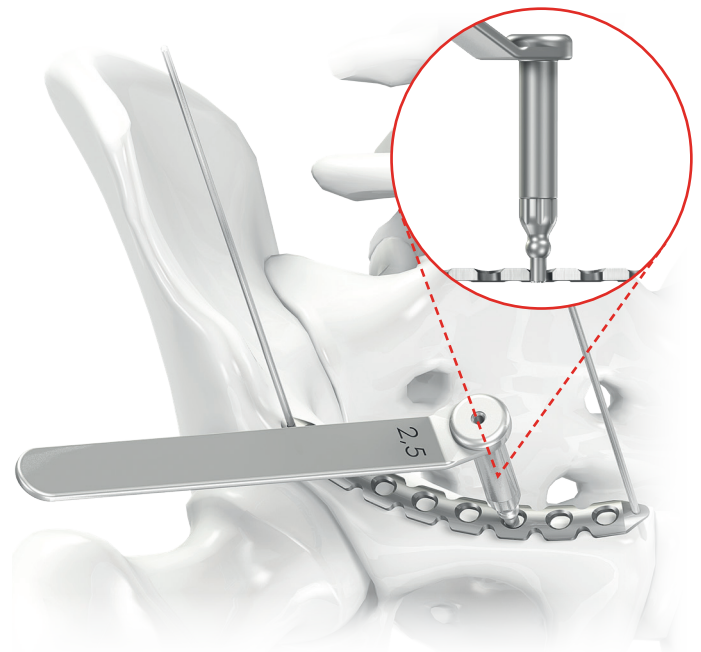
OPTION I: Neutral position

Press the guide to the plate to achieve the neutral position for screw insertion.



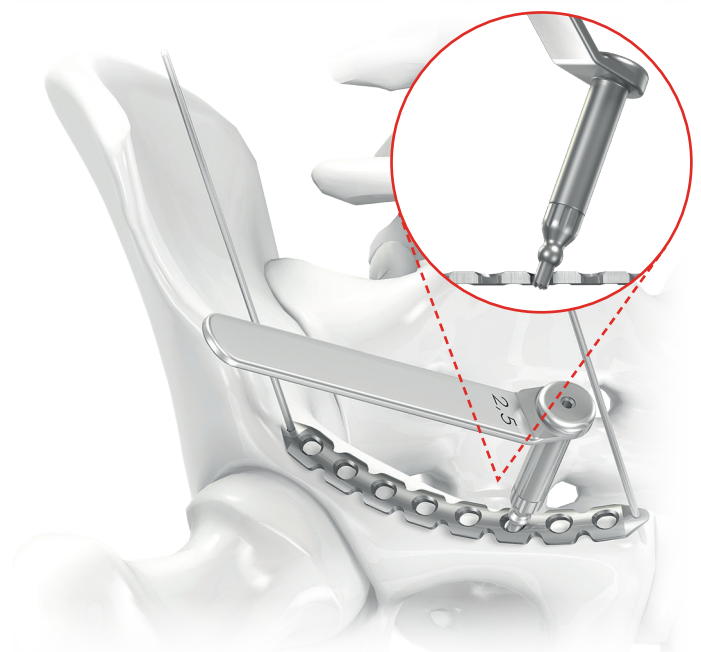
OPTION II: Compressive position

Move the guide without pressure to the edge of a compression hole to achieve the compression position for screw insertion.



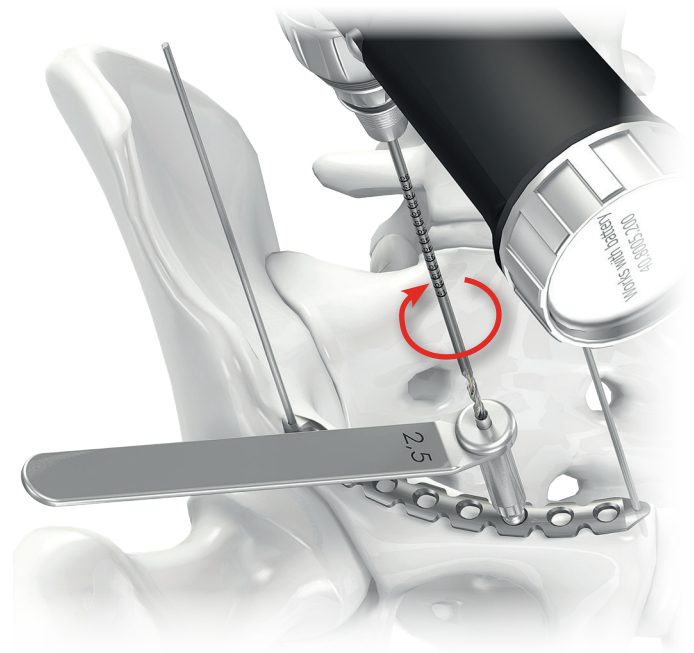
OPTION III: Angular position

Angular positioning of the guide is also available.



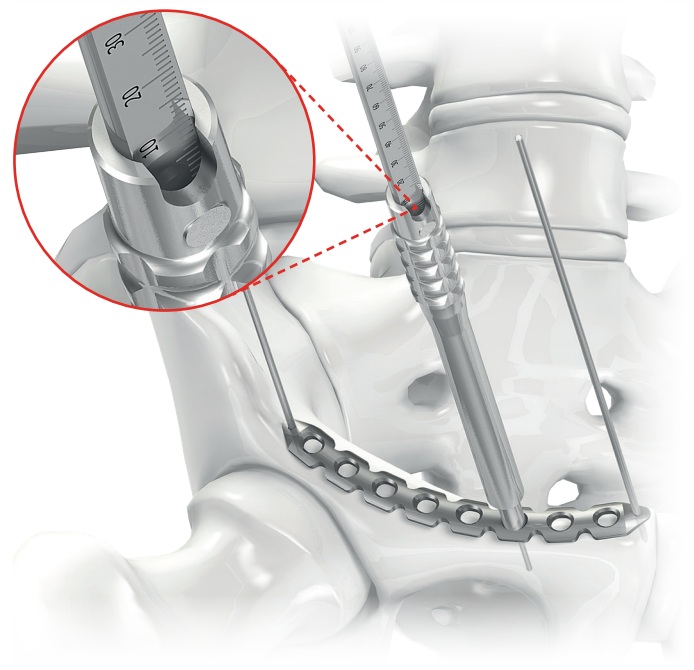
IV.3.2. Drilling

Drill the hole through both cortices in a desired position for the cortical screw $\varnothing 3.5$ insertion using the drill $\varnothing 2.5/250$ [40.2049.251].



IV.3.3. Hole depth measurement

Insert the depth measure [40.2667.100] into the drilled hole until its hook reaches the outer surface of the other cortex.



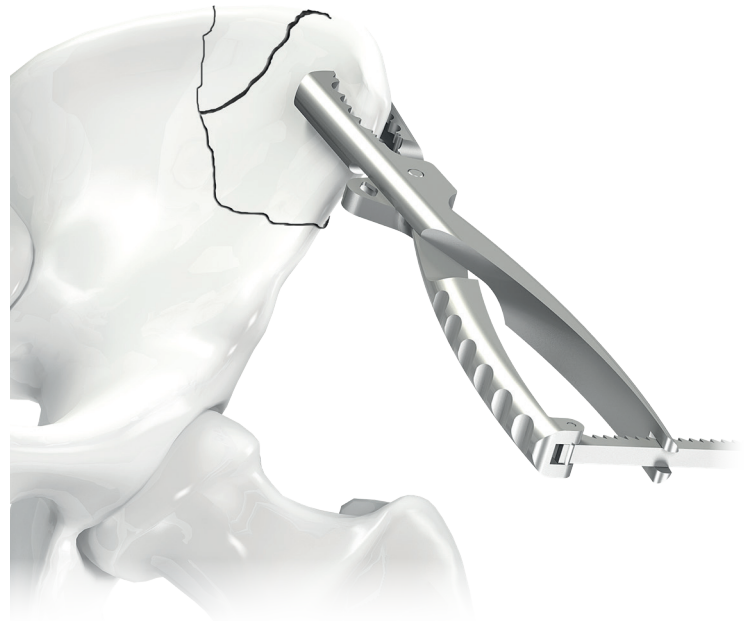
IV.3.4. Screw insertion

Insert cortical screw.



V. INSTRUMENTS FOR REDUCTION OF BONE FRAGMENTS

Forceps and other instruments used for fracture reduction are intended for irregular, large, flat and bony surface of the pelvic area. Angles and the length of instruments are designed to accommodate spontaneous bone from crest to pelvic bridge and provide flexibility for a variety of surgical approaches.



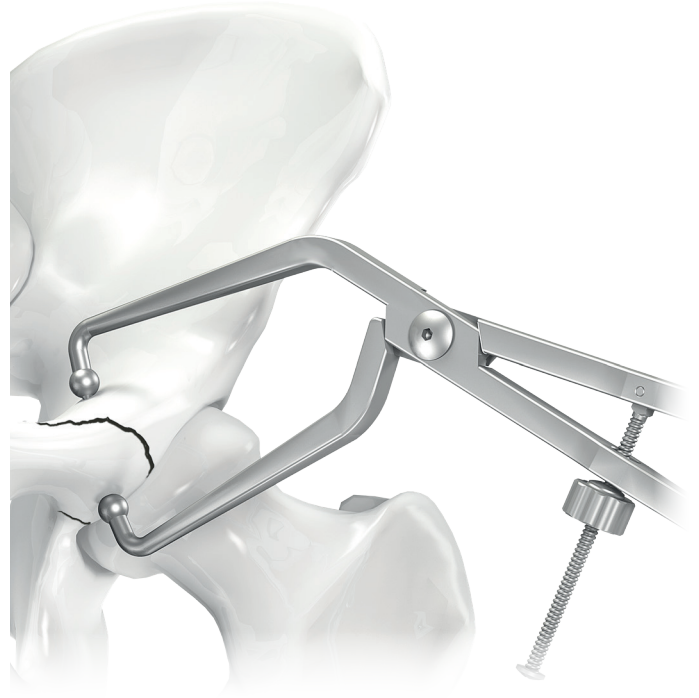
Compression forceps [40.6016.000] are a universal instrument which can be used to grasp and manipulate iliac wing, or may function as reduction forceps to reduce fractures with temporary cortical screws Ø3.5mm and Ø4.5mm.



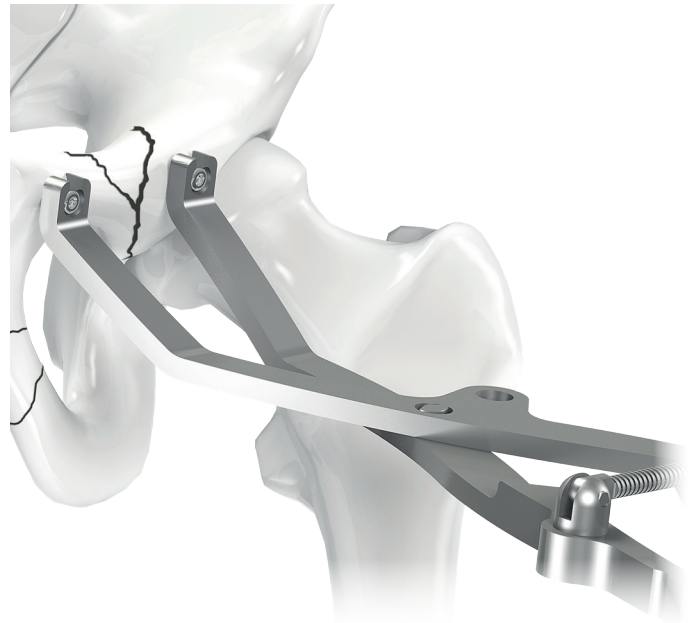
Reduction ratchet pliers with sharp tips [40.6009.000] may be used directly or after drilling shallow holes into the surface of the bone.



Angular reduction straight forceps [40.6006.000], Angular reduction curved forceps long [40.6004.000] and Angular reduction curved forceps short [40.6005.000] are designed so that the angle of the handle is away from both the surgeon line and the nominal soft tissue structures. Sharp tips provide a secure grip on the surface of the pelvis, while balls prevent their penetration into the bone with a thin cortex.



Reduction regulating forceps [40.6015.000] are intended for use with temporary cortical screws $\varnothing 3.5\text{mm}$ and $\varnothing 4.5\text{mm}$. Screws inserted in the opposite side of the fracture allow for the creation of significant reduction forces and manipulation in all three planes.



Reduction long forceps 2x1 [40.6008.000].

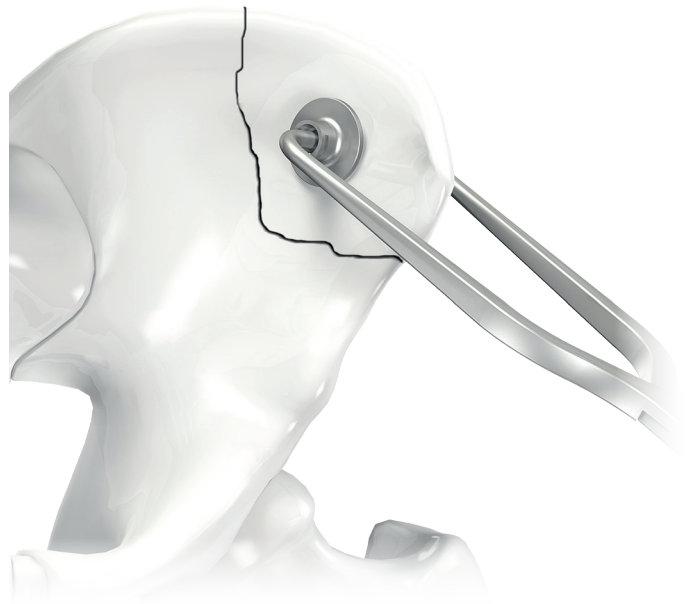
These forceps with three support points in the shape of balls allow for the reduction of perpendicular (*vertical*) fractures. The long handle provides increased lever system for difficult fractures.

Reduction long forceps are also available in 1x1 version [40.6007.000].



Latch swinging round [40.6028.000].**Latch swinging rectangular [40.6029.000].**

These instruments are used as controllers for forceps with round tips to reduce the fractured bone. The latch can be attached to the round tips to spread the reduction forces on the increased surface.



Elevator 24 [40.2199.001] can be used to improve the soft tissue widening.



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