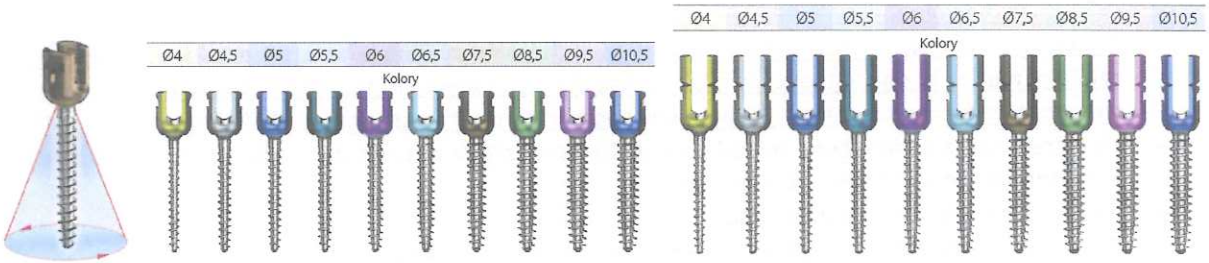
# Transpedicular stabilization of the thoracolumbar spine

CHARSPINE system 2

## 1. CHARSPINE2 Polyaxial screws and Polyaxial reduction screws




- polyaxial screws offer the movement of the screw head in every direction - at least 45° of conical angulation,
- the screw has: a conical bone thread core, a cylindrical shape of the outer surface of the bone thread, a trapezoidal bone thread profile and two self-tapping cuts,
- atraumatic screw (with rounded tips),
- the screw designed for the rod to be placed from above (tulip head),
- the height of the head profile – 17mm,
- the height of the screw head protruding above the locked rod – 5.5mm,
- the diameter of the screw head with the locking element - 14mm,
- screws available in 10 diameters: 4.0mm, 4.5mm, 5.0mm, 5.5mm, 6.0 mm, 6.5mm, 7.5mm, 8.5mm, 9.5mm, 10.5mm; colour-coded diameters,
- lengths of polyaxial screws with 5mm pitch rages from 25mm to 55mm;
- the screw is used with a one-piece, internal locking screw with an undercut thread profile that prevents the arms of the screw head from parting and reduces the risk of cross threading,
- **the channel for the 6mm rod placement has the V-groove shape which, after tightening the locking screw up, ensures three-point locking of the rod,**
- polyaxial screws have special grooves on the ball joint that increase the angular stability of the screw when locked,
- reduction screws (with long threaded arms along the entire length, broken off after the procedure) allow the rod to be placed in the screw tulip head without the use of additional instruments; after reduction screw head becomes identic to the regular one,
- material: titanium alloy.

| No | Name | Cat. No. |
|---|---|---|
| 1. | CHARSPINE2 Polyaxial screw 4,0 | 3.6170.0xx |
| 2. | CHARSPINE2 Polyaxial screw 4,5 | 3.6171.0xx |
| 3. | CHARSPINE2 Polyaxial screw 5,0 | 3.6172.0xx |
| 4. | CHARSPINE2 Polyaxial screw 5,5 | 3.6173.0xx |
| 5. | CHARSPINE2 Polyaxial screw 6,0 | 3.6174.0xx |
| 6. | CHARSPINE2 Polyaxial screw 6,5 | 3.6175.0xx |
| 7. | CHARSPINE2 Polyaxial screw 7,5 | 3.6176.0xx |
| 8. | CHARSPINE2 Polyaxial screw 8,5 | 3.6530.xxx |
| 9. | CHARSPINE2 Polyaxial screw 9,5 | 3.6531.xxx |
| 10. | CHARSPINE2 Polyaxial screw 10,5 | 3.6532.xxx |
| 11. | CHARSPINE2 Polyaxial reduction screw 4,0 | 3.6177.0xx |
| 12. | CHARSPINE2 Polyaxial reduction screw 4,5 | 3.6178.0xx |
| 13. | CHARSPINE2 Polyaxial reduction screw 5,0 | 3.6179.0xx |
| 14. | CHARSPINE2 Polyaxial reduction screw 5,5 | 3.6180.0xx |
| 15. | CHARSPINE2 Polyaxial reduction screw 6,0 | 3.6181.0xx |
| 16. | CHARSPINE2 Polyaxial reduction screw 6,5 | 3.6182.0xx |
| 17. | CHARSPINE2 Polyaxial reduction screw 7,5 | 3.6183.0xx |
| 18. | CHARSPINE2 Polyaxial reduction screw 8,5 | 3.6533.xxx |
| 19. | CHARSPINE2 Polyaxial reduction screw 9,5 | 3.6534.xxx |
| 20. | CHARSPINE2 Polyaxial reduction screw 10,5 | 3.6535.xxx |

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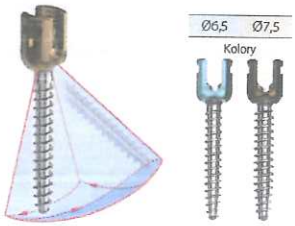
## 2. CHARSPINE2 Polyaxial screws for pelvis




- the polyaxial screws for pelvis allow for fixation in the wing of ilium. The screw provides an increased, asymmetrical range of motion in one of the planes, facilitating the attachment of the screw to the rod.
- the screws offer the movement of the screw head in the total angular range of 65° (from -20° to + 45°),
- the screw has: a conical bone thread core, a cylindrical shape of the outer surface of the bone thread, a trapezoidal bone thread profile and two self-tapping cuts,
- atraumatic screw (with rounded end),
- the screw designed for the rod to be placed from above (tulip head),
- the head profile height - 17mm,
- the height of the screw head protruding above the locked rod - 5.5mm,
- the diameter of the screw head with the locking element - 14mm,
- screws available in two diameters (6.5mm and 7.5mm); colour-coded diameters,
- lengths of polyaxial screws for pelvis - from 25mm to 90mm, with a 5mm increments,
- the screw is used with a one-piece, internal locking screw with an undercut thread profile that prevents the screw arms from parting and reduces the risk of cross threading,
- the channel for the rod placement has the V-groove shape which, after tightening the locking screw up, ensures three-point locking of the rod,
- material: titanium alloy.

| No. | Name | Cat. No. |
|---|---|---|
| 1. | CHARSPINE2 Polyaxial screw for pelvis 6.5 | 3.6514.0xx |
| 2. | CHARSPINE2 Polyaxial screw for pelvis 7.5 | 3.6515.0xx |

## 3. CHARSPINE2 Locking screw

- the same locking screw for monoaxial, polyaxial, uniplanar screws, screws for pelvis and hooks,
- the locking screw is designed with an undercut thread profile that prevents the arms of the screw head from parting and reduces the risk of cross threading,
- the locking mechanism enables unambiguous, repeatable locking of the screw (no shear elements, final tightening with a 12Nm torque wrench) and ensures revision removal of the implants (which also allows for repeated reduction of the spondylolisthesis and reposition of the stabilization at each stage of the procedure),
- the screw has a socket for a TORX screwdriver, size T30,
- the locking screw with a protection against reverse insertion into the screw (tulip) head (the screw can be connected to a screwdriver only from one, colour-coded side),
- material: titanium alloy.

| No | Name | Cat. No. |
|---|---|---|
| 1. | CHARSPINE2 Locking screw | 3.6160.000 |



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## 4. Rods

- straight rods, 6mm in diameter, available in two stiffness versions - standard (titanium alloy) and very stiff (cobalt alloy) and in the lengths from 40mm to 500mm,
- the rods have bilateral hexagonal ends in S5 size for intraoperative derotation.
- the rods are available in two stiffness versions - standard (titanium alloy) and very stiff (cobalt alloy).

| No | Name | Material | Cat. No. |
|---|---|---|---|
| 1. | Rod 6 | titanium alloy | 3.3246.xxx |
| 2. | Rod 6 hard | cobalt alloy | 4.3980.xxx |

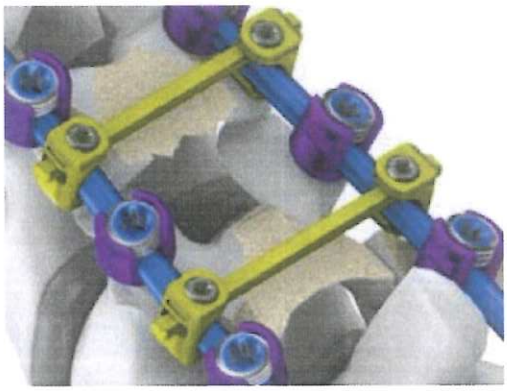
## 5. Crosswise connectors

### Clamp crosswise connector with rod connector (set)

- very low profile of the rod connector (3mmx4mm) for connecting rods with no need for excessive removal of anatomical structures,
- small transverse dimension (9mm) of clamp crosswise connector facilitates its fixation between screws,
- locking screws tightened up with a 3.5Nm torque wrench,
- material: titanium alloy.

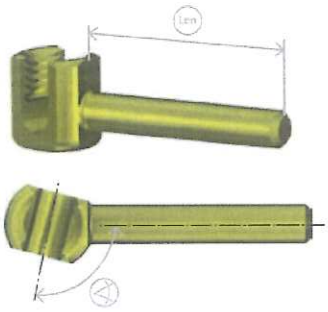
clamp crosswise connector

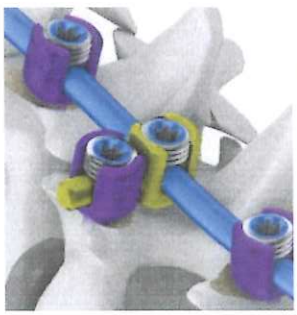
rod connector

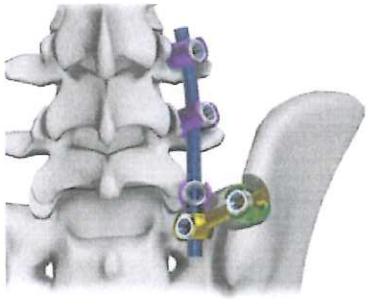


| No | Name | quantity/set | Cat. No. |
|---|---|---|---|
| 1. | Clamp crosswise connector | 2 | 3.6287.000 |
| 2. | Rod connector | 1 | 3.6289.xxx |

## 6. Lateral connectors







- the lateral connector (offset connector) ensures the offset installation of a screw in relation to the axis of the rod,



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- for the connection of lumbar-sacral stabilization with a screw inserted into the pelvis without additional shaping of the rod,
- available in three angular versions: 75°, 90° and 105° and the shaft lengths from 15mm to 35 mm (with 5mm pitch),
- for use with the same locking screw that is used for transpedicular screws,
- material: titanium alloy.

| No. | Name | Cat. No. |
|---|---|---|
| 1. | Lateral connector L-xx | 3.6281.0xx |
| 2. | Lateral connector 75° L-xx | 3.6282.0xx |
| 3. | Lateral connector 105° L-xx | 3.6283.0xx |

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