

Resolve™ Modular Stem

Revision Femoral Hip System



Resolve Modular Revision Stem System

Revision total hip arthroplasty can present significant challenges for the surgeon, such as severe bone defects, highly variable metaphyseal and diaphyseal bone loss, or complex anatomy. The modular revision stem is designed to address these challenges and support the establishment of a stable hip center.^[1]



Simplicity Improves Accuracy

- A ream-over surgical technique enables a precise surgical path.
- Specialized instrumentation facilitates intuitive operation and accurate implantation.

Modularity Creates Flexibility

- Designed to address variations in proximal and distal bone loss.^[1]
- Enables independent adjustments of offset, version, and leg length.^[2]

Versatility Achieves Stability

- Five proximal component heights are available, with standard and high offset options.
- Three stem types — tapered, clothespin, interlocking — provide a total of 74 distal stem options.
- Interlocking screws are available for added stability with clothespin and interlocking stems.



Resolve Modular Revision Stem System

Proximal Component

The Proximal Component enhances biomechanical restoration by providing surgical flexibility for adjustments in anteversion, offset, and leg length.

Proximal Screw

- Tightened to the specified torque to provide supplemental fixation between the proximal component and the distal stem



Standard and High Offset

- Provides horizontal offset options to facilitate soft-tissue tensioning and to restore joint biomechanics



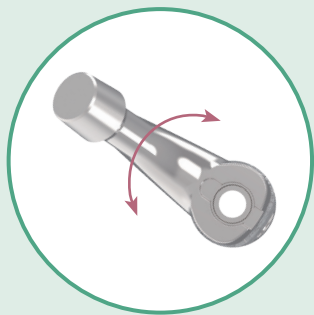
Bolt Hole for Expansion Accessories

- Allows potential assistive accessories to reattach the trochanteric fragment to the proximal component



Cone Shape Design

- Offers high flexibility in version adjustment with a cone-shaped body



Multiple Height Options

- Available in 55, 65, 75, 85, and 95 mm heights to assist in restoring balanced leg length



12/14 Neck Taper

- Accommodates the full range of United femoral heads

Low-profile and Polished Neck

- The low-profile neck reduces interference during movement, while the polished surface minimizes wear in cases of impingement



Titanium Plasma Spray with Hydroxyapatite Coating

- Designed to promote osteo-conductivity and biological fixation



Multiple Diameter Options

- Available in 19, 21, 23, and 25 mm diameters to accommodate varying degrees of proximal bone loss



Resolve Modular Revision Stem System

Distal Stem

The Resolve system offers three types of distal stems: Taper Stem, Clothespin Stem, and Interlocking Stem, designed to address varying degrees of bone defects and enhance distal fixation stability.



Tapered with Splined Fins

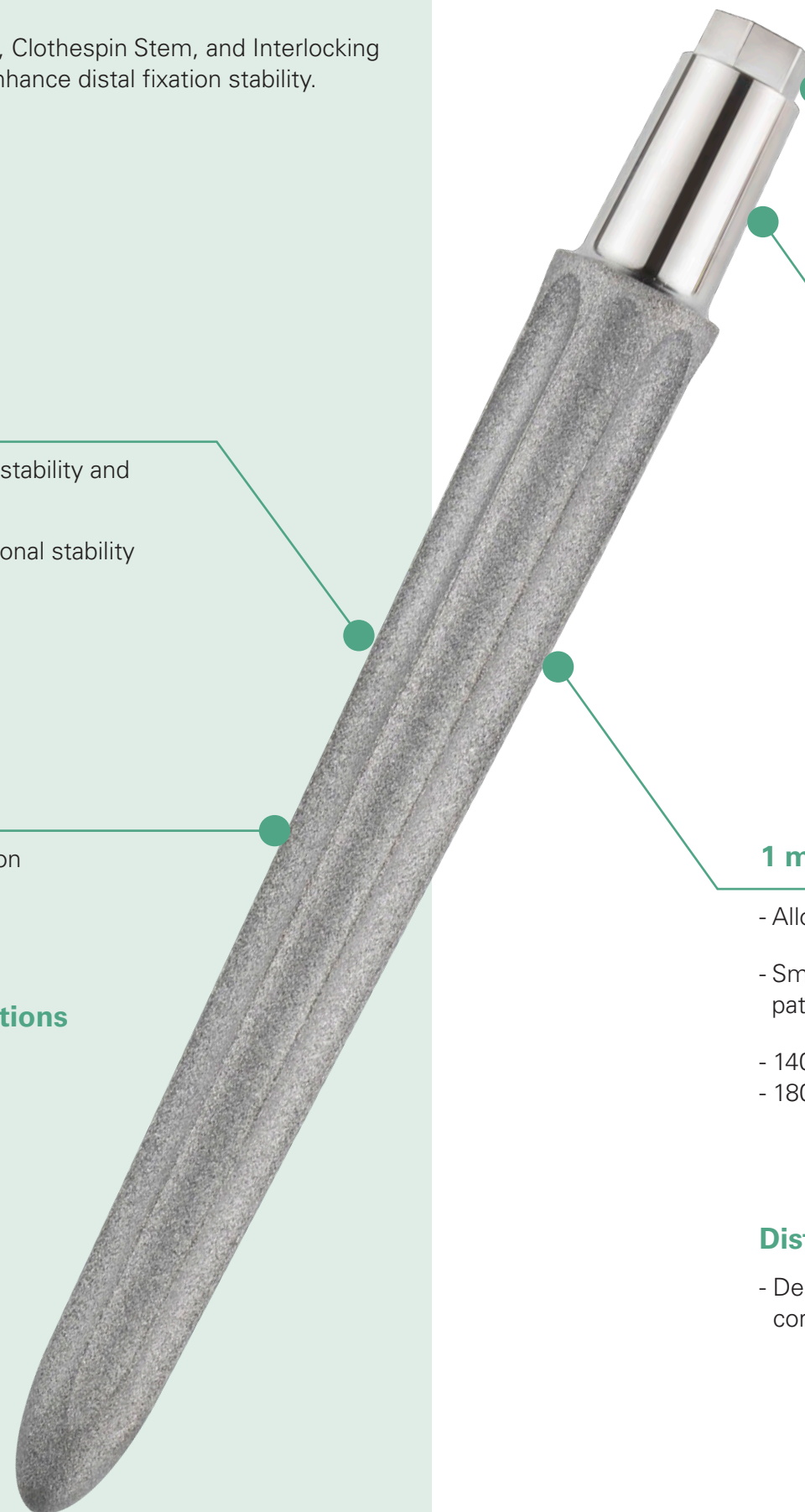
- The tapered design enhances axial stability and minimizes stem subsidence
- The eight splined fins provide rotational stability

Grit-blasted Surface Finish

- Allows for bone on-growth and long-term fixation

140 mm and 180 mm Stem Length Options

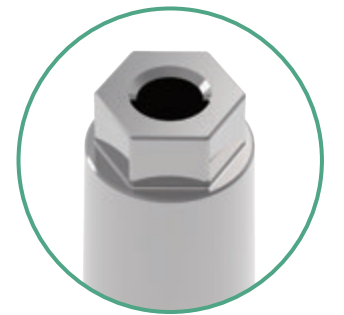
- Designed to achieve diaphyseal fixation



Taper Stem

Hex Head Design

- Assembled with instruments to enhance operational stability



Modular Tapered Connection

- The distal stem and the proximal component are connected via a verified taper junction



1 mm Increment in Diameter

- Allows for precise selection of the appropriate size
- Smaller diameters are available to accommodate patients with a narrow femoral canal
- 140 mm Taper Stem diameter: Ø11~28 mm
- 180 mm Taper Stem diameter: Ø12~28 mm

Distal Beveled Tip in 180 mm Stem

- Designed to reduce interference with the anterior cortex to minimize the risk of thigh pain



Resolve Modular Revision Stem System

Clothespin Stem

Stem Curvature

- The long stem features an anterior bow to better match the anatomical curvature of the femoral canal and achieve three-surface fixation

180 mm Length Stem

- Designed to achieve diaphyseal fixation

Distal Slot Design

- Designed to reduce stem tip stiffness, improve compatibility with anterior femoral bowing, and reduce thigh pain



Titanium Plasma Spray with Hydroxyapatite Coating

- Designed to promote osteo-conductivity and biological fixation

- Clothespin Stem diameter: Ø12~26 mm

Interlocking Stem

Hex Head Design

- Assembled with instruments to enhance operational stability

Interlocking Screw Fixation

- Designed to provide additional axial and rotational stability, and prevent stem subsidence

220 mm and 300 mm Length Stem

- The longer stems enable the management of more severe bone defects through extended distal fixation

Polished Bullet Tip

- Helps facilitate ease of insertion and reduce potential thigh pain

- Interlocking Stem diameter: Ø15~26 mm

When Precision Matters

Depth markings confirm precision

- Indicators assist in restoring femoral head center height



Taper Reamer

Stem Trial Inserter

Stem Inserter

Proximal Reamer

Ream-over ensures alignment

- Facilitates accurate reaming over the guide rod connected to the implanted distal stem
- Ensures precise modular alignment and supports reproducible implantation

Handle colors improve identification

- Yellow handles: for the distal stem
- Blue handles: for the proximal component

Target Device supports interlocking screw preparation

- Radiolucent carbon fiber allows clear intraoperative C-arm imaging
- Available in left and right versions
- Multi-size compatibility helps reduce inventory requirements



Special Order Items

Order Information

Catalog Number	Diameter x Length (mm)
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Proximal Component

Standard



1112 - 1119	Ø19 × L55
1112 - 1219	Ø19 × L65
1112 - 1319	Ø19 × L75
1112 - 1419	Ø19 × L85
1112 - 1519	Ø19 × L95
1112 - 1221	Ø21 × L65
1112 - 1321	Ø21 × L75
1112 - 1421	Ø21 × L85
1112 - 1521	Ø21 × L95
1112 - 1223	Ø23 × L65
1112 - 1323	Ø23 × L75
1112 - 1423	Ø23 × L85
1112 - 1523	Ø23 × L95

1112 - 1225	Ø25 × L65
1112 - 1325	Ø25 × L75
1112 - 1425	Ø25 × L85
1112 - 1525	Ø25 × L95

High Offset

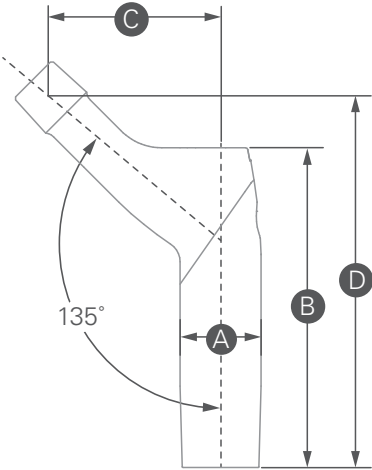


1112 - 3119	Ø19 × L55
1112 - 3219	Ø19 × L65
1112 - 3319	Ø19 × L75
1112 - 3419	Ø19 × L85
1112 - 3519	Ø19 × L95
1112 - 3221	Ø21 × L65
1112 - 3321	Ø21 × L75
1112 - 3421	Ø21 × L85
1112 - 3521	Ø21 × L95
1112 - 3223	Ø23 × L65
1112 - 3323	Ø23 × L75
1112 - 3423	Ø23 × L85
1112 - 3523	Ø23 × L95

1112 - 3225	Ø25 × L65
1112 - 3325	Ø25 × L75
1112 - 3425	Ø25 × L85
1112 - 3525	Ø25 × L95

Order Information

Catalog Number	Diameter x Length (mm)
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Proximal Component

Size	A Diameter	B Height	C Offset		D Vertical Height
			Standard	High offset	
Ø19 x 55	19	55	40	46	67
Ø19 x 65	19	65	40	46	77
Ø19 x 75	19	75	40	46	87
Ø19 x 85	19	85	40	46	97
Ø19 x 95	19	95	40	46	107
Ø21 x 65	21	65	42	48	77
Ø21 x 75	21	75	42	48	87
Ø21 x 85	21	85	42	48	97
Ø21 x 95	21	95	42	48	107
Ø23 x 65	23	65	44	50	77
Ø23 x 75	23	75	44	50	87
Ø23 x 85	23	85	44	50	97
Ø23 x 95	23	95	44	50	107
Ø25 x 65	25	65	44	50	77
Ø25 x 75	25	75	44	50	87
Ø25 x 85	25	85	44	50	97
Ø25 x 95	25	95	44	50	107

Unit: mm

Order Information

	Catalog Number	Diameter (mm)
Taper Stem L140 mm 	1112 - 5011	Ø11
	1112 - 5012	Ø12
	1112 - 5013	Ø13
	1112 - 5014	Ø14
	1112 - 5015	Ø15
	1112 - 5016	Ø16
	1112 - 5017	Ø17
	1112 - 5018	Ø18
	1112 - 5019	Ø19
	1112 - 5020	Ø20
	1112 - 5021	Ø21
	1112 - 5022	Ø22
	1112 - 5023	Ø23
	1112 - 5024	Ø24
	1112 - 5025	Ø25
	1112 - 5026	Ø26
	1112 - 5027	Ø27
	1112 - 5028	Ø28

Order Information

	Catalog Number	Diameter (mm)
Taper Stem L180 mm 	1112 - 5112	Ø12
	1112 - 5113	Ø13
	1112 - 5114	Ø14
	1112 - 5115	Ø15
	1112 - 5116	Ø16
	1112 - 5117	Ø17
	1112 - 5118	Ø18
	1112 - 5119	Ø19
	1112 - 5120	Ø20
	1112 - 5121	Ø21
	1112 - 5122	Ø22
	1112 - 5123	Ø23
	1112 - 5124	Ø24
	1112 - 5125	Ø25
	1112 - 5126	Ø26
	1112 - 5127	Ø27
	1112 - 5128	Ø28

 Special Order Items

Order Information

Clothespin Stem	
Catalog Number	Diameter (mm)
	L180 mm
	1112 - 7112 Ø12
	1112 - 7113 Ø13
	1112 - 7114 Ø14
	1112 - 7115 Ø15
	1112 - 7116 Ø16
	1112 - 7117 Ø17
	1112 - 7118 Ø18
	1112 - 7119 Ø19
	1112 - 7120 Ø20
	1112 - 7121 Ø21
	1112 - 7122 Ø22
	1112 - 7123 Ø23
	1112 - 7124 Ø24
	1112 - 7125 Ø25
	1112 - 7126 Ø26
Interlocking Screw	
Catalog Number	Length (mm)
	1912 - 1025 25
	1912 - 1030 30
	1912 - 1035 35
	1912 - 1040 40
	1912 - 1045 45
	1912 - 1050 50
	1912 - 1055 55
	1912 - 1060 60
	1912 - 1065 65
	1912 - 1070 70
	1912 - 1075 75

Order Information

Interlocking Stem	
Catalog Number	Diameter (mm)
	L220 mm
	1112 - 7215 Ø15
	1112 - 7216 Ø16
	1112 - 7217 Ø17
	1112 - 7218 Ø18
	1112 - 7219 Ø19
	1112 - 7220 Ø20
	1112 - 7221 Ø21
	1112 - 7222 Ø22
	1112 - 7223 Ø23
	1112 - 7224 Ø24
	1112 - 7225 Ø25
	1112 - 7226 Ø26
	L300 mm
	1112 - 7315 Ø15
	1112 - 7316 Ø16
	1112 - 7317 Ø17
	1112 - 7318 Ø18
	1112 - 7319 Ø19
	1112 - 7320 Ø20
	1112 - 7321 Ø21
	1112 - 7322 Ø22
	1112 - 7323 Ø23
	1112 - 7324 Ø24
	1112 - 7325 Ø25
	1112 - 7326 Ø26

Reference

^[1]Jones, Richard E. "Modular revision stems in total hip arthroplasty." Clinical Orthopaedics and Related Research® 420 (2004): 142-147.

^[2]Mertl, Patrice, and Massinissa Dehl. "Femoral stem modularity." Orthopaedics & Traumatology: Surgery & Research 106.1 (2020): S35-S42.

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