

## VarioLoc Series

### Femoral Stem



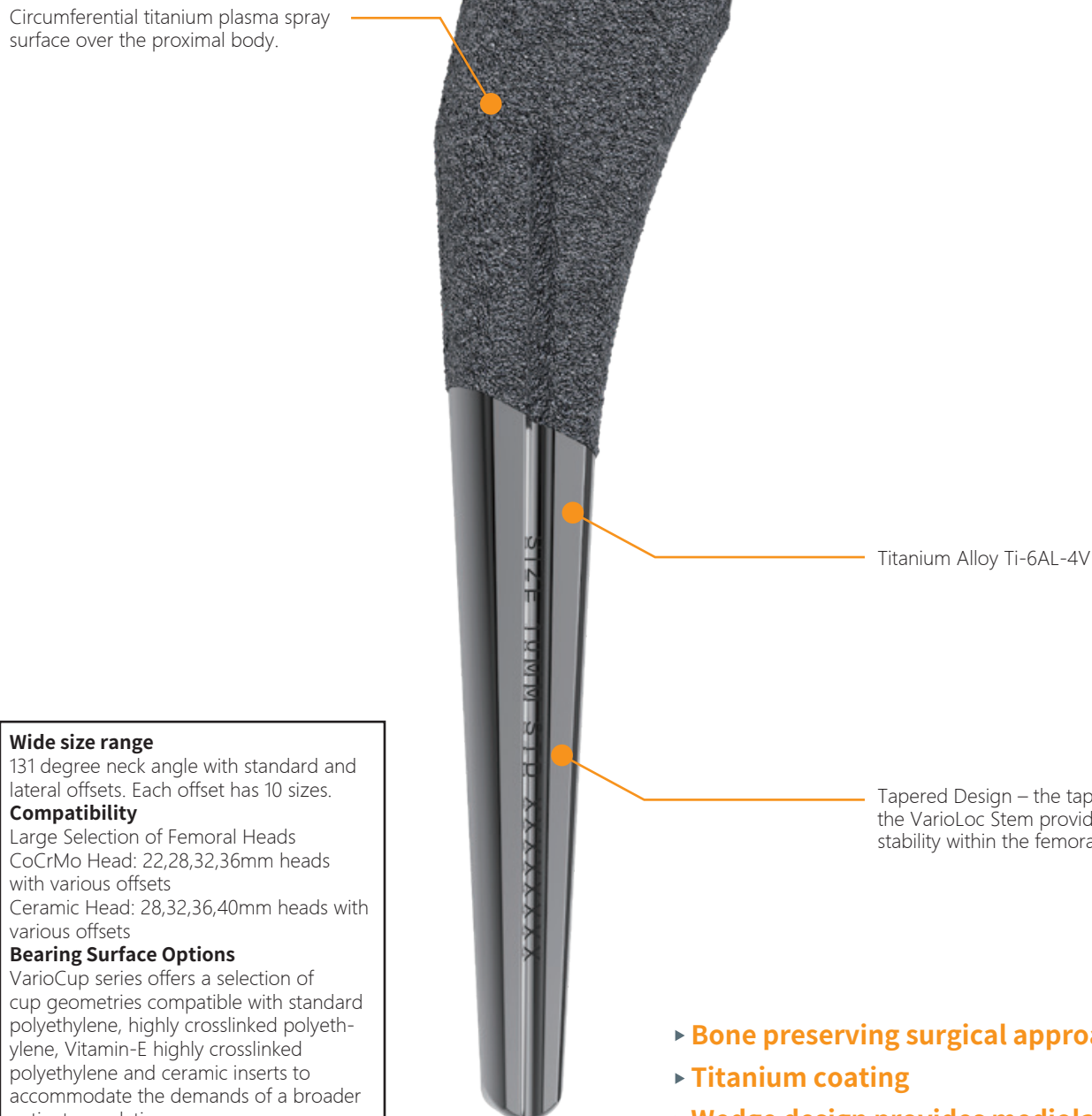
## VarioLoc Stem, TPS Coating

Proportional Neck Lengths – relative to body geometry, neck lengths grow proportionally in size to accommodate a wide patient population.

Rotational Stability - Insertion Hole Provides rotational stability upon implantation

Circumferential titanium plasma spray surface over the proximal body.

Reduced Neck Geometry optimizes the available range of motion while maintaining strength.



### Wide size range

131 degree neck angle with standard and lateral offsets. Each offset has 10 sizes.

### Compatibility

Large Selection of Femoral Heads

CoCrMo Head: 22,28,32,36mm heads with various offsets

Ceramic Head: 28,32,36,40mm heads with various offsets

### Bearing Surface Options

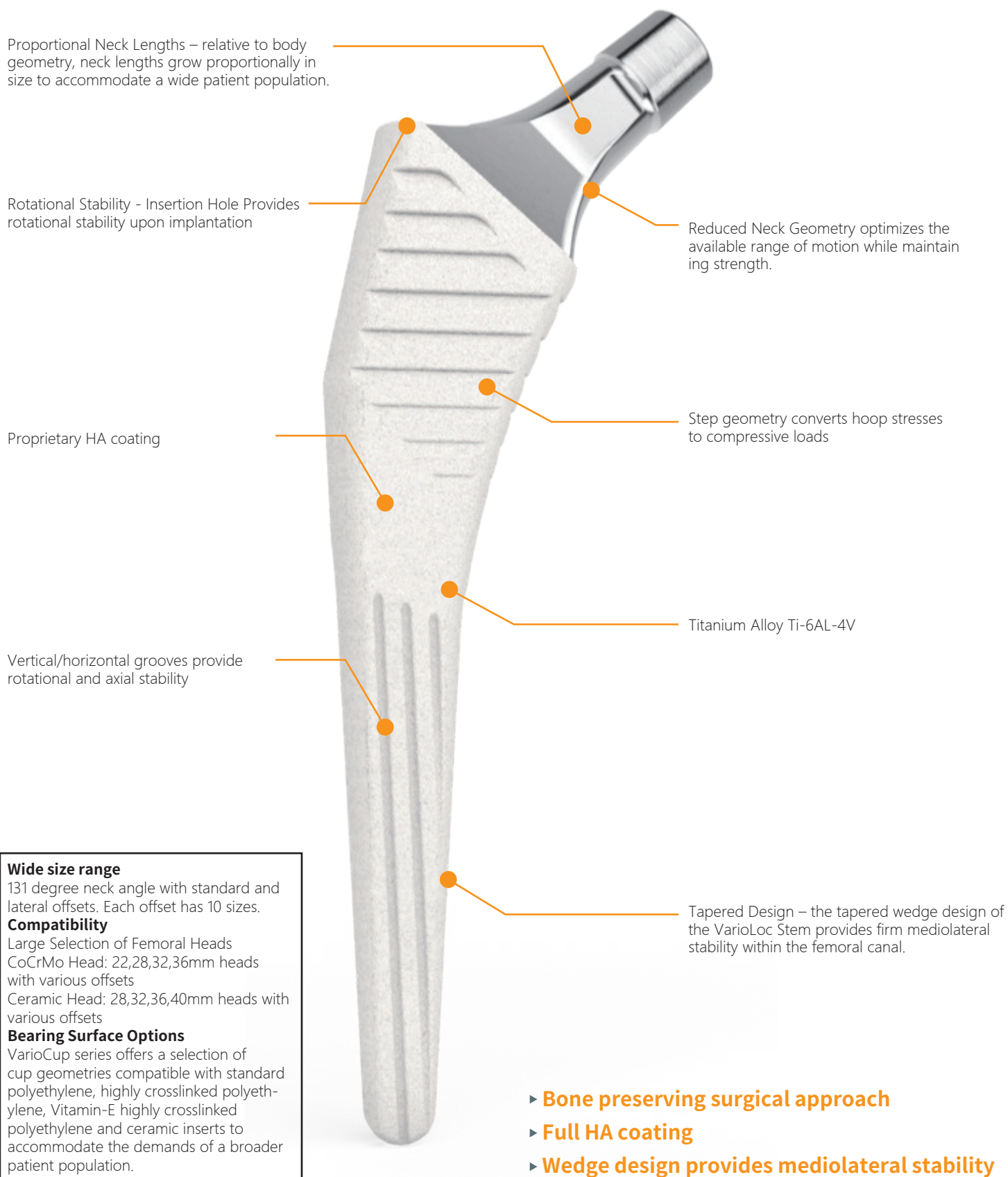
VarioCup series offers a selection of cup geometries compatible with standard polyethylene, highly crosslinked polyethylene, Vitamin-E highly crosslinked polyethylene and ceramic inserts to accommodate the demands of a broader patient population.

Titanium Alloy Ti-6AL-4V

Tapered Design – the tapered wedge design of the VarioLoc Stem provides firm mediolateral stability within the femoral canal.

- ▶ Bone preserving surgical approach
- ▶ Titanium coating
- ▶ Wedge design provides mediolateral stability

## VarioLoc Stem, HA Coating



## VarioLoc Stem, PressFit

Proportional Neck Lengths – relative to body geometry, neck lengths grow proportionally in size to accommodate a wide patient population.

Rotational Stability - Insertion Hole Provides rotational stability upon implantation

Special bead blasting generate a roughened surface over the proximal body

Reduced Neck Geometry optimizes the available range of motion while maintaining strength.

Antero-posterior ribs provide additional initial stability

Titanium Alloy Ti-6AL-4V

Tapered Design – the tapered wedge design of the VarioLoc Stem provides firm mediolateral stability within the femoral canal.

### Wide size range

131 degree neck angle with standard and lateral offsets. Each offset has 9 sizes.

### Compatibility

Large Selection of Femoral Heads  
CoCrMo Head: 22,28,32,36mm heads with various offsets

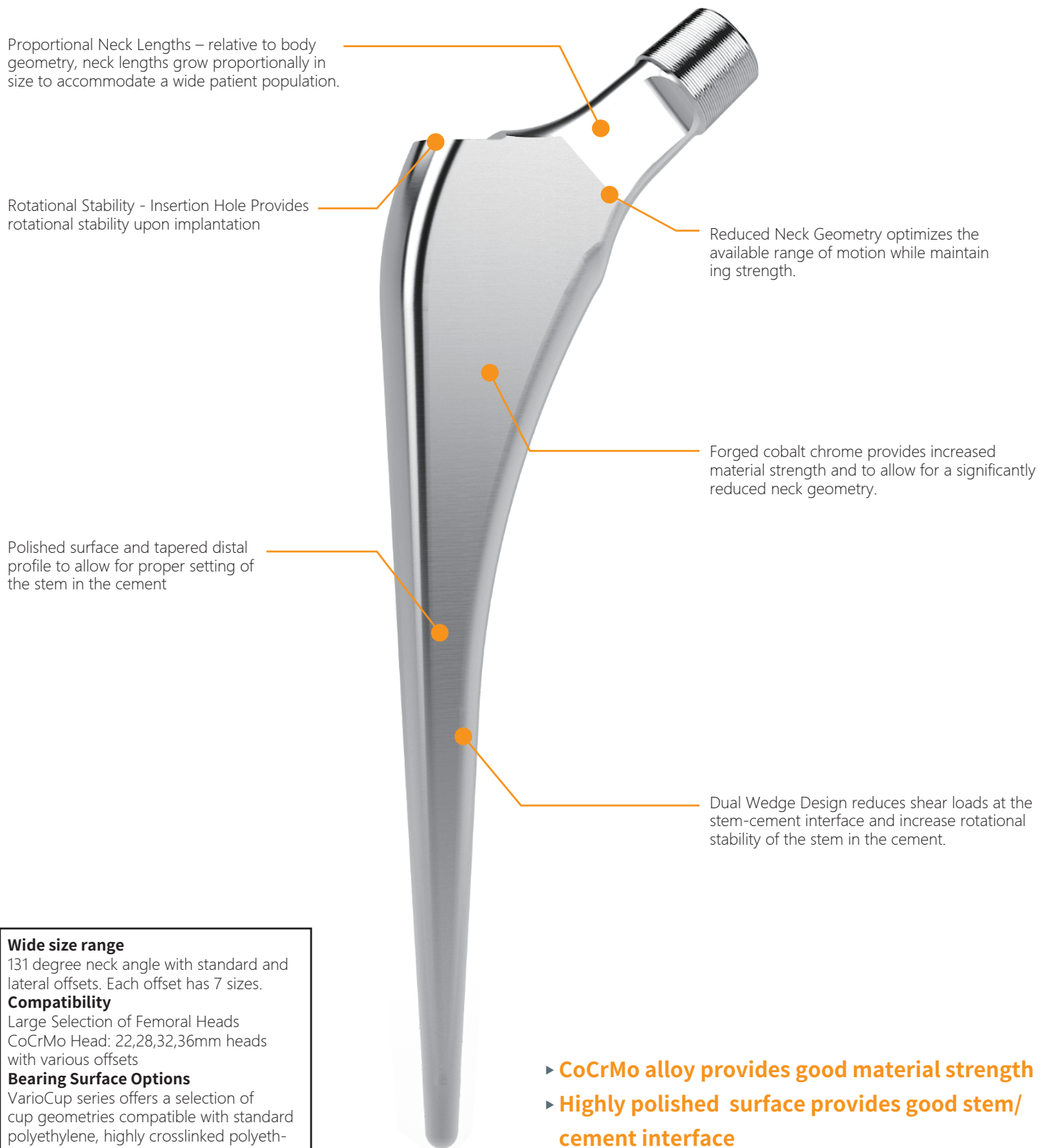
Ceramic Head: 28,32,36,40mm heads with various offsets

### Bearing Surface Options

VarioCup series offers a selection of cup geometries compatible with standard polyethylene, highly crosslinked polyethylene, Vitamin-E highly crosslinked polyethylene and ceramic inserts to accommodate the demands of a broader patient population.

- ▶ Bone preserving surgical approach
- ▶ Proximal ribs provide initial fixation
- ▶ Wedge design provides mediolateral stability

## VarioLoc Stem, Cemented



### Wide size range

131 degree neck angle with standard and lateral offsets. Each offset has 7 sizes.

### Compatibility

Large Selection of Femoral Heads  
CoCrMo Head: 22,28,32,36mm heads with various offsets

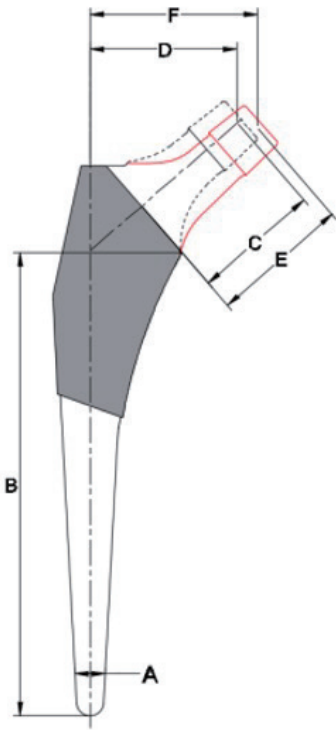
### Bearing Surface Options

VarioCup series offers a selection of cup geometries compatible with standard polyethylene, highly crosslinked polyethylene, Vitamin-E highly crosslinked polyethylene and ceramic inserts to accommodate the demands of a broader patient population.

- ▶ **CoCrMo alloy provides good material strength**
- ▶ **Highly polished surface provides good stem/cement interface**
- ▶ **Classic 2mm cement mantle design**
- ▶ **State of the Art design**



## Key Dimensions for VarioLoc Stem, TPS Coating



### Standard Offset Version

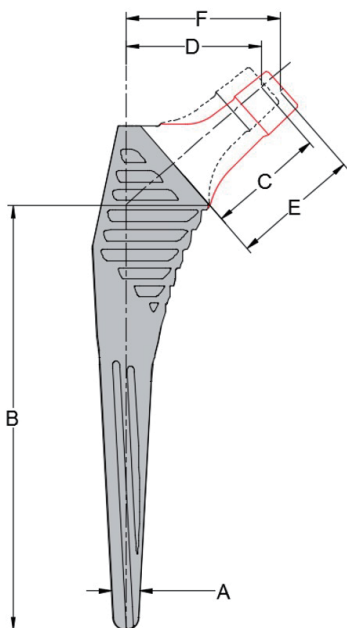
| Size (A,mm) | Stem Length (B,mm) | Neck Length (C,mm) | Offset (D,mm) |
|-------------|--------------------|--------------------|---------------|
| 5           | 109                | 31                 | 35            |
| 6           | 111                | 31                 | 35            |
| 7.5         | 114                | 31                 | 36            |
| 9           | 117                | 31                 | 37            |
| 10          | 119                | 34                 | 40            |
| 11          | 121                | 34                 | 41            |
| 12.5        | 124                | 34                 | 41            |
| 13.5        | 126                | 37                 | 45            |
| 15          | 129                | 37                 | 45            |
| 16          | 132                | 37                 | 46            |
| 17.5        | 134                | 37                 | 47            |
| 20          | 139                | 37                 | 48            |

### Lateral Offset Version

| Size (A,mm) | Stem Length (B,mm) | Neck Length (E,mm) | Offset (F,mm) |
|-------------|--------------------|--------------------|---------------|
| 7.5         | 114                | 34                 | 41            |
| 9           | 117                | 34                 | 42            |
| 10          | 119                | 38                 | 45            |
| 11          | 121                | 38                 | 46            |
| 12.5        | 124                | 38                 | 46            |
| 13.5        | 126                | 41                 | 50            |
| 15          | 129                | 41                 | 50            |
| 16          | 132                | 41                 | 51            |
| 17.5        | 134                | 41                 | 52            |
| 20          | 139                | 41                 | 53            |

**Note:** The neck length and offset are calculated from the rotation center of +0 head; The stem length is calculated from the calcar point to the distal tip of the stem

## Key Dimensions for VarioLoc Stem, HA Coating



### Standard Offset Version

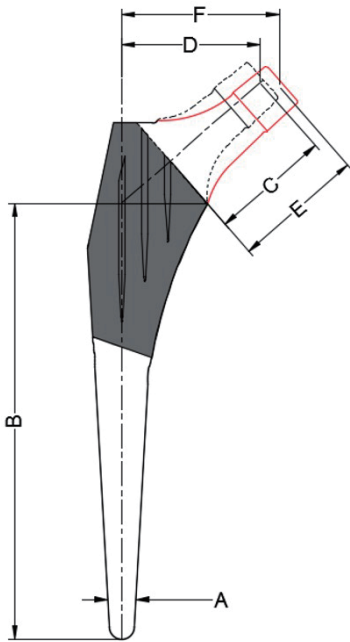
| Size (A,mm) | Stem Length (B,mm) | Neck Length (C,mm) | Offset (D,mm) |
|-------------|--------------------|--------------------|---------------|
| 7.5         | 114                | 31                 | 36            |
| 9           | 117                | 31                 | 37            |
| 10          | 119                | 34                 | 40            |
| 11          | 121                | 34                 | 41            |
| 12.5        | 124                | 34                 | 41            |
| 13.5        | 126                | 37                 | 45            |
| 15          | 129                | 37                 | 45            |
| 16          | 132                | 37                 | 46            |
| 17.5        | 134                | 37                 | 47            |
| 20          | 139                | 37                 | 48            |

### Lateral Offset Version

| Size (A,mm) | Stem Length (B,mm) | Neck Length (E,mm) | Offset (F,mm) |
|-------------|--------------------|--------------------|---------------|
| 7.5         | 114                | 34                 | 41            |
| 9           | 117                | 34                 | 42            |
| 10          | 119                | 38                 | 45            |
| 11          | 121                | 38                 | 46            |
| 12.5        | 124                | 38                 | 46            |
| 13.5        | 126                | 41                 | 50            |
| 15          | 129                | 41                 | 50            |
| 16          | 132                | 41                 | 51            |
| 17.5        | 134                | 41                 | 52            |
| 20          | 139                | 41                 | 53            |

**Note:** The neck length and offset are calculated from the rotation center of +0 head; The stem length is calculated from the calcar point to the distal tip of the stem

## Key Dimensions for VarioLoc Stem, Pressfit



### Standard Offset Version

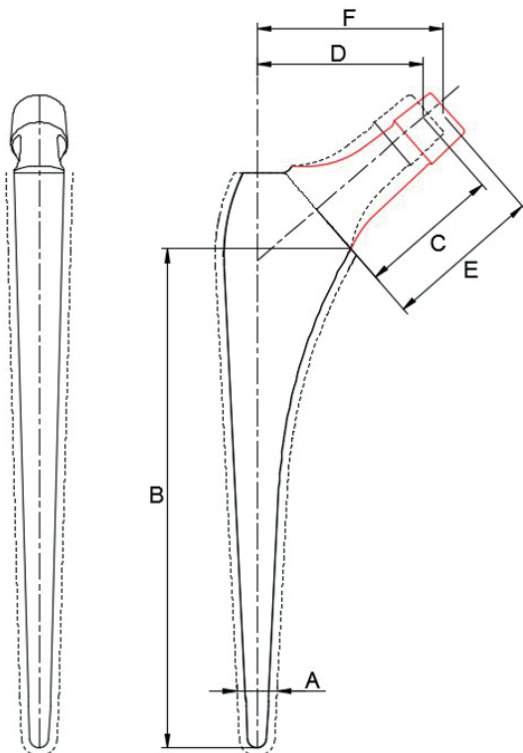
| Size (A,mm) | Stem Length (B,mm) | Neck Length (C,mm) | Offset (D,mm) |
|-------------|--------------------|--------------------|---------------|
| 7.5         | 114                | 31                 | 36            |
| 9           | 117                | 31                 | 37            |
| 10          | 119                | 34                 | 40            |
| 11          | 121                | 34                 | 41            |
| 12.5        | 124                | 34                 | 41            |
| 13.5        | 126                | 37                 | 45            |
| 15          | 129                | 37                 | 45            |
| 16          | 132                | 37                 | 46            |
| 17.5        | 134                | 37                 | 47            |

### Lateral Offset Version

| Size (A,mm) | Stem Length (B,mm) | Neck Length (E,mm) | Offset (F,mm) |
|-------------|--------------------|--------------------|---------------|
| 7.5         | 114                | 34                 | 41            |
| 9           | 117                | 34                 | 42            |
| 10          | 119                | 38                 | 45            |
| 11          | 121                | 38                 | 46            |
| 12.5        | 124                | 38                 | 46            |
| 13.5        | 126                | 41                 | 50            |
| 15          | 129                | 41                 | 50            |
| 16          | 132                | 41                 | 51            |
| 17.5        | 134                | 41                 | 52            |

**Note:** The neck length and offset are calculated from the rotation center of +0 head; The stem length is calculated from the calcar point to the distal tip of the stem

## Key Dimensions for VarioLoc Stem, Cemented



### Standard Offset Version

| Size (including cement mantle, A,mm) | Stem Length (B,mm) | Neck Length (C,mm) | Offset (D,mm) |
|--------------------------------------|--------------------|--------------------|---------------|
| 7.5                                  | 114                | 31                 | 36            |
| 9                                    | 117                | 31                 | 37            |
| 10                                   | 119                | 34                 | 40            |
| 11                                   | 121                | 34                 | 41            |
| 12.5                                 | 124                | 34                 | 41            |
| 13.5                                 | 126                | 37                 | 45            |
| 15                                   | 129                | 37                 | 45            |

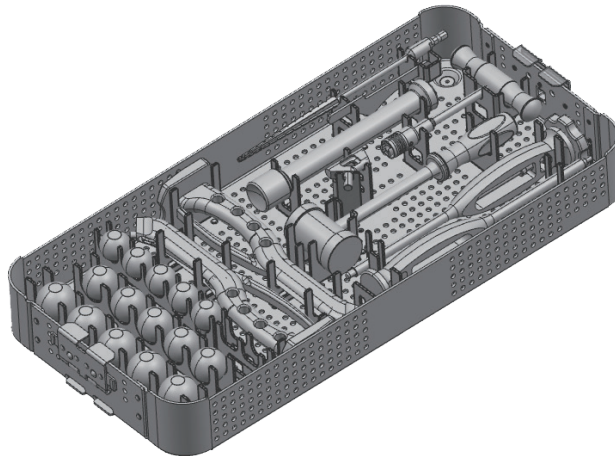
### Lateral Offset Version

| Size (including cement mantle, A,mm) | Stem Length (B,mm) | Neck Length (C,mm) | Offset (D,mm) |
|--------------------------------------|--------------------|--------------------|---------------|
| 7.5                                  | 114                | 34                 | 41            |
| 9                                    | 117                | 34                 | 42            |
| 10                                   | 119                | 38                 | 45            |
| 11                                   | 121                | 38                 | 46            |
| 12.5                                 | 124                | 38                 | 46            |
| 13.5                                 | 126                | 41                 | 50            |
| 15                                   | 129                | 41                 | 50            |

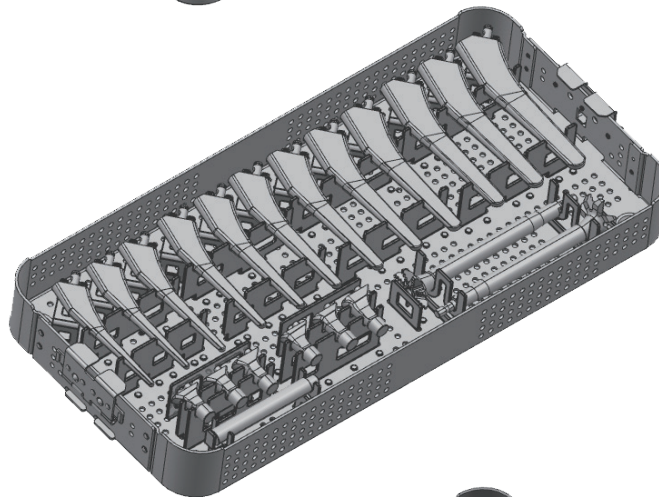
## VarioLoc Instrument Set

- Consolidated 2 Tray System .
- Rasp Only Procedure to preserves bone
- Same instrument set for cementless VarioLoc Stem (TPS Coating, HA Coating and PressFit Versions).
- Only one additional instrument tray is needed if a VarioLoc cemented stem is used.

VarioLoc Femoral Tray 1



VarioLoc Femoral Tray 2



Cemented stem and cup Tray





[illegible]