

MARINER

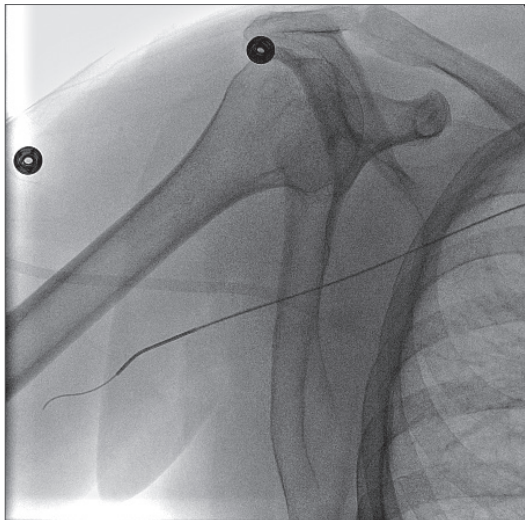
Hydrophilic-coated
Angiographic Catheter



No Sacrifice of Pushability or Torquability = More Control

- Design enables the operator to utilize hydrophilic performance and preserve the desired pushability and torquability attributes
- Tapered tip enhances trackability over the wire

Angiography with the 150 cm Berenstein Mariner catheter



Advanced to the right axillary artery



Located at the left anterior tibial artery



Guidewire access to the left anterior tibial artery

Longer Standard Lengths = Extended Reach and Versatility

- Available in standard lengths up to 150 cm
- Allows selective catheterization of branch vessels in the distal regions;
More targeted selections requires less contrast use
- More precise super-selection of distal areas (such as tibial region)
- Ideal lengths for use in cases involving radial access
- Numerous standard shapes are available in longer length configurations

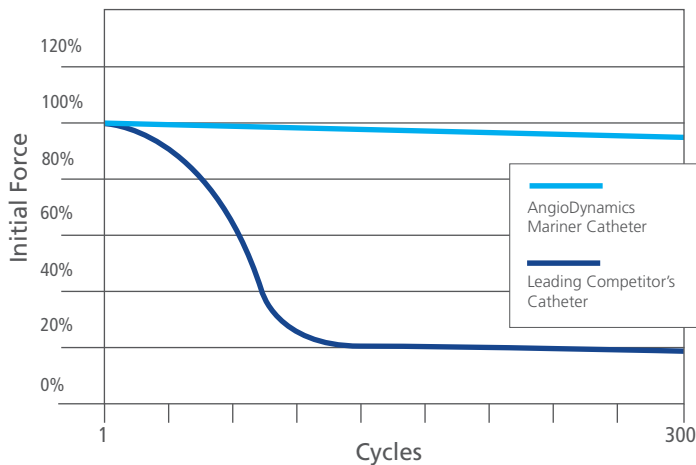
Advanced Hydrophilic Performance

Smoother Navigation = Ease of Placement and Less Procedure Time

- Innovative Duration* Coating Technology reduces catheter surface friction by as much as 90%, promoting smoother navigation through tortuous vasculature
- Mariner catheters are procedure-efficient, meaning no initial pre-wetting is required

Distal end of catheter (approx. 20 cm length) is hydrophilic coated, allowing for smooth navigation as well as optimum handling and control

Lubricity Loss Comparison[†]
Mariner Catheter vs. Leading Competitor



[†]Data on file



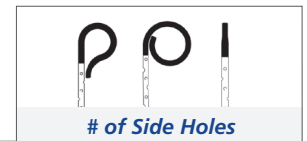
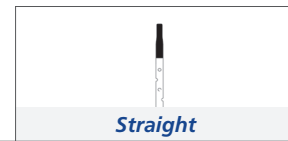
Soft tips
enhance safety

Super-Radiopaque* tips provide improved visualization and more accurate placement

FLUSH CATHETERS

Soft Radiopaque Tip

10 per Box



| High-Torque Shaft | Description | UPN | Description | UPN | Description | UPN | Catheter | # of side holes |
|-------------------|---------------------|---------------|---------------------|---------------|--------------------|---------------|------------|-----------------|
| | 4F / 65 cm / .035" | H787117323015 | 4F / 65 cm / .035" | H787117071015 | 4F / 65 cm / .035" | H787117072015 | Omni Flush | 6 |
| | 4F / 65 cm / .038" | H787117140015 | 4F / 90 cm / .035" | H787117071025 | 4F / 65 cm / .038" | H787117140035 | Pigtail | 10 |
| | 4F / 90 cm / .035" | H787117323025 | 4F / 90 cm / .038" | H787117140055 | 4F / 90 cm / .035" | H787117072025 | Straight | 6 |
| | 4F / 90 cm / .038" | H787117140045 | 4F / 100 cm / .035" | H787117071035 | 4F / 90 cm / .038" | H787117140065 | | |
| | 4F / 110 cm / .035" | H787117323035 | 4F / 110 cm / .035" | H787117071045 | 5F / 65 cm / .035" | H787117086015 | | |
| | 5F / 65 cm / .035" | H787117322015 | 4F / 110 cm / .038" | H787117140085 | 5F / 65 cm / .038" | H787117086035 | | |
| | 5F / 65 cm / .038" | H787117322035 | 5F / 65 cm / .035" | H787117085015 | 5F / 90 cm / .035" | H787117086025 | | |
| | 5F / 90 cm / .035" | H787117322025 | 5F / 65 cm / .038" | H787117085045 | 5F / 90 cm / .038" | H787117086045 | | |
| | 5F / 90 cm / .038" | H787117322045 | 5F / 90 cm / .035" | H787117085025 | | | | |
| | 5F / 100 cm / .038" | H787117322055 | 5F / 90 cm / .038" | H787117085055 | | | | |
| | | | 5F / 110 cm / .035" | H787117085035 | | | | |
| | | | 5F / 110 cm / .038" | H787117085065 | | | | |
| | | | 5F / 150 cm / .035" | H787117092235 | | | | |

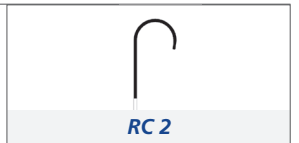
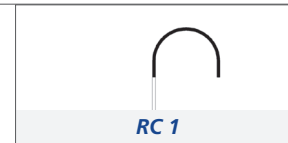
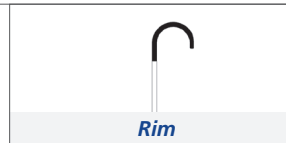
SELECTIVE CATHETERS

Soft Radiopaque Tip

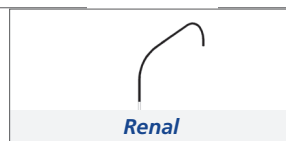
5 per Box



| High-Torque Shaft | Description | UPN | Description | UPN | Description | UPN | Description | UPN |
|--------------------------------|---------------------|---------------|----------------------------------|---------------|-----------------------------------|---------------|--------------------|---------------|
| | *4F / 65 cm / .035" | H787117115025 | 4F / 80 cm / .038" | H787117140245 | 4F / 65 cm / .038" | H787117140545 | 4F / 80 cm / .038" | H787117140265 |
| [†] Sos Omni 0 Mini | *4F / 65 cm / .035" | H787117115015 | 5F / 80 cm / .035" | H787117204025 | 4F / 80 cm / .038" | H787117140255 | 5F / 80 cm / .035" | H787117204045 |
| [†] Sos Omni 0 Jr. | 4F / 65 cm / .038" | H787117092255 | ^{††} 5F / 80 cm / .035" | H787117320025 | 5F / 65 cm / .038" | H787117092305 | 5F / 80 cm / .038" | H787117204065 |
| ^{††} w/ 2 side holes | 4F / 80 cm / .038" | H787117140235 | 5F / 80 cm / .038" | H787117204015 | 5F / 80 cm / .035" | H787117204035 | | |
| | 5F / 80 cm / .035" | H787117204075 | | | ^{††} 5F / 80 cm / .035" | H787117320015 | | |
| | 5F / 80 cm / .038" | H787117204085 | | | 5F / 80 cm / .038" | H787117204055 | | |
| Braided Ultra-Torque Shaft | 4F / 80 cm / .035" | H787117114045 | 4F / 80 cm / .035" | H787117114015 | 4F / 80 cm / .035" | H787117114025 | 4F / 80 cm / .035" | H787117114035 |
| ^{†††} w/ 4 side holes | 5F / 65 cm / .038" | H787117092265 | 5F / 65 cm / .038" | H787117092285 | ^{†††} 4F / 80 cm / .035" | H787117114055 | 5F / 80 cm / .035" | H787117120035 |
| | 5F / 80 cm / .035" | H787117120045 | 5F / 80 cm / .035" | H787117120015 | 5F / 65 cm / .038" | H787117092295 | 5F / 80 cm / .038" | H787117120075 |
| | 5F / 80 cm / .038" | H787117120085 | 5F / 80 cm / .038" | H787117120055 | 5F / 80 cm / .035" | H787117120025 | | |
| | | | | | 5F / 80 cm / .038" | H787117120065 | | |



| | | | | | | | | |
|----------------------------|--------------------|---------------|---------------------|---------------|--------------------|---------------|--------------------|---------------|
| High-Torque Shaft | 4F / 65 cm / .035" | H787117358015 | 5F / 65 cm / .038" | H787117334015 | | | | |
| Braided Ultra-Torque Shaft | | | 4F / 65 cm / .035" | H787117332015 | 5F / 65 cm / .035" | H787117331015 | 5F / 65 cm / .038" | H787117331025 |
| | | | 5F / 65 cm / .035" | H787117333015 | | | | |
| | | | 5F / 150 cm / .035" | H787117092245 | | | | |



| | | | | | | | | |
|----------------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--|--|
| High-Torque Shaft | | | 4F / 65 cm / .035" | H787117188015 | 4F / 90 cm / .038" | H787117251015 | | |
| | | | 5F / 65 cm / .035" | H787117200015 | 5F / 90 cm / .038" | H787117251025 | | |
| | | | 5F / 65 cm / .038" | H787117200025 | | | | |
| Braided Ultra-Torque Shaft | 4F / 65 cm / .035" | H787117328015 | 4F / 65 cm / .035" | H787117080015 | | | | |

 = New Product

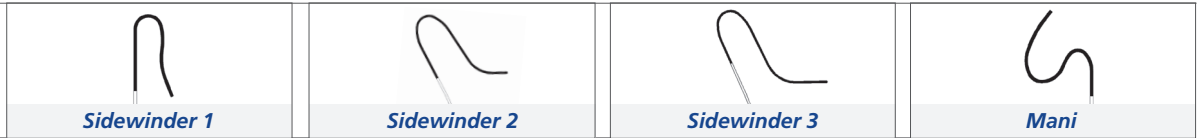
SELECTIVE CATHETERS

Soft Radiopaque Tip

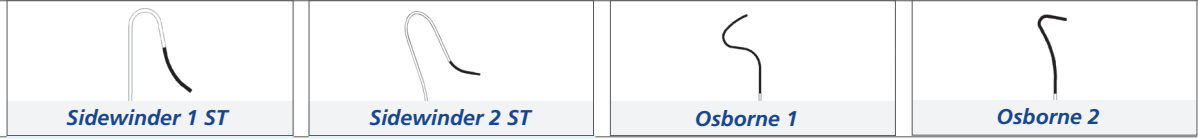
5 per Box



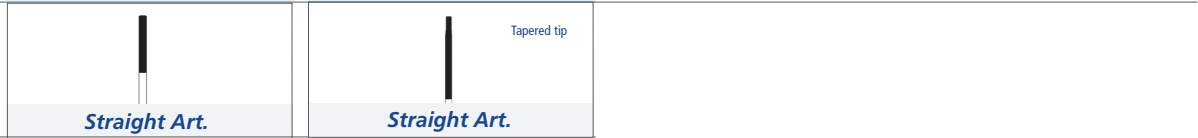
| | Hook 1 | | Hook 2 | | Shepherd Hook 1 | | Shepherd Hook 2 | |
|----------------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|
| High-Torque Shaft | Description | UPN | Description | UPN | Description | UPN | Description | UPN |
| | 4F / 65 cm / .035" | H787117187015 | 4F / 65 cm / .035" | H787117187025 | 4F / 65 cm / .038" | H787117186035 | 4F / 65 cm / .038" | H787117186045 |
| | 5F / 65 cm / .035" | H787117199015 | | | 5F / 65 cm / .035" | H787117198015 | 5F / 65 cm / .035" | H787117198025 |
| | 5F / 65 cm / .038" | H787117199035 | | | | | | |
| Braided Ultra-Torque Shaft | 5F / 65 cm / .035" | H787117093015 | | | 5F / 65 cm / .035" | H787117092015 | | |
| | | | | | 5F / 65 cm / .038" | H787117092035 | | |



| | Sidewinder 1 | | Sidewinder 2 | | Sidewinder 3 | | Mani | |
|----------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
| High-Torque Shaft | Description | UPN | Description | UPN | Description | UPN | Description | UPN |
| | 4F / 100 cm / .035" | H787117184025 | 4F / 100 cm / .035" | H787117184035 | 5F / 100 cm / .035" | H787117196045 | 4F / 100 cm / .035" | H787117182015 |
| | 5F / 65 cm / .035" | H787117196015 | 5F / 100 cm / .035" | H787117196035 | | | 5F / 100 cm / .035" | H787117194015 |
| | 5F / 65 cm / .038" | H787117196055 | 5F / 100 cm / .038" | H787117196075 | | | 5F / 100 cm / .038" | H787117194025 |
| | 5F / 100 cm / .035" | H787117196025 | | | | | | |
| | 5F / 100 cm / .038" | H787117196065 | | | | | | |
| Braided Ultra-Torque Shaft | 4F / 100 cm / .035" | H787117076025 | 4F / 100 cm / .035" | H787117076035 | 5F / 100 cm / .038" | H787117090085 | 5F / 100 cm / .038" | H787117088025 |
| | 5F / 65 cm / .035" | H787117090015 | 5F / 100 cm / .035" | H787117090035 | | | | |
| | 5F / 65 cm / .038" | H787117090055 | 5F / 100 cm / .038" | H787117090075 | | | | |
| | 5F / 100 cm / .035" | H787117090025 | 5F / 130 cm / .038" | H787117090155 | | | | |
| | 5F / 100 cm / .038" | H787117090065 | 5F / 150 cm / .035" | H787117092435 | | | | |
| | 5F / 130 cm / .035" | H787117090145 | | | | | | |
| | 5F / 150 cm / .035" | H787117092385 | | | | | | |



| | Sidewinder 1 ST | | Sidewinder 2 ST | | Osborne 1 | | Osborne 2 | |
|----------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
| High-Torque Shaft | Description | UPN | Description | UPN | Description | UPN | Description | UPN |
| | 4F / 65 cm / .038" | H787117140305 | 4F / 65 cm / .038" | H787117140315 | | | 4F / 100 cm / .035" | H787117329015 |
| | 4F / 100 cm / .038" | H787117140415 | 4F / 100 cm / .038" | H787117140425 | | | 5F / 100 cm / .035" | H787117344015 |
| Braided Ultra-Torque Shaft | 4F / 130 cm / .035" | H787117090125 | 4F / 130 cm / .035" | H787117090135 | 4F / 100 cm / .035" | H787117345015 | | |
| | 5F / 65 cm / .038" | H787117092405 | 5F / 100 cm / .035" | H787117090115 | | | | |
| | 5F / 100 cm / .038" | H787117090095 | 5F / 100 cm / .038" | H787117090105 | | | | |



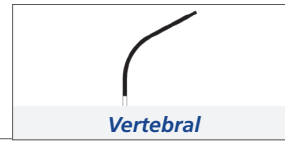
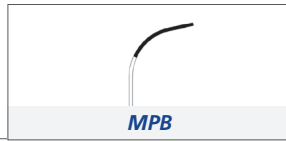
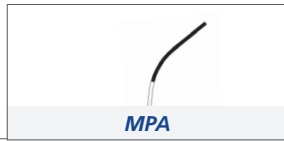
| | Straight Art. | | Straight Art. | |
|----------------------------|-----------------------|---------------|-----------------------|---------------|
| High-Torque Shaft | Description | UPN | Description | UPN |
| *1 cm tip | *14F / 65 cm / .035" | H787117314015 | *15F / 65 cm / .035" | H787117315025 |
| *1.2 cm tip | *14F / 65 cm / .035" | H787117314025 | *15F / 90 cm / .038" | H787117315015 |
| *1.5 cm tip | *14F / 65 cm / .038" | H787117140155 | *15F / 130 cm / .038" | H787117315055 |
| *2 cm tip | *14F / 90 cm / .035" | H787117314035 | | |
| | *14F / 100 cm / .038" | H787117140225 | | |
| | *14F / 130 cm / .035" | H787117315045 | | |
| | *14F / 150 cm / .038" | H787117315075 | | |
| | *15F / 110 cm / .038" | H787117315085 | | |
| Braided Ultra-Torque Shaft | *14F / 130 cm / .035" | H787117315035 | | |
| | 5F / 65 cm / .038" | H787117092375 | | |
| | *15F / 130 cm / .038" | H787117315065 | | |
| | 5F / 150 cm / .035" | H787117092355 | | |

 = New Product

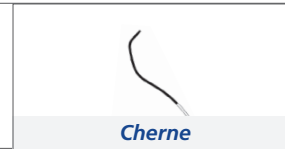
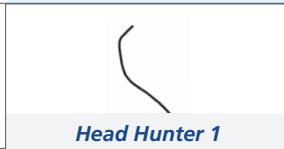
SELECTIVE CATHETERS

Soft Radiopaque Tip

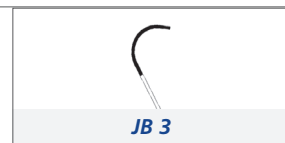
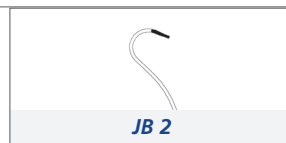
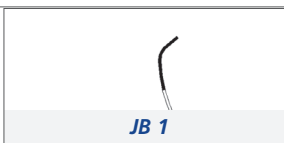
5 per Box



| | Description | UPN | Description | UPN | Description | UPN |
|--|---------------------------------|---------------|--------------------|---------------|----------------------------------|---------------|
| High-Torque Shaft | 4F / 65 cm / .038" | H787117140385 | | | ¹ 4F / 100 cm / .035" | H787117181015 |
| | 4F / 100 cm / .038" | H787117140525 | | | ¹ 4F / 100 cm / .038" | H787117140455 |
| | | | | | ¹ 5F / 100 cm / .035" | H787117193015 |
| | | | | | ¹ 5F / 100 cm / .038" | H787117193025 |
| | | | | | ¹ 5F / 130 cm / .035" | H787117193035 |
| Braided Ultra-Torque Shaft [†] w/ 6 side holes | 4F / 65 cm / .035" | H787117354015 | 5F / 65 cm / .038" | H787117349015 | ¹ 4F / 100 cm / .035" | H787117073015 |
| | 4F / 100 cm / .035" | H787117354025 | | | ¹ 4F / 130 cm / .035" | H787117087045 |
| | 5F / 65 cm / .038" | H787117355025 | | | ¹ 5F / 100 cm / .038" | H787117087025 |
| | 5F / 80 cm / .035" | H787117355035 | | | ¹ 5F / 130 cm / .035" | H787117087035 |
| | ¹ 5F / 100cm / .035" | H787117356025 | | | | |
| | 5F / 100cm / .038" | H787117355045 | | | | |



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|----------------------------|---------------------|---------------|---------------------|---------------|--------------------|---------------|---------------------|---------------|
| High-Torque Shaft | 4F / 100 cm / .035" | H787117183015 | 4F / 100 cm / .035" | H787117183025 | 5F / 69 cm / .035" | H787117352015 | 5F / 100 cm / .035" | H787117348015 |
| | 4F / 100 cm / .038" | H787117140405 | 5F / 100 cm / .035" | H787117195025 | | | | |
| | 5F / 100 cm / .035" | H787117195015 | 5F / 100 cm / .038" | H787117195045 | | | | |
| | 5F / 100 cm / .038" | H787117195035 | | | | | | |
| | 5F / 130 cm / .035" | H787117195055 | | | | | | |
| | 5F / 130 cm / .038" | H787117195075 | | | | | | |
| Braided Ultra-Torque Shaft | 4F / 100 cm / .035" | H787117075015 | | | | | | |
| | 4F / 130 cm / .035" | H787117089065 | | | | | | |
| | 5F / 65 cm / .038" | H787117089055 | | | | | | |
| | 5F / 100 cm / .035" | H787117089015 | | | | | | |
| | 5F / 100 cm / .038" | H787117089035 | | | | | | |
| | 5F / 130 cm / .035" | H787117089075 | | | | | | |















| | | | | | | | |
|--|-----------------------------------|-----------------------------------|---------------|-----------------------------------|---------------|-----------------------------------|---------------|
| High-Torque Shaft | ^{†1} 1 cm tip | ^{†1} 4F / 65 cm / .038" | H787117140355 | ^{†1} 4F / 65 cm / .038" | H787117140365 | ^{†1} 4F / 65 cm / .038" | H787117140375 |
| | ^{†3} 3 cm tip | ^{†1} 4F / 100 cm / .038" | H787117140495 | ^{†1} 4F / 100 cm / .038" | H787117140505 | ^{†5} 5F / 100 cm / .035" | H787117342065 |
| | ^{†4} 4 cm tip | ^{†1} 5F / 100 cm / .035" | H787117342015 | ^{†1} 5F / 100 cm / .035" | H787117342045 | | |
| | | | | ^{†5} 5F / 110 cm / .035" | H787117342035 | | |
| Braided Ultra-Torque Shaft ^{†3} 3 cm tip | ^{†1} 4F / 100 cm / .035" | H787117340025 | | | | | |
| | ^{†1} 5F / 65 cm / .038" | H787117341015 | | | | | |
| | ^{†1} 5F / 100 cm / .038" | H787117341025 | | | | | |
| | 5F / 130 cm / .035" | H787117342095 | | | | | |
| | 5F / 150 cm / .035" | H787117092175 | | | | | |

 = New Product

SELECTIVE CATHETERS

Soft Radiopaque Tip

5 per Box

| |  Berenstein | |  Cobra 1 | |  Cobra 2 | |  Cobra 3 | |
|--|--|---------------------|---|--------------------|--|--------------------|---|---------------|
| | Description | UPN | Description | UPN | Description | UPN | Description | UPN |
| High-Torque Shaft *10 cm tip **w/ 2 side holes | 4F / 40 cm / .038" | H787117236025 | 4F / 65 cm / .035" | H787117185015 | 4F / 65 cm / .035" | H787117185025 | 5F / 65 cm / .038" | H787117197095 |
| | 4F / 65 cm / .038" | H787117140095 | 4F / 65 cm / .038" | H787117140105 | 4F / 65 cm / .038" | H787117140115 | **5F / 65 cm / .038" | H787117318035 |
| | 4F / 100 cm / .038" | H787117140165 | 4F / 90 cm / .035" | H787117185045 | 4F / 90 cm / .035" | H787117185055 | | |
| | 4F / 110 cm / .035" | H787117236015 | 4F / 100 cm / .038" | H787117140175 | 4F / 100 cm / .038" | H787117140185 | | |
| | 4F / 130 cm / .035" | H787117221105 | 5F / 65 cm / .035" | H787117197015 | 5F / 65 cm / .035" | H787117197025 | | |
| | 4F / 130 cm / .038" | H787117221115 | 5F / 65 cm / .038" | H787117197075 | **5F / 65 cm / .035" | H787117318055 | | |
| | 5F / 65 cm / .038" | H787117221045 | **5F / 65 cm / .038" | H787117318015 | 5F / 65 cm / .038" | H787117197085 | | |
| | *5F / 65 cm / .038" | H787117221085 | 5F / 90 cm / .035" | H787117197045 | **5F / 65 cm / .038" | H787117318025 | | |
| | 5F / 100 cm / .035" | H787117221015 | 5F / 90 cm / .038" | H787117197105 | 5F / 90 cm / .035" | H787117197055 | | |
| | 5F / 100 cm / .038" | H787117221025 | | | 5F / 90 cm / .038" | H787117197115 | | |
| | 5F / 110 cm / .038" | H787117221035 | | | | | | |
| | 5F / 130 cm / .035" | H787117221095 | | | | | | |
| | Braided Ultra-Torque Shaft | 4F / 40 cm / .035" | H787117235035 | 4F / 65 cm / .035" | H787117077015 | 4F / 65 cm / .035" | H787117077025 | |
| 4F / 65 cm / .035" | | H787117235025 | 4F / 90 cm / .035" | H787117077045 | 5F / 65 cm / .035" | H787117091025 | | |
| 4F / 100 cm / .035" | | H787117235015 | 5F / 65 cm / .035" | H787117091015 | 5F / 65 cm / .038" | H787117091085 | | |
| 4F / 110 cm / .035" | | H787117235045 | 5F / 65 cm / .038" | H787117091075 | 5F / 90 cm / .035" | H787117091055 | | |
| 4F / 150 cm / .035" | | H787117227095 | 5F / 90 cm / .035" | H787117091045 | 5F / 90 cm / .038" | H787117091115 | | |
| 5F / 40 cm / .038" | | H787117235055 | 5F / 90 cm / .038" | H787117091105 | 5F / 150 cm / .035" | H787117092055 | | |
| 5F / 65 cm / .035" | | H787117227045 | | | | | | |
| 5F / 65 cm / .038" | | H787117227035 | | | | | | |
| 5F / 100 cm / .035" | | H787117227015 | | | | | | |
| 5F / 100 cm / .038" | | H787117227025 | | | | | | |
| 5F / 110 cm / .038" | | H787117227055 | | | | | | |
| 5F / 130 cm / .038" | | H787117227075 | | | | | | |
| 5F / 150 cm / .035" | | H787117227115 | | | | | | |
| 5F / 150 cm / .038" | H787117227125 | | | | | | | |
| |  Drescher | |  Bentson 1 | |  Bentson 2 | |  Bentson 3 | |
| High-Torque Shaft | | | 5F / 100 cm / .038" | H787117202045 | 4F / 100 cm / .038" | H787117140435 | 5F / 100 cm / .038" | H787117202065 |
| | | | | | 5F / 100 cm / .038" | H787117202055 | | |
| Braided Ultra-Torque Shaft | **4F / 130 cm / .035" | H787117071335 | | | | | | |
| **w/ 2 side holes | | | | | | | | |
| |  Kerns | |  Kumpe | |  Hockey Stick 1 | |  Weinberg | |
| High-Torque Shaft | 4F / 65 cm / .035" | H787117338015 | 4F / 40 cm / .038" | H787117327045 | 4F / 65 cm / .038" | H787117140335 | 5F / 100 cm / .035" | H787117336015 |
| | | | 4F / 65 cm / .038" | H787117140145 | 5F / 100 cm / .035" | H787117218015 | | |
| | | | 4F / 100 cm / .035" | H787117343025 | | | | |
| | | | 4F / 100 cm / .038" | H787117140215 | | | | |
| | | | 5F / 40 cm / .035" | H787117327055 | | | | |
| | | | 5F / 40 cm / .038" | H787117327025 | | | | |
| | | | 5F / 65 cm / .038" | H787117327015 | | | | |
| | | 5F / 100 cm / .038" | H787117327035 | | | | | |
| Braided Ultra-Torque Shaft | 4F / 65 cm / .035" | H787117339015 | 5F / 40 cm / .035" | H787117327065 | 4F / 100 cm / .035" | H787117325015 | | |
| | | | 5F / 150 cm / .035" | H787117092195 | | | | |

= New Product

Low volume configurations are built to order and may require greater lead time.

IMPORTANT RISK INFORMATION

For a complete list of Warnings, Precautions, and Potential Complications refer to the Instructions for Use package insert provided with the product.

INDICATION FOR USE: AngioDynamics Angiographic Catheters are designed for use where angiographic diagnosis is indicated.

CONTRAINDICATIONS: Angiographic Catheters should not be used for any purpose other than those indicated in the instructions.

WARNING: Selection of the patient as a candidate for use with this device and for such procedures as it is intended is the physicians' sole responsibility. The outcome is dependent on many variables including, patient pathology, surgical procedure, and perfusion procedure/ technique.

For single patient use only. Do not reuse, reprocess or resterilize. Reuse, reprocessing or resterilizing may compromise the structural

integrity of the device and/or lead to device failure which, in turn, may result in patient injury, illness or death. Reuse, reprocessing or resterilizing may also create a risk of contamination of the device and/or cause patient infection or cross-infection, including, but not limited to, the transmission of infectious disease(s) from one patient to another. Contamination of the device may lead to injury, illness or death of the patient.

CAUTION: Federal (USA) law restricts these devices to sale by or on the order of a physician.



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