Reamer/Irrigator/Aspirator (RIA)

For intramedullary reaming and bone harvesting.

Single-pass reaming

Irrigation and aspiration during reaming

Autogenous bone harvesting

Removing infected and necrotic bone and tissue from the intramedullary canal

References


Single-use Items

314.745S Reamer/Irrigator/Aspirator (RIA) Tube Assembly, minimum 360 mm length, sterile, for use with RIA Drive Shaft (314.742)

314.746S Reamer/Irrigator/Aspirator (RIA) Tube Assembly, minimum 520 mm length, sterile, for use with RIA Drive Shaft (314.743)

351.706S 2.5 mm Reaming Rod with ball tip, 950 mm, sterile

351.707S 2.5 mm Reaming Rod with ball tip and extension, 950 mm, sterile

351.708S 2.5 mm Reaming Rod with ball tip, 1150 mm, sterile

351.718S Drive Shaft Seal, for Reamer/Irrigator/Aspirator, sterile (2/pkg.)

352.229S Graft Filter, for RIA, sterile

352.260S Locking Clip, for RIA, sterile

Reamer Heads, for Reamer/Irrigator/Aspirator, sterile

Diameter Diameter

Diameter (mm) (mm)

352.250S 12.0 352.258S 16.0

352.255S 12.5 352.265S 16.5

352.252S 13.0 352.262S 17.0

352.253S 13.5 352.263S 17.5

352.254S 14.0 352.264S 18.0

352.255S 14.5 352.265S 18.5

352.256S 15.0 352.266S 19.0

352.257S 15.5

314.742 Drive Shaft, minimum 360 mm length, for use with Reamer/Irrigator/Aspirator (RIA)

314.743 Drive Shaft, minimum 520 mm length, for use with Reamer/Irrigator/Aspirator (RIA), 2 ea.

351.05 Tissue Protector

351.717 Depth Gauge

351.719 Depth Gauge Extension Tube

393.10 Universal Chuck with T-handle

690.308 Reamer/Irrigator/Aspirator Instrument Set Graphic Case

Also Available

355.008 Medullary Tube

Reamer/Irrigator/Aspirator Instrument Set (105.309)

Synthes USA
1302 Wrights Lane East
West Chester, PA 19380
Telephone: (610) 719-5000
To order: (800) 523-0322
Fax: (610) 251-9056

Synthes (Canada) Ltd.
2566 Meadowpine Boulevard
Mississauga, Ontario L5N 6P9
Telephone: (905) 567-0440
To order: (800) 668-1119
Fax: (905) 567-3185

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www.synthes.com
Reaming with reduced risk of systemic complication
- Reduces intramedullary pressure
- Reduces potential for fat embolization
- Reduces heat generated

Fast, efficient reaming
- Time-saving, single-pass procedure
- Easier handling
- Sharp reamer heads for optimized cutting

Synthes Reamer/Irrigator/Aspirator (RIA)

Deep flutes to minimize clogging

Sharp edges for efficient cutting

Irrigation fluid constantly cools reamer head and emulsifies marrow for easy evacuation

Removal of marrow and bone through aspiration holes creates negative intramedullary pressure

Flow of irrigating fluid
Bone marrow, morselized bone
**Autograft harvesting**
- Bone marrow and morselized bone from long bones
- Possible range: 30 cc to 80 cc per procedure\(^5,6\)
System Overview

The RIA system consists of reamer heads, tube assemblies, drive shaft seals, Graft Filter, Locking Clip and reusable drive shafts. The graft filter is an optional component used for autograft harvesting. The reamer heads, tube assemblies, drive shaft seals, and graft filters are designed for single-patient use only.

Indications
The Synthes RIA System is intended for use in adults and adolescents (12–21 years)
- To clear the medullary canal of bone marrow and debris
- To effectively size the medullary canal for the acceptance of an intramedullary implant or prosthesis
- To harvest finely morselized autogenous bone and bone marrow for any surgical procedures requiring bone graft to facilitate fusion and/or fill bone defects
- To remove infected and necrotic bone and tissue from the medullary canal in the treatment of osteomyelitis
**Drive Shaft Seal, sterile**
The drive shaft seal is used to create a watertight system in the drive shaft.

**Locking Clip, sterile**
The locking clip secures the connection between the drive shaft and the tube assembly.

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* For single-patient use only. Do not resterilize.
** Actual length will depend on reamer head selection.
Clinical Cases

Case 1—Polytrauma
Bilateral femur fracture

Preoperative
Motor vehicle accident, polytrauma including bilateral femur, tibia and forearm fractures
Primary treatment of femora with RIA and intramedullary nailing

Follow-up
Uneventful healing

Case 2—Segmental loss with autogenous bone graft harvest
Open distal tibia/pilon fracture

Preoperative 1
Grade IIIa open distal tibia/pilon fracture

Preoperative 2
PMMA spacer in place, used BMP-2, external fixation

Postoperative
Plate fixation with 3.5 mm LCP Pilon Plate and 3.5 mm LCP Metaphyseal Plate; RIA bone grafting

Six-month follow-up
Uneventful healing
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