



Your Vision, Our Future

Stapes Implant

Reference Guide

Complete Stapes Procedure Solutions



LEADING THE WAY IN OTOTOLOGY



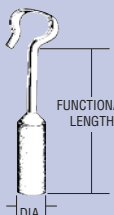
In 1956, Richards Manufacturing introduced the world's first stapes implant. In the five decades since, the Richards line has expanded to revolutionize middle ear prostheses through the development of new products and the introduction of new materials and technologies. From the first PORP® and TORP® designs to the first commercially available vent tube, and from advancements in Oto-endoscopy to precision instrumentation; these innovations in Otology have resulted in the most comprehensive line of otologic products in the market.



Today, the Richards line of products is still being offered through Olympus. Not only does Olympus provide procedure solutions for Otology, we also offer advanced visualization and treatment products for Pediatric ENT, Rhinology, Laryngology, Sleep, and Head and Neck procedures. As our commitment to the ENT community continues to expand at Olympus, we will continue to offer innovative procedure solutions to help improve outcomes and enhance the quality of life for your patients. Our ENT sales consultants are here to help and have been skillfully trained to listen and respond quickly to your ENT business needs.



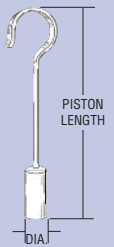
PISTONS



Armstrong-Style Pistons

Platinum/Plasti-Pore® Material

Cat. No.	Piston Diameter	Functional Length
140760	0.6 mm	3.50 mm
140761	0.6 mm	3.75 mm
140762	0.6 mm	4.00 mm
140763	0.6 mm	4.25 mm
140764	0.6 mm	4.50 mm
140765	0.6 mm	4.75 mm
140766	0.6 mm	5.00 mm
140770	0.8 mm	3.50 mm
140771	0.8 mm	3.75 mm
140772	0.8 mm	4.00 mm
140773	0.8 mm	4.25 mm
140774	0.8 mm	4.50 mm
140775	0.8 mm	4.75 mm
140776	0.8 mm	5.00 mm



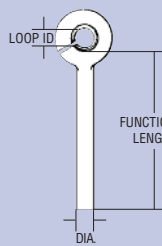
De La Cruz Piston

Platinum/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
70140730	0.6 mm	3.50 mm
70140731	0.6 mm	3.75 mm
70140732	0.6 mm	4.00 mm
70140733	0.6 mm	4.25 mm
70140734	0.6 mm	4.50 mm
70140735	0.6 mm	4.75 mm
70140736	0.6 mm	5.00 mm

Stainless Steel/Fluoroplastic

Cat. No.	Piston Diameter	Piston Length
70140726	0.6 mm	3.75 mm
70140727	0.6 mm	4.00 mm
70140728	0.6 mm	4.25 mm
70140729	0.6 mm	4.50 mm
70140737	0.6 mm	4.75 mm

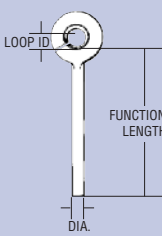


Causse Piston*

Fluoroplastic

Cat. No.	Piston Diameter	Loop ID	Functional Length
140457	0.4 mm	0.6 mm	6.00 mm

*Designed for Jean Bernard Causse, M.D., Béziers, France

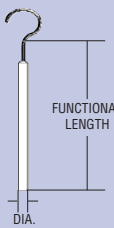


Cawthorne Piston*

Fluoroplastic

Cat. No.	Piston Diameter	Loop ID	Functional Length
140262	0.3 mm	0.8 mm	3.50 mm
140264	0.3 mm	0.8 mm	4.00 mm
140265	0.3 mm	0.8 mm	4.25 mm
140266	0.3 mm	0.8 mm	4.50 mm
140268	0.3 mm	0.8 mm	5.00 mm
140270	0.3 mm	0.8 mm	5.50 mm
140272	0.3 mm	0.8 mm	6.00 mm

*Designed for Sir Terrence Cawthorne, London, England



Fisch-Type Piston*

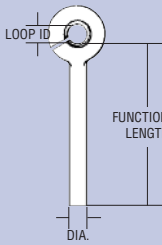
Platinum/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
140443	0.4 mm	6.00 mm

Stainless Steel/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
140444	0.4 mm	6.00 mm

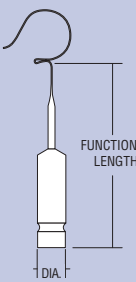
*Designed for Ugo Fisch, M.D., Zurich, Switzerland



Fluoroplastic Pistons

Fluoroplastic

Cat. No.	Piston Diameter	Loop ID	Functional Length
140074	0.6 mm	0.6 mm	3.50 mm
140076	0.6 mm	0.6 mm	4.00 mm
140078	0.6 mm	0.6 mm	4.50 mm
140080	0.6 mm	0.6 mm	5.00 mm
140082	0.6 mm	0.6 mm	6.00 mm
140086	0.8 mm	0.6 mm	4.00 mm
140088	0.8 mm	0.6 mm	4.50 mm
140070	0.8 mm	0.6 mm	5.00 mm
140072	0.8 mm	0.6 mm	6.00 mm
140456	0.6 mm	0.8 mm	6.00 mm

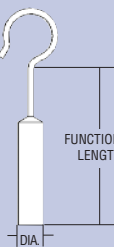


Mangham Pistons*

Fluoroplastic/Platinum

Cat. No.	Piston Diameter	Functional Length
70145953	0.6 mm	5.00 mm
70145950	0.6 mm	4.00 mm
70145951	0.6 mm	4.25 mm
70145952	0.6 mm	4.50 mm

*Designed by Charles Mangham, M.D., Seattle, WA.



Mass Eye and Ear Piston

Fluoroplastic/Platinum

Cat. No.	Piston Diameter	Functional Length
70140799	0.6 mm	4.00 mm
70140801	0.6 mm	4.25 mm
70140798	0.6 mm	4.50 mm

PISTONS



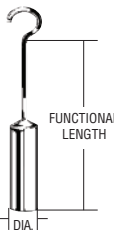
McGee Pistons*

Platinum/Stainless Steel

.5 mm Hash Mark

Cat. No.	Piston Diameter	Functional Length
140336	0.5 mm	3.75 mm
140337	0.5 mm	4.00 mm
140338	0.5 mm	4.25 mm
140339	0.5 mm	4.50 mm
140340	0.5 mm	4.75 mm
140341	0.5 mm	5.00 mm
140330	0.6 mm	3.75 mm
140331	0.6 mm	4.00 mm
140332	0.6 mm	4.25 mm
140333	0.6 mm	4.50 mm
140334	0.6 mm	4.75 mm
140335	0.6 mm	5.00 mm

*Designed for T. Manford McGee, M.D., Detroit, Michigan

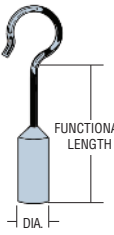


McGee Pistons*

Stainless Steel

Cat. No.	Piston Diameter	Functional Length
140161	0.6 mm	3.25 mm
140162	0.6 mm	3.50 mm
140163	0.6 mm	3.75 mm
140164	0.6 mm	4.00 mm
140165	0.6 mm	4.25 mm
140166	0.6 mm	4.50 mm
140167	0.6 mm	4.75 mm
140168	0.6 mm	5.00 mm
140170	0.6 mm	5.50 mm
140143	0.8 mm	3.75 mm
140144	0.8 mm	4.00 mm
140145	0.8 mm	4.25 mm
140146	0.8 mm	4.50 mm
140147	0.8 mm	4.75 mm
140148	0.8 mm	5.00 mm
140149	0.8 mm	5.25 mm
140150	0.8 mm	5.50 mm

*Designed for T. Manford McGee, M.D., Detroit, Michigan



Richards Platinum Fluoroplastic Pistons

Platinum/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
141812	0.4 mm	3.50 mm
141813	0.4 mm	3.75 mm
141814	0.4 mm	4.00 mm
141815	0.4 mm	4.25 mm
141816	0.4 mm	4.50 mm
141817	0.4 mm	4.75 mm
141818	0.4 mm	5.00 mm
140813	0.5 mm	3.75 mm
140814	0.5 mm	4.00 mm
140815	0.5 mm	4.25 mm
140816	0.5 mm	4.50 mm
140817	0.5 mm	4.75 mm
140818	0.5 mm	5.00 mm
140781	0.6 mm	3.50 mm
140782	0.6 mm	3.75 mm
140783	0.6 mm	4.00 mm
140784	0.6 mm	4.25 mm
140785	0.6 mm	4.50 mm
140786	0.6 mm	4.75 mm
140787	0.6 mm	5.00 mm
140790	0.8 mm	3.50 mm
140791	0.8 mm	3.75 mm
140792	0.8 mm	4.00 mm
140793	0.8 mm	4.25 mm
140794	0.8 mm	4.50 mm
140795	0.8 mm	4.75 mm
140796	0.8 mm	5.00 mm

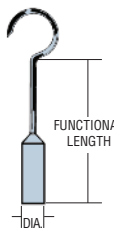
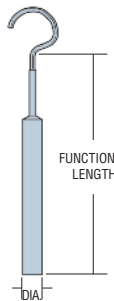
Sanna Piston*

Fluoroplastic/Platinum

Trimable to Length

Cat. No.	Corpus Diameter	Functional Length
70140797	0.5 mm	6.00 mm

*Designed for Professor Sanna, Piacenza, Italy.

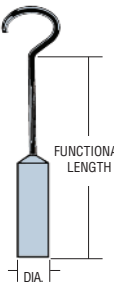


Scheer Pistons

Stainless Steel/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
140226	0.6 mm	3.33 mm
140227	0.6 mm	3.58 mm
140228	0.6 mm	3.83 mm
140229	0.6 mm	4.08 mm
140230	0.6 mm	4.33 mm
140231	0.6 mm	4.58 mm

*Designed for Alan Scheer, M.D., New York, New York

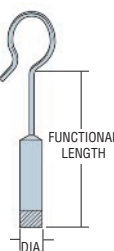


Schuknecht Pistons*

Stainless Steel/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
140120	0.6 mm	3.00 mm
140121	0.6 mm	3.25 mm
140122	0.6 mm	3.50 mm
140123	0.6 mm	3.75 mm
140124	0.6 mm	4.00 mm
140125	0.6 mm	4.25 mm
140126	0.6 mm	4.50 mm
140127	0.6 mm	4.75 mm
140128	0.6 mm	5.00 mm
140129	0.6 mm	5.25 mm
140130	0.6 mm	5.50 mm
140131	0.6 mm	5.75 mm
140102	0.8 mm	3.50 mm
140103	0.8 mm	3.75 mm
140104	0.8 mm	4.00 mm
140105	0.8 mm	4.25 mm
140106	0.8 mm	4.50 mm
140107	0.8 mm	4.75 mm
140108	0.8 mm	5.00 mm
140110	0.8 mm	5.50 mm
140111	0.8 mm	5.75 mm

*Designed for Harold F. Schuknecht, M.D., Boston, Massachusetts

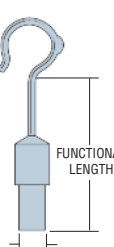


Touma Modified Shepherd's Crook Pistons*

Stainless Steel/Glass Beaded Hash Mark

Cat. No.	Piston Diameter	Functional Length
70145902	0.4 mm	4.25 mm
70145900	0.4 mm	3.75 mm
70145901	0.4 mm	4.00 mm

*Developed in conjunction with Joseph Touma, M.D., Huntington, WV



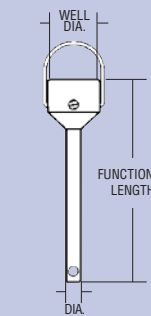
Velegrakis Pistons*

Fluoroplastic/Platinum

Cat. No.	Corpus Dual Diameters Upper	Lower	Functional length
70140391	0.8 mm	0.6 mm	4.00 mm
70140392	0.8 mm	0.6 mm	4.25 mm
70140393	0.8 mm	0.6 mm	4.50 mm
70140394	0.8 mm	0.6 mm	4.75 mm

*Developed in conjunction with George Velegrakis, M.D., Heraklion Crete, Greece.

CUP PISTONS



Classic Stapes Prosthesis

Titanium

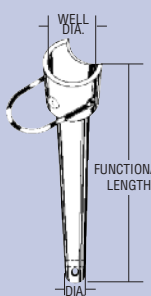
Cat. No.	Piston Diameter	Functional Length	Well Diameter
70142141	Narrow 0.4 mm	4.00 mm	Large 1.0 mm
70142142	Narrow 0.4 mm	4.00 mm	Standard 0.9 mm
70142143	Standard 0.6 mm	4.00 mm	Large 1.0 mm
70142144	Standard 0.6 mm	4.00 mm	Standard 0.9 mm
70142145	Narrow 0.4 mm	4.50 mm	Large 1.0 mm
70142146	Narrow 0.4 mm	4.50 mm	Standard 0.9 mm
70142147	Standard 0.6 mm	4.50 mm	Large 1.0 mm
70142148	Standard 0.6 mm	4.25 mm	Standard 0.9 mm
70142149	Standard 0.6 mm	4.50 mm	Standard 0.9 mm
70142150	Narrow 0.4 mm	5.00 mm	Large 1.0 mm
70142151	Narrow 0.4 mm	5.00 mm	Standard 0.9 mm
70142152	Standard 0.6 mm	5.00 mm	Large 1.0 mm
70142153	Standard 0.6 mm	5.00 mm	Standard 0.9 mm

Lippy Modified Stapes Prosthesis*

Titanium

Cat. No.	Piston Diameter	Functional Length	Overall Length	Well Diameter
70142154	0.4 mm	3.65 mm	4.50 mm	1.0 mm
70142155	0.4 mm	4.15 mm	5.00 mm	1.0 mm
70142156	0.4 mm	4.65 mm	5.50 mm	1.0 mm
70142157	0.4 mm	5.15 mm	6.00 mm	1.0 mm

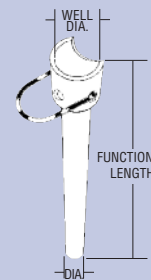
*Designed for William Lippy, M.D., Warren, Ohio



Richards Bucket Handle Prosthesis

Titanium

Cat. No.	Piston Diameter	Functional Length	Well Diameter
70142158	0.4 mm	3.50 mm	1.0 mm
70142159	0.4 mm	4.00 mm	1.0 mm
70142160	0.4 mm	4.25 mm	1.0 mm
70142161	0.4 mm	4.50 mm	1.0 mm
70142162	0.4 mm	5.00 mm	1.0 mm
70142163	0.6 mm	3.50 mm	1.0 mm
70142164	0.6 mm	4.00 mm	1.0 mm
70142165	0.6 mm	4.25 mm	1.0 mm
70142166	0.6 mm	4.50 mm	1.0 mm
70142167	0.6 mm	5.00 mm	1.0 mm

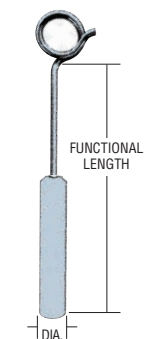


Richards Bucket Handle Prosthesis

Fluoroplastic

Cat. No.	Piston Diameter	Functional Length	Well Diameter
142148	0.4 mm	3.50 mm	1.0 mm
142150	0.4 mm	4.00 mm	1.0 mm
142152	0.4 mm	4.50 mm	1.0 mm
142154	0.4 mm	5.00 mm	1.0 mm
142132	0.6 mm	3.50 mm	1.0 mm
142134	0.6 mm	4.00 mm	1.0 mm
142136	0.6 mm	4.50 mm	1.0 mm
142138	0.6 mm	5.00 mm	1.0 mm

SMART® NITINOL TECHNOLOGIES

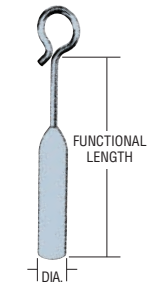


SMart 360° Pistons

Nitinol/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
70143645	0.4 mm	3.50 - 5.25 mm*
70143652	0.5 mm	4.25 mm
70143655	0.5 mm	4.50 mm
70143657	0.5 mm	4.75 mm
70143662	0.6 mm	4.25 mm
70143665	0.6 mm	4.50 mm
70143667	0.6 mm	4.75 mm

*Trimmable



SMart Pistons

Nitinol/Fluoroplastic

Cat. No.	Piston Diameter	Functional Length
70142168	0.4 mm	3.50 - 5.25mm*
70145920	0.5 mm	3.75 mm
70145921	0.5 mm	4.00 mm
70145922	0.5 mm	4.25 mm
70145923	0.5 mm	4.50 mm
70145924	0.5 mm	4.75 mm
70145925	0.6 mm	3.75 mm
70145926	0.6 mm	4.00 mm
70145927	0.6 mm	4.25 mm
70145928	0.6 mm	4.50 mm
70145929	0.6 mm	4.75 mm
70145930	0.8 mm	3.75 mm
70145931	0.8 mm	4.00 mm
70145932	0.8 mm	4.25 mm
70145933	0.8 mm	4.50 mm
70145934	0.8 mm	4.75 mm

STAPES ALLOYS & MATERIALS

FLUOROPLASTICS

Fluoroplastics are polymers that are composed of carbon and fluorine atoms. They come from a variety of different resins and are used in a wide range of industrial, medical, and home applications. Teflon is the brand name of one of the more popular varieties of fluoroplastic. Fluoroplastics are highly regarded by otologists for their inertness, smoothness of texture, and biocompatibility. Fluoroplastic parts are molded, machined from rods, or formed from tubing and sheeting. White and blue are the colors used by Olympus.

NITINOL

Nitinol (Nickel-Titanium alloy) is a shape-memory metal alloy that has been used in medical applications for years. Since nitinol “self-fashions” with heat, the crimping maneuver is dramatically simplified.

PLATINUM

Platinum is a highly corrosive resistant material and very ductile metal that is well tolerated by the body. Devices made from platinum wire or ribbon can easily be adjusted or crimped by a physician, and will retain their formed shape without “spring-back.”

POROUS POLYETHYLENE

Porous polyethylene (Plasti-Pore) is formed by sintering many individual polyethylene resin particles. It permits tissue ingrowth into the interconnecting pores of the implant material. The base resin, polyethylene, is known to be a very inert material. The natural white color is the only one used by Olympus.

STAINLESS STEEL

Stainless steel (ASTM F 138, Grade 2) is special quality implant-grade steel that has long been in use in medical implants. It has a balanced corrosion resistant chemistry and an extremely clean microstructure. Stainless steel parts are machined from rods. Wire made of this material is also used for many ENT products.

TITANIUM

Titanium (ASTM F 136) is used in many medical implants. It has excellent corrosion resistance and is well tolerated by tissue. The material is lightweight and MRI compatible.