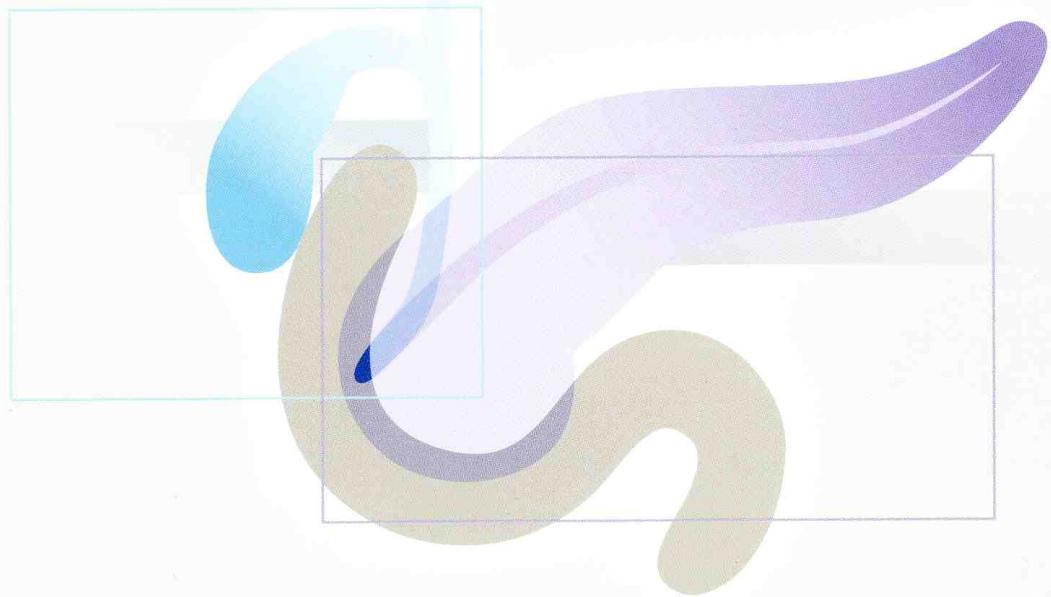


OLYMPUS®

Your Vision, Our Future



Biliary / Pancreatic Stents

Take advantage of a comprehensive lineup of biliary and pancreatic stents from Olympus featuring advanced material and innovative design for efficient and effective endoscopic drainage

Innovative New Line of Stents for Optimal Endoscopic Drainage of the Pancreatobiliary Tract



PBD-421

■ Duodenal bend type with double-layer design to minimize bile adhesion and accumulation in the interior

DoubleLayer
Biliary Stent

Bil Biliary
Stents



PBD-210

■ Straight type with highly water-repellent fluoroplastic material to minimize bile adhesion and accumulation in the interior

PBD-211

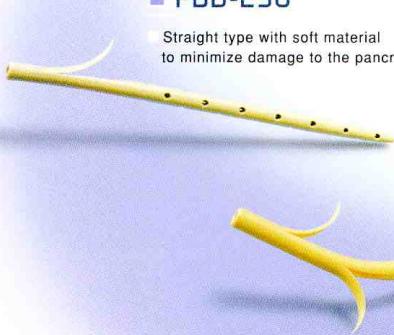
■ Duodenal bend type with highly water-repellent fluoroplastic material to minimize bile adhesion and accumulation in the interior

Olympus offers a wide range of innovative biliary/pancreatic stents that provide versatile and effective support for endoscopic drainage of the pancreatobiliary tract. Stents are available in a variety of configurations featuring different contours, diameters, and lengths, as well as flap and side hole designs to choose the best suited to the ductal anatomy of each patient and the degree of stenosis.

Pancreatic Stents

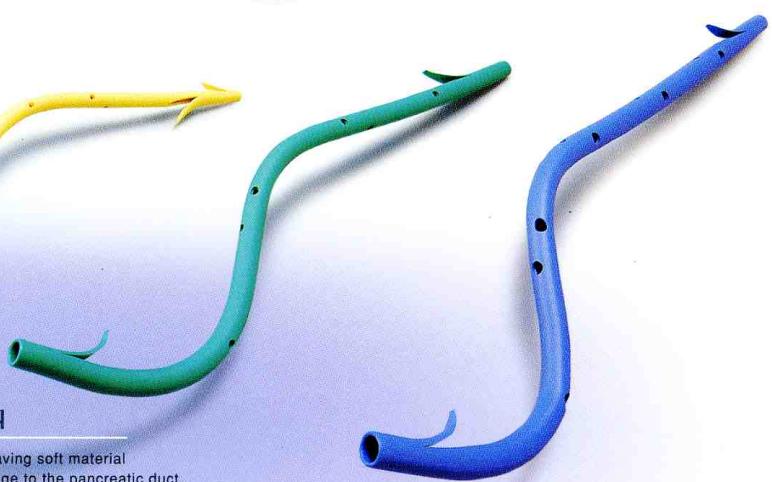
■ PBD-230

Straight type with soft material to minimize damage to the pancreatic duct



□ PBD-234

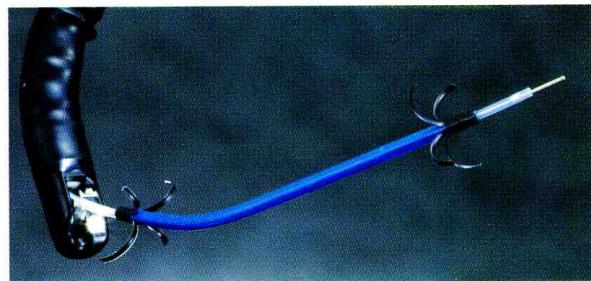
S-shaped type having soft material to minimize damage to the pancreatic duct, with 7 Fr., 8.5 Fr. or 10 Fr. diameter



Exclusive combination of two materials optimizes passage through a strictured bile duct

DoubleLayer™
Biliary Stent

Olympus DoubleLayer™ biliary stents feature a unique double-layer construction, with each layer composed of a different material with different properties. The material in the inner layer features superior water-repellent properties that minimize bile adhesion and accumulation on the interior surface, while the more rigid material in the outer layer provides the stiffness necessary to facilitate smooth insertion. This unique design allows the stent to pass easily through a strictured bile duct.

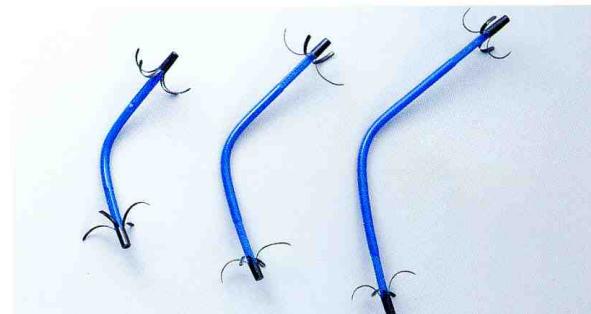


Features

- Unique double-layer construction with a different material in each layer. The different properties of these materials minimize bile adhesion and accumulation, while providing optimal stent stiffness and elasticity. The inner layer uses a specially processed fluoroplastic material that makes the interior surface five times smoother than that of conventional plastic stents. The outer layer is made of polyamide elastomer to provide the stiffness and elasticity needed to ensure easy passage through a stricture. A stainless steel mesh separates the two layers.
- There are no flap holes or side holes. Various clinical studies have suggested that the accumulation of bile is particularly noticeable in conventional plastic stents near flap holes and/or side holes. The DoubleLayer™ design eliminates these holes to reduce bile accumulation in the stent interior.
- Four flaps are provided at the distal and duodenal ends to ensure secure placement in the bile duct. These flaps also increase contrast in fluoroscopic images, facilitating position confirmation during stent placement.
- The DoubleLayer™ stent is available in two designs: the duodenal bend type and center bend type. DoubleLayer™ stents are available in 10 mm increments from 30 mm to 150 mm for center bend type, 40 mm to 150 mm for duodenal bend type (length between flaps).



PBD-421(Duodenal Bend Type)



PBD-422(Center Bend Type)

Comparison of Clogging Substance Accumulation

[Electronic Microscope 5000x]

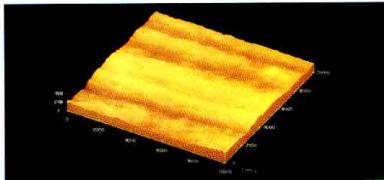


■ Conventional Plastic Stent

■ DoubleLayer™ Stent

Comparison of Inner Surface

[Atomic Force Microscope 7500000x]



■ Conventional Plastic Stent



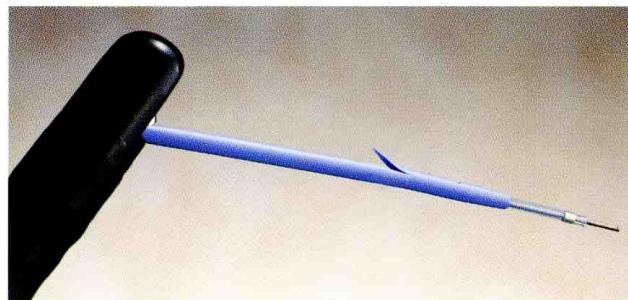
■ DoubleLayer™ Stent

PBD-421/422 Specifications

	PBD-421Z-10-1	PBD-421R-10-1	PBD-422Z-10-1	PBD-422R-10-1
Compatible channel diameter		4.2 mm		
Compatible guidewire diameter		0.035 inch (0.89 mm)		
Stent outer diameter		10 Fr.		
Stent configuration	Duodenal bend type		Center bend type	
Insertion kit	Non-assembled MAJ-255	Pre-assembled MAJ-510	Non-assembled MAJ-255	Pre-assembled MAJ-510

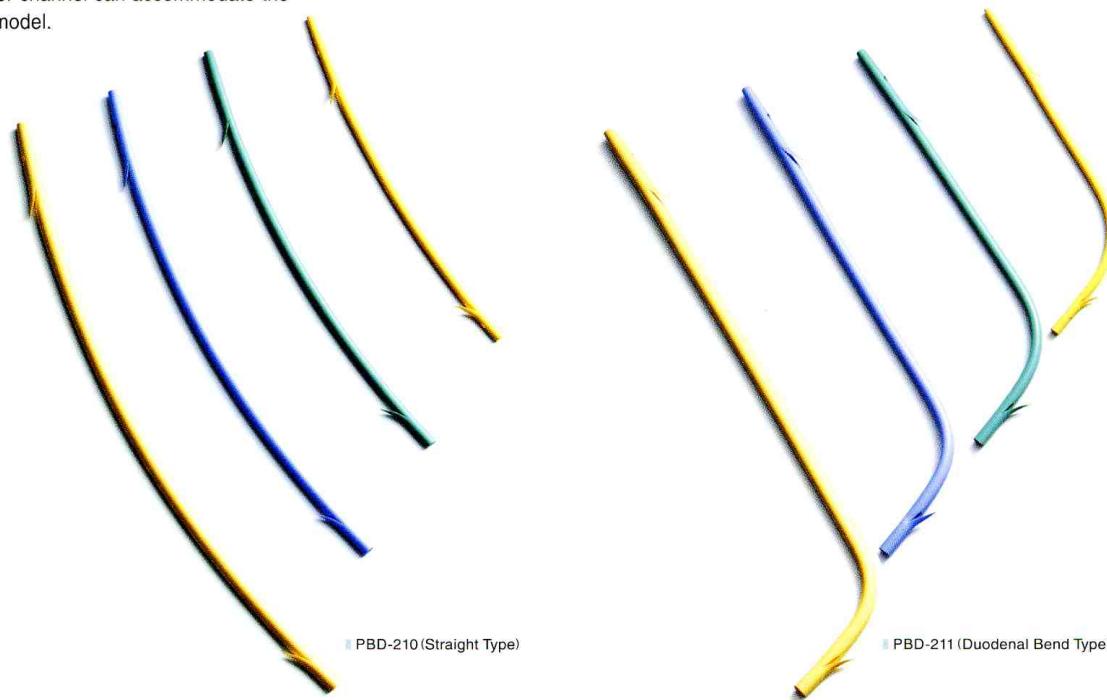
Fluoroplastic material with superior water-repellent properties minimizes bile adhesion and accumulation in the interior

The PBD-210 and PBD-211 biliary stents are made of a fluoroplastic material which features a water-repellent contact surface. Thanks to the superior water-repellent properties of this material, less bile remains on the interior surface of the stent.



Features

- Fluoroplastic water-repellent material minimizes bile adhesion and accumulation on the interior surface.
- Various stent diameters are offered. The PBD-210 and PBD-211 are available in four different French sizes: 7 Fr., 8.5 Fr., 10 Fr., and 12 Fr. A standard duodenoscope equipped with a 3.2 mm diameter channel can accommodate the 7 Fr. or 8.5 Fr. model.
- The PBD-210 is a straight type, and the PBD-211 is a duodenal bend type. This allows you to easily adjust to different patient anatomies. Both the straight and duodenal bend types are available in flap intervals of 30 mm, 50 mm, 70 mm, 90 mm, 120 mm, and 150 mm.



PBD-210/211 Specifications

7-French Models

	PBD-210Z-07-I	PBD-211Z-07-I
Compatible channel diameter	3.2 mm	
Compatible guidewire diameter	0.035 inch (0.89 mm)	
Stent outer diameter	7 Fr.	
Stent configuration	Straight type	Duodenal bend type
Insertion kit	Non-assembled MAJ-348	
Color code	Yellow	

10-French Models

	PBD-210R-10-I	PBD-210Z-10-I	PBD-211R-10-I	PBD-211Z-10-I
Compatible channel diameter	4.2 mm			
Compatible guidewire diameter	0.035 inch (0.89 mm)			
Stent outer diameter	10 Fr.			
Stent configuration	Straight type	Duodenal bend type		
Insertion kit	Pre-assembled MAJ-510	Non-assembled MAJ-255	Pre-assembled MAJ-510	Non-assembled MAJ-255
Color code		Blue		

8.5-French Models

	PBD-210R-08-I	PBD-210Z-08-I	PBD-211R-08-I	PBD-211Z-08-I
Compatible channel diameter	3.2 mm			
Compatible guidewire diameter	0.035 inch (0.89 mm)			
Stent outer diameter	8.5 Fr.			
Stent configuration	Straight type	Duodenal bend type		
Insertion kit	Pre-assembled MAJ-509	Non-assembled MAJ-508	Pre-assembled MAJ-509	Non-assembled MAJ-508
Color code		Green		

12-French Models

	PBD-210R-12-I	PBD-210Z-12-I	PBD-211R-12-I	PBD-211Z-12-I
Compatible channel diameter	4.2 mm			
Compatible guidewire diameter	0.035 inch (0.89 mm)			
Stent outer diameter	12 Fr.			
Stent configuration	Straight type	Duodenal bend type		
Insertion kit	Pre-assembled MAJ-511	Non-assembled MAJ-256	Pre-assembled MAJ-511	Non-assembled MAJ-256
Color code		Yellow		

Contrast medium impregnated polyethylene provides the perfect combination of flexibility and stiffness

Features

- Available in diameters of 7 Fr., 10 Fr., 12 Fr., and 14 Fr., the PBD-3Z-1, 4Z-1, 5Z-1, and 6Z-1 stents are all provided with flaps to keep them from falling off in the duodenum.
- The straight models are available in six lengths (PBD-3/4Z-1: 25/45/65/85/105/125mm, PBD-5/6Z-1: 30/50/70/90/120/150mm) and the pigtail model is available in 5 lengths (30/40/70/100/150mm).

- The contrast medium impregnated polyethylene offers just the right combination of flexibility and stiffness. The tapered design of the distal end facilitates insertion into the bile duct. The flaps and side holes are designed to stay in position and increase bile flow.

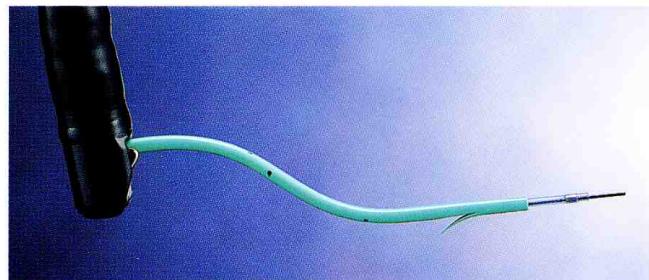


■ Straight Types and Pigtail Type (at far right)

Soft material and innovative contoured design to minimize damage to the pancreatic duct

With conventional pancreatic stents, the hardness of the material and the shape had a risk to damage the pancreatic duct. Olympus PBD-230 and PBD-234, however take a radically different approach by using an exclusive soft material and innovative contours to minimize damage to the pancreatic duct. PBD-230 and PBD-234 are available in various diameters and flap intervals*.

* Lengths between the flap and distal end (straight type models).



Features

- The PBD-230 and PBD-234 are available in variety of configurations:

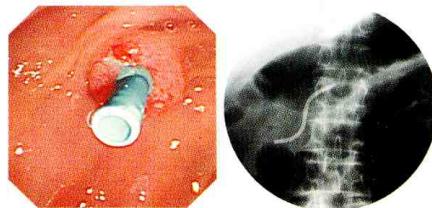
- two contour types,
- three diameters (7/8.5/10 Fr.)
- four flap interval types* (Straight type: 20/40/60/80mm, S-Shaped type: 60/80/100/120mm)

This makes it easy to choose a stent suitable to the anatomy of the pancreatic duct and the degree of stenosis in each case.

- Soft material is used to minimize damage to the pancreatic duct.

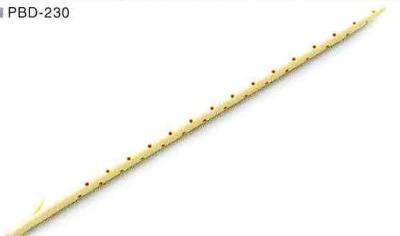
- Models with S-shaped design are available. This shape perfectly corresponds to the anatomy of the pancreatic duct and helps to prevent deformation.

- A number of side holes prevent from clogging by pancreatic juice from the exocrine pancreas and thus ensure smooth drainage.



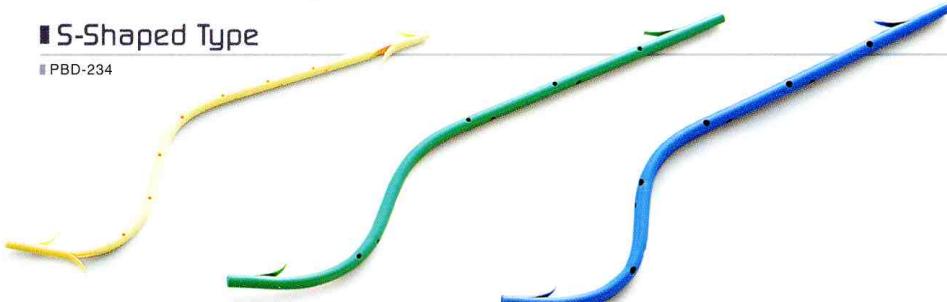
Straight Type

■ PBD-230



S-Shaped Type

■ PBD-234



PBD-3Z/4Z/5Z/6Z/7Z-1 Specifications

	PBD-3Z-1	PBD-4Z-1	PBD-5Z-1	PBD-6Z-1	PBD-7Z-1
Compatible channel diameter	3.7 mm	4.2 mm	5.5 mm	2.8 mm	2.8 mm
Compatible guidewire diameter			0.035 inch (0.89 mm)		
Stent outer diameter	10 Fr.	12 Fr.	14 Fr.	7 Fr.	7 Fr.
Stent configuration	Straight type			Pigtail type	
Insertion kit	Non-assembled MAJ-255	Non-assembled MAJ-256	Non-assembled MAJ-257	Non-assembled MAJ-348	Non-assembled MAJ-348
Color code	Blue	Yellow	Green	Yellow	Yellow

PBD-230/234 Specifications

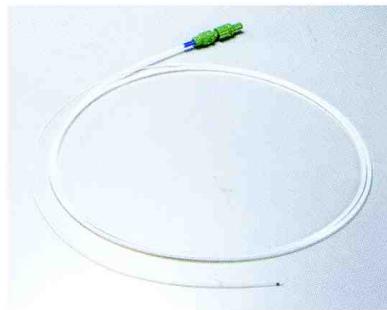
	PBD-230 series	PBD-234 series
Compatible channel diameter	3.2 mm	
Compatible guidewire diameter		0.035 inch (0.89 mm)
Stent outer diameter	7 Fr.	7 Fr.
Stent configuration	Straight type	S-shaped type
Insertion kit	Non-assembled MAJ-348	Non-assembled MAJ-508 Pre-assembled MAJ-509
Color code	Yellow	Yellow
	Green	Blue

Reusable
Stent
Insertion
Kit

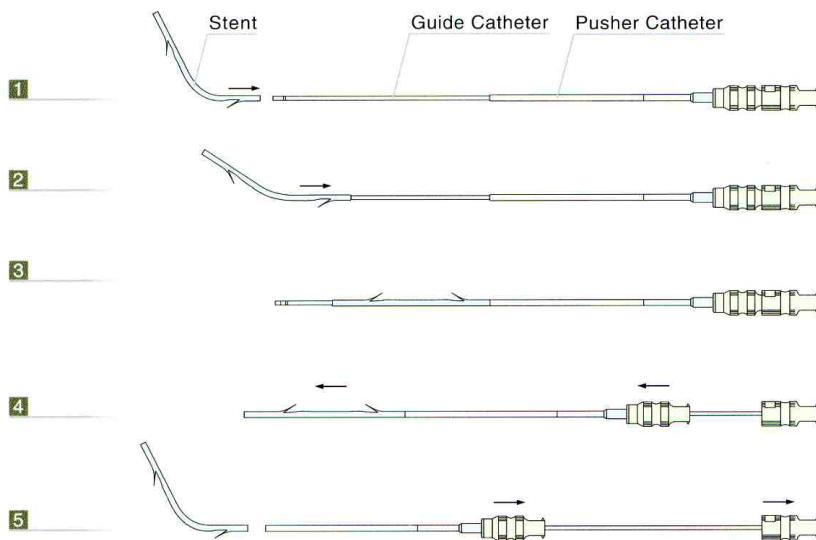
Dedicated stent insertion kits ensure easy, secure stent placement

Features

- The guide catheter and stent pusher catheter are pre-assembled for quick and convenient stent placement. Non-assembled insertion kits are also available.
- Color coded for easy combination of stents and compatible catheters.
- A platinum radiopaque chip incorporated in the distal end of the guide catheter provides excellent visibility under fluoroscopy.
- The reusable guide catheter and stent pusher catheter improve cost-efficiency and are laboratory validated according to the Olympus reprocessing protocol to assure sterility.



Operating Procedure



- Connect the injection port of guide catheter to the reprocessing port of the stent pusher catheter.
- Place the stent over the distal end of the guide catheter.
- Advance the stent until it rests against the distal end of the stent pusher catheter. Then insert the entire system distally into the biopsy channel of the endoscope over the guidewire.
- Advance the guide catheter past the stricture. Move the stent to the desired position by sliding the stent pusher catheter.
- Withdraw the insertion kit from the endoscope.

Grasping
Forceps

Particularly designed for retrieval of the Olympus biliary/pancreatic stents

Features

- The tips of the tongs of the FG-44NR-1 are designed to exert a firm grip on a stent.
- The distal tip of the forceps can be rotated and aligned with the tube.
- Fully autoclavable.



Reusable Stent Insertion Kit Specifications

	MAJ-509	MAJ-510	MAJ-511
Compatible stent diameter	8.5 Fr.	10 Fr.	12 Fr.
Color code	Green	Blue	Yellow
Length	2090 mm		1725 mm

FG-44NR-1 Specifications

Compatible channel diameter	2.8 mm
Type	Alligator Jaw with Rat tooth
Sheath length	1800 mm
Compatible stent diameter	5 to 14 Fr.

icturer.

105, China

0204

Biliary/Pancreatic Stents Specifications

■ PBD-421/422

	PBD-421Z-10-I	PBD-421R-10-I	PBD-422Z-10-I	PBD-422R-10-I
Compatible channel diameter		4.2 mm		
Compatible guidewire diameter		0.035 inch (0.89 mm)		
Stent outer diameter		10 Fr.		
Stent configuration	Duodenal bend type		Center bend type	
Insertion kit	Non-assembled MAJ-255	Pre-assembled MAJ-510	Non-assembled MAJ-255	Pre-assembled MAJ-510

	PBD-421Z-10-I	PBD-421R-10-I	PBD-422Z-10-I	PBD-422R-10-I
Stent	10 Fr. 40 mm PBD-421-1004 10 Fr. 50 mm PBD-421-1005 10 Fr. 60 mm PBD-421-1006 10 Fr. 70 mm PBD-421-1007 10 Fr. 80 mm PBD-421-1008 10 Fr. 90 mm PBD-421-1009 10 Fr. 100 mm PBD-421-1010 10 Fr. 110 mm PBD-421-1011 10 Fr. 120 mm PBD-421-1012 10 Fr. 130 mm PBD-421-1013 10 Fr. 140 mm PBD-421-1014 10 Fr. 150 mm PBD-421-1015		10 Fr. 30 mm PBD-422-1003 10 Fr. 40 mm PBD-422-1004 10 Fr. 50 mm PBD-422-1005 10 Fr. 60 mm PBD-422-1006 10 Fr. 70 mm PBD-422-1007 10 Fr. 80 mm PBD-422-1008 10 Fr. 90 mm PBD-422-1009 10 Fr. 100 mm PBD-422-1010 10 Fr. 110 mm PBD-422-1011 10 Fr. 120 mm PBD-422-1012 10 Fr. 130 mm PBD-422-1013 10 Fr. 140 mm PBD-422-1014 10 Fr. 150 mm PBD-422-1015	
Insertion kit	Non-assembled MAJ-255	Pre-assembled MAJ-510	Non-assembled MAJ-255	Pre-assembled MAJ-510

Standard set

■ PBD-210/211

■ 7-French Models

	PBD-210Z-07-I	PBD-211Z-07-I
Compatible channel diameter		3.2 mm
Compatible guidewire diameter		0.035 inch (0.89 mm)
Stent outer diameter		7 Fr.
Stent configuration	Straight type	Duodenal bend type
Insertion kit		Non-assembled MAJ-348
Color code		Yellow

	PBD-210Z-07-01	PBD-211Z-07-1
Stent	7 Fr. 30 mm PBD-210-0703 7 Fr. 50 mm PBD-210-0705 7 Fr. 70 mm PBD-210-0707 7 Fr. 90 mm PBD-210-0709 7 Fr. 120 mm PBD-210-0712 7 Fr. 150 mm PBD-210-0715	7 Fr. 30 mm PBD-211-0703 7 Fr. 50 mm PBD-211-0705 7 Fr. 70 mm PBD-211-0707 7 Fr. 90 mm PBD-211-0709 7 Fr. 120 mm PBD-211-0712 7 Fr. 150 mm PBD-211-0715
Insertion kit		Non-assembled MAJ-258

■ 10-French Models

	PBD-210R-10-I	PBD-210Z-10-I	PBD-211R-10-I	PBD-211Z-10-I
Compatible channel diameter		4.2 mm		
Compatible guidewire diameter		0.035 inch (0.89 mm)		
Stent outer diameter		10 Fr.		
Stent configuration	Straight type	Duodenal bend type		
Insertion kit	Pre-assembled MAJ-510	Non-assembled MAJ-255	Pre-assembled MAJ-510	Non-assembled MAJ-255
Color code		Blue		

	PBD-210R-10-I	PBD-210Z-10-I	PBD-211R-10-I	PBD-211Z-10-I
Stent	10 Fr. 30 mm PBD-210-1003 10 Fr. 50 mm PBD-210-1005 10 Fr. 70 mm PBD-210-1007 10 Fr. 90 mm PBD-210-1009 10 Fr. 120 mm PBD-210-1012 10 Fr. 150 mm PBD-210-1015		10 Fr. 30 mm PBD-211-1003 10 Fr. 50 mm PBD-211-1005 10 Fr. 70 mm PBD-211-1007 10 Fr. 90 mm PBD-211-1009 10 Fr. 120 mm PBD-211-1012 10 Fr. 150 mm PBD-211-1015	
Insertion kit	Pre-assembled MAJ-510	Non-assembled MAJ-255	Pre-assembled MAJ-510	Non-assembled MAJ-255

■ 8.5-French Models

	PBD-210R-08-I	PBD-210Z-08-I	PBD-211R-08-I	PBD-211Z-08-I
Compatible channel diameter		3.2 mm		
Compatible guidewire diameter		0.035 inch (0.89 mm)		
Stent outer diameter		8.5 Fr.		
Stent configuration	Straight type	Duodenal bend type		
Insertion kit	Pre-assembled MAJ-509	Non-assembled MAJ-508	Pre-assembled MAJ-509	Non-assembled MAJ-508
Color code			Green	

	PBD-210R-08-I	PBD-210Z-08-I	PBD-211R-08-I	PBD-211Z-08-I
Stent	8.5 Fr. 30 mm PBD-210-0803 8.5 Fr. 50 mm PBD-210-0805 8.5 Fr. 70 mm PBD-210-0807 8.5 Fr. 90 mm PBD-210-0809 8.5 Fr. 120 mm PBD-210-0812 8.5 Fr. 150 mm PBD-210-0815		8.5 Fr. 30 mm PBD-211-0803 8.5 Fr. 50 mm PBD-211-0805 8.5 Fr. 70 mm PBD-211-0807 8.5 Fr. 90 mm PBD-211-0809 8.5 Fr. 120 mm PBD-211-0812 8.5 Fr. 150 mm PBD-211-0815	
Insertion kit	Pre-assembled MAJ-509	Non-assembled MAJ-508	Pre-assembled MAJ-509	Non-assembled MAJ-508

■ 12-French Models

	PBD-210R-12-I	PBD-210Z-12-I	PBD-211R-12-I	PBD-211Z-12-I
Compatible channel diameter		4.2 mm		
Compatible guidewire diameter		0.035 inch (0.89 mm)		
Stent outer diameter		12 Fr.		
Stent configuration	Straight type	Duodenal bend type		
Insertion kit	Pre-assembled MAJ-511	Non-assembled MAJ-256	Pre-assembled MAJ-511	Non-assembled MAJ-256
Color code		Yellow		

	PBD-210R-12-I	PBD-210Z-12-I	PBD-211R-12-I	PBD-211Z-12-I
Stent	12 Fr. 30 mm PBD-210-1203 12 Fr. 50 mm PBD-210-1205 12 Fr. 70 mm PBD-210-1207 12 Fr. 90 mm PBD-210-1209 12 Fr. 120 mm PBD-210-1212 12 Fr. 150 mm PBD-210-1215		12 Fr. 30 mm PBD-211-1203 12 Fr. 50 mm PBD-211-1205 12 Fr. 70 mm PBD-211-1207 12 Fr. 90 mm PBD-211-1209 12 Fr. 120 mm PBD-211-1212 12 Fr. 150 mm PBD-211-1215	
Insertion kit	Pre-assembled MAJ-511	Non-assembled MAJ-256	Pre-assembled MAJ-511	Non-assembled MAJ-256

■ PBD-3Z/4Z/5Z/6Z/7Z-1

	PBD-3Z-1	PBD-4Z-1	PBD-5Z-1	PBD-6Z-1	PBD-7Z-1
Compatible channel diameter	3.7 mm	4.2 mm	5.5 mm	2.8 mm	2.8 mm
Compatible guidewire diameter			0.035 inch (0.89 mm)		
Stent outer diameter	10 Fr.	12 Fr.	14 Fr.	7 Fr.	7 Fr.
Stent configuration			Straight type		Pigtail type
Insertion kit	Non-assembled MAJ-255	Non-assembled MAJ-256	Non-assembled MAJ-257	Non-assembled MAJ-348	Non-assembled MAJ-348
Color code	Blue	Yellow	Green	Yellow	Yellow

	PBD-3Z-1	PBD-4Z-1	PBD-5Z-1	PBD-6Z-1	PBD-7Z-1
Stent	25mm MAJ-259	25mm MAJ-265	30mm MAJ-271	30mm MAJ-277	30mm MAJ-283
	45mm MAJ-260	45mm MAJ-266	50mm MAJ-272	50mm MAJ-278	40mm MAJ-284
	65mm MAJ-261	65mm MAJ-267	70mm MAJ-273	70mm MAJ-279	70mm MAJ-285
	85mm MAJ-262	85mm MAJ-268	90mm MAJ-274	90mm MAJ-280	100mm MAJ-286
	105mm MAJ-263	105mm MAJ-269	120mm MAJ-275	120mm MAJ-281	150mm MAJ-287
	125mm MAJ-264	125mm MAJ-270	150mm MAJ-276	150mm MAJ-282	—
Insertion kit	Non-assembled MAJ-255	Non-assembled MAJ-256	Non-assembled MAJ-257	Non-assembled MAJ-348	Non-assembled MAJ-348

■ PBD-230/234

	PBD-230 series		PBD-234 series	
Compatible channel diameter	3.2 mm		0.035 inch (0.89 mm)	
Compatible guidewire diameter	7 Fr.	7 Fr.	8.5 Fr.	10 Fr.
Stent outer diameter	—	—	—	—
Stent configuration	Straight type	—	S-shaped type	—
Insertion kit	Non-assembled MAJ-348	—	Non-assembled MAJ-508 Pre-assembled MAJ-509	Non-assembled MAJ-255 Pre-assembled MAJ-510
Color code	Yellow	Yellow	Green	Blue

	7Fr. Straight	7Fr. S-shaped type	8.5Fr. S-shaped type	10Fr. S-shaped type
Stent	20 mm PBD-230-0702	—	—	—
	40 mm PBD-230-0704	—	—	—
	60 mm PBD-230-0706	60 mm PBD-234-0706	60 mm PBD-234-0806	60 mm PBD-234-1006
	80 mm PBD-230-0708	80 mm PBD-234-0708	80 mm PBD-234-0808	80 mm PBD-234-1008
	—	100 mm PBD-234-0710	100 mm PBD-234-0810	100 mm PBD-234-1010
	—	120 mm PBD-234-0712	120 mm PBD-234-0812	120 mm PBD-234-1012
Insertion kit	Non-assembled MAJ-348		Non-assembled MAJ-508 Pre-assembled MAJ-509	Non-assembled MAJ-225 Pre-assembled MAJ-510

■ Reusable Stent Insertion Kit

	MAJ-509	MAJ-510	MAJ-511
Compatible stent diameter	8.5 Fr.	10 Fr.	12 Fr.
Color code	Green	Blue	Yellow
Length	Guide catheter Stent pusher catheter	2090 mm 1725 mm	

■ FG-44NR-1

Compatible channel diameter	2.8 mm
Type	Alligator Jaw with Rat tooth
Sheath length	1800 mm
Compatible stent diameter	5 to 14 Fr.

Biliary / Pancreatic Stents

Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.

OLYMPUS®

www.olympus.com

OLYMPUS CORPORATION
2951 Ishikawa-cho, Hachioji-shi, Tokyo 192-8507, Japan

OLYMPUS EUROPA GMBH

Postfach 10 49 08, 20034 Hamburg / Wendenstrasse 14-18, 20097 Hamburg, Germany

OLYMPUS AMERICA INC.

2 Corporate Center Drive, Melville, N.Y. 11747-3157, U.S.A.

OLYMPUS LATIN AMERICA, INC.

6100 Blue Lagoon Drive, Suite 390 Miami, Florida 33126-2087, U.S.A.

KEYMED LTD.

Keymed House, Stock Road, Southend-on-Sea, Essex SS2 5QH, England

OLYMPUS SINGAPORE PTE LTD.

491B River Valley Road #12-01/04, Valley Point Office Tower, Singapore 248373

OLYMPUS HONG KONG AND CHINA LIMITED

Room 1520-1527, Ocean Centre, 5 Canton Road, Tsimshatsui, Kowloon, Hong Kong

OLYMPUS BEIJING REPRESENTATIVE OFFICE

Room 1401, East Tower, Gong Yuan No6 Royal Palace, No7 Gong YuanXiJie, JianGuoMenNei, DongCheng District, Beijing, 100005, China

OLYMPUS MOSCOW LIMITED LIABILITY COMPANY

117071, Moscow, Malaya Kaluzhskaya 19, bld. 1, fl.2, Russia

OLYMPUS AUSTRALIA PTY LTD.

31 Gilby Road, Mount Waverley, VIC., 3149, Australia

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