Bugge

Cardiac Suction Tube

Patent pending

This unqiue suction handle consist of two tubes within each other. The external tube has multiple holes leading the liquid downwards between the two tubes to the tip of the inner tube where the active suction point is located.
The suction handle is available in 4 sizes, a small model (18-0404) mainly for cardiac operations, and a large model (18-0400) primarily constructed to empty the pleural cavity. Additionally a medium model for smaller adults and a mini model for children is available. The tubes can easily be taken apart for cleaning and sterilization. The suction is easily connected to a 1/4 inch tube or to a 3/8 inch tube over a conical connector. It is flattened on the inside of the handle and curved. Therefore it is easily introduced and passes behind organs (heart, lung, liver, spleen, uterus etc.) and surrounding tissue without damage to the organ. It also serves as a hand-held retractor.

Possible applications:

Open heart surgery: eliminating free floating visible blood in the pericardium.

Aortic valve surgery: keeps the left ventricle empty at the same time as the aortic root is visualised properly. Also for irrigation of the inside of the aortic root with saline.

Mitral valve surgery: placed with the tip at the bottom of the left atrium it keeps the field dry. The assistant can use the handle to present the surgical field to the surgeon with a slight traction. The handles also helps for inspection of the left or right ventricle.

Repair of bleeding on the backside of the heart: suction of blood from the pericardium simultaneously. The suction handle is simply laid down on the bottom of the pericardial sack during the repair.

Repair on the backside of the ascending aorta: the handle can be held by the assistant and the aorta is slightly lifted to keep the field empty of blood and view free.

Aortic aneurysm surgery: especially when ruptured, extensive suction force is needed. By inserting two large suction handles, one in each pleura, 5 litres /minute can be sucked out and the field can be controlled until a proper vein cannula can be applied.

Operating on the aortic arch: the handle can be inserted into the arch while inspecting the inside for tears and be running while a graft is sutured to the arch. In such situations when circulatory arrest is actual, and time is precious, perfect suction is mandatory which standard suction handles most of the time do not offer, especially not in revision cases where connective tissue continuously obliterates the suction openings and the tip sticks to the tissue.

Approaching aneurysms by thoracotomy: the same situation as mentioned above is a problem which can be easily controlled with a curved large suction handle in the bottom of the thoracic cavity.

Aneurysms in the abdomen: when opening the abdomen, visibility may be poor due to bleeding. A large curved suction tube is applied at the lowest point.

Embolectomy on the pulmonary artery: The pulmonary artery is opened on its ascending segment and major lumps of thrombous material are taken out to begin with. Thereafter the surgeon wants to inspect deeper out in the pulmonary artery at the same time as he wants to eliminate debris. The curved small suction handle may be of good help here especially since it does not stick to the tissue of the pulmonary monary artery. It is also possible to flush with saline.

Late tamponades of the pericardium: the curved suction handle can easily be inserted high up on both sides of the heart and also on the backside of the heart in order to get all blood out. When irrigating the pericardium with warm saline the suction handle is still located within the pericardium until the liquid coming out looks clean.

Reoperation for bleeding after heart operations:. the bottom of the pleura can be easily reached with the large suction handle.

Pleural empyema

Perioperative autotransfusion during off-pump surgery: blood can be sucked directly to a reservoir and transfused to the patient. Suction force must be kept down to low levels to minimize trauma to the blood.

The suction tube may also be useful for **abdominal surgery**, e.g. during liver transplantation, in operations in the abdominal pelvis on the urinary bladder and prostate and during caesarian section.

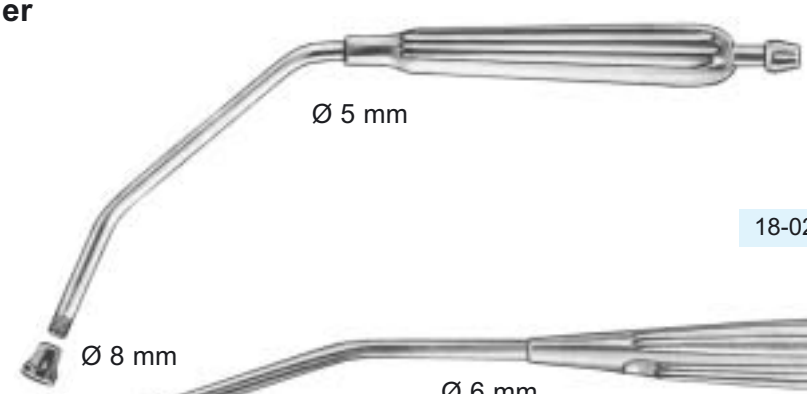
Art.-No.	Ø	Length	Size
18-0400	12 mm	29 cm / 11 1/2"	Large
19-0402	10 mm	29 cm / 11 1/2"	Medium
18-0404	8 mm	20 cm / 8"	Small
18-0406	6 mm	20 cm / 8"	Mini
18-0408	4.5 mm	20 cm / 8"	Micro (Pediatric)

Developed in cooperation with Mogens Bugge, MD PhD, Sahlgrenska Hospital, Gothenburg, Sweden

Andrew-Pynchon

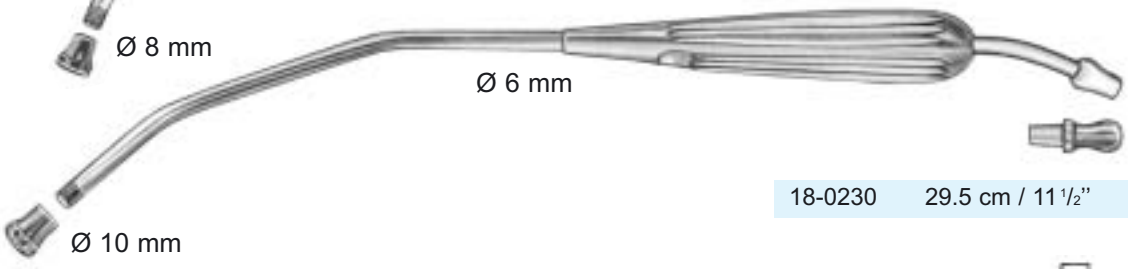
18-0228 24 cm / 9 1/2”

Baby-Yankauer



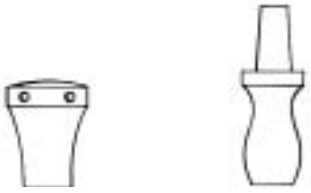
18-0232 21 cm / 8 1/4”

Yankauer



18-0230 29.5 cm / 11 1/2”

Spare Parts



18-0230.SP 18-0230.KO

Poole

Charr. 30
Ø 10 mm

18-0240 23.5 cm / 9”

Poole

Charr. 30
Ø 8 mm

18-0242 25 cm / 10”

Anthony

Ø 4 mm

18-0229	27 cm / 10 ½”

Brompton

Ø 5 mm

18-0190	29 cm / 11 ½”

DeBakey

Ø 9 mm

18-0200	28 cm / 11”

Heparin

18-0099	L = 45 mm	Ø 2.0 mm
18-0100	L = 45 mm	Ø 3.0 mm
18-0102	L = 55 mm	Ø 3.7 mm
18-0104	L = 160 mm	Ø 5.0 mm

Tibbs

18-0280	L = 58 mm	small

18-0281	L = 58 mm	small

18-0282	L = 58 mm	large

18-0283	L = 58 mm	large
18-0284	**Set of 4**	

DeBakey-Adson

Coronary Suction Tube

Delicate 4 mm suction tube for coronary surgery with a 5 mm basket with 4 side openings at the distal tip. Tip permanently attached.

18-4070	20 cm / 8”
18-4072	16 cm / 6 1/4”

Southhampton

Pediatric Suction Tube

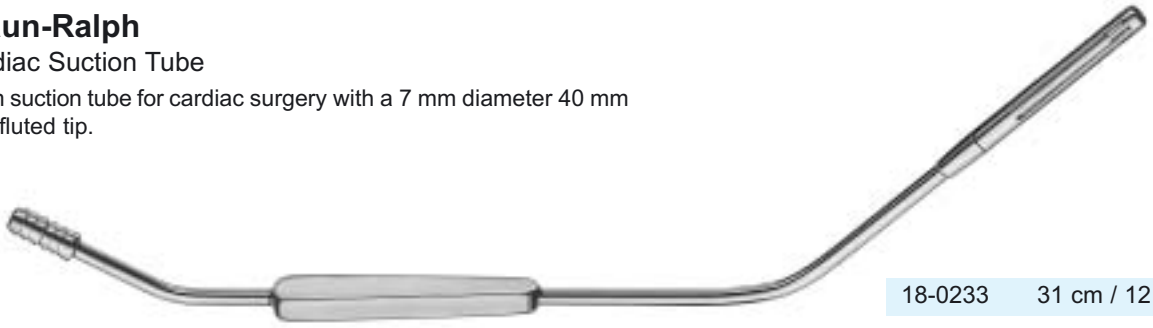
Extra delicate 3 mm suction tube for pediatric cardiac surgery with a 3 mm tip with 4 side openings.

18-0189	19.5 cm / 7 1/2”

Braun-Ralph

Cardiac Suction Tube

5 mm suction tube for cardiac surgery with a 7 mm diameter 40 mm long fluted tip.

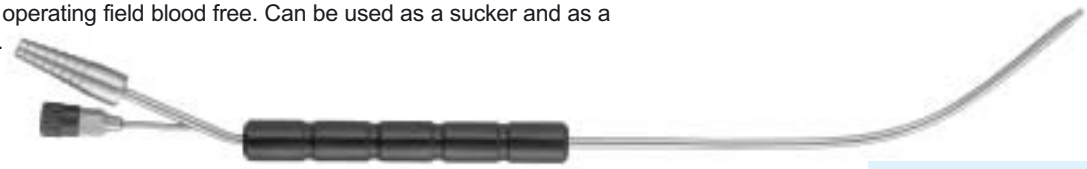


18-0233	31 cm / 12 1/4”

Angelini

CO_2 Blower / Mister

Reusable design with a curved shaft and a flat rounded tip that keeps a wide operating field blood free. Can be used as a sucker and as a blower.



18-0450	Angelini CO_2 Blower / Mister with luer and line connector
18-0451	Double lumen tube set with filter (single use, sterile)

Morse-Andrews

Suction Tube

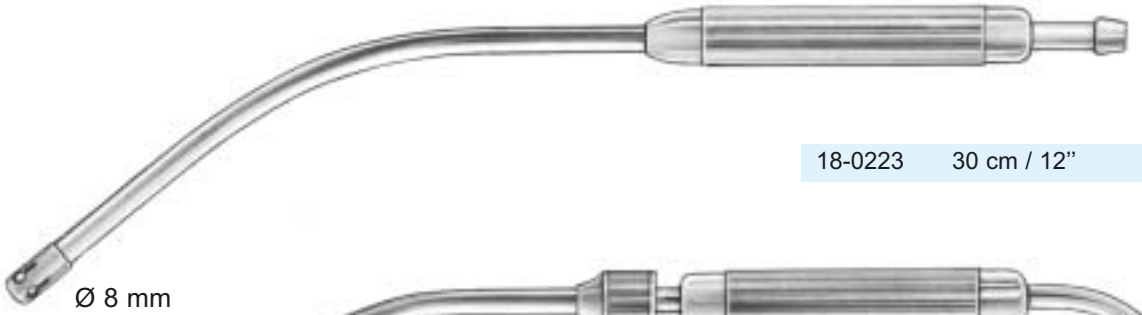
6 mm diameter tip with one distal opening and 4 side openings mounted on a short 3 mm outside diameter tube.

18-0205	26 cm / 10 1/4”

Cooley

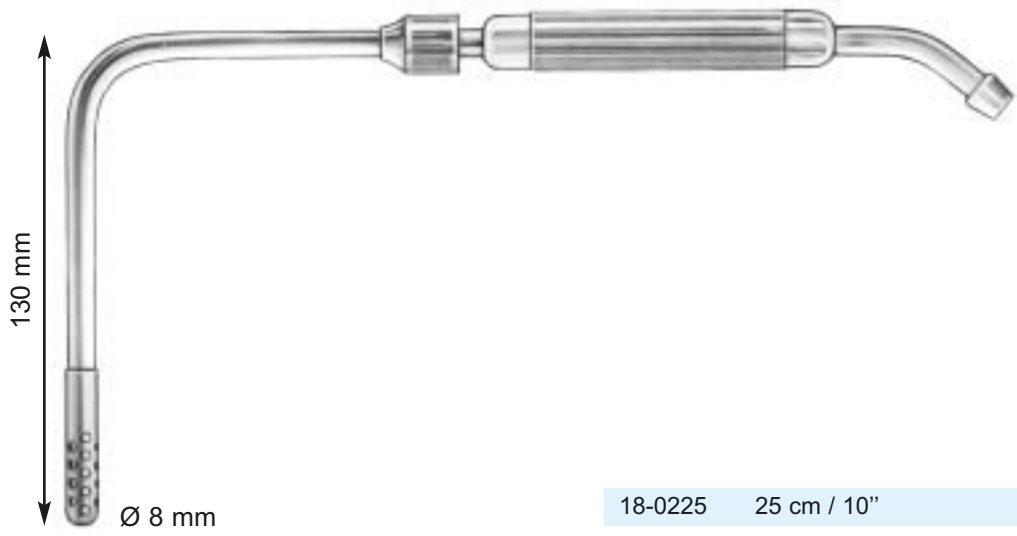
18-0220 36 cm / 14 1/4”

18-0222 31 cm / 12 1/4”



18-0223 30 cm / 12”

18-0224 33 cm / 13”

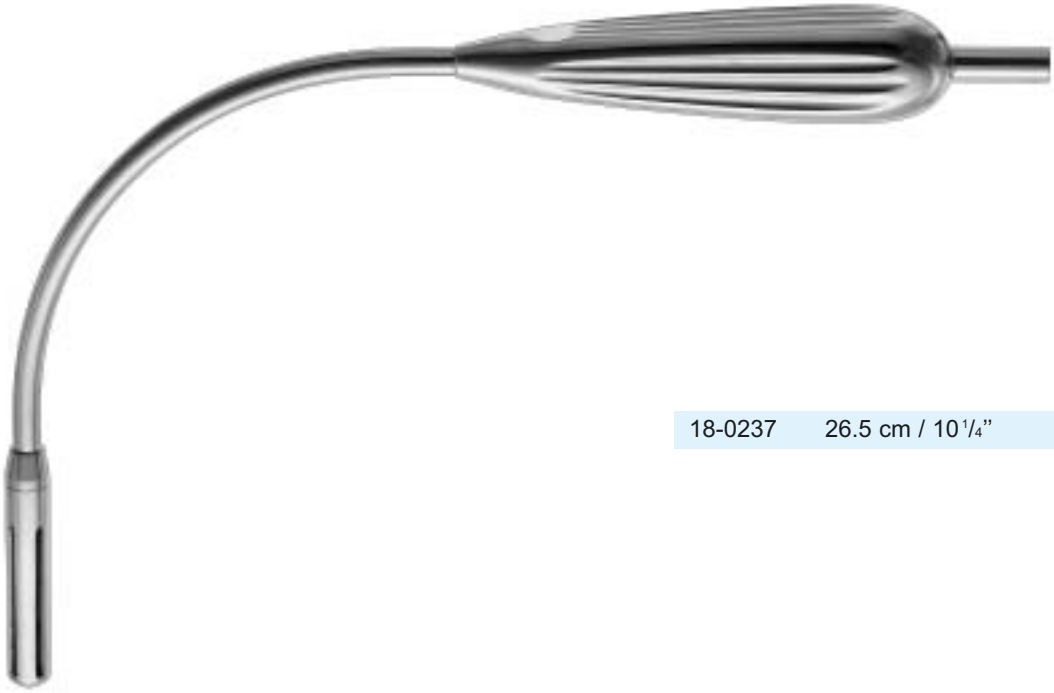


18-0225 25 cm / 10”

Osaka

18-0234 27 cm / 10 1/2" Ø 7 mm

Hammersmith



18-0237 26.5 cm / 10 1/4"

Harley-Street

18-0235 32 cm / 12 1/2"

Frazier

Suction Tube

18-4030	13 cm/5”	Ø 2.0 mm
18-4031	13 cm/5”	Ø 2.7 mm
18-4032	13 cm/5”	Ø 3.3 mm
18-4033	13 cm/5”	Ø 4.0 mm

18-4020	17 cm/6 1/2”	Ø 2.0 mm
18-4021	17 cm/6 1/2”	Ø 2.7 mm
18-4022	17 cm/6 1/2”	Ø 3.3 mm
18-4023	17 cm/6 1/2”	Ø 4.0 mm

18-4040	17 cm/6 1/2”	Ø 2.0 mm
18-4041	17 cm/6 1/2”	Ø 2.7 mm
18-4042	17 cm/6 1/2”	Ø 3.3 mm
18-4043	17 cm/6 1/2”	Ø 4.0 mm

18-4060	17 cm/6 1/2”	Ø 2.0 mm
18-4061	17 cm/6 1/2”	Ø 2.7 mm
18-4062	17 cm/6 1/2”	Ø 3.3 mm
18-4063	17 cm/6 1/2”	Ø 4.0 mm

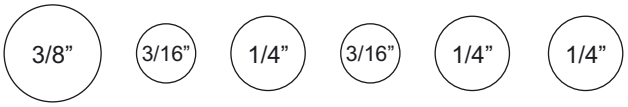
Straight Reducer for HLM

18-4469	5/8 –>1/2”	(16 –>12 mm)
18-4470	5/8 –>3/8”	(16 –> 9 mm)
18-4471	1/2 –>3/8”	(12 –> 9 mm)
18-4472	1/2 –>1/4”	(12 –> 6 mm)
18-4473	3/8 –>1/4”	(9 –> 6 mm)
18-4474	1/4 –>3/16”	(6 –> 4.7 mm)
18-4475	1/4 –>1/8”	(6 –> 3 mm)
18-4476	5/16 –>1/4”	(8 –> 6 mm)

HLM Tube Holders

77-8010 Adult

77-8011 Adult long



77-8015 Children

77-8020 Infants

Ice Water Sucker

18-0320

Baylor
Sump Tubes

18-0300	90°	5 mm
18-0301	45°	5 mm
18-0305	90°	4 mm
18-0306	45°	4 mm

Baylor
Vena Cava Cannula

18-0310 90° 4 mm