

## THE TOP IN QUALITY for all areas of healthcare

## TOP ANGIOGRAPHIC SERIES

TOP Angiographic Tube/TOP Manifold Kit/TOP Angiographic Syringe/TOP Pressure-Resistant Three way stopcock/ TOP Blood pressure Monitoring tube/ TOP Dispense Medicines Syringe Kit/TOP Multipurpose Syringe/TOP Angiographic Y Connector/TOP Injector series



Smooth angiography and intervention treatment. Displays stable operability and high visibility.

#### TOP Angiographic Tube

#### Various tubes that can be selected for pressure resistance for connection during angiography.

- The two-layer tube type has a two-layer structure in which ordinary polyurethane is covered with polyvinyl chloride to improve pressure resistance.
- · Connectors and tubes are transparent, making it easy to check for air bubbles.
- The tube is highly flexible and easy to operate.
- Rotator V type has enhanced chemical resistance to prevent denaturation and cracking due to chemicals.



The three-way stopcock housing part, connectors and tubes of the rotator with three-way stopcock are transparent, making it easy to check for air bubbles.

#### ■ Rotator V type chemical corrosion resistance test (in-house test)

[Testing method]

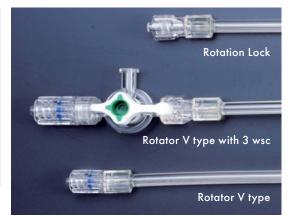
- ①An oil-based contrast agent was dropped on the male connector of the rotator V type and rotating lock type (conventional material).
- ②Using a torque gauge, the male connector of each type was tightened to a torque of 30cN·m, and after being left to stand for times of 15, 30, 60 and 120 minutes, the fittings were removed, and the condition of the male connector (presence of changes such as cracks and crazing) was checked.
- ③After checking, the same operation as "2" was performed again.

#### [Test Results]

It was confirmed that no cracks or crazing were present in rotator V type.

Elapsed time	Rotator V type (Chemical resistant material)	Rotation lock (Conventional material)
15min	0	Δ
30min	0	Δ
60min	0	×
120min	0	×

 $\bigcirc:$  No abnormalities  $\triangle:$  Partially cracked  $\times:$  Dameged



## TOP Angiographic Tube [rotator V type]

Length	Volume	Pressure resistance / shape
25cm	0.7mL	
50cm	1.4mL	
75cm	2.2mL	8.2MPa (1,200psi)
100cm	2.9mL	
125cm	3.6mL	

Length	Volume	Pressure resistance / shape
25cm	1.4mL	
50cm	2.1mL	NGI 0
75cm	2.9mL	With 3wsc 6.8MPa (1,000psi)
100cm	3.6mL	(1,000μsi)
125cm	4.3mL	

## TOP Angiographic Tube [double layer tube type for pressure resistance]

Length	Volume	Pressure resistance / shape	
25cm	0.7mL		
50cm	1.4mL		
75cm	2.2mL	5.4MPa (800psi)	
100cm	2.9mL		
125cm	3.6mL		
25cm	0.7mL		
50cm	1.4mL		
75cm	2.2mL	8.2MPa (1,200psi)	
100cm	2.9mL		
125cm	3.6mL	-	

Length	Volume	Pressure resistance / shape
25cm	1.4mL	
50cm	2.1mL	
75cm	2.9mL	With 3wsc 6.8MPa
100cm	3.6mL	(1,000psi)
125cm	4.3mL	
25cm	1.4mL	
50cm	2.1mL	rotator With 3wsc
75cm	2.9mL	(With a male stopcock) 6.8MPa
100cm	3.6mL	(1,000psi)
125cm	4.3mL	

## TOP Angiographic Tube [Pressure-resistant Extension Tube]

Length	Volume	Pressure resistance / shape
25cm	1.3mL	
40cm	2.0mL	0.98MPa
50cm	2.5mL	(140psi) (10kg/cm²10s)
100cm	4.8mL	

Length	Volume	Pressure resistance / shape
25cm	1.4mL	
40cm	2.1mL	With 3wsc 0.98MPa
50cm	2.6mL	0.96MPa (140psi) (10kg/cm²10s)
100cm	4.9mL	(

#### **TOP Manifold Kit**

#### Design and perfection to facilitate angiography.

- A pressure transducer, heparinized diet, contrast medium container, etc. can be connected to each line.
- •The three-way stopcock and tube are color-coded and can be identified at a glance.
- •The three-way stopcocks are well spaced and easy to handle.
- •The inner diameter of the flow path is large, and a large flow rate can be obtained.
- •The flow path inside the manifold is transparent, making it easy to check air bubbles and contents.



### TOP Manifold Kit (Triple)

Туре	Attached syringe	3wsc type	Kit contents	Monitoring line length	Infusion line length	Contrast line length
AA-111			3wsc only	-	-	-
AB-522		Triple OFF handle	monitor tube + with chamber + spike needle	120cm	180cm	180cm
AC-522			monitor tube + spike needle + spike needle	120cm	180cm	180cm
BA-111	-		3wsc only	-	-	-
BB-522		Triple ON handle	monitor tube + with chamber + spike needle	120cm	180cm	180cm
BC-522			monitor tube + spike needle + spike needle	120cm	180cm	180cm

### TOP Manifold Kit (For double high pressure)

Туре	Attached syringe	3wsc type	Kit contents	Monitoring line length	Contrast line length
H2AA-11			3wsc only	-	-
H2AC-52	-		monitor tube + spike needle	120cm	180cm
H2AD-52		Double OFF handle	monitor tube + with chamber	120cm	180cm
H2ACS-52R12J	TOP Angiographic Syringe		monitor tube + spike needle	120cm	180cm
H2ADS-52R12J	Ring type J 12mL		monitor tube + with chamber	120cm	180cm

## TOP Manifold Kit (For triple high pressure)

Туре	Attached syringe	3wsc type	Kit contents	Monitoring line length	Infusion line length	Contrast line length
HAA-111		Title Off Levelle	3wsc only	-	-	-
HAB-522	_	Triple OFF handle	monitor tube + with chamber + spike needle	120cm	180cm	180cm
HBA-111		Triple ON handle	3wsc only	-	-	-
HBB-522		Triple Ort flatiale	monitor tube + with chamber + spike needle	120cm	180cm	180cm
HABS-522R12J	TOP Angiographic Syringe	Triple OFF handle	monitor tube + with chamber + spike needle	120cm	180cm	180cm
HBBS-522R12J	Ring type J 12mL	Triple ON handle	monitor tube + with chamber + spike needle	120cm	180cm	180cm

### TOP Manifold Kit (For quadruple high pressure)

Туре	Attached syringe	3wsc type	Kit contents	Monitoring line length	Infusion line length	Contrast line length
2H4AA-1111			3wsc only(The second is green)	-	-	-
4H4AA-1111		Quadruple OFF handle	3wsc only(The fouth is green)	-	-	-
4H4AB-5221	-	Quadruple Off flaffale	monitor tube + with chamber + spike needle + free	120cm	180cm	180cm
4H4AC-5221			monitor tube + with chamber + spike needle + free	120cm	180cm	180cm



#### **TOP Angiographic Syringe**

#### A compact syringe for injecting contrast medium with excellent visibility of the contents.

- •There are palm pad type and ring types at the end of the pusher.
- A fixed lock can be selected for the lock on the tip of the cylinder in addition to the rotary lock.
- A stopper (0.5 ml) is provided to prevent air injection.

Туре	Volume
Ring type J	12mL
Palm pad type J	12mL
Fixed / Ring type J	12mL
Fixed / Palm pad type J	12mL



#### TOP Pressure-Resistant Three way stopcock

#### A rotator type that smoothly follows the rotation operation of the catheter.

- •The rotator type is easy to connect and does not prevent the catheter from rotating.
- •The inner diameter of the flow path is large, and a sufficient flow rate can be secured.
- •The housing is transparent, so it is easy to check air bubbles and contents.
- •The handle is large and the glove It is easy to operate with your hands.
- •The pressure-resistant walking stopcock V has greater chemical resistance than our conventional products.

Product name	With stand voltage
Pressure-Resistant 3wsc	6.8MPa(1,000psi)
Pressure-Resistant 3wsc V	2 4440-1500
Pressure- Resistant 3wsc 3.4MPa 360°	3.4MPa(500psi)



#### TOP Blood pressure Monitoring tube

In addition to Male and female connectors shapes, fixed locks, rotary locks, and three-way stopcocks can also be selected.

- Male-Female and Male-Male connectors can be selected according to the connection part.
- •The rotary lock type can be connected without applying tension to the tube.
- If you use the product with a three-way stopcock, you can reduce the chance of air bubbles entering when the equipment is attached or detached.



#### TOP Blood pressure Monitoring tube (Fixed lock type)

#### TOP Blood pressure Monitoring tube (Rotation lock type)

Connector shape	Туре	Line length
	15cm M-F	15cm
	30cm M-F	30cm
	60cm M-F	60cm
Male Lock-Female Lock	90cm M-F	90cm
	120cm M-F	120cm
	150cm M-F	150cm
	180cm M-F	180cm
	15cm M-M	15cm
	30cm M-M	30cm
	60cm M-M	60cm
Male Lock-Male Lock	90cm M-M	90cm
	120cm M-M	120cm
	150cm M-M	150cm
	180cm M-M	180cm

Connector shape	Туре	Line length
	15cm M-F	15cm
	30cm M-F	30cm
	60cm M-F	60cm
Male Lock-Female Lock	90cm M-F	90cm
	120cm M-F	120cm
	150cm M-F	150cm
	180cm M-F	180cm
	15cm M-M	15cm
	15cm M-F 30cm M-F 60cm M-F 90cm M-F 120cm M-F 150cm M-F	30cm
		60cm
Male Lock-Male Lock	90cm M-M	90cm
	120cm M-M	120cm
	150cm M-M	150cm
	180cm M-M	180cm
	15cm	15cm
	30cm	30cm
	60cm	60cm
Male Lock-Female Lock	90cm	90cm
With 3wsc	120cm	120cm
	150cm	150cm
	180cm	180cm

#### **TOP Dispense Medicines Syringe Kit**

#### For liquid mixing and dispensing operations.

- •The chemical solution can be mixed between the two syringes via a three-way stopcock.
- Syringe for dispensing chemicals is also included in the kit, which is efficient.
- · Uses excellent chemical resistance materials.



Туре	Component
5mL dispense medicines kit	5mL lock syringe (two) / 2.5ml lock syringe (two) / 3wsc (one)
10mL dispense medicines kit	10mL lock syringe (two) / 5ml lock syringe (one) / 2.5ml lock syringe (two) / 3wsc (one)
10mL dispense medicines kit	10mL lock syringe (two) / 3wsc (one)

#### **TOP Multipurpose Syringe**

#### A syringe used for suction and dispension of liquids.

The slender shape reduces resistance during injection and makes the operation smooth.

- •The grip is large and easy to grip.
- $\, \cdot \,$  The 1mL and 3mL Lock types use materials with excellent chemical resistance.

#### 【Use cases】

[IVR] Micro catheter drug injection, Bone cement injection [Cosmetic surgery] Hyaluronic acid, Botox, Collagen injection, etc. [Ophthalmology] Age-related macular degeneration [Oral surgery] Dental anesthesia \* Almost all 3 mL lock

Туре
1mL Lock Type
3mL Lock Type
1mLC Lock Type



#### TOP Angiographic Y Connector

#### A guide wire etc. is inserted into the blood vessel using a guiding catheter.

- Easy to grip because the angle between the side tube and the main body is large.
- •The lumen is compatible with devices up to 9Fr.



## TOP INJECTOR SERIES (Pressure-resistant tube for contract)

We meet the diverse needs of contrast examinations with a wide variety of variations.

#### TOP Injector Tube for double injector

For single

For double

With needle

Double type extension tube with a pressure resistance of 1.4MPa (213psi).

Easy to distinguish from the contrast agent side as the color line is placed on the saline side







There is no need to worry about backflow of chemicals on the tube side with a check valve.

You can choose from two types, the contrast agent side or the saline side.





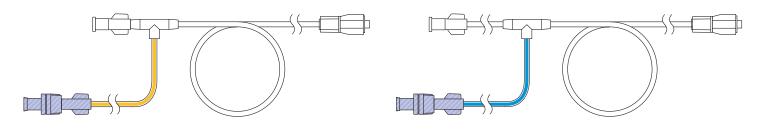
Since only the lock terminal rotates, the tube can be prevented from twisting even when connected.





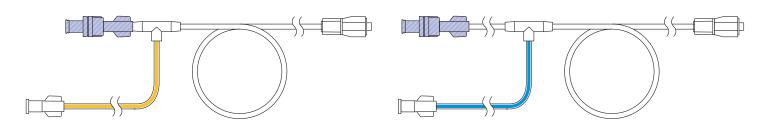
By adopting a liquid pool cap with an internal capacity of 1mL, it is possible to reduce dripping.

## With check valve on the raw food side



Туре	Check valve specifications	Raw food side tube specifications	Tube type (inner diameter × outer diameter)	Tube length	Internal capacity					
WX1.5-FL 100-15V		Yellow Line  Blue Line			th check valve e raw food side		Contrast injection line: 100cm Raw food injection line: 15cm	2.4mL		
WX1.5-FL 100-30V						V.II. 1: V1.5	Contrast injection line: 100cm Raw food injection line: 30cm	2.5mL		
WX1.5-FL 150-15V						reliow Line		Yellow Line X1.5 (1.5X2.7mm)	Contrast injection line: 100cm Raw food injection line: 15cm	3.2mL
WX1.5-FL 200-15V	With check valve								Contrast injection line: 200cm Raw food injection line: 15cm	4.0mL
WX2-FL 100-15V	on the raw food side						Contrast injection line: 100cm Raw food injection line: 15cm	5.0mL		
WX2-FL 100-30V						X2	Contrast injection line: 100cm Raw food injection line: 30cm	5.5mL		
WX2-FL 150-15V						(2.2X3.5mm)	Contrast injection line: 150cm Raw food injection line: 15cm	6.9mL		
WX2-FL 200-15V				Contrast injection line: 200cm Raw food injection line: 15cm	8.8mL					

## With check valve on the contrast side



Туре	Check valve specifications	Raw food side tube specifications	Tube type (inner diameter × outer diameter)	Tube length	Internal capacity				
WX1.5-FL 100V-15				Contrast injection line: 100cm Raw food injection line: 15cm	2.4mL				
WX1.5-FL 150V-15		Yellow Line	X1.5 (1.5X2.7mm)	Contrast injection line: 150cm Raw food injection line: 15cm	2.5mL				
WX1.5-FL 200V-15	With check valve		valve		Contrast injection line: 200cm Raw food injection line: 15cm	4.0mL			
WX2-FL 100V-15	on the contrast side	Blue Line			le	ontrast side		Contrast injection line: 100cm Raw food injection line: 15cm	5.0mL
WX2-FL 150V-15				X2 (2.2X3.5mm)	Contrast injection line: 150cm Raw food injection line: 15cm	6.9mL			
WX2-FL 200V-15				Contrast injection line: 200cm Raw food injection line: 15cm	8.8mL				

#### TOP Injector Tube for single · for double injector

For single

For double

With needle

Extension tube with pressure resistance 1.47MPa (213psi).

We have a single type with and without a three-way stopcock and a double type with a three-way stopcock. In addition, efficient quantity quantity reduces inventory waste.







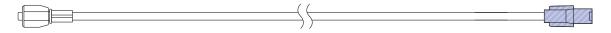
Since only the lock terminal rotates, the tube can be prevented from twisting even when connected.





By adopting a liquid pool cap with an internal capacity of 1mL, it is possible to reduce dripping.

# TOP Injector Tube for single



Туре	Tube type (inner diameter × outer diameter)	Tube length	Volume
X1-FL 50CT	X1	50cm	0.6mL
X1-FL 100CT	(1.1X2.1mm)	100cm	1.1mL
X1.5-FL 50CT		50cm	0.9mL
X1.5-FL 100CT	X1.5 (1.5X2.7mm)	100cm	1.8mL
X1.5-FL 150CT	(1.5/(2.711111)	150cm	2.6mL
X2-FL 50CT	X2	50cm	2.0mL
X2-FL 100CT	(2.2X3.5mm)	100cm	3.9mL

# TOP Injector Tube for single

(With Three Way Stopcock)



Туре	Tube type (inner diameter × outer diameter)	Tube length	Volume
LX1-FL 50CT	X1	50cm	0.8mL
LX1-FL 100CT	(1.1X2.1mm)	100cm	1.3mL
LX1.5-FL 25CT		25cm	0.7mL
LX1.5-FL 50CT		50cm	1.1mL
LX1.5-FL 75CT	X1.5 (1.5X2.7mm)	75cm	1.5mL
LX1.5-FL 100CT		100cm	2.0mL
LX1.5-FL 150CT		150cm	2.8mL
LX2-FL 25CT		25cm	1.3mL
LX2-FL 50CT		50cm	2.2mL
LX2-FL 75CT	X2	75cm	3.2mL
LX2-FL 100CT	(2.2X3.5mm)	100cm	4.1mL
LX2-FL 150CT		150cm	6.0mL
LX2-FL 200CT		200cm	7.9mL

# TOP Injector Tube for double injector

(With Three Way Stopcock)



Туре	Type Tube type Tube length		Volume
LX1.5-FL15-2CT360°C	X1.5	Contrast injection line: 150cm Raw food injection line: 20cm	3.2mL
LX1.5-FL20-2CT360°C	(1.5X2.7mm)	Contrast injection line: 200cm Raw food injection line: 20cm	4.0mL
LX2-FL20-2CT360°C	X2 (2.2X3.5mm)	Contrast injection line: 200cm Raw food injection line: 20cm	8.8mL

### TOP Injector needle for CT

For single

For double

With needle

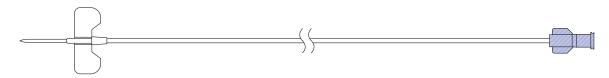
Extension tube with injection needle with pressure resistance 1.47MPa (213psl).

A liquid pool cap is also available at the tip to reduce dripping.

In addition, efficient quantity quantity reduces inventory waste.



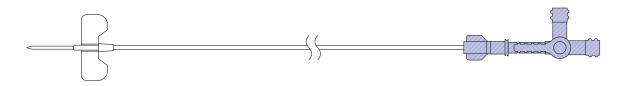
# TOP Injector needle for CT



Tube Type (inner diameter × outer diameter)	Injection needle size	Tube length	Volume	Remarks
		50cm	0.5mL	-
	19G	100cm	1.0mL	-
		150cm	1.5mL	-
	20G	50cm	0.5mL	-
	200	100cm	1.0mL	-
		50cm	0.5mL	-
X1	21G	100cm	1.0mL	-
(1.1X2.1mm)	210	100cm	1.0mL	With liquid pool cap
		150cm	1.5mL	-
	22G	50cm	0.5mL	-
		100cm	1.0mL	-
		50cm	0.5mL	-
	23G	100cm	1.0mL	-
		150cm	1.5mL	-
		50cm	0.8mL	-
	21G	100cm	1.6mL	-
X1.5 (1.5X2.7mm)	210	100cm	1.6mL	With liquid pool cap
		150cm	2.4mL	-
	23G	100cm	1.6mL	-
	23G	150cm	2.4mL	-

# TOP Injector needle for CT

(With Three way stopcock)



Tube Type (inner diameter × outer diameter)	Injection needle size	Tube length	Volume	Remarks
	19G	100cm	1.1mL	-
	20G	100cm	1.1mL	-
X1		50cm	0.7mL	-
(1.1X2.1mm)	21G	100cm	1.1mL	-
		100cm	1.1mL	With liquid pool cap
	23G	100cm	1.1mL	-
	20G	100cm	1.8mL	-
		100cm	1.8mL	-
X1.5	21G	100cm	1.8mL	With liquid pool cap
(1.5X2.7mm)		150cm	2.7mL	-
	23G	100cm	1.8mL	-

## TOP Injector Tube for double injector (Extension Tube connection specification with Three-Way stopcock)

For single

For double

With needle

Has pressure resistance of 1.47Mpa (213psi)

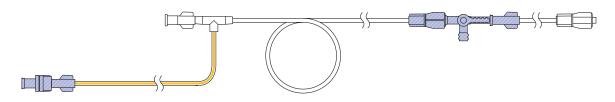
Double type extension tube.

A short extension tube with a three-way stopcock is connected in advance, making it ideal for side injection of chemicals.



# TOP Injector Tube for double injector

(Extension Tube connection specification with Three-Way stopcock)



Туре	Check valve specifications	Raw food side tube specifications	Tube type (inner diameter x outer diameter)	Tube length	Volme
WX1.5-FL 100-15V-L25	With check valve on the raw food side	Yellow line	X1.5 (1.5x2.7mm)	Contrast injection line: 100cm Raw food injection line: 15cm Extension tube part: 25cm	3.2mL
WX1.5-FL 100-15V-L50				Contrast injection line: 100cm Raw food injection line: 15cm Extension tube part: 50cm	3.6mL
WX1.5-FL 150-15V-L25				Contrast injection line: 150cm Raw food injection line: 15cm Extension tube part: 25cm	4.0mL
WX1.5-FL 150-30V-L25				Contrast injection line: 150cm Raw food injection line: 30cm Extension tube part: 25cm	4.2mL

#### **TOP Corporation**