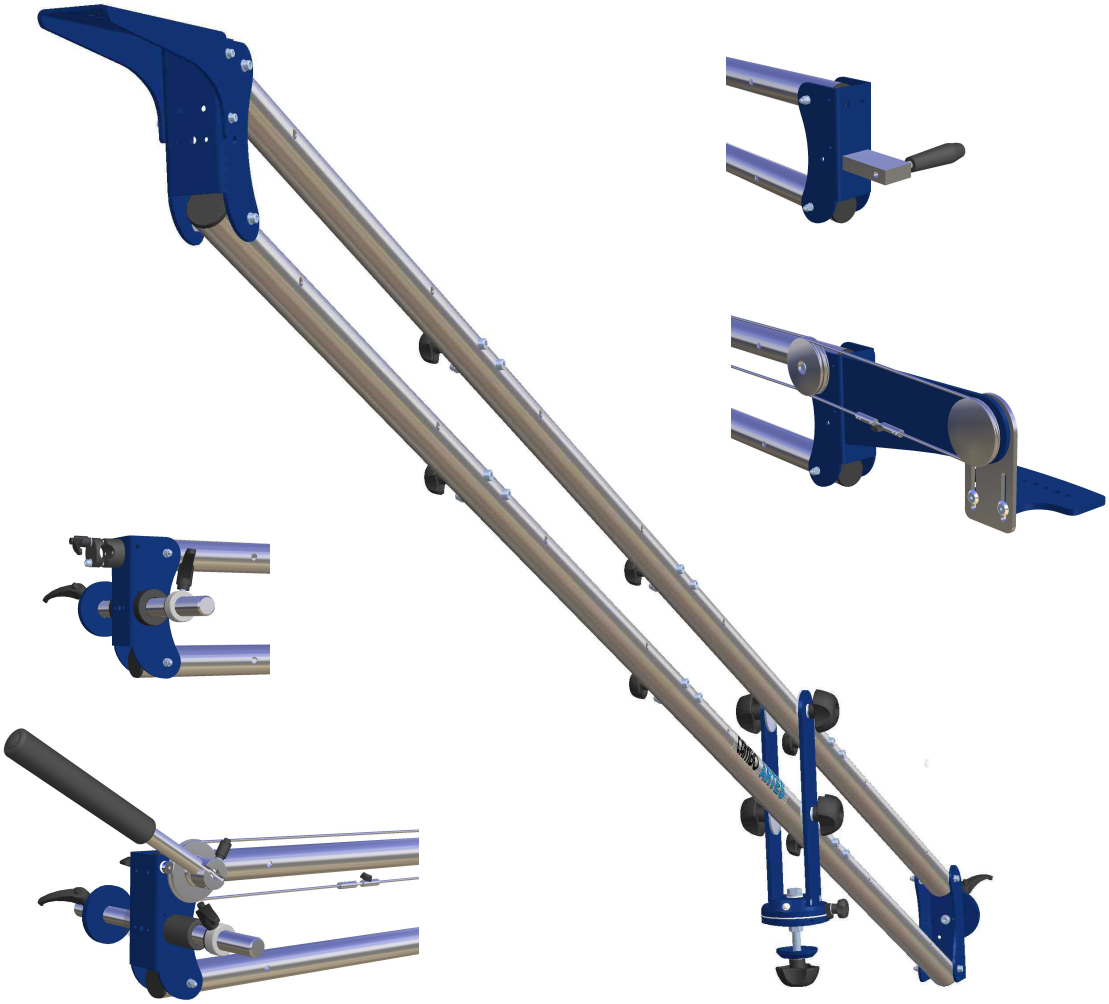
MAIN OPERATING INSTRUCTIONS

ARTES VIDEO BOOM

Including Tilt Version & MPT-12 adapter for MPT-9



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1. INTRODUCTION

You have bought a Videoboom out of the expanding new Cambo range. We expect that you will achieve improved results and performance using this equipment.
These instructions give you a **full mounting description** and short information about the **main functions** of the new ARTES Videoboom. The ARTES combines modularity, design and affordability into a flexible new Videoboom System. The Artes kit includes extensions for several set-up possibilities. Once the Videoboom is set up the first time, it quickly breaks down and sets up without keys necessary and fits into a compact softcase (not included) that is available from your Cambo dealer.

2. MOUNTING INSTRUCTION

These instructions build the Artes Basic in the most used way. There are however more set-ups possible for this Videoboom. We recommend firstly mounting it according to these instructions, using the supplied tools.
When The Artes Basic will be expanded with a tilt option we also recommend firstly to mount the Videoboom as described in the instructions below. After basic assembly the Tilt Unit is mounted, only replacing few parts.

The instructions are divided in the following chapters:

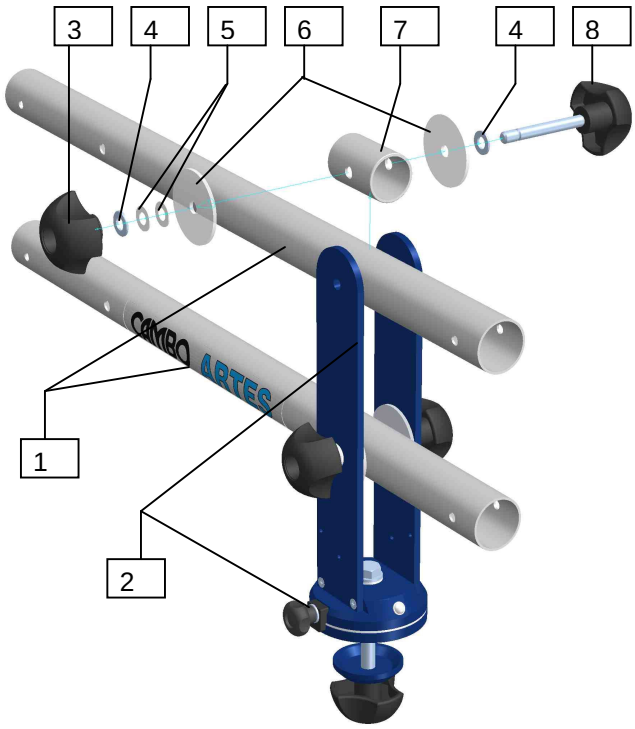
2A CENTRAL ASSEMBLY
2B COUPLING TUBES
2C FRONT ASSEMBLY
2D REAR ASSEMBLY

2E FRONT ASSEMBLY TILT VERSION
2F REAR ASSEMBLY TILT VERSION

2G FRONT ASSEMBLY WITH MPT-12 (FOR ARTES WITH MPT-9 SYSTEM)
2H REAR ASSEMBLY WITH MPT-12

2J MOUNTING THE STUD-BLOCK (FOR THE ATTACHMENT OF ACCESSORIES)

2A CENTRAL ASSEMBLY



1. Main Tube
2. Central pre-assembly
3. Locking Knob Boom Movement
4. Ring steel M10
5. Ring Teflon (2x)
6. Disk Nylon
7. Support Tube
8. Locking Knob with axis

ATTENTION: IF THE ASSEMBLY IS NOT PUT TOGETHER CORRECTLY THERE IS A CHANCE OF DAMAGING PARTS OR DISFUNCTIONING.

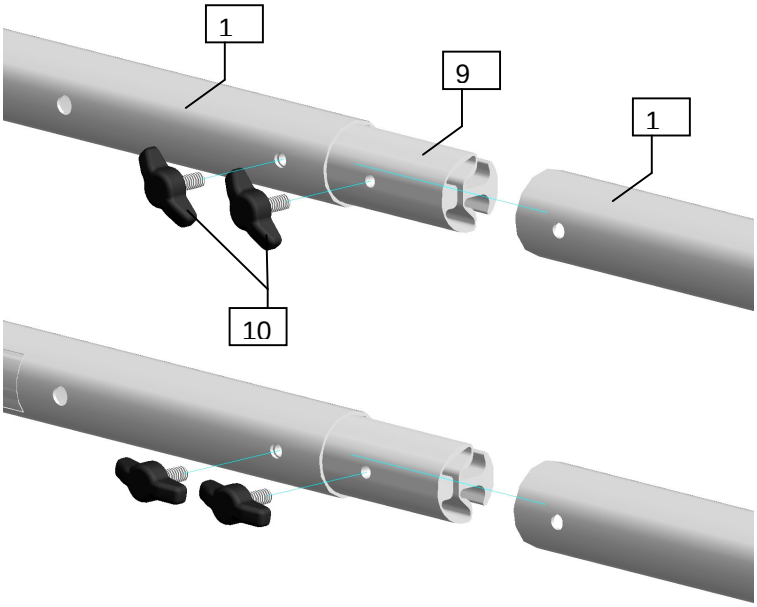
Assembling the central piece is the easiest when the pre-assembly is laying flat on the table with the rotation knob down.

- Take the Main Tube (1) with the Cambo Sticker and position the Support Tube (7) in it with the mounting holes in line for the central axis. (use screwdriver to position)
Attention: 'Cambo Artes' name upright

- Take the Locking Knob with axis (8), apply some grease from the supplied small bag on the axis and put it with the ring (4) through one blue plate (2), then through the friction disk (6), both the tubes inside each other, the other nylon disk and the second blue plate of the pre-assembly. Then lift the assembly and put on two Teflon rings (5), a steel ring (4) and the Locking Knob (3). Apply some grease inside the Locking Knob before putting on.

- The second Main Tube is assembled exactly the same way.

2B COUPLING TUBES



1. Main Tube
9. Coupling Profile
10. Locking Knob

- Take a Coupling Profile (9) and position it in an already mounted Main Tube (central unit) with the holes in line at the side you want the locking knobs.

- Apply some grease from the supplied small bag on the end surface and thread of the Coupling Knobs (10).

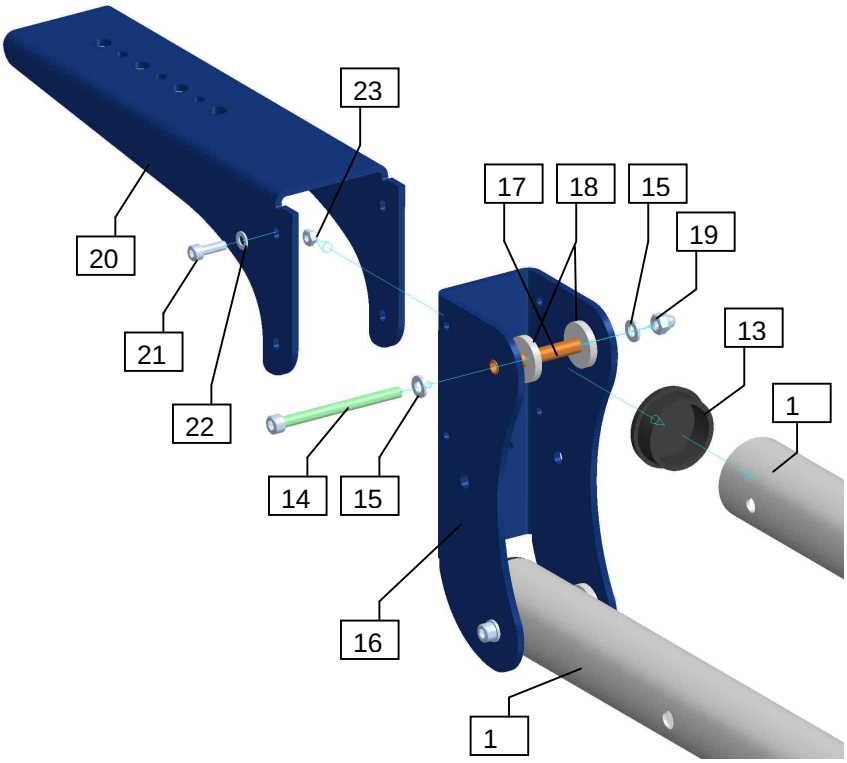
- Put the thread of the Coupling Knob (10) through and fix the combination rotating it clockwise.

- Slide the next Main Tube on this Coupling Profile and Fix it with the second locking Knob (10).

- The second Main Tube is mounted the same way.

- Repeat this coupling instruction after applying the end caps (13) on the third pair of Main Tubes.

2C FRONT ASSEMBLY



1. Main Tube
13. End Cap
14. Bolt M6
15. Ring M6
16. End Profile
17. Bearing Tube
18. Filling Ring
19. Cap Nut (self locking)

Optional:
20. Camera Platform
21. Bolt M5
22. Ring M5
23. Nut (self locking)

Assembling the Front section is the easiest when the boom is laying flat on the table with the rotation-lock Knob **up**.

- Take the End Profile (16) and put it over one of the Main Tubes (see picture for which side up).

- Put some grease on the Filling Rings (18) and the Bearing Tube (17).

- Slide the Filling Rings (18) between the Main Tube and the End Profile before putting through the Bearing Tube (17). The Bolt M6 (14) with Ring (15) is placed simultaneously or after the Bearing Tube.
Shift and rotate the parts if necessary to get the holes in line for the Bearing Tube and Bolt. After putting through lock the Rotation axis with the m6 Ring (15) and Cap Nut (19) using the supplied tools.

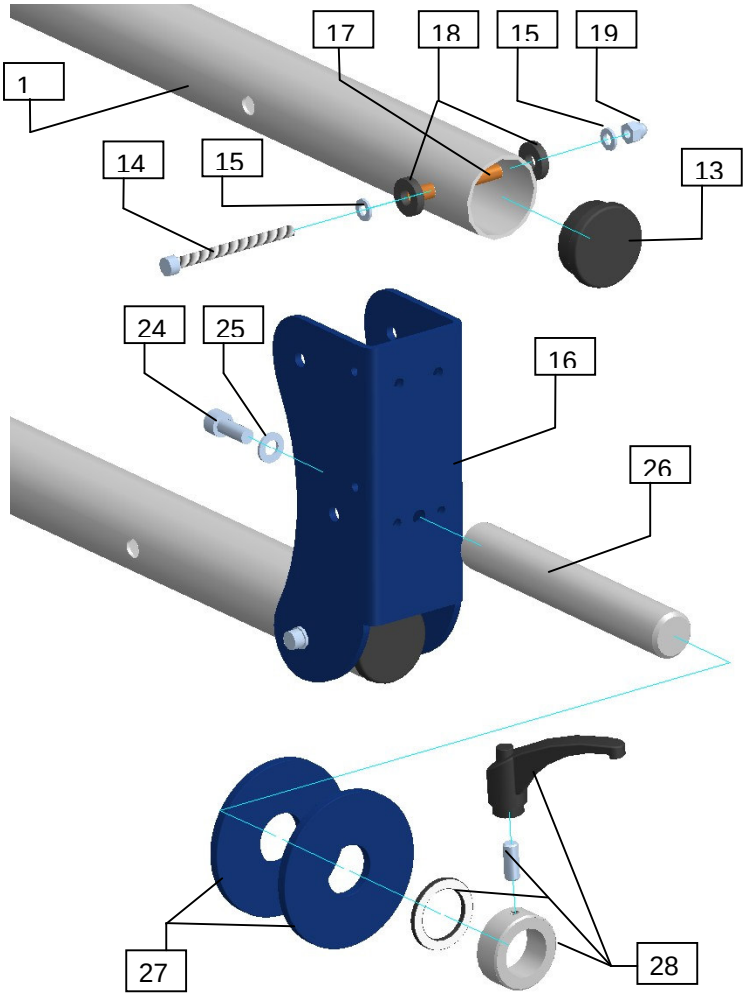
- The second Rotation Axis is mounted according the same instruction as above.
NOTE: When assembling a Tilt version of the Artes the rotation axis above is mounted a different way. **See instructions Tilt version.**

When supplied with a Camera Platform (optional):

- Take the Camera Platform (20) and position the ‘Wings’ around the End Profile and position it in line with the four small slots.

- Fix the Platform (orientation see picture) with the four Bolts M5 (21), the Rings (22) and the self locking Nuts (23), using the supplied tools.

2D REAR ASSEMBLY



1. Main Tube
13. End Cap
14. Bolt M6
15. Ring M6
16. End Profile
17. Bearing Tube
18. Filling Ring
19. Cap Nut (self locking)
24. Bolt M8
25. Ring M8
26. Weight Axis
27. Fine Tune Weights
28. Locking Clamp (weights)

Assembling the Rear section is, like the Front section the easiest when the boom is laying flat on the table with the rotation-lock Knob **up**.

- Take the End Profile (16) and the Weight Axis (26) and fasten it with the M8 Bolt and Ring (24,25) using the supplied tools.

- Insert the End caps (13) into the remaining set of Main Tubes (1) and mount the Tubes according to the Coupling instructions to the backside of the Videoboom.

- Take the End Profile (16) and put it over one of the Main Tubes (see picture for which side up).

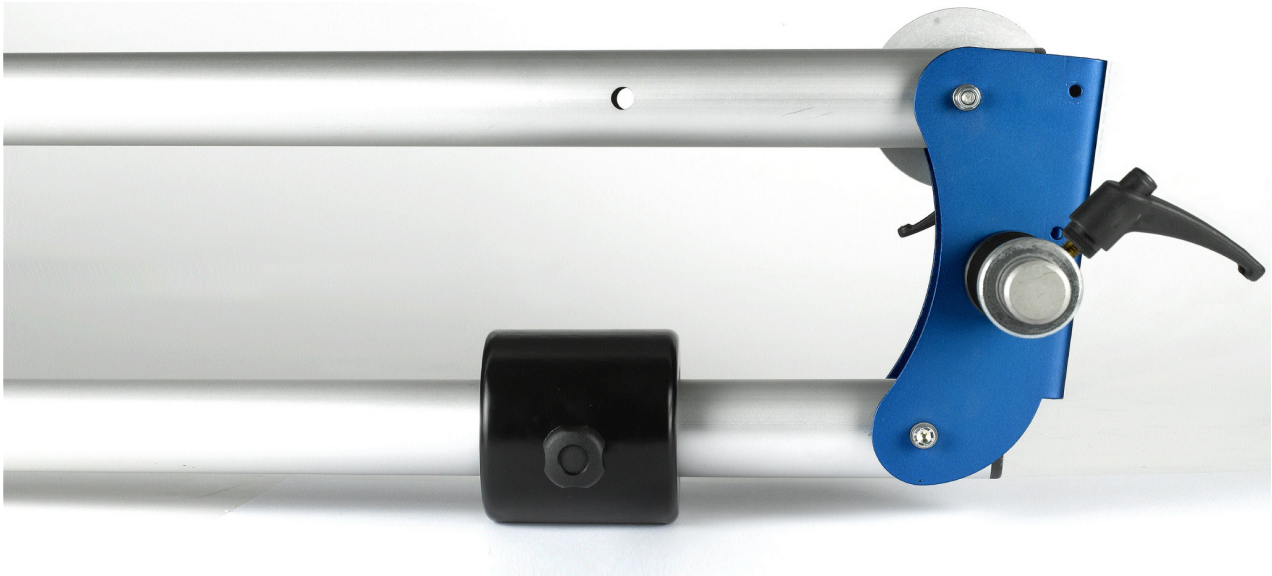
- Put some grease on the Filling Rings (18) and the Bearing Tube (17).

- Slide the Filling Rings (18) between the Main Tube and the End Profile before putting through the Bearing Tube (17). The Bolt M6 (14) with Ring (15) is placed simultaneously or after the Bearing Tube.
Shift and rotate the parts if necessary to get the holes in line for the Bearing Tube and Bolt. After putting through lock the Rotation axis with the m6 Ring (15) and Cap Nut (19) using the supplied tools.

- The second Rotation Axis is mounted according the same instruction as above.
NOTE: When assembling a Tilt version of the Artes the rotation axis above is mounted a different way. **See instructions Tilt version.**

2D[A] ADJUSTABLE SLIDING COUNTERWEIGHT

After assembly of the rear unit, before attaching it to any other tube or CENTRAL ASSEMBLY, slide the counterweight over the bottom tube of the rear assembly as indicated in the following image:

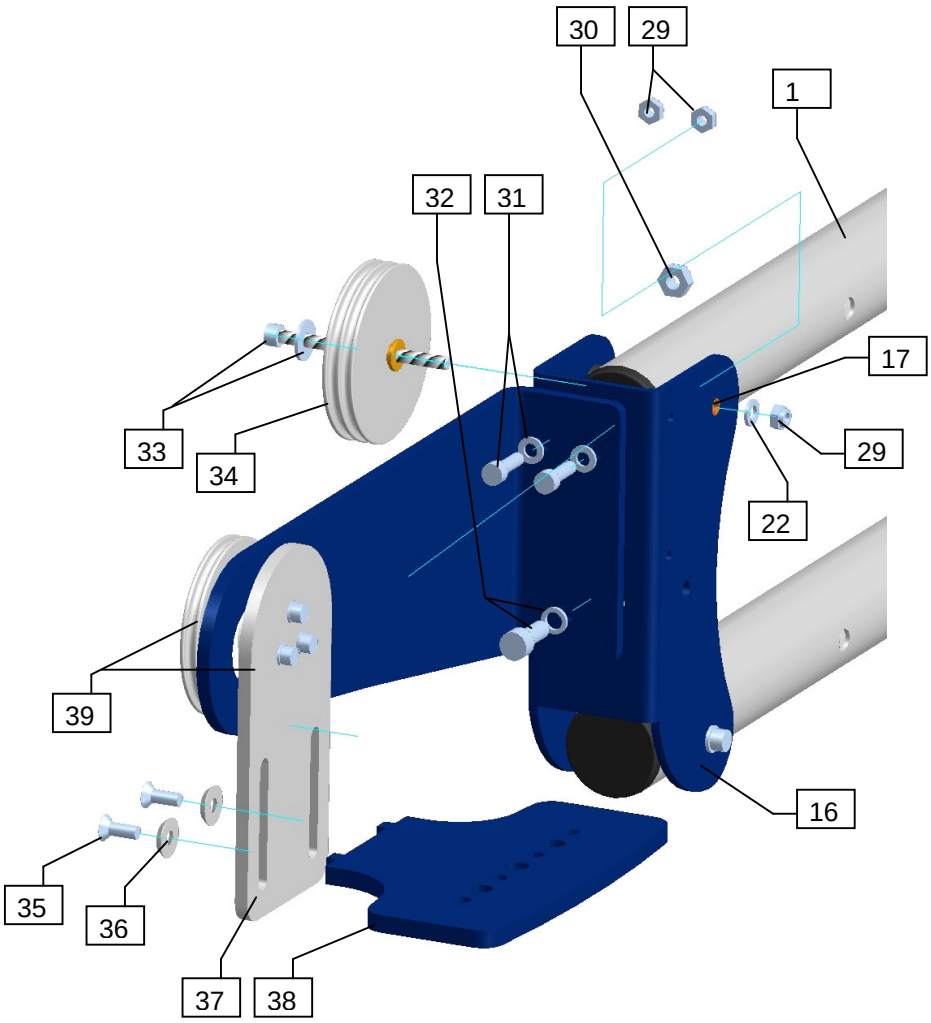


The Sliding Counterweight will allow you to fine-tune the balance setting of the total counterweight setup by means of sliding it to different positions on the tube. For that purpose it can be locked in any position with the knob.

Do not over tighten.

Note: over tightening will damage the tube.

2E FRONT ASSEMBLY TILT VERSION

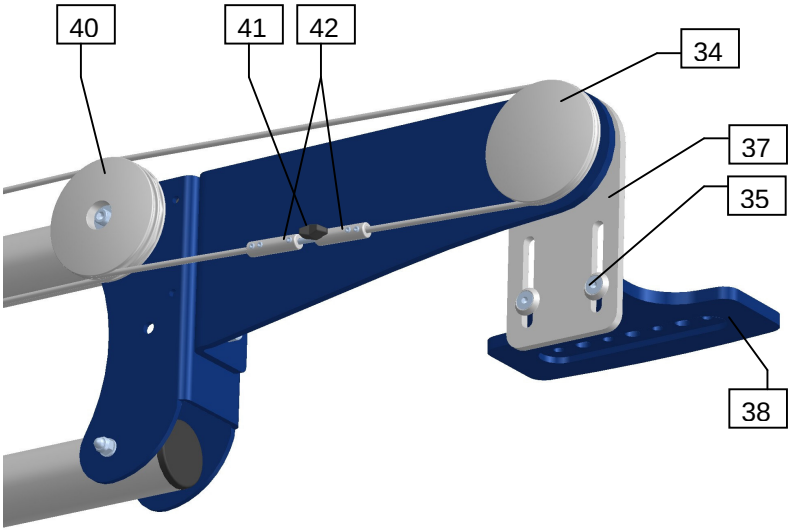


1. Main Tube
16. End Profile
17. Bearing Tube
22. Ring M6
29. Nut M6
30. Nut M8
31. Bolt & Ring M6 (2x)
32. Bolt & Ring M8
33. Bolt (80mm) & large Ring
34. Pulley & Bearing
35. Bolt recessed M6 (2x)
36. Ring recessed (2x)
37. Tilt Arm
38. Camera Tilt Plateau
39. Tilt Unit (pre-assembled)

- Remove the M6x75 bolt (14) with nut (19) and outside rings (15) from the upper rotation point (see 2C). NOTE: DO NOT REMOVE THE BEARING TUBE (17) WITH INSIDE DISTANCE RINGS. This bolt with nut is only necessary for the Artes Basic version.

- Mount the longer Bolt (33) with Pulley & Bearing (34) into the remaining Bearing Tube (17) from the right side and lock them with the M6 Ring and Nut (22, 29).

- Take the Tilt Unit (39) and mount it to the End Profile of the Artes using the appropriate Bolts, Rings and Nuts (29, 30, 31, 32). Use the tools that are supplied with the Tilt Unit and the Artes Videoboom.



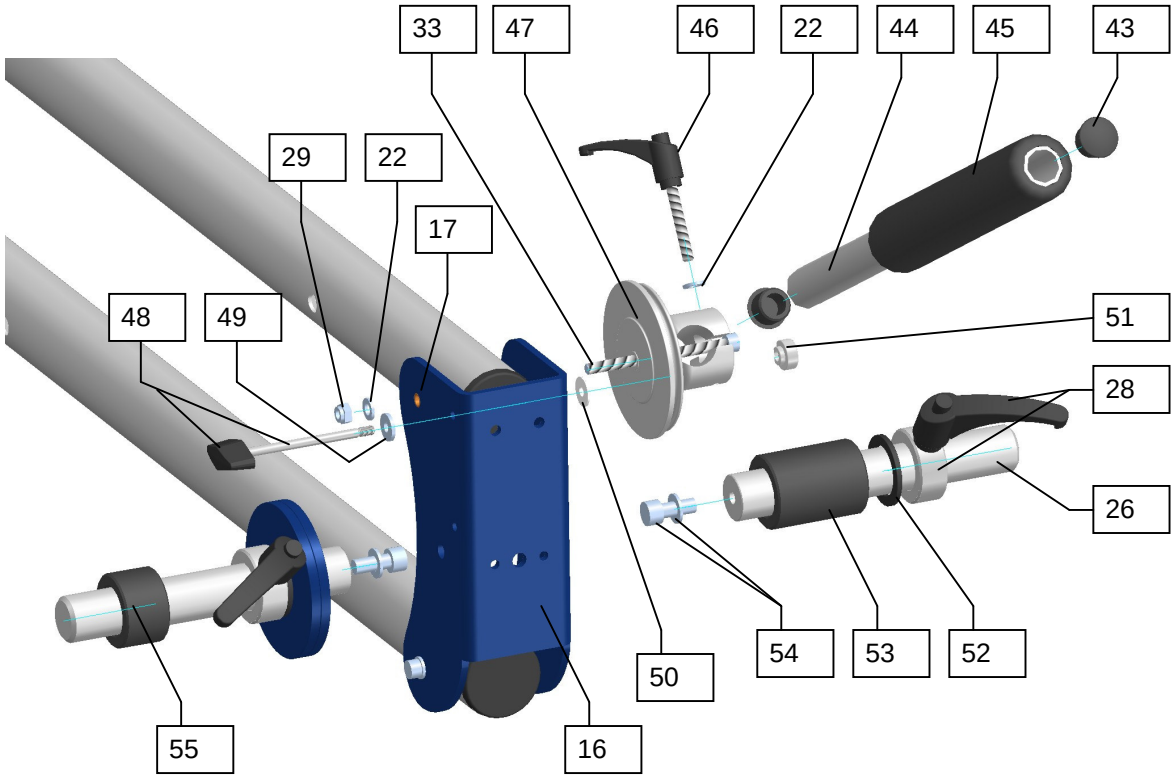
34. Front Pulley
35. Bolt recessed M6 (2x)
37. Tilt Arm
38. Camera Tilt Plateau
40. Double Pulley
41. Cable Knob
42. Coupling Bush / Pen Set

- The short Cable assembly should be laid around the Front and the Double Pulley (34, 40) and connected to each other using the Coupling Set (42). When tensioned Lock the Cable with the Cable Knob (41).

- Be sure that the locking set is approximately in the middle of the lower Cable section when the Camera Tilt Platform is at horizontal level (see picture above). This is necessary to prevent the locking system to touch the Pulleys during tilt movements.

- The Camera Tilt Plateau (38) is set at the right vertical level depending on what camera is used (see Chapter 3) to get the Camera centre of gravity as close as possible to the rotation point.

2F REAR ASSEMBLY TILT VERSION



16. End Profile
17. Bearing Tube
22. Ring M6
26. Weight Axis
28. Locking Clamp
29. Nut M6
33. Bolt (80mm)
43. End Cap Hendel (2x)
44. Handle
45. Foam Grip
46. Locking Knob Handle
47. Rear Pulley
48. Tilt Brake Knob
49. Ring M5
50. Glide Ring
51. Tilt Clamp Block
52. Rubber Ring (2x)
53. Filling Bush high
54. Bolt & Ring M8
55. Filling Bush low

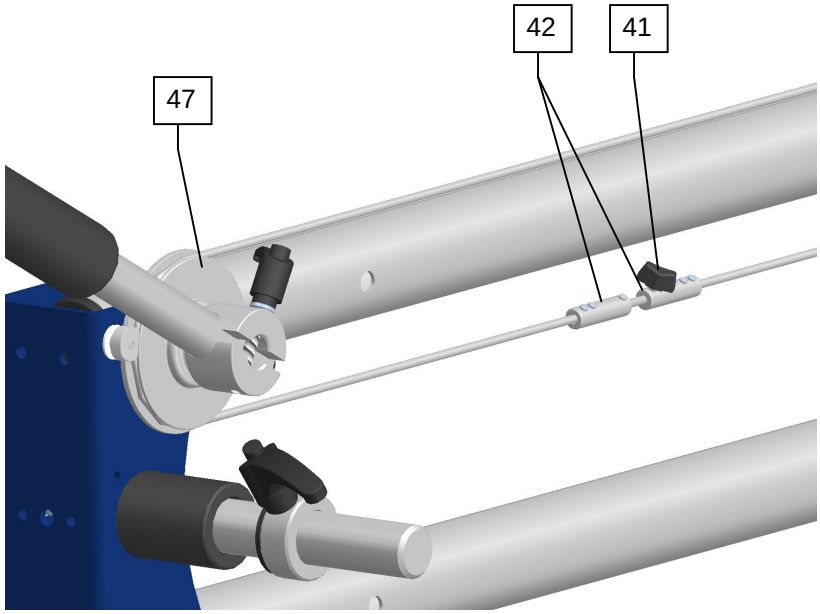
- Remove the existing (Artes Basic) Weight Axis from the backside of the End Profile (16).

- Apply the supplied grease (sachet) to the contact surface of the Rear Pulley to the End Profile (16). This has apart from lubrication also the function of Tilt Friction.

- Remove the M6x75 bolt (14) with nut (19) and outside rings (15) from the upper rotation point (see 2C). NOTE: DO NOT REMOVE THE BEARING TUBE (17) WITH INSIDE DISTANCE RINGS. This bolt with nut is only necessary for the Artes Basic version.

- Mount the longer Bolt (33) with Pulley & Bearing (47) into the remaining Bearing Tube (17) from the right side and lock them with the M6 Ring and Nut (22, 29). Remove any redundant grease from the edge of the End Profile.

- Mount the Tilt Brake Knob with shaft and ring (49) into the Rear End Profile (16). Slide the Glide Ring between the End Profile and the Rear Pulley and put through the shaft of the Brake. Then apply the Tilt Clamp Block to the shaft and rotate the Brake Knob clockwise until it fits to finish installing the brake.



41. Cable Knob
42. Coupling Bush / Pen Set
47. Rear Pulley

- Mount the Handle into the clamp of the Rear Pulley (47) with the locking lever on top

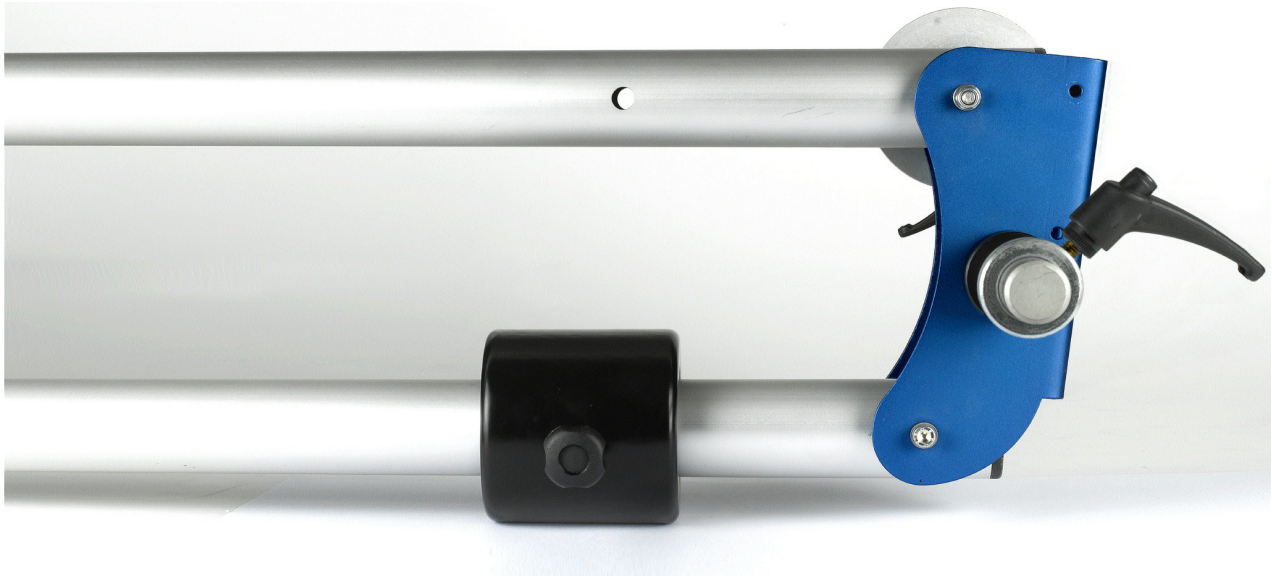
- The long Cable assembly should be laid around the Rear and the Double Pulley (34, 47) and connected to each other using the Coupling Set (42). If necessary loosen the Tilt lock using the knob (48) and pulling the Tilt Clamp block (51). Be sure that the camera tilt platform should be approximately horizontally when the handle is pointing backwards to have the best set-up for upward and downward tilting. When the cable is tensioned Lock it with the Cable Knob (41).

- Be sure that the locking set is the lower Cable section but not too close to the Rear Pulley when the Handle is at horizontal level. This is necessary to prevent the locking system to touch the Pulley during tilt movements.

- If the Weight Axis (26) that is supplied with the Artes Basic is already on the rear of the End Profile (16), it should be demounted using the supplied tools and mounted again at the left side of the End Profile (see picture 2F). Mount the second Weight Axis, supplied with the Tilt Unit, at the right side of the End Profile. Be sure that the Filling Bushes (53, 55) are on the right weight axis because of the extra space that is necessary for the Tilt Brake at the left and the Tilt Handle at the right side of the End Profile. They should be positioned directly to the End Profile. The Rubber rings (53) should be attached to the two Locking Clamps for the weights.

2F^{A} ADJUSTABLE SLIDING COUNTERWEIGHT

After assembly of the rear unit, before attaching it to any other tube or CENTRAL ASSEMBLY, slide the counterweight over the bottom tube of the rear assembly as indicated in the following image:

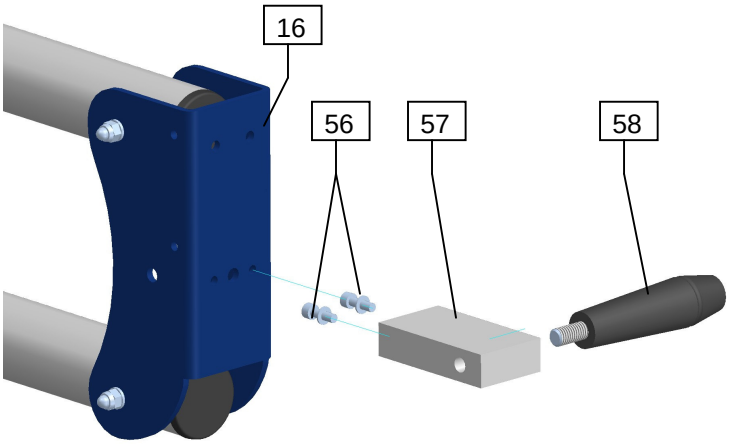


The Sliding Counterweight will allow you to fine-tune the balance setting of the total counterweight setup by means of sliding it to different positions on the tube. For that purpose it can be locked in any position with the knob.

Do not over tighten.

Note: over tightening will damage the tube.

2G FRONT ASSEMBLY MPT-12 ACCESSORY

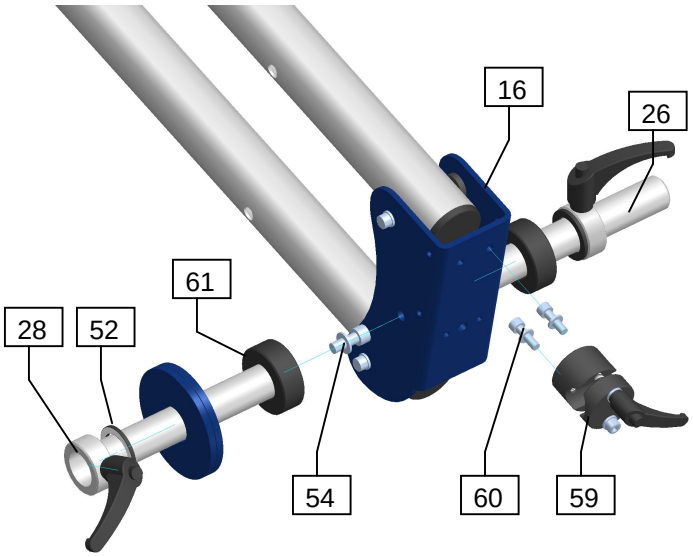


16. End Profile
56. M5 Bolt & Ring
57. Head Block
58. Handle

- Mount the Head Block (57) to the End Profile (16) with the two Bolts & Rings using the supplied tools.

- The Handle attaches the MPT-9 Head or the V-13 Bowl Arm Unit of the V15 Videoboom.

2H REAR ASSEMBLY MPT-12 ACCESSORY



16. End Profile
26. Weight Axis
28. Locking Clamp
52. Rubber Ring
54. M8 Bolt & Ring
59. Clamp Assembly
60. M6 Bolt & Ring (2x)
61. Filling Bush

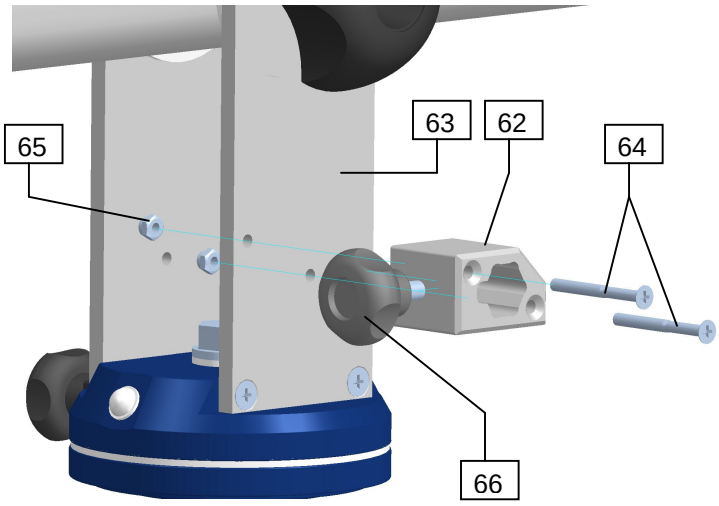
- Mount the Clamp Assembly (59) to the End Profile (16) with the two Bolts & Rings (60) using the supplied tools.

- The Fillings Bushes spaces the Counterweights from the End Profile.

- If the Weight Axis (26) that is supplied with the Artes Basic is already on the rear of the End Profile (16), it should be demounted using the supplied tools and mounted again at the left side of the End Profile (see picture). Mount the second Weight Axis, supplied with the Tilt Unit, at the right side of the End Profile. Be sure that the Filling Bushes (61) are applied because of the extra space that is necessary for the M6 Bolt Heads and Nut of the Rotation Points. They should be positioned directly to the End Profile. The Rubber rings (53) should be attached to the two Locking Clamps for the weights.

2J MOUNTING THE STUD-BLOCK ADAPTER (not with Artes Basic)

In order to use accessories like a screen on a flex-arm, a stud-block should be used. This accessory is standard with the Artes Tilt and the Artes – MPT-9 combination.



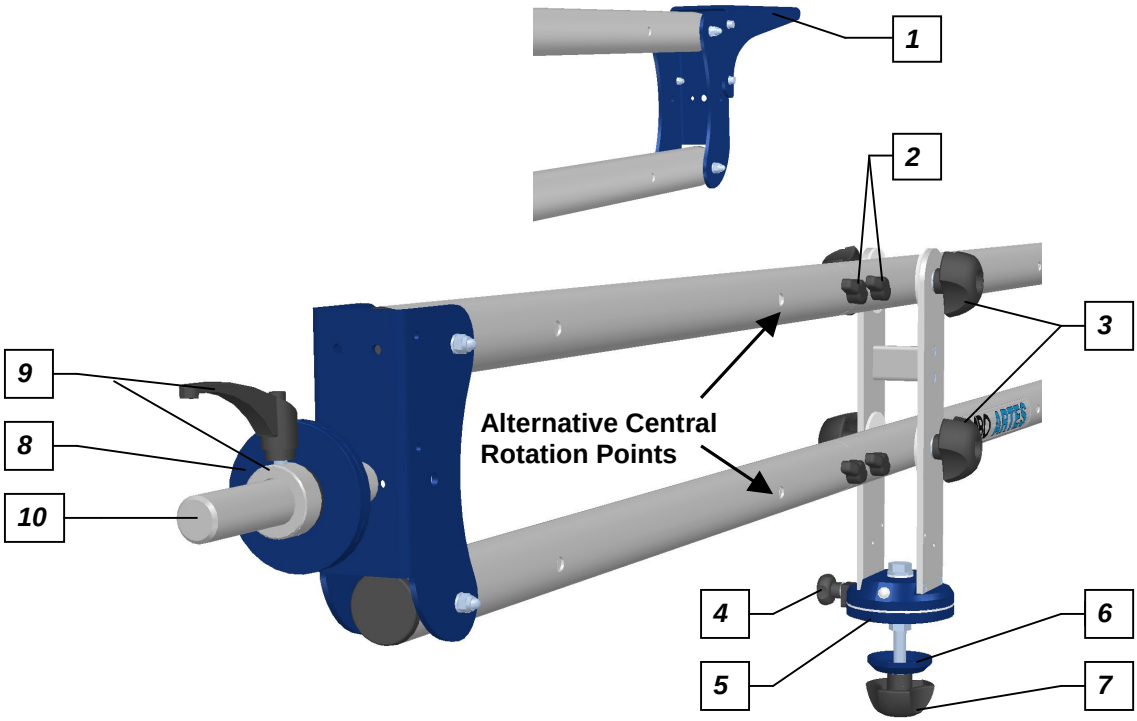
62. Stud Block Adapter
63. Central Assembly Side Plate
64. M4 Screw
65. M4 Nut
66. Locking Knob

- Mount the Stud Block Adapter (62) to one of the Side Plates of the Central Assembly (right or left) (63) with the two Screws & Nuts using the supplied tools and a screwdriver for cross recessed screws.

- Insert the Stud-accessory and lock with the Locking Knob (66).

3. SETTING UP INSTRUCTION ARTES

These instructions set up the Artes in the most used way. There are however more set-ups possible. They will be described in chapter 3B.



MAIN ASSEMBLY ***(new numbering)***

1. Camera Platform (optional)
2. Coupling Knobs
3. Locking Knobs Boom movement
4. Locking Knob Boom rotation
5. Rotation Platform
6. Clamp Disk
7. Locking Knob Videoboom
8. Fine Tuning Weights
9. Locking Clamp (weights)
10. Weight Axis

The Artes Video boom is, after first assembling, a modular system that can easily be taken apart again using the Coupling Knobs (*2*). The mounting instruction describes the way to build up. Breaking down should be done using reverse instructions.

3A NORMAL SET-UP:

-Take and place your tripod on which you want to mount the Artes Videoboom. Be sure it is securely locked and levelled. Any 75 or 100mm bowl-size tripod will be useable depending on its maximum carrying load.

- Be sure that all boom movement-locking knobs (3) are tight. The Artes Central Assembly is now placed with its rotation platform on the tripod, putting the mounting thread through the Tripod cup. Make sure that the rotation platform is positioned correctly and fasten it by hand with the Clamp Disk (6) and the Locking Knob (7). To be sure of a secure attachment use the supplied M12 Ring in between these parts.

- Mount the boom tail section to the backside of the Central Assembly, sliding the Coupling Tubes into the Main Tubes backside and locking them with the Coupling Knobs. Locking only by hand.

- Attach two extension (main tubes) tubes to the front side of the Central Assembly using the Coupling Knobs.

- Take the Front Section and slide it on the front side of the extension tubes, locking them with the same Knobs.

Now the Artes Videoboom is set up in its largest way.
Check the levelling of the boom by using a spirit level or by unlocking the rotation platform (*4*), seeing if the boom finds its way to a lower position.

ARTES TILT SET-UP:

The Artes Tilt is set-up as the Artes Basic with the exception and addition of the following items: The Long Cable for the tilt function should be put on after setting up the Videoboom. There is also a cable supplied for the alternative set-up, described below and shown in picture 2 and 3. The short top-cable can be left on the Tilt Unit when taking apart.

Picture 1.

Picture 2.

Picture 3.

Picture 4.

3B ALTERNATE BASIC SET-UPS:

The Artes Videoboom can be set up in four different ways, separated in two different basic set-ups. We recommend to choose for one of these basic set-ups and then use the extension tubes to enlarge the Videoboom reach.
The above described instruction results in the largest set up 1 (picture 1)
For a shorter Videoboom reach, based on this set up, use set-up 1 without the extension tubes (picture 2).

The other basic set-up uses the alternative central rotation holes (see picture above).
In this situation the Central pre-assembly is mounted at these rotation points according to the normal instructions. This results in a more compact set-up with a shorter tail-section (see picture 3 and 4). This set-up is not really useable with all extension tubes while now there are two sets available. It would result in an instable situation and a very high counterbalance load.
The use of none or one extension set will give a stable and compact solution.
In the normal set-up an extra optional 750mm extension is useable in combination with a maximum camera-weight of 3kg.

4. MOUNTING THE VIDEO CAMERA

Place the Camera platform on a table or on the floor. Be sure that the central locking knobs and rotation lock are tight. When using the camera directly on a quick lock plate, mount the bottom part on the camera platform using the supplied ¼" and 3/8" Thumbscrews. Mount the other quick lock plate to the video camera. Place the camera on the platform using this quick lock system. The camera platform can be the Artes fixed camera platform, the Artes Tilt platform or the MPT-9 Camera Platform.

When a camera head is used, the head should be mounted to the Fixed Camera Platform using the thumbscrews. Then attach the camera to the head according to the camera head instructions.

5. USING THE ARTES VIDEOBOOM

The boom has a low friction rotation platform, which enables you to make very fluid pan movements. The closer to the Central Assembly you hold the boom, the smoother are the movements. The further away from the mast you hold the boom, the better you control speed and position. So depending on what you are shooting the boom is controllable in more than one way. The vertical boom movement works the same apart from the end stops. Movements can start from an end stop but using the end stops as a movement stop is not recommended. The boom movement locking knobs (*3*) are no friction control but for certain purposes they are useable as one.
Combined pan and vertical movements are easy to do because they do not affect each other. When only vertical or pan movement is required, use the locking knobs *3* or *4 (rotation lock)* to eliminate the other movement.

Using the Artes Tilt Accessory or the MPT-9 Mechanical Pan Tilt Head makes more combined movements possible. See also instructions of the MPT-9 Unit.

For all ARTES possibilities and accessories we refer to your dealer and the www.cambo.com site.

SPECIFICATIONS ARTES BASIC

■	**Boom dimensions: & Weight**	Compact set up:	1960x150x406mm (lxhxw)	6,6kg
		Compact + 75cm extension:	2710x150x406mm (lxhxw)	8,1kg
		Normal set up:	2710x150x406mm (lxhxw)	8,1kg
		Normal + 75cm extension:	3460x150x406mm (lxhxw)	9,6kg
■	**Maximum Load Camera System:**	(Incl. Camera Head / accessories)	10kg without extensions 5kg with 75cm extension 3kg with extra (optional) 75cm extension	
■	**Boom vertical reach:**	2x779mm	in compact set up	
		2x1429mm	in compact set up with 75cm extension	
		2x1117mm	in normal set up	
		2x1767mm	in normal set up with 75cm extension	
		2x2417mm (optional)	in normal set up with 2x 75cm extension	
		Neutral Position:	333mm above tripod	
■	**Boom horizontal reach:**	1200mm	in compact set up	
		1950mm	in compact set up with 75cm extension	
		1590mm	in normal set up	
		2340mm	in normal set up with 75cm extension	
		3090mm (optional)	in normal set up with 2x 75cm extension	

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