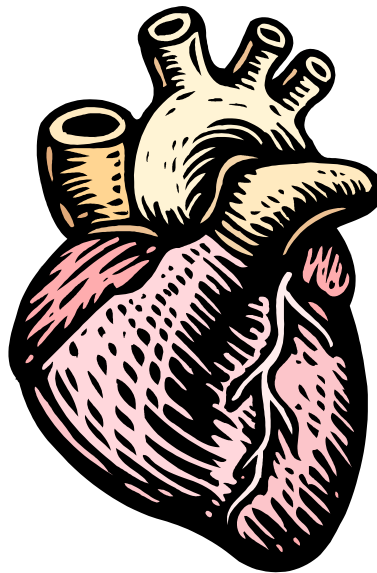




**centre de
développement
pédagogique**
*pour la formation générale
en science et technologie*

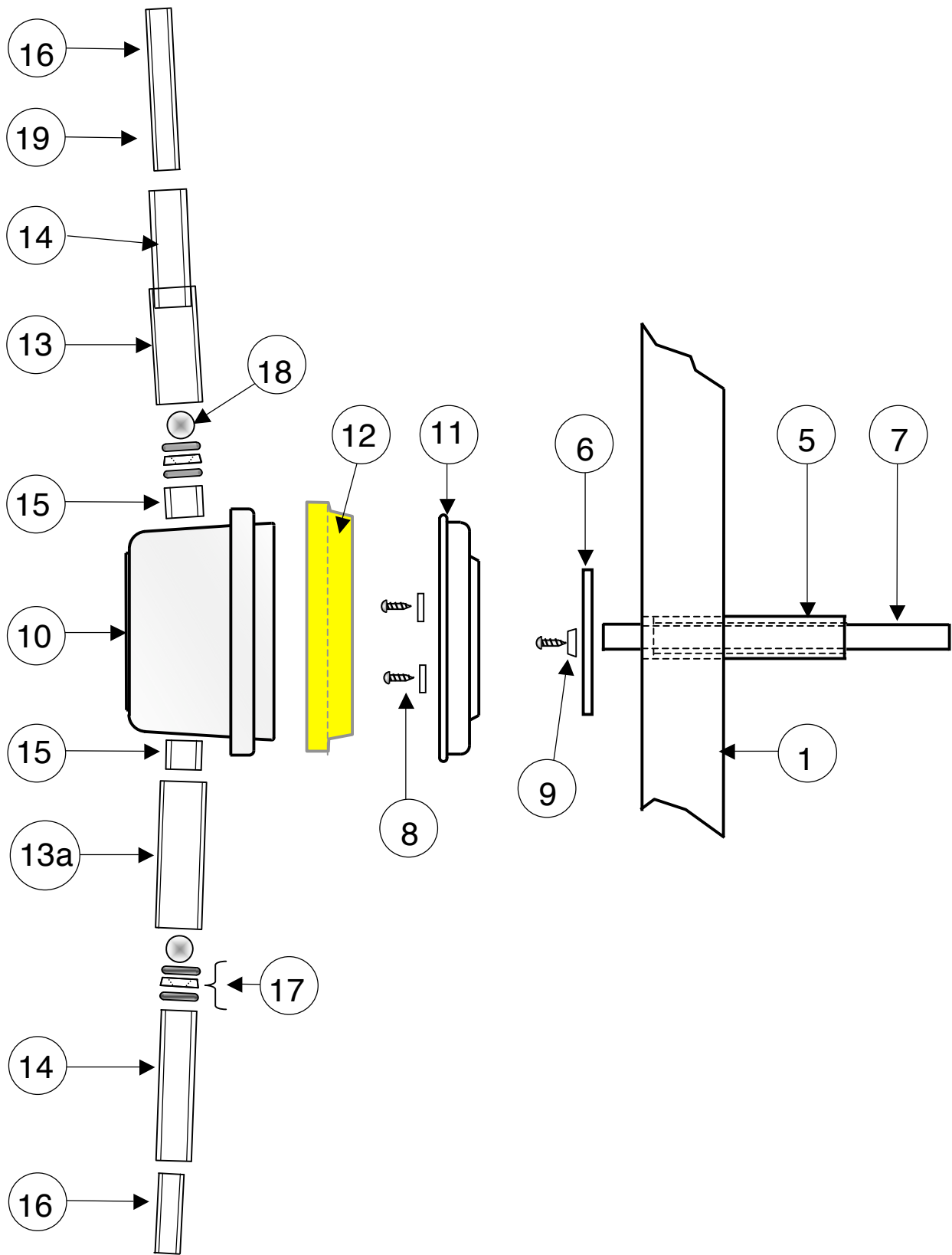
HEART ST & AST



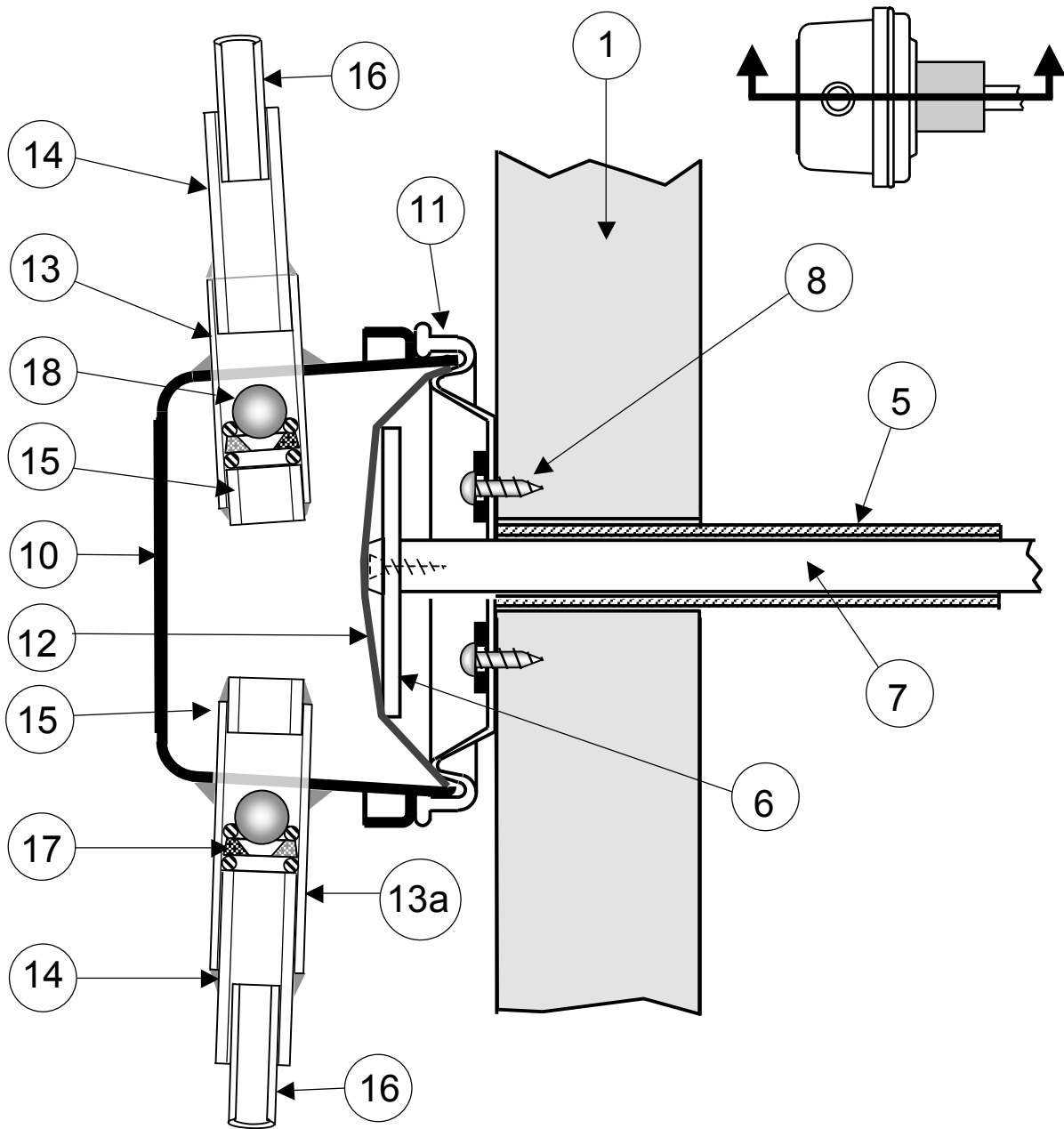
Diagrams, technical drawings and scales

Working Document

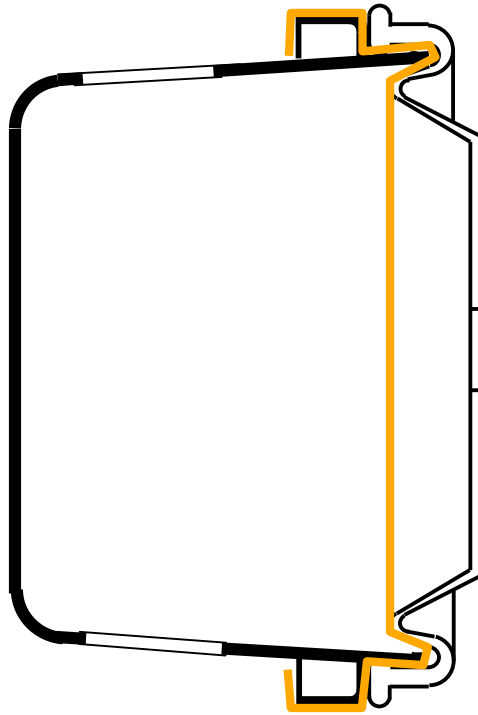
February 2007



REF	DESIGNATION	No.	OBSERVATIONS
1	VERTICAL UPRIGHT	1	Square pine moulding dim. 27 x 27 x 500 mm
2	HORIZONTAL UPRIGHT	1	Square pine moulding dim. 27 x 27 x 200 mm
3	BASE	1	Pine particle board dim. 117 x 115 x 15 mm
4	PEG BOARD	1	<i>Masonite</i> panel dim. 610 x 250 x 6 mm
5	GUIDE	1	Hollow aluminium tube dim. ½ in. ext. x 3/8 in. int. x 75 mm
6	PISTON	1	Piece of styrene dim. 35 x 50 x 3 mm (or adaptable to the container)
7	PUSH PLATE	1	Hardwood moulding dim. 10 x 10 x 120 mm
8	SCREW MILLED HEAD	3	No. 4 screw- 1/2"
8	WASHER	2	No. 8 washer
9	BASIN WASHER	1	Washer Ø ext. 10 mm
10	CONTAINER	1	Plastic container with tight cover able to receive an appropriate balloon
11	COVER	1	
12	MEMBRANE	1	Balloon 8" or 9" or 12" depending on the container
13	TUBE GUIDE	1	Acrylic, Ø 5/8" EXT. X Ø 1/2" INT. X 40 mm
13a	TUBE GUIDE	1	Acrylic, Ø 5/8" EXT. X Ø 1/2" INT. X 60 mm
14	JOINT TUBE	2	Polyethylene, Ø 1/2" EXT. X Ø 3/8" INT. X 40 mm
15	BUTT TUBE	2	Polyethylene, Ø 1/2" EXT. X Ø 3/8" INT. X 40 mm
16	ADDUCTION TUBE	2	Vinyl Ø 3/8" EXT. X Ø 1/4" INT. X 10 mm
17	TORRIC JOINT	4	Cartridge joint Ø 15 mm EXT. (Master Plumber no. 723)
17	WASHER	2	Polyethylene Basin washer Ø 13 mm EXT.
18	BALL	1	Steel ball Ø 3/8" (for ball bearings)
			HARDWARE
	SCREW MILLED HEAD	1	No. 6 screw- 2" (to affix the vertical upright to the base)
	SCREW MILLED HEAD	2	No. 6 screw- 1-1/2" (to affix the horizontal upright to the base)
	SCREW AND WASHER	4	No. 6 32 screw- 1-1/2" + bolt (to link the panel and the upright)
	WASHER	4	Ø ½"
	BUTTERFLY BOLT	2	¼ - 20 (to link the panel and the tube support)
	ROUND HEAD SCREW	2	½ -20 X ¾"



No.	DESIGNATION	No.	DESIGNATION	No.	DESIGNATION
1	UPRIGHT	10	CONTAINER	15	BUTT TUBE
5	GUIDE	11	COVER	16	ADDUCTION TUBE
6	PUSH PLATE	12	MEMBRANE	17	TORRIC JOINTS AND WASHERS
7	PISTON	13	TUBE GUIDE	18	BALL
8	SCREWS AND WASHERS	14	JOINT TUBE		



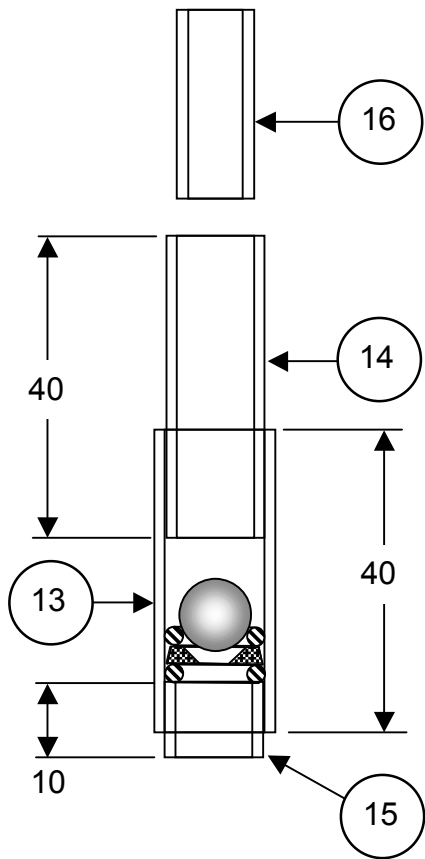
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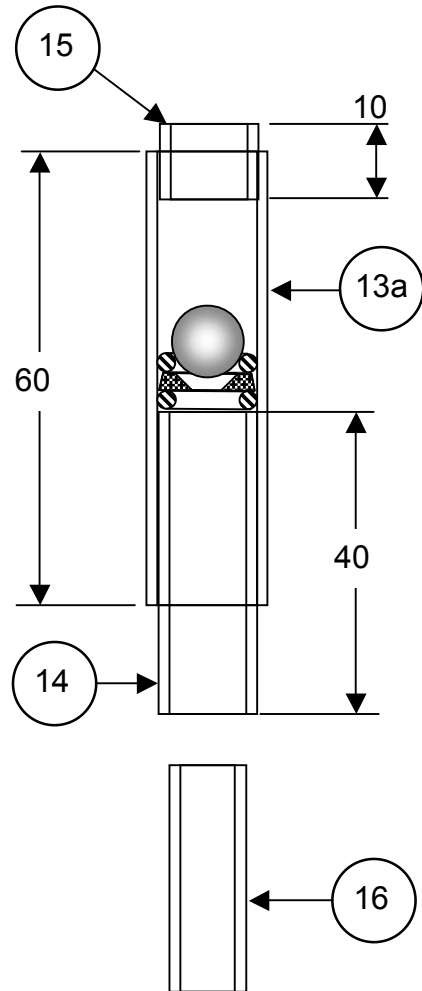
DATE

SCALE

N°

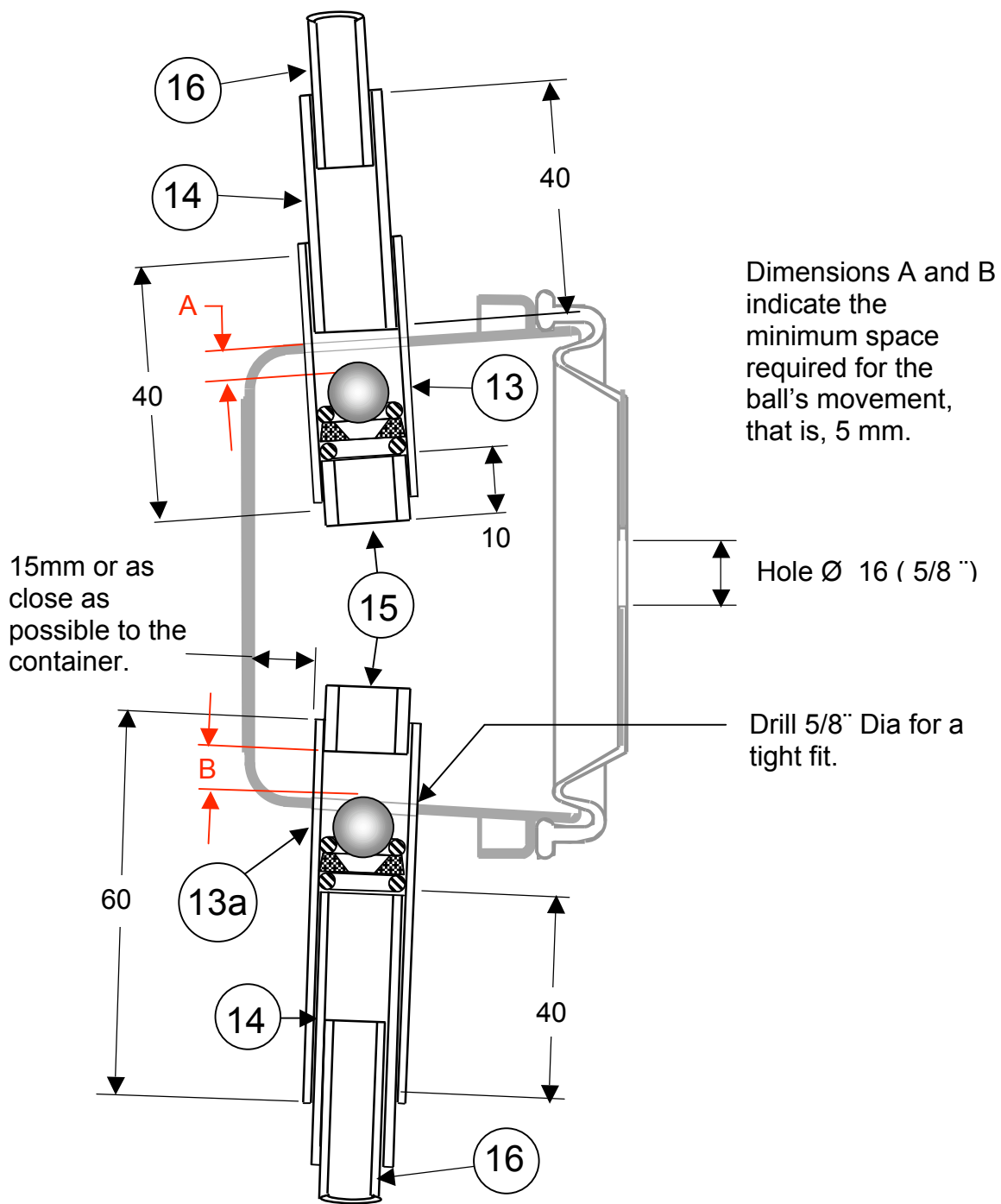


UPPER VALVE

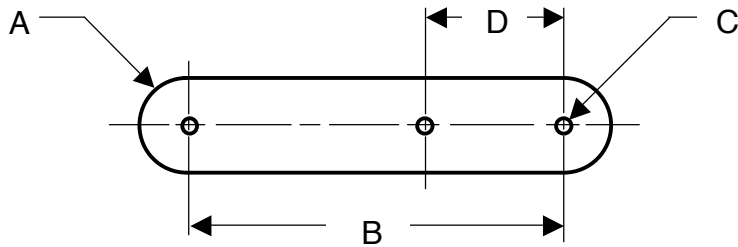
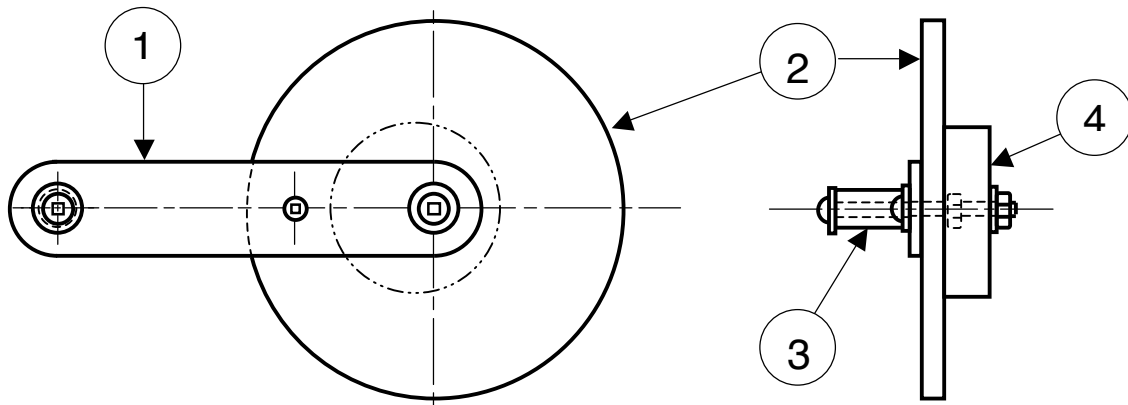
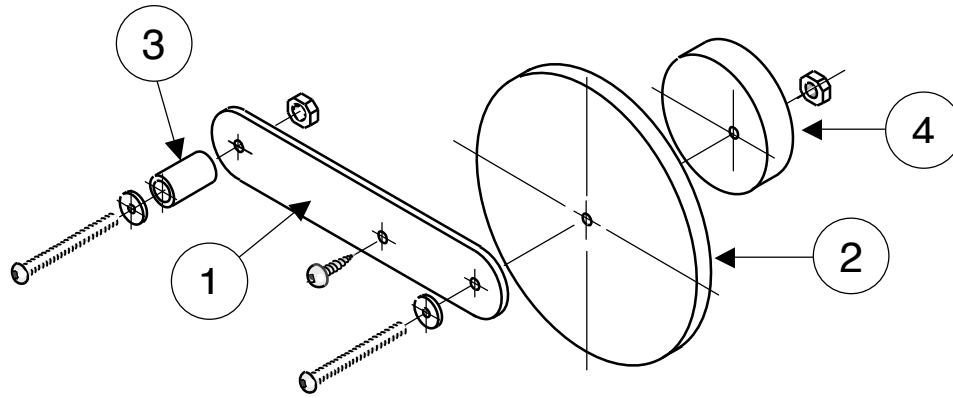


LOWER VALVE

REF	No.	DESIGNATION	MATERIAL	OBSERVATION
13	2	TUBE GUIDE	ACRYLIC TUBING	Ø 5/8 EXT. X Ø 1/2" INT.
14	2	JOINT TUBE	POLYETHYLENE	Ø 1/2" EXT. X Ø 3/8" INT.
15	2	BUTT TUBE	POLYETHYLENE	Ø 1/2" EXT. X Ø 3/8" INT.
16	2	ADDUCTION TUBE	VINYL TUBING	Ø 3/8" EXT. X Ø 1/4" INT.



REF	NO	DESIGNATION	MATERIAL	OBSERVATION
13	2	TUBE GUIDE	ACRYLIC TUBING	\varnothing 5/8 EXT. X \varnothing 1/2 " INT.
14	2	JOINT TUBE	POLYETHYLENE	\varnothing 1/2" EXT. X \varnothing 3/8" INT.
15	2	BUTT TUBE	POLYETHYLENE	\varnothing 1/2" EXT. X \varnothing 3/8" INT.
16	2	ADDUCTION TUBE	VINYL TUBING	\varnothing 3/8" EXT. X \varnothing 1/4" INT.



NOTE :
 Dimensions A B and C
 depend on the mechanism
 employed. Dimension D must
 take into account the cam.

REF	No.	DESIGNATION	MATERIAL	OBSERVATION
1	1	CRANK		
2	1	DISC		
3	1	HANDLE		
4	1	CAM		