for more information visit:
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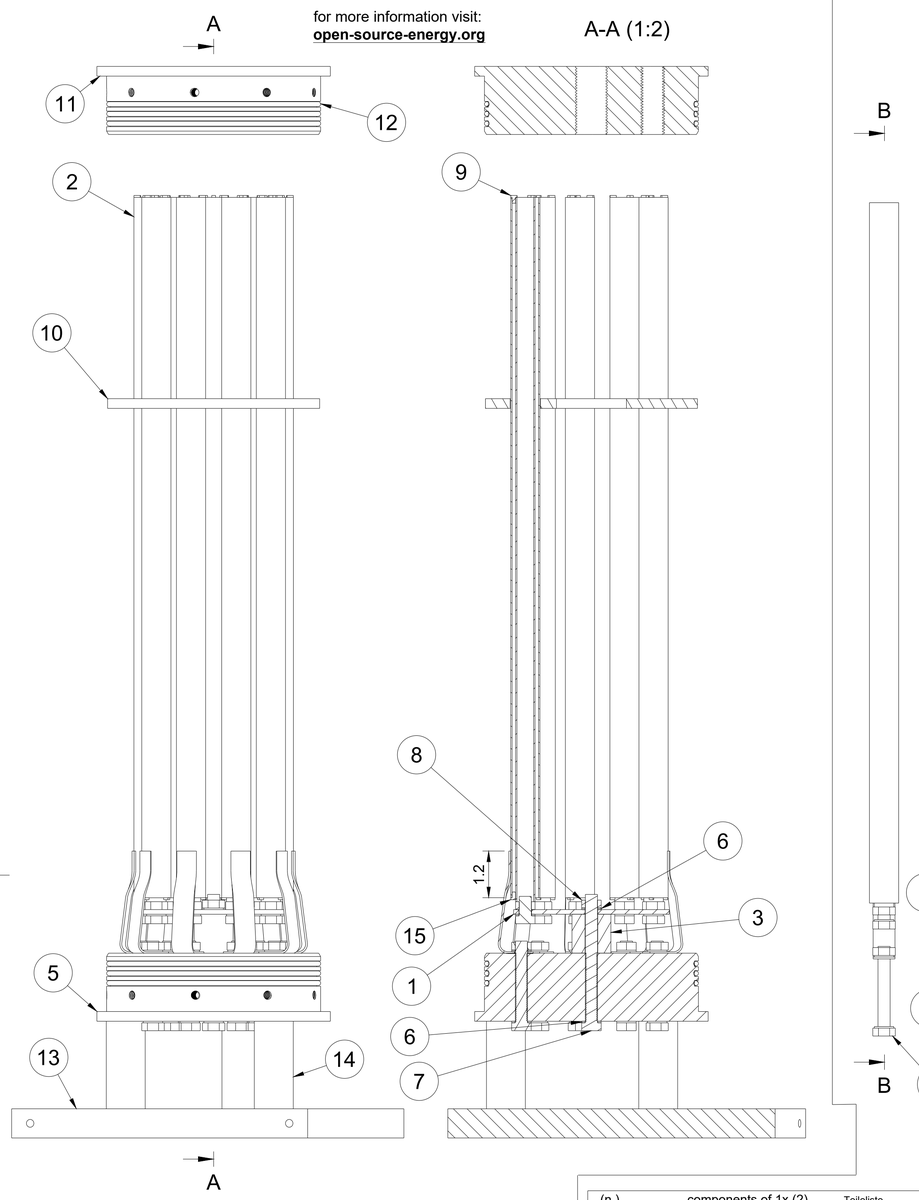
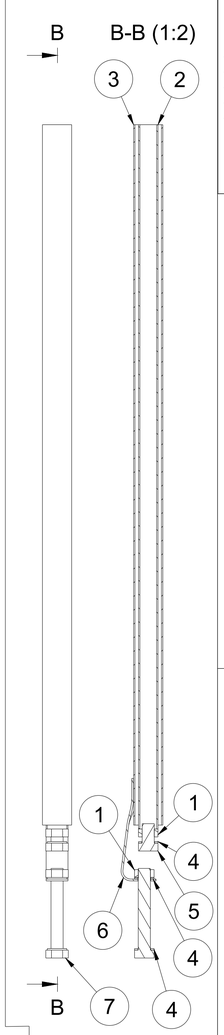
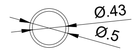


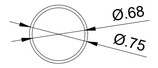


(2.) inner tube



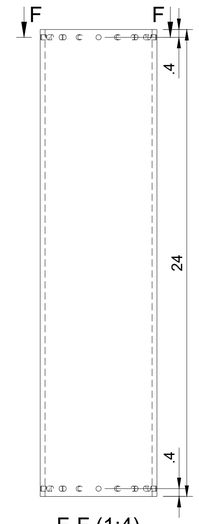
- length = 18.1"
- use SEEMLESS tubes!
- use 316/316L or higher grade!
- polish inside and outside!
- search for:
  316L seemless 0.5" 0.035"
  316L seemless 0.5" 0.043"
  316 seemless 0.5" 0.035"
  316 seemless 0.5" 0.043"

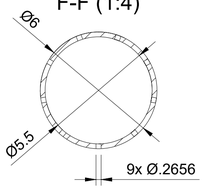
(3.) outer tube



- length = 18.0"
- use SEEMLESS tubes!
- use 316/316L or higher grade!
- polish inside and outside!
- search for:
  316L seemless 0.75" 0.035"
  316L seemless 0.75" 0.068"
  316 seemless 0.75" 0.035"
  316 seemless 0.75" 0.068"

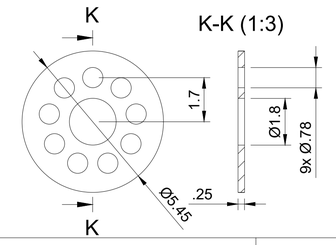
(4) housing tube





- use acrylic tubing
- no thinner wall!
- search for:
  acylic tubing 6 OD 5.5 ID
  acylic 6 OD 5.5 ID

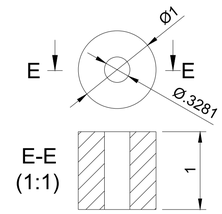
(10) center bracket



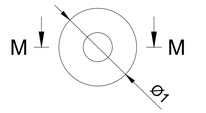
- cut from sheet and lathe
- use acrylic or similar plastic with good lathing properties
- search for:
  1/4" acrylic sheet

- cut from rod and drill hole
- use acrylic or similar plastic
- search for: 1" acrylic rod

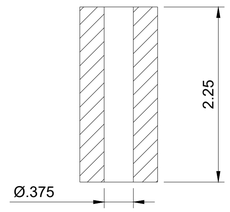
(3) lower center spacer



(14) base spacer

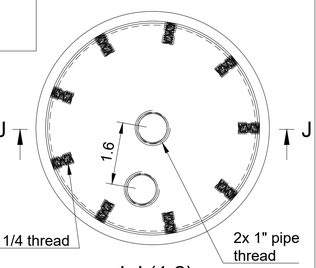


M-M (1/1)

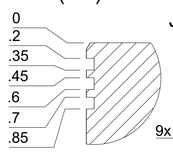


- cut from rod and drill hole
- use acrylic or similar plastic
- search for: 1" acrylic rod

(11) upper cap



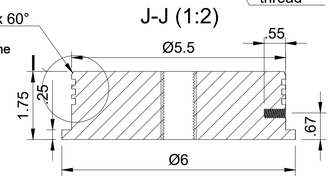
I (1:1)



9x 1/4 thread

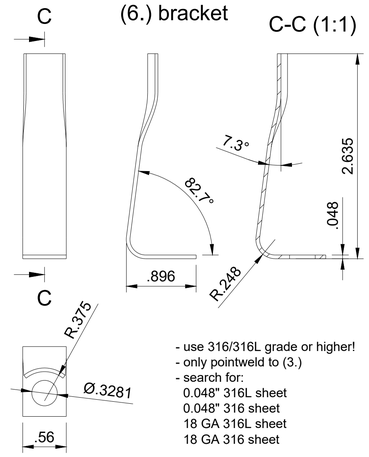
2x 1" pipe thread

J-J (1:2)



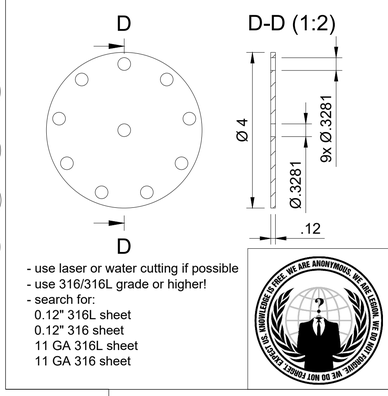
- cut from sheet and lathe
- use acrylic or similar plastic with good lathing properties
- search for:
  1.75" acrylic sheet
  2" acrylic sheet

(6.) bracket



- use 316/316L grade or higher!
- only pointweld to (3.)
- search for:
  0.048" 316L sheet
  0.048" 316 sheet
  18 GA 316L sheet
  18 GA 316 sheet

(1) lower plate



- use laser or water cutting if possible
- use 316/316L grade or higher!
- search for:
  0.12" 316L sheet
  0.12" 316 sheet
  11 GA 316L sheet
  11 GA 316 sheet

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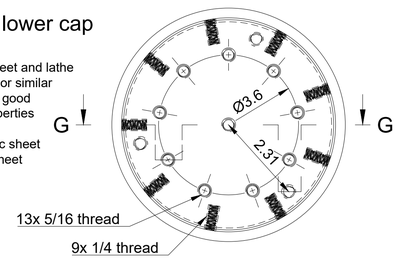
(13) base

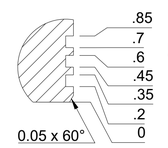
- cut from sheet
- use acrylic or similar plastic
- search for: 3/4" acrylic sheet

(5) lower cap

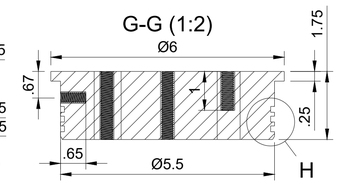
- cut from sheet and lathe
- use acrylic or similar plastic with good lathing properties
- search for:
  1.75" acrylic sheet
  2" acrylic sheet



H (1:1)



G-G (1:2)

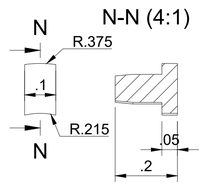


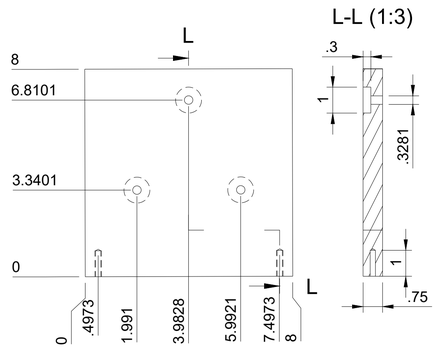
(n)	Teileliste			
Element	Anz.	Bauteilnummer	Beschreibung	Material
1	1	Lower plate	0.12" sheetmetal	Edelstahl 316L
2	9	Single cell assembly		Edelstahl 316L
3	1	Lower center spacer		ABS-Kunststoff
4	1	Housing tube	6.0" x 5.5" x 24"	Acryl, farblos
5	1	Lower cap		Acryl, farblos
6	2	5/16" washer		Edelstahl 316L
7	4	5/16" screw III	L = 3.3 "	Edelstahl 316L
8	1	5/16" nut		Edelstahl 316L
9	27	Upper tube spacer		ABS-Kunststoff
10	1	Center bracket		Acryl, farblos
11	1	Upper cap		Acryl, farblos
12	6	O ring	2.75" x 2.625"	Gummi
13	1	Base		Acryl, farblos
14	3	Base spacer		ABS-Kunststoff
15	27	Lower tube spacer		ABS-Kunststoff

(n.)	components of 1x (2)	Teileliste		
Element	Anz.	Bauteilnummer	Beschreibung	Material
1	2	5/16" nut		Edelstahl 316L
2	1	Inner tube	1/4" x 0.035" x 18.1"	Edelstahl 316L
3	1	Outer tube	3/4" x 0.035" x 18"	Edelstahl 316L
4	3	5/16" washer		Edelstahl 316L
5	1	5/16" screw I	L = 1/2 "	Edelstahl 316L
6	1	Bracket	0.036" sheetmetal	Edelstahl 316L
7	1	5/16" screw II	L = 2.1 "	Edelstahl 316L

(9) & (15) tube spacer's

- 3D print or
- cut from plastic sheet
- use to center (2.) into (3.) as precise as possible





How to build:
- polish in- & outside of tubes (2.) & (3.)
- pointweld bracket (6.) to (3.) = (3./6.)
- pointweld (1.) to (2.) = (1./2.)
- be VERY carefull to minimize weld warping due to too high temperatures!
- (2.) & (3.) need to be straight after weld
- use (6), (7) & (8) to mount (1) & (3) to (5) --> add your cable with lug here!
- use (1.), (4.) & (7.) to mount (3./6.) to (5) --> add your cable's with lug's here!
- lower (1./2.) into (3./6.), DO NOT scratch!
- use (4.) & (5.) to mount (1./2.) to (1)
- use (9) & (15) to center (1./2.) in (3./6.) as exact as possible, glue in possition
- position (10), glue in place
- use (7) & (14) to mount (13)
- position (12) on (5) & (11), use acid free & non aggressive lubricant on (12)!
- gentle push (4) into (5)
- gentle push (11) into (4)
- use 18x 1/4" setscrews to secure (4) in place

Rebuild from open available knowledge and pictures without original dimensions!

An attempt is made to build up a strong electric field, which only works well on smooth and, if possible, round surfaces. Therefore, carefully round off all corners and edges of components that are under voltage and pay attention to smooth / polished surfaces to minimize field leakages!
If necessary, additionally try applying an epoxy resin with high electrical insulation to all surfaces except the inside of the outer tube and the outside of the inner tube to increase efficiency.

Dept.	Technical reference	Created by	Approved by
		Optimus 07.07.2020	
revision 1		Document type	Document status
for more information or contact/questions visit:		Title	unchecked
open-source-energy.org		cell assembly	DWG No. 001
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