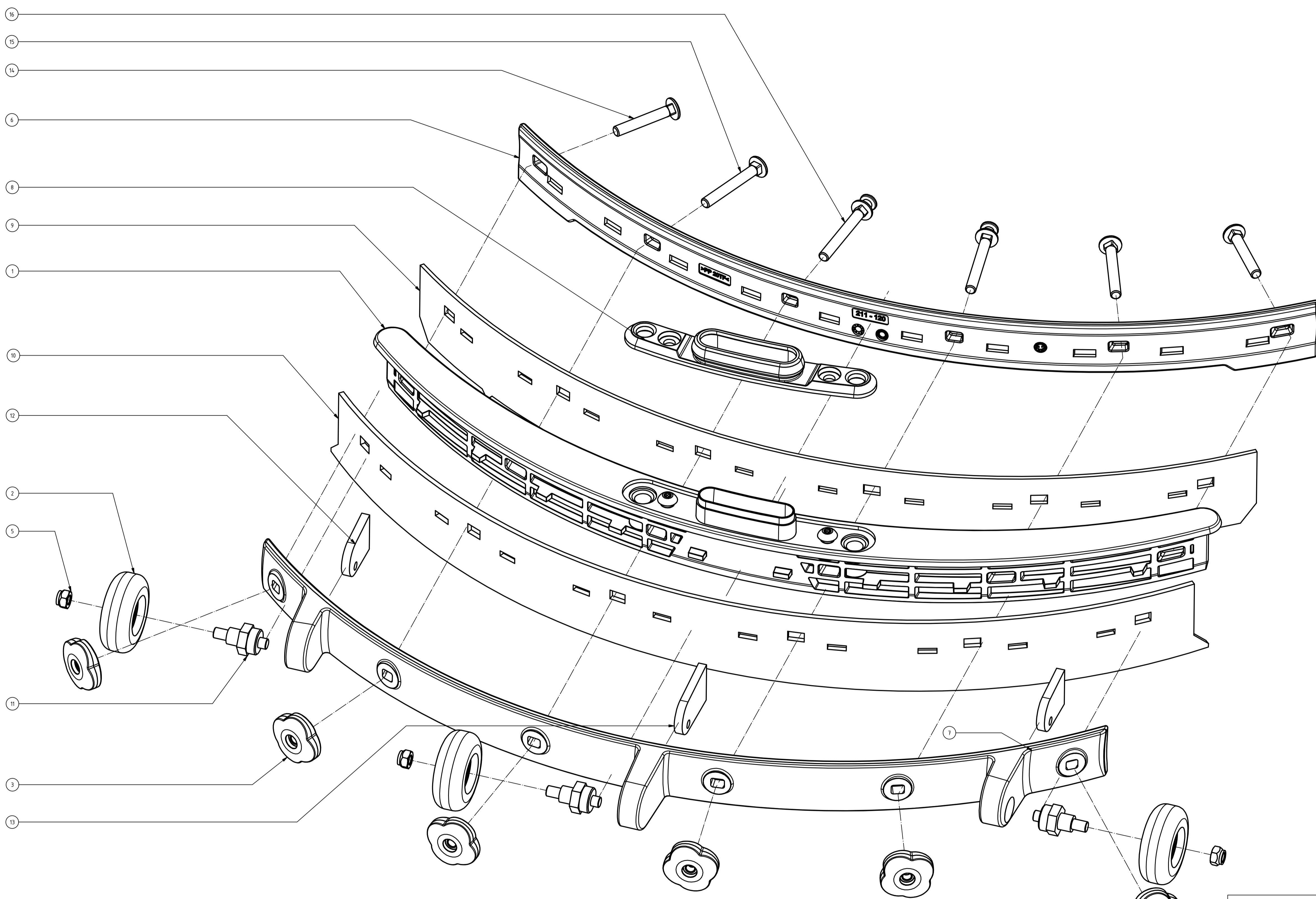


MODIFICATION HISTORY					
Release	Description	Date	Checked	Accepted	
001	First release	19.02.2018	arw/en	x	
102	add the "component PN" number	10.10.2018	arw/en	x	
103	assembly is approved	01.11.2018	arw/en	arw/en	



TOLERANCES AND DIMENSIONS		
LINEAR DIMENSIONS	0,3-0,060	± 0,05mm
	0,3-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-500mm	± 0,2mm
	500-1000mm	± 0,25mm
ANGLES		± 10°
HOLE Ø		± 0,1mm

**MACHINING AND DELIVERY NOTES**

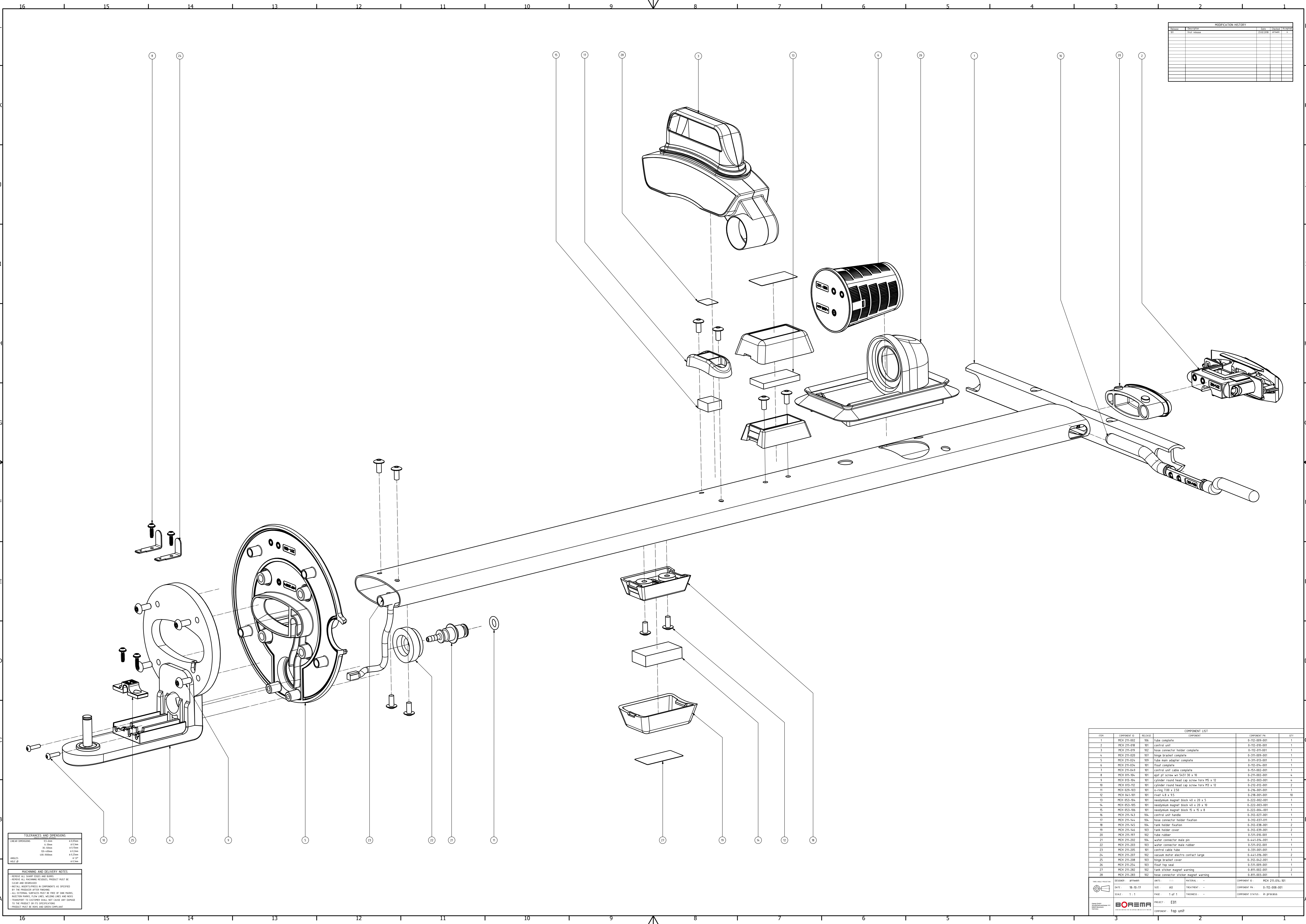
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NECKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-007	104	squeegee main housing complete	0-311-002-001	1
2	MCH 211-008	102	squeegee castor complete	0-311-003-001	3
3	MCH 211-013	102	squeegee fixation nut complete	0-311-004-001	6
4	MCH 013-105	101	cylinder round head cap screw torx M5 x 10	0-212-002-001	2
5	MCH 017-102	101	nut self locking M5	0-213-002-001	3
6	MCH 211-120	104	squeegee front housing	0-312-007-001	1
7	MCH 211-121	105	squeegee rear housing	0-312-008-001	1
8	MCH 211-122	104	squeegee bracket	0-312-009-001	1
9	MCH 211-123	104	squeegee front rubber	0-531-001-001	1
10	MCH 211-124	104	squeegee rear rubber	0-531-002-001	1
11	MCH 211-126	105	squeegee castor axis	0-441-001-001	3
12	MCH 211-127	102	squeegee castor bracket short	0-441-002-001	2
13	MCH 211-128	102	squeegee castor bracket long	0-441-003-001	1
14	MCH 211-130	102	squeegee bolt small	0-441-004-001	2
15	MCH 211-131	102	squeegee bolt medium	0-441-005-001	2
16	MCH 211-132	102	squeegee bolt large	0-441-006-001	2

THIRD ANGLE PROJECTION	DESIGNER: arw/en	UNITS: mm	MATERIAL: -	COMPONENT ID: MCH 211-006-103
	DATE: 19-02-18	SIZE: A1	TREATMENT: -	COMPONENT PN: 0-112-001-001
	SCALE: 1 : 1	PAGE: 1 of 1	THICKNESS: -	COMPONENT STATUS: approved
		PROJECT: E01 COMPONENT: squeegee complete		

MODIFICATION HISTORY			
Number	Description	Date	Author
01	First release	23.02.2016	aprima



**TOLERANCES AND DIMENSIONS**

LINEAR DIMENSIONS	01-50mm	±0.20mm
	50-100mm	±0.30mm
	100-150mm	±0.50mm
	150-200mm	±0.70mm
	200-300mm	±1.00mm
ANGLES		±0.10°
HOLE Ø		±0.10mm

**MACHINING AND DELIVERY NOTES**

- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL PACKING MATERIALS. PRODUCT MUST BE CLEAN AND DEGREASED
- METALLIC SURFACES MUST BE PROTECTED AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF OILY MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND MARKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE
- IN THE ABSENCE OF ITS SPECIFICATIONS, PRODUCT MUST BE MADE AND DELIVERED COMPLIANT

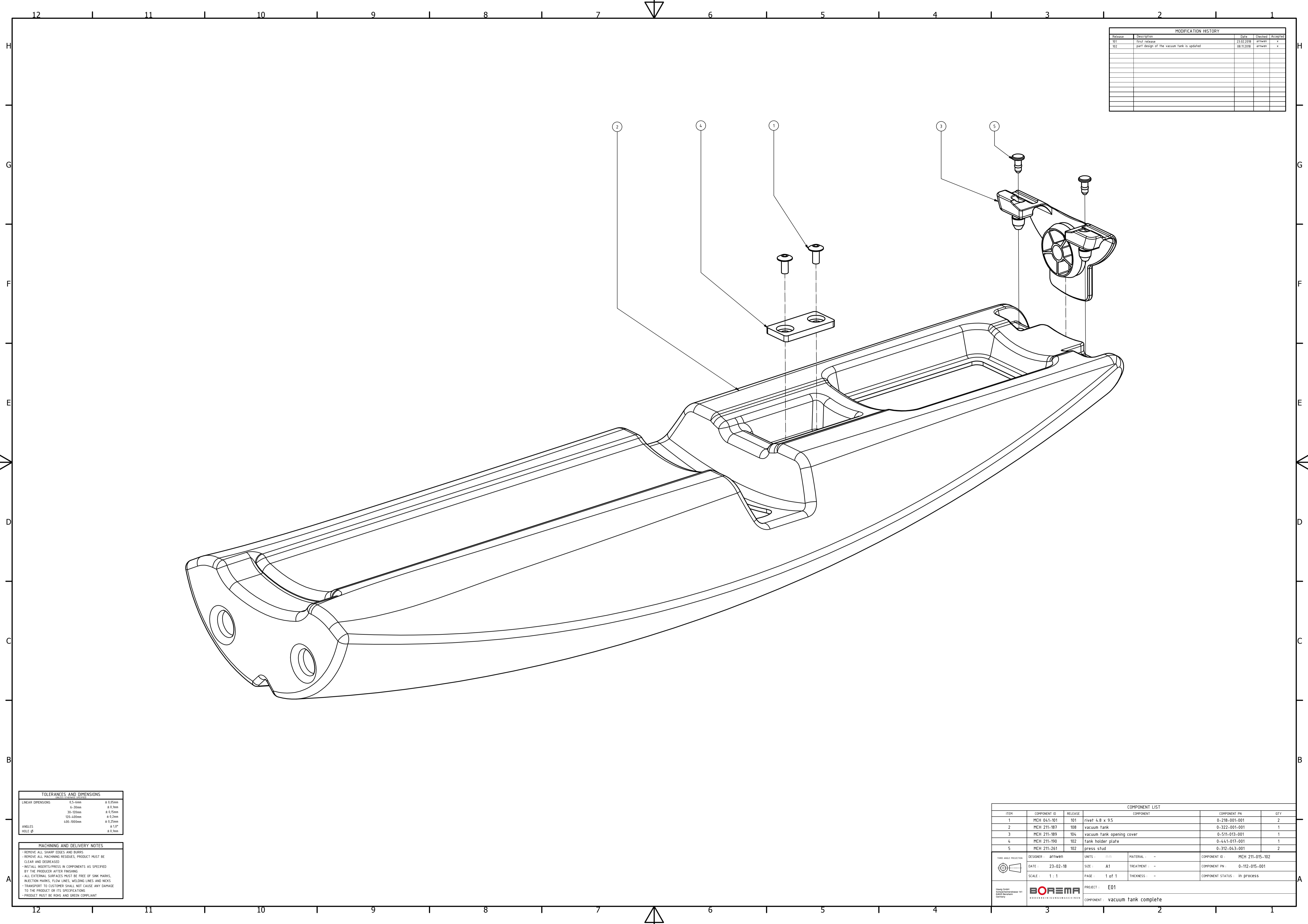
COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCR 211-002	106	Tube complete	0-112-009-001	1
2	MCR 211-018	101	control unit	0-112-010-001	1
3	MCR 211-019	102	hose connector holder complete	0-112-011-001	1
4	MCR 211-020	107	hinge bracket complete	0-331-009-001	1
5	MCR 211-024	109	tube main adapter complete	0-391-015-001	1
6	MCR 211-034	101	flange complete	0-112-016-001	1
7	MCR 211-049	101	control unit cable complete	0-151-002-001	1
8	MCR 015-104	101	spot pl screw un 5453 30 x 10	0-211-002-001	4
9	MCR 013-104	101	Cylinder round head cap screw torx P15 x 12	0-212-003-001	4
10	MCR 013-112	101	Cylinder round head cap screw torx P15 x 12	0-212-010-001	2
11	MCR 029-103	101	o-ring 1.50 x 2.50	0-216-001-001	1
12	MCR 041-101	101	flange 4.8 x 9.5	0-220-001-001	10
13	MCR 053-104	101	neodymium magnet block 4.8 x 2.8 x 5	0-222-002-001	1
14	MCR 053-105	101	neodymium magnet block 4.8 x 2.8 x 10	0-222-003-001	1
15	MCR 053-106	101	neodymium magnet block 7.5 x 7.5 x 8	0-222-004-001	1
16	MCR 211-143	104	control unit holder	0-102-021-001	1
17	MCR 211-144	104	hose connector holder fixation	0-312-031-011	1
18	MCR 211-145	104	tank holder fixation	0-312-038-001	2
19	MCR 211-146	103	tank holder cover	0-312-039-001	2
20	MCR 211-191	102	Tube rubber	0-511-010-001	1
21	MCR 211-202	104	water connector male pin	0-441-016-001	1
22	MCR 211-203	103	water connector male rubber	0-511-020-001	1
23	MCR 211-205	101	control cable tube	0-331-005-001	1
24	MCR 211-207	102	vacuum motor electro contact large	0-441-016-001	2
25	MCR 211-208	103	hinge bracket cover	0-312-042-001	1
26	MCR 211-214	103	flange top seal	0-511-009-001	1
27	MCR 211-282	102	tank sticker magnet warning	0-811-002-001	2
28	MCR 211-283	102	hose connector sticker magnet warning	0-811-003-001	1

DATE: 16-10-17    SIZE: A3    TREATMENT: -    COMPONENT ID: MCR 211-018-101

SCALE: 1:1    PAGE: 1 of 1    FINISHED: -    COMPONENT PN: 0-112-009-001

PROJECT: E01    COMPONENT STATUS: in process

COMPONENT: Top unit



MODIFICATION HISTORY					
Release	Description	Date	Checked	Accepted	
101	first release	23.02.2018	apfwwen	x	
102	part design of the vacuum tank is updated	08.11.2018	apfwwen	x	

TOLERANCES AND DIMENSIONS	
DIMENSIONS	
LINEAR DIMENSIONS	0-5mm ± 0,10mm
	6-10mm ± 0,15mm
	10-15mm ± 0,20mm
	15-30mm ± 0,25mm
	30-100mm ± 0,30mm
	100-1600mm ± 0,50mm
ANGLES	± 1,0°
HOLE Ø	± 0,1mm

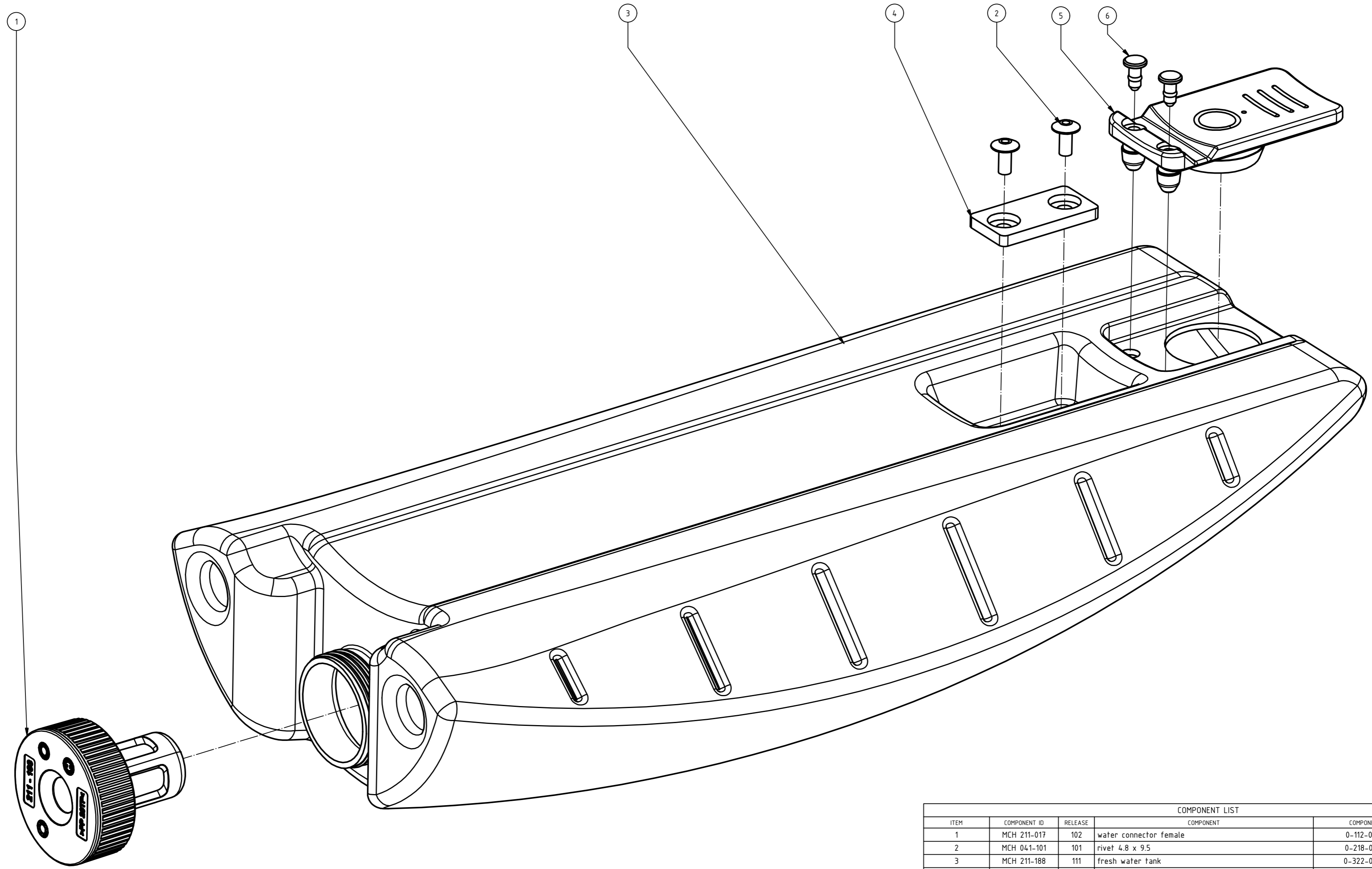
**MACHINING AND DELIVERY NOTES**

- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESSES IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST						
ITEM	COMPONENT ID	RELEASE	MATERIAL	COMPONENT	COMPONENT PN	QTY
1	MCH 041-101	101	rivet 4.8 x 9.5		0-218-001-001	2
2	MCH 211-187	108	vacuum tank		0-322-001-001	1
3	MCH 211-189	104	vacuum tank opening cover		0-511-013-001	1
4	MCH 211-190	102	tank holder plate		0-441-017-001	1
5	MCH 211-261	102	press stud		0-312-043-001	2

THIRD ANGLE PROJECTION	DESIGNER: apfwwen	UNITS: mm	MATERIAL: -	COMPONENT ID: MCH 211-015-102
	DATE: 23-02-18	SIZE: A1	TREATMENT: -	COMPONENT PN: 0-112-015-001
	SCALE: 1:1	PAGE: 1 of 1	THICKNESS: -	COMPONENT STATUS: in process
		PROJECT: E01		
		COMPONENT: vacuum tank complete		

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	23.02.2018	arnwen	x



TOLERANCES AND DIMENSIONS		
PER ISO 2768-MS (SEE NOTE)		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

**MACHINING AND DELIVERY NOTES**

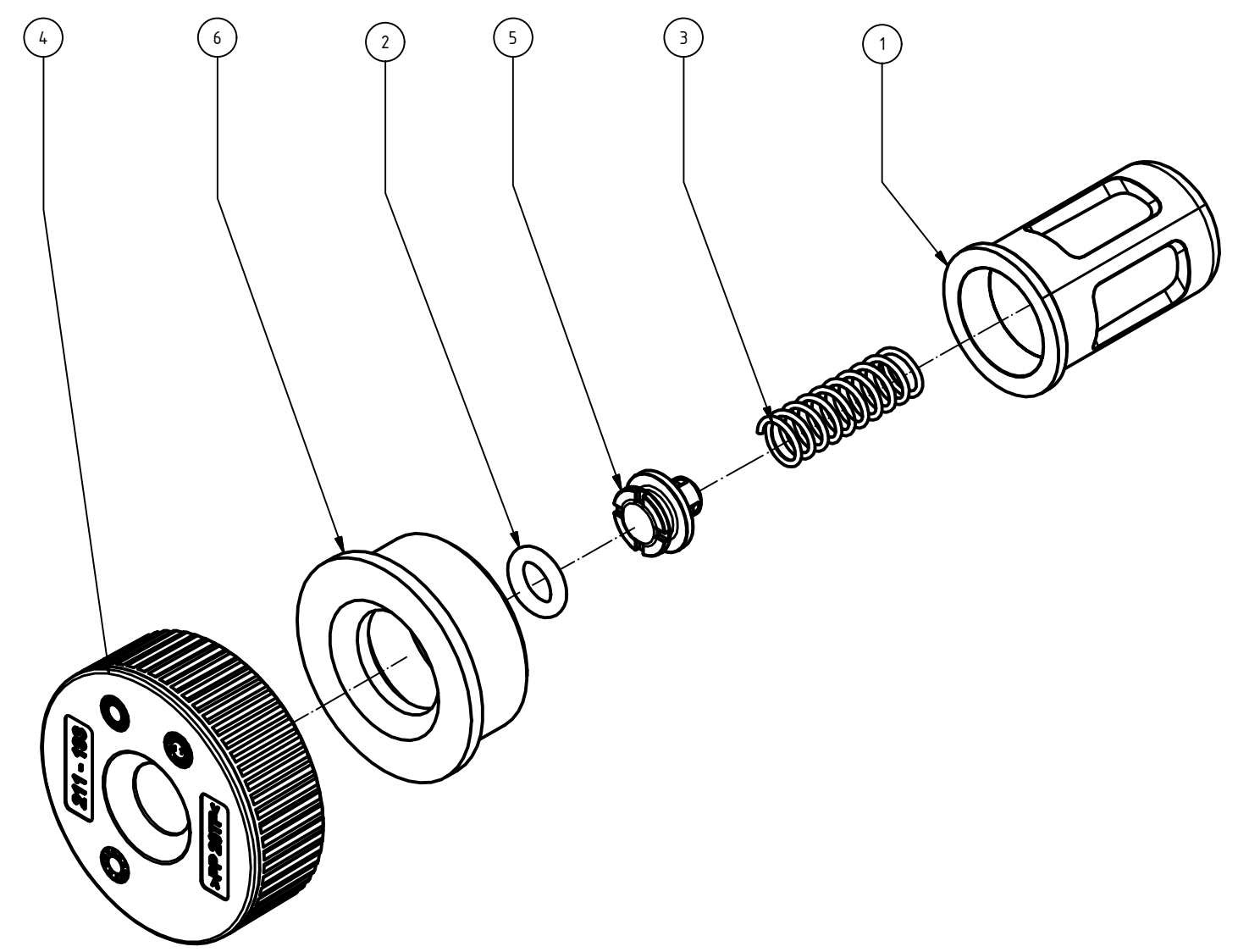
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-017	102	water connector female	0-112-017-001	1
2	MCH 041-101	101	rivet 4.8 x 9.5	0-218-001-001	2
3	MCH 211-188	111	fresh water tank	0-322-002-001	1
4	MCH 211-190	102	tank holder plate	0-441-017-001	1
5	MCH 211-196	104	fresh water tank opening cover	0-511-015-001	1
6	MCH 211-261	102	press stud	0-312-043-001	2

THIRD ANGLE PROJECTION	DESIGNER : arnwen	UNITS : (     )	MATERIAL : -	COMPONENT ID : MCH 211-016-101
	DATE : 23-02-18	SIZE : A2	TREATMENT : -	COMPONENT PN : 0-112-016-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : in process
<small>Hawig GmbH Schwarzenauerstrasse 141 64629 Bensheim Germany</small>	<b>BOREMA</b> <small>RODENTREINIGUNGSMASCHINEN</small>	PROJECT : E01	COMPONENT : fresh water tank complete	

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	23.02.2018	arnwen	x
102	o-ring is changed ; assy is approved	11.10.2018	arnwen	arnwen



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

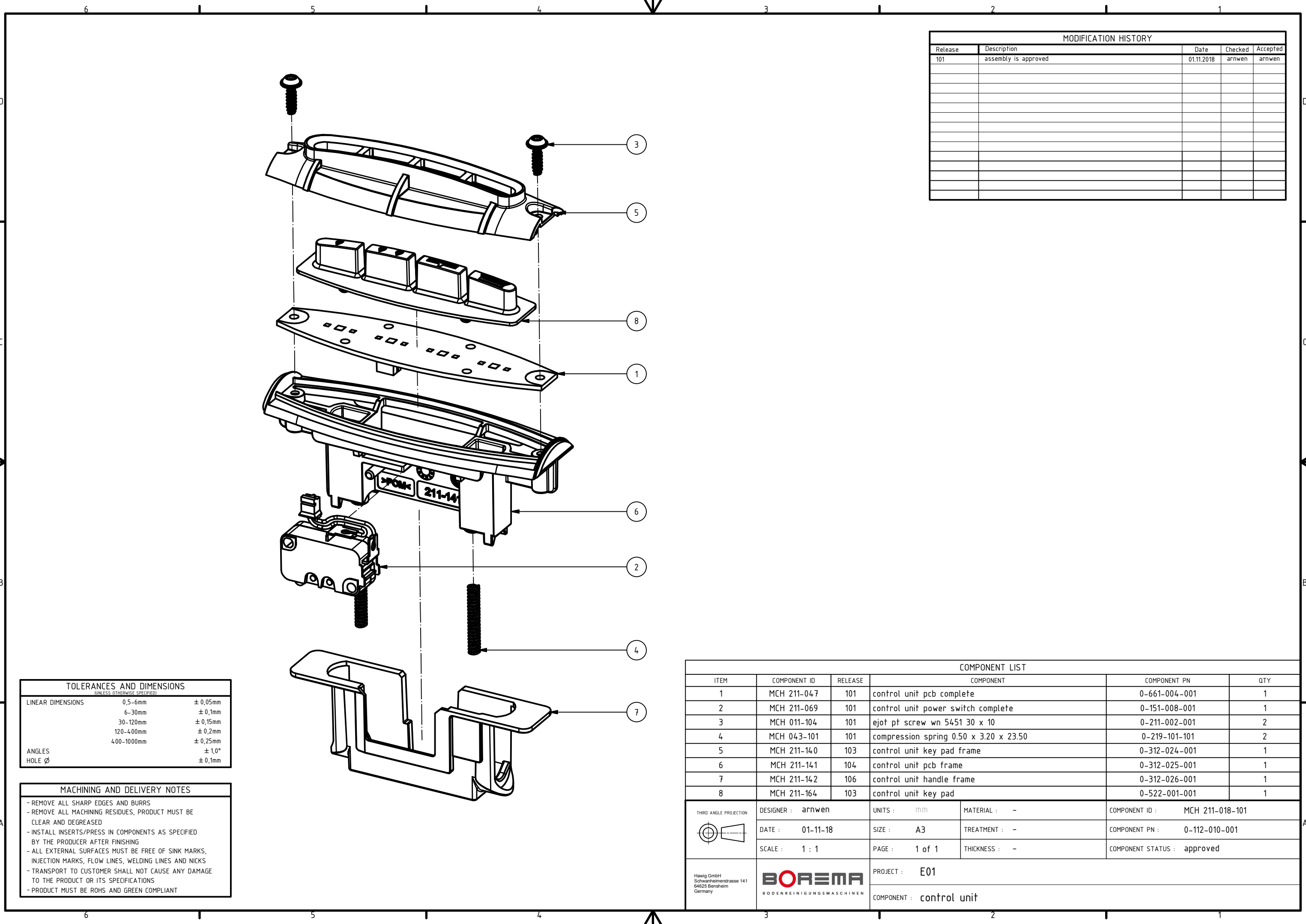
COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-028	105	water connector female filter complete	0-311-015-001	1
2	MCH 029-103	101	o-ring 7.00 x 2.50	0-216-001-001	1
3	MCH 043-103	101	compression spring 1.00 x 8.00 x 28.50	0-219-003-001	1
4	MCH 211-193	105	water connector female cap	0-312-044-001	1
5	MCH 211-194	103	water connector female valve	0-312-045-001	1
6	MCH 211-195	103	water connector female rubber	0-511-014-001	1

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-017-102
	DATE : 23-02-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-017-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : in process

 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01
	COMPONENT : water connector female



MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	01.11.2018	arnwen	arnwen

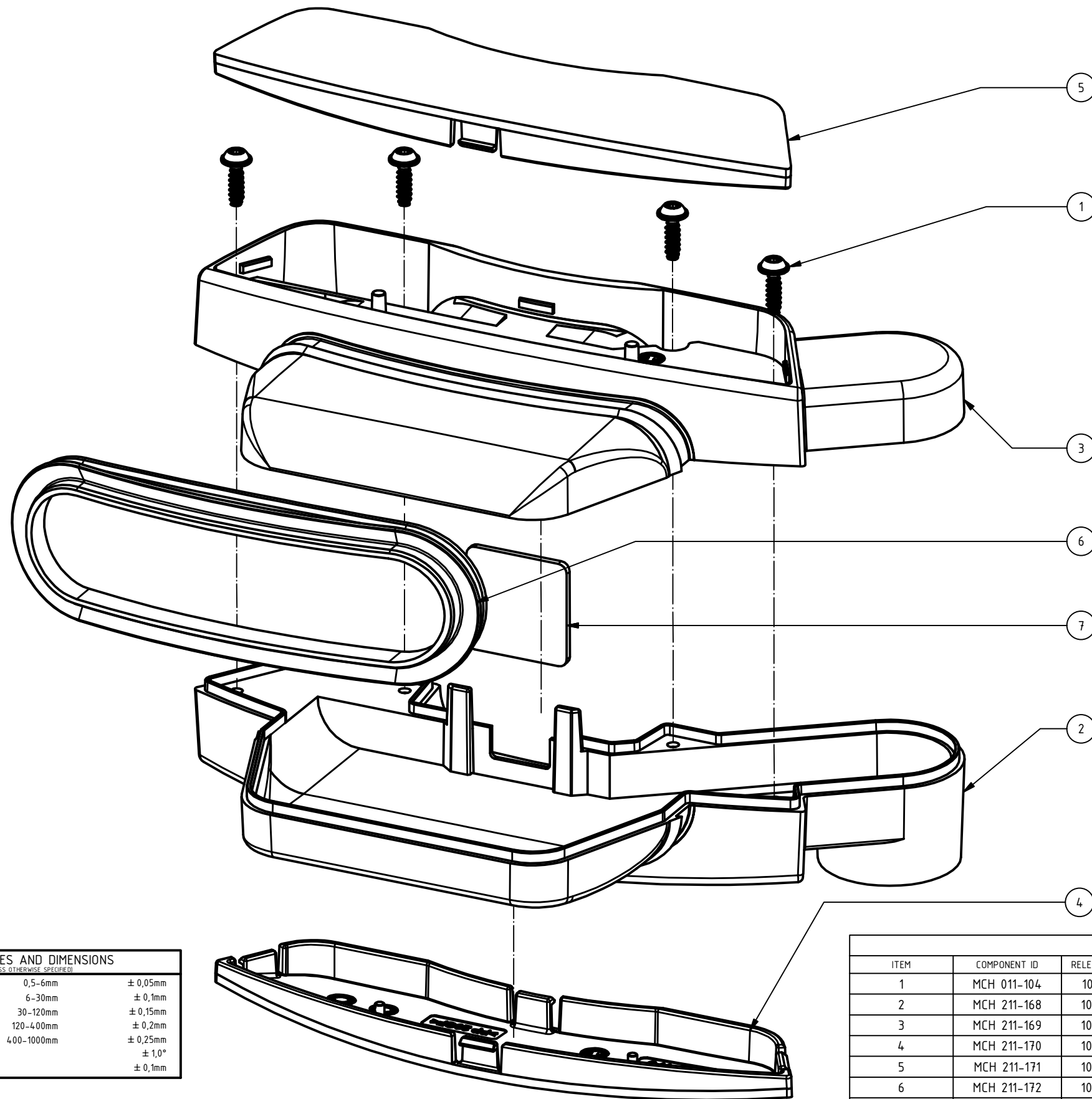
TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES	
- REMOVE ALL SHARP EDGES AND BURRS	
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED	
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING	
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS	
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS	
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT	

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-047	101	control unit pcb complete	0-661-004-001	1
2	MCH 211-069	101	control unit power switch complete	0-151-008-001	1
3	MCH 011-104	101	ejot pt screw wn 5451 30 x 10	0-211-002-001	2
4	MCH 043-101	101	compression spring 0.50 x 3.20 x 23.50	0-219-101-101	2
5	MCH 211-140	103	control unit key pad frame	0-312-024-001	1
6	MCH 211-141	104	control unit pcb frame	0-312-025-001	1
7	MCH 211-142	106	control unit handle frame	0-312-026-001	1
8	MCH 211-164	103	control unit key pad	0-522-001-001	1

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-018-101
	DATE : 01-11-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-010-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : approved
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01		COMPONENT : control unit	

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	21.02.2018	arnwen	x
102	add the "component PN" number ; assembly is approved	10.10.2018	arnwen	x



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

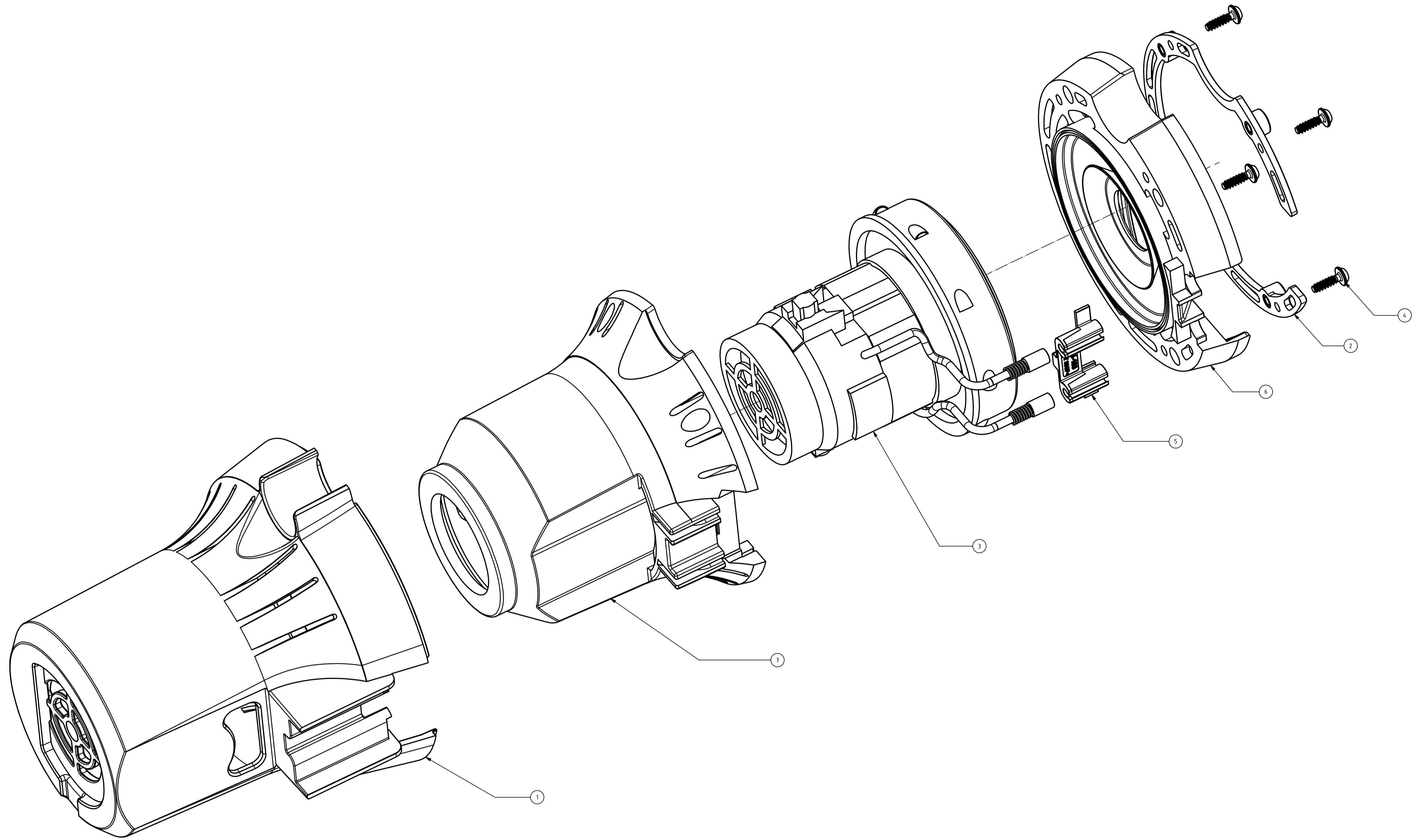
MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 011-104	101	ejot pt screw wn 5451 30 x 10	0-211-002-001	4
2	MCH 211-168	103	hose connector holder bottom	0-312-028-001	1
3	MCH 211-169	103	hose connector holder top	0-312-029-001	1
4	MCH 211-170	102	hose connector holder bottom cover	0-312-030-001	1
5	MCH 211-171	102	hose connector holder top cover	0-312-031-001	1
6	MCH 211-172	102	hose connector holder seal	0-511-006-001	1
7	MCH 211-173	102	hose connector holder plate	0-441-012-001	1

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-019-102
	DATE : 19-10-17	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-011-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : approved
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01	COMPONENT : hose connector holder complete		

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	22.02.2018	artwien	*
102	assembly is approved	01.11.2018	artwien	artwien



TOLERANCES AND DIMENSIONS		
LINEAR DIMENSIONS	0-5 mm	± 0,05 mm
6-30 mm		± 0,1 mm
30-120 mm		± 0,15 mm
120-400 mm		± 0,2 mm
400-1000 mm		± 0,25 mm
ANGLES		± 10'
HOLE Ø		± 0,1 mm

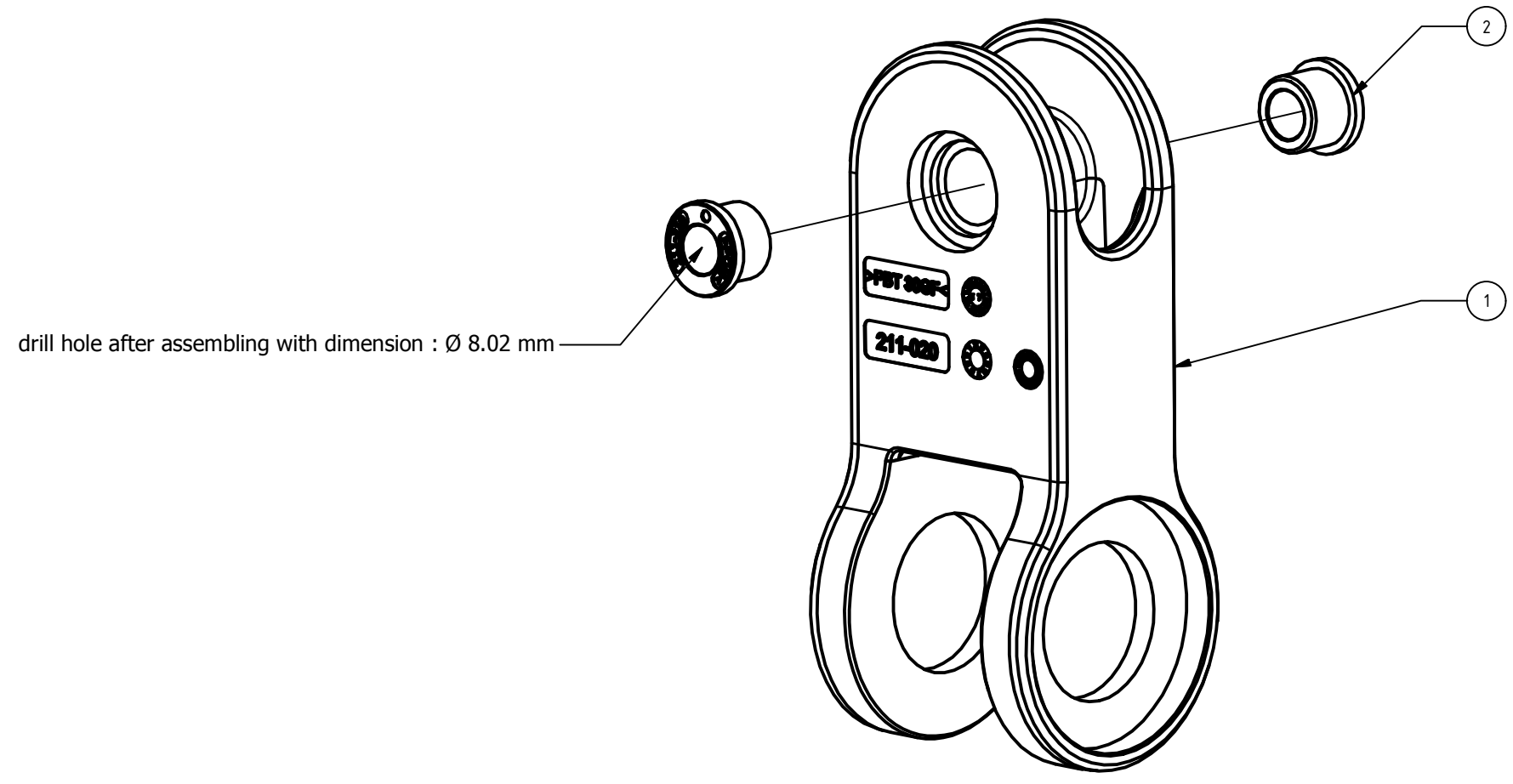
MACHINING AND DELIVERY NOTES	
- REMOVE ALL SHARP EDGES AND BURRS	
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED	
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING	
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS	
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS	
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT	

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-022	106	vacuum motor housing bottom complete	0-311-010-001	1
2	MCH 211-035	103	vacuum motor bracket complete	0-311-012-001	1
3	MCH 211-066	101	vacuum motor complete	0-112-028-001	1
4	MCH 011-102	101	ejot pt screw wn 5451 4.0 x 14	0-211-004-001	4
5	MCH 211-183	103	vacuum motor electro contact block	0-312-032-001	1
6	MCH 211-184	103	vacuum motor top rubber	0-511-007-001	1
7	MCH 211-185	103	vacuum motor bottom rubber	0-511-008-001	1

THIRD ANGLE PROJECTION	DESIGNER: artwien	UNITS: mm	MATERIAL: -	COMPONENT ID: MCH 211-021-102
	DATE: 22-02-18	SIZE: A1	TREATMENT: -	COMPONENT PN: 0-112-012-001
	SCALE: 1:1	PAGE: 1 of 1	THICKNESS: -	COMPONENT STATUS: approved
		PROJECT: E01 COMPONENT: vacuum motor unit		



MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	23.02.2018	arnwen	x
102	the "component PN" numbers are added ; assy is approved	11.10.2018	arnwen	arnwen



drill hole after assembling with dimension : Ø 8.02 mm

TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

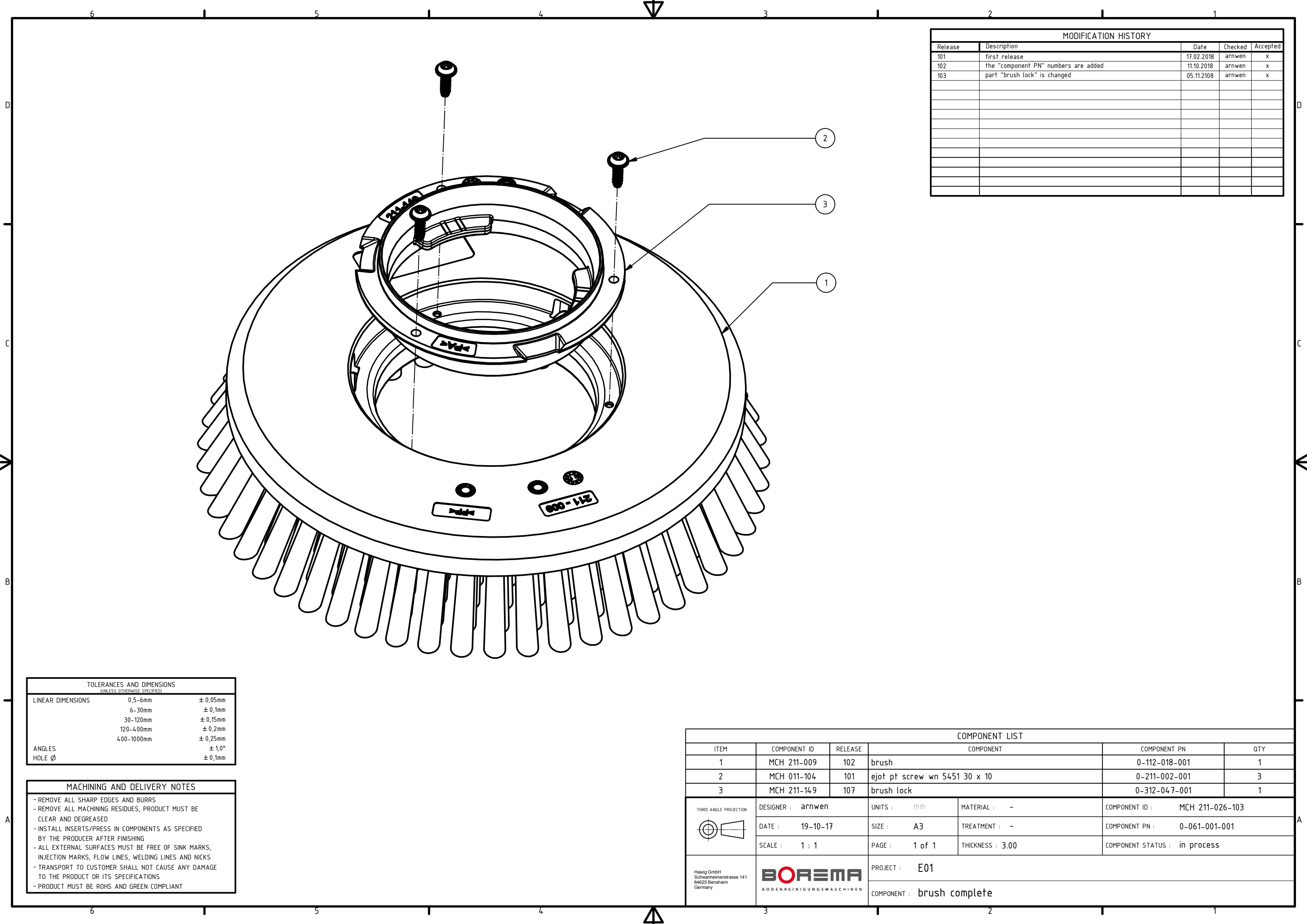
notes :

- 1] bearing bushes must be pressed into the main hinge
- 2] after assembly drill the holes in the bushes with dimension 8.02 mm

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-209	104	main hinge	0-312-033-001	1
2	MCH 211-210	102	main hinge bearing bush	0-312-034-001	2

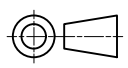

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-025-102
	DATE : 23-02-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-013-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : approved
Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany	 BODENREINIGUNGSMASCHINEN	PROJECT : E01		COMPONENT : main hinge complete



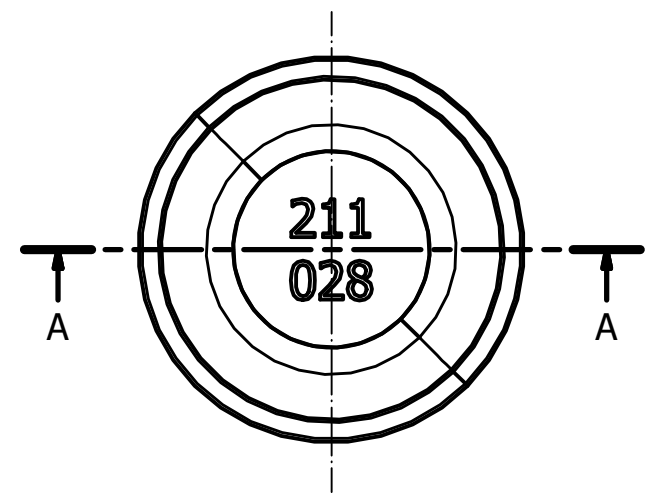
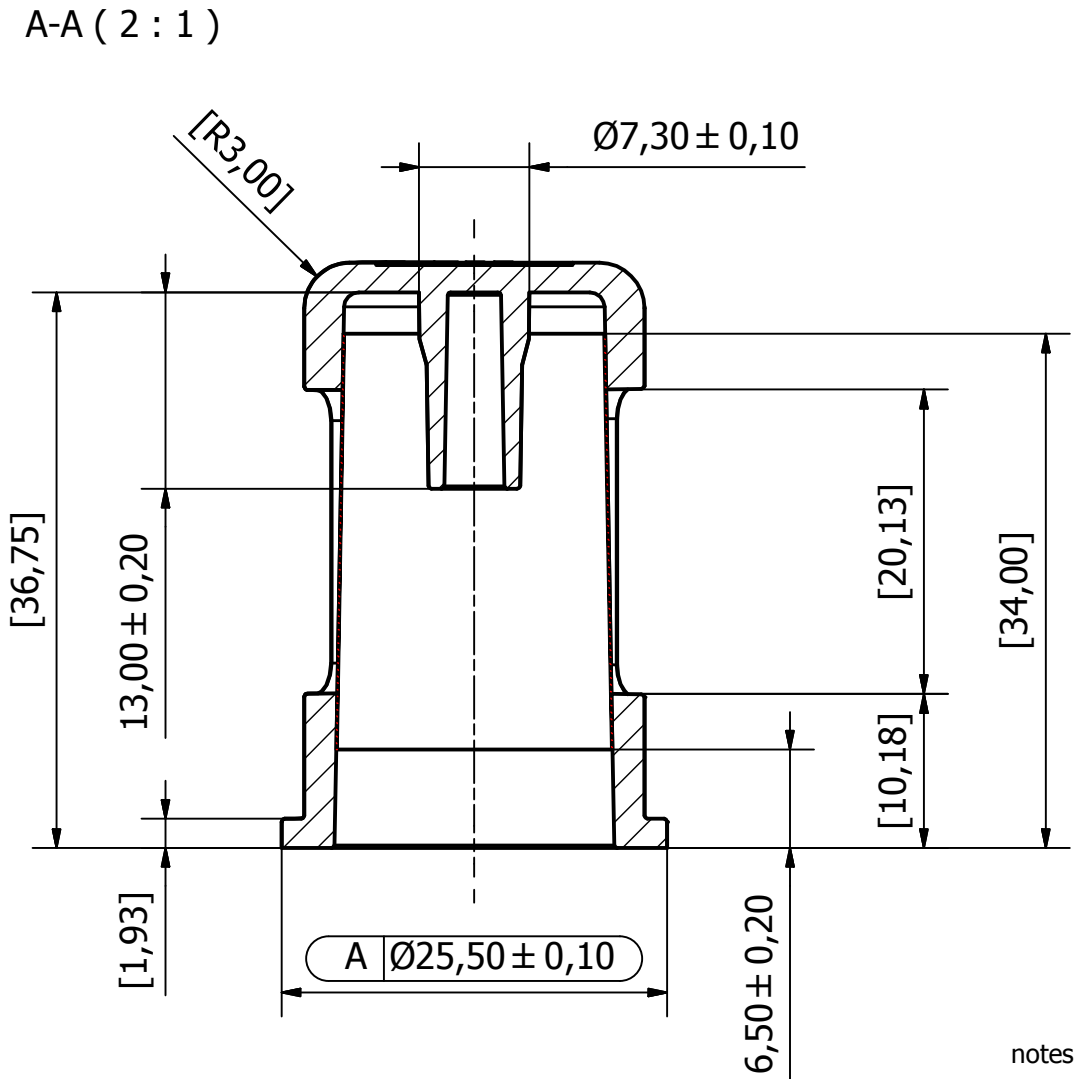
MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	17.02.2018	arnwen	x
102	the "component PN" numbers are added	11.10.2018	arnwen	x
103	part "brush lock" is changed	05.11.2108	arnwen	x

TOLERANCES AND DIMENSIONS (UNLESS OTHERWISE SPECIFIED)		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST								
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY			
1	MCH 211-009	102	brush	0-112-018-001	1			
2	MCH 011-104	101	ejot pt screw wn 5451 30 x 10	0-211-002-001	3			
3	MCH 211-149	107	brush lock	0-312-047-001	1			
 THIRD ANGLE PROJECTION	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-026-103
	DATE :	19-10-17	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-061-001-001
	SCALE :	1 : 1	PAGE :	1 of 1	THICKNESS :	3,00	COMPONENT STATUS :	in process
 Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany		PROJECT :		E01		COMPONENT :		brush complete

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release ; ready for tooling	03.04.2018	arnwen	x
102	add four ribs for spring fixation	04.04.2018	arnwen	x
103	change material into PP+20TF	12.04.2018	arnwen	x
104	part design changed because mold construction is changed	26.04.2018	arnwen	x
105	part is approved	01.10.2018	arnwen	arnwen



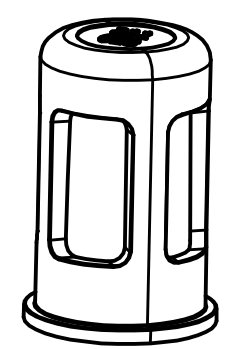
notes :

1. insert molding component
2. plastic component : MCH 211-191-105 water connector female filter housing [1 piece]
3. metal component : MCH 211-192-102 water connector female filter mesh [1 piece]
4. not indicated dimensions according to 3D CAD step file
5. indicated dimensions should be inspected

notes water connector female filter housing :

1. component volume : 4.1 cm<sup>3</sup>
2. component weight : 4.3 gram
3. plastic material : Kingfa API-2208 [PP 20%TF]
4. color : RAL 9016 [white]
5. plastic material : no UL certification required
6. general draft angle : 1.00°
7. all surfaces of cavity side : technical smooth
8. all surfaces of core side : technical smooth
9. add identification insert but no material code insert required
10. no data clock insert [year / months] required

iso view ( 1 : 1 )

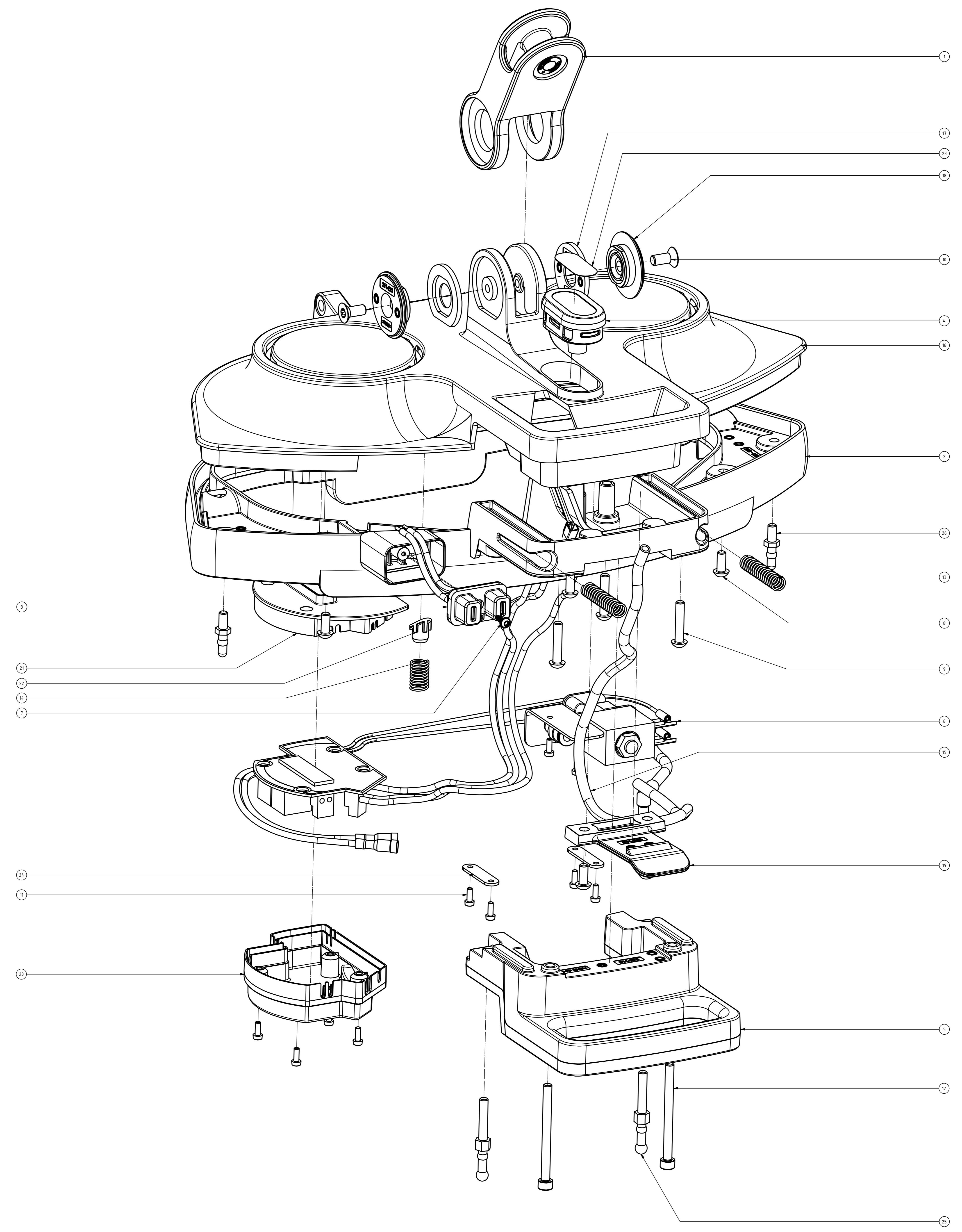


TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES	
- REMOVE ALL SHARP EDGES AND BURRS	
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED	
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING	
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS	
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS	
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT	

	DESIGNER : arnwen	UNITS : mm	MATERIAL : see note	COMPONENT ID : MCH 211-028-105
	DATE : 03-04-18	SIZE : A3	TREATMENT : none	COMPONENT PN : 0-311-015-001
	SCALE : 2 : 1	PAGE : 1 of 1	THICKNESS : 2.00 mm	COMPONENT STATUS : approved
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01	COMPONENT : water connector female filter complete		

MODIFICATION HISTORY				
NO.	REVISION	DATE	BY	REASON



**TOLERANCES AND DIMENSIONS**

LINEAR DIMENSIONS: 0-25mm ± 0.10mm, 25-50mm ± 0.15mm, 50-75mm ± 0.20mm, 75-100mm ± 0.25mm, 100-150mm ± 0.30mm, 150-200mm ± 0.35mm, 200-250mm ± 0.40mm, 250-300mm ± 0.45mm, 300-400mm ± 0.50mm, 400-500mm ± 0.55mm, 500-600mm ± 0.60mm, 600-700mm ± 0.65mm, 700-800mm ± 0.70mm, 800-900mm ± 0.75mm, 900-1000mm ± 0.80mm.

ANGLES: ± 0.10°

HOLE Ø: ± 0.10mm

**MACHINING AND DELIVERY NOTES**

REMOVE ALL SHARP EDGES AND BURRS.

REMOVE ALL PROTRUSING PROJECTIONS. PRODUCT MUST BE CLEAN AND DEFERRABLE.

METAL PROJECTIONS IN COMPONENTS AS SPECIFIED BY THE PROUDUCTOR AFTER FINISHING.

ALL EXTERNAL SURFACES MUST BE FREE OF SHIM MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND MARKS.

TRANSFER TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS.

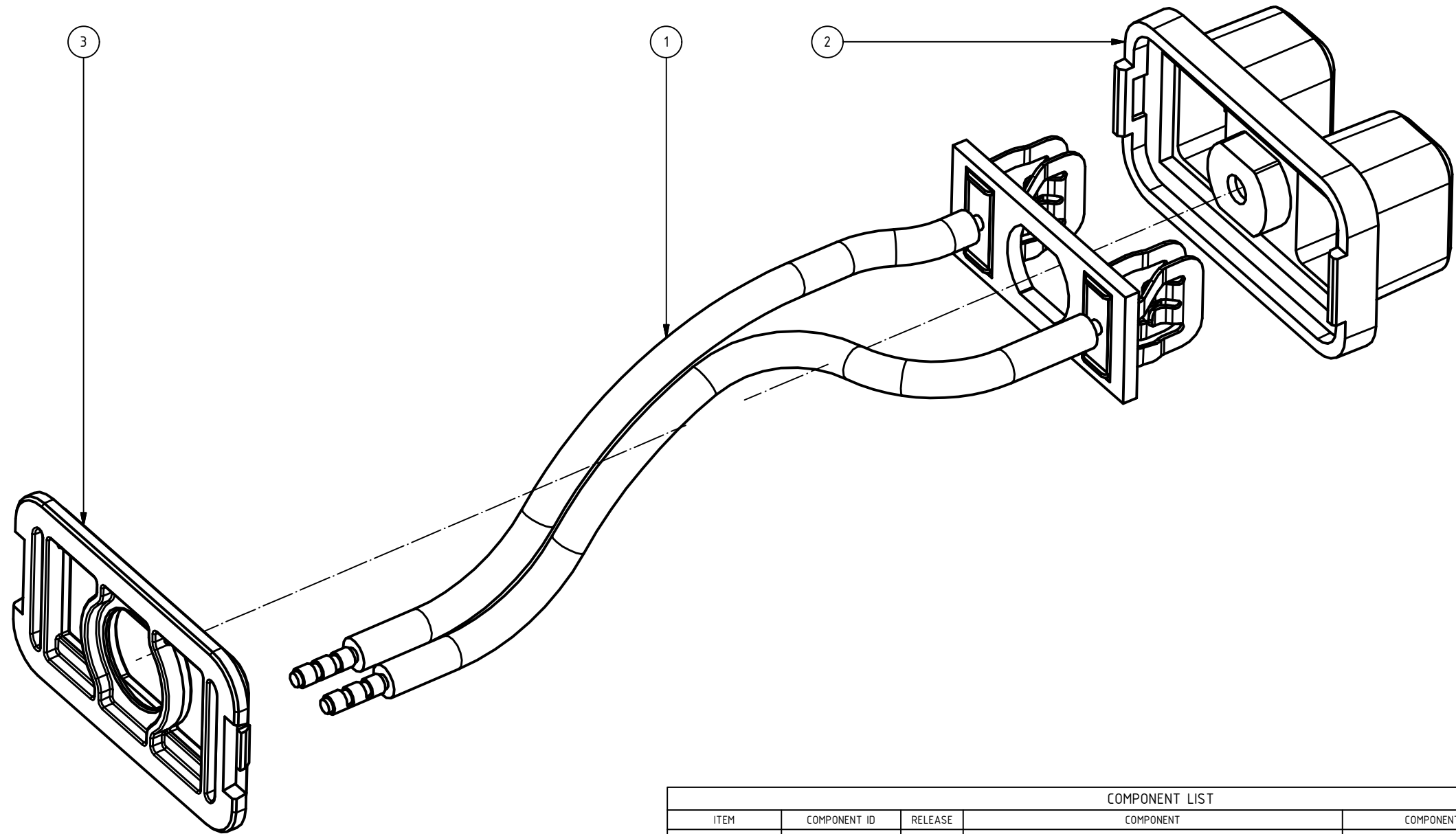
PRODUCT MUST BE SHIP AND READY TO SHIP.

COMPONENT LIST					
ITEM	DESCRIPTION	QTY	REF. NO.	QTY	
1	MEH 211-015	102	main hinge complete	0-102-015-001	1
2	MEH 211-031	10	protection bumper complete	0-311-036-001	1
3	MEH 211-032	101	spring contact connector	0-110-095-001	1
4	MEH 211-044	101	floor unit magnet complete	0-110-099-001	1
5	MEH 211-050	101	floor unit hand grip	0-102-026-101	1
6	MEH 211-061	101	floor unit electronics complete	0-110-025-001	1
7	MEH 015-104	101	right 20° screw w/ lock 10 x 10	0-210-000-001	1
8	MEH 015-104	101	cylinder round head cap screw torx M5 x 12	0-210-093-001	5
9	MEH 015-106	101	cylinder round head cap screw torx M5 x 25	0-210-095-001	3
10	MEH 015-107	101	counter nut 10 x 10 x 10	0-210-008-001	2
11	MEH 015-109	101	socket head cap screw torx M3 x 8	0-210-099-001	11
12	MEH 015-114	101	socket head cap screw torx M5 x 40	0-210-074-001	2
13	MEH 043-104	101	compression spring 100 x 850 x 40.50	0-210-004-001	2
14	MEH 043-105	101	compression spring 100 x 1000 x 13.50	0-210-005-001	1
15	MEH 211-204	101	wash water hose	0-361-003-001	1
16	MEH 211-211	10	floor unit main cover	0-433-009-001	1
17	MEH 211-210	102	floor unit bearing disc	0-310-019-001	2
18	MEH 211-221	102	floor unit bearing bush	0-310-020-001	2
19	MEH 211-223	105	floor unit battery pack clip	0-310-018-001	1
20	MEH 211-230	103	electronics box cover	0-310-021-001	1
21	MEH 211-234	106	electronics box bottom	0-310-022-001	1
22	MEH 211-237	105	floor unit spring support	0-310-023-001	1
23	MEH 211-257	102	floor unit sticker magnet warning	0-811-001-001	1
24	MEH 211-262	102	label holder plate	0-441-009-001	2
25	MEH 211-275	102	squeeze fixation pin	0-441-009-001	2
26	MEH 211-218	102	splash protection fixation pin	0-441-020-001	2

ISSUED BY: MEH 211-025-101  
 DATE: 20-02-18  
 SIZE: A3  
 SCALE: 1:1  
 PAGE: 1 of 1  
 TREATMENT: -  
 FINISHES: -  
 COMMENT: IN PROCESS

**BOEMA**  
 PROJECT: E01  
 COMPONENT: Floor unit

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	01.11.2018	arnwen	x

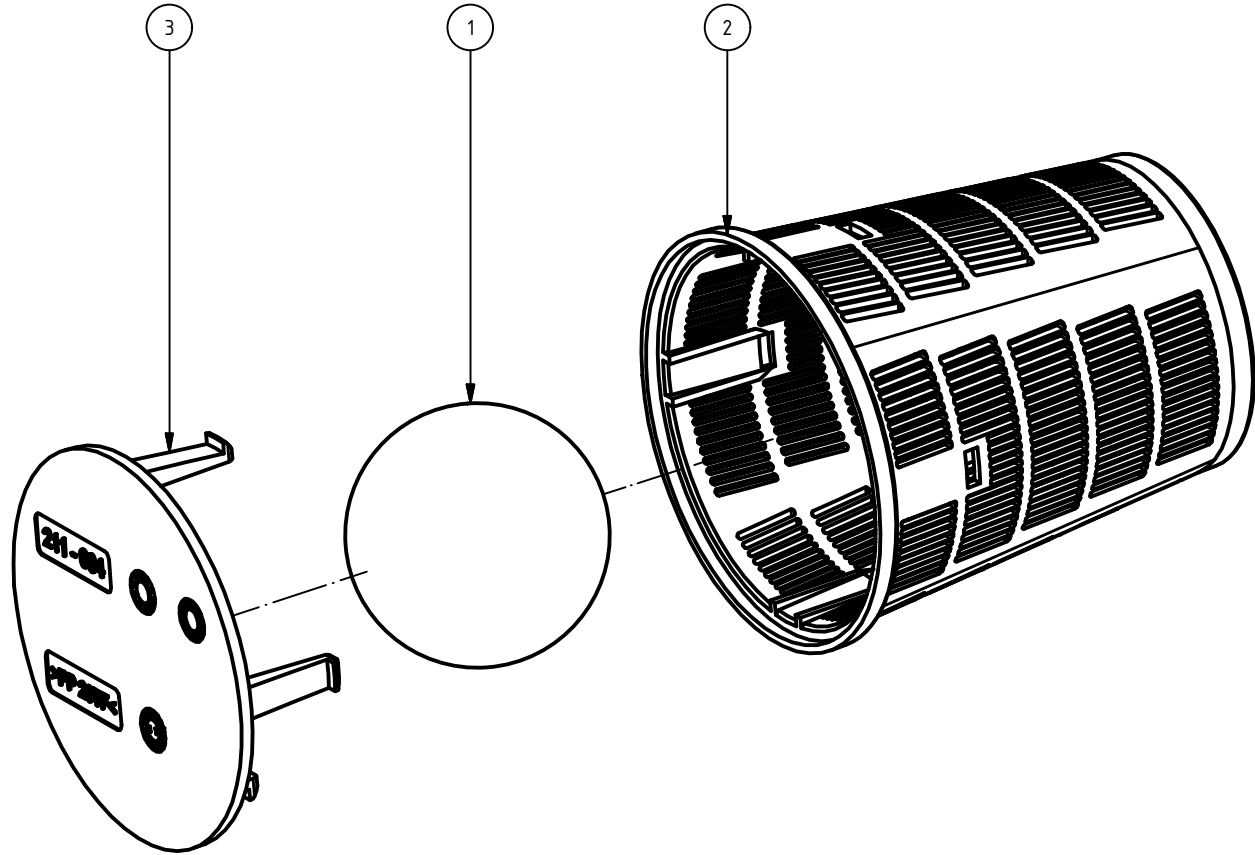


TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST									
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY				
1	MCH 211-036	102	spring contact pcb complete	0-151-001-001	1				
2	MCH 211-216	102	spring contact housing	0-312-015-001	1				
3	MCH 211-217	103	spring contact frame	0-312-016-001	1				
	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-032-101	
	DATE :	01-11-18	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-112-005-001	
	SCALE :	2 : 1	PAGE :	1 of 1	THICKNESS :	-	COMPONENT STATUS :	approved	
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT :		E01		COMPONENT :				spring contact connector

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	01.11.2018	arnwen	arnwen

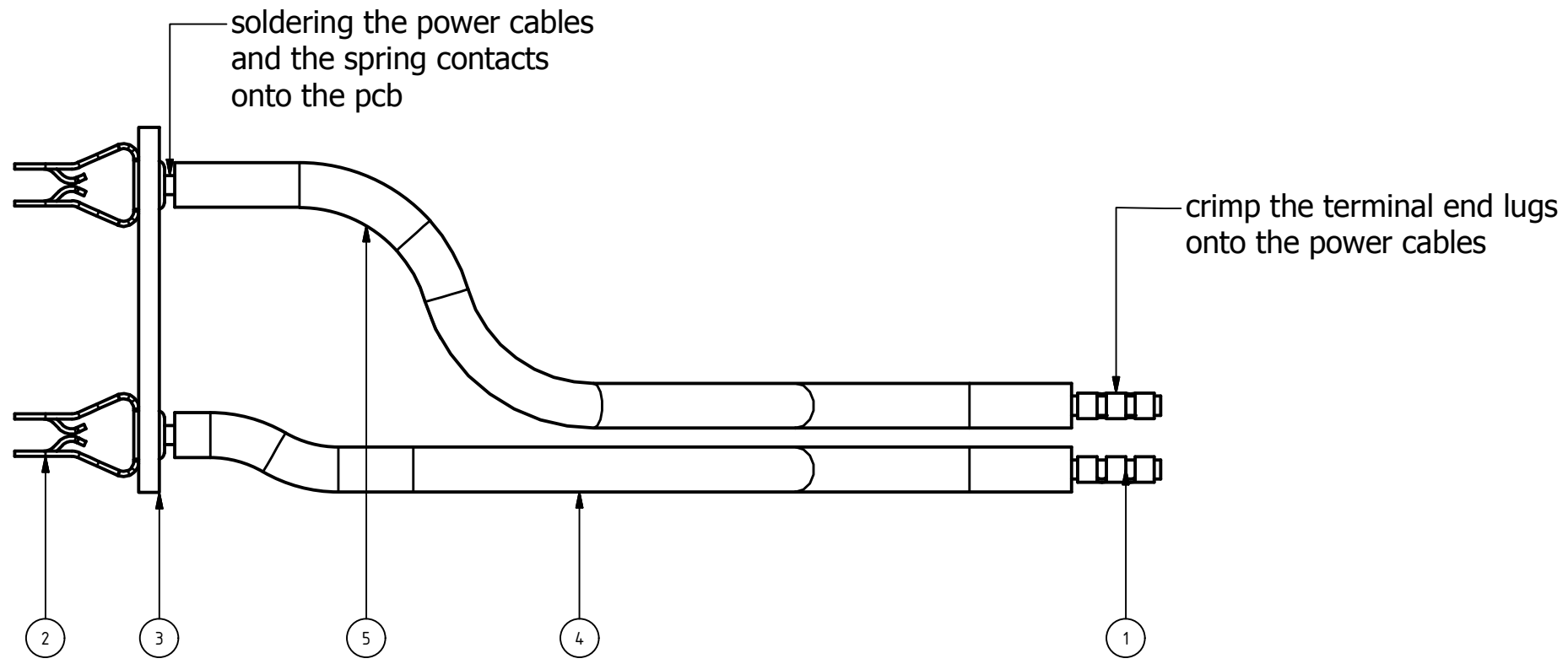
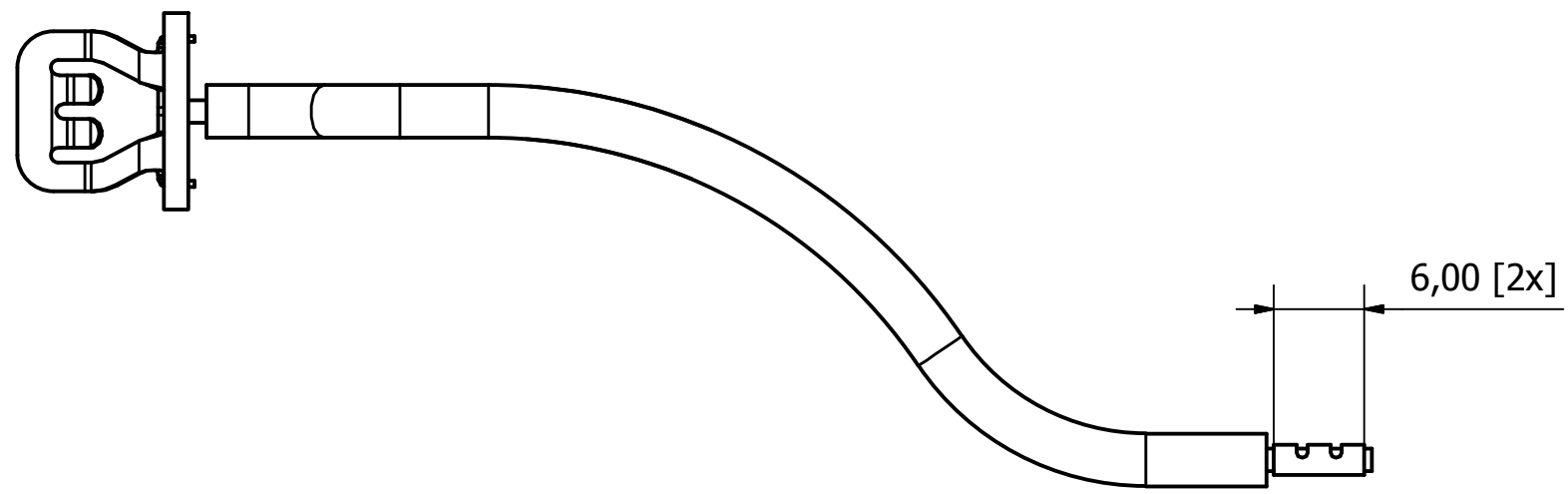


TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

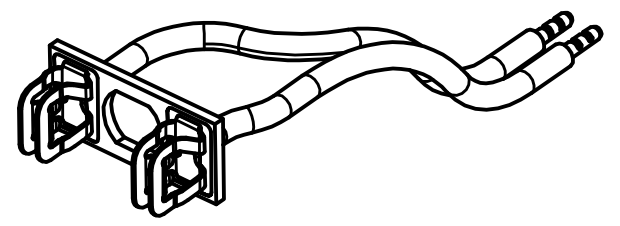
MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST									
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY				
1	MCH 054-108	101	hollow bal 35	0-224-001-001	1				
2	MCH 211-258	102	top unit float housing	0-312-035-001	1				
3	MCH 211-259	102	top unit float bottom	0-312-036-001	1				
	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-034-101	
	DATE :	01-11-18	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-112-014-001	
	SCALE :	1 : 1	PAGE :	1 of 1	THICKNESS :	-	COMPONENT STATUS :	approved	
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT :		E01		COMPONENT :				float complete

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release ; ready for proto	07.02.2018	arnwen	x
102	assembly is approved for production	30.10.2018	arnwen	arnwen



iso view ( 1 : 1 )



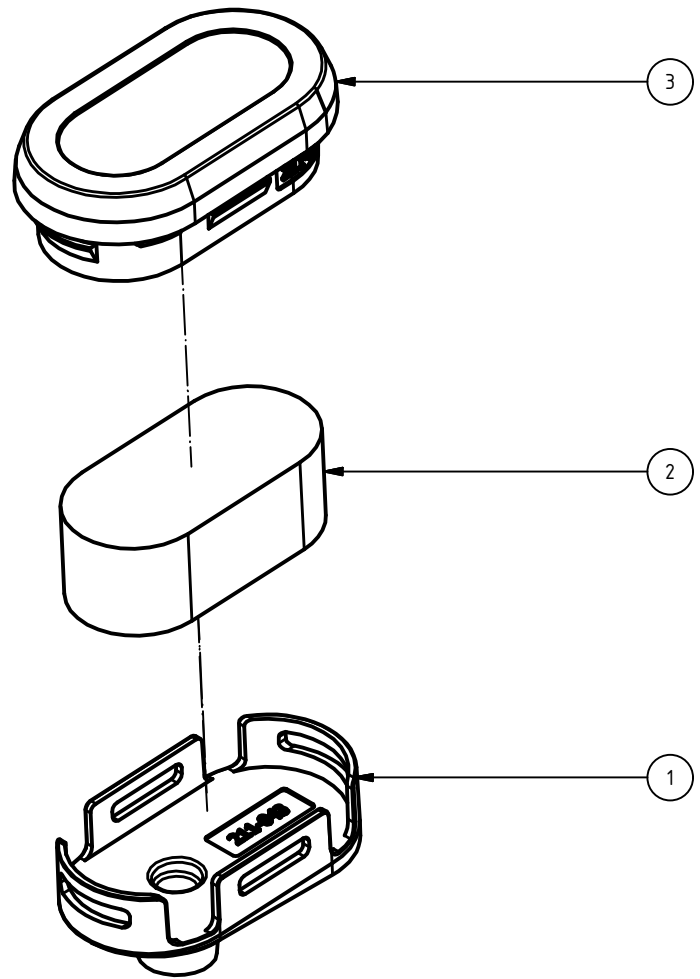
TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 067-108	101	cable terminal end lug	0-253-002-001	2
2	MCH 103-102	101	spring contact bmz	0-255-001-001	2
3	MCH 211-239	102	spring contact pcb	0-662-001-001	1
4	MCH 211-290	101	floor unit spring contact cable red	0-641-004-001	1
5	MCH 211-291	101	floor unit spring contact cable black	0-641-005-001	1

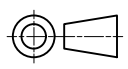

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-036-102
	DATE : 07-02-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-151-001-001
	SCALE : 2 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : approved
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01	COMPONENT : spring contact pcb complete		

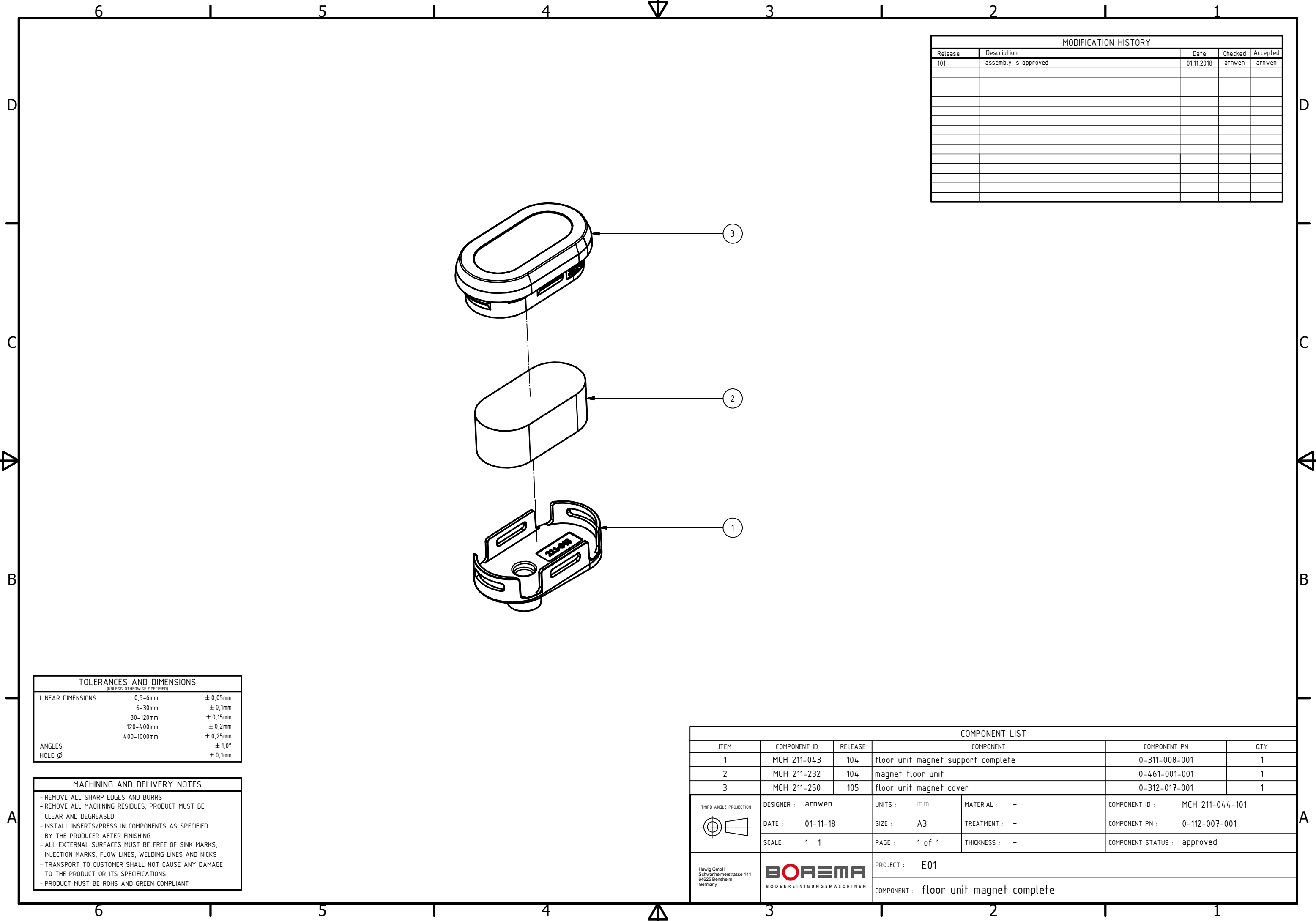
MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	01.11.2018	arnwen	arnwen



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

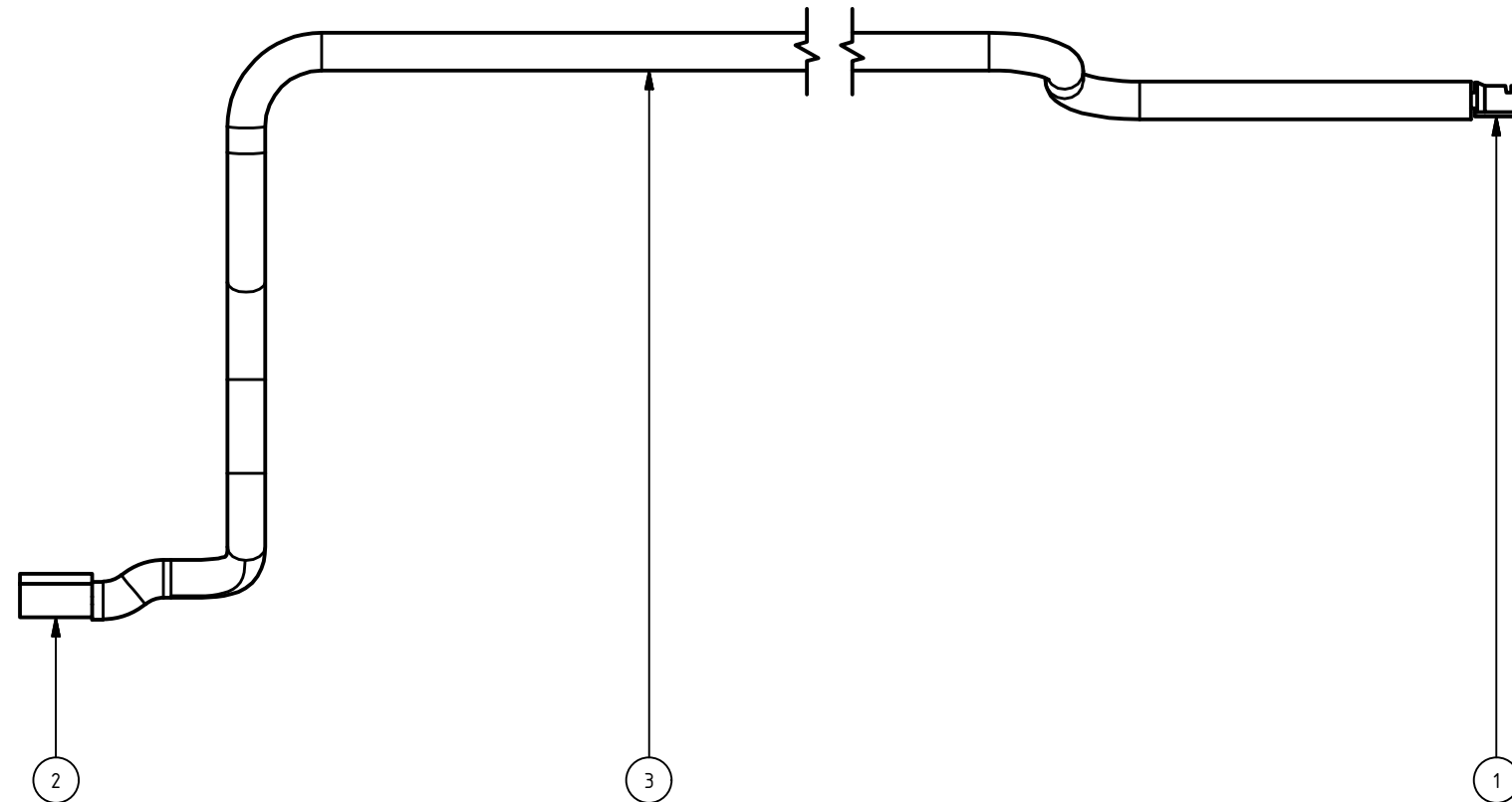
COMPONENT LIST									
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY				
1	MCH 211-043	104	floor unit magnet support complete	0-311-008-001	1				
2	MCH 211-232	104	magnet floor unit	0-461-001-001	1				
3	MCH 211-250	105	floor unit magnet cover	0-312-017-001	1				
	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-044-101	
	DATE :	01-11-18	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-112-007-001	
	SCALE :	1 : 1	PAGE :	1 of 1	THICKNESS :	-	COMPONENT STATUS :	approved	
	PROJECT :		E01		COMPONENT :				floor unit magnet complete



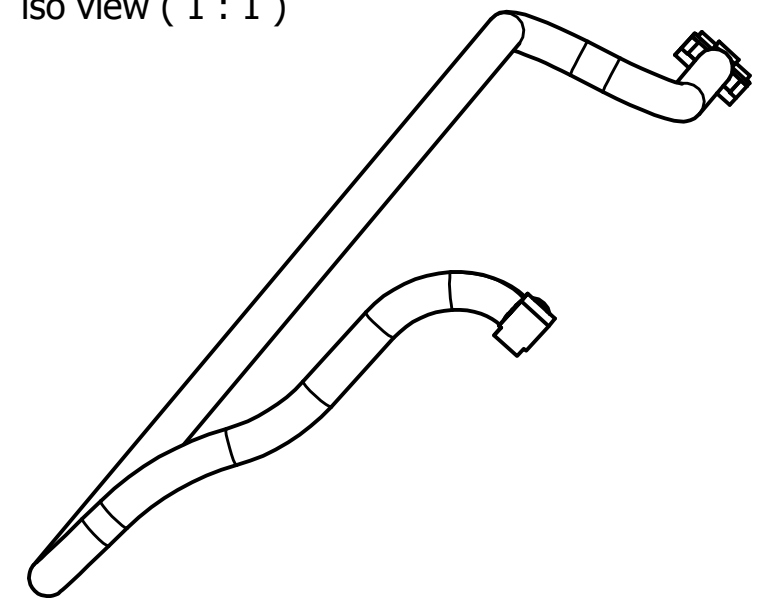


crimp sockets still to be designed  
color of wires

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release ; ready for production	01.11.2018	arnwen	x

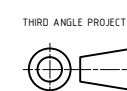



iso view ( 1 : 1 )

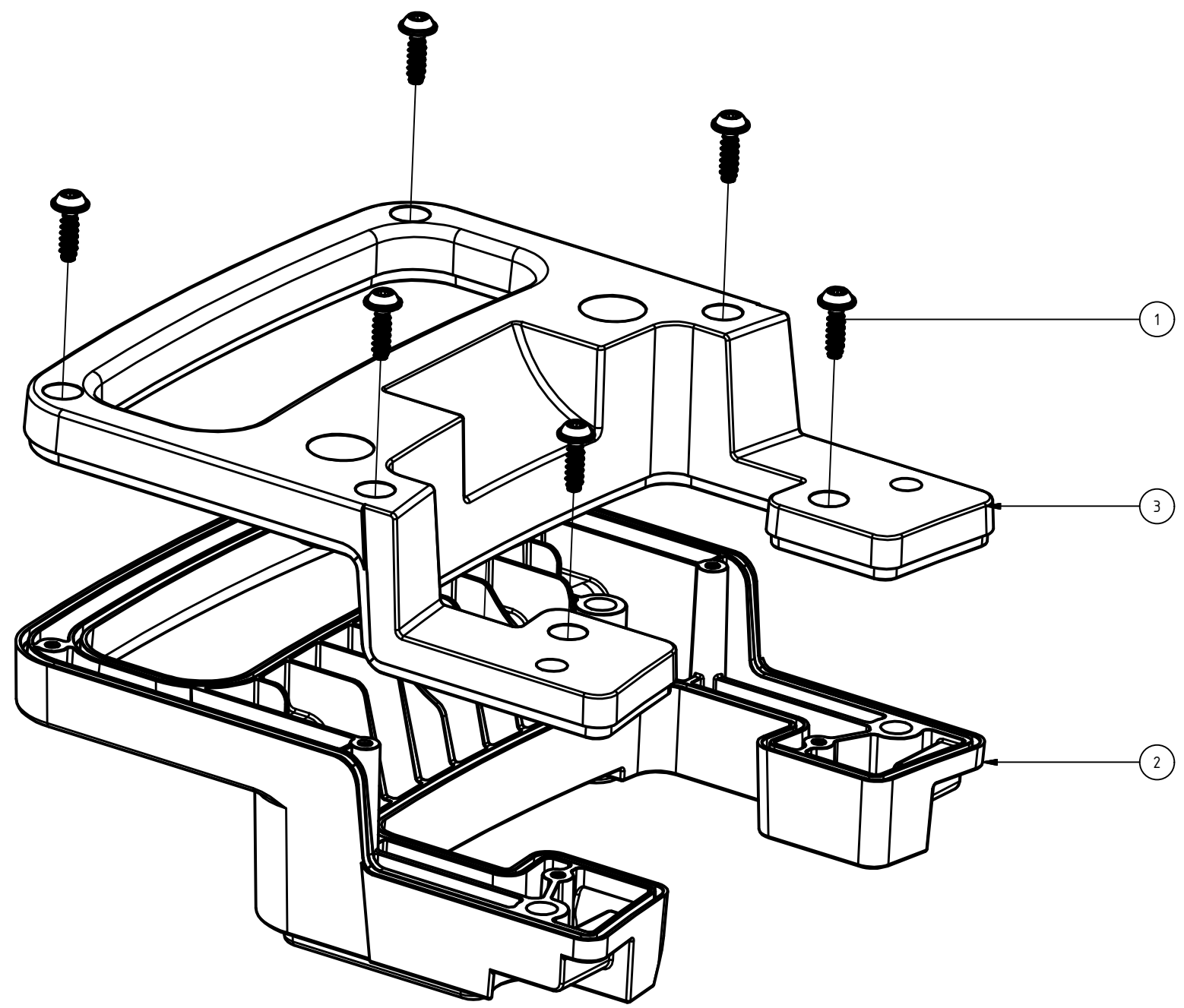


TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST								
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY			
1	MCH 067-103	101	JST PHR4 male connector	0-253-007-001	1			
2	MCH 067-105	101	hirose DF62B-4EP-2.2C male connector	0-253-008-001	1			
3	MCH 211-165	101	control unit cable	0-641-013-001	1			
	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-049-101
	DATE :	01-11-18	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-151-002-001
	SCALE :	1 : 1	PAGE :	1 of 1	THICKNESS :	-	COMPONENT STATUS :	in process
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT :		E01		COMPONENT :		control unit cable complete	

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	01.11.2018	arnwen	x



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

**MACHINING AND DELIVERY NOTES**

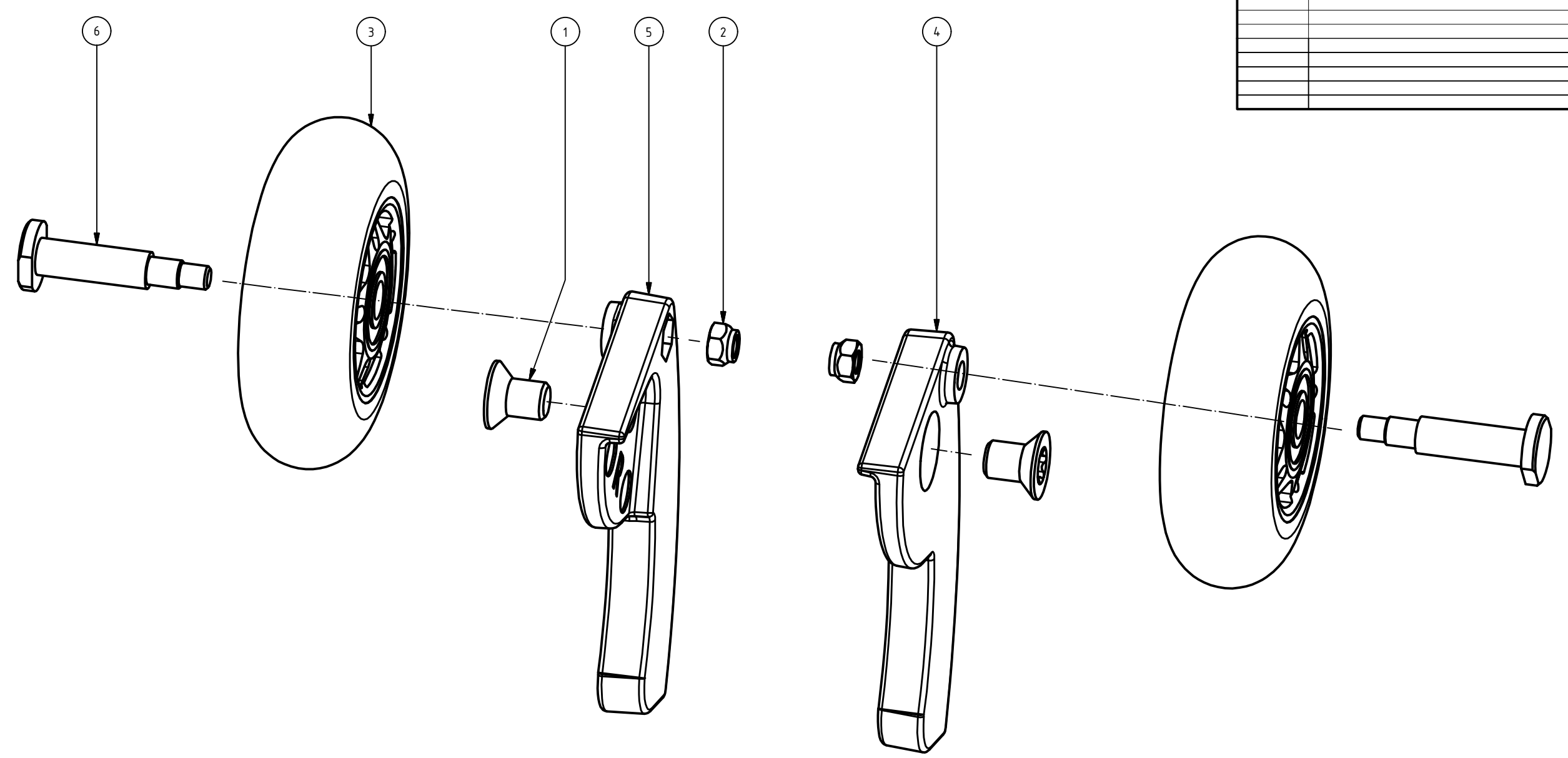
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 011-104	101	ejot pt screw wn 5451 30 x 10	0-211-002-001	6
2	MCH 211-273	101	floor unit hand grip bottom	0-312-048-001	1
3	MCH 211-274	101	floor unit hand grip top	0-312-049-001	1

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-050-101
	DATE : 01-11-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-026-101
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : in process
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01	COMPONENT : floor unit hand grip		

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release ; ready for proto	06.11.2018	arnwen	x



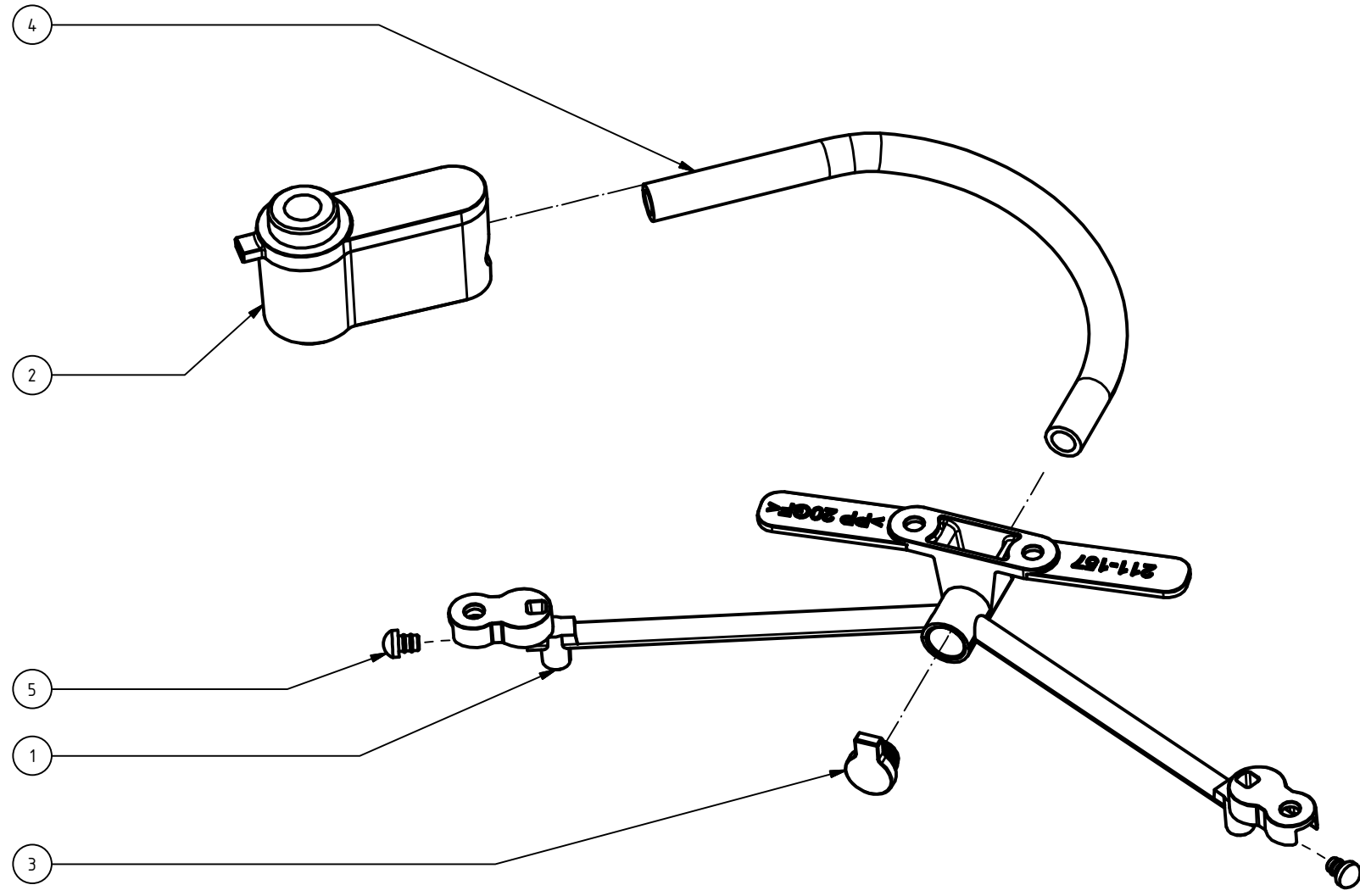
TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 013-113	101	counter sunk bolt torx M8 x 12	0-212-013-001	2
2	MCH 017-102	101	nut self locking M5	0-213-002-001	2
3	MCH 211-264	101	transport castor i-mop xl	0-311-016-001	2
4	MCH 211-265	105	transport castor i-mop xl support left	0-433-002-001	1
5	MCH 211-266	105	transport castor i-mop xl support right	0-433-003-001	1
6	MCH 211-267	104	transport castor i-mop xl axis	0-441-021-001	2

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-054-101
	DATE : 06-11-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-006-001
	SCALE : 101	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : in process
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01		COMPONENT : floor unit transport castor xl set	

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	27.10.2018	arnwen	arnwen



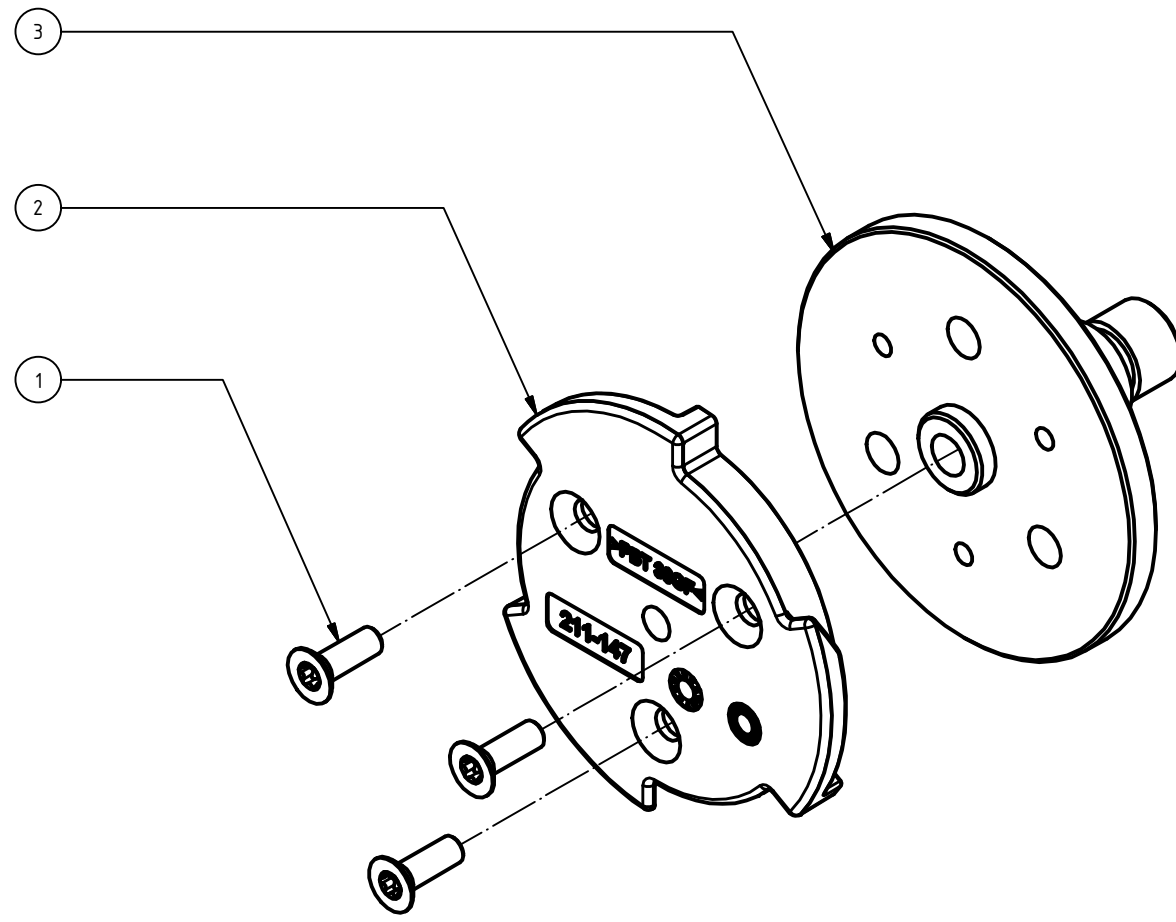
TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

**MACHINING AND DELIVERY NOTES**

- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST								
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY			
1	MCH 211-157	105	drive module water distributor	0-312-014-001	1			
2	MCH 211-158	102	drive module rubber coupling	0-511-002-001	1			
3	MCH 211-159	102	drive module rubber stop	0-511-003-001	1			
4	MCH 211-161	101	drive module hose internal	0-361-001-001	1			
5	MCH 211-233	103	drive module rubber end stop	0-511-005-001	2			
	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-057-101
	DATE :	27-10-18	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-112-021-001
	SCALE :	1 : 1	PAGE :	1 of 1	THICKNESS :	-	COMPONENT STATUS :	approved
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT :	E01						
	COMPONENT :	drive module water distributor complete						

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	27.10.2018	arnwen	arnwen



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

**MACHINING AND DELIVERY NOTES**

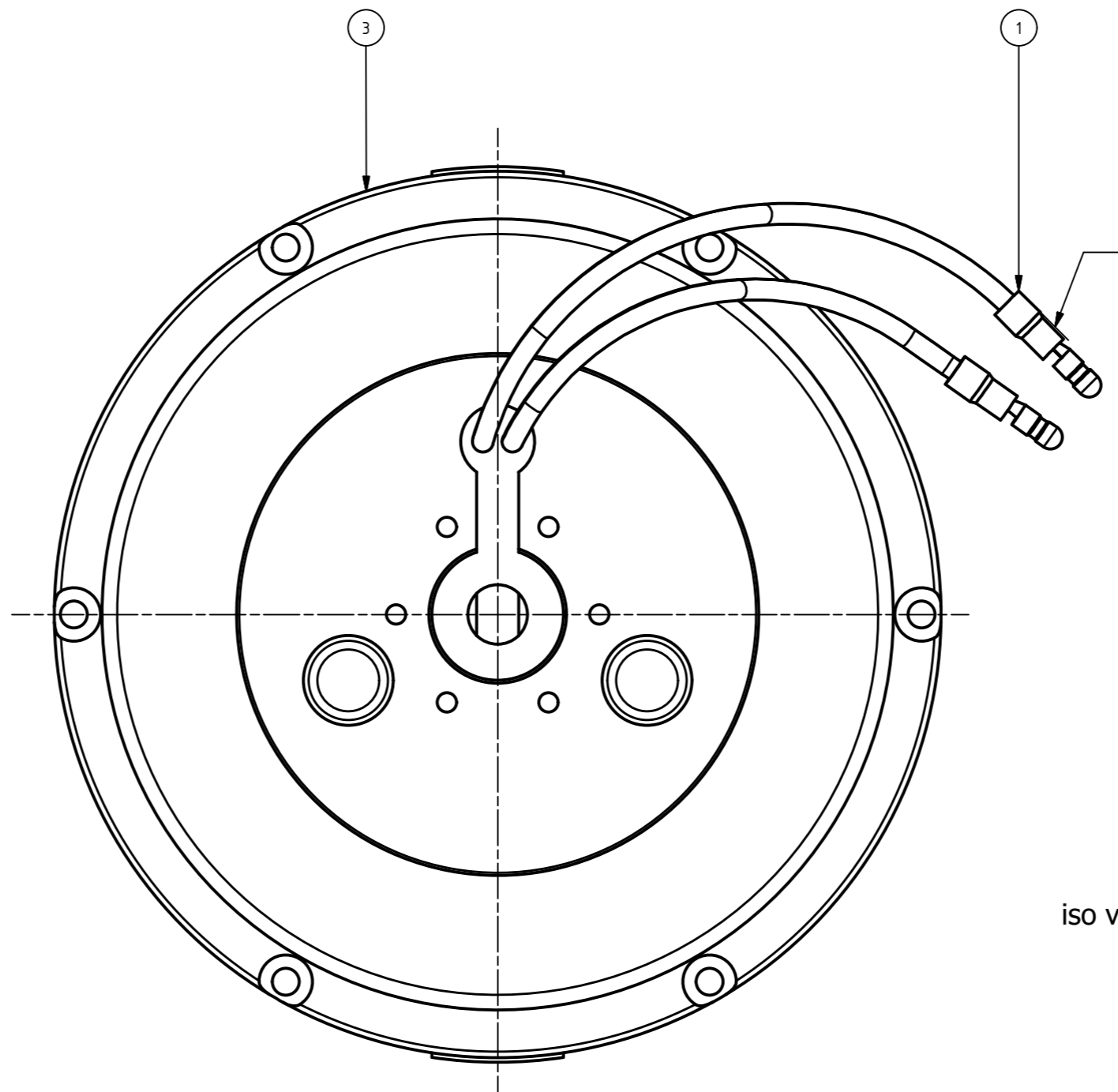
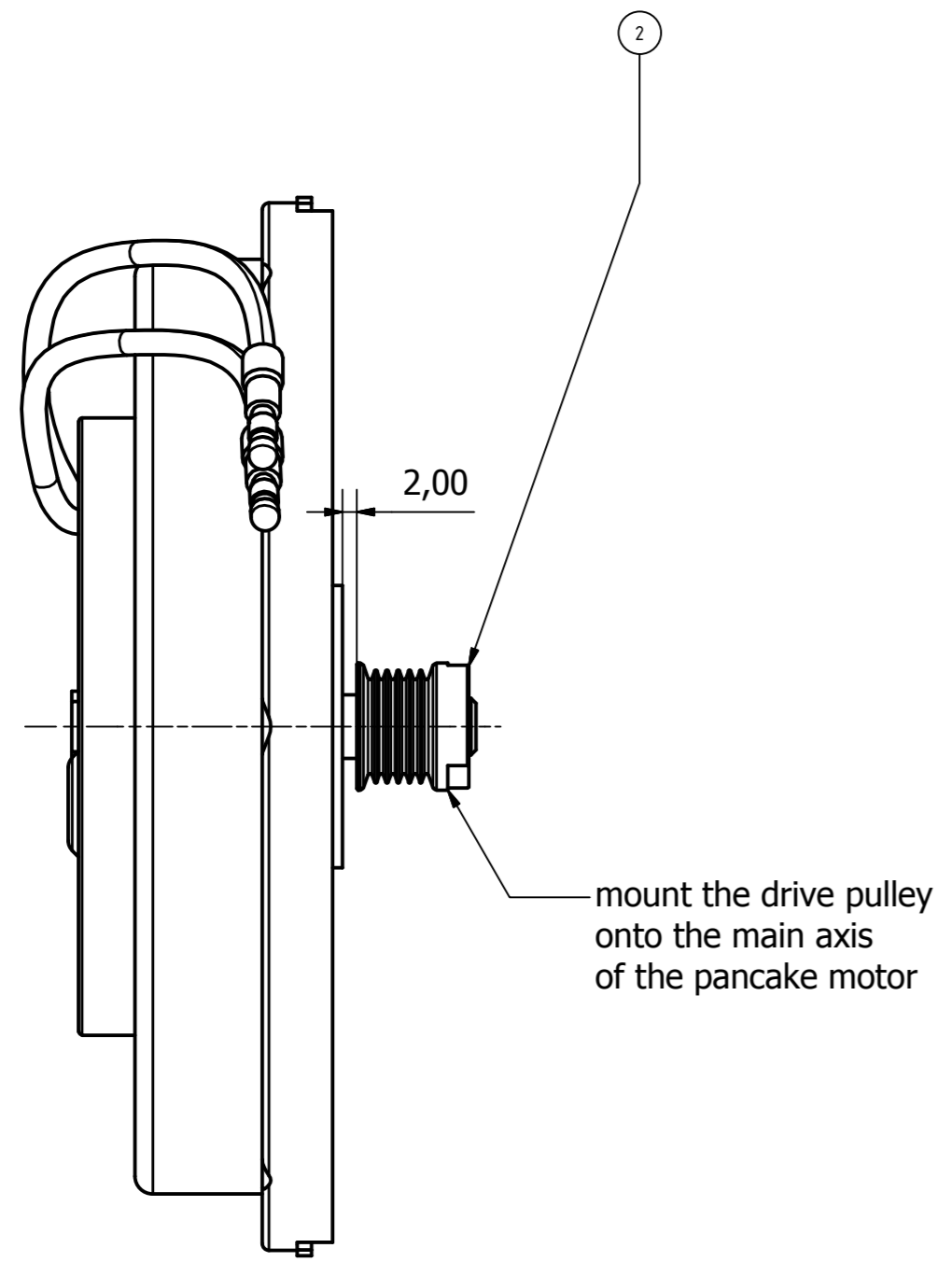
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 013-101	101	counter sunk bolt torx M4 x 12	0-212-006-001	3
2	MCH 211-147	105	brush coupling cw	0-312-011-001	1
3	MCH 211-150	104	pulley axis cw	0-441-007-001	1

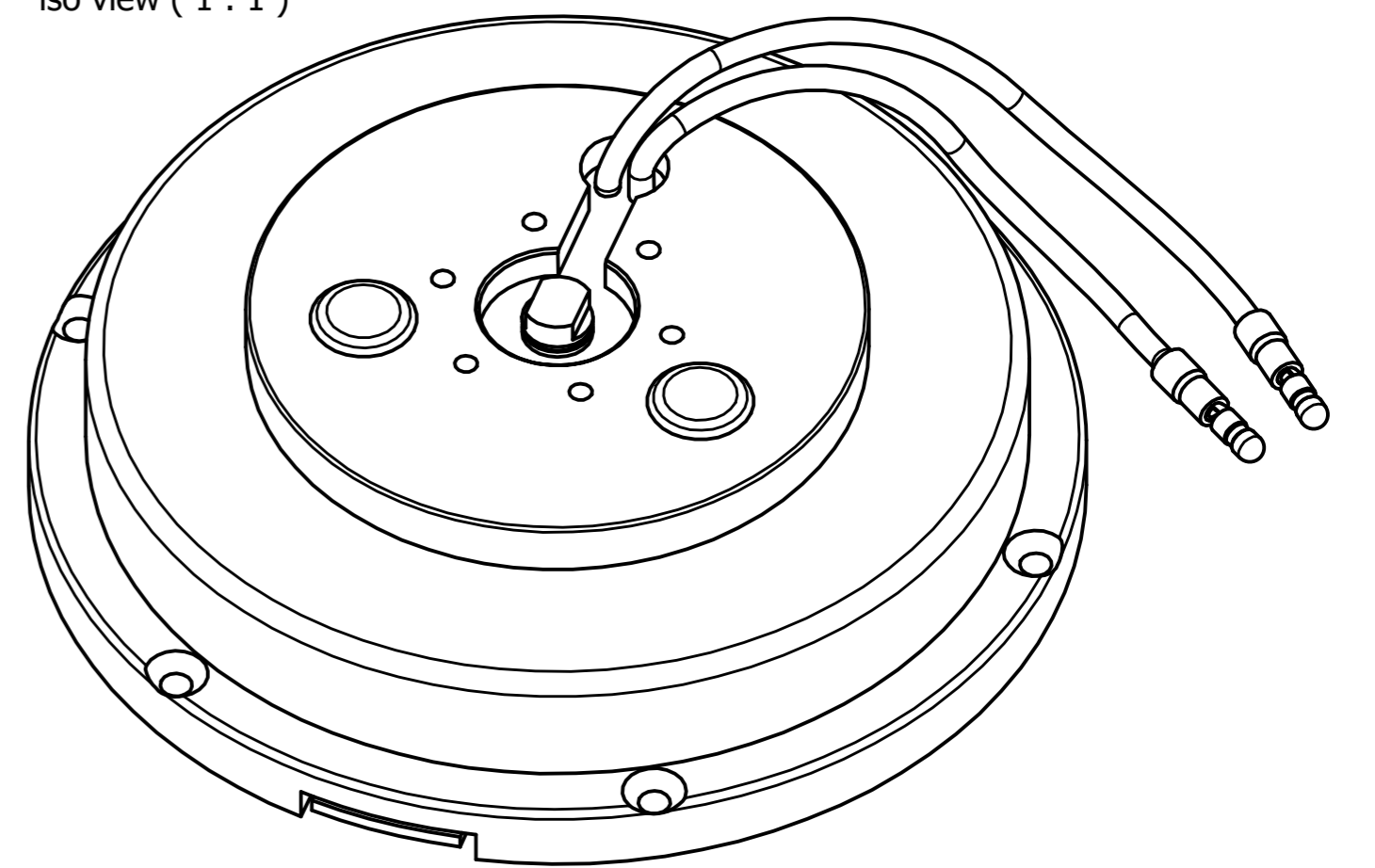
	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-058-101
	DATE : 27-10-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-022-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : approved
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01		COMPONENT : brush coupling cw complete	

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	31.10.2018	arnwen	arnwen



crimp the faston connectors onto the power cables



iso view ( 1 : 1 )

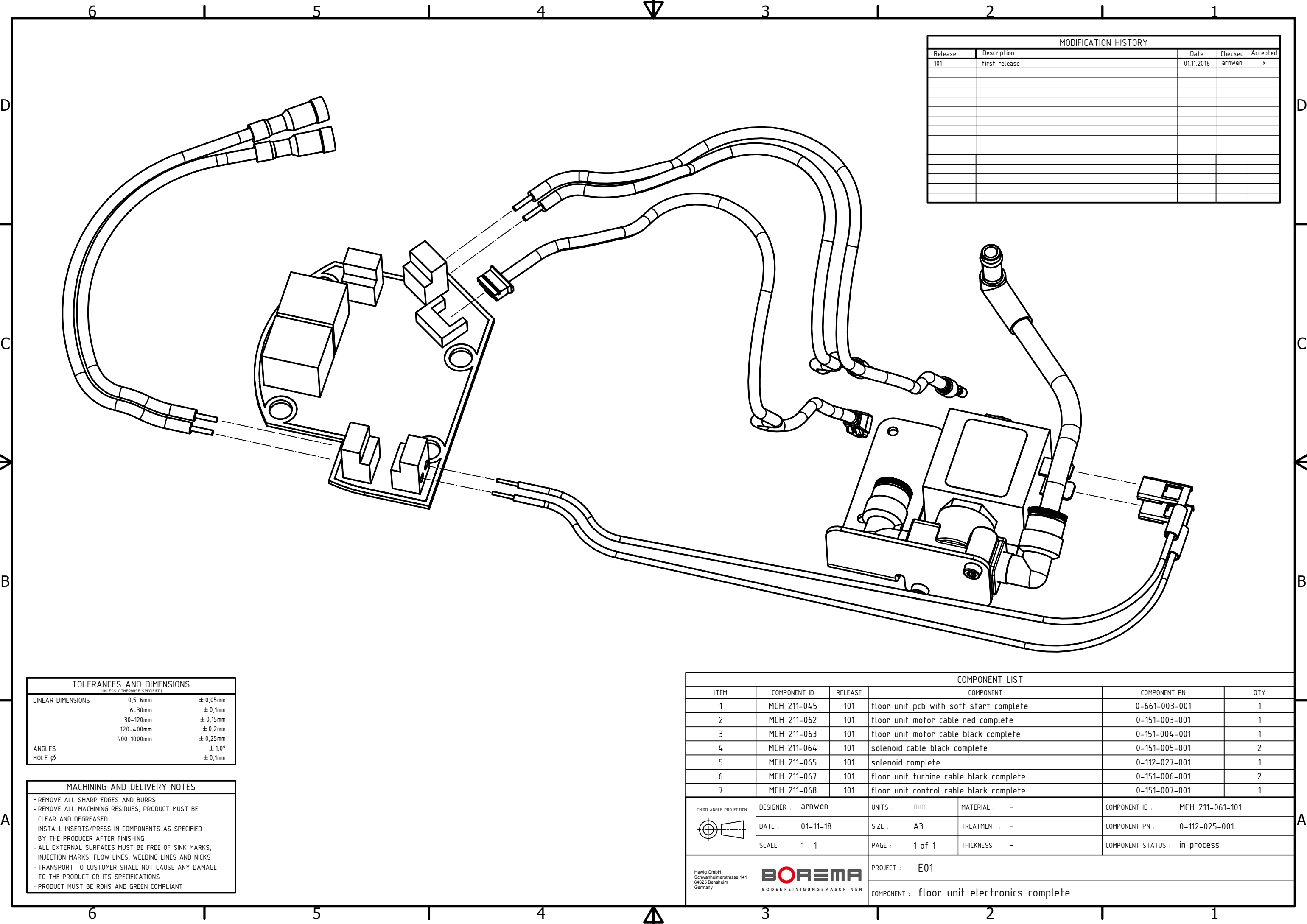


TOLERANCES AND DIMENSIONS		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

**MACHINING AND DELIVERY NOTES**

- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 067-106	101	faston round connector plug red	0-253-001-001	2
2	MCH 211-155	103	drive pulley motor	0-445-004-001	1
3	MCH 211-163	105	drive module motor	0-611-001-001	1
THIRD ANGLE PROJECTION			DESIGNER : arnwen	UNITS : (mm)	MATERIAL : -
DATE : 31-10-18			SIZE : A2	TREATMENT : -	COMPONENT ID : MCH 211-060-101
SCALE : 1 : 1			PAGE : 1 of 1	THICKNESS : -	COMPONENT PN : 0-112-024-001
 PROJECT : E01 COMPONENT : drive module motor complete			 Hawig GmbH Schwarzenmühlstrasse 141 64625 Bensheim Germany		



MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	first release	01.11.2018	arnwen	x

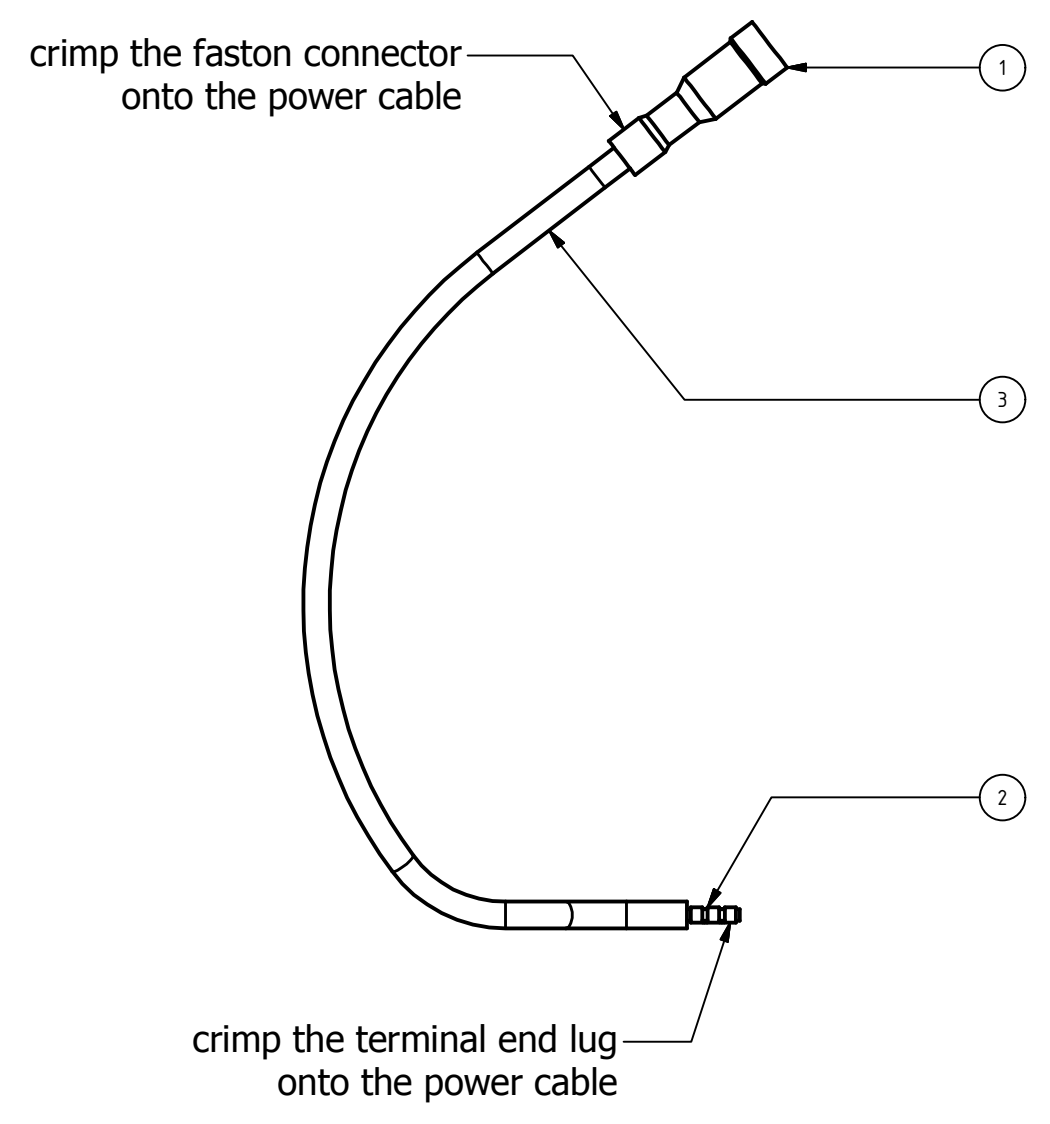
TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

- | MACHINING AND DELIVERY NOTES   |
|--|
| - REMOVE ALL SHARP EDGES AND BURRS   |
| - REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED                                     |
| - INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING                       |
| - ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS |
| - TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS                  |
| - PRODUCT MUST BE ROHS AND GREEN COMPLIANT   |

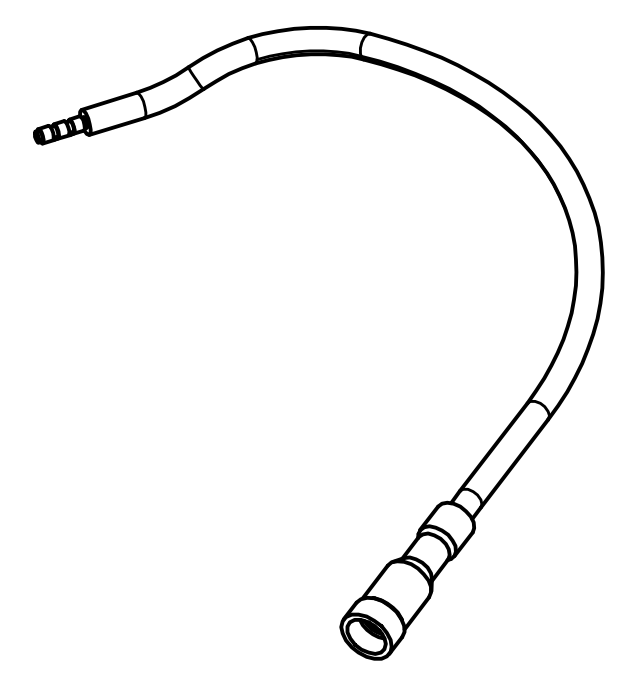
COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 211-045	101	floor unit pcb with soft start complete	0-661-003-001	1
2	MCH 211-062	101	floor unit motor cable red complete	0-151-003-001	1
3	MCH 211-063	101	floor unit motor cable black complete	0-151-004-001	1
4	MCH 211-064	101	solenoid cable black complete	0-151-005-001	2
5	MCH 211-065	101	solenoid complete	0-112-027-001	1
6	MCH 211-067	101	floor unit turbine cable black complete	0-151-006-001	2
7	MCH 211-068	101	floor unit control cable black complete	0-151-007-001	1

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-061-101
	DATE : 01-11-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-025-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : in process
 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01	COMPONENT : floor unit electronics complete		

MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	31.10.2018	arnwen	arnwen

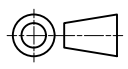



iso view ( 1 : 1 )



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

- | MACHINING AND DELIVERY NOTES   |
|--|
| - REMOVE ALL SHARP EDGES AND BURRS   |
| - REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED                                     |
| - INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING                       |
| - ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS |
| - TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS                  |
| - PRODUCT MUST BE ROHS AND GREEN COMPLIANT   |

COMPONENT LIST								
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY			
1	MCH 067-107	101	faston round connector plug sleeve red	0-253-003-001	1			
2	MCH 067-108	101	cable terminal end lug	0-253-002-001	1			
3	MCH 211-288	101	floor unit motor cable red	0-641-006-001	1			
THIRD ANGLE PROJECTION 	DESIGNER :	arnwen	UNITS :	mm	MATERIAL :	-	COMPONENT ID :	MCH 211-062-101
	DATE :	31-10-18	SIZE :	A3	TREATMENT :	-	COMPONENT PN :	0-151-003-001
	SCALE :	1 : 1	PAGE :	1 of 1	THICKNESS :	-	COMPONENT STATUS :	approved
 Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany	PROJECT :	E01						
	COMPONENT :	floor unit motor cable red complete						

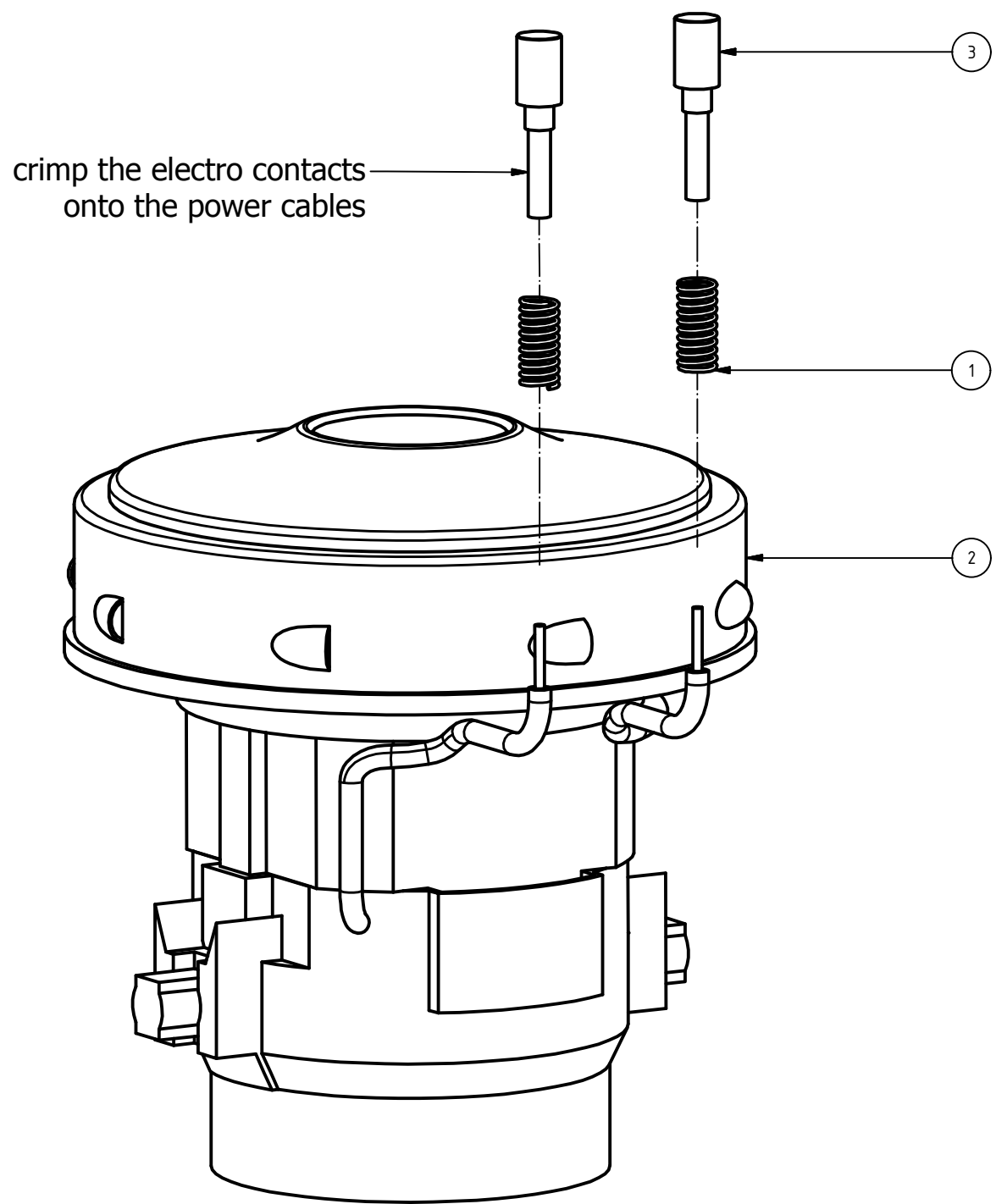








MODIFICATION HISTORY				
Release	Description	Date	Checked	Accepted
101	assembly is approved	31.10.2018	arnwen	arnwen



TOLERANCES AND DIMENSIONS <small>(UNLESS OTHERWISE SPECIFIED)</small>		
LINEAR DIMENSIONS	0,5-6mm	± 0,05mm
	6-30mm	± 0,1mm
	30-120mm	± 0,15mm
	120-400mm	± 0,2mm
	400-1000mm	± 0,25mm
ANGLES		± 1,0°
HOLE Ø		± 0,1mm

MACHINING AND DELIVERY NOTES
- REMOVE ALL SHARP EDGES AND BURRS
- REMOVE ALL MACHINING RESIDUES, PRODUCT MUST BE CLEAR AND DEGREASED
- INSTALL INSERTS/PRESS IN COMPONENTS AS SPECIFIED BY THE PRODUCER AFTER FINISHING
- ALL EXTERNAL SURFACES MUST BE FREE OF SINK MARKS, INJECTION MARKS, FLOW LINES, WELDING LINES AND NICKS
- TRANSPORT TO CUSTOMER SHALL NOT CAUSE ANY DAMAGE TO THE PRODUCT OR ITS SPECIFICATIONS
- PRODUCT MUST BE ROHS AND GREEN COMPLIANT

COMPONENT LIST					
ITEM	COMPONENT ID	RELEASE	COMPONENT	COMPONENT PN	QTY
1	MCH 043-102	101	compression spring 0.70 x 5.50 x 14.00	0-219-002-101	2
2	MCH 059-102	102	suzhou vacuum motor J24V200W	0-251-001-001	1
3	MCH 211-182	103	vacuum motor electro contact small	0-441-013-001	2

	DESIGNER : arnwen	UNITS : mm	MATERIAL : -	COMPONENT ID : MCH 211-066-101
	DATE : 31-10-18	SIZE : A3	TREATMENT : -	COMPONENT PN : 0-112-028-001
	SCALE : 1 : 1	PAGE : 1 of 1	THICKNESS : -	COMPONENT STATUS : approved

 <small>Hawig GmbH Schwanheimerstrasse 141 64625 Bensheim Germany</small>	PROJECT : E01
	COMPONENT : vacuum motor complete





