

TELEMARK Ion Beam Source Drawings

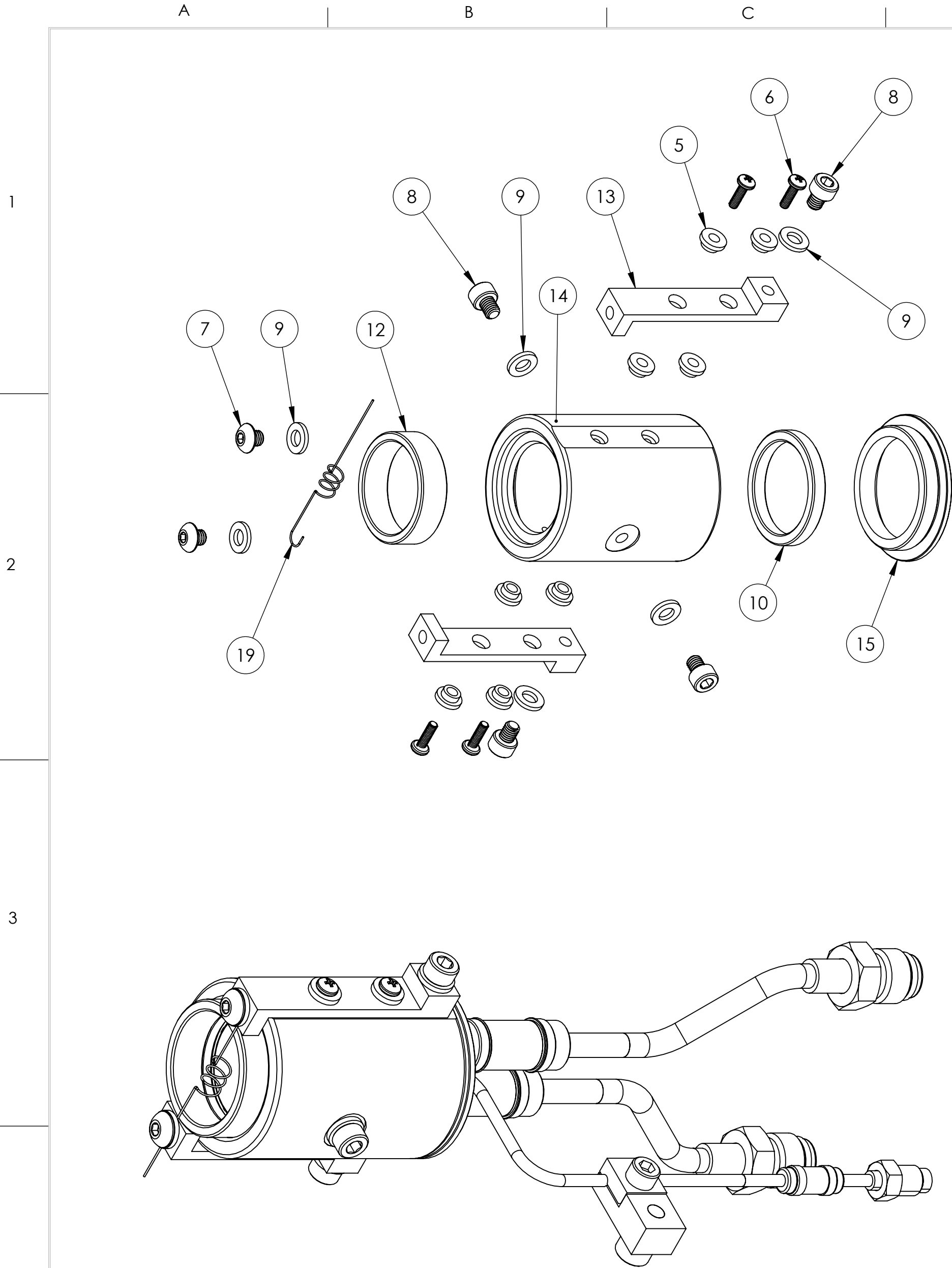
The current version of this drawing pdf can be found at

<https://telemark.com/ion-beam-sources/>

Drawing	Rev.	Description	Page
Model Mini UHV Assembly			
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Model Mini UHV



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	GPD	7/17/2019
		B	UPDATED ASSEMBLY	GPD	10/1/2019

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	31190-11	ANODE BLOCK	1
2	31190-12	CLAMP, ANODE BLOCK	1
3	271-6145-1	VENTED SCREW, #10-32 UNF X 3/8" SST, SHCS	1
4	271-6180-1	VENTED SCREW, 1/4-20 UNC X 3/8 LONG, SST, SHCS	1
5	273-0006-1	INSULATOR, COLLAR	8
6	900-3411-003	FASTENER, M3, PAN PH, 10mm, Bare, SST	4
7	900-5330-503	Fastener, M5, BTN, HEX, 5mm, Bare, SST	2
8	900-5630-603	SCREW, CAP SOC HD, M5 X 6mm LONG, SST	4
9	903-5001-003	WASHER, FLAT, M5, SST	6
10	906-0100-000	INSULATOR, UHV MINI-GUN ANODE, CERAMIC	1
11	906-0110-000	INSULATOR, UHV MINI-GUN ANODE, BACK BODY	1
12	906-0160-000	INSULATOR, UHV MINI-GUN, ENHANCEMENT TUBE	1
13	911-0001-100	IAD, SOURCE, FILAMENT FIXTURE, MINI-GUN	2
14	911-1001-100	UHV MINI-GUN SHROUD	1
15	911-1002-100	UHV MINI-GUN BACKING NUT	1
16	913-1003-200	HV MINI-GUN ANODE, FLANGE MOUNT	1
17	911-1003-101	UHV MINI-GUN ANODE TOP	1
18	911-2004-100	IAD, SERIES III, UHV MINI-GUN SOURCE MAGNET	1
19	991-1300-000	FILAMENT, MINI, TUNGSTEN	1

UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 7-17-2019		MATERIAL: SEE PARTS LIST		TELEMARK		Battle Ground, WA	
GLOBAL TOLERANCES		CHECK BY DATE		FINISH:		<div>ION SOURCE, UHV MINI-GUN 1 FILAMENT</div>			
INCHES [mm]		PROJ ENG DATE		THIRD ANGLE PROJECTION					
.XX +/- .01 [0.254]		MFG ENG DATE							
.XXX +/- .005 [0.127]		DO NOT SCALE DRAWING							
ANGLES +/- .5°		FILE NUMBER - 914-2000-100				<div>SCALE 13:16 DWG NO. 914-2000-100 REV B</div>			
SURF FINISH .63 RMS		INITIAL PROJECT -							
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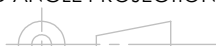


Model 750

1. REMOVE BURRS & BREAK ALL SHARP EDGES .005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. REMOVE ONE (1) NUT FROM ITEM 5 AND INSTALL ITEM 5 IN TO ITEM 6.
4. REMOVE SST FERRULES AND REPLACE WITH NYLON FERRULES ON THE NUTS THAT GO WITH CERAMIC INSULATORS, 4 PLACES.

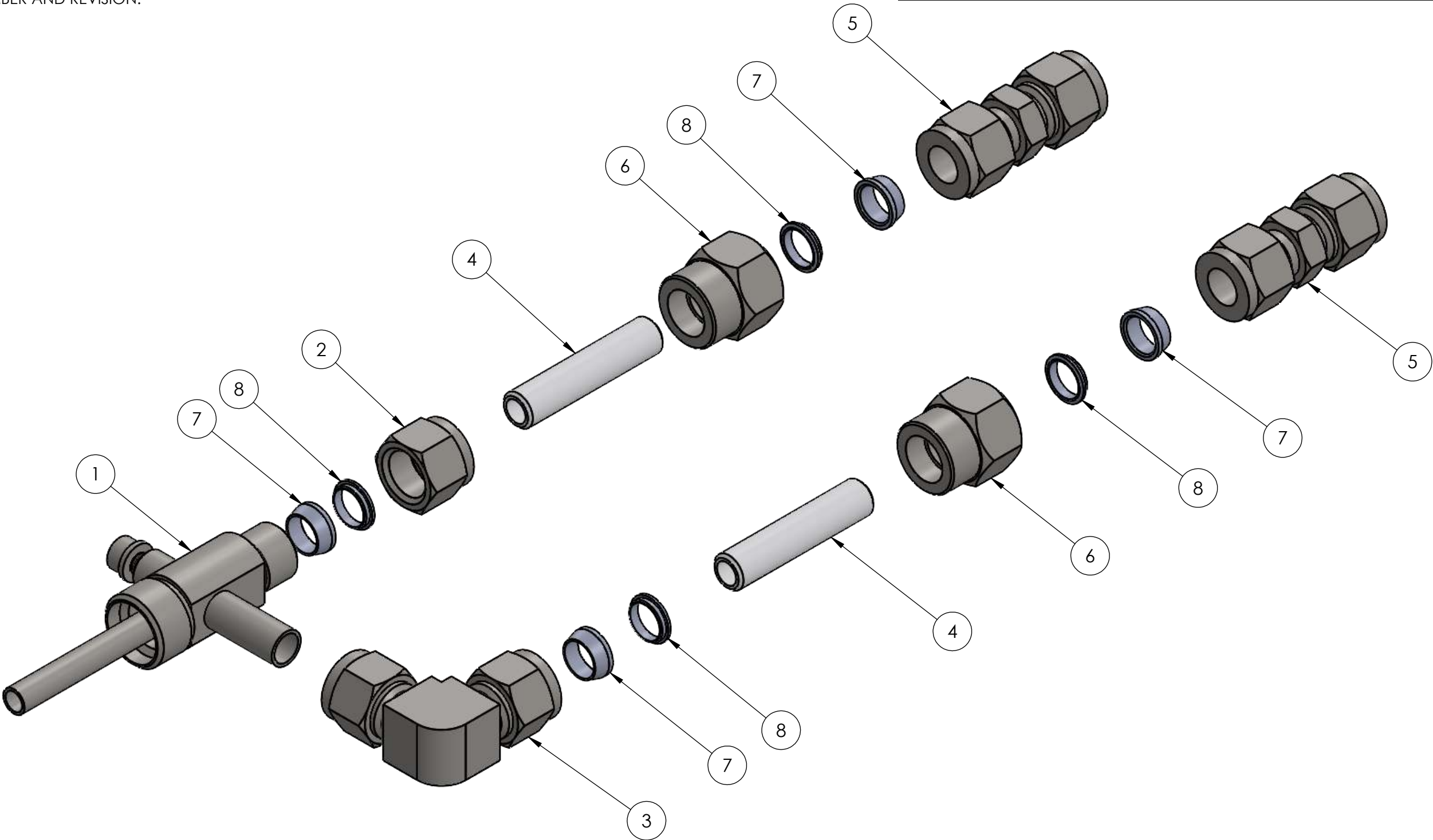



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	913-2000-001	SUB ASSEMBLY, WATER COUPLER, 3/8", XIAD	1
2	905-5602-103	NUT, FEMALE, 3/8" TUBE, SST	1
3	905-5600-903	UNION, ELBOW, 3/8" TUBE, SST	1
4	906-0140-100	INSULATOR, HIGH VOLTAGE, WATER, 3/8"	2
5	905-5600-603	UNION, 3/8" TUBE, SST	2
6	905-5001-103	FITTING, 3/8", INSULATOR SHIELD, SST	2
7	905-5603-106	FRONT FERRULE, 3/8" TUBE, NYLON	4
8	905-5604-106	BACK FERRULE, 3/8" TUBE, NYLON	4

UNLESS OTHERWISE SPECIFIED		DWG BY: G. DION DATE 8-27-2012		MATERIAL:		SEE PARTS LIST		TELEMARK	
GLOBAL TOLERANCES		CHECK BY: DATE						Battle Ground, WA	
PROJ ENG DATE				FINISH:					
MFG ENG DATE				THIRD ANGLE PROJECTION					
DO NOT SCALE DRAWING									
FILE NUMBER -									
INITIAL PROJECT -									

NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.

ECO	ZONE	REV	DESCRIPTION	BY	DATE

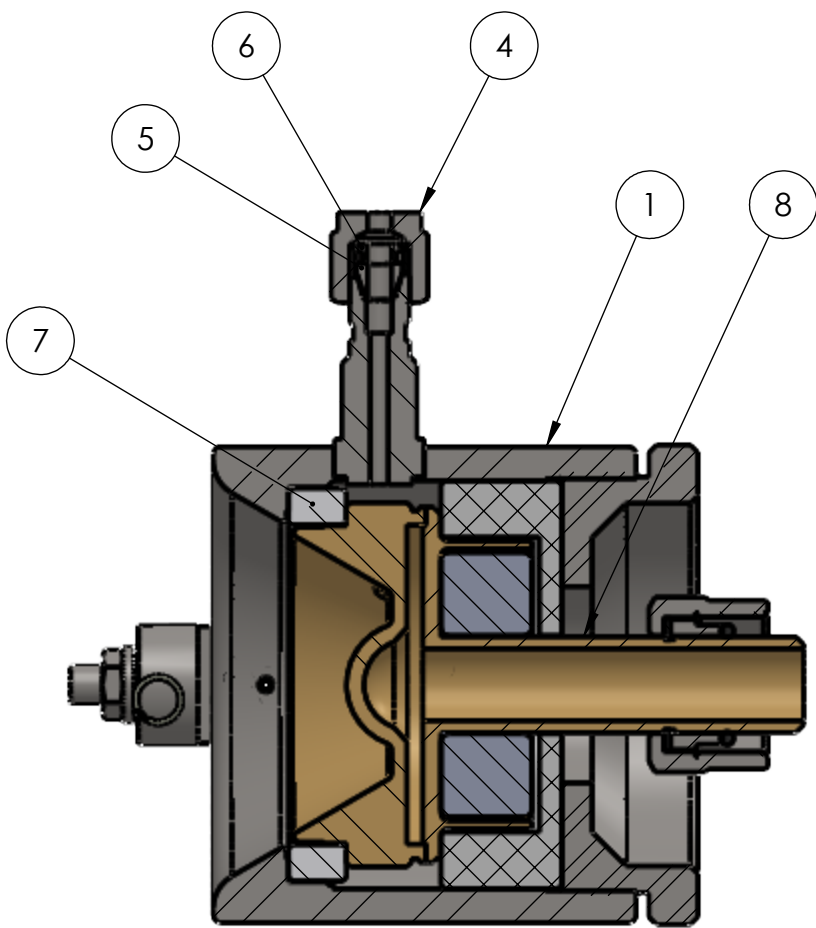
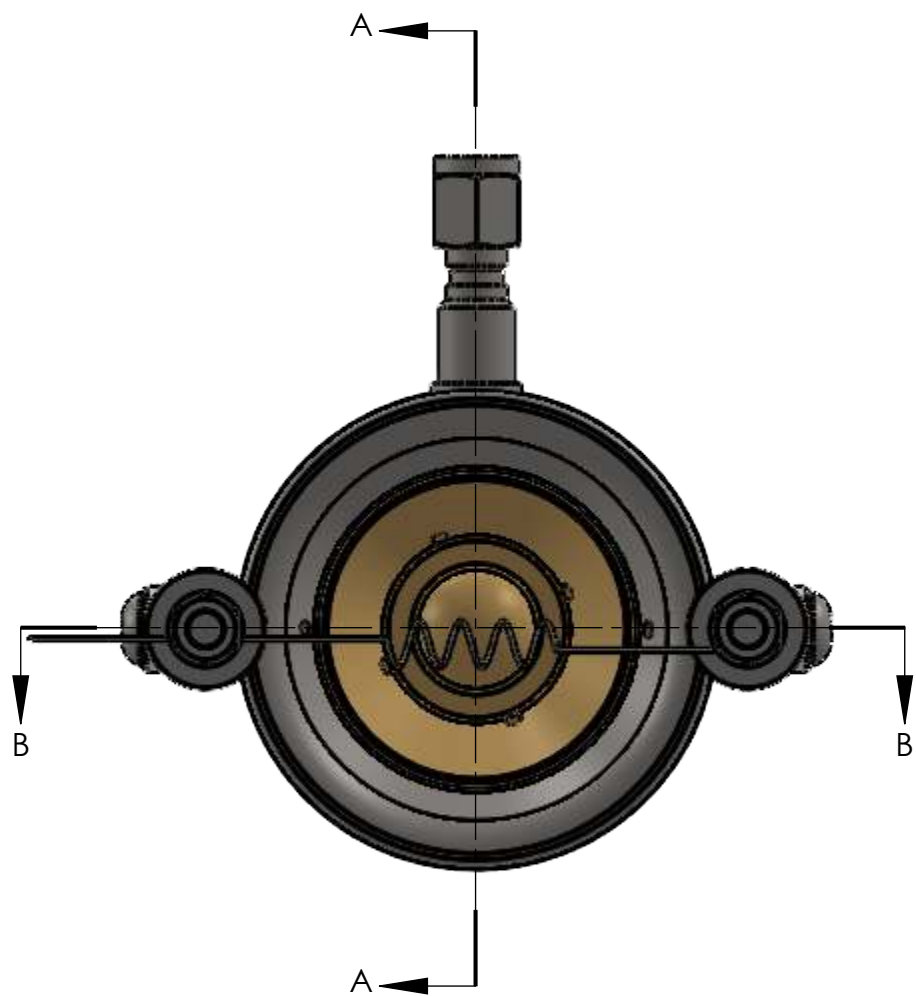
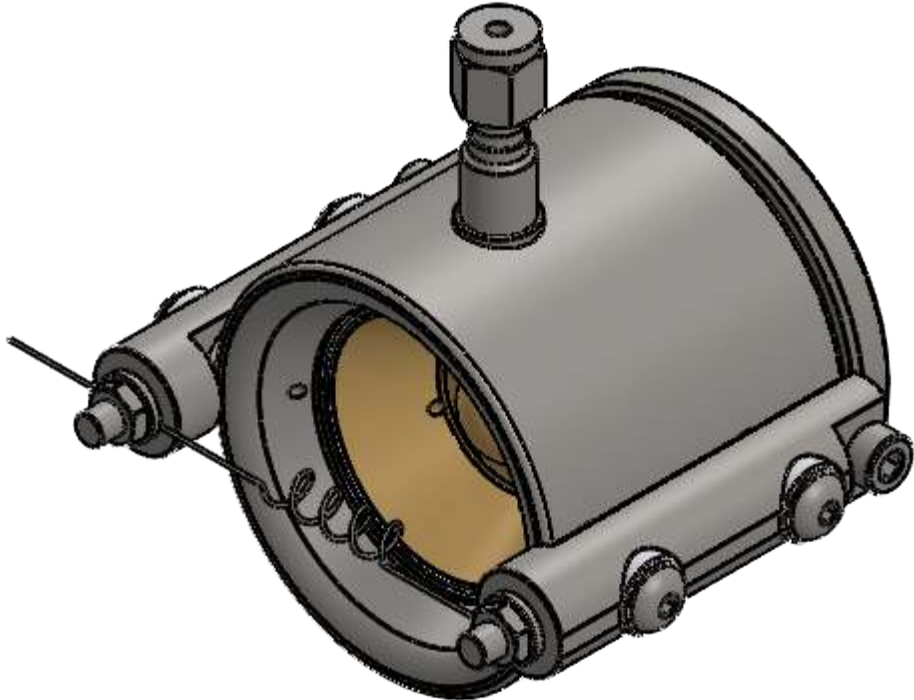
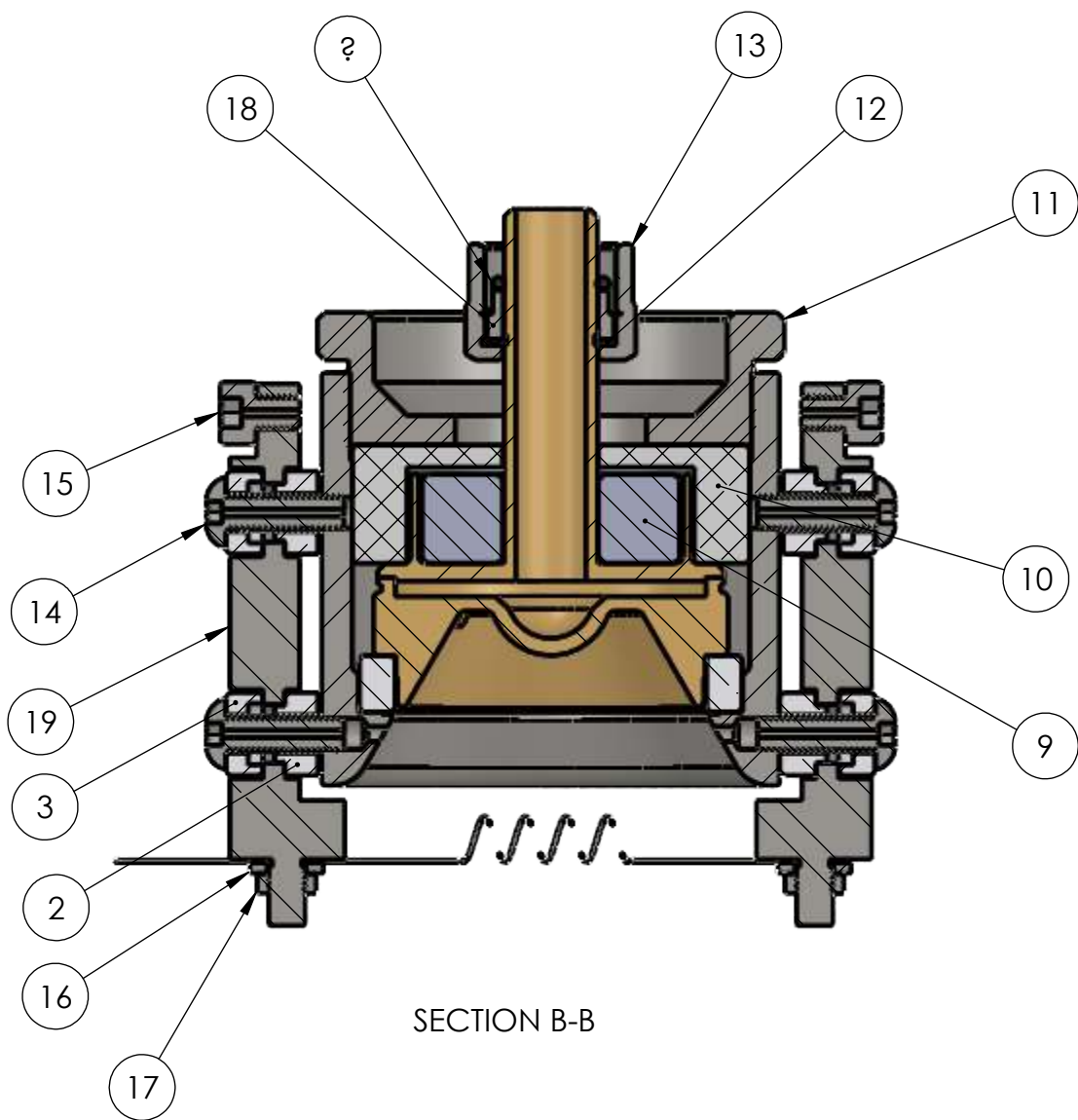


UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 8-27-2012		MATERIAL: SEE PARTS LIST		TELEMARK	
GLOBAL TOLERANCES		CHECK BY DATE		FINISH:		Battle Ground, WA	
		PROJ ENG DATE					
		MFG ENG DATE		THIRD ANGLE PROJECTION		SUB ASSEMBLY, WATER MANIFOLD, 3/8", 750	
		DO NOT SCALE DRAWING					
		FILE NUMBER -				B	
		INITIAL PROJECT -					
						SCALE 1:1	
						DWG NO. 913-2000-101	
						REV B	
						SHEET 2 of 2	

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NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. DIMENSIONS ARE METRIC.

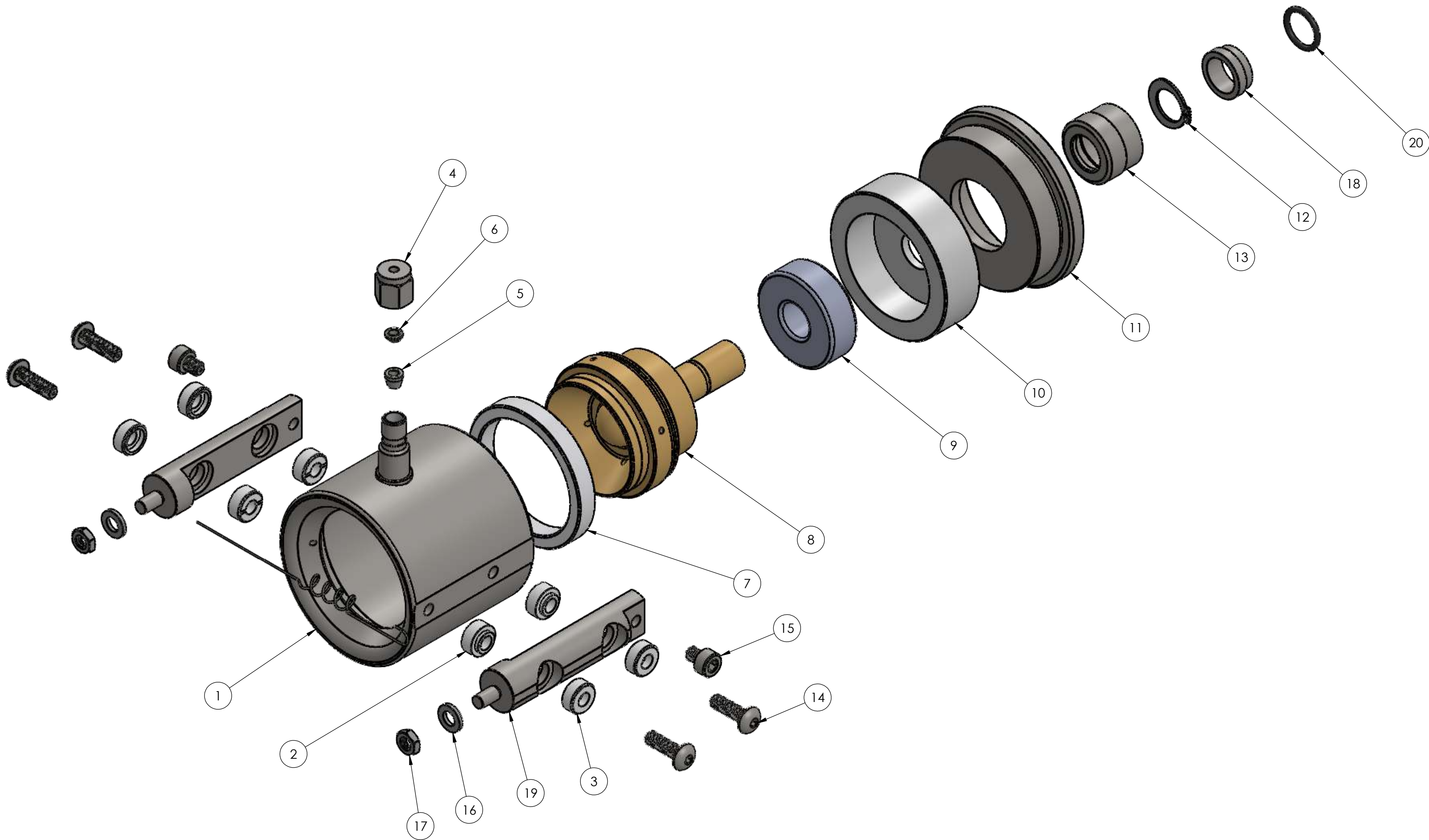
ECO	REV	DESCRIPTION	BY	DATE
	A	RELEASE	GPD	10/22/2012
	B	UPDATED ITEMS	GPD	12/10/2012
	B1	ITEM 20 P/N FROM 06-22112-001-00 TO 06-22014-001-00	GPD	4/15/2014




ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	911-2001-100	IAD, SERIES III, XIAD SOURCE SHROUD	1
2	906-0120-001	INSULATOR, FLANGED, MALE	4
3	906-0120-002	INSULATOR, FLANGED, FEMALE	4
4	905-1202-103	NUT, FEMALE, 1/8" TUBE, SST	1
5	905-1203-103	FRONT FERRULE, 1/8" TUBE, SST	1
6	905-1204-103	BACK FERRULE, 1/8" TUBE, SST	1
7	906-0100-100	INSULATOR, XIAD ANODE, CERAMIC	1
8	911-2003-100	IAD, SERIES III, XIAD SOURCE ANODE	1
9	911-2004-100	IAD, SERIES III, XIAD SOURCE MAGNET	1
10	906-0110-100	INSULATOR, XIAD ANODE, BACK BODY	1
11	911-2002-100	IAD, SERIES III, XIAD SOURCE BACKING NUT	1
12	271-6283-5	RETAINING RING, EXTERNAL, 1/2", SST	1
13	905-6001-013	NUT, ULTRA-TORR, 1/2", SST	1
14	900-5331-673	SCREW, BUTTON SOC HD, M5 X 16mm LONG, VENTED, SST	4
15	900-5630-673	SCREW, CAP SOC HD, M5 X 6mm LONG, VENTED, SST	2
16	903-5001-003	WASHER, FLAT, M5, SST	2
17	902-5080-403	NUT, HEX, M5, SST	2
18	905-6000-103	FITTING, 3/8" ULTRA TORR O-RING SUPPRESSOR, SST	1
19	911-0001-200	IAD, SOURCE, FILAMENT FIXTURE, XIAD/ST55	2
20	271-2014-1	O-RING, VITON, ID 1/2", W 1/16"	1
21	991-1310-000	FILAMENT, XIAD, TUNGSTEN	1

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		DWG BY: G. DION DATE: 10-22-2012	MATERIAL: SEE PARTS LIST	TELEMARK Battle Ground, WA	
X INCHES [mm] +/- 0.X [0.1] .XX +/- 0.01 [0.05]		CHECK BY: DATE PROJ ENG DATE MFG ENG DATE	FINISH: SEE NOTES		
ANGLES +/- .25° SURF FINISH 63 RMS		DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION	ASSEMBLY, 750 ION SOURCE, 1 FILAMENT	
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				SCALE 1:1 SHEET 1 of 2	DWG NO. 914-2100-000 REV B1

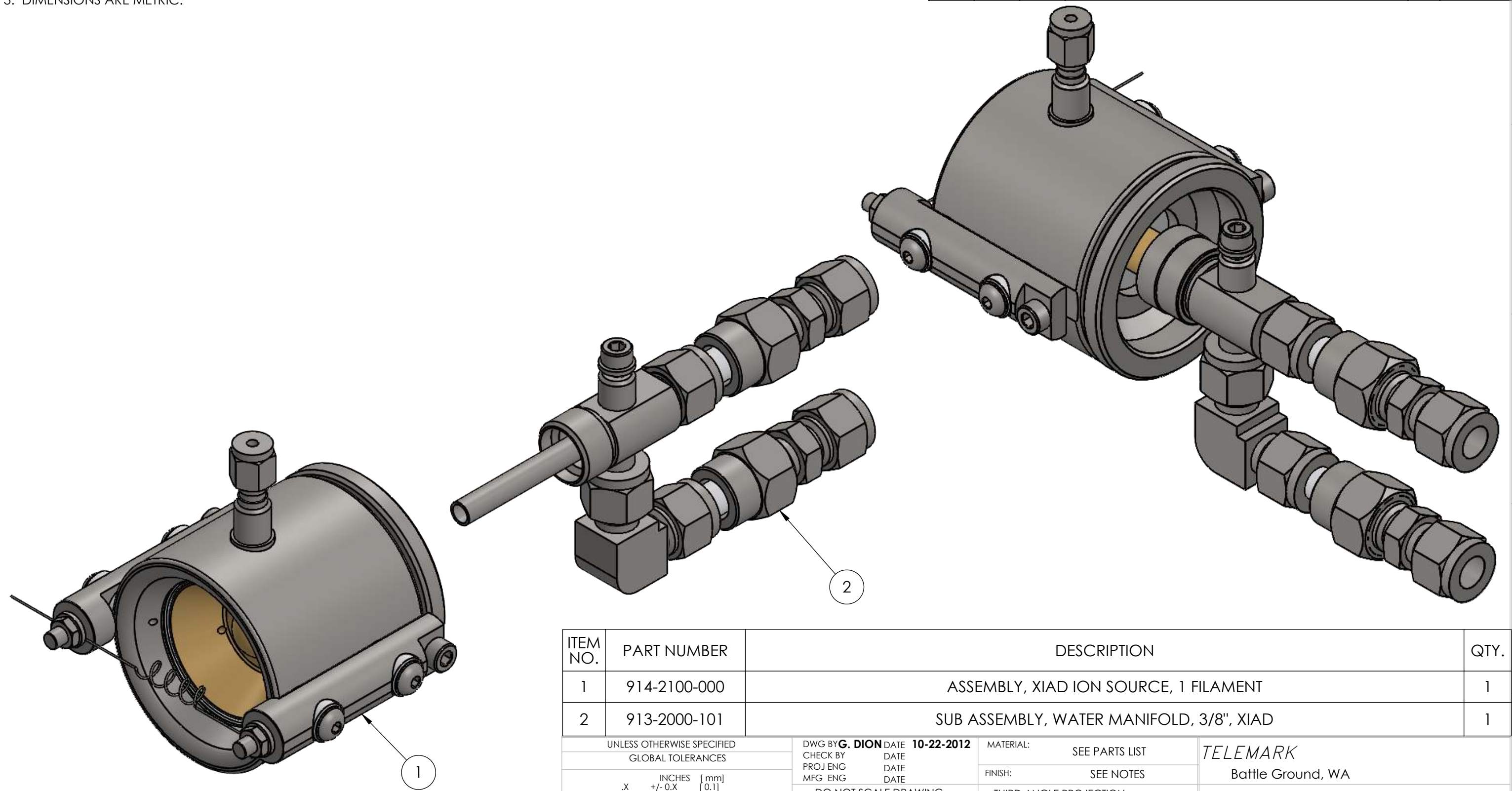
ECO	REV	DESCRIPTION	BY	DATE
		SEE SHEET 1		



UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 10-22-2012		MATERIAL: SEE PARTS LIST		TELEMARK	
GLOBAL TOLERANCES		CHECK BY		FINISH:		Battle Ground, WA	
INCHES [mm]		PROJ ENG DATE		THIRD ANGLE PROJECTION		ASSEMBLY, 750 ION SOURCE, 1 FILAMENT	
.X +/- 0.X [0.1]		MFG ENG DATE					
.XX +/- 0.01 [0.05]		DO NOT SCALE DRAWING					
ANGLES +/- .25°		FILE NUMBER -					
SURF FINISH 63 RMS		INITIAL PROJECT -					
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C		SCALE 1:1		DWG NO.		REV	
		SHEET 2 of 2		914-2100-000		B1	

NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. DIMENSIONS ARE METRIC.

ECO	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	GPD	10/22/2012
		B	REVISED ITEM 2	GPD	10/31/2014



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	914-2100-000	ASSEMBLY, XIAD ION SOURCE, 1 FILAMENT	1
2	913-2000-101	SUB ASSEMBLY, WATER MANIFOLD, 3/8", XIAD	1

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		DWG BY G. DION DATE 10-22-2012	MATERIAL: SEE PARTS LIST	TELEMARK Battle Ground, WA ASSEMBLY, 750 ION SOURCE, 1 FILAMENT WITH WATER LINES
INCHES [mm] .X +/- 0.X [0.1] .XX +/- 0.01 [0.05]		CHECK BY PROJ ENG DATE MFG ENG DATE	FINISH: SEE NOTES	
ANGLES +/- .25° SURF FINISH 63 RMS		DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION	
FILE NUMBER - INITIAL PROJECT -				

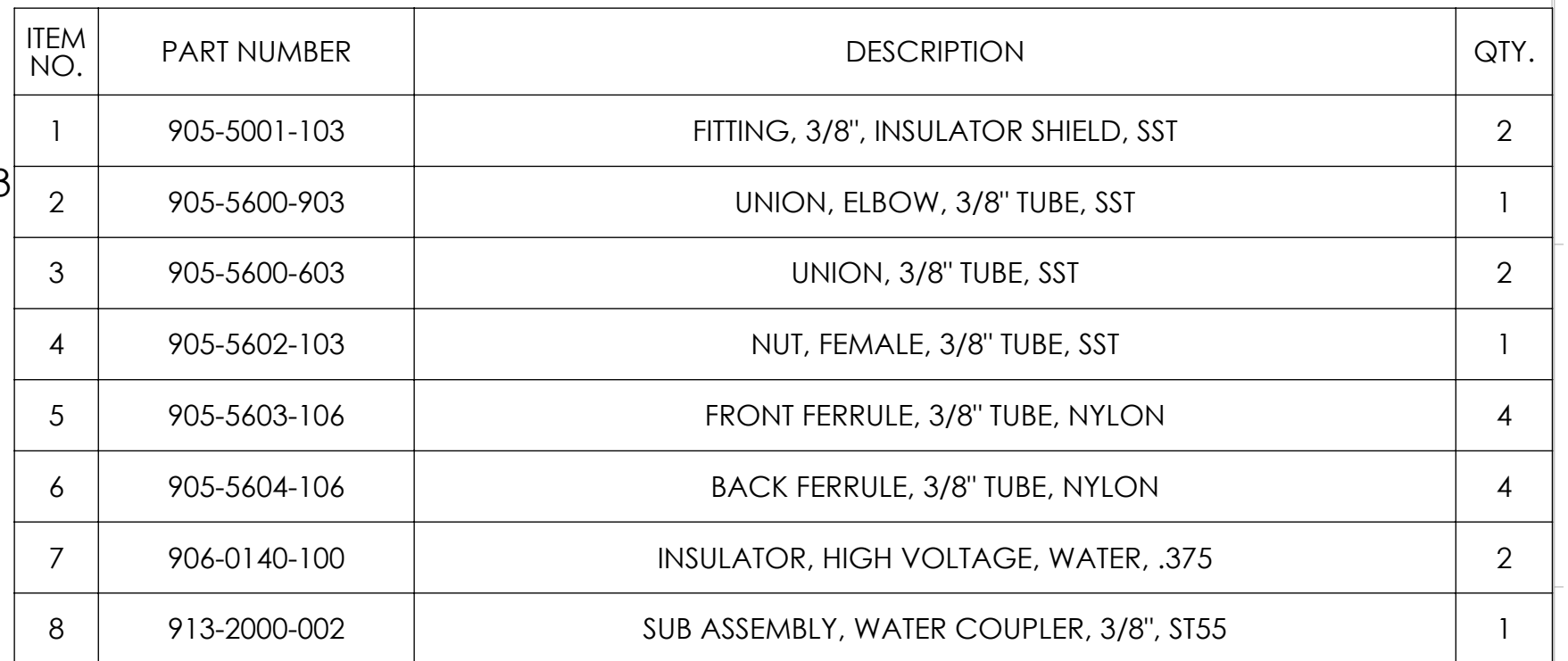
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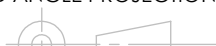
B	SCALE	1:1	DWG NO.	914-2100-100	REV	B
	SHEET	1 of 1				



Model 1250

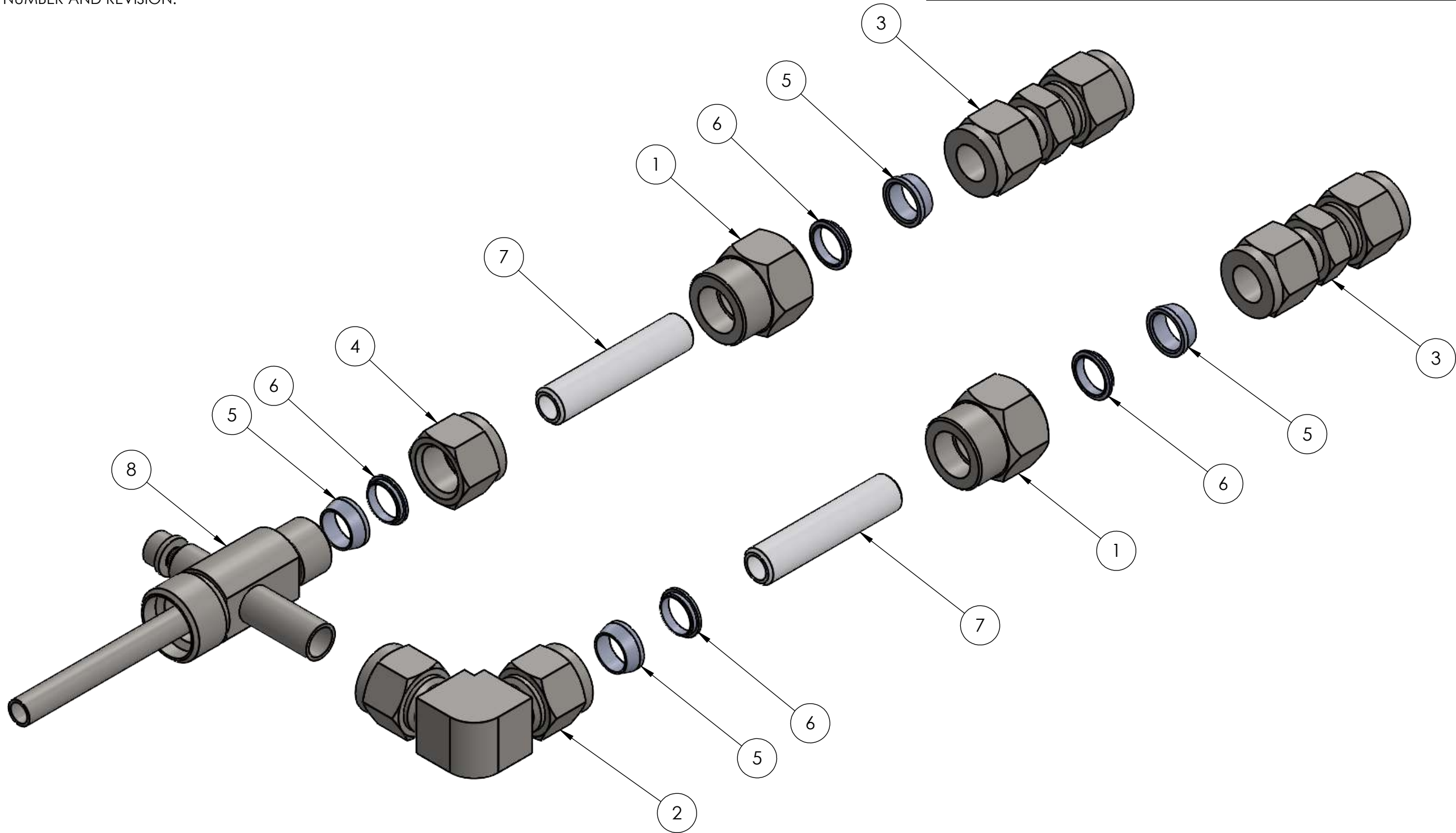
1. REMOVE BURRS & BREAK ALL SHARP EDGES .005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. REMOVE ONE (1) NUT FROM ITEM 3 AND INSTALL ITEM 3 IN TO ITEM 1.
4. REMOVE SST FERRULES AND REPLACE WITH NYLON FERRULES ON THE NUTS THAT GO WITH CERAMIC INSULATORS, 4 PLACES.




UNLESS OTHERWISE SPECIFIED		DWG BY: G. DION DATE 10-31-2014		MATERIAL:		SEE PARTS LIST		TELEMARK	
GLOBAL TOLERANCES		CHECK BY: DATE						Battle Ground, WA	
INCHES [mm]		PROJ ENG DATE		FINISH:					
.XX +/- 0.X [XX]		MFG ENG DATE		THIRD ANGLE PROJECTION					
.XXX +/- 0.01 [0.254]		DO NOT SCALE DRAWING						SUB ASSEMBLY, WATER MANIFOLD, 3/8", 1250	
.XXXX +/- 0.005 [0.127]		FILE NUMBER -							
ANGLES +/- .25°		INITIAL PROJECT -							
SURF FINISH 63 RMS									
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B		SCALE 1:1		DWG NO.		REV			
SHEET 1 of 2		913-2000-102				A			

NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.

ECO	ZONE	REV	DESCRIPTION	BY	DATE

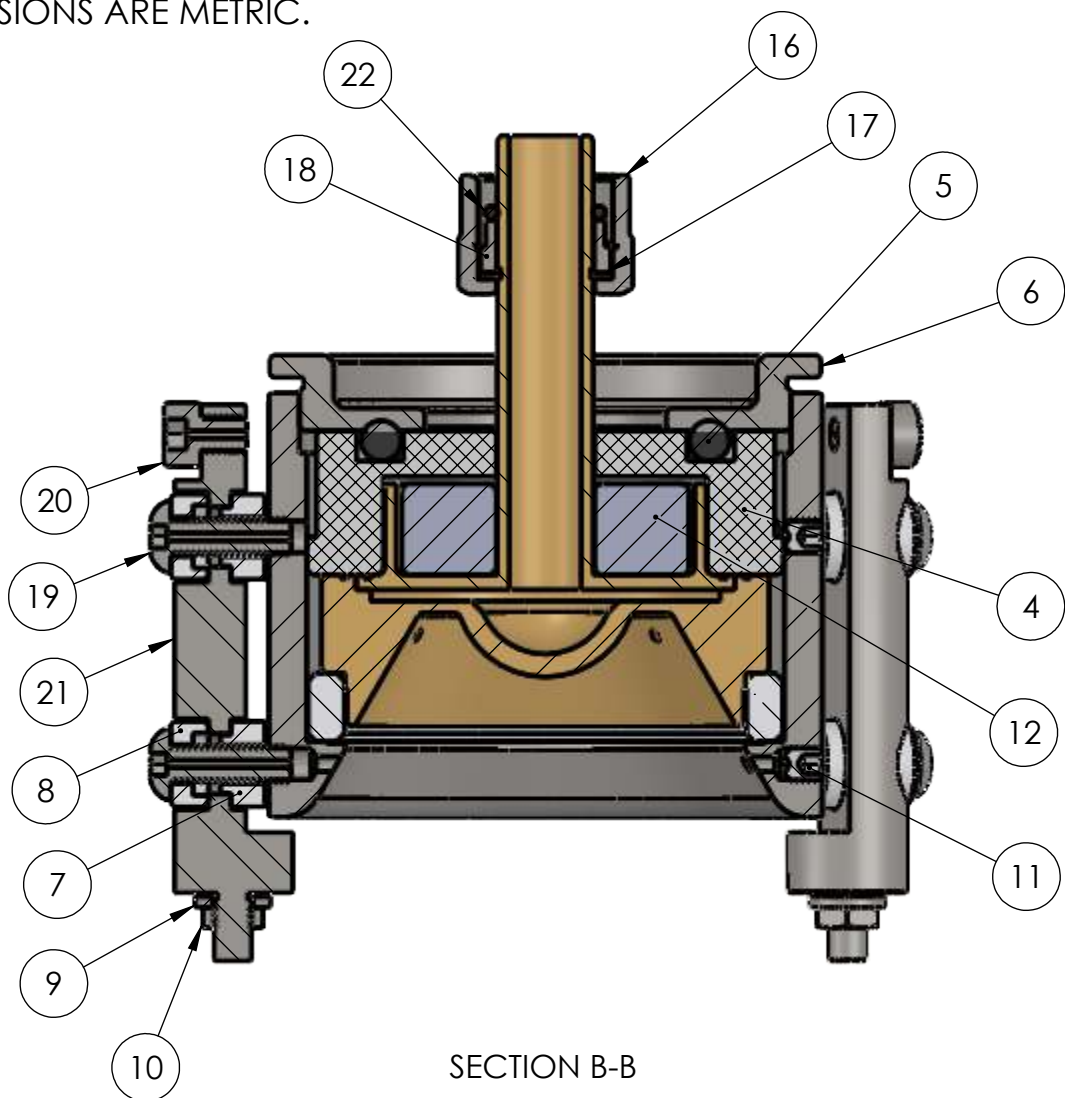


UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 10-31-2014		MATERIAL: SEE PARTS LIST		<i>TELEMARK</i>	
GLOBAL TOLERANCES		CHECK BY DATE		FINISH:		Battle Ground, WA	
		PROJ ENG DATE					
		MFG ENG DATE				SUB ASSEMBLY, WATER MANIFOLD, 3/8", 1250	
		DO NOT SCALE DRAWING					
		FILE NUMBER -					
		INITIAL PROJECT -					
INCHES [mm]							
.XX	+/- 0.X [XX]						
.XXX	+/- 0.01 [0.254]						
.XXXX	+/- 0.005 [0.127]						
ANGLES +/- .25°							
SURF FINISH 63 RMS							
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B	SCALE	1:1	DWG NO.		REV		
	SHEET	2 of 2	913-2000-102		A		

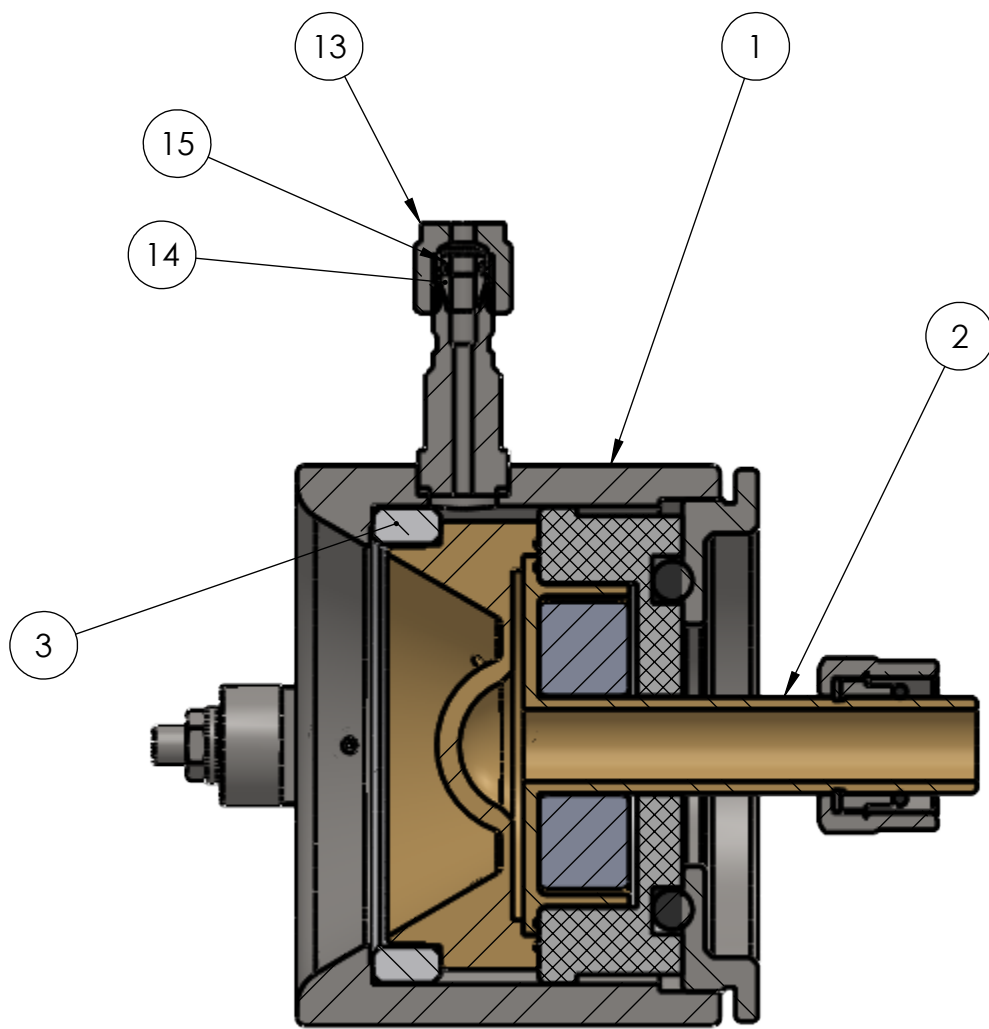
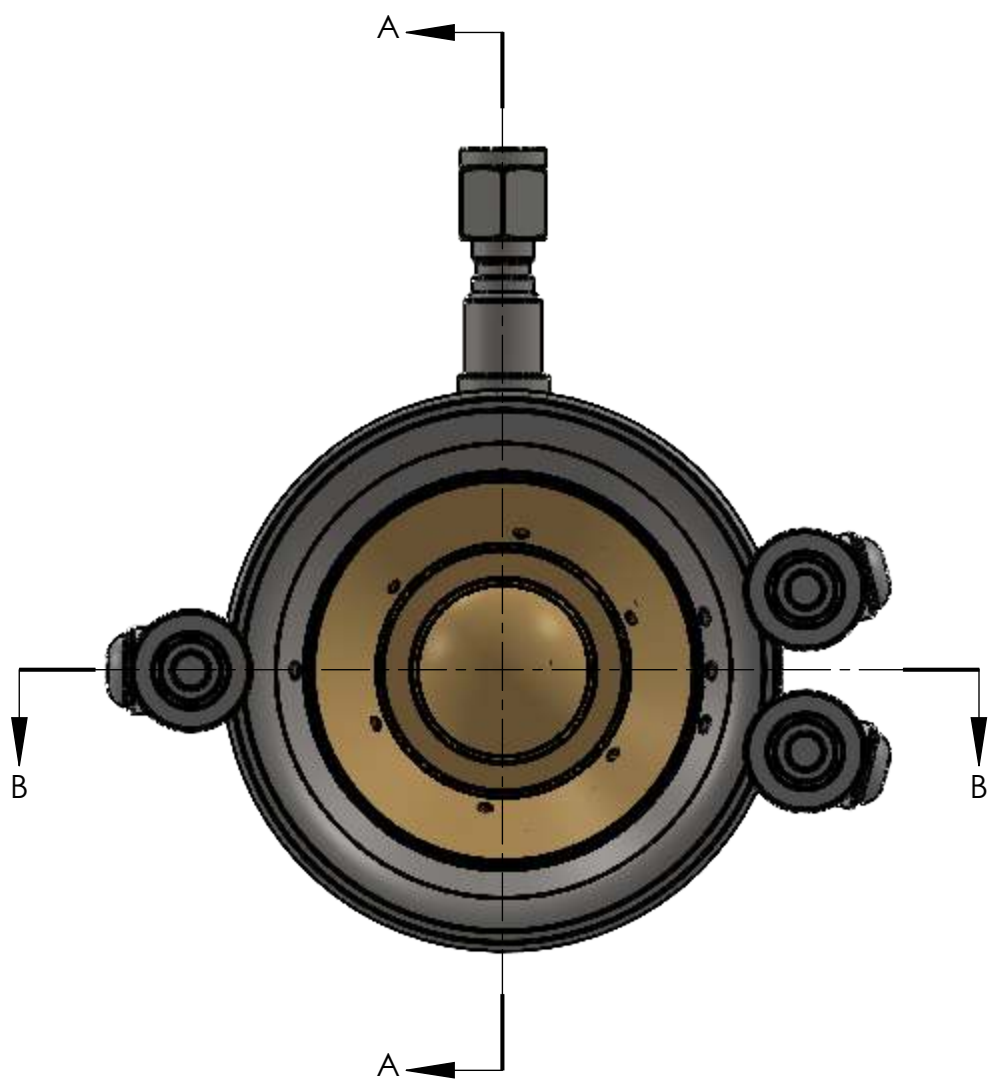
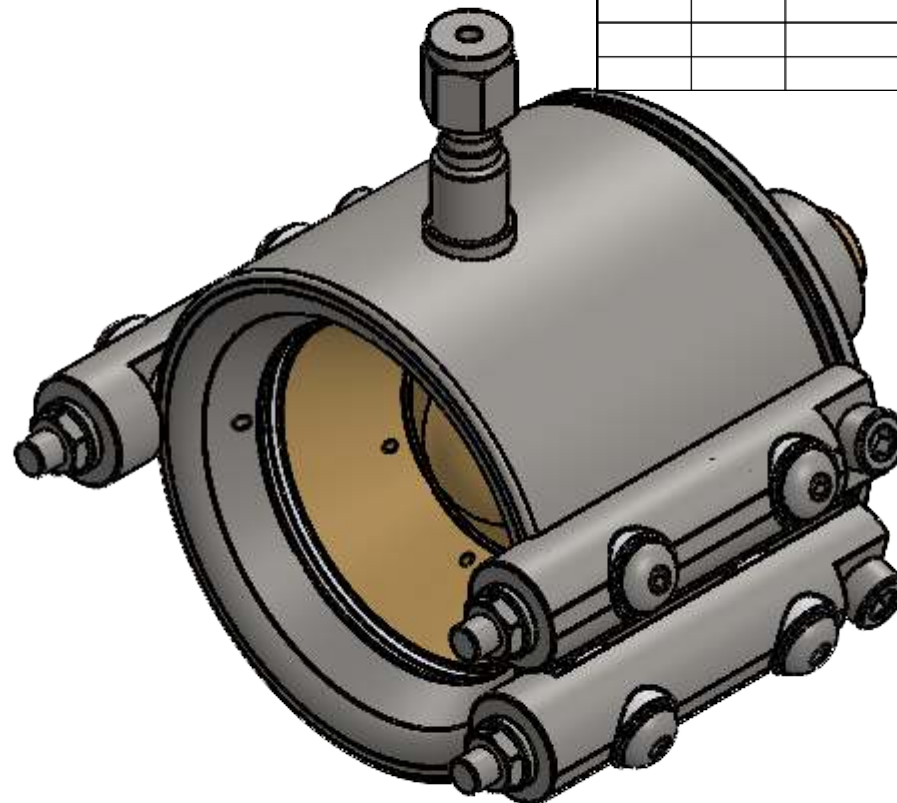
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- NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. DIMENSIONS ARE METRIC.

ECO	REV	DESCRIPTION	BY	DATE
	A	RELEASE	GPD	9/6/2012
	A1	ITEM 22 P/N FROM 06-22114-001-00 TO 06-22014-001-00	GPD	4/15/2014

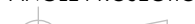


SECTION B-B

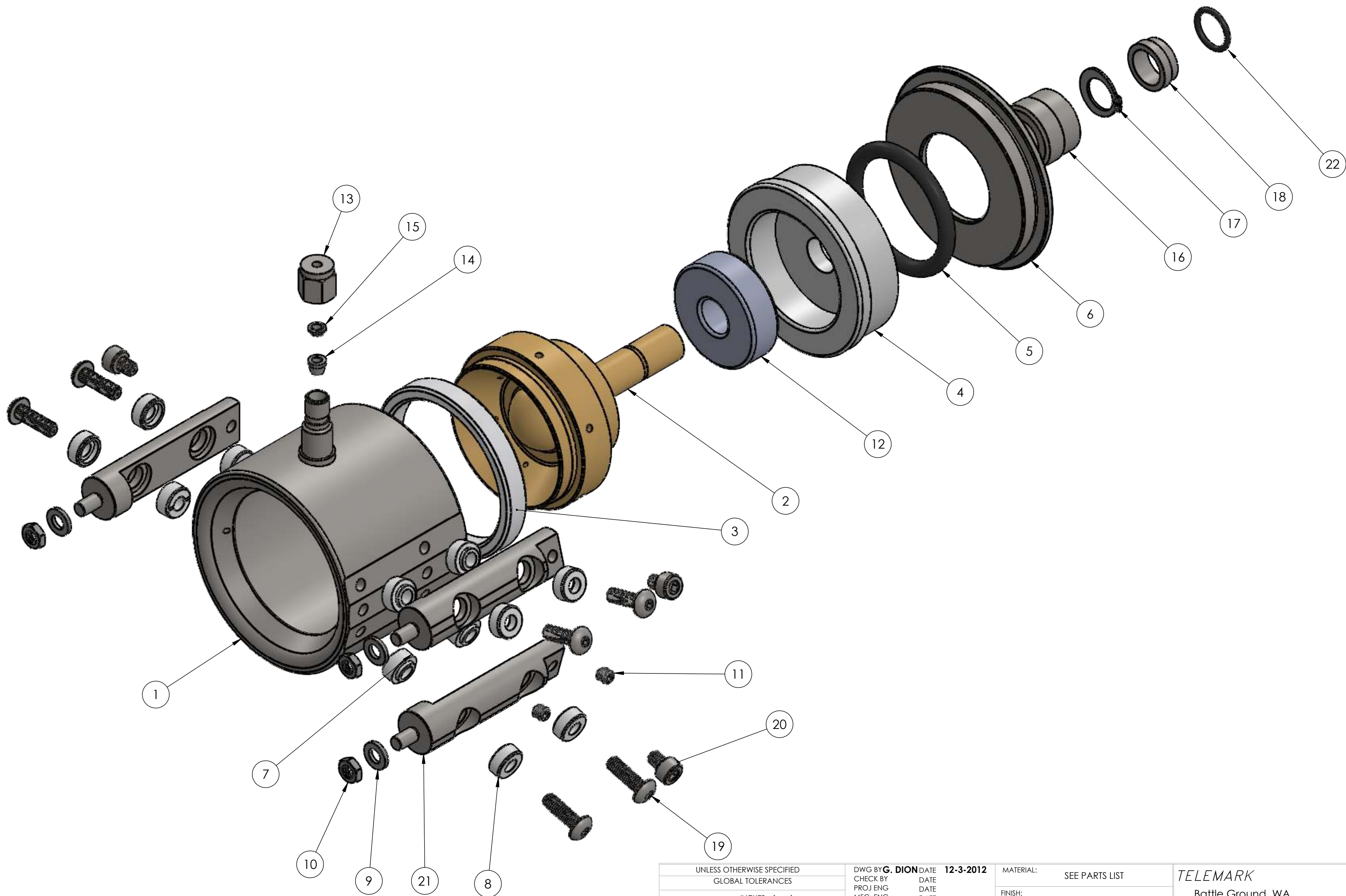


SECTION A-A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	911-3001-100	IAD, SERIES III, ST55 SOURCE SHROUD	1
2	911-3003-100	IAD, SERIES III, ST55 SOURCE ANODE	1
3	906-0100-200	INSULATOR, ST55 ANODE, CERAMIC	1
4	906-0110-200	INSULATOR, ST55 ANODE, BACK BODY	1
5	271-2325-1	O-RING, 3/16" DIAMETERX 1-1/2" I.D., VITON	1
6	911-3002-100	IAD, SERIES III, ST55 SOURCE BACKING NUT	1
7	906-0120-001	INSULATOR, FLANGED, MALE	6
8	906-0120-002	INSULATOR, FLANGED, FEMALE	6
9	903-5001-003	WASHER, FLAT, M5, SST	3
10	902-5080-403	NUT, HEX, M5, SST	3
11	900-5730-503	SCREW, HEX SOC SET, M5 X 5mm LONG, SST	2
12	911-3004-100	IAD, SERIES III, ST55 SOURCE MAGNET	1
13	905-1202-103	NUT, FEMALE, 1/8" TUBE, SST	1
14	905-1203-103	FRONT FERRULE, 1/8" TUBE, SST	1
15	905-1204-103	BACK FERRULE, 1/8" TUBE, SST	1
16	905-6001-013	NUT, ULTRA-TORR, 1/2", SST	1
17	271-6283-5	RETAINING RING, EXTERNAL, 1/2", SST	1
18	905-6000-103	FITTING, 3/8" ULTRA TORR O-RING SUPPRESSOR, SST	1
19	900-5331-673	SCREW, BUTTON SOC HD, M5 X 16mm LONG, VENTED, SST	6
20	900-5630-673	SCREW, CAP SOC HD, M5 X 6mm LONG, VENTED, SST	3
21	911-0001-200	IAD, SOURCE, FILAMENT FIXTURE, XIAD/ST55	3
22	271-2014-1	O-RING, VITON, ID 1/2", W 1/16"	1

UNLESS OTHERWISE SPECIFIED		DWG BY: G. DION DATE: 9-6-2012		MATERIAL: SEE PARTS LIST		TELEMARK Battle Ground, WA	
GLOBAL TOLERANCES		CHECK BY: DATE		FINISH: SEE NOTES			
X INCHES [mm] +/- 0.X [0.1] .XX +/- 0.01 [0.05]		PROJ ENG DATE		THIRD ANGLE PROJECTION 		ASSEMBLY, 1250 ION SOURCE, 2 FILAMENT	
ANGLES +/- .25° SURF FINISH 63 RMS		MFG ENG DATE					
		DO NOT SCALE DRAWING					
		FILE NUMBER - INITIAL PROJECT -					
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C	SCALE	1:1	DWG NO.			REV	
	SHEET	1 of 2	914-2201-000			A1	

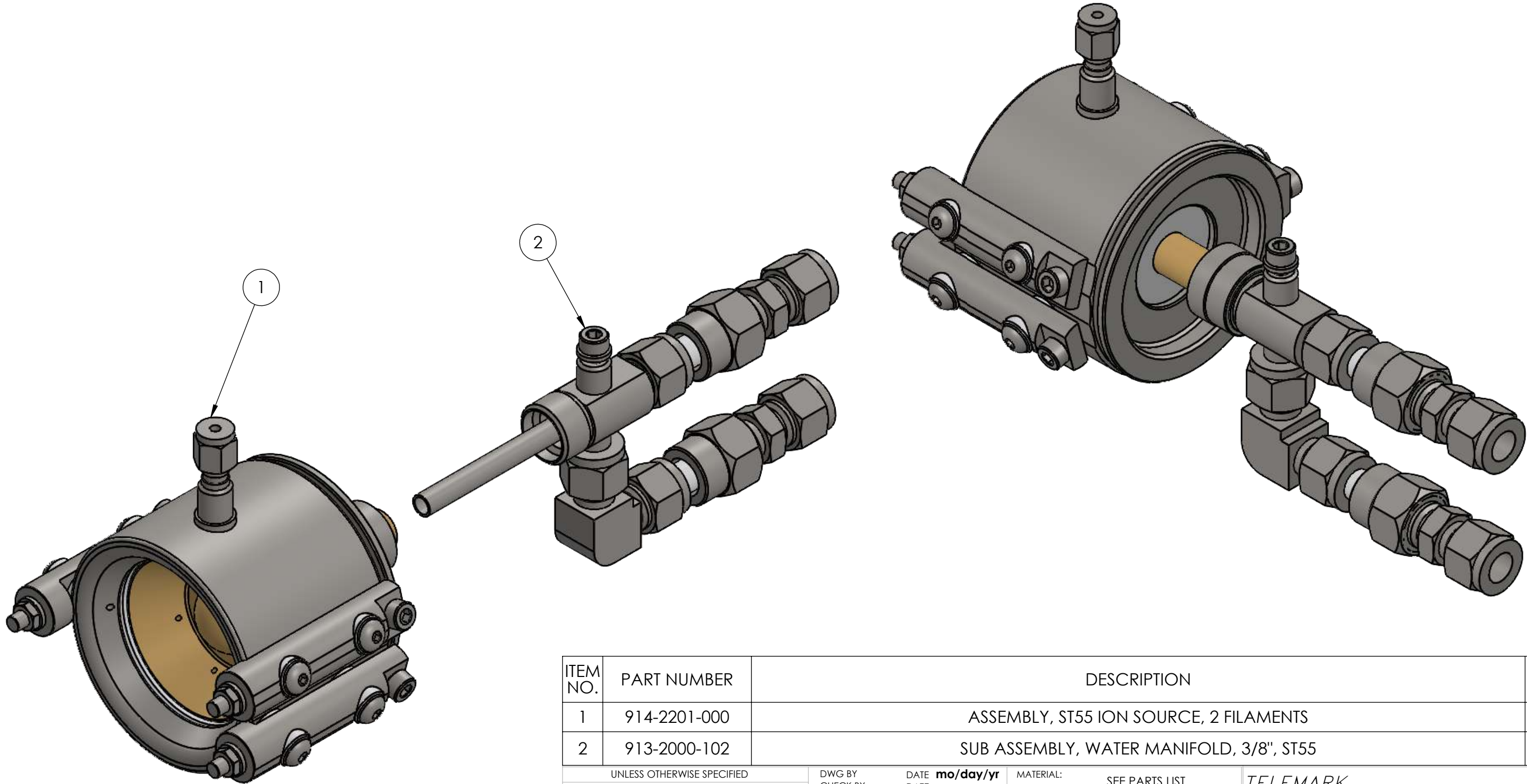
ECO	REV	DESCRIPTION	BY	DATE
		SEE SHEET 2		




UNLESS OTHERWISE SPECIFIED		DWG BY: G. DION DATE: 12-3-2012		MATERIAL: SEE PARTS LIST		<i>TELEMARK</i>					
GLOBAL TOLERANCES		CHECK BY: DATE:		FINISH:		Battle Ground, WA					
X INCHES [mm]		PROJ ENG DATE		THIRD ANGLE PROJECTION		ASSEMBLY, 1250 ION SOURCE, 2 FILAMENT					
.X +/- 0.X [0.1]		MFG ENG DATE									
X +/- 0.01 [0.05]		DO NOT SCALE DRAWING									
ANGLES +/- .25° SURF FINISH 63 RMS		FILE NUMBER - INITIAL PROJECT -									
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NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. DIMENSIONS ARE METRIC.

ECO	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	GPD	10/17/2012
		B	P/N FROM 13-20001-001 TO 13-20001-002	GPD	10/31/2014



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	914-2201-000	ASSEMBLY, ST55 ION SOURCE, 2 FILAMENTS	1
2	913-2000-102	SUB ASSEMBLY, WATER MANIFOLD, 3/8", ST55	1

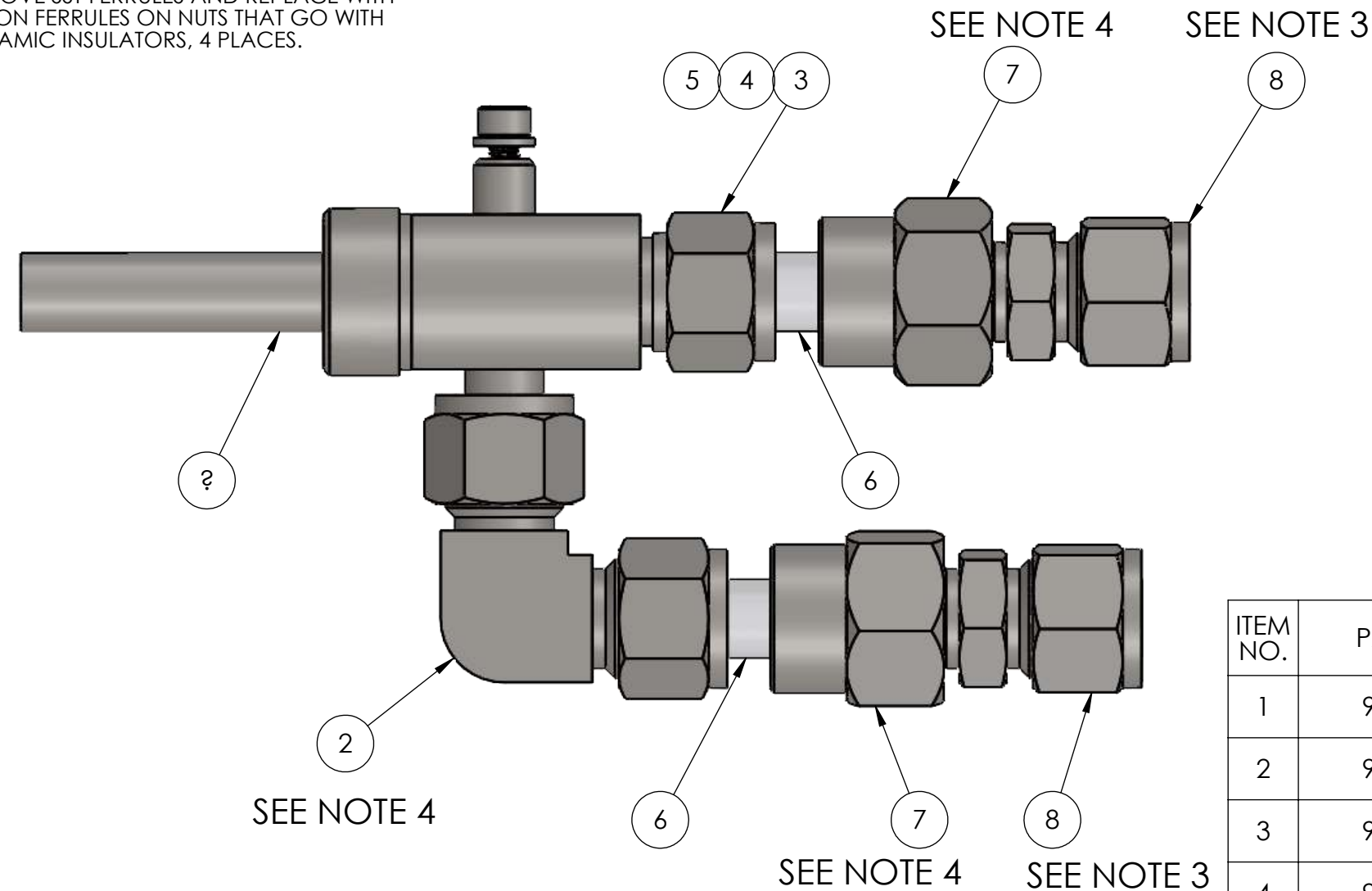
UNLESS OTHERWISE SPECIFIED		DWG BY	DATE	mo/day/yr	MATERIAL:	SEE PARTS LIST		TELEMARK	
GLOBAL TOLERANCES		CHECK BY	DATE					Battle Ground, WA	
		PROJ ENG	DATE		FINISH:	SEE NOTES			
		MFG ENG	DATE						
		DO NOT SCALE DRAWING			THIRD ANGLE PROJECTION		ASSEMBLY, 1250 ION SOURCE, 2 FILAMENTS WITH WATER LINES		
		FILE NUMBER -							
		INITIAL PROJECT -							
INCHES [mm] .X +/- 0.X [0.1] .XX +/- 0.01 [0.05]									
ANGLES +/- .25° SURF FINISH 63 RMS									
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B	SCALE	1:1	DWG NO.		REV				
	SHEET	1 of 1	914-2201-100		B				



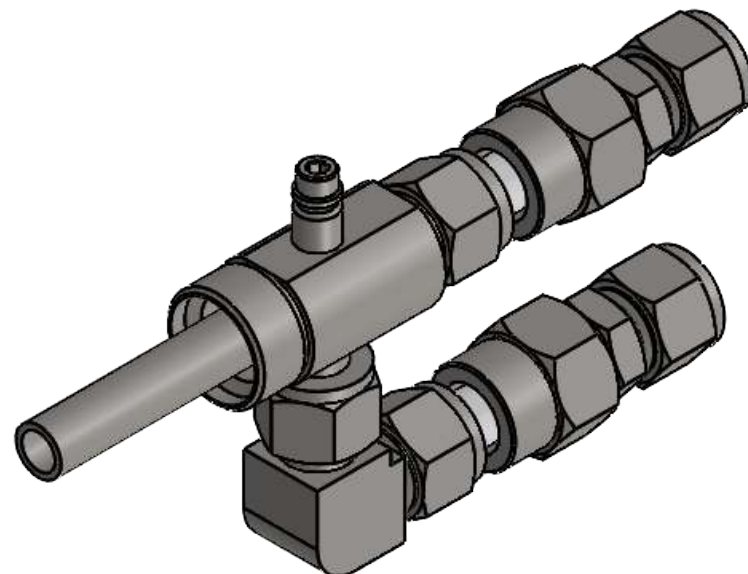
Model 2000/3000

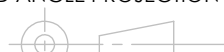
1. REMOVE BURRS & BREAK ALL SHARP EDGES .005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. REMOVE ONE (1) NUT FROM ITEM 8 AND INSTALL ITEM 8 IN TO ITEM 7.
4. REMOVE SST FERRULES AND REPLACE WITH NYLON FERRULES ON NUTS THAT GO WITH CERAMIC INSULATORS, 4 PLACES.

ECO	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	GPD	10/21/2016



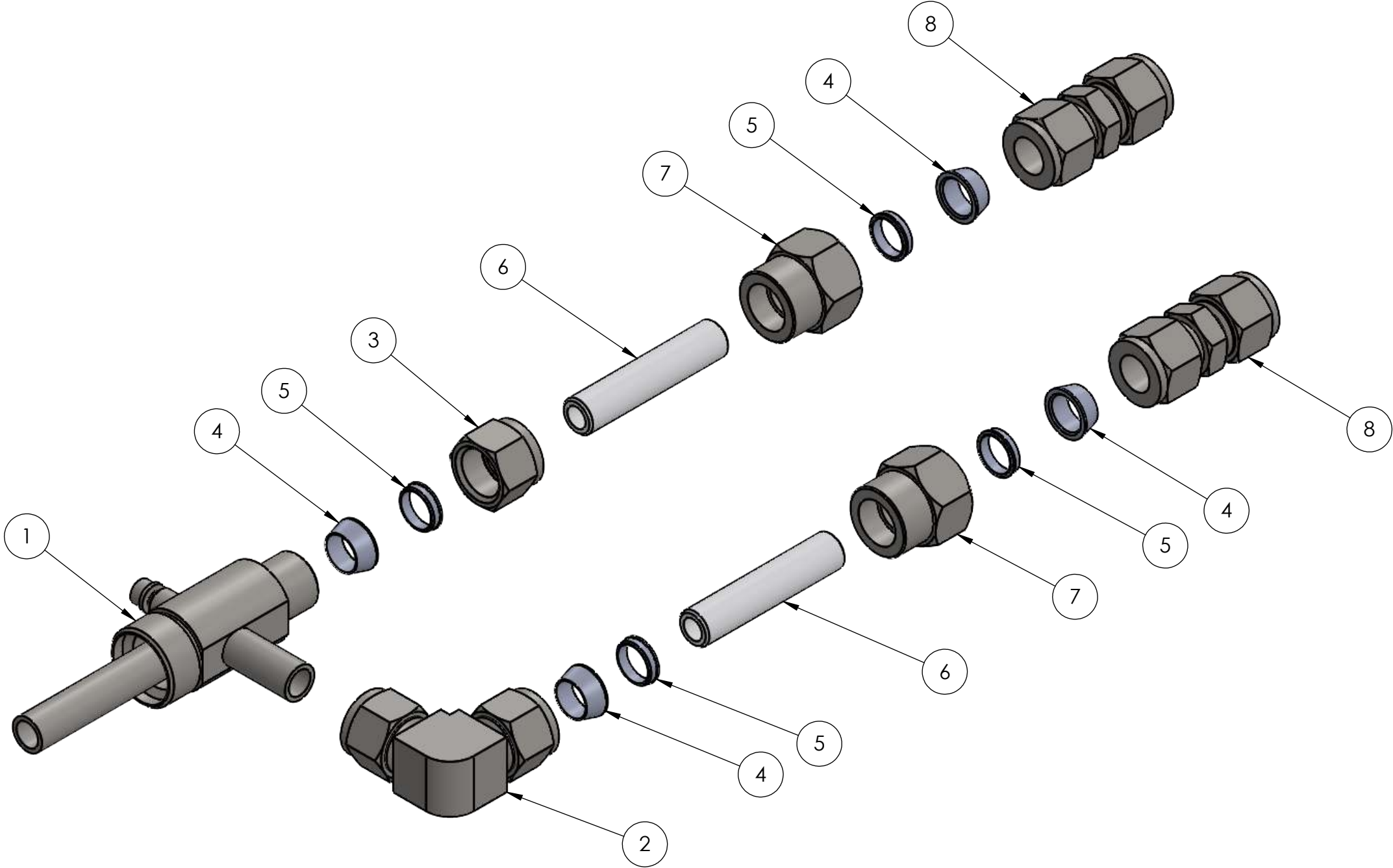
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	913-2001-002	SUB ASSEMBLY, WATER COUPLER, 1/2", COPPER ANODE	1
2	905-6810-903	UNION, ELBOW, 1/2" TUBE, SST	1
3	905-6812-103	NUT, FEMALE, 1/2" TUBE, SST	1
4	905-6813-106	FRONT FERRULE, 1/2" TUBE, NYLON	4
5	905-6814-106	BACK FERRULE, 1/2" TUBE, NYLON	4
6	906-0150-100	INSULATOR, HIGH VOLTAGE, WATER, 1/2"	2
7	905-6001-103	FITTING, 1/2", INSULATOR SHIELD, SST	2
8	905-6810-603	UNION, 1/2" TUBE, SST	2




UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 10-21-2016		MATERIAL:		TELEMARK	
GLOBAL TOLERANCES		CHECK BY DATE		SEE PARTS LIST		Battle Ground, WA	
INCHES [mm] .XX +/- 0.X [XX] .XXX +/- 0.01 [0.254] .XXXX +/- 0.005 [0.127]		PROJ ENG DATE		FINISH:		SUB ASSEMBLY, WATER MANIFOLD, 1/2", COPPER ANODE	
ANGLES +/- .25° SURF FINISH 63 RMS		MFG ENG DATE		THIRD ANGLE PROJECTION			
		DO NOT SCALE DRAWING					
		FILE NUMBER -					
		INITIAL PROJECT -					
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						REV A	

NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.

ECO	ZONE	REV	DESCRIPTION	BY	DATE



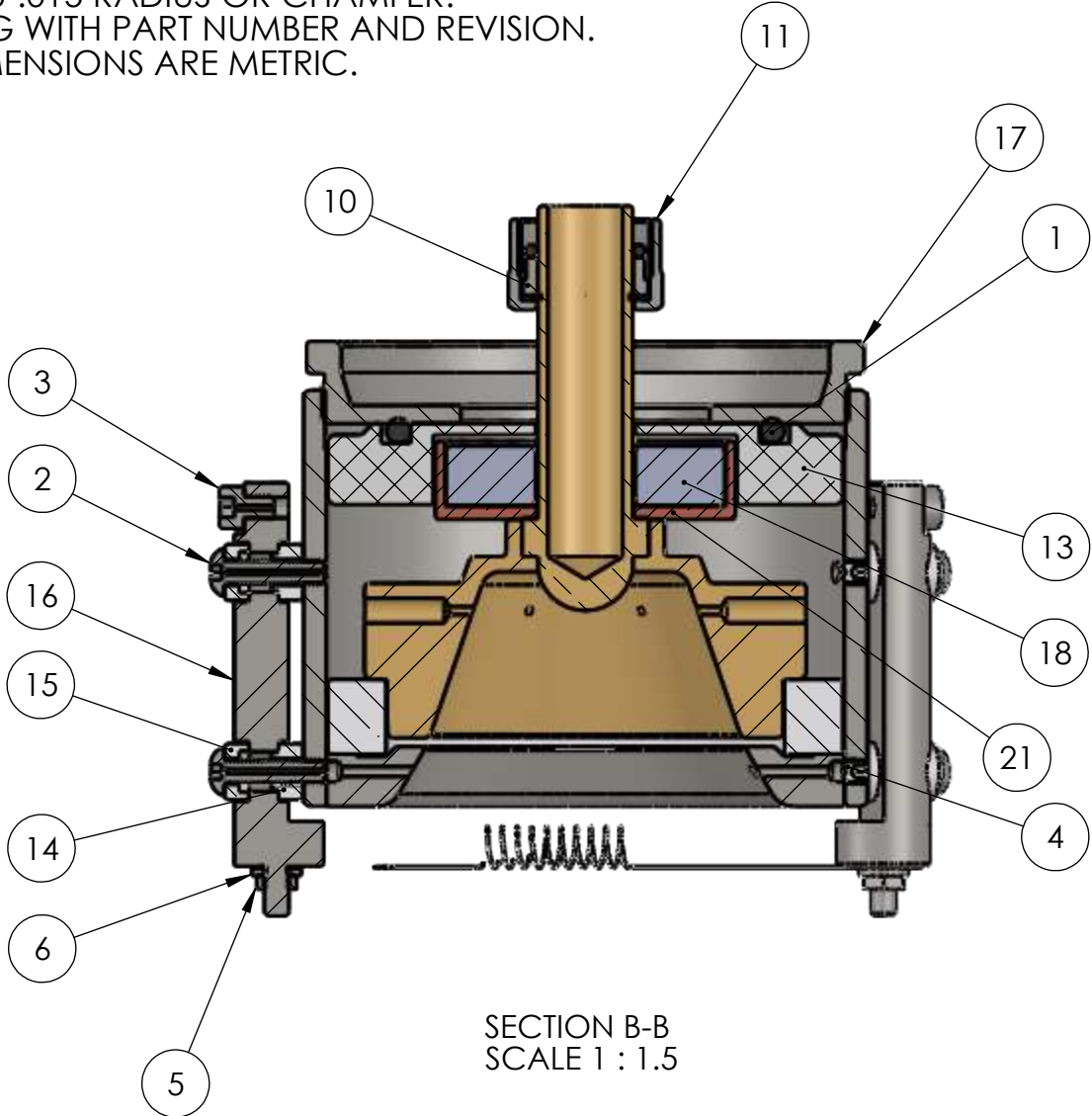
UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 10-16-2014		MATERIAL: SEE PARTS LIST		<i>TELEMARK</i>	
GLOBAL TOLERANCES		CHECK BY DATE		FINISH:		Battle Ground, WA	
		PROJ ENG DATE					
		MFG ENG DATE		THIRD ANGLE PROJECTION		SUB ASSEMBLY, WATER MANIFOLD, 1/2", COPPER ANODE	
		DO NOT SCALE DRAWING					
		FILE NUMBER -				B	
		INITIAL PROJECT -					
						SCALE 2:3	
						DWG NO.	
						913-2001-102	
						REV	
						A	

INCHES [mm]			
.XX	+/- 0.X	[XX]	
.XXX	+/- 0.01	[0.254]	
.XXXX	+/- 0.005	[0.127]	
ANGLES +/- .25°			
SURF FINISH 63 RMS			

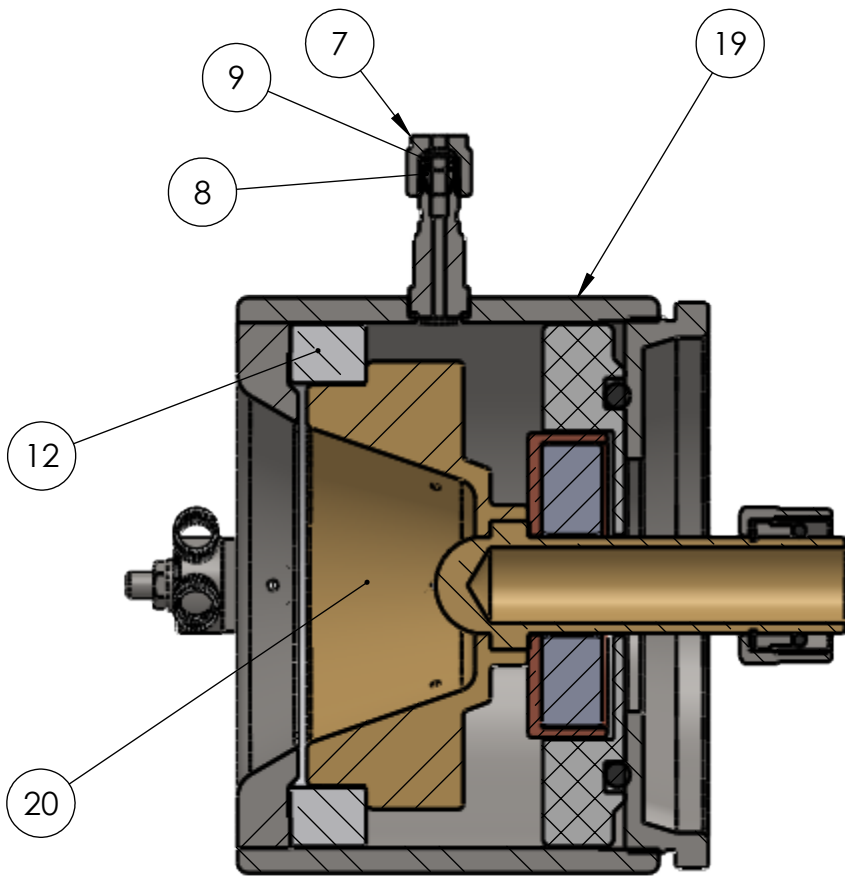
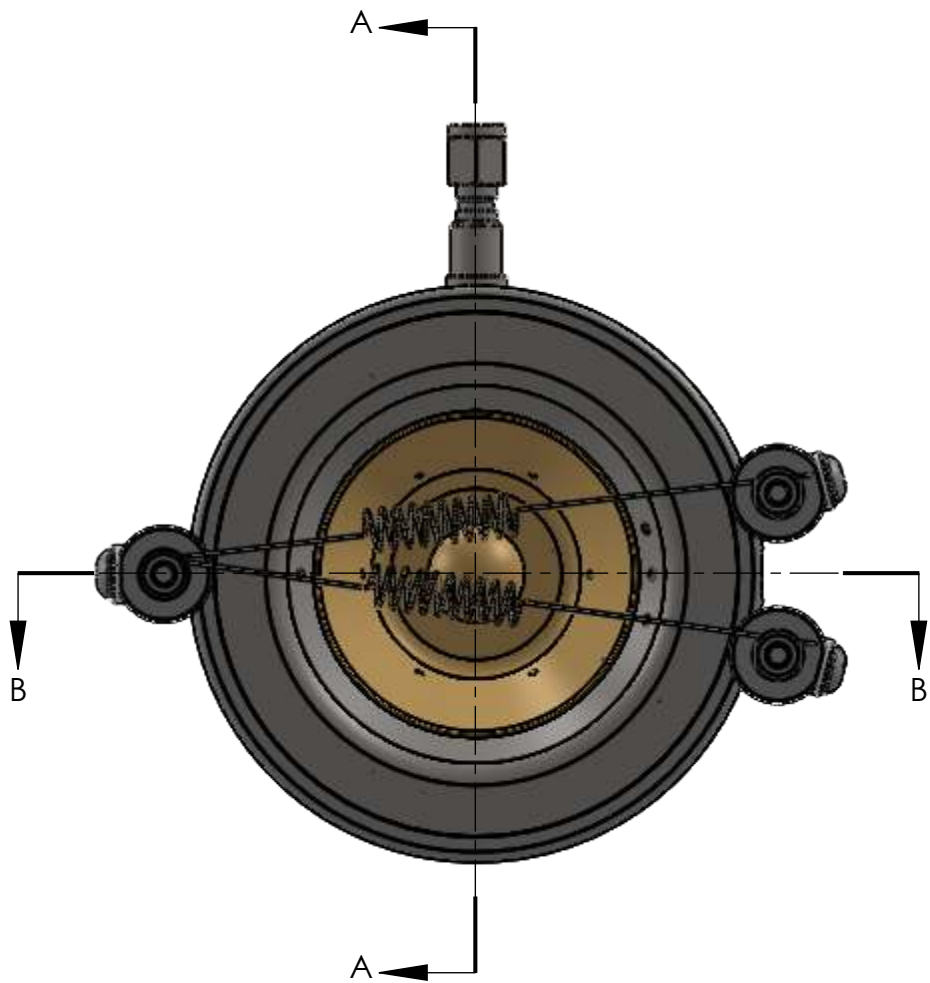
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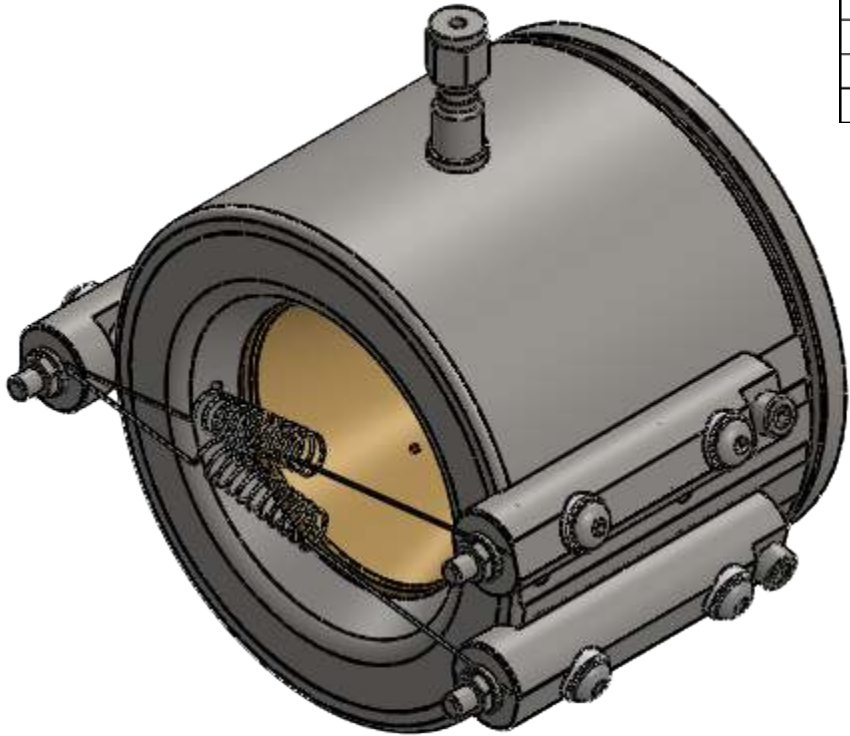
- NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. DIMENSIONS ARE METRIC.



SECTION B-B
SCALE 1 : 1.5



SECTION A-A
SCALE 1 : 1.5

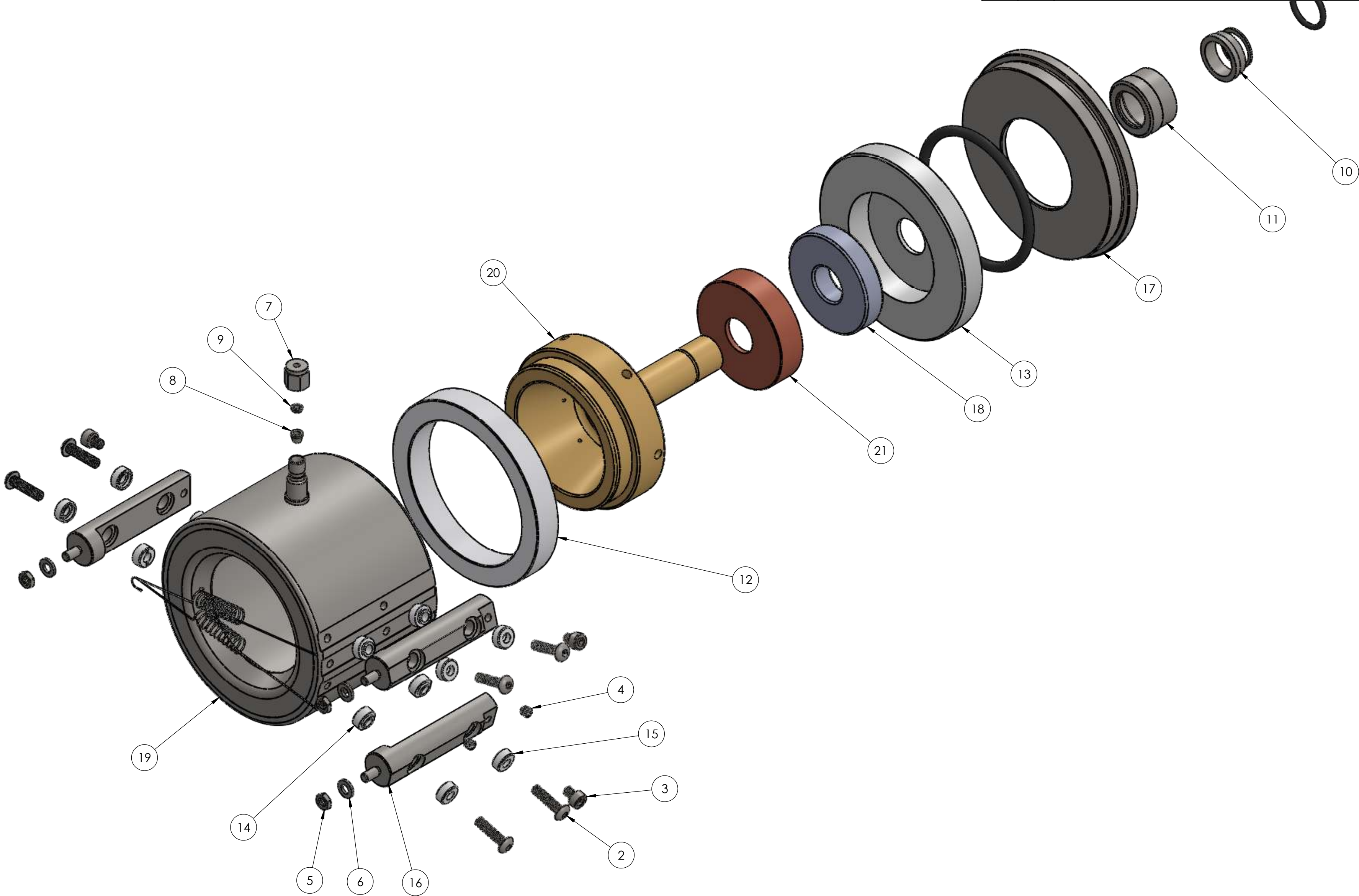


ECO	REV	DESCRIPTION	BY	DATE
	A	RELEASE	GPD	10/21/2016
	B	REVISED ANODE & MAGNET CUP	GPD	4/27/2017

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-2335-1	O-RING, 3/16" DIAMETER X 2-3/4" I.D., VITON	1
2	900-5332-073	SCREW, SOC HD BUTTON, M5 X 20mm LONG, VENTED, SST	6
3	900-5630-673	SCREW, CAP SOC HD, M5 X 6mm LONG, VENTED, SST	3
4	900-5730-503	SCREW, HEX SOC SET, M5 X 5mm LONG, SST	2
5	902-5080-403	NUT, HEX, M5, SST	3
6	903-5001-003	WASHER, FLAT, M5, SST	3
7	905-1202-103	NUT, FEMALE, 1/8" TUBE, SST	1
8	905-1203-103	FRONT FERRULE, 1/8" TUBE, SST	1
9	905-1204-103	BACK FERRULE, 1/8" TUBE, SST	1
10	905-8000-103	FITTING, 3/4", ULTRA TORR O-RING SUPPRESSOR, SST	1
11	905-8010-103	NUT, ULTRA-TORR, 3/4", SST	1
12	906-0100-300	INSULATOR, ST3000 ANODE, CERAMIC	1
13	906-0110-300	INSULATOR, ST3000 ANODE, BACK BODY	1
14	906-0120-001	INSULATOR, FLANGED, MALE	6
15	906-0120-002	INSULATOR, FLANGED, FEMALE	6
16	911-0001-300	IAD, SOURCE, FILAMENT FIXTURE, ST3000	3
17	911-4002-100	IAD, SERIES III, ST3000 SOURCE BACKING NUT	1
18	911-4004-100	IAD, SERIES III, ST3000 SOURCE MAGNET	1
19	911-4001-200	IAD, SERIES III, ST3000 SOURCE SHROUD	1
20	911-4003-400	IAD, SERIES III, ST3000 SOURCE ANODE	1
21	911-4003-403	IAD, SERIES III, ST3000 ANODE MAGNET HOUSING	1
22	271-6283-7	RETAINING RING, EXTERNAL, 3/4", SST	1
23	91-13300 ST3000 FILAMENT TUNGSTEN	SPRING	2
24	271-2116-1	O-RING, 3/32" DIAMETER X 3/4" I.D., VITON	1

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		DWG BY: G. DION DATE: 10-21-2016	MATERIAL: SEE PARTS LIST	TELEMARK SAINTECH	
INCHES [mm] X +/- 0.X [0.1] .XX +/- 0.01 [0.05]		CHECK BY: DATE PROJ ENG DATE MFG ENG DATE	FINISH: SEE NOTES	Battle Ground, WA	
ANGLES +/- .25° SURF FINISH 63 RMS		DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION	ASSEMBLY, ST3000 ION SOURCE, 2 FILAMENTS, COPPER ANODE	
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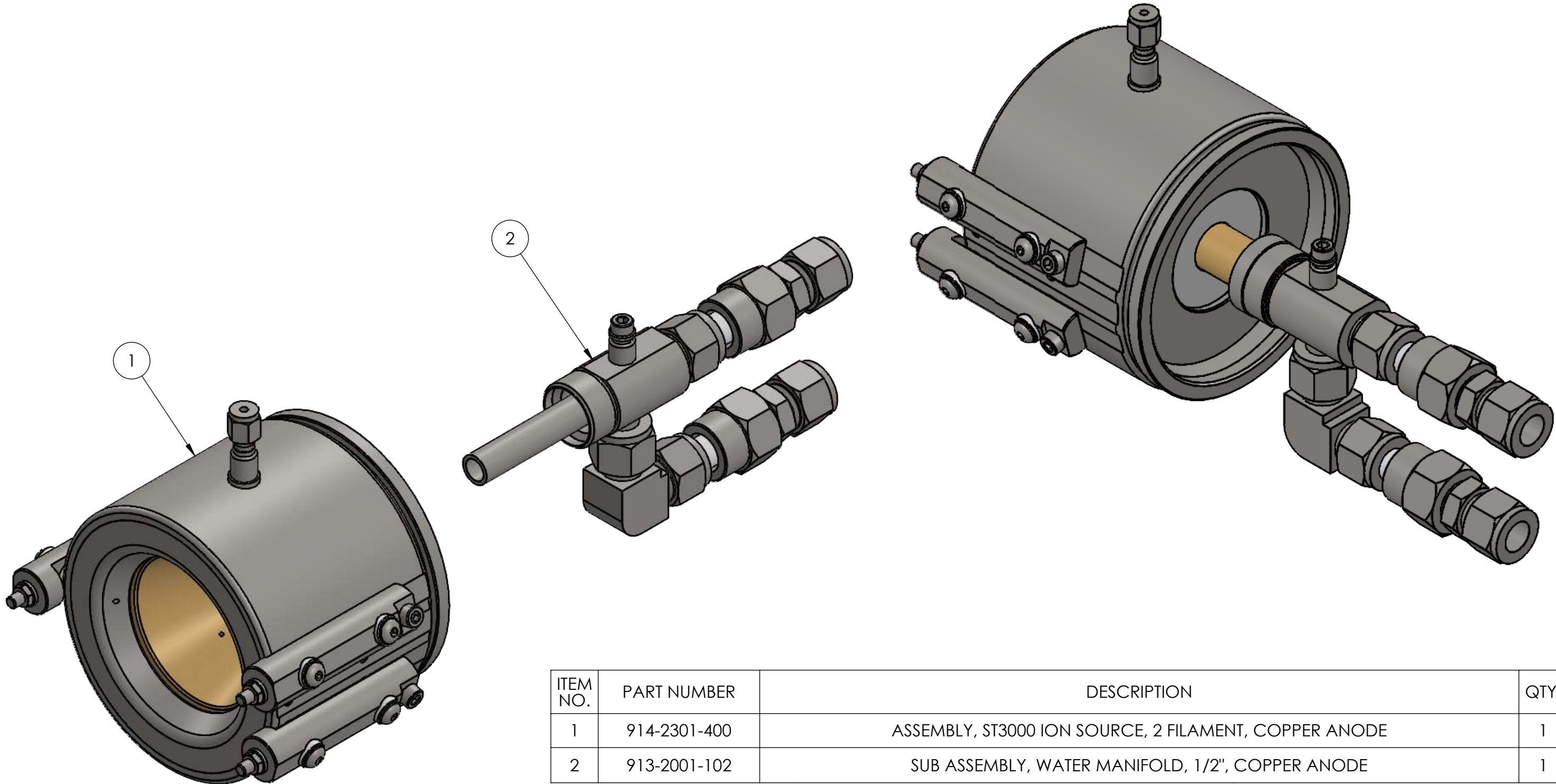
ECO	REV	DESCRIPTION	BY	DATE
		SEE SHEET 1		



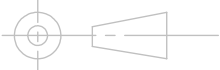
UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		DWG BY: G. DION DATE: 10-16-2014	MATERIAL: SEE PARTS LIST	TELEMARK SAINTECH	
X INCHES [mm] XX +/- 0.X [0.1] XX +/- 0.01 [0.05]		CHECK BY: DATE PROJ ENG DATE MFG ENG DATE	FINISH:	Battle Ground, WA	
ANGLES +/- .25° SURF FINISH 63 RMS		DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION	ASSEMBLY, ST3000 ION SOURCE, 2 FILAMENTS, COPPER ANODE	
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NOTES: (UNLESS OTHERWISE SPECIFIED)
1. REMOVE BURRS & BREAK ALL SHARP EDGES
.005-.015 RADIUS OR CHAMFER.
2. BAG WITH PART NUMBER AND REVISION.
3. DIMENSIONS ARE METRIC.

ECO	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	GPD	10/21/2016



ITEM NO.	PART NUMBER	DESCRIPTION			QTY.
1	914-2301-400	ASSEMBLY, ST3000 ION SOURCE, 2 FILAMENT, COPPER ANODE			1
2	913-2001-102	SUB ASSEMBLY, WATER MANIFOLD, 1/2", COPPER ANODE			1

UNLESS OTHERWISE SPECIFIED		DWG BY G. DION DATE 10-21-2016	MATERIAL: SEE PARTS LIST	<i>TELEMARK</i> Battle Ground, WA ASSEMBLY, 2000/3000 ION SOURCE, 2 FILAMENTS WITH WATER LINES, COPPER ANODE
GLOBAL TOLERANCES				
.X INCHES [mm] +/- 0.X [0.1] .XX +/- 0.01 [0.05]	PROJ ENG DATE	FINISH: SEE NOTES		
	MFG ENG DATE	THIRD ANGLE PROJECTION		
DO NOT SCALE DRAWING				
FILE NUMBER - INITIAL PROJECT -				

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B	SCALE	2:3	DWG NO.	REV
	SHEET	1 of 1	914-2301-500	A