

TELEMARK 295 Multi Pocket E-Beam Source Drawings

The current version of this drawing pdf can be found at

<https://telemark.com/electron-beam-sources/high-capacity-multi-pocket-sources/>

Drawing	Rev.	Description	Page
Reference Dimensions			2
R295-0000	C	Model 295 E-Beam Source Dimensions	3
Model Assemblies			4
295-9901-1	A	Model 295-01 EB Source, 6 pkt, 100cc S/D (15kW)	5
295-9902-1	A	Model 295-02 EB Source, 6 pkt, 100cc B/D (15kW)	6
295-9951-1	B	Model 295-51 EB Source, 6 pkt, 100cc S/D (10kW)	7
295-9952-1	B	Model 295-52 EB Source, 6 pkt, 100cc B/D (10kW)	8
295-9971-1	A	Model 295-71 EB Source, 10 pkt, 40cc S/D (10kW)	9
295-9972-1	A	Model 295-72 EB Source, 10 pkt, 40cc B/D (10kW)	10
295-9987-1	A	Model 295-87 EB Source, 12 pkt, 40cc S/D (10kW)	11
295-9988-1	A	Model 295-88 EB Source, 12 pkt, 40cc B/D (10kW)	12
295-9991-1	A	Model 295-91 EB Source, 1486cc Trough, S/D (10kW)	13
295-9992-1	A	Model 295-92 EB Source, 1486cc Trough, B/D (10kW)	14
295-9993-1	A	Model 295-93 EB Source, 1810cc Pan, S/D (10kW)	15
295-9994-1	A	Model 295-94 EB Source, 1810cc Pan, B/D (10kW)	16
Common Assemblies			17
273-0150-8	A1	Emitter Assembly	18
295-0113-1	B	Rotation Assembly, Side Drive (10kW)	19
295-0113-2	D	Rotation Assembly, Side Drive (15kW)	20
295-0115-1	D	Rotation Assembly, Bottom Drive (10kW)	21
295-0115-2	E	Rotation Assembly, Bottom Drive (15kW)	22
295-0125-1	B	Side Drive Assembly	23
295-0127-1	C	Bottom Drive Assembly	24
295-0130-3	B1	Front Coil/Emitter Assembly	25
295-0133-3	A1	EB Source Sub Assembly, SD, 10kW	26
295-0133-4	A1	EB Source Sub Assembly, SD, 15kW	27
295-0135-3	A1	EB Source Sub Assembly, BD, 10kW	28
295-0135-4	A1	EB Source Sub Assembly, BD, 15kW	29
Option - Self Sealing Cover			30
295-9978-1SSC	A	Model 295-78 EB Source, 4 pkt, 100cc B/D (15kW), SSC	31
Option - Arc Suppression			32
291-3151-1	C	Arc Supression Emitter	33
295-5175-1	B	295 Arc Supression	34
Option - Indexer In-vacuum In-pocket Switch			44
294-0300-1	A1	Assembly, Crucible Sensor, std.	36
295-0300-1	A	Assembly, Crucible Sensor, 295	37
295-0300-X	A	Assembly, Crucible Sensor, 295	38



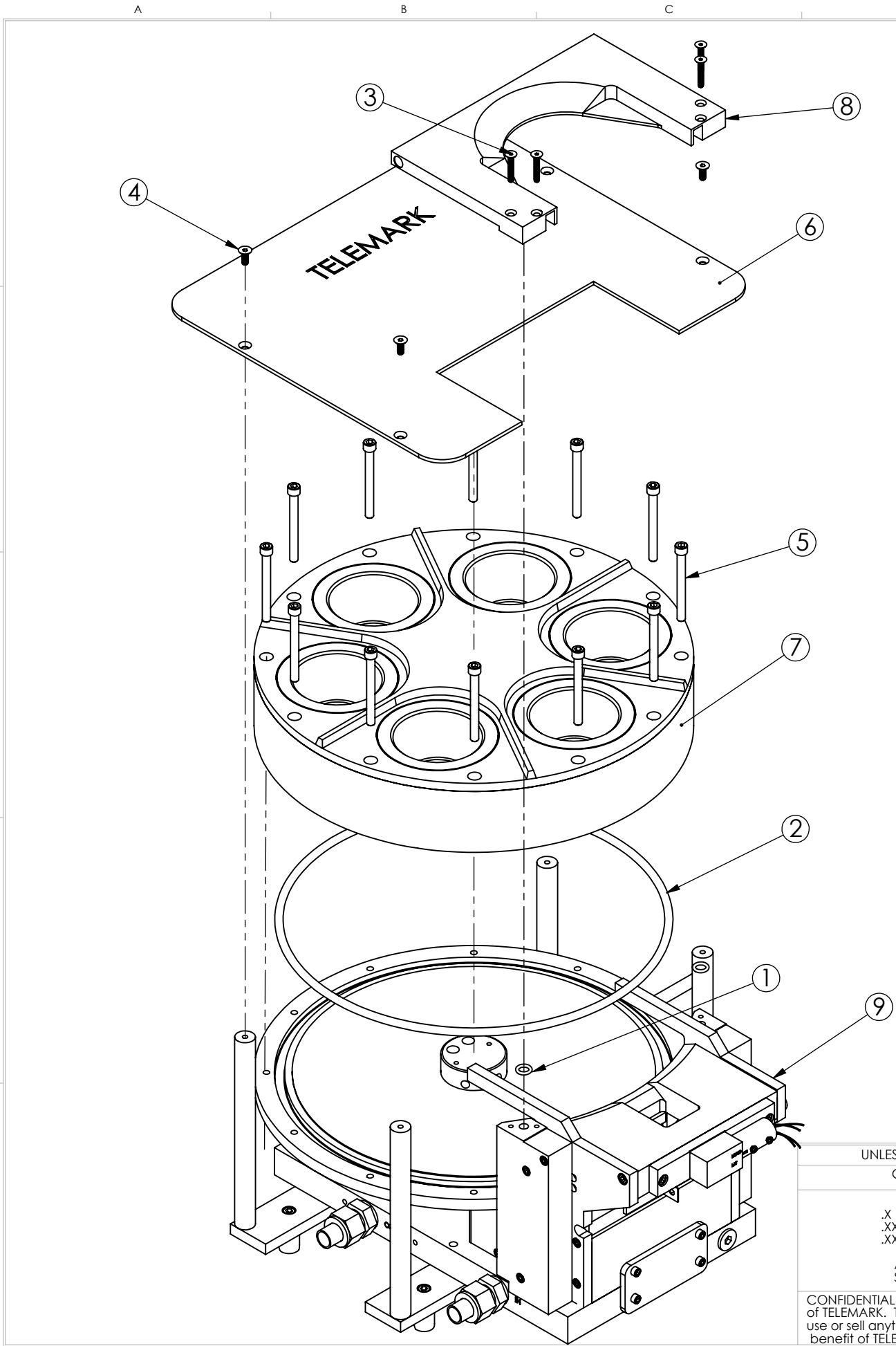
Reference Dimensions

E-Beam Source

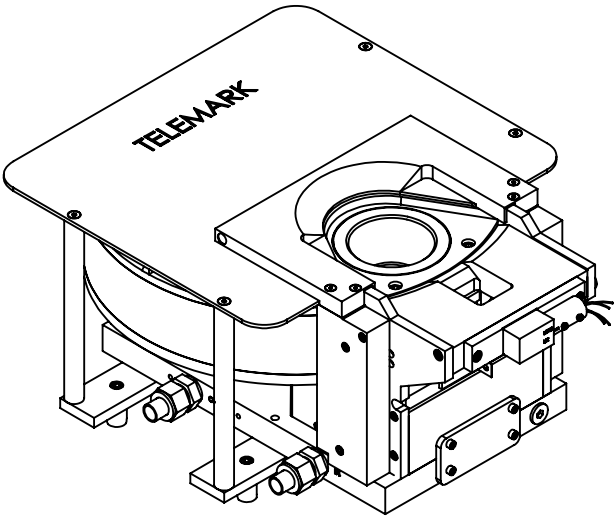


Model Assemblies

E-Beam Sources



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9901-1/QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	1
3	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
4	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
5	271-6193-1	VENTED SCREW, #1/4-20 X 2-1/2" SST SHCS	12
6	295-0070-2	COVER, REAR, 6x100cc	1
7	295-0250-1	CRUCIBLE, 6 X 100CC BRAZEMENT	1
8	295-0075-2	COVER, 6 POCKET	1
9	295-0133-2	EB SOURCE SUB ASSEMBLY, SD, 15KW	1

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		
	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]
ANGLES +/- .5° SURF FINISH 63 RMS		

DWG BY	DATE
CHECK BY	DATE
PROJ ENG	DATE
MFG ENG	DATE
DO NOT SCALE DRAWING	
FILE NUMBER	- 295-9901-1
INITIAL PROJECT	-

MATERIAL:
FINISH:
THIRD ANGLE PROJECTION

TELEMAR
telemark.com

**MODEL 295-01 EB SOURCE,
6 pkt, 100cc S/D (15Kw)**

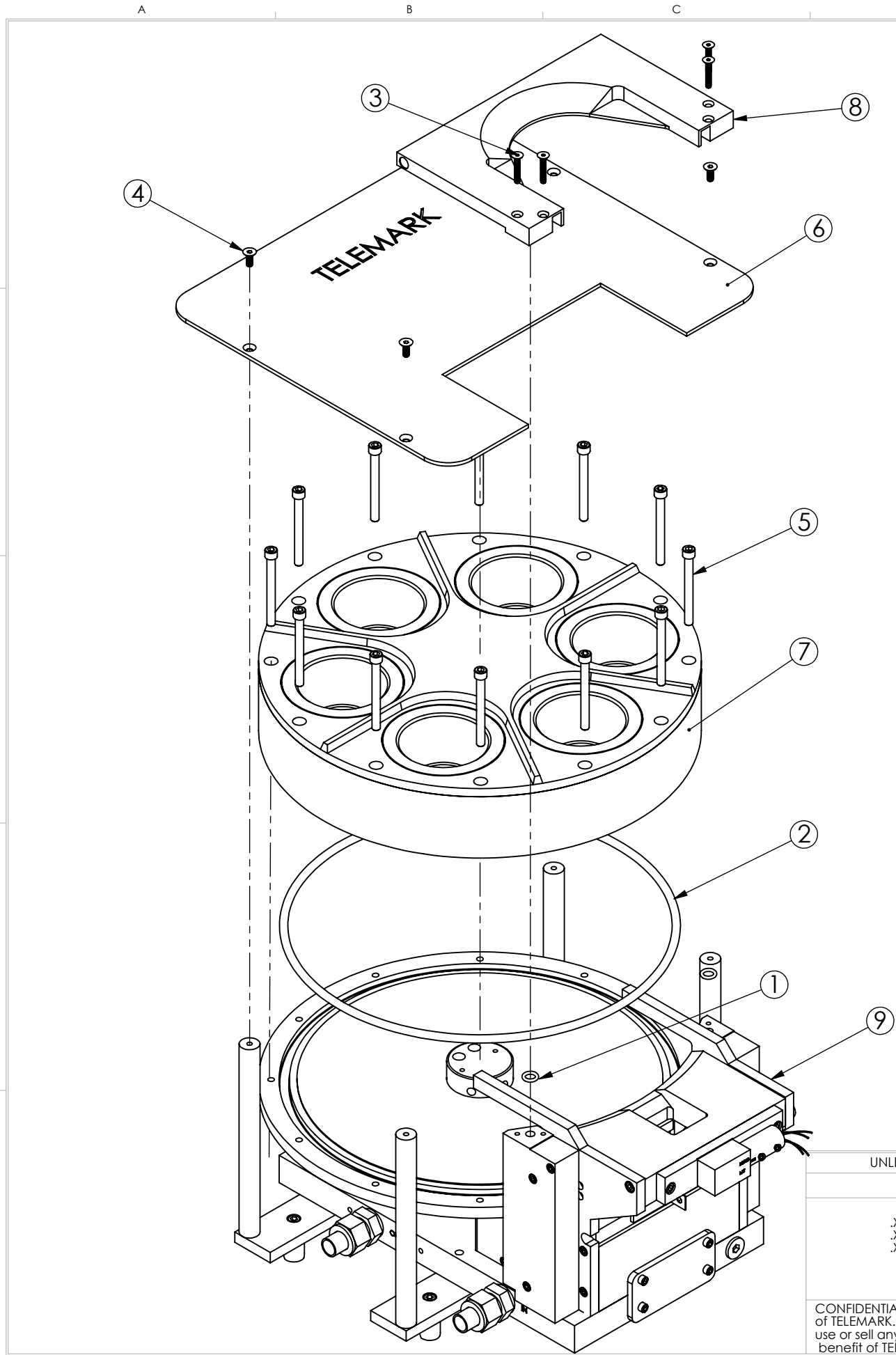
B

SCALE 1:4
SHEET 1 of 1

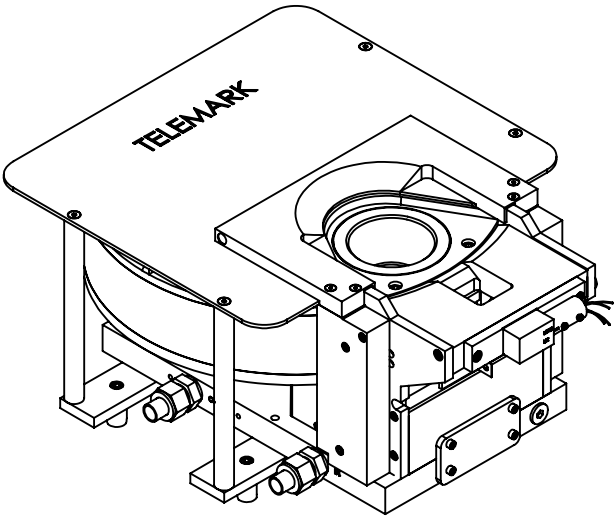
DWG NO.
295-9901-1

REV
A

CONFIDENTIAL. This document contains proprietary data of TELEMAR and is not to be copied or distribetd without the prior written consent of TELEMAR. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the conepts and details disclosed by it. Such concepts anddetails are not to be used other than for the benefit of TELEMAR and are not to be disclosed to others without the prior written consent of an officer of TELEMAR.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9902-1/QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	1
3	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
4	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
5	271-6193-1	VENTED SCREW, #1/4-20 X 2-1/2" SST SHCS	12
6	295-0070-2	COVER, REAR, 6x100cc	1
7	295-0250-1	CRUCIBLE, 6 X 100CC BRAZEMENT	1
8	295-0075-2	COVER, 6 POCKET	1
9	295-0135-2	EB SOURCE SUB ASSEMBLY, BD, 15KW	1

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		
	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]
ANGLES +/- .5°		
SURF FINISH 63 RMS		

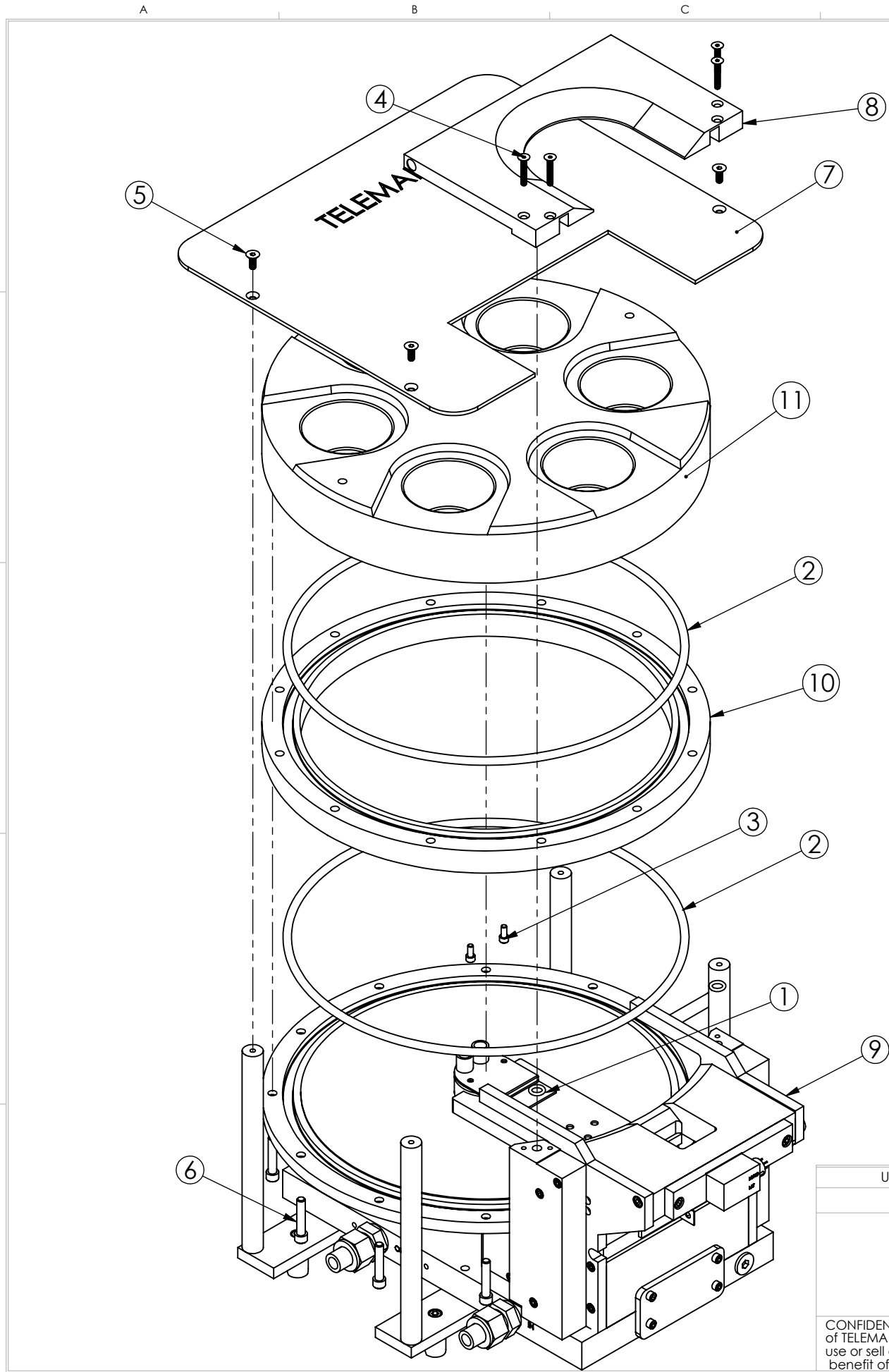
DWG BY	DATE
CHECK BY	DATE
PROJ ENG	DATE
MFG ENG	DATE
DO NOT SCALE DRAWING	
FILE NUMBER	- 295-9902-1
INITIAL PROJECT	-

TELEMARK telemark.com

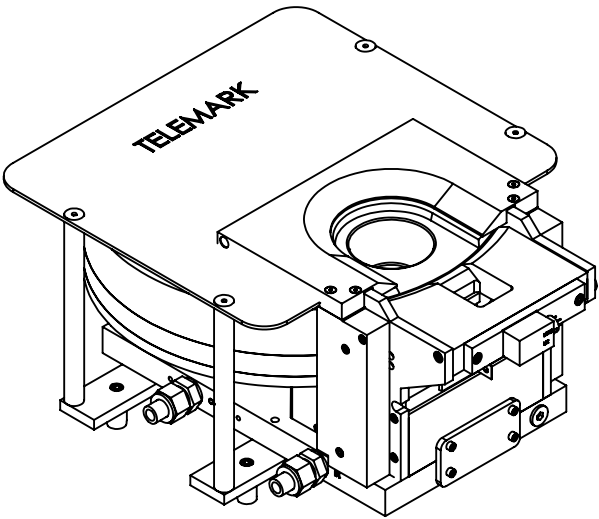
**MODEL 295-02 EB SOURCE,
6 pkt, 100cc B/D (15Kw)**

B	SCALE 1:4	DWG NO.	REV
	SHEET 1 of 1	295-9902-1	A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005
		B	ITEM 12 P/N FROM 295-0452-1 TO 295-0452-3		3/20/2014



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9951-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 1 1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-3	SCREW 1/4-20 X 1-1/4 SST SHCS.	12
7	295-0070-2	COVER, REAR, 6x100cc	1
8	295-0075-1	COVER, 6 POCKET (10KW)	1
9	295-0133-1	EB SOURCE SUB ASSEMBLY, SD, 10KW	1
10	295-0190-2	CRUCIBLE SPACER, 6 POCKET	1
11	295-0205-1	CRUCIBLE, 6 X 100cc (10Kw)	1
12	295-0452-3	WATER DUCT, 6x100cc,SSC	1

UNLESS OTHERWISE SPECIFIED		
GLOBAL TOLERANCES		
	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]
ANGLES +/- .5°		
SURF FINISH 63 RMS		

DWG BY	DATE
CHECK BY	DATE
PROJ ENG	DATE
MFG ENG	DATE
DO NOT SCALE DRAWING	
FILE NUMBER	- 295-9951-1
INITIAL PROJECT	-

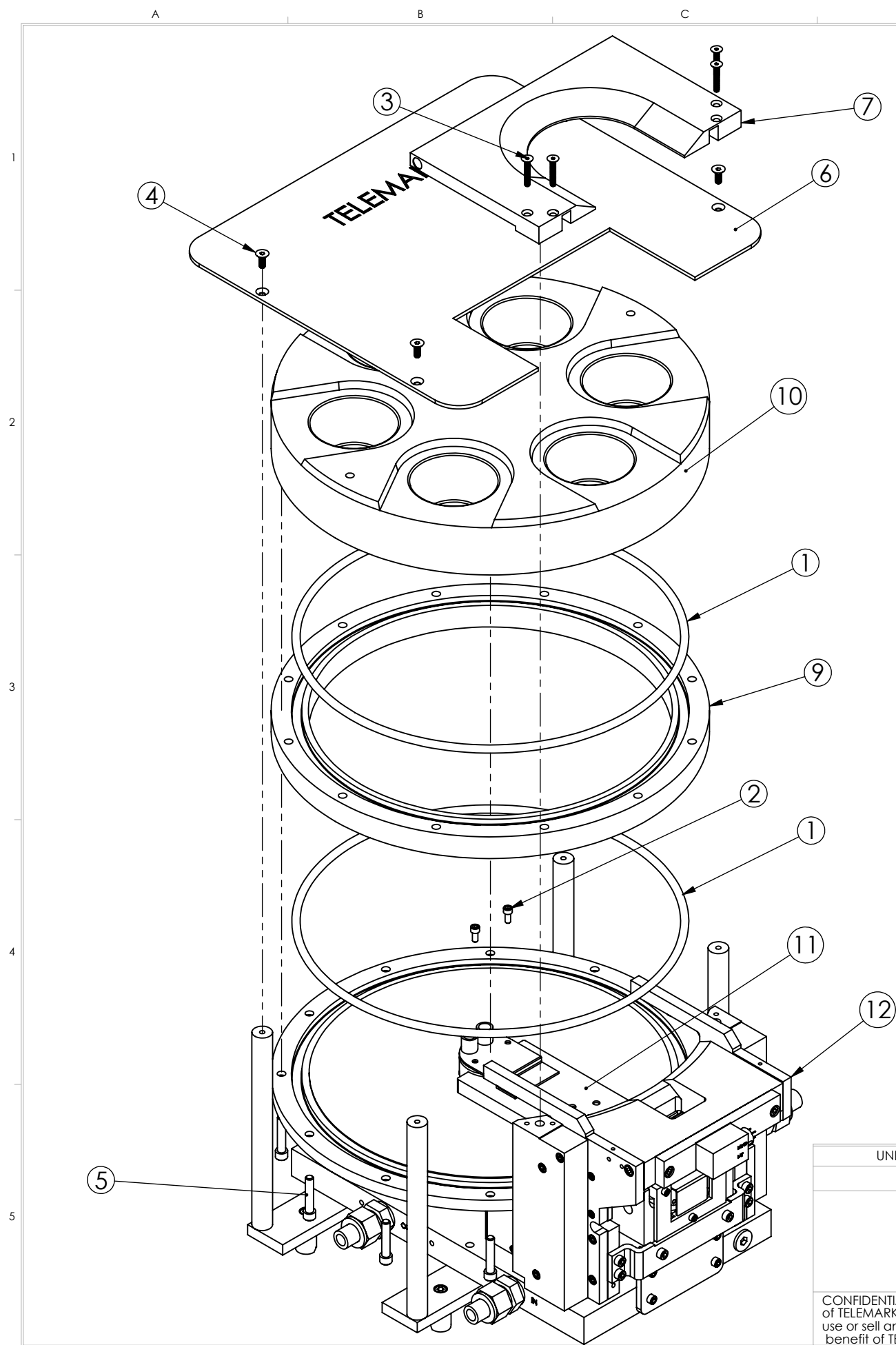
MATERIAL:
FINISH:
THIRD ANGLE PROJECTION

TELEMAR
telemark.com

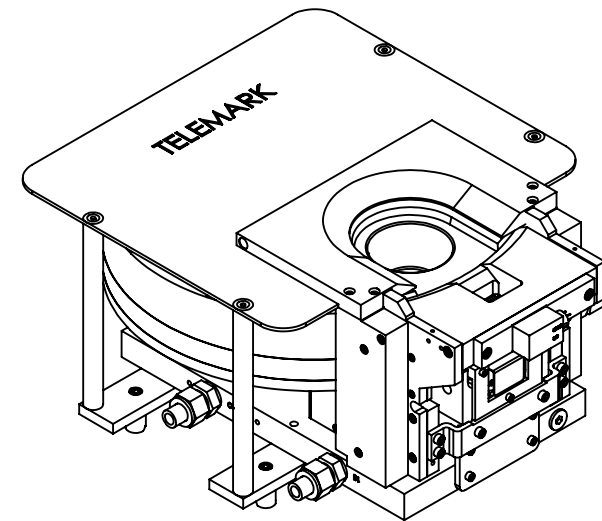
**MODEL 295-51 EB SOURCE,
6 pkt, 100cc S/D (10Kw)**

B SCALE 1:4 DWG NO. 295-9951-1 REV B
SHEET 1 of 1

CONFIDENTIAL. This document contains proprietary data of TELEMAR and is not to be copied or distributed without the prior written consent of TELEMAR. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMAR and are not to be disclosed to others without the prior written consent of an officer of TELEMAR.



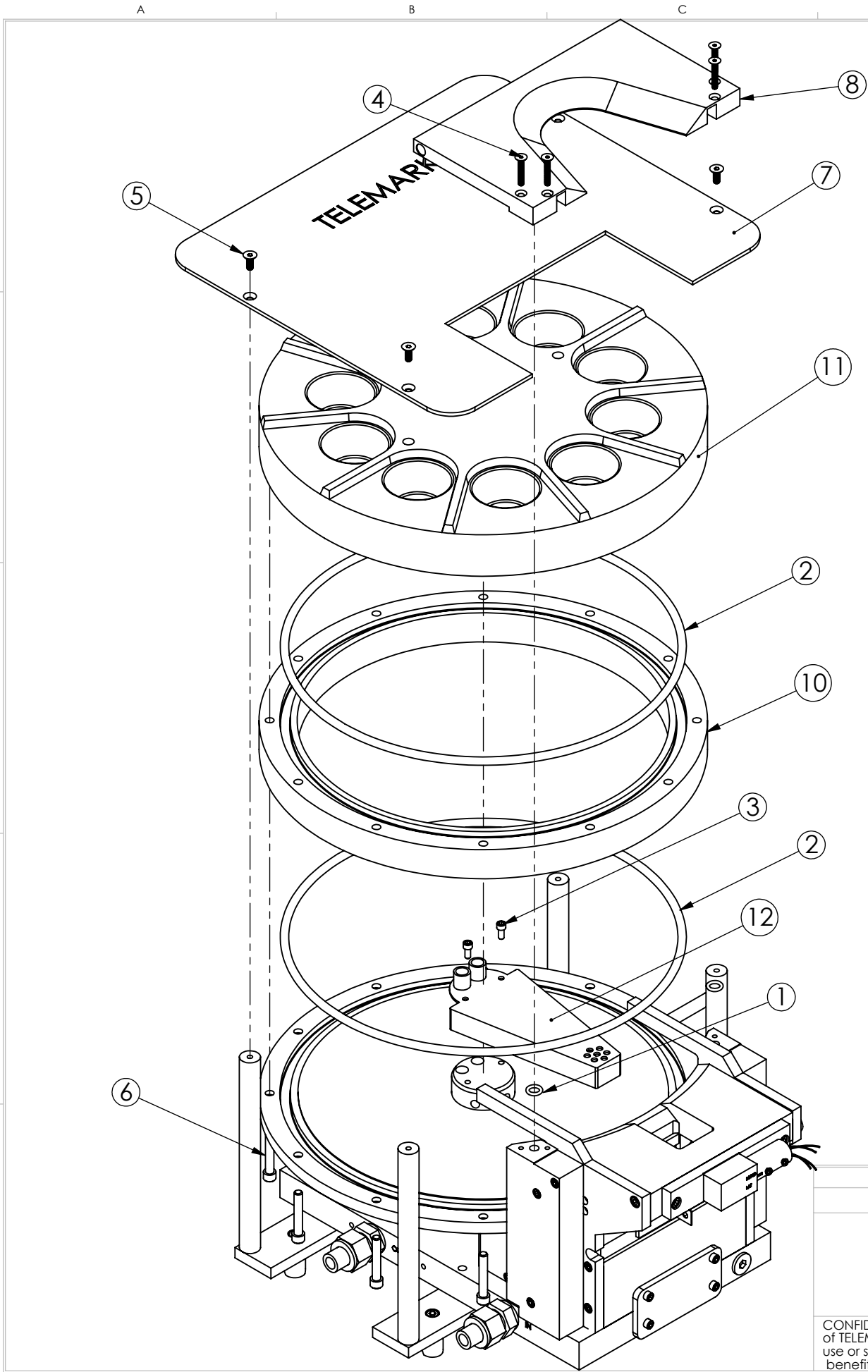
ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005
		B	ITEM 11 P/N FROM 295-0452-1 TO 295-0452-3		3/20/2014



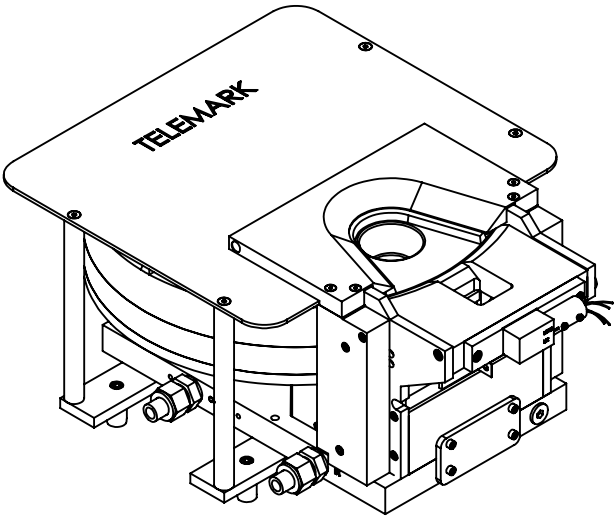
ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9952-1/QTY.
1	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
2	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
3	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
4	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
5	271-6193-3	SCREW 1/4-20 X 1-1/4 SST SHCS.	12
6	295-0070-2	COVER, REAR, 6x100cc	1
7	295-0075-1	COVER, 6 POCKET (10KW)	1
8	295-0135-1	EB SOURCE SUB ASSEMBLY, BD, 10KW	1
9	295-0190-2	CRUCIBLE SPACER, 6 POCKET	1
10	295-0205-1	CRUCIBLE, 6 X 100cc (10Kw)	1
11	295-0452-3	WATER DUCT, 6x100cc,SSC	1
12	295-0130-2	FRONT COIL/EMITTER ASSY.,	1

UNLESS OTHERWISE SPECIFIED		DWG BY	DATE	MATERIAL:	<div>TELEMARK</div> <div>telemark.com</div>
GLOBAL TOLERANCES		CHECK BY	DATE		
<div>INCHES [mm]</div> <div>.X +/- .03 [0.762]</div> <div>.XX +/- 0.01 [0.254]</div> <div>.XXX +/- 0.005 [0.127]</div> <div>ANGLES +/- .5°</div> <div>SURF FINISH 63 RMS</div>		PROJ ENG	DATE	FINISH:	
		MFG ENG	DATE		
		DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	<div>MODEL 295-52 EB SOURCE,</div> <div>6 pkt, 100cc B/D (10Kw)</div>
		FILE NUMBER - 295-9952-1			
		INITIAL PROJECT -			
<div>CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.</div>					
B	SCALE	1:4	DWG NO.		REV
	SHEET	1 of 1	295-9952-1		B



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9971-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-2	COVER, REAR, 6x100cc	1
8	295-0077-1	COVER, 10 POCKET	1
9	295-0133-1	EB SOURCE SUB ASSEMBLY, SD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0232-1	CRUCIBLE, 10 X 40cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 295-9971-1
INITIAL PROJECT -

MATERIAL:

FINISH:

THIRD ANGLE PROJECTION

TELEMARK

telemark.com

MODEL 295-71 EB SOURCE,
10 pkt, 40cc S/D (10Kw)

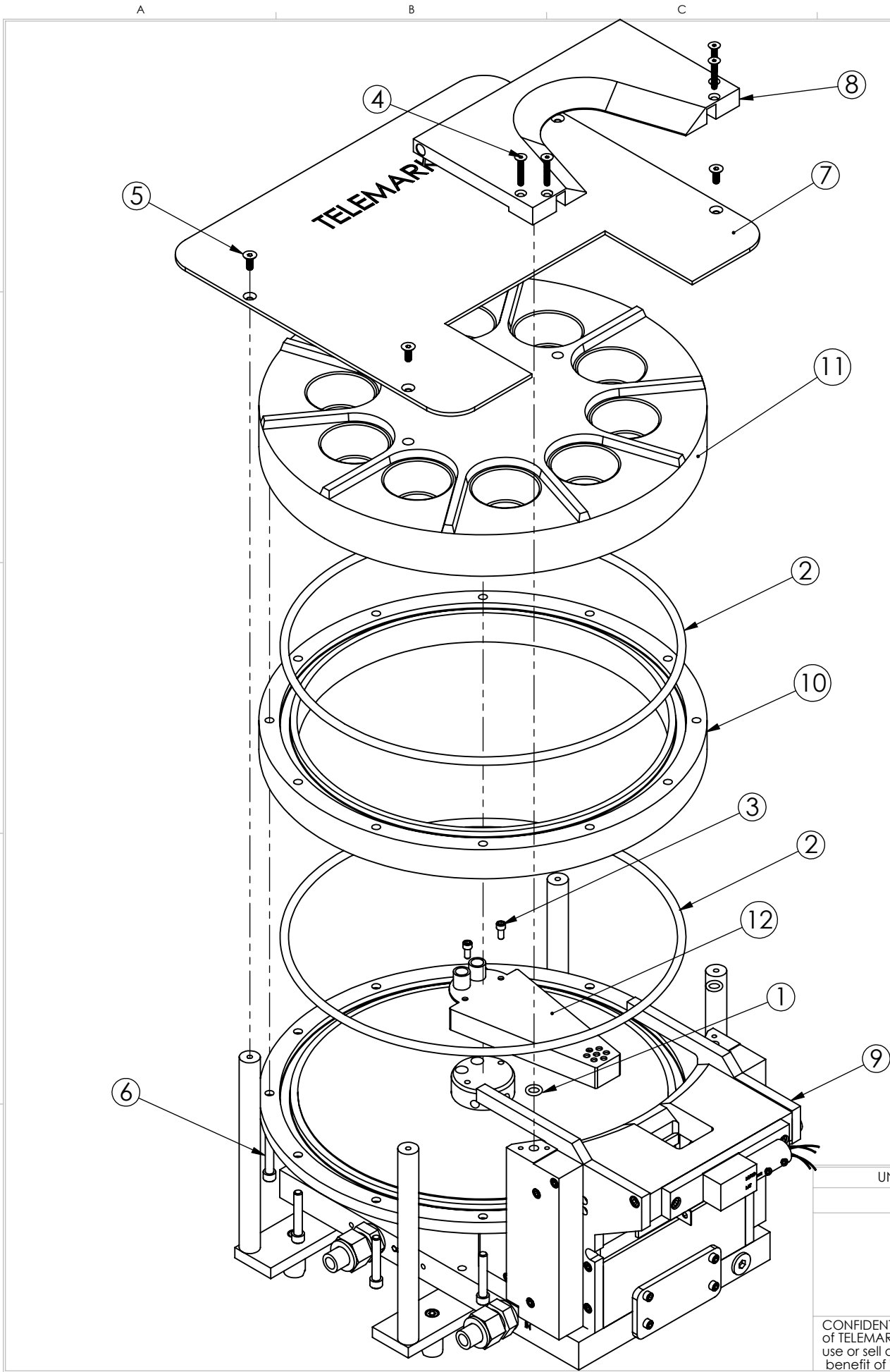
B

SCALE 1:4
SHEET 1 of 1

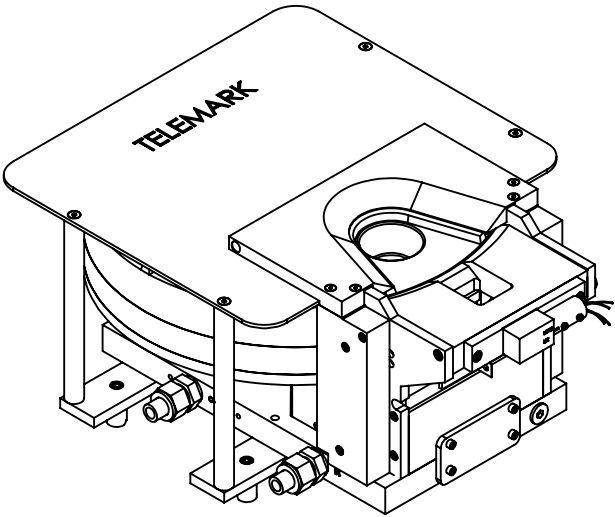
DWG NO.
295-9971-1

REV
A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distribetd without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the conepts and details disclosed by it. Such concepts anddetails are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9972-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 1 1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-2	COVER, REAR, 6x100cc	1
8	295-0077-1	COVER, 10 POCKET	1
9	295-0135-1	EB SOURCE SUB ASSEMBLY, BD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0232-1	CRUCIBLE, 10 X 40cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 295-9972-1
INITIAL PROJECT -

MATERIAL:

FINISH:

THIRD ANGLE PROJECTION

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.

TELEMARK

telemark.com

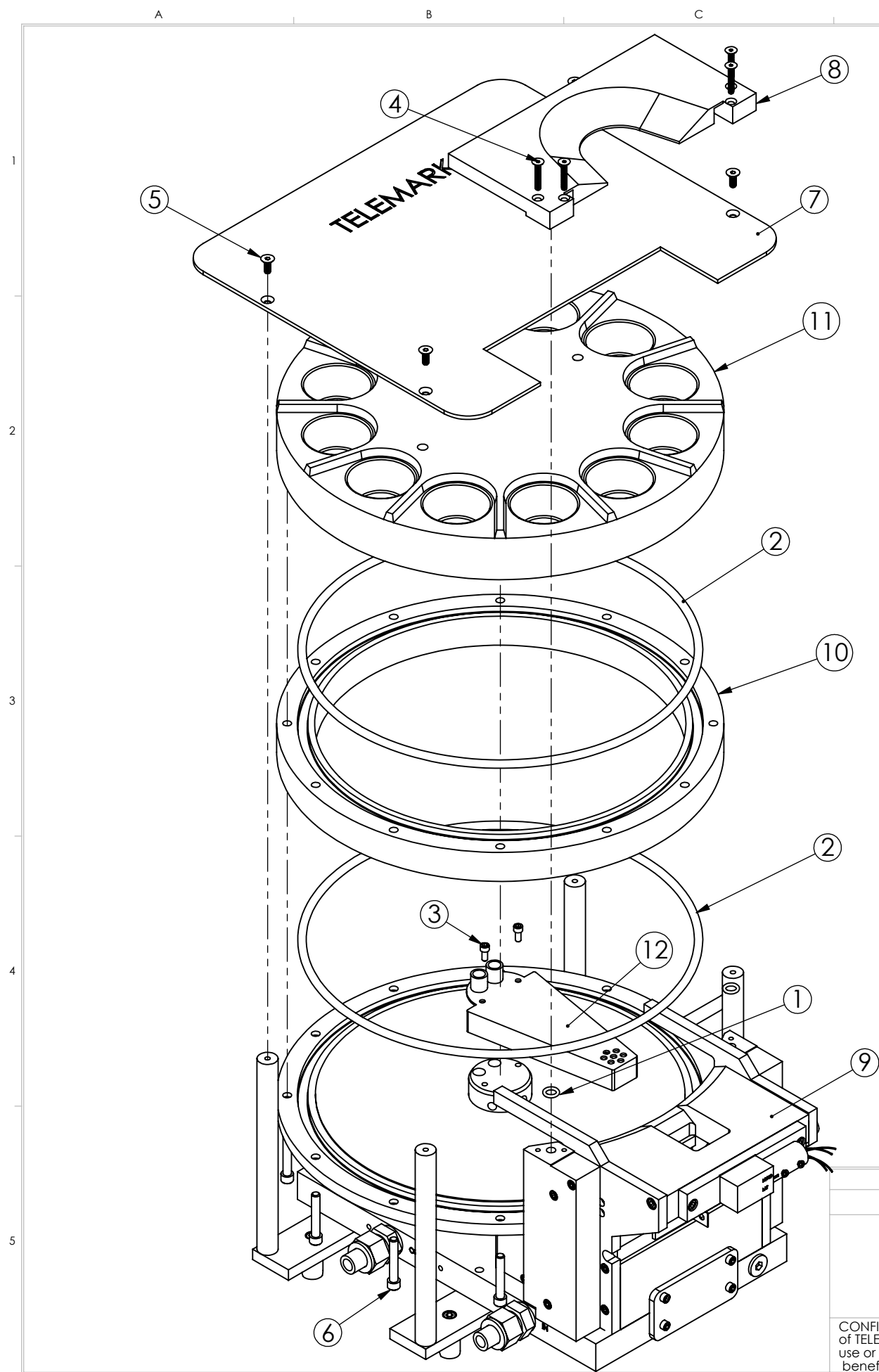
MODEL 295-72 EB SOURCE,
10 pkt, 40cc B/D (10Kw)

B

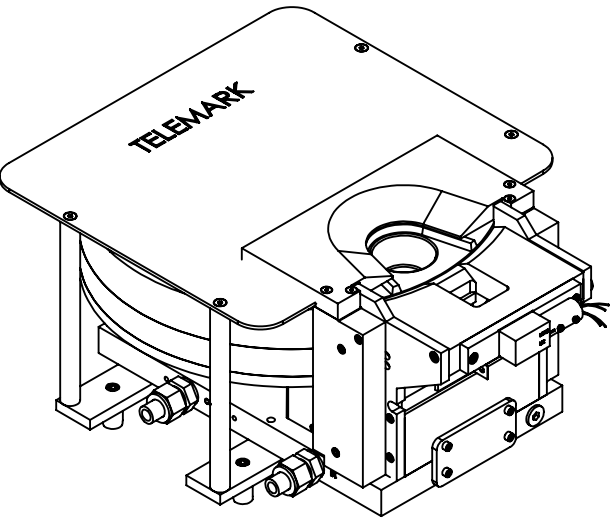
SCALE 1:4
SHEET 1 of 1

DWG NO.
295-9972-1

REV
A



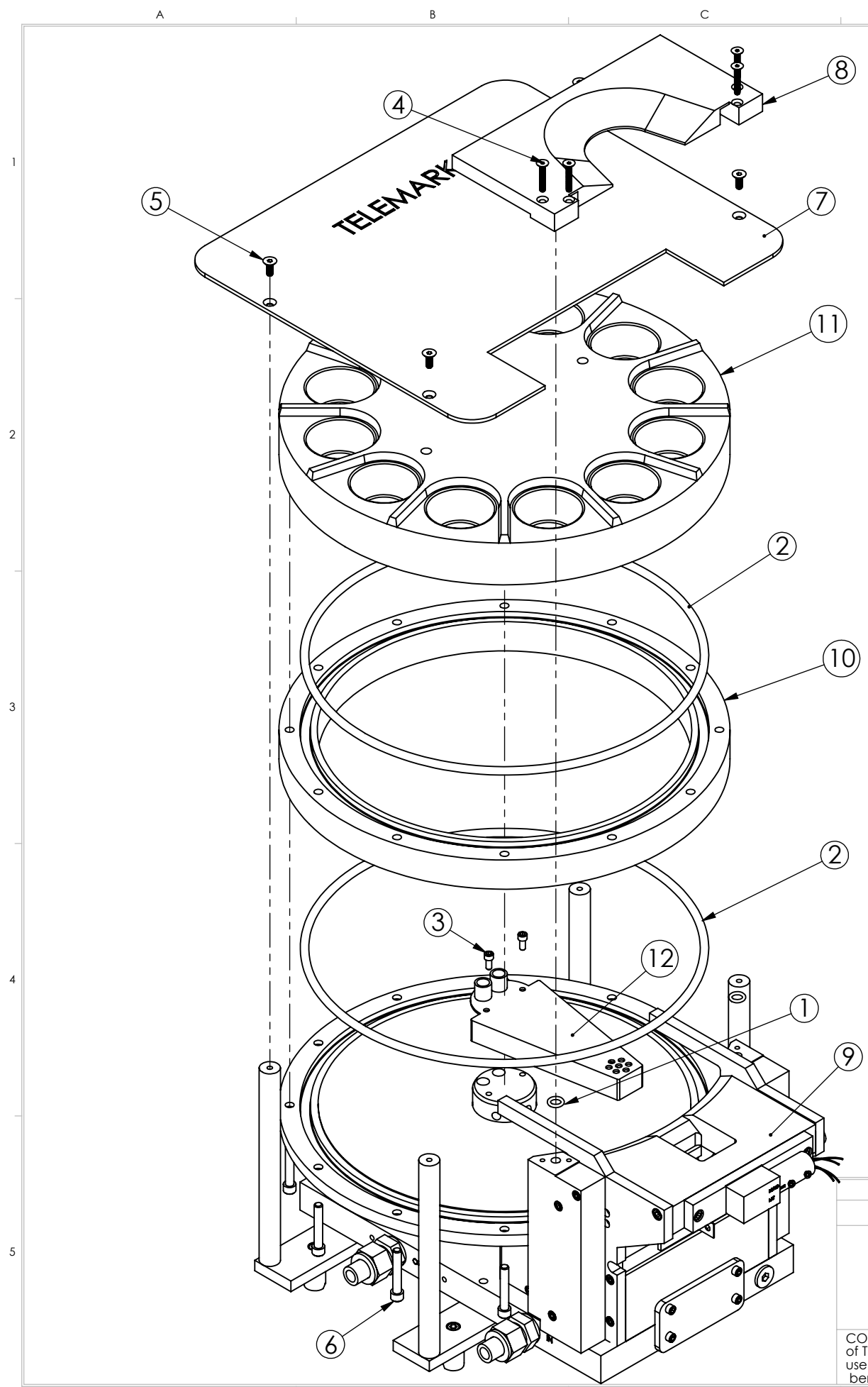
ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		8/22/2012



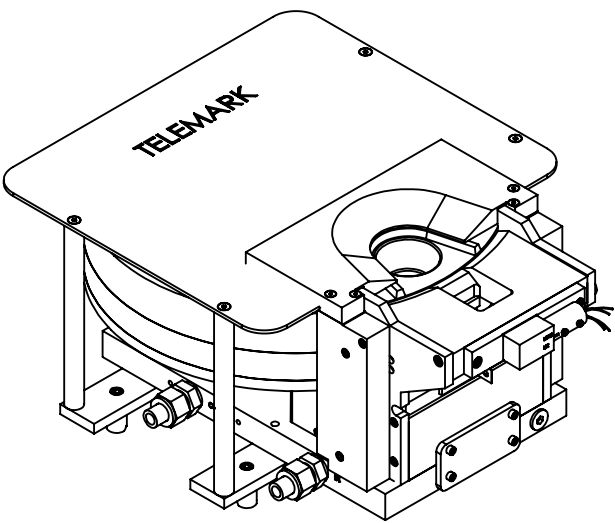
ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9987-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-1	COVER, REAR	1
8	295-0078-1	COVER, 12 POCKETS	1
9	295-0133-1	EB SOURCE SUB ASSEMBLY, SD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0233-1	CRUCIBLE, 12 X40cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED		DWG BY	DATE	MATERIAL:	<div>TELEMARK</div> <div>telemark.com</div>
GLOBAL TOLERANCES		CHECK BY	DATE		
		PROJ ENG	DATE		
		MFG ENG	DATE	FINISH:	
INCHES [mm]		DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	MODEL 295-87 EB SOURCE, 12 pkt, 40cc, S/D (10Kw)
.X +/- .03 [0.762]					
.XX +/- 0.01 [0.254]					
.XXX +/- 0.005 [0.127]					
ANGLES +/- .5°		FILE NUMBER - 295-9987-1			
SURF FINISH 63 RMS		INITIAL PROJECT -			
CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distribetd without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the conepts and details disclosed by it. Such conepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.					
B	SCALE	1:4	DWG NO.	REV	
	SHEET	1 of 1	295-9987-1	A	



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		8/22/2012



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9988-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-1	COVER, REAR	1
8	295-0078-1	COVER, 12 POCKETS	1
9	295-0135-1	EB SOURCE SUB ASSEMBLY, BD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0233-1	CRUCIBLE, 12 X40cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 295-9988-1
INITIAL PROJECT -

MATERIAL:

FINISH:

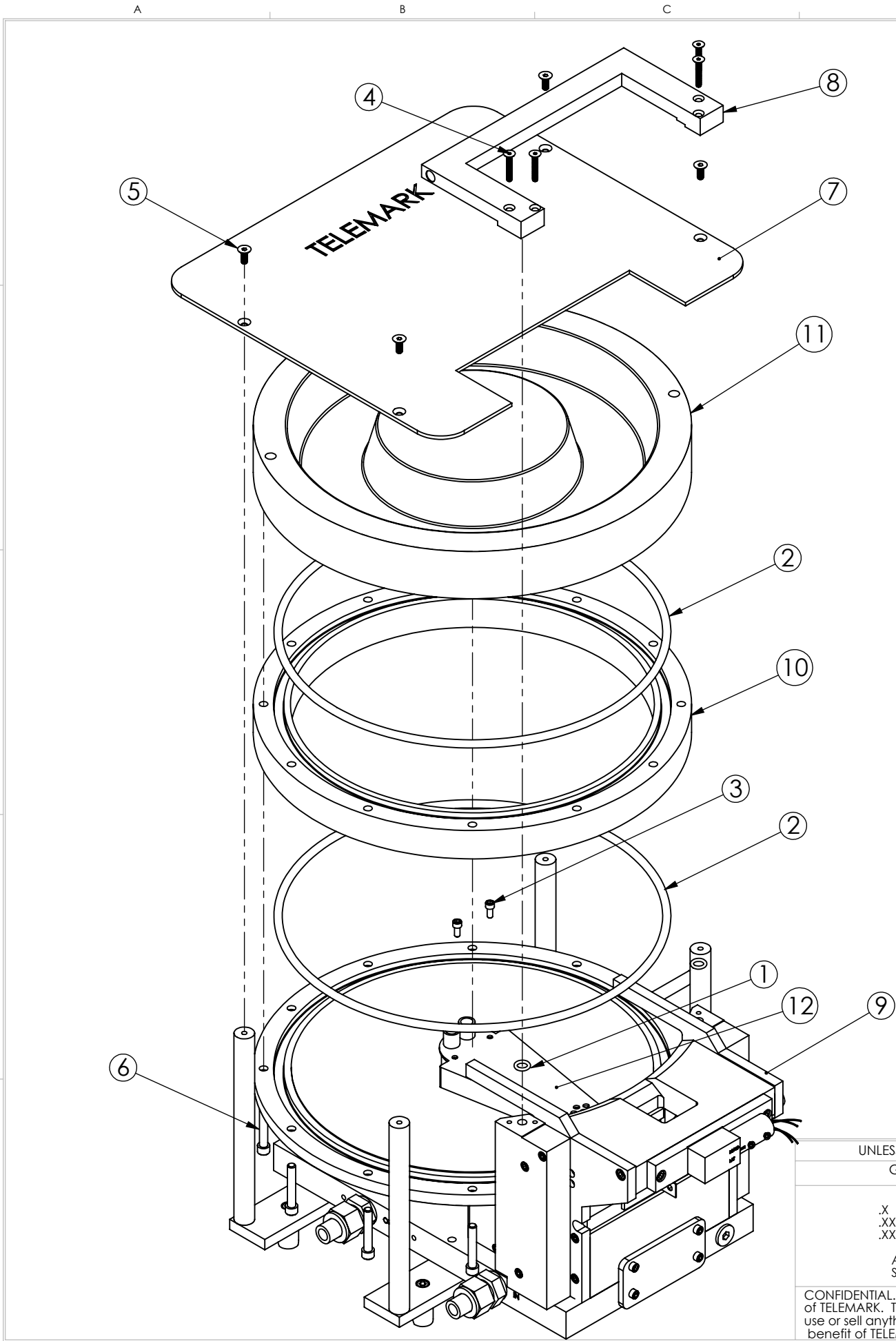
THIRD ANGLE PROJECTION

TELEMARK telemark.com

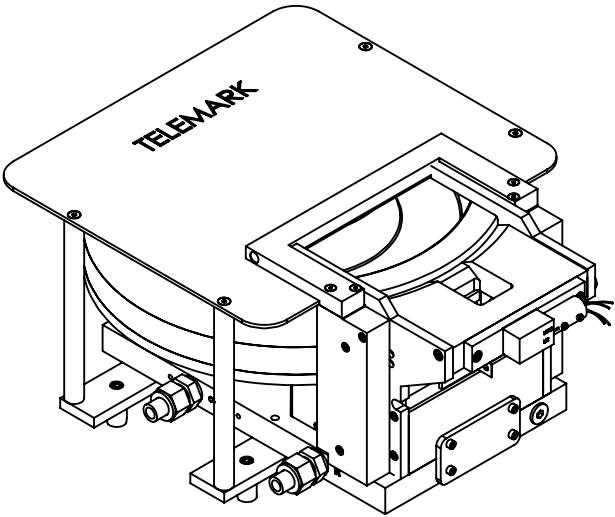
**MODEL 295-88 EB SOURCE,
12 pkt, 40cc, B/D (10Kw)**

B	SCALE 1:4	DWG NO.	REV
	SHEET 1 of 1	295-9988-1	A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9991-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 1 1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-1	COVER, REAR	1
8	295-0071-1	COVER, PAN	1
9	295-0133-1	EB SOURCE SUB ASSEMBLY, SD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0240-1	CRUCIBLE, 1486cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 295-9991-1
INITIAL PROJECT -

MATERIAL:

FINISH:

THIRD ANGLE PROJECTION

TELEMARK

telemark.com

MODEL 295-91 EB SOURCE,
1486cc TROUGH, S/D, 10kW

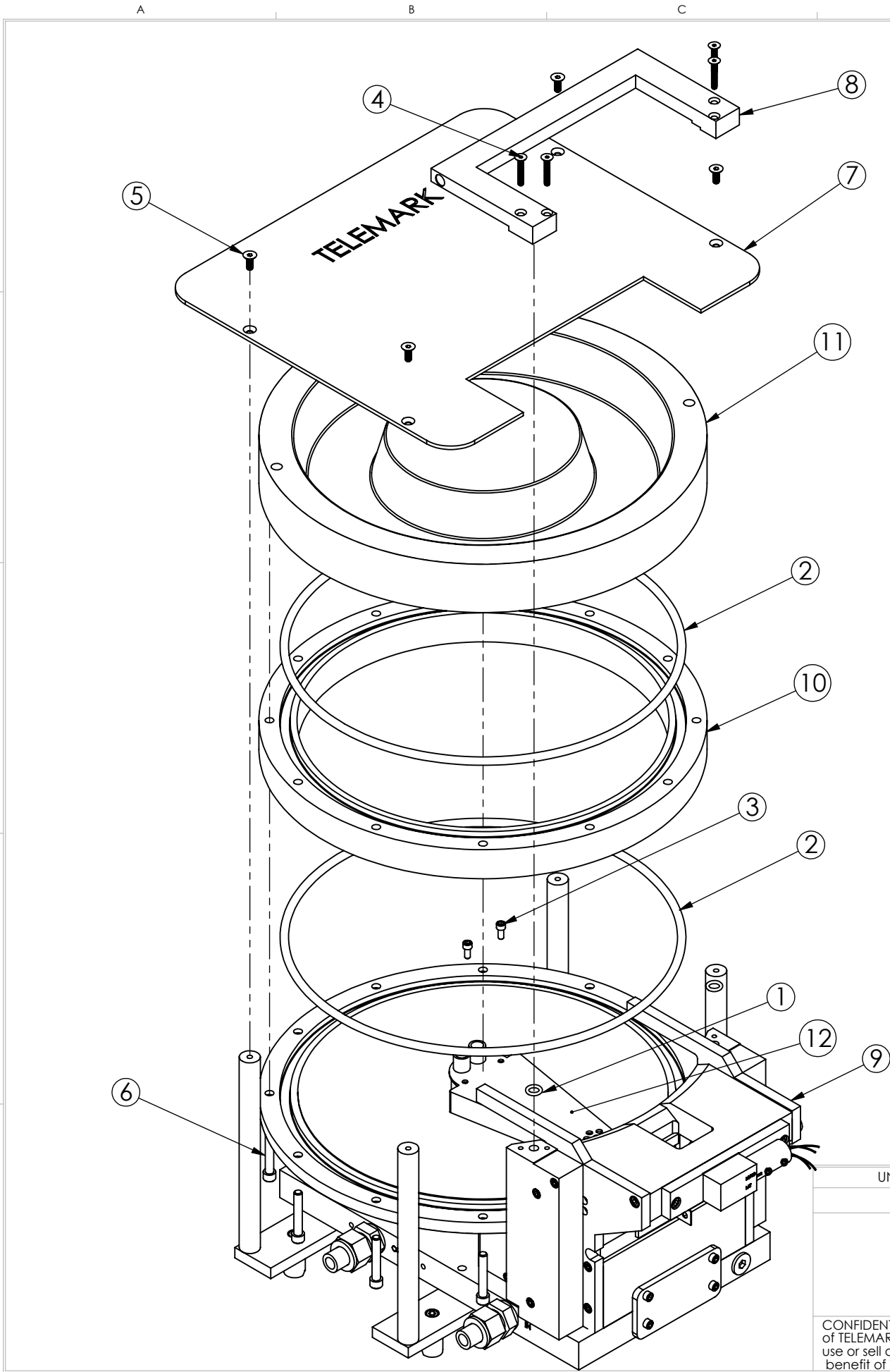
B

SCALE 1:4
SHEET 1 of 1

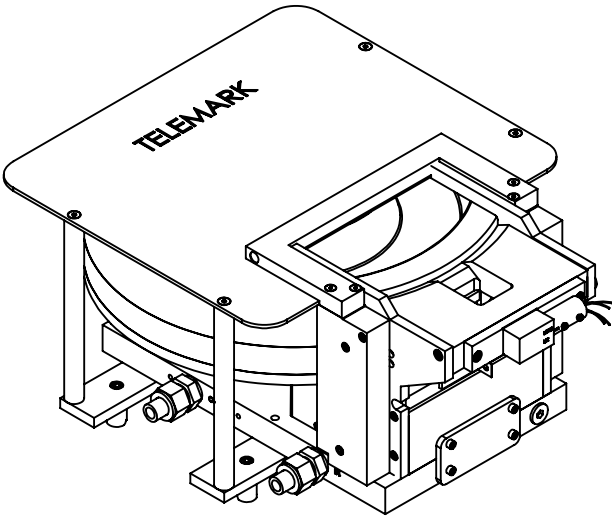
DWG NO.
295-9991-1

REV
A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		7/11/2005



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9992-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-1	COVER, REAR	1
8	295-0071-1	COVER, PAN	1
9	295-0135-1	EB SOURCE SUB ASSEMBLY, BD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0240-1	CRUCIBLE, 1486cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 295-9992-1
INITIAL PROJECT -

MATERIAL:

FINISH:

THIRD ANGLE PROJECTION

TELEMARK

telemark.com

MODEL 295-92 EB SOURCE,
1486cc TROUGH, B/D, 10kW

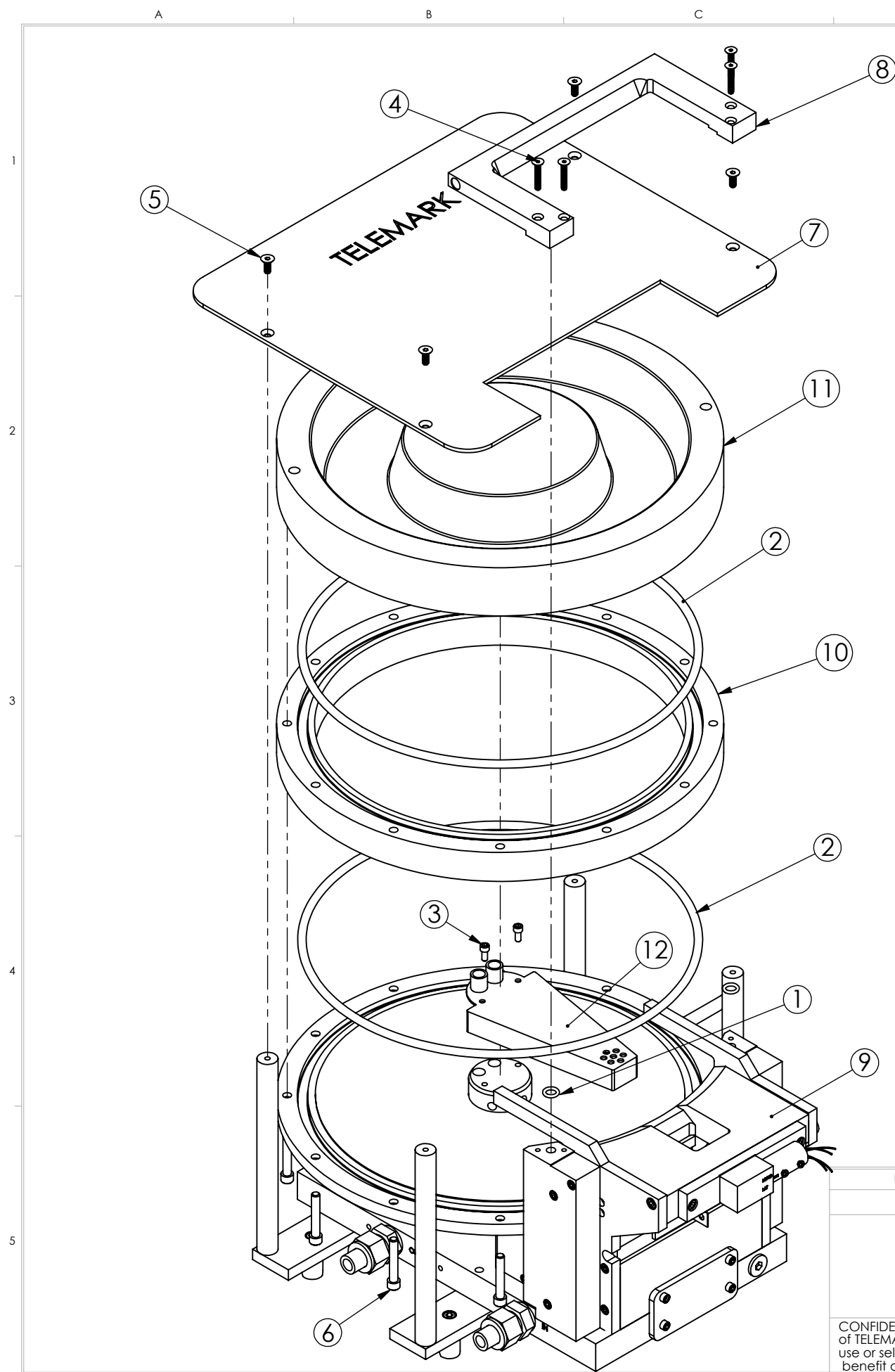
B

SCALE 1:4
SHEET 1 of 1

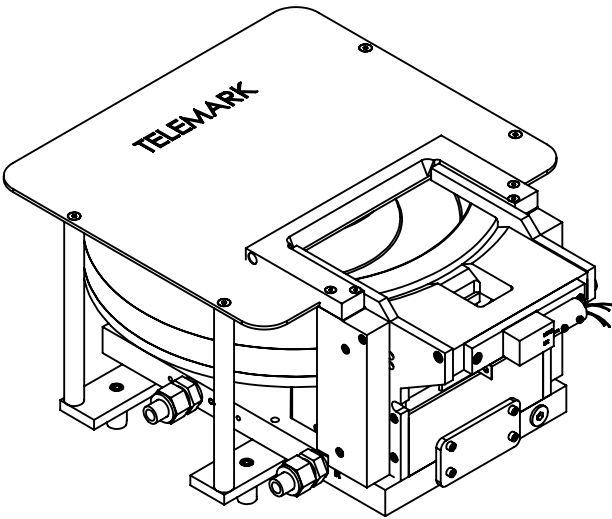
DWG NO.
295-9992-1

REV
A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.




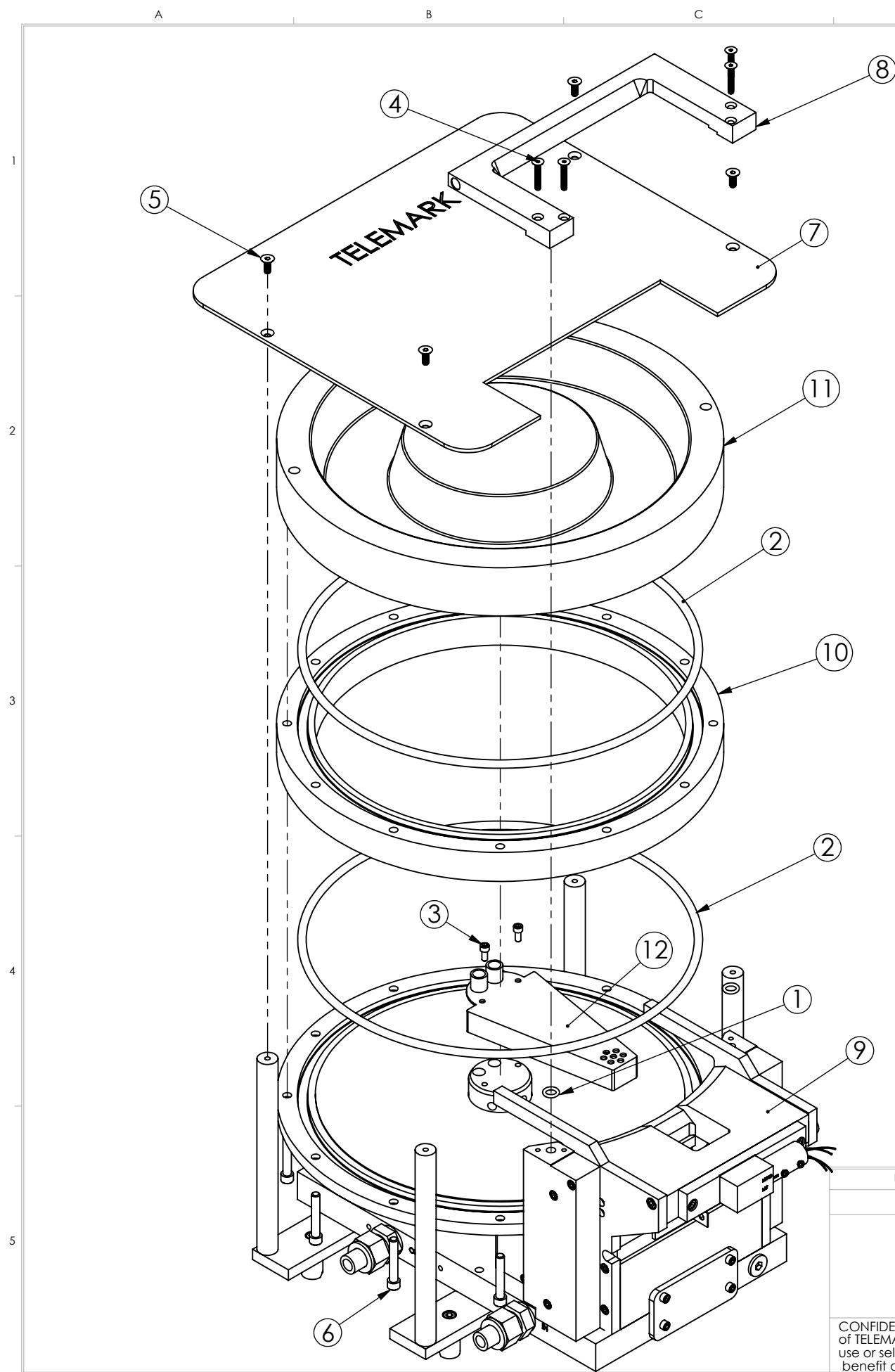
ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		8/22/2012



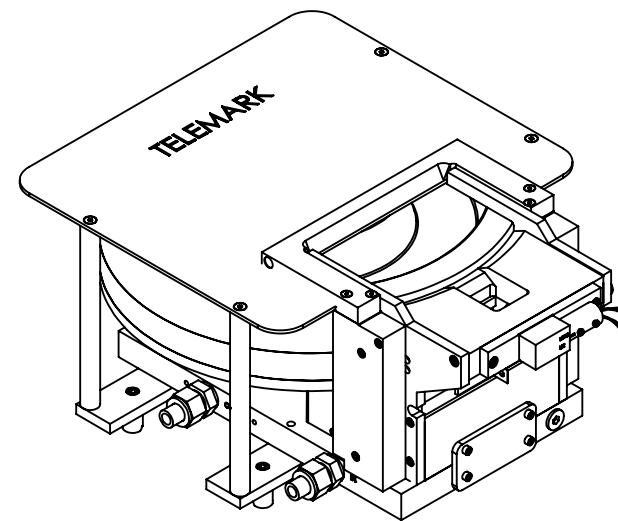
ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9993-1/ QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-1	COVER, REAR	1
8	295-0071-1	COVER, PAN	1
9	295-0133-1	EB SOURCE SUB ASSEMBLY, SD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0240-1	CRUCIBLE, 1486cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED		DWG BY	DATE	MATERIAL:	<div>TELEMARK</div> <div>telemark.com</div>
GLOBAL TOLERANCES		CHECK BY	DATE		
		PROJ ENG	DATE	FINISH:	
		MFG ENG	DATE	THIRD ANGLE PROJECTION 	
INCHES [mm] .X +/- .03 [0.762] .XX +/- 0.01 [0.254] .XXX +/- 0.005 [0.127]		DO NOT SCALE DRAWING			
ANGLES +/- .5° SURF FINISH 63 RMS		FILE NUMBER - 295-9993-1 INITIAL PROJECT -			
<p>CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distribetd without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the conepts and details disclosed by it. Such conepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.</p>					<p>MODEL 295-93 EB SOURCE, 1810cc PAN, S/D (10Kw)</p>
B	SCALE	1:4	DWG NO.	REV	
	SHEET	1 of 1	295-9993-1	A	



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION		8/22/2012



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	295-9994-1/295-9984-1/QTY.
1	271-2109-1	O-RING, VITON, ID 5/16", W 3/32"	2
2	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	2
3	271-6125-9	SCREW, #8-32 X 3/8" SST SHCS	2
4	271-6139-1	VENTED SCREW, #8-32 X 1" SST FHS	4
5	271-6154-9	SCREW, #10-32 X 1/2 SST FHS	4
6	271-6193-2	VENTED SCREW 1/4-20 X 1-1/2 SST SHCS.	12
7	295-0070-1	COVER, REAR	1
8	295-0071-1	COVER, PAN	1
9	295-0135-1	EB SOURCE SUB ASSEMBLY, BD, 10KW	1
10	295-0190-1	CRUCIBLE SPACER	1
11	295-0240-1	CRUCIBLE, 1486cc	1
12	295-0452-1	WATER DUCT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

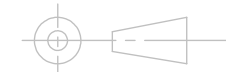
MATERIAL:

FINISH:

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

FILE NUMBER - 295-9994-1
INITIAL PROJECT -



TELEMARK

telemark.com

**MODEL 295-94 EB SOURCE,
1810cc PAN, B/D (10Kw)**

B

SCALE 1:4
SHEET 1 of 1

DWG NO.

295-9994-1

REV

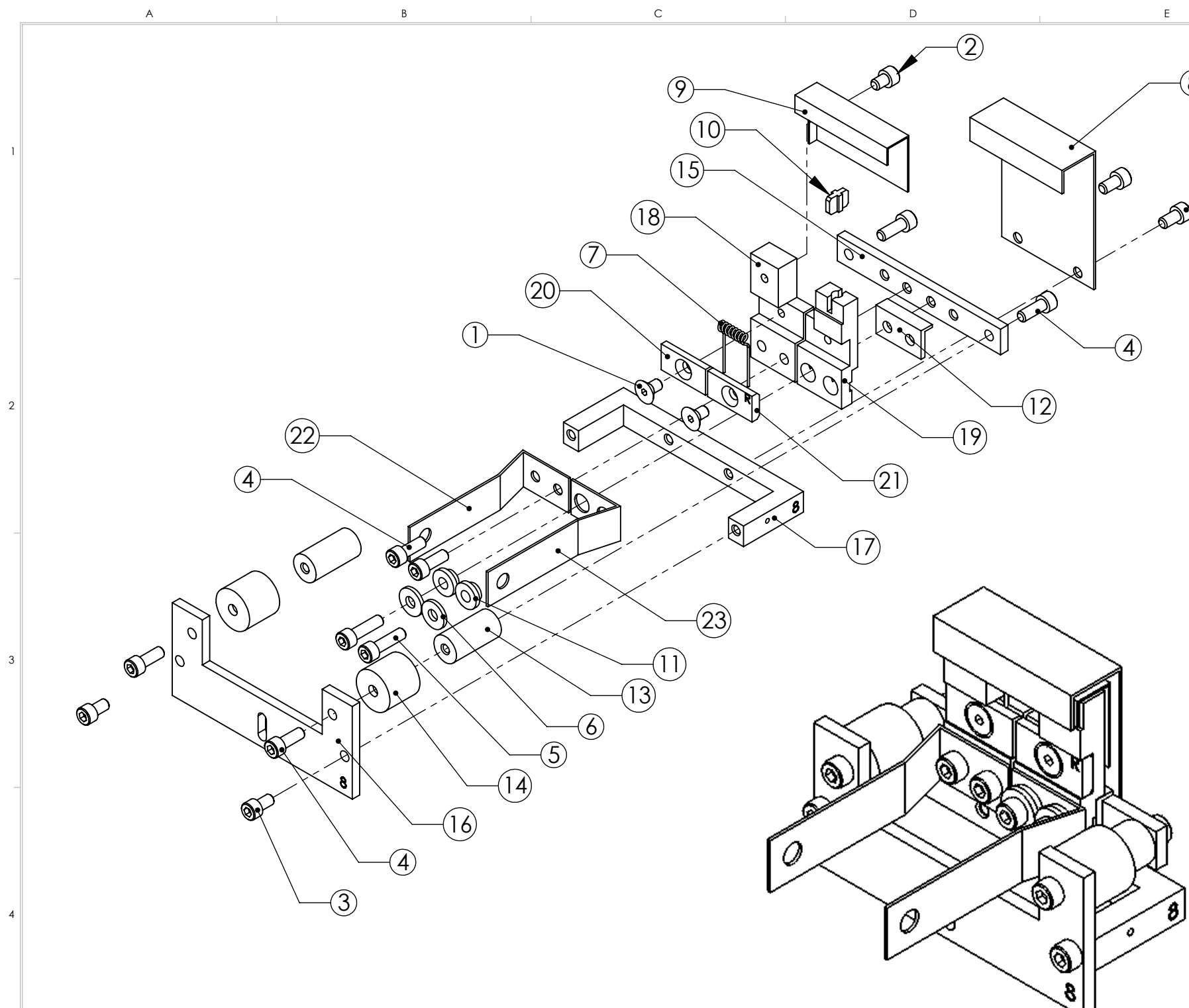
A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



Common Assemblies

E-Beam Source



ISOMETRIC VIEW

ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	PWF	6/13/2013
		A1	UPDATE	PWF	8/9/2013

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-6010-5	SCREW, #6-32 X 1/4" SLOT FLAT HEAD,TI	2
2	271-6020-5	SCREW, #6-32 X 3/16" TI SHCS	1
3	271-6030-1	VENTED SCREW, #6-32 X 1/4" SST SHCS	4
4	271-6050-1	VENTED SCREW, #6-32 X 3/8" SST. SHCS	6
5	271-6060-1	VENTED SCREW, #6-32 X 1/2" SST SHCS	2
6	271-6242-1	FLAT WASHER, #6 SST.	2
7	273-0001-1	FILAMENT, 7-1/2 TURN	1
8	273-0003-1	ANODE PLATE	1
9	273-0004-2	BEAM FORMER	1
10	273-0005-1	INSULATOR, CROSS	1
11	273-0006-1	INSULATOR, COLLAR	2
12	273-0008-1	L INSULATOR	1
13	273-0010-1	HV INSULATOR	2
14	273-0011-1	HV SHIELD	2
15	273-0017-1	MOUNTING BRACKET	1
16	273-0018-8	EMITTER SUPPORT BRACKET	1
17	273-0019-8	U-BRACKET	1
18	273-0031-1	CATHODE BLOCK, LEFT	1
19	273-0032-1	CATHODE BLOCK, RIGHT	1
20	273-0033-3	FILAMENT CLAMP, LEFT	1
21	273-0033-4	FILAMENT CLAMP, RIGHT	1
22	273-0035-1	EMITTER BUS BAR, LEFT	1
23	273-0036-1	FILAMENT BUS BAR, RIGHT	1

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 273-0150-8
INITIAL PROJECT -

MATERIAL: B.O.M.

FINISH: SEE NOTES

THIRD ANGLE PROJECTION

TELEMARK telemark.com

**EMITTER ASSEMBLY
2013**

B

SCALE 1:1
SHEET 1 of 1

DWG NO.
273-0150-8

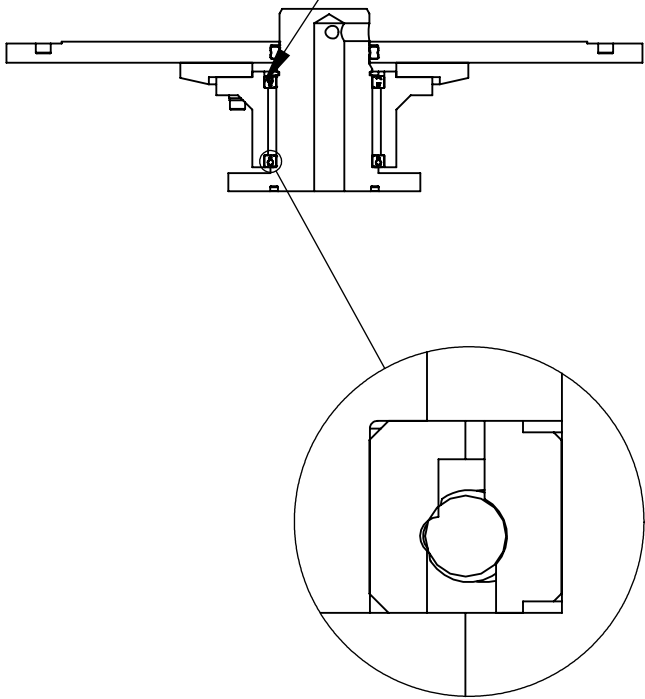
REV
A1

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.

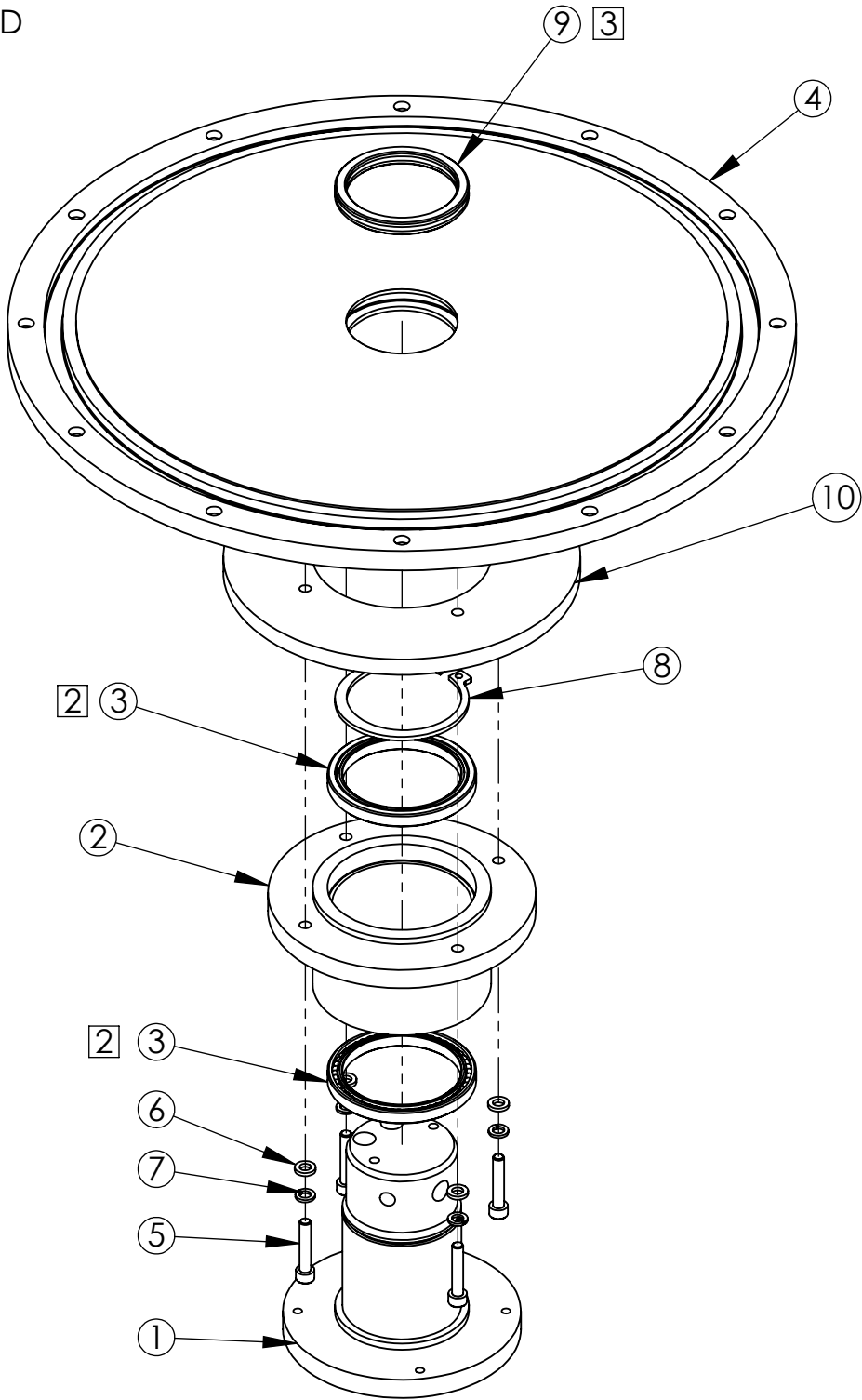
UNLESS OTHERWISE SPECIFIED:

- 1. PARTS TO BE DEGREASED BEFORE INSTALATION
- 2. OUTER RACE COUNTERBORE MUST FACE OUTWARD
- 3. APPLY VACUUM GREASE TO QUAD-RING BEFORE INSTALLATION.
- 4. PRELOAD BEARING WITH SHIMS ASS NEEDED.

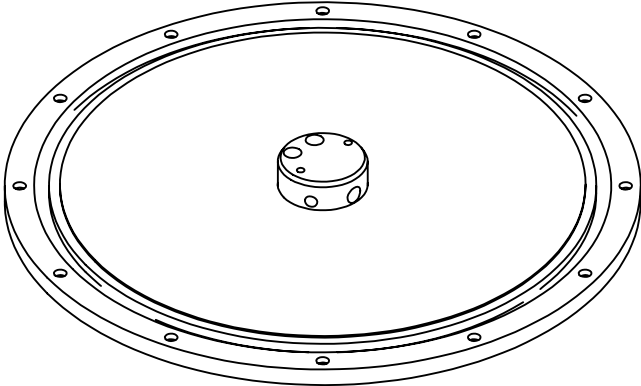
THIS BEARING
SHOULD INSTALL
OPPOSITE TO THE
BOTTOM BEARING



DETAIL A
SCALE 4 : 1



REVISIONS				
ECN#	ZONE	REV	DESCRIPTION	DATE
		A	RELEASE FOR PRODUCTION	6/15/2001
		B	RELOCATE VIEW	3/20/2007




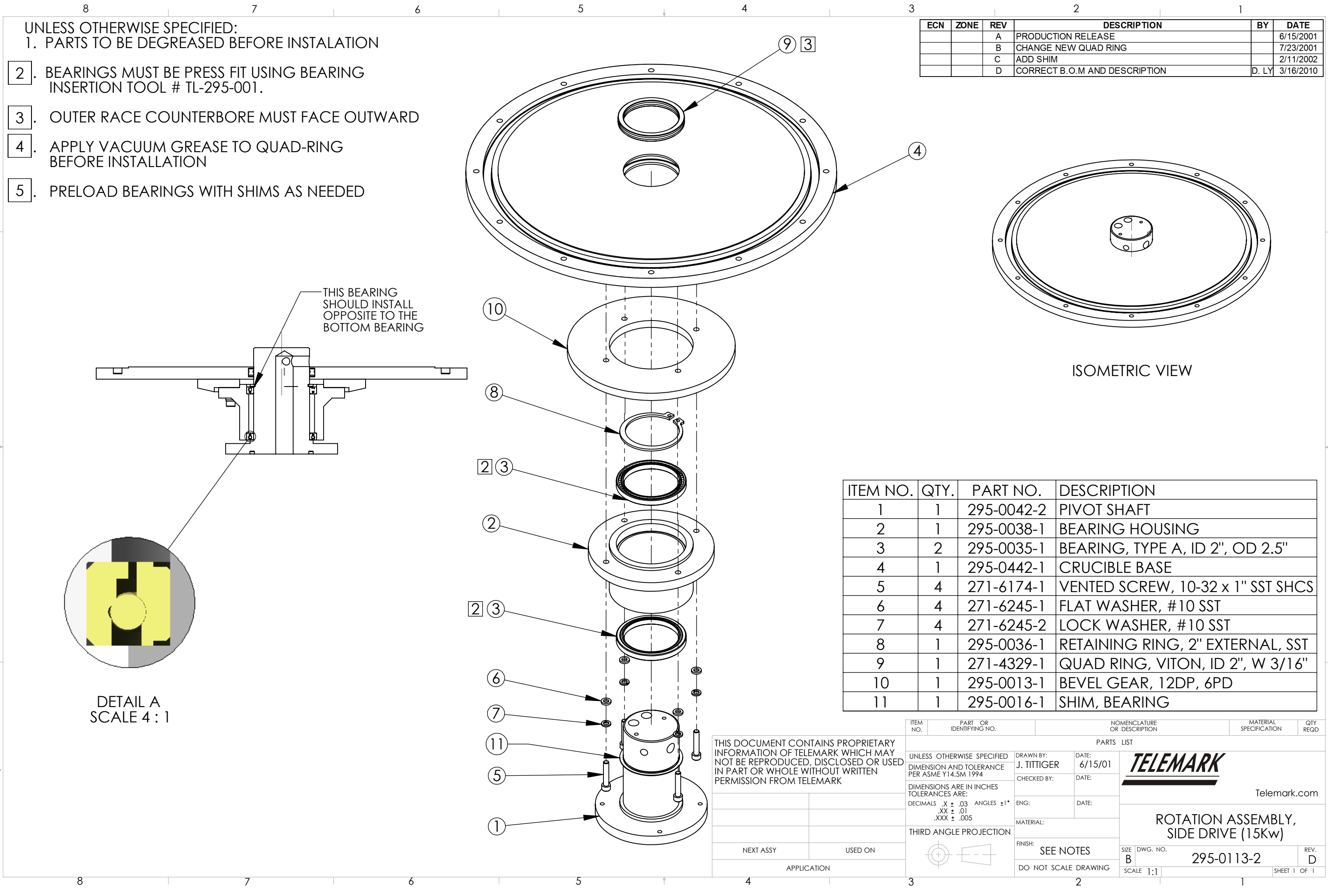
ISOMETRIC VIEW

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	295-0042-1	PIVOT SHAFT
2	1	295-0038-1	BEARING HOUSING
3	2	295-0035-1	BEARING, TYPE A, ID 2", OD 2.5"
4	1	295-0442-2	CRUCIBLE BASE
5	4	271-6174-1	VENTED SCREW, #10-32 X 1" SST. SHCS
6	4	271-6245-1	FLAT WASHER, #10 SST.
7	4	271-6245-2	LOCK WASHER, #10 SST.
8	1	295-0036-1	RETAINING RING, 2" EXTERNAL, SST
9	1	271-4328-1	QUAD RING, VITON, ID 1-7/8", W 3/16"
10	1	295-0013-1	BEVEL GEAR, 12DP, 6PD

THIS DOCUMENT CONTAINS PROPRIETARY
INFORMATION OF TELEMAR WHICH MAY
NOT BE REPRODUCED, DISCLOSED OR USED
IN PART OR WHOLE WITHOUT WRITTEN
PERMISSION FROM TELEMAR

NEXT ASSY	USED ON
APPLICATION	

ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	QTY REQD
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION AND TOLERANCE PER ASME Y14.5M 1994		DRAWN BY: J. TITTIGER	DATE: 6/15/01	 Telemark.com
DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS .X ± .03 ANGLES ±1° .XX ± .01 .XXX ± .005		CHECKED BY:	DATE:	
THIRD ANGLE PROJECTION		ENG:	DATE:	
		MATERIAL:		
		FINISH:	SEE NOTES	ROTATION ASSEMBLY, SIDE DRIVE (10KW)
		DO NOT SCALE DRAWING		
SIZE B	DWG. NO. 295-0113-1	REV. B	SCALE 1:1	SHEET 1 OF 1



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	PRODUCTION RELEASE		6/15/2001
		B	CHANGE NEW QUAD RING		7/23/2001
		C	ADD SHIM		2/11/2002
		D	CORRECT B. O.M AND DESCRIPTION	D. LY	3/16/2010

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	295-0042-2	PIVOT SHAFT
2	1	295-0038-1	BEARING HOUSING
3	2	295-0035-1	BEARING, TYPE A, ID 2", OD 2.5"
4	1	295-0442-1	CRUCIBLE BASE
5	4	271-6174-1	VENTED SCREW, 10-32 x 1" SST SHCS
6	4	271-6245-1	FLAT WASHER, #10 SST
7	4	271-6245-2	LOCK WASHER, #10 SST
8	1	295-0036-1	RETAINING RING, 2" EXTERNAL, SST
9	1	271-4329-1	QUAD RING, VITON, ID 2", W 3/16"
10	1	295-0013-1	BEVEL GEAR, 12DP, 6PD
11	1	295-0016-1	SHIM, BEARING

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TELEMAR WHICH MAY NOT BE REPRODUCED, DISCLOSED OR USED IN PART OR WHOLE WITHOUT WRITTEN PERMISSION FROM TELEMAR

NEXT ASSY	USED ON
APPLICATION	

ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	QTY REQD
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION AND TOLERANCE PER ASME Y14.5M 1994		DRAWN BY: J. TITTIGER	DATE: 6/15/01	<div>TELEMAR</div> <div>Telemark.com</div> <div>ROTATION ASSEMBLY, SIDE DRIVE (15Kw)</div>
DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS .X ± .03 ANGLES ±1° .XX ± .01 .XXX ± .005		CHECKED BY:	DATE:	
THIRD ANGLE PROJECTION		ENG:	DATE:	
		MATERIAL:		
		FINISH:	SEE NOTES	SIZE DWG. NO. B 295-0113-2
		DO NOT SCALE DRAWING		REV. D
			SCALE 1:1	SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:
1. PARTS TO BE DEGREASED BEFORE INSTALATION

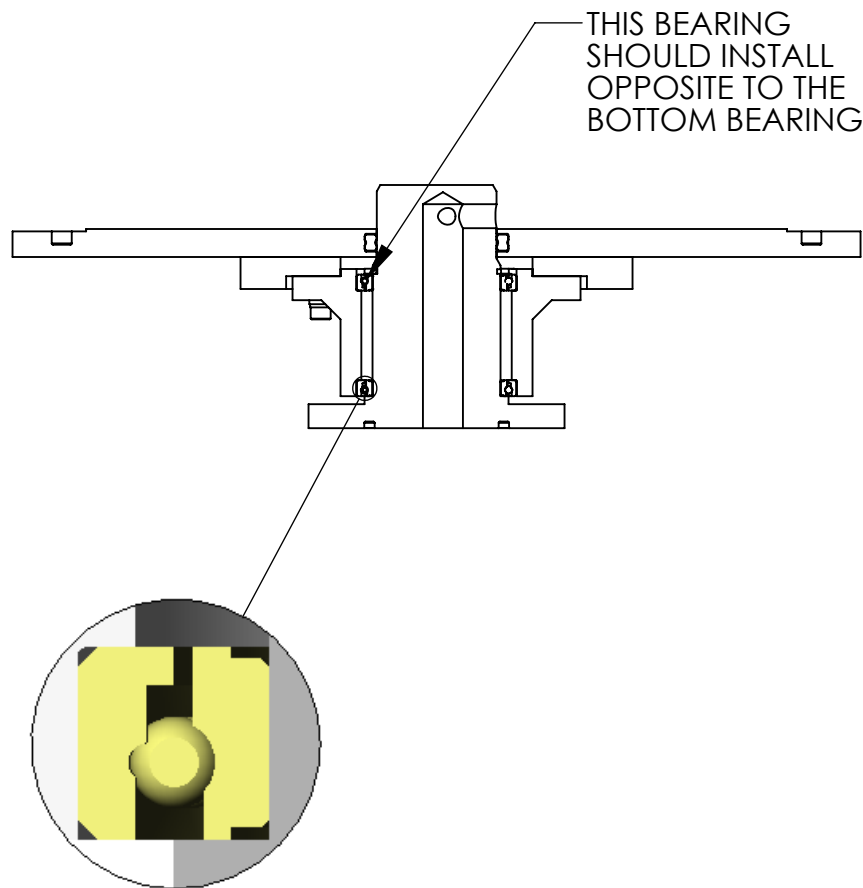
2. BEARINGS MUST BE PRESS FIT USING BEARING INSERTION TOOL # TL-295-001.
3. OUTER RACE COUNTERBORE MUST FACE OUTWARD
4. APPLY VACUUM GREASE TO QUAD-RING BEFORE INSTALLATION
5. PRELOAD BEARINGS WITH SHIMS AS NEEDED

D

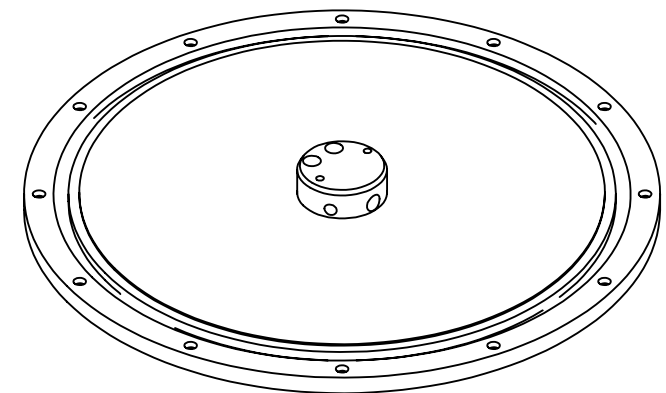
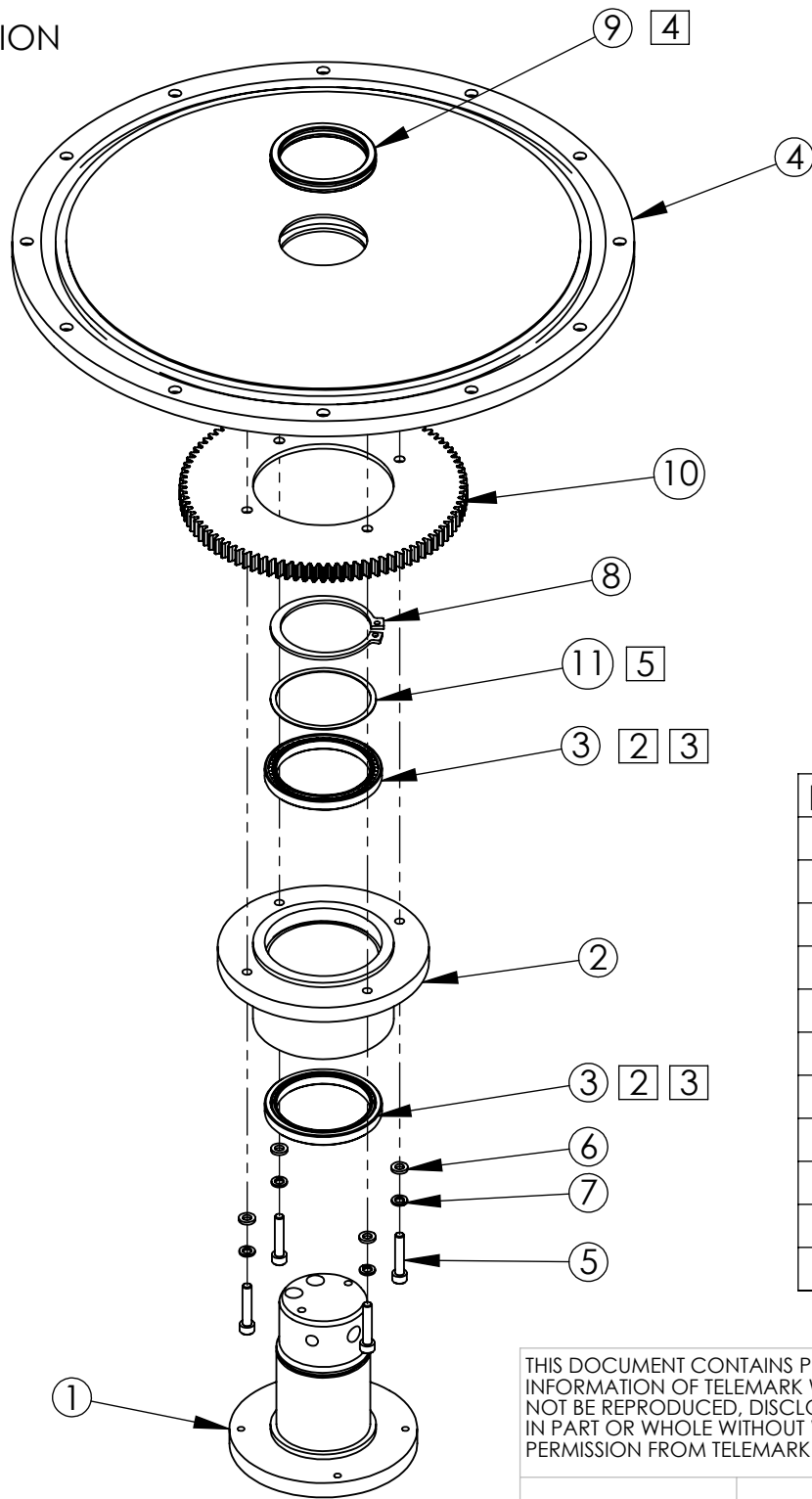
C

B

A



DETAIL A
SCALE 4 : 1



ISOMETRIC VIEW

D

C

B

A

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	295-0042-1	PIVOT SHAFT
2	1	295-0038-1	BEARING HOUSING
3	2	295-0035-1	BEARING, TYPE A, ID 2", OD 2.5"
4	1	295-0442-2	CRUCIBLE BASE
5	4	271-6174-1	VENTED SCREW, #10-32 X 1" SST. SHCS
6	4	271-6245-1	FLAT WASHER, #10 SST.
7	4	271-6245-2	LOCK WASHER, #10 SST.
8	1	295-0036-1	RETAINING RING, 2" EXTERNAL, SST
9	1	271-4328-1	QUAD RING, VITON, ID 1-7/8", W 3/16"
10	1	295-0149-1	GEAR, SPUR, 16 PITCH, 96 TEETH
11	1	295-0016-1	SHIM, BEARING

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TELEMAR WHICH MAY NOT BE REPRODUCED, DISCLOSED OR USED IN PART OR WHOLE WITHOUT WRITTEN PERMISSION FROM TELEMAR

NEXT ASSY	USED ON
APPLICATION	

ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	QTY REQD
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION AND TOLERANCE PER ASME Y14.5M 1994 DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS .X ± .03 ANGLES ±1° .XX ± .01 .XXX ± .005		DRAWN BY: J. TITTIGER CHECKED BY: ENG: MATERIAL: FINISH: DO NOT SCALE DRAWING	DATE: 6/15/01 DATE: DATE: SEE NOTES	REV. D
THIRD ANGLE PROJECTION		TELEMAR Telemark.com ROTATION ASSEMBLY, BOTTOM DRIVE (10Kw)		
SIZE B		DWG. NO. 295-0115-1		SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:
1. PARTS TO BE DEGREASED BEFORE INSTALATION

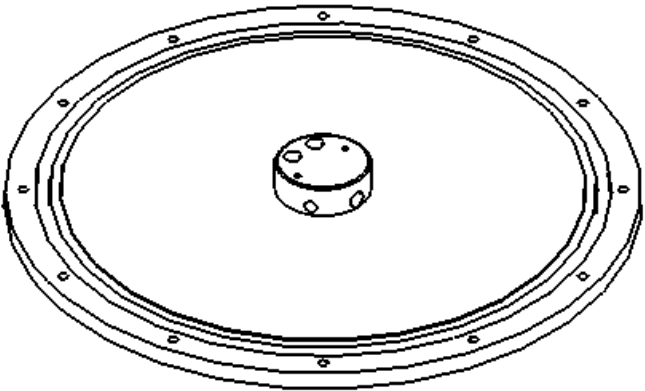
2. BEARINGS MUST BE PRESS FIT USING BEARING
INSERTION TOOL # TL-295-001.

3. OUTER RACE COUNTERBORE MUST FACE OUTWARD

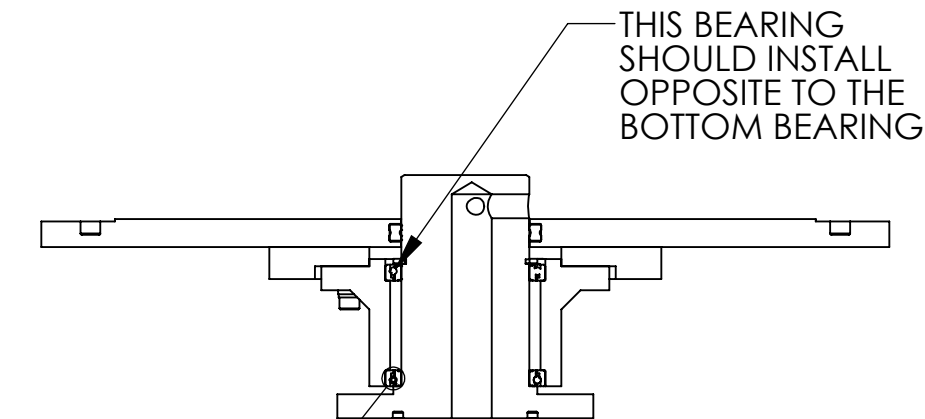
4. APPLY VACUUM GREASE TO QUAD-RING BEFORE INSTALLATION

5. PRELOAD BEARINGS WITH SHIMS AS NEEDED

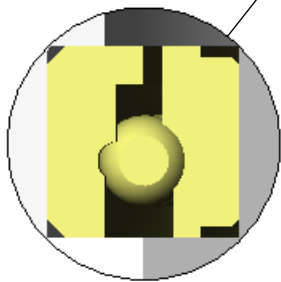
ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	PRODUCTION RELEASE		6/15/2001
		B	CHANGE QUAD RING		7/23/2001
		C	ADD SHIM		2/11/2002
		D	CORRECT DESCRIPTION AND B.O.M	D. LY	3/16/2010
		E	P/N FROM 295-0149-1 TO 295-0149-2	GPD	1/9/2017



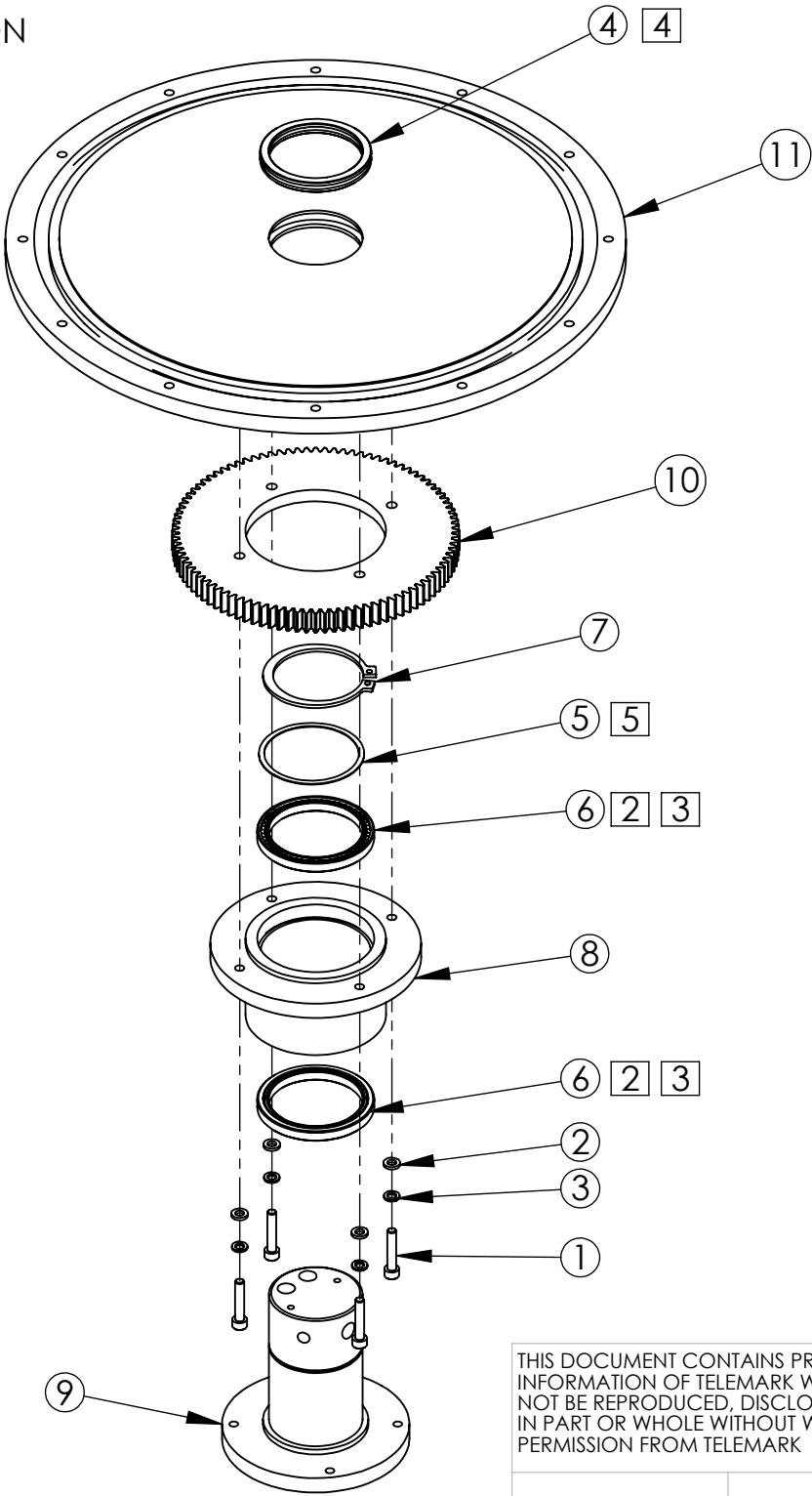
ISOMETRIC VIEW



THIS BEARING
SHOULD INSTALL
OPPOSITE TO THE
BOTTOM BEARING



DETAIL A
SCALE 4 : 1



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	4	271-6174-1	VENTED SCREW, #10-32 X 1" SST. SHCS
2	4	271-6245-1	FLAT WASHER, #10 SST.
3	4	271-6245-2	LOCK WASHER, #10 SST.
4	1	271-4329-1	QUAD RING, VITON, ID 2", W 3/16"
5	1	295-0016-1	SHIM, BEARING
6	2	295-0035-1	BEARING, TYPE A, ID 2", OD 2.5"
7	1	295-0036-1	RETAINING RING, 2" EXTERNAL, SST
8	1	295-0038-1	BEARING HOUSING
9	1	295-0042-2	PIVOT SHAFT (15KW)
10	1	295-0149-2	GEAR, SPUR, 16 PITCH, 96 TEETH
11	1	295-0442-1	CRUCIBLE BASE

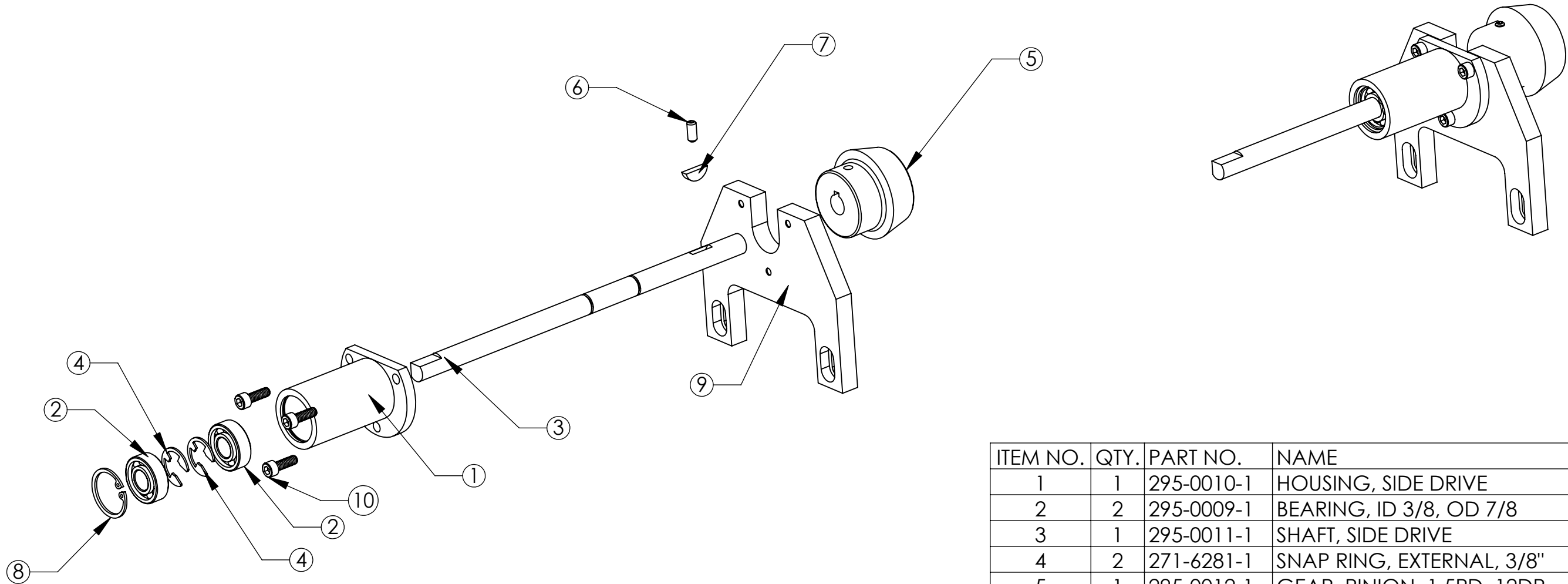
THIS DOCUMENT CONTAINS PROPRIETARY
INFORMATION OF TELEMAR WHICH MAY
NOT BE REPRODUCED, DISCLOSED OR USED
IN PART OR WHOLE WITHOUT WRITTEN
PERMISSION FROM TELEMAR

NEXT ASSY	USED ON
APPLICATION	

ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	QTY REQD
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION AND TOLERANCE PER ASME Y14.5M 1994		DRAWN BY: J. TITTIGER	DATE: 6/15/01	TELEMAR Telemark.com ROTATION ASSEMBLY, BOTTOM DRIVE (15Kw)
DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS .X ± .03 ANGLES ±1° .XX ± .01 .XXX ± .005		CHECKED BY:	DATE:	
THIRD ANGLE PROJECTION		ENG:	DATE:	
		MATERIAL:		
		FINISH:	SEE NOTES	SIZE DWG. NO. B 295-0115-2
		DO NOT SCALE DRAWING		
		SCALE	1:4	REV. E
		SHEET 1 OF 1		

UNLESS OTHERWISE SPECIFIED:
1. CLEAN AND DEGREASE ALL PARTS
BEFORE ASSEMBLY.

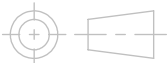
REVISIONS					
ECN#	ZONE	REV	DESCRIPTION	DATE	CHG BY
		A	PRODUCTION RELEASE	7/26/2001	
		B	CHANGE SIDE DRIVE CONNECTION TO .375 (WAS .250)	7/1/2010	

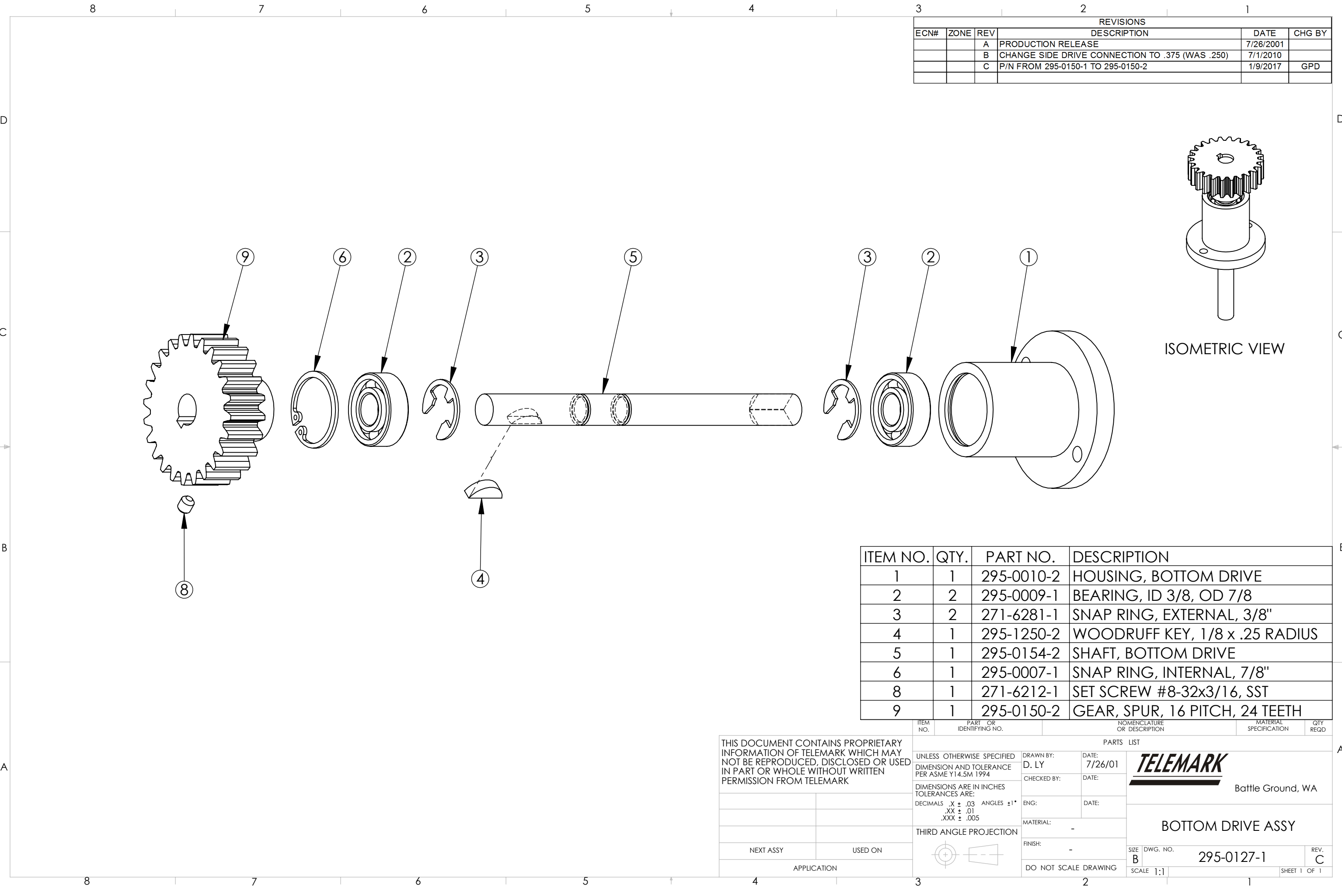


ITEM NO.	QTY.	PART NO.	NAME
1	1	295-0010-1	HOUSING, SIDE DRIVE
2	2	295-0009-1	BEARING, ID 3/8, OD 7/8
3	1	295-0011-1	SHAFT, SIDE DRIVE
4	2	271-6281-1	SNAP RING, EXTERNAL, 3/8"
5	1	295-0012-1	GEAR, PINION, 1.5PD, 12DP
6	1	271-6200-1	Set Screw, 8-32 x 3/8" SST
7	1	295-1250-2	WOODRUFF KEY, 1/8 x .25 RADIUS
8	1	295-0007-1	SNAP RING, INTERNAL, 7/8"
9	1	295-0015-1	MOUNT, SIDE DRIVE
10	3	271-6128-9	#8-32 X 1/2 SST SHCS

THIS DOCUMENT CONTAINS PROPRIETARY
INFORMATION OF TELEMAR WHICH MAY
NOT BE REPRODUCED, DISCLOSED OR USED
IN PART OR WHOLE WITHOUT WRITTEN
PERMISSION FROM TELEMAR

NEXT ASSY	USED ON
APPLICATION	

ITEM NO.		PART OR IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		MATERIAL SPECIFICATION		QTY REQD	
PARTS LIST									
UNLESS OTHERWISE SPECIFIED		DRAWN BY: J. TITTIGER		DATE: 05/04/01		<div>TELEMARK</div> <div>telemark.com</div>			
DIMENSION AND TOLERANCE PER ASME Y14.5M 1994		CHECKED BY:		DATE:					
DIMENSIONS ARE IN INCHES TOLERANCES ARE:		ENG:		DATE:		Side Drive Assembly			
DECIMALS .X ± .03 ANGLES ±1° .XX ± .01 .XXX ± .005									
THIRD ANGLE PROJECTION		MATERIAL:							
		FINISH: -		SIZE B		DWG. NO. 295-0125-1		REV. B	
		DO NOT SCALE DRAWING		SCALE 1:4		SHEET 1 OF 1			




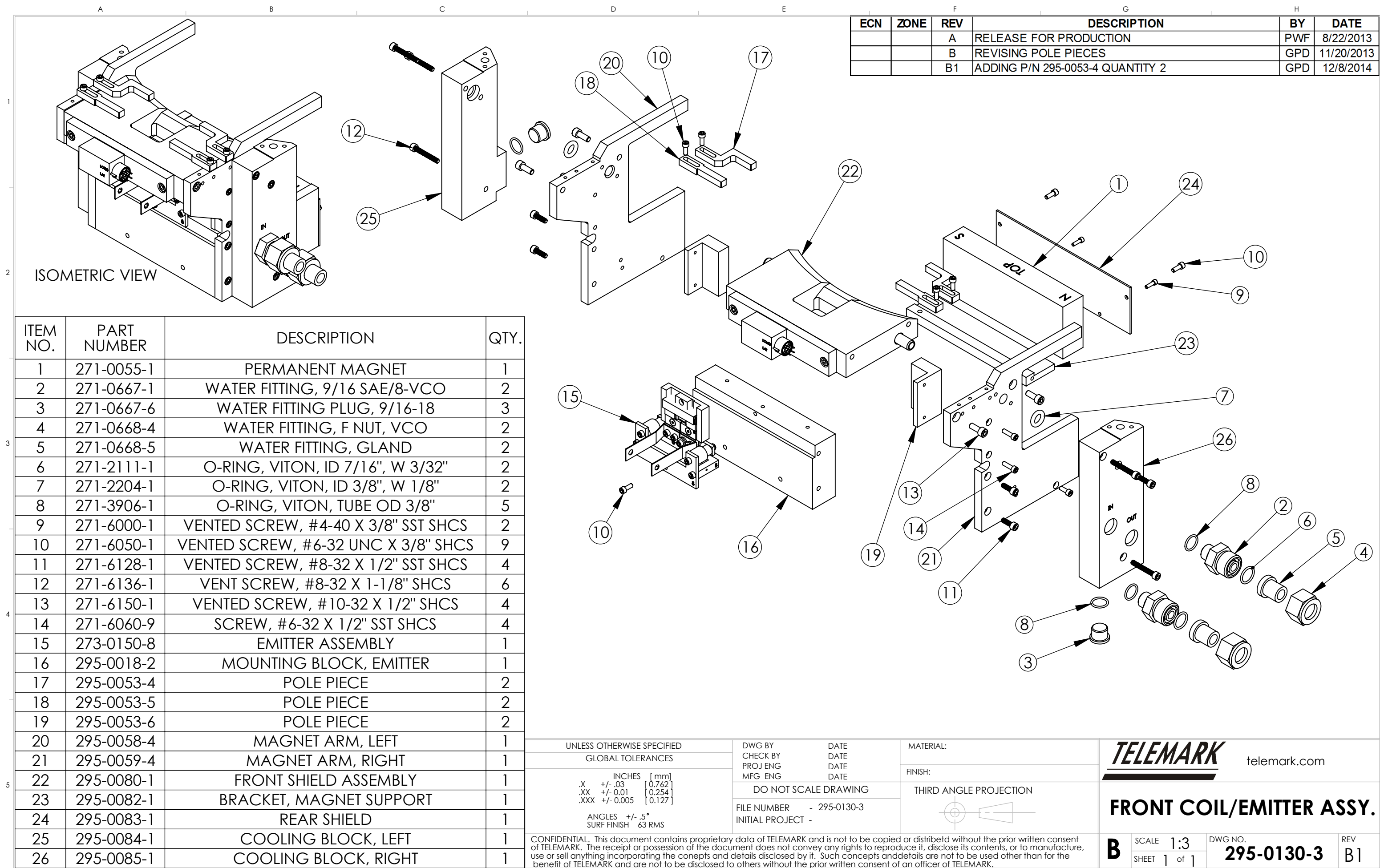
REVISIONS					
ECN#	ZONE	REV	DESCRIPTION	DATE	CHG BY
		A	PRODUCTION RELEASE	7/26/2001	
		B	CHANGE SIDE DRIVE CONNECTION TO .375 (WAS .250)	7/1/2010	
		C	P/N FROM 295-0150-1 TO 295-0150-2	1/9/2017	GPD

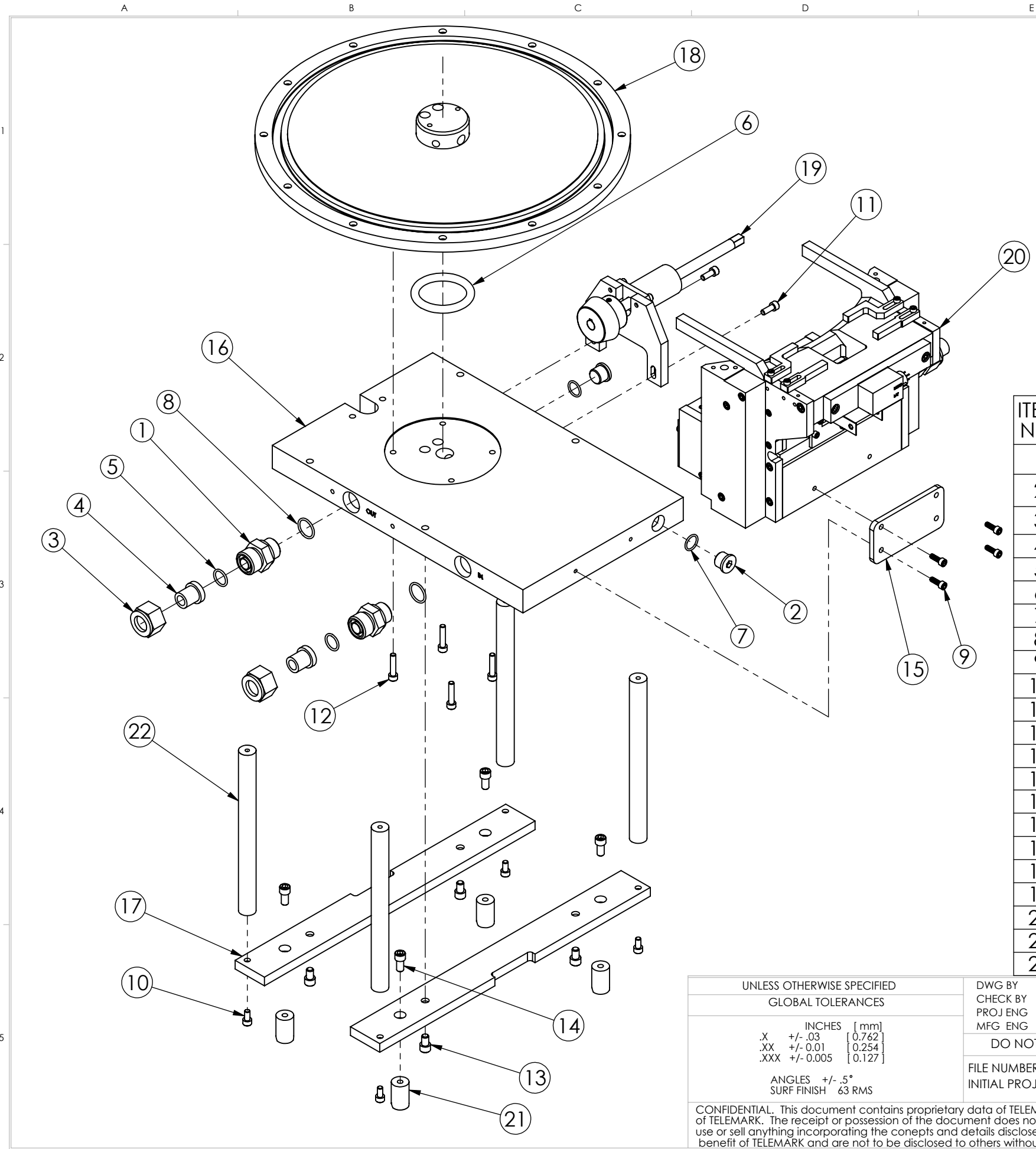
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	295-0010-2	HOUSING, BOTTOM DRIVE
2	2	295-0009-1	BEARING, ID 3/8, OD 7/8
3	2	271-6281-1	SNAP RING, EXTERNAL, 3/8"
4	1	295-1250-2	WOODRUFF KEY, 1/8 x .25 RADIUS
5	1	295-0154-2	SHAFT, BOTTOM DRIVE
6	1	295-0007-1	SNAP RING, INTERNAL, 7/8"
8	1	271-6212-1	SET SCREW #8-32x3/16, SST
9	1	295-0150-2	GEAR, SPUR, 16 PITCH, 24 TEETH

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TELEMARX WHICH MAY NOT BE REPRODUCED, DISCLOSED OR USED IN PART OR WHOLE WITHOUT WRITTEN PERMISSION FROM TELEMARX

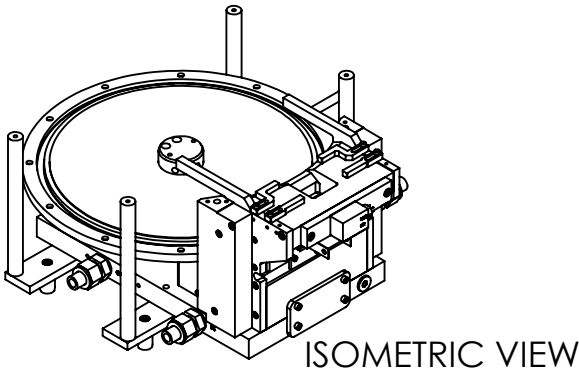
NEXT ASSY	USED ON
APPLICATION	

ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION		MATERIAL SPECIFICATION	QTY REQD
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION AND TOLERANCE PER ASME Y14.5M 1994		DRAWN BY: D. LY	DATE: 7/26/01	<div><i>TELEMARK</i></div> <div>Battle Ground, WA</div> <div>BOTTOM DRIVE ASSY</div>	
DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS $.X \pm .03$ ANGLES $\pm 1^\circ$ $.XX \pm .01$ $.XXX \pm .005$		CHECKED BY:	DATE:		
THIRD ANGLE PROJECTION		ENG:	DATE:		
		MATERIAL: -			
		FINISH: -		SIZE DWG. NO.	REV.
		DO NOT SCALE DRAWING		B 295-0127-1	C
			SCALE 1:1	SHEET 1 OF 1	





ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION	PWF	8/22/2013
		A1	UPDATED	GPD	12/9/2014



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-0667-2	WATER FITTING, SAE/MS CONNECTOR (3/4 SAE/8-VCO)	2
2	271-0667-6	WATER FITTING PLUG, 9/16-18	2
3	271-0668-4	WATER FITTING, F NUT, VCO	2
4	271-0668-5	WATER FITTING, GLAND	2
5	271-2111-1	O-RING, VITON, ID 7/16", W 3/32"	2
6	271-2226-1	O-RING, VITON, ID 2", W 1/8"	1
7	271-3906-1	O-RING, VITON, TUBE OD 3/8"	2
8	271-3908-1	O-RING, VITON, TUBE OD 1/2"	2
9	271-6128-1	VENTED SCREW, #8-32 X 1/2" SST SHCS	4
10	271-6145-1	VENTED SCREW, #10-32 X 3/8" SST SHCS	4
11	271-6150-1	VENTED SCREW, #10-32 X 1/2" SHCS	2
12	271-6173-1	VENTED SCREW, #10-32 X 7/8" SST SHCS	4
13	271-6180-1	VENTED SCREW, 1/4-20 X 3/8" SST SHCS	4
14	271-6190-1	VENTED SCREW, 1/4-20 X 1/2" SST SHCS	4
15	295-0019-1	BRACKET, EMITTER MOUNT	1
16	295-0060-1	BASE PLATE	1
17	295-0088-1	MOUNTING STRAP	2
18	295-0113-1	ROTATION ASSEMBLY, SIDE DRIVE (10KW)	1
19	295-0125-1	SIDE DRIVE ASSEMBLY	1
20	295-0130-3	FRONT COIL/EMITTER ASSY.	1
21	295-0465-1	STANDOFF, SOURCE	4
22	295-0465-2	COVER, STANDOFF	4

UNLESS OTHERWISE SPECIFIED		
GLOBAL TOLERANCES		
	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]
ANGLES +/- .5°		
SURF FINISH 63 RMS		

DWG BY	DATE
CHECK BY	DATE
PROJ ENG	DATE
MFG ENG	DATE
DO NOT SCALE DRAWING	
FILE NUMBER	- 295-0133-3
INITIAL PROJECT	-

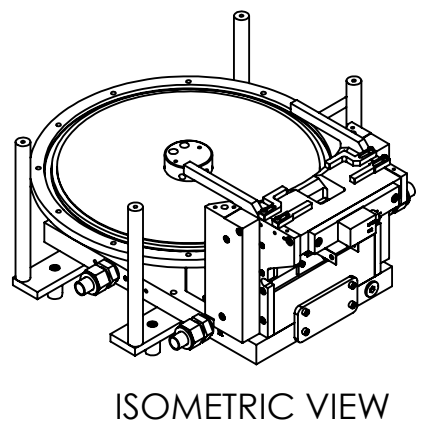
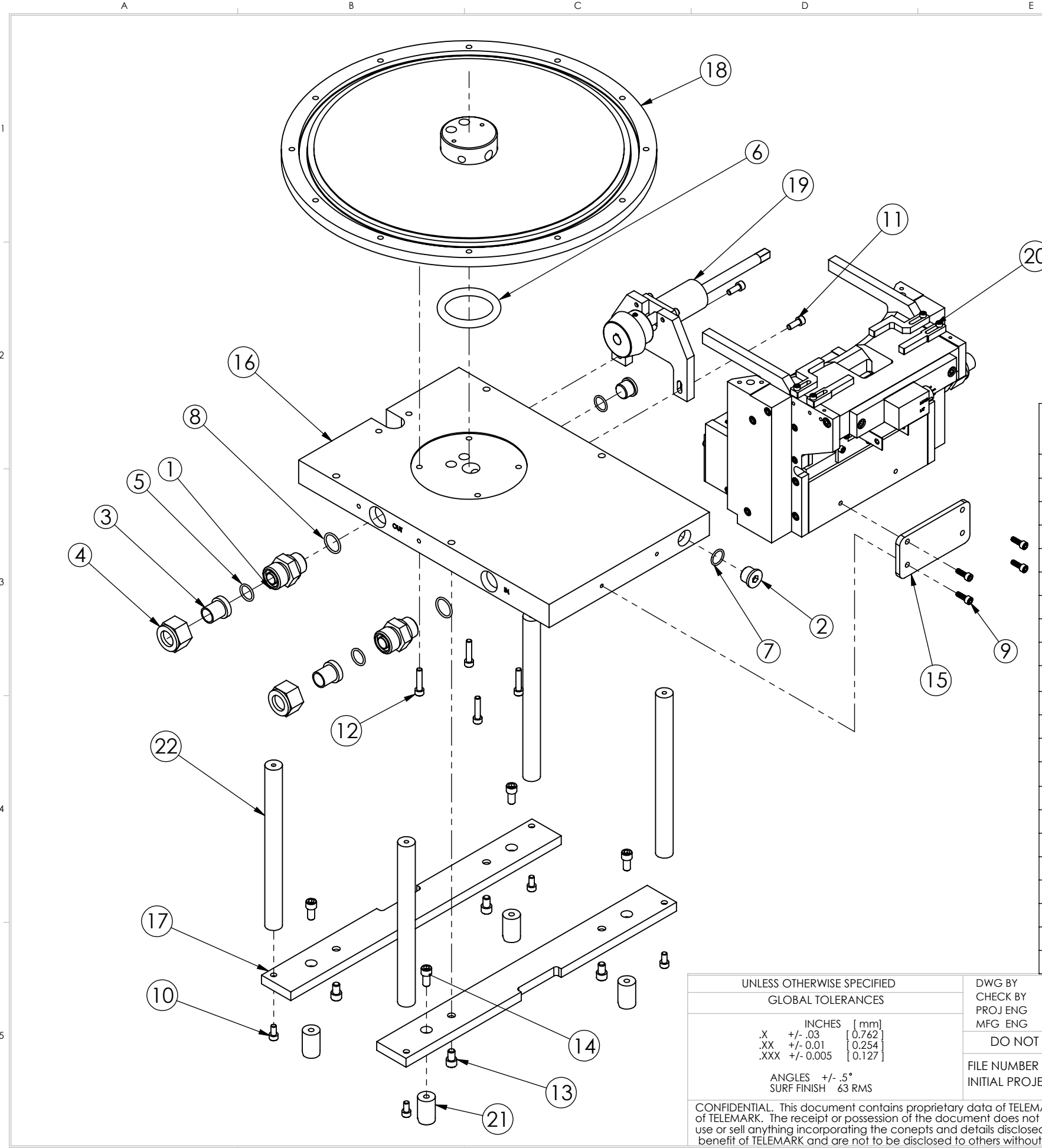
MATERIAL:	BOM
FINISH:	
THIRD ANGLE PROJECTION	

TELEMARK telemark.com

**EB SOURCE SUB ASSEMBLY,
SD, 10kW**

B	SCALE	1:4	DWG NO.	REV
	SHEET	1 of 1	295-0133-3	A1

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION	PWF	8/22/2013
		A1	UPDATED	GPD	12/9/2014

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-0667-2	WATER FITTING, SAE/MS CONNECTOR (3/4 SAE/8-VCO)	2
2	271-0667-6	WATER FITTING PLUG, 9/16-18	2
3	271-0668-3	WATER FITTING, GLAND, VCO	2
4	271-0668-4	WATER FITTING, F NUT, VCO	2
5	271-2111-1	O-RING, VITON, ID 7/16", W 3/32"	2
6	271-2226-1	O-RING, VITON, ID 2", W 1/8"	1
7	271-3906-1	O-RING, VITON, TUBE OD 3/8"	2
8	271-3908-1	O-RING, VITON, TUBE OD 1/2"	2
9	271-6128-1	VENTED SCREW, #8-32 X 1/2" SST SHCS	4
10	271-6145-1	VENTED SCREW, #10-32 X 3/8" SST SHCS	4
11	271-6150-1	VENTED SCREW, #10-32 X 1/2" SHCS	2
12	271-6173-1	VENTED SCREW, #10-32 X 7/8" SST SHCS	4
13	271-6180-1	VENTED SCREW, 1/4-20 X 3/8" SST SHCS	4
14	271-6190-1	VENTED SCREW, 1/4-20 X 1/2" SST SHCS	4
15	295-0019-1	BRACKET, EMITTER MOUNT	1
16	295-0060-1	BASE PLATE	1
17	295-0088-1	MOUNTING STRAP	2
18	295-0113-2	ROTATION ASSEMBLY, SIDE DRIVE (15kW)	1
19	295-0125-1	SIDE DRIVE ASSEMBLY	1
20	295-0130-3	FRONT COIL/EMITTER ASSY.	1
21	295-0465-1	STANDOFF, SOURCE	4
22	295-0465-2	COVER, STANDOFF	4

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY
CHECK BY
PROJ ENG
MFG ENG

DATE
DATE
DATE
DATE

DO NOT SCALE DRAWING

FILE NUMBER - 295-0133-4
INITIAL PROJECT -

MATERIAL:
FINISH:
THIRD ANGLE PROJECTION

BOM

TELEMARK
telemark.com

**EB SOURCE SUB ASSEMBLY,
SD, 15kW**

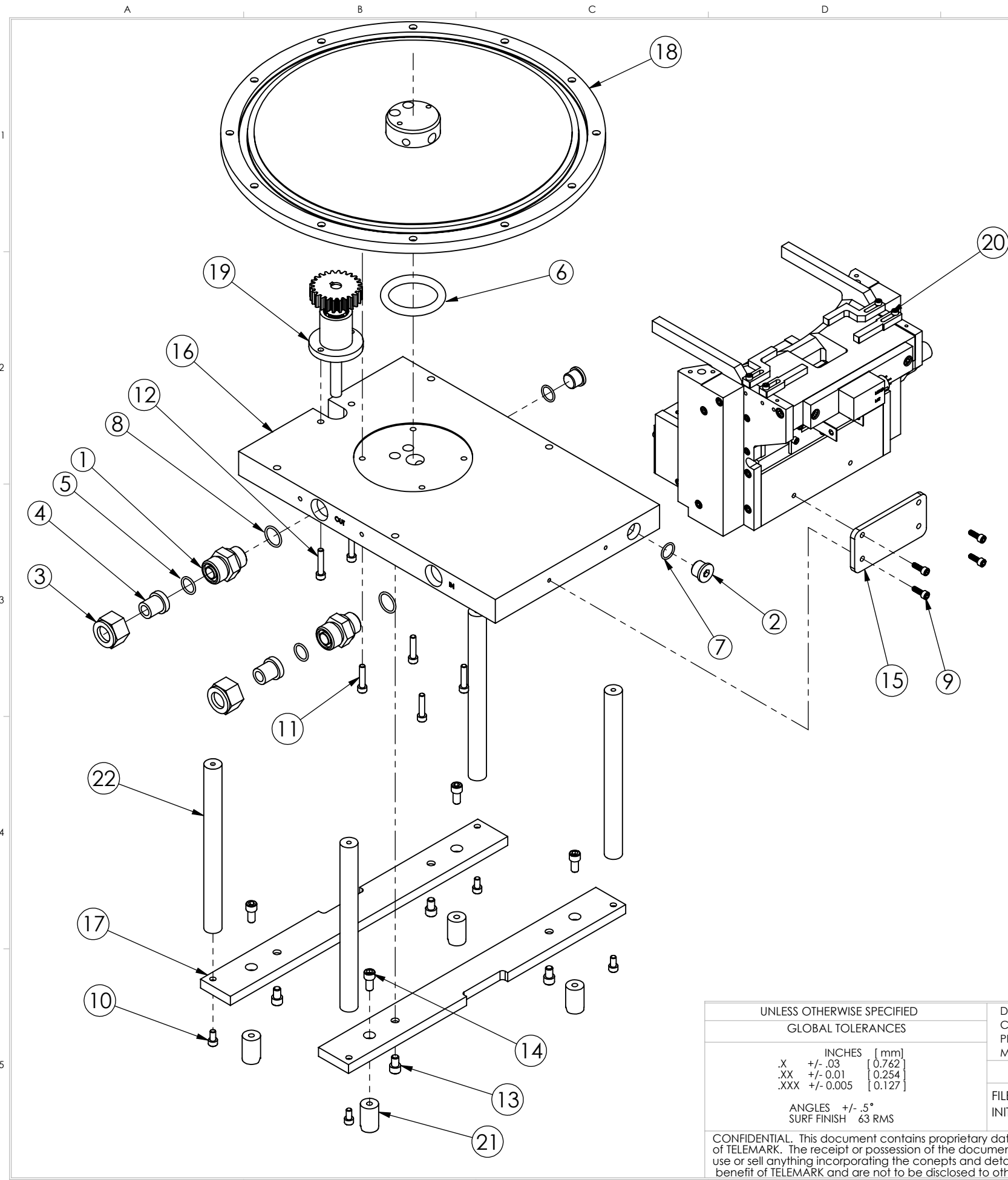
B

SCALE 1:4
SHEET 1 of 1

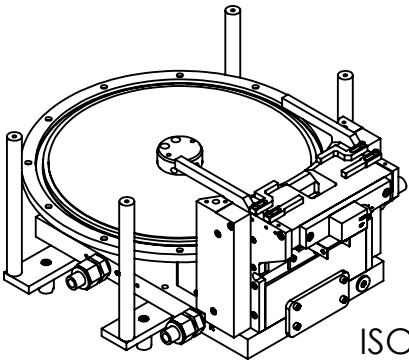
DWG NO.
295-0133-4

REV
A1

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION	PWF	8/22/2013
		A1	UPDATED	GPD	12/9/2014



ISOMETRIC VIEW

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-0667-2	WATER FITTING, SAE/MS CONNECTOR (3/4 SAE/8-VCO)	2
2	271-0667-6	WATER FITTING PLUG, 9/16-18	2
3	271-0668-4	WATER FITTING, F NUT, VCO	2
4	271-0668-5	WATER FITTING, GLAND	2
5	271-2111-1	O-RING, VITON, ID 7/16", W 3/32"	2
6	271-2226-1	O-RING, VITON, ID 2", W 1/8"	1
7	271-3906-1	O-RING, VITON, TUBE OD 3/8"	2
8	271-3908-1	O-RING, VITON, TUBE OD 1/2"	2
9	271-6128-1	VENTED SCREW, #8-32 X 1/2" SST SHCS	4
10	271-6145-1	VENTED SCREW, #10-32 X 3/8" SST SHCS	4
11	271-6173-1	VENTED SCREW, #10-32 X 7/8" SST SHCS	4
12	271-6174-1	VENTED SCREW, #10-32 X 1" SST. SHCS	2
13	271-6180-1	VENTED SCREW, 1/4-20 X 3/8" SST SHCS	4
14	271-6190-1	VENTED SCREW, 1/4-20 X 1/2" SST SHCS	4
15	295-0019-1	BRACKET, EMITTER MOUNT	1
16	295-0060-1	BASE PLATE	1
17	295-0088-1	MOUNTING STRAP	2
18	295-0115-1	ROTATION ASSEMBLY, BOTTOM DRIVE (10kW)	1
19	295-0127-1	BOTTOM DRIVE ASSY.	1
20	295-0130-3	FRONT COIL/EMITTER ASSY.	1
21	295-0465-1	STANDOFF, SOURCE	4
22	295-0465-2	COVER, STANDOFF	4

UNLESS OTHERWISE SPECIFIED		
GLOBAL TOLERANCES		
	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]
ANGLES +/- .5°		
SURF FINISH 63 RMS		

DWG BY	DATE
CHECK BY	DATE
PROJ ENG	DATE
MFG ENG	DATE
DO NOT SCALE DRAWING	
FILE NUMBER	- 295-0135-3
INITIAL PROJECT	-

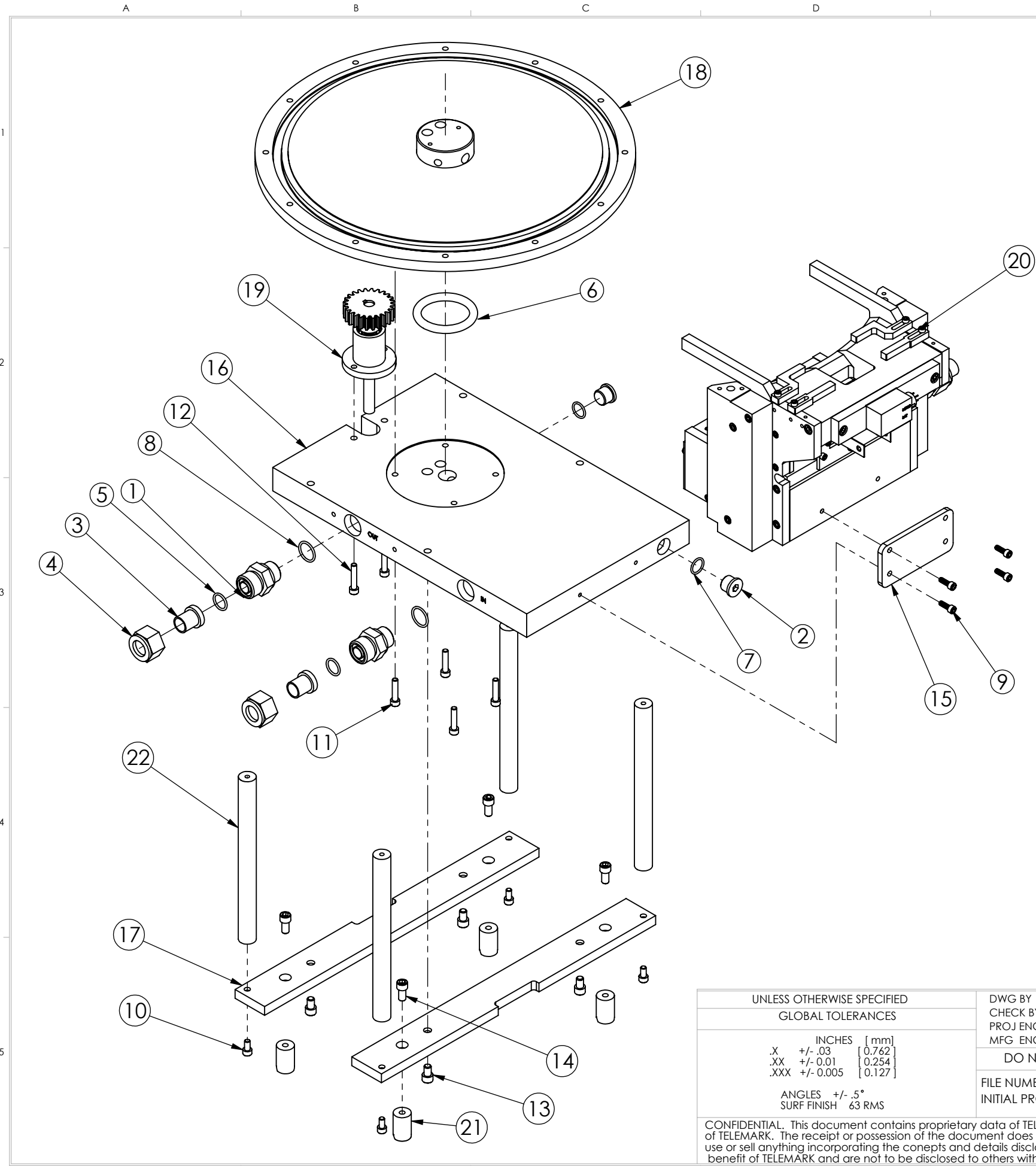
MATERIAL:	BOM
FINISH:	
THIRD ANGLE PROJECTION	

TELEMARK telemark.com

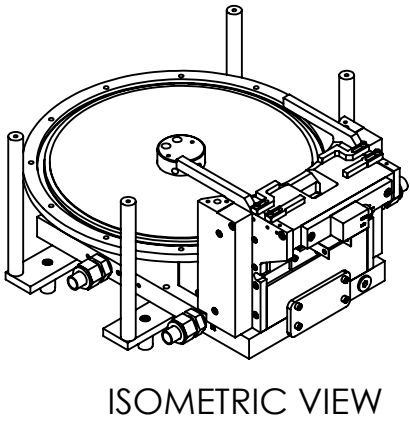
**EB SOURCE SUB ASSEMBLY,
BD, 10kW**

B	SCALE	1:4	DWG NO.	REV
	SHEET	1 of 1	295-0135-3	A1

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE FOR PRODUCTION	PWF	8/22/2013
		A1	UPDATED	GPD	12/9/2014



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-0667-2	WATER FITTING, SAE/MS CONNECTOR (3/4 SAE/8-VCO)	2
2	271-0667-6	WATER FITTING PLUG, 9/16-18	2
3	271-0668-3	WATER FITTING, GLAND, VCO	2
4	271-0668-4	WATER FITTING, F NUT, VCO	2
5	271-2111-1	O-RING, VITON, ID 7/16", W 3/32"	2
6	271-2226-1	O-RING, VITON, ID 2", W 1/8"	1
7	271-3906-1	O-RING, VITON, TUBE OD 3/8"	2
8	271-3908-1	O-RING, VITON, TUBE OD 1/2"	2
9	271-6128-1	VENTED SCREW, #8-32 X 1/2" SST SHCS	4
10	271-6145-1	VENTED SCREW, #10-32 X 3/8" SST SHCS	4
11	271-6173-1	VENTED SCREW, #10-32 X 7/8" SST SHCS	4
12	271-6174-1	VENTED SCREW, #10-32 X 1" SST. SHCS	2
13	271-6180-1	VENTED SCREW, 1/4-20 X 3/8" SST SHCS	4
14	271-6190-1	VENTED SCREW, 1/4-20 X 1/2" SST SHCS	4
15	295-0019-1	BRACKET, EMITTER MOUNT	1
16	295-0060-1	BASE PLATE	1
17	295-0088-1	MOUNTING STRAP	2
18	295-0115-2	ROTATION ASSEMBLY, BOTTOM DRIVE (15kW)	1
19	295-0127-1	BOTTOM DRIVE ASSY.	1
20	295-0130-3	FRONT COIL/EMITTER ASSY.	1
21	295-0465-1	STANDOFF, SOURCE	4
22	295-0465-2	COVER, STANDOFF	4

UNLESS OTHERWISE SPECIFIED		
GLOBAL TOLERANCES		
	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]
ANGLES +/- .5°		
SURF FINISH 63 RMS		

DWG BY	DATE
CHECK BY	DATE
PROJ ENG	DATE
MFG ENG	DATE
DO NOT SCALE DRAWING	
FILE NUMBER	- 295-0135-4
INITIAL PROJECT	-

MATERIAL:	BOM
FINISH:	
THIRD ANGLE PROJECTION	

TELEMARK telemark.com

**EB SOURCE SUB ASSEMBLY,
BD, 15kW**

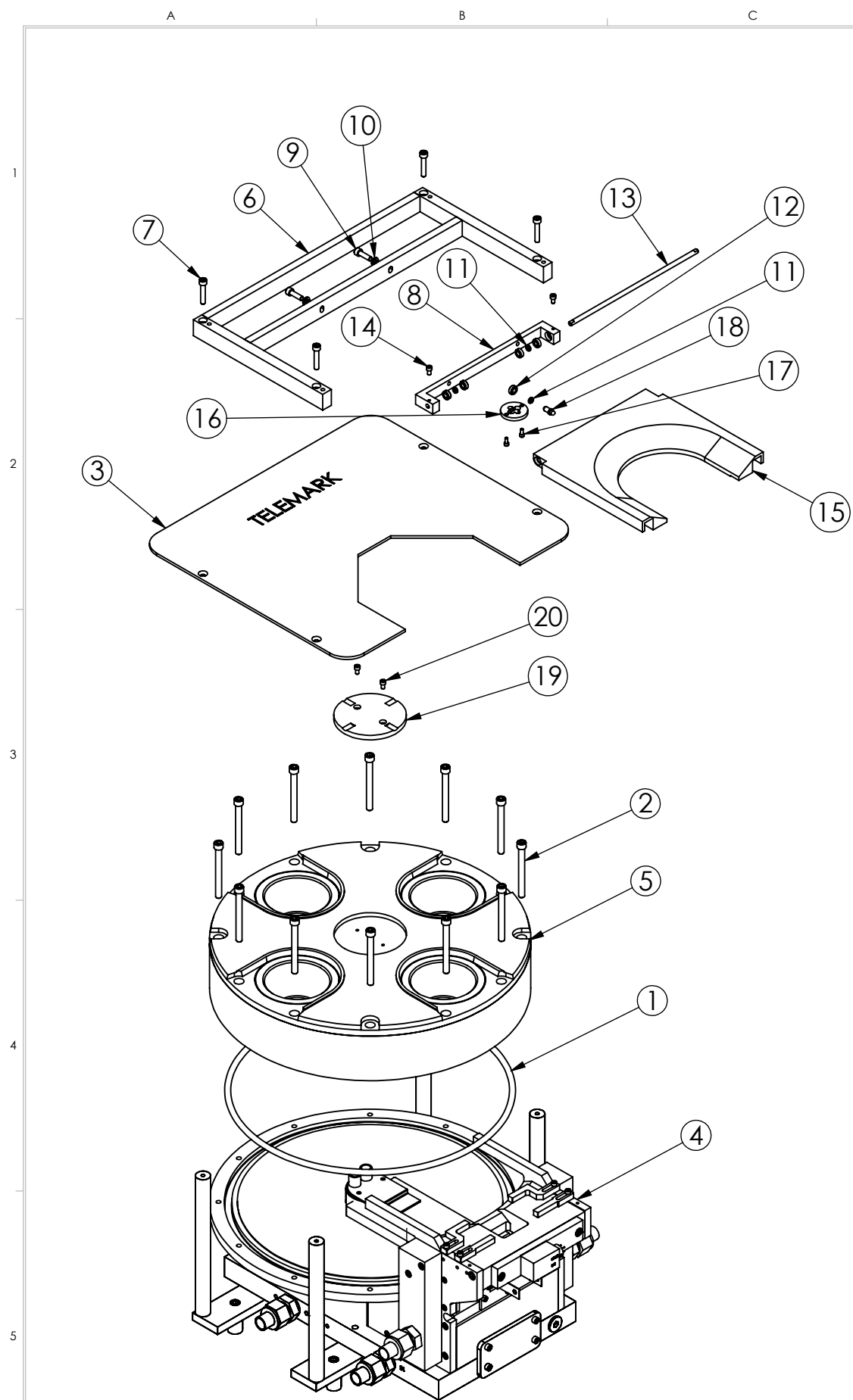
B	SCALE	1:4	DWG NO. 295-0135-4	REV A1
	SHEET	1 of 1		

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.

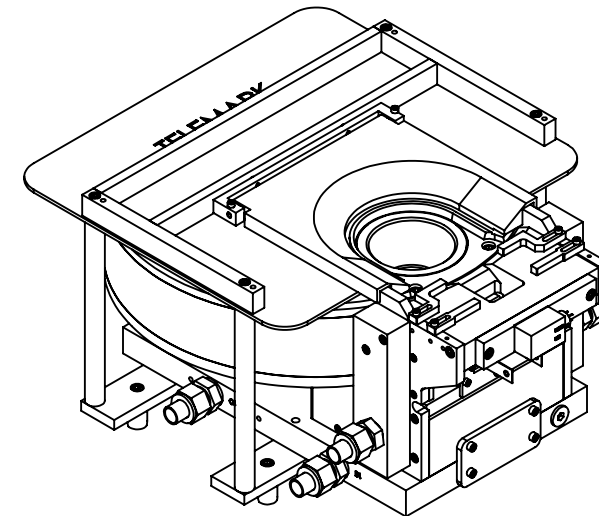


Optional Assemblies

Self Sealing Cover



ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE		1/5/2017



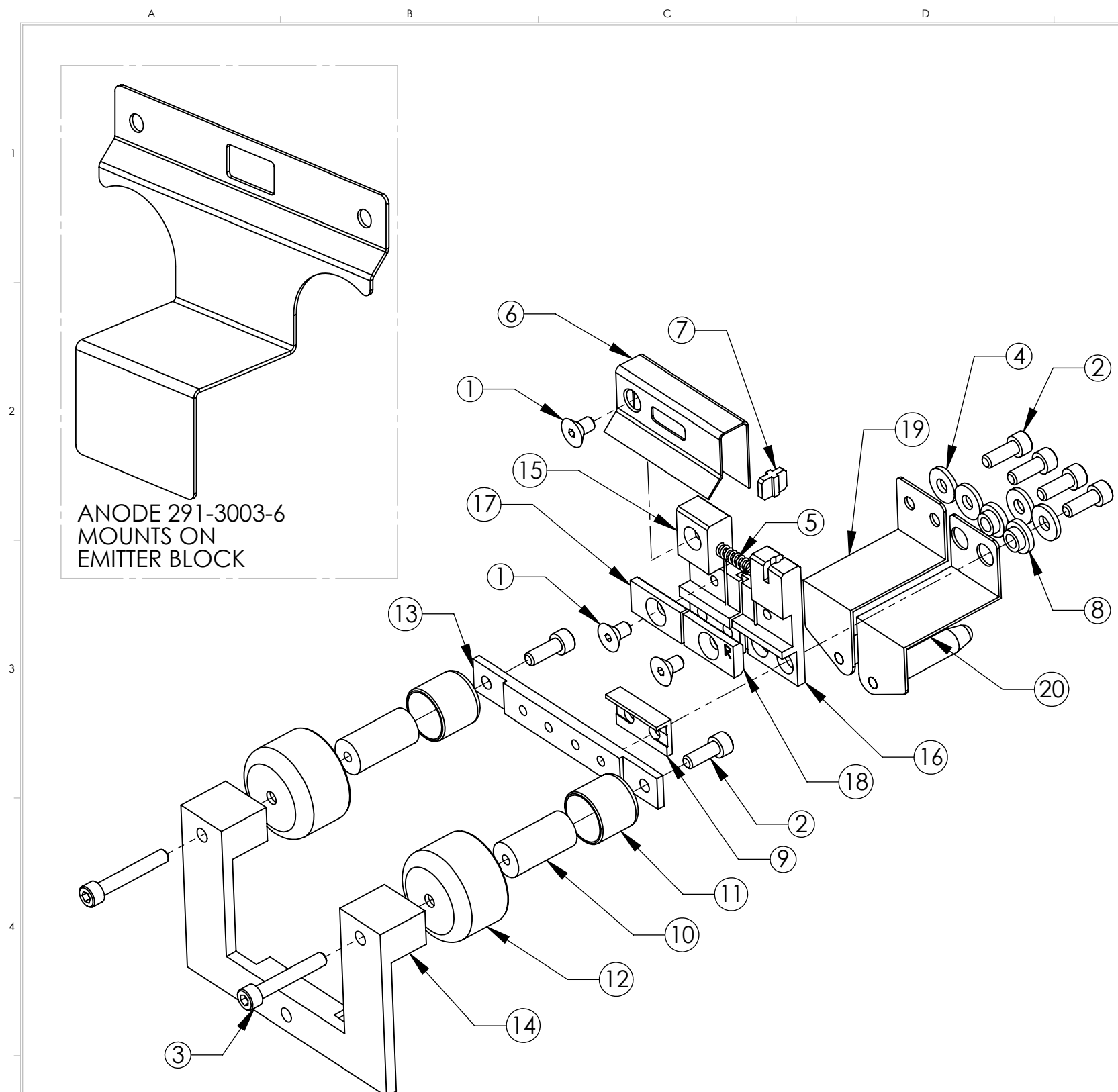
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-2452-1	O-RING, VITON, ID 11-1/2", W 1/4"	1
2	271-6193-1	VENTED SCREW, #1/4-20 X 2-1/2" SST SHCS	12
3	295-0070-6	COVER, REAR, 6X100CC SSC	1
4	295-0135-7	EB SOURCE SUB ASSEMBLY, BD, 15KW, SSC	1
5	295-0251-6	CRUCIBLE, 4x 100CC BRAZEMENT, SSC	1
6	295-0600-1	ASSEMBLY, WELD, FRAME, SELF SEALING COVER	1
7	271-6174-1	VENTED SCREW, #10-32 X 1" SST. SHCS	4
8	295-0603-6	SWING BRACKET, SSC	1
9	271-6170-1	VENTED SCREW, #10-32 X 5/8" SST. SHCS	2
10	271-6245-1	FLAT WASHER, #10 SST.	2
11	528-0068-1	SPACER .063	3
12	528-0069-1	BEARING, 3/8" O.D. X 3/16" I.D. X 1/8" THICK, SHIELDED, SST	5
13	295-0604-6	COVER ROD, SSC	1
14	271-6030-9	SCREW, #6-32 UNC X 1/4" SST, SHCS	2
15	295-0075-6	CRUCIBLE COVER, SSC	1
16	271-0039-1	BEARING HOLDER	1
17	271-5999-1	VENTED SCREW, #4-40 UNC X 1/4" SST SHCS	2
18	568-0158-1	BEARING SHAFT	1
19	295-0605-4	4 POCKET CAM	1
20	271-6030-1	VENTED SCREW, #6-32 UNC X 1/4" SHCS	2

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		DWG BY G. DION CHECK BY PROJ ENG MFG ENG	DATE 1-5-2017 DATE DATE	MATERIAL:	TELEMAR Battle Ground, WA
INCHES [mm] .X +/- .03 [0.762] .XX +/- 0.01 [0.254] .XXX +/- 0.005 [0.127] ANGLES +/- .5° SURF FINISH 63 RMS		DO NOT SCALE DRAWING		FINISH:	
CONFIDENTIAL. This document contains proprietary data of TELEMAR and is not to be copied or distributed without the prior written consent of TELEMAR. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMAR and are not to be disclosed to others without the prior written consent of an officer of TELEMAR.		FILE NUMBER - 295-9978-1SSC INITIAL PROJECT -		THIRD ANGLE PROJECTION	MODEL 295-78 EB SOURCE, 4 pkt, 100cc B/D (15kW), SSC
B		SCALE 1:4 SHEET 1 of 1		DWG NO. 295-9978-1SSC	REV A

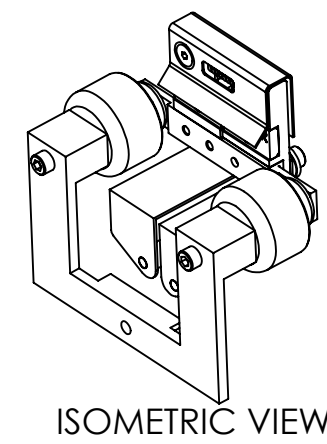


Optional Assemblies

Arc Suppression



ANODE 291-3003-6
MOUNTS ON
EMITTER BLOCK



ISOMETRIC VIEW

ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	PRODUCTION RELEASE	D. LY	2/10/2002
		B	ECN#990383	D. LY	5/17/2004
		C	UPDATE	PWF	8/17/2010

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	271-6010-5	SCREW, #6-32 X 1/4" SLOT FLAT HEAD,TI
2	6	271-6050-5	SCREW, #6-32 X 3/8" SHCS, TI
3	2	271-6073-1	SOC. HEAD CAP SCREW, #6-32 X 7/8"
4	4	271-6242-1	FLAT WASHER, #6.SST.
5	1	273-0001-1	FILAMENT, 7 1/2 TURN
6	1	291-3004-1	BEAM FORMER
7	1	291-3005-1	INSULATOR, CROSS
8	2	291-3006-1	INSULATOR, COLLAR
9	1	291-3008-1	L INSULATOR
10	2	291-3010-1	HV INSULATOR
11	2	291-3011-1	HV SHIELD, ARC FREE
12	2	291-3013-1	HV SHIELD
13	1	291-3017-2	MOUNTING BRACKET
14	1	291-3018-5	EMITTER SUPPORT BRACKET
15	1	291-3031-1	CATHODE BLOCK, LEFT
16	1	291-3032-1	CATHODE BLOCK, RIGHT
17	1	291-3033-3	FILAMENT CLAMP, LEFT
18	1	291-3033-4	FILAMENT CLAMP, RIGHT
19	1	291-3035-5	EMITTER BUS BAR ASSY., LEFT (295)
20	1	291-3036-5	EMITTER BUS BAR ASSY., RIGHT (295)

UNLESS OTHERWISE SPECIFIED
GLOBAL TOLERANCES

	INCHES	[mm]
.X	+/- .03	[0.762]
.XX	+/- 0.01	[0.254]
.XXX	+/- 0.005	[0.127]

ANGLES +/- .5°
SURF FINISH 63 RMS

DWG BY **D. LY** DATE **2/10/02**
CHECK BY DATE
PROJ ENG DATE
MFG ENG DATE

DO NOT SCALE DRAWING

FILE NUMBER - 291-3151-1
INITIAL PROJECT -

MATERIAL: SEE B.O.M.

FINISH: B.O.M.

THIRD ANGLE PROJECTION

TELEMARK telemark.com

**EMITTER ASSEMBLY,
264, 265, 295**

B SCALE 1:1 DWG NO. **291-3151-1** REV **C**

SHEET 1 of 1

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.

A

B

C

D

E

F

G

NOTE:
1. ITEM 11 IS 295-0133-2 OR 295-0135-2 WHICH IS THE SAME AS THE STANDARD 295 ASSEMBLY EXCEPT THE BASE PLATE IS PART NUMBER 295-0060-2
2. ITEM 4 IS PART OF THE EMITTER ASSEMBLY PART NUMBER 291-3150-2.
3. ITEM 12 IS THE STANDARD FEEDTHRU, MANY OTHER OPTIONS ARE AVAILABLE.

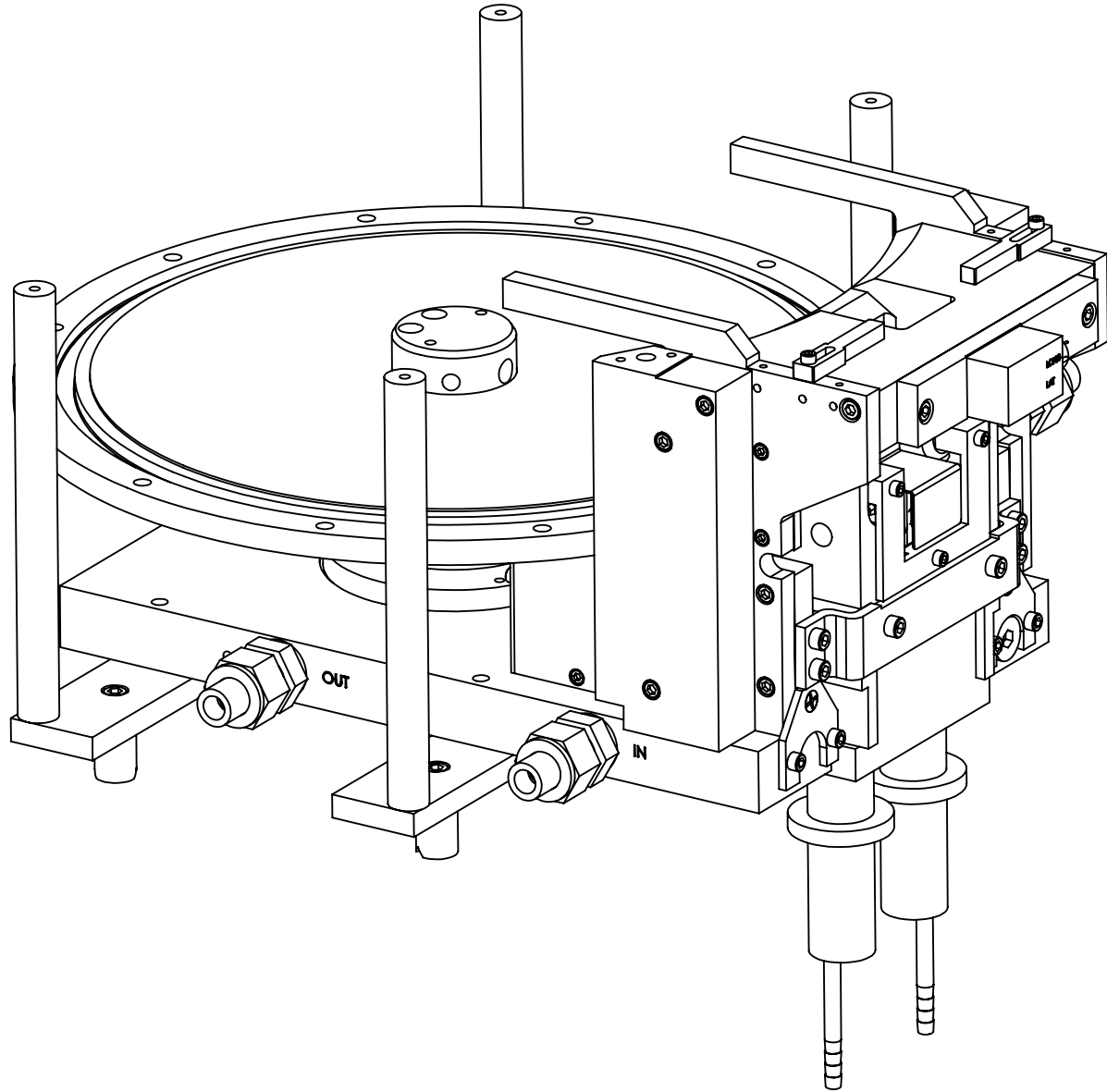
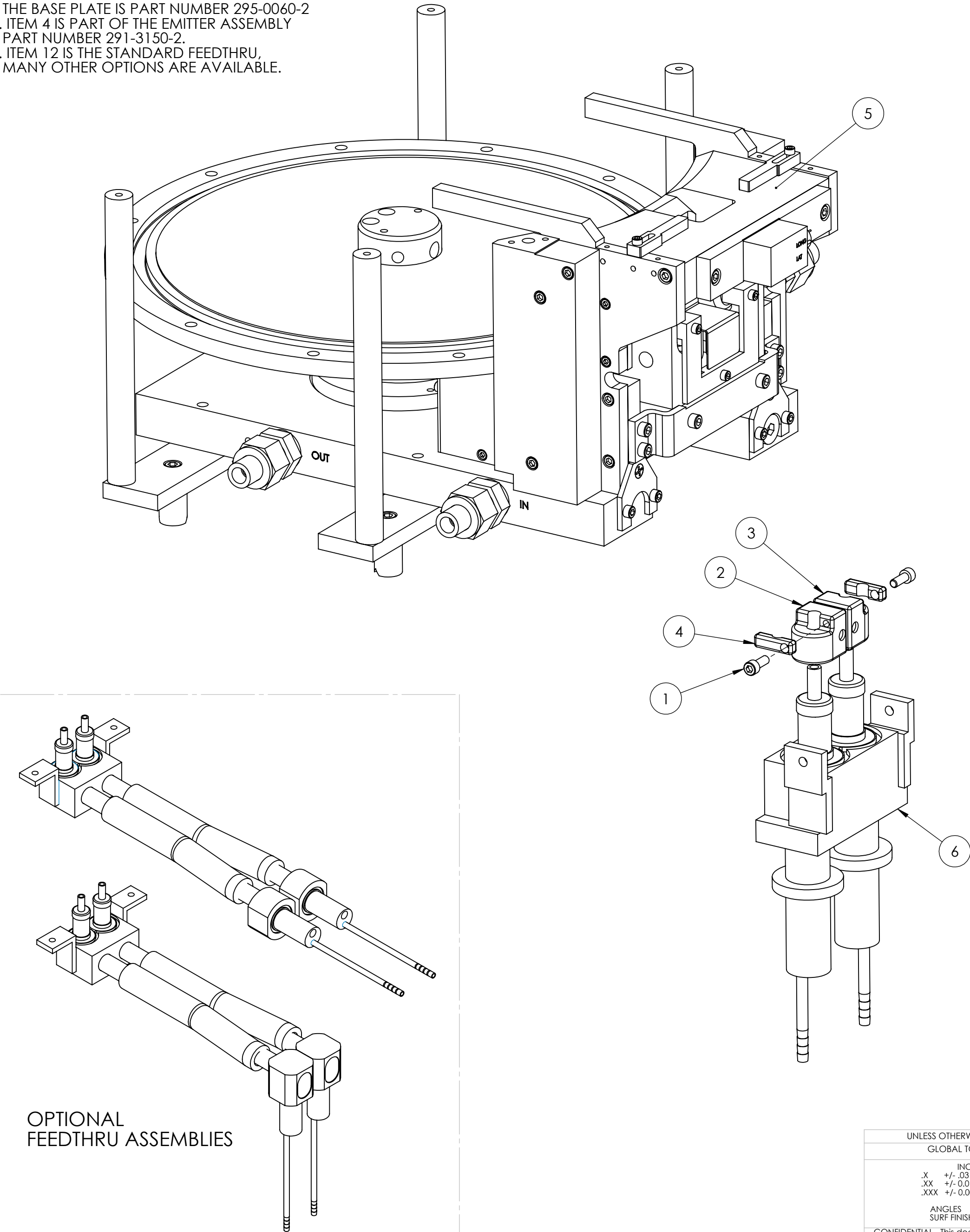
ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	PWF	8/7/2012
		B	REVISED TO CORRECT DUPLICATION	GPD	10/28/2015

1


2

3

4



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-6150-1	VENTED SCREW, #10-32 X 1/2" SHCS	2
2	291-5040-1	POWER BLOCK, L.H.	1
3	291-5041-1	POWER BLOCK, R.H.	1
4	291-5042-1	POWER CLAMP	2
5	295-0135-5	EB SOURCE SUB ASSEMBLY, AS	1
6	295-5190-2	DUAL HV F/T ASSEMBLY, 295	1

UNLESS OTHERWISE SPECIFIED		DWG BY	DATE	MATERIAL:	SEE PARTS LIST	TELEMARK		telemark.com	
GLOBAL TOLERANCES		CHECK BY	DATE						
		PROJ ENG	DATE	FINISH:					
		MFG ENG	DATE						
INCHES [mm]		DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION				295 ARC SUPPRESSION OPTION, 10kW	
.X +/- .01 [0.762]		FILE NUMBER - 295-5175-1							
.XX +/- .001 [0.254]		INITIAL PROJECT -							
.XXX +/- .005 [0.127]									
ANGLES +/- .5°									
SURF FINISH .63 RMS									
CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.						SCALE	1:2	DWG NO.	REV
C						SHEET	1 of 1	295-5175-1	B



Optional Assemblies

Indexer In-Vacuum In-Pocket Switch

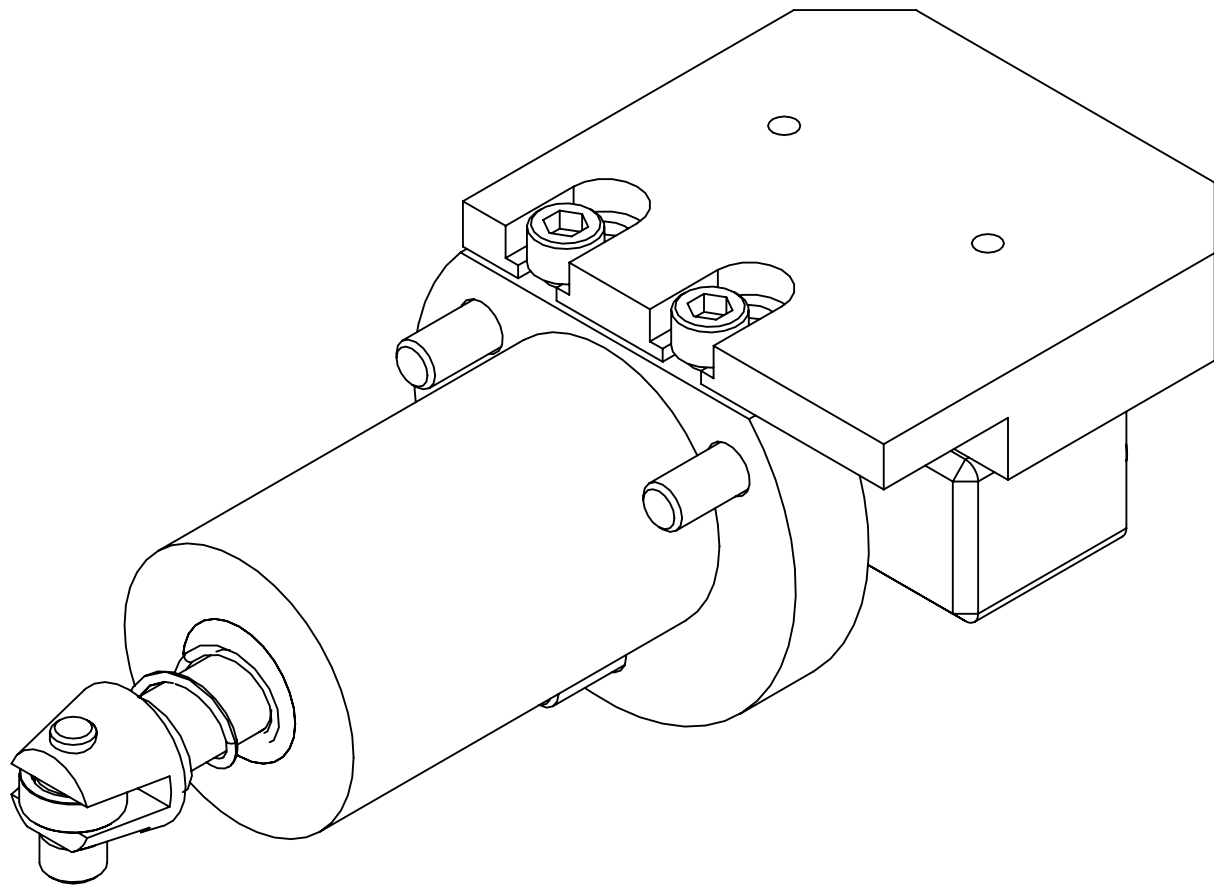
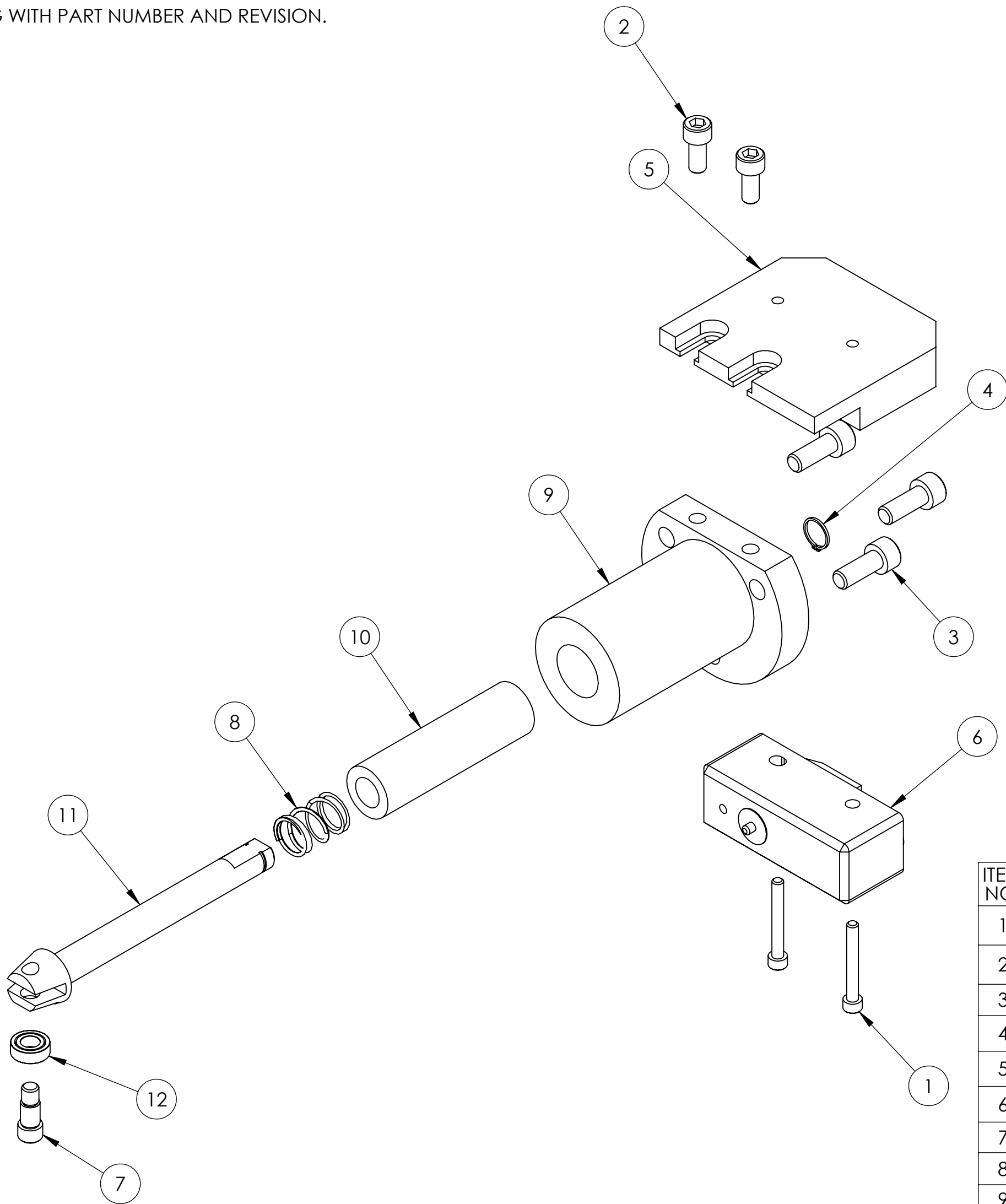
A		B		C		D		E		F		G				
NOTES: (UNLESS OTHERWISE SPECIFIED) 1. REMOVE BURRS & BREAK ALL SHARP EDGES .005-.015 RADIUS OR CHAMFER.										ECN	ZONE	REV	DESCRIPTION		BY	DATE
												A	RELEASE		GPD	3/13/2017
										990824		A1	REVISED 274-0301-1		GPD	4/16/2018

1


2

3

4



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	271-6004-9	SCREW, CAP SOC HD, #4-40 UNC X 7/8" LONG, SST	2
2	271-6125-1	VENTED SCREW, #8-32 UNC X 3/8" LG, SST, SHCS	2
3	271-6150-1	VENTED SCREW, #10-32 X 1/2" SHCS	3
4	271-6281-3	RETAINING RING, EXTERNAL, 5/16", SST	1
5	274-0301-1	MOUNTING BLOCK, CRUCIBLE SENSOR	1
6	274-0305-2	MICRO SWITCH, SPDT, PIN PLUNGER, MODIFIED	1
7	274-0306-1	SHOULDER SCREW, MODIFIED	1
8	274-0307-1	SPRING, COMPRESSION, .42 O.D. X .62 LONG X .038 WIRE DIAMETER	1
9	294-0302-1	HOUSING, CRUCIBLE SENSOR	1
10	294-0303-1	INSULATOR, CRUCIBLE SENSOR	1
11	294-0304-1	SHAFT, CRUCIBLE SENSOR	1
12	528-0069-1	BEARING, 3/8" O.D. X 3/16" I.D. X 1/8" THICK, SHIELDED, SST	1

UNLESS OTHERWISE SPECIFIED GLOBAL TOLERANCES		DWG BY G. DION DATE 3-13-2017	MATERIAL: SEE PARTS LIST		<div>TELEMARK</div> <div>Battle Ground, WA</div>
INCHES [mm] .X +/- .03 [0.762] .XX +/- .01 [0.254] .XXX +/- .005 [0.127] ANGLES +/- .5° SURF FINISH 63 RMS		CHECK BY: DATE PROJ ENG DATE MFG ENG DATE	FINISH: SEE NOTES		
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION			
FILE NUMBER - 294-0300-1 INITIAL PROJECT -				ASSEMBLY, CRUCIBLE SENSOR, MODEL 294	
CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.					
C	SCALE	1:1	DWG NO.		REV
	SHEET	1 of 1	294-0300-1		A1

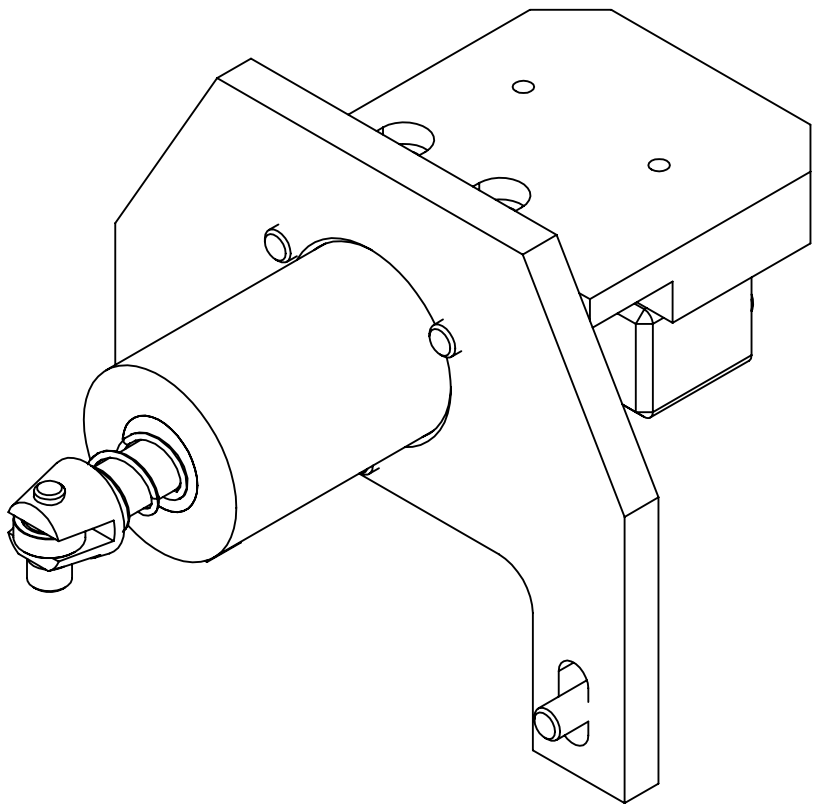
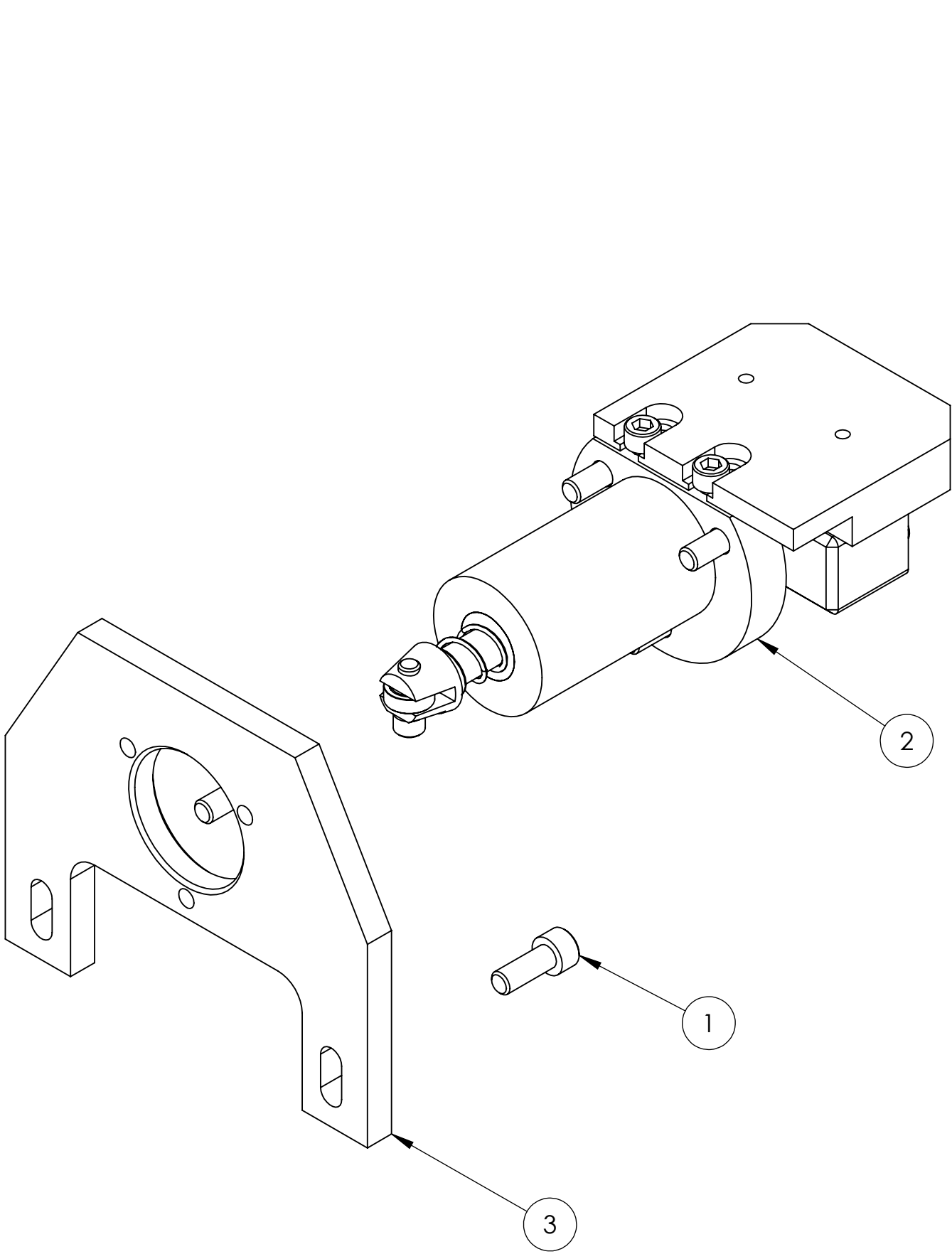
A		B		C		D		E		F		G			
NOTES: (UNLESS OTHERWISE SPECIFIED)										ECN	ZONE	REV	DESCRIPTION	BY	DATE
1. REMOVE BURRS & BREAK ALL SHARP EDGES												A	RELEASE	GPD	1/23/2019
.005-.015 RADIUS OR CHAMFER.															


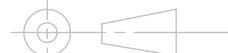
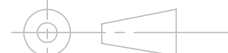
1

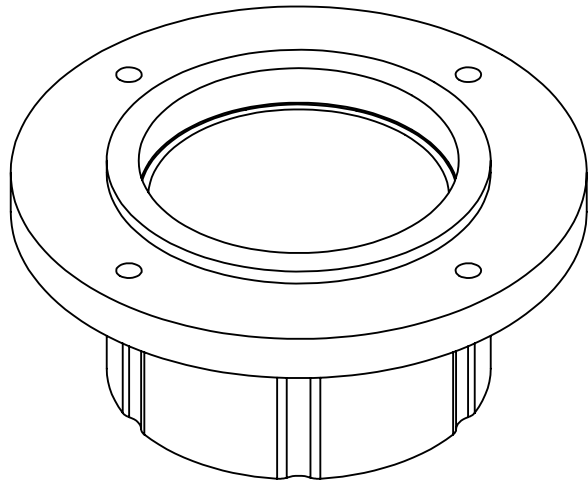
2

3

4



ITEM NO.	PART NUMBER	DESCRIPTION				QTY.			
1	271-6150-1	VENTED SCREW, #10-32 X 1/2" SHCS				2			
2	294-0300-6	ASSEMBLY, CRUCIBLE SENSOR, MODEL 294				1			
3	295-0015-2	MOUNT, POCKET SENSOR				1			
UNLESS OTHERWISE SPECIFIED		DWG BY: G. DION	DATE: 1-23-2019	MATERIAL:	SEE PARTS LIST	<div>TELEMARK Battle Ground, WA</div> <div>ASSEMBLY, CRUCIBLE SENSOR, MODEL 295</div>			
GLOBAL TOLERANCES		CHECK BY	DATE	FINISH:					
INCHES [mm]		PROJ ENG	DATE	THIRD ANGLE PROJECTION					
.XX +/- 0.01 [0.254]		MFG ENG	DATE						
.XXX +/- 0.005 [0.127]		DO NOT SCALE DRAWING							
ANGLES +/- .5°		FILE NUMBER							
SURF FINISH 63 RMS		INITIAL PROJECT -							
<p>CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.</p>						<div>C</div>	<div>SCALE 1:1</div> <div>SHEET 1 of 1</div>	<div>DWG NO. 295-0300-1</div>	<div>REV A</div>

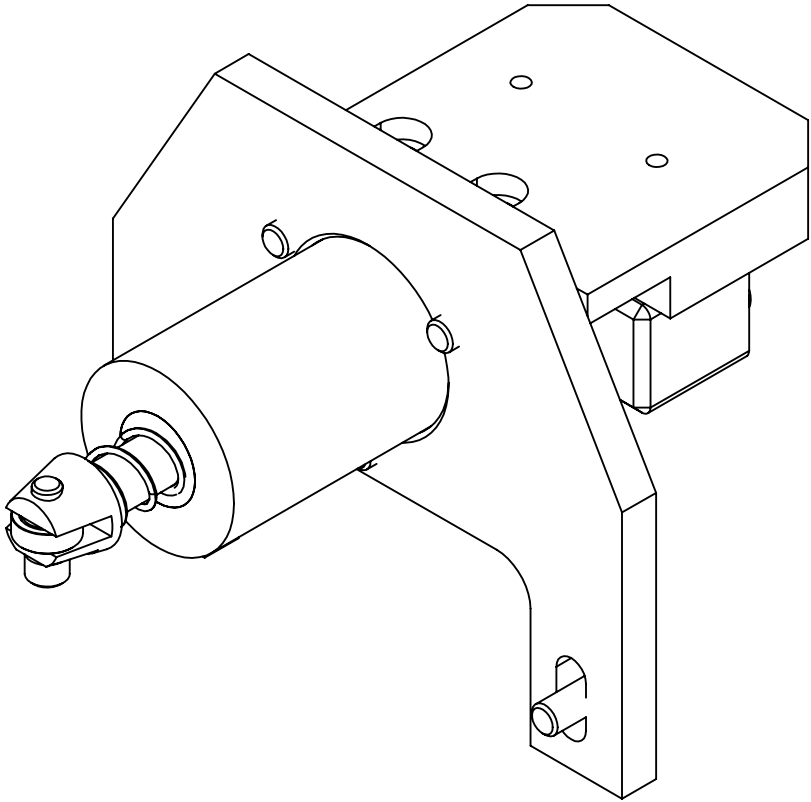


ROTATION HUB
SEE TABLE AND NOTE BELOW
FOR CORRECT HUB FOR ASSEMBLY

NEW SOURCE OPTION P/N	UPGRADE KIT P/N	NUMBER OF POCKETS	HUB REQUIRED *
295-0300-4	295-0300-4-HP	4	295-0038-4
295-0300-6	295-0300-6-HP	6	295-0038-6
295-0300-7	295-0300-7-HP	TROUGH/PAN	295-0038-7

***NOTE: FOR ROTATION ASSEMBLY REFER TO DRAWING
295-0113-1, 295-0113-2, 295-0115-1 or 295-0115-2.
CHANGE STANDARD HUB P/N 295-0038-1 WITH
HUB REQUIRED ABOVE DEPENDING ON NUMBER
OF POCKETS.**

ECN	ZONE	REV	DESCRIPTION	BY	DATE
		A	RELEASE	GPD	4/9/2019



UNLESS OTHERWISE SPECIFIED

GLOBAL TOLERANCES

INCHES [mm]

.X +/- .03 [0.762]

.XX +/- 0.01 [0.254]

.XXX +/- 0.005 [0.127]

ANGLES +/- .5°

SURF FINISH 63 RMS

DWG BY **G. DION** DATE **4-9-2019**

CHECK BY DATE

PROJ ENG DATE

MFG ENG DATE

DO NOT SCALE DRAWING

FILE NUMBER -

INITIAL PROJECT -

MATERIAL:

FINISH:

THIRD ANGLE PROJECTION

TELEMARK

Battle Ground, WA

**ASSEMBLY, CRUCIBLE
SENSOR**

B

SCALE 1:1

SHEET 1 of 1

DWG NO.

295-0300-X

REV

A

CONFIDENTIAL. This document contains proprietary data of TELEMARK and is not to be copied or distributed without the prior written consent of TELEMARK. The receipt or possession of the document does not convey any rights to reproduce it, disclose its contents, or to manufacture, use or sell anything incorporating the concepts and details disclosed by it. Such concepts and details are not to be used other than for the benefit of TELEMARK and are not to be disclosed to others without the prior written consent of an officer of TELEMARK.