

CATALOG CODE TI-340-X.XX-XX

TORQUE Nm
2.00
3.00
4.00
5.00

SHAFT-END TYPE
01 - KNURLED SHAFT
02 - KNURLED ADAPTER
03 - ONE WAY FORWARD
04 - ONE WAY REVERSE
05 - DUAL ENDED KNURLED SHAFT

NOTES:

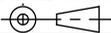
1. USER MUST DETERMINE FITNESS FOR USE IN APPLICATION.
2. ENVIRONMENTAL CONDITIONS: -20°C to 80°C.
3. PRODUCT TORQUE SPECIFICATION:

TORQUE INSERT	DYNAMIC TORQUE	
	NOMINAL	TOLERANCE
	Nm	±%
TI-340-2.00-XX	2.00	25
TI-340-3.00-XX	3.00	20
TI-340-4.00-XX	4.00	20
TI-340-5.00-XX	5.00	20

4. LIFE: 25,000 CYCLES.
ONE CYCLE CONSISTS OF 120° CW AND 120° CCW AT 10% DUTY CYCLE FOR SPEEDS LESS THAN 100 RPM.
5. MATERIALS:
PLATED POWDERED METAL HOUSINGS
HARDENED STEEL TORQUE ELEMENT
DIECAST KNURLED ZINC SHAFT END
HARDENED STEEL BEARINGS
STEEL WASHERS
STEEL RETAINING RINGS
MINERAL OIL BASED LUBRICANT
6. FINISH:
NON-COSMETIC.
7. TORQUE INSERT DESIGNED FOR USE IN PLASTIC OR METAL. SEE INDIVIDUAL CONFIGURATION DRAWINGS FOR ADDITIONAL DETAIL.
- [8] HINGE DESIGNED TO SUPPORT A MINIMAL AXIAL FORCE IN DIRECTION SHOWN, NOT DESIGNED TO SUPPORT AXIAL FORCE IN THE OPPOSITE DIRECTION.
9. CUSTOMER IS RESPONSIBLE FOR CHECKING COMPATIBILITY OF REELL LUBRICANTS WITH PLASTICS USED.
10. OVERALL LENGTH MAY CHANGE DURING SHIPPING.
11. NUMBER OF TORQUE ELEMENTS MAY VARY.

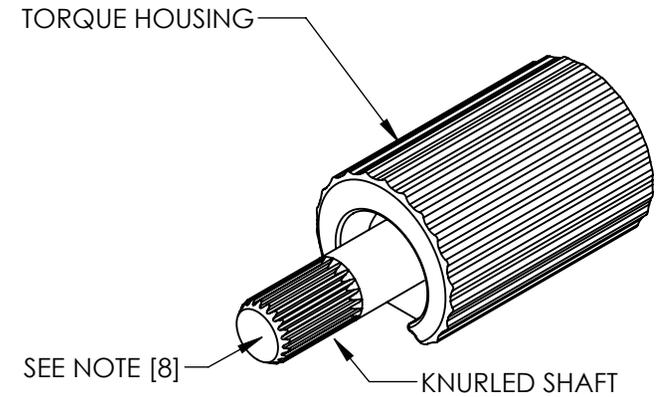
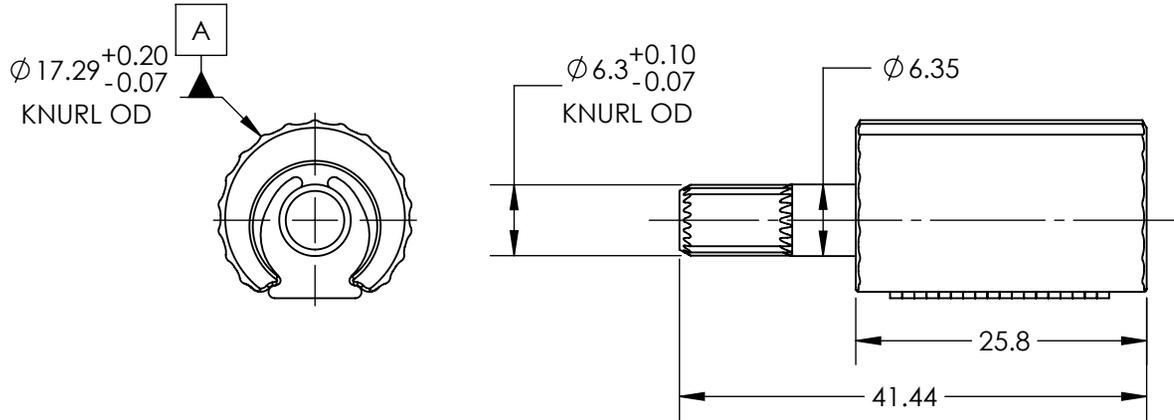
FOR PATENTS SEE
Pat.reell.com (PRODUCT CODE: CP10)

SPECIFICATION SUBJECT TO CHANGE

	ECO NO: 05430	PART LIFECYCLE: RELEASED	
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION	
	APPROVED DATE: 16SEP22	DESCRIPTION:	
	PROJECT NO: 0	<h2>SALES DRAWING</h2>	
ENGINEER: BILL WARREN			
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	DRAWN BY:	PART NO: TI-340	REV: N
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	THIRD ANGLE PROJECTION 	SCALE: 2:1	DO NOT SCALE DRAWING
INTERPRET PRINT PER ASME Y14.5M-2009	DIMENSIONS: mm	SHEET 1 OF 9	

TI-340-X.XX-01 (KNURLED SHAFT)

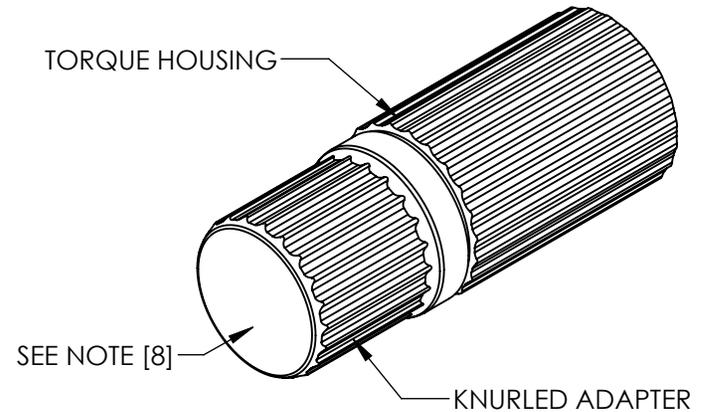
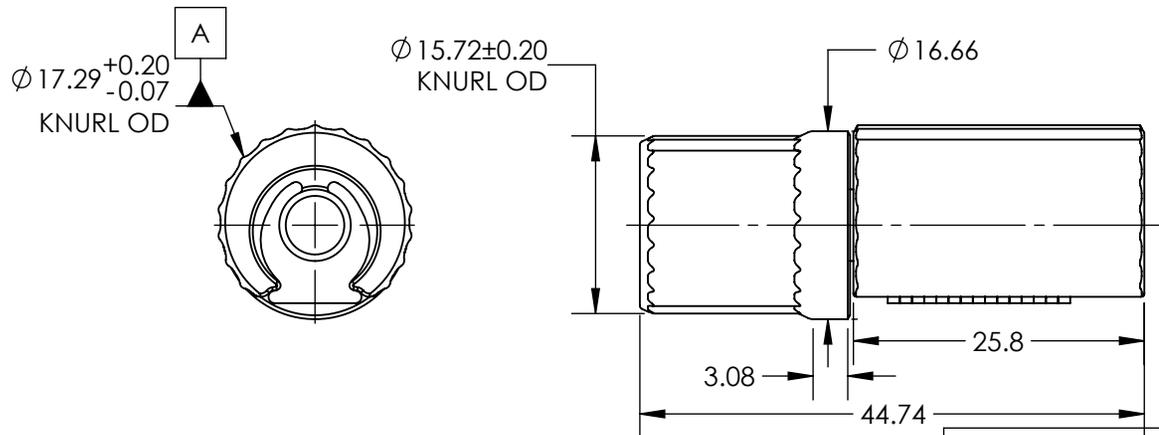
ALL DIMENSIONS REFERENCE
SEE CAD MODEL FOR UNSPECIFIED FEATURES.



- INTENDED FOR PRESS FIT INTO METALS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
- APPROXIMATE WEIGHT: 38.25 GRAMS

TI-340-X.XX-02 (KNURLED ADAPTER)

ALL DIMENSIONS REFERENCE
SEE CAD MODEL FOR UNSPECIFIED FEATURES.



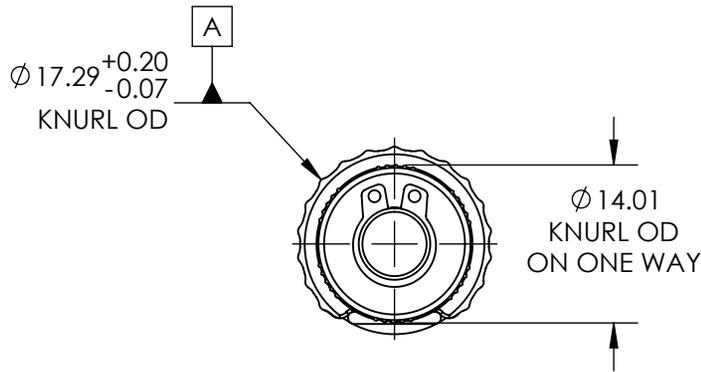
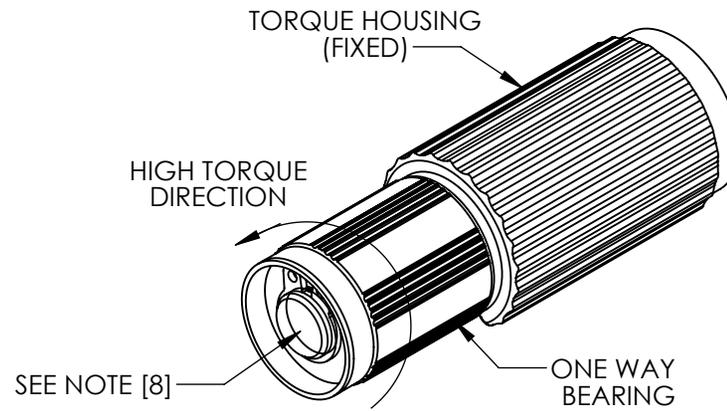
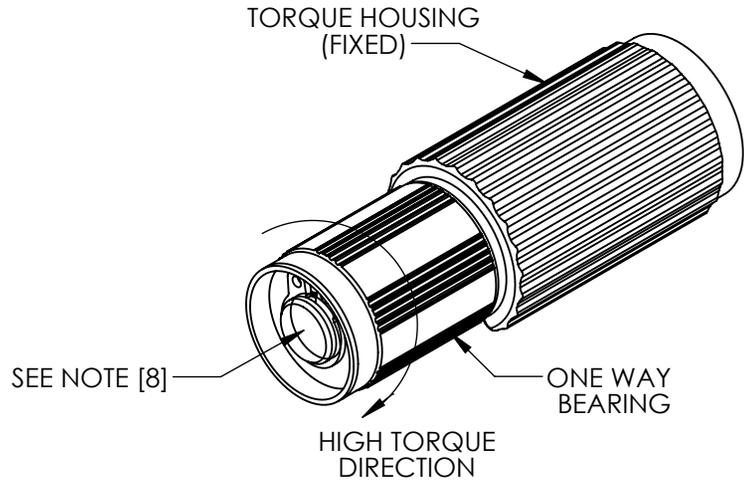
- INTENDED FOR PRESS FIT INTO PLASTICS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
- APPROXIMATE WEIGHT: 59.28 GRAMS

SPECIFICATION SUBJECT TO CHANGE

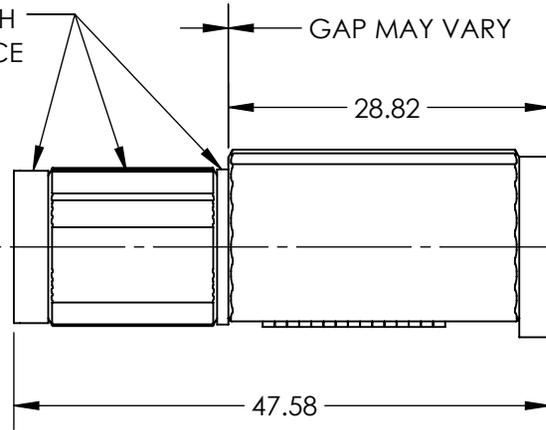
<p>REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA</p>	ECO NO: 05430	PART LIFECYCLE: RELEASED
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 16SEP22	DESCRIPTION:
	PROJECT NO: 0	SALES DRAWING
<p>THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.</p> <p>INTERPRET PRINT PER ASME Y14.5M-2009</p>	<p>ENGINEER: BILL WARREN</p> <p>DRAWN BY:</p> <p>THIRD ANGLE PROJECTION</p> <p>DIMENSIONS: mm</p>	<p>PART NO: TI-340</p> <p>REV: N</p>
	SCALE: 2:1	DO NOT SCALE DRAWING
		SHEET 2 OF 9

TI-340-X.XX-03 (ONE WAY FORWARD)

TI-340-X.XX-04 (ONE WAY REVERSE)



MAY MOVE AXIALLY BY GAP SIZE WITH MINIMAL FORCE



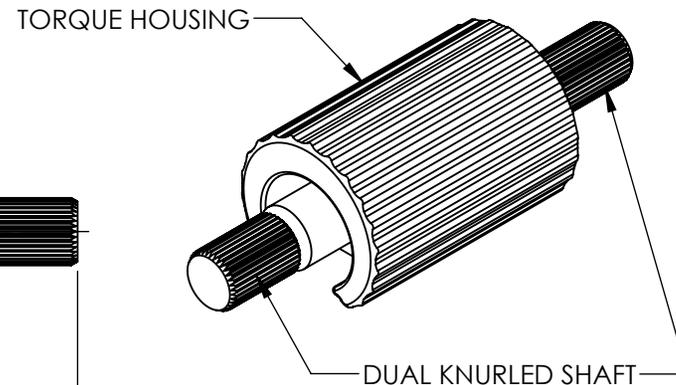
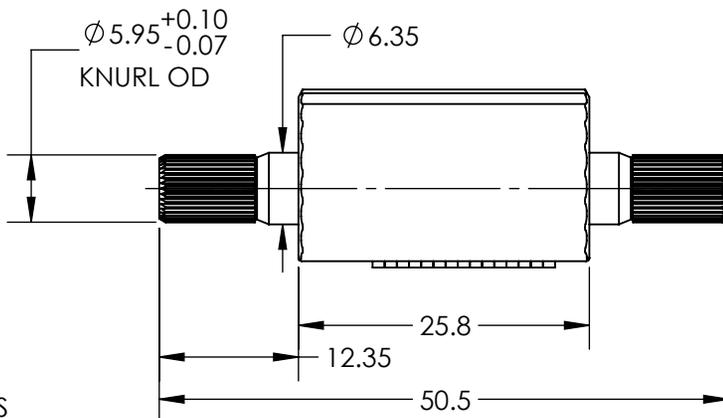
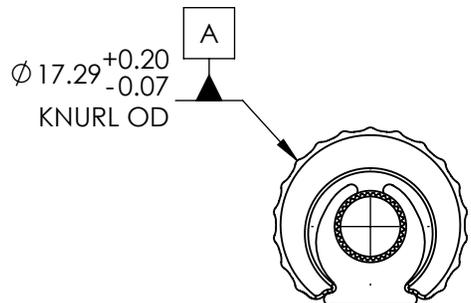
ALL DIMENSIONS REFERENCE
SEE CAD MODEL FOR UNSPECIFIED FEATURES.

- INTENDED FOR PRESS FIT INTO METALS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
- APPROXIMATE WEIGHT: 54.83 GRAMS

SPECIFICATION SUBJECT TO CHANGE

	ECO NO: 05430	PART LIFECYCLE: RELEASED
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 16SEP22	DESCRIPTION:
	PROJECT NO: 0	SALES DRAWING
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ENGINEER: BILL WARREN	PART NO: TI-340
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	DRAWN BY:	
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	SCALE: 2:1
	DIMENSIONS: mm	DO NOT SCALE DRAWING
		SHEET 3 OF 9

TI-340-X.XX-05 (DUAL ENDED KNURLED SHAFT)



- APPROXIMATE WEIGHT: 39.65 GRAMS
- INTENDED FOR PRESS FIT INTO METALS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.

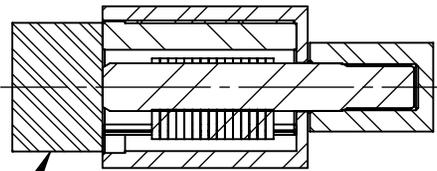
ALL DIMENSIONS REFERENCE
SEE CAD MODEL FOR UNSPECIFIED FEATURES.

SPECIFICATION SUBJECT TO CHANGE

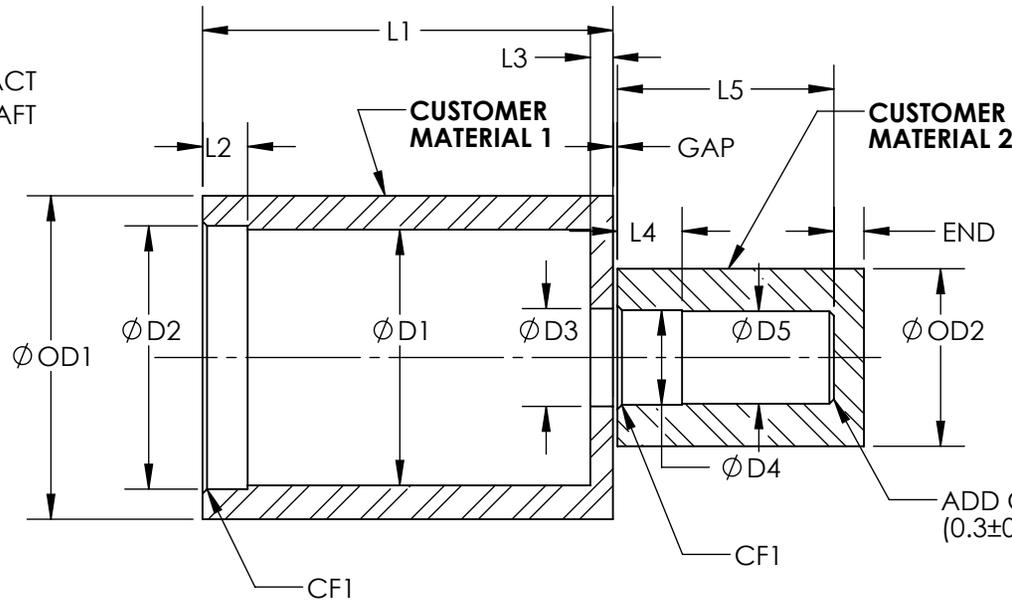
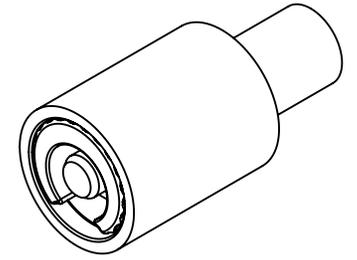
	ECO NO: 05430	PART LIFECYCLE: RELEASED	
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION	
	APPROVED DATE: 16SEP22	DESCRIPTION:	
	PROJECT NO: 0	<h2>SALES DRAWING</h2>	
ENGINEER: BILL WARREN			
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	DRAWN BY:	PART NO: TI-340	REV: N
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	THIRD ANGLE PROJECTION 	SCALE: 2:1	DO NOT SCALE DRAWING
INTERPRET PRINT PER ASME Y14.5M-2009	DIMENSIONS: mm	SHEET 4 OF 9	

TI-340-X.XX-01 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	CF1	OD1	OD2	END	GAP
DIE CAST ZINC	17.0±0.05	17.5±0.03	6.5±0.03	6.3±0.03	6.15±0.03	27.3 MIN	3±0.1	1.5±0.1	4.3±0.1	13.84 MIN	0.3±0.1 X 45°±5°	21.5 MIN	11.8 MIN	2 MIN	(0.3)
DIE CAST ALUMINUM				6.38±0.03	6.2±0.015										
MILD STEEL	17.15±0.025														
WROUGHT ALUMINUM															



INSTALLATION RAM TO CONTACT BOTH TORQUE HOUSING & SHAFT DURING PRESS. MINIMUM RAM DIAMETER OF 17.1mm.



ADD CHAMFER ONLY IF NEEDED (0.3±0.1 X 45°±5°)

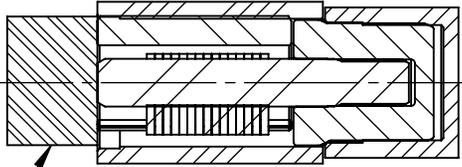
CUSTOMER MATERIAL 1 AND CUSTOMER MATERIAL 2 ALIGNMENT TO BE WITHIN 0.15mm IN ANY DIRECTION TO ENSURE PRODUCT PERFORMANCE.

SPECIFICATION SUBJECT TO CHANGE

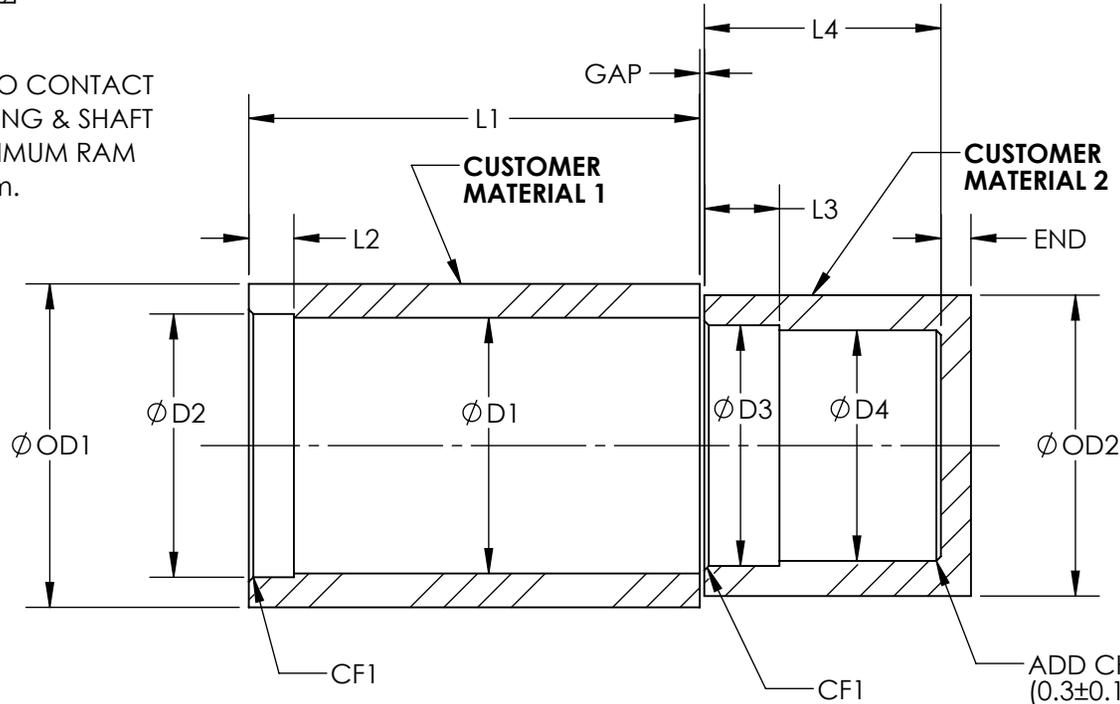
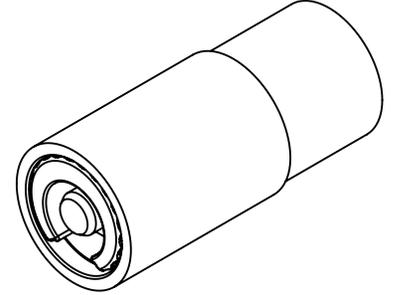
	ECO NO: 05430	PART LIFECYCLE: RELEASED
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 16SEP22	DESCRIPTION:
	PROJECT NO: 0	SALES DRAWING
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ENGINEER: BILL WARREN	TI-340
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	DRAWN BY:	
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	PART NO: REV: N
	DIMENSIONS: mm	SCALE: 2:1 DO NOT SCALE DRAWING SHEET 5 OF 9

TI-340-X.XX-02 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	L1	L2	L3	L4	CF1	OD1	OD2	END	GAP
DELTRIN	17.0±0.05	17.5±0.05	16±0.03	15.2±0.03	29.8 MIN	3±0.1	5±0.1	15.74 MIN	0.3±0.1 X 45°±5°	21.5 MIN	22 MIN	2 MIN	(0.3)



INSTALLATION RAM TO CONTACT BOTH TORQUE HOUSING & SHAFT DURING PRESS. MINIMUM RAM DIAMETER OF 17.1mm.



ADD CHAMFER ONLY IF NEEDED (0.3±0.1 X 45°±5°)

SCALE 2:1

CUSTOMER MATERIAL 1 AND CUSTOMER MATERIAL 2 ALIGNMENT TO BE WITHIN 0.15mm IN ANY DIRECTION TO ENSURE PRODUCT PERFORMANCE.

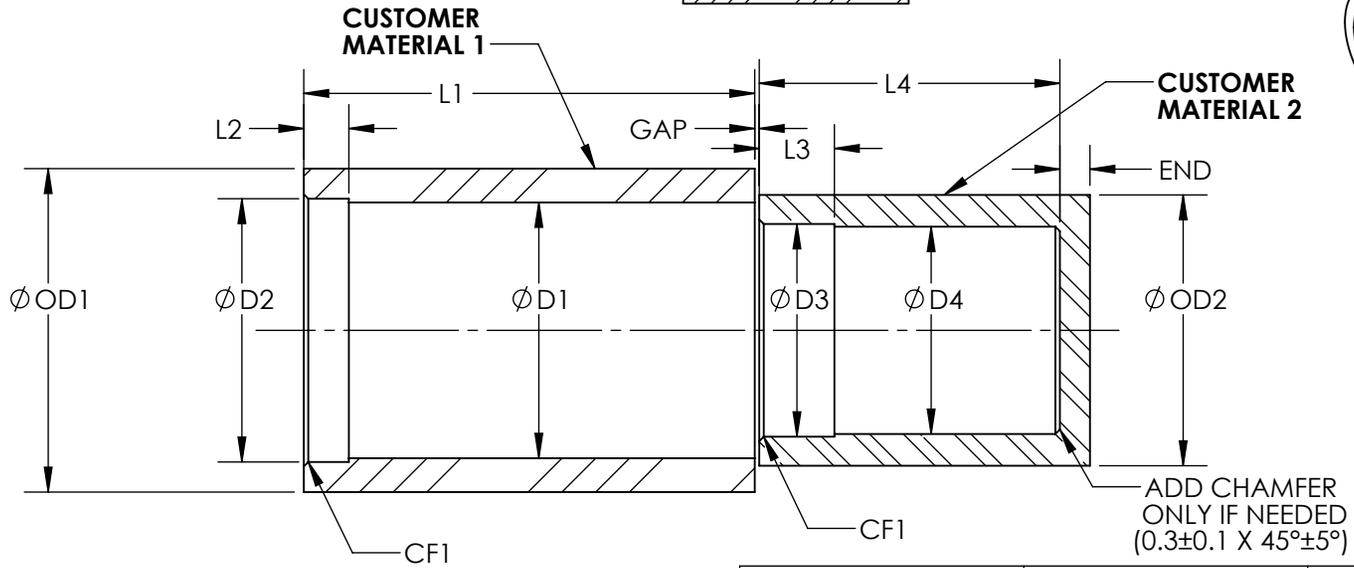
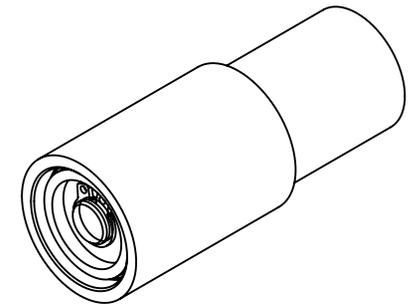
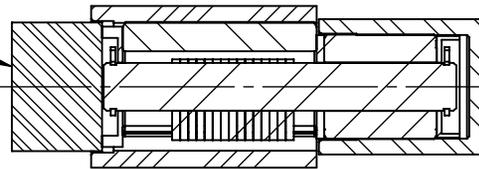
SPECIFICATION SUBJECT TO CHANGE

	ECO NO: 05430	PART LIFECYCLE: RELEASED
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 16SEP22	DESCRIPTION:
	PROJECT NO: 0	SALES DRAWING
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ENGINEER: BILL WARREN	PART NO: TI-340
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	DRAWN BY:	
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	SCALE: 2:1
	DIMENSIONS: mm	DO NOT SCALE DRAWING

TI-340-X.XX-03 AND TI-340-X.XX-04 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	L1	L2	L3	L4	CF1	OD1	OD2	END	GAP
DIE CAST ZINC	17±0.05	17.5±0.03	14.14±0.03	13.78±0.03	30 MIN	3±0.1	5.0±0.1	20 MIN	0.3±0.1 X 45°±5°	21.5 MIN	18 MIN	2 MIN	(0.3)
DIE CAST ALUMINUM													
MILD STEEL	17.15±0.025			13.9±0.015									
WROUGHT ALUMINUM													

INSTALLATION RAM TO CONTACT ONLY
OUTSIDE FACE OF WAHSHER DURING PRESS.
MINIMUM RAM DIAMETER OF 17.1mm.



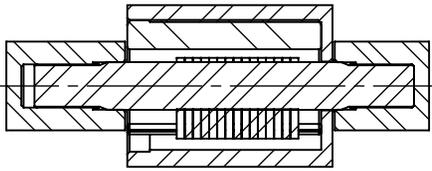
CUSTOMER MATERIAL 1 AND CUSTOMER MATERIAL 2
ALIGNMENT TO BE WITHIN 0.15mm IN ANY DIRECTION
TO ENSURE PRODUCT PERFORMANCE.

SPECIFICATION SUBJECT TO CHANGE

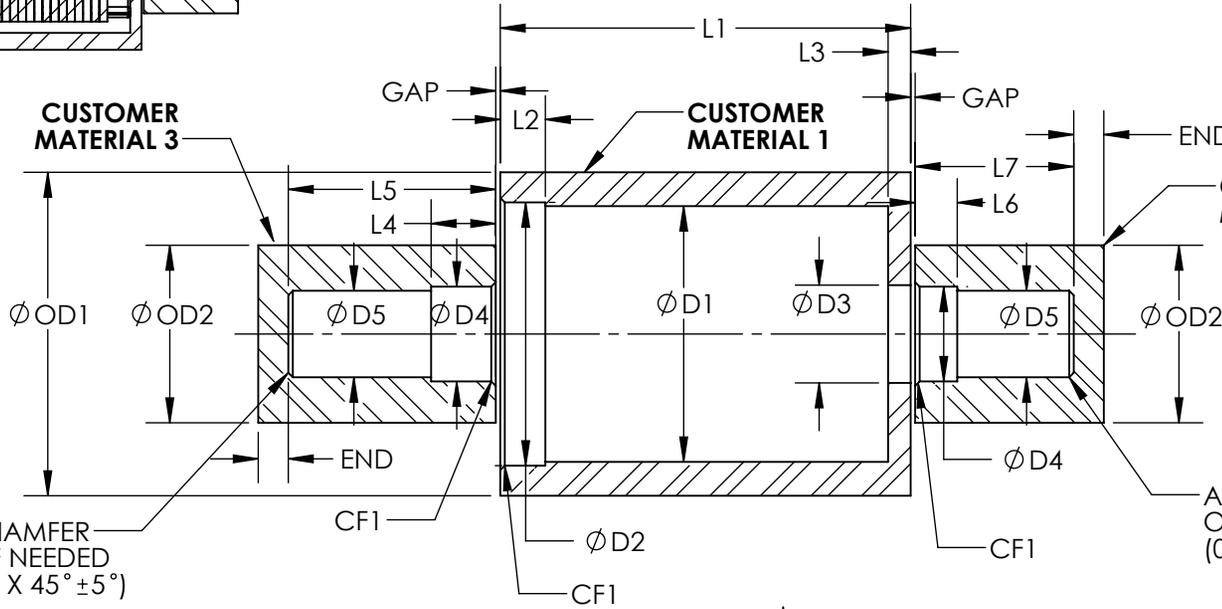
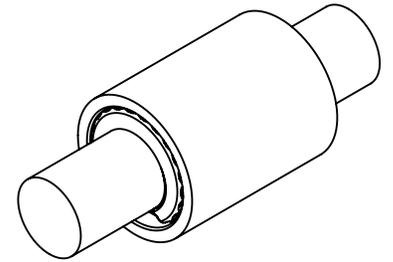
	ECO NO: 05430	PART LIFECYCLE: RELEASED
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 16SEP22	DESCRIPTION:
	PROJECT NO: 0	SALES DRAWING
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ENGINEER: BILL WARREN	TI-340
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	DRAWN BY:	
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	PART NO: REV: N
	DIMENSIONS: mm	SCALE: 2:1 DO NOT SCALE DRAWING SHEET 7 OF 9

TI-340-X.XX-05 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6	L7	CF1	OD1	OD2	END	GAP
DIE CAST ZINC	17±0.05	17.5±0.03	6.5±0.03	6.3±0.03	5.75±0.03	27.3±0.1	3±0.1	1.5±0.1	4.3±0.1	13.84 MIN	2.8±0.1	10.55±0.1	0.3±0.1 X 45°±5°	21.5 MIN	11.8 MIN	2 MIN	(0.3)
DIE CAST ALUMINUM																	
MILD STEEL	17.15 ±0.025	17.5±0.03	6.5±0.03	6.48±0.03	5.85 ±0.015	27.3±0.1	3±0.1	1.5±0.1	4.3±0.1	13.84 MIN	2.8±0.1	10.55±0.1	0.3±0.1 X 45°±5°	21.5 MIN	11.8 MIN	2 MIN	(0.3)
WROUGHT ALUMINUM																	



SEE NEXT PAGE FOR
INSTALLATION SUGGESTIONS



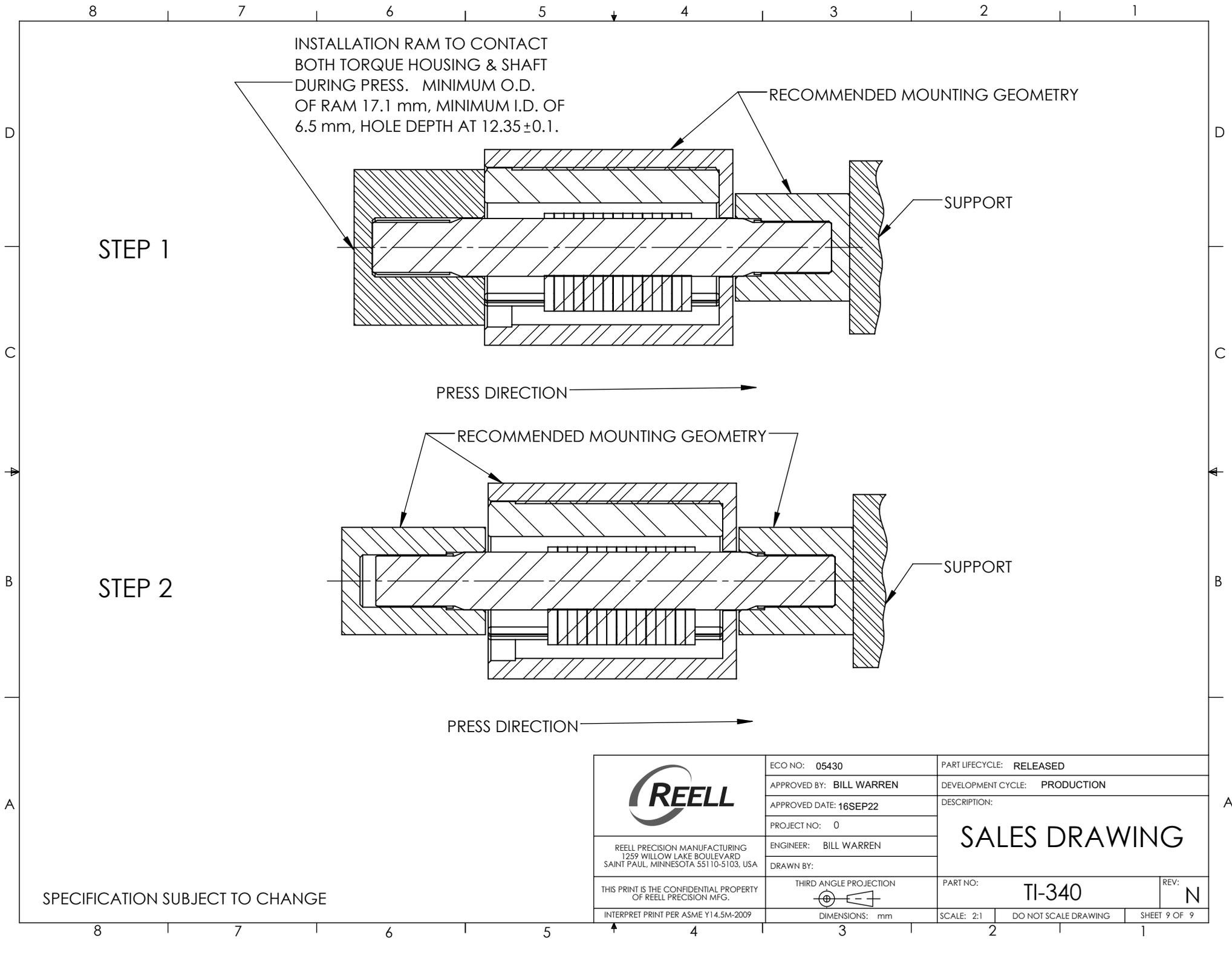
ADD CHAMFER
ONLY IF NEEDED
(0.3±0.1 X 45°±5°)

ADD CHAMFER
ONLY IF NEEDED
(0.3±0.1 X 45°±5°)

CUSTOMER MATERIAL 1, CUSTOMER MATERIAL 2
AND CUSTOMER MATERIAL 3 ALIGNMENT TO
BE WITHIN 0.15mm IN ANY DIRECTION TO
ENSURE PRODUCT PERFORMANCE.

SPECIFICATION SUBJECT TO CHANGE

<p>REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA</p>	ECO NO: 05430	PART LIFECYCLE: RELEASED
	APPROVED BY: BILL WARREN	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 16SEP22	DESCRIPTION:
	PROJECT NO: 0	SALES DRAWING
<p>THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.</p> <p>INTERPRET PRINT PER ASME Y14.5M-2009</p>	ENGINEER: BILL WARREN	PART NO: TI-340
THIRD ANGLE PROJECTION	DRAWN BY:	REV: N
DIMENSIONS: mm	SCALE: 2:1	DO NOT SCALE DRAWING
		SHEET 8 OF 9



INSTALLATION RAM TO CONTACT BOTH TORQUE HOUSING & SHAFT DURING PRESS. MINIMUM O.D. OF RAM 17.1 mm, MINIMUM I.D. OF 6.5 mm, HOLE DEPTH AT 12.35±0.1.

RECOMMENDED MOUNTING GEOMETRY

SUPPORT

STEP 1

PRESS DIRECTION

RECOMMENDED MOUNTING GEOMETRY

SUPPORT

STEP 2

PRESS DIRECTION



ECO NO: 05430
 APPROVED BY: BILL WARREN
 APPROVED DATE: 16SEP22
 PROJECT NO: 0

PART LIFECYCLE: RELEASED
 DEVELOPMENT CYCLE: PRODUCTION
 DESCRIPTION:

SALES DRAWING

REELL PRECISION MANUFACTURING
 1259 WILLOW LAKE BOULEVARD
 SAINT PAUL, MINNESOTA 55110-5103, USA

ENGINEER: BILL WARREN
 DRAWN BY:

PART NO: **TI-340** REV: **N**

THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.
 INTERPRET PRINT PER ASME Y14.5M-2009

THIRD ANGLE PROJECTION
 DIMENSIONS: mm

SCALE: 2:1 DO NOT SCALE DRAWING SHEET 9 OF 9

SPECIFICATION SUBJECT TO CHANGE