


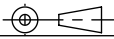
CATALOG CODE TI-330-X.XX-XX

TORQUE Nm
1.00
1.50
2.00
2.50

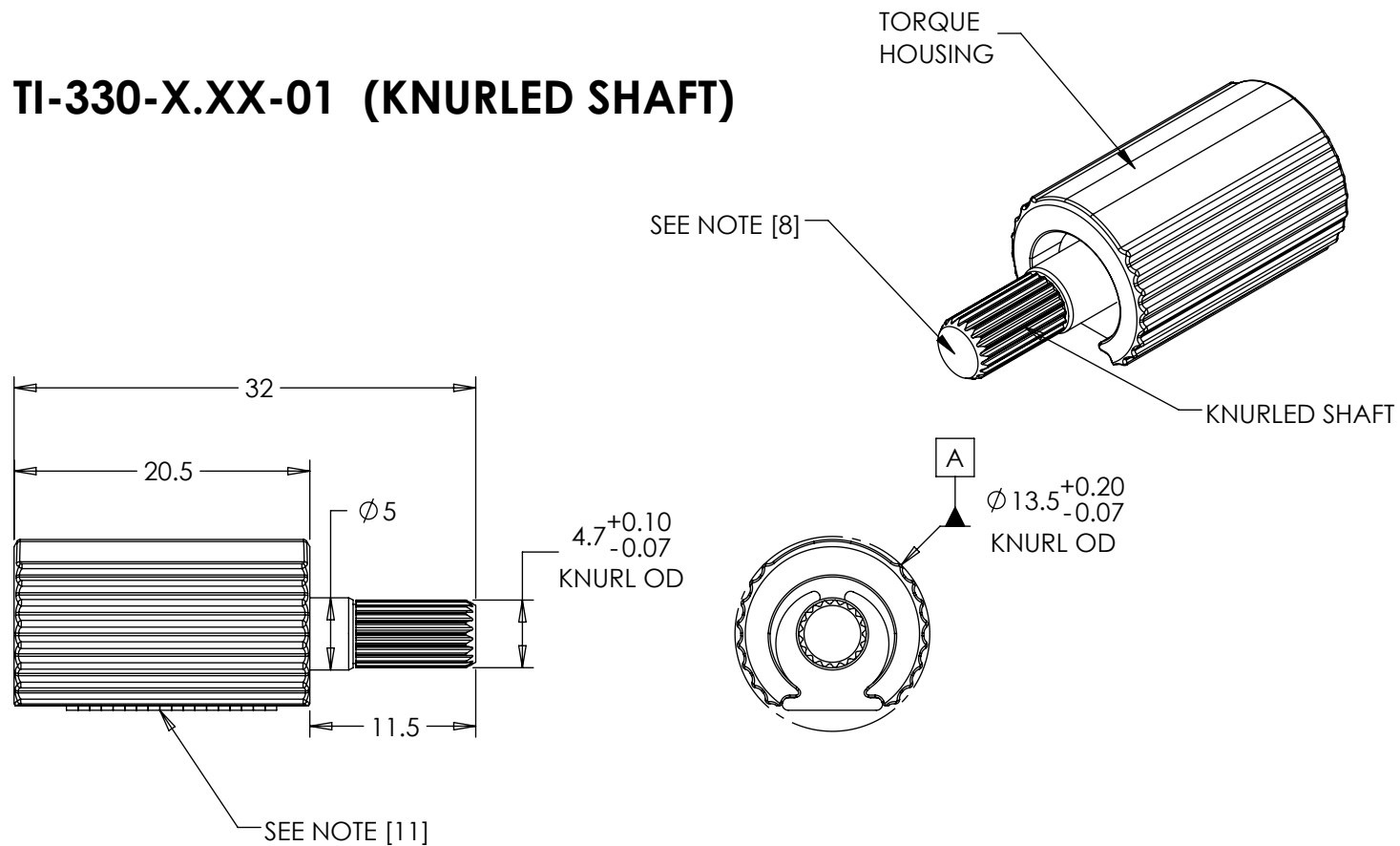
SHAFT-END TYPE
01 - KNURLED SHAFT
02 - KNURLED ADAPTER

NOTES:

1. USER MUST DETERMINE FITNESS FOR USE IN APPLICATION.
 2. ENVIRONMENTAL CONDITIONS:
-20°C TO +80°C .
 3. PRODUCT TORQUE SPECIFICATION:
±20% DYNAMIC
 4. LIFE: 50,000 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
MINERAL OIL BASED LUBRICANT
HARDENED STEEL SHAFT
 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.

	ECO NO: 06577	PART LIFECYCLE: RELEASED	
	APPROVED BY: TIM JENUM	DEVELOPMENT CYCLE: PRODUCTION	
	APPROVED DATE: 08FEB24	<p style="text-align: center; font-size: 24pt; font-weight: bold;">SALES DRAWING</p>	
	PROJECT NO: 101619		
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ENGINEER: TIM JENUM	PART NO: TI-330	
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	DRAWN BY: TIM JENUM		
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	SCALE: 2:1	DO NOT SCALE DRAWING
	DIMENSIONS: mm		SHEET 1 OF 5

TI-330-X.XX-01 (KNURLED SHAFT)



- INTENDED FOR PRESS FIT INTO METALS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
 - APPROXIMATE WEIGHT: 17.03g

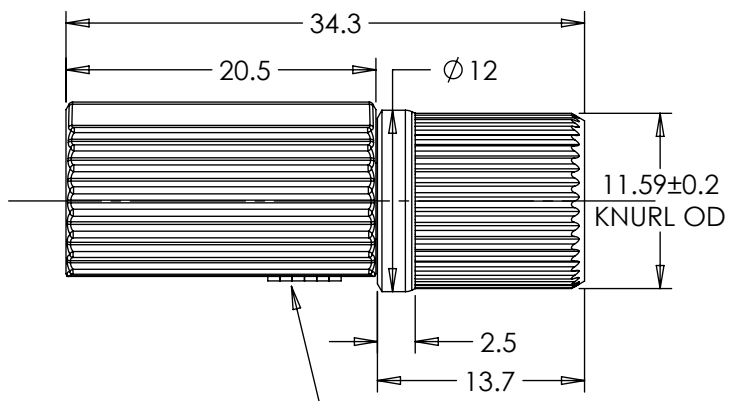
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ECO NO: 06577	PART LIFECYCLE: RELEASED	
	APPROVED BY: TIM JENUM	DEVELOPMENT CYCLE: PRODUCTION	
	APPROVED DATE: 08FEB24	SALES DRAWING	
	PROJECT NO: 101619		
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG. INTERPRET PRINT PER ASME Y14.5M-2009	ENGINEER: TIM JENUM DRAWN BY: TIM JENUM	PART NO: TI-330	REV: A
	THIRD ANGLE PROJECTION DIMENSIONS: mm	SCALE: 2:1	DO NOT SCALE DRAWING

TI-330-X.XX-02 (KNURLED ADAPTER)

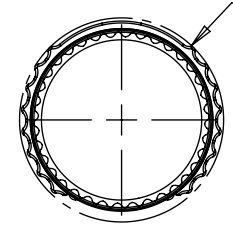
TORQUE HOUSING

SEE NOTE [8]

KNURLED ADAPTER



SEE NOTE [11]



A
Ø 13.5^{+0.20}_{-0.07}
KNURL OD

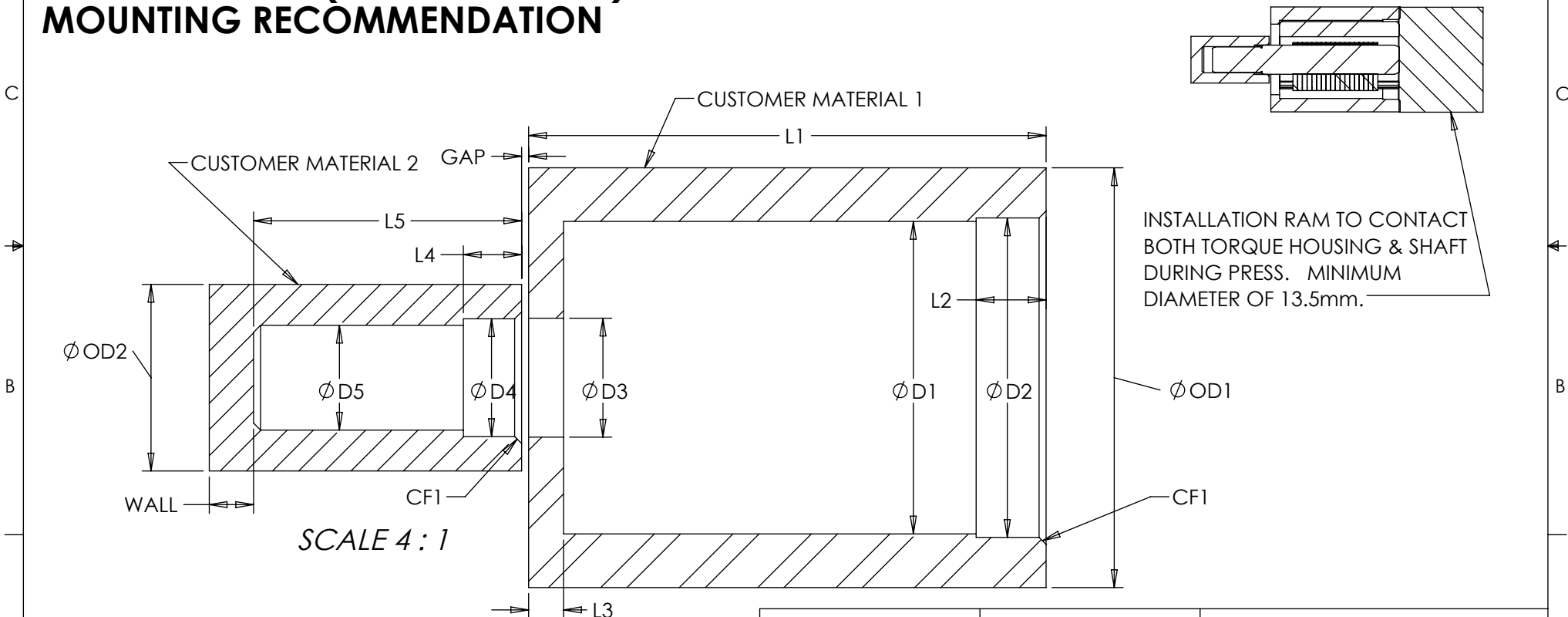
- INTENDED FOR PRESS FIT INTO PLASTICS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
- APPROXIMATE WEIGHT: 22.43g

REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ECO NO: 06577	PART LIFECYCLE: RELEASED	
	APPROVED BY: TIM JENUM	DEVELOPMENT CYCLE: PRODUCTION	
	APPROVED DATE: 08FEB24	DESCRIPTION: SALES DRAWING	
	PROJECT NO: 101619		
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	ENGINEER: TIM JENUM	PART NO: TI-330	REV: A
	DRAWN BY: TIM JENUM		SCALE: 2:1
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	DIMENSIONS: mm	SHEET 3 OF 5

TI-330-X.XX-01 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	CF1	OD1	OD2	WALL	GAP
DIE CAST ZINC	13.26±0.05	13.7±0.03	5.1±0.03	4.93±0.03	4.5±0.03	22.2±0.1	3±0.1	1.5±0.1	3.5±0.1	11.5 MIN	0.3±0.1 X 45°±5°	18 MIN	8 MIN	2 MIN	(0.3)
DIE CAST ALUMINUM															
MILD STEEL	13.3±0.025			5.05±0.05	4.495±0.015										
WROUGHT ALUMINUM															

TI-330-X.XX-01 (KNURLED SHAFT) MOUNTING RECOMMENDATION



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

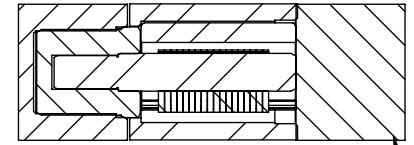
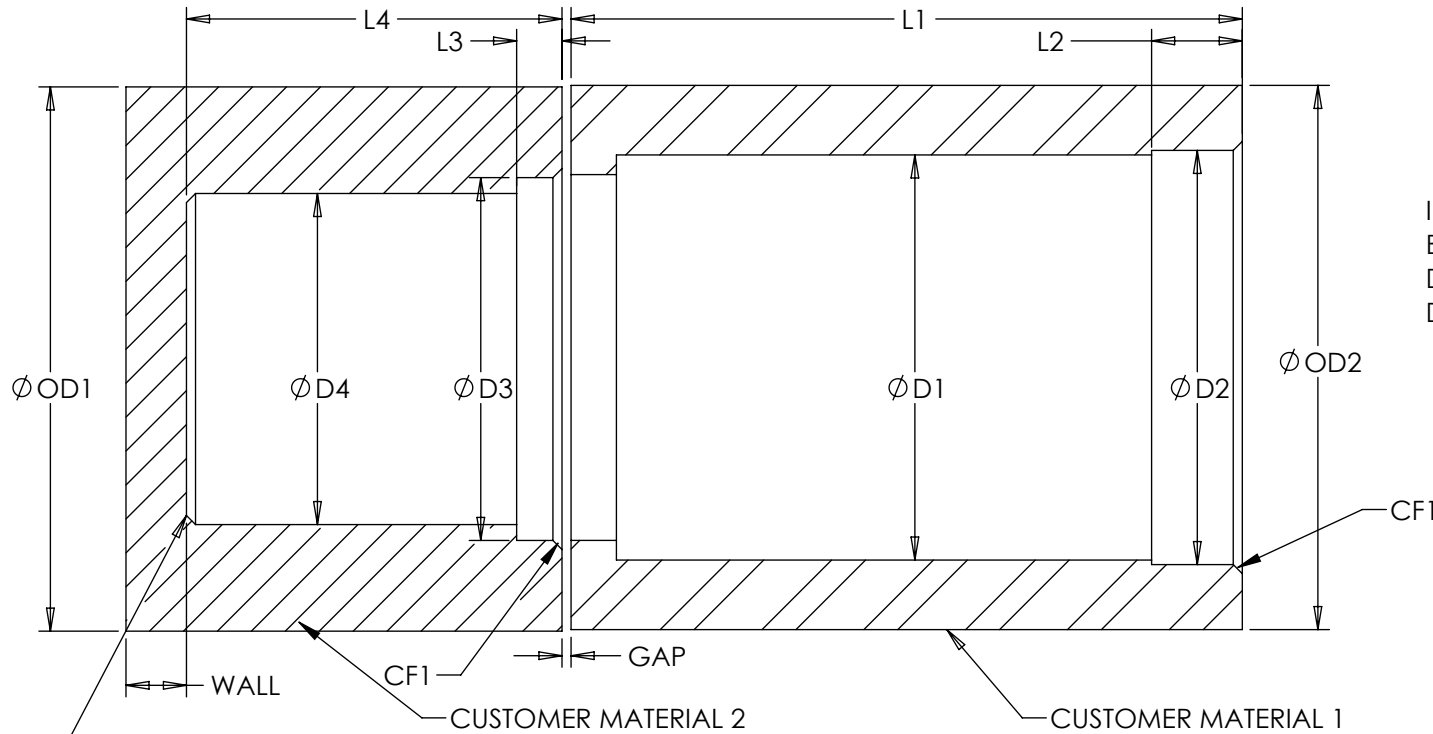
SPECIFICATIONS SUBJECT TO CHANGE

REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ECO NO: 06577	PART LIFECYCLE: RELEASED
	APPROVED BY: TIM JENUM	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 08FEB24	DESCRIPTION:
	PROJECT NO: 101619	SALES DRAWING
ENGINEER: TIM JENUM		
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	DRAWN BY: TIM JENUM	PART NO: TI-330
INTERPRET PRINT PER ASME Y14.5M-2009	THIRD ANGLE PROJECTION 	REV: A
	DIMENSIONS: mm	SCALE: 2:1 DO NOT SCALE DRAWING SHEET 4 OF 5

T1-330-X.XX-02 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	L1	L2	L3	L4	CF1	OD1	OD2	WALL	GAP
DELTRIN	13.26±0.03	13.7±0.03	12±0.03	11.3±0.03	22.2±0.1	3.0±0.1	1.5±0.1	12.5 MIN	0.3±0.1 X 45°±5°	18 MIN	18 MIN	2 MIN	(0.3)

T1-330-X.XX-02 (KNURLED ADAPTER) MOUNTING RECOMMENDATION



INSTALLATION RAM TO CONTACT BOTH TORQUE HOUSING & SHAFT DURING PRESS. MINIMUM DIAMETER OF 13.5mm.

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.

	ECO NO: 06577	PART LIFECYCLE: RELEASED
	APPROVED BY: TIM JENUM	DEVELOPMENT CYCLE: PRODUCTION
	APPROVED DATE: 08FEB24	<h2 style="margin: 0;">SALES DRAWING</h2>
	PROJECT NO: 101619	
REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	ENGINEER: TIM JENUM DRAWN BY: TIM JENUM	
THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.	THIRD ANGLE PROJECTION 	PART NO: TI-330 REV: A
INTERPRET PRINT PER ASME Y14.5M-2009	DIMENSIONS: mm	SCALE: 2:1 DO NOT SCALE DRAWING SHEET 5 OF 5