

NAME: TI - 320 - X.XX - XX

TORQUE Nm
- 0.50
- 0.75
- 1.00
- 1.25
- 1.50

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

NOTES:

1. APPLICATION CONDITIONS REFERENCE (USER MUST DETERMINE FITNESS FOR USE IN APPLICATION).
2. PRODUCT TORQUE SPECIFICATION: ±20% DYNAMIC
3. LIFE: 50,000 CYCLES.
ONE CYCLE CONSISTS OF 120° CW AND 120° CCW AT 10% DUTY CYCLE FOR SPEEDS LESS THAN 100 RPM.
4. MATERIALS:
PLATED POWDERED METAL HOUSINGS
HARDENED STEEL TORQUE ELEMENT
DIECAST KNURLED ZINC SHAFT END
MINERAL OIL BASED LUBRICANT
5. FINISH:
NON-COSMETIC.
6. TORQUE INSERT DESIGNED FOR USE IN PLASTIC OR METAL. SEE INDIVIDUAL CONFIGURATION DRAWINGS FOR ADDITIONAL DETAIL.
- [7] HINGE DESIGNED TO SUPPORT A MINIMAL AXIAL FORCE IN DIRECTION SHOWN, NOT DESIGNED TO SUPPORT AXIAL FORCE IN THE OPPOSITE DIRECTION.
8. CUSTOMER IS RESPONSIBLE FOR CHECKING COMPATIBILITY OF REELL LUBRICANTS WITH PLASTICS USED.
9. ENVIRONMENTAL CONDITIONS:
-20°C TO +80°C UP TO 10% OF LIFE CYCLES AT HOT AND COLD CONDITIONS.
10. NUMBER OF TORQUE ELEMENTS MAY VARY.


US PATENT NUMBER 8,875,348

SPECIFICATION SUBJECT TO CHANGE

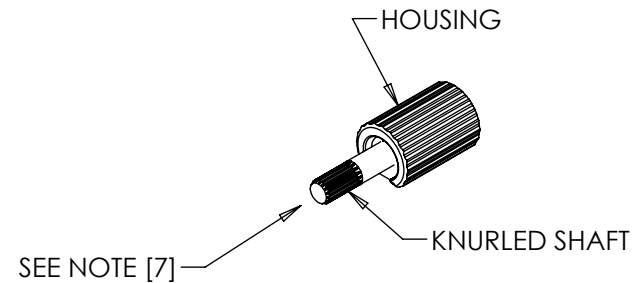
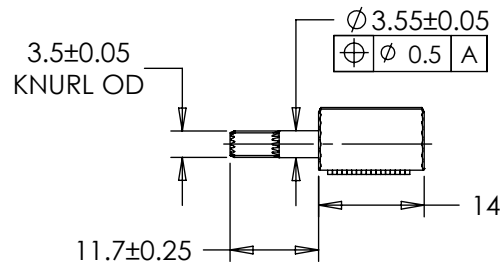
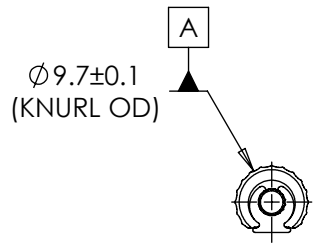
UNLESS SPECIFIED TOLERANCE ±0.15
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THIRD ANGLE PROJECTION



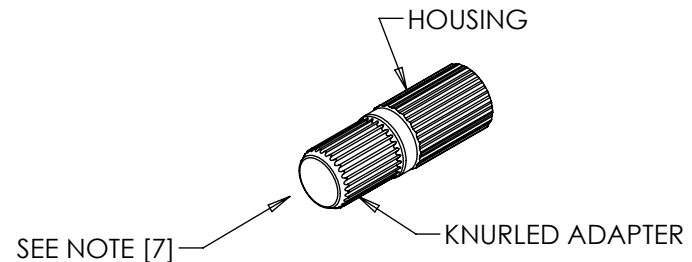
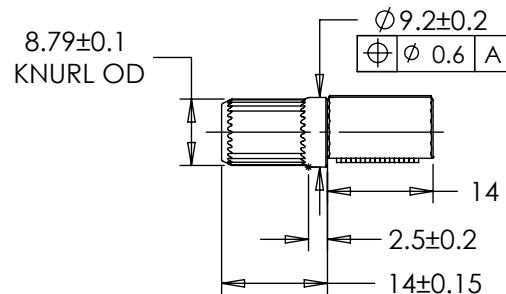
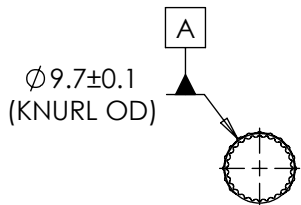
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CHECKED:	WJW	DATE: 23AUG13	TITLE: TORQUE INSERT SALES DRAWING		
APPROVED:	WJW	DATE: 23AUG13	PART NO: TI-320		
REVISED:	08JAN18	DIMS: mm	REV: F		
		REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA		SCALE: 1:1	DO NOT SCALE DRAWING
					SHEET 1 OF 4

TI-320-X.XX-01 (KNURLED SHAFT)



- INTENDED FOR PRESS FIT INTO METALS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
- APPROXIMATE WEIGHT: 6.5 GRAMS

TI-320-X.XX-02 (KNURLED ADAPTER)



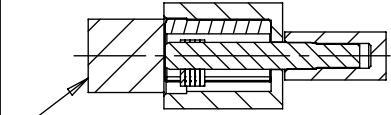
- INTENDED FOR PRESS FIT INTO PLASTICS. CONTACT REELL FOR OTHER MOUNTING OPTIONS.
- APPROXIMATE WEIGHT: 11.85 GRAMS

SPECIFICATION SUBJECT TO CHANGE

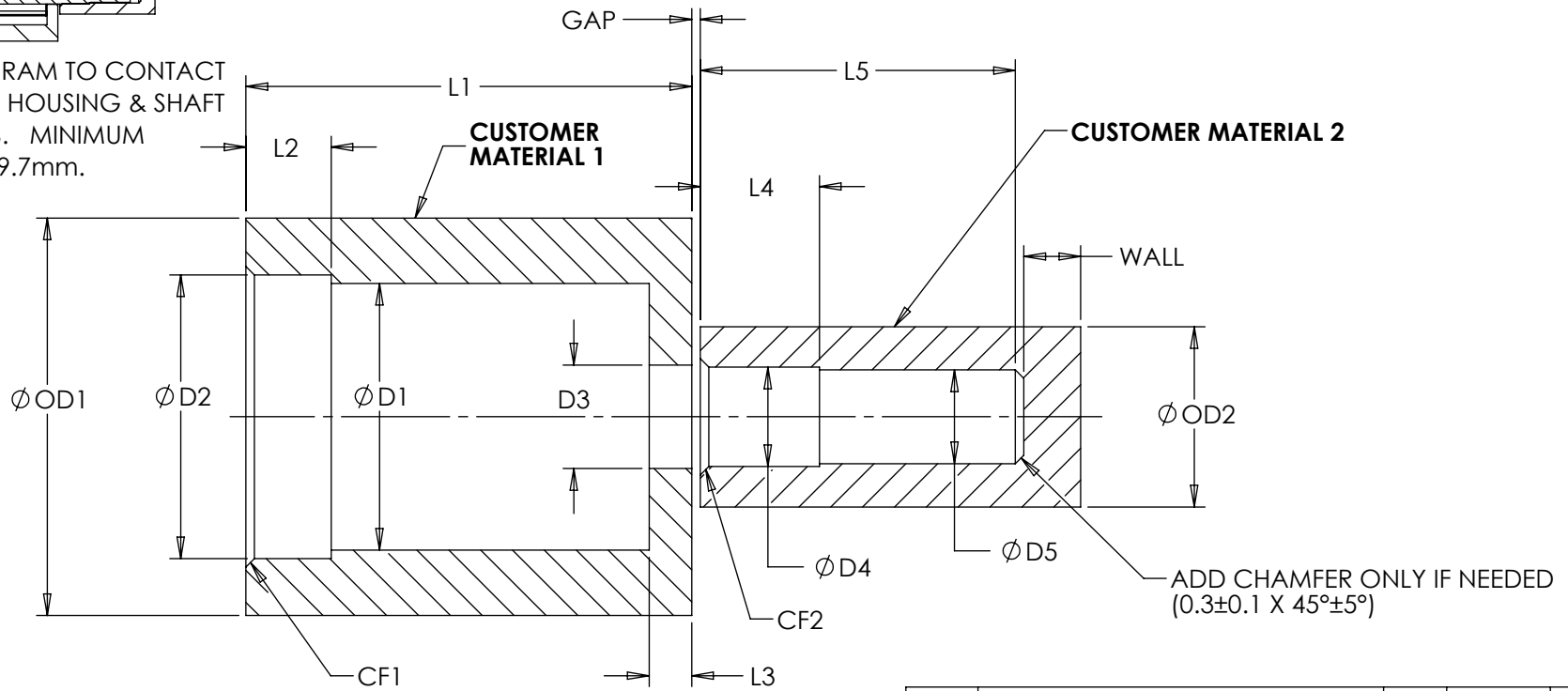
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APPROVED:	WJW	DATE: 23AUG13	PART NO: TI-320		
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UNLESS SPECIFIED TOLERANCE ±0.15 INTERPRET PRINT PER ASME Y14.5M-1994 THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG. THIRD ANGLE PROJECTION				REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA	
SCALE: 1:1		DO NOT SCALE DRAWING		SHEET 2 OF 4	

TI-320-X.XX-01 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	CF1	CF2	OD1	OD2	WALL	GAP
DIE CAST ZINC	9.55±0.05	10±0.03	3.65±0.03	3.5±0.03	3.3±0.03	15.7±0.1	3±0.1	1.5±0.1	4.2±0.1	12.5 MIN	0.3±0.1 X 45°±5°	0.3±0.1 X 45°±5°	12 MIN	6 MIN	2 MIN	(0.3)
DIE CAST ALUMINUM	9.55±0.05	10±0.03	3.65±0.03	3.5±0.03	3.3±0.03	15.7±0.1	3±0.1	1.5±0.1	4.2±0.1	12.5 MIN	0.3±0.1 X 45°±5°	0.3±0.1 X 45°±5°	12 MIN	6 MIN	2 MIN	(0.3)
MILD STEEL	9.6 +/- 0.025	10±0.03	3.65±0.03	3.63±0.03	3.38+/- 0.015	15.7±0.1	3±0.1	1.5±0.1	4.2±0.1	12.5 MIN	0.3±0.1 X 45°±5°	0.3±0.1 X 45°±5°	12 MIN	6 MIN	2 MIN	(0.3)
WROUGHT ALUMINUM	9.6 +/- 0.025	10±0.03	3.65±0.03	3.63±0.03	3.38+/- 0.015	15.7±0.1	3±0.1	1.5±0.1	4.2±0.1	12.5 MIN	0.3±0.1 X 45°±5°	0.3±0.1 X 45°±5°	12 MIN	6 MIN	2 MIN	(0.3)



INSTALLATION RAM TO CONTACT BOTH TORQUE HOUSING & SHAFT DURING PRESS. MINIMUM DIAMETER OF 9.7mm.



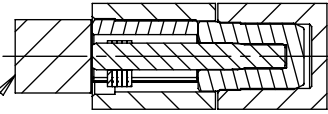
SCALE 4:1

SPECIFICATION SUBJECT TO CHANGE

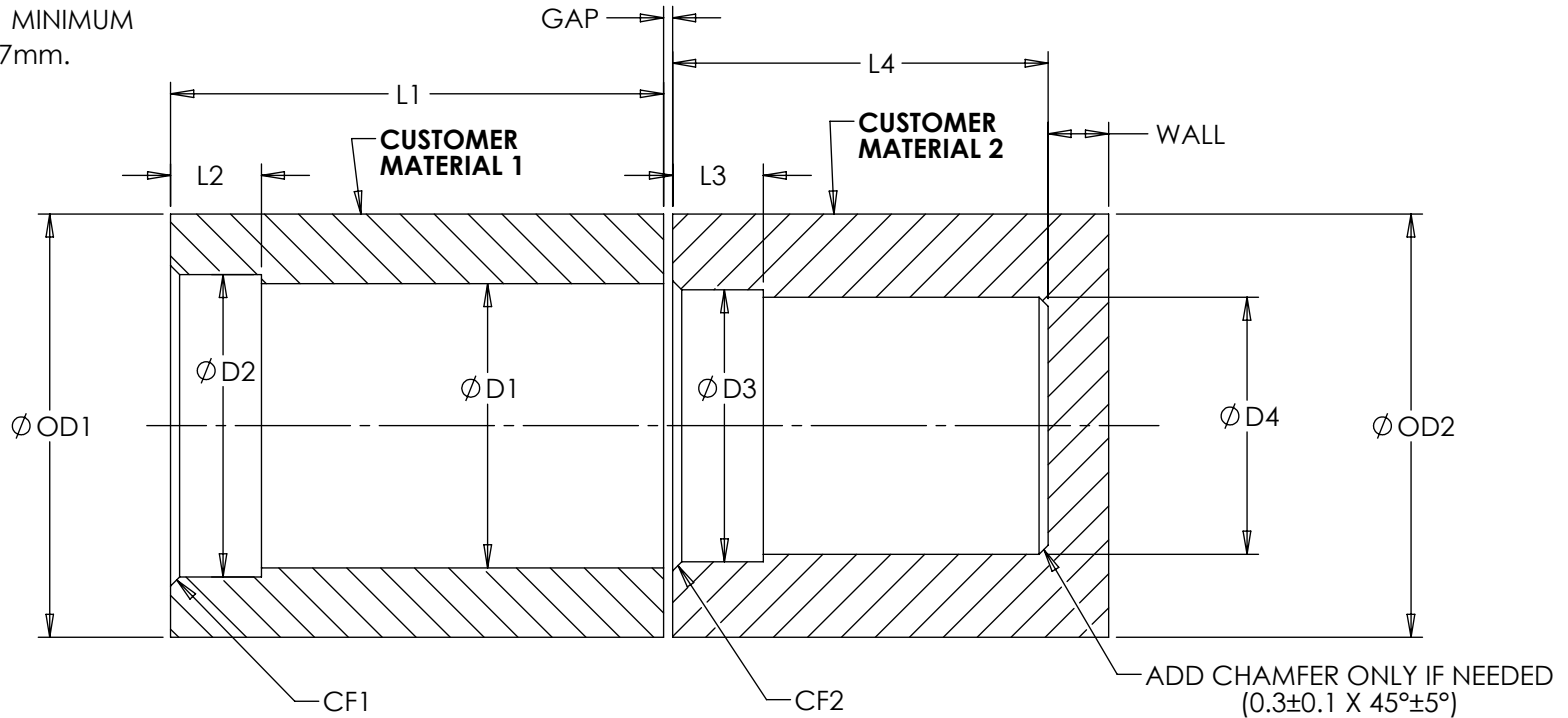
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REVISED:	08JAN18	DIMS: mm	REV: F		
<small>INTERPRET PRINT PER ASME Y14.5M-1994 THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.</small>				<small>REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA</small>	
<small>THIRD ANGLE PROJECTION</small>		SCALE: 1:1	DO NOT SCALE DRAWING	SHEET 3 OF 4	

T1-320-X.XX-02 CUSTOMER INSTALLATION GEOMETRY

CUSTOMER MATERIAL	D1	D2	D3	D4	L1	L2	L3	L4	CF1	CF2	OD1	OD2	WALL	GAP
PLASTIC	9.3±0.03	10±0.03	9.1±0.03	8.3±0.03	16.3±0.1	3.0±0.1	3.0±0.1	12.5 MIN	0.3±0.1 X 45°±5°	0.3±0.1 X 45°±5°	13.5 MIN	13.5 MIN	2 MIN	(0.3)



INSTALLATION RAM TO CONTACT BOTH TORQUE HOUSING & SHAFT DURING PRESS. MINIMUM DIAMETER OF 9.7mm.

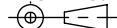


SCALE 4:1

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