NOTES:

1. APPLICATION CONDITIONS REFERENCE (USER MUST DETERMINE FITNESS FOR USE IN APPLICATION).
   ENVIRONMENT CONDITIONS: -20° TO +80°C UP TO 10% OF LIFE CYCLES AT HOT AND COLD CONDITIONS.
2. LIFE: 25,000 CYCLES.
   ONE CYCLE = 120° OPEN/120° CLOSED.
   FIVE(5) CYCLES PER MINUTE MAX.
3. MATERIAL:
   BRACKET AND SHAFT END ARE ENGINEERED PLASTIC
   SHAFT, TORQUE ELEMENT, AND ONE WAY BEARING ARE HARDENED STEEL
4. STATIC TORQUE IS NORMALLY WITHIN 10% OF DYNAMIC TORQUE.
5. TAB MAY BE MISALIGNED DUE TO SHIPPING. MISALIGNMENT IS EASILY FIXED BY ROTATING BRACKET IN THE TORQUE FREE DIRECTION.

# CATALOG CODE

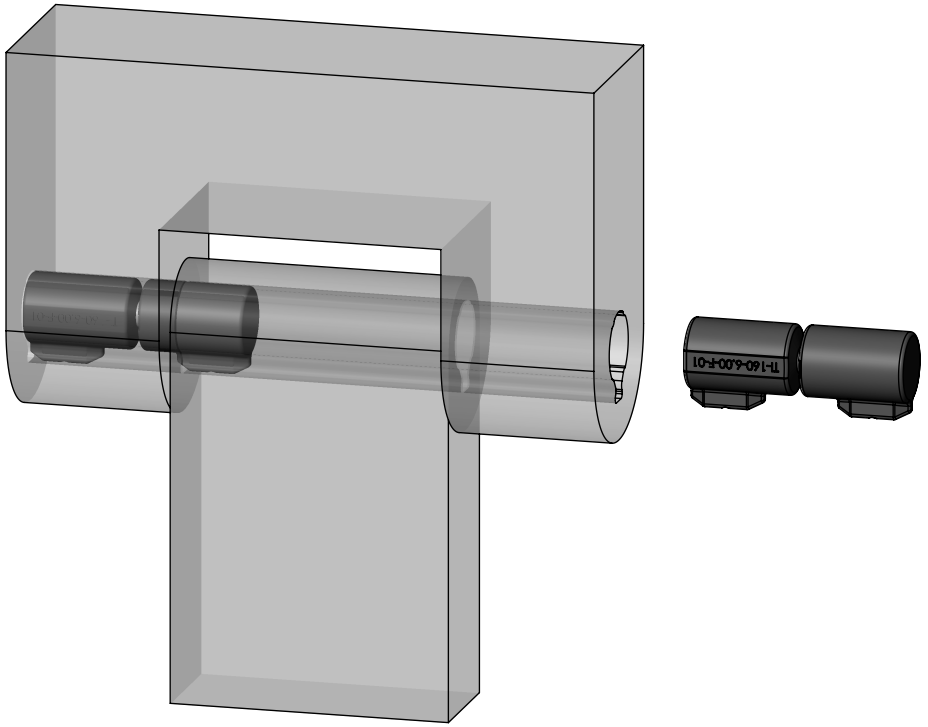
# TI-160-X.XX-X-XX

| TORQUE N-m | DIRECTION | FINS NO. |
|---|---|---|
| - 4.00<br>- 5.00<br>- 6.00 | F - ONE WAY FORWARD<br>R - ONE WAY REVERSE | -01 |

SPECIFICATIONS SUBJECT TO CHANGE

| | | |
|---|---|---|
| REELL | ECO NO: 09143 | PART LIFECYCLE: RELEASED |
| | APPROVED BY: BOB WAHLSTEDT | DEVELOPMENT CYCLE: PRODUCTION |
| | APPROVED DATE: 20MAY26 | DESCRIPTION: SALES DRAWING |
| | PROJECT NO: 0 | |
| REELL PRECISION MANUFACTURING<br>1259 WILLOW LAKE BOULEVARD<br>SAINT PAUL, MINNESOTA 55110-5103, USA | ENGINEER: MICHAEL BEALE | |
| | DRAWN BY: NOAH RYAN | |
| THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG. | THIRD ANGLE PROJECTION | PART NO: TI-160 REV: E |
| INTERPRET PRINT PER ASME Y14.5M-2009 | DIMENSIONS: mm | SCALE: 1:1 DO NOT SCALE DRAWING SHEET 1 OF 5 |

| CATALOG CODE | DIRECTION | DYNAMIC TORQUE Nm | |
|---|---|---|---|
| | | FORWARD | REVERSE |
| TI-160-4.00-F-01 | ONE-WAY FORWARD | 4 ± 1.2 | 1.8 MAX |
| TI-160-5.00-F-01 | ONE-WAY FORWARD | 5 ± 1.3 | 1.8 MAX |
| TI-160-6.00-F-01 | ONE-WAY FORWARD | 6 ± 1.2 | 1.8 MAX |
| TI-160-4.00-R-01 | ONE-WAY REVERSE | 1.8 MAX | 4 ± 1.2 |
| TI-160-5.00-R-01 | ONE-WAY REVERSE | 1.8 MAX | 5 ± 1.3 |
| TI-160-6.00-R-01 | ONE-WAY REVERSE | 1.8 MAX | 6 ± 1.2 |




SPECIFICATIONS SUBJECT TO CHANGE

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

THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG.

INTERPRET PRINT PER ASME Y14.5M-2009

ECO NO: 09143
APPROVED BY: BOB WAHLSTEDT
APPROVED DATE: 20MAY26
PROJECT NO: 0
ENGINEER: MICHAEL BEALE
DRAWN BY: NOAH RYAN
THIRD ANGLE PROJECTION
DIMENSIONS: mm

PART LIFECYCLE: RELEASED
DEVELOPMENT CYCLE: PRODUCTION
DESCRIPTION:

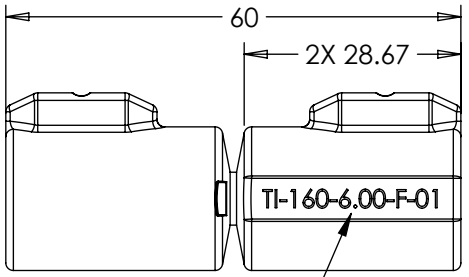
# SALES DRAWING

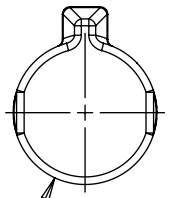
PART NO: TI-160
REV: E
SCALE: 1:1
DO NOT SCALE DRAWING
SHEET 2 OF 5

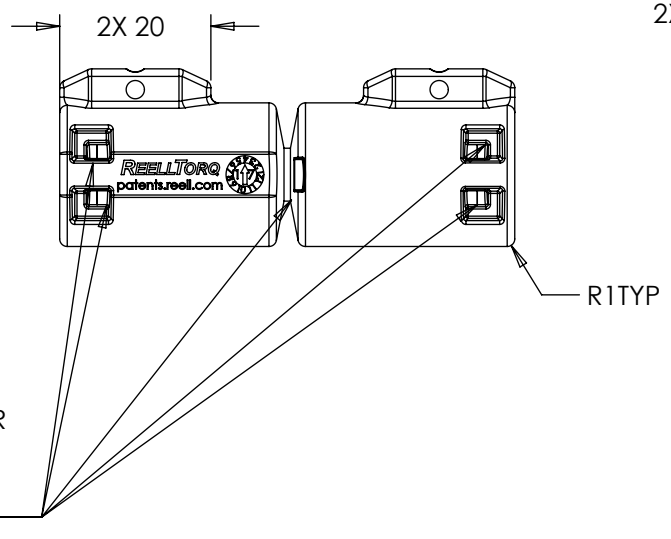
NOTES:

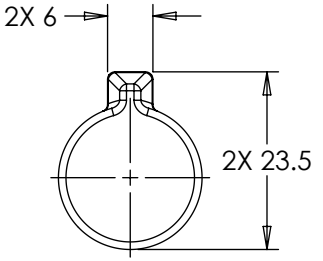
6. DIMENSIONAL TOLERANCES ARE BUILT INTO THE MOUNTING RECOMMENDATION SECTION. THEREFORE DIMENSIONS ON THIS PAGE ARE TO BE CONSIDERED REFERENCE.

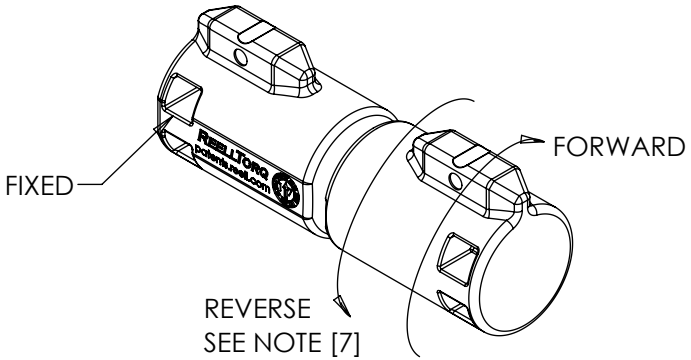
[7] ARROW INDICATES HIGH TORQUE DIRECTION FOR SPECIFIED CONFIGURATION.



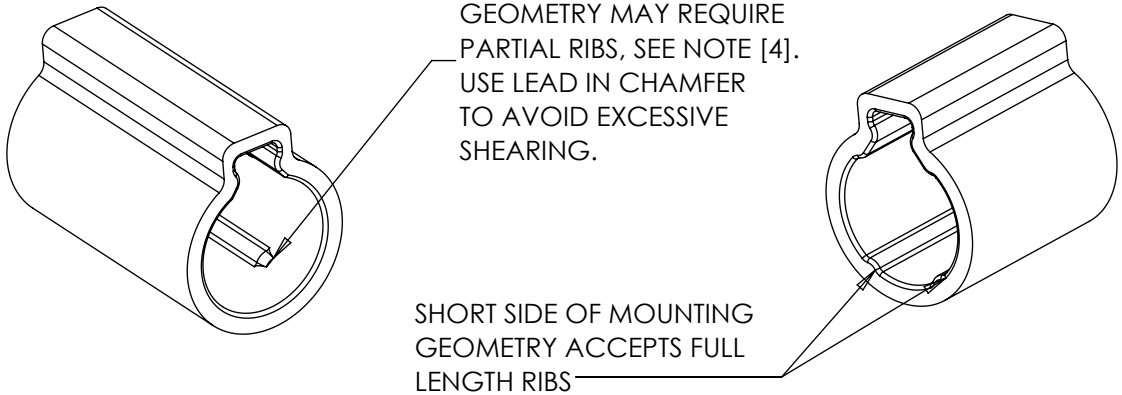

ALL DIMENSIONS REFERENCE
SEE CAD MODEL FOR UNSPECIFIED FEATURES.

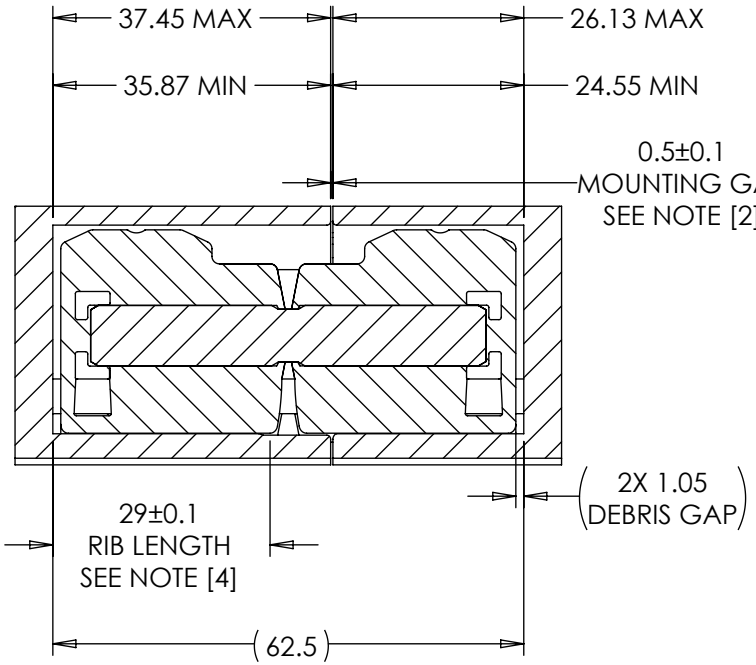
SPECIFICATIONS SUBJECT TO CHANGE

| | | |
|---|---|---|
| REEL | ECO NO: 09143 | PART LIFECYCLE: RELEASED |
| | APPROVED BY: BOB WAHLSTEDT | DEVELOPMENT CYCLE: PRODUCTION |
| | APPROVED DATE: 20MAY26 | DESCRIPTION: SALES DRAWING |
| | PROJECT NO: 0 | |
| REEL PRECISION MANUFACTURING<br>1259 WILLOW LAKE BOULEVARD<br>SAINT PAUL, MINNESOTA 55110-5103, USA | ENGINEER: MICHAEL BEALE | |
| | DRAWN BY: NOAH RYAN | |
| THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG. | THIRD ANGLE PROJECTION | PART NO: TI-160 REV: E |
| INTERPRET PRINT PER ASME Y14.5M-2009 | DIMENSIONS: mm | SCALE: 1:1 DO NOT SCALE DRAWING SHEET 3 OF 5 |

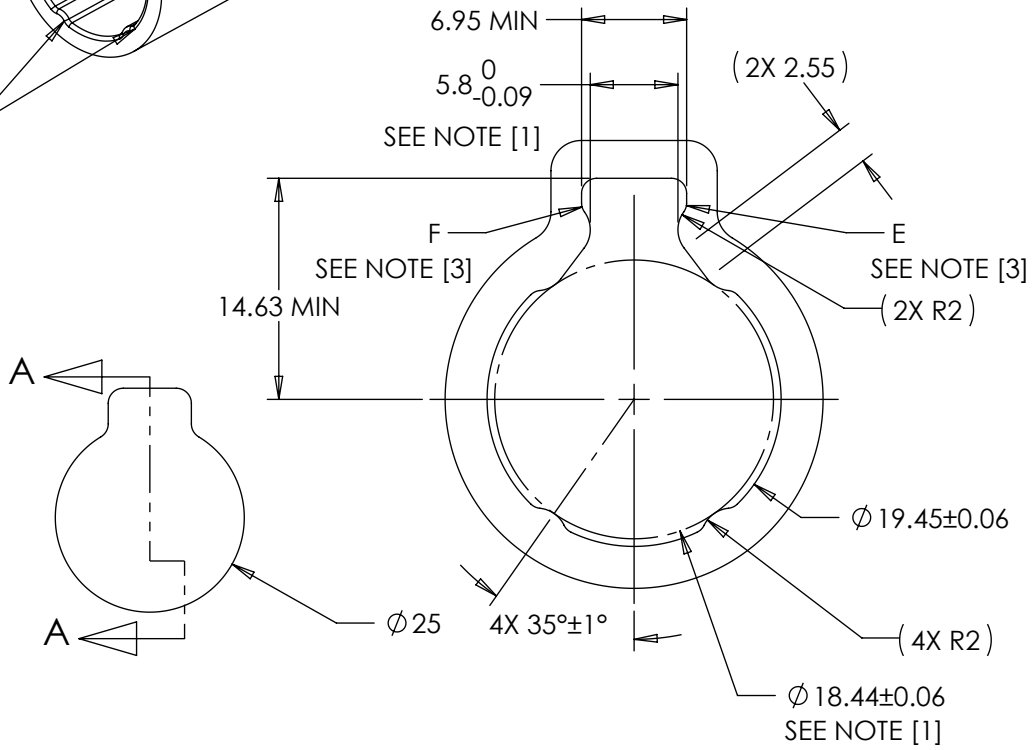
# MOUNTING RECOMMENDATION

NOTES:
[1] DOUBLE THE NEGATIVE TOLERANCE WHEN PRESSING INTO PLASTIC.
[2] LOCATE MOUNTING GAP OVER HINGE BODY FOR ADDITIONAL SUPPORT.
[3] GEOMETRY BETWEEN POINTS E & F CCW MAY VARY IF DESIRED (CUTTER RELIEF).
[4] LONG SIDE OF MOUNTING GEOMETRIES REQUIRE PARTIAL RIBS FOR METAL PARTS WITH ≤1.0° OF DRAFT, AND ≤1.8° FOR PLASTIC PARTS.




*SECTION A-A*




SPECIFICATIONS SUBJECT TO CHANGE

| | | |
|---|---|---|
| REELL | ECO NO: 09143 | PART LIFECYCLE: RELEASED |
| | APPROVED BY: BOB WAHLSTEDT | DEVELOPMENT CYCLE: PRODUCTION |
| | APPROVED DATE: 20MAY26 | DESCRIPTION: SALES DRAWING |
| | PROJECT NO: 0 | |
| REELL PRECISION MANUFACTURING 1259 WILLOW LAKE BOULEVARD SAINT PAUL, MINNESOTA 55110-5103, USA | ENGINEER: MICHAEL BEALE | |
| | DRAWN BY: NOAH RYAN | |
| THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG. | THIRD ANGLE PROJECTION | PART NO: TI-160 REV: E |
| INTERPRET PRINT PER ASME Y14.5M-2009 | DIMENSIONS: mm | SCALE: 1:1 DO NOT SCALE DRAWING SHEET 4 OF 5 |

# MOUNTING RECOMMENDATION WITH DRAFT

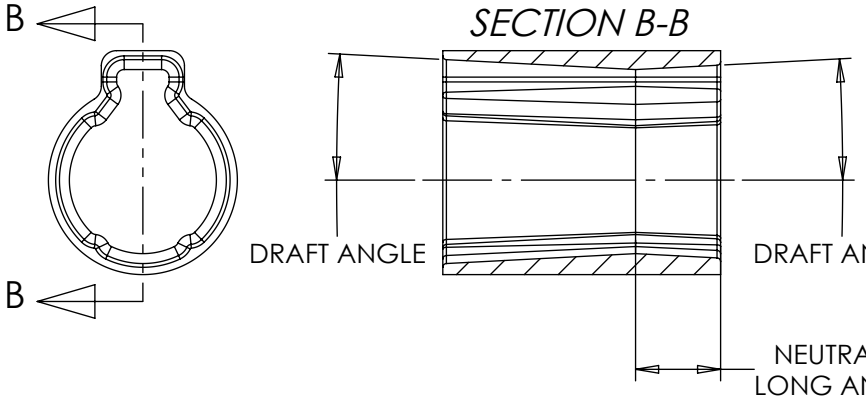
NOTES:

[1] WHEN DRAFTING BETWEEN 1° AND 2°: ADD 0.1 mm OF INTERFERENCE OVER THE TAB, FROM 5.8 NOM. TO 5.7 NOM., TO GUARANTEE CONTACT OVER FULL LENGTH OF THE TAB.

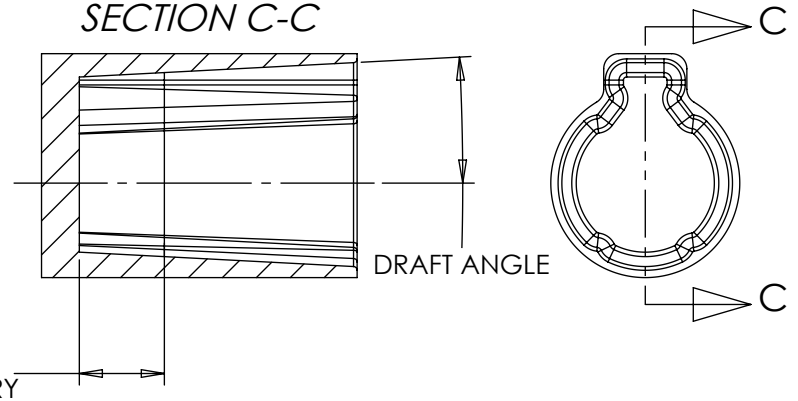
[2] NEUTRAL PLANE INDICATES THE PLANE OF NOMINAL INTERFERENCE RECOMMENDED ON PREVIOUS PAGE.

3. LARGE DRAFT ANGLES WILL REDUCE RADIAL LOAD SUPPORT.

## DOUBLE PULL DRAFTS




## SINGLE PULL DRAFTS




SPECIFICATIONS SUBJECT TO CHANGE

| | | | |
|---|---|---|---|
| REELL | ECO NO: 09143 | PART LIFECYCLE: RELEASED | |
| | APPROVED BY: BOB WAHLSTEDT | DEVELOPMENT CYCLE: PRODUCTION | |
| | APPROVED DATE: 20MAY26 | DESCRIPTION: SALES DRAWING | |
| | PROJECT NO: 0 | | |
| REELL PRECISION MANUFACTURING<br>1259 WILLOW LAKE BOULEVARD<br>SAINT PAUL, MINNESOTA 55110-5103, USA | ENGINEER: MICHAEL BEALE | | |
| | DRAWN BY: NOAH RYAN | | |
| THIS PRINT IS THE CONFIDENTIAL PROPERTY OF REELL PRECISION MFG. | THIRD ANGLE PROJECTION | PART NO: TI-160 | REV: E |
| INTERPRET PRINT PER ASME Y14.5M-2009 | DIMENSIONS: mm | SCALE: 1:1 / DO NOT SCALE DRAWING | SHEET 5 OF 5 |