NOTES: See Tabulated Sheet

1. Straight thru bore. Shafts must not enter flexure area during operation.* Maximum shaft penetrations: .150in. Minimum shaft end to shaft end: .250in. *A2 shaft may enter flexure area if smaller than opposing bore; data available.

2. Hubs and HELI-CAL FLEXURE are made from a single piece of material.

3. Set Screw attachment, hex. socket, cup point set screw furnished: both hubs. Set Screw size based on bore size: .078in thru .093in : 1-72 .094in thru .315in : 2-56

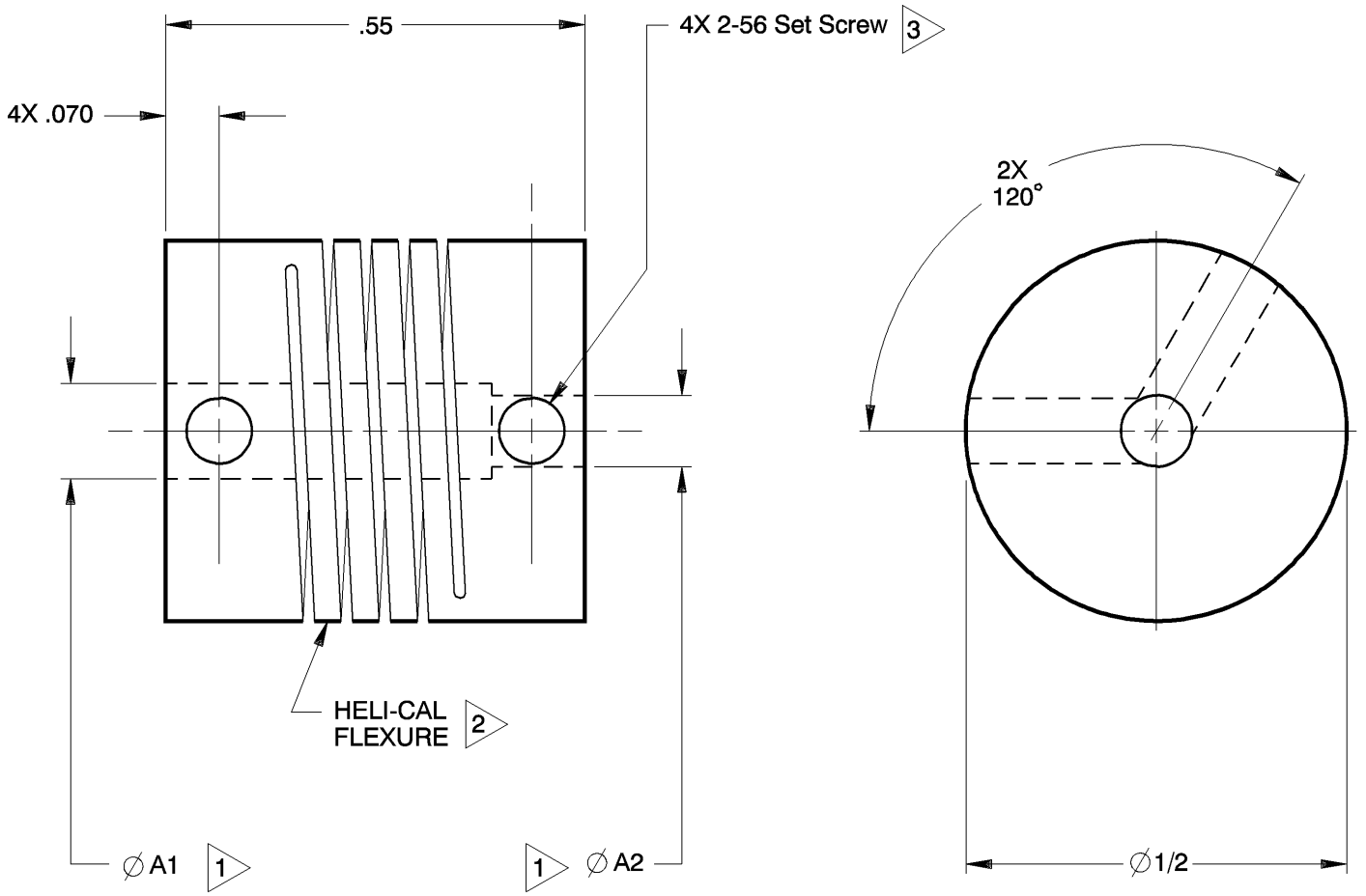
4. Backlash: None. No lubrication required.

5. Permitted axial motion from free length: ± .010in.

6. RPM: Up to 10,000, depending upon application.

7. Working torque ratings are based upon continuous duty with noted misalignments applied separately and may be increased with improved alignment: See Tabulated Sheet

8. Permissible shaft misalignment: Angular, up to 5 degrees. Offset, up to .010in. (TIR, .020in.)




AE050-4-3 SHOWN



| DATE | LTR | REVISION | CHK |
|---|---|---|---|
| 12-18-09 | --- | Finish was Chromic Acid Anodize; Updated GD&T HG | JAJ |
| 10-7-98 | | Clerical format update/ No revision BJM | MC |

Unless otherwise noted dimensions in inches.

Tolerances are:
Fractions: ± 1/64
Decimals: .XX ±.010
.XXX ±.005
.XXXX ±.0010
Angles: ± 2 degrees
Break sharp corners .010 max.

| APPROVALS | DATE |
|---|---|
| DRAWN MM | 9-20-79 |
| CHECKED MC | 9-20-79 |
| PRODN APA | 9-20-79 |
| ISSUED | |
| WEIGHT 4g (calc) | |
| SCALE 4/1 | SIZE A |

HELICAL PRODUCTS CO., INC.
P.O. BOX 1069 SANTA MARIA, CA. 93456 U.S.A
PHONE (805) 928-3851 FSC13201

| | |
|---|---|
| TITLE | HELICAL FLEXIBLE SHAFT COUPLING |
| MATERIAL | 7075-T6 Aluminum Alloy |
| FINISH | Anodize per HPS1000 |
| DWG NO | AE050 |

| ADDITION DATE | PART NUMBER | BORE TOLERANCES +.002in -.000in or +.05mm -.00mm A1 Dia | BORE TOLERANCES A2 Dia | TORQUES (lbin) Non-reversing | TORQUES (lbin) Shock or Reversing | TORQUES (lbin) Momentary | TORSIONAL FLEXIBILITY deg/lbin | MASS MOMENT OF INERTIA | COMMENTS A1 | COMMENTS A2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 09 Mar 88 | AE050-3-3 | .094in | .094in | 4.0 | 2.0 | 8.0 | | | | |
| 11 Jul 00 | AE050-3mm-2mm | 3.00mm | 2.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-4M-2mm | .120in | 2.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-4M-4M | .120in | .120in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-4-2mm | .125in | 2.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-4-3 | .125in | .094in | 3.0 | 1.5 | 6.0 | | | | |
| | AE050-4-3mm | .125in | 3.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-4-4 | .125in | .125in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-3.5mm-3 | * 3.50mm | .094in | 3.0 | 1.5 | 6.0 | | | | |
| 08 Dec 00 | AE050-5-3 | * .157in | .094in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-5-3mm | * .157in | 3.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-5-4 | * .157in | .125in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-5-5 | * .157in | * .157in | 3.0 | 1.5 | 6.0 | | | | |
| 27 Aug 01 | AE050-6-2.5mm | * .188in | 2.50mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-6-4M | * .188in | .120in | 3.0 | 1.5 | 6.0 | | | | |
| 31 Jan 89 | AE050-6-3.1mm | * .188in | 3.10mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-6-4 | * .188in | .125in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-6-6 | * .188in | * .188in | 3.0 | 1.5 | 6.0 | | | | |
| 24 Jun 88 | AE050-5mm-3mm | * 5.00mm | 3.00mm | 3.0 | 1.5 | 6.0 | | | | |
| | AE050-5mm-4mm | * 5.00mm | * 4.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-5mm-5mm | * 5.00mm | * 5.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 18 Sep 90 | AE050-6mm-5 | * 6.00mm | * .157in | 3.0 | 1.5 | 6.0 | | | | |
| 24 Jun 88 | AE050-6mm-4mm | * 6.00mm | * 4.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 24 Jun 88 | AE050-6mm-6mm | * 6.00mm | * 6.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-8-3 | * .250in | .094in | 3.0 | 1.5 | 6.0 | | | | |
| 26 Feb 90 | AE050-8-3mm | * .250in | 3.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 24 Oct 89 | AE050-8-4M | * .250in | .120in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-8-4 | * .250in | .125in | 3.0 | 1.5 | 6.0 | | | | |
| 26 Oct 88 | AE050-8-5 | * .250in | * .157in | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-8-6 | * .250in | * .188in | 3.0 | 1.5 | 6.0 | | | | |
| 24 Jun 88 | AE050-8-5mm | * .250in | * 5.00mm | 3.0 | 1.5 | 6.0 | | | | |

* NOTE: Bores greater than .125in Dia: bore depth is .125in



ADDITIONAL BORE SIZES AVAILABLE UPON REQUEST

| APPROVALS | DATE |
|---|---|
| DRAWN | |
| CHECKED | |
| PRODN | |
| ISSUED | 12/10/2009 10:49:12 AM |

HELICAL PRODUCTS CO. INC
P.O. BOX 1069 SANTA MARIA, CA. 93456 U.S.A
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TITLE HELICAL FLEXIBLE SHAFT COUPLING

# TABULATED BORE SIZES

DWG NO AE050

| ADDITION DATE | PART NUMBER | BORE TOLERANCES +.002in -.000in or +.05mm -.00mm A1 Dia | BORE TOLERANCES A2 Dia | TORQUES (lbin) Non-reversing | Shock or Reversing | Momentary | TORSIONAL FLEXIBILITY deg/lbin | MASS MOMENT OF INERTIA | COMMENTS A1 | COMMENTS A2 |
|---|---|---|---|---|---|---|---|---|---|---|
| | AE050-8-6mm | * .250in | * 6.00mm | 3.0 | 1.5 | 6.0 | | | | |
| 09 Mar 88 | AE050-8-8 | * .250in | * .250in | 3.0 | 1.5 | 6.0 | | | | |
| 22 Aug 90 | AE050-10-4M | * .313in | .120in | 3.0 | 1.5 | 6.0 | | | | |
| 01 May 90 | AE050-10-6 | * .313in | * .188in | 3.0 | 1.5 | 6.0 | | | | |
| | AE050-8mm-6 | * 8.00mm | * .188in | 3.0 | 1.5 | 6.0 | | | | |

* NOTE: Bores greater than .125in Dia: bore depth is .125in



ADDITIONAL BORE SIZES AVAILABLE UPON REQUEST

| APPROVALS | DATE |
|---|---|
| DRAWN | |
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# TABULATED BORE SIZES

DWG NO AE050