NOTES: See Tabulated Sheet

1. Straight thru bore. Shafts must not enter flexure area during operation.* Maximum shaft penetrations: .300in. Minimum shaft end to shaft end: .400in. *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:
.090in thru .093in : 1-72
.094in thru .124in : 2-56
.125in thru .155in : 4-40
.156in thru .630in : 6-32

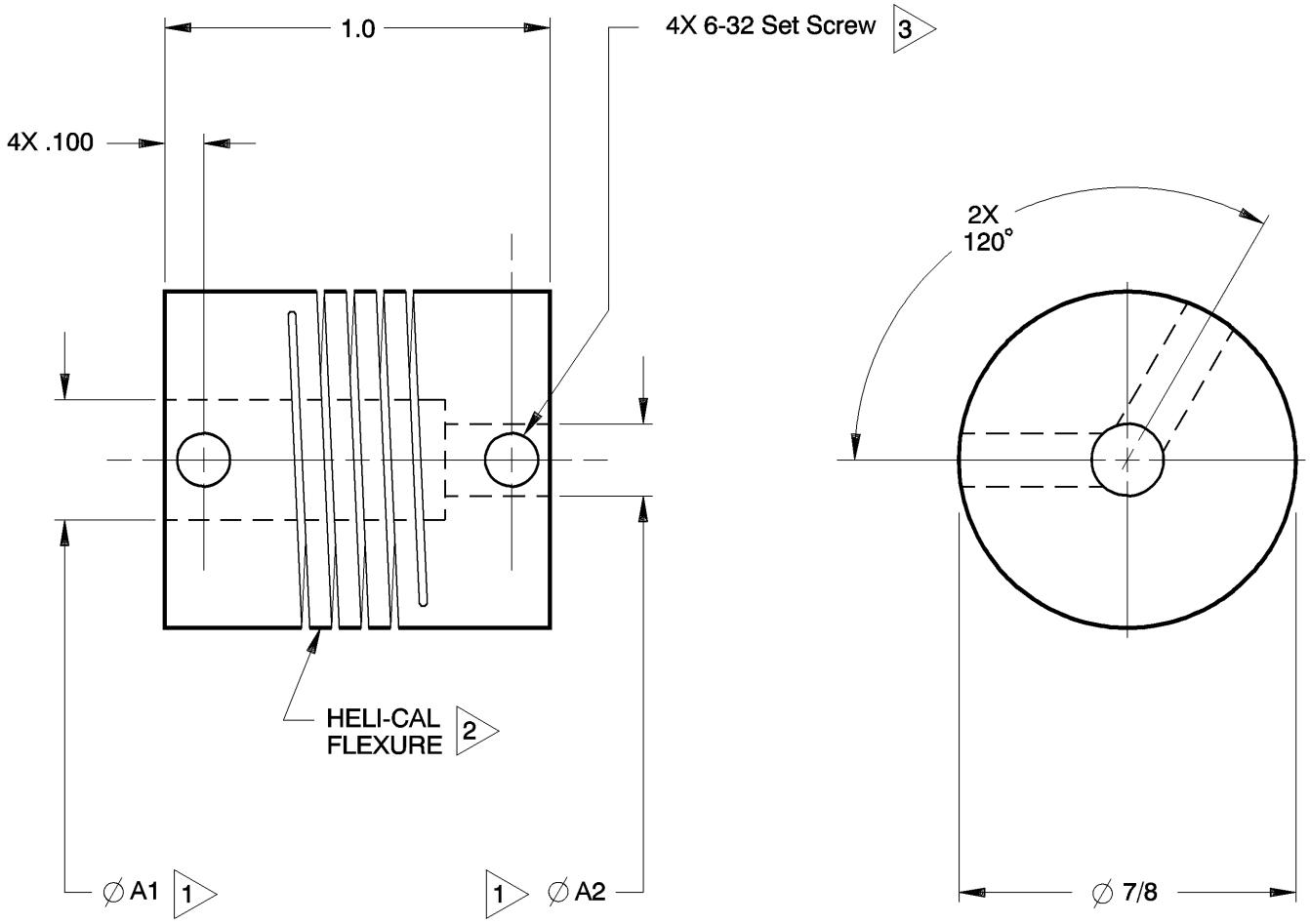
4. Backlash: None. No lubrication required.

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.)




AE087-10-6 SHOWN

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DO NOT SCALE DRAWING.

| DATE | LTR | REVISION | CHK |
|---|---|---|---|
| 12-18-09 | --- | Finish was Chromic Acid Anodize; Updated GD&T HG | JAJ |
| 10-8-98 | | 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 | 12-10-79 |
| CHECKED MC | 12-10-79 |
| PRODN | |
| ISSUED | |
| WEIGHT 24g (calc) | |
| SCALE 2/1 | 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 | AE087 |

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| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 23 May 89 | AE087-6-4.62mm | .188in | 4.62mm | 16 | 8 | 32 | | | | |
| 09 Mar 88 | AE087-6-6 | .188in | .188in | 16 | 8 | 32 | | | | |
| 23 May 89 | AE087-7-6 | .219in | .188in | 15 | 8 | 31 | | | | |
| 24 Jun 88 | AE087-6mm-6mm | 6.00mm | 6.00mm | 15 | 7 | 30 | | | | |
| | AE087-8-4M | .250in | .120in | 15 | 7 | 30 | | | | |
| 09 Mar 88 | AE087-8-4 | .250in | .125in | 15 | 7 | 30 | | | | |
| 26 Oct 88 | AE087-8-5 | .250in | .157in | 15 | 7 | 30 | | | | |
| 09 Mar 88 | AE087-8-6 | .250in | .188in | 15 | 7 | 30 | | | | |
| | AE087-8-5mm | .250in | 5.00mm | 15 | 7 | 30 | | | | |
| 24 Jun 88 | AE087-8-6mm | .250in | 6.00mm | 15 | 7 | 30 | | | | |
| 09 Mar 88 | AE087-8-8 | .250in | .250in | 15 | 7 | 30 | | | | |
| 11 Jul 90 | AE087-7.5mm-8 | 7.50mm | .250in | 14 | 7 | 28 | | | | |
| 22 Jun 90 | AE087-10-4M | .313in | .120in | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-10-6 | .313in | .188in | 14 | 7 | 28 | | | | |
| 24 Jun 88 | AE087-10-6mm | .313in | 6.00mm | 14 | 7 | 28 | | | | |
| 15 Jun 90 | AE087-10-6.13mm | .313in | 6.13mm | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-10-8 | .313in | .250in | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-10-10 | .313in | .313in | 14 | 7 | 28 | | | | |
| 06 Jul 90 | AE087-8mm-6mm | 8.00mm | 6.00mm | 14 | 7 | 28 | | | | |
| 24 Jun 88 | AE087-8mm-10 | 8.00mm | .313in | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-8.89mm-6 | * 8.89mm | .188in | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-12-4 | * .375in | .125in | 14 | 7 | 28 | | | | |
| | AE087-12-4mm | * .375in | 4.00mm | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-12-6 | * .375in | .188in | 14 | 7 | 28 | | | | |
| | AE087-12-5mm | * .375in | 5.00mm | 14 | 7 | 28 | | | | |
| 24 Jun 88 | AE087-12-6mm | * .375in | 6.00mm | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-12-8 | * .375in | .250in | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-12-10 | * .375in | .313in | 14 | 7 | 28 | | | | |
| 09 Mar 88 | AE087-12-12 | * .375in | * .375in | 14 | 7 | 28 | | | | |
| 24 Jun 88 | AE087-9.85mm-8 | * 9.85mm | .250in | 14 | 7 | 28 | | | | |
| 12 Dec 00 | AE087-10mm-12 | *10.00mm | * .375in | 14 | 7 | 28 | | | | |

* NOTE: Bores greater than .315in Dia: bore depth is .275in

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ADDITIONAL BORE SIZES AVAILABLE UPON REQUEST

| APPROVALS | DATE |
|---|---|
| DRAWN | |
| CHECKED | |
| PRODN | |
| ISSUED | 12/10/2009 11:13:39 AM |

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TITLE HELICAL FLEXIBLE SHAFT COUPLING

# TABULATED BORE SIZES

DWG NO AE087

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| ADDITION DATE | PART NUMBER | BORE TOLERANCES +.002in -.000in A1 Dia | BORE TOLERANCES or +.05mm -.00mm 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 Jul 03 | AE087-16-6 | * .500in | .188in | 14 | 7 | 28 | | | | |
| | AE087-16-12mm | * .500in | *12.00mm | 14 | 7 | 28 | | | | |
| 26 Oct 88 | AE087-16-16 | * .500in | * .500in | 14 | 7 | 28 | | | | |
| 08 Oct 01 | AE087-18-6 | * .563in | .188in | 14 | 7 | 28 | | | | |
| 08 Jun 00 | AE087-20-10 | * .625in | .313in | 14 | 7 | 28 | | | | |

* NOTE: Bores greater than .315in Dia: bore depth is .275in

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| APPROVALS | DATE |
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