

Similar to AC037, but with relief in middle so that the shaft can extend into the middle of the coupling without interference. Preferred over AC037 couplings.

DWG NO **ACR037** SH **1**

NOTES: See Tabulated Sheet

1 Relief permits component shafts to near butt.

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

3 Integral Clamp attachment, hex. socket, cap screw furnished: both hubs.

4 Backlash: None. No lubrication required.

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

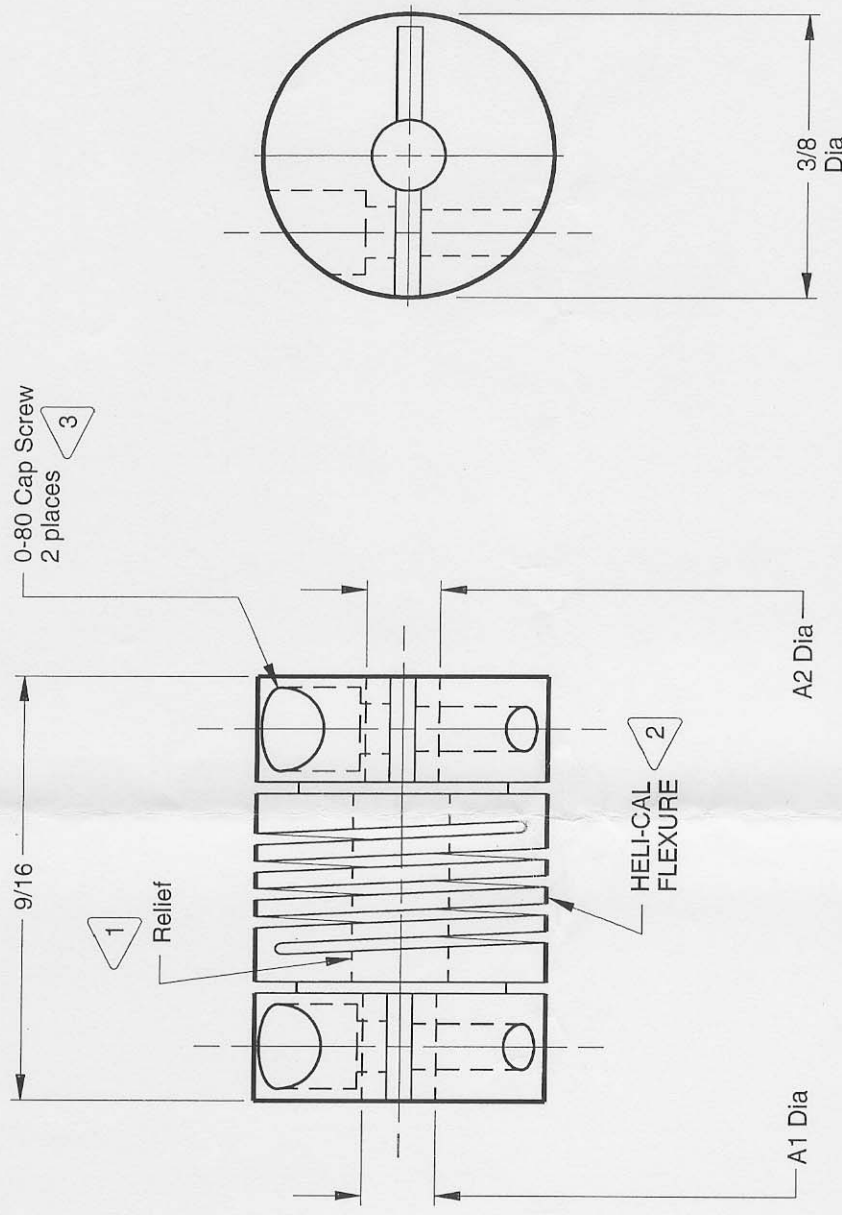
6 RPM: Up to 10,000, depending upon application.

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

8 See Tabulated Sheet

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

Part will have a .421in. Clearance Diameter on both ends when any bore is over .094in. thru .145in.



ACR037-3-3 SHOWN

APPROVALS		DATE
DRAWN	MM	1-19-79
CHECKED	GLB	1-19-79
PRODN	APA	1-19-79
ISSUED		
WEIGHT	2g (calc)	
SCALE	4/1	A

TITLE		MATERIAL		FINISH		DWG NO	
HELICAL PRODUCTS CO., INC.		7075-T6 Aluminum Alloy		Chromic Acid Anodize, Type I		ACR037	
P.O. BOX 1069 SANTA MARIA, CA. 93456 U.S.A							
PHONE (805) 928-3851 FSC-13201							

UNLESS OTHERWISE NOTED DIMENSIONS IN INCHES.	
Tolerances are:	
Fractions: ±1/64	
Decimals: .XX ±.005	
.XXX ±.005	
.XXXX ±.0010	
Angles: ± 2 degrees	
Break sharp corners	
.010 max.	

DATE	LTR	REVISION	CHK
1-25-99			

Clerical format update/ No revision BJM

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Similar to AC037, but with relief in middle so that the shaft can extend into the middle of the coupling without interference. Preferred over AC037 couplings.

PART NUMBER	BORE TOLERANCES		TORQUES (lbin)			TORSIONAL FLEXIBILITY	MASS MOMENT OF INERTIA	COMMENTS
	+0.02in or +.05mm -.000in or -.00mm		Non-reversing	Shock or Reversing	Momentary			
	A1 Dia	A2 Dia						
ACR037-1.95mm-1.95mm	1.95mm	1.95mm	?	?	?			
ACR037-2mm-2mm	2.00mm	2.00mm	1.5	.75	3			
ACR037-3M-3M	.090in	.090in	1.5	.75	3			
ACR037-3M-4M	.090in	* .120in	1.5	.75	3			
ACR037-3-1.5mm	.094in	1.50mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3-2mm	.094in	2.00mm	1.5	.75	3			
ACR037-3-3	.094in	.094in	1.5	.75	3			
ACR037-3mm-1.5mm	* 3.00mm	1.50mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3mm-2mm	* 3.00mm	2.00mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3mm-3mm	* 3.00mm	* 3.00mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-4M-3M	* .120in	.090in	1.5	.75	3			Clearance Diameter: .421in
ACR037-4-3	* .125in	.094in	1.5	.75	3			Clearance Diameter: .421in
ACR037-4-4M	* .125in	* .120in	1.5	.75	3			Clearance Diameter: .421in
ACR037-3.2mm-2.15mm	* 3.20mm	2.15mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3.2mm-2.2mm	* 3.20mm	2.20mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3.6mm-2.5mm	* 3.60mm	* 2.50mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3mm-1.7mm	* 3.00mm	1.70mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-4-2mm	* .125in	2.00mm	1.5	.75	3			Clearance Diameter: .421in
ACR037-3-3M	.094in	.090in	1.5	.75	3			Clearance Diameter: .421in

* NOTE: Bore greater than .094in Dia; bore depth is .148in

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APPROVALS

DRAWN	DATE
CHECKED	
PRODN	
ISSUED	

HELICAL PRODUCTS CO., INC.
 901 W. MCCOY LANE
 SANTA MARIA, CA. 93455
 (805)928-3851

TITLE: HELICAL FLEXIBLE SHAFT COUPLING

TABULATED BORE SIZES

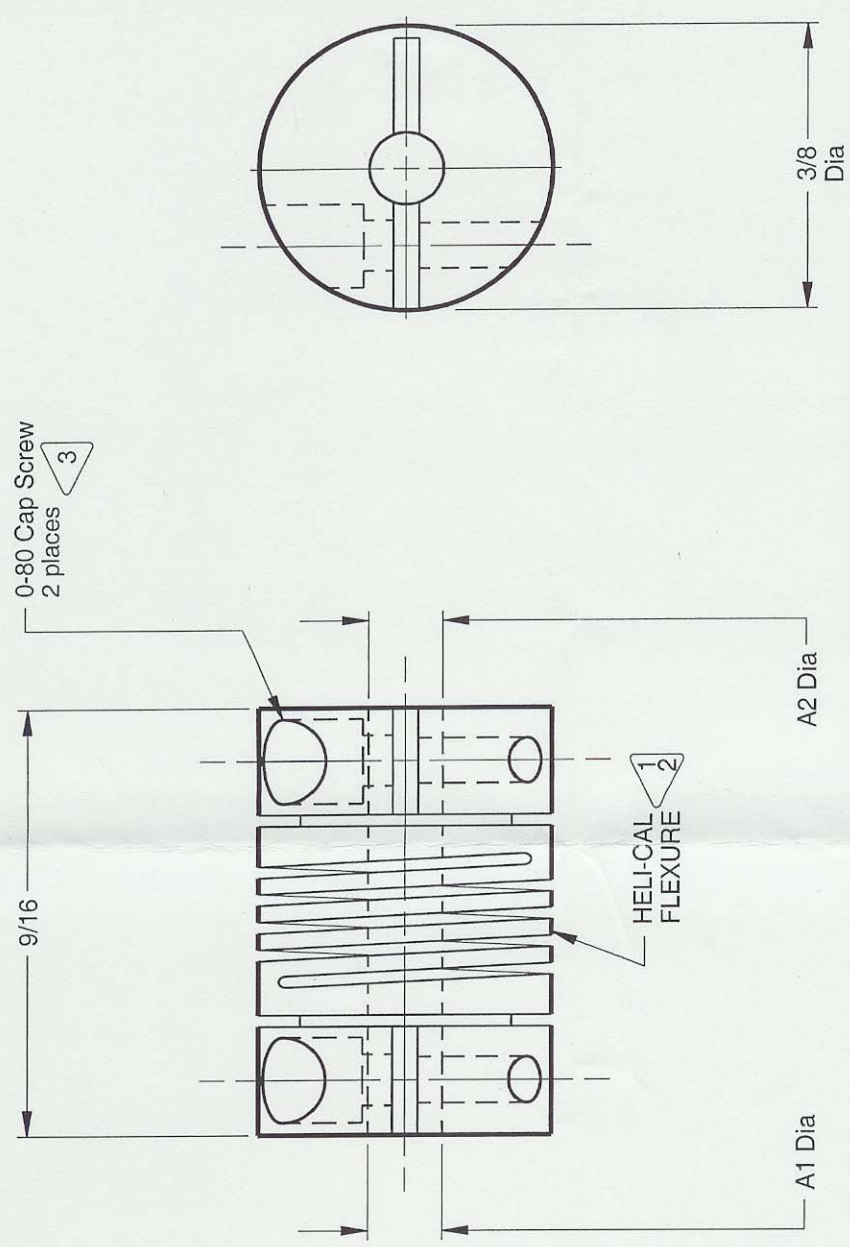
DWG NO: ACR037

DWG NO: ACR037

SH 2 of 2

AI A2

- 1 Straight thru bore. Shafts must not enter flexure area during operation.* Maximum shaft penetrations: .170in. Minimum shaft end to shaft end: .223in.
- 2 *A2 shaft may enter flexure area if smaller than opposing bore: data available.
- 3 Hubs and HELI-CAL FLEXURE are made from a single piece of material.
- 4 Integral Clamp attachment, hex. socket, cap screw furnished: both hubs.
- 5 Backlash: None. No lubrication required.
- 6 Permitted axial motion from free length: ± .010in.
- 7 RPM: Up to 10,000, depending upon application. 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:
- 9 Angular, up to 5 degrees. Offset, up to .010in. (TIR, .020in.) Part will have a .421in. Clearance Diameter on both ends when any bore is over .094in. thru .145in.



AC037-3-3 SHOWN

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		DRAWN	MM	1-22-79	TITLE
	CHECKED	MC	1-22-79	MATERIAL	7075-T6 Aluminum Alloy
	PRODN	APA	1-22-79	FINISH	Chromic Acid Anodize, Type I
	ISSUED			DWG NO	AC037
	WEIGHT	2g (calc)			
	SCALE	4/1	SIZE	A	
	Clerical format update/ No revision	BJM	MC	CHK	
12-22-98	LTR	REVISION			

PART NUMBER	BORE TOLERANCES		TORQUES (lbin)		TORSIONAL FLEXIBILITY	MASS MOMENT OF INERTIA	COMMENTS
	+ .002in - .000in	+ .05mm - .00mm	Non-reversing	Shock or Reversing			
AC037-1.5mm-1.5mm	1.50mm	1.50mm	1.5	.75	3		
AC037-2-2	.063in	.063in	1.5	.75	3		
AC037-2mm-2mm	2.00mm	2.00mm	1.5	.75	3		
AC037-2.03mm-2	2.03mm	.063in	1.5	.75	3		
AC037-3M-3M	.090in	.090in	1.5	.75	3		
AC037-3-2mm	.094in	2.00mm	1.5	.75	3		
AC037-3-3	.094in	.094in	1.5	.75	3		
AC037-2.5mm-2.5mm	* 2.50mm	* 2.50mm	1.5	.75	3		Clearance Diameter: .421in
AC037-3mm-2mm	* 3.00mm	2.00mm	1.5	.75	3		Clearance Diameter: .421in
AC037-3mm-3	* 3.00mm	.094in	1.5	.75	3		Clearance Diameter: .421in
AC037-3mm-3mm	* 3.00mm	* 3.00mm	1.5	.75	3		Clearance Diameter: .421in
AC037-4M-3M	* .120in	.090in	1.5	.75	3		Clearance Diameter: .421in
AC037-4M-4M	* .120in	* .120in	1.5	.75	3		Clearance Diameter: .421in
AC037-4-2mm	* .125in	2.00mm	1.5	.75	3		Clearance Diameter: .421in
AC037-4-3M	* .125in	.090in	1.5	.75	3		Clearance Diameter: .421in
AC037-4-3	* .125in	.094in	1.5	.75	3		Clearance Diameter: .421in
AC037-4-3mm	* .125in	* 3.00mm	1.5	.75	3		Clearance Diameter: .421in
AC037-4-4	* .125in	* .125in	1.5	.75	3		Clearance Diameter: .421in
AC037-3.5mm-2mm	* 3.50mm	2.00mm	1.5	.75	3		Clearance Diameter: .421in
AC037-2mm-1.7mm	2.00mm	1.70mm	1.5	.75	3		Clearance Diameter: .421in
AC037-3.5mm-1.5mm	* 3.50mm	1.50mm	1.5	.75	3		Clearance Diameter: .421in
AC037-3.56mm-1.5mm	* 3.56mm	1.50mm	1.5	.75	3		Clearance Diameter: .421in

DWG NO AC037 SH 2 of 2

AI A2

APPROVALS DATE
 DRAWN
 CHECKED
 PRODN
 ISSUED

* NOTE: Bores greater than .094in Dia; bore depth is .148in

HELICAL PRODUCTS CO., INC.
 901 W. MCCOY LANE
 SANTA MARIA, CA. 93455
 (805)928-3851

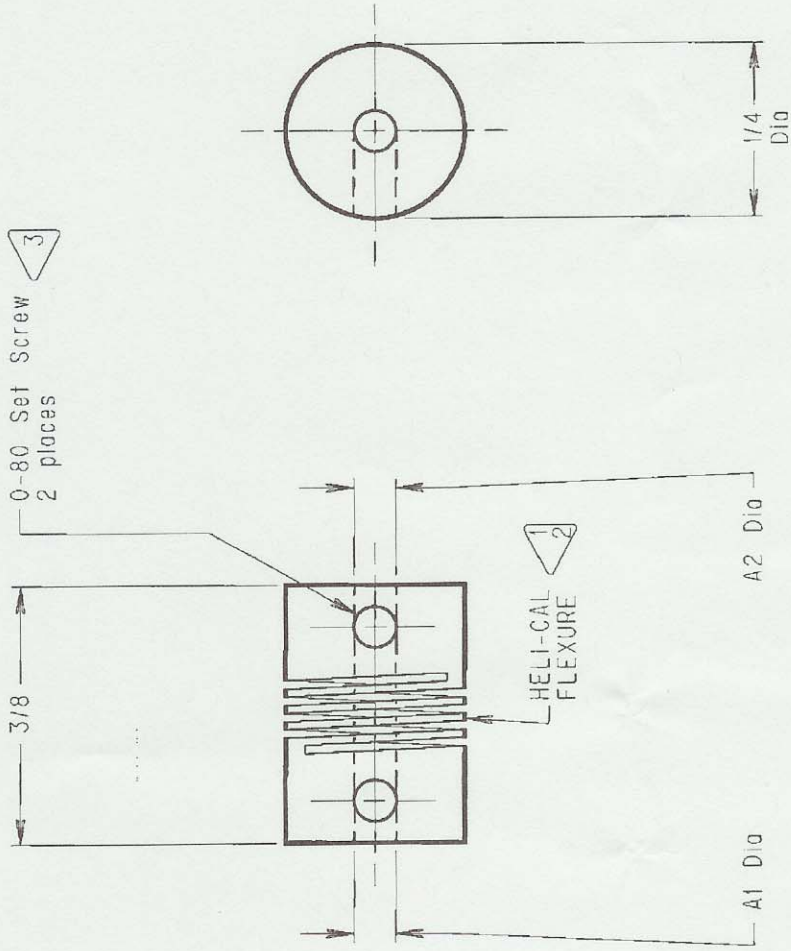
TITLE
 HELICAL FLEXIBLE SHAFT COUPLING
 TABULATED BORE SIZES

DWG NO AC037

DWG NO 4303 SH 1 of 2 REV

Notes: See Tabulated Sheet

- 1 Straight thru bore. Shafts must not enter flexure area during operation.
- 2 Maximum shaft penetration:
A1 bore-.10in.
A2 bore-.110in.
- 3 Minimum shaft end to shaft end: .155in.
- 4 Hubs and HELI-CAL FLEXURE are made from a single piece of material.
- 5 Set Screw attachment, hex. socket, cup point set screw furnished; both hubs.
- 6 Backlash: None.
No lubrication required.
- 7 Permitted axial motion from free length: .005in.
- 8 RPM: Up to 10,000, depending upon application.
- 9 Torsional Flexibility: See Tabulated Sheet
- 10 Mass Moment of Inertia: See Tabulated Sheet
- 11 Working torque ratings are based upon continuous duty with noted misalignments applied separately and may be increased with improved alignment.
- 12 See Tabulated Sheet
- 13 Permissible shaft misalignment:
Angular, up to 5 degrees.
Offset, up to .005in. (TIR, .010in.)



4303-1.5mm-1.5mm SHOWN

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<p>6-11-90</p> <p>DATE</p>	<p>Clerical format update/ no revision</p> <p>REVISION</p>	<p>CHK</p>	<p>SIZE A</p>	<p>DWG NO 4303</p>	<p>REV</p>	

DWG NO		SH		REV				
Y4729		4303		2				
ADDITION DATE	PART NUMBER	BORE TOLERANCES		TORQUES (lbin)		TORSIONAL FLEXIBILITY	MASS MOMENT OF INERTIA	COMMENTS
		A1 Dia	A2 Dia	Non-reversing	Shock or Reversing			
9 SEP 86	4303-1.5mm-1.5mm	1.500mm	1.500mm	.16	.08	.32	3.6 x 10 ⁻⁸	
9 SEP 86	4303-3M-1.5mm	.0900in	1.500mm	.14	.07	.28	3.6 x 10 ⁻⁸	
9 SEP 86	4303-4-1.5mm	.1250in	1.500mm	.12	.06	.24	3.6 x 10 ⁻⁸	
9 SEP 86	4303-4-4	.1250in	.1250in	.12	.06	.24	3.6 x 10 ⁻⁸	
2 DEC 91	4303-2mm-2mm	2.000mm	2.000mm	.15	.07	.30	3.6 x 10 ⁻⁸	

Post-it® Fax Note 7671		Date	# of pages
To	William Provaciter	From	RANDY
Co./Dept.		Co.	
Phone #		Phone #	
Fax #	650/725-8475 4303	Fax #	

APPROVALS		DATE
DRAWN	JO	9-9-86
CHECKED	MC	9-9-86
PRDGN	APA	9-15-86
ISSUED		

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HELICAL PRODUCTS CO., INC.	
901 W. MCCOY LANE SANTA MARIA, CA. 93465 (805)928-3851	
TITLE HELICAL FLEXIBLE SHAFT COUPLING	
TABULATED BORE SIZES	
DWG NO	4303
REV	

NOTES: See Tabulated Sheet

1 Relief permits component shafts to near butt.

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

3 Integral Clamp attachment, hex. socket, ISO std., cap screw furnished: both hubs.

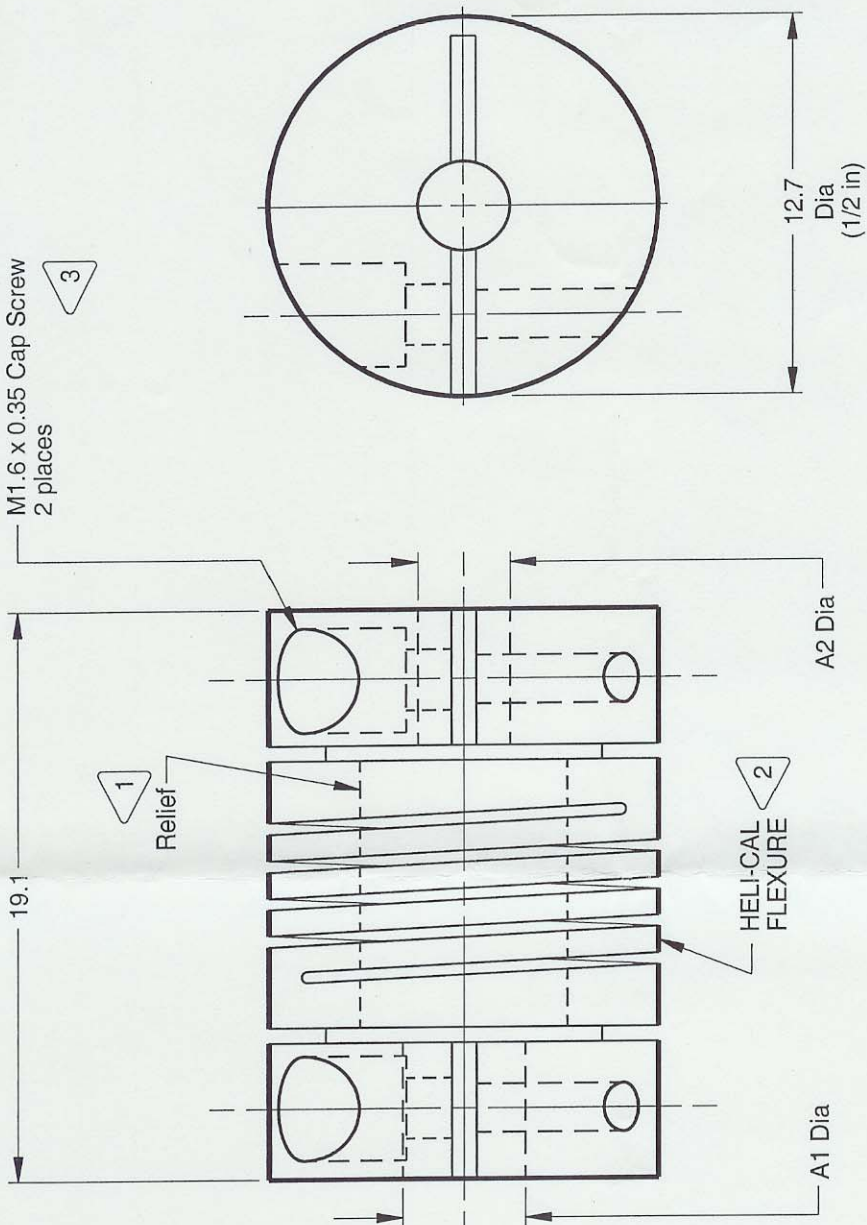
4 Backlash: None. No lubrication required.

5 Permitted axial motion from free length: $\pm .010$ in.

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

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

8 Clearance Diameter: 14.12mm. for bores over 4.34mm. A



5702-4mm-3mm SHOWN

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	7-1-91	A	Added Clearance Dia. Note for bore over 4.34mm to 6.00mm.	MC DH		DRAWN	2-1-88	
	LTR	REVISION		CHK		CHECKED	2-2-88	7075-T6 Aluminum Alloy
						PROD'D	2-3-88	Chromic Acid Anodize, Type I
						ISSUED		DWG NO
						WEIGHT	6g (calc)	5702
						SCALE	2/1	REV A
						SIZE	A	

DO NOT SCALE DRAWING.

ADDITION DATE	PART NUMBER	BORE TOLERANCES		TORQUES (kgcm)			TORSIONAL FLEXIBILITY	MASS MOMENT OF INERTIA	COMMENTS
		+002in -000in	+05mm -00mm	A1 Dia	A2 Dia	Non-reversing			
1 FEB 88	5702-4mm-3mm	4.00mm	3.00mm	1.8	0.90	3.6			Clearance Diameter: 14.12mm Clearance Diameter: 14.12mm
1 JUL 91	5702-5mm-4	5.00mm	.125in	1.5	0.75	3.0			
1 MAR 95	5702-4mm-2mm	4.00mm	2.00mm	1.8	0.90	3.6			
22 AUG 96	5702-5-4	.157in	.125in	1.8	0.90	3.6			
5 OCT 01	5702-6mm-4	6.00mm	.125in	1.2	0.59	2.3			

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APPROVALS DATE

DRAWN	BJM	2-1-88
CHECKED	MC	2-2-88
PRODN	DH	2-3-88
ISSUED		

TITLE: HELICAL FLEXIBLE SHAFT COUPLING

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

TABULATED BORE SIZES

DWG NO 5702 REV A