

NOTES:

1 Refer to Secondary Sheet for Tabulated Data.

2  $\phi A1$  and  $\phi A2$  shafts may near butt except:

When any Bore  $> \phi .313$  the component shaft MAX penetration is .200 or when both Bores  $> \phi .313$  the component shaft MAX penetration is .200 & the MIN shaft end to shaft end is .475

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

4 Set Screw attachment, hex. socket, cup point set screw furnished: both hubs.

5 Backlash: None. No lubrication required.

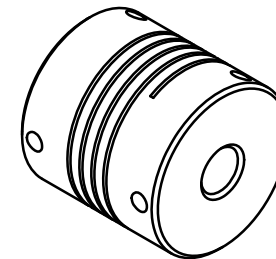
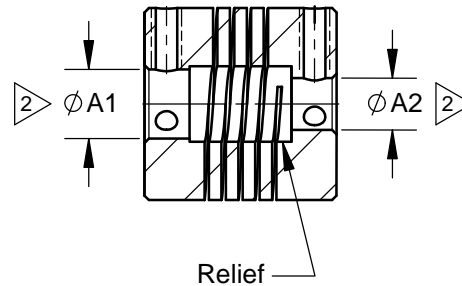
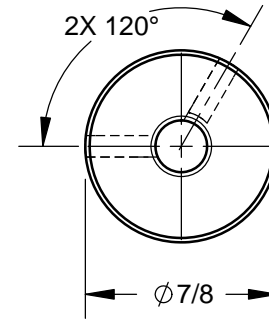
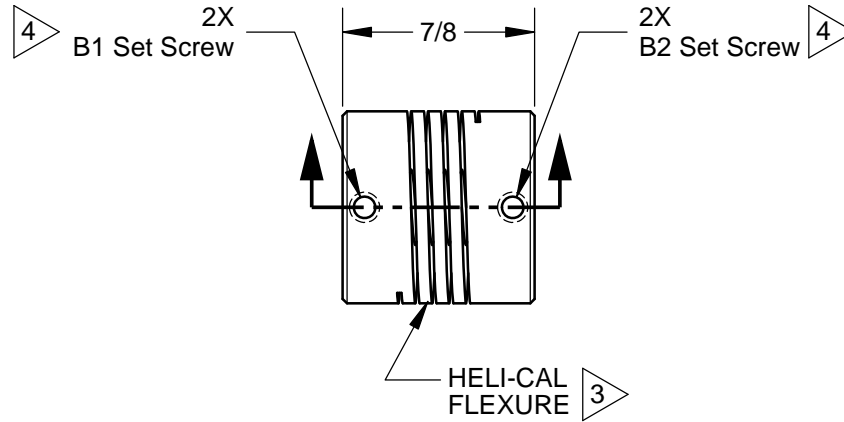
6 Permitted axial motion from free length:  $\pm 0.10$ .

7 RPM: Up to 10,000, depending on application.

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

9 Permissible shaft misalignment: Angular, up to 5 degrees. Offset, up to 0.10 (FIM, 0.20)

10 Weight based on AR087-8mm-6mm



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12-2-14	---	ECR#14102000 added calc. weight	DCE	EK
08-01-13	---	Redrawn in Solidworks	CL	JAJ/EK
12-18-09	---	Finish was Chromic Acid Anodize; Updated GD&T	JAJ	HG
08-10-98	---	Clerical Format Update/ No Revision	BJM	MC
DATE	LTR	REVISION	APVR	

Unless otherwise specified all tolerances and dimensions are in inches.

Inch	Metric
X/XX= $\pm 1/64$	X= $\pm 0.5$ mm
.XX= $\pm .01$	X.X= $\pm 0.25$ mm
.XXX= $\pm .005$	X.XX= $\pm 0.15$ mm
Angles $\pm 2^\circ$	

Break sharp corners .010 MAX  
All surface finish 63 roughness  
Do Not Scale Drawing



**HELICAL**  
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DRAWN BY MM	DATE 11-27-79	TITLE HELICAL FLEXIBLE SHAFT COUPLING
CHECKED BY MC	DATE 11-27-79	MATL 7075-T6 Aluminum Alloy
APPRVD BY APA	DATE 11-27-79	FINISH Anodize IAW HPS1000
WEIGHT (calculated) 18.5 g		DRAWING NUMBER <b>AR087</b>
SHEET 1 of 3		REV

# TABULATED DATA

UOS all dimensions are in inches.  
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MATERIAL: 7075-T6 Aluminum Alloy

FINISH: Anodize IAW HPS1000

Drawing Number

**AR087**

REV

DO NOT SCALE DRAWING

SHT 2 of 3

ITEM DESCRIPTION (Part Number)	BORE SIZES		SET SCREW		TORQUES (lbin)		
	TOLERANCE +0.002in or +0.05mm -0.000in or 0		B1	B2	Momentary	Non-Reversing	Shock or Reversing
Ø A1	Ø A2						
AR087-4-4	.125in	.125in	#4-40	#4-40	32	16	8
AR087-5-4M	.157in	.120in	#6-32	#2-56	32	16	8
AR087-6-6	.188in	.188in	#6-32	#6-32	32	16	8
AR087-5mm-6	5.00mm	.188in	#6-32	#6-32	32	16	8
AR087-6mm-6	6.00mm	.188in	#6-32	#6-32	30	15	8
AR087-8-4M	.250in	.120in	#6-32	#2-56	30	15	7
AR087-8-4	.250in	.125in	#6-32	#4-40	30	15	7
AR087-8-3.82mm	.250in	3.82mm	#6-32	#4-40	30	15	7
AR087-8-5	.250in	.157in	#6-32	#6-32	30	15	7
AR087-8-6	.250in	.188in	#6-32	#6-32	30	15	7
AR087-8-5mm	.250in	5.00mm	#6-32	#6-32	30	15	7
AR087-8-6mm	.250in	6.00mm	#6-32	#6-32	30	15	7
AR087-8-8	.250in	.250in	#6-32	#6-32	30	15	7
AR087-10-3	.313in	.094in	#6-32	#2-56	28	14	7
AR087-10-4M	.313in	.120in	#6-32	#2-56	28	14	7
AR087-10-4	.313in	.125in	#6-32	#4-40	28	14	7
AR087-10-5	.313in	.157in	#6-32	#6-32	28	14	7
AR087-10-6	.313in	.188in	#6-32	#6-32	28	14	7
AR087-10-6mm	.313in	6.00mm	#6-32	#6-32	28	14	7
AR087-10-8	.313in	.250in	#6-32	#6-32	28	14	7
AR087-10-7.5mm	.313in	7.50mm	#6-32	#6-32	28	14	7
AR087-10-10	.313in	.313in	#6-32	#6-32	28	14	7
AR087-12-4	.375in	.125in	#6-32	#4-40	28	14	7
AR087-12-4mm	.375in	4.00mm	#6-32	#6-32	28	14	7
AR087-12-6	.375in	.188in	#6-32	#6-32	28	14	7
AR087-12-5mm	.375in	5.00mm	#6-32	#6-32	28	14	7
AR087-12-6mm	.375in	6.00mm	#6-32	#6-32	28	14	7
AR087-12-8	.375in	.250in	#6-32	#6-32	28	14	7
AR087-12-10	.375in	.313in	#6-32	#6-32	28	14	7
AR087-12-8mm	.375in	8.00mm	#6-32	#6-32	28	14	7
AR087-12-12	.375in	.375in	#6-32	#6-32	28	14	7

# TABULATED DATA

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MATERIAL: 7075-T6 Aluminum Alloy

FINISH: Anodize IAW HPS1000

Drawing Number

**AR087**

REV

DO NOT SCALE DRAWING

SHT 3 of 3

ITEM DESCRIPTION (Part Number)	BORE SIZES		SET SCREW		TORQUES (lbin)		
	TOLERANCE +0.002in or +0.05mm -0.000in or 0		B1	B2	Momentary	Non-Reversing	Shock or Reversing
Ø A1	Ø A2						
AR087-10mm-5mm	10.00mm	5.00mm	#6-32	#6-32	28	14	7
AR087-16-4M	.500in	.120in	#6-32	#2-56	28	14	7
AR087-16-6	.500in	.188in	#6-32	#6-32	28	14	7
AR087-16-5mm	.500in	5.00mm	#6-32	#6-32	28	14	7
AR087-19-12	.594in	.375in	#6-32	#6-32	28	14	7
AR087-20-12	.625in	.375in	#6-32	#6-32	28	14	7
AR087-20-20	.625in	.625in	#6-32	#6-32	28	14	7