



## **Universal Driveshafts for Irrigation Applications**

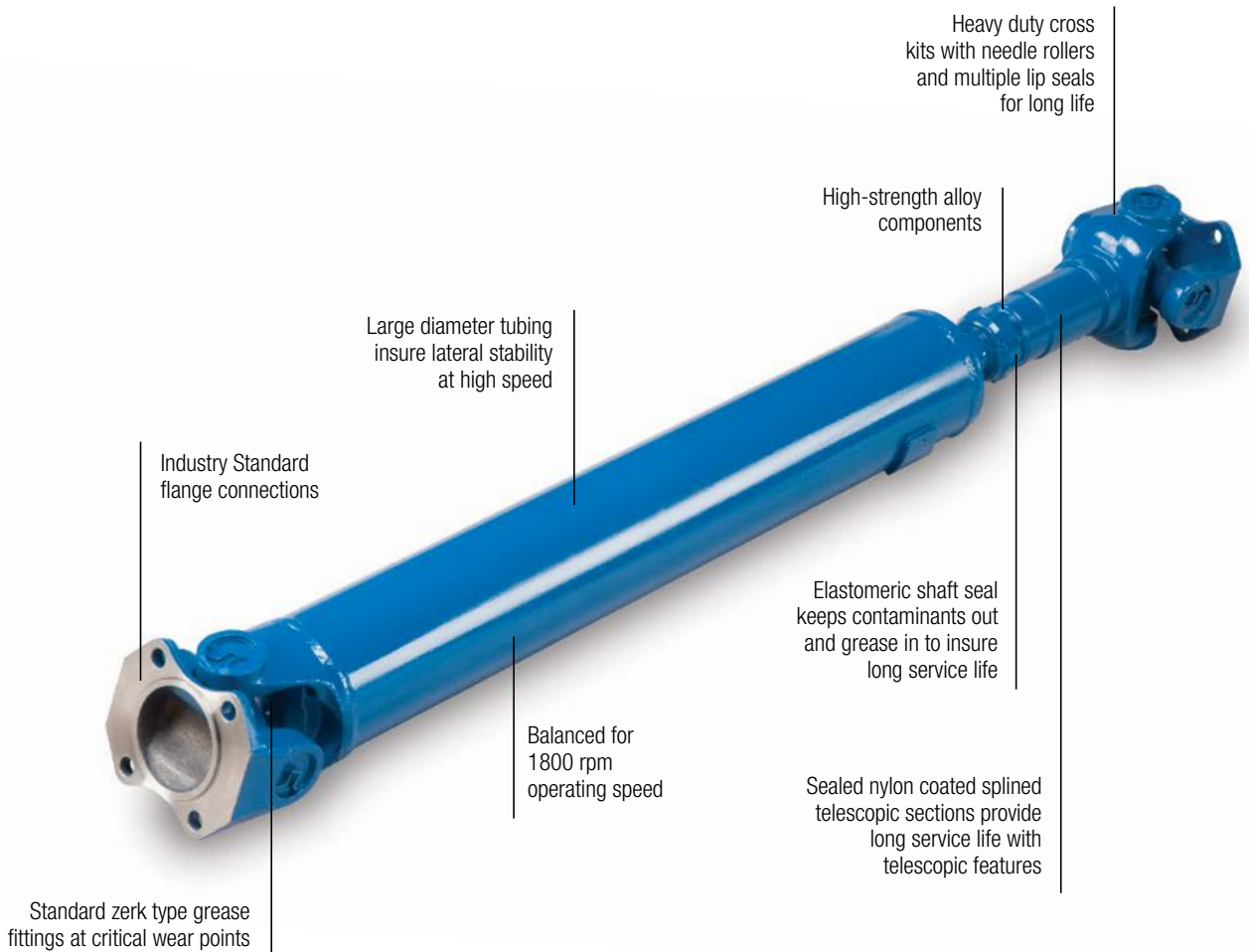




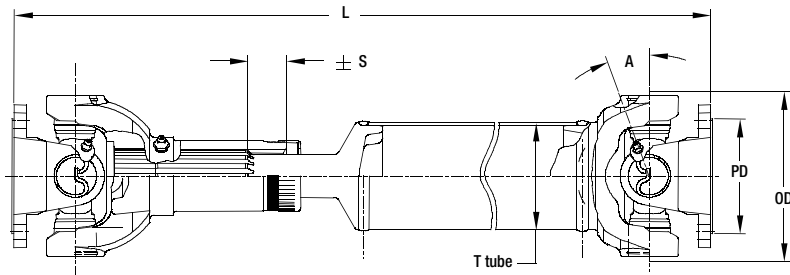
Americardan® universal joints by Ameridrives are designed to provide long lasting performance in irrigation applications.

Americardan® irrigation universal joint driveshafts provide a cost effective means to transmit power from the engine to the pump or generator of an irrigation set. Installation time is reduced as the need for critical alignment tolerances required by other types of couplings is eliminated. The telescopic feature eliminates the need for movement of machinery for installation or maintenance removal. The telescopic feature also allows motion during operation or no-load conditions.

This publication is a guide to available standard sizes and for identification purposes only. For new or redesigned applications please consult the factory for the appropriate selection.



## Standard Length Driveshafts (SL)



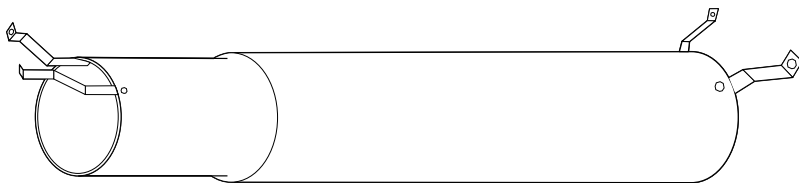
- All dimensions in inches unless noted.
- Standard length shafts are dynamically balanced.
- Non-standard lengths available, please call APT.
- Refer to guard information for proper safety shielding.

**Warning:** Rotating driveshafts can be dangerous. Use shaft guards to help prevent serious injury to personnel.

### Dimensions

SERIES	PART #	L LENGTH	T TUBE	S SLIP +/-	A MAX. ANGLE	A1 WORKING ANGLE	PD PILOT DIA.	OD MAX. DIA.	SHAFT WEIGHT @ 36 inches
31/1310	SL31 x	24,36,48	3.00 x .083	1.06	20°	1° to 8°	2.38	3.88	18 lbs.
37/1350	SL37 x	24,36,48	3.00 x .083	1.81	20°	1° to 8°	2.75	4.56	30
41/1410	SL41 x	24,36,48	3.50 x .083	1.44	20°	1° to 8°	2.75	4.69	31
48/1480	SL48 x	24,36,48	3.50 x .083	1.25	22°	1° to 8°	3.75	5.88	33
55/1550	SL55 x	24,36,48	3.50 x .095	1.13	22°	1° to 8°	3.75	5.88	43
61/1610	SL61 x	24,36,48	3.50 x .134	1.44	26°	1° to 8°	6.63	7.00	52
71/1710	SL71 x	24,36,48	4.00 x .134	2.63	22°	1° to 8°	7.75	8.00	73
81/1810	SL81 x	36,48	4.50 x .134	2.50	30°	1° to 8°	7.75	9.13	77
88/1880	SL88 x	36,48	4.50 x .250	2.56	22°	1° to 8°	7.00	9.88	163
91/1910	SL91 x	36,48	4.75 x .250	2.75	24°	1° to 8°	7.00	9.63	170

## Shaft Guards



Easily installed on new or existing installations. Slips easily over shaft and bolts to drive and driven machines.

- Rigid construction of heavy gauge, continuous milled, non-flaking steel.
- No lost time lubricating shaft. 2" wide opening runs full length of underside of guard.

**Warning:** Rotating driveshafts can be dangerous. Use shaft guards to help prevent serious injury to personnel.

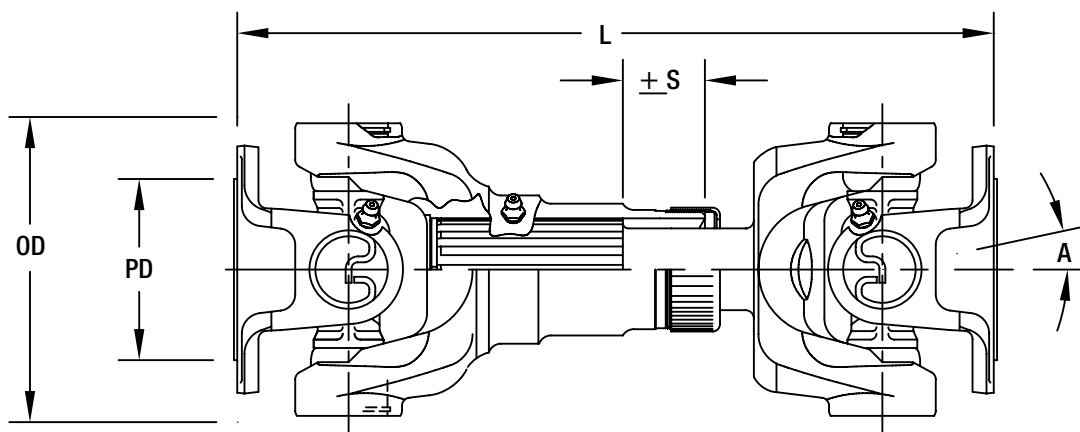
SHAFT GUARD MODELS	LENGTHS AVAILABLE	DRIVESHAFT SERIES
SG-18	10" to 18"	31 - 55
SG-24	14" to 24"	61 - 81
SG-42	24" to 42"	31 - 55
SG-66	35" to 66"	31 - 55
SG-70	35" to 66"	61 - 81
SG-91	28" to 54"	88 - 285

Safety standards require that rotating driveshafts have proper shielding in place. Serious injury or death can result. DO NOT OPERATE equipment without safety shields installed on driveshafts. Warning stickers available through APT upon request.

The majority of driveshaft related injuries occur when shielding is missing or has been omitted. It is imperative a guard is properly installed at each shaft location.



## Short Coupled Driveshafts (SC)



### Dimensions

SERIES	PART #	L LENGTH	S SLIP +/-	A MAX. ANGLE	A1 WORKING ANGLE	PD PILOT DIA.	OD MAX. DIA.	SHAFT WEIGHT
31	SC31-1	9.50	.63	15°	1° to 8°	2.38	3.88	8 lbs.
37	SC37-1	9.88	.38	8°	1° to 8°	2.75	4.56	11
41	SC41-1	9.88	.38	8°	1° to 8°	2.75	4.69	14
48	SC48-1	9.00	.50	8°	1° to 8°	3.75	5.88	20
55	SC55-1	10.25	.50	5°	1° to 5°	3.75	5.88	30
61	SC61-1	9.50	.38	8°	1° to 8°	6.63	7.00	45
71	SC71-1	11.00	.38	8°	1° to 8°	7.75	8.00	54
81	SC81-1	13.96	.56	12°	1° to 8°	7.75	9.13	78
88	SC88-1	14.13	.50	8°	1° to 8°	7.00	9.88	142
91	SC91-1	22.25	.79	24°	1° to 8°	7.00	9.63	129

- All dimensions in inches unless noted.
- Standard length shafts are dynamically balanced.
- Non-standard SC lengths available, please call APT.
- Refer to guard information for proper safety shielding.

## Driveshaft Bolt Kits (SL & SC)

SHAFT SERIES	31	37 - 41	48 - 55	61	71	81	88 - 91
Hardware Kit	300-1001	300-1003	300-1005	300-1007	300-1007	300-1009	300-1011

**Warning:** Rotating driveshafts can be dangerous.  
Use shaft guards to help prevent serious injury to personnel.

## Stock Bore Companion Flanges

SLF flanges denoted in bold type

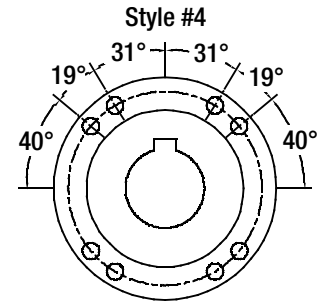
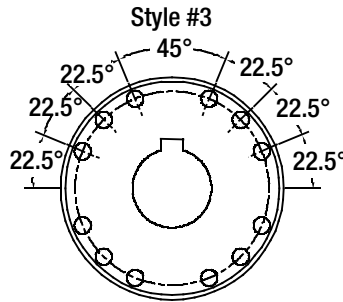
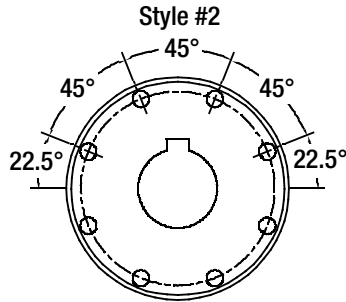
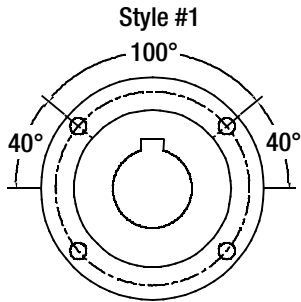
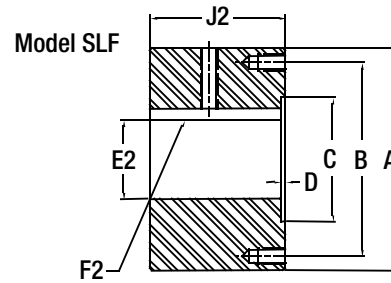
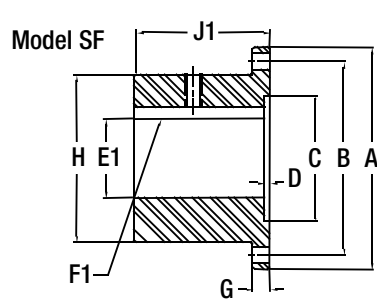
BORE	KEYWAY	31	37 - 41	48 - 55	61	71	81
SF. Rough Bore		63-1001	86-1001	103-1001	163-1001	183-1001	203-1001
1	1/4	63-1002	86-1002				
1 1/8	1/4	63-1003	86-1003				
1 1/4	1/4	63-1004	86-1004				
1 1/4	5/16	63-1005	86-1005				
1 3/8	5/16	63-1006	86-1006				
1 3/8	3/8	63-1007	86-1007				
1 7/16	3/8	63-1008	86-1008				
1 1/2	3/8	63-1009	86-1009	103-1009			
1 5/8	3/8	63-1010	86-1010	103-1010			
1 11/16	3/8	63-1035	86-1069	103-1032			
1 3/4	3/8	<b>64-1011</b>	86-1011	103-1011			
1 3/4	1/2	<b>64-1012</b>	86-1012	103-1012			
1 7/8	3/8	<b>64-1013</b>	86-1013	103-1013			
1 7/8	1/2	<b>64-1014</b>	86-1014	103-1014			
2	1/2	<b>64-1015</b>	<b>87-1015</b>	103-1015	163-1015	183-1015	
2 1/8	5/8	<b>64-1016</b>	<b>87-1016</b>	103-1016	163-1016	183-1016	
2 1/4	1/2	<b>64-1017</b>	<b>87-1017</b>	103-1017	163-1017	183-1017	
2 1/4	5/8	<b>64-1018</b>	<b>87-1018</b>	103-1018	163-1018	183-1018	
2 3/8	5/8	<b>64-1019</b>	<b>87-1019</b>	103-1019	163-1019	183-1019	
2 7/16	5/8		<b>87-1020</b>	103-1020	163-1020	183-1020	
2 1/2	5/8		<b>87-1021</b>	<b>104-1021</b>	163-1021	183-1021	203-1021
2 3/4	5/8		<b>87-1022</b>	<b>104-1022</b>	163-1022	183-1022	203-1022
2 15/16	3/4			<b>104-1023</b>	163-1023	183-1023	203-1023
3	3/4			<b>104-1024</b>	163-1024	183-1024	203-1024
3 1/2	7/8			<b>104-1025</b>	<b>164-1025</b>	183-1025	203-1025
3 15/16	1				<b>164-1026</b>	183-1026	203-1026
4	1				<b>164-1027</b>	183-1027	203-1027
<b>SLF. Rough Bore</b>		<b>64-1001</b>	<b>87-1001</b>	<b>104-1001</b>	<b>164-1001</b>	<b>184-1001</b>	<b>204-1001</b>
<b>Hardware Kit</b>		300-1001	300-1003	300-1005	300-1007	300-1007	300-1009

Notes:

1. Finished Bore sizes nominal to + 0.002".
2. Keyway per ANSI Class I tolerance.
3. All companion flanges provided with (1) setscrew over the keyway.
4. Popular sizes listed, please call for availability on other sizes.
5. Special bore or spline flanges quoted upon request.

**Warning:** Rotating driveshafts can be dangerous.  
Use shaft guards to help prevent serious injury to personnel.

## Companion Flange Specifications



SERIES	31	37 - 41	48 - 55	61	71	81	88 - 91
A-Outside Diameter	3.88	4.56	5.88	6.88	8.00	8.00	9.63
B-Bolt Circle	3.125	3.750	4.750	6.125	7.250	7.250	8.250
C-Pilot Dia. (female)	2.375	2.750	3.750	6.625	7.750	7.750	7.000
D-Pilot Depth	.078	.078	.088	.055	.055	.055	.135
<b>MODEL SF (STANDARD FLANGE)</b>							
E1-Maximum Bore	1.69	1.88	2.44	3.12	4.00	4.00	4.63
F1-Maximum Keyway	3/8 x 3/16	1/2 x 1/4	5/8 x 5/16	3/4 x 3/8	1 x 1/2	1 x 1/2	1-1/8 x 9/16
G-Flange Width	0.38	0.38	0.38	0.38	0.38	0.38	0.63
H-Hub Diameter	2.44	2.88	3.75	5.25	6.38	6.38	6.88
J1-Length	2.00	2.00	2.50	3.50	4.00	4.00	5.00
Rough Bore Dia.	0.75	1.00	1.25	1.25	1.25	1.25	1.50
Approximate Weight	3.14 #	4.25 #	8.61 #	21.78 #	36.56 #	36.56 #	56.12 #
<b>MODEL SLF (SPECIAL LARGE FLANGE)</b>							
E2-Maximum Bore	2.37	2.75	3.75	4.50	5.50	5.50	6.38
F2-Maximum Keyway	5/8 x 5/16	3/4 x 3/8	1 x 1/2	1-1/8 x 9/16	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 5/8
J2-Length	2.50	3.00	3.50	5.00	6.00	6.00	6.00
Rough Bore Dia.	1.38	1.75	2.38	3.12	3.50	3.50	4.25
Approximate Weight	7.27 #	11.79 #	22.38 #	41.52 #	68.77 #	68.77 #	99.10 #
<b>BOLT HOLE SPACING</b>							
Style #	# 1	# 1	# 1	# 2	# 2	# 3	# 4
Number of Bolts	4	4	4	8	8	12	8
Thread Size	3/8-24	7/16-20	1/2-20	3/8-24	3/8-24	7/16-20	5/8-18

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## HP Ratings for Irrigation Shafts

### HP Ratings for Irrigation Shafts @ 10,000 hrs B-10\*

SERIES	DIESEL ENGINE	GAS ENGINE	ELECTRIC MOTOR
31/1310	38	40	46
37/1350	65	69	79
41/1410	80	83	95
48/1480	105	111	128
55/1550	135	142	163
61/1610	210	223	257
71/1710	285	298	342
81/1810	360	386	444
88/1880	485	508	584
91/1910	800	858	986

\*HP ratings reflect 10,000 B-10 hrs with shaft driven at 1800 rpm's with the U-joints at 3 degree angle without a vibration dampener installed.

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