

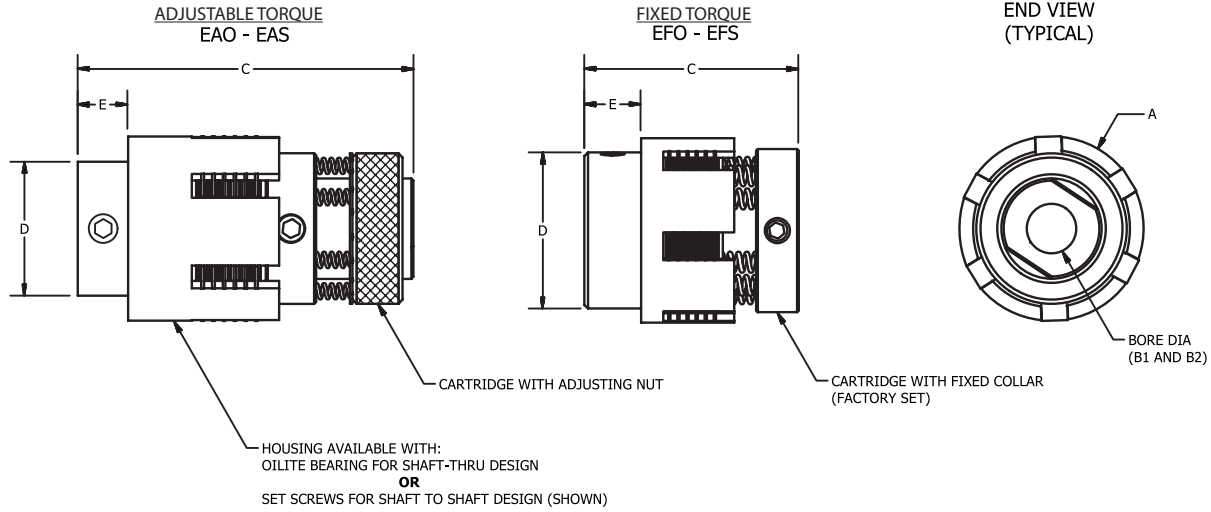
EAO
EFS

CLUTCHES

Slip Clutches

Low Backlash: Adjustable & Fixed

EAO
EFS



Part Number		Type	Torque* (in-lb)	Watts	A (in)	B1 & B2 Min Bore	B1 & B2 Max Bore	C (in)	D (in)	E (in)
Shaft-Shaft	Pulley Style									
EAS12	EAO12	Adjustable	8.5	4.5	0.75	0.1875	0.250	1.25	0.562	0.188
EAS12	EAO12	Fixed	8.5	4.5	0.75	0.1875	0.250	1.00	0.562	0.188
EAS 16	EAO 16	Adjustable	16	9	1.00	0.250"	10mm	1.50	0.75	0.22
EFS 16	EFO 16	Fixed	16	9	1.00	0.250"	10mm	1.19	0.75	0.25
EAS 24	EAO 24	Adjustable	25	15	1.38	0.375"	10mm	2.50	1.00	0.32
EFS 24	EFO 24	Fixed	25	15	1.38	0.375"	10mm	2.00	1.00	0.37
EAS 32	EAO 32	Adjustable	50	30	1.63	12mm	16mm	2.44	1.38	0.50
EFS 32	EFO 32	Fixed	50	30	1.63	12mm	16mm	1.87	1.38	0.38
EAS 44	EAO 44	Adjustable	75	43	2.25	12mm	16mm	2.44	1.63	0.38
EFS 44	EFO 44	Fixed	75	43	2.25	12mm	16mm	1.87	1.63	0.50
EAS 52	EAO 52	Adjustable	500	85	3.25	0.750"	32mm	4.00	2.00	0.44

*Torque Capacity @ 50 RPM (50% higher torque possible for lower duty cycles. Call for assistance.)

Size	AVAILABLE BORES B1 & B2																								
	INCH +.002/-0.000										METRIC +.05/-0														
	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	5	6	8	9	10	12	13	14	15	16	20	24	25	30	32
12	.	.								.	.			
16		.	.	.								.	.	.
20		.	.	.								.	.	.
24				.	.									.	.	.
32					.	.									.	.	.	.	.
44					.	.									.	.	.	.	.
48						.	.	.	.							.	.	.	.
52							.	.	.							.	.	.	.
CODE	19	24	27	31	36	41	47	50	53	55	20	22	28	30	32	35	37	38	40	42	48	51	52	56	58

Slip Clutches

Part Number System, Shaft Penetration, Bore Codes

Type	Shaft Penetration Specifications			
	Minimum		Maximum	
	Cartridge	Housing	Cartridge	Housing
PAS16	0.50	0.22	0.75	0.31
PFS16	.175-250	0.22	0.47	0.31
PAS20	0.50	0.22	0.75	0.31
PFS20	.175-250	0.22	0.47	0.31
PAS24	0.60	0.22	0.94	0.38
PFS24	.300-400	0.22	0.69	0.38
PAS32	0.86	0.22	1.22	0.50
PFS32	.350-450	0.22	0.72	0.50
PAS44	0.86	0.22	1.22	0.50
PFS44	.350-450	0.22	0.72	0.50
PAS48	1.13	0.38	1.75	1.00
PFS48	.350-700	0.38	1.25	1.00
SAS16	0.56	0.22	1.00	0.31
SFS16	.175-250	0.22	0.69	0.31
SAS20	0.56	0.22	1.00	0.31
SFS20	.175-250	0.22	0.69	0.31
SFS24	0.86	0.32	1.75	0.75
SFS24	.300-400	0.32	1.21	0.75
SAS32	1.06	0.38	1.88	1.00
SFS32	.350-450	0.38	1.31	1.00
SAS44	1.06	0.38	1.88	1.00
SFS44	.350-450	0.38	1.31	1.00
SAS48	1.15	0.38	2.50	1.00
SFS48	.350-700	0.38	1.25	1.00

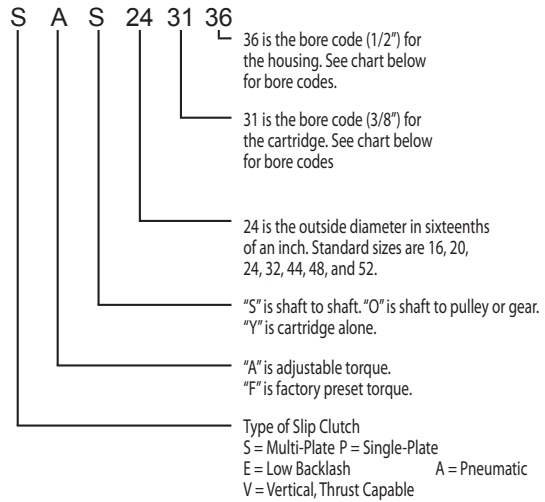
Type	Shaft Penetration Specifications			
	Minimum		Maximum	
	Cartridge	Housing	Cartridge	Housing
EAS16	0.55	0.22	1.18	0.31
EFS16	.175-250	0.22	0.88	0.31
EAS24	0.97	0.32	1.75	0.75
EFS24	.300-400	0.32	1.25	0.75
EAS32	1.07	0.38	1.88	0.57
EFS32	.350-450	0.38	1.30	0.57
EAS44	1.07	0.38	1.88	0.57
EFS44	.350-450	0.38	1.30	0.57
EAS52	1.85	0.44	3.25	0.75
AAS20	0.32	0.22	2.00	0.50
AAS24	0.32	0.32	2.63	0.75
AAS32	0.32	0.38	2.63	1.00
AAS44	0.45	0.38	2.63	1.00
VAS20	0.55	0.27	0.75	0.50
VAS24	0.88	0.32	1.25	0.50
VAS32	1.08	0.32	1.25	0.50
VAS44	1.08	0.40	1.25	0.70

*Cartridge minimum penetration for fixed torque clutches depend on the torque setting.



Example of gear mounted on slip clutch
(We can supply gears + pulleys)

IDENTIFICATION



Size	AVAILABLE BORES B1 & B2																					
	INCH +.002/- .000									METRIC +.05/- .0												
	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	8	9	10	12	13	14	15	16	20	24	25	30	32
16	.	.	.							.	.	.
20	.	.	.							.	.	.
24			.	.								.	.	.
32				.	.							.	.	.	.	.
44				.	.							.	.	.	.	.
48					.	.	.	.	.							.	.	.	.	.	.	.
CODE	24	27	31	36	41	47	50	53	55	28	30	32	35	37	38	40	42	48	51	52	56	58

General

Ondrives.US Slip Clutches control torque for intermittent, continuous or overload slip. The clutches will drive in both directions, slip when the torque setting is reached, and resume driving as the load is reduced. They are excellent as continuous drag brakes, protection against accidental or intentional overloads, for “soft starts”, slip at the end of a stroke, etc.

Ondrives.US Slip Clutches are precision devices containing 2 to 12 brass plates interfaced with a long life friction material. Soft springs maintain pressure on the friction plates, assuring constant torque. An adjacent part of your mechanism can often be used as the Slip Clutch housing.

Fixed torque clutches are available preset at the factory.

Capacity

The clutch capacity is based on continuous operation at 50 RPM for over 30 million cycles. Torque, RPM, duty cycle and life are inter-dependent. A reduction of any of these will allow an increase in any other.

Running at 25 RPM will allow twice the torque, or running for only 10% of the cycle will allow higher RPM, etc. The limit is based on heat build up measured in watts per:

$$\text{Watts} = \text{Torque (inch pounds)} \times \text{RPM} \times 0.011 \times \text{Duty cycle \%}$$

(Duty cycle % = time in slip/total time)

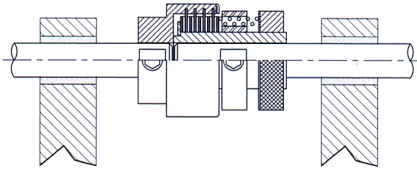
Example: An SAS20.3131 can dissipate 6 watts continuously. This translates to:

Inch - lbs	x	RPM	x	% Slip	x	constant	=	Watts
10		50		100%		0.011		5.5
2		250		100%		0.011		5.5
2		500		50%		0.011		5.5
2		1000		25%		0.011		5.5

Call us with any questions about specifications and use

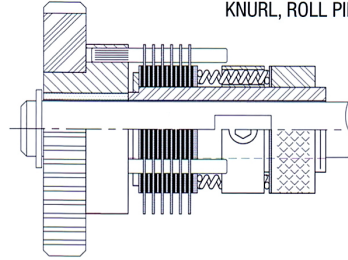
A

SHAFT TO SHAFT
SHAFTS MUST BE SUPPORTED
AND ALIGNED WITHIN .010-.015



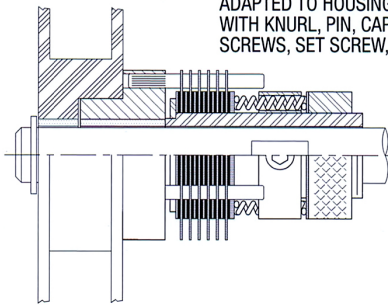
B

GEAR/PULLEY/SPROCKET
ADAPTED TO HOUSING WITH
KNURL, ROLL PIN, CAP SCREWS, ETC.



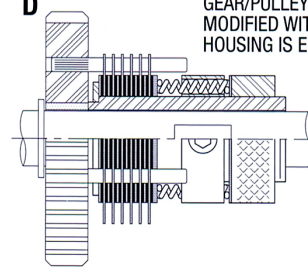
C

SUPPLY or REWIND SPOOL
ADAPTED TO HOUSING
WITH KNURL, PIN, CAP
SCREWS, SET SCREW, KEY, ETC.



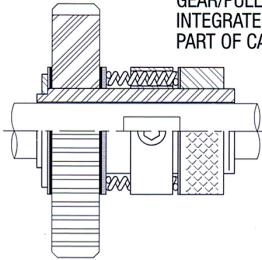
D

GEAR/PULLEY/SPROCKET
MODIFIED WITH PINS FOR ENGAGEMENT
HOUSING IS ELIMINATED



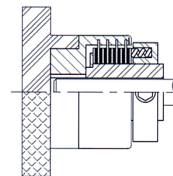
E

GEAR/PULLEY/SPROCKET
INTEGRATED AS
PART OF CARTRIDGE



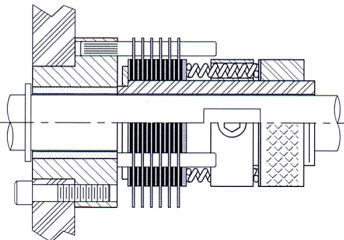
F

KNOB ADAPTED TO HOUSING
KNURL, SET SCREW, PIN, ETC.



G

MACHINE FRAME
ADAPTED WITH CAP SCREWS
TO HOUSING



H

ROTARY POSITION HOLDER
(HINGE)

