

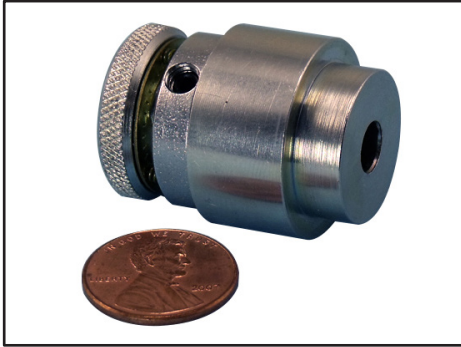
P, S, E, A, V  
Series

# CLUTCHES

## Slip Clutches

Adjustable & Fixed

P, S, E, A, V  
Series



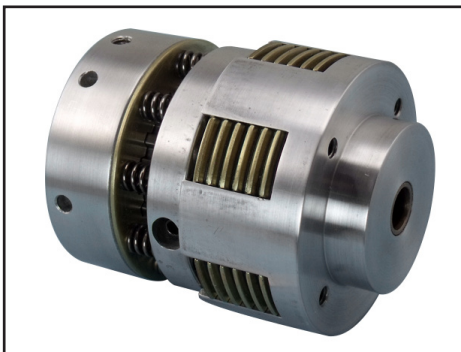
Compact - 2 to 10 in-lb



Standard - 2.5 to 100 in-lb



Low Backlash - 16 to 75 in-lb



Low Backlash, High Torque - 500 in-lb



Pneumatic - 12 to 75 in-lb



Vertical, Thrust Capable - 12 to 100 in-lb

**Torques to 500 In-lb in continuous applications**

**Get torques to 750 in-lb, 50% more torque in any size in low or medium duty slip applications**

**30 million slip cycle life!**

**Fixed torque to + 20%, tighter tolerances available**

**Backlash: 6° for P, S, A & V Series, 2° for E series**

**Temperature Range: -4° to 140° F**

**Maximum RPM: 1,000**

**Shaft to Shaft Style or Pulley/Gear/Sprocket Style**

**Custom clutches with non-standard bores, keyways, torques**

**ondrives.us**

☎ 1-888-260-7466  
📄 516-771-6444

💻 sales@ondrivesus.com  
🌐 www.ondrivesus.com

# CLUTCHES

## 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

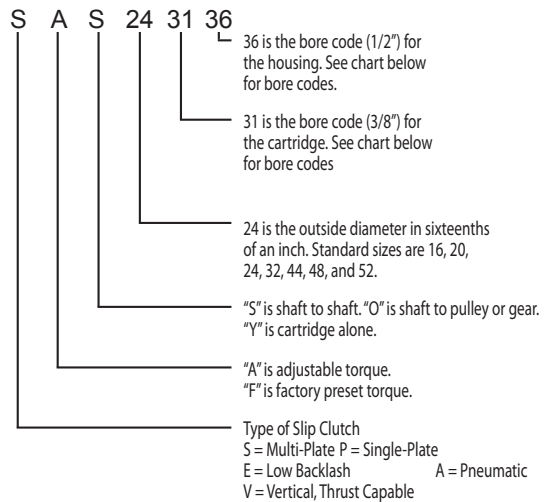
Type	Shaft Penetration Specifications			
	Minimum		Maximum	
	Cartridge	Housing	Cartridge	Housing
EAS16	0.55	0.22	1.18	0.31
EFS16	.175-250	0.22	0.88	0.31
EAS24	0.97	0.32	1.75	0.75
EFS24	.300-400	0.32	1.25	0.75
EAS32	1.07	0.38	1.88	0.57
EFS32	.350-450	0.38	1.30	0.57
EAS44	1.07	0.38	1.88	0.57
EFS44	.350-450	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)

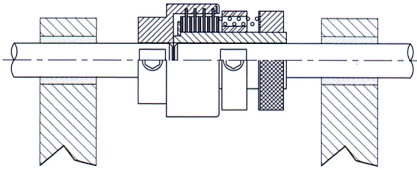
Example: An SAS20.3131 can dissipate 6 watts continuously. This translates to:

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**

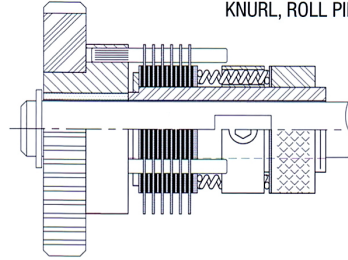
**A**

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



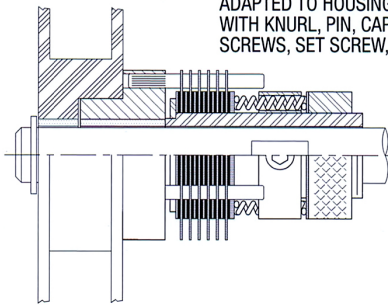
**B**

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



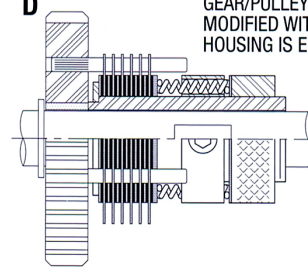
**C**

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



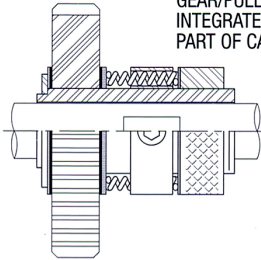
**D**

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



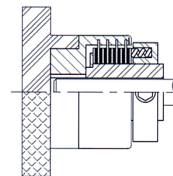
**E**

GEAR/PULLEY/SPROCKET  
INTEGRATED AS  
PART OF CARTRIDGE



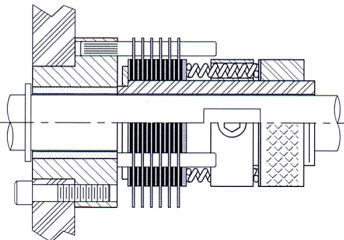
**F**

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



**G**

MACHINE FRAME  
ADAPTED WITH CAP SCREWS  
TO HOUSING



**H**

ROTARY POSITION HOLDER  
(HINGE)

