



# SGS Series

## Overrunning Clutches

*PT Tech's SGS clutch automatically engages and disengages chain driven inspection and creep drives for conveyors and other one way drive applications. They are used to prevent the main drive from dangerously overspeeding the auxiliary drive.*

**Creper Drive**

**Sunday Drive**

**Inspection Drives**

**Inching Drives**

**Start-up Drives**

**Turning Gear Drives**

### ***High Speed Backstopping***

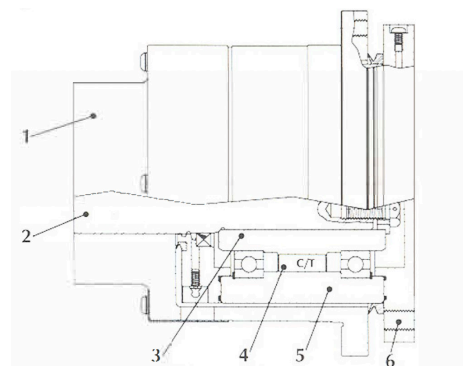
The SGS unique sealing arrangement makes it particularly effective in adverse operating conditions where other clutches are ruined by contamination and/or loss of lubrication. (See Features on back side.) Designed to operate maintenance free for five years.

SGS clutches are used in parallel chain driven auxiliary drives. The SGS attaches to a rigid gear coupling hub. The rigid hub is mounted to a gearbox's extended input shaft or to an extended motor shaft. See figures #0

The auxiliary gearmotor is connected to the SGS by a chain drive. The driven sprocket is bolted to the SGS housing (#1). When the auxiliary gearmotor is driving, the driven sprocket turns the housing and shaft (#2). A sprag clutch is mounted on the shaft. The shaft turns the clutch's inner race (#3) thereby wedging the CT sprags (#4) between the inner and outer race (#5). This wedging action transmits torque to the outer race and drive flange (#6).

When the main drive is operating, the CT sprags are no longer wedged between the inner and outer race. This disengages the sprag clutch. The drive flange (#6) and outer race (#5) turn while the inner race (#3), shaft (#2), housing (#1) and sprocket are stationary. This automatic disengagement allows the main drive to operate while the auxiliary drive is disengaged.

As the main drive achieves and/or exceeds "sprag lift off speed" the CT sprags lift off the inner race thereby completely eliminating any sprag wear.



### **Five year warranty**

PT Tech offers the longest warranty in the industry. At the end of five years, return the clutch for inspection, rebuild and extension of warranty.

### **Additional “V” ring face seal**

Additional “V” ring face seal and grease in a long annular space provides further protection against contamination.

### **Centrifugal throwout sprags**

Centrifugal throwout sprags virtually eliminate sprag wear to provide an extremely long operational life.

### **Automatically engages/disengages**

Automatically engages/disengages. The SGS does not require external actuation.

### **Maintenance-free for five years**

Install the SGS and virtually forget about it for five years.

### **Unique sealing arrangement**

SGS clutches are equipped with a very effective taconite-type sealing arrangement. A labyrinth grease seal and a “V” ring face seal protect the shaft seal. This keeps lubrication in and contaminants out even in adverse environments.

### **The oil reservoir**

The oil reservoir greatly increases the clutch's oil capacity compared to a standard oil lubricated overrunning clutches.

### **The SGS is flange mounted**

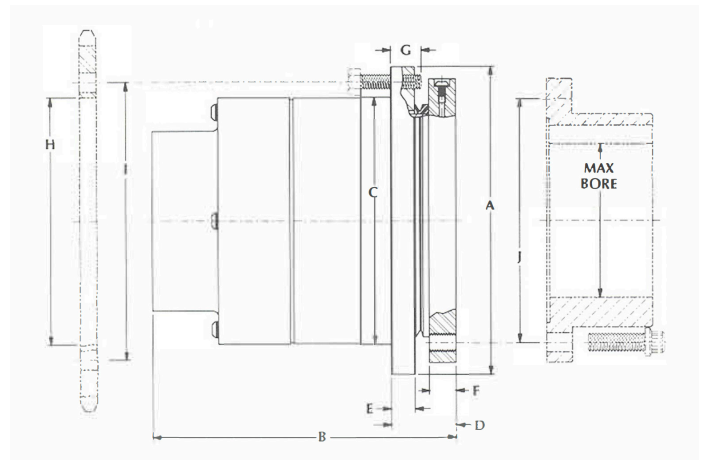
The SGS is flange mounted to standard rigid half gear couplings. This allows for ease of installation.

### **Short lead time**

The SGS is flange mounted and does not require boring or keying. Most units can be delivered from stock.

### **The SGS costs considerably less**

The SGS costs considerably less than competitive foot mounted units.



#### **PERFORMANCE DATA**

	SGS 15	SGS 25	SGS 30	SGS 35
Torque Rating (lb-ft)	500	1500	4000	6800
Max. Overrunning Speed (RPM)	4000	3600	2500	1800
Max Driver Speed (RPM)	1000	1200	800	650
Strang Lift-Off Speed (RPM)	1200	1200	1000	800
Allowable Chain Pull (lbs)*	1500	3350	6800	6800

#### **SGS DIMENSIONAL DATA (in)**

	SGS 15	SGS 25	SGS 30	SGS 35
A. Outside Diameter	6.75	8.38	10.25	12.50
B. Overall Length	7.50	8.23	10.19	12.38
C. Pilot Diameter	0	0	0	0
D. Sprocket to Mounting	2.48	2.19	2.19	3.34
E. Housing Flange Thickness	.80	.60	.80	1.12
F. Adapter Flange Thickness	1.10	1.10	.90	1.45
G.	1.05	.85	1.05	1.38
Weight (lbs)	43	68	137	252