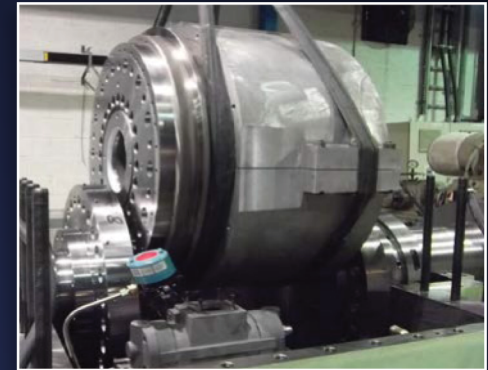
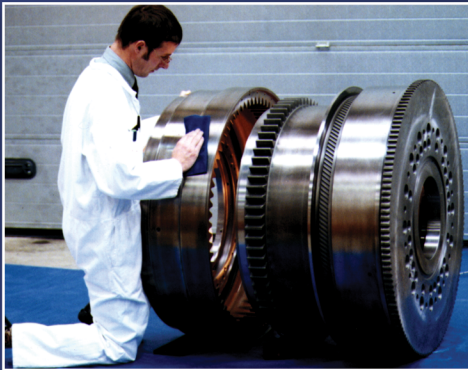


Seventy Plus Years!

Designing and Building High Power Clutches

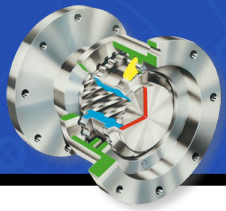
50,000+ SSS® Clutches Supplied Worldwide



- Compressed Air Energy Storage
- Single Shaft Combined Cycle
- Combined Heat and Power
- Synchronous Condensing
- Grid Inertia
- Spinning Reserve



Clutch Company, Inc.



Basic Synchronous Self Shifting Clutch

How Does it Work?

It can be called:

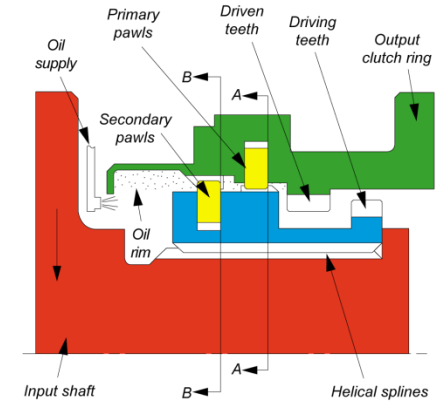
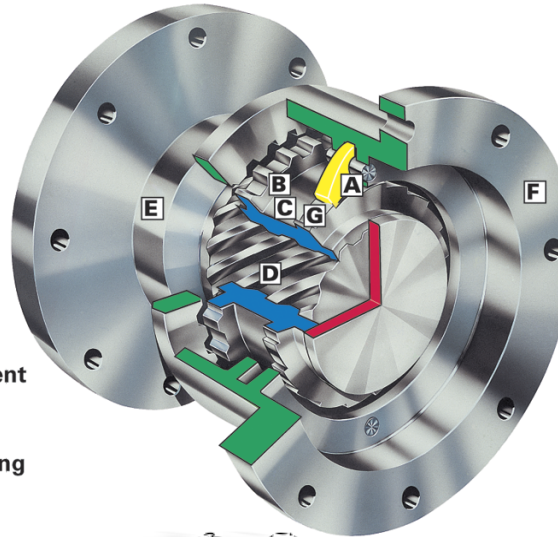
- Freewheel
- Overrunning Clutch
- One Way Clutch

It is:

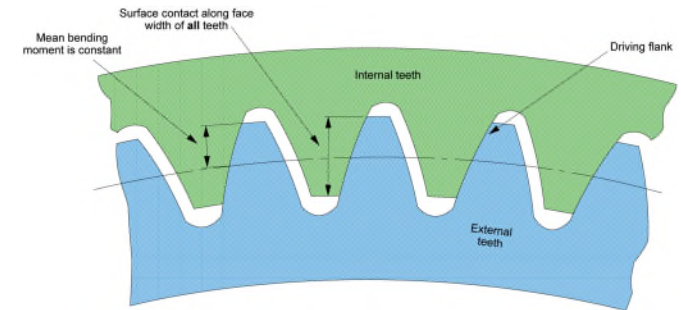
- Mechanical
- Automatic

**Elements of
Basic SSS Clutch**

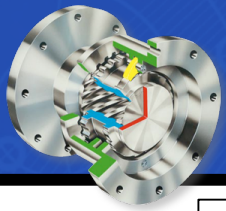
- A. Pawl
- B. Clutch Teeth
- C. Sliding Component
- D. Helical Splines
- E. Input Shaft
- F. Output Clutch Ring
- G. Ratchet Teeth



Torque Transmitted Through Gear Teeth

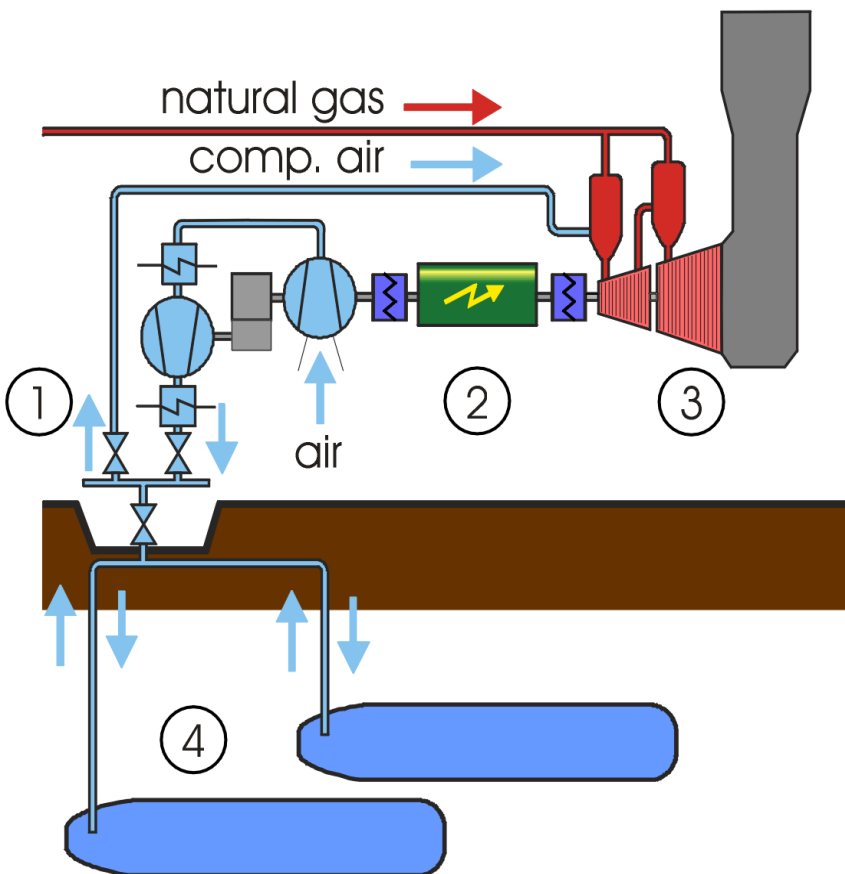


sssgears.co.uk
sssclutch.com



GEAR TOOTH OVERRUNNING CLUTCHES ADD FLEXIBILITY TO POWER GENERATION

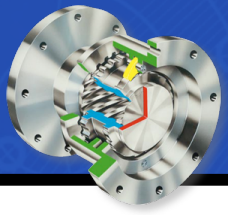
Compressed Air Energy Storage - CAES



Benefits of a Gear Tooth Overrunning Clutch in a Mechanical Energy Storage System

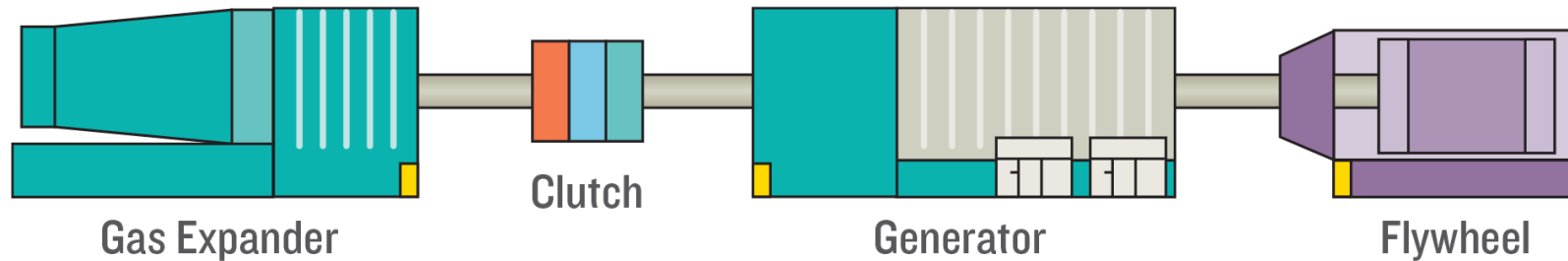
- Allows generator to be used as a motor when charging the system
- Allows generator to be used for power generation when discharging energy to the grid, saving considerable capital cost compared to a separate motor and generator each with its own switchgear and foundation
- Allows turbine (or pump) to bring the generator (used as a motor) up to synchronous speed eliminating the need for a starter/VFD system.
- Generate additional revenue supplying grid ancillary services when renewables are supplying most of the power to the grid, i.e., synchronous condensing, synchronized reserve, inertia, etc.





GEAR TOOTH OVERRUNNING CLUTCHES ADD FLEXIBILITY TO POWER GENERATION

ENERGY STORAGE



- 70+ Years Experience
- 50,000+ Clutches
- Designed to Last Life of System
- Applications of 400+ MW
- No MW/Torque Upper Limit
- Applications up to 17,000 rpm

