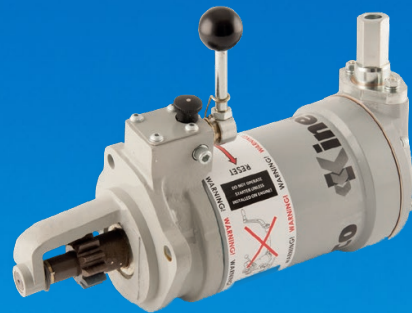


SPRING STARTERS

- Simple
- Compact
- Dependable



Mechanical (spring) starters, *developed and built in Europe.*

SPRING STARTER TYPES

Kineteco starter ranges by spring type

Original & best: Kineteco Spring starters are spring powered mechanical devices for starting diesel engines, replacing the electric starter motor and allowing an engine to be started easily and safely by hand.

Disc springs

Disc springs (also referred to as 'Belleville Washers') are conically shaped steel washers which are compressed by means of a ball screw.

Disc spring starter benefits are:

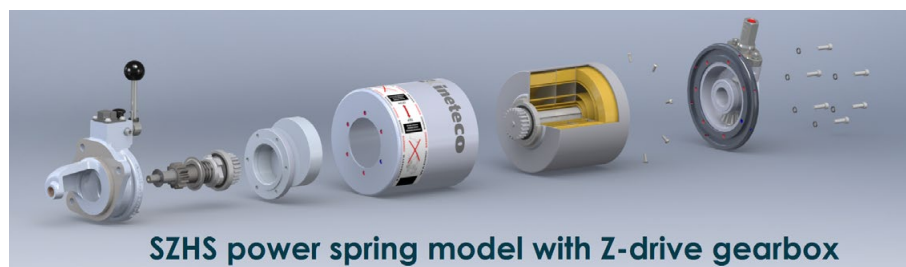
- High output torque
- Robust design



Power springs

Power Springs (also referred to as 'clock' springs) are like a coiled flat steel sheet which is wound up. Power spring benefits for spring starting are:

- High number of output revolutions
- Compact design



Product options

All Kineteco spring starters can be specified as follows:

- **Flameproof finish**
Originally Lloyds Register approved, for use in hazardous environments.
- **E-pack dual start protection system**
For dual starter installations where an electric starter is also used, E-pack prevents simultaneous starter engagement.
- **Pull cord**

Benefits

- Efficient
- Reliable
- Versatile
- Convenient
- Standard SAE and special mounting flanges available to fit every engine make and model
- Safe
- Simple and compact
- No external power source necessary
- No maintenance required
- Not affected by cold weather

Typical applications

Marine and offshore

- Auxiliary engines
- Emergency gensets
- Propulsion engines
(*life boats*)
- Fire fight pumps
(*back-up*)
- Compressor installations

Onshore Oil and Gas

- Fire fight pumps
- Black start generators
- Emergency generators
- Compressor installations

Industry and Utilities

- Black start generators
- Emergency generators
- Compressor installations
- Fire fight pumps
(*back-up*)
- Mobile equipment
(*explosive atmospheres*)

Agriculture

- Tractors
- Irrigation pumps
- Generators

Mining

- Transporters
- Drilling equipment
- Pumps

Military

- Black start generators
- Emergency generators
- Fire fight pumps
- Mobile equipment

SPRING STARTER RANGES

Spring Starters



SMS/SMR: For engines up to 4 litres

SMS/SMR power spring starters are ideal for smaller engines working in tough conditions. Designed for engines from 0.6 litres to 4 litres displacement, they are perfect for easy and safe hand starting. Using a power spring (rather than a disc spring) makes the body of the SMS/SMR range shorter and lighter. This allows it to be fitted to a wide range of previously incompatible engines.

SZS/SZR: For engines up to 4 litres

SZS/SZR spring starters are ideal where engine clearance or low flywheel inertia (common on modern engines) is a problem. With its flexible Z-drive gearbox, the SZS/SZR series can be configured to give greater engine clearance.



SS/SR: For engines up to 6 litres

The original pre-engaged spring starter with standard duty disc springs. Rugged, reliable with a guaranteed 5.000 start lifecycle. Versatile for all environments. Available with all additional features.

HSS/HSR: For engines up to 9 litres

This spring starter uses a set of powerful disc springs that are compressed as the winding handle is turned. The pinion is pre-engaged with the ring gear, and when the starter is tripped, the shaft is released to transmit the power of the spring into the engine. This spring starter delivers higher torque and long life.

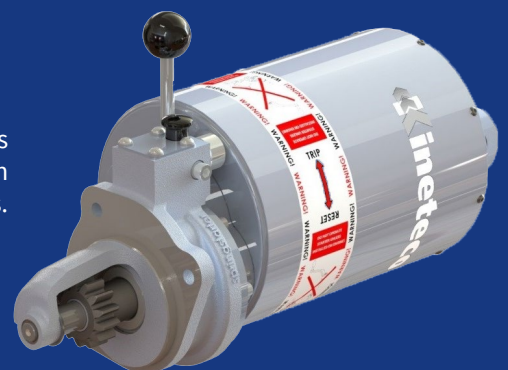


SZHS/SZHR: For engines up to 15 litres

SZHS/SZHR spring starters are designed for engines from 1.25 litres to over 2 litres/cylinder, but are compact and flexible enough to fit smaller, difficult to start engines. With its flexible Z-drive gearbox, the SZHS/SZHR series can be configured to give greater engine clearance.

SZH+: For engines up to 18 litres

The latest spring starter model: SZH+ have the capability of starting engines from 9 up to 18 litres. They feature all the benefits of the SZH range but with 50% more power, gaining only 70mm extra length on the SZHS/SZHR models. The Z-drive gearbox can be configured to give greater engine clearance.



For a customized advice, please contact us through
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