

## EASY DIESEL HAND STARTING



Kineteco is the leading manufacturer of hand wound, mechanical starter motors. These replace the electric starter motor and allow a diesel engine to be started easily and safely by hand, without a battery or alternator.

Our traditional Simms Spring Starters are used all over the world in many applications including ships' lifeboats, irrigation pumps, black start generators, mining vehicles and fire pumps to name but a few.

### New ranges



Now we have introduced the new generation of Spring Starters, bringing easy, low-cost, lightweight and safe hand starting. These uniquely combine the best of appropriate and high technology. Now you can fire up a big diesel engine by hand more easily than starting a lawnmower.

We have all suffered starting problems. What do you do if your battery has been stolen? What happens if the machine has been left idle too long or damp has got into the electrical system? How can you get your boat engine running when you are marooned in the middle of the ocean with dead electrics?

### Simple



Spring Starters combine the dependability of hand winding with a powerful spring mechanism.

Operation is simple, and with a Spring Starter fitted to your engine it only takes a few moments to kick your diesel into life. Hand starting is no longer an all or nothing effort, because the winding is separated from the starting. Just wind the starter's spring steadily until enough energy is stored; when this tripped the engine is turned over fast enough to start. There is no sharp pull or yanking, no special skill. Such smooth steady starting, even powering up a big generator is easy.

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## Sure and reliable

There are many reasons to fit Spring Starters:

- On irrigation pumps and boats the combination of water and electrics is a sure recipe for disaster.
- On construction sites batteries frequently 'disappear' from equipment or fail because of chronic vibration.
- In a mine or grain mill, dust can get into switches.
- In a lifeboat or oil rig you need a dependable back-up starter that is safe to use and needs only limited manpower when all else fails.
- Unaffected by long shutdowns, damp or cold, Spring Starters are ideal for equipment left in storage for long periods of time; from emergency and utility stand-by to grass cutting and maintenance equipment.
- In the remotest of locations sure starting is equally about ease of operation and sustainability in the most diverse conditions.
- Equipment for disaster relief, military and strategic use needs to be lightweight and ready for use at a moments notice – features which often only a Spring Starter can provide.



## Easy start

Kineteco's starters are very simple and affordable, making hand starting the smart option on a wide range of machinery. Fitting is easy. Just remove the electric starter and its connectors and bolt on the Spring Starter. Perfect as an emergency back up in a boat's locker, in case of trouble with the battery, starter, alternator or wiring. Excellent as a primary starter for a whole host of uses where you never want to be faced with a dead engine again.



For further information contact us through

 Springstarter.com

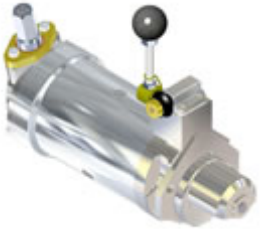


or at the address below.

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## PRODUCT RANGE

Model	Description	Use
 <p><b>Simms S, HS</b></p>	<p>Traditional all-steel spring starter with disc springs on a ball screw wound by a detachable handle, set and tripped by hand. Formerly made by Lucas/CAV</p>	<p>Heavy duty starter commonly specified for mining, oil rig and merchant marine use. Used on a wide range of engines up to 9L or more, with a terrific 40 year track record.</p>
 <p><b>Z-drives, SZ, SZH</b></p>	<p>Unique Z-drive spring starters, steel or composite bodied, cord or crank wound. Variable gearing and positioning of body. Range of powerpacks - the largest starts 15L engines.</p>	<p>When there is no room for a standard starter or it is not powerful enough, use the Z-drive. A wide range of configurations to start more engines than ever before.</p>
 <p><b>Simms Stubby SM</b></p>	<p>Short steel bodied starter with Simms nosepiece, energised by a Powerspring, crank wound. Best value steel starter.</p>	<p>Shorter, lower price alternative to most Simms SS and SR starters. For tough applications where price or length is a problem.</p>

**Springstarter.com**

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## Simms traditional S, HS series spring starter

### *Starting first time – even in the most demanding conditions*

The **original heavy duty Simms all steel spring starter** has an unrivalled track record of over **40 years** reliable service. It has a well-earned reputation for **quality** and **durability** and tens of thousands have been sold worldwide.



Simms spring starters are often specified for mining, oil rig and merchant marine use and frequently on ships' **black start generators**, demonstrating their unique **dependability**.

We can supply spring starters for a huge range of engines from 700cc single cylinders to 9 litre sixes, in all types of conditions and for a wide range of applications.

Marine, heavy duty and flame-proof options are available, so that Simms spring starters can be configured to meet customers' exact requirements. New fittings are constantly being developed, so if your engine is not listed, please contact us.

The spring starter uses a set of powerful disc springs that are compressed by a nut on a ballscrew as the winding handle is turned. The pinion is pre-engaged, and when the pawl is tripped the shaft is released to transmit the power of the spring into the engine. This starter delivers **high torque** and **long life**.

Model options include standard (SS) or reverse (SR) rotation, with marine, heavy duty or hazardous environment build, so the Simms spring starter can be configured to meet customer's exact requirements.

- **The original Spring Starter**
- **Unique 40 years reliable service**
- **Rugged steel construction**
- **High torque disc spring power**
- **For a wide range of engines to 9 litres displacement**
- **Manual set and trip mechanism**
- **Crank wound with detachable handle**

## **Springstarter.com**

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# Springstarter

easy diesel hand starting

Model options include standard (SS) or reverse (SR) rotation, with marine, heavy duty or hazardous environment build, so the Simms spring starter can be configured to meet customer's exact requirements.

## Simms S, HS Series Spring Starter Specifications

Description	All steel Spring Starter with disc springs on a ball screw wound by a detachable handle, set and tripped by hand. Formerly made by Lucas/CAV.
Rotation of starter	Clockwise viewed on the pinion
Engine capacity	Max. 6 cylinders, up to 1 litre per cylinder
Torque (Range)	95 Nm
No. of output turns	3
Output energy	Nom. 1000 Joules
Cold Starting	To 0°C, some engines require starting aids at lower temperatures.
Maximum winding load	
To wind fully	10 turns of the handle
Mounting flange types	SAE 1, SAE2/3, SAE 4/5, Ford
Pinions	10/12, 8/10, 6/8 Fellows stub Metric Module 2.5,3
Cord pull / winding handle position	Variable in 8.5° increments
Weight	19kgs
Shipping dimensions	40 x 22 x 27 cms
Standard equipment	Winding handle and handbook
<b>Options - Details as above with the following variations</b>	
Reverse rotation model	Rotation anti-clockwise when viewed on the pinion
Torque (Range)	126 Nm torque for engine displacement to 1.25 litres per cylinder, maximum winding handle load 81Nm
No. of output turns	2.9
Overhung pinion	No

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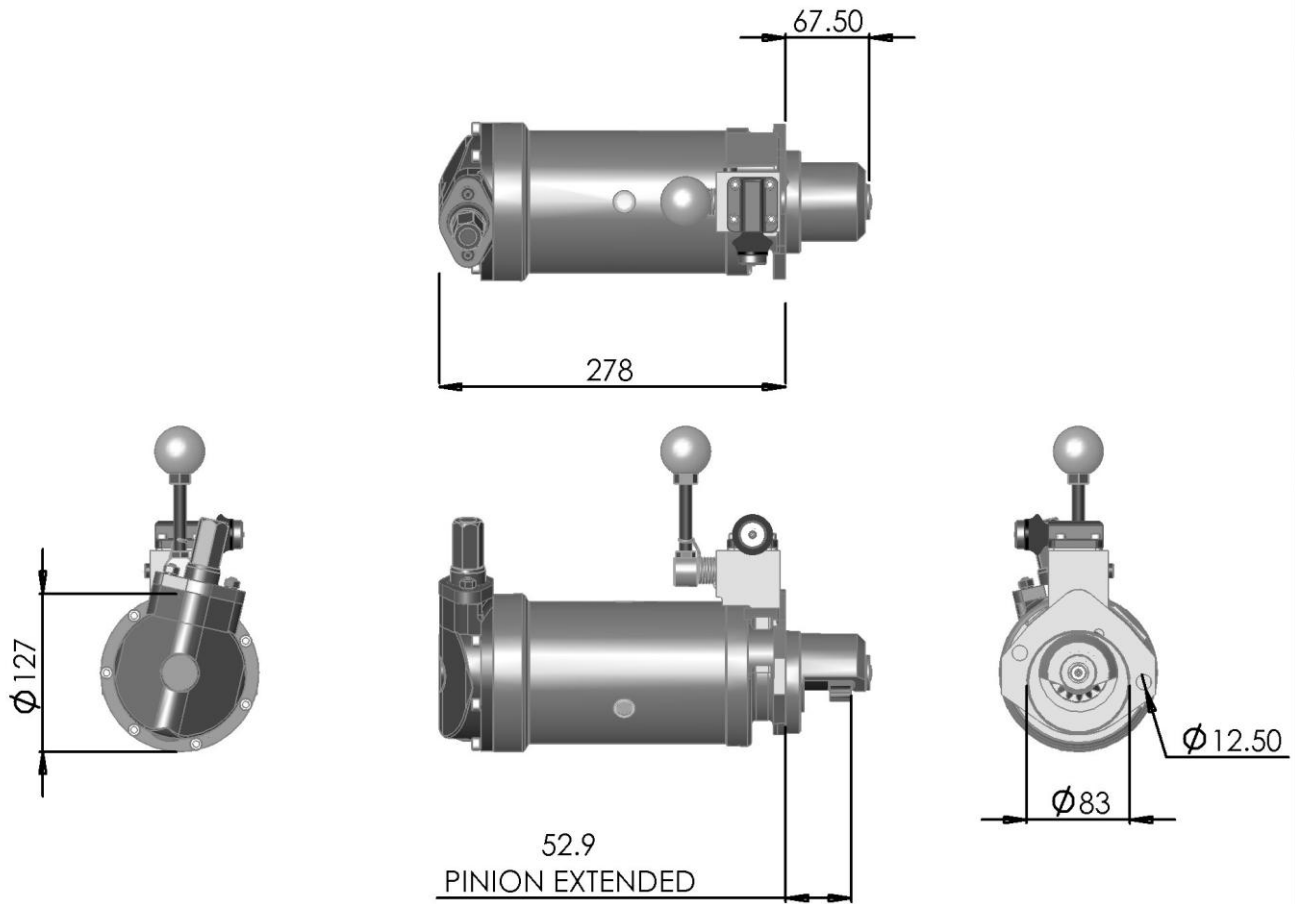
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## Simms S, HS Series Typical Dimensions



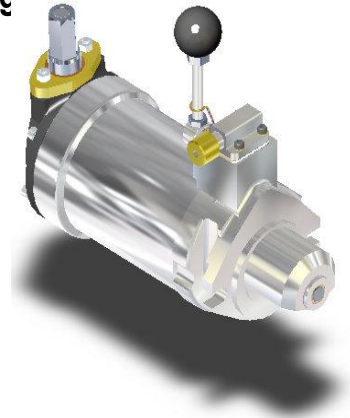


easy diesel hand starting

### Simms SM series "stubby" starter

The **SM Stubby** series spring starters are **ideal** for **smaller** engines from **0.6 litre to 6 litres** displacement working in tough conditions – typically black start generators, pumps and compressors.

Their **heavy steel construction**, based on the **tried and tested Simms spring starter** makes the **Stubby compatible with many Simms SS and SR series applications**. However, it is **short enough to fit smaller engines where space is restricted**.



The **Stubby** spring starter has a **manual engage and trip mechanism** and **detachable crank wind**, so that the operator can choose exactly how the starter operates, even using it to turn the engine over slowly for inspection.

Like all our **spring starters**, the **Stubby** series bolts directly into the standard starter pocket on the engine. Given the correct engine configuration, all of the electrics can be dispensed with.

**Fitting takes a few minutes**, and **operation** of the starter is extremely **easy** and **safe** with **no danger of kickback**. You can take your time to wind the starter and trip it when you are ready.

- **Short length to fit smaller engines where space is restricted**
- **Smooth action Powerspring for easy starting action**
- **Lowest price starter**
- **Standard Simms nosepieces with manual engagement and trip mechanism**
- **Fits anywhere a Simms SS starter will go**
- **Simms crank wind with detachable handle**
- **Variable wind and back wind**
- **Heavy duty construction**
- **Reverse rotation, marine and lightweight options available**

[Springstarter.com](http://Springstarter.com)

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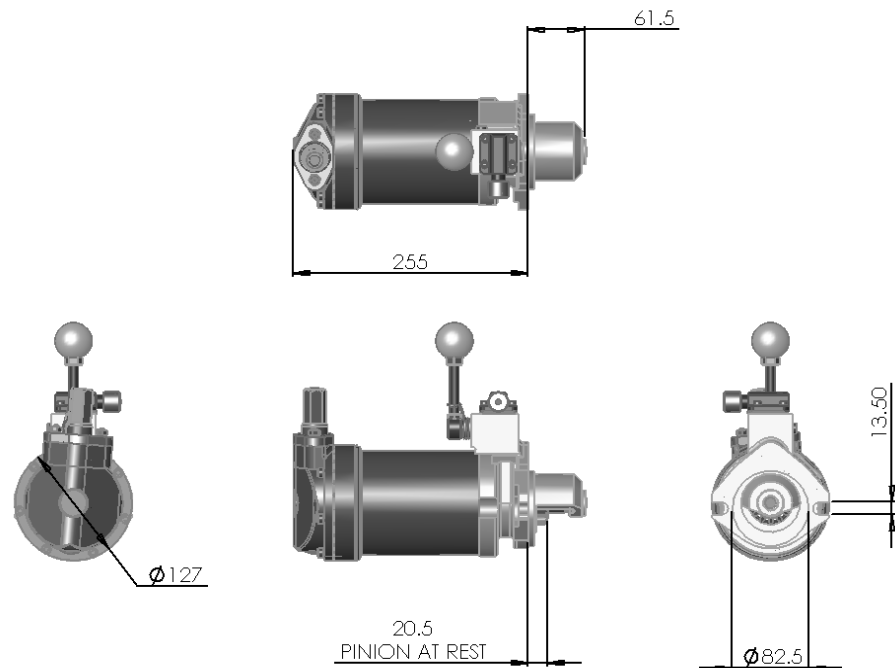
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## Simms SMS Series "Stubby" Spring Starter Specifications

Description	Short, steel bodied Spring Starter with spiral Powerspring wound by a detachable handle, set and tripped by hand.
Rotation of starter	Clockwise viewed on the pinion
Engine capacity	Max. 6 cylinders, up to 1 litre per cylinder
Torque (Range)	36Nm
No. of output turns	7.5 maximum
Output energy	Nom. 950 Joules
Cold Starting	To 0°C, some engines require starting aids at lower temperatures.
Maximum winding load	23 Nm Torque
To wind fully	18 turns of the handle
Mounting flange types	SAE 1, SAE2/3, SAE 4/5, Ford
Pinions	10/12, 8/10, 6/8 Fellows stub Metric Module 2.5,3
Cord pull / winding handle position	Variable in 8.5° increments
Weight	15Kgs
Shipping dimensions	33 x 20 x 20 cms
Standard equipment	Winding handle and handbook
<b>Options - Details as above with the following variations</b>	
Reverse rotation model	SMR
Overhung pinion	SMNS, SMNR subject to availability
Lightweight Model	Special order

## Typical Dimensions



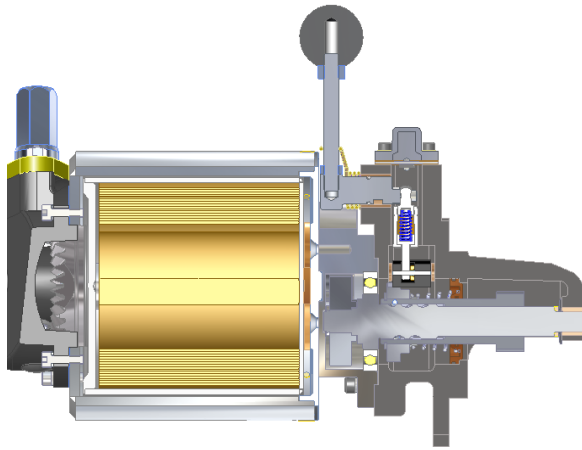
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## Z-Drive Spring Starters

Our **Z-drive** range of **spring starters** is unique.

They are the first **spring starters** to have a gearbox built in between the power pack and the nosepiece.

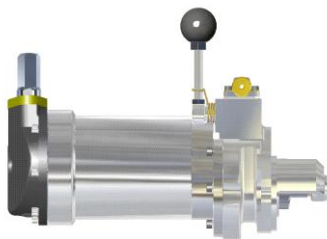
- The arrangement of the gearbox flanges allows the nosepiece and powerpack to be rotated separately. This means that the starter can be positioned in many different ways, depending on the application requirements.

The advantages are:

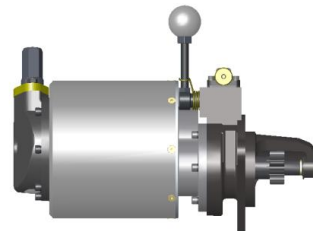
- The main body of the spring starter can be **offset** away from the engine or other obstruction. The Z-drive can then be configured to fit the many engines where there is no room for a standard Spring Starter. Alternatively, it allows us to fit a larger powerpack than previously, either to start larger engines or to allow starting of engines at lower temperatures.
- Alternative gearing can be specified depending on engine characteristics, which can vary widely even with similar capacity engines. Configurations can differ between lumpy, single-cylinder engine with heavy flywheels requiring high torque starter to more evenly cranking models with far lighter flywheels, which would benefit from more turns for reliable starting. In addition, some applications may require a higher torque gearing due to parasitic loads from ancillaries on the engine at startup.

The Z-Drive range includes the steel bodied Simms SZ series and the heavy duty Simms SZH starters for engines up to 2.5 litres/cylinder.

### Simms SZ



### High Power Simms SZH



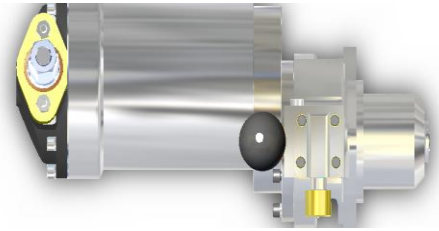
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## Simms spring starter reliability – Z-drive flexibility for smaller engines

The SZ series spring starters are **ideal for engines with restricted block clearance or light flywheel**. Designed for engines from 0.6 litre to 6 litres displacement, with its flexible Z-drive gearbox, the SZ series can be configured to give greater engine clearance.



Their **rugged steel construction**, based on the **tried and tested Simms spring starter** makes the **Z-drive spring starter suitable for a wide range of applications in difficult environments, including pumps, generators, compressors and mining equipment**.

The Z-drive spring starter has a **manual engage and trip mechanism** and **detachable crank wind**, so that the operator can determine the pace at which the spring starter is wound.

The **SZ** series bolts directly into the standard starter pocket on the engine. Given the correct engine configuration, all of the electrics can be dispensed with. **Fitting takes a few minutes**, and **operation** of the starter is extremely **easy** and **safe** with **no danger of kickback**. You can take your time to wind the starter and trip it when you are ready.

- **Rugged steel construction**
- **Z-drive to fit smaller engines with restricted block clearance**
- **Smooth action Powerspring for easy starting action**
- **Standard Simms nosepieces with manual engagement & trip mechanism**
- **Standard Simms crank wind with detachable handle**
- **Variable wind and back wind**
- **Reverse rotation and marine options available**

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### Simms SZ Series Spring Starter Specifications

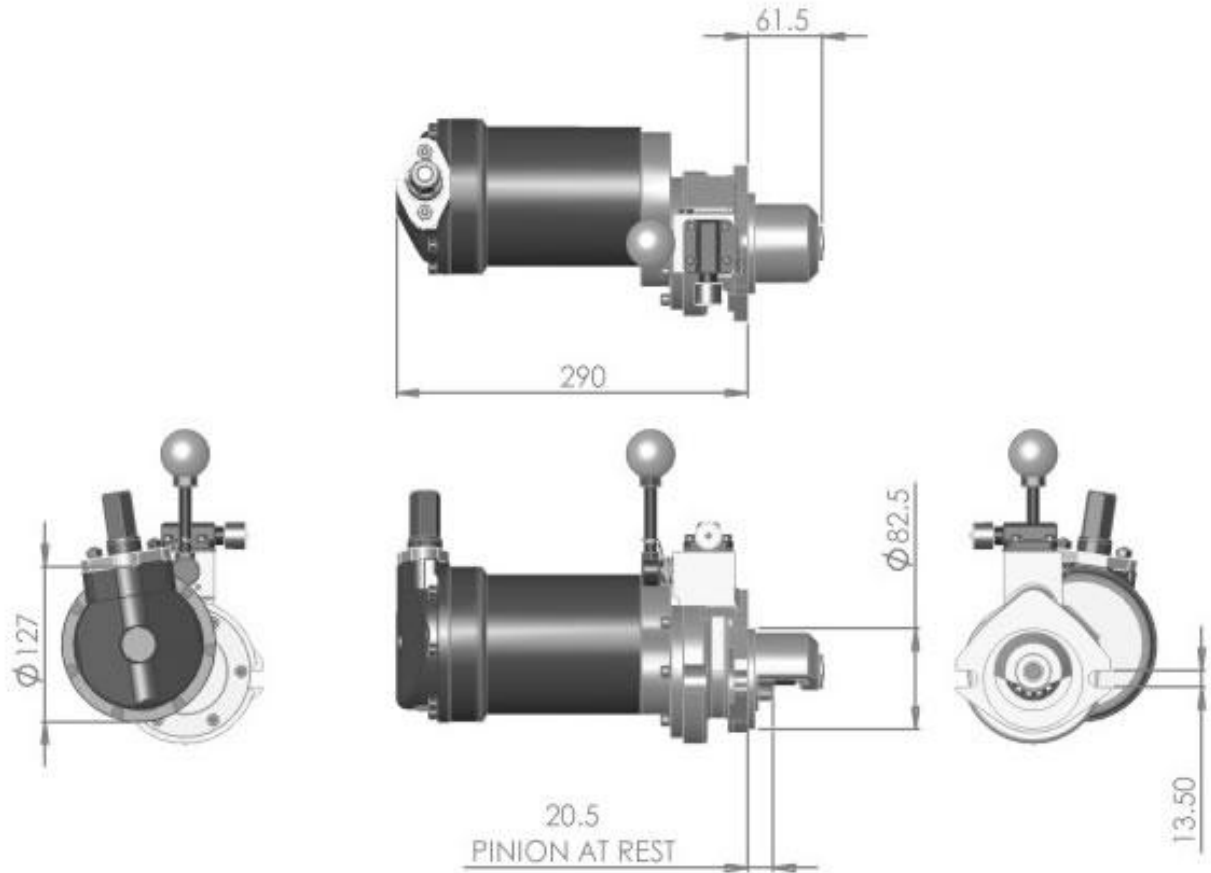
Description	Steel bodied Spring starter with spiral Powerspring wound by a detachable handle, set and tripped by hand. Incorporating a heavy duty gear box.
Rotation of starter	Clockwise viewed on the pinion
Engine capacity	Max. 6 cylinders, up to 1 litre per cylinder
Torque (Range)	20 - 73 Nm Incremental
No. of output turns	4.4 - 16 Incremental
Output energy	Nom. 950 Joules
Cold Starting	To 0°C, some engines require starting aids at lower temperatures.
Maximum winding load	23 Nm Torque
To wind fully	18 turns of the handle
Mounting flange types	SAE 1, SAE2/3, SAE 4/5, Ford
Pinions	10/12, 8/10, 6/8 Fellows stub Metric Module 2.5,3
Cord pull / winding handle position	Variable in 7.5° increments
Weight	16Kgs
Shipping dimensions	33 x 20 x 20 cms
Standard equipment	Winding handle and handbook
<b>Options</b> - Details as above with the following variations	
Reverse rotation model	SZR
Overhung pinion	SZNS, SZNR subject to availability
Lightweight Model	Special order

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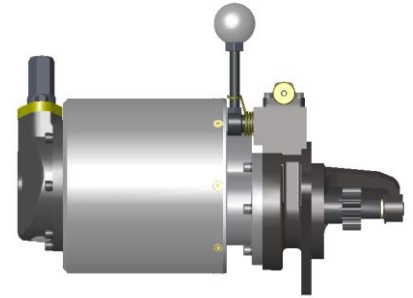
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**Simms SZ Series Spring Starter Typical Dimension**



## Simms spring starter reliability – SZH2 series extra powerful for large engines

The **SZH2** series spring starters are our toughest and most powerful, designed for engines from 1.25 up to 2.5 litres/ cylinder. Being **compact and flexible**, they can also fit smaller engines, solving the problem of start up in difficult conditions.



**Our unique Z-drive format gives this product the flexibility to allow variable positioning of the powerpack and gearing options to tune the starter's output characteristics. The SZH2 can be configured to meet exact customers' requirements on both large and small engines.**

**Their heavy steel construction, based on the tried and tested Simms spring starter makes the SZH2 spring starter suitable for use on black start generators, pumps and compressors. It can be used with a wide range of Simms nosepiece and pinion configurations, so it will fit many engines from a wide range of manufacturer. It is also backwards compatible with the Simms/HSS range.**

The **SZH2 spring starter** has a **manual engage and trip mechanism** and **detachable crank wind**, so that the operator can choose exactly the pace at which the spring starter is wound, even using it to turn the engine over slowly for inspection.

The **SZH2** series bolts directly into the standard starter pocket on the engine. Given the correct engine configuration, all of the electrics can be dispensed with. **Fitting takes a few minutes** and **operation** of the starter is extremely **easy** and **safe** with **no danger of kickback**. You can take your time to wind the starter and trip it when you are ready.

- **Extra powerful spring pack to start large engines**
- **Z-drive to maximise engine clearance for starting in difficult conditions**
- **Standard Simms crank wind with detachable handle**
- **Standard Simms nosepieces with manual engage and trip mechanism**
- **Smooth action Powerspring**
- **Customisable gearing**
- **Variable wind**
- **Heavy duty, steel construction**

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**Simms SZH2 Series Spring Starter Specifications**

Description	Steel bodied Z-drive Spring starter with a high-energy spiral power spring wound by a detachable handle, set and tripped by hand. Incorporating a heavy-duty alloy gearbox.
Rotation of starter	Clockwise viewed on the pinion
Engine capacity	Max. 6 cylinders, to over 2.25 litre per cylinder. Subject to local environmental conditions.
Torque (Range)	29.5 - 112 Nm Incremental
No. of output turns	5 - 19 Incremental
Output energy	Nom. 2510 Joules
Cold Starting	To 5°C, some engines require starting aids at lower temperatures.
Maximum winding load	40 Nm Torque
To wind fully	35 turns of the handle
Mounting flange types	SAE 1, SAE2/3, SAE 4/5, Ford
Pinions	10/12, 8/10, 6/8 Fellows stub Metric Module 2.5,3
Cord pull / winding handle position	Variable in 5° increments
Weight	24kgs
Shipping dimensions	40 x 22 x 27 cm
Standard equipment	Winding handle and operating instructions
<b>Options - Details as above with the following variations</b>	
Reverse rotation model	SZH2R
Torque (Range)	29.5 - 112 Nm Incremental
No. of output turns	5 - 19 Incremental
Noseless	SMNS, SMNR subject to availability
Power limited (High Revolutions)	Yes
High Torque (Low Revolutions)	Yes

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**Simms SZH2 Series Spring Starter Typical Dimensions**

