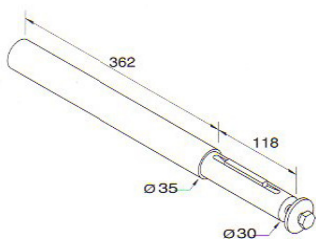


Compact *accessory drive shaft*



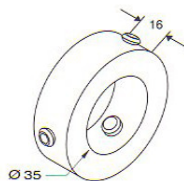
Ref 146555

Weight	3.4kg
Material	Steel
Finish	Plain

Motor drive shaft, stepped dia. 30mm & 35mm, 480mm long.

Larger dia. section provides greater weld area with adaptor discs for use with the powerful SC400/8.

Supplied with woodruff key and 10mm securing bolt.



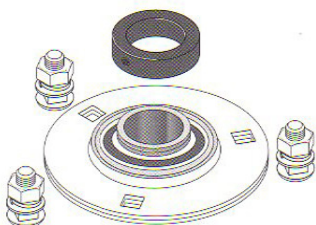
Ref 146611

Weight	0.15kg
Material	Steel
Finish	Plain

Stop collar, ID 35mm.

To be used with drive shaft ref. 146555 with 400/8 Compact to prevent any lateral movement of the tube.

Supplied with 3 x M8 x 10mm grub screws.

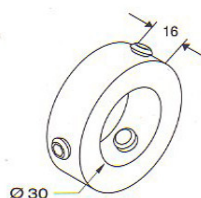


Ref 146631

Weight	0.95kg
Material	Steel
Finish	Plated
Max. shutter weight	1000kg ⚠

Support bearing ID 35mm to fit standard cheek plates. Used for high load applications with Compact 400/8.

Supplied with 3 x M10 x 30mm fixing bolts and separate stop ring.



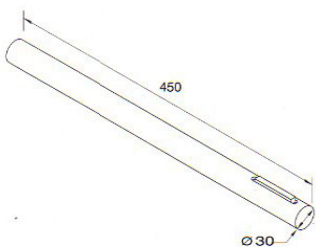
Ref 146582

Weight	0.15kg
Material	Steel
Finish	Plain
Max. shutter weight	1000kg ⚠

Stop collar, ID 30mm.

To be used with drive shaft ref. 146580 to prevent any lateral movement of the tube.

Supplied with 3 x M8 x 10mm grub screws.



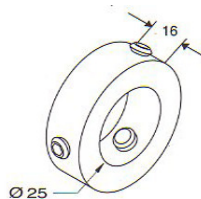
Ref 146580

Weight	2.48kg
Material	Steel
Finish	Plain
Max. shutter weight	1000kg ⚠

Motor drive shaft. Dia. 30mm, 450mm long used with 200 & 300 Nm Compacts.

Supplied with a woodruff key.

See page 5.07 for support bearings.



Ref 146583

Weight	0.16kg
Material	Steel
Finish	Plain

Stop collar, ID 25mm.

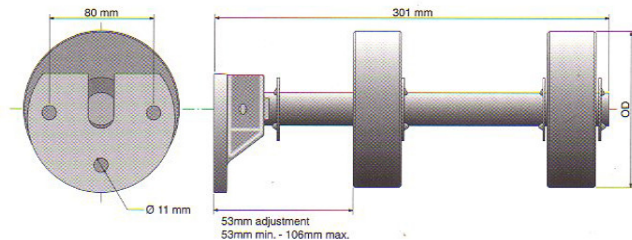
To be used with SC100/30 when fitted to sectional doors to prevent any lateral movement of the tube.

Supplied with 3 x M8 x 10mm grub screws.

Note: Somfy do not supply 25mm shaft or support bearings for the SC 80/30 or the SC 100/30, as these motors are designed for sectional door applications, which already incorporate these adaptations.

Compact adjustable plug ends & brackets

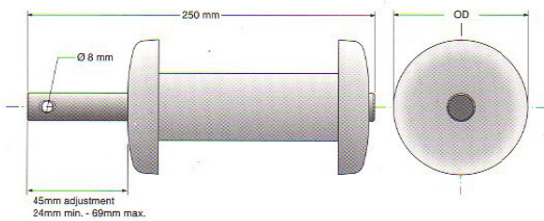
Adjustable plug end with phosphor bronze bushes c/w bracket



⚠ Max. shutter weight = 350kg

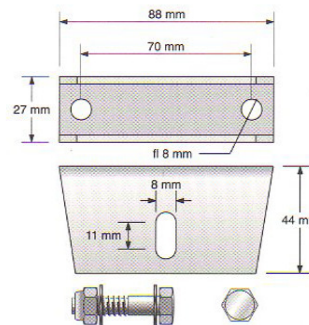
Plug end ref	OD (mm)	Shaft dia. (mm)	Tube size imperial (metric)	Weight (kg)
132090	119.5	25	5" 10swg (127 x 3.25)	5.00

Heavy duty adjustable plug end with ball bearings



⚠ Max. shutter weight = 350kg

Plug end ref	OD (mm)	Shaft dia. (mm)	Tube size imperial (metric)	Weight (kg)
542009	97	20	4" 16swg (101.6 x 1.63)	2.25
542008	94	20	4" 10swg (101.6 x 3.25) 4" 9swg (101.6 x 3.66)	2.20
542012	124	20	5 1/4" 8swg (133.35 x 4.06)	2.36

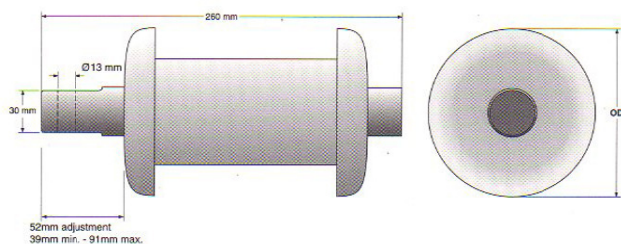


Ref 9541061

Weight	0.2kg
Material	Steel
Finish	Galvanised
Max. shutter weight	350kg ⚠

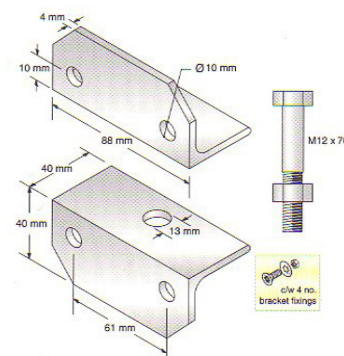
Simple bracket to suit 20mm plug end shaft.

Heavy duty adjustable plug end with ball bearings 30mm shaft



⚠ Max. shutter weight = 600kg

Plug end ref	OD (mm)	Shaft dia. (mm)	Tube size imperial (metric)	Weight (kg)
542013	124	30	5 1/4" 8swg (133.35 x 4.06)	5.50
542019	158	30	6 1/4" 6swg (168.28 x 4.88)	8.20



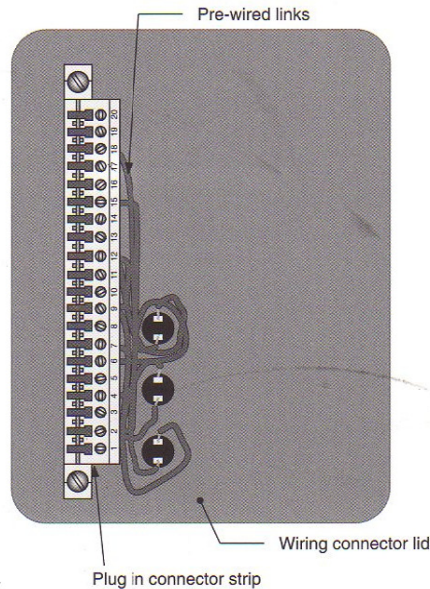
Ref 98550055

Weight	0.4kg
Material	Steel
Finish	Galvanised
Max. shutter weight	600kg ⚠

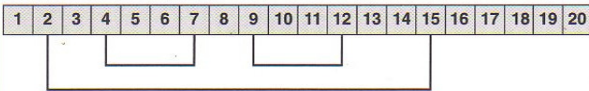
Simple bracket to suit heavy duty 30mm plug end shaft.

Compact *adjusting & wiring*

Configuration



STANDARD LINKS - MOMENTARY OPERATION



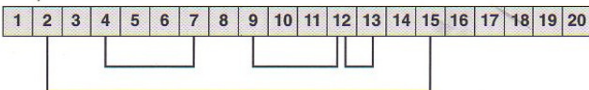
The terminal lid of the Compact is fitted with a partially wired terminal connector which plugs into the motor's circuit board. When delivered, the following links are already fitted to these terminals:

Link between terminal 4 & 7

Link between terminal 9 & 12

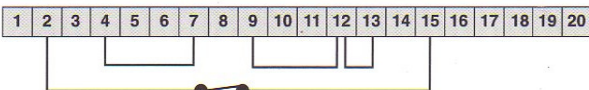
Link between terminal 2 & 15

IMPULSE - UP ONLY



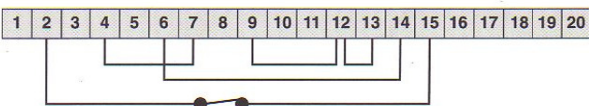
To convert from momentary operation or "dead man" mode to impulse or "constant drive" operation in the UP direction (normally direction 2 when correctly installed), fit a link between terminals 12 & 13.

IMPULSE - UP & STOP



Replace the link between 2 & 15 with a normally closed contact (refer to push button station in controls section), in order to generate a STOP command.

IMPULSE - UP, DOWN & STOP



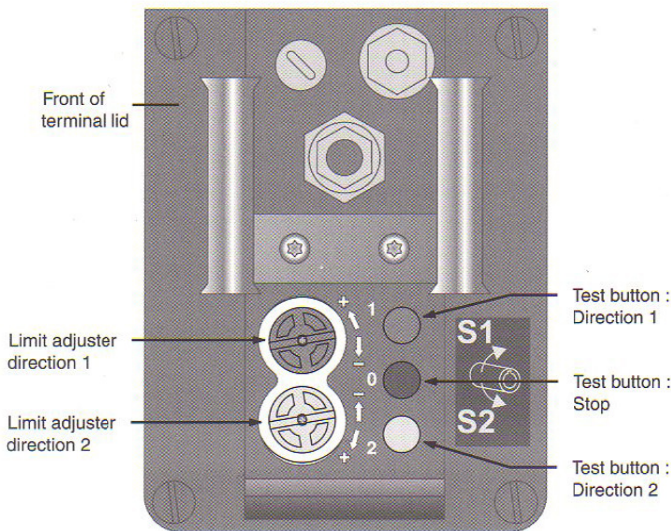
To convert from "momentary" operation to "impulse" operation in the DOWN direction (normally direction 1 when correctly installed), fit a link between terminals 6 & 14.

For actual diagrams of Compact & standard switch options, refer to Circuit Diagrams section.

⚠ CAUTION! - When converting the control configuration to "impulse" in the down direction, we advise that a safety device (safety edge, photo-cell etc.) be installed as a safety precaution.

Compact *adjusting & wiring*

Adjustments and testing



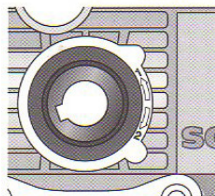
Upon completion of the mains wiring, replace the terminal lid ensuring that the terminal connector plugs into the PCB card correctly and secure via the four corner plastic screws.

Switch on the power supply.

Depress the top (blue) push button (direction 1).

The shaft should be rotating in the direction of the arrow adjacent to the output shaft on the motor body.

Depress the bottom (yellow) push button (direction 2).



The shaft should be rotating in the direction of the arrow adjacent to the output shaft on the motor body.

⚠ If the shaft rotates in the opposite direction:

Release the push button at once.

Switch off the power supply.

Invert 2 phases, either in the motor or on the power supply line eg; L1 & L2. This will reverse the operation of the output shaft.

Switch on the power supply.

Check the motor directions again.

Limit switch adjustment

Operate the shutter by using the test buttons on the motor. Once the motor stops at its pre-set limit positions, increase the limit range by:

Using a suitable flat blade screwdriver, push the corresponding limit adjuster IN and then turn in the "+" direction.

The top (blue) limit adjuster will correspond to the limit position of direction 1.

The bottom (yellow) limit adjuster will correspond to the limit position of direction 2.

In order to decrease the limit range in either direction, adjust the corresponding limit adjuster in the "-" direction.

Safety switches

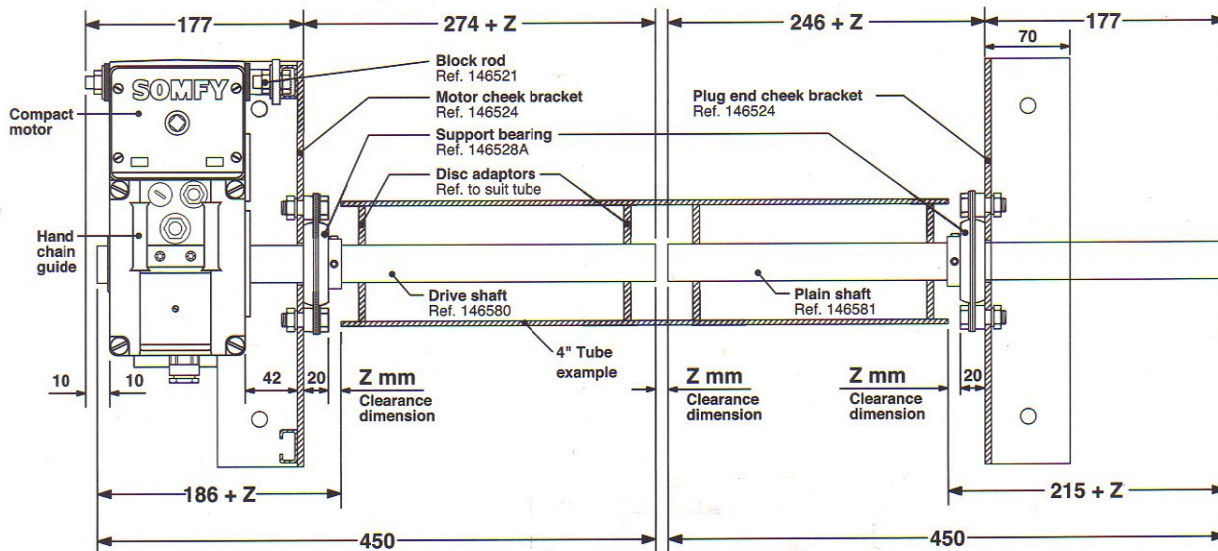
⚠ The Somfy 3-Ph motor is equipped with internal electrical safety contacts. In case the motor runs the wrong way (inversion of 2 phases), an internal micro-switch is activated, disconnecting the control circuit.

To re-connect it, first establish the correct direction of rotation (see previous TESTING section), then turn both limit adjusters in the "+" direction (3 to 4 turns).

Test again and re-adjust the limit positions if necessary.

Compact *installation instructions*

Assembly drawing of typical installation

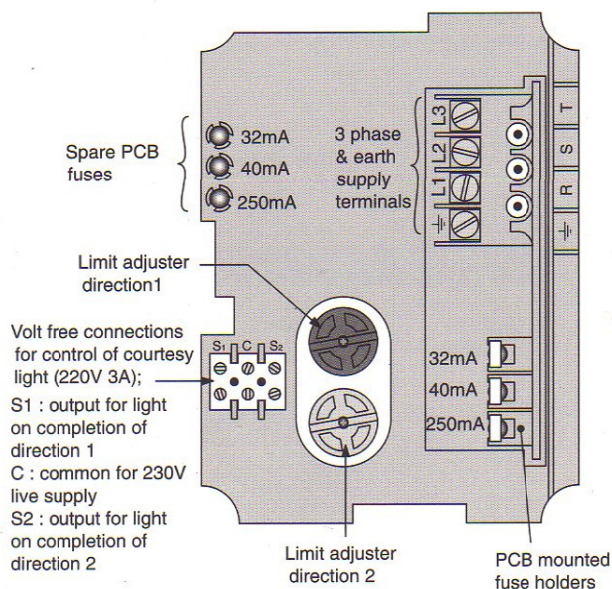


Minimum overall width of barrel assembly = $10 + 2 \times 450 + Z$.

Where Z is the nominal clearance dimension.

Note: See pages on plug ends for other assembly options.

Internal layout of main electrical connections - 3 phase motors



Removal of the terminal lid gains access to the mains power connections for the motor along with replacement pcb fuses and the volt free connections for controlling a courtesy light.

Compact *range*

Compact motors are mid-high power motors, suitable for heavier industrial and commercial unbalanced roller doors. They are an external box type design complete with direct hollow drive and integral control system and are ready to be tested once connected to a mains power supply. They are also fitted with manual override facility for emergency operation in the event of power failure and are available for three phase and single phase power supplies.

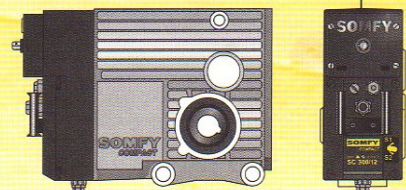
The Compact motor has been designed to make the fitters work easier. All the control configurations and test buttons are housed inside the front box of the motor, along with limit setting mechanisms and mains wiring connections. The control connections are made via connectors within the removable lid, so wiring for control switches can be made at floor level.

The three phase motors include a 24V control circuit designed to allow various control configurations, which can be modified by fitting or removing links on the lid connectors.

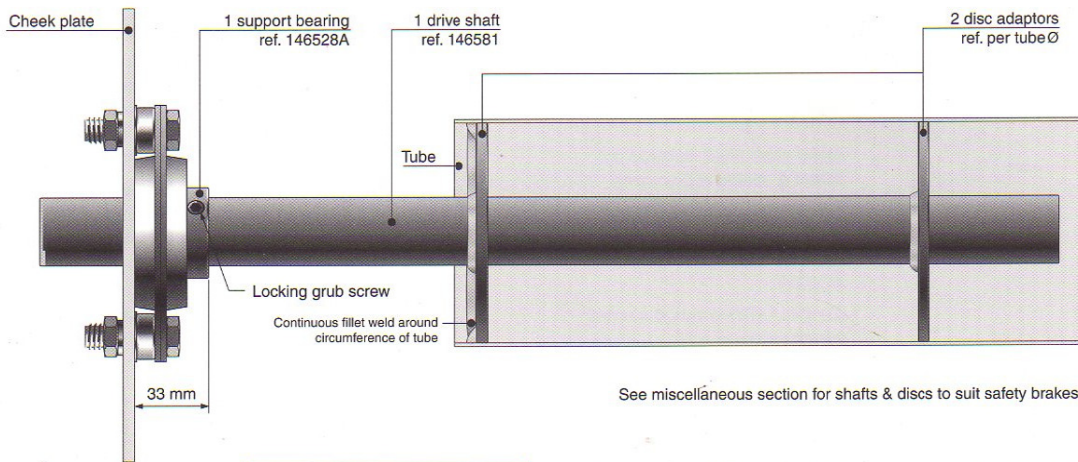
Manual override options include a crank handle or hand chain operation. The manual override mechanism incorporates a micro switch, which automatically cuts the power supply when the override is used.

All motors feature

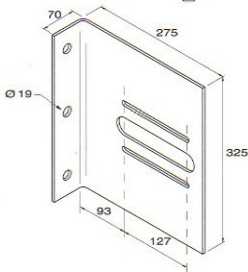
- **Easy installation**
- **3 phase models** include a 24V control circuit allowing programmable configuration of operating mode; impulse or momentary
- **Specific model** available for sectional doors (30rpm de-clutching drive & 25.4mm hollow drive shaft)
- **No separate** motor starter required
- **Volt free** outputs for courtesy lighting
- **Compatible** with photocells
- **Standard index** of protection rating : IP45
- **Integral** test buttons
- **Progressive** limit switches
- **Continuous** running time : single phase 5 mins; three phase 25 mins
- **Lubricated bearings** and gearbox for life-time service
- **Temperature** range : -25°C to +85°C
- **Integral** thermal protection
- **Integral** electromagnetic brake
- **Integral** manual override



Compact *self assembly plug ends*

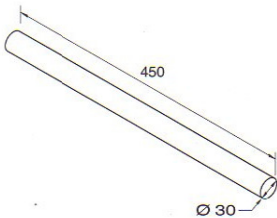


See miscellaneous section for shafts & discs to suit safety brakes.



Ref 146526	
Weight	3.77kg
Material	Steel
Finish	Paint
Max. shutter weight	600kg ⚠

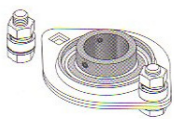
A reversible and adjustable plug end bracket for the SC200/12 & SC300/12. To be used with corresponding motor bracket ref. 146524 and support bearing ref. 146528A.



Ref 146581	
Weight	2.47kg
Material	Steel
Finish	Plain
Max. shutter weight	1000kg ⚠

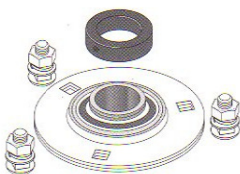
Plain support shaft, Dia. 30mm, 450mm long.

NB not to extend beyond tube more than 225mm ie 50%.



Ref 146528A	
Weight	0.54kg
Material	Steel
Finish	Plated/plain
Max. shutter weight	800kg ⚠

Shaft support bearing ID 30mm, used with shaft 146581. Includes integral stop ring and mounting plates. Can be used with end plates ref. 146524 & 146526. Supplied with 2 x M10 x 30mm fixing bolts.

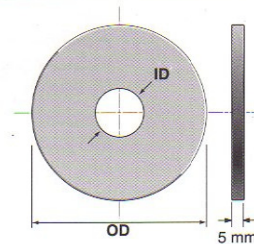


Ref 146522	
Weight	0.54kg
Material	Steel
Finish	Plated/plain
Max. shutter weight	1000kg ⚠

Shaft support bearing 30mm ID, used with shaft 146581. Complete with stop ring and mounting plates. Supplied with 3 x M10 x 30mm fixing bolts.

It is the responsibility of the fabricator to ensure the integrity of welding and that the complete disc/tube assembly is capable of supporting the required shutter safely.

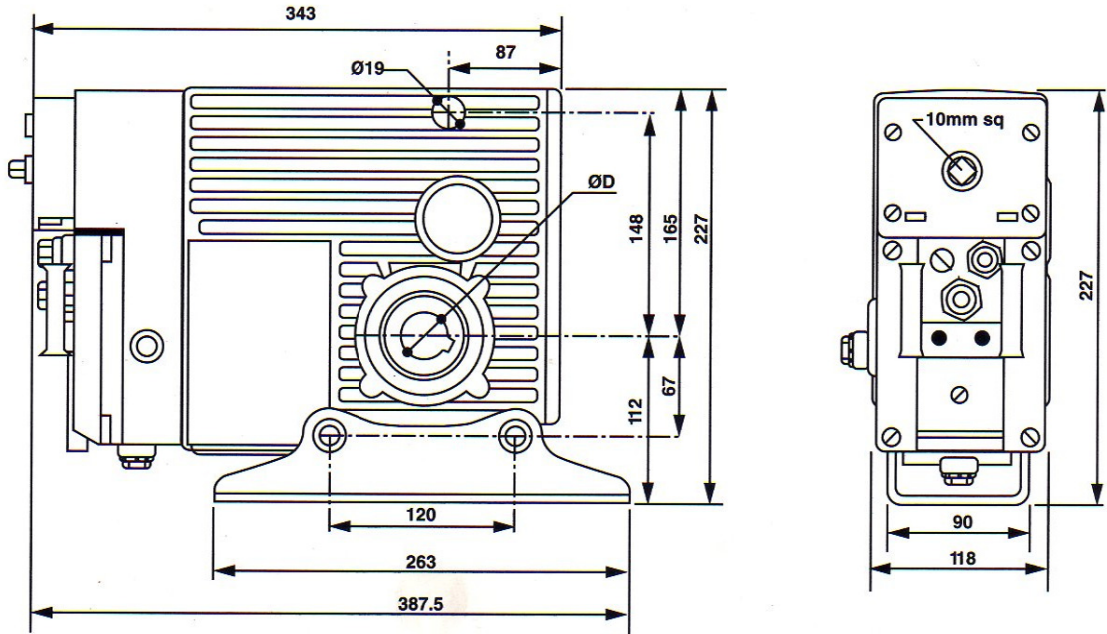
Plain steel disc adaptors



Disc Ref	OD (mm)	Shaft dia. (mm)	Tube size imperial (metric)	Weight (kg)
146559	97	30	4" 16swg (101.6 x 1.63)	0.26
146560	93	30	4" 10swg (101.6 x 3.25) 4" 9swg (101.6 x 3.66)	0.23
146557/1	120	30	5" 10swg (127 x 3.25)	0.41
146557/2	130	30	5 1/4" 16swg (133.35 x 1.63)	0.49
146557	127	30	5 1/4" 12swg (133.35 x 2.64)	0.45
146558	124	30	5 1/4" 8swg (133.35 x 4.06)	0.44
146561	132	30	5 1/2" 10swg (139.71 x 3.25)	0.50
146564/1	146	30	6" 10swg (152.40 x 3.25)	0.62
146595/1	157	30	6 3/4" 7 swg (168.28 x 4.50) 6 3/4" 6swg (168.28 x 4.88)	0.62
146592/1	120	35	5" 10swg (127 x 3.25)	0.40
146600	127	35	5 1/4" 12swg (133.35 x 2.64)	0.48
146601	132	35	5 1/2" 10swg (139.70 x 3.25)	0.49
146602	146	35	6" 10swg (152.40 x 3.25)	0.61
146603	157	35	6 3/4" 7 swg (168.28 x 4.50) 6 3/4" 6swg (168.28 x 4.88)	0.71

Compact *specification*

Compact Motors



Motor Model	Torque (Nm)	Speed (rpm)	Maximum rotation in one direction	Electrical Power (watt)	Rating (amps)	Drive Dia. (mm)	Weight (kg)
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SINGLE PHASE MOTOR

Compact 200/12 1ph	200	12	17	940	4.50	30.0	17.50
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THREE PHASE MOTOR

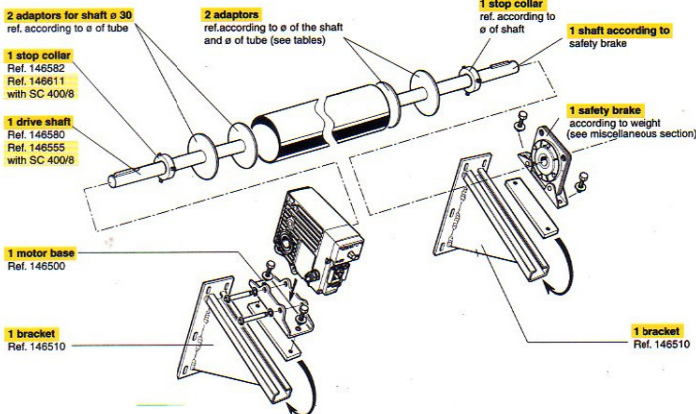
Compact 100/30 3ph	100	30	17	1000	1.70	25.4	17.50
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Compact 200/12 3ph	200	12	17	720	1.30	30.0	17.50
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Compact 300/12 3ph	300	12	17	1000	1.70	30.0	17.50
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Compact 400/8 3ph	400	8	17	1000	1.70	30.0	17.50
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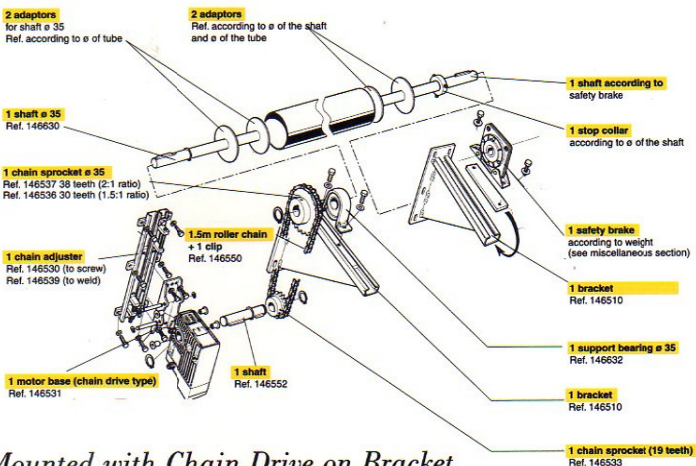
Compact assembly 1



Mounted on Bracket with Safety Brake

QTY	REFERENCE	DESCRIPTION
4	See disc table	Reference according to diameter of tube
1	Safety brake	See miscellaneous section for safety brake table
1	Plug end shaft	According to safety brake see miscellaneous
1	Stop collar	According to diameter of shaft
1	146580	Drive Shaft
1	146582	Stop collar
1	146500	Motor base
2	146510	Bracket
1	Motor	See motor selector chart

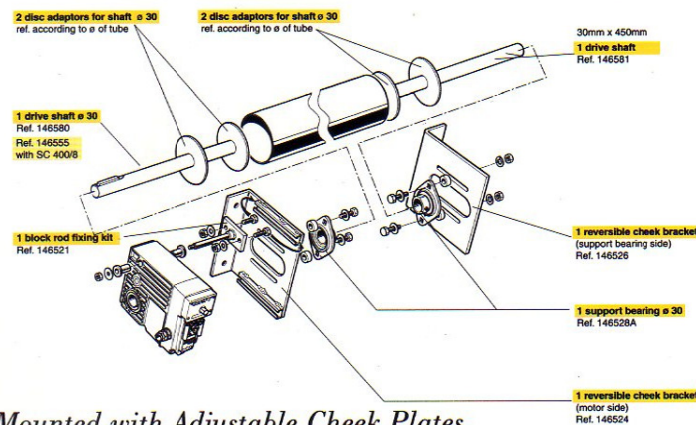
Compact assembly 2



Mounted with Chain Drive on Bracket

QTY	REFERENCE	DESCRIPTION
4	See disc table	Reference according to diameter of tube
1	146630	Sprocket drive shaft
2	146510	Bracket
1	146632	Support bearing
1	Safety brake	See miscellaneous section for reference
1	Plug end shaft	According to safety brake
1	Stop collar	According to diameter of shaft
1	146537	Chain sprocket 38 teeth
or	146536	Chain sprocket 30 teeth
1	146533	Chain sprocket 19 teeth
1	146550	1.5m roller chain & clip
1	146531	Motor base (chain type)
1	146530	Chain adjuster (to screw)
or	146539	Chain adjuster (to weld)
1	146552	Motor drive shaft
1	Motor	See motor selector chart

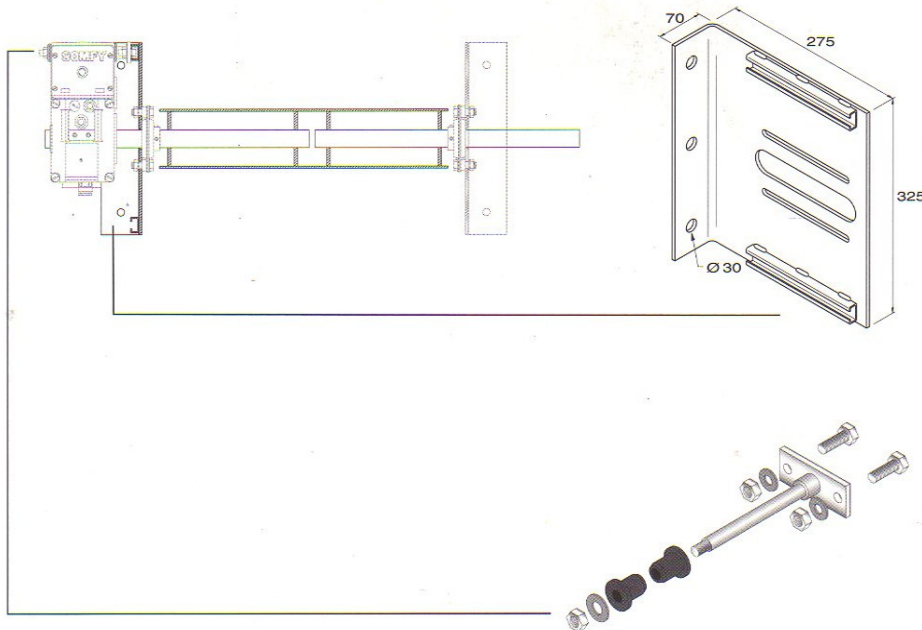
Compact assembly 3



Mounted with Adjustable Cheek Plates

QTY	REFERENCE	DESCRIPTION
4	See disc table	Reference according to diameter of tube
1	146580	Motor drive shaft
1	146581	Plug end shaft
1	146521	Block rod fixing kit
1	146526	Plug end cheek bracket
1	146524	Motor cheek bracket
2	146528A	Support bearing
1	Motor	See motor selector chart

Compact *accessory brackets*



Ref 146524	
Weight	4.03kg
Material	Steel
Finish	Paint
Max. shutter weight	390kg ⚠

A reversible and adjustable motor bracket for the SC200/12 & SC300/12.

The block rod ref. 146521 must be fitted with this bracket.

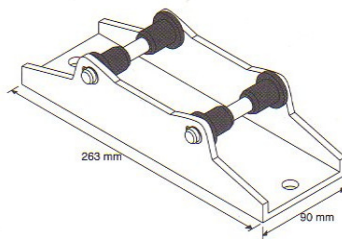
To be used with support bearing ref 146528A.

Ref 146521	
Weight	0.44kg
Material	Steel
Finish	Galvanised
Max. shutter weight	600kg ⚠

Block rod, prevents the Compact motor rotating when using motor end plate ref. 146524. Can be used with assemblers own 'cheek plates'

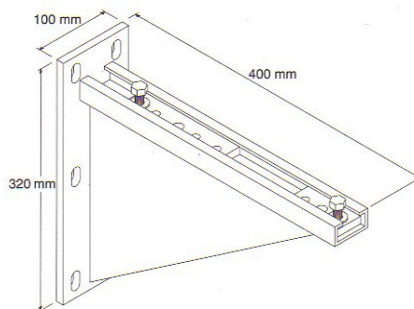
Supplied with 2 M10 x 25mm fixing bolts and rubber bushes.

Alternative fixing method



Ref 146500	
Weight	2.07kg
Material	Steel
Finish	Paint
Max. shutter weight	600kg ⚠

A base plate to be fitted to COMPACT motors when using the adjustable bracket ref. 146510.

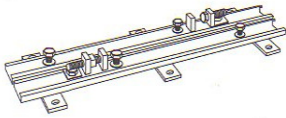


Ref 146510	
Weight	5.27kg
Material	Steel
Finish	Paint
Max. shutter weight	600kg ⚠

Heavy duty adjustable motor or plug end bracket.

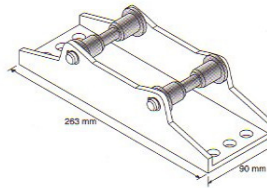
The base ref. 146500 has to be fitted onto the motor when using this bracket.

Compact *accessory chain drive*



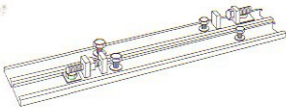
Ref 146530	
Weight	4.32kg
Material	Steel
Finish	Paint
Max. shutter weight	600kg ⚠

Chain adjuster bracket to be secured with bolts.
When using this bracket the base plate ref. 146531 must be fitted to the motor.



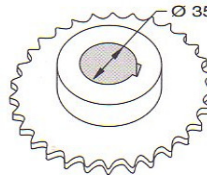
Ref 146531	
Weight	2.25kg
Material	Steel
Finish	Paint
Max. shutter weight	600kg ⚠

Special Compact motor base plate to be fitted when using bracket ref. 146530 & 146539.



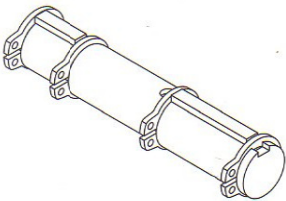
Ref 146539	
Weight	4.2kg
Material	Steel
Finish	Paint
Max. shutter weight	600kg ⚠

Chain adjuster bracket to be welded.
When using this bracket the base plate ref. 146531 must be fitted to the motor.



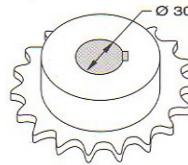
Ref 146536	
Weight	3.38kg
Material	Steel
Finish	Plated
Max. shutter weight	500kg ⚠

Chain sprocket 30 teeth, ID 35mm to be fitted onto the barrel shaft ref. 146630.
Reduction ratio 1.5:1



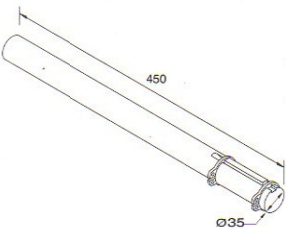
Ref 146552	
Weight	0.94kg
Material	Steel
Finish	Plain
Max. shutter weight	600kg ⚠

Motor drive shaft OD 30mm, supplied with woodruff keys & circlips.
To be used with sprocket ref. 146533.



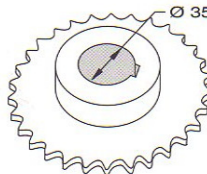
Ref 146533	
Weight	5kg
Material	Steel
Finish	Plated
Max. shutter weight	600kg ⚠

Chain sprocket 19 teeth, ID 30mm to be fitted onto the motor drive shaft ref. 146552.



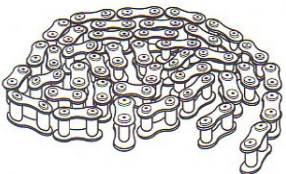
Ref 146630	
Weight	3.37kg
Material	Steel
Finish	Plain
Max. shutter weight	600kg ⚠

Barrel drive shaft 35mm dia. Supplied with woodruff key & circlips.
To be used with sprockets ref. 146536 or 146537



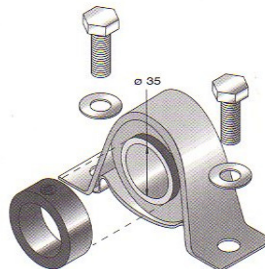
Ref 146537	
Weight	5kg
Material	Steel
Finish	Plated
Max. shutter weight	600kg ⚠

Chain sprocket 38 teeth, ID 35mm to be fitted onto barrel shaft ref. 146630.
Reduction ratio 2:1



Ref 146550	
Weight	1.72kg
Material	Steel
Finish	Plain
Max. shutter weight	600kg ⚠

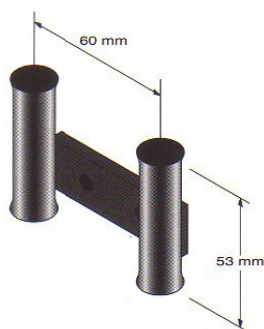
1.5m roller drive chain.
To be used with sprockets ref. 146533, 146536 or 146537.



Ref 146632	
Weight	0.77kg
Material	Steel
Finish	Plated
Max. shutter weight	600kg ⚠

Support bearing ID 35mm to fit onto angle bracket ref. 146510.
Supplied with 2 x M10 x 25mm fixing bolts

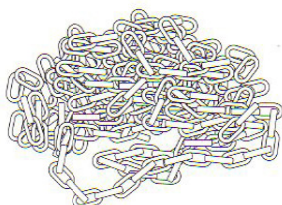
Compact *accessory chain drive*



Ref 133601

Weight	0.08kg
Material	Steel
Finish	Galvanised

Guide bracket for manual override chain, supplied with 2no Torx self tapping screws.

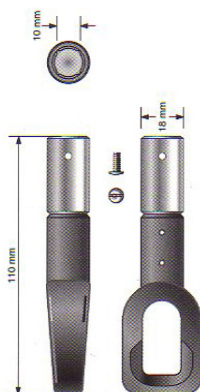


Ref 146501

Weight	1.5kg
Material	Steel
Finish	Galvanised

Manual override hand chain for Compact motors.

Supplied in 10m lengths.

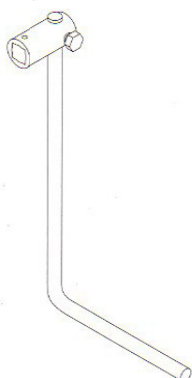


Ref 146502

Weight	0.08kg
Material	Plastic
Finish	Plain

Eye outlet for use with Compacts, mounted vertically at low level.

Compact crank



Mini crank handle supplied with the motor