

Information Sheet

It is essential to read these instructions before commissioning the drive



BROWN EUROPE

BWQ WORM GEARED MOTORS

GENERAL INFORMATION

Modifications to the entire drive must be agreed with us in advance, as no guarantee can otherwise be provided.

TECHNICAL DATA

The technical data of the drive is as shown on the nameplate.

DIMENSIONS

Dimensions may be obtained by referring to the Brown Group catalogue or data sheets.

SAFETY - CORRECT USE OF THE DRIVE

BWQ gearboxes and geared motors are designed for the output torques and loads as specified in the catalogue. For reasons of safety the geared units may only be used for the applications in which they were designed, making allowance for all the service factors as stated in the catalogue.

SPECIAL ATTENTION FOR LIFTING APPLICATIONS

It should be assumed that the gearbox is not self-locking, even high ratios such as 80:1 or 100:1 may backdrive in certain conditions. Where a brake motor or braking device is an integral part of the gear unit, special care must be taken at assembly and during maintenance as releasing the brake will allow any load on the output shaft to drop.

MOUNTING BASES AND VENTILATION

It is assumed that skilled labour will be used for assembly, installation, start-up, service and repair and that care will be taken in the transportation of gearboxes to and from site.

Please ensure that the mounting frame or base for the gearbox is of adequate size and stability to be vibration proof in duty.

Ensure that sufficient ventilation is available to prevent overheating.

HOLLOW OUTPUT SHAFT DETAILS

The shafts are coated with a protective varnish which must be completely removed before installation. **Attention** - If it is necessary to use solvents, take care that the lips of the oil seals are not touched.

FLEXIBLE COUPLINGS

Use Brown Group RX flexible couplings between output shaft and driven machine.

MOUNTING OF GEARBOX ON MACHINE SHAFT

For standard units the hollow output shaft is produced to tolerance ISO H7. The customer's shaft must be produced to tolerance ISO k6.

- Coat the machine shaft with copper slip or equivalent.
- Coat the bore and keyway of the hollow shaft with rust inhibiting grease
- Pull the gearbox onto the machine shaft by using the central screw - do not use a hammer

Under no circumstances must the gearbox be mounted dry as it will rust and be impossible to remove for repair.

DISMANTLING

Pull the gearbox off the machine shaft by using pulley drawers or equivalent, suitably placed so as not to damage the geared unit. Avoid hammering. If the shaft is tight we recommend the use of penetrating oil.

GUARDING OF MOVING PARTS

Ensure that moving parts are suitably guarded.

ELECTRIC MOTOR CONNECTION

Connect motor according to diagram in terminal box cover (this work should be undertaken by a qualified electrician), paying careful attention to the need for solid earthing of the casing and the supply earth connection, to ensure compliance with the EU Directive on Electro-Magnetic Compatibility (89/336/EEC). Screened cables should be used wherever electronic control devices are used (e.g. inverters).

Check that electric supply corresponds to that stated on the nameplate i.e. voltage / frequency.

To reverse direction of rotation refer to wiring diagram.

Ensure that protective devices are installed in the starter or motor windings.

Set motor protection to Full Load Current (FLC) plus 10%.

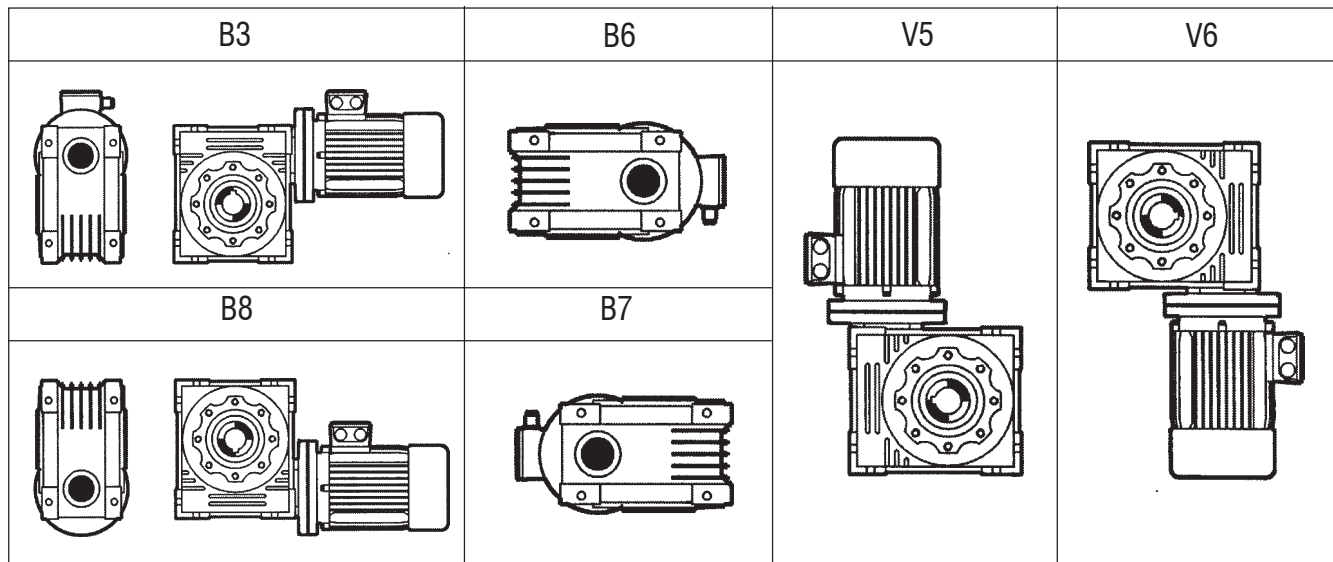
CAUTION

In the event of abnormal current, temperature, vibration, noise etc. or in the event of any protective device operating, responsible maintenance must be carried out immediately to prevent possible damage to equipment or personal injury.

MAINTENANCE

For BWQ30 to BWQ90 under normal operating conditions no oil change will be required. For sizes BW100Q to BW130Q an oil change is recommended after 50,000 hours of operation (and after 2,000 hours if operated under wet conditions). It is advisable to combine the lubricant change with thorough cleaning of the gear unit.

Mounting Positions



PRODUCT USAGE

In any application of products where breakage, excessive wear or any other malfunction of a drive train component could result in personal injury, or property damage, a fail safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CE MARKING

Notice is hereby issued of compliance with the Supply of Machinery (Safety) Regulations (S1 992/3073) in respect of the goods detailed on the Delivery Note. These goods must not be put into service until the machinery into which they are to be incorporated has been declared in conformity with the provision of the Directive - Safety of Machinery 89/392/EEC and Amendments to 91/368/EEC, 93/44/EEC and 93/68/EEC. Electric motors carry the CE Mark to indicate compliance with the Low Voltage Directive - 73/23/EEC.

CARRIAGE STORAGE AND PRESERVATION

CARRIAGE - The drive has been tested at the factory and then correctly packed. The consignment must be checked for completeness immediately after receipt and the gearbox and its accessories examined for damage which may have occurred during transit. Any claims must be registered with the Carrier immediately.

STORAGE AND PRESERVATION - Condensation within the gearbox will cause rust to form. It is imperative that this is avoided. The intensity of this process depends on the relative humidity, variations of temperature and the duration of the storage. If long term storage is anticipated, the gearbox must be completely filled with lubricant. Before commissioning takes place the gearbox must be emptied and re-filled with the correct amount of lubricant according to the mounting position (see above). The bare parts of the gear unit must be protected.

LUBRICATION

The reduction units size BW30, 40, 50, 63, 75 & 90Q are supplied complete with synthetic oil and lubricated for life and are ready for operation at normal ambient temperatures - 25°C - +80°C. They can, therefore, be mounted in any position. The only exceptions are size BW75Q and BW90Q in pos. V5/V6 for which you should call our Technical Department to assess the conditions of use.

The reduction units size BW110-130Q are supplied without lubrication unless specified on order.

For extreme conditions, alternative synthetic lubricants are available at extra charge.

NOTE: Synthetic and mineral lubricants must not be mixed together.

RECOMMENDED LUBRICANT - GEARBOX

MOBIL - GLYGOYLE 30 (Synthetic Oil)

RECOMMENDED LUBRICANT - MOTOR (Where fitted)

MOBIL - MOBILUX EP3

Motor bearings filled with grease must be cleaned every 10,000 hours and packed to 1/3 full with new grease.

Quantity of lubricant in litres

BW...Q	25	30	40	50	63	75	90	110	130
B3								3	4.5
B8	0.02	0.04	0.08	0.15	0.3	0.55	1	2.2	3.3
B6-B7								2.5	3.5
V5/V6								3	4.5

VENT PLUGS

Ventilation valves are supplied as standard, when commissioning, the ventilation valve must be opened to avoid pressure build-up within the gear case which might cause leakage.



Revenge Road,
 Lordswood Ind. Estate, Chatham,
 Kent.
 ME5 8UD.
 Tel. (0044) 1634 687141
 Fax. (0044) 1634 686347
 Email. Mail@Browngroutd.com