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# **BGA**

## **25/35/45/55/68**



- Spare Parts Book
- Pièces détachées
- Libro Despiece
- Lista de Peças
- Ersatzteilhandbuch

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# EC DECLARATION OF CONFORMITY / DECLARATION CE DE CONFORMITE / DECLARACIÓN DE CONFORMIDAD CE / DECLARAÇÃO CE DE CONFORMIDADE / EG-VERKLARING VAN OVERENSTEMMING / EF OVERENSSTEMMELSESERKLÆRING



We, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK17 0EU, GB**, hereby certify that if the product described within this certificate is bought from an authorised Belle Group dealer within the EEC, it conforms to the following EEC directives: 2006/42/CE (This directive replaces directive 98/37/EC), Electromagnetic Compatibility Directive 2004/108/CE (as amended by 89/336/EEC, 92/31/EEC & 93/68 EEC), The Waste Electrical and Electronic Equipment (WEEE) 2002/96/CE, the low voltage directive 2006/95/CE, BS EN ISO 12100-1:2003 Safety of machinery and associated harmonised standards, where applicable. Noise emissions conform to directive 2000/14/EC Annex VI, for machines under article 12 the notified body is **AV Technology Limited, AVTECH house, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.

*Noise Technical Files are held at the Belle Group Head Office address which is stated above.*



Nous soussignés, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK17 0EU, GB**, certifions que si le produit décrit dans ce certificat est acheté chez un distributeur autorisé Belle Group au sein de la CEE, il est conforme aux normes CEE ci-après: 2006/42/CE (Cette norme remplace la norme 98/37/CE), Norme compatible pour l'électromagnétisme 2004/108/CE (modifiée par 89/336/EEC, 92/31/EEC & 93/68 EEC). Les déchets électriques, et d'équipement électronique 2002/96/CE, caractéristiques basse tension 2006/95/CE, BS EN ISO 12100-1:2003 Norme de sécurité des machines et des critères associés et configurés, si applicable. Les émissions de bruit sont conformes à la directive 2000/14/EC Annexe VI pour machines, article 12, l'objet mentionné est **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.

*Les dossiers techniques sur les émissions sonores des machines sont détenus au siège social de BELLE GROUP à l'adresse ci-dessus.*



La Sociedad, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK17 0EU, GB**, por el presente documento certifica que si el producto descrito en este certificado es comprado a un distribuidor autorizado de Belle Group en la CEE, este es conforme a las siguientes directivas: 2006/42/CE de la CEE (Esta directiva sustituye a la Directiva 98/37/CE), Directiva 2004/108/CE sobre Compatibilidad Electromagnética (según enmiendas 89/336/EEC, 92/31/EEC & 93/68 EEC). Los residuos eléctricos y electrónicos (RAEE) 2002/96/CE, Directiva sobre Bajo Voltaje 2006/95/CE, BS EN ISO 12100-1:2003 de Seguridad de Maquinaria y Niveles armonizados estándares asociados donde sean aplicables. Emisión de Ruidos conforme a la Directiva 2000/14/CE Anexo VI para máquinas bajo artículo 12 la mencionada unidad está **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.

*En La Sede Central de Belle Group existen Archivos Técnicos con contenido referente a Niveles de Ruido.*



O signatário, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK 0EU, GB**, pelo presente, declara que se o produto descrito neste certificado foi adquirido a um distribuidor autorizado do Belle Group em qualquer país da UE, está em conformidade com o estabelecido nas seguintes diretivas comunitárias: 2006/42/CE (Esta directiva substitui a Directiva 98/37/CE), Directiva de Compatibilidade Electromagnética 2004/108/CE (conforme corrigido pelas 89/336/EEC, 92/31/EEC & 93/68 EEC). O Eléctrico de Desperdício e Equipamento Electrónico (DEEE) 2002/96/CE, a directiva de baixa voltagem 2006/95/CE, BS EN ISO 12100-1:2003 Segurança da maquinaria e às normas harmonizadas afins se aplicáveis. As emissões de ruído respeitam e estão dentro das directivas para máquinas 2000/14/CE Anexo VI, artigo 12, sendo o organismo notificado **AV Technology Limited, AVTECH house, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.

*A informação técnica sobre níveis sonoros está disponível na Sede da Belle Group na morada acima mencionada.*



Ondergetekende, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK17 0EU, GB**, verklaren hierbij dat als het product zoals beschreven in dit certificaat is gekocht van een erkende Belle Group dealer binnen de EEG, het voldoet aan de volgende EEG richtlijnen: 2006/42/CE (Deze richtlijn vervangt Richtlijn 98/37/EC), Electromagnetische Compatibiliteit Richtlijn 2004/108/CE (geamendeerd door 89/336/EEC, 92/31/EEC & 93/68 EEC). De afgedankte elektrische en elektronische apparatuur (AEEA) 2002/96/CE, de Laagspannings Richtlijn 2006/95/CE, BS EN ISO 12100-1:2003 Veiligheid van Machines en hieraan gekoppelde geharmoniseerde Standaarden, waar deze van toepassing is. Ruisemissies passen voor richtlijn EC Zijkgebou VI, voor toestel onder stuk 12 naar de notified body **AV Technology Limited, AVTECH house, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.

*Worden de Technische Dossiers van het lawaai gehouden op het adres van het Hoofdkantoor van de Groep Belle dat hierboven ' wordt verklaard.*



Vi, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK17 0EU, GB**, erklærer hermed, at hvis det i dette certifikat beskrevne produkt er købt hos en autoriseret Belle Group forhandler i EU, er det i overensstemmelse med følgende EØF-direktiver: 2006/42/CE (Dette direktiv erstatter direktiv 98/37/EF), 2004/108/EØF (som ændret ved 89/336/EEC, 92/31/EØF & 93/68 EØF), Afald af elektrisk og elektronisk udstyr (WEEE) 2002/96/CE, og tilknyttede, harmoniserede standarder, hvor relevant. Støjniveauet er i overensstemmelse med direktiv 2006/95/CE, BS EN ISO 12100-1:2003, bilag VI gældende for maskiner under paragraf 12. Det bemærkede organ er **AV Technology Limited, AVTECH house, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, Storbritanien**.

*De tekniske støjspecifikationer forefindes på Belle Group's hovedkontor, adressen er skrevet ovenfor.*

PRODUCT TYPE .....	TYPE DE PRODUIT.....	TIPO DE PRODUCTO .....
MODEL.....	MODELE.....	MODELO .....
SERIAL No.....	N° DE SERIE.....	N° DE SERIE.....
DATE OF MANUFACTURE.....	DATE DE FABRICATION.....	FECHA DE FABRICACIÓN.....
SOUND POWER LEVEL MEASURED / .....(GUARANTEED)	NIVEAU DE PUISSANCE SONORE MESUREE / .....(GARANTIE)	NIVEL DE POTENCIA ACÚSTICA MEDIDO / .....(GARANTIZADO)
WEIGHT.....	POIDS.....	PESO.....
TIPO DE PRODUCTO.....	PRODUCTTYPE.....	PRODUKTTYPE.....
MODELO.....	MODEL.....	MODEL.....
NO. DE SÉRIE.....	SERIENUMMER.....	SERIENR.....
DATA DE FABRIC.....	FABRICAGEDATUM.....	FREMSTILLINGSDATO.....
NIVEL DE POTENCIA DE SOM MEDIDO / .....(GARANTIDO)	GEMETEN GELUIDSSTERKTENIVEAU / .....(GEGARANDEERD)	LYDEFFEKTNIVEAU MÅLT / .....(GARANTERET)
PESO.....	GEWICHT.....	VÆGT.....



Signed by:  
 Signature:   
 Medido por:  
 Assinado por:  
 Getekend door:  
 Uunderskrevet af:  
**Ray Neilson**

**Managing Director - On behalf of BELLE GROUP (SHEEN) UK.**  
**Le Directeur Général - Pour le compte de la SOCIETE BELLE GROUP (SHEEN) UK.**  
**Director Gerente - En nombre de BELLE GROUP (SHEEN) UK.**  
**Director-Geral - Em nome de BELLE GROUP (SHEEN) UK.**  
**Algemeen Directeur - Namens BELLE GROUP (SHEEN) UK.**  
**Administrerende direktør - På vegne af BELLE GROUP (SHEEN) UK.**

**Place of Declaration** - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK  
**Lieu de déclaration** - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK  
**Declaración hecha en** - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK  
**Lugar de Declaração** - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK  
**Plaats van de Verklaring** - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK  
**Sted i erklæring** - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK

**Date of Declaration** - 2003 .....

**Date de déclaration** - 2003 .....

**Fecha de la declaración** - 2003 .....

**Data da Declaração** - 2003 .....

**Datum van de verklaring** - 2003 .....

**Dato for erklæringen** - 2003 .....

**EKGONFORMITÄTSERKLÄRUNG / DICHIARAZIONE CE DI CONFORMITÀ / EG-VERKLARING VAN  
OVEREENSTEMMING / EC SAMSVARERKLÆRING / EY-YHDENMUKAISUUSILMOITUS /  
DEKLARACJA ZGODNOSCI Z PRZEPISAMI UE**

**(D)** Wir, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB**, bestätige hiermit, dass, wenn das Produkt innerhalb dieser Bescheinigung von einem gekauft zugelassen Belle Group-Händler innerhalb der EWG, so entspricht sie den folgenden EG-Richtlinien: 2006/42/CE (Diese Richtlinie ersetzt die Richtlinie 98/37/EG), elektromagnetische Kompatibilität Richtlinie 2004/108/EG (geändert durch 89/336/EWG, 92/31/EEG und 93/68/EEG). Die Elektro- und Elektronik-Altgeräte (WEEE) 2002/96/CE, der Niederspannungs-Richtlinie 2006/95/CE, BS EN ISO 12100-1:2003 Sicherheit von Maschinen und der damit verbundenen harmonisierten Normen, sofern zutreffend. Geräuschemissionen entsprechen der Richtlinie 2000/14/EG Anhang VI, für Maschinen gemäß Artikel 12 der benannten Stelle ist **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.  
**Geräuschtechnische Dokumente stehen in unserer Zentrale unter obig angegebener Adresse zur Verfügung.**

**(I)** Il Gruppo Belle Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB, certifica che, se il prodotto descritto nel presente certificato viene acquistato da un rivenditore autorizzato Belle gruppo all'interno della CEE, è conforme alle seguenti direttive CEE: 2006/42/CE (presente direttiva sostituisce la direttiva 98/37/CE), elettromagnetica compatibilità con la direttiva 2004/108/CE (modificata dalla 89/336/CEE, 92/31/CEE e 93/68 CEE). L'Elettro di Spreco e l'Apparecchiatura Elettronica (WEEE) 2002/96/CE, la direttiva bassa tensione 2006/95/CE, BS EN ISO 12100-1:2003 Sicurezza del macchinario e le relative norme armonizzate, se del caso. Emissioni sonore conformi alla direttiva 2000/14/CE, allegato VI, per le macchine a norma dell'articolo 12, l'organismo notificato **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.  
**Dati tecnici relativi ai livelli acustici sono disponibili su richiesta dalla sede madre Belle Group al sopra citato indirizzo.**

**(S)** Underteknede, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, Storbritannien**, intygar härmed att om den produkt som beskrivs i detta intyg är köpt från en auktoriserad Belle-återförsäljare inom EEG, överensstämmer med följande EEG-direktiv: 2006/42/CE (Detta direktiv ersätter direktiv 98/37/EG). Elektromagnetisk kompatibilitet 2004/108/CE (ändrat genom direktiv 89/336/EEG, 92/31/EEG och 93/68 EEG). Avfall från elektriska och elektroniska produkter (WEEE) 2002/96/CE, lågspanningsdirektiv 2006/95/CE, BS EN ISO 12100-1:2003 Maskinsäkerhet och tillhörande harmoniserade standarder, i förekommande fall. Buller följa direktiv 2000/14/EG bilaga VI till maskiner enligt artikel 12 i nämnda organen är **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, Storbritannien**.  
**Teknisk dokumentation vad gäller test av maskiners ljud/bullernivå finns dokumenterat hos Belle-Groups huvudkontor i Sheen, England.**

**(NO)** Vi, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB**, herved bekræfter at hvis produktet er beskrevet i dette certifikat er kjøpt fra en autoriseret Belle Group forhandler innenfor EØS, følger det med til følgende EEC direktiver: 2006/42/CE (Dette direktiv erstatter direktiv 98/37/EF). Det elektromagnetisk kompatibilitets-direktiv 2004/108/CE (endret ved 89/336/EEC, 92/31/EEC og 93/68 EEC). Avfall Elektrisk og Elektronisk Utstyr (WEEE) 2002/96/CE, Lavspenningsdirektiv 2006/95/CE, BS EN ISO 12100-1:2003 Sikkerhet av maskiner og tilhørende harmoniserte standarder, der dette er aktuelt. Lydeffekt samsvar med direktiv 2000/14/EC vedlegg VI, for maskiner i henhold til artikkel 12 i meldte organ er **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.  
**Lydekniske filer er arkivert hos Bell Group Hovedkontor med adresse som nevnt ovenfor.**

**(SF)** Me, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB**, todistaa, että jos tuote on kuvattu tämän todistuksen ostetaan valtuutetun Belle jälleenmyyjä ETY: n sisällä, se täyttää seuraavat EY-direktiivien: 2006/42/EY (tällä direktiivillä korvataan direktiivi 98/37/EY), sähkömagneettinen yhteensopivuutta direktiivin 2004/108/CE (muutettuna 89/336/ETY, 92/31/ETY ja 93/68 ETY). Tuhlaa Sähkö ja Sähköinen Varusteet (WEEE) 2002/96/CE, the metalajaindirektiivistä 2006/95/CE, SFS-EN ISO 12100-1:2003 Konstruktivisuus ja niihin liittyvien yhdennukaistettujen standardien tarvitessa. Melupäästöjä täyttävät direktiivin 2000/14/EY liitteessä VI, koneiden 12 artiklan mukaisesti ilmoitetun laitoksen on **AV Technology Limited, AVTECH House, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, GB**.  
**Melumittausten teknilliset arvot ovat saatavana Belle Group pääkonttorin ylläolevasta osoitteesta.**

**(PL)** My, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, Wielka Brytania**, niniejszym poświadczamy, iż produkt opisany w tym świadectwie został zakupiony od autoryzowanej Belle Group w UE i jest zgodny z następującymi dyrektywami EU: 2006/42/EY (Niniejsza dyrektywa zastępuje dyrektywę 98/37/EC). Dyrektywa zgodności elektromagnetycznej 2004/108/CE (z poprawkami wniesionymi przez 89/336/EEC, 92/31/EEC & 93/68 EEC). Utylizacja sprzętu elektrycznego i elektronicznego 2002/96/CE, dyrektywą w sprawie niskich napięć 2006/95/CE, BS EN ISO 12100-1:2003 Bezpieczeństwo maszyn i związane normy harmonizacyjne, tam gdzie to ma zastosowanie. Poziom hałas jest zgodny z Dyrektywą 2000/14/EC Załącznik VI, organizacja zawiadomiana (odnośnie zgodności) to **AV Technology Limited, AVTECH house, Birdhall Lane, Cheadle Heath, Stockport, Cheshire, SK3 0XU, Wielka Brytania**.  
**Informacje Techniczne dotyczące poziomu hałasu są przechowywane w Belle Group – adres powyżej.**

PRODUKTITYP.....	TIPO PRODOTTO .....	PRODUKTITYP.....
MODELL .....	MODELLO .....	MODELL .....
SERIENNR.....	SERIE N° .....	SERIE NR.....
HERSTELLUNGSDATUM .....	DATA DI FABBRICAZIONE.....	TILLVERKNINGSDATUM.....
SCHALLLEISTUNGSPEGEL GEMESSEN / .....(GARANTERT)	LIVELLO POTENZA SONORA MISURATA / .....(GARANTITA)	LJUDSTYRKA UPPMÄTT / .....(GARANTERAD)
GEWICHT.....	PESO .....	VIKT.....
PRODUKTITYP.....	TUOTETYYPI.....	TYP PRODUKTO.....
MODELL .....	MALLI .....	MODEL .....
SERIE NR .....	VALMISTUSNRO .....	Nr SERII .....
PRODUKTSJONSDATO.....	VALMISTUSPÄIVÄ .....	DATAPRODUKCI .....
ÄLYDKRAFTINÄVÄ MÄLT / .....(GARANTERT)	ÄNENVOIMAKKUUDEN TASO MITATTU / .....(TAATTU)	POZIOM MOCY DŹWIĘKU ZMIERZONY / .....(GWARANTOWANY)
VEKT.....	MASSA .....	WAGA .....



Unterzeichnet von:  
Firmat da:  
Underteknat:  
Signatur:  
Allekirjoitus:  
Podpisat:



**Ray Neilson**

**Generaldirektor – Im auftrag von BELLE GROUP (SHEEN) UK.**  
**Amministratore Delegato – Per conto di BELLE GROUP (SHEEN) UK.**  
**V.D. – På vägnar av BELLE GROUP (SHEEN) UK.**  
**Managing Director – På vegne av SOCIETE BELLE GROUP (SHEEN) UK.**  
**Toimitusjohtaja – BELLE GROUP (SHEEN) UK: n puolesta.**  
**Dyrektor Zarządzający – w imieniu BELLE GROUP (SHEEN) UK**

<b>Erklärungsart</b> - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK	<b>Erklärungsdatum</b> - 2003.....
<b>Luogo de dichiarazione</b> - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK	<b>Data de dichiarazione</b> - 2003 .....
<b>Plats av Erklaring</b> - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK	<b>Datum av Erklaring</b> - 2003 .....
<b>Sted av Erklaring</b> - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK	<b>Dato av Erklaring</b> - 2003 .....
<b>Julistuksen paikka</b> - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK	<b>Julistuksen päivämäärä</b> - 2003 .....
<b>Miejsce deklaracji</b> - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK	<b>Data deklaracji</b> - 2003.....



# How To Use This Manual

This manual has been written to help you operate and service the 'BGA' flexible shaft poker safely. This manual is intended for dealers and operators of the 'BGA' flexible shaft poker.

## Foreword

The '**Machine Description**' section helps you to familiarise yourself with the machine's layout and controls.

The '**Environment**' section gives instructions on how to handle the recycling of discarded apparatus in an environmentally friendly way.

The '**Specific Safety Rules**' section explains how to use the machine to ensure your safety and the safety of the general public.

The '**Trouble Shooting Guide**' helps you if you have a problem with your machine.

The '**Service & Maintenance**' section is to help you with the general maintenance and servicing of your machine.

The '**Warranty**' Section details the nature of the warranty cover and the claims procedure.

The '**Declaration of Conformity**' section shows the standards that the machine has been built to.

## Directives with regard to the notations.

Text in this manual to which special attention must be paid are shown in the following way:



### CAUTION

*The product can be at risk. The machine or yourself can be damaged or injured if procedures are not carried out in the correct way.*



### WARNING

*The life of the operator can be at risk.*



## WARNING



### WARNING

*Before you operate or carry out any maintenance on this machine **YOU MUST READ** and **STUDY** this manual.*

**KNOW** how to safely use the unit's controls and what you must do for safe maintenance. (NB Be sure that you know how to switch the machine off before you switch on, in case you get into difficulty.)

**ALWAYS** wear or use the proper safety items required for your personal protection. If you have **ANY QUESTIONS** about the safe use or maintenance of this unit, **ASK YOUR SUPERVISOR OR CONTACT: BELLE GROUP (UK): +44 (0) 1298 84606**



## Contents

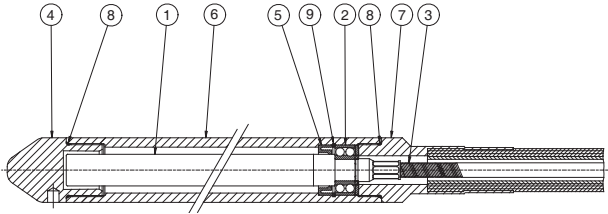
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*Belle Group reserves the right to change machine specification without prior notice or obligation.*

# Machine Description



The BGA range of Flexible Shaft Vibrating Pokers are high-frequency pokers intended for working concrete. They have a high vibration output and low service and maintenance costs. Each pokers is designed according to the pendulum principle ; low rotation speed of the flexible shaft and high frequency in the vibrator tube. This result in maximum capacity and minimum wear. The BGA range of Flexible Shaft Vibrating Pokers suit all construction sites operating with electric, petrol or diesel drive-units. They are provided with a 5 metre flexible shaft.



1. Pendulum
2. Self Aligning Ball Bearing
3. Flexible Shaft
4. Nose Cap
5. Oil Seal
6. Casing
7. End Shank.
8. O' Ring
9. Retaining Ring

# Environment



## Safe Disposal.



Instructions for the protection of the environment. The machine contains valuable materials. Take the discarded apparatus and accessories to the relevant recycling facilities.

Component	Material
Couplings	Steel
Poker Heads	Steel
Flexible Inner	Steel
Flexible Casing	Polymeric compounds / Steel
Various Parts	Aluminium and Steel
Seals / O rings	Rubber / Polymeric compounds
Hose	Rubber

# Specific Safety Rules



For your own personal protection and for the safety of those around you, please read and ensure you fully understand the following safety information. It is the responsibility of the operator to ensure that he/she fully understands how to operate this equipment safely. If you are unsure about the safe and correct use of the Poker, consult your supervisor or Belle Group.



## CAUTION

*Improper maintenance can be hazardous. Read and Understand this section before you perform any maintenance, service or repairs.*

- Firstly read the instruction of the power unit, to which you are going to connect the vibrating pokers.
- Cordon off the work area and keep members of the public and unauthorised personnel at a safe distance.
- Personal Protective Equipment (PPE) must be worn by the operator whenever this equipment is being used (see section below).
- Always switch **OFF** and disconnect the drive unit before transporting, moving it around the site or servicing it.
- Never remove or tamper with any seals or covers fitted, they are there for your protection. Always check covers for condition and security, if any are damaged or missing, **DO NOT USE THE POKER** until it has been replaced or repaired.
- When the pokers is left running out of concrete the poker head becomes extremely hot. Caution must be exercised when touching the poker head. The pokers should never be left running out of concrete as it will damage the internal parts.
- Do not operate the Poker when you are ill, feeling tired, or when under the influence of alcohol or drugs.

## VIBRATION

Some vibration from the Poker is transmitted through the flexible shaft to the operator's hands. Operational exposure time may need limiting.

## PPE (PERSONAL PROTECTIVE EQUIPMENT).

Suitable PPE must be worn when using this equipment i.e. Safety Goggles, Gloves, Ear Defenders, Dust Mask and Steel Toe capped footwear. Wear clothing suitable for the work you are doing. Always protect skin from contact with concrete.



## Technical Data

Model	BGA 25	BGA 35	BGA 45	BGA 55	BGA 68
Tube Length, mm	-	330	375	390	410
Tube Diameter, mm	25	35	45	55	68
Flexible Shaft Length, m	4.82	4.82	4.82	4.82	4.82
Total Weight, kg	9.5	11.5	16	17	2
Frequency, Hz	187	187	187	187	187
Amplitude, mm	0.25	0.25	0.25	0.25	0.7



## Pre-start Checks

### PRE-USE INSPECTION

The following Pre-use inspection must be performed before the start of each work session or after every four hours of use, whichever is first. Please refer to the service section for detailed guidance. If any fault is discovered, the poker must not be used until the fault is rectified.

1. Thoroughly inspect the poker for signs of damage. Check components are present and secure.
2. Check the flexible shaft for signs of damage.



### CAUTION

The maximum speed for the flexible shaft poker is 2800 rpm. If the poker is used above this speed, then it will cause damage to the poker and will invalidate the Belle Group Warranty.



## Operating Instructions

### CONNECTION PROCEDURE

Before connecting the poker to the power unit, You must lay the poker out to its full length.



### CAUTION

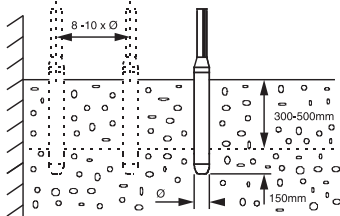
**DO NOT** connect the poker to the power unit whilst the power unit is operating. This will cause the inner core to snap thus causing extensive internal damage.

1. To assemble the flexible drive to the power unit, raise the plunger knob on the flange and insert the flexible drive end piece connector.
2. On releasing the knob the plunger should locate in the end piece connector.
3. If the plunger fails to locate, rotate the engine crank shaft with the rope start or handle and push the end piece in.



### RECOMMENDATIONS FOR USE OF CONCRETE VIBRATOR

1. Choose the right size of poker for: the size of the job, the spacing of reinforcement, slump of the concrete and the mix design.
2. It is recommended to have an additional concrete vibrator available.
3. Pour the concrete evenly, into the form work, in 300-500 mm thick layers. Do not use the poker vibrator to spread the concrete. The operating hose should not be kinked or bent tightly, since this will increase wear.
4. Vibrate the concrete systematically. Make 300-500 mm vertical insertions at intervals of 8-10 times the tube diameter. Where possible, push the poker vibrator about 150 mm into the previous layer of the concrete, this will help obtain the best bonding between the two layers.  
The concrete has been thoroughly vibrated when the surface around the poker is shiny and no large air bubbles rise to the surface of the concrete. This normally takes 10-20 seconds at each location of the poker.
5. Withdraw the poker slowly so that the concrete can flow into the void left by the poker.
6. Do not push or force the vibrator against the reinforcement. Keep a distance of 70 mm minimum from the walls.
7. Always remove the poker vertically, so the concrete fills the empty space again. Do not switch off until the poker is withdrawn completely. The speed of removal is approximately 8 cm per second. When the vibrator is almost out, extract quickly to avoid shaking the surface.



### CAUTION

Do not keep the concrete vibrator out of the concrete for long periods. If you have stopped vibrating the concrete, turn the poker off.

## Storage



When it is not used for long periods of time, Store the poker in a clean, dry and protected environment.

## Transportation



When transporting, ensure the poker is safe against damage occurring as a result of slipping, overturning and sudden impact.

## Troubleshooting Guide



Problem	Cause	Remedy
Poker Not Vibrating	Core broken	Replace, ensuring that it is adequately greased
	Oil seal broken	Replace
	Bearing damaged / Broken	Replace
	Pendulum damaged / Broken	Replace

## Service & Maintenance



The Belle Group 'BGA' Flexible Shaft Pokers are designed to give many years of trouble free operation. It is recommended that an approved Belle Group dealer carries out all major maintenance and repairs. Always use genuine Belle Group replacement parts, the use of spurious parts may void your warranty.

### Periodic Maintenance.

1. Before carrying out any maintenance work on the transmission or poker, always ensure that you disconnect the flexible poker from the motor / power unit.
2. It is suggested that the flexible shaft vibrating poker be overhauled at set regular intervals to ensure trouble free operation.

### Shaft Maintenance.

3. For adequate shaft maintenance, ensure that the following procedure is carried out. The flexible drive shaft should be dismantled and recharged with grease every 500 working hours.



### CAUTION

*DO NOT attempt to carry out the lubrication of the flexible shaft under site conditions. It should always be carried out in controlled workshop conditions.*

4. It is essential that the correct grade of grease lubricant is use. If difficulty is experienced in obtaining this grade then an equivalent can be used as long as it has a high melting point.
  - Pull the outer casing away so as to expose the inner flex.
  - Clean the steel inner core and core couplings thoroughly with grease solvent.
  - Clean exposed ends of outer casing only with a cloth.
  - After thoroughly cleaning the complete length of the flexible drive shaft, inspect the inner core for any excessive wear due to rubbing action between the core and outer casing spiral reinforcement. Also inspect for damaged and broken outer layer wires. If there is a bend in the outer casing it is advised that a replacement be fitted as this is liable to cause damage to the inner core.
  - Re-grease the inner core with Castrol BM2 grease. The easiest way of re-greasing the shaft is to grasp some grease in the palm of the hand and run the closed hand with the lubricant over the length of the shaft, leaving a light coating of the grease along the length of shaft specified above. The recommended quantity of grease is 25g/m
  - Do not over lubricate the shaft as it could cause the grease to penetrate into the poker head.
  - After the first 300-450mm has been greased, start to insert the greased inner core into the casing from the connector end.
  - Continue greasing the inner core as it is being inserted into the casing. Continue greasing until the whole length of the inner core has been greased.
  - As the inner core is pushed through the outer casing, some of the grease will naturally adhere to the inner walls of the casing. To ensure adequate lubrication, it is advisable to draw out the core for approximately 2 metres from the other end and then Re-grease and re-feed it back into the casing.
  - It is essential that during the re-greasing operation to keep all dirt and grit away from component parts.
  - After maintenance has been carried out on the flexible shaft ensure that all parts are reassembled correctly.
5. It is recommended that every 12 months or more frequently, depending on the usage conditions, an inspection should be carried out by an authorised dealer.



## Service & Maintenance

### Poker Head Maintenance.

#### 6. Dissassembly.

- Clamp the poker in a vice. Unscrew the cap end and the end shank (This has a left hand thread).
- Unscrew the flexible shaft from the vibrator shaft (This has a right hand thread).
- Use a screwdriver at the end of the vibrator shaft.
- Remove the vibrator shaft from the front of the tube. If necessary remove bearing, retaining ring and sealing sleeve.

#### 7. Assembly.

- Replace the 'O' rings, sealing sleeves and bearings whenever the poker has been dismantled. Clean and grease the flexible shaft as described in the above procedure. Reassemble in reverse order.



#### **CAUTION**

*The vibrator components, i.e. tube, vibrator shaft and end cap, should not be lubricated and must be kept scrupulously clean and dry or the vibrator will fail to work.*



## Warranty

Your new Belle Group 'BGA' Flexible Shaft Poker is warranted to the original purchaser for a period of one-year (12 months ) from the original date of purchase. The Belle Group warranty is against defects in design, materials and workmanship.

The following are not covered under the Belle Group warranty:

1. Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instruction.
2. Alterations, additions or repairs carried out by persons other than the Belle Group or their recognised agents.
3. Transportation or shipment costs to and from Belle Group or their recognised agents, for repair or assessment against a warranty claim, on any machine.
4. Materials and/or labour costs to renew, repair or replace components due to fair wear and tear.

The Belle Group and/or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose.

#### **Warranty claims**

All warranty claims should first be directed to Belle Group UK either by telephone, by fax, by E-mail, or in writing.

#### **For warranty claims:**

Belle Group Warranty Department,  
Sheen, Nr. Buxton  
Derbyshire  
SK17 0EU  
GB.

Tel: +44 (0)1298 84606

Fax: +44 (0)1298 84722

E-mail: [warranty@belle-group.co.uk](mailto:warranty@belle-group.co.uk)