

## Spare Part Installation Instructions

### Replacement Open Impellers for Girdlestone 900 Series Pumps

Because 900 Series open and semi-open impellers run with very close clearances, replacement impellers for these pumps must be set up within the pump casing, to ensure that the pump re-assembles and operates correctly.

### Product Safety Instructions

All work must be carried out by authorised and qualified personnel. Before commencing work all personnel should be familiar with the contents of this leaflet, together with the installation, operation and maintenance manual originally supplied with the pump and any relevant arrangement drawings.

Ensure compliance with all relevant site and international safety requirements. Appropriate protective foot, hand, eye and head gear must always be worn. Use other protective equipment to protect against hazardous/toxic fluids.

The design, materials and workmanship used in the construction of Amarith replacement parts ensures they are capable of a long and trouble-free service. All Amarith spare parts are provided with a warranty of 12 months from date of delivery. The life of these pumps is enhanced and extended by correct application, installation, periodic inspection and maintenance.

**Amarinth Ltd will not be liable for physical injury, damage or delays caused by failure to observe the instructions for installation contained in this leaflet.**

### Installation of Impellers in carbon or stainless steel

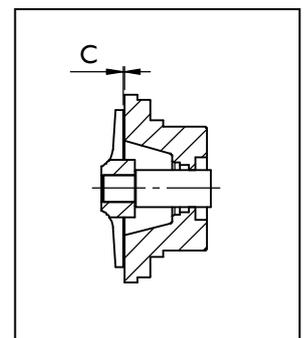
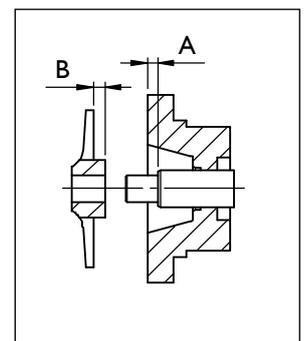
Impellers in these materials are designed to be adjusted by means of impeller shims fitted between the shaft shoulder and the rear of the impeller hub.

With the bearing bracket unit completely assembled, including the shaft, lantern and seal housing, accurately measure the distance from the seal housing face back to the impeller fitting shoulder of the shaft, using a straight edge and depth gauge. (Dimension A). Also measure the impeller, from the machined back face of the impeller vanes to the back hub face (Dimension B).

To ensure correct operation, the clearance between the seal housing face and the back of the impeller vanes, when fitted, must be between 0.25 and 0.35mm. (Dimension C). The Impeller shims are 0.125 or 0.25mm thick.

Fit sufficient shims onto the shaft, to give the required clearance when the impeller is fitted. (Total shim thickness required = A minus B plus 0.25 to 0.35mm)

Carefully fit the impeller onto the shaft, ensuring that the impeller hub is fully home against the shims and re-check the impeller clearance (Dimension C). Refer to the



manual supplied with the pump for all other information regarding installation, operation and maintenance of the pump. After the bearing bracket / impeller assembly is fitted into the casing, turn the shaft by hand, to ensure that the impeller is not rubbing against the casing.

## Installation of impellers in duplex stainless steel or exotic metals

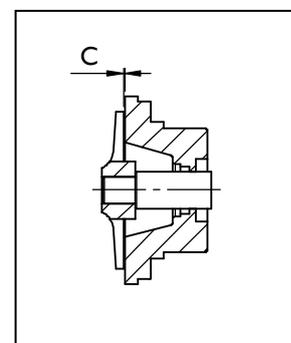
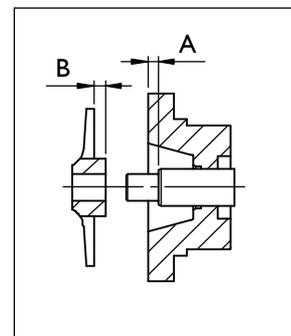
Impellers in these materials are designed to be adjusted by skimming the rear of the impeller hub to obtain the required vane clearance.

With the bearing bracket unit assembled, including the shaft, lantern and seal housing, accurately measure the distance from the seal housing face back to the impeller fitting shoulder of the shaft, using a straight edge and depth gauge. (Dimension A).

To ensure correct operation, the clearance between the seal housing face and machined back face of the impeller vanes, when fitted, must be between 0.25 and 0.35mm. (Dimension C). The impeller is supplied with the hub length slightly oversize. The impeller hub face must be machined back, perpendicular to the bore, to give the required clearance when the impeller is fitted. (Dimension B required = A plus 0.25 to 0.35mm)

If required, Amarith Ltd can undertake this machining on the customer's behalf, on receipt of the measured seal housing to shaft dimension. (Dimension A).

Carefully fit the impeller onto the shaft, ensuring that the impeller hub is fully home against the shaft shoulder and re-check the impeller clearance (Dimension C). Refer to the manual supplied with the pump for all other information regarding installation, operation and maintenance of the pump. After the bearing bracket / impeller assembly is fitted into the casing, turn the shaft by hand, to ensure that the impeller is not rubbing against the casing.



## Further Information

The leaflet is issued by Amarith Ltd for the purchaser's use only, and should not be reproduced to a third party without our written consent. Further copies of this leaflet, further information regarding any aspect of the leaflet, or additional spare parts, may be obtained from the Spares department of Amarith Ltd.

Amarinth Ltd, Bentwaters Parks, Rendlesham  
Woodbridge, Suffolk IP12 2TW, United Kingdom  
tel: +44 (0) 1394 462 120 fax: +44 (0) 1394 462 130  
e-mail: [enquiries@amarinth.com](mailto:enquiries@amarinth.com)

Or sign on to our web site, [www.amarith.com](http://www.amarith.com)  
using your own individual log-on name and password provided by Amarith Ltd..