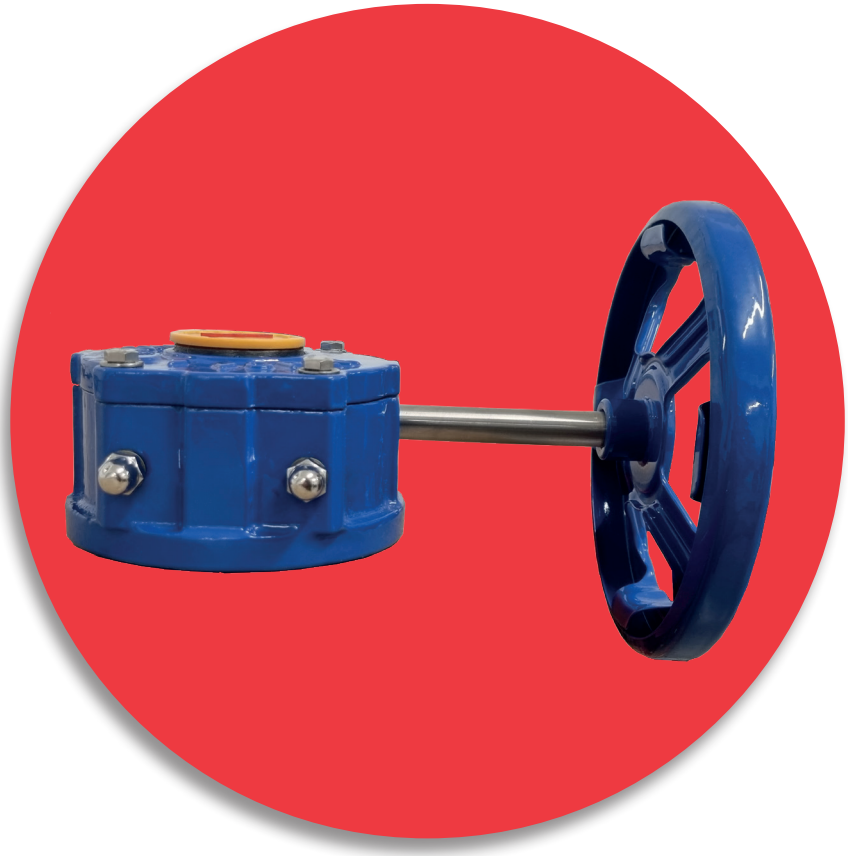
Installation & Operating Manual



Gearbox DI
To suit ART 115, ART 120, ART 135 & ART 145

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1. Introduction

The purpose of this document is to provide instructions for assembling gearboxes onto Albion's ART 115, ART 120, ART 135, and ART 145 Butterfly Valves.
You will require a 4mm T bar and a 13mm spanner to undertake this assembly.
A complete risk assessment should take place prior to work commencing.

2. Technical Data

Valve Type	Size Range	Connection Type	Tempera-ture Rating	Pressure Rating (Max)	Seat	Disc
ART 135 Lugged & Tapped	DN50 – DN300	PN16	-10°C to 110°C	16 Bar	EPDM	SS 316
ART 145 Lugged & Tapped	DN50 – DN300	PN16	0°C to 90°C	16 Bar	NBR	Ductile Iron / Nickel Plated
ART 120 Wafer Type	DN50 – DN300	PN10, PN16, ANSI 150	0°C to 90°C	16 Bar	NBR	SS 316
ART 115 Wafer Type	DN50 – DN300	PN10, PN16, ANSI 150	-10°C to 110°C	16 Bar	EPDM	SS 316

3. Gearbox Assembly Instructions

Ensure you have both parts, the butterfly valve, Fig.1, and the gearbox, Fig.2

Fig.1 – Butterfly Valve

Fig.2 - Gearbox

Ensure the valve and gearbox are both set to position 1 (fully closed), use a 13mm spanner to undo the two bolts holding the lever operation handle and remove the lever operation handle from the valve as per Fig.3 below. Assemble the gearbox to the valve by removing and using pre fitted bolts and washers as per Fig.4.

Fig.3 – Butterfly valve with Lever handle removed

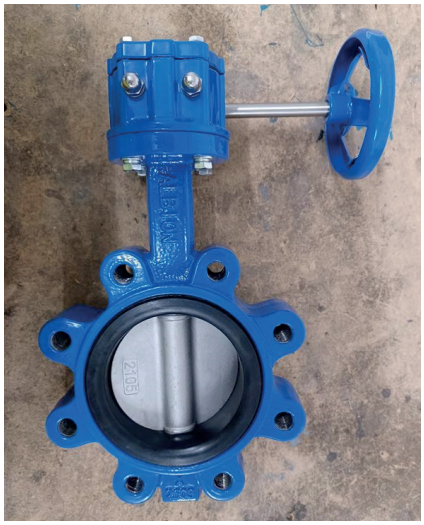

Fig.4 – Butterfly valve with gearbox fitted

Remove the two cap nuts using a 13mm spanner to expose the set screws, loosen the set screws using a 4mm T bar but DO NOT remove these. See Fig.5 & Fig.6.

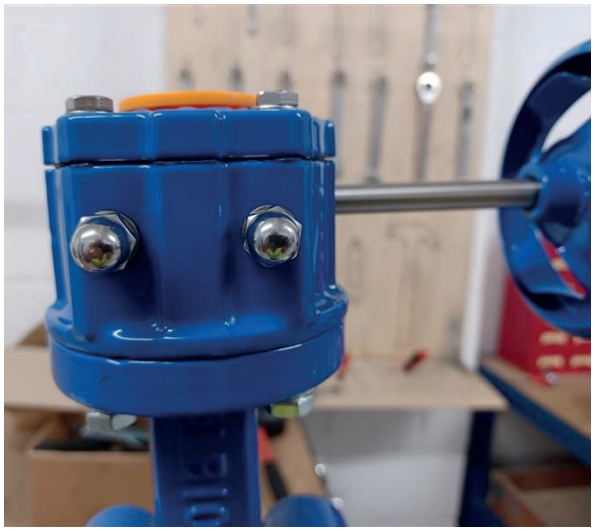

Fig.5 – Cap nuts uninstalled

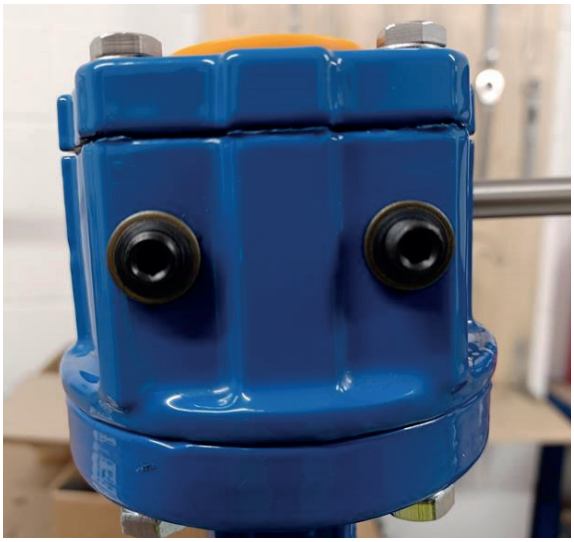

Fig.6 – Cap nuts removed and set screws exposed

Fully Open Position
Fully open the valve to the required amount using the position indicator on top of the gearbox to help give an accurate reading

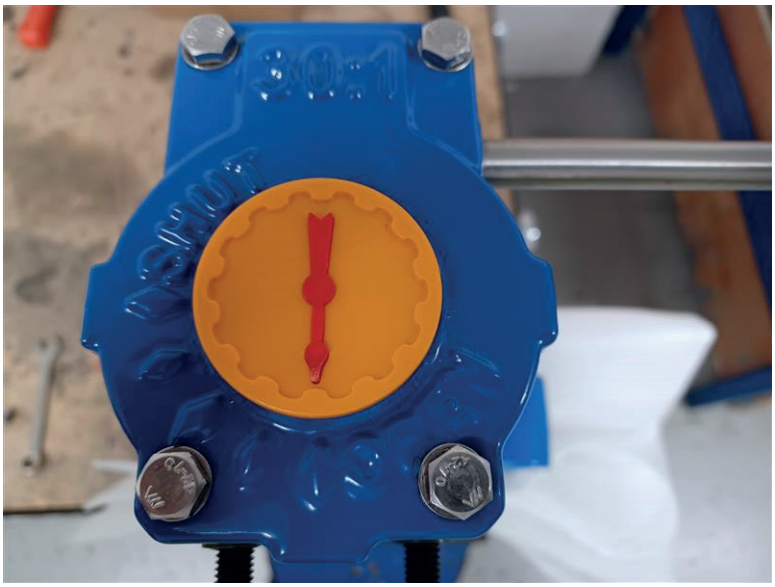

Fig.7 – Gearbox showing fully open position

Tighten the left screw using a 4mm T bar until resistance can be felt, see Fig.8 below, DO NOT overtighten when the resistance is met. Now the valve cannot be opened any further and is set at the required position.

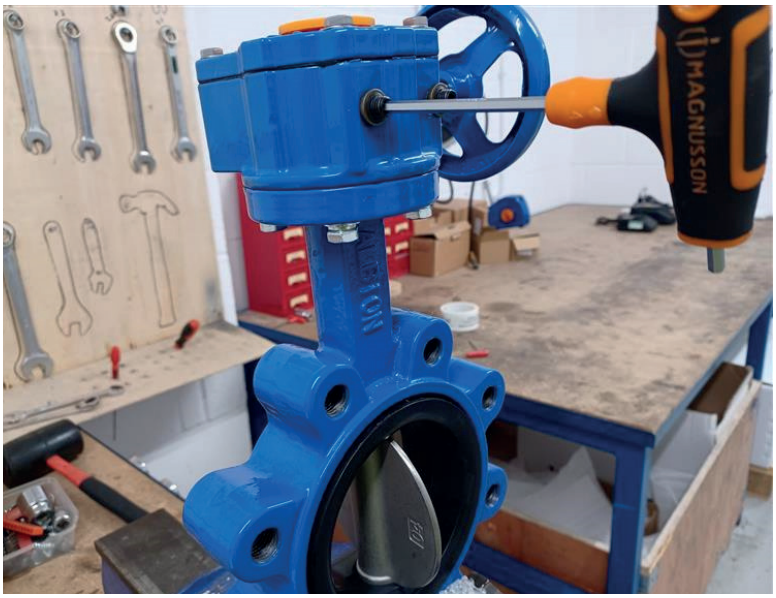

Fig.8 – Setting the open position limit

Fully Closed Position
Fully close the valve using the handwheel on the gearbox until fully shut, the position indicator on the gearbox will line up with the “shut” position. See Fig.9 & Fig.10 below.

Fig.9 – Valve in fully closed position

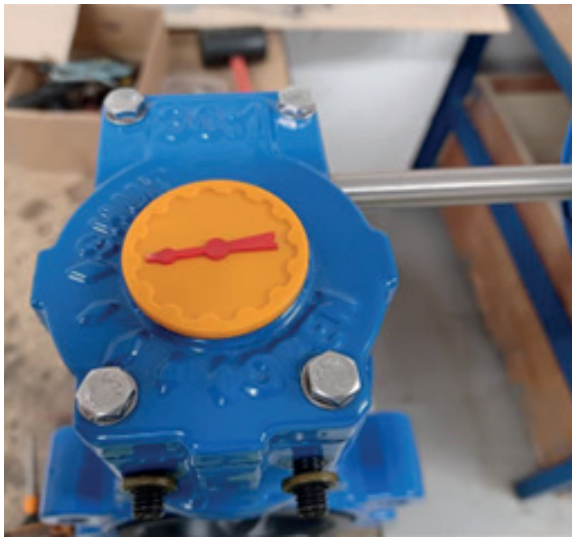

Fig.10 – Gearbox showing fully closed position

Tighten the right screw using a 4mm T bar until resistance can be felt, see Fig.11 below, DO NOT overtighten when the resistance is met. Now the valve cannot be closed any further and is set at the required position.

Fig.11 – Setting the closed limit

Re-install the cap nuts by hand, these nuts DO NOT need to be tightened, install these by hand loosely.

Fig.12 – Fully set valve

Review the valve in both the fully open and fully closed position to ensure full and correct operation.

The valve is now ready for operation.

About Albion Valves (UK) Limited

Albion Valves (UK) Limited has been in the industrial heating and valve market for over 40 years, with this comes a wealth of knowledge and expertise that allows us to support our network of independent distributors and their customers.

Albion aims to supply a readily available, complete, quality valve solution alongside excellent cradle-to-grave support and service.

That is why we say, ‘It’s all at Albion’.

Quality

Whatever you need, you can rest assured that if it comes from Albion it has been designed and manufactured to deliver optimum performance and is accredited with the necessary approvals. Our in-house quality and technical departments are always on hand too!

Service

Our cradle-to-grave approach means you will never be on your own. Whether you need assistance with your system designs, an industry-leading turnaround time on your quote, or some help with commissioning after installation, we have a team to help!

Delivery

We know that time is money, and when a priority project depends on a part, you can trust Albion to deliver. We deliver 95% of products the next day with 99.98% accuracy!

Choice

We may have started with a single brass ball valve, but our range has grown substantially since and we can now offer a full building services valve solution, alongside a comprehensive range of valves for the industrial and process markets.

It is becoming more and more apparent to the industry, that it really is, all at Albion.