

**DONKIN** DUCTILE IRON GATE VALVE



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GATE VALVE**



# AVK WHO WE ARE



## *Manufacturing gas valves since 1847*

As suppliers of the Donkin range of gas valves and fittings worldwide, AVK UK Ltd is part of the globally renowned AVK Group based in over 90 countries. AVK is recognised around the world as a leading innovator and manufacturer of high quality valves and fittings for the gas, water, waste water and fire fighting industries.



Our extensive product programme for gas comprises of a wide range of valves and mechanical fittings giving the customer the optimum cost effective solutions whether working on large diameter mains, small diameter services or right up to the meter box.

All of our products are designed using our in house facilities starting with our 3D CAD systems and development against the strict requirements of the relevant specifications either industrial, national or international. Our philosophy is always to aim for the highest standard.

Once designed the products are rigorously type tested (often to destruction) to ensure full compliance against the standards.

Most of our products for gas are manufactured in our modern manufacturing facilities in Chesterfield and Manchester using the latest techniques. They are supported by other AVK group companies, primary supply chain for component parts.



DESIGNED, ENGINEERED  
AND MANUFACTURED  
IN GREAT BRITAIN





# DONKIN SERIES 555/401

Donkin gas valves have been manufactured in the UK for over 170 years and are used on gas networks all around the world.

The Donkin Series 555 Softseal Gate Valve has been the preferred valve in the UK Gas Distribution Sector for 50 years and has been supplied into Egypt for around 40 years. Whilst there have been minor modifications and upgrades over the years, it keeps its' basic original and successful design.

This variant, the Donkin Series 555/401 Softseal Valve is a double-faced, resilient seat, internal screw, clear bore wedge gate valve. It is designed primarily for the isolation of natural gas and manufactured gas.

AVK have worked with the Egyptian Gas Industry to incorporate new preferred features to the valve to ensure the Series 555 maintains its technical superiority into the future.

The new changes include:

- NEW LIGHTER WEIGHT DESIGN
- STRONGER STAINLESS STEEL SPINDLE
- USER-REPLACEABLE STEM SEALS

## COATINGS

The standard Donkin black twin pack epoxy coating is applied by spraying over the primed valves to provide a hammered finish that is available either in 75µm or 300µm dry film thickness depending on customer requirements. This is a robust coating that gives a good level of protection but AVK recommend that dependant on ground conditions, further corrosion protection should be considered by the client.

For the ultimate protection, AVK Donkin also offer our yellow 1500µm polyurethane (PUR) coating as an option. This high build coating complies with EN10290 and the UK Gas Standard GIS/CW6. The Donkin PUR coating is fast becoming the preferred choice by the UK and other Gas Distribution Networks. Please contact us to discuss the benefits of this coating option.

## INSTALLATION:

It is important, when installing any valve that pipeline stresses are kept to a minimum and no undue external forces are placed on the valve connections. Correct installation procedures should be followed.

For details please see the Donkin publication IM5664 which accompanies each valve we deliver.



## QUALITY TESTING AND SPECIFICATIONS

At AVK, we're proud to say that quality is built into all our products, from the initial concept, through design and right through the manufacturing process at our factory in Chesterfield, UK.

AVK was the first in the gas distribution sector to achieve the international quality standard ISO/TS 29001:2011 for the entire design-to-delivery gas valve manufacturing process. AVK is also certified to ISO 9001 and ISO 14001 for environmental management.

Our valves are all approved to UK Gas Industry Standards (GIS) and certified to the BSI Kitemark scheme. Other relevant international standards are complied with where appropriate including the European Pressure Equipment Directive (PED).

The Donkin Series 555/401 Softseal Wedge Gate Valve is specified as follows:

- Designed and kitemarked according to GIS/V7-1
- Face-to-face dimensions according to EN 558 Table 2 Basic Series 3
- Flange drilling to ANSI B 16.42, Class 150 (option EN 1092-2, PN16)
- Tested according to EN12266-1.
- Maximum Operating Pressure 10 bar.
- Temperature -10°C to +60°C.



# SERIES 555/401

## FEATURES AND BENEFITS



The Donkin Series 555 Softseal Gate Valve has been the preferred valve in the UK Gas Distribution Sector for 50 years and has been supplied into Egypt for around 40 years. Whilst there have been minor modifications and upgrades over the years, it keeps its' basic original and successful design.

The latest Donkin Series 555/401 gate valves have been updated with some great new features whilst retaining the same basic design strengths of previous Donkin valve generations:

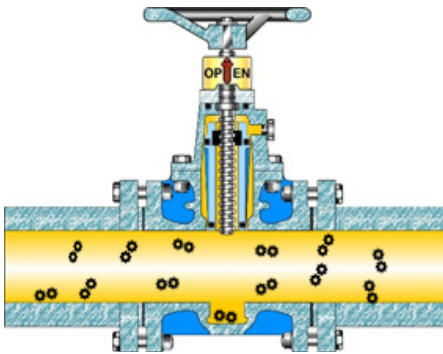
- New ergonomic, lighter weight design for improved handling and installation.
- Replaceable stem seal technology, providing live maintenance functionality.
- Enhanced strength stainless steel spindle, offering extended service life.
- Full 'Clear Bore' design, for high performance applications.
- DONKIN soft-seal, metallic wedge gate design, providing dual sealing technology.
- Globally proven Double Block and Bleed functionality, outperforming industry standards.
- Self-supporting "Flange Feet" for ease of installation and storage.
- Twin pack epoxy coating for corrosion protection.
- Fasteners fully encapsulated and sealed with a hot melt for superior protection.
- 25mm False cap or handwheel options available.

# DOUBLE BLOCK AND BLEED

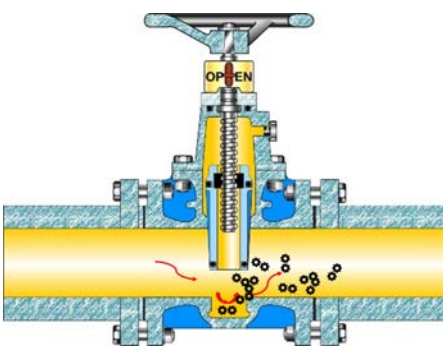
At the heart of every Donkin Series 555 gate valve is the tried and trusted Donkin cast or ductile iron wedge gate.

The Donkin wedge gate far exceeds the strength requirements of the EU Pressure Equipment Directive and the closed gate is intrinsically safe with both the precision machined faces giving a very effective secondary seal against gas flow with the machined faces inside the valve body (in addition to the primary O-ring seals on both faces).

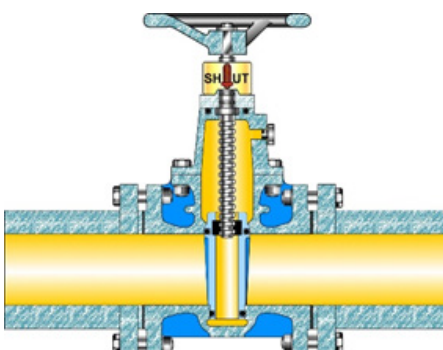
When open, the Donkin 555 gate rests completely outside the flow of gas for optimal flow and the metallic gate means reduced wear over time from any particulates in the gas flow.



The Donkin wedge gate seals on the sides of the valve well at the foot. Even so, as the valve is closed the increased velocity of gas through the closing gap flushes any debris from the well.

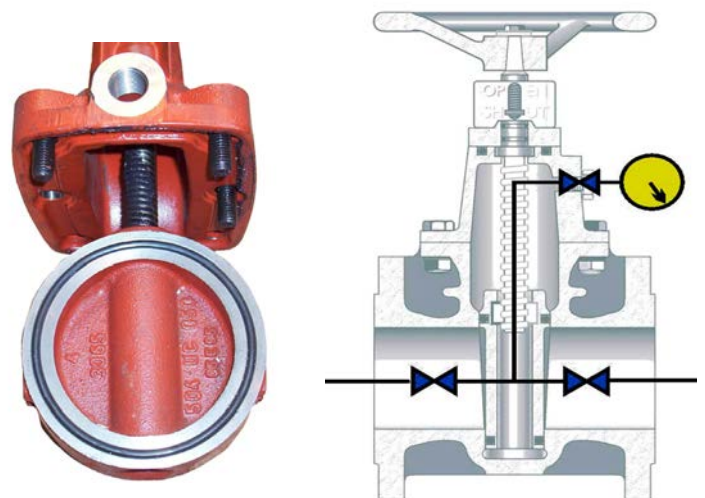


This forms the basis of the Donkin valve's effective double block and with the gas bleed plug enable the void in the valve's centre between the faces to be vented to atmosphere creating the Double Block and Bleed which facilitates safe working on the network downstream of the valve.



## Vent Plug

The Series 555 vent plug is designed specifically with a cross drilled hole to allow safe removal when the block and bleed feature is used. After closure of the valve, the plug can be undone one and a half turns allowing the pressure in the cavity to be safely vented through the cross drilled hole. The plug can then be fully removed for an extended vent to be fitted. The sealing of the valve can also be tested when in-line using a pressure gauge. Once the cavity is vented the pressure in the cavity will remain at zero if the valve is closed and 100% sealed.



## Replaceable Stem Seal

The Egyptian market prefers the flexibility of user-replaceable stem seals with gas under pressure so this feature has been incorporated as standard into this latest variant of the Donkin Series 555 valve.





# ASSOCIATED PRODUCTS



## DONKIN SOFTSEAL STEEL GATE VALVE, PUR COATED

Series 555/303-002  
Polyurethane Coated Softseal Flanged Softseal Gate Valve  
Nitrile seals  
Double block and bleed facility  
Flanges PN16 other types available on request Kitemark approved to GIS/V7:Part1  
MOP 16 bar (PN16), 19 Bar (ASA150)  
Cast Steel



## DONKIN UNDER PRESSURE DRILLING VALVE, PUR COATED

Series 158/04-002  
Polyurethane Coated Bi Directional Under Pressure Drilling Valve  
PN16 studded Ends Nitrile Seals  
Cast Iron  
Clockwise to Close  
MOP 7 Bar  
DN80-400



## DONKIN SOFTSEAL DUCTILE IRON GATE VALVE, PE TAIL, PUR COATED

Series 555/371-002  
Polyurethane coated Softseal Gate Valve to EN10290 and T/SP/CW6-2  
Double block and bleed facility.  
Kitemark Approved to GIS/V7:Part1\GIS/PL3  
Ductile Iron  
Clockwise to Close



## DONKIN SOFTSEAL STEEL GATE VALVE

Series 555/303-001  
Flanged Softseal Gate Valve Nitrile seals  
Double block and bleed facility  
Flanges PN16 other types available  
Kitemark approved to GIS/V7:Part1  
Cast Steel  
Clockwise to Close  
MOP 16 Bar (PN16), 19 Bar (ASA150)  
DN50-300  
(Note: for DN50 see 555/103-001)



## DONKIN SOFTSEAL STEEL GATE VALVE, LARGE DIAMETERS

Series 555/103-001  
Softseal Gate Valve  
Nitrile seals  
Double block and bleed facility  
Flanges PN16 other types available  
Kitemark Approved to GIS V7:Part1  
Cast Steel  
Clockwise to Close  
MOP 16 Bar (PN16), 19 Bar (ASA150)  
DN400-600. Also includes DN50



## DONKIN SOFTSEAL DUCTILE IRON GATE VALVE, LARGE DIAMETERS

Series 555/101-001  
Softseal Gate Valve Kitemark Approved to GIS/V7:Part 1  
Nitrile seals  
Double block and bleed facility  
Flanges PN16 other types available on request  
Ductile Iron  
Clockwise to Close  
MOP 7 Bar  
DN400-600



## DONKIN FIG 60 STEEL BALL VALVE

Series 460/02-001  
Flanged Ball Valve Manufactured to BS5159 and EN12266  
Reduced Bore with self indicating handle or Falsecap Flanges  
PN16 other types available on request  
Cast Steel  
Clockwise to Close  
MOP 7 Bar  
DN20-50



## DONKIN FIG 55 DUCTILE IRON BALL VALVE, PE TAILED

Series 455/74-001  
Full Bore Screwed Standpipe Ball Valve  
Nitrile seals and PTFE seats for use on gas  
Fitted with Falsecap Kitemark approved to GIS/V4 and GIS/PL3  
Ductile Iron  
Clockwise to Close  
MOP 4 Bar  
1"x32mm-2"x63mm



## DONKIN CERTUS PE BALL VALVES

Series 85/30-001  
Clearbore Certus PE Ball Valve  
Kitemark approved to GIS/V7:Part 2 and EN 1555-4  
For service isolation  
PE 100 material, double length spigots, safety cap Fusible Ends  
Polyethylene (PE)  
Clockwise to Close  
MOP dependant on SDR Rating  
Valve sizes OD20 up to OD180



## AVK MULTI BAND STAINLESS STEEL REPAIR CLAMPS

Series 202/31-001  
Nitrile Rubber Seals fitted Zinc plated and passivated fasteners  
Approved to GIS/LC8:Part 4  
Sealing range DN80-1200  
Length 150-1500mm  
Stainless Steel



## AVK SINGLE BAND STAINLESS STEEL REPAIR CLAMPS

Series 206/31-001  
Nitrile Rubber Seals  
Zinc Plated and passivated fasteners  
Approved to GLS/LC8:Part4  
Sealing range DN80-300 Length 150-1200mm  
Stainless Steel



## AVK STAINLESS STEEL UNDER PRESSURE TEES

Series 215/31-001  
Under-pressure Tee for gas and non-conventional gas. Kitemarked to GIS/LC8:Part 4 Nitrile seals  
Zinc plated and passivated fasteners  
PN16  
Flange range: DN50-600 Pipe size: DN80-1200 Length to suit outlet size  
Stainless Steel

Note: Other sizes available on request.  
Available with threaded bosses 1/2" to 2" BSP

Note: Other sizes available on request.  
Available with threaded bosses 1/2" to 2" BSP



## AVK SUPA COLLAR UNIVERSAL DUCTILE IRON REPAIR CLAMPS

Series 253/31-001  
Supa Collar Universal Repair Clamp  
Kitemarked to GIS/LC8:Part 4  
Ductile Iron  
MOP 7 Bar  
Sealing range DN80-300  
Available with a 2" Boss



## AVK SUPATEE UNIVERSAL DUCTILE IRON UNDER PRESSURE TEE

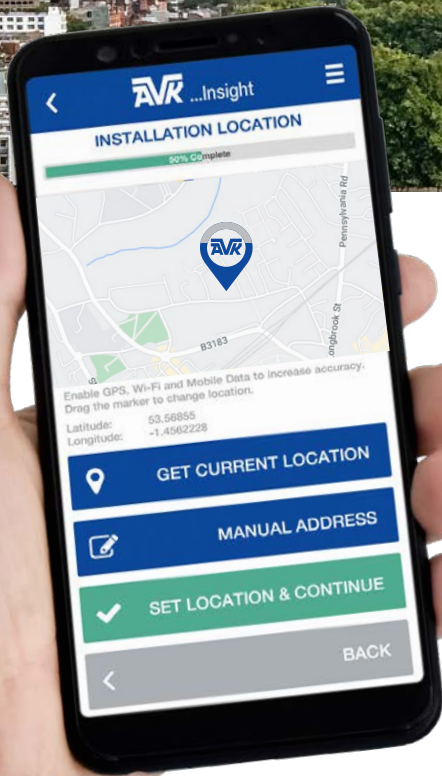
Series 257/31-001  
Universal Under Pressure Tee  
PN16 Flange  
Kitemark approved to GIS/LC8: Part 4  
Sealing range: DN80-300  
Ductile Iron  
MOP 7 Bar  
(Suitable for Flowstopping)  
Flange Range DN80-300  
Steel



## DONKIN UNIVERSAL DUCTILE IRON END CAPS FOR GAS

Series 248/32-001  
Donkin Universal End Cap. MK2  
Nitrile Seals  
Kitemarked Approved to GIS/F13  
Fabricated above DN300  
Ductile Iron  
MOP2 Bar  
DN80-1200

# AVK ASSIST ONE COMBINED SYSTEM FOR ALL ASSETS



**AVK HAS A REPUTATION FOR BEING A LEADING INNOVATOR AND SOLUTIONS PROVIDER IN THE GLOBAL GAS, WATER AND INDUSTRIAL SECTORS.**

**AVK ASSIST IS JUST SUCH AN INNOVATION THAT DRIVES THIS REPUTATION.**

By building relationships with our partners, through listening and responding to both their key strategies and to their daily operational challenges, we are able to develop solutions led products and services which help deliver and resolve.

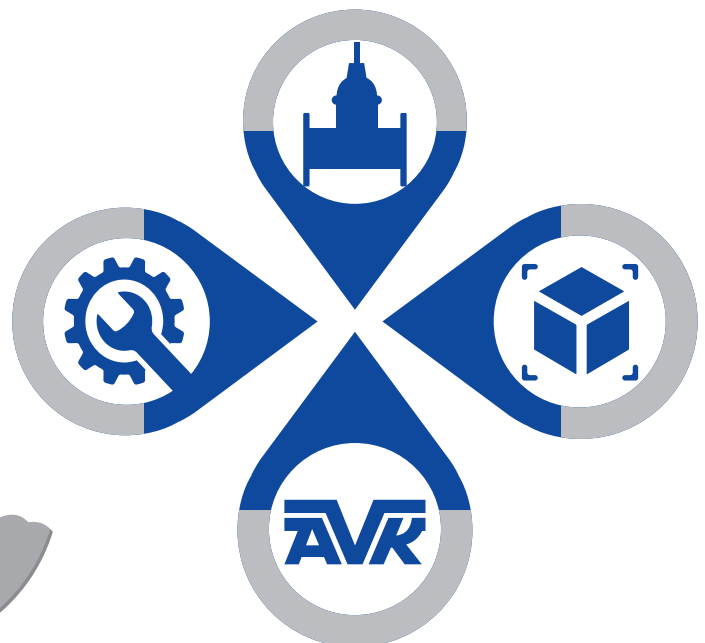
Network management and asset mapping are 2 key subjects highlighted in the majority of utility strategies as ongoing issues, the AVK ASSIST mobile app can make a major contribution on the journey to a resolution.

AVK ASSIST is a free app aimed at utility and industrial, gas and water network engineers. The app is made up of 4 key elements which will help specify, select and then record the installation quality and GPS location of the asset.

The AVK ASSIST app is available to download for free on the App Store and Google Play.

## FULL TRACEABILITY IN A FEW SIMPLE STEPS...

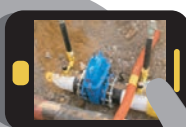
The QR code is generated when the valve successfully passes all the relevant test procedures. It assigns a unique serial number for the product which is linked to the full material and test records. When installed the data record becomes complete from raw material to accurate position and application.



**SCAN THE  
QR CODE**



**SET  
LOCATION**



**TAKE THE  
INSTALLATION PICTURE**





**AVK DONKIN**

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