

Iris Valves

Iris Valves

Iris Valves



# Introduction

Process Components Ltd is the only manufacturer and supplier of the Mucon product range, to the liquid, powder and bulk solids handling sectors.

## Products

- Iris Valves - The Original Mucon Valve
- Slide Valves
- Butterfly Valves
- Disc Valves
- Discharge Aids
- Level Indicators



## Industry Sectors

- Food Processing
- Pharmaceutical
- Chemical Processing
- Glass and Ceramics
- Plastics
- Sand and Cement

Mucon equipment has been used extensively in the bulk materials handling industries for over 60 years, during which time the company has built up an excellent reputation for both product reliability and service.

Industries search for increased economy, efficiency and demand faster processing of bulk solids for an ever growing range of applications. This is where our specialist knowledge and proven expertise is unrivalled.

Whatever the powder or granule needing to be handled, there will be a suitable Mucon product that will move it, measure it, control it and keep it moving quickly and efficiently.

Mucon Iris Diaphragm Valves are used world-wide, because of their superb flow control characteristics of bulk solids and versatility in other duties ranging from creating a gland seal around extruded plastic pipe, to controlling the flow of live fish from transport containers.

### **Series AD Valves**

The AD Valve is the most popular range of Mucon hand operated Iris valves.

A double diaphragm valve is ideal for in-line applications, with no leakage to atmosphere.



p4

### **ADP Power Operated Valves**

The latest in powered Iris Diaphragm Valve technology. The unit features air motor or electric motor operation for light and medium duties, with robust construction for frequent operation.



p8

### **Series BD Valves**

Simplified construction for light duty applications on dust collection hoppers or small bins.



p10

### **Series E Valves**

The 'E' Valves are the work horse of the powered Iris valve range. Its extremely robust design makes it suitable for the most arduous duties.



p11

### **Series H Valves**

This low cost, compact valve has been fitted to thousands of IBCs the world over.

Its ease of operation makes it a popular choice with operators.



p14

### **Series JS Valves**

The Series JS Valve is specifically designed for fitting to Big Bag Discharge Stations to allow controlled product discharge from FIBCs.



p15

### **Series K Valves**

This valve has been specifically designed for applications demanding high levels of hygiene.

This product is extremely popular with the food and pharmaceutical markets, as it can easily be stripped down and cleaned in moments.



p16

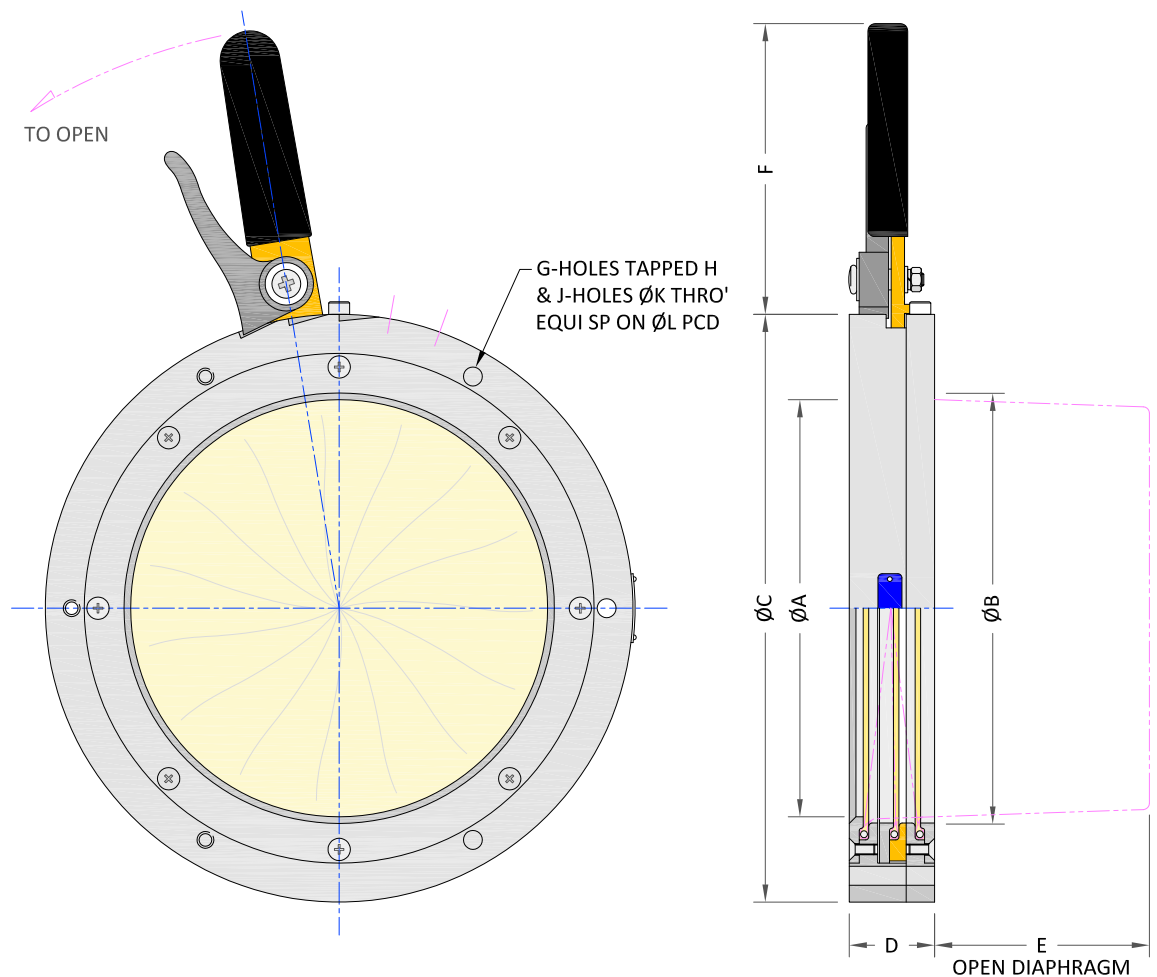
# Series AD Valves

The Series AD Iris Diaphragm Valve is the most popular product and is widely used for in-line applications. This flagship product provides the very best features of the Iris Diaphragm Valve, in a robust and cost effective solution.

## Main Features

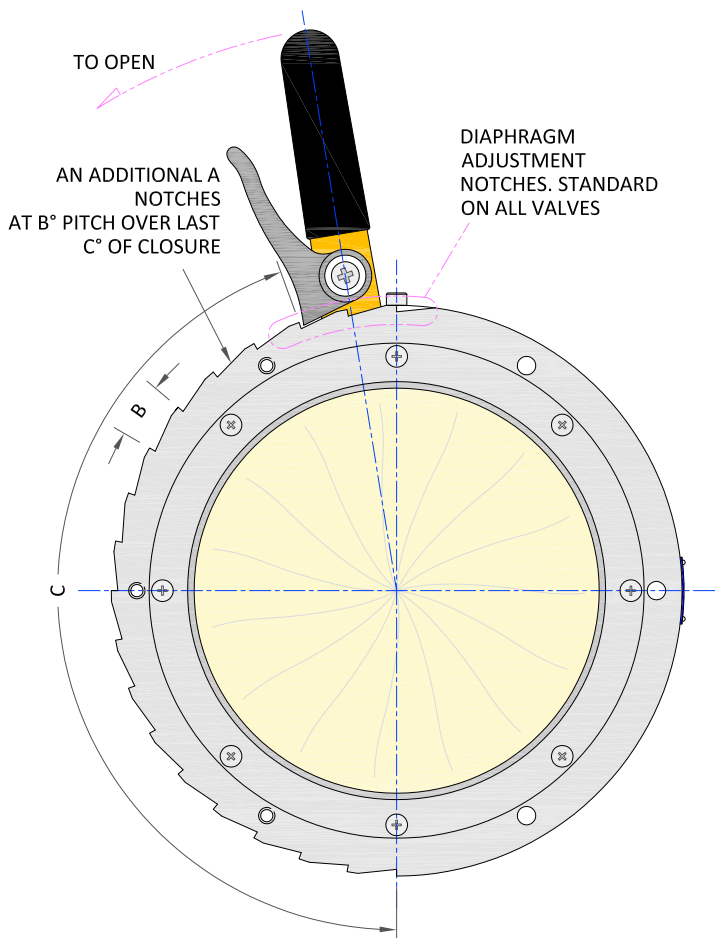
- Double diaphragm for in-line applications with no leakage to atmosphere
- Robust construction for medium to heavy duty applications, handling materials up to 1600 kg/m<sup>3</sup>
- In-situ diaphragm adjustment, reducing maintenance time
- Proven design suitable for frequent operation
- Diaphragms selected to suit application
- 316 stainless steel contact parts\*
- Multi-notching to enhance flow control\*
- Coating of standard construction\*

\*optional



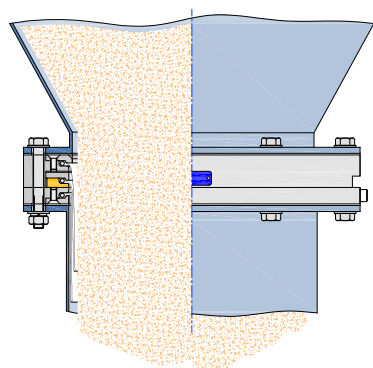
Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
AD3	80	73	78	127	35	38	109	3	M6	3	7	113	1.1
AD4	100	102	106	172	36	50	136	3	M8	3	9	156	2.1
AD6	150	147	153	228	41	75	136	3	M8	3	9	203	3.1
AD8	200	198	204	280	41	102	136	3	M8	3	9	254	4.4
AD10	250	250	260	356	52	127	174	4	M10	4	11	327	8.7
AD12	300	300	310	406	52	152	174	4	M10	4	11	378	10.4
AD15	380	381	387	498	59	190	180	6	M10	6	11	470	19.1

Unless otherwise stated, all dimensions in mm / weights given for Aluminium unit in kg

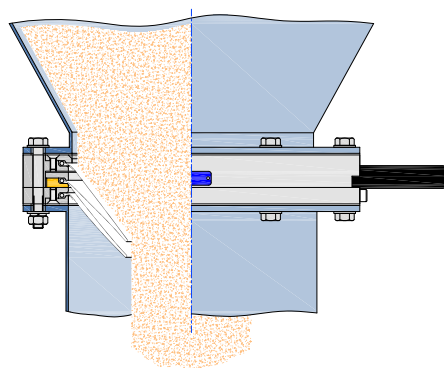


Valve Type	Nom Bore	Notch Arrangement	A	B	C
AD3	80	Fully	11	14	154
AD4	100	Fully	14	11	154
AD4	100	Half	6	11	66
AD6	150	Fully	16	10	160
AD6	150	Half	7	10	70
AD8	200	Fully	16	10	160
AD8	200	Half	9	10	90
AD10	250	Fully	18	9	162
AD10	250	Half	9	10	90
AD12	300	Fully	16	10	160
AD12	300	Half	7	10	70
AD15	380	Fully	27	6	162
AD15	380	Half	15	6	90
AD18	450	Fully	35	5	175
AD18	450	Half	14	5	70

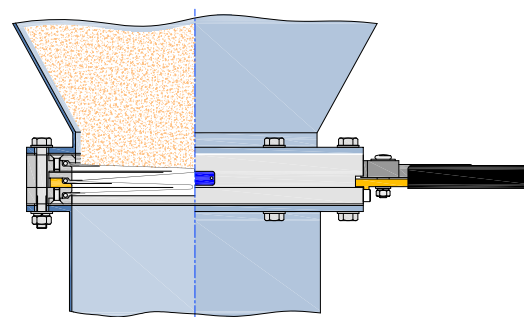
Unless otherwise stated all dimensions in mm



Fully Open

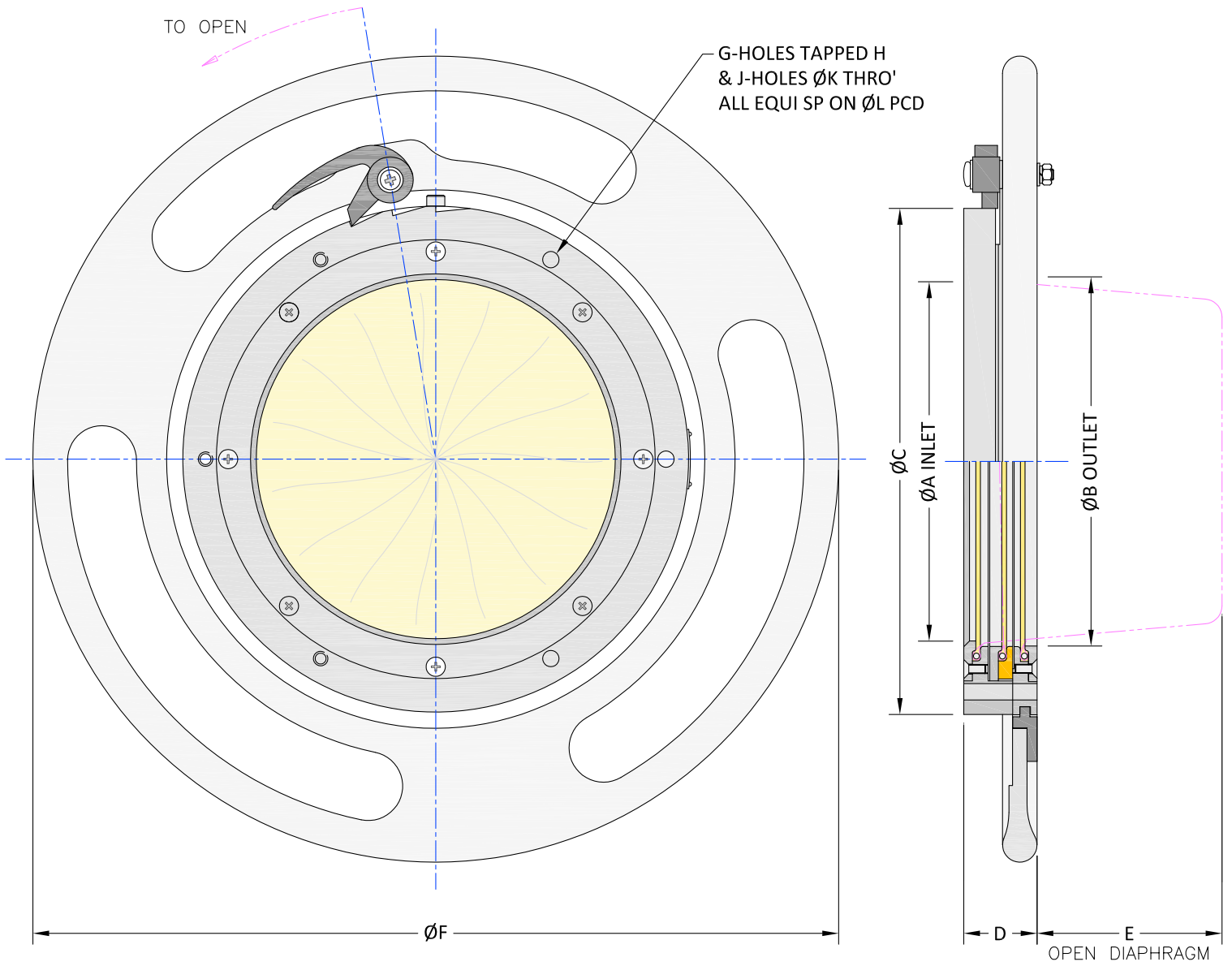


Flow Control



Fully Closed

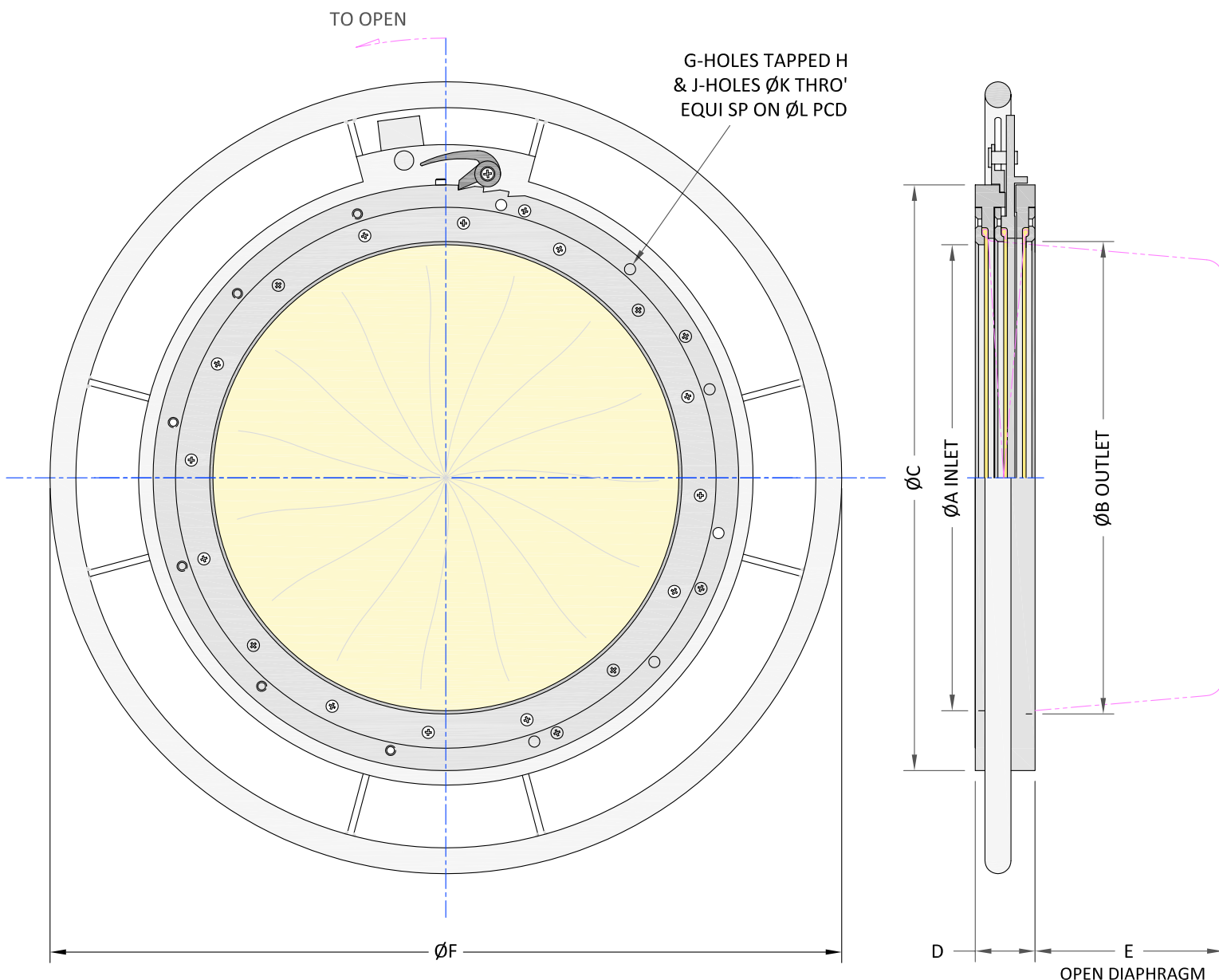
# Series AD Hand Wheel Operated Valves



Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
AD6	150	147	153	228	41	75	445	3	M8	3	9	203	3.1
AD8	200	198	204	280	41	102	445	3	M8	3	9	254	4.4
AD10	250	250	260	356	52	127	584	4	M10	4	11	327	8.7
AD12	300	300	310	406	52	152	584	4	M10	4	11	378	10.4

Unless otherwise stated, all dimensions in mm / weights given for Aluminium unit in kg

# Series AD Hand Wheel Operated Valves



Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
AD15	380	381	387	498	59	190	702	6	M10	6	11	470	19.1
AD18	450	457	464	575	59	228	778	6	M10	6	11	546	26.3

Unless otherwise stated, all dimensions in mm / weights given for Aluminium unit in kg

# ADP Power Operated Valves

The Series ADP Iris valve with its innovative drive arrangement, offers a light, slim, but robust construction for frequent operations in a variety of environments.

## Main Features

- Double diaphragm for in-line applications with no leakage to atmosphere
- Suitable for heavy duty materials up to 1600 kg/m<sup>3</sup>
- Quick operation capable of opening or closing in one second
- Belt driven for quiet operation
- Drive ring supported on bearings for smooth operation
- Valve is sealed against ingress of dust
- Low profile compact design
- Fully open, closed and intermediate electric proximity sensors
- Electric or air motor operation to suit application
- Bore sizes are 150mm, 200mm and 300mm
- 316 stainless steel product contact parts\*
- Special switch/solenoid packages for hazardous locations\*
- Surface coating to suit corrosive environments\*

\*optional

## Technical Details

Air motor operation by D1 kW 3000rpm reversible air motor using E1 l/m of lubricated compressed air at 5.6bar.

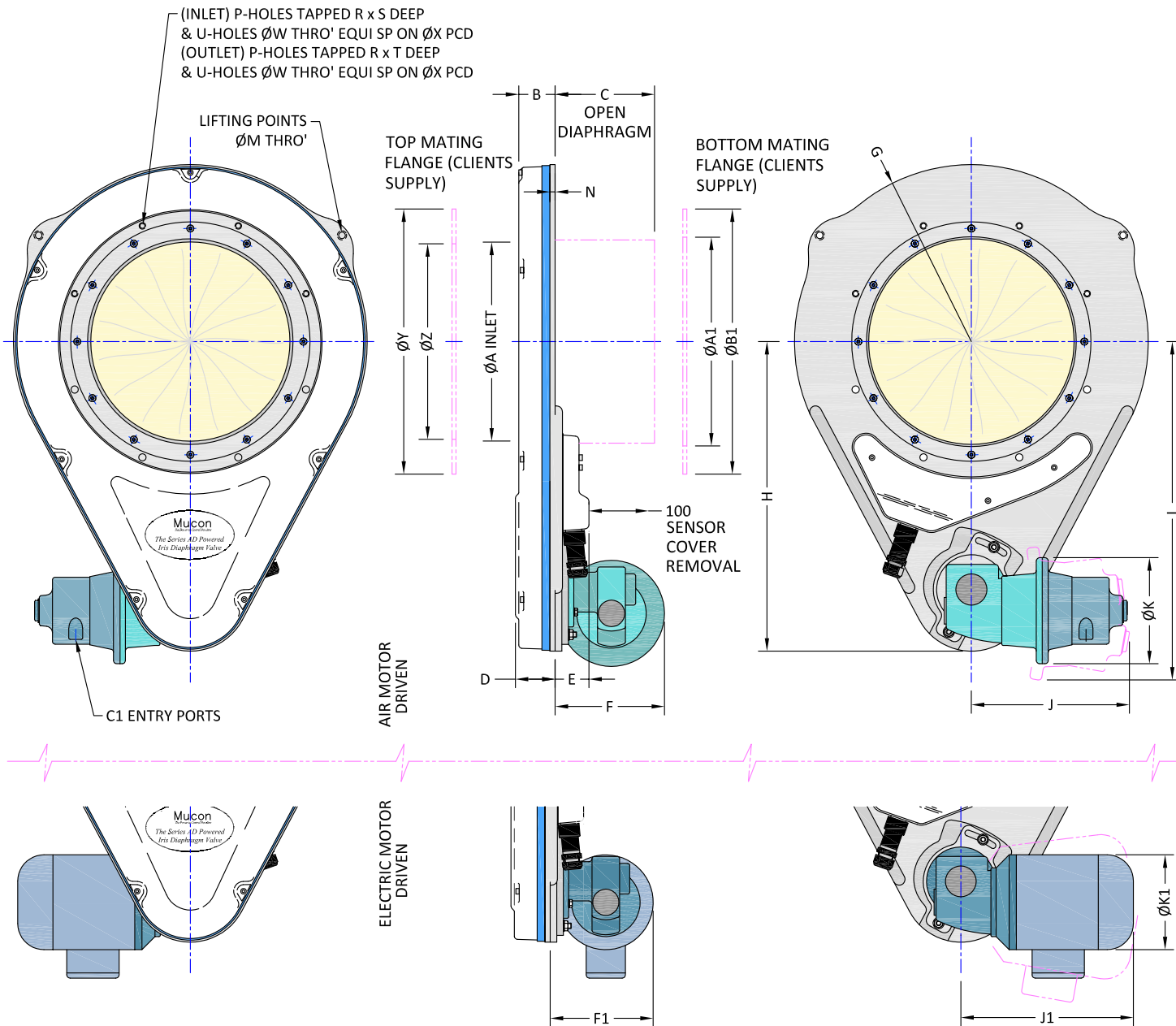
Electric motor operation by 0.37kW, 2-pole, IP55 induction motor suitable for 220/240-380/415-3ph-50/60Hz supply.

Valve fitted with open, closed and trickle position indication sensors. All terminated in an IP67 plug and socket assembly. Rated at 5A @ 250v AC or 5A @ 30v DC.

Port sizes for air motor control valve must be a minimum of 1/2" BSP to achieve the required air flow rate.







## Electric

Valve Type	Nominal Bore	A	B	C	D	E	F	F1	G	H	J	J1	K	K1
ADP06	150	147	46	75	55	40	165	165	180	367	196	196	160	160
ADP08	200	198	46	100	55	40	165	165	205	385	196	196	160	160
ADP12	300	300	55	150	60	50	165	165	267	467	240	240	160	160

## Pneumatic

Valve Type	Nominal Bore	L	M	N	P	R	S	T	U	W	X	Y	Z	A1	B1	C1	D1	E1	Nett Weight
ADP06	150	412	10	8	3	M8	15	12	3	9	203	228	142	158	228	1/4" BSP	0.56	1000	14
ADP08	200	430	10	8	3	M8	15	12	3	9	254	280	193	209	280	1/4" BSP	0.56	1000	17
ADP12	300	510	10	8	4	M10	20	15	4	11	378	400	295	315	400	3/8" BSP	1.0	1700	30

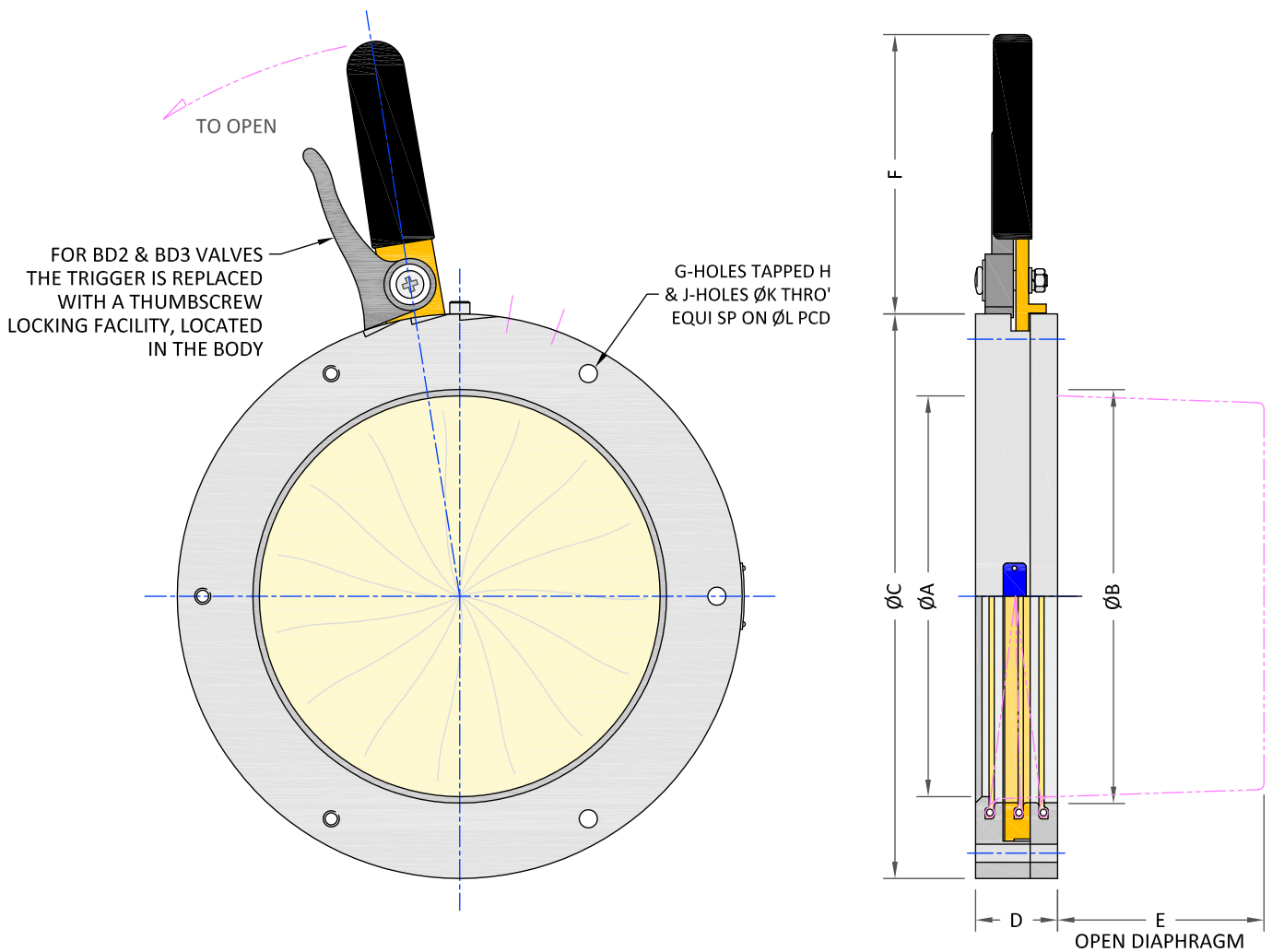
Unless otherwise stated, all dimensions in mm / weights given for Aluminium unit in kg

# Series BD Valves

The Series BD Iris Valve offers a simplified construction compared to the in-line Iris Diaphragm Valve, reducing the cost, size and weight.

## Main Features

- Double diaphragm for in-line applications, with no leakage to atmosphere
- Suitable for lighter duty materials up to 560 kg/m<sup>3</sup>
- Thumbscrew locking is available for 50mm to 80mm bores, giving infinite flow control
- Trigger locking mechanism on other sizes
- Diaphragm selection to suit specific applications
- Aluminium construction



Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
BD2	50	51	51	90	20	16	108	3	M6	3	7	73	0.5
BD3	80	76	76	114	20	25	108	3	M8	3	7	98	0.6
BD4	100	102	102	152	27	38	137	3	M8	3	9	133	1.1
BD6	150	152	152	203	29	64	137	3	M8	3	9	184	1.7
BD8	200	203	203	254	30	90	137	3	M8	3	9	237	2.0
BD10	250	254	254	330	45	114	174	4	M10	4	11	305	6.4
BD12	300	305	305	380	45	140	174	4	M10	4	11	356	7.3

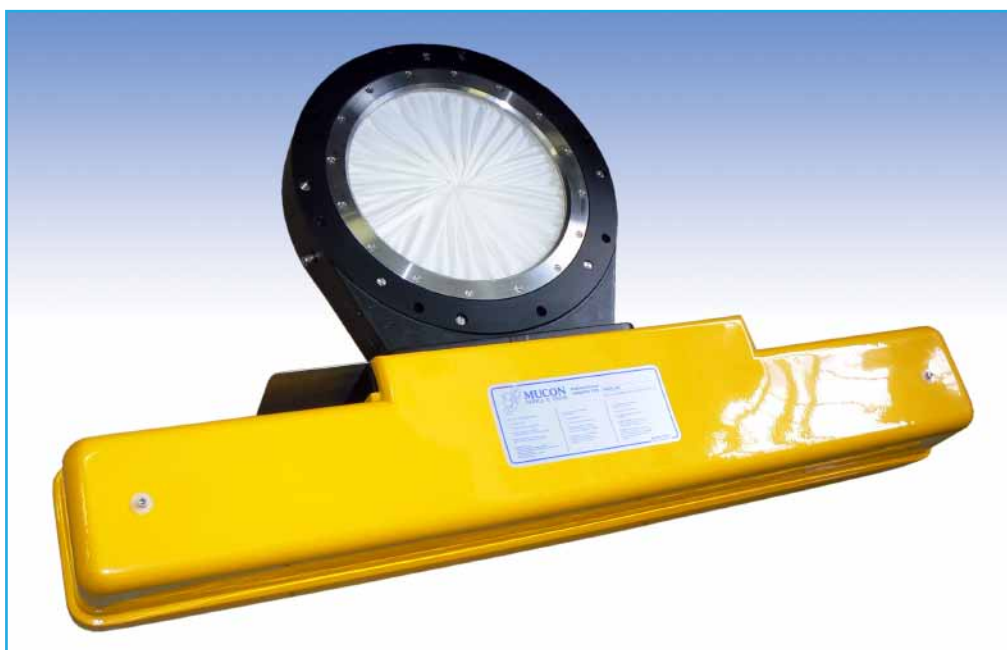
Unless otherwise stated, all dimensions in mm / weights given for Aluminium unit in kg

The Series E Iris Valve has been the workhorse of the Mucon range for many years. Its extremely robust construction and reliable drive elements make it suitable for the most arduous duties.

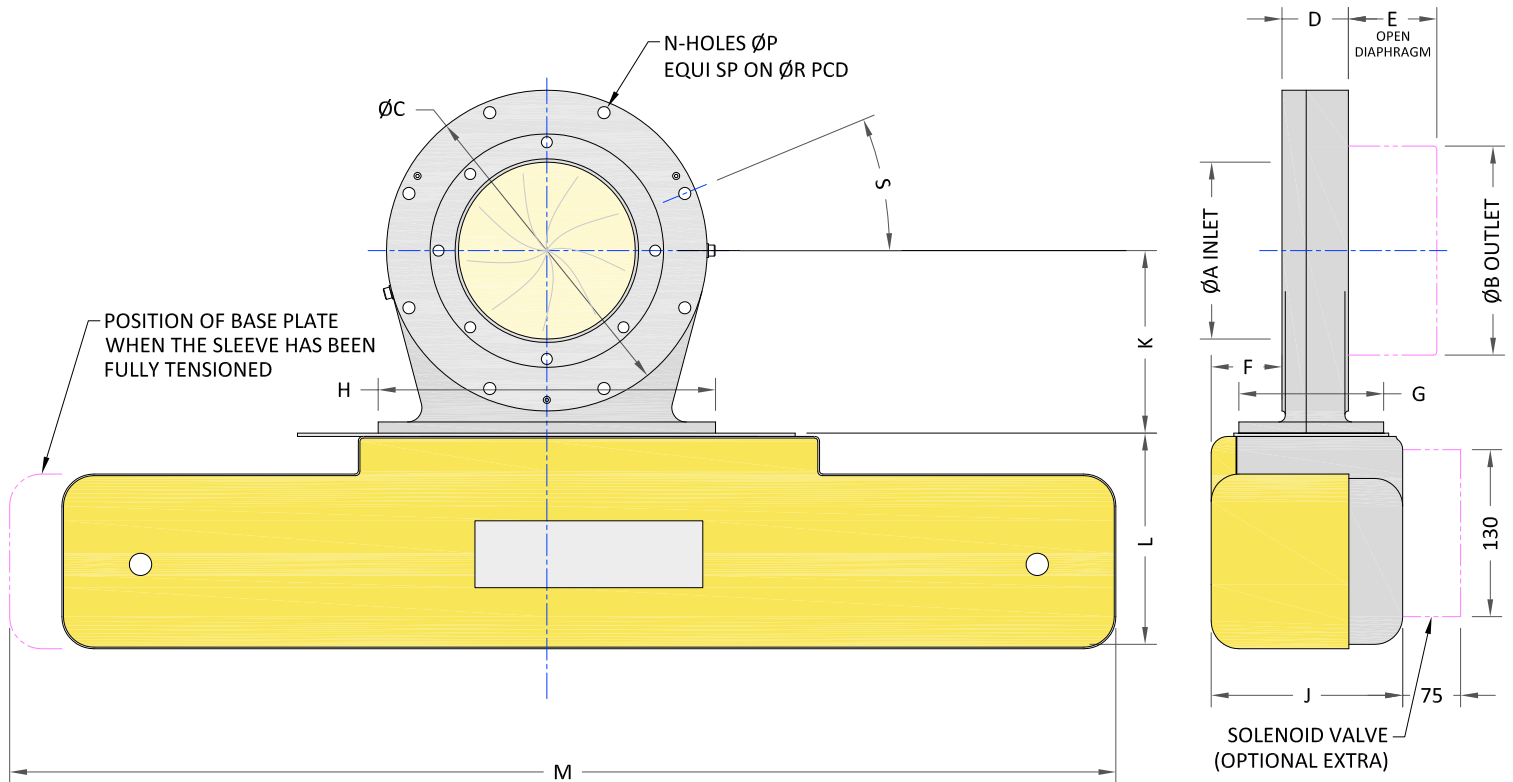
## Main Features

- Double diaphragm for in-line applications with no leakage to atmosphere
- Robust construction make the E Valves suitable for products over 1600 kg/m<sup>3</sup>
- Electrical or Pneumatic actuation is available
- In-situ diaphragm adjustment
- Internal high quality components make the E Valve suitable for frequent operation
- Diaphragm selection to suit specific applications
- Fully open, closed and intermediate electric or pneumatic limit switches
- 316 stainless steel product contact parts\*
- Automatic closure system on pneumatic valves in case of air or electrical failure\*
- Special packages to suit hazardous locations\*
- A variety of surface coatings is available to suit corrosive environments\*

\*optional



# Series E Pneumatic Valves



## Technical Details

Pneumatic cylinder operation using T litres of compressed air at 6 barg per stroke.

Available with standard reed switches for open, closed and trickle. Also available with intrinsically safe proximity sensor assembly supplied with flying leads.

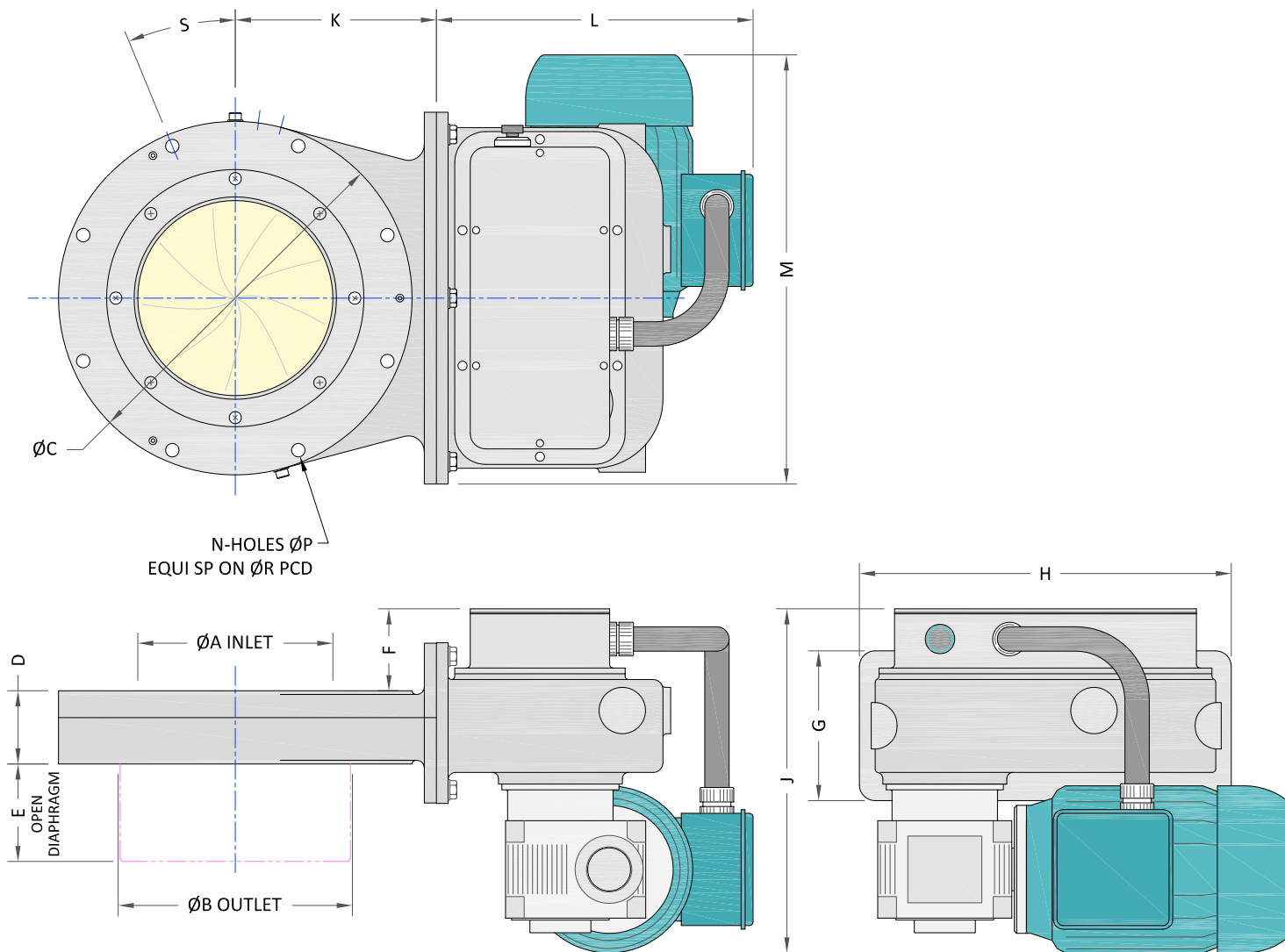
Standard reed switches rated AC/DC 10–230v, 1a < 100mA, contact rating (peak) 6W.

Standard pneumatic connection without solenoid option:  
ED6/8/10 – 3/8" BSP  
ED12/15/18 – 1/2" BSP

With solenoid option, connection is made via 8mm pneumatic fitting

Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	Nett Weight
ED6	150	160	190	290	60	80	67	131	305	177	165	203	1030	8	11	270	22.5°	3.5	25.4
ED8	200	212	240	350	60	110	66	131	305	177	197	203	1030	8	11	324	22.5°	4	28.1
ED10	250	263	292	400	60	130	65	131	305	177	222	203	1030	8	11	375	22.5°	5	30.3
ED12	300	314	343	470	76	160	64	140	356	200	267	214	1336	8	14	438	15°	8.5	52.1
ED15	375	390	420	565	89	200	58	140	356	200	314	214	1336	8	14	533	22.5°	10.5	72.0
ED18	450	467	495	641	89	230	58	140	356	200	352	214	1336	8	14	610	22.5°	12	77.5

Unless otherwise stated, all dimensions in mm / weights given in kg



## Technical Details

Electric operation by 0.25kW, 4-pole, IP55 induction motor suitable for 220/240-380/415v-3ph-50Hz. 254/277-440/480v-3ph-60Hz supply.

Full load current @ 230v ~ 1.65A @ 415v ~ 0.95A.

Fitted as standard with open, closed and trickle limit switches.  
Access to terminations through Ø 20mm blanked hole

Switches rated at 10A @ 125v - 250v AC or 10A @ 30v DC

Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	Nett Weight
ED6	150	160	190	290	60	80	67	131	305	282	165	260	352	8	11	270	22.5°	27.2
ED8	200	212	240	350	60	110	67	131	305	282	197	260	352	8	11	324	22.5°	30.3
ED10	250	263	292	400	60	130	67	131	305	282	222	260	352	8	11	375	22.5°	32.6
ED12	300	314	343	470	76	160	57	140	356	297	267	263	393	8	14	438	15°	50.3
ED15	380	390	420	565	89	200	51	140	356	297	314	263	393	8	14	533	22.5°	63.0
ED18	450	467	495	641	89	230	51	140	356	297	352	263	393	8	14	610	22.5°	63.0

Unless otherwise stated, all dimensions in mm / weights given in kg

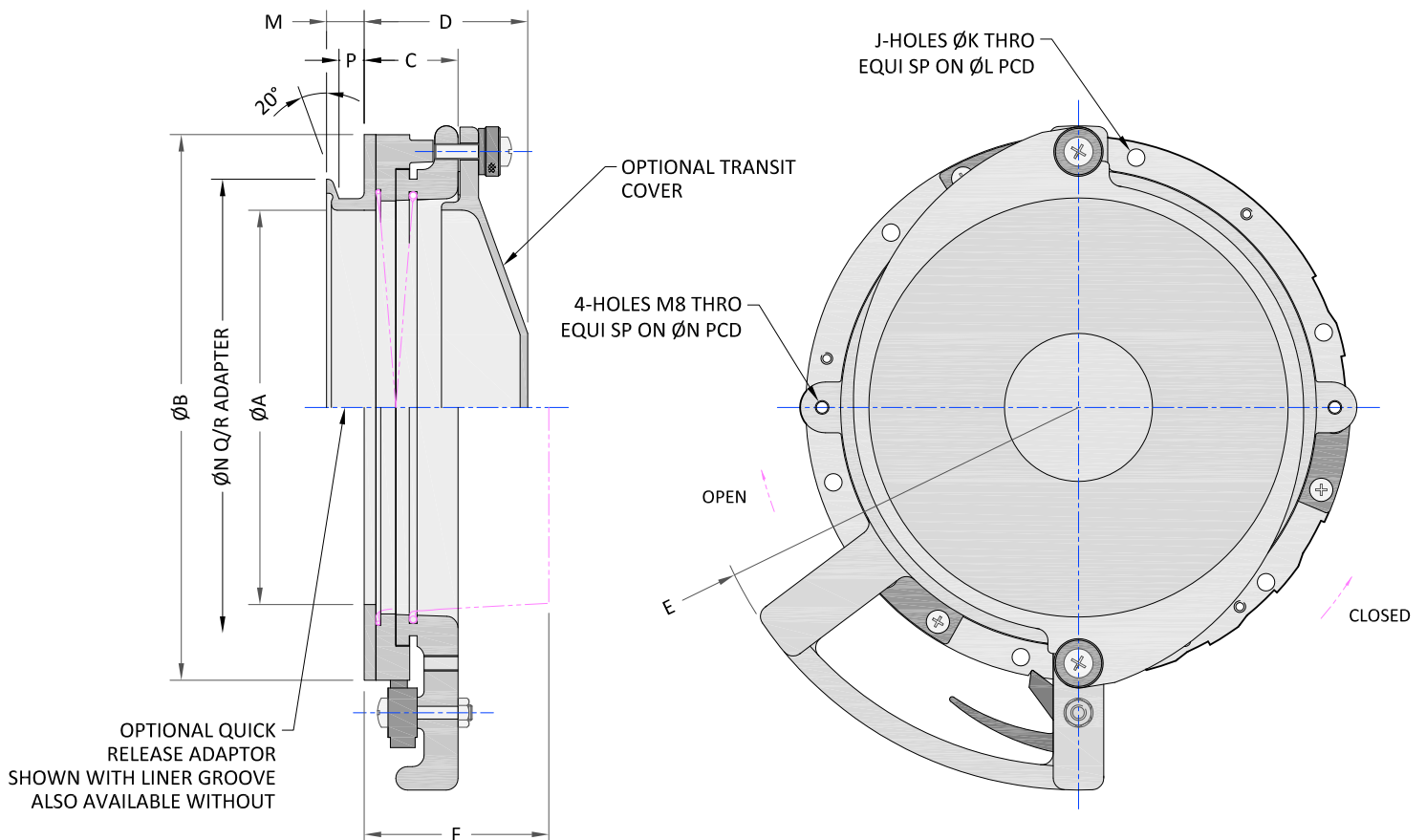
# Series H Valves

This low cost, compact valve has been fitted to many thousands of IBCs the world over. Its popularity with operators owes much to its ease of operation, reliability and excellent regulation of discharge rates.

## Main Features

- Single diaphragm for dust tight closure
- Simple construction suitable for materials up to 900 kg/m<sup>3</sup>
- In-situ diaphragm adjustment
- Hand operated
- Diaphragm selection to suit specific applications
- Additional positioning notches allows the valve orifice to be set in a variety of open positions (150mm and 200mm only)
- Fixing positions on the lower flange for a bagging off spigot (150mm and 200mm only)
- Coated valve body components\*
- Additional notches for enhanced flow regulation\* (not available on 150mm and 200mm models)
- Quick release transit cover for extra security during transportation\*
- Quick release adaptor for valve mounting\*

\*optional



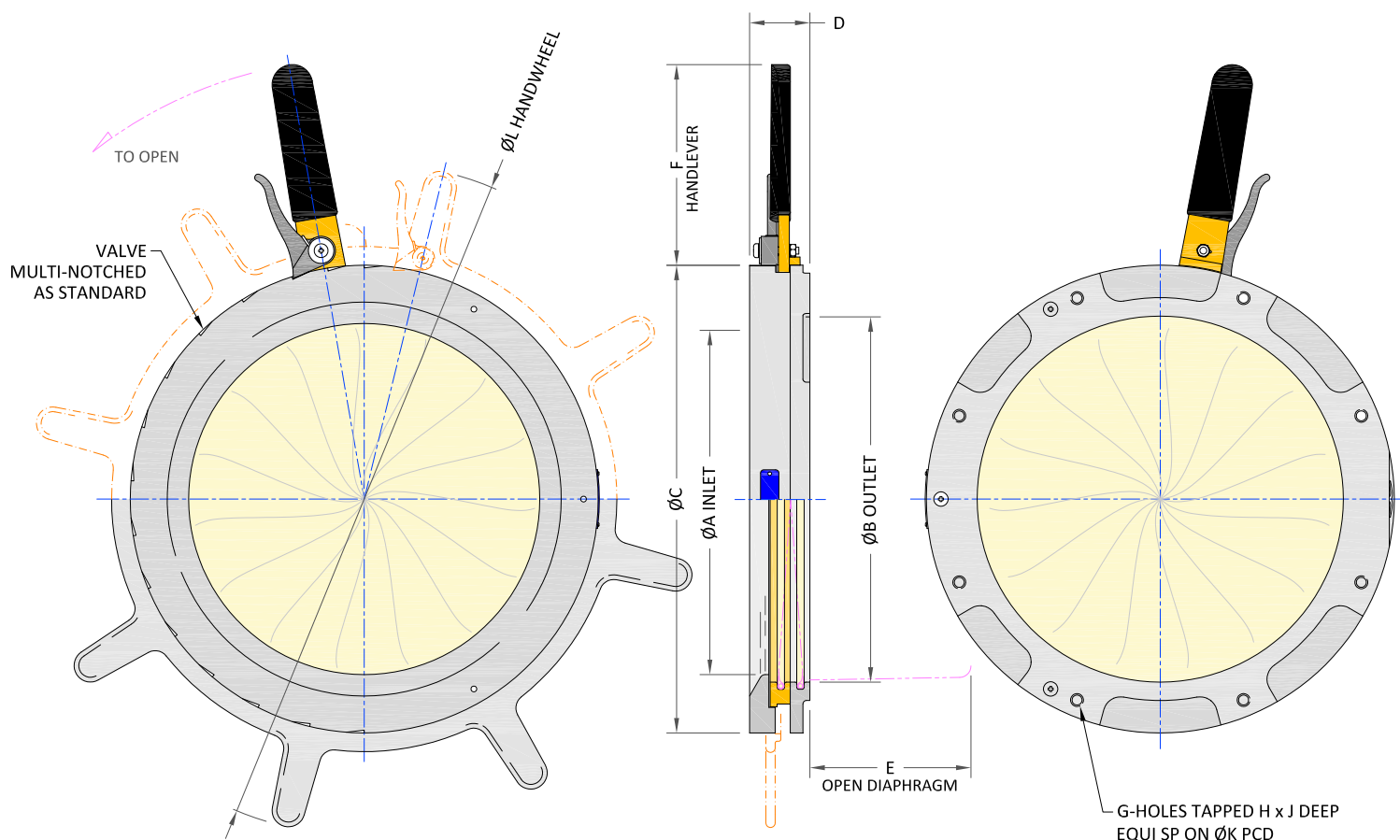
Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	Nett Weight
H4	100	102	170	38		144	75	22		6	9	152	20				1.2
H6	150	152	230	50	86	170	100	23	98	6	9	213	20	190	11	209.5	2.0
H8	200	207	283	50	86	197	126	23	98	6	9	264	20	235	13	263.5	2.6
H10	250	264	340	52	103	235	156	27	115	6	11	320	20				3.6
H12	300	314	390	54	103	275	180	31	115	8	9	369	20	350	13		4.5

Unless otherwise stated, all dimensions in mm / weights given in kg

The Series JS Iris Valve is specifically designed for fitting to Big Bag discharge stations to allow controlled product discharge.

## Main Features

- Designed specifically for FIBCs. Suitable for materials up to 1000 kg/m<sup>3</sup>
- Single diaphragm for dust tight closure
- Concentric opening/closing for ideal flow characteristics
- Multi-notched body for maximum flow control
- Tapered valve inlet prevents damage and aids flow
- Fabric diaphragms ensure gentle effective shut off
- Robust construction
- Slim design
- Mounting holes on underside only as standard
- Drilling of top flange is available as an optional extra



Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
JS12	300	305	320	406	52	145	174	8	M10	17	378		7.9
JS15	380	381	398	500	60	190		12	M10	18	470	720	13.8

Unless otherwise stated, all dimensions in mm / weights given for Aluminium unit in kg

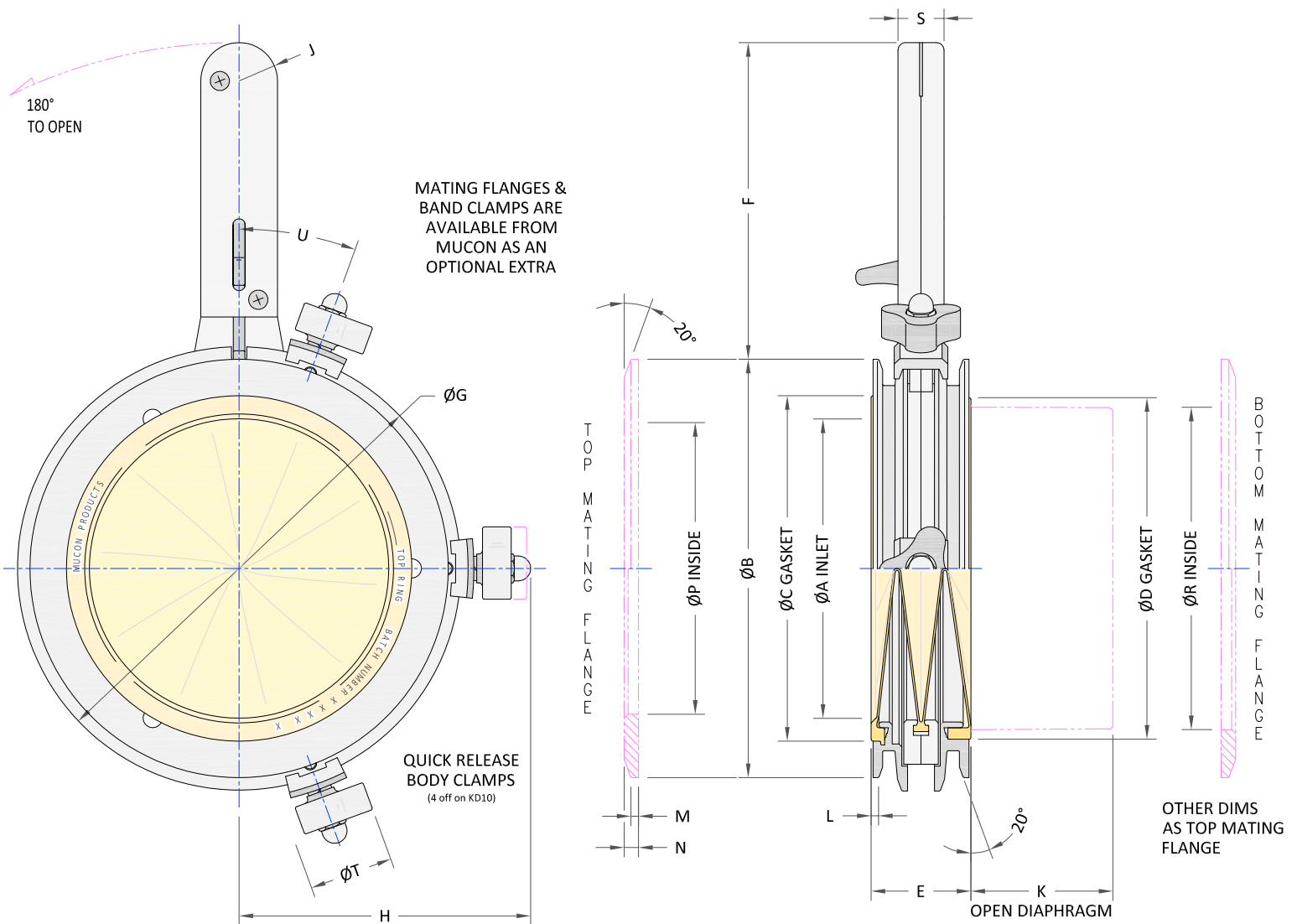
# Series K Hand Operated Valves – Quick Release

Specifically designed for Pharmaceutical, Dairy and Food Industry applications, the Series K Valve incorporates the well proven benefits of the Mucon Iris Diaphragm Valve principles.

Meeting the stringent demands of today's process industries for hygiene, disassembly of equipment without the need for tools and thorough cleaning, the Mucon Series K Valve is the ideal solution for ease of use and increased productivity.

## Main Features

- Only the diaphragm comes into contact with the product
- Unique fasteners for rapid assembly
- Easy to clean moulded diaphragm
- Band clamped flange connections on quick release models

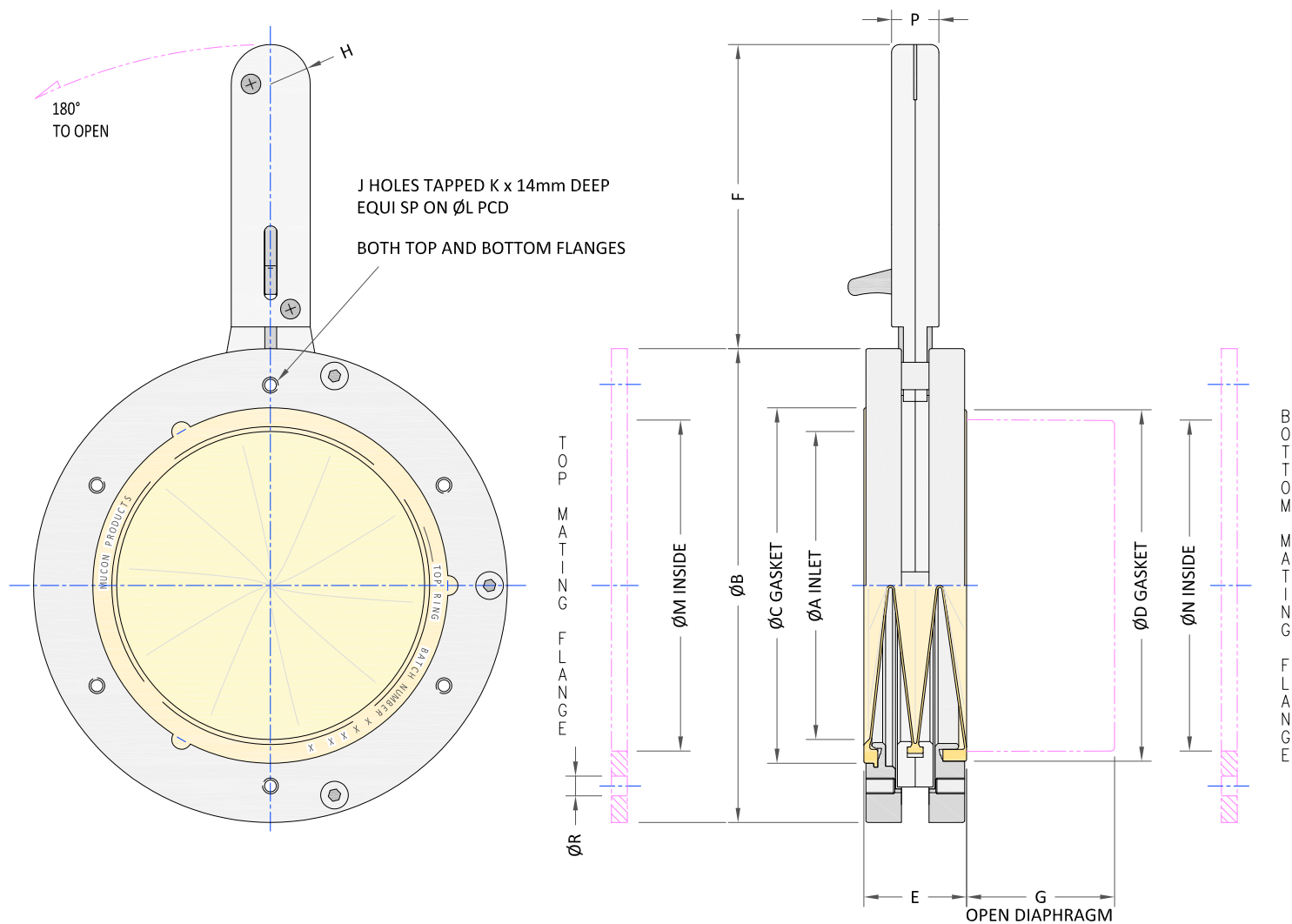


Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	Nett Weight
KD6Q	150	156	218	180	178	52	165	231	152	20	75	4	4	7.5	152	168	24	45	20°	4.0
KD8Q	200	206	269	230	228	52	165	283	180	20	80	4	4.5	8	203	218	24	45	17°	5.1
KD10Q	250	260	323	282	280	52	165	337	210	20	95	4	4.5	8	257	272	24	45	14°	6.5

Unless otherwise stated, all dimensions in mm / weights given in kg



# Series K Hand Operated Valves – Bolted



Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	Nett Weight
KD6B	150	156	240	180	178	52	155	75	20	6	M8	203	152	168	24	10	24	6.6
KD8B	200	206	290	230	228	52	155	80	20	6	M8	254	203	218	24	10	24	8.4
KD10B	250	260	345	282	280	52	155	95	20	8	M10	327	257	272	24	12	24	10.7

Unless otherwise stated, all dimensions in mm / weights given in kg

# Series K2P Valves – Pneumatic or Electric Actuator

Now in its second generation, the Series K2 Powered Iris Valves have been specifically designed for automatic and remote applications, complimenting the popular hand operated versions.

Developed for applications requiring a high level of hygiene, this valve utilises our patented, moulded diaphragm technology already employed throughout the K-Valve range.

Our Engineers have taken great care to balance the requirements for quick disconnect, ease of cleaning and hygienic design with the requirements for reliability and control system integration. This attention to detail results in a quantum leap in technology compared to the first version of the K-Powered valve.

All body parts are manufactured from 316 stainless steel, as standard. White moulded diaphragms of Natural Rubber, EPDM and Silicone are all manufactured from FDA approved materials. Body seal is produced in FDA approved silicone rubber.

## Main Features

- The moulded diaphragm extends fully from inlet to outlet, doubling as the Iris Valve's gasket
- Quick release or bolt mounting is available to suit customer requirements
- Open, Closed and an Adjustable intermediate position switch is fitted as standard
- Bore sizes from 150mm to 200mm
- Certified for ATEX 1D/2D categories

## Technical Details

Electric Motor: 0.25Kw, 2 Pole, IP66 Induction Motor suitable for 230/400V 3ph 50Hz Supply.

Air motor: 0.56Kw, 3000rpm reversible air motor using 1000 l/m of lubricated compressed air at 5.6bar  
Port sizes for the air motor control valve must be a minimum of ½" BSP to achieve the required air flow rate

Open, Closed and Trickle position indicator sensors

Proximity Sensors: Nominal voltage 8.2V (Intrinsically Safe), Current consumption >3mA and < 1mA when activated, IP67, Atex 2G 1D

Option for Pulse Counting Trickle positioning

Proximity sensor in conjunction with a notched 'pulse' ring on the output shaft of the gearbox.

Proximity Sensor: Nominal voltage 8.2V (Intrinsically Safe), Current consumption >3mA and < 1mA when activated, IP67, Atex 2G 1D

All switches have a two metre sensor cable that exits through a single port in the ABS switch box

## Key Benefits

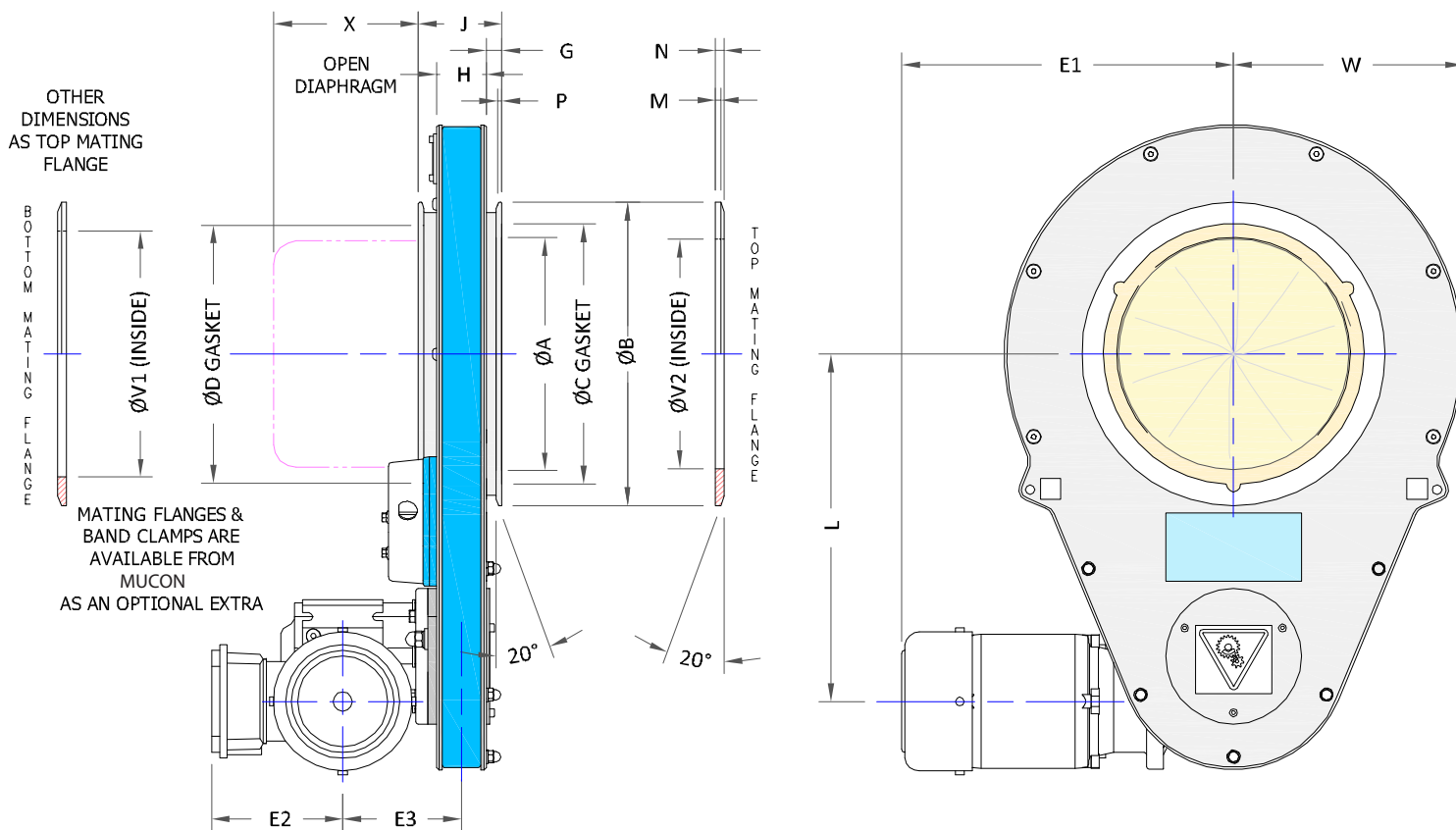
- Only the diaphragm comes into contact with the product
- Strong yet gentle on product, ideal for tablets or capsules
- Easy to clean

## Options

- Bolt mounting and Quick Release versions
- Weldable mounting flanges with quick release clamps
- Internal pulse generation assembly, able to provide positional feedback on the size of the diaphragm opening between fully open and fully closed. Ideal for systems requiring variable trickle feed positions or even closed loop feedback for weighing applications

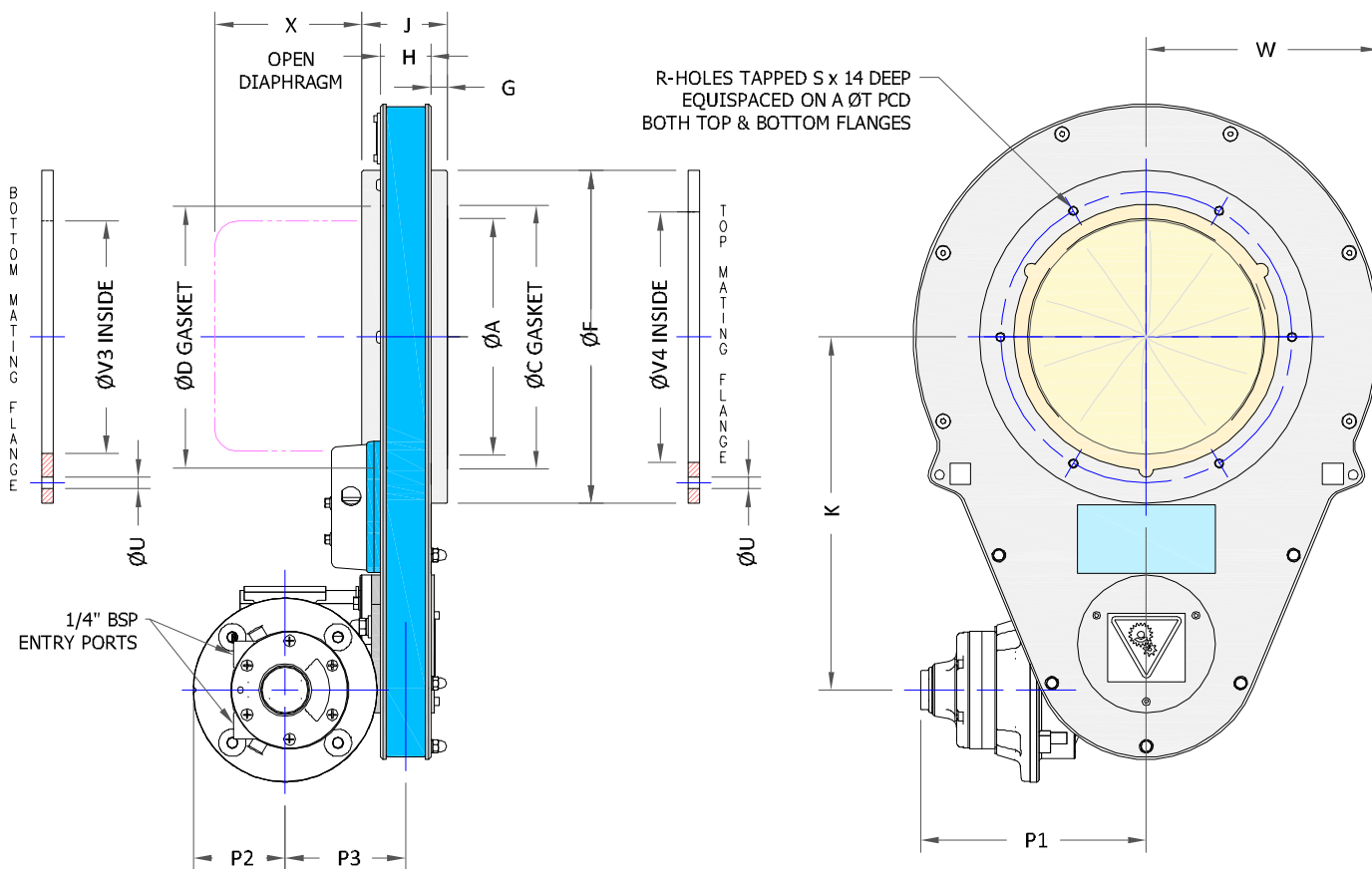


# Series K2P Valves – Pneumatic or Electric Actuator



Valve Type	Nominal Bore	A	B	C	D	F	G	H	J	K	L	M	N	R	S	T	U	V1	V2	V3	V4	W	X	E1	E2	E3	P1	P2	P3	Nett Weight
K2P06	150	156	218	180	178	240	14	44	74	307	307	4	7.5	6	M8	203	7	168	152	168	152	178	72	295	119	105	197	80	105	30.3
K2P08	200	206	269	230	228	290	14	44	74	307	307	4.5	8	6	M8	254	7	218	203	203	218	203	77	295	119	105	197	80	105	32.1

Unless otherwise stated, all dimensions in mm / weights given for Electric Motor in kg



## Series AD

- Outlet valve for Silos, Bins, Hoppers and Chutes
- Can be used for In-Line applications
- Discharge from Sifters, Ribbon Mixers and Double Cone Blender outlets
- For manual bagging of material where frequent operation is involved
- Controlling discharge from containers into Weigh Hoppers
- Closing the 'necks' of Big Bags where a valve smaller than the Series JS is required



## Series BD

- For protecting fish in transit and during discharge
- Double flanged outlet valve for Intermediate Bulk Containers (IBC)
- Outlet valve for Dust Collection Hoppers
- For controlling (not shut off) airflow in Ventilation Ducting



## Series E

- Used on the outlets of Silos handling heavy bulk solids, E.g. Sand, Cement, Lime Powder etc
- Linked to Weigh Scale set points for bagging off automatically
- For controlling (not shut off) air flow in Ventilation Ducting
- Big Bag discharge where automatic actuation is required
- Used in In-Line applications



## Series H

- Outlet valve to regulate the flow from the bottom of Intermediate Bulk Containers (IBC)
- Outlet on Dust Collection Hoppers
- Glanding around plastic pipes on extrusion cooling baths
- Choking the 'necks' of Big Bags where a smaller valve is required
- The H Valve can be certified for ATEX Zone 22D provided that an Anti-Static diaphragm material is used



## Series JS

- Ideally suited for 'choking' the necks and controlling the flow of material from FIBC / Big Bags



## Series K

- Any application where a high degree of cleanliness is required and where a regular strip down for cleaning is required. E.g. Food & Pharmaceutical industries
- For handling Pharmaceutical tablets or capsules. The soft diaphragm material and gentle action of the valve prevents damage to the product, thereby significantly reducing waste product
- Hand operated valves can be used on the walls of Cleanrooms for Glanding around cables, tubes or service pipes
- Power operated valves for automated systems can be used to control the discharge of product into a process
- Power operated valve with pulse generation facility is ideally suited for applications where product Weighing or Batching is required
- The Hand Operated K Valve can be certified for ATEX Zone 1D/2D Cat 3
- The Power operated K valve is certified for ATEX 1D/2D Cat 3

## Installation of a Mucon Valve

The diaphragm below shows the correct way to install a Mucon Iris Diaphragm Valve.

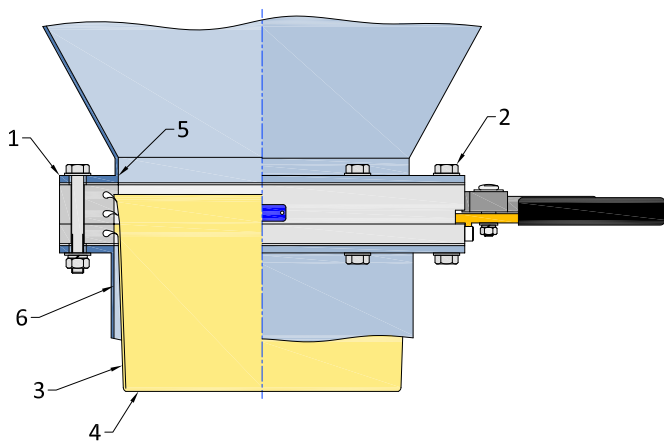
If our recommendations are followed, a prolonged diaphragm life will result.

The AD, BD, JS and K Series have lever slots, which allow the control levers to move through 180°.

Installation of the Iris valve requires a combination of through bolts and set screws to be used.

If there is any misalignment of the ductwork, the lever slot may be caused to open or close when the Iris valve is connected. Serious misalignment of the ductwork will put the valve body under stress, resulting in rapid wear of certain valve components.

All valves are fitted with a label indicating the direction of material flow.



1. Flanges must be flat and free from distortion
2. Fixing bolts over and under the lever slot must not protrude into the slot. If so, the Control Ring would be unable to open and close the valve.
3. The length of the open diaphragm below the valve (see valve details in brochure)
4. There must be a 12mm clearance between the base and open diaphragm
5. The outlet diameter of a hopper should be 5mm smaller than the inlet of the valve.
6. The discharge diameter of the diaphragm should be 10mm larger than the outlet valve diameter.

## Use of Liners

The need for a liner with a Mucon Iris Diaphragm Valve installation may become apparent after the valve has been used for a short period of time. This is because Liners are successful in combating three basic problems.

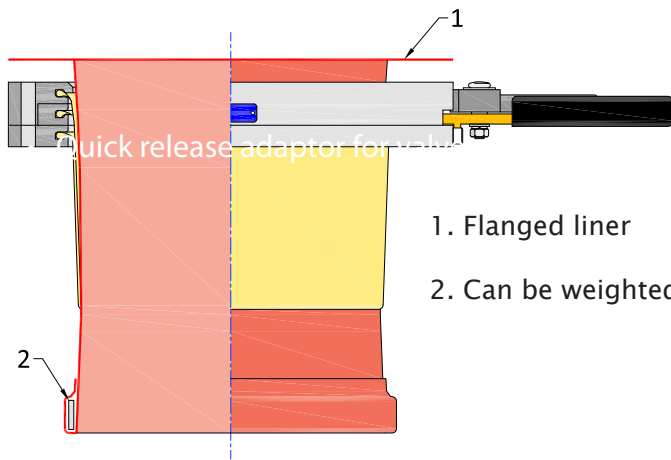
- Assisting diaphragm opening where powders are very fine and with a low bulk density.
- Combating diaphragm wear if the material handled is particularly abrasive.
- Reduces the effort required to operate a valve, where a high static load is imposed on the valve.

Liners can be used on their own with a Quick Release Adaptor.

## Liners to Assist Opening

When a fabric diaphragm is specified, it is always necessary to have a certain weight of material acting downwards to make it open fully. If the material handled has a tendency to 'bridge', often the diaphragm will only partially open, as there is insufficient material weight acting on the diaphragm to make it open fully.

This situation can be overcome if a flanged liner is hung through the valve, with a stainless steel ring sewn into the hem of the liner.



1. Flanged liner

2. Can be weighted with a stainless steel ring sewn into the hem (if required)

## Liners to Combat Wear

The life of a diaphragm cannot be easily quantified, as there are many variables that need to be considered, such as;

- Number of operations per day.
- The amount of material passed over the diaphragm each day.
- The abrasiveness of the material handled etc.

In our experience the life of a diaphragm can vary between a few months and many years. Where the life of the diaphragm can be measured in months, it is often beneficial to consider the use of a liner.

The liner material most frequently used for combating abrasion is T893 red rubber. This natural rubber liner offers a better level of resistance to abrasion than steel. Where a T893 liner is used, it is important that a fabric diaphragm is installed with the Iris valve to effect a tight shut off.

For in-line, heavy bulk density product applications, a double flanged liner can be used.

Various powdered materials exert differing pressures on a diaphragm. Normally a Mucon Iris Diaphragm Valve is easily operated. However, on occasions some free flowing products can exert a high static load on to the valve, making the control lever difficult to operate. This situation arises because;

1. The load exerted by the product forces the various layers of the diaphragm material tightly together, making the Control Lever difficult to operate.
2. It has been observed that when a Mucon Iris Diaphragm Valve operates, the material in the column adjacent to the 'top face' of the valve tries to also turn as the valve is opened.

Both of these problems can be eliminated by the use of a liner.



Process Components Ltd  
Graphic House  
Bank Street  
Macclesfield  
Cheshire  
SK11 7AR  
United Kingdom

T: +44 (0) 1625 412000  
F: +44 (0) 1625 412001

[sales@mucon.com](mailto:sales@mucon.com)  
[www.mucon.com](http://www.mucon.com)

Mucon is a registered trademark of Process Components Ltd