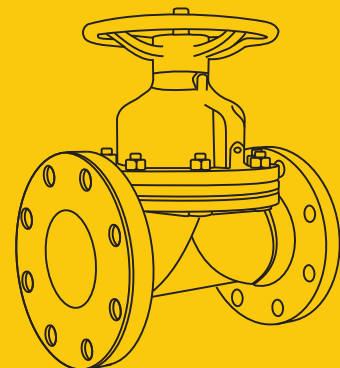
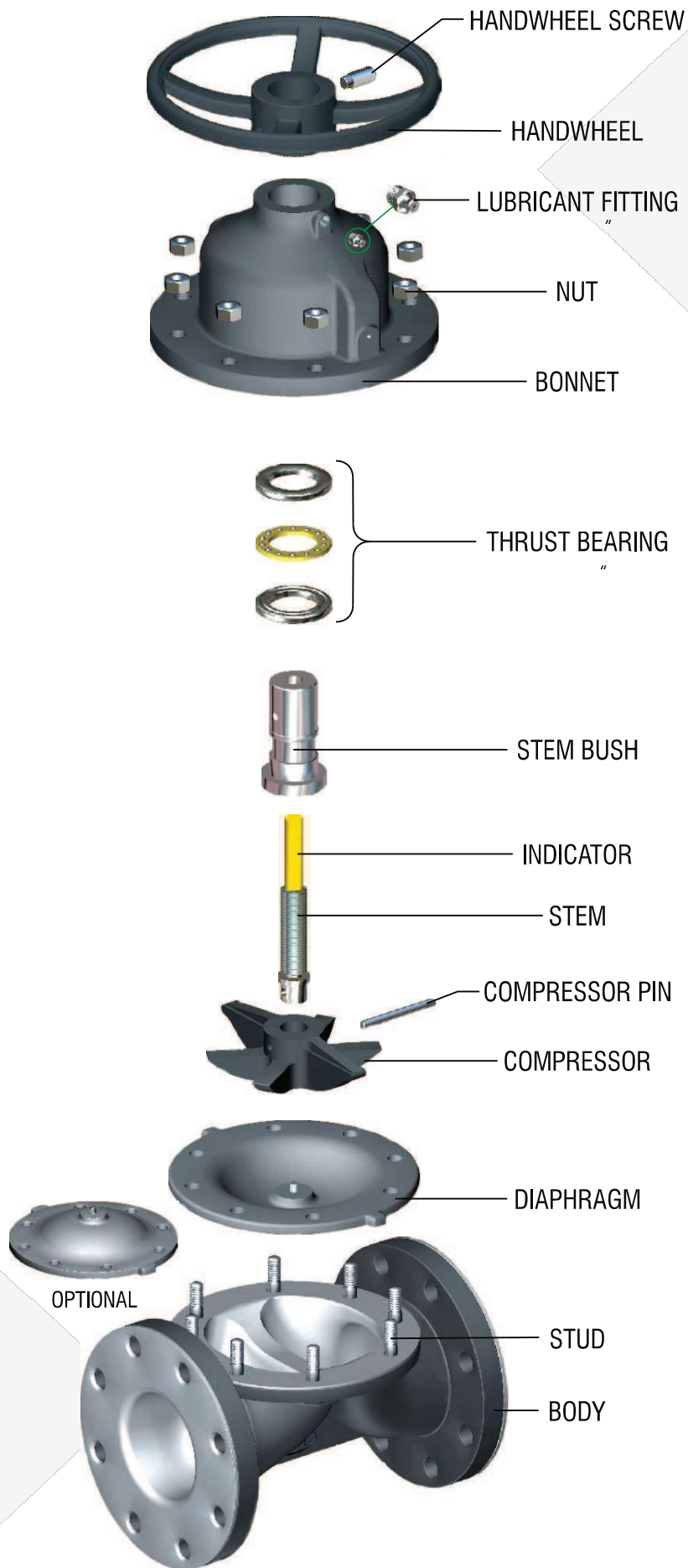


# DIAPHRAGM VALVES

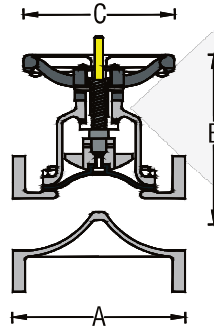


# SERIES 'S' NON RISING HANDWHEEL



# DIAPHRAGM VALVES

## SERIES 'S' NON RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : BS 6755 - 1

		Test Pressure in bar (psi)			
		Series 'S2K'			
Pressure rating 2)		16	10	7	5
Hyd.	Shell	24 (348)	15 (218)	10.5 (152)	9 (131)
	Seat	16 (232)	10 (145)	7 (102)	6 (87)
Air	Seat			5 (73)	

Dimensions are in mm (Inch)

### SERIES 'S' WEIR TYPE

SIZE mm (Inch)	BS			DIN Unlined & Lined	MSS SP-88 PFA Lined	B	C	Wt 1)		
	Unlined	Rubber Lined	PFA Lined					BS	DIN	MSS
15 (1/2)	108 (4.3)	114 (4.5)	114 (4.5)	130 (5.1)	108 (4.3)	92 (3.6)	70 (2.8)	2.5 (5.5)	2.8 (6.2)	2.5 (5.5)
20 (3/4)	117 (4.6)	123 (4.8)	123 (4.8)	150 (5.9)	149 (5.9)	100 (3.9)	70 (2.8)	2.6 (5.7)	3.2 (7.0)	3.0 (6.6)
25 (1)	127 (5.0)	133 (5.2)	133 (5.2)	160 (6.3)	149 (5.9)	114 (4.5)	100 (3.9)	3.5 (7.7)	4.2 (9.3)	4.0 (8.8)
32 (1 1/4)	146 (5.7)	152 (6.0)	152 (6.0)	180 (7.1)	152 (6.0)	115 (4.5)	100 (3.9)	4.5 (9.9)	5.5 (12.1)	5.0 (11.0)
40 (1 1/2)	159 (6.3)	165 (6.5)	165 (6.5)	200 (7.9)	176 (6.9)	153 (6.0)	140 (5.5)	7.0 (15.4)	8.0 (17.6)	7.5 (16.5)
50 (2)	190 (7.5)	196 (7.7)	196 (7.7)	230 (9.1)	202 (7.9)	160 (6.3)	140 (5.5)	10 (22)	15 (33)	11 (24)
65 (2 1/2)	216 (8.5)	222 (8.7)	222 (8.7)	290 (11.4)	222 (8.7)	180 (7.1)	180 (7.1)	15 (33)	19 (42)	16 (35)
80 (3)	254 (10.0)	260 (10.2)	260 (10.2)	310 (12.2)	264 (10.4)	233 (9.2)	225 (8.9)	22 (49)	26 (57)	23 (51)
100 (4)	305 (12.0)	313 (12.3)	311 (12.2)	350 (13.8)	329 (12.9)	256 (10.1)	225 (8.9)	37 (82)	42 (93)	37 (82)
125 (5)	356 (14.0)	364 (14.3)	362 (14.2)	400 (15.7)	416 (16.4)	306 (12.0)	310 (12.2)	62 (137)	68 (150)	70 (154)
150 (6)	406 (15.9)	414 (16.3)	412 (16.2)	480 (18.9)	416 (16.4)	368 (14.5)	368 (14.5)	91 (201)	106 (234)	93 (205)
200 (8)	521 (20.5)	529 (20.8)	527 (20.7)	600 (23.6)	530 (20.9)	479 (18.9)	471 (18.5)	163 (359)	185 (408)	166 (366)
250 (10)	635 (25.0)	645 (25.4)	641 (25.2)	730 (28.7)	-	585 (23.0)	587 (23.1)	240 (529)	275 (606)	-
300 (12)	749 (29.5)	759 (29.9)	-	850 (33.5)	-	689 (27.1)	690 (27.2)	418 (921)	480 (1058)	-
350 (14)	749 (29.5)	759 (29.9)	-	980 (38.6)	-	830 (32.7)	690 (27.2)	480 (1058)	550 (1212)	-

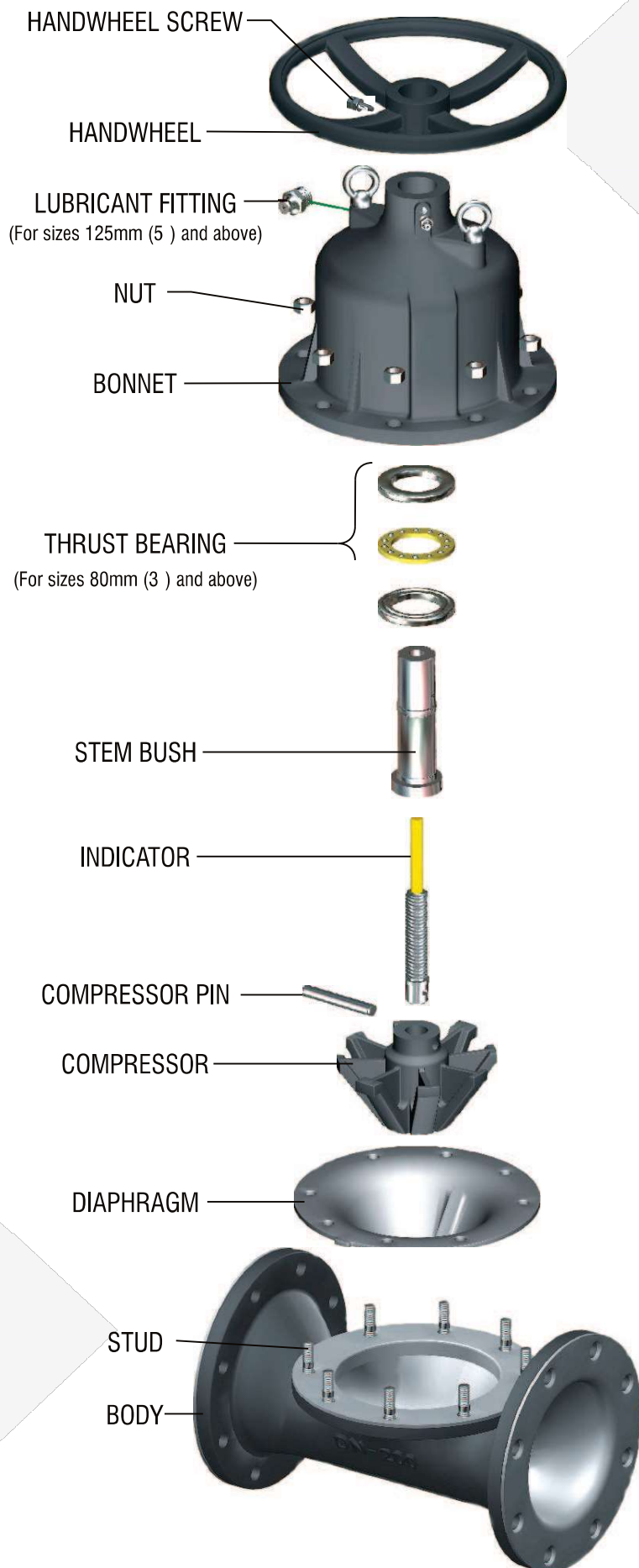
### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024, Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel ASTM A351 Gr. CF8 / CF8M / CN7M
Body Lining	Ebonite / Natural / Butyl / Neoprene / EPDM / Nitrile, other Elastomers & even PFA, ETFE, PP etc.
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Bushing	S G Iron EN-1563 No.EN-JS1050
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg, (lbs) approx. (without obligation) 2) Pressure Rating : Series 'S' for Sizes 15mm (1/2") to 50mm (2") - 16 bar (232 psi), for Sizes 65mm (2 1/2") to 150mm (6") - 10 bar (145 psi), for Size 200mm (8") - 7 bar (102 psi). ■ Halar coating also available on request. ■ Face to Face Dimension (A) for Size 350mm (14") as per 'KFEL' Standard. ■ Valves Flanges can be drilled to suit ASME / BS / DIN / JIS. ■ Please Specify Working Pressure, Temperature & Service conditions. ■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filter Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

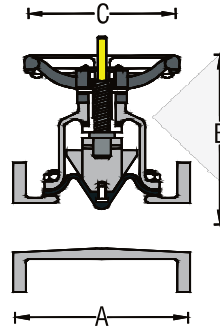
# DIAPHRAGM VALVES

## SERIES 'K' NON RISING HANDWHEEL



# DIAPHRAGM VALVES

## SERIES 'K' NON RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : BS 6755 - 1

Test Pressure in bar (psi)			
Series 'K'			
Pressure rating 2)	10	7	5
Hyd. Shell	15 (218)	10.5 (152)	6 (87)
Seat	10 (145)	7 (102)	5 (73)
Air Seat		5 (73)	

Dimensions are in mm (Inch)

### SERIES 'K' WEIR TYPE

SIZE mm (Inch)	BS			DIN		MSS SP-88 PFA Lined	B	C	W <sub>1</sub> )	
	Unlined	Rubber Lined	PFA Lined	Unlined & Lined	Unlined & Lined				BS	DIN
15 (1/2)	108 (4.3)	114 (4.5)	114 (4.5)	130 (5.1)	108 (4.3)	90 (3.5)	70 (2.8)	2.4 (5.3)	2.6 (5.7)	
20 (3/4)	117 (4.6)	123 (4.8)	123 (4.8)	150 (5.9)	149 (5.9)	90 (3.5)	70 (2.8)	2.8 (6.2)	3.2 (6.6)	
25 (1)	127 (5.0)	133 (5.2)	133 (5.2)	160 (6.3)	149 (5.9)	112 (4.4)	100 (3.9)	4.2 (9.3)	4.6 (10.1)	
32 (1 1/4)	146 (5.7)	152 (6.0)	152 (6.0)	180 (7.1)	152 (6.0)	112 (4.4)	100 (3.9)	4.5 (9.9)	5.5 (12.1)	
40 (1 1/2)	159 (6.3)	165 (6.5)	165 (6.5)	200 (7.9)	176 (6.9)	112 (4.4)	100 (3.9)	5.5 (12.1)	6.0 (13.2)	
50 (2)	190 (7.5)	196 (7.7)	196 (7.7)	230 (9.1)	202 (7.9)	146 (5.7)	140 (5.5)	10 (22)	11 (24)	
65 (2 1/2)	216 (8.5)	222 (8.7)	222 (8.7)	290 (11.4)	222 (8.7)	177 (7.0)	180 (7.1)	15 (33)	17 (37)	
80 (3)	254 (10.0)	260 (10.2)	260 (10.2)	310 (12.2)	264 (10.4)	205 (8.1)	225 (8.9)	25 (55)	28 (62)	
100 (4)	305 (12.0)	313 (12.3)	311 (12.2)	350 (13.8)	329 (12.9)	244 (9.6)	225 (8.9)	32 (71)	36 (79)	
125 (5)	356 (14.0)	364 (14.3)	362 (14.2)	400 (15.7)	416 (16.4)	272 (10.7)	310 (12.2)	57 (126)	64 (141)	
150 (6)	406 (15.9)	414 (16.3)	412 (16.2)	480 (18.9)	416 (16.4)	433 (14.5)	368 (14.5)	66 (146)	81 (179)	
200 (8)	521 (20.5)	529 (20.8)	527 (20.7)	600 (23.6)	530 (20.9)	420 (16.5)	368 (14.5)	115 (253)	135 (298)	
250 (10)	635 (25.0)	645 (25.4)	641 (25.2)	730 (28.7)	-	545 (21.5)	587 (23.1)	180 (397)	235 (518)	
300 (12)	749 (29.5)	759 (29.9)	-	850 (33.5)	-	640 (25.2)	587 (23.1)	280 (617)	300 (661)	
350 (14)	749 (29.5)	759 (29.9)	-	980 (38.6)	-	640 (25.2)	587 (23.1)	300 (661)	320 (706)	

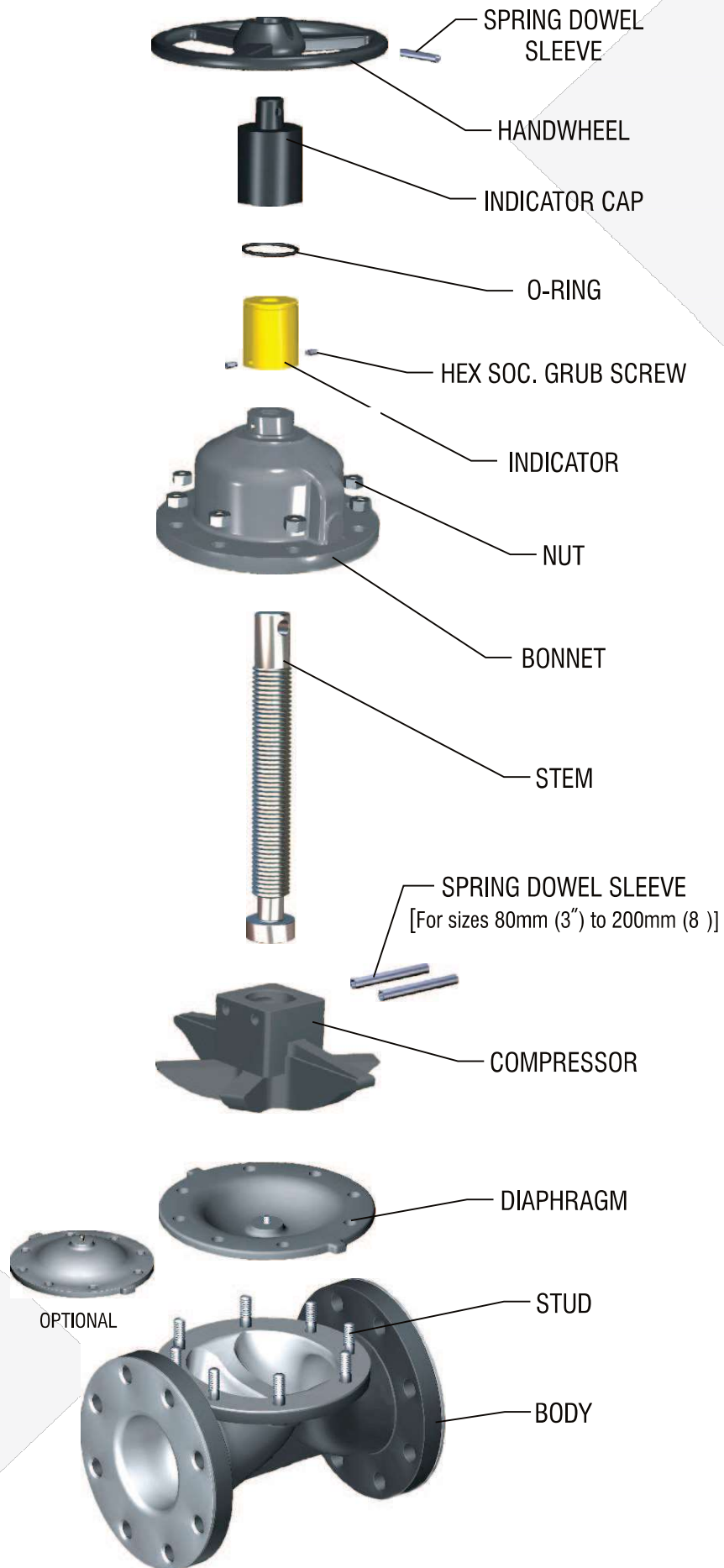
### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024, Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel ASTM A351 Gr. CF8 / CF8M / CN7M
Body Lining	Ebonite / Natural / Butyl / Neoprene / EPDM / Nitrile, other Elastomers & even PFA, ETFE, PP etc.
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Bushing	S G Iron EN-1563 No.EN-JS1050
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg, (lbs) approx. (without obligation) 2) Pressure Rating : Series 'K' for Sizes 15mm (1/2") to 100mm (4") - 10 bar (145 psi), for Size 125mm (5") - 7 bar (102 psi), or Sizes 150mm (6") to 300mm (12") - 5 bar (73 psi) & 350mm (16") - 6 bar (87 psi). ■ Halar coating also available on request. ■ Face to Face Dimension (A) for Size 350mm (14") as per 'KFEL' Standard.

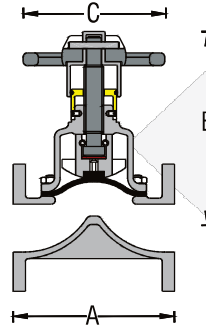
■ Valves Flanges can be drilled to suit ASME / BS / DIN / JIS. ■ Please Specify Working Pressure, Temperature & Service conditions ■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filter Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# SERIES 'S' RISING HANDWHEEL



# DIAPHRAGM VALVES

## SERIES 'S' RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : EN 12266 - 1

		Test Pressure In bar (psi)		
		Series 'S'		
Pressure rating 2)		16	10	7
Hyd.	Shell	24 (348)	15 (218)	10.5 (152)
	Seat	16 (232)	10 (145)	7 (102)
Air	Seat		5 (73)	

Dimensions are in mm (Inch)

### SERIES 'S' WEIR TYPE

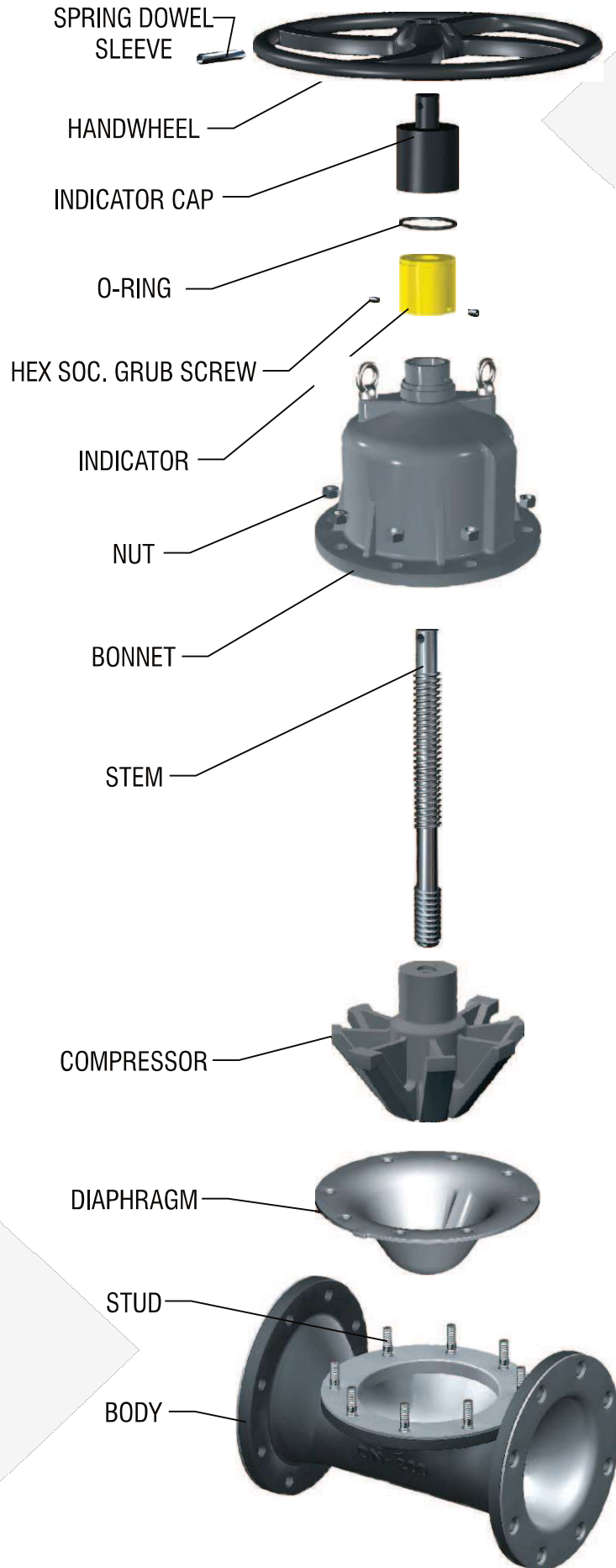
SIZE mm (Inch)	BS			DIN		MSS		BS	DIN	MSS
	Unlined	Rubber Lined	PFA Lined	Unlined & Lined	SP-88 PFA Lined	Wt 1)				
15 (1/2)	108 (4.3)	114 (4.5)	114 (4.5)	130 (5.1)	108 (4.3)	105 (4.1)	80 (3.1)	2.5 (5.5)	2.8 (6.2)	2.5 (5.5)
20 (3/4)	117 (4.6)	123 (4.8)	123 (4.8)	150 (5.9)	149 (5.9)	115 (4.5)	80 (3.1)	2.6 (5.7)	3.2 (7.0)	3.0 (6.6)
25 (1)	127 (5.0)	133 (5.2)	133 (5.2)	160 (6.3)	149 (5.9)	132 (5.2)	120 (4.7)	3.5 (7.7)	4.2 (9.3)	4.0 (8.8)
32 (1 1/4)	146 (5.7)	152 (6.0)	152 (6.0)	180 (7.1)	152 (6.0)	140 (5.5)	120 (4.7)	4.5 (9.9)	5.5 (12.1)	5.0 (11.0)
40 (1 1/2)	159 (6.3)	165 (6.5)	165 (6.5)	200 (7.9)	176 (6.9)	180 (7.1)	150 (5.9)	7.0 (15.4)	8.0 (17.6)	7.5 (16.5)
50 (2)	190 (7.5)	196 (7.7)	196 (7.7)	230 (9.1)	202 (7.9)	210 (8.3)	150 (5.9)	10 (22)	15 (33)	11 (24)
65 (2 1/2)	216 (8.5)	222 (8.7)	222 (8.7)	290 (11.4)	222 (8.7)	235 (9.3)	180 (7.1)	15 (33)	19 (42)	16 (35)
80 (3)	254 (10.0)	260 (10.2)	260 (10.2)	310 (12.2)	264 (10.4)	305 (12.0)	250 (9.8)	22 (49)	26 (57)	23 (51)
100 (4)	305 (12.0)	313 (12.3)	311 (12.2)	350 (13.8)	329 (12.9)	340 (13.4)	250 (9.8)	38 (84)	43 (95)	38 (84)
125 (5)	356 (14.0)	364 (14.3)	362 (14.2)	400 (15.7)	416 (16.4)	420 (16.5)	315 (12.4)	63 (139)	69 (152)	71 (156)
150 (6)	406 (15.9)	414 (16.3)	412 (16.2)	480 (18.9)	416 (16.4)	490 (19.3)	360 (14.2)	92 (203)	107 (236)	94 (207)
200 (8)	521 (20.5)	529 (20.8)	527 (20.7)	600 (23.6)	530 (20.9)	645 (25.4)	470 (18.5)	164 (361)	186 (410)	167 (368)

### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024 / ASTM A395 Gr. 60-40-18 / 30% Cr. Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel ASTM A351 Gr. CF8 / CF8M
Body Lining	Ebonite / Natural / Butyl / Neoprene / EPDM / Nitrile, other Elastomers & even PFA, PTFE, PP etc.
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

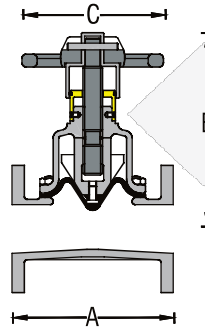
1) Net in Kg. (lbs) approx. (without obligation) 2) Pressure Rating : Series 'S' for Sizes 15mm (1/2") to 50mm (2") - 16 bar (232 psi), for Sizes 65mm (2 1/2") to 150mm (6") - 10 bar (145 psi), for Size 200mm (8") - 7 bar (102 psi). ■ Halar coating also available on request. ■ Valves Flanges can be drilled to suit ASME / BS / DIN / JIS. ■ Please Specify Working Pressure, Temperature & Service conditions. ■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filtr Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# SERIES 'K' RISING HANDWHEEL



# DIAPHRAGM VALVES

## SERIES 'K' RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : EN 12266 - 1

Test Pressure in bar (psi)			
Series 'K'			
Pressure rating 2)	10	7	5
Hyd. Shell	15 (218)	10.5 (152)	6 (87)
Seat	10 (145)	7 (102)	5 (73)
Air Seat		5 (73)	5 (73)

Dimensions are in mm (Inch)

### SERIES 'K' STRAIGHT THROUGH TYPE

SIZE mm (Inch)	BS		A		B		C		Wt 1)	
	Unlined	Rubber Lined	PFA Lined	DIN Unlined & Lined	MSS SP-88 PFA Lined	BS	DIN	BS	DIN	
15 (1/2)	108 (4.3)	114 (4.5)	114 (4.5)	130 (5.1)	108 (4.3)	105 (4.1)	80 (3.1)	2.4 (5.3)	2.6 (5.7)	
20 (3/4)	117 (4.6)	123 (4.8)	123 (4.8)	150 (5.9)	149 (5.9)	115 (4.5)	80 (3.1)	2.8 (6.2)	3.0 (6.6)	
25 (1)	127 (5.0)	133 (5.2)	133 (5.2)	160 (6.3)	149 (5.9)	135 (5.3)	120 (4.7)	4.2 (9.3)	4.6 (10.1)	
32 (1 1/4)	146 (5.7)	152 (6.0)	152 (6.0)	180 (7.1)	152 (6.0)	135 (5.3)	120 (4.7)	4.5 (9.9)	5.5 (12.1)	
40 (1 1/2)	159 (6.3)	165 (6.5)	165 (6.5)	200 (7.9)	176 (6.9)	135 (5.3)	120 (4.7)	5.5 (12.1)	6.0 (13.2)	
50 (2)	190 (7.5)	196 (7.7)	196 (7.7)	230 (9.1)	202 (7.9)	175 (6.9)	180 (7.1)	10 (22)	11 (24)	
65 (2 1/2)	216 (8.5)	222 (8.7)	222 (8.7)	290 (11.4)	222 (8.7)	200 (7.9)	180 (7.1)	16 (35)	18 (39)	
80 (3)	254 (10.0)	260 (10.2)	260 (10.2)	310 (12.2)	264 (10.4)	260 (10.2)	250 (9.8)	25 (55)	28 (62)	
100 (4)	305 (12.0)	313 (12.3)	311 (12.2)	350 (13.8)	329 (12.9)	275 (10.8)	250 (9.8)	33 (73)	37 (82)	
125 (5)	356 (14.0)	364 (14.3)	362 (14.2)	400 (15.7)	416 (16.4)	340 (13.4)	315 (12.4)	57 (126)	64 (141)	
150 (6)	406 (15.9)	414 (16.3)	412 (16.2)	480 (18.9)	416 (16.4)	440 (17.3)	360 (14.2)	67 (148)	82 (181)	
200 (8)	521 (20.5)	529 (20.8)	527 (20.7)	600 (23.6)	530 (20.9)	495 (19.5)	470 (18.5)	116 (256)	136 (300)	

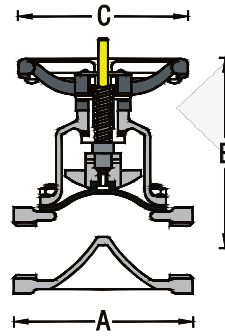
### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024 / ASTM A395 Gr. 60-40-18 / 30% Cr. Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel ASTM A351 Gr. CF8 / CF8M
Body Lining	Ebonite / Natural / Butyl / Neoprene / EPDM / Nitrile, other Elastomers & even PFA, PTFE, PP etc.
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg, (lbs) approx. (without obligation) 2) Pressure Rating : Series 'K' for Sizes 15mm (1/2") to 100mm (4") - 10 bar (145 psi), for Sizes 125mm (5") - 7 bar (102 psi), for Sizes 150mm (6") to 200mm (8") - 5 bar (73 psi). ■ Halar coating also available on request. ■ Valves Flanges can be drilled to suit ASME / BS / DIN / JIS. ■ Please Specify Working Pressure, Temperature & Service conditions. ■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filtre Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# DIAPHRAGM VALVES

## SERIES 'S' NON RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : BS 6755 - 1

		Test Pressure in bar (psi)	
		Series 'S'	
Pressure rating 2)		16	10
Hyd.	Shell	24 (348)	15 (218)
	Seat	16 (232)	10 (145)
Air	Seat	5 (73)	

Dimensions are in mm (Inch)

SERIES 'S' WEIR TYPE

SIZE mm (Inch)	← A → SE, SWE, BWE Alloy		B	C	Wt 1) SE, SWE, BWE
	CI	Alloy			
6 (1/4)/10 (3/8)	48 (1.9)	108 (4.3)	85 (3.3)	70 (2.8)	0.6 (1.3)
15 (1/2)	64 (2.5)	108 (4.3)	85 (3.3)	70 (2.8)	0.9 (2.0)
20 (3/4)	83 (3.3)	117 (4.6)	90 (3.5)	70 (2.8)	1.5 (3.3)
25 (1)	108 (4.3)	127 (5.0)	107 (4.2)	100 (3.9)	2.1 (4.6)
32 (1 1/4)	121 (4.7)	146 (5.7)	115 (4.5)	100 (3.9)	3.5 (7.7)
40 (1 1/2)	140 (5.5)	159 (6.3)	146 (5.7)	140 (5.5)	4.9 (10.8)
50 (2)	165 (6.5)	190 (7.5)	156 (6.1)	140 (5.5)	6.4 (14.1)
65 (2 1/2)	203 (8.0)	216 (8.5)	173 (6.8)	180 (7.1)	9.6 (21.2)
80 (3)	254 (10.0)	254 (10.0)	227 (8.9)	225 (8.8)	18 (39.7)
100 (4)	-	305 (12.0)	255 (10.0)	225 (8.9)	26 (57.3)

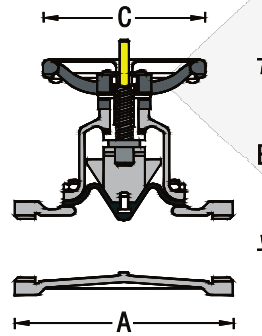
### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024, Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel : ASTM A351 Gr. CF8 / CF8M / CN7M
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Bushing	S G Iron EN-1563 No.EN-JS1050
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg. (lbs) approx. (without obligation) 2) Pressure Rating : Series 'S' for Sizes 6mm (1/4") to 50mm (2") - 16 bar (232 psi), for Sizes 65mm (2 1/2") to 100mm (4") - 10 bar (145 psi). ■ Face to Face Dimension (A) as per 'KFEL' Standard. ■ Standard Screwed ends to have BS : 21 (Parallel or Taper) or ASME B1.20.1 (NPT) threads. Socket Weld ends as per ASME B16.11 & Butt Weld ends as per ASME B16.25 suitable for schedule 40/40S. ■ Please specify Working Pressure, Temperature & Service conditions. ■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended type Stem, Electrical/Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filter Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# DIAPHRAGM VALVES

## SERIES 'K' NON RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : BS 6755 - 1

Test Pressure in bar (psi)		
Series 'K'		
Pressure rating 2)		10
Hyd. Shell		15.75 (228)
Seat		10 (145)
Air Seat		5 (73)

**Dimensions are in mm (Inch)**

### SERIES 'K' STRAIGHT THROUGH TYPE

SIZE mm (inch)	A SCREWED ENDS	B	C	Wt 1)
6 (1/4)/10 (3/8)	-	-	-	-
15 (1/2)	64 (2.5)	90 (3.5)	70 (2.8)	0.9 (2.0)
20 (3/4)	83 (3.3)	90 (3.5)	70 (2.8)	1.8 (4.0)
25 (1)	108 (4.3)	112 (4.4)	100 (3.9)	3.0 (6.6)
32 (1 1/4)	121 (4.7)	112 (4.4)	100 (3.9)	3.2 (7.0)
40 (1 1/2)	140 (5.5)	112 (4.4)	100 (3.9)	3.5 (7.7)
50 (2)	165 (6.5)	146 (5.7)	140 (5.5)	6.5 (14.3)
65 (2 1/2)	203 (8.0)	177 (7.0)	180 (7.1)	10 (22.0)
80 (3)	254 (10.0)	205 (8.1)	225 (8.9)	21 (46.3)
100 (4)	-	-	-	-

### Materials

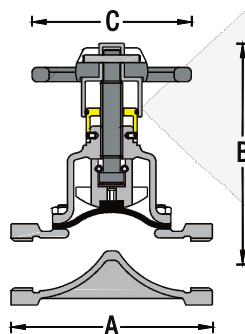
Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024, Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel : ASTM A351 Gr. CF8 / CF8M / CN7M
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Bushing	S G Iron EN-1563 No.EN-JS1050
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg, (lbs) approx. (without obligation) ■ Face to Face Dimension (A) as per 'KFEL' Standard ■ Standard Screwed ends to have BS : 21 (Parallel or Taper) or ASME B1.20.1 (NPT) threads. Socket Weld ends as per ASME B16.11 & Butt Weld ends as per ASME B16.25 suitable for schedule 40/40S. ■ Please specify Working Pressure, Temperature & Service conditions.

■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended type Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filter Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# DIAPHRAGM VALVES

## SERIES 'S' RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : BS 6755 - 1

Test Pressure in bar (psi)		Series 'S'	
Pressure rating 2)		16	10
Hyd.	Shell	24 (348)	15 (218)
	Seat	16 (232)	10 (145)
Air	Seat	5 (73)	

Dimensions are in mm (inch)

### SERIES 'S' WEIR TYPE

SIZE mm (inch)	A		B	C	Wt 1) SE, SWE, BWE
	SE, SWE, BWE CI	Alloy			
15 (1/2)	64 (2.5)	108 (4.3)	105 (4.1)	80 (3.1)	0.9 (2.0)
20 (3/4)	83 (3.3)	117 (4.6)	115 (4.5)	80 (3.1)	1.5 (3.3)
25 (1)	108 (4.3)	127 (5.0)	132 (5.2)	120 (4.7)	2.1 (4.6)
32 (1 1/4)	121 (4.7)	146 (5.7)	140 (5.5)	120 (4.7)	3.5 (7.7)
40 (1 1/2)	140 (5.5)	159 (6.3)	180 (7.1)	150 (5.9)	4.9 (10.8)
50 (2)	165 (6.5)	190 (7.5)	210 (8.3)	150 (5.9)	6.4 (14.1)
65 (2 1/2)	203 (8.0)	216 (8.5)	235 (9.3)	180 (7.1)	9.6 (21.2)
80 (3)	254 (10.0)	254 (10.0)	305 (12.0)	250 (9.8)	18 (39.7)
100 (4)	-	305 (12.0)	340 (13.4)	250 (9.8)	27 (59.5)

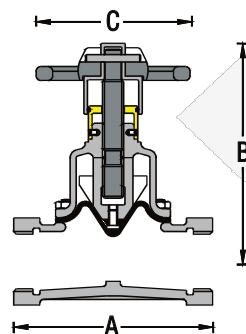
### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024, Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel : ASTM A351 Gr. CF8 / CF8M / CN7M
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg, (lbs) approx. (without obligation) 2) Pressure rating : Series 'S' for Sizes 6mm (1/4") to 50mm (2") - 16 bar (232 psi), for Sizes 65mm (2 1/2") to 100mm (4") - 10 bar (145 psi). ■ Face to Face Dimension (A) as per 'KFEL' Standard. ■ Standard Screwed ends to have BS : 21 (Parallel or Taper) or ASME B1.20.1 (NPT) threads, Socket Weld ends as per ASME B16.11 & Butt Weld ends as per ASME B16.25 suitable for schedule 40/40S. ■ Please Specify Working Pressure, Temperature & Service conditions. ■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended type Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filtre Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# DIAPHRAGM VALVES

## SERIES 'K' RISING HANDWHEEL



DESIGN STD : BS EN 13397 TESTING STD : BS 6755 - 1

Test Pressure in bar (psl)		
Series 'K'		
Pressure rating 2)	10	
Hyd. Shell	15.75 (228)	
Seat	10 (145)	
Air Seat	5 (73)	

### Dimensions are in mm (Inch)

### SERIES 'K' STRAIGHT THROUGH TYPE

SIZE mm (inch)	A SCREWED ENDS	B	C	Wt 1)
15 (1/2)	64 (2.5)	105 (4.1)	80 (3.1)	0.9 (2.0)
20 (3/4)	83 (3.3)	115 (4.5)	80 (3.1)	1.8 (4.0)
25 (1)	108 (4.3)	135 (5.3)	120 (4.7)	3.0 (6.6)
32 (1 1/4)	121 (4.7)	135 (5.3)	120 (4.7)	3.2 (7.0)
40 (1 1/2)	140 (5.5)	135 (5.3)	120 (4.7)	3.5 (7.7)
50 (2)	165 (6.5)	175 (6.9)	180 (7.1)	6.5 (14.3)
65 (2 1/2)	203 (8.0)	200 (7.9)	180 (7.1)	11 (24.3)
80 (3)	254 (10.0)	250 (9.8)	250 (9.8)	22 (48.5)
100 (4)	-	-	-	-

### Materials

Body/Bonnet/Compressor	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040 / S G Iron EN-1563 No.EN-JS1024, Cast Steel ASTM A743 Gr. CC50 / ASTM A216 Gr. WCB / Stainless Steel : ASTM A351 Gr. CF8 / CF8M / CN7M
Diaphragm	Natural / Butyl / Neoprene / EPDM / Nitrile / Hypalon / Viton / Silicon / PTFE etc.
Stem	Steel ASTM A276 TYPE 410
Connecting studs / nuts	Steel Gr. 4.6 / 4
Handwheel	Cast Iron ASTM A126 Class B / EN-1561 No.EN-JL1040
Surface Protection for Cast Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional external coating : Black Stoving Enamel

1) Net in Kg. (lbs) approx. (without obligation) ■ Face to Face Dimension (A) as per 'KFEL' Standard ■ Standard Screwed ends to have BS : 21 (Parallel or Taper) or ASME B1.20.1 (NPT) threads. Socket Weld ends as per ASME B16.11 & Butt Weld ends as per ASME B16.25 suitable for schedule 40/40S. ■ Please specify Working Pressure, Temperature & Service conditions.  
■ Valves can be supplied with Pad - lock, Chainwheel, Travel Stop Arrangement, Extended type Stem, Electrical / Pneumatic Actuators & other accessories like Limit Switch, Solenoid Valve, Air Filter Regulator, Positioner etc. ■ Other Materials not mentioned above available on request.

# DIAPHRAGMS

## SERIES 'S' & 'K'

KFEL elastomer technology has led to the development of a range of diaphragm grades to suit the widest variety of process applications.



SERIES 'S' CLOSE TYPE



SERIES 'S' OPEN TYPE



SERIES 'S' PTFE WITH ELASTOMER PAD



SERIES 'K' CLOSE TYPE

### TYPICAL SELECTION AND APPLICATION


GRADE	MATERIAL	APPLICATION	TEMP RANGE °C (°F)	HARDNESS IN SHORE - A	UTS Kg/cm <sup>2</sup> (psi)	COLOUR CODE
A	Natural Rubber	Mildly acid Resistant	-30 To 80 (-22 To 176)	65 - 75	170 (2418)	White
AA	Natural Rubber	Abrasion Resistant	-30 To 80 (-22 To 176)	60 - 70	150 (2134)	White
AS	Natural Rubber	Highly Abrasion Resistant	-30 To 80 (-22 To 176)	45 - 55	150 (2134)	White
WA	White Natural Rubber	Food & Pharmaceuticals	-10 To 80 (14 To 176)	55 - 65	100 (1422)	White
N	Neoprene Rubber	Diluted Acid Resistant	-25 To 95 (-13 To 203)	60 - 70	120 (1707)	Red
NWT	Neoprene Rubber	Water Treatment	-25 To 95 (-13 To 203)	60 - 70	120 (1707)	Red
NCMS	Neoprene Rubber	Caustic Soda	-25 To 95 (-13 To 203)	60 - 70	120 (1707)	Red
B	Butyl Rubber	Steam Sterilisation	-25 To 120 (-13 To 248)	60 - 70	100 (1422)	Blue
WB	White Butyl Rubber	Food & Pharmaceuticals	-25 To 105 (-13 To 221)	55 - 65	80 (1138)	Blue
R	Nitrile Rubber	Oils and Fats	-10 To 90 (14 To 194)	65 - 75	120 (1707)	Yellow
H	Hypalon Rubber	Acid Resistant	-15 To 100 (5 To 212)	60 - 70	80 (1138)	Green
EP	Ethylene Propylene	Radio Active Materials	-30 To 150 (-22 To 302)	65 - 75	80 (1138)	Orange
V	Viton Rubber	Aromatics Chlorine	-5 To 150 (23 To 302)	70 - 80	70 (996)	Pink
S	Silicon Rubber	High Temperatures	-100 To 250 (-148 To 482)	55 - 65	70 (996)	Black
T	PTFE	All Chemicals and Food	-30 To 175 (-22 To 347)	-	-	-

### TECHNICAL DATA FOR FLUOROPOLYMER RESIN

RESIN	TECHNICAL NAME	TRADE NAME	TEMP RANGE °C (°F)	MELTING PT. °C (°F)
PTFE	Poly Tetra Fluoro Ethylene	Teflon	-50 To 260 (-58 To 500)	327 (621)
PFA	Per Fluoro Alkoxy	Teflon	-50 To 260 (-58 To 500)	310 (590)
ETFE	Ethylene Tetra Fluoro Ethylene	Tefzel	-50 To 180 (-58 To 356)	240 (464)
FEP	Fluorinated Ethylene Propylene	Teflon	-50 To 200 (-58 To 392)	265 (509)
ECTFE	Ethylene Chloro Trifluoro Ethylene	Halar	-50 To 170 (-58 To 338)	240 (464)
PVDF	Poly Vinylidene Fluoride	Kynar	-50 To 140 (-58 To 284)	160 (320)
PP	Poly Propylene	-	-50 To 120 (-58 To 248)	150 (302)

**General Application :** Highly corrosive fluids, acids, alkalies, chlorides, semiconductors, etc.

**Every Genuine KFEL Diaphragm has moulded in details.**

1) The  LOGO. 2) Size in mm (inch). 3) Diaphragm grade. 4) Month and Year of manufacture. 5) Batch No. 6) Material code.

■ For Series 'K' Hardness will be 10° less than tha specified above. ■ Viton, Silicon & PTFE not available for Series 'K'.

# TECHNICAL DATA

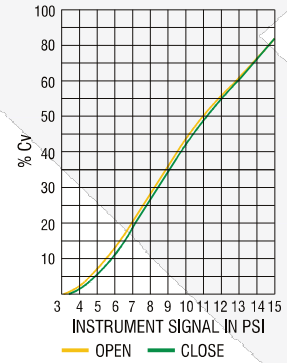
## DATA FOR MANUAL OPERATED VALVES

Valve Size mm (inch)	Series 'S'					Series 'K'				
	Stem Travel	Turns*	100% ΔP		Stem Travel	Turns*	100% ΔP			
			Torque Nm (ft. lbs.)	Closing Force N (lbs.)			Torque Nm (ft. lbs.)	Closing Force N (lbs.)		
6(1/4)/10(3/8)	6.4 (0.25)	2.250 (0.08)	0.8 (0.6)	250 (56)	6.0 (0.23)	3.00 (0.11)	-	-		
15 (1/2)	6.4 (0.25)	2.250 (0.08)	1.3 (0.9)	650 (146)	11.4 (0.44)	4.00 (0.15)	1.2 (0.9)	600 (135)		
20 (3/4)	9.5 (0.37)	3.250 (0.12)	2.2 (1.6)	1103 (248)	11.4 (0.44)	4.00 (0.15)	1.2 (0.9)	600 (135)		
25 (1)	12.7 (0.50)	4.250 (0.16)	3.1 (2.3)	1545 (347)	18.5 (0.72)	6.25 (0.24)	2.6 (1.9)	1300 (292)		
32 (1 1/4)	15.9 (0.62)	5.375 (0.21)	5.1 (3.8)	2529 (568)	24.5 (0.96)	8.25 (0.32)	2.6 (1.9)	1300 (292)		
40 (1 1/2)	20.6 (0.81)	5.250 (0.20)	7.6 (5.6)	2853 (641)	24.5 (0.96)	8.25 (0.32)	2.6 (1.9)	1300 (292)		
50 (2)	28.6 (1.12)	7.250 (0.28)	12.0 (8.8)	4464 (1003)	34.4 (1.35)	8.75 (0.34)	8.7 (6.4)	3200 (719)		
65 (2 1/2)	34.9 (1.37)	8.750 (0.34)	16.2 (12.0)	6039 (1358)	42.9 (1.68)	10.75 (0.43)	12.0 (8.8)	4800 (1079)		
80 (3)	41.3 (1.62)	8.375 (0.32)	25.7 (19.0)	9502 (2136)	53.6 (2.11)	10.75 (0.43)	18.0 (13.3)	6200 (1394)		
100 (4)	54.0 (2.12)	11.000 (0.43)	39.0 (29.0)	14391 (3235)	57.8 (2.27)	11.75 (0.46)	26.0 (19.2)	9000 (2023)		
125 (5)	69.8 (2.74)	14.000 (0.55)	42.2 (31.0)	15638 (3515)	95.0 (3.74)	15.00 (0.59)	38.0 (28.0)	11000 (2473)		
150 (6)	79.4 (3.12)	13.250 (0.52)	72.5 (54.0)	21600 (4856)	108.0 (4.25)	18.00 (0.71)	48.0 (35.4)	14000 (3147)		
200 (8)	117.5 (4.62)	19.750 (0.77)	113.0 (83.0)	33852 (7610)	159.0 (6.25)	22.75 (0.89)	75.0 (55.3)	20000 (4496)		
250 (10)	142.9 (5.62)	24.000 (0.94)	115.0 (85.0)	34233 (7696)	190.5 (7.50)	27.25 (1.07)	90.0 (66.4)	24000 (5395)		
300 (12)	165.1 (6.50)	23.750 (0.93)	200.0 (148.0)	45868 (10311)	190.5 (7.50)	27.25 (1.07)	90.0 (66.4)	24000 (5395)		
350 (14)	225.0 (8.85)	32.250 (1.26)	263.0 (194.0)	60227 (13539)	190.5 (7.50)	27.25 (1.07)	105.0 (77.5)	27000 (6075)		

\* Between Open & Close Positions.  
Torque and Closing-Force values are for rated Working Pressure for 100% ΔP.  
For 0% ΔP multiply by 1.9 to the above values.

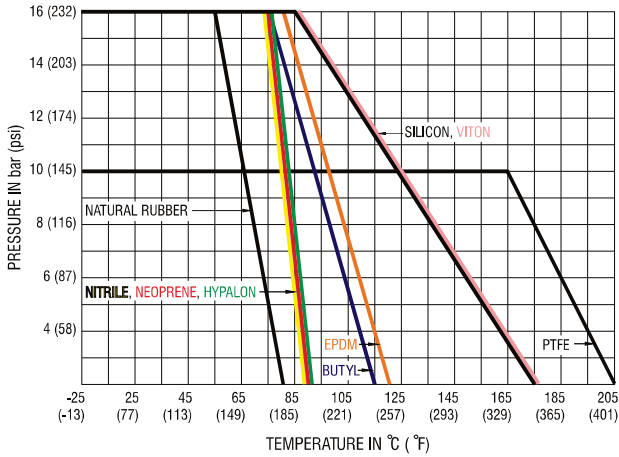
## FINE CONTROL

This hysteresis graph shows the installed characteristics of a typical BA control valve with positioner dependable, repeatable performance at a fraction of traditional control valve costs. Hysteresis error within 1% FS.

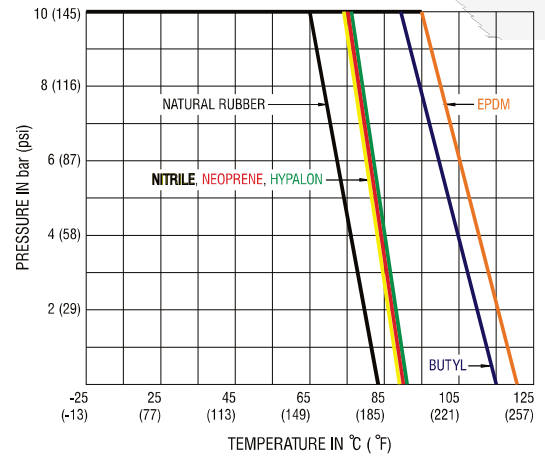


## PRESSURE TEMPERATURE RATING

### SERIES - 'S' WEIR TYPE

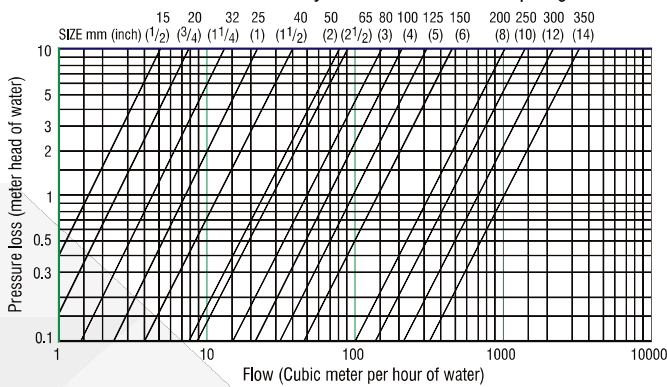


### SERIES - 'K' STRAIGHT THROUGH TYPE

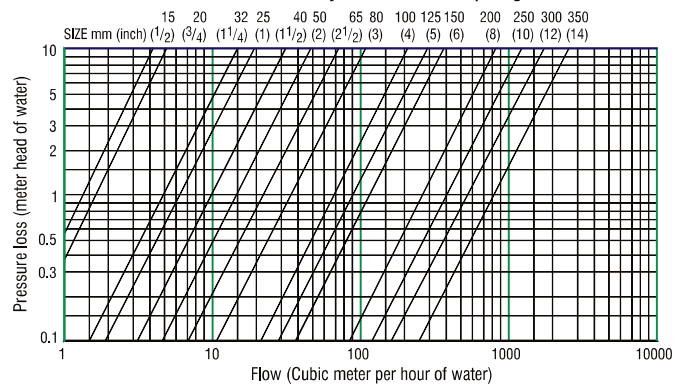


## SERIES - 'S' WEIR TYPE

### Metal / PFA Lined body - Elastomer / PTFE Diaphragm

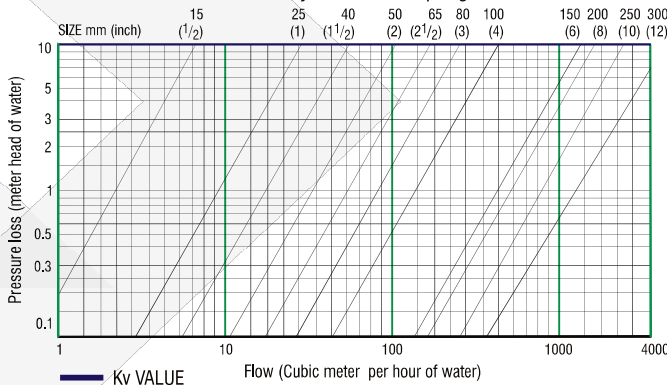


### Rubber lined Body - Elastomer Diaphragm

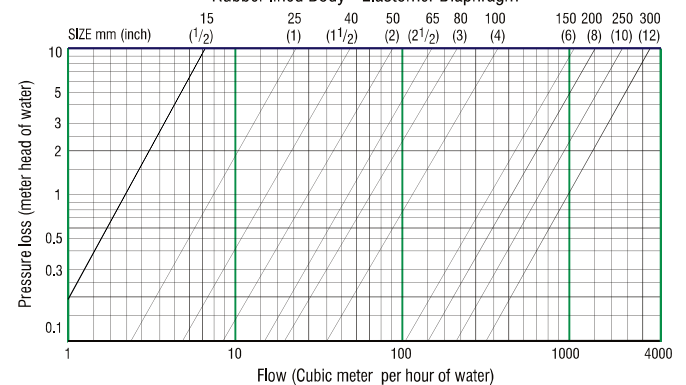


## SERIES - 'K' STRAIGHT THROUGH TYPE

### Metal body - Elastomer Diaphragm

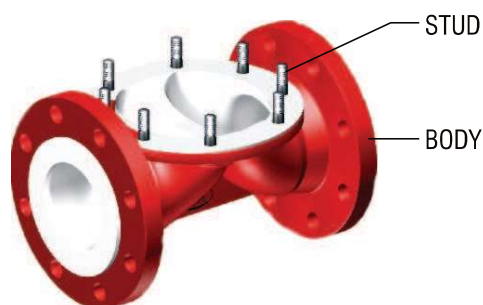
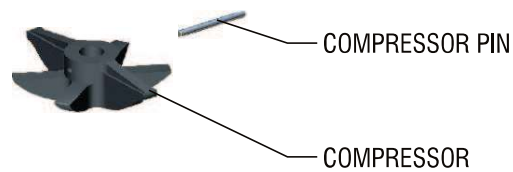
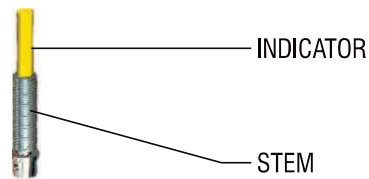
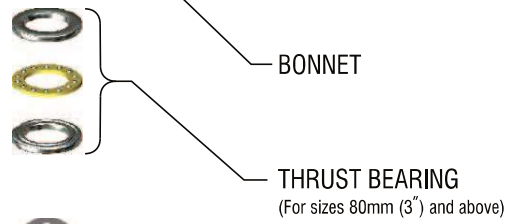
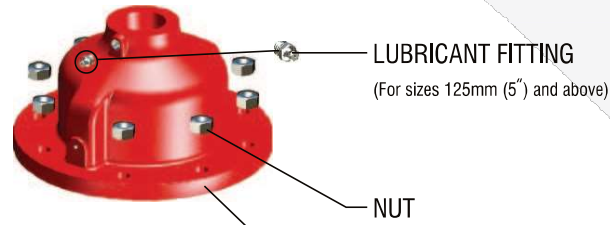


### Rubber lined Body - Elastomer Diaphragm

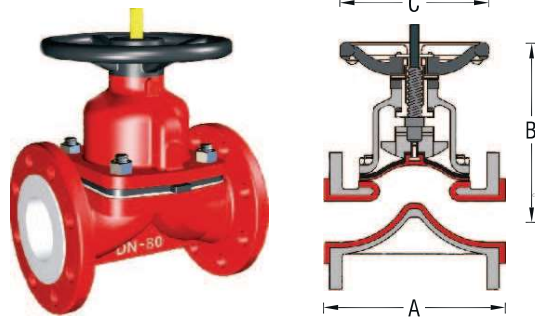


# PFA LINED DIAPHRAGM VALVES

## VALVE PARTS



# PFA LINED VALVES



DESIGN STD : BS EN 13397. TESTING STD : EN 12266 - 1

Test Pressure in bar (psi)			
Pressure rating		PN5	PN10
Hyd.	Shell	7.5 (109)	15 (218)
	Seat	5 (73)	10 (145)
Air	Seat	5 (73)	

Dimensions are in mm (Inch)

SIZE mm (Inch)	A			B	C	Wt 1)
	BS	DIN	MSS SP-88			
15 (1/2)	114 (4.5)	130 (5.1)	108 (4.3)	92 (3.6)	70 (2.8)	2.5 (5.5)
20 (3/4)	123 (4.8)	150 (5.9)	149 (5.9)	100 (3.9)	70 (2.8)	3.0 (6.6)
25 (1)	133 (5.2)	160 (6.3)	149 (5.9)	114 (4.5)	100 (3.9)	4.0 (8.8)
32 (1 1/4)	152 (6.0)	180 (7.1)	159 (6.3)	115 (4.5)	100 (3.9)	5.5 (12)
40 (1 1/2)	165 (6.5)	200 (7.9)	176 (6.9)	153 (6.0)	140 (5.5)	7.5 (17)
50 (2)	196 (7.7)	230 (9.1)	202 (8.0)	160 (6.3)	140 (5.5)	11 (24)
65 (2 1/2)	222 (8.7)	290 (11.4)	226 (8.9)	180 (7.1)	180 (7.1)	16 (35)
80 (3)	260 (10.2)	310 (12.2)	264 (10.4)	233 (9.2)	225 (8.9)	23 (51)
100 (4)	311 (12.2)	350 (13.8)	329 (13.0)	256 (10.1)	225 (8.9)	37 (82)
125 (5)	362 (14.3)	400 (15.7)	416 (16.4)	306 (12.0)	310 (12.2)	64 (141)
150 (6)	412 (16.2)	480 (18.9)	416 (16.4)	368 (14.5)	368 (14.5)	91 (201)
200 (8)	527 (20.7)	600 (23.6)	530 (20.9)	479 (18.8)	471 (18.5)	165 (364)

## Materials

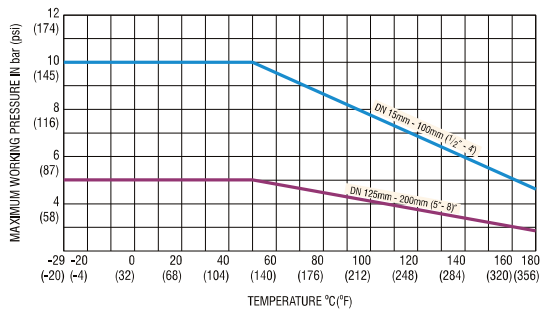
Body	Ductile Iron ASTM A395 Gr. 60 - 40 - 18 / S.G. Iron EN-1563 No.EN-JS1024 / Steel : ASTM A216 Gr. WCB Stainless Steel ASTM A351 Gr. CF8 / CF8M
Body Lining	PFA / ETFE / FEP / PP / PVDF
Bonnet / Compressor	Cast Iron EN-1561 No.EN-JL1040
Diaphragm	PTFE
Backup Pad	Neoprene / EPDM / Butyl / Viton
Bushing	S.G. Iron EN 1563 No.EN-JS1050
Connecting studs / nuts	Steel ASTM A193 B7 / A194 Gr. 2H
Surface Protection for Ductile Iron and Cast Carbon Steel Valves	Prime Coat : Chlorine free with modified alkyd resin unobjectionable in physiological and toxicological respects. Additional External Coating : Enamel Red.

## TECHNICAL DATA

BREAK AWAY TORQUE VALUE Nm (ft. lbs.)

SIZE mm (Inch)	
15 (1/2)	5.5 (4)
20 (3/4)	7 (5)
25 (1)	10 (7)
40 (1 1/2)	20 (15)
50 (2)	35 (26)
65 (2 1/2)	28 (21)
80 (3)	40 (37)
100 (4)	60 (44)
125 (5)	-
150 (6)	50 (37)
200 (8)	74 (55)

## PRESSURE TEMPERATURE RATING



1) Nett in Kg. (lbs) approx. (without obligation) ■ Pressure Rating : PN5 For Sizes 125mm (5") and above. ■ Face to Face Dimension (A) as per DIN EN 558-1. ■ Valves can be supplied to suit ASME/ BS/ DIN Flanges. ■ Travel Stop Arrangement can be supplied on request. ■ Please Specify Working Pressure, Temperature & Service conditions. ■ Valves can be supplied with auxiliary arrangements like Pad - lock, Chainwheel, Travel Stop Arrangement, Extended stem, Electrical / Pneumatic Actuators etc. ■ Materials not mentioned above available on request.



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