



RIENZI PRODUCT CATALOGUE

Knife Gate, Non-Return and Foot Valves

Designed and Manufactured
in South Africa





KNIFE GATE VALVE

PRODUCT DESCRIPTION

Dupleix Liquid Meters' Renzi Knife Gate Valves are ideally suited for abrasive duty applications. These valves are designed and manufactured in South Africa, and come in a variety of materials with a range of actuator options.

While standard valves are available for pressure of up to 1600 kPa, the Renzi Knife Gate Valves can be manufactured to suit specific temperature and pressure needs and can be supplied unlined for clean water service.



FEATURES

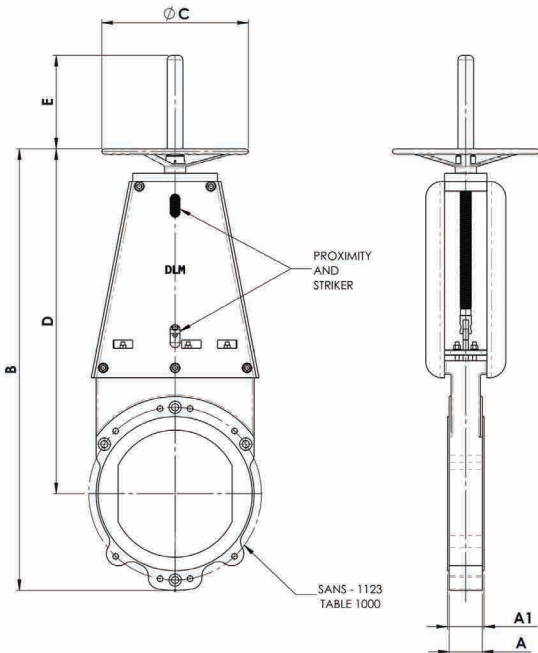
- No bottom cavity where material can accumulate and prevent proper seating.
- The valve free flow bore, minimises turbulence thereby significantly reducing wear.
- Self cleaning guides allow for easy cleaning.
- Renzi's sealing arrangement allows for bi-directional flow.
- Renzi's unique rubber lining process means:
 - Longer life due to wear characteristics of natural rubber.
 - True bonding is achieved, which prevents lifting.
 - Additional rubber on the lower sealing surface ensures bubble tight seal even if small particles are trapped under the blade. This prevents the extremely harmful corner leakage, a well-known initiator of blade failure.
- Pressure ratings of up to 1600 kPa are available as a standard. Valves suited for higher pressures and temperatures are available on request.
- Robust a-frame support with slotted holes to suit proximity sensors.
- Valves fitted with spindle bellow for protection.

TYPICAL APPLICATIONS

Successful Applications include:

- Soda Ash Water
- Mineral Sands
- Coal Slurry
- Sewerage Waste
- Mine Tailings and Slimes
- Diamond Slurries
- Paper Pulp Pipelines
- Power Station Fly Ash & Ash Water

TECHNICAL SPECIFICATION



DESCRIPTION

- Handwheel
- Spindle
- Gland
- Packing
- Body
- Blade
- Lubrication Nipple
- A-Frame
- Bridge Plate
- Lining

MATERIAL

- SG Iron*
- Stainless Steel Gr304*
- Mild Steel 350WA plated
- PTFE Impregnated Flax*
- SG Iron*
- Stainless Steel Gr 304*
- Stainless Steel Gr 316
- Zinc Plated Steel
- Mild Steel 350WA plated
- Mild Steel 350WA plated
- Natural Rubber
- Polyurethane
- Unlined

*Standard

OPTIONS INCLUDE:

- Handwheel operated
- Gearbox operated
- Electric actuators
- Pneumatic actuators
- Hydraulic actuators
- Chain Wheel Operated

DIMENSIONS

SIZE (mm)

	50	65	80	100	150	200	250	300	350	400	450	500	600
A	40	42	44	54	70	72	76	80	96	100	108	110	111
A1	46	48	50	61	77	78	83	87	103	107	115	117	119
B	365	390	485	485	700	835	965	1115	1210	1345	1530	1635	1840
C	195	320	320	320	375	375	455	455	675	675	675	675	675
D	260	345	345	365	510	545	705	745	820	1030	1165	1300	1485
E	50	65	80	100	150	200	250	300	350	400	450	500	600
Mass (kg)	7	10	13	17	40	54	76	94	150	188	248	278	406

Larger sizes available on request.

KNIFE GATE VALVE



KGV Thrust Chart in kgF

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900
BARS																		
7	-	-	-	-	-	-	-	563.2	850.6	1123.9	1439.3	1796.7	2196.1	3121.1	4265.8	4875.5	5527.2	6956.8
10	82.6	103.4	129.5	172.7	240.3	322.9	533.1	-	-	-	-	-	-	-	-	-	-	-
16	130.7	163.8	205.7	274.9	383.0	515.1	851.5	1284.0	1939.0	2563.7	3284.5	4101.4	5014.4	7128.8	9743.9	11137.4	12627.1	15894.7

Torque Chart in Nm

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900
BARS																		
7	-	-	-	-	-	-	-	-	150.1	198.4	254.1	317.1	387.7	550.9	1255.0	1434.4	1626.1	2046.7
10	6.5	8.1	10.2	13.6	18.9	25.3	41.8	63.0	-	-	-	-	-	-	-	-	-	-
16	10.3	12.9	16.1	21.6	30.0	40.4	66.8	100.7	342.3	452.5	579.8	724.0	885.1	1258.4	2866.6	3276.6	3714.9	4676.2

For abrasive applications, deflector cones can be supplied to fit between the valve body and flange with the purpose of diverting flow away from the seat areas.



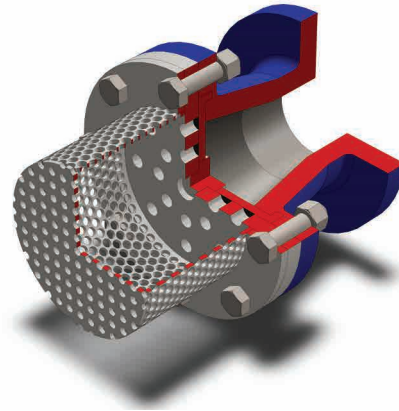
DIAPHRAGM FOOT VALVE

PRODUCT DESCRIPTION

RIENZI #116 – FLANGED FOOT VALVES

Dupleix Liquid Meters' Rienzi flanged foot valves are available in 1600 kPa pressure ratings. Foot valves ensure clean consistent flow and are typically installed on the end of the suction line of a pump in a suction lift application.

They allow the pump to stay primed, allowing liquid to flow in, but keeping it from flowing back out. They are fitted with a strainer that covers the valve opening preventing any large particles from entering the pumping system causing damage.



FEATURES

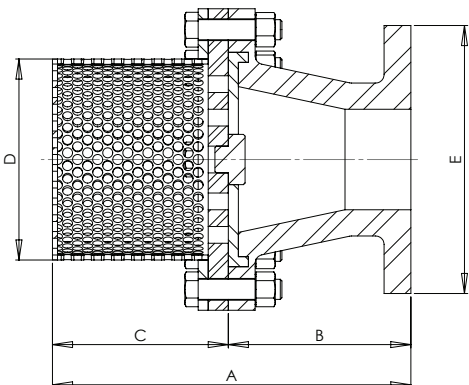
- Keep pumps primed preventing damage.
- Silent operation.
- Low pressure drops, helps save energy.
- Very effective in preventing water hammer.
- Low maintenance due to few moving parts.
- Protects pumps and equipment from reverse flow.

TYPICAL APPLICATIONS

Used on pump stations in the below industries:

- Mining
- Agriculture
- Food and Beverage
- Petrochemical
- Water and Waste Water Reticulation

TECHNICAL SPECIFICATION



DESCRIPTION

MATERIAL

- Body SG Iron*
- Centre Plate Mild steel 350WA
- Diaphragm EPDM
- Strainer Perforated mild steel plate (8mm holes)
- Ends Flanged (50mm upwards)
- Pressure Ratings Model 116 = 1600kPa

*Standard

DIMENSIONS										
Size(mm)										
	50	80	100	150	200	250	300	350	400	450
A	219	274	284	300	318	344	433	466	490	579
B	113	146	151	163	171	184	229	247	260	307
C	106	128	133	137	147	160	204	219	230	272
D	110	150	190	300	365	415	500	590	645	740
E	182	235	280	398	475	525	620	720	790	900
Mass (kg)	13	20	27	50	69	96	132	176	258	294

Larger sizes available on request.

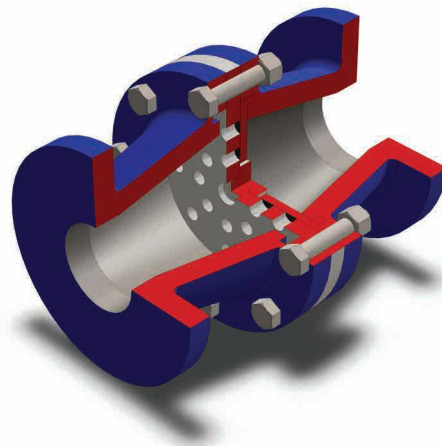
STANDARD DIAPHRAGM NON-RETURN VALVE

PRODUCT DESCRIPTION

RIENZI #516, #525 – FLANGED NON-RETURN VALVES

Dupleix Liquid Meters' Rienzi flanged non-return valves are available in 1600 kPa and 2500 kPa pressure ratings. Higher pressure ratings are available on request. Non-return valves allow a medium to flow in only one direction, ensuring flow is in the correct direction where pressure conditions may otherwise cause reverse flow thus protecting equipment from damage.

Rienzi flanged diaphragm non-return valves are designed using a flexible EPDM diaphragm to create a normally closed valve. Pressure on the upstream side must be greater than the pressure on the downstream side (pressure differential) for the non-return valve to open and allow flow. Once there is no pressure differential, the diaphragm automatically flexes back to its original closed position.



FEATURES

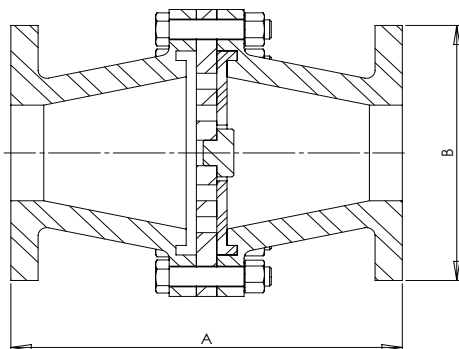
- Silent operation.
- Low pressure drops, helps save energy.
- Very effective in preventing water hammer.
- Low maintenance due to few moving parts.
- Protects pumps and equipment from reverse flow.
- Can be installed vertically or horizontally.
- External levers and counterweights not required.

TYPICAL APPLICATIONS

Used on pipe systems in the below industries:

- Mining
- Agriculture
- Food and Beverage
- Petrochemical
- Water and Waste Water Reticulation

TECHNICAL SPECIFICATION



DESCRIPTION

- Body
- Centre Plate
- Diaphragm
- Ends
- Pressure Ratings

MATERIAL

SG Iron*
350WA
EPDM
Flanged (50mm upwards)
Model 516 = 1600kPa
Model 525 = 2500kPa

*Standard

DIMENSIONS													
SIZE (mm)													
		50	80	100	150	200	250	300	350	400	450	500	600
516	A	218	280	290	310	326	352	442	474	500	589	655	821
	B	182	235	280	398	475	525	620	720	790	900	1010	1265
	Mass (Kg)	20	31	43	79	110	153	209	280	410	466	600	875
525	A	218	280	290	310	326	356	446	474	500	589	655	821
	B	182	235	280	398	475	525	620	720	790	900	1010	1265
	Mass(kg)	21	32	44	81	112	156	213	286	418	475	612	893

WAFER NON-RETURN VALVE

PRODUCT DESCRIPTION

RIENZI #316, #325 – WAFER STYLE NON-RETURN VALVES

Dupleix Liquid Meters’ Rienzi wafer style non-return valves are available in 1600 kPa and 2500 kPa pressure ratings. Higher pressure ratings available on request. Non-return valves allow a medium to flow in only one direction, ensuring flow is in the correct direction where pressure conditions may otherwise cause reverse flow thus protecting equipment from damage.

Rienzi wafer style diaphragm non-return valves are designed using a flexible EPDM diaphragm to create a normally closed valve. Pressure on the upstream side must be greater than the pressure on the downstream side (pressure differential) for the non-return valve to open and allow flow. Once there is no pressure differential, the diaphragm automatically flexes back to its original closed position.



WAFER NON-RETURN VALVE



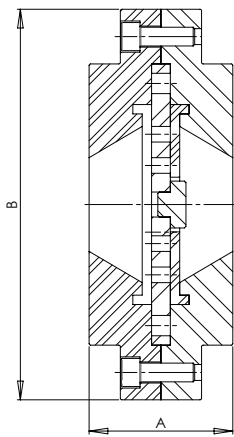
FEATURES

- Shorter face to face dimension.
- Lighter than conventional non-return valves.
- Silent operation.
- Low pressure drops, helps to save energy.
- Very effective in preventing water hammer.
- Low maintenance due to few moving parts.
- Protects pumps and equipment from reverse flow.
- Can be installed vertically or horizontally.
- External levers and counterweights not required.

TYPICAL APPLICATIONS

Used on pipe systems in the below industries:

- Mining
- Agriculture
- Food and Beverage
- Petrochemical
- Water and Waste Water Reticulation



TECHNICAL SPECIFICATION

DESCRIPTION

- Body
- Centre Plate
- Diaphragm
- Pressure Ratings

*Standard

MATERIAL

SG IRON*
350WA
EPDM
Model 316=1600kPa
Model 325=2500kPa

DIMENSIONS

SIZE (mm)							
	50	80	100	150	200	250	300
A	42	62	64	76	90	114	114
B	108	141	162	220	275	330	380
Mass (kg)	3	6	10	19	35	60	90

WAFER SLIM NON-RETURN VALVE

PRODUCT DESCRIPTION

RIENZI #916 – WAFER SLIM NON-RETURN VALVES

Dupleix Liquid Meters' Rienzi wafer slim single flap non-return valves are designed and manufactured in South Africa. Standard valves are available in 1600 kPa pressure ratings.

Non-return valves allow a medium to flow in only one direction, ensuring flow is in the correct direction where pressure conditions may otherwise cause reverse flow thus protecting equipment from damage.

Rienzi slim single flap type non-returns have a movable part to block the flow. This swings on a hinge onto the seat to block reverse flow or off the seat to allow forward flow. The seat opening cross-section is perpendicular to the centerline between the two ports.



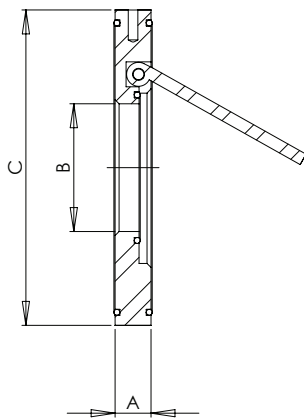
FEATURES

- Shorter face to face dimension.
- Lighter than conventional non-return valves.
- Allows full unobstructed flow.
- Protects pumps and equipment from reverse flow.
- External levers and counterweights not required.
- Fitted with an o-ring on the seat for bubble tight shut off.
- Flat face flange with o-ring seal.

TYPICAL APPLICATIONS

Used on pipe systems in the below industries:

- Mining
- Agriculture
- Food and Beverage
- Petrochemical
- Water and Waste Water Reticulation



TECHNICAL SPECIFICATION

DESCRIPTION

MATERIAL

- Body: Mild Steel 350WA Plated, Stainless Steel 316
- Disc: Stainless Steel 316
- Spring: Stainless Steel
- O-Ring: Viton, Nitrile Rubber or P.T.F.E.
- Eye Bolt: Mild Steel, Stainless Steel

DIMENSIONS

Size (mm)

		50	80	100	150	200	250	300	350	400	450	500
1600 kPa	A	18	18	18	22	30	33	40	40	51	51	62
	B	26	48	70	116	142	180	220	266	306	360	408
	C	109	144	164	220	276	330	380	440	498	558	620
Mass (kg)		1.5	2.2	2.8	5.4	12	17	25	38	-	-	-

FLANGE DRILLINGS

mm	BS.10,--- T/D, T/E, T/F			ANSI B16.5--- 150, 300, 600		
	NO OF HOLES	HOLE DIA.	P.C.D	NO OF HOLES	HOLE DIA.	P.C.D
15	4	14	67	4	16	60, 67, 67
20	4	14	73	4	16, 19, 19	70, 83, 83
25	4	14, 14, 17	83, 83, 87	4	16, 19, 19	79, 89, 89
32	4	14, 14, 17	87, 87, 98	4	16, 19, 19	89, 98, 98
40	4	14, 14, 17	98, 98, 105	4	16, 22, 22	98, 114, 114
50	4	17	114, 114, 127	4, 8, 8	19	121, 127, 127
65	4, 4, 8	17	127, 127, 146	4, 8, 8	19, 22, 22	140, 149, 149
80	4, 4, 8	17	146, 146, 165	4, 8, 8	19, 22, 22	152, 168, 168
100	4, 8, 8	17	178, 178, 191	8	19, 22, 25	191, 200, 216
125	8	17, 17, 22	210, 210, 235	8	22, 22, 29	216, 235, 267
150	8, 8, 12	17, 22, 22	235, 235, 260	8, 12, 12	22, 22, 29	241, 270, 292
200	8, 8, 12	17, 22, 22	292, 292, 324	8, 12, 12	22, 25, 32	298, 330, 349
250	8, 12, 12	22, 22, 25	356, 356, 381	12, 16, 16	25, 29, 35	362, 387, 432
300	12, 12, 16	22, 25, 25	406, 406, 438	12, 16, 20	25, 32, 35	432, 451, 489
350	12, 12, 16	25, 25, 29	470, 470, 495	12, 20, 20	29, 32, 38	476, 514, 527
400	12, 12, 20	25, 25, 29	521, 521, 552	16, 20, 20	29, 35, 41	540, 572, 603
450	12, 16, 20	25, 25, 32	584, 584, 610	16, 24, 20	32, 35, 44	578, 629, 654
500	16, 16, 24	25, 25, 32	641, 641, 673	20, 24, 24	32, 35, 44	635, 686, 724
600	16, 16, 24	29, 32, 35	756, 756, 781	20, 24, 24	35, 41, 51	749, 813, 838

mm	SANS 1123---T1000; T1600; T2500; T4000			BS4504---T10,T16,T25, T40		
	NO OF HOLES	HOLE DIA.	P.C.D	NO OF HOLES	HOLE DIA.	P.C.D
15	4	14	65	4	14	65
20	4	14	75	4	14	75
25	4	14	85	4	14	85
32	4	18	100	4	18	100
40	4	18	110	4	18	110
50	4	18	125	4	18	125
65	4, 4, 8, 8	18	145	4, 4, 8, 8	18	145
80	8	18	160	8	18	160
100	8	18, 18, 22, 22	180, 180, 190, 190	8	18, 18, 22, 22	180, 180, 190, 190
125	8	18, 18, 26, 26	210, 210, 220, 220	8	18, 18, 26, 26	210, 210, 220, 220
150	8	22, 22, 26, 26	240, 240, 250, 250	8	22, 22, 26, 26	240, 240, 250, 250
200	8, 12, 12, 12	22, 22, 26, 26	295, 295, 310, 320	8, 12, 12, 12,	22, 22, 26, 30	295, 295, 310, 320
250	12	22, 26, 26, 33	350, 355, 370, 385	12	22, 26, 30, 33	350, 355, 370, 385
300	12, 12, 16, 16	22, 26, 26, 33	400, 410, 430, 450	12, 12, 16, 16	22, 26, 30, 33	400, 410, 430, 450
350	16	22, 26, 33, 33	460, 470, 490, 510	16	22, 26, 33, 36	460, 470, 490, 510
400	16	26, 26, 33, 39	515, 525, 550, 585	16	26, 30, 36, 39	515, 525, 550, 585
450	20	26, 26, 33, 39	565, 585, 600, 610	20	26, 30, 36, 39	565, 585, 600, 610
500	20	26, 33, 33, 39	620, 650, 660, 670	20	26, 33, 36, 42	620, 650, 660, 670
600	20	26, 33, 39 No T 40	725, 770, 770 No T 40	20	30, 36, 39, 48	725, 770, 770, 795



With over 60 years' experience, Dupleix Liquid Meters (DLM) offers expert advice on a comprehensive range of products. We are renowned for providing the right solutions for overpressure protection; flow, level and density measurement; automation and control requirements. The company maintains a substantial stock holding and has a branch infrastructure capable of providing skilled technical and sales service.

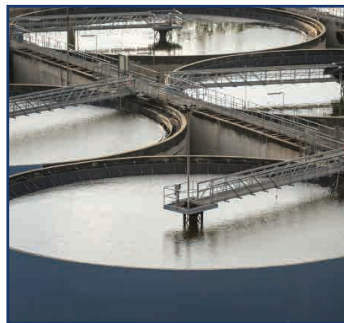
DLM's products are either locally manufactured or distributed in terms of license agreements with overseas suppliers. DLM has in-house technicians to service products, an engineering team that is capable of delivering small projects as well as a workshop and test facility. The company is ready to offer its customers the knowledge and support required.



Our Main Industries:



Slurries



Waste Water



Mining



Petrochemical



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