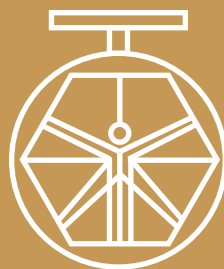


**GROUP 850  
KNIFE VALVES  
MOD.850A/94**



**DAVINCI  
VALVES™**

**TECHNICAL  
DATA SHEET**

**INDUSTRY Series**

**BIDIRECTIONAL SELF-SEALING MEDIUM  
PRESSURE KNIFE VALVE**

**DAVINCI  
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**QUALITY  
ASSUREMENT**

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**PRODUCT QT  
ASSUREMENT**

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10F/Tower A, Billion Center,  
1 Wang Kwong Road, Kowloon Bay  
Kowloon HONG KONG

## BIDIRECTIONAL SELF-SEALING MEDIUM PRESSURE KNIFE VALVE

ref.850A / PN 10-16



**MODEL:** 850A

**WORKING PRESSURE:**

DN50-DN200 16Bar  
DN250-DN600 10Bar  
DN650-DN700 8Bar  
DN750-DN1000 6Bar






**STANDARDS:**

Type: Wafer, Lug, Flange  
Design: MSS SP-81  
Flange Standard: DIN PN10, PN16, 150LB, JIS 10K, TABLE E/D  
Face to Face: MSS SP-81  
Testing Standard: API-598  
Operation: handwheel, electric, pneumatic, hydraulic, sprocket, electro-hydraulic, gear

**GENERAL CHARACTERISTICS:**

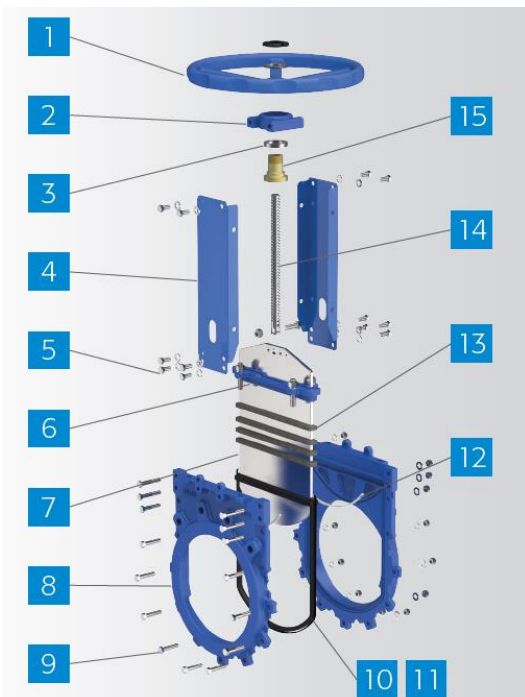
Main Material: GGG40  
Wedge Material: SS316L, SS304  
Sealing Material: EPDM  
Packing: Aramid fiber, high-water-based, rubber packing graphite  
Applicable medium: Applicable for coal in power plant, slag discharge, sewage treatment, food, paper making, medicine, petroleum and chemical industry, water, Oil, steam, connecting or cutting grout, gold powder, ores, slag, coal, pulp, wood pulp, tailings, fibers, dust, chemicals, sewage treatment, sedimentation tanks, asphalt, bunker export, cereals, slaughter plant waste and other media.

**FEATURES:**

-  Bi-directional seal
-  2PC Body design
-  Full port design
-  Fluid without retention in valve body # 2PC Strong yoke design
-  Mixed with a variety of materials packing

**PRODUCT DESCRIPTION:**

850A Series No groove bi-directional seal knife gate valve, cast iron body with the overall structure knife gate valve, including valve' body, gate, and U-shaped flexible seal at the bottom of the body with grooves. When the valve is closed, the bottom of the gate edge contact with the seal and then compress the seal into the groove in the body and sealed gate realization; when the gate opens, separate gate from the bottom edge of the seal, seal will bounce to same level as groove, which will prevent the media sediment accumulated in the body cavity of the groove, no clogging, no residue, pipe easy to clean, so as to effectively improve the sealing effect knife gate valve to prevent leakage when the valve is closed.



No.	Part	Material	QTY
1	Hand Wheel	GGG40	1
2	Yoke Flange	GGG40	1
3	Bearing	ZChSnSb10-6	2
4	Yoke	Q235	2
5	Bolt & Nut	Fe+Zn/SS304	N
6	Packing Gland	WCB/CF8	1
7	Gate Disc	SS304/SS316L	1
8	Body	WCB, CF3M, CF8M, CF8, GGG40	2
9	Bolt	Fe+Zn/SS304	N
10	Seat	EPDM/NBR/FKM	1
11	Body Sealing	EPDM	1
12	Scraper	PTFE	2
13	Pcking	PTFE+EPDM	3-5
14	Stem	2Cr13/SS304/SS316	1
15	Stem Nut	Brass	1

All the components can be substituted with equivalent or higher-class materials.

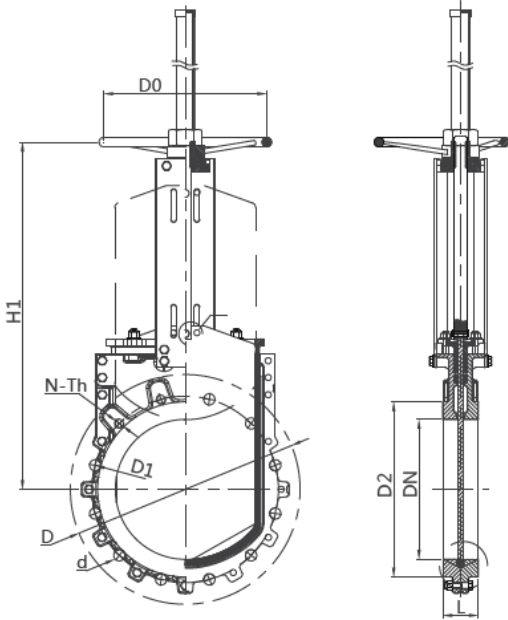
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## BIDIRECTIONAL SELF-SEALING MEDIUM PRESSURE KNIFE VALVE

ref.850A / PN 10-16

### DIMENSION



DIN2632 PN10								
DN	L	D	D1	D2	D0	N-Th	d(φ)	H1
50	48	165	125	99	180	4-M16	18	265
65	48	185	145	118	200	4-M16	18	290
80	51	200	160	132	200	8-M16	18	330
100	51	220	180	156	240	8-M16	18	360
125	57	250	210	184	260	8-M20	18	400
150	57	285	240	211	280	8-M20	23	450
200	70	340	295	266	300	12-M20	23	530
250	70	395	350	319	320	12-M20	23	595
300	76	445	400	370	350	16-M20	23	660
350	76	505	460	429	400	16-M24	23	760
400	89	565	515	480	450	16-M20	27	850
450	89	615	565	530	500	16-M24	27	940
500	114	670	620	582	500	20-M24	27	1050
550	114	725	680	638		20-M27	30	Gear
600	114	780	725	682		20-M27	30	Gear
700	127	895	840	794		24-M27	30	Gear
800	127	1015	950	901		24-M30	30	Gear
900	127	1115	1050	1001		28-M30	30	Gear
1000	149	1230	1160	1112		28-M33	30	Gear
1100	149	1340	1260	1220		28-M33	30	Gear
1200	156	1455	1380	1328		32-M36	30	Gear
1350	171	1630	1540	1480		36-M39	30	Gear
1400	171	1675	1590	1530		36-M39	30	Gear
1500	198	1795	1705	1640		40-M39	30	Gear
1600	198	1915	1820	1750		40-M45	30	Gear
1800	219	2115	2020	1950		44-M45	30	Gear
2000	250	2325	2230	2150		48-M45	30	Gear

ANSI 150LB								
DN	L	D	D1	D2	D0	N-Th	d(φ)	H1
2"	48	152	121	92	180	4-5/8"	19	260
2-1/2"	48	178	140	105	200	4-5/8"	19	292
3"	51	191	153	127	200	4-5/8"	19	320
4"	51	229	191	157	240	8-5/8"	19	358
5"	57	254	216	186	260	8-3/4"	22	395
6"	57	279	242	216	280	8-3/4"	22	450
8"	70	343	299	270	300	8-3/4"	22	532
10"	70	406	362	324	320	12-7/8"	25	670
12"	76	483	432	381	350	12-7/8"	25	758
14"	76	533	476	413	400	12-1"	29	857
16"	89	597	540	470	450	16-1"	29	946
18"	86	635	578	533	500	16-1 1/8"	32	1023
20"	114	699	635	584	500	20-1 1/8"	32	Gear
22"	114	750	692	641		20-1 1/4"	35	Gear
24"	114	813	750	691		24-1 1/4"	35	Gear
26"	114	870	806	749		28-1 1/4"	35	Gear
28"	127	927	864	800		28-1 1/4"	35	Gear
30"	127	985	914	857		28-1 1/2"	41	Gear
32"	127	1060	978	914		32-1 1/2"	41	Gear
34"	127	1110	1029	965		32-1 1/2"	41	Gear
36"	127	1170	1086	1022		32-1 1/2"	41	Gear
38"	149	1240	1149	1073		36-1 1/2"	41	Gear
40"	149	1290	1200	1124		36-1 1/2"	41	Gear
42"	149	1345	1257	1194		40-1 1/2"	41	Gear
44"	149	1405	1314	1245		40-1 1/2"	41	Gear
46"	149	1455	1365	1295		44-1 1/2"	41	Gear
48"	156	1510	1422	1359		44-1 3/4"	41	Gear
50"	156	1570	1480	1410		44-1 3/4"	51	Gear
52"	156	1625	1537	1461		44-1 3/4"	51	Gear

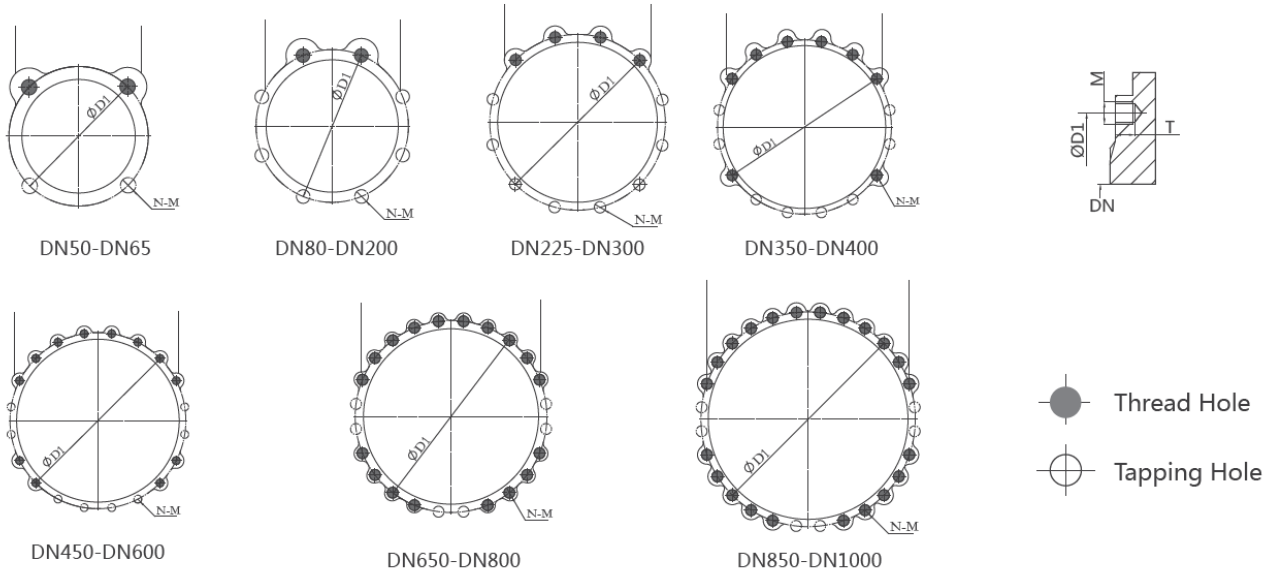
All the components can be substituted with equivalent or higher-class materials.

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## PN10 Threaded Hole and Tapping Hole



PN10						
DN	D1	N	M	T	Thread Hole	Tapping Hole
50	125	4	16	13	2	2
65	145	4	16	13	2	2
80	160	8	16	13	2	6
100	180	8	16	13	2	6
125	210	8	16	16	2	6
150	240	8	16	16	2	6
200	295	8	16	20	2	6
225	310	12	20	20	4	8
250	350	12	20	20	4	8
300	400	12	20	20	4	8
350	460	16	20	20	8	8
400	515	16	24	24	8	8
450	565	20	24	24	12	8
500	620	20	24	24	12	8
550	680	20	27	24	12	8
600	725	20	27	27	12	8
700	840	24	27	27	18	6
800	950	24	30	30	18	6
900	1050	28	30	30	22	6
1000	1160	28	33	33	22	6

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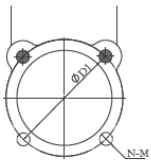
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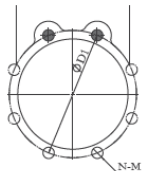
## BIDIRECTIONAL SELF-SEALING MEDIUM PRESSURE KNIFE VALVE

ref.850A / PN 10-16

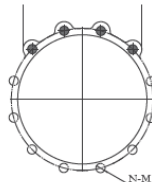
### 150LB Threaded Hole and Tapping Hole



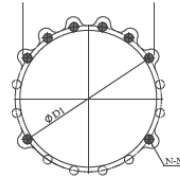
DN50-DN80



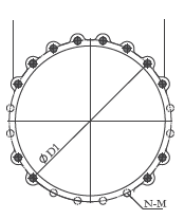
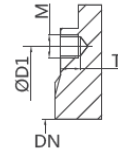
DN100-DN200



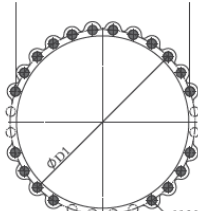
DN250-DN350



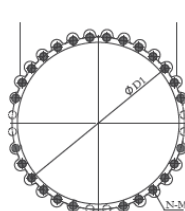
DN400-DN450



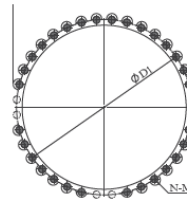
DN500-DN600



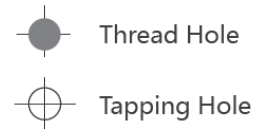
DN700-DN800



DN850-DN900



DN1000



#### ANSI 150LB

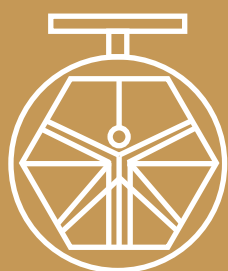
DN	D1	N	M	T	Thread Hole	Tapping Hole
2"	121	4	M5/8-11	13	2	2
2-1/2"	140	4	M5/8-11	13	2	2
3"	153	4	M5/8-11	13	2	2
4"	191	8	M5/8-11	13	2	6
5"	216	8	M3/4-10	16	2	6
6"	242	8	M3/4-10	16	2	6
8"	299	8	M3/4-10	20	2	6
10"	362	12	M7/8-9	20	4	8
12"	432	12	M7/8-9	20	4	8
14"	476	12	M1-8	20	6	6
16"	540	16	M1-8	24	8	8
18"	578	16	M1 1/8-7	24	8	8
20"	635	20	M1 1/8-7	24	12	8
22"	692	20	M1 1/4-7	24	12	8
24"	750	20	M1 1/4-7	27	12	8
28"	864	28	M1 1/4-7	27	20	8
30"	914	28	M1 1/4-7	27	20	8
32"	978	28	M1 1/2-6	30	20	8
34"	1029	32	M1 1/2-6	30	26	6
36"	1086	32	M1 1/2-6	30	26	6
40"	1200	36	M1 1/2-6	33	30	6
40"	1200	36	M1 1/2-6	33	30	6

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