

GAV-0301

Sürgülü Vana Gate Valve



SERTİFİKA / CERTIFICATE



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı	: PN16 / PN25
Gövde	: Sfero döküm
Disk	: Elastomer kaplı sfero döküm
Mil	: Paslanmaz çelik
Bağlantı Tipi	: Flanşlı
Pressure Rating	: PN16 / PN25
Body	: Ductile iron
Disc	: Elastomer coated ductile iron
Stem	: Stainless steel
Connection Type	: Flanged

Ürün / Product	Ölçü / Size
GAV-0301X040	DN40
GAV-0301X065	DN65
GAV-0301X080	DN80
GAV-0301X100	DN100
GAV-0301X125	DN125
GAV-0301X150	DN150
GAV-0301X200	DN200
GAV-0301X250	DN250
GAV-0301X300	DN300

GENEL ÖZELLİKLER / GENERAL PROPERTIES

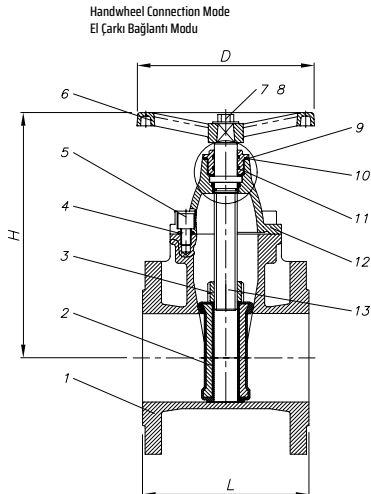
Basınç Sınıfı / Pressure Rating : PN16 / PN25

Maksimum Çalışma Sıcaklığı / Maximum Working Temperature : 100 °C

MALZEME / MATERIAL

Numara - Item	Parça Adı - Part Name	Malzeme - Material	ASTM Bilgisi - ASTM Specification
1	Gövde / Body	Sfero Döküm / Ductile Iron	A536 Grade 65-45-12
2	Sürgü / Wedge	Sfero Döküm / Ductile Iron	A536 Grade 65-45-12
3	Sürgü Somunu / Wedge Nut	Pirinç / Brass	B124 C37700
4	Conta / Gasket	Kauçuk / Rubber	D2000 EPDM/NBR
5	Vida / Screw	Karbon Çelik / Carbon Steel	A307 Grade B
6	Volan / Handwheel	Ductile Iron	A536 Grade 65-45-12
7	Somun / Nut	Karbon Çelik / Carbon Steel	A307 Grade B
8	Burç / Washer	Karbon Çelik / Carbon Steel	A307 Grade B
9	Burç / Bushing	Bronz / Bronze	B62 C83600
10	O-ring	Kauçuk / Rubber	D2000 EPDM/NBR
11	O-ring	Kauçuk / Rubber	D2000 EPDM/NBR
12	Kapak / Bonnet	Sfero Döküm / Ductile Iron	A536 Grade 65-45-12
13	Mil / Stem	Paslanmaz Çelik / Stainless Steel	A276 Type 420

TEKNİK RESİM / TECHNICAL DRAWING



ÖLÇÜ TABLOSU / DIMENSIONS

Ölçü / Size	DN	L [mm]	D [mm]	H [mm]
1-1/2"	DN40	140	160	174
2"	DN50	149	160	202
2 1/2"	DN65	170	200	233
3"	DN80	179	200	260
4"	DN100	188.5	200	287
5"	DN125	200	250	346
6"	DN150	208	250	384
8"	DN200	228	320	469
10"	DN250	249	366	572
12"	DN350	269	366	652

AKIŞ GRAFİĞİ / FLOW CHART

SÜRGÜLÜ VANA İÇİN AKIŞ VERİ DEĞERİ - FLOW DATA-Kv/Cv VALUE FOR GATE VALVE

Tanımlar / Formüller - Definitions / Formulas:

Kv değeri: 1 bar basınç kaybına sebep olan suyun gerçek debisi (m³/saat).

Kv-value: Actual flow of water (m³/hr) creating pressure loss of 1 bar.

Basınç kaybı kat sayısı - Pressure loss coefficient:

Zeta (K) değeri: Statik ve dinamik basınç oranı.

Zeta (K) value: Ratio of static and dynamic pressure loss.

Basınç kaybı kat sayısı - Pressure loss coefficient:

Zeta (K) değeri = Fark basıncı / (500 X V²)

Zeta (K-value) = Diff pressure / (500 X V²)

Fark basıncı - Diff pressure (Pa):

V: Su akış hızı (m/sec)

Gerçek fark basıncı (bar) = (Q/Kv)²

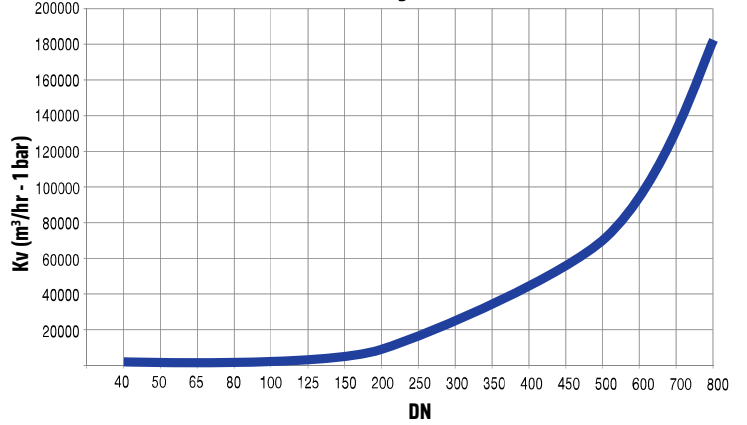
Q: Gerçek su akışı (m³/saat)

V: Water flow velocity (m/sec)

Actual diff pressure (bar) = (Q/Kv)²

Q: Actual water flow (m³/hr)

Kv değeri sürgülü vana
Kv-value gate valves



Zeta değeri - Zeta values:

DN 40-125: 0.06

DN 150-250: 0.04

DN 300-800: 0.02

Akış hızı Flow velocity (m/sec)	Q m ³ /h								
	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	
1.0	4.5	7.1	11.9	18.1	28.3	44.2	63.6	113.1	
1.5	6.8	10.6	17.9	27.1	42.4	66.3	95.4	169.6	
2.0	9.0	14.1	23.9	36.2	56.5	89.4	127.2	226.2	
2.5	11.3	17.7	29.9	45.2	70.7	110.4	159.0	282.7	
3.0	13.6	21.2	35.8	54.3	84.8	132.5	190.9	339.3	
3.5	15.8	24.7	41.8	63.3	99.0	154.6	222.7	395.8	
4.0	18.1	28.3	47.8	72.4	113.1	176.7	254.5	452.4	
4.5	20.4	31.8	53.8	81.4	127.2	198.8	286.3	508.9	
5.0	22.6	35.3	59.7	90.5	141.4	220.9	318.1	565.5	

Akış hızı Flow velocity (m/sec)	Q m ³ /h								
	DN 250	DN 300	DN 350	DN 400	DN 450	DN 500	DN 600	DN 700	DN 800
1.0	176.7	254.5	346.4	452.4	572.6	706.9	1,017.9	6,267.6	12,791.0
1.5	265.1	381.7	519.5	678.6	858.8	1,060.3	1,526.8	9,401.4	19,186.5
2.0	353.4	508.9	692.7	904.8	1,145.1	1,413.7	2,035.8	12,535.2	25,582.0
2.5	441.8	636.2	865.9	1,131.0	1,431.4	1,767.1	2,544.7	15,669.0	31,977.5
3.0	530.1	763.4	1,039.1	1,357.2	1,717.7	2,120.6	3,053.6	18,802.8	38,373.0
3.5	618.5	890.6	1,212.3	1,593.4	2,003.9	2,474.0	3,562.6	21,936.6	44,768.5
4.0	706.9	1,017.9	1,385.4	1,809.6	2,290.2	2,827.4	4,071.5	25,070.4	51,164.0
4.5	795.2	1,145.1	1,558.6	2,035.8	2,576.5	3,180.9	4,580.4	28,204.2	57,559.5
5.0	883.6	1,272.3	1,731.8	2,261.9	2,862.8	3,534.3	5,089.4	31,338.0	63,955.0

Çeşitli akış hızlarında nominal valf boyutundan geçen hesaplanmış debi (m³/saat) (DN40 = iç çapı Ø40)

Calculated flow (m³/hr) going through a nominal valve-size (DN40= inside dia of Ø40), at different flow velocities

Açıklık Opening %	CV/KV																	
	DN 40		DN 50		DN 65		DN 80		DN 100		DN 125		DN 150		DN 200			
	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV		
10%	23	20	18	15	26	22	42	36	75	64	143	122	158	135	343	293		
20%	48	41	47	40	62	53	112	96	186	159	278	238	319	273	642	549		
30%	74	63	70	60	97	83	173	148	289	247	428	366	539	461	994.5	850		
40%	101	86	100	85	151	129	256	219	420	359	620	530	805	688	1455.5	1244		
50%	138	118	156	133	239	204	410	351	642	549	867	741	1198	1024	2023	1729		
75%	281	240	367	314	504	431	845	722	1280	1094	1787	1527	2732	2335	4719	4033		
100%	340	291	608	520	709	606	1151	984	2128	1819	3028	2588	6247	5339	8478	7246		

CV/KV

Açıklık Opening %	CV/KV																	
	DN 250		DN 300		DN 350		DN 400		DN 450		DN 500		DN 600		DN 700		DN 800	
	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV	CV	KV
10%	448	383	583	498	793	678	1037	886	1312	1121	1619	1384	2333	1994	3174	2713	4146.5	3544
20%	904	773	1290.5	1103	1757	1502	2295.5	1962	2905	2483	3586	3065	5163	4413	7028	6007	9180	7846
30%	1459	1247	2015	1722.2	2742	2344	3581	3061	4533	3874	5596	4783	8059	6888	10969	9375	14327	12245
40%	2187	1869	2952	2523	4017	3433	5247.5	4485	6641	5676	8198	7007	11805	10090	16069	13734	20987	17938
50%	3195	2731	4006	3424	5452	4660	7121	6086	9013	7703	11127	9510	16022	13694	21808	18639	28484	24345
75%	6230	5325	8286	7082	11279	9640	14731	12591	18644	15935	23017	19673	33145	28329	45114	38559	58925	50363
100%	16842	14395	29844	25508	40621	34719	53057	45348	67150	57393	82902	70856	119377	102032	162486	138877	212226	181390

DN 40-300 arası tüm değerler ölçülmüş değerlerdir. DN350-800 arasına ait değerlerin ise tamamı ölçülmüş değerlere dayanarak hesaplanmıştır.

DN40-300 are all measured values, DN 350-800 are all calculated, based on results from measured values.