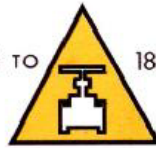


Από το 1882

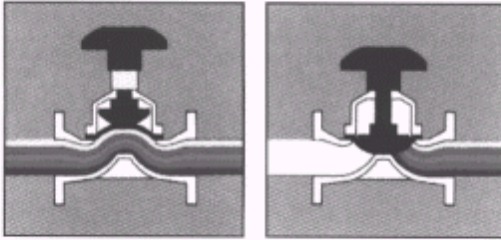


ΧΡΥΣΑΦΙΔΗΣ Α.Ε.

ΒΑΛΒΙΔΕΣ ΜΕΜΒΡΑΝΗΣ SAUNDERS

ΤΥΠΟΙ ΚΑΙ ΔΙΑΣΤΑΣΕΙΣ ΒΑΛΒΙΔΩΝ

Τύπου Α (Καμπύλης ροής)
DN15 έως DN350



DN	Τύπου Α					
	ΦΛΑΝΤΖΩΤΕΣ BS 5156				ΒΙΔΩΤΕΣ	
	Α (mm)			Β (max.)	Α (mm)	Β (max.)
	ΧΩΡΙΣ ΕΠΙΚΑΛ.	ΗΛΙΑΡ ΓΥΑΛΙ	ΕΛΑΣΤ. ΕΠΙΚΑΛ.			
15	108	110	114	100	64	91
20	117	119	123	100	83	84
25	127	129	133	110	108	115
32	146	148	152	150	121	152
40	159	161	165	160	140	164
50	190	192	196	180	165	187
65	216	218	222	214	203	224
80	254	256	260	220	254	233
100	305	307	311	300		
125	356	358	361	375		
150	406	408	412	430		
200	521	523	527	507		
250	635	637	641	588		
300	749	751	755	683		
350	749	751	755	893		

ΤΥΠΟΙ ΕΣΩΤΕΡΙΚΗΣ ΕΠΕΝΔΥΣΗΣ ΣΩΜΑΤΟΣ

ΥΛΙΚΟ

ΙΔΙΟΤΗΤΕΣ

Σκληρό καουτσούκ

Καλή χημική αντίσταση. Εξαιρετικό για ανόργανες βάσεις, άλατα, χλώριο, HCl. Πολύ καλή αντοχή σε σκόνης και κολλοειδή ρευστά. Πτωχή χημική αντίσταση.

Μαλακό καουτσούκ

Κατάλληλη για φυτικά και ζωικά λάδια και λίπη. Καλή μηχανική αντοχή.

Νεοπρένιο

Το πλέον εύχρηστο ελαστομερές με καλή αντιδιαβρωτική και μηχανική αντοχή.

Βουτίλιο

Εξαιρετική αντοχή σε οξέα, αλογόνα, αλκοόλες, εστέρες.

Πορσελάνη

Εξαιρετική αντοχή σε οξέα, ανόργανες βάσεις, αλκοόλες, άλατα.

Halar

Μεγάλη αντοχή στα περισσότερα οργανικά υλικά, βάσεις, οξέα και ζεστά ρευστά (πλην ζεστού θειικού και χρωμικού οξέως).

Πολυπροπυλένιο

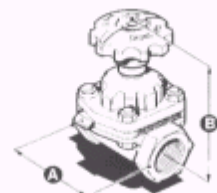
Εξαιρετική αντίσταση στα περισσότερα ανόργανα & οργανικά οξέα και βάσεις, αλκοόλες.

PVDF

Ακατάλληλο για θειικό οξύ, ακετόνη και ζεστά αλκαλικά ρευστά.

ETFE

Ισχυρά οξέα, ανόργανες βάσεις, αλογόνα, αλκοόλες, εστέρες, κετόνες, αρωματικούς και αλφατικούς υδρογονάνθρακες. Καλή μηχανική αντοχή.



ΤΥΠΟΙ ΜΕΜΒΡΑΝΩΝ

ΤΥΠΟΣ

ΥΛΙΚΟ

ΕΦΑΡΜΟΓΕΣ

AA

Φυσικό καουτσούκ

Σκληρά ρευστά

B

Βουτίλιο

Αέρια, οξέα, βάσεις

C

Νιτρίλιο

Λάδια, λίπη

HT

Πολυχλωροπρένιο

Λάδια, λίπη, αέρας

Q

Φυσικό/συνθετικό καουτσούκ

Νερό, άλατα, οξέα

237

Hyalon

Πόσιμο νερό

300

Βουτίλιο

Πόσιμο νερό, φαρμακευτικά,

αποστείρωση με ατμό

214/300

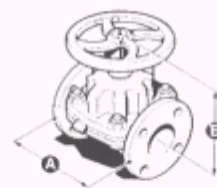
Αγνό PTFE με υπόστρωμα Βουτιλίου

Τρόφιμα, χημικά

325

Αιθυλένιο-προπυλένιο

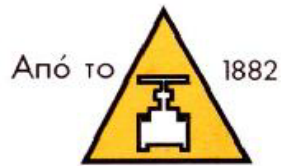
Ζεστό νερό, φαρμακευτικά, αποστείρωση με ατμό



ΚΙΝΗΣΗ: Χειροκίνητες και με πνευματικό ή ηλεκτρικό κινητήρα

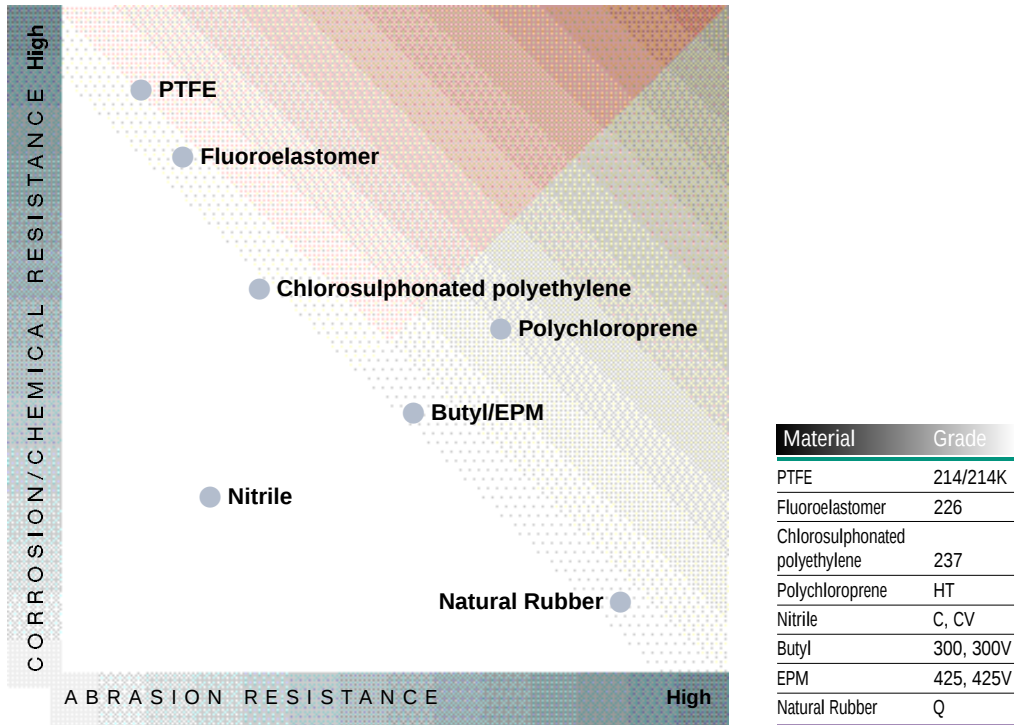
Saunders A Type Diaphragm Valves

Diaphragm Materials



ΧΡΥΣΑΦΙΔΗΣ Α.Ε.

Diaphragm Materials – Visual Process Resistance Guide



Maximum working pressure (bar) – A Type valves

As with all valves, the application and environment have a major bearing on actual valve operating limits, but the following can be used as a guide to the maximum operational limits.

Bonnet assemblies with rubber diaphragm																	
Size DN	8	10	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
Non-rising handwheel														6	5	4	3.5
Rising handwheel	16	16	16	16	16	16	16	16	10	10	10	10	10				
WFB and tank cleaning							15		15								

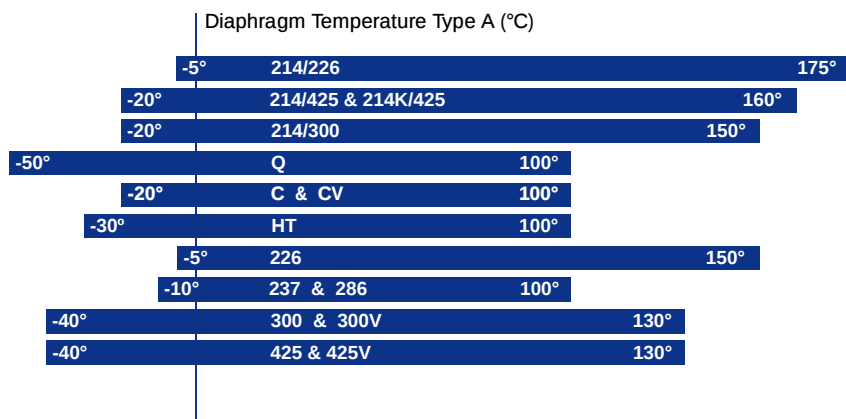
Bonnet assemblies with PTFE faced diaphragm																
Size DN	8	10	15	20	25	32	40	50	65	80	100	125	150	200	250	
Non-rising handwheel														6	5	
Rising Handwheel	10	10	10	10	10	10	10	10	10	10	10	10	7			



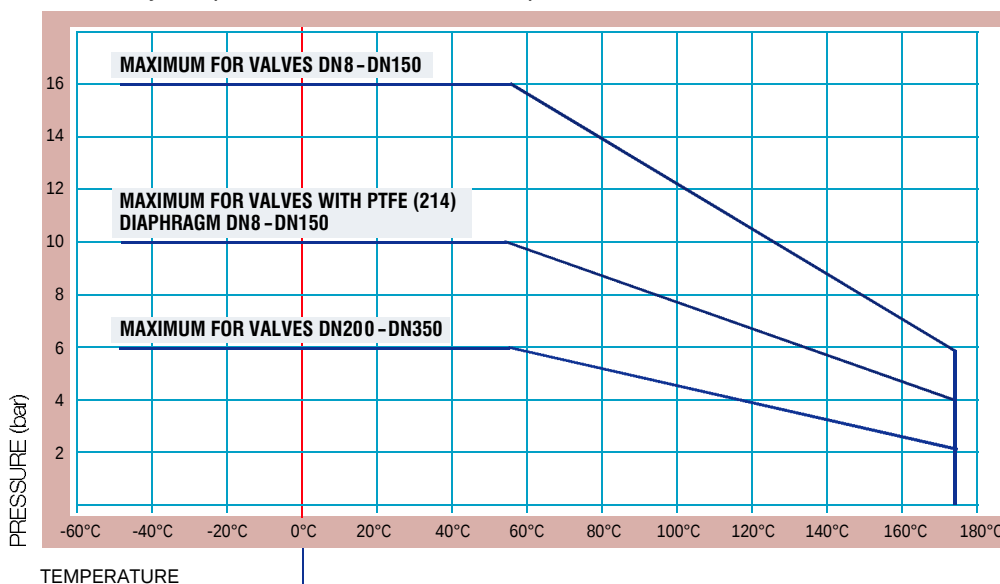
Diaphragm Performance

Temperature and Pressure Relationship

ΧΡΥΣΑΦΙΔΗΣ Α.Ε.



Valve Body Temperature/Pressure Relationship



Body Temperature Limit (°C)**

-10°	HARD RUBBER LINED	85°
-10°	POLYPROPYLENE LINED (P.P.)	85°*
-10°	BUTYL RUBBER LINED	110°
-10°	ETHYLENE TETRAFLUOROETHYLENE (ETFE)	150°
-10°	CAST IRON: UNLINED, GLASS LINED & PTFE LINED	175°
-10°	SG IRON: UNLINED AND PFA LINED	175°
-30°	OTHER METALS: CARBON STEEL, STAINLESS STEEL, COPPER ALLOYS	175°

Temperature bands for diaphragms are shown as a guide only. Many aspects of service conditions will determine the highest working temperature. For example, 325 diaphragms have given excellent performance under certain conditions up to 150°C.

* Depends on body substrate material.

** When lined body is cast steel, minimum temperature is -30°C.

When SG Grade EN-GJS-400-18-LT is used, minimum temperature is -20°C.

Από το 1882

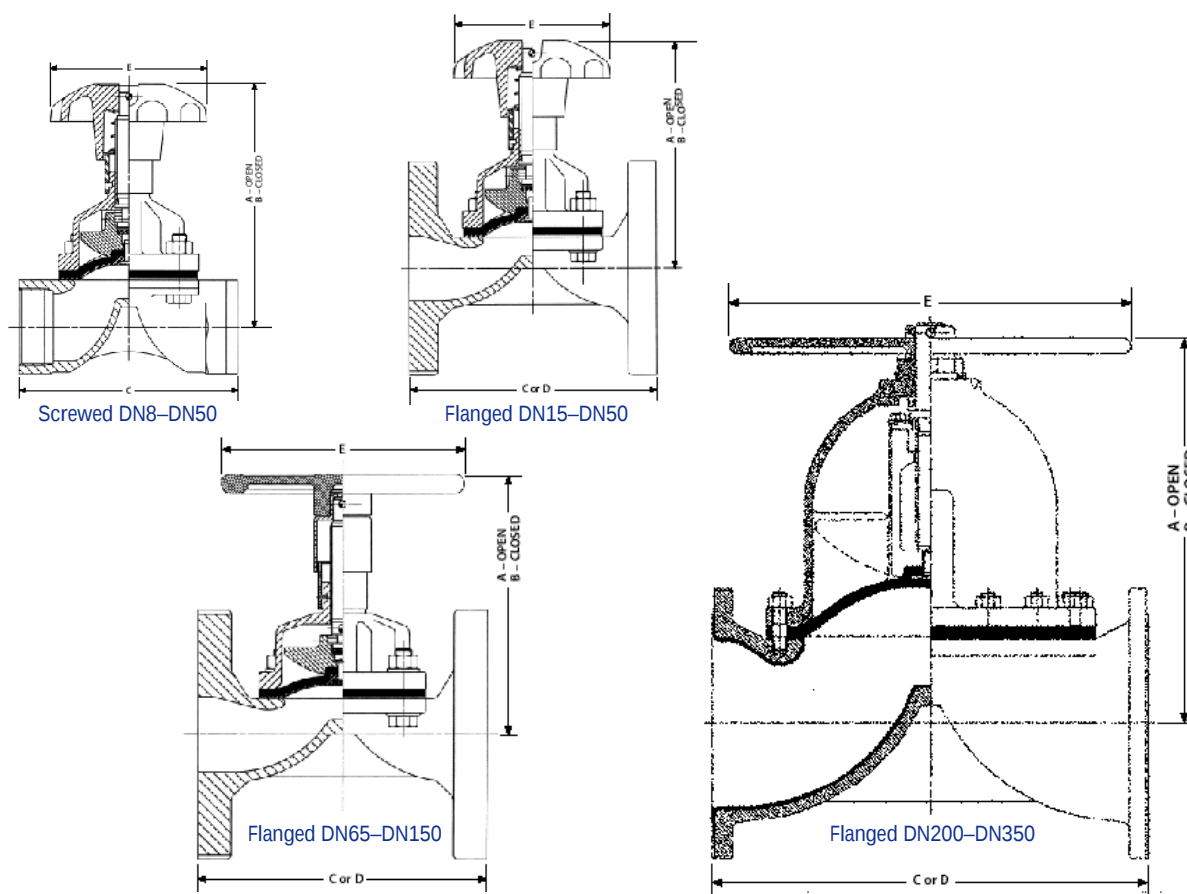


Saunders

Saunders A Type Diaphragm Valves

Dimensions and Weights

ΧΡΥΣΑΦΙΔΗΣ Α.Ε.



Valve Diameter (DN)

		8	10	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
Screwed	A	54	67	90	94	119	154	164	188	—	—	—	—	—	—	—	—	—
	B	52	61	84	88	108	142	148	164	—	—	—	—	—	—	—	—	—
	C	49	49	63.5	83	111	125	145	168	—	—	—	—	—	—	—	—	—
	Weight	0.11	0.15	0.45	0.90	1.13	1.80	2.70	5.00	—	—	—	—	—	—	—	—	—
Flanged	A	—	—	100	91	108	143	157	175	226	243	308	388	442	495	581	679	660
	B	—	—	93	85	98	131	141	152	194	208	262	322	367	—	—	—	—
	C	—	—	108	117	127	146	159	190	216	254	305	356	406	521	635	749	749
	D	—	—	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980
	Weight	—	—	1.80	1.80	2.70	4.00	4.90	7.70	14.0	19.0	31.7	48.0	62.1	152	270	360	506
Flanged Rubber Lined	A	—	—	—	97	111	146	160	177	229	246	311	391	445	498	585	683	664
	B	—	—	—	91	101	134	144	154	197	212	265	325	370	—	—	—	—
	C	—	—	—	121	131	150	163	194	220	258	309	362	412	527	641	755	755
	D	—	—	—	150	160	180	200	230	290	310	350	400	480	600	730	850	980
	Weight	—	—	—	2.70	3.10	4.50	5.40	8.20	15.0	20.4	33.1	49.2	63.0	154	273	365	512
Flanged Glass Lined	A	—	—	101	92	109	144	158	176	227	244	309	389	443	496	582	—	—
	B	—	—	94	86	99	132	142	153	195	210	263	323	368	—	—	—	—
	C	—	—	110	119	129	148	161	192	218	256	307	358	408	523	637	—	—
	D	—	—	130	150	160	180	200	230	290	310	350	400	480	600	730	—	—
	Weight	—	—	1.80	1.80	3.10	4.50	5.40	8.20	14.5	19.5	32.2	48.5	62.6	153	272	—	—
Flanged Plastic Lined	A	—	—	—	97	112	—	162	176	—	246	314	—	450	—	—	—	—
	B	—	—	—	91	102	—	145	155	—	211	267	—	374	—	—	—	—
	C	—	—	—	123	133	—	165	196	—	260	311	—	412	—	—	—	—
	D	—	—	—	150	160	—	200	230	—	310	350	—	480	—	—	—	—
	Weight	—	—	—	2.70	3.10	—	5.40	8.20	—	20.4	33.1	—	63.0	—	—	—	—
E		38	50	62	62	80	120	120	120	170	230	280	280	368	482	584	699	699

Weights in kg. C valve length = EN 558-1 Series 7 (ex BS 5156). D valve length = EN 558-1 Series 1 (ex DIN 3202 Series F1).



ΧΡΥΣΑΦΙΔΗΣ Α.Ε.

Saunders A Type Valve

Flow Co-efficient of Valve Range Cv (Kv)

DN 15	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	5.50	4.71	—	—	6.00	5.14	—	—
90	5.28	4.53	—	—	5.75	4.93	—	—
80	5.06	4.33	—	—	5.51	4.72	—	—
70	4.83	4.14	—	—	5.27	4.52	—	—
60	4.61	3.95	—	—	5.03	4.31	—	—
50	3.84	3.29	—	—	4.19	3.59	—	—
40	3.08	2.62	—	—	3.35	2.87	—	—
30	2.30	1.97	—	—	2.51	2.15	—	—
20	1.54	1.32	—	—	1.67	1.43	—	—
10	0.77	0.66	—	—	0.83	0.71	—	—
0	0	0	—	—	0	0	—	—

DN 20	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	11.50	9.86	9.20	7.89	12.00	10.29	6.50	5.59
90	11.03	9.45	9.00	7.71	11.51	9.87	6.24	5.35
80	10.57	9.06	8.80	7.54	11.03	9.45	5.98	5.13
70	10.12	8.67	8.40	7.20	10.55	9.04	5.72	4.90
60	9.66	8.28	7.70	6.60	10.07	8.63	5.45	4.67
50	8.05	6.90	6.70	5.74	8.39	7.19	4.54	3.89
40	6.43	5.51	5.50	4.71	6.71	5.75	3.63	3.11
30	4.83	4.14	4.10	3.51	5.03	4.31	2.72	2.33
20	3.21	2.75	2.50	2.14	3.35	2.87	1.81	1.55
10	1.60	1.37	1.00	0.86	1.67	1.43	0.90	0.77
0	0	0	0	0	0	0	0	0

DN 25	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	17.60	15.09	14.00	12.00	18.00	15.43	11.19	9.60
90	16.29	13.96	13.70	11.74	17.28	14.81	10.75	9.21
80	16.19	13.88	13.40	11.49	16.56	14.19	10.30	8.83
70	15.48	13.26	12.70	10.89	15.83	13.57	9.85	8.42
60	14.78	12.67	11.60	9.94	15.11	12.95	9.40	8.06
50	12.32	10.56	10.20	8.74	12.59	10.79	7.83	6.71
40	9.85	8.44	8.40	7.20	10.07	8.63	6.27	5.37
30	7.39	6.33	6.30	5.40	7.55	6.47	4.70	4.02
20	4.92	4.22	3.80	3.25	5.03	4.31	3.13	2.68
10	2.46	2.11	1.50	1.29	2.51	2.15	1.56	1.34
0	0	0	0	0	0	0	0	0

DN 32	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	27.50	23.57	22.00	18.86	28.00	24.00	16.70	14.31
90	26.39	22.61	21.12	18.10	26.88	23.04	16.03	13.74
80	25.29	21.68	20.24	17.35	25.75	22.07	15.36	13.17
70	24.20	20.74	19.35	16.59	24.64	21.11	14.69	12.59
60	23.09	19.79	18.47	15.83	23.51	20.15	14.02	12.02
50	19.25	16.50	15.39	13.19	19.60	16.80	11.69	10.02
40	15.39	13.19	12.32	10.57	15.67	13.43	9.35	8.01
30	11.54	9.89	9.23	7.91	11.75	10.07	7.01	6.01
20	7.69	6.59	6.16	5.28	7.83	6.71	4.67	4.00
10	3.84	3.29	3.08	2.62	3.91	3.35	2.33	1.98
0	0	0	0	0	0	0	0	0

DN 40	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	43.00	36.86	35.00	30.00	45.00	38.57	31.00	26.57
90	41.28	35.40	34.00	29.14	43.20	37.03	29.76	25.51
80	39.56	33.91	33.6	28.80	41.39	35.48	28.51	24.43
70	37.84	32.43	32.00	27.43	39.59	33.93	27.28	23.38
60	36.11	30.95	29.00	24.86	37.79	32.41	26.03	22.32
50	30.10	25.81	26.00	22.28	31.50	27.00	21.69	18.59
40	24.07	20.63	21.00	18.00	25.19	21.59	17.35	14.87
30	18.05	15.47	16.00	13.68	18.89	16.19	13.01	11.15
20	12.03	10.31	9.5	8.14	12.59	10.79	8.67	7.43
10	6.01	5.15	3.9	3.34	6.29	5.39	4.33	3.71
0	0	0	0	0	0	0	0	0

DN 50	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	80.00	68.61	64.00	54.89	88.00	75.47	59.00	50.60
90	76.80	65.86	63.00	54.03	84.48	72.45	56.00	48.00
80	73.59	63.11	61.00	52.31	80.96	69.43	54.00	46.29
70	70.40	60.37	58.00	49.71	77.43	66.40	52.00	44.57
60	67.19	57.62	53.00	45.43	73.91	63.38	50.00	42.86
50	56.00	48.03	47.00	40.29	61.69	52.82	41.00	35.14
40	44.79	38.39	38.00	32.57	49.28	42.24	33.00	28.28
30	33.59	28.79	29.00	24.86	36.95	31.67	25.00	21.43
20	22.39	19.19	17.00	14.57	24.64	21.11	16.00	13.71
10	11.19	9.60	7.00	6.00	12.32	10.56	8.00	6.86
0	0	0	0	0	0	0	0	0

DN 65	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	127.00	108.80	102.00	87.40	132.00	113.10	83.00	71.10
90	121.00	103.70	97.90	83.90	126.00	108.00	79.70	68.30
80	116.00	99.40	93.80	80.40	121.00	103.70	76.40	65.40
70	111.00	95.10	89.80	76.90	116.00	99.40	73.00	62.60
60	106.00	90.90	85.70	73.40	110.00	94.30	69.70	59.80
50	88.90	76.20	71.40	61.20	92.40	79.20	58.10	49.80
40	71.12	60.90	57.10	48.90	73.90	63.40	46.50	39.80
30	53.33	45.70	42.80	36.70	55.40	47.50	34.90	29.90
20	35.56	30.50	28.60	24.50	37.00	31.70	23.20	19.90
10	17.78	15.20	14.30	12.20	18.50	15.84	11.60	9.90
0	0	0	0	0	0	0	0	0

DN 80	B O D Y M A T E R I A L / L I N I N G							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
100	185.00	158.60	148.00	126.90	186.00	159.40	148.00	126.90
90	177.00	151.70	145.00	124.30	178.00	152.60	142.00	121.70
80	170.00	145.70	142.00	121.70	171.00	146.60	136.00	116.60
70	162.00	138.90	135.00	115.70	163.00	139.70	130.00	111.40
60	155.00	132.90	123.00	105.40	156.00	133.70	124.00	106.30
50	129.00	110.60	108.00	92.60	130.00	111.40	103.00	88.30
40	103.00	88.30	89.00	76.30	104.00	89.10	82.90	71.00
30	77.70	66.60	67.00	48.90	78.10	67.00	62.20	44.70
20	51.80	44.40	40.00	34.30	52.10	44.60	41.40	35.50
10	25.90	22.20	16.00	13.70	26.00	22.30	20.70	17.80
0	0	0	0	0	0	0	0	0



ΧΡΥΣΑΦΙΔΗΣ Α.Ε.

Saunders

DN 100	BODY MATERIAL / LINING							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
	% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv
100		315	270	252	216	336	288	270
90		302	259	247	212	322	276	259
80		289	248	242	207	309	265	248
70		277	237	229	196	295	253	237
60		264	226	209	179	282	242	226
50		220	189	184	158	235	201	189
40		176	151	151	129	188	161	151
30		132	113	113	97	141	121	113
20		88.20	76	68	50	94.10	81	75.60
10		44.10	38	28	24	47.00	40	37.80
0		0	0	0	0	0	0	0

DN 125	BODY MATERIAL / LINING							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
	% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv
100		420	360	363	311	440	377	—
90		403	345	348	298	422	362	—
80		386	331	333	285	404	346	—
70		369	316	319	273	387	332	—
60		352	302	304	261	369	316	—
50		294	252	254	218	308	264	—
40		235	201	203	174	246	211	—
30		176	151	152	130	184	158	—
20		117	100	101	87	123	105	—
10		59	49	51	44	62	53	—
0		0	0	0	0	0	0	—

DN 150	BODY MATERIAL / LINING							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
	% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv
100		605	519	484	415	630	540	505
90		580	497	474	406	604	518	484
80		556	477	465	399	579	496	464
70		532	456	440	377	554	475	444
60		508	435	402	345	529	453	424
50		423	363	353	303	441	378	353
40		338	290	290	249	352	302	282
30		254	218	218	187	264	226	212
20		169	145	131	112	176	151	141
10		85	73	53	45	88	75	61
0		0	0	0	0	0	0	0

DN 200	BODY MATERIAL / LINING							
	Cast iron		Rubber Lined		Glass		Plastic Lined	
	% Open	Cv	Kv	Cv	Kv	Cv	Kv	Cv
100		1300	1114	1309	1122	1320	1131	—
90		1248	1070	1256	1077	1267	1086	—
80		1196	1025	1204	1032	1214	1041	—
70		1144	981	1151	987	1161	995	—
60		1092	936	1099	942	1108	950	—
50		910	780	916	785	924	792	—
40		728	624	733	628	739	633	—
30		546	468	549	471	554	475	—
20		364	312	366	314	369	316	—
10		182	156	183	157	184	158	—
0		0	0	0	0	0	0	—

DN 250	BODY MATERIAL / LINING					
	Cast iron		Rubber Lined		Glass	
	% Open	Cv	Kv	Cv	Kv	Cv
100		1980	1697	2000	1714	2100
90		1900	1629	1920	1646	2015
80		1821	1561	1840	1577	1932
70		1742	1493	1760	1509	1848
60		1663	1425	1679	1439	1763
50		1386	1188	1400	1200	1470
40		1108	950	1120	960	1176
30		831	712	839	719	881
20		554	475	560	480	588
10		277	237	280	240	294
0		0	0	0	0	0

DN 300	BODY MATERIAL / LINING					
	Cast iron		Rubber Lined		Glass	
	% Open	Cv	Kv	Cv	Kv	Cv
100		3700	3171	3750	3214	3880
90		3552	3045	3600	3086	3724
80		3404	2917	3450	2957	3569
70		3256	2791	3300	2829	3414
60		3107	2663	3149	2699	3259
50		2590	2220	2625	2250	2716
40		2072	1776	2100	1800	2172
30		1553	1331	1574	1349	1629
20		1036	888	1050	900	1086
10		518	444	525	450	543
0		0	0	0	0	0

DN 350	BODY MATERIAL / LINING					
	Cast iron		Rubber Lined		Glass	
	% Open	Cv	Kv	Cv	Kv	Cv
100		3700	3171	3750	3214	3880
90		3552	3045	3600	3086	3724
80		3404	2917	3450	2957	3569
70		3256	2791	3300	2829	3414
60		3107	2663	3149	2699	3259
50		2590	2220	2625	2250	2716
40		2072	1776	2100	1800	2172
30		1553	1331	1574	1349	1629
20		1036	888	1050	900	1086
10		518	444	525	450	543
0		0	0	0	0	0

Note: Differing Cv & Kv rating can be derived, depending on the method used for testing. The tables above are based on British Standards 1042 and EN 605314/IEC 534.2.3 and show flow in US gallons per minute and cubic metres per hour.

Cv is flow in US gpm through valve at D P of 1 psi

Kv is flow in m³/hr through valve at D P of 1 bar