



- **Saunders full bore diaphragm valves have been developed to satisfy market demand for a valve to handle sludges, slurries and give high flow performance with minimum turbulence, while giving 100% leak tight closure.**
- **A wide choice of materials, methods of operation and body connections meet the needs of most industrial applications. Extended life, reliability, safety and ease of use, combined with essentially simple design, result in low m maintenance for minimum running costs. Saunders straight-through bore diaphragm valves (DN 15 – DN 350) positively benefit your bank balance with a unique range of features.**

GUIDE TO BODY (LININGS) APPLICATIONS

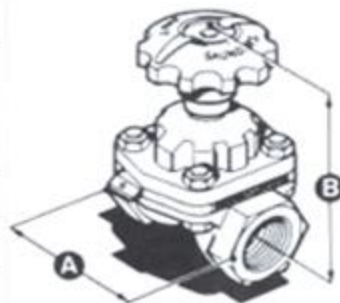
BODY / LINING Typical applications	SIZE	TEMP °C
CAST IRON / DUCTILE IRON Strength, low cost non corrosive duties	DN 15 – DN 350	- 20° to 175°
RUBBERS Economic handling of corrosive & abrasive media	DN 25 – DN 350	
RUBBERS SOFT (SRL/AAL) Abrasive duties		- 10° to 85°
RUBBERS HARD (EBONITE) (HRL) Acid, chlorinated water, moist chlorine		- 10° to 85°
RUBBERS BUTYL (BL) Mineral acids and slurries		- 10° to 110°
RUBBERS NEOPRENE (NL) Abrasive duties where hydro-carbons are present		- 10° to 105°
BROSILICATE GLASS Excellent for strong acids, halogens	DN 25 – DN 200	- 10° to 175°
HALAR™ Excellent resistance to mineral and oxidizing acids inorganic bases, salts	DN 25 –DN 350	- 10° to 150°
RILSAN™ Potable water applications	DN 25 – DN 350	- 20° to 80°
FUSION BONDED EPOXY FBE Potable water applications	DN 25 – DN 350	- 20° to 80°
<p>HALAR™ is the registered trademark of AUSIMONT UK Ltd. RILISAN™ is the registered trademark of ATO Chemical Products UK Ltd.</p>		

GUIDE TO DIAPHRAGM APPLICATIONS

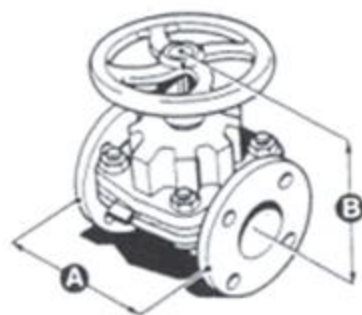
<u>GRADE</u> Typical Applications	SIZE	TEMP. °C
<u>A</u> Abrasive in slurry or dry powder form	DN 15 to DN 350	- 40 ° to 90 °
<u>B</u> Acid and alkalis. Up to 85% sulphuric acid at ambient temperatures. Hydrochloric hydrofluoric phosphoric acids, caustic alkalis and many esters. Sea water, very low vapour and gas permeability. Inert gasses and many industrial gases.	DN 15 to DN 350	- 40 ° to 90 °
<u>Q</u> Abrasives, water purification brewing. Inorganic salts, mineral acids	DN 15 to DN 350	- 50 ° to 90 °
<u>226</u> Paraffinic and aromatic hydrocarbons, acids, particularly concentrated sulphuric and chlorine applications. Not recommended for ammonia and its derivatives or for polar solvents, e.g. acetone	DN 15 to DN 250	- 5 ° to 140 °
<u>237</u> Good acid and ozone resistance certain chlorine services	DN 15 to DN 350	0 ° to 90 °
<u>300</u> For hot water services applications involving steam sterilisations, there for, ideally suited for brewing and pharmaceutical applications. For services involving continuous high temperature / pressure combinations consult our technical department.	DN 15 to DN 350	- 20 ° to 120 °
<u>325</u> Salts in water, drinking water	DN 15 to DN 350	- 40 ° to 100 °
<u>KEY TO GRADE LETTERS / MATERIALS</u>		
A – Natural Rubber		
B – Butyl	Q – Natural Rubber	
226 – Fluororubber	237 - Hypalon	
300 – Butyl	325 - EPDM	

SAUNDERS TYPE "KB" DIAPHRAGM VALVES pg 4 of 5

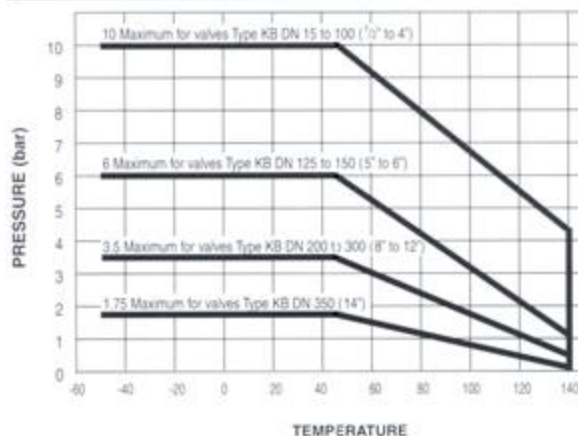
VALVE	SCREWED ENDS		
SIZE (DN)	A (mm)	B (max)	NOMINAL MASS kg
15	64	120	-
25	111	164	2.2
32	124	164	2.8
40	143	164	3.7
50	168	189	5.9
65	206	228	10
80	257	302	16
100 - 350 NON PREFERRED SIZE			



VALVE	FLANGED PIPE CONNECTIONS					
SIZE (DN)	A (mm)			B (max)	NOMINAL UNLINED kg	MASS LINED kg
	UNLINED	BS5156 COATED	LINED			
15	108	110	-	106	2	-
25	127	129	133	160	4.4	4.2
32	146	148	152	160	4.4	5.7
40	159	161	165	182	5.5	6.9
50	190	192	196	230	10	11
65	216	218	222	296	17	18
80	254	256	260	303	23	21
100	305	307	311	324	26	28
125	356	358	362	346	47	50
150	406	408	412	470	65	65
200	521	523	527	640	110	108
250	635	637	641	745	196	185
300	749	751	755	785	296	298
350	984	986	990	785	450	460

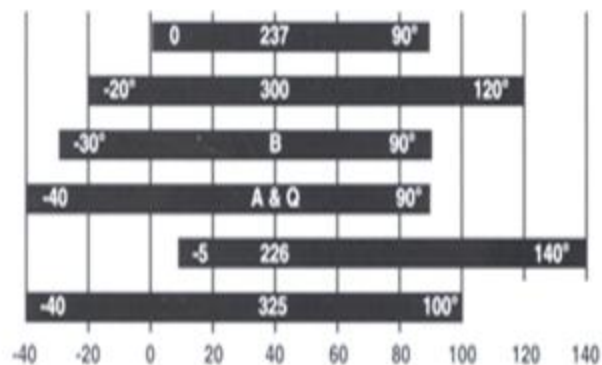


VALVE BODY TEMPERATURE/PRESSURE RELATIONSHIP



- **STANDARDS APPLICABLE**
- **BS 5156 Diaphragm Valves**
- **BS 4504 Flange Dimensions**
- **ISO R7 thread connections**

DIAPHRAGM TEMPERATURES TYPE KB (°C)



BODY TEMPERATURE LIMIT (°C)

