

O-RINGS

International Standards
Series:- AS.568A
BS1806:1962

Compounds Available:-

**Nitrile, Neoprene, EPDM, Viton, Silicone, Aflas
Polyacrylate, HNBR**



Other Products Available:-

**Metric O-Rings, Rod Seals, Piston Seals, Wipers,
Wear Rings, Cord**

LUDOWICI "Lurene" 'O'-Rings are produced from carefully compounded synthetic rubbers, developed in our NATA registered laboratory and constantly updated to keep pace with technological changes. Modern moulding techniques and the use of precision moulds, ensures the user of "Lurene" 'O'-Rings of products of unsurpassed quality.

Where design criteria necessitates specialised compounds, the Ludowici technical "know how" is at your service for on-the-spot consultation and guidance. Our range of synthetic rubber compounds cover general industrial applications and the highly technical field of engineered products where materials must comply to specifications for service in environments such as fire-resistant fluids, oxidising agents and Jet fuels for Aircraft.

The 'compound selection and service guide' chart listed below co-relates specially compounded synthetic rubbers and chemical environments found in general industry applications.

COMPOUND SELECTION AND SERVICE GUIDE

GENERAL

Base Polymer – Common Name	Nitrile	Neoprene	EP Rubber	Viton	Hypalon	Acrylic	Fluorosilicone	Silicone	Polyurethane
Chemical	Butadiene Acrylonitrile	Chloroprene	Ethylene Propylene	Fluorinated Hydrocarbon	Chlorosulphonated Polyethylene	Polyacrylate	Fluoro-Vinyl Silane	Poly-vinyl Siloxane	Polyurethane Di-isocyanate
ASTM Designation D1418	NBR	CR	EPDM	FKM	CSM	ANM	FVSi	VHQ	AU EU
ASTMD2000 – SAE J200 Classification	BF BG	BC BE	CA	HK	CE	DF DH	FK	FC FE	BG
Durometer Range Shore A	45-95	40-90	45-85	60-90	65-95	80	60	30-70	70-100
Service Temp Range °C	-40 to 120	-40 to 120	-55 to 150	-30 to 230	-40 to 150	-20 to 150	-60 to 230	-60 to 230	-40 to 120

SPECIALISED COMPOUND INFORMATION ★ LUDOWICI RECOMMENDATION

Ludowici Compound No.	BL7501	BL7021	BL7515	NL7516	NL6501	EL7016	EL7018	VL8022	VL7514	HL6520	PL7514	SL7514M	PU9020	PU40
ASTM Designation D1418	NBR	NBR	NBR	CR	CR	EPDM	EPDM	FPM	FPM	CSM	ANM	VS1	AU	EU
Durometer Hardness Shore A	75	75	75	80	70	75	70	80	75	65	80	70	90	90
Service Temperature Range °C	-30 to 110	-35 to 120	-30 to 120	-40 to 110	-40 to 110	-50 to 150	-50 to 150	-30 to 230	-30 to 230	-40 to 135	-20 to 150	-60 to 230	-40 to 105	-40 to 105
Environmental Resistance														
Acetic Acid to 30%				★	★					★				
Acetic Acid Glacial					★									
Acetone							★							
Acetaldehyde					★									
Ammonium Hydroxide				★	★					★				★
Aniline					★									
Animal and Vegetable Fats and Oils	★	★	★					★					★	★
Automatic Transmission Fluids								★			★			
Brake Fluids non petroleum Based							★							
Butane	★			★				★					★	★
Calcium Hypochlorite Solutions					★									
Diocetyl Sebacate					★								★	
Ethyl Alcohol	★						★	★				★		
Ethyl Acetate							★							
Hydraulic Oil Commercial Petroleum Based	★	★	★					★			★		★	★
Hydrochloric Acid Cold to 30%						★			★	★				
Hydrochloric Acid Conc.									★					
Iso – Octane	★	★	★	★				★		★			★	★
Kerosene	★							★						
Methyl Ethyl Ketone							★							
Nitric Acid Cold to 30%						★			★	★				
Nitric Acid Cold to 70%									★					
Petrol		★						★						
Petroleum Based Lubricating Oils														
1. Low Aniline Point (70 to 95°C)		★						★			★			
2. High Aniline Point (95 to 124°C)	★	★	★	★	★			★		★	★		★	★
Sodium Hydroxide Cold to 20%					★	★			★	★				
Sodium Hydroxide Cold to 70%									★					★
Steam to 50 p.s.i.						★			★			★		
Steam Above 50 p.s.i.						★								
Toluol								★	★					
Trichloroethylene								★	★					
Tritolyl Phosphate						★						★		
Water			★	★	★	★		★	★	★	★	★	★	★
Weather Ageing (Ozone)				★	★	★	★	★	★	★	★	★	★	★
Refrigerants														
Freon 11								★						
Freon 12				NL8512										
Freon 22				NL8512										
Freon 113				NL8512										
Freon 114	★													

Notes (1) Where more than one Ludowici Compound meets all the requirements of chemical resistance, this implies that all are equally suitable. Availability and price may decide the final choice of compound.

(2) The Performance of any elastomeric seal is not solely dependent on the Chemical nature of the fluid with which it is in contact. For this reason where other factors are involved our technical staff should be consulted.

(3) The Viton compound No. VL8022 is coloured brown for ease of identification, however, the equivalent black compound VL8020 has better abrasion resistance, particularly at high temperatures and can be supplied to order. Both compounds meet the requirements of ASTM D2000 2HK 815A1-10, B38E71E88.

Size Reference	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
No.	ins	mm	ins	mm	ins	±	mm	±
001	1/32	0,79	3/32	2,36	.040	.003	1.02	.08
002	3/64	1,17	9/64	3,56	.050	.003	1.27	.08
003	1/16	1,59	3/16	4,76	.060	.003	1.52	.08
* 004	5/64	1,98	13/64	5,16	.070	.003	1.78	.08
* 005	7/64	2,77	15/64	5,94	.070	.003	1.78	.08
* 006	1/8	3,18	1/4	6,35	.070	.003	1.78	.08
* 007	5/32	3,96	9/32	7,14	.070	.003	1.78	.08
* 008	3/16	4,76	5/16	7,94	.070	.003	1.78	.08
* 009	7/32	5,54	11/32	8,71	.070	.003	1.78	.08
* 010	1/4	6,35	3/8	9,53	.070	.003	1.78	.08
* 011	5/16	7,94	7/16	11,11	.070	.003	1.78	.08
* 012	3/8	9,53	1/2	12,70	.070	.003	1.78	.08
* 013	7/16	11,11	9/16	14,29	.070	.003	1.78	.08
* 014	1/2	12,70	5/8	15,88	.070	.003	1.78	.08
* 015	9/16	14,29	11/16	17,46	.070	.003	1.78	.08
* 016	5/8	15,88	3/4	19,05	.070	.003	1.78	.08
* 017	11/16	17,46	13/16	20,64	.070	.003	1.78	.08
* 018	3/4	19,05	7/8	22,23	.070	.003	1.78	.08
* 019	13/16	20,64	15/16	23,81	.070	.003	1.78	.08
* 020	7/8	22,23	1	25,40	.070	.003	1.78	.08
* 021	15/16	23,81	1-1/16	27,00	.070	.003	1.78	.08
* 022	1	25,40	1.1/8	28,58	.070	.003	1.78	.08
* 023	1.1/16	27,00	1.3/16	30,16	.070	.003	1.78	.08
* 024	1.1/8	28,58	1.1/4	31,75	.070	.003	1.78	.08
* 025	1.3/16	30,16	1.5/16	33,34	.070	.003	1.78	.08
* 026	1.1/4	31,75	1.3/8	34,93	.070	.003	1.78	.08
* 027	1.5/16	33,34	1.7/16	36,51	.070	.003	1.78	.08
* 028	1.3/8	34,93	1.1/2	38,10	.070	.003	1.78	.08
029	1.1/2	38,10	1.5/8	41,28	.070	.003	1.78	.08
030	1.5/8	41,28	1.3/4	44,50	.070	.003	1.78	.08

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
031	1.3/4	44,45	1.7/8	47,63	.070	.003	1.78	.08
032	1.7/8	47,63	2	50,80	.070	.003	1.78	.08
033	2	50,80	2 1/8	53,98	.070	.003	1.78	.08
034	2.1/8	53,98	2.1/4	57,15	.070	.003	1.78	.08
035	2.1/4	57,15	2.3/8	60,33	.070	.003	1.78	.08
036	2.3/8	60,33	2.1/2	63,50	.070	.003	1.78	.08
037	2.1/2	63,50	2.5/8	66,68	.070	.003	1.78	.08
038	2.5/8	66,68	2.3/4	69,85	.070	.003	1.78	.08
039	2.3/4	69,85	2.7/8	73,03	.070	.003	1.78	.08
040	2.7/8	73,03	3	76,20	.070	.003	1.78	.08
041	3	76,20	3.1/8	79,38	.070	.003	1.78	.08
042	3.1/4	82,55	3.3/8	85,73	.070	.003	1.78	.08
043	3.1/2	88,90	3.5/8	92,08	.070	.003	1.78	.08
044	3.3/4	95,25	3.7/8	98,43	.070	.003	1.78	.08
045	4	101,60	4.1/8	104,78	.070	.003	1.78	.08
046	4.1/4	107,95	4.3/8	111,13	.070	.003	1.78	.08
047	4.1/2	114,30	4.5/8	117,48	.070	.003	1.78	.08
048	4.3/4	120,65	4.7/8	123,83	.070	.003	1.78	.08
049	5	127,00	5.1/8	130,18	.070	.003	1.78	.08
050	5.1/4	133,35	5.3/8	136,53	.070	.003	1.78	.08
102	1/16	1,59	1/4	6,35	.103	.003	2.62	.08
103	3/32	2,36	9/32	7,14	.103	.003	2.62	.08
104	1/8	3,18	5/16	7,94	.103	.003	2.62	.08
105	5/32	3,96	11/32	8,71	.103	.003	2.62	.08
106	3/16	4,76	3/8	9,53	.103	.003	2.62	.08
107	7/32	5,54	13/32	10,31	.103	.003	2.62	.08
108	1/4	6,35	7/16	11,11	.103	.003	2.62	.08
109	5/16	7,94	1/2	12,70	.103	.003	2.62	.08
* 110	3/8	9,53	9/16	14,29	.103	.003	2.62	.08
* 111	7/16	11,11	5/8	15,88	.103	.003	2.62	.08

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 112	1/2	12,70	11/16	17,46	.103	.003	2,62	.08
* 113	9/16	14,29	3/4	19,05	.103	.003	2,62	.08
* 114	5/8	15,88	13/16	20,64	.103	.003	2,62	.08
* 115	11/16	17,46	7/8	22,23	.103	.003	2,62	.08
* 116	3/4	19,05	15/16	23,81	.103	.003	2,62	.08
* 117	13/16	20,64	1	25,40	.103	.003	2,62	.08
* 118	7/8	22,23	1.1/16	27,00	.103	.003	2,62	.08
* 119	15/16	23,81	1.1/8	28,58	.103	.003	2,62	.08
* 120	1	25,40	1.3/16	30,16	.103	.003	2,62	.08
* 121	1.1/16	27,00	1.1/4	31,75	.103	.003	2,62	.08
* 122	1.1/8	28,58	1.5/16	33,34	.103	.003	2,62	.08
* 123	1.3/16	30,16	1.3/8	34,93	.103	.003	2,62	.08
* 124	1.1/4	31,75	1.7/16	36,51	.103	.003	2,62	.08
* 125	1.5/16	33,34	1.1/2	38,10	.103	.003	2,62	.08
* 126	1.3/8	34,93	1.9/16	39,69	.103	.003	2,62	.08
* 127	1.7/16	36,51	1.5/8	41,28	.103	.003	2,62	.08
* 128	1.1/2	38,10	1.11/16	42,86	.103	.003	2,62	.08
* 129	1.9/16	39,69	1.3/4	44,50	.103	.003	2,62	.08
* 130	1.5/8	41,28	1.13/16	46,04	.103	.003	2,62	.08
* 131	1.11/16	42,86	1.7/8	47,63	.103	.003	2,62	.08
* 132	1.3/4	44,50	1.15/16	49,21	.103	.003	2,62	.08
* 133	1.13/16	46,04	2	50,80	.103	.003	2,62	.08
* 134	1.7/8	47,63	2.1/16	52,39	.103	.003	2,62	.08
* 135	1.15/16	49,21	2.1/8	53,98	.103	.003	2,62	.08
* 136	2	50,80	2.3/16	55,56	.103	.003	2,62	.08
* 137	2.1/16	52,39	2.1/4	57,15	.103	.003	2,62	.08
* 138	2.1/8	53,98	2.5/16	58,74	.103	.003	2,62	.08
* 139	2.3/16	55,56	2.3/8	60,33	.103	.003	2,62	.08
* 140	2.1/4	57,15	2.7/16	61,91	.103	.003	2,62	.08
* 141	2.5/16	58,74	2.1/2	63,50	.103	.003	2,62	.08



0-RINGS

SERIES:- AS.568A
WITH BS1 806:1962 MARKED *

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 142	2.3/8	60,33	2.9/16	65,09	.103	.003	2,62	.08
* 143	2.7/16	61,91	2.5/8	66,68	.103	.003	2,62	.08
* 144	2.1/2	63,50	2.11/16	68,26	.103	.003	2,62	.08
* 145	2.9/16	65,09	2.3/4	69,85	.103	.003	2,62	.08
* 146	2.5/8	66,68	2.13/16	71,44	.103	.003	2,62	.08
* 147	2.11/16	68,26	2.7/8	73,03	.103	.003	2,62	.08
* 148	2.3/4	69,85	2.15/16	74,61	.103	.003	2,62	.08
* 149	2.13/16	71,44	3	76,20	.103	.003	2,62	.08
150	2.7/8	73,03	3.1/16	77,79	.103	.003	2,62	.08
151	3	76,20	3.3/16	80,96	.103	.003	2,62	.08
152	3.1/4	82,55	3.7/16	87,31	.103	.003	2,62	.08
153	3.1/2	88,90	3.11/16	93,66	.103	.003	2,62	.08
154	3.3/4	95,25	3.15/16	100,01	.103	.003	2,62	.08
155	4	101,60	4.3/16	106,36	.103	.003	2,62	.08
156	4.1/4	107,95	4.7/16	112,71	.103	.003	2,62	.08
157	4.1/2	114,30	4.11/16	119,06	.103	.003	2,62	.08
158	4.3/4	120,65	4.15/16	125,41	.103	.003	2,62	.08
159	5	127,00	5.3/16	131,76	.103	.003	2,62	.08
160	5.1/4	133,35	5.7/16	138,11	.103	.003	2,62 '	.08
161	5.1/2	139,70	5.11/16	144,46	.103	.003	2,62	.08
162	5.3/4	146,05	5.15/16	150,81	.103	.003	2,62	.08
163	6	152,40	6.3/16	157,16	.103	.003	2,62	.08
164	6.1/4	158,75	6.7/16	163,51	.103	.003	2,62	.08
165	6.1/2	165,10	6.11/16	169,86	.103	.003	2,62	.08
166	6.3/4	171,45	6.15/16	176,21	.103	.00	2,62	.08
167	7	177,80	7.3/16	182,56	.103	.003	2,62	.08
168	7.1/4	184,15	7.7/16	188,91	.103	.003	2,62	.08
169	7.1/2	190,50	7.11/16	195,26	.103	.003	2,62	.08
170	7.3/4	196,85	7.15/16	201,61	.103	.003	2,62	.08
171	8	203,20	8.3/16	207,96	.103	.003	2,62	.08

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
172	8.1/4	209,55	8.7/16	214,31	.103	.003	2,62	.08
173	8.1/2	215,90	8.11/16	220,66	.103	.003	2,62	.08
174	8.3/4	222,25	8.15/16	227,01	.103	.003	2,62	.08
175	9	228,60	9.3/16	233,36	.103	.003	2,62	.08
176	9.1/4	234,95	9.7/16	239,71	.103	.003	2,62	.08
177	9.1/2	241,30	9.11/16	246,06	.103	.003	2,62	.08
178	9.3/4	247,65	9.15/16	252,41	.103	.003	2,62	.08
201	3/16	4,76	7/16	11,11	.139	.004	3,53	0,10
202	1/4	6,35	1/2	12,70	.139	.004	3,53	0,10
203	5/16	7,94	9/16	14,29	.139	.004	3,53	0,10
204	3/8	9,53	5/8	15,88	.139	.004	3,53	0,10
205	7/16	11,11	11/16	17,46	.139	.004	3,53	0,10
206	1/2	12,70	3/4	19,05	.139	.004	3,53	0,10
207	9/16	14,29	13/16	20,64	.139	.004	3,53	0,10
208	5/8	15,88	7/8	22,23	.139	.004	3,53	0,10
209	11/16	17,46	15/16	23,81	.139	.004	3,53	0,10
* 210	3/4	19,05	1	25,40	.139	.004	3,53	0,10
* 211	13/16	20,64	1-1/16	27,00	.139	.004	3,53	0,10
* 212	7/8	22,23	1-1/8	28,58	.139	.004	3,53	0,10
* 213	15/16	23,81	1.3/16	30,16	.139	.004	3,53	0,10
* 214	1	25,40	1.1/4	31,75	.139	.004	3,53	0,10
* 215	1.1/16	27,00	1.5/16	33,34	.139	.004	3,53	0,10
* 216	1.1/8	28,58	1.3/8	34,93	.139	.004	3,53	0,10
* 217	1.3/16	30,16	1.7/16	36,51	.139	.004	3,53	0,10
* 218	1.1/4	31,75	1.1/2	38,10	.139	.004	3,53	0,10
* 219	1.5/16	33,34	1.9/16	39,69	.139	.004	3,53	0,10
* 220	1.3/8	34,93	1.5/8	41,28	.139	.004	3,53	0,10
* 221	1.7/16	36,51	1.11/16	42,86	.139	.004	3,53	0,10
* 222	1.1/2	38,10	1.3/4	44,50	.139	.004	3,53	0,10
* 223	1-5/8	41,28	1.7/8	47,63	.139	.004	3,53	0,10

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 224	1.3/4	44,50	2	50,80	.139	.004	3,53	0,10
* 225	1.7/8	47,63	2.1/8	53,98	.139	.004	3,53	0,10
* 226	2	50,80	2.1/4	57,15	.139	.004	3,53	0,10
* 227	2.1/8	53,98	2.3/8	60,33	.139	.004	3,53	0,10
* 228	2.1/4	57,15	2.1/2	63,50	.139	.004	3,53	0,10
* 229	2.3/8	60,33	2.5/8	66,68	.139	.004	3,53	0,10
* 230	2.1/2	63,50	2.3/4	69,85	.139	.004	3,53	0,10
* 231	2.5/8	66,68	2.7/8	73,03	.139	.004	3,53	0,10
* 232	2.3/4	69,85	3	76,20	.139	.004	3,53	0,10
* 233	2.7/8	73,03	3.1/8	79,38	.139	.004	3,53	0,10
* 234	3	76,20	3.1/4	82,55	.139	.004	3,53	0,10
* 235	3.1/8	79,38	3.3/8	85,73	.139	.004	3,53	0,10
* 236	3.1/4	82,55	3.1/2	88,90	.139	.004	3,53	0,10
* 237	3.3/8	85,73	3.5/8	92,08	.139	.004	3,53	0,10
* 238	3.1/2	88,90	3.3/4	95,25	.139	.004	3,53	0,10
* 239	3.5/8	92,08	3.7/8	98,43	.139	.004	3,53	0,10
* 240	3.3/4	95,25	4	101,60	.139	.004	3,53	0,10
* 241	3.7/8	98,43	4.1/8	104,78	.139	.004	3,53	0,10
* 242	4	101,60	4.1/4	107,95	.139	.004	3,53	0,10
* 243	4.1/8	104,78	4.3/8	111,13	.139	.004	3,53	0,10
* 244	4.1/4	107,95	4.1/2	114,30	.139	.004	3,53	0,10
* 245	4.3/8	111,13	4.5/8	117,48	.139	.004	3,53	0,10
* 246	4.1/2	114,30	4.3/4	120,65	.139	.004	3,53	0,10
* 247	4.5/8	117,48	4.7/8	123,83	.139	.004	3,53	0,10
* 248	4.3/4	120,65	5	127,00	.139	.004	3,53	0,10
* 249	4.7/8	123,83	5.1/8	130,18	.139	.004	3,53	0,10
* 250	5	127,00	5-1/4	133,35	.139	.004	3,53	0,10
* 251	5.1/8	130,18	5.3/8	136,53	.139	.004	3,53	0,10
* 252	5.1/4	133,35	5.1/2	139,70	.139	.004	3,53	0,10
* 253	5.3/8	136,53	5.5/8	142,88	.139	.004	3,53	0,10

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 254	5.1/2	139,70	5.3/4	146,05	.139	.004	3,53	0,10
* 255	5.5/8	142,88	5.7/8	149,23	.139	.004	3,53	0,10
* 256	5.3/4	146,05	6	152,40	.139	.004	3,53	0,10
* 257	5.7/8	149,23	6.1/8	155,58	.139	.004	3,53	0,10
* 258	6	152,40	6.1/4	158,75	.139	.004	3,53	0,10
* 259	6.1/4	158,75	6.1/2	165,10	.139	.004	3,53	0,10
* 260	6.1/2	165,10	6.3/4	171,45	.139	.004	3,53	0,10
* 261	6.3/4	171,45	7	177,80	.139	.004	3,53	0,10
* 262	7	177,80	7.1/4	184,15	.139	.004	3,53	0,10
* 263	7.1/4	184,15	7.1/2	190,50	.139	.004	3,53	0,10
* 264	7.1/2	190,50	7.3/4	196,85	.139	.004	3,53	0,10
* 265	7.3/4	196,85	8	203,20	.139	.004	3,53	0,10
* 266	8	203,20	8.1/4	209,55	.139	.004	3,53	0,10
* 267	8.1/4	209,55	8.1/2	215,90	.139	.004	3,53	0,10
* 268	8-1/2	215,90	8.3/4	222,25	.139	.004	3,53	0,10
* 269	8.3/4	222,25	9	228,60	.139	.004	3,53	0,10
* 270	9	228,60	9.1/4	234,95	.139	.004	3,53	0,10
* 271	9.1/4	234,95	9.1/2	241,30	.139	.004	3,53	0,10
* 272	9.1/2	241,30	9.3/4	247,65	.139	.004	3,53	0,10
* 273	9.3/4	247,65	10	254,00	.139	.004	3,53	0,10
* 274	10	254,00	10.1/4	260,35	.139	.004	3,53	0,10
275	10.1/2	266,70	10.3/4	273,05	.139	.004	13,53	0,10
276	1 1	279,40	11.1/4	285,75	.139	.004	3,53	0,10
277	11.1/2	292,10	11.3/4	298,45	.139	.004	3,53	0,10
278	12	304,80	12.1/4	311,15	.139	.004	3,53	0,10
279	13	330,20	13.1/4	336,55	.139	.004	3,53	0,10
280	14	355,60	14.1/4	361,95	.139	.004	3,53	0,10
281	15	381,00	15.1/4	387,35	.139	.004	3,53	0,10
282	16	406,40	16.1/4	412,75	.139	.004	3,53	0,10
283	17	431,80	17.1/4	438,15	.139	.004	3,53	0,10
284	18	457,20	18.1/4	463,55	.139	.004	3,53	0,10



0-RINGS

SERI ES:- AS.568A
WITH BS1806: 1962 MARKED *

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
309	7/16	11,11	13/16	20,64	.210	.005	5,34	0,13
310	1/2	12,70	7/8	22,23	.210	.005	5,34	0,13
311	9/16	14,29	15/16	23,81	.210	.005	5,34	0,13
312	5/8	15,88	1	25,40	.210	.005	5,34	0,13
313	11/16	17,46	1-1/16	27,00	.210	.005	5,34	0,13
314	3/4	19,05	1.1/8	28,58	.210	.005	5,34	0,13
315	13/16	20,64	1.3/16	30,16	.210	.005	5,34	0,13
316	7/8	22,23	1.1/4	31,75	.210	.005	5,34	0,13
317	15/16	23,81	1.5/16	33,34	.210	.005	5,34	0,13
318	1	25,40	1.3/8	34,93	.210	.005	5,34	0,13
319	1.1/16	27,00	1.7/16	36,51	.210	.005	5,34	0,13
320	1.1/8	28,58	1 1/2	38,10	.210	.005	5,34	0,13
321	1.3/16	30,16	1.9/16	39,69	.210	.005	5,34	0,13
322	1.1/4	31,75	1.5/8	41,28	.210	.005	5,34	0,13
323	1.5/16	33,34	1.11/16	42,86	.210	.005	5,34	0,13
324	1.3/8	34,93	1.3/4	44,50	.210	.005	5,34	0,13
* 325	1.1/2	38,10	1.7/8	47,63	.210	.005	5,34	0,13
* 326	1.5/8	41,28	2	50,80	.210	.005	5,34	0,13
* 327	1.3/4	44,50	2.1/8	53,98	.210	.005	5,34	0,13
* 328	1.7/8	47,63	2.1/4	57,15	.210	.005	5,34	0,13
* 329	2	50,80	2.3/8	60,33	.210	.005	5,34	0,13
* 330	2.1/8	53,98	2.1/2	63,50	.210	.005	5,34	0,13
* 331	2.1/4	57,15	2.5/8	66,68	.210	.005	5,34	0,13
* 332	2.3/8	60,33	2.3/4	69.85	.210	.005	5,34	0,13
* 333	2.1/2	63,50	2.7/8	73,03	.210	.005	5,34	0,13
* 334	2.5/8	66,68	3	76,20	.210	.005	5,34	0,13
* 335	2.3/4	69,85	3.1/8	79,38	.210	.005	5,34	0,13
* 336	2.7/8	73,03	3.1/4	82,55	.210	.005	5,34	0,13
* 337	3	76,20	3.3/8	85,73	.210	.005	5,34	0,13

0-RINGS



SERIES:- AS.568A
WITH BS1806: 1962 MARKED *

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 338	3.1/8	79,38	3.1/2	88,90	.210	.005	5,34	0,13
* 339	3.1/4	82,55	3.5/8	92,08	.210	.005	5,34	0,13
* 340	3.3/8	85,73	3.3/4	95,25	.210	.005	5,34	0,13
* 341	3.1/2	88,90	3.7/8	98,43	.210	.005	5,34	0,13
* 342	3.5/8	92,08	4	101,60	.210	.005	5,34	0,13
* 343	3.3/4	95.25	4.1/8	104,78	.210	.005	5,34	0,13
* 344	3.7/8	98,43	4.1/4	107,95	.210	.005	5,34	0,13
* 345	4	101,60	4.3/8	111,13	.210	.005	5,34	0,13
* 346	4.1/8	104,78	4.1/2	114,30	.210	.005	5,34	0,13
* 347	4.1/4	107,95	4.5/8	117,48	.210	.005	5,34	0,13
* 348	4.3/8	111,13	4.3/4	120,65	.210	.005	5,34	0,13
* 349	4.1/2	114,30	4.7/8	123,83	.210	.005	5,34	0,13
350	4.5/8	117,48	5	127,00	.210	.005	5,34	0,13
351	4.3/4	120,65	5.1/8	130,18	.210	.005	5,34	0,13
352	4.7/8	123,83	5.1/4	133,35	.210	.005	5,34	0,13
353	5	127,00	5.3/8	136,53	.210	.005	5,34	0,13
354	5-1/8	130,18	5.1/2	137,70	.210	.005	5,34	0,13
355	5-1/4	133,35	5.5/8	142,88	.210	.005	5,34	0,13
356	5.3/8	136,53	5.3/4	146,05	.210	.005	5,34	0,13
357	5-1/2	139,70	5.7/8	149,23	.210	.005	5,34	0,13
358	5.5/8	142,88	6	152,40	.210	.005	5,34	0,13
359	5.3/4	146,05	6.1/8	155,58	.210	.005	5,34	0,13
360	5.7/8	149,23	6.1/4	158,75	.210	.005	5,34	0,13
361	6	152,40	6.3/8	161,93	.210	.005	5,34	0,13
362	6.1/4	158,75	6.5/8	168,28	.210	.005	5,34	0,13
363	6.1/2	165,10	6.7/8	174,63	.210	.005	5,34	0,13
364	6.3/4	171,45	7.1/8	180,98	.210	.005	5,34	0,13
365	7	177,80	7.3/8	187,33	.210	.005	5,34	0,13
366	7.1/4	184,15	7.5/8	193,68	.210	.005	5,34	0,13
367	7.1/2	190,50	7.7/8	200,03	.210	.005	5,34	0,13

0-RINGS

SERIES:- AS.568A
WITH BS1806: 1962 MARKED *



Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
368	7.3/4	196,85	8.1/8	206,38	.210	.005	5,34	0,13
369	8	203,20	8.3/8	212,73	.210	.005	5,34	0,13
370	8.1/4	209,55	8.5/8	219,08	.210	.005	5,34	0,13
371	8.1/2	215,90	8.7/8	225,43	.210	.005	5,34	0,13
372	8.3/4	222,25	9.1/8	231,78	.210	.005	5,34	0,13
373	9	228,60	9.3/8	238,13	.210	.005	5,34	0,13
374	9.1/4	234,95	9.5/8	244,48	.210	.005	5,34	0,13
375	9.1/2	241,30	9.7/8	250,83	.210	.005	5,34	0,13
376	9.3/4	247,65	10.1/8	257,18	.210	.005	5,34	0,13
377	10	254,00	10.3/8	263,53	.210	.005	5,34	0,13
378	10.1/2	266,70	10.7/8	276,23	.210	.005	5,34	0,13
379	1 1	279,40	11.3/8	288,93	.210	.005	5,34	0,13
380	11.1/2	292,10	11.7/8	301,63	.210	.005	5,34	0,13
381	12	304,80	12.3/8	314,33	.210	.005	5,34	0,13
382	13	330,20	13.3/8	339,73	.210	.005	5,34	0,13
383	14	355,60	14.3/8	365,13	.210	.005	5,34	0,13
384	15	381,00	15.3/8	390,53	.210	.005	5,34	0,13
385	16	406,40	16.3/8	415,93	.210	.005	5,34	0,13
386	17	431,80	17.3/8	441,33	.210	.005	5,34	0,13
387	18	457,20	18.3/8	466,73	.210	.005	5,34	0,13
388	19	482,60	19.3/8	492,13	.210	.005	5,34	0,13
389	20	508,00	20.3/8	517,53	.210	.005	5,34	0,13
390	21	533,40	21.3/8	542,93	.210	.005	5,34	0,13
391	22	558,80	22.3/8	568,33	.210	.005	5,34	0,13
392	23	584,20	23.3/8	593,73	.210	.005	5,34	0,13
393	24	609,60	24.3/8	619,13	.210	.005	5,34	0,13
394	25	635,00	25.3/8	644,53	.210	.005	5,34	0,13
395	26	660,40	26.3/8	669,93	.210	.005	5,34	0,13

Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 425	4.1/2	114,30	5	127,00	.275	.006	6,99	0,15
* 426	4.5/8	117,48	5.1/8	130,18	.275	.006	6,99	0,15
* 427	4.3/4	120,65	5.1/4	133,35	.275	.006	6,99	0,15
* 428	4.7/8	123,83	5.3/8	136,53	.275	.006	6,99	0,15
* 429	5	127,00	5.1/2	139,70	.275	.006	6,99	0,15
* 430	5.1/8	130,18	5.5/8	142,88	.275	.006	6,99	0,15
* 431	5.1/4	133,35	5.3/4	146.05	.275	.006	6,99	0,15
* 432	5.3/8	136,53	5.7/8	149,23	.275	.006	6,99	0,15
* 433	5.1/2	139,70	6	152,40	.275	.006	6,99	0,15
* 434	5.5/8	142,88	6.1/8	155,58	.275	.006	6,99	0,15
* 435	5.3/4	146,05	6.1/4	158,75	.275	.006	6,99	0,15
* 436	5.7/8	149,23	6.3/8	161,93	.275	.006	6,99	0,15
* 437	6	152,40	6.1/2	165,10	.275	.006	6,99	0,15
* 438	6.1/4	158,75	6.3/4	171,45	.275	.006	6,99	0,15
* 439	6.1/2	165,10	7	177,80	.275	.006	6,99	0,15
* 440	6.3/4	171,45	7.1/4	184,15	.275	.006	6,99	0,15
* 441	7	177,80	7.1/2	190,50	.275	.006	6,99	0,15
* 442	7.1/4	184,15	7.3/4	196,85	.275	.006	6,99	0,15
* 443	7.1/2	190,50	8	203,20	.275	.006	6,99	0,15
* 444	7.3/4	196,85	8.1/4	209,55	.275	.006	6,99	0,15
* 445	8	203,20	8.1/2	215,90	.275	.006	6,99	0,15
* 445A	8.1/4	209,55	8.3/4	222,25	.275	.006	6,99	0,15
* 446	8.1/2	215,90	9	228,60	.275	.006	6,99	0,15
* 446A	8.3/4	222,25	9.1/4	234,90	.275	.006	6,99	0,15
* 447	9	228,60	9.1/2	241,30	.275	.006	6,99	0,15
* 447A	9.1/4	234,90	9.3/4	247,65	.275	.006	6,99	0,15
* 448	9.1/2	241,30	10	254,00	.275	.006	6,99	0,15
* 448A	9.3/4	247,65	10.1/4	260,35	.275	.006	6,99	0,15
* 449	10	254,00	10.1/2	266,70	.275	.006	6,99	0,15
* 449A	10.1/4	260,35	10.3/4	273,05	.275	.006	6,99	0,15

0-RINGS

SERIES:- AS.568A
WITH BS1806: 1962 MARKED *



Size Reference No.	To Suit Shaft Dia.		To Suit Cylinder Dia.		Actual O-Ring Cross Section			
	ins	mm	ins	mm	ins	±	mm	±
* 450	10.1/2	266,70	1 1	279,40	.275	.006	6,99	0,15
* 450A	10.3/4	273,05	11.1/4	285,75	.275	.006	6,99	0,15
* 451	11	279,40	11.1/2	292,10	.275	.006	6,99	0,15
* 451 A	11.1/4	285,75	11.3/4	298,45	.275	.006	6,99	0,15
* 452	11.1/2	292,10	12	304,80	.275	.006	6,99	0,15
* 452A	11.3/4	298,45	12.1/4	311,15	.275	.006	6,99	0,15
* 453	12	304,80	12.1/2	317,50	.275	.006	6,99	0,15
* 454	12.1/2	317,50	13	330,20	.275	.006	6,99	0,15
* 455	13	330,20	13.1/2	342,90	.275	.006	6,99	0,15
* 456	13.1/2	342,90	14	355,60	.275	.006	6,99	0,15
* 457	14	355,60	14.1/2	368,30	.275	.006	6,99	0,15
* 458	14.1/2	368,30	15	381,00	.275	.006	6,99	0,15
* 459	15	381,00	15.1/2	393,70	.275	.006	6,99	0,15
* 460	15-1/2	393,70	16	406,40	.275	.006	6,99	0,15
461	16	406,40	16.1/2	419,10	.275	.006	6,99	0,15
462	16.1/2	419,10	17	431,80	.275	.006	6,99	0,15
463	17	431,80	17.1/2	444,50	.275	.006	6,99	0,15
464	17.1/2	444,50	18	457,20	.275	.006	6,99	0,15
465	18	457,20	18.1/2	469,90	.275	.006	6,99	0,15
466	18.1/2	469,90	19	482,60	.275	.006	6,99	0,15
467	19	482,60	19.1/2	495,30	.275	.006	6,99	0,15
468	19.1/2	495,30	20	508,00	.275	.006	6,99	0,15
469	20	508,00	20.1/2	520,70	.275	.006	6,99	0,15
470	21	533,40	21.1/2	546,10	.275	.006	6,99	0,15
471	22	558,80	22.1/2	571,50	.275	.006	6,99	0,15
472	23	584,20	23.1/2	596,90	.275	.006	6,99	0,15
473	24	609,60	24.1/2	622,30	.275	.006	6,99	0,15
474	25	635,00	25.1/2	647,70	.275	.006	6,99	0,15
475	26	660,40	26.1/2	673,10	.275	.006	6,99	0,15

LUBRICATION: 'O'-Rings wear rapidly when operated dry in dynamic applications, therefore suitable lubrication of the mating surfaces will dramatically increase the service life of the seal.

DIRT AND GRIT: The fluid in the system should be absolutely clean and maintained in such condition with efficient filters. Piston rods should be protected with rod wipers or bellows to prevent grit and foreign matter entering the fluid system.

MATERIALS AND FINISHES: For maximum 'O'-Ring life and minimum friction, use steel cylinders with honed bores and hardened steel rods or hard chromed or hard nickel plated surfaces. The dynamic 'O'-Ring surface finish should be 0,4 μ micrometres maximum and the static surface finish should be 0,8 μ micrometres maximum

EXTRUSION AND CLEARANCE: The extent of extrusion or wedging depends upon (1) the clearance, (2) the fluid pressure, and (3) the durometer hardness and physical properties of the 'O'Ring compound - see TABLES below for maximum diametral clearance for the various 'O'-Ring cross-sections at a maximum service pressure of 10341kPa (1500psi). For further information, refer to Engineering Bulletin FC-29, titled 'O'-Ring Back-up Washers.

ALL SURFACES AND CORNERS MUST BE WITHOUT TOOL MARKS, NICKS OR SCRATCHES

DESIGN TABLE FOR DYNAMIC O-RING APPLICATIONS

O-RING DASH No's SERIES ARP-568 AND BS1806:1962	W CROSS SECTION		C GROOVE DEPTH	D GROOVE WIDTH (+.005 - .000)			Recommended Design - %	SQUEEZE		2H DIAMETRAL CLEARANCE Max.	★ ECCEN- TRICITY
	Nominal	Actual		No Back-Up Rings	One Back-Up Ring	Two Back-Up Rings		%	DESIGN LIMITS Inches		
-004 thru -012	1/16	.070 ± .003	.057	.094	.138	.205	20	14 to 25	.010 to .018	.005	.002
-102 thru -116	3/32	.103 ± .003	.090	.141	.171	.238	14	10 to 17	.010 to .018	.005	.002
-201 thru -222	1/8	.139 ± .004	.123	.188	.208	.275	13	9 to 16	.012 to .022	.006	.003
-309 thru -349	5/16	.210 ± .005	.188	.281	.311	.410	12	8 to 14	.017 to .030	.007	.004
-425 thru -475	3/4	.275 ± .006	.240	.375	.408	.538	14	11 to 16	.029 to .044	.008	.005

DESIGN TABLE FOR STATIC O-RING APPLICATIONS

-004 thru -050	1/16	.070 ± .003	.052	.094	.138	.205	28	21 to 33	.015 to .023	.005	.002
-102 thru -178	3/32	.103 ± .003	.083	.141	.171	.238	22	16 to 25	.017 to .026	.005	.002
-201 thru -284	1/8	.139 ± .004	.113	.188	.208	.275	22	16 to 25	.022 to .035	.006	.003
-309 thru -395	5/16	.210 ± .005	.173	.281	.311	.410	22	15 to 24	.032 to .050	.007	.004
-425 thru -475	3/4	.275 ± .006	.220	.375	.408	.538	23	18 to 25	.049 to .069	.008	.005

★ Note: Total indicator reading between groove and adjacent bearing surface.

GROOVE DETAIL

PISTON SEAL
— RECIPROCATING — O.D. DESIGNED

ROD SEAL
— RECIPROCATING — I.D. DESIGNED

FLANGE SEAL
— STATIC — O.D. OR I.D. DESIGNED

END CAP SEAL
— STATIC — I.D. DESIGNED

PLUG SEAL
— STATIC — O.D. DESIGNED

"A" DIA. -- TOLERANCE TABLE 1 -- FOR BORES			
O-Ring Dash Nos.	Tol.	O-Ring Dash Nos.	Tol.
004 thru 050	+ .002 - .000	309 thru 395	+ .005 - .000
102 thru 178	+ .003 - .000	425 thru 475	+ .006 - .000
201 thru 284	+ .004 - .000		

"E" DIA. -- TOLERANCE TABLE 2 -- FOR RODS			
O-Ring Dash Nos.	Tol.	O-Ring Dash Nos.	Tol.
004 thru 050	+ .000 - .002	309 thru 395	+ .000 - .005
102 thru 178	+ .000 - .003	425 thru 475	+ .000 - .006
201 thru 284	+ .000 - .004		

O-RING -- I.D. TOLERANCE TABLE 3			
Nom. I.D.	All O-Rings Tol. ±	Nom. I.D.	All O-Rings Tol. ±
Up to 3/8	.005	5/8 to 7	.023
1/2 to 1 1/2	.006	7 1/4 to 15 1/2	.030
1 1/2 to 2 1/2	.010	16 to 22	.045
2 1/2 to 5	.015	23 to 26	.060

never be without -

LURENE® O-RINGS KITS

Don't have your • **MACHINE • WORK • PRODUCTION • PROFIT**

STOPPED All for the want of an O-Ring



RED LID KIT — contains 190-BS1806:1962 Nitrile synthetic rubber (70-75 Shore-A hardness) O-Rings in cross section sizes 0.070", 0.103" and 0.139" from standard series Size No. 006 to Size No. 222.



YELLOW LID KIT — contains 202 only 0.103" cross section Nitrile synthetic rubber (70-75 Shore-A hardness) O-Rings to series BS1806:1962 from Size No. 104 to Size No. 128.



BLUE LID KIT — contains 190 German (Din) metric O-Rings 2mm, 2.5mm and 3.5mm cross section in 27 popular sizes manufactured from 70-75 Shore-A hardness Nitrile synthetic rubber.

Keep both a Ludowici O-Ring and Back-Up Washer Kit handy.

THE LUDOWICI O-RING KITS

are a "must" for:—

Plant maintenance engineers — Earthmoving equipment repair shops — Hydraulic equipment field service crews — Farm equipment repair and maintenance. Spare parts supply houses will find them to be an excellent stock display item.

The Nitrile synthetic rubber (70-75 Shore-A hardness) O-Rings have excellent resistance to mineral-based lubricants, fuels, hydraulic fluids and water. With fair resistance to dilute acids and good resistance to anhydrous ammonia. The material remains operational from temperature extremes of -40°C. to 120°C.

The Viton® fluoroelastomer (compound VL8022) O-Rings are coloured brown for ease of identification and resist attack by mineral acids, peroxides, alkalis, alcohols, aliphatic solvents, chlorinated solvents, hydraulic fluids, silicone oils and sulphur-bearing extreme pressure lubricants. The material remains operational from temperature extremes of -30°C. to 230°C.

A range of standard BS1806:1962 and non-standard O-Ring sizes are available ex-stock.

For special purpose applications we produce O-Rings and other types of Seals and Packings from Neoprene®, Ethylene Propylene, Hypalon®, Silicone, Polyurethane, natural Rubber and Teflon®.

RE-ORDERING:— Re-order by indicating colour of O-Ring Kit lid, the material required and the Size No. of the O-Ring which is either stamped on the retainer peg or shown on the inside lid label of the kit.

SUPPLEMENT YOUR O-RING KIT

With a Ludowici Lupac-F® (PTFE) Back-up Washer Kit containing 27 sizes of Back-up Washers of Series MS28774-006 to -222 complementing the range of O-Rings in the Red and Brown Lid O-Ring Kits.



BLACK LID KIT — contains 256 only 0.070" cross section Nitrile synthetic rubber (70-75 Shore-A hardness) O-Rings. 246 of these O-Rings are to series BS1806:1962 from Size No. 006 to Size No. 029 and 10 of these O-Rings No. S-3414 are non-standard.



BROWN LID KIT — contains 190-BS1806:1962 VITON fluoroelastomer compound VL8022 O-Rings in cross section sizes 0.070", 0.103" and 0.139" from standard series Size No. 006 to Size No. 222.



GREEN LID KIT — contains 160 Nitrile synthetic rubber (90 Shore-A hardness) O-Rings for use with popular sizes of UNF and SAE pipe adaptor fittings and/or plugs.

CUSTOM BUILT O-RING AND BACK-UP WASHER KITS ON APPLICATION.

Ludowici SEALS

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ABN 22 000 001 365

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