

# OP



La guarnizione tipo OP di Aston Seals è stata sviluppata come valida alternativa all'O-Ring in applicazioni medio-pesanti per evitare fenomeni d'estrusioni e danneggiamenti che normalmente avvengono in presenza di elevati giochi d'accoppiamento o di alte pressioni.

È una guarnizione preferibilmente statica che, energizzata dalla pressione del fluido, può lavorare a semplice o doppio effetto.

I carichi radiali, che garantiscono una buona tenuta, aumentano con la pressione del fluido.

Grazie alla sua elasticità, può essere facilmente installata in poco tempo e senza l'ausilio di accessori particolari.

Il materiale impiegato è una particolare resina poliuretanica che assicura eccellenti proprietà antiusura, elevata vita d'esercizio e resistenza all'estrusione.

- Elevata resistenza all'estrusione
- Resistenza all'attorcigliamento
- Semplice e doppio effetto
- Semplice disegno dell'alloggiamento
- Stabilità alle pressioni pulsanti
- Ampia durata in esercizio
- Di facile installazione

## MATERIALE



Tipologia  
Poliuretano

Designazione  
SEALPUR 93

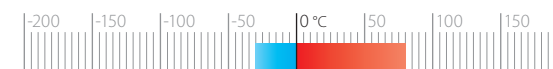
Durezza  
93 °ShA

## CONDIZIONI D'ESERCIZIO

Pressione Vedi tabella seguente

Velocità In funzione delle condizioni d'esercizio.  
È da preferirsi come tenuta statica

Temperatura  
-30°C ÷ +80°C



Fluidi Oli idraulici (a base minerale)  
Per altri fluidi contattare il nostro ufficio tecnico

## GIOCO D'ACCOPIAMENTO "g"

Per evitare l'estrusione, la pressione massima ammissibile dipende dal gioco d'accoppiamento:

1.20 mm	50 bar	0.25 mm	300 bar
0.80 mm	100 bar	0.17 mm	400 bar
0.40 mm	200 bar	0.10 mm	500 bar

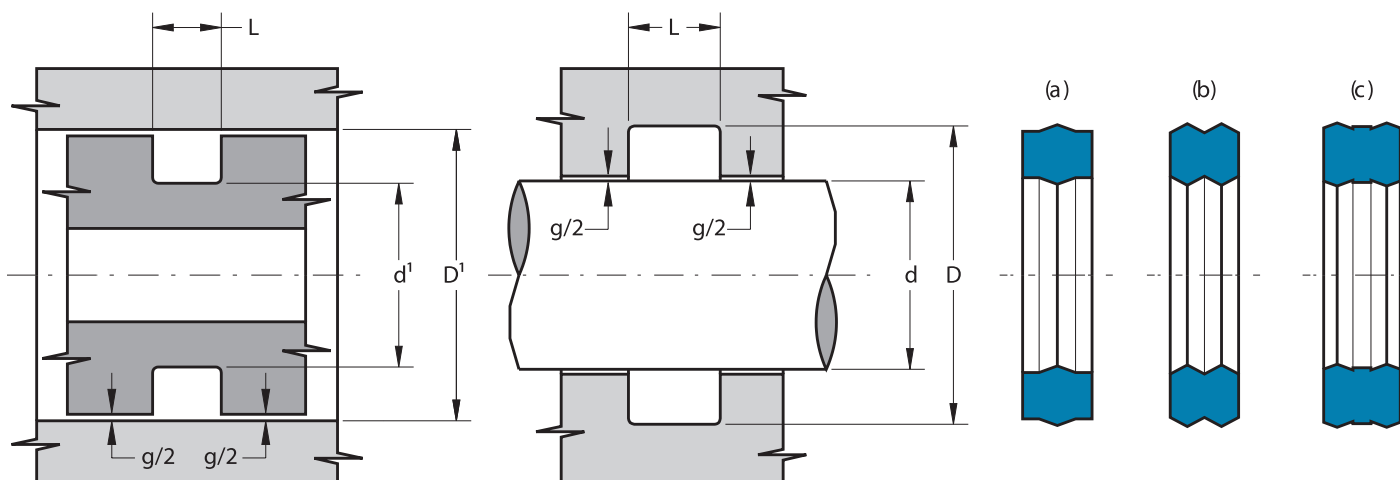
NB: per il calcolo del gioco d'accoppiamento è necessario tenere in considerazione la deformazione elastica delle parti metalliche sottoposte a pressione.

## RUGOSITÀ SUPERFICIALE

Superf. sede Ra ≤ 0.8 μm Rt ≤ 4.8 μm

Per evitare di danneggiare la guarnizione, bave e spigoli vivi nell'area d'installazione devono essere rimossi e la sede deve avere spigoli arrotondati.

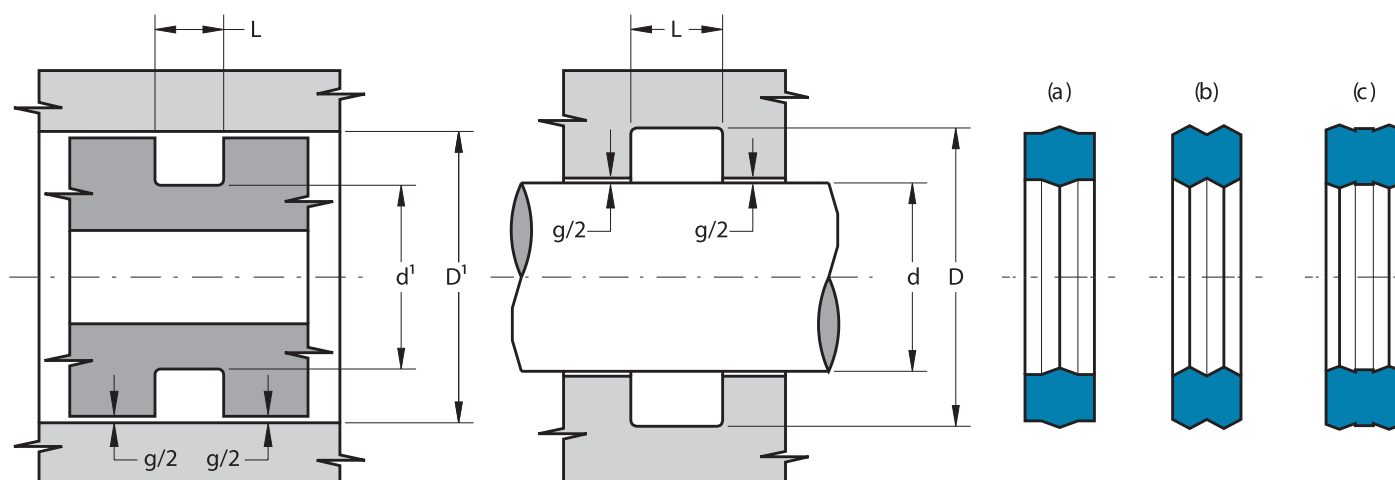
I dati sopra citati sono valori massimi, possono essere mantenuti per brevi periodi e non possono essere usati allo stesso tempo contemporaneamente.



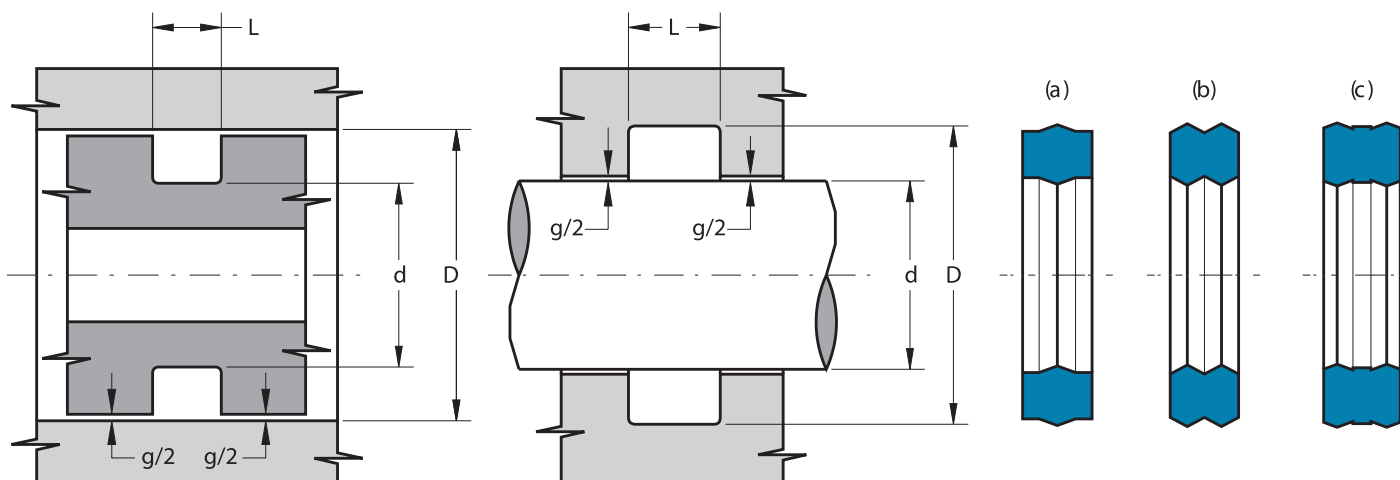
Part.	d <sup>f7</sup>	D <sup>H9</sup>	d <sup>1h9</sup>	D <sup>1H8</sup>	L <sup>+0.2</sup>	Tp.
OP 008	4.5	7.6	4.9	8	2.5	(a)
OP 009	5	8.1	5.9	9	2.5	(a)
OP 012	9	12.1	9.9	13	2.5	(a)
OP 013	11	14.1	10.9	14	2.5	(a)
OP 014	13	16.1	12.9	16	2.5	(a)
OP 014/A	-	-	13.07	15.93	3.5	(b)
OP 015	14	17.1	14.9	18	2.5	(a)
OP 015/A	-	-	14.67	17.53	3.5	(b)
OP 016	16	19.1	15.9	19	2.5	(a)
OP 016/A	-	-	16.25	19.12	3.5	(b)
OP 020/A	-	-	23.1	26	3.5	(b)
OP 023	27	30.1	26.9	30	2.5	(a)
OP 031	44	47.1	44.9	48	2.5	(a)
OP 034	54	57.1	54.9	58	2.5	(a)
OP 109	8	12.5	8.5	13	3.5	(b)
OP 113	14	18.5	14.5	19	3.5	(b)
OP 115	17	21.5	17.5	22	3.5	(b)
OP 116/A	19	23.6	-	-	5.5	(b)
OP 117	20	24.5	20.5	25	3.5	(b)
OP 118/813	22	26.5	22.5	27	3.5	(b)
OP 119	24	28.5	24.5	29	3.5	(b)
OP 120	25	29.5	25.5	30	3.5	(b)
OP 121	28	32.5	27.5	32	3.5	(b)
OP 123	30	34.5	30.5	35	3.5	(b)

Part.	d <sup>f7</sup>	D <sup>H9</sup>	d <sup>1h9</sup>	D <sup>1H8</sup>	L <sup>+0.2</sup>	Tp.
OP 126	35	39.5	35.5	40	3.5	(b)
OP 129	40	44.5	40.5	45	3.5	(b)
OP 130	41	45.5	41.5	46	3.5	(b)
OP 132	44	48.5	44.5	49	3.5	(b)
OP 133	46	50.5	46.5	51	3.5	(b)
OP 138	54	58.5	54.5	59	3.5	(b)
OP 138/A	54	58.5	54.5	59	5.0	(b)
OP 140/A	57	61.5	57.5	62	5.0	(b)
OP 142/A	60	64.5	60.5	65	5.0	(b)
OP 147	68	72.5	68.5	73	3.5	(b)
OP 153	89	93.5	89.5	94	3.5	(b)
OP 156	108	112.5	108.5	113	3.5	(b)
OP 209	17	23.2	17.8	24	4.5	(b)
OP 210	19	25.2	19.8	26	4.5	(b)
OP 211	20	26.2	21.8	28	4.5	(b)
OP 216	28	34.2	28.8	35	4.5	(b)
OP 216/A	28	34.3	-	-	6.5	(b)
OP 217	30	36.2	30.8	37	4.5	(b)
OP 217/A	30	36.3	-	-	6.5	(b)
OP 218	31	37.2	31.8	38	4.5	(b)
OP 219	33	39.2	33.8	40	4.5	(b)
OP 220	35	41.2	35.8	42	4.5	(b)
OP 222	38	44.2	38.8	45	4.5	(b)
OP 225/829	48	54.2	47.8	54	4.5	(b)

Part.	d <sup>f7</sup>	D <sup>H9</sup>	d <sup>1h9</sup>	D <sup>1H8</sup>	L <sup>+0.2</sup>	Tp.
OP 227/833	54	60.2	54.8	61	4.5	(b)
OP 230	64	70.2	63.8	70	4.5	(b)
OP 233	73	79.2	73.8	80	4.5	(b)
OP 233/845/A	73	79.2	73.8	80	6.5	(c)
OP 234	76	82.2	76.8	83	4.5	(b)
OP 235	79	85.2	79.8	86	4.5	(b)
OP 236	82	88.2	82.8	89	4.5	(b)
OP 238	89	95.2	88.8	95	4.5	(b)
OP 239	92	98.2	92.8	99	4.5	(b)
OP 240/A	95	101.2	95.8	102	6.5	(b)
OP 242/A	-	-	101.5	107.8	6.1	(c)
OP 247	117	123.2	117.8	124	4.5	(b)
OP 256	146	152.2	145.8	152	4.5	(b)
OP 326/A	41	50.4	42.6	52	9.5	(c)
OP 335/A	69	78.4	70.6	80	9.5	(c)
OP 337/A	76	85.4	76.6	86	9.5	(c)
OP 340/A	85	94.4	85.6	95	9.5	(c)
OP 342	92	101.4	92.6	102	7.00	(b)
OP 342/A	92	101.4	92.6	102	9.5	(c)
OP 346	104	113.4	105.6	115	7.00	(b)
OP 346/A	104	113.4	105.6	115	9.5	(c)
OP 349/A	114	123.4	115.6	125	9.5	(c)
OP 350/A	117	126.4	118.6	128	9.5	(c)
OP 430	130	142.2	130.8	143	9.5	(c)



Part.	d <sup>f7</sup>	D <sup>H9</sup>	d <sup>1 h9</sup>	D <sup>1 H8</sup>	L <sup>+0.2</sup>	Tp.
<b>OP 614</b>	12	16.8	-	-	3.5	(b)
<b>OP 616</b>	15	19.5	15.5	20	3.5	(b)
<b>OP 617</b>	18	22.8	-	-	3.5	(b)
<b>OP 620</b>	80	89.4	80.6	90	7.0	(c)
<b>OP 621</b>	90	99.4	90.6	100	7.0	(c)
<b>OP 621/A</b>	90	99.4	90.6	100	9.5	(c)
<b>OP 623/A</b>	110	119.4	110.6	120	9.5	(c)
<b>OP 674</b>	210	222.2	209.8	222	9.5	(c)
<b>OP 806</b>	11	14.1	11.9	15	2.5	(a)
<b>OP 806/A</b>	-	-	12.1	15	3.5	(b)
<b>OP 812</b>	21	25.5	21.5	26	3.5	(b)
<b>OP 824</b>	40	46.2	39.8	46	4.5	(b)
<b>OP 826</b>	43	49.2	43.8	50	4.5	(b)
<b>OP 832</b>	52	58.2	53.8	60	4.5	(b)
<b>OP 834</b>	56	62.2	55.8	62	4.5	(b)
<b>OP 835</b>	57	63.2	57.8	64	4.5	(b)
<b>OP 836</b>	59	65.2	58.8	65	4.5	(b)
<b>OP 836/A</b>	59	65.2	58.8	65	6.5	(c)
<b>OP 839</b>	64	70.2	63.8	70	4.5	(b)
<b>OP 842</b>	68	74.2	68.8	75	4.5	(b)
<b>OP 843</b>	70.8	77.0	70.0	70.2	4.5	(b)
<b>OP 845</b>	73	79.2	73.8	80	4.5	(b)
<b>OP 868</b>	143	152.4	143.6	153	7.00	(c)



Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
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- Misure metriche -

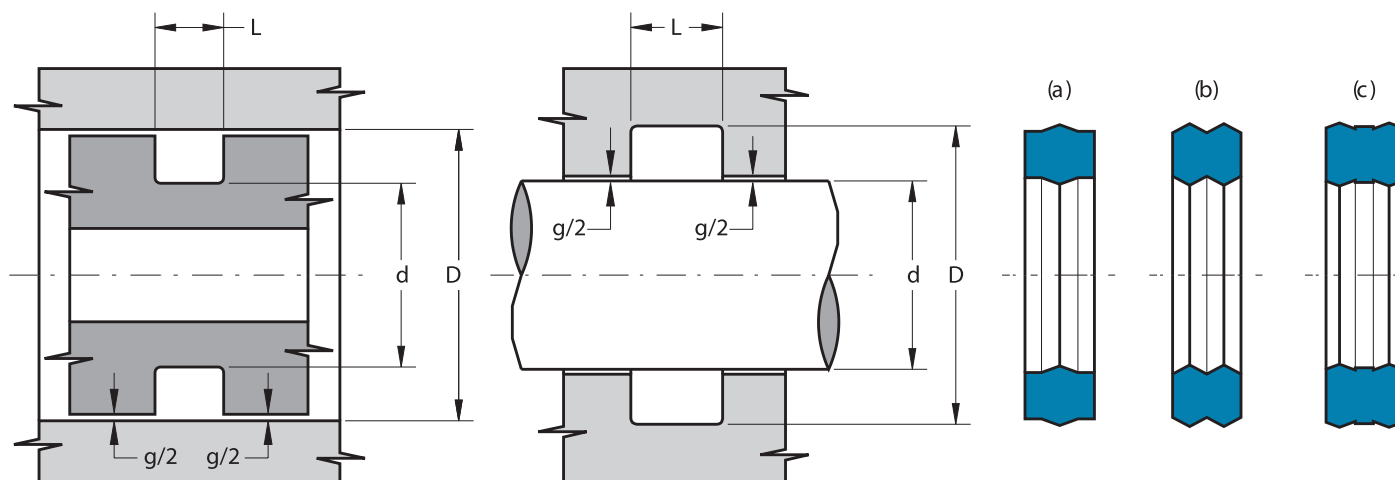
OP 7.4 10 2	7.4	10	2.5	(b)
OP 7.95 10.3 2	7.95	10.3	2.5	(a)
OP 9 11.5 2.1	9	11.5	2.5	(a)
OP 9.25 12 2.5	9.25	12	3.0	(a)
OP 10 14.4 3	10	14.4	3.5	(b)
OP 10.4 12 2.1	10.4	12	2.5	(a)
OP 10.6 13.4 2.1	10.6	13.4	2.5	(a)
OP 11.3 16 2	11.3	16	2.5	(b)
OP 11.4 14.3 2.1	11.4	14.3	2.5	(a)
OP 12 16.6 2.6	12	16.6	3.1	(b)
OP 12 18 6	12	18	7.0	(b)
OP 12.8 17.15 2.64	12.8	17.15	3.14	(b)
OP 13.4 16 1.8	13	16	2.3	(b)
OP 13.2 16 3	13.2	16	3.5	(b)
OP 14 18 5.3	14	18	5.8	(b)
OP 14 30 12	14	30	13.0	(b)
OP 14.6 17.5 2.1	14.6	17.5	2.5	(a)
OP 15.4 18.3 2.1	15.4	18.3	2.5	(a)
OP 15.85 20 4	15.85	20	4.5	(b)
OP 16 20 3	16	20	3.5	(b)
OP 16 20 5.3	16	20	5.8	(b)

Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
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OP 16 30 7.5	16	30	8.5	(b)
OP 16 30 10	16	30	11.0	(b)
OP 16 35 15	16	35	16.0	(b)
OP 16.2 19.1 2.1	16.2	19.1	2.5	(a)
OP 16.9 19.8 2.1	16.9	19.8	2.5	(a)
OP 17 20.3 4	17	20.3	4.5	(b)
OP 17 22 4	17	22	4.5	(b)
OP 17.8 20.6 3	17.8	20.6	3.5	(b)
OP 18.4 21 2	18.4	21	2.5	(a)
OP 18.7 21.5 3	18.7	21.5	3.5	(b)
OP 19.4 22 2	19.4	22	2.5	(b)
OP 19.9 22.5 3	19.9	22.5	3.5	(b)
OP 20 24 4.3	20	24	4.8	(b)
OP 20.4 23 4.1	20.4	23	4.6	(b)
OP 20.65 23.5 3	20.65	23.5	3.5	(a)
OP 21.3 24 3	21.3	24	3.5	(b)
OP 21.3 24 4.5	21.3	24	5.0	(b)
OP 22 26.8 4.8	22	26.8	5.3	(b)
OP 22.4 25 3	22.4	25	3.5	(b)
OP 23 28 4.5	23	28	5.0	(b)
OP 23.4 26 2	23.4	26	2.5	(b)
OP 24.8 29 4.2	24.8	29	4.7	(b)
OP 25.4 28 4.1	25.4	28	4.6	(b)
OP 25.4 30 4.9	25.4	30	5.4	(b)

Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
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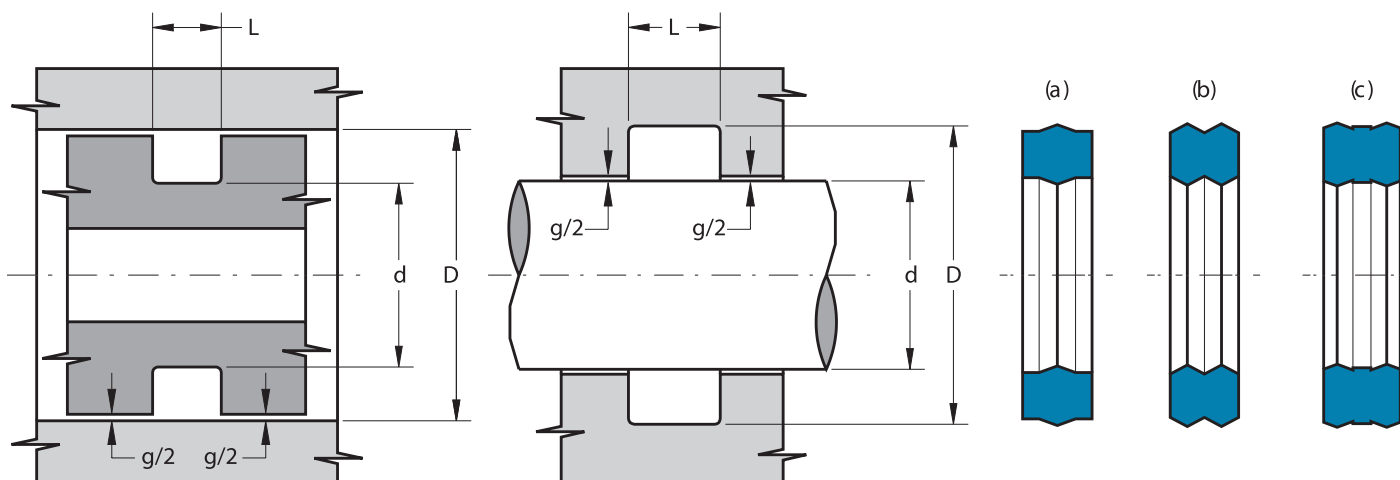
OP 25.8 28.6 3	25.8	28.6	3.5	(a)
OP 26.6 35 5.5	26.6	35	6.5	(b)
OP 27.2 29.9 3	27.2	29.9	3.5	(a)
OP 27.4 30 2	27.4	30	2.5	(b)
OP 27.5 33.6 4	27.5	33.6	4.5	(b)
OP 28.4 31 2	28.4	31	2.5	(b)
OP 28.4 32.6 3	28.4	32.6	3.6	(b)
OP 29 34 4	29	34	4.5	(b)
OP 30.4 35 4.5	30.4	35	5.0	(b)
OP 32 36 5.8	32	36	6.3	(b)
OP 32.5 38.7 4	32.5	38.7	4.5	(b)
OP 32.8 38 4	32.8	38	4.5	(b)
OP 33.4 36 1.8	33	36	2.3	(b)
OP 33.2 36 3.2	33.2	36	3.6	(b)
OP 33.2 36 4.25	33.2	36	4.75	(b)
OP 34.6 40.55 5	34.6	40.55	5.5	(b)
OP 34.6 40.7 4	34.6	40.7	4.5	(b)
OP 35.1 40.6 4	35.1	40.6	4.6	(b)
OP 35.1 41 5.5	35.1	41	6.5	(b)
OP 35.2 38 4.25	35.2	38	4.75	(b)
OP 35.2 40 4.9	35.2	40	5.4	(b)
OP 35.4 40 3.4	35.4	40	3.9	(b)
OP 37.4 40 1.8	37.4	40	2.3	(b)
OP 39 45.2 4	39	45.2	4.5	(b)



Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
OP 40 45 4.9	40	45	5.4	(b)
OP 41.4 45 3.4	41.4	45	3.9	(b)
OP 42.6 48 5.7	42.6	48	6.7	(b)
OP 42.6 50 5.7	42.6	50	6.7	(b)
OP 44.6 50 5.2	44.6	50	6.2	(b)
OP 45.2 51.4 4	45.2	51.4	4.5	(b)
OP 45.4 50 3.4	45.4	50	3.9	(b)
OP 45.4 50 4.9	45.4	50	5.4	(b)
OP 45.5 50.5 3.5	45.5	50.5	4.0	(b)
OP 45.8 50 3	45.8	50	3.5	(b)
OP 47.5 52 3	47.5	52	3.5	(b)
OP 49.4 55.6 4	49.4	55.6	4.5	(b)
OP 50.4 55 3.4	50.4	55	3.9	(b)
OP 50.4 55 4.9	50.4	55	5.4	(b)
OP 50.5 55 3	50.5	55	3.5	(b)
OP 52.2 57 3.5	52.2	57	4.0	(b)
OP 53.8 63 8.7	53.8	63	9.7	(c)
OP 54.2 63.7 5.5	54.2	63.7	6.0	(b)
OP 56 61 4	56	61	4.5	(b)
OP 57.6 63 5.2	57.6	63	6.2	(b)
OP 58.4 63 4.9	58.4	63	5.4	(b)
OP 58.8 63 3	59	63	3.5	(b)
OP 60 66 5.5	60	66	6.5	(b)
OP 60.2 64 2.8	60.2	64	3.2	(b)

Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
OP 60.5 65 3	60.5	65	3.5	(b)
OP 61.1 65.5 4.5	61.1	65.5	5.0	(b)
OP 61.4 66 3.5	61.4	66	4.0	(b)
OP 61.5 66 3	61.5	66	3.5	(b)
OP 64.3 70 5.7	64.3	70	6.7	(b)
OP 65.4 70 4.9	65.4	70	5.4	(b)
OP 65.5 70 3	65.5	70	3.5	(b)
OP 67 73.2 4	67	73.2	4.5	(b)
OP 69.4 75 4.8	69.4	75	5.3	(b)
OP 70 75.6 5.2	70	75.6	6.2	(b)
OP 70.4 75 4.9	70.4	75	5.4	(b)
OP 73 78 4	73	78	4.5	(b)
OP 73 81 5.6	73	81	6.6	(b)
OP 73.6 80 5.4	73.6	80	6.4	(b)
OP 73.8 80 5.9	73.8	80	6.9	(c)
OP 74.4 80 4.8	74.4	80	5.3	(b)
OP 74.5 80 4	74.5	80	4.5	(b)
OP 75.8 80 3	75.8	80	3.5	(b)
OP 76.2 85.6 6	76.2	85.6	7.0	(b)
OP 78.5 83 3	78.5	83	3.5	(b)
OP 78.9 85.2 5.5	78.9	85.2	6.0	(b)
OP 79.3 85 5.7	79.3	85	6.7	(b)
OP 80.4 85 4.9	80.4	85	5.4	(b)
OP 80.6 90 8	80.6	90	9.0	(c)

Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
OP 83 90 5.5	83	90	6.5	(b)
OP 84.3 90 5.7	84.3	90	6.7	(b)
OP 84.6 91.6 5.3	84.6	91.6	6.3	(b)
OP 85 95 8	85	95	9.0	(c)
OP 85 95 10.5	85	95	11.5	(c)
OP 85.4 90 4.9	85.4	90	5.4	(b)
OP 85.5 90.5 4.5	85.5	90.5	5.0	(b)
OP 88 96 5.6	88	96	6.6	(b)
OP 90.2 100 8	90.2	100	9.0	(c)
OP 90.2 100 10.5	90.2	100	11.5	(c)
OP 90.8 100 8.7	90.8	100	9.7	(c)
OP 91.4 100 8	91.4	100	9.0	(c)
OP 93.8 100 5.9	93.8	100	6.9	(c)
OP 95.4 100 4.9	95.4	100	5.4	(b)
OP 95.8 100 3	95.8	100	3.5	(b)
OP 96 101 4.5	96	101	5.0	(b)
OP 100 109.6 8	100	109.6	9.0	(c)
OP 101 106 4.5	101	106	5.0	(b)
OP 101.4 110 8	101.4	110	9.0	(c)
OP 101.7 111 7.5	101.7	111	8.5	(c)
OP 103 111 5.6	103	111	6.6	(b)
OP 105 111 5.5	105	111	6.5	(b)
OP 105.5 116 6.7	105.5	116	7.7	(c)
OP 106.2 112 5.1	106.2	112	6.0	(c)



Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
<b>OP 106.7 116 7.5</b>	106.7	116	8.5	(c)
<b>OP 107.2 113 5.1</b>	107.2	113	6.0	(c)
<b>OP 110 116 5.5</b>	110	116	6.5	(b)
<b>OP 110 119.6 8</b>	110	119.6	9.0	(c)
<b>OP 113 120 5</b>	113	120	6.0	(b)
<b>OP 113 120.1 5.3</b>	113	120.1	6.3	(b)
<b>OP 114.2 120 5</b>	114.2	120	6.0	(b)
<b>OP 114.8 120.5 5.5</b>	114.8	120.5	6.0	(b)
<b>OP 115.5 120.25 3.7</b>	115.5	120.25	4.2	(b)
<b>OP 116.4 125 8</b>	116.4	125	9.0	(c)
<b>OP 117 122.8 5.1</b>	117	122.8	6.0	(b)
<b>OP 118 126 5.6</b>	118	126	6.6	(b)
<b>OP 118.2 127.6 6</b>	118.2	127.6	7.00	(b)
<b>OP 124.5 135 6.7</b>	124.5	135	7.7	(c)
<b>OP 125.2 131 5.1</b>	125.2	131	6.0	(c)
<b>OP 129.2 135 5.1</b>	129.2	135	6.0	(c)
<b>OP 130 138 6</b>	130	138	7.0	(b)
<b>OP 131.6 140 7.6</b>	131.6	140	8.6	(c)
<b>OP 132.8 145 8.5</b>	132.8	145	9.5	(c)
<b>OP 134 140.3 5</b>	134	140.3	6.0	(b)
<b>OP 140.2 146 4</b>	140.2	146	4.5	(b)
<b>OP 143 152 8.1</b>	143	152	9.1	(c)
<b>OP 144 155.5 9.5</b>	144	155.5	10.5	(c)
<b>OP 144.5 155 6.7</b>	144.5	155	7.7	(c)

Part.	d <sup>f7</sup>	D <sup>H8</sup>	L <sup>+0.2</sup>	Tp.
<b>OP 145 151 5</b>	145	151	6.0	(c)
<b>OP 148.4 160 11.3</b>	148.4	160	12.3	(c)
<b>OP 155.1 163.5 7.5</b>	155.1	163.5	8.5	(b)
<b>OP 160.2 166 4</b>	160.2	166	4.5	(b)
<b>OP 165 171 5</b>	165	171	6.0	(c)
<b>OP 165.5 176 6.7</b>	165.5	176	7.7	(c)
<b>OP 165.8 175 8.8</b>	165.8	175	9.8	(b)
<b>OP 166.4 175 8.1</b>	166.4	175	9.1	(c)
<b>OP 168 179.5 9.5</b>	168	179.5	10.5	(c)
<b>OP 185 191 5</b>	185	191	6.0	(c)
<b>OP 185.8 195 8.9</b>	185.8	195	9.9	(b)
<b>OP 187.5 198 6.7</b>	187.5	198	7.7	(c)
<b>OP 188.4 200 11.3</b>	188.4	200	12.3	(c)
<b>OP 192 198 5</b>	192	198	6.0	(c)
<b>OP 196.4 205 8</b>	196.4	205	9.0	(b)
<b>OP 207 213 5</b>	207	213	6.0	(c)
<b>OP 210.5 221 6.7</b>	210.5	221	7.7	(c)
<b>OP 217.4 229 11</b>	217.4	229	12.0	(c)
<b>OP 231 244 7.5</b>	231	244	8.5	(b)
<b>OP 233.5 240.5 8</b>	233.5	240.5	9.0	(c)
<b>OP 248 254 5</b>	248	254	6.0	(b)
<b>OP 262 272 8.5</b>	262	272	9.5	(c)
<b>OP 293 303 8.5</b>	293	303	9.5	(c)