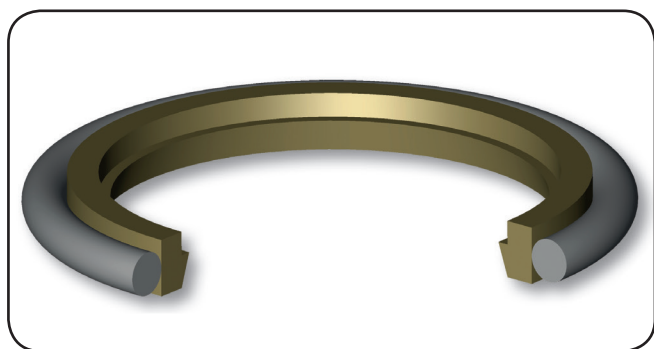




SINGLE-ACTING ROD SEAL

MAIN FEATURES

Durability - The excellent properties against wear of the materials ensure a long durability of ISV seals, even under harsh working conditions. **Extrusion resistance** - The hardness of the seal material makes them highly resistant to extrusion.

Low friction - The materials used have a very low friction coefficient (one of the lowest known) so, when used as a dynamic seal, they absorb much less energy and generate much less heat than conventional seals. The static and dynamic coefficients of friction are almost identical. This ensures smooth, jerk-free travel from start to finish, adding the possibility of precise positioning. Unlike many other materials, it never vulcanises on the surface to be sealed. Even after several years without being used, ISVs will operate smoothly and trouble-free.

Wide temperature range - ISVs will maintain their good properties from low to high temperatures. By properly selecting the O-Ring material, ISV seals will perform flawlessly over a wide temperature range.

Wide range of fluids - The materials used are resistant to almost all types of fluids; by properly matching the O-Ring material, ISVs can be used with almost all fluids.

High Speed - Can be used in reciprocating motion applications, with speeds up to 15 m/sec.

ISV

DESCRIPTION

Single-acting rod seal.

MATERIAL

PTFE WITH LOAD + NBR OR FKM

OPERATING CONDITIONS

Working pressure - < 400 bar. For higher pressures, please contact our Technical Department

Temperature: -40 +120°C.

For temperatures exceeding this range, please contact our Technical Department.

Speed: Reciprocating up to 15 m/sec.

Helical motion up to 5 m/sec.

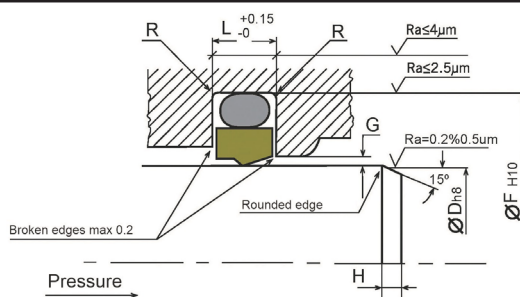
Frequency up to 5 Hz.

They should not be used for rotary applications.

PROPERTIES

In systems with rapid pressure changes and constant reciprocating motion, ISVs must be fitted with grooves in the side walls. The grooves ensure a quick response of the seal to pressure changes.

ISV

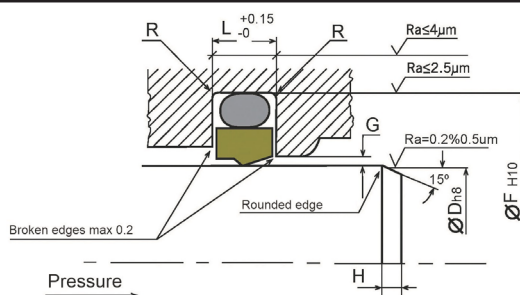


Standard ISV	ØD rod	Heavy ISV/P	ØF H10	L + 0.15	Radius Radius	H	Working pressure				O-ring Øthk
	Light ISV/L						10 Mpa G	20 Mpa G	40 Mpa G		
3 - 7.9	8 - 18.9	-----	D+ 4.9	2.20	0.40	2.00	0.30	0.20	0.15	1.78	
8 - 18.9	19 - 37.9	-----	D+ 7.3	3.20	0.60	2.50	0.40	0.25	0.15	2.62	
19 - 37.9	38 - 199.9	8 - 18.9	D+ 10.7	4.20	1.00	3.50	0.40	0.30	0.20	3.53	
38 - 199.9	200 - 255.9	19 - 37.9	D+ 15.1	6.30	1.30	5.00	0.70	0.40	0.20	5.33	
200 - 255.9	256 - 649.9	38 - 199.9	D+ 20.5	8.10	1.80	6.50	0.80	0.60	0.25	6.99	
256 - 649.9	650 - 999.9	200 - 255.9	D+ 24.0	8.10	1.80	6.50	0.90	0.70	0.30	6.99	
650 - 999.9	≥1000.0	256 - 649.9	D+ 27.3	9.50	2.30	7.50	1.00	0.80	0.40	8.40	
≥1000.0	-----	650 - 999.9	D+ 38.0	13.80	3.00	7.50	1.20	0.90	0.50	12.00	

MEDIUM	O - RING MATERIAL
Hydraulic oil Engine oil Grease Other mineral oils Water Air, dry or lubricated	NBR (Bruna N) In temperatures above 120° use Viton O-Ring
Water, Steam	EPDM (Ethylene propylene)
Hydraulic fluids Synthetics	Special Compounds

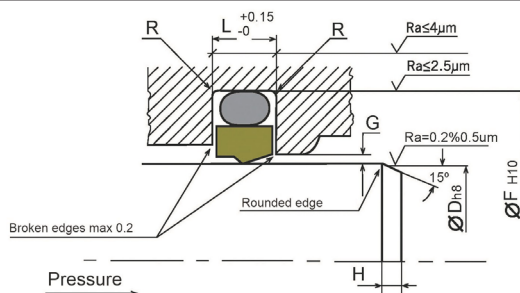
SERIES	
ISV	Standard
ISV/L	Light
ISV/P	Heavy

ISV



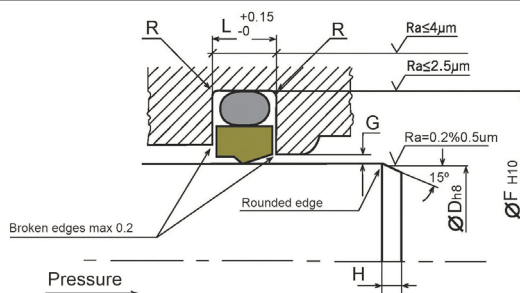
Ø ROD D h8	Ø EXTERNAL F	WIDTH L	REFERENCE	O-RING
3.00	7.90	2.20	ISV 0030-55	4.47 x 1.78
4.00	8.90	2.20	ISV 0040-55	5.60 x 1.78
5.00	9.90	2.20	ISV 0050-55	6.70 x 1.78
6.00	10.90	2.20	ISV 0060-55	7.65 x 1.78
7.00	11.90	2.20	ISV 0070-55	8.75 x 1.78
8.00	12.90	2.20	ISV/L 0080-55	9.50 x 1.78
8.00	15.30	3.32	ISV 0080-55	10.77 x 2.62
9.00	13.90	2.20	ISV/L 0090-55	10.82 x 1.78
9.00	16.30	3.20	ISV 0090-55	10.77 x 2.62
10.00	14.90	2.20	ISV/L 0100-55	11.80 x 1.78
10.00	17.30	3.20	ISV 0100-55	12.37 x 2.62
12.00	16.90	2.20	ISV/L 0120-55	14.00 x 1.78
12.00	19.30	3.20	ISV 0120-55	13.94 x 2.62
14.00	18.90	2.20	ISV/L 0140-55	15.60 x 1.78
14.00	21.30	3.20	ISV 0140-55	17.12 x 2.62
15.00	19.90	2.20	ISV/L 0150-55	17.17 x 1.78
15.00	22.30	3.20	ISV 0150-55	17.12 x 2.62
16.00	20.90	2.20	ISV/L 0160-55	17.17 x 1.78
16.00	23.30	3.20	ISV 0160-55	18.72 x 2.62
17.00	21.90	2.20	ISV/L 0170-55	18.77 x 1.78
18.00	22.90	2.20	ISV/L 0180-55	18.77 x 1.78
18.00	25.30	3.20	ISV 0180-55	20.29 x 2.62
19.00	29.70	4.20	ISV 0190-55	23.40 x 3.53
20.00	27.30	3.20	ISV/L 0200-55	21.89 x 2.62
20.00	30.70	4.20	ISV 0200-55	23.40 x 3.53
22.00	29.30	3.20	ISV/L 0220-55	25.07 x 2.62
22.00	32.70	4.20	ISV 0220-55	26.58 x 3.53
24.00	31.30	3.20	ISV/L 0240-55	26.64 x 2.62
25.00	32.30	3.20	ISV/L 0250-55	28.24 x 2.62
25.00	35.70	4.20	ISV 0250-55	29.75 x 3.53
26.00	33.30	3.20	ISV/L 0260-55	28.24 x 2.62
26.00	36.70	4.20	ISV 0260-55	29.75 x 3.53
28.00	35.30	3.20	ISV/L 0280-55	29.82 x 2.62
28.00	38.70	4.20	ISV 0280-55	32.92 x 3.53
30.00	37.30	3.20	ISV/L 0300-55	32.99 x 2.62
30.00	40.70	4.20	ISV 0300-55	34.52 x 3.53
32.00	39.30	3.20	ISV/L 0320-55	34.59 x 2.62
32.00	42.70	4.20	ISV 0320-55	36.09 x 3.53
35.00	42.30	3.20	ISV/L 0350-55	37.77 x 2.62

ISV



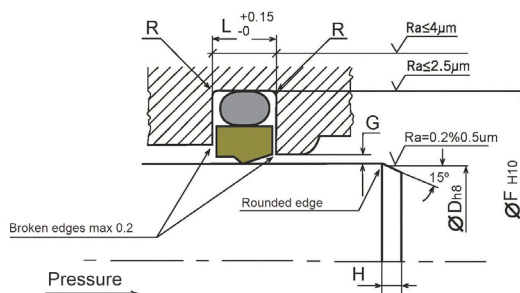
Ø ROD D h8	Ø EXTERNAL F	WIDTH L		REFERENCE		O-RING	
35.00	45.70	4.20	ISV	0350-55	37.69	x	3.53
36.00	43.30	3.20	ISV/L	0360-55	39.34	x	2.62
36.00	46.70	4.20	ISV	0360-55	40.87	x	3.53
37.00	44.30	3.20	ISV/L	0370-55	39.34	x	2.62
37.00	47.70	4.20	ISV	0370-55	40.87	x	3.53
38.00	48.70	4.20	ISV/L	0380-55	40.87	x	3.53
38.00	53.10	6.30	ISV	0380-55	43.82	x	5.33
40.00	50.70	4.20	ISV/L	0400-55	44.04	x	3.53
40.00	55.10	6.30	ISV	0400-55	43.82	x	5.33
42.00	52.70	4.20	ISV/L	0420-55	47.22	x	3.53
42.00	57.10	6.30	ISV	0420-55	46.99	x	5.33
43.00	53.70	4.20	ISV/L	0430-55	47.22	x	3.53
45.00	55.70	4.20	ISV/L	0450-55	50.39	x	3.53
45.00	60.10	6.30	ISV	0450-55	50.17	x	5.33
48.00	58.70	4.20	ISV/L	0480-55	51.50	x	3.53
48.00	63.10	6.30	ISV	0480-55	53.34	x	5.33
50.00	60.70	4.20	ISV/L	0500-55	53.57	x	3.53
50.00	65.10	6.30	ISV	0500-55	56.52	x	5.33
52.00	62.70	4.20	ISV/L	0520-55	56.74	x	3.53
52.00	67.10	6.30	ISV	0520-55	56.52	x	5.33
54.00	69.10	6.30	ISV	0540-55	59.69	x	5.33
55.00	65.70	4.20	ISV/L	0550-55	59.92	x	3.53
55.00	70.10	6.30	ISV	0550-55	59.69	x	5.33
56.00	66.70	4.20	ISV/L	0560-55	59.92	x	3.53
56.00	71.10	6.30	ISV	0560-55	62.87	x	5.33
56.00	76.50	8.10	ISV/P	0560-55	63.00	x	7.00
57.00	72.10	6.30	ISV	0570-55	62.87	x	5.33
59.00	69.70	4.20	ISV/L	0590-55	63.09	x	3.53
60.00	70.70	4.20	ISV/L	0600-55	63.09	x	3.53
60.00	75.10	6.30	ISV	0600-55	66.04	x	5.33
63.00	73.70	4.20	ISV/L	0630-55	66.27	x	3.53
63.00	78.10	6.30	ISV	0630-55	69.22	x	5.33
65.00	75.70	4.20	ISV/L	0650-55	69.44	x	3.53
65.00	80.10	6.30	ISV	0650-55	69.22	x	5.33
67.00	77.70	4.20	ISV/L	0670-55	72.62	x	3.53
69.00	84.10	6.30	ISV	0690-55	75.57	x	5.33
70.00	80.70	4.20	ISV/L	0700-55	75.79	x	3.53
70.00	85.10	6.30	ISV	0700-55	75.79	x	5.33
70.00	90.50	8.10	ISV/P	0700-55	78.00	x	7.00

ISV



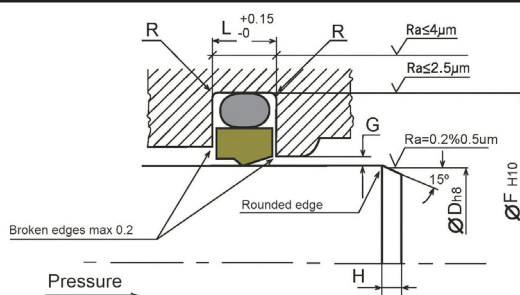
Ø ROD D h8	Ø EXTERNAL F	WIDTH L		REFERENCE		O-RING	
72.00	82.70	4.20	ISV/L	0720-55	75.79	x	3.53
73.00	88.10	6.30	ISV	0730-55	78.74	x	5.33
75.00	85.70	4.20	ISV/L	0750-55	78.97	x	3.53
75.00	90.10	6.30	ISV	0750-55	81.92	x	5.33
78.00	93.10	6.30	ISV	0780-55	85.09	x	5.33
80.00	90.70	4.20	ISV/L	0800-55	85.32	x	3.53
80.00	95.10	6.30	ISV	0800-55	85.09	x	5.33
80.00	100.50	8.10	ISV/P	0800-55	88.00	x	7.00
83.00	93.70	4.20	ISV/L	0830-55	88.49	x	3.53
85.00	95.70	4.20	ISV/L	0850-55	88.49	x	3.53
85.00	100.10	6.30	ISV	0850-55	91.44	x	5.33
85.00	105.50	8.10	ISV/P	0850-55	93.00	x	7.00
90.00	100.70	4.20	ISV/L	0900-55	94.84	x	3.53
90.00	105.10	6.30	ISV	0900-55	94.62	x	5.33
90.00	110.50	8.10	ISV/P	0900-55	98.00	x	7.00
92.00	102.70	4.20	ISV/L	0920-55	98.02	x	3.53
92.00	107.10	6.30	ISV	0920-55	97.79	x	5.33
95.00	105.70	4.20	ISV/L	0950-55	101.19	x	3.53
95.00	110.10	6.30	ISV	0950-55	100.97	x	5.33
100.00	110.70	4.20	ISV/L	1000-55	104.37	x	3.53
100.00	115.10	6.30	ISV	1000-55	107.32	x	5.33
100.00	120.50	8.10	ISV/P	1000-55	108.00	x	7.00
105.00	120.10	6.30	ISV	1050-55	110.49	x	5.33
105.00	125.50	8.10	ISV/P	1050-55	113.67	x	6.99
110.00	120.70	4.20	ISV/L	1100-55	113.89	x	3.53
110.00	125.10	6.30	ISV	1100-55	116.84	x	5.33
110.00	130.50	8.10	ISV/P	1100-55	116.84	x	6.99
115.00	130.10	6.30	ISV	1150-55	120.02	x	5.33
120.00	135.10	6.30	ISV	1200-55	126.37	x	5.33
120.00	145.50	8.10	ISV/P	1200-55	129.54	x	6.99
125.00	140.10	6.30	ISV	1250-55	129.54	x	5.33
125.00	145.50	8.10	ISV/P	1250-55	132.72	x	6.99
127.00	142.10	6.30	ISV	1270-55	132.72	x	5.33
130.00	145.10	6.30	ISV	1300-55	135.89	x	5.33
130.00	150.50	8.10	ISV/P	1300-55	139.07	x	6.99
132.00	147.10	6.30	ISV	1320-55	139.07	x	5.33
135.00	145.70	4.20	ISV/L	1350-55	139.29	x	3.53
135.00	150.10	6.30	ISV	1350-55	142.24	x	5.33
137.00	152.10	6.30	ISV	1370-55	142.24	x	5.33

ISV



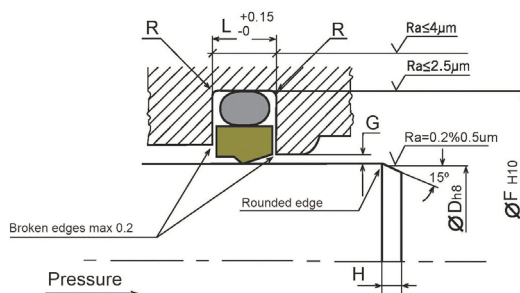
Ø ROD D h8	Ø EXTERNAL F	WIDTH L	REFERENCE	O-RING
138.00	153.10	6.30	ISV 1380-55	142.24 x 5.33
140.00	150.70	4.20	ISV/L 1400-55	145.64 x 3.53
140.00	155.10	6.30	ISV 1400-55	145.42 x 5.33
140.00	160.50	8.10	ISV/P 1400-55	148.59 x 6.99
145.00	160.10	6.30	ISV 1450-55	151.77 x 5.33
145.00	165.50	8.10	ISV/P 1450-55	151.77 x 6.99
150.00	165.10	6.30	ISV 1500-55	158.12 x 5.33
150.00	170.50	8.10	ISV/P 1500-55	158.12 x 6.99
155.00	170.10	6.30	ISV 1550-55	158.12 x 5.33
160.00	175.10	6.30	ISV 1600-55	164.47 x 5.33
160.00	180.50	8.10	ISV/P 1600-55	170.82 x 6.99
165.00	180.10	6.30	ISV 1650-55	170.82 x 5.33
170.00	185.10	6.30	ISV 1700-55	177.17 x 5.33
170.00	190.50	8.10	ISV/P 1700-55	177.17 x 6.99
175.00	190.10	6.30	ISV 1750-55	183.52 x 5.33
180.00	195.10	6.30	ISV 1800-55	183.52 x 5.33
180.00	200.50	8.10	ISV/P 1800-55	189.87 x 6.99
185.00	200.10	6.30	ISV 1850-55	189.87 x 5.33
185.00	205.50	8.10	ISV/P 1850-55	196.22 x 6.99
190.00	205.10	6.30	ISV 1900-55	196.22 x 5.33
190.00	210.50	8.10	ISV/P 1900-55	196.22 x 6.99
195.00	210.10	6.30	ISV 1950-55	202.57 x 5.33
200.00	215.10	6.30	ISV/L 2000-55	208.92 x 5.33
200.00	220.50	8.10	ISV 2000-55	215.27 x 6.99
205.00	225.50	8.10	ISV 2050-55	215.27 x 6.99
210.00	230.50	8.10	ISV 2100-55	215.27 x 6.99
211.00	231.50	8.10	ISV 2110-55	215.27 x 6.99
212.00	232.50	8.10	ISV 2120-55	227.97 x 6.99
215.00	235.50	8.10	ISV 2150-55	227.97 x 6.99
220.00	240.50	8.10	ISV 2200-55	227.97 x 6.99
225.00	245.50	8.10	ISV 2250-55	240.67 x 6.90
230.00	245.10	6.30	ISV/L 2300-55	234.32 x 5.33
230.00	250.50	8.10	ISV 2300-55	240.67 x 6.99
235.00	255.50	8.10	ISV 2350-55	240.67 x 6.99
240.00	260.50	8.10	ISV 2400-55	253.37 x 6.99
245.00	265.50	8.10	ISV 2450-55	253.37 x 6.99
250.00	270.50	8.10	ISV 2500-55	266.07 x 6.99
260.00	284.00	8.10	ISV 2600-55	266.07 x 6.99
265.00	289.00	8.10	ISV 2650-55	278.77 x 6.99

ISV



Ø ROD D h8	Ø EXTERNAL F	WIDTH L	REFERENCE	O-RING
270.00	290.50	8.10	ISV/L 2700-55	278.77 x 6.99
270.00	294.00	8.10	ISV 2700-55	278.77 x 6.99
275.00	299.00	8.10	ISV 2750-55	291.47 x 6.99
280.00	304.00	8.10	ISV 2800-55	291.47 x 6.99
285.00	309.00	8.10	ISV 2850-55	291.47 x 6.99
290.00	314.00	8.10	ISV 2900-55	304.17 x 6.99
295.00	319.00	8.10	ISV 2950-55	304.17 x 6.99
300.00	320.50	8.10	ISV/L 3000-55	304.17 x 6.99
300.00	324.00	8.10	ISV 3000-55	316.87 x 6.99
310.00	334.00	8.10	ISV 3100-55	316.87 x 6.99
320.00	344.00	8.10	ISV 3200-55	329.57 x 6.99
330.00	354.00	8.10	ISV 3300-55	342.27 x 6.99
340.00	364.00	8.10	ISV 3400-55	354.97 x 6.99
350.00	370.50	8.10	ISV/L 3500-55	354.97 x 6.99
350.00	374.00	8.10	ISV 3500-55	367.67 x 6.99
360.00	384.00	8.10	ISV 3600-55	367.67 x 6.99
365.00	389.00	8.10	ISV 3650-55	380.37 x 6.99
370.00	394.00	8.10	ISV 3700-55	380.37 x 6.99
375.00	399.00	8.10	ISV 3750-55	393.07 x 6.99
380.00	404.00	8.10	ISV 3800-55	393.07 x 6.99
390.00	414.00	8.10	ISV 3900-55	405.26 x 6.99
400.00	424.00	8.10	ISV 4000-55	417.96 x 6.99
410.00	434.00	8.10	ISV 4100-55	417.96 x 6.99
420.00	444.00	8.10	ISV 4200-55	430.66 x 6.99
430.00	454.00	8.10	ISV 4300-55	443.36 x 6.99
435.00	459.00	8.10	ISV 4350-55	443.36 x 6.99
440.00	464.00	8.10	ISV 4400-55	456.06 x 6.99
450.00	474.00	8.10	ISV 4500-55	468.76 x 6.99
460.00	484.00	8.10	ISV 4600-55	468.76 x 6.99
470.00	494.00	8.10	ISV 4700-55	481.46 x 6.99
480.00	504.00	8.10	ISV 4800-55	494.16 x 6.99
485.00	509.00	8.10	ISV 4850-55	494.16 x 6.99
490.00	514.00	8.10	ISV 4900-55	506.86 x 6.99
500.00	524.00	8.10	ISV 5000-55	506.86 x 6.99
510.00	534.00	8.10	ISV 5100-55	532.26 x 6.99
520.00	544.00	8.10	ISV 5200-55	532.26 x 6.99
525.00	549.00	8.10	ISV 5250-55	532.26 x 6.99
530.00	554.00	8.10	ISV 5300-55	557.66 x 6.99
540.00	564.00	8.10	ISV 5400-55	557.66 x 6.99

ISV



Ø ROD D h8	Ø EXTERNAL F	WIDTH L	REFERENCE	O-RING
550.00	574.00	8.10	ISV 5500-55	557.66 x 6.99
560.00	584.00	8.10	ISV 5600-55	582.68 x 6.99
570.00	594.00	8.10	ISV 5700-55	582.67 x 6.99
580.00	604.00	8.10	ISV 5800-55	608.08 x 6.99
585.00	609.00	8.10	ISV 5850-55	608.08 x 6.99
590.00	614.00	8.10	ISV 5900-55	608.08 x 6.99
600.00	624.00	8.10	ISV 6000-55	608.08 x 6.99
610.00	634.00	8.10	ISV 6100-55	633.48 x 6.99
620.00	644.00	8.10	ISV 6200-55	633.48 x 6.99
630.00	654.00	8.10	ISV 6300-55	658.88 x 6.99
640.00	664.00	8.10	ISV 6400-55	658.88 x 6.99
650.00	677.30	9.50	ISV 6500-55	663.00 x 8.40
660.00	687.30	9.50	ISV 6600-55	673.00 x 8.40
680.00	707.30	9.50	ISV 6800-55	693.00 x 8.40
685.00	712.30	9.50	ISV 6850-55	698.00 x 8.40
700.00	724.00	9.50	ISV/L 7000-55	712.00 x 7.00
700.00	727.30	9.50	ISV 7000-55	713.00 x 8.40
710.00	737.30	9.50	ISV 7100-55	723.00 x 8.40
730.00	757.30	9.50	ISV 7300-55	743.00 x 8.40
760.00	787.30	9.50	ISV 7600-55	773.00 x 8.40
765.00	792.30	9.50	ISV 7650-55	778.00 x 8.40
780.00	807.30	9.50	ISV 7800-55	793.00 x 8.40
790.00	817.30	9.50	ISV 7900-55	803.00 x 8.40
800.00	827.30	9.50	ISV 8000-55	813.00 x 8.40
810.00	837.30	9.50	ISV 8100-55	823.00 x 8.40
820.00	847.30	9.50	ISV 8200-55	833.00 x 8.40
830.00	857.30	9.50	ISV 8300-55	843.00 x 8.40
850.00	877.30	9.50	ISV 8500-55	863.00 x 8.40
870.00	897.30	9.50	ISV 8700-55	883.00 x 8.40
880.00	907.30	9.50	ISV 8800-55	893.00 x 8.40
885.00	912.30	9.50	ISV 8850-55	898.00 x 8.40
890.00	917.30	9.50	ISV 8900-55	903.00 x 8.40
930.00	957.30	9.50	ISV 9300-55	943.00 x 8.40
955.00	982.30	9.50	ISV 9550-55	968.00 x 8.40
1000.00	1038.00	12.80	ISV 10000-55	1016.00 x 12.00
1035.00	1073.00	13.80	ISV 10350-55	1051.00 x 12.00
1040.00	1067.30	9.50	ISV/L 10400-55	1053.00 x 8.40
1040.00	1078.00	13.80	ISV 10400-55	1056.00 x 12.00
1050.00	1077.30	9.50	ISV/L 10500-55	1063.00 x 8.40
1050.00	1088.00	13.80	ISV 10500-55	1066.00 x 12.00