

Features:

Wiper seal DS-011 is a single acting rod wiper for integral housing.

Composition :

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
DS011-01	PU19	-20 to 100°C	0.5 m/s
DS011-02	VT04	-20 to 200°C	0.5 m/s
DS011-03	NB01	-20 to 100°C	0.5 m/s

For compound detail please refer Royal seal compounds (section - III)

Properties:

- Easy snap in installation
- Very good wiping action
- Wiper can be used for a broad temperature range
- No pressure build-up between seal and wiper

Application:

- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

Fitting:

Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

Ordering format:

Please mention ROYAL order code in your order.

Example : for Size 10.00 X 16.60 X 3.80 / 5.30

For Temp range: - 20°C to +100°C Material P.U.

Order code is **DS011-01-M-010.00X016.60X03.80/05.30**

For Temp range: - 20°C to +200°C Material FPM

Order code is **DS011-02-M-010.00X016.60X03.80/05.30**

For Temp range: - 20°C to +100°C Material NBR

Order code is **DS011-03-M-010.00X016.60X03.80/05.30**

Example : for Size 1.000 X 1.375 X 0.187 / 0.250

For Temp range: - 20°C to +100°C Material P.U.

Order code is **DS011-01-I-01.000 X 01.375 X 0.187/0.250**

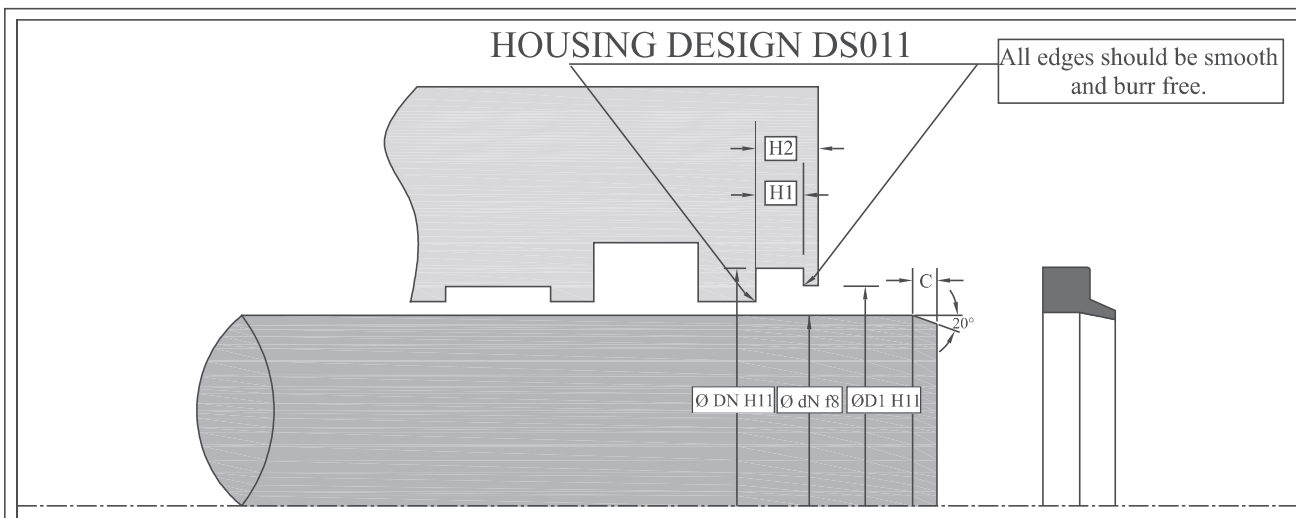
For Temp range: - 20°C to +200°C Material FPM

Order code is **DS011-02-I-01.000 X 01.375 X 0.187/0.250**

For Temp range: - 20°C to +100°C Material NBR

Order code is **DS011-03-I-01.000 X 01.375 X 0.187/0.250**

Please contact ROYAL at info@royalcomposites.co.in / info@royalseals.co.in if your required size is not mentioned in Royal standard size list



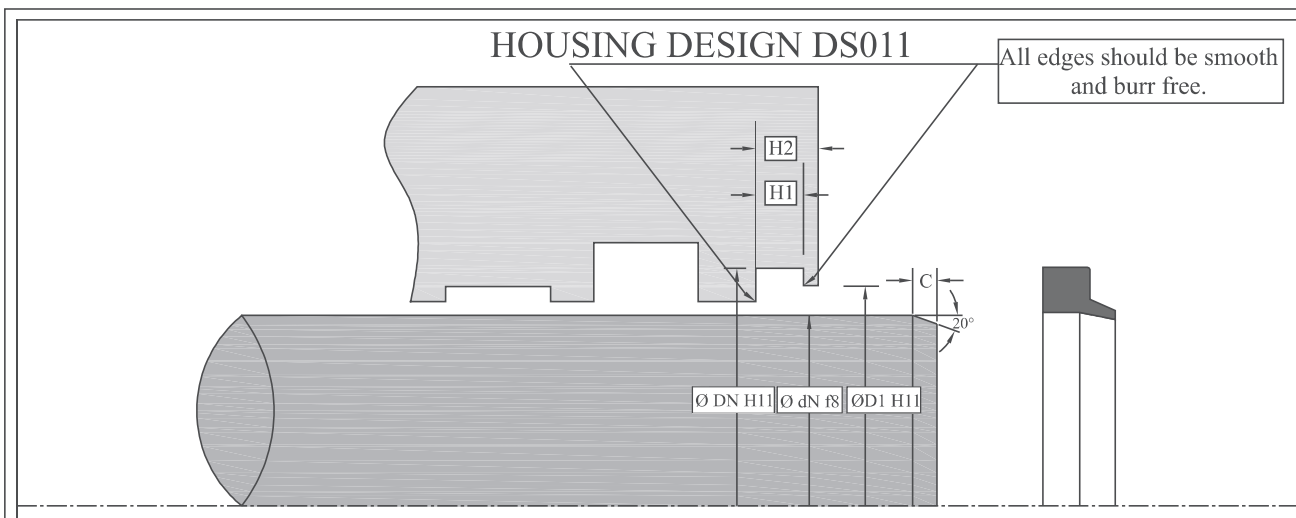
ROYAL STANDARD SIZE LIST

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
9.50	14.00	12.50	2.00	3.00	DS011-M-01-009.50 X 014.00 X 02.0/03.0
10.00	14.60	12.50	1.50	3.00	DS011-M-01-010.00 X 014.60 X 01.5/03.0
10.00	16.00	13.00	2.50	4.00	DS011-M-01-010.00 X 016.00 X 02.5/04.0
10.00	16.60	13.00	3.80	5.30	DS011-M-01-010.00 X 016.60 X 03.8/05.3
12.00	17.00	14.50	2.50	4.50	DS011-M-01-012.00 X 017.00 X 02.5/04.5
12.00	18.00	15.00	3.80	5.00	DS011-M-01-012.00 X 018.00 X 03.8/05.0
12.00	18.60	15.00	3.80	5.30	DS011-M-01-012.00 X 018.60 X 03.8/05.3
12.00	20.00	15.00	5.00	7.00	DS011-M-01-012.00 X 020.00 X 05.0/07.0
14.00	19.00	16.50	2.50	4.00	DS011-M-01-014.00 X 019.00 X 02.5/04.0
14.00	20.00	17.00	3.80	5.50	DS011-M-01-014.00 X 020.00 X 03.8/05.5
14.00	20.60	17.00	3.80	5.30	DS011-M-01-014.00 X 020.60 X 03.8/05.3
15.00	20.00	17.50	2.50	4.00	DS011-M-01-015.00 X 020.00 X 02.5/04.0
16.00	22.00	19.00	2.50	4.00	DS011-M-01-016.00 X 022.00 X 02.5/04.0
16.00	22.00	19.00	3.00	5.00	DS011-M-01-016.00 X 022.00 X 03.0/05.0
16.00	22.50	19.00	3.30	5.30	DS011-M-01-016.00 X 022.50 X 03.3/05.3
16.00	22.60	19.00	3.80	5.30	DS011-M-01-016.00 X 022.60 X 03.8/05.3
16.00	26.00	19.00	5.00	7.00	DS011-M-01-016.00 X 026.00 X 05.0/07.0
18.00	24.00	21.00	3.80	5.30	DS011-M-01-018.00 X 024.00 X 03.8/05.3
18.00	24.60	21.00	3.80	5.30	DS011-M-01-018.00 X 024.60 X 03.8/05.3
18.00	25.00	21.00	2.50	4.50	DS011-M-01-018.00 X 025.00 X 02.5/04.5
18.00	25.00	21.00	2.60	4.00	DS011-M-01-018.00 X 025.00 X 02.6/04.0
18.00	26.00	21.00	5.00	7.00	DS011-M-01-018.00 X 026.00 X 05.0/07.0
20.00	28.00	23.00	2.50	4.00	DS011-M-01-020.00 X 028.00 X 02.5/04.0
20.00	28.00	23.00	5.00	7.00	DS011-M-01-020.00 X 028.00 X 05.0/07.0
20.00	28.60	23.00	5.30	7.00	DS011-M-01-020.00 X 028.60 X 05.3/07.0
22.00	28.00	25.00	5.00	7.00	DS011-M-01-022.00 X 028.00 X 05.0/07.0
22.00	30.00	25.00	3.50	5.00	DS011-M-01-022.00 X 030.00 X 03.5/05.0
22.00	30.00	25.00	5.00	7.00	DS011-M-01-022.00 X 030.00 X 05.0/07.0
22.00	30.60	25.00	5.30	7.00	DS011-M-01-022.00 X 030.60 X 05.3/07.0
25.00	33.00	28.00	3.50	5.00	DS011-M-01-025.00 X 033.00 X 03.5/05.0
25.00	33.00	28.00	5.00	7.00	DS011-M-01-025.00 X 033.00 X 05.0/07.0
25.00	33.60	28.00	5.30	7.00	DS011-M-01-025.00 X 033.60 X 05.3/07.0



SEALS FOR HYDRAULICS & PNEUMATICS

ROYAL STANDARD SIZE LIST					
ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
25.00	35.00	28.00	5.00	7.00	DS011-M-01-025.00 X 035.00 X 05.0/07.0
28.00	36.00	31.00	5.00	7.00	DS011-M-01-028.00 X 036.00 X 05.0/07.0
28.00	36.60	31.00	5.30	7.00	DS011-M-01-028.00 X 036.60 X 05.3/07.0
30.00	38.00	33.00	3.00	5.50	DS011-M-01-030.00 X 038.00 X 03.0/05.5
30.00	38.00	33.00	5.00	7.00	DS011-M-01-030.00 X 038.00 X 05.0/07.0
30.00	38.60	33.00	5.30	7.00	DS011-M-01-030.00 X 038.60 X 05.3/07.0
32.00	40.00	35.00	5.00	7.00	DS011-M-01-032.00 X 040.00 X 05.0/07.0
32.00	40.60	35.00	5.30	7.00	DS011-M-01-032.00 X 040.60 X 05.3/07.0
35.00	43.00	38.00	5.00	7.00	DS011-M-01-035.00 X 043.00 X 05.0/07.0
35.00	43.60	38.00	5.30	7.00	DS011-M-01-035.00 X 043.60 X 05.3/07.0
35.00	45.00	38.00	5.00	7.00	DS011-M-01-035.00 X 045.00 X 05.0/07.0
35.00	48.00	38.00	5.50	10.00	DS011-M-01-035.00 X 048.00 X 05.5/10.0
36.00	44.00	39.00	3.50	6.00	DS011-M-01-036.00 X 044.00 X 03.5/06.0
36.00	44.00	39.00	5.00	7.00	DS011-M-01-036.00 X 044.00 X 05.0/07.0
36.00	44.60	39.00	5.30	7.00	DS011-M-01-036.00 X 044.60 X 05.3/07.0
38.00	48.00	41.00	5.00	7.00	DS011-M-01-038.00 X 048.00 X 05.0/07.0
40.00	48.00	43.00	5.00	7.00	DS011-M-01-040.00 X 048.00 X 05.0/07.0
40.00	48.60	43.00	5.30	7.00	DS011-M-01-040.00 X 048.60 X 05.3/07.0
40.00	50.00	43.00	7.00	12.00	DS011-M-01-040.00 X 050.00 X 07.0/12.0
42.00	50.00	45.00	5.00	7.00	DS011-M-01-042.00 X 050.00 X 05.0/07.0
42.00	50.60	45.00	5.30	7.00	DS011-M-01-042.00 X 050.60 X 05.3/07.0
45.00	53.00	48.00	5.00	7.00	DS011-M-01-045.00 X 053.00 X 05.0/07.0
45.00	54.00	48.00	3.50	6.00	DS011-M-01-045.00 X 054.00 X 03.5/06.0
45.00	55.00	48.00	5.00	7.00	DS011-M-01-045.00 X 055.00 X 05.0/07.0
45.00	55.60	48.00	5.30	7.00	DS011-M-01-045.00 X 055.60 X 05.3/07.0
50.00	58.00	53.00	5.00	7.00	DS011-M-01-050.00 X 058.00 X 05.0/07.0
50.00	58.00	53.00	7.00	10.00	DS011-M-01-050.00 X 058.00 X 07.0/10.0
50.00	58.60	53.00	5.30	7.00	DS011-M-01-050.00 X 058.60 X 05.3/07.0
50.00	60.00	53.00	5.00	7.00	DS011-M-01-050.00 X 060.00 X 05.0/07.0
50.00	60.00	53.00	7.00	12.00	DS011-M-01-050.00 X 060.00 X 07.0/12.0
50.00	60.60	53.00	5.30	7.00	DS011-M-01-050.00 X 060.60 X 05.3/07.0
50.00	68.00	53.00	2.00	6.50	DS011-M-01-050.00 X 068.00 X 02.0/06.5
55.00	65.60	58.00	5.30	7.00	DS011-M-01-055.00 X 065.60 X 05.3/07.0
55.00	66.00	58.00	5.00	8.00	DS011-M-01-055.00 X 066.00 X 05.0/08.0
56.00	66.00	59.00	5.00	8.00	DS011-M-01-056.00 X 066.00 X 05.0/08.0
56.00	66.60	59.00	5.30	7.00	DS011-M-01-056.00 X 066.60 X 05.3/07.0
60.00	68.00	63.00	5.00	7.00	DS011-M-01-060.00 X 068.00 X 05.0/07.0
60.00	70.00	63.00	5.00	8.50	DS011-M-01-060.00 X 070.00 X 05.0/08.5
60.00	70.00	63.00	6.00	10.00	DS011-M-01-060.00 X 070.00 X 06.0/10.0
60.00	70.00	63.00	7.00	12.00	DS011-M-01-060.00 X 070.00 X 07.0/12.0
60.00	70.60	63.00	5.30	7.00	DS011-M-01-060.00 X 070.60 X 05.3/07.0
60.00	75.00	63.00	5.00	7.00	DS011-M-01-060.00 X 075.00 X 05.0/07.0
63.00	73.00	66.00	5.00	7.00	DS011-M-01-063.00 X 073.00 X 05.0/07.0
63.00	73.00	66.00	6.00	10.00	DS011-M-01-063.00 X 073.00 X 06.0/10.0
63.00	73.60	66.00	5.30	7.00	DS011-M-01-063.00 X 073.60 X 05.3/07.0
65.00	75.00	68.00	5.00	7.00	DS011-M-01-065.00 X 075.00 X 05.0/07.0



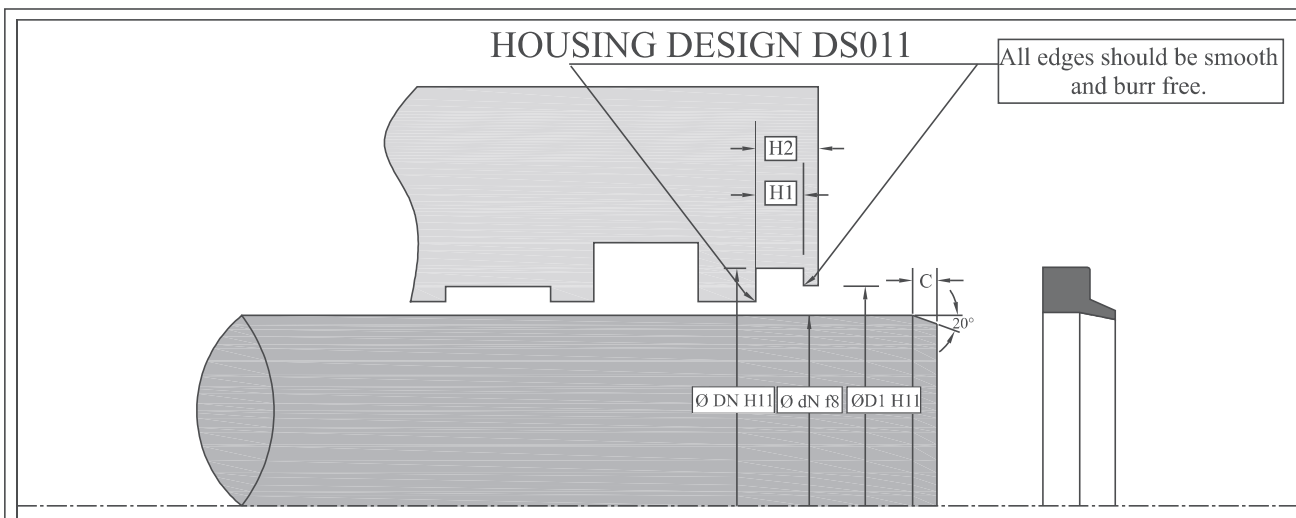
ROYAL STANDARD SIZE LIST

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
65.00	75.00	68.00	6.30	10.00	DS011-M-01-065.00 X 075.00 X 06.3/10.0
65.00	75.00	68.00	7.00	12.00	DS011-M-01-065.00 X 075.00 X 07.0/12.0
65.00	75.60	68.00	5.30	7.00	DS011-M-01-065.00 X 075.60 X 05.3/07.0
68.00	76.00	68.00	3.10	5.00	DS011-M-01-068.00 X 076.00 X 03.1/05.0
70.00	80.00	73.00	5.00	7.00	DS011-M-01-070.00 X 080.00 X 05.0/07.0
70.00	80.60	73.00	5.30	7.00	DS011-M-01-070.00 X 080.60 X 05.3/07.0
70.00	82.00	73.00	5.00	8.00	DS011-M-01-070.00 X 082.00 X 05.0/08.0
75.00	87.00	81.00	7.00	12.00	DS011-M-01-075.00 X 087.00 X 07.0/12.0
75.00	87.20	81.00	7.10	12.00	DS011-M-01-075.00 X 087.20 X 07.1/12.0
77.50	92.50	80.50	7.00	11.00	DS011-M-01-077.50 X 092.50 X 07.0/11.0
78.00	88.00	81.00	5.00	8.50	DS011-M-01-078.00 X 088.00 X 05.0/08.5
80.00	92.00	86.00	7.00	12.00	DS011-M-01-080.00 X 092.00 X 07.0/12.0
80.00	92.20	86.00	7.10	12.00	DS011-M-01-080.00 X 092.20 X 07.1/12.0
84.00	95.00	89.00	5.00	8.00	DS011-M-01-084.00 X 095.00 X 05.0/08.0
85.00	97.00	91.00	7.00	12.00	DS011-M-01-085.00 X 097.00 X 07.0/12.0
85.00	97.20	91.00	7.10	12.00	DS011-M-01-085.00 X 097.20 X 07.1/12.0
90.00	102.00	96.00	7.00	12.00	DS011-M-01-090.00 X 102.00 X 07.0/12.0
90.00	102.20	96.00	7.10	12.00	DS011-M-01-090.00 X 102.20 X 07.1/12.0
90.00	105.00	96.00	7.00	12.00	DS011-M-01-090.00 X 105.00 X 07.0/12.0
95.00	107.00	101.00	7.00	12.00	DS011-M-01-095.00 X 107.00 X 07.0/12.0
99.00	109.00	104.00	5.00	8.50	DS011-M-01-099.00 X 109.00 X 05.0/08.5
100.00	112.00	106.00	7.00	12.00	DS011-M-01-100.00 X 112.00 X 07.0/12.0
100.00	112.20	106.00	7.10	12.00	DS011-M-01-100.00 X 112.20 X 07.1/12.0
104.00	116.00	110.00	8.00	11.00	DS011-M-01-104.00 X 116.00 X 08.0/11.0
105.00	117.00	111.00	7.00	12.00	DS011-M-01-105.00 X 117.00 X 07.0/12.0
110.00	122.00	116.00	7.00	12.00	DS011-M-01-110.00 X 122.00 X 07.0/12.0
110.00	122.20	116.00	7.10	12.00	DS011-M-01-110.00 X 122.20 X 07.1/12.0
115.00	127.00	121.00	7.00	12.00	DS011-M-01-115.00 X 127.00 X 07.0/12.0
115.00	127.20	121.00	7.10	12.00	DS011-M-01-115.00 X 127.20 X 07.1/12.0
115.00	130.00	121.00	6.30	9.00	DS011-M-01-115.00 X 130.00 X 06.3/09.0
120.00	130.00	125.00	5.00	8.50	DS011-M-01-120.00 X 130.00 X 05.0/08.5
120.00	132.00	126.00	7.00	12.00	DS011-M-01-120.00 X 132.00 X 07.0/12.0



SEALS FOR HYDRAULICS & PNEUMATICS

ROYAL STANDARD SIZE LIST					
ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
120.00	132.20	126.00	7.10	12.00	DS011-M-01-120.00 X 132.20 X 07.1/12.0
120.00	135.00	126.00	10.00	16.00	DS011-M-01-120.00 X 135.00 X 10.0/16.0
125.00	137.00	131.00	7.00	12.00	DS011-M-01-125.00 X 137.00 X 07.0/12.0
125.00	137.20	131.00	7.10	12.00	DS011-M-01-125.00 X 137.20 X 07.1/12.0
130.00	142.00	136.00	7.00	12.00	DS011-M-01-130.00 X 142.00 X 07.0/12.0
130.00	142.20	136.00	7.10	12.00	DS011-M-01-130.00 X 142.20 X 07.1/12.0
130.00	143.00	136.00	7.00	12.00	DS011-M-01-130.00 X 143.00 X 07.0/12.0
135.00	147.00	141.00	7.00	12.00	DS011-M-01-135.00 X 147.00 X 07.0/12.0
140.00	152.00	146.00	7.00	12.00	DS011-M-01-140.00 X 152.00 X 07.0/12.0
140.00	152.20	146.00	7.70	12.00	DS011-M-01-140.00 X 152.20 X 07.7/12.0
140.00	153.00	146.00	7.00	12.00	DS011-M-01-140.00 X 153.00 X 07.0/12.0
140.00	155.00	147.00	8.00	14.00	DS011-M-01-140.00 X 155.00 X 08.0/14.0
140.00	155.00	147.60	10.20	16.00	DS011-M-01-140.00 X 155.00 X 10.2/16.0
141.00	151.00	146.00	5.00	8.50	DS011-M-01-141.00 X 151.00 X 05.0/08.5
145.00	157.00	151.00	7.00	12.00	DS011-M-01-145.00 X 157.00 X 07.0/12.0
150.00	162.00	156.00	7.00	12.00	DS011-M-01-150.00 X 162.00 X 07.0/12.0
150.00	162.20	156.00	7.70	12.00	DS011-M-01-150.00 X 162.20 X 07.7/12.0
150.00	165.00	157.60	10.20	16.00	DS011-M-01-150.00 X 165.00 X 10.2/16.0
155.00	167.00	161.00	7.00	12.00	DS011-M-01-155.00 X 167.00 X 07.0/12.0
155.00	167.20	161.00	7.20	12.00	DS011-M-01-155.00 X 167.20 X 07.2/12.0
160.00	172.00	166.00	7.00	12.00	DS011-M-01-160.00 X 172.00 X 07.0/12.0
160.00	172.20	166.00	7.70	12.00	DS011-M-01-160.00 X 172.20 X 07.7/12.0
160.00	175.00	167.00	10.00	16.00	DS011-M-01-160.00 X 175.00 X 10.0/16.0
160.00	175.00	167.60	10.20	16.00	DS011-M-01-160.00 X 175.00 X 10.2/16.0
162.00	172.00	167.00	5.00	8.50	DS011-M-01-162.00 X 172.00 X 05.0/08.5
170.00	182.00	176.00	7.00	12.00	DS011-M-01-170.00 X 182.00 X 07.0/12.0
170.00	182.20	176.00	7.70	12.00	DS011-M-01-170.00 X 182.20 X 07.7/12.0
170.00	185.00	177.00	10.00	16.00	DS011-M-01-170.00 X 185.00 X 10.0/16.0
180.00	200.00	190.00	10.20	18.00	DS011-M-01-180.00 X 200.00 X 10.2/18.0
183.00	193.00	188.00	5.00	8.50	DS011-M-01-183.00 X 193.00 X 05.0/08.5
190.00	210.00	200.00	10.20	18.00	DS011-M-01-190.00 X 210.00 X 10.2/18.0
191.00	201.00	196.00	6.00	10.00	DS011-M-01-191.00 X 201.00 X 06.0/10.0
200.00	220.00	207.00	7.00	14.00	DS011-M-01-200.00 X 220.00 X 07.0/14.0
200.00	220.00	210.00	10.20	18.00	DS011-M-01-200.00 X 220.00 X 10.2/18.0
207.00	217.00	212.00	5.00	8.50	DS011-M-01-207.00 X 217.00 X 05.0/08.5
210.00	230.00	217.00	7.00	14.00	DS011-M-01-210.00 X 230.00 X 07.0/14.0
210.00	230.00	220.00	10.20	18.00	DS011-M-01-210.00 X 230.00 X 10.2/18.0
220.00	240.00	230.00	10.20	18.00	DS011-M-01-220.00 X 240.00 X 10.2/18.0
225.00	245.00	232.00	10.00	16.00	DS011-M-01-225.00 X 245.00 X 10.0/16.0
230.00	250.00	240.00	10.20	18.00	DS011-M-01-230.00 X 250.00 X 10.2/18.0
240.00	260.00	250.00	10.20	18.00	DS011-M-01-240.00 X 260.00 X 10.2/18.0
250.00	270.00	260.00	10.20	18.00	DS011-M-01-250.00 X 270.00 X 10.2/18.0
260.00	280.00	270.00	10.20	18.00	DS011-M-01-260.00 X 280.00 X 10.2/18.0
270.00	290.00	280.00	10.20	18.00	DS011-M-01-270.00 X 290.00 X 10.2/18.0
280.00	300.00	290.00	10.20	18.00	DS011-M-01-280.00 X 300.00 X 10.2/18.0
300.00	320.00	310.00	10.20	18.00	DS011-M-01-300.00 X 320.00 X 10.2/18.0



ROYAL STANDARD SIZE LIST

IMPERIAL SIZE					
ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(0.008")	H2	ORDER CODE
0.312	0.562	0.475	0.125	0.187	DS011-I-01-00.312 X 00.562 X 0.125/0.187
0.500	0.750	0.660	0.125	0.187	DS011-I-01-00.500 X 00.750 X 0.125/0.187
0.625	0.875	0.000	0.125	0.187	DS011-I-01-00.625 X 00.875 X 0.125/0.187
0.750	1.125	0.995	0.187	0.250	DS011-I-01-00.750 X 01.125 X 0.187/0.250
1.000	1.375	1.245	0.187	0.250	DS011-I-01-01.000 X 01.375 X 0.187/0.250
1.125	1.375	0.000	0.187	0.250	DS011-I-01-01.125 X 01.375 X 0.187/0.250
1.125	1.500	1.370	0.187	0.250	DS011-I-01-01.125 X 01.500 X 0.187/0.250
1.250	1.625	1.495	0.187	0.250	DS011-I-01-01.250 X 01.625 X 0.187/0.250
1.375	1.750	1.620	0.187	0.250	DS011-I-01-01.375 X 01.750 X 0.187/0.250
1.500	1.875	0.000	0.187	0.250	DS011-I-01-01.500 X 01.875 X 0.187/0.250
1.500	1.875	1.745	0.250	0.375	DS011-I-01-01.500 X 01.875 X 0.250/0.375
1.750	2.125	1.995	0.187	0.250	DS011-I-01-01.750 X 02.125 X 0.187/0.250
1.875	2.250	0.000	0.187	0.250	DS011-I-01-01.875 X 02.250 X 0.187/0.250
2.000	2.500	2.327	0.250	0.375	DS011-I-01-02.000 X 02.500 X 0.250/0.375
2.250	2.750	2.577	0.250	0.375	DS011-I-01-02.250 X 02.750 X 0.250/0.375
2.500	3.000	2.827	0.250	0.375	DS011-I-01-02.500 X 03.000 X 0.250/0.375
2.500	3.125	0.000	0.500	0.375	DS011-I-01-02.500 X 03.125 X 0.500/0.375
2.750	3.250	3.077	0.250	0.375	DS011-I-01-02.750 X 03.250 X 0.250/0.375
3.000	3.500	3.327	0.250	0.375	DS011-I-01-03.000 X 03.500 X 0.250/0.375
3.250	3.750	3.577	0.250	0.375	DS011-I-01-03.250 X 03.750 X 0.250/0.375
3.500	4.000	3.827	0.250	0.375	DS011-I-01-03.500 X 04.000 X 0.250/0.375
3.750	4.250	4.077	0.250	0.375	DS011-I-01-03.750 X 04.250 X 0.250/0.375
4.000	4.500	4.327	0.250	0.375	DS011-I-01-04.000 X 04.500 X 0.250/0.375
5.000	5.700	0.000	0.380	0.540	DS011-I-01-05.000 X 05.700 X 0.380/0.540
5.000	5.750	5.493	0.375	0.550	DS011-I-01-05.000 X 05.750 X 0.375/0.550
5.250	6.000	5.743	0.375	0.550	DS011-I-01-05.250 X 06.000 X 0.375/0.550
6.250	6.750	6.577	0.250	0.375	DS011-I-01-06.250 X 06.750 X 0.250/0.375
6.500	7.250	6.943	0.335	0.500	DS011-I-01-06.500 X 07.250 X 0.335/0.500
6.500	7.500	7.100	0.781	1.125	DS011-I-01-06.500 X 07.500 X 0.781/1.125

ROYAL STANDARD SIZE LIST

[illegible]