

# S1A



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The function of the Aston Seals S1A wiper ring is to prevent introduction of dust, dirt and foreign matter into the system. It is composed of:

- A dynamic element with a special wiper lip which produces a very effective cleaning action, prevents the development of scores, protects the guiding parts and extends the service life of the axial moving rod seals. The material used to produce this wiper assures exceptional low friction and high speed performance, high compatibility with nearly all media due to the chemical resistance which exceeds that of all other thermoplastics and elastomers
- A standard size O-Ring with low permanent deformation as an energizing component on

the static side which keeps the pressure of the wiper lip against the sliding surface and can compensate any deflections of the rod.

- Low static and dynamic friction
- High speed allowed
- No tendency of stick-slip
- Space-saving construction and simple groove design
- High compatibility with nearly all fluids (with the right choice of O-Ring material)
- High temperature resistance

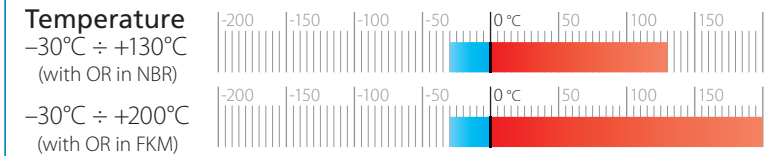
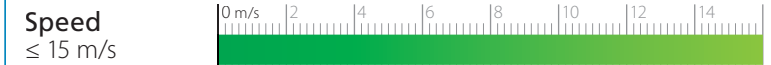
## MATERIAL



① **Type** Polytetrafluoroethylene PTFE + Bronze  
**Designation** SEALFLON + Bronze  
 ⇒ It can be provided with different fillers according to applications

② **Type** Nitril Rubber NBR  
**Designation** RUBSEAL 70  
**Hardness** 70 °ShA  
 ⇒ It can be provided with different materials according to working conditions

## FIELD OF APPLICATION



**Fluids** High compatibility with nearly all fluids (with the right choice of O-Ring material)

## SURFACE ROUGHNESS

**Dynamic surface** Suitable for rod seal system  
**Static surface** Ra ≤ 1.6 µm Rt ≤ 6.3 µm

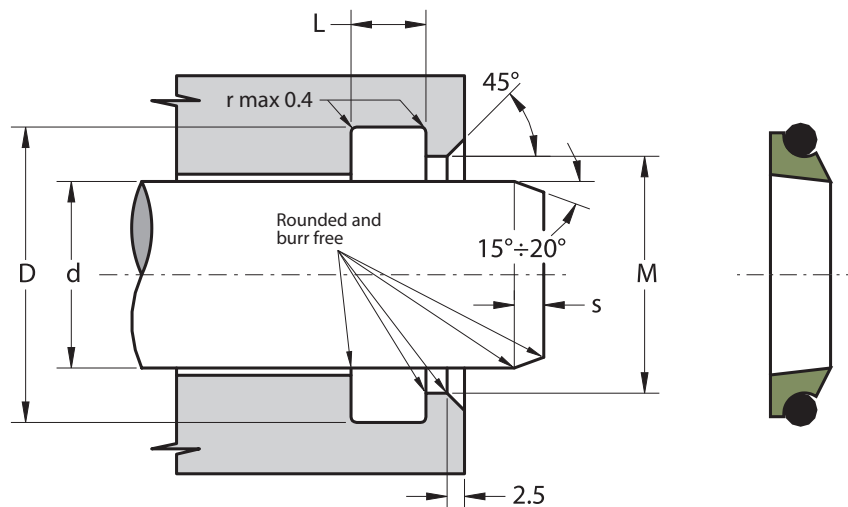
## LEAD-IN CHAMFERS

L		S	
L	S	L	S
3.7	2.0	8.4	6.5
5.0	2.5	11.0	7.5
6.0	3.5	14.0	10.0

Sharp edges and burrs within the installation area must be removed.

The above data are maximum values, they may be maintained for short periods and can not be used at the same time simultaneously.

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Part.	d <sup>f8</sup>	D <sup>H9</sup>	L <sup>+0.2</sup>	M <sup>±0.1</sup>	OR
S1A 8 12.8 3.7	8	12.8	3.7	10.7	012
S1A 10 14.8 3.7	10	14.8	3.7	12.7	013
S1A 12 18.8 5	12	18.8	5.0	15.5	113
S1A 14 20.8 5	14	20.8	5.0	17.5	114
S1A 15 21.8 5	15	21.8	5.0	18.5	115
S1A 16 22.8 5	16	22.8	5.0	19.5	116
S1A 18 24.8 5	18	24.8	5.0	21.5	117
S1A 20 26.8 5	20	26.8	5.0	23.5	118
S1A 24 30.8 5	24	30.8	5.0	27.5	120
S1A 25 31.8 5	25	31.8	5.0	28.5	121
S1A 28 34.8 5	28	34.8	5.0	31.5	123
S1A 30 36.8 5	30	36.8	5.0	33.5	124
S1A 32 38.8 5	32	38.8	5.0	35.5	126
S1A 35 41.8 5	35	41.8	5.0	38.5	127
S1A 40 46.8 5	40	46.8	5.0	43.5	131
S1A 42 48.8 5	42	48.8	5.0	45.5	132
S1A 45 51.8 5	45	51.8	5.0	48.5	134
S1A 50 56.8 5	50	56.8	5.0	53.5	137
S1A 55 61.8 5	55	61.8	5.0	58.5	140

Part.	d <sup>f8</sup>	D <sup>H9</sup>	L <sup>+0.2</sup>	M <sup>±0.1</sup>	OR
S1A 56 62.8 5	56	62.8	5.0	59.5	141
S1A 60 66.8 5	60	66.8	5.0	63.5	143
S1A 65 73.8 6	65	73.8	6.0	69.0	231
S1A 70 78.8 6	70	78.8	6.0	74.0	233
S1A 75 83.8 6	75	83.8	6.0	79.0	234
S1A 80 88.8 6	80	88.8	6.0	84.0	236
S1A 85 93.8 6	85	93.8	6.0	89.0	237
S1A 90 98.8 6	90	98.8	6.0	94.0	239
S1A 95 103.8 6	95	103.8	6.0	99.0	241
S1A 100 108.8 6	100	108.8	6.0	104.0	242
S1A 110 118.8 6	110	118.8	6.0	114.0	245
S1A 120 128.8 6	120	128.8	6.0	124.0	249
S1A 125 133.8 6	125	133.8	6.0	129.0	250
S1A 130 138.8 6	130	138.8	6.0	134.0	252
S1A 140 148.8 6	140	148.8	6.0	144.0	255
S1A 160 168.8 6	160	168.8	6.0	164.0	260
S1A 170 178.8 6	170	178.8	6.0	174.0	261
S1A 180 188.8 6	180	188.8	6.0	184.0	263
S1A 200 208.8 6	200	208.8	6.0	204.0	266

Other sizes not present in the above table can be provided in according to the following scheme:

d	D	M	L	S. OR
4 ÷ 11.9	d + 4.8	d + 2.7	3.7	1.78
12 ÷ 64.9	d + 6.8	d + 3.5	5.0	2.62
65 ÷ 250.9	d + 8.8	d + 4.0	6.0	3.53
251 ÷ 420.9	d + 12.2	d + 4.5	8.4	5.34
421 ÷ 650.9	d + 16.0	d + 5.2	11.0	6.99