

# Radiator Caps and Filler Necks — SAE J164 JUL79

SAE Standard  
Completely Revised July 1979

S.A.E.  
LIBRARY

THIS IS A PREPRINT WHICH IS  
SUBJECT TO REVISIONS AND  
CORRECTIONS. THE FINAL  
VERSION WILL APPEAR IN THE  
1981 EDITION OF THE SAE  
HANDBOOK.

Society of Automotive Engineers, Inc.  
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096



**PREPRINT**

SAENORM.COM : Click to view the full PDF of J164 - 150907

SAENORM.COM : Click to view the full PDF of j164\_197907

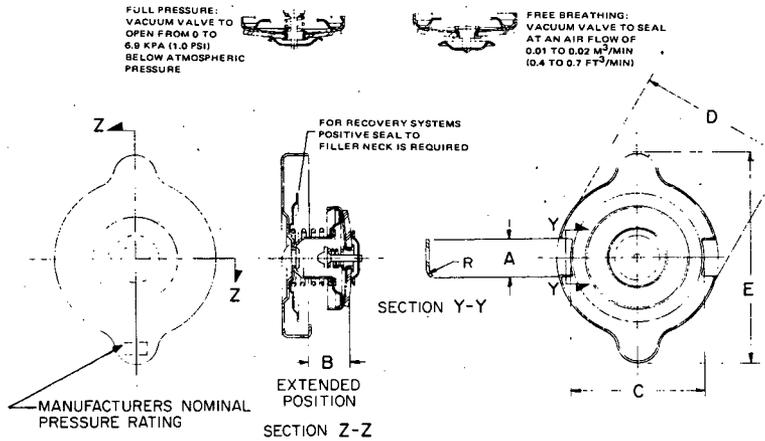
Report of the Engine Committee, approved April 1970, completely revised July 1979.

1. **Purpose**—The purpose of this standard is to provide dimensions for the different pressure ratings of radiator pressure caps and filler necks. Use of these dimensions will preclude the use of a high pressure rated cap on low pressure system. This standard will allow use of a low pressure rated

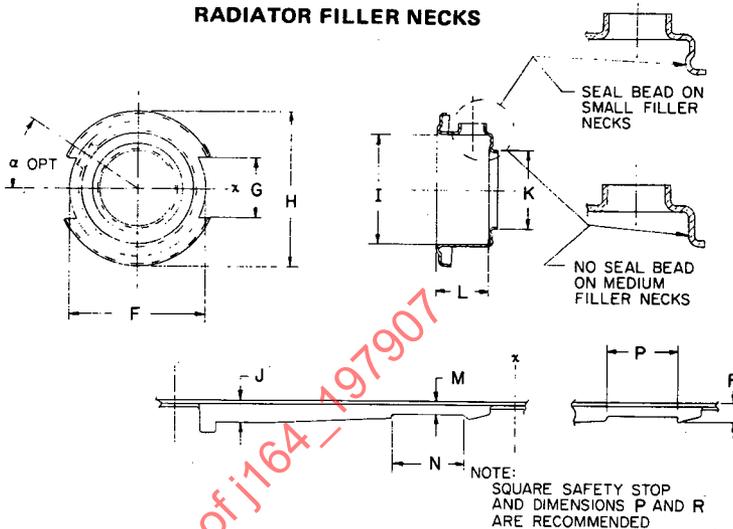
cap on a nominal high pressure system.

2. **Scope**—This standard was developed primarily for passenger car and truck application, but may be used in marine, industrial, and similar applications.

**PRESSURE TYPE RADIATOR CAPS**



**RADIATOR FILLER NECKS**



**PRESSURE TYPE RADIATOR CAPS**

Nom. Pressure Rating	A		B		C		D		E max		
	kPa	psi	mm	in	mm	in	mm	in	mm	in	
Small											
21-34	3-5		10.92-11.94	0.430-0.470	14.73-15.62	0.580-0.615	50.80-52.32	2.000-2.060	57.15-57.79	2.250-2.275	80.26 3.160
41-55	6-8		14.22-15.24	0.560-0.600	14.73-15.62	0.580-0.615	50.80-52.32	2.000-2.060	57.15-57.79	2.250-2.275	80.26 3.160
62-76	9-11		14.22-15.24	0.560-0.600	14.73-15.62	0.580-0.615	50.80-52.32	2.000-2.060	57.15-57.79	2.250-2.275	80.26 3.160
83-110	12-16		20.83-21.84	0.820-0.860	14.73-15.62	0.580-0.615	50.80-52.32	2.000-2.060	57.15-57.79	2.250-2.275	80.26 3.160
97-124	14-18		20.83-21.84	0.820-0.860	14.73-15.62	0.580-0.615	50.80-52.32	2.000-2.060	57.15-57.79	2.250-2.275	80.26 3.160
Medium											
21-34	3-5		9.14-10.16	0.360-0.400	13.72-14.61	0.540-0.575	62.74-64.26	2.470-2.530	69.34-69.98	2.730-2.755	92.71 3.650
41-55	6-8		15.49-16.51	0.610-0.650	13.72-14.61	0.540-0.575	62.74-64.26	2.470-2.530	69.34-69.98	2.730-2.755	92.71 3.650
62-76	9-11		15.49-16.51	0.610-0.650	13.72-14.61	0.540-0.575	62.74-64.26	2.470-2.530	69.34-69.98	2.730-2.755	92.71 3.650
83-110	12-16		20.83-21.84	0.820-0.860	13.72-14.61	0.540-0.575	62.74-64.26	2.470-2.530	69.34-69.98	2.730-2.755	92.71 3.650

**RADIATOR FILLER NECKS**

Nom. Pressure Rating	F		G		H		I		J	
	kPa	psi	mm	in	mm	in	mm	in	mm	in
Small										
21-34	3-5		49.78-50.29	1.960-1.980	12.19-13.21	0.480-0.520	56.39-56.77	2.220-2.235	41.15-41.53	1.620-1.635 5.46-5.72 0.215-0.225
41-55	6-8		49.78-50.29	1.960-1.980	15.24-16.26	0.600-0.640	56.39-56.77	2.220-2.235	41.15-41.53	1.620-1.635 5.46-5.72 0.215-0.225
62-76	9-11		49.78-50.29	1.960-1.980	15.24-16.26	0.600-0.640	56.39-56.77	2.220-2.235	41.15-41.53	1.620-1.635 5.46-5.72 0.215-0.225
83-110	12-16		49.78-50.29	1.960-1.980	21.84-22.86	0.860-0.900	56.39-56.77	2.220-2.235	41.15-41.53	1.620-1.635 5.46-5.72 0.215-0.225
97-124	14-18		49.78-50.29	1.960-1.980	21.84-22.86	0.860-0.900	56.39-56.77	2.220-2.235	41.15-41.53	1.620-1.635 5.46-5.72 0.215-0.225
Medium										
21-34	3-5		61.72-62.23	2.430-2.450	12.70-13.72	0.500-0.540	68.33-68.71	2.690-2.705	54.10-54.48	2.130-2.145 5.46-5.72 0.215-0.225
41-55	6-8		61.72-62.23	2.430-2.450	18.29-19.30	0.720-0.760	68.33-68.71	2.690-2.705	54.10-54.48	2.130-2.145 5.46-5.72 0.215-0.225
62-76	9-11		61.72-62.23	2.430-2.450	18.29-19.30	0.720-0.760	68.33-68.71	2.690-2.705	54.10-54.48	2.130-2.145 5.46-5.72 0.215-0.225
83-110	12-16		61.72-62.23	2.430-2.450	22.61-23.11	0.890-0.910	68.33-68.71	2.690-2.705	54.10-54.48	2.130-2.145 5.46-5.72 0.215-0.225

Nom. Pressure Rating	K		L		M		N min		P min		R	
	kPa	psi	mm	in	mm	in	mm	in	mm	in	mm	in
Small												
21-34	3-5		29.97-30.23	1.180-1.190	19.35-19.61	0.762-0.772	3.18-3.43	0.125-0.135	12.45 0.490	12.45 0.490	4.90-5.16	0.193-0.203
41-55	6-8		29.97-30.23	1.180-1.190	19.35-19.61	0.762-0.772	3.18-3.43	0.125-0.135	12.45 0.490	15.75 0.620	4.90-5.16	0.193-0.203
62-76	9-11		29.97-30.23	1.180-1.190	19.35-19.61	0.762-0.772	3.18-3.43	0.125-0.135	12.45 0.490	15.75 0.620	4.90-5.16	0.193-0.203
83-110	12-16		29.97-30.23	1.180-1.190	19.35-19.61	0.762-0.772	3.18-3.43	0.125-0.135	22.35 0.880	22.35 0.880	4.90-5.16	0.193-0.203
97-124	14-18		29.97-30.23	1.180-1.190	19.35-19.61	0.762-0.772	3.18-3.43	0.125-0.135	22.35 0.880	22.35 0.880	4.90-5.16	0.193-0.203
Medium												
21-34	3-5		42.29-42.55	1.665-1.675	18.67-18.92	0.735-0.745	3.18-3.43	0.125-0.135	- -	12.45 0.490	4.90-5.16	0.193-0.203
41-55	6-8		42.29-42.55	1.665-1.675	18.67-18.92	0.735-0.745	3.18-3.43	0.125-0.135	- -	17.02 0.670	4.90-5.16	0.193-0.203
62-76	9-11		42.29-42.55	1.665-1.675	18.67-18.92	0.735-0.745	3.18-3.43	0.125-0.135	- -	17.02 0.670	4.90-5.16	0.193-0.203
83-110	12-16		42.29-42.55	1.665-1.675	18.67-18.92	0.735-0.745	3.18-3.43	0.125-0.135	- -	22.35 0.880	4.90-5.16	0.193-0.203

The φ symbol is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. If the symbol is next to the report title, it indicates a complete revision of the report.