



WARNING

Handling steam is very hazardous. If it is not properly controlled it can cause property damage, injury or even death. Selection for the proper application, usage, and maintenance will not only increase hose life but will insure safe operation for the user.

SELECTING AND USING STEAM HOSE

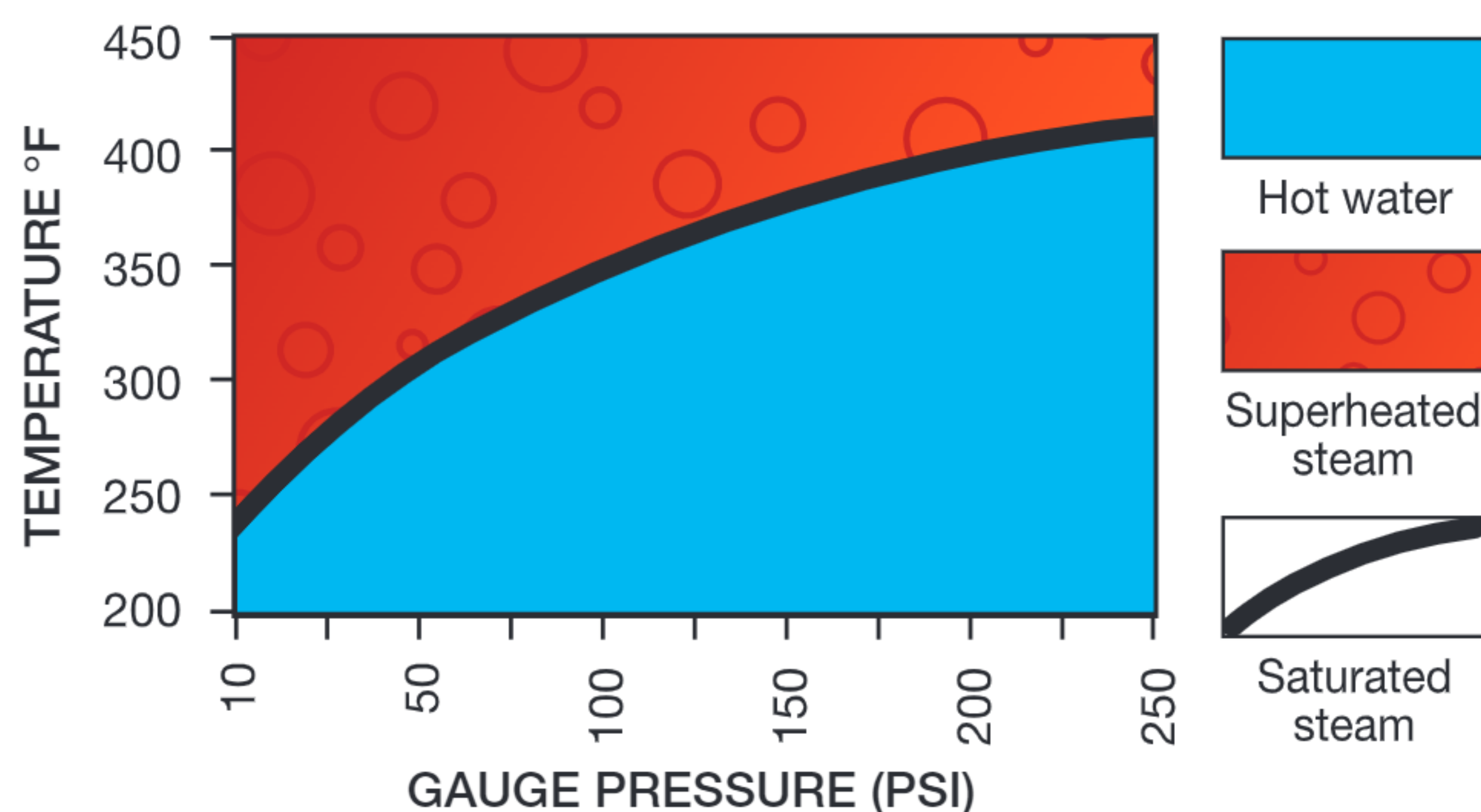
1. Make sure steam hose is identified as a steam hose. It should be branded as such, stating working pressure and temperature rating.
2. Make sure working pressure and temperature is not exceeded.
3. Do not allow hose to remain under pressure when not in use.
4. Avoid excess bending or flexing of hose near the coupling. Straight line operation is preferred. If bends are necessary as part of operation, spring guards may help.
5. Be sure and use recommended steam hose couplings and clamps on hose.

MAINTENANCE OF STEAM HOSE

1. Periodic inspection of hose should include looking for cover blisters and lumps.
2. Check for kinked areas that could damage hose.
3. Drain hose after each use to avoid tube damage before hose is put back in operation, to avoid "popcorning" of the tube.
4. Check tightness of clamps bolts after each use.
5. Check to see if clamps halves are touching. If they are, recouple hose with smaller clamps to insure proper tightness or grip around hose.
6. Do not store hose over hooks.
7. Steam hose lying on metal racks or installed around steel piping will dry out the hose, causing tube and cover cracking.
8. For service in sub-zero application, use only T-341 chlorbutyl hose.

The chart represents the three forms of water when subjected to heat and pressure. Use only hoses specifically designed for the application.

Gauge Pressure (psi)	Temperature of Saturated Steam (°F)
10	239
25	267
50	298
75	320
100	338
125	353
150	366
175	377
200	388
225	397
250	406



Gauge Pressure		Temperature	
psi	bar	°F	°C
25	1.73	267	130
30	2.07	274	134
35	2.42	281	138
40	2.76	287	141
45	3.11	292	144
50	3.45	298	148
60	4.14	307	153
70	4.83	316	158
80	5.52	324	162
90	6.21	330	166
100	6.90	338	170
120	8.28	350	177
140	9.66	361	182
160	11.04	371	188
180	12.42	379	193
200	13.80	388	198
225	15.53	397	203
250	17.25	406	208
275	18.98	414	212
300	20.70	422	216
325	22.43	429	221
350	24.15	437	225

CORROSIVE STEAM

When the water used to generate steam contains dissolved air, oxygen or carbon dioxide, then these gases end up as contaminants in the steam. At high temperatures of steam both oxygen and carbon dioxide are extremely corrosive.

Carbon dioxide is acidic and therefore attacks metals whereas the oxygen corrodes metals and oxidizes rubbers. Corrosion of metals in the presence of both oxygen and acids is forty times faster than with either alone. Boiler water is therefore normally treated not only to remove the "hardness" which would cause "furring" of the boiler but also to remove dissolved oxygen and carbon dioxide and to ensure that the steam is not only not acidic but even slightly alkaline. Boiler water treatment is a specialised subject beyond the scope of this technical sheet but correct steam generation is important.

DETERIORATION OF STEAM HOSE

Like all rubber products steam hoses have a finite life and are subject to gradual deterioration with use. However, it sometimes happens that hoses which have been giving a good life suddenly start failing without apparent reason. In such cases it is often a change in the steam conditions causing a rapid acceleration of a normal failure mode. It is therefore useful to consider how steam hoses normally last and thus how the condition of the steam affects hose life.

(Reprinted from RMA IP-11-1 Steam Hose)

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.