



WEST MICHIGAN RUBBER & SUPPLY

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T330AH / T330AA - 250 PSI EPDM Steam Hose **T331AH / T331AA - 250 PSI** **Chlorobutyl Steam Hose**



Handling steam is a very hazardous situation. Using care and some safety precautions can minimize or eliminate personal or property damage.

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 to 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 clamp bolts after each use.
5. Check to see if clamp 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 applications, use only T331 Chlorobutyl hose.

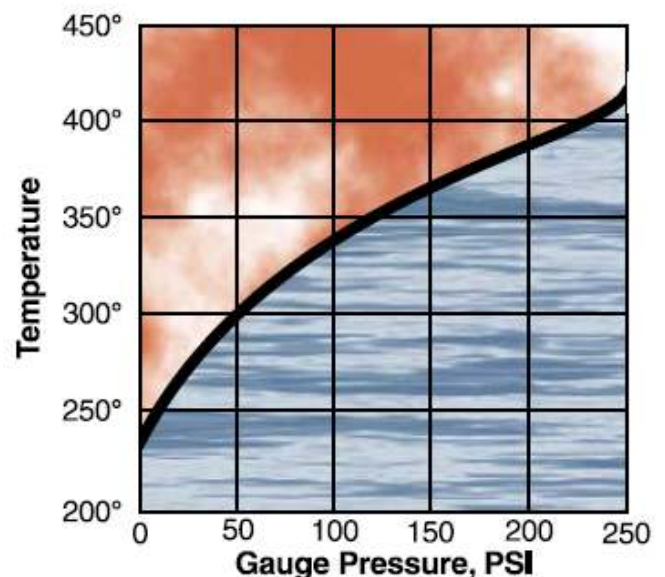
The charts represent the three forms of water when subjected to heat and pressure. Use only hoses specifically designed for the application.

Reprint from RMA IP-I 1-1 1987

STEAM HOSE CHART

SATURATED STEAM

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




Hot Water


Superheated Steam


Saturated Steam

TEMPERATURE OF SATURATED STEAM

Gauge Pressure				Temperature		Gauge Pressure				Temperature	
lb/ m ²	Kgf/ cm ²	Atm	Bar	°C	°F	lb/ m ²	Kgf/ cm ²	Atm	Bar	°C	°F
25	1.76	1.70	1.73	130	267	120	8.44	8.16	8.28	177	350
30	2.11	2.04	2.07	134	274	140	9.84	9.52	9.66	182	361
35	2.46	2.38	2.42	138	281	160	11.25	10.88	11.04	188	371
40	2.81	2.72	2.76	141	287	180	12.65	12.24	12.42	193	379
45	3.16	3.06	3.11	144	292	200	14.06	13.60	13.80	198	388
50	3.52	3.40	3.45	148	298	225	15.82	15.30	15.53	203	397
60	4.22	4.08	4.14	153	307	250	17.58	17.00	17.25	208	406
70	4.92	4.76	4.83	158	316	275	19.33	18.70	18.98	212	414
80	5.62	5.44	5.52	162	324	300	21.09	20.40	20.70	216	422
90	6.32	6.12	6.21	166	330	325	22.85	22.10	22.43	221	429
100	7.03	6.80	6.90	170	338	350	24.61	23.80	24.15	225	437

CORROSIVE STEAM

When the water used to generate steam contains dissolved air, oxygen or carbon dioxide, these gases end up as contaminants in the steam. At the 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 specialized subject beyond the scope of this booklet but correct steam generation is important as we shall see in the next section.

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 the normal failure mode. It is therefore useful to consider how long steam hoses normally last and thus how the condition of the steam affects hose life.

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.

EPDM Specifications

APPLICATION

The transfer of saturated steam up to 250 PSI AND 406°F. Use with superheated steam will shorten hose life.

- ★ Proper draining of steam hose after each use will increase service life.
- ★ Not recommended for washdown applications where detergent or oils are present.

COVER

Red or black heat-resistant EPDM rubber. Wrapped cover fabric impression. Pin-pricked cover to allow venting.

REINFORCEMENT

High tensile spiral steel wire.

TUBE

Black, heat-resistant EPDM rubber. **Not for steam cleaner use.**

TEMPERATURE RANGE

-40°F (-40°C) to 406°F (+210°C)

STANDARD LENGTH

50 or 100 feet

WORKING PRESSURE

Constant Pressure — 17 Bar (250 PSI)

BRANDING

Embossed brand ALFAGOMMA – ITALY T330 17 BAR (250 PSI) STEAM – DRAIN AFTER USE - QTR/YEAR

SERIES NO.	NOMINAL ID		NOMINAL OD		APPROX. WT. lbs./100 ft.	MIN. BEND RADIUS (in.)
	(in.)	(mm)	(in.)	(mm)		
T300AH/AA050	1/2	13	0.98	25	38	5
T330AH/AA075	3/4	19	1.26	32	49	7 1/2
T330AH/AA100	1	25	1.50	38	60	10

Chlorobutyl Specifications

APPLICATION

The transfer of saturated and superheated steam up to 250 PSI and max 430°F in shipyards, chemical plants and industrial applications.

★ Proper draining of steam hose after each use will increase service life.

★ Not recommended for washdown applications where detergent or oils are present.

COVER

Red or black heat-resistant EPDM rubber. Wrapped cover fabric impression. Pin-pricked cover to allow venting.

REINFORCEMENT

High tensile spiral steel wire.

TUBE

Black Chlorobutyl. **Not for steam cleaner use.**

TEMPERATURE RANGE

-40°F (-40°C) to 430°F (+220°C)

STANDARD LENGTH

50 or 100 feet.

WORKING PRESSURE

Constant Pressure — 17 Bar (250 PSI)

BRANDING

Embossed brand ALFAGOMMA – ITALY T331

17 BAR (250 PSI) STEAM – DRAIN AFTER USE - QTR/YEAR

SERIES NO.	NOMINAL ID		NOMINAL OD		APPROX. WT. lbs./100 ft.	MIN. BEND RADIUS (in.)
	(in.)	(mm)	(in.)	(mm)		
T331AH/AA050	1/2	13	0.98	25	40	5
T331AH/AA075	3/4	19	1.26	32	52	7 1/2
T331AH/AA100	1	25	1.50	38	67	10
★ T331AH/AA125	1 1/4	32	1.81	46	83	12 1/2
★ T331AH/AA150	1 1/2	38	2.05	52	97	15
★ T331AH/AA200	2	51	2.64	67	153	20

★T331AA/AH 1 1/4", 1 1/2" & 2" not suitable for "Ship to Shore" service.