Steam

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How to Select the Correct Steam Hose Assembly

Determine required hose size

The hose size required is usually fixed by size of fittings or pipe to which the hose is to be connected. It is important that you do not select a hose with an inside diameter larger than the diameter of the preceding pipe.

Find actual rated working pressure and temperature

Take pressure and temperature readings just ahead of the hose connections.

Determine length required

Length require is almost always dictated by the application.

Determine condition of steam (saturated or superheated)

Locate the actual rated working pressure and temperature on the steam chart. Any point on the heavy line is saturated steam.

Select the correct hose

From the table below, select the hose that fulfills the requirements of both the condition of the steam and the rated working pressure.

Maintenance and inspection

For proper maintenance and inspection of interlocking and permanently crimped steam hose assemblies, refer to ARPM IP-11-1.

Select couplings required

Gates recommends interlocking* and permanently crimped types of couplings for steam hose applications. These are identified as:

- Interlocking, ground joint
- Interlocking, washer joint
- Permanently crimped

*Remember to retighten bolts on a regular basis.

- When electrical continuity is required, ground the wire braid in the hose to couplings with aluminum, copper or stainless-steel staples.
- Steam can be dangerous material. Play it safe – stay within the limits of published recommendations.
- Do not alternate between steam and water.

Steam Hose Table

Hose Type	Recommended Service		
	Rated Working Pressure (psi)	Working Temperature (°F)	Type of Steam
Plant Master™ Steam Plus	250	450	Saturated or superheated
Plant Master™ Steam	250	450	Saturated or superheated

Properties of Saturated Steam

(Abridged from Handbook of Chemistry and Physics – 39th Edition)

Gauge Pressure (psi) -vs- Temperature of Saturated Steam (°F) *

(psi)	(°F)	(psi)	(°F)	(psi)	(°F)	(psi)	(°F)
10	239	85	328	150	366	215	394
25	267	90	331	155	368	220	395
30	274	95	335	160	371	225	397
35	281	100	338	165	373	230	399
40	287	105	341	170	375	235	401
45	292	110	344	175	377	240	403
50	298	115	347	180	380	245	404
55	303	120	350	185	382	250	406
60	307	125	353	190	384	255	408
65	312	130	356	195	386	260	409
70	316	135	358	?			

Plant Master™ Steam 250

Formerly - 205MB Steam King™

Wrapped Cover

Color	Hose I.D.		Hose O.D.		Max. W.P.		Vac.						
	(in)	(mm)	(in)	(mm)	(psi)	(Bar)	(I						

ster™ Steam Plus 250

Steam Queen™

	Vac. (In. Hg)	MBR (in)	Wt. Per ft (Lbs.)	Length (ft)	Std. Pack	Pkg Code	Gates Item No.
	0.0	4.0	.32	50	CTN	T	3602-1051