

## // HOT WATER & STEAM



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// 375AA



**Hot water-car heater 10 bar (150 psi)**

**Tube:** black EPDM.  
**Reinforcement:** high tensile textile cords.  
**Cover:** black EPDM - heat, abrasion and ozone resistant.  
**Application:** general purpose-hot water. Specially designed for automotive heating systems.  
**Constant operation:** -35 °C +100 °C (-31 °F +212 °F)

↔		↔		↻		↻		⤴		⚠	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	19,00	0,75	10	150	30	450	130,0	5,12		0,235	0,16
16,0	5/8"	22,00	0,87	10	150	30	450	160,0	6,30		0,280	0,19
19,0	3/4"	27,00	1,06	10	150	30	450	190,0	7,48		0,445	0,30
25,0	1"	33,00	1,30	10	150	30	450	250,0	9,84		0,570	0,39

// 352AA



**Radiator 5 bar (75 psi)  
exceeds DIN 73411 - SAE 20R1 D-2**

**Tube:** black EPDM.  
**Reinforcement:** high tensile textile cords.  
**Cover:** black EPDM - heat, abrasion and ozone resistant.  
**Application:** radiator.  
**Constant operation:** -40 °C +120 °C (-40 °F +248 °F)

↔		↔		↻		↻		⤴		⚠	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	21,00	0,83	5	75	15	225				0,280	0,19
16,0	5/8"	24,00	0,94	5	75	15	225				0,330	0,23
18,0	23/32"	26,00	1,02	5	75	15	225				0,380	0,26
20,0	13/16"	28,00	1,10	5	75	15	225				0,390	0,27
22,0	7/8"	30,00	1,18	5	75	15	225				0,420	0,29
25,0	1"	33,00	1,30	5	75	15	225				0,470	0,32
28,0	1 1/8"	36,00	1,42	5	75	15	225				0,510	0,35
30,0	1 3/16"	38,00	1,50	5	75	15	225				0,550	0,37
32,0	1 1/4"	40,00	1,57	5	75	15	225				0,580	0,39
35,0	1 3/8"	43,00	1,69	5	75	15	225				0,620	0,42
38,0	1 1/2"	48,00	1,89	5	75	15	225				0,860	0,58
40,0	1 9/16"	50,00	1,97	5	75	15	225				0,890	0,60
42,0	1 5/8"	52,00	2,05	5	75	15	225				0,930	0,63
45,0	1 3/4"	55,00	2,17	5	75	15	225				0,990	0,67
48,0	1 7/8"	58,00	2,28	5	75	15	225				1,050	0,71
51,0	2"	61,00	2,40	5	75	15	225				1,120	0,76
55,0	2 1/6"	65,00	2,56	5	75	15	225				1,190	0,80
57,0	2 1/4"	67,00	2,64	5	75	15	225				1,230	0,83
60,0	2 3/8"	70,00	2,76	5	75	15	225				1,290	0,87
63,0	2 1/2"	73,00	2,87	5	75	15	225				1,350	0,91
70,0	2 3/4"	80,00	3,15	5	75	15	225				1,450	0,98
76,0	3"	86,00	3,39	5	75	15	225				1,560	1,05
80,0	3 1/8"	90,00	3,54	5	75	15	225				1,640	1,11
90,0	3 1/2"	102,00	4,02	5	75	15	225				2,030	1,37
102,0	4"	114,00	4,49	5	75	15	225				2,270	1,53
110,0	4 5/16"	122,00	4,80	5	75	15	225				2,430	1,64
115,0	4 1/2"	127,00	5,00	5	75	15	225				2,530	1,71
127,0	5"	141,00	5,55	5	75	15	225				3,230	2,18

Dimensions shown may be changed without prior notice

// 395BT



**Hot water wash down 50 bar (750 psi)  
EU 10/2011 A+B+C**

**Tube:** grey non-toxic PVC.  
**Reinforcement:** high tensile textile cords.  
**Cover:** light blue synthetic elastomer - abrasion, ozone, animal fats and vegetable oils resistant.  
**Application:** hot water wash down. Specially designed for the food and dairy industry. Designed for 50 bar at 70° C continuous use. Food grade.  
**Constant operation:** -10 °C +70 °C (+14 °F +158 °F)

↔		↔		↻		↻		⤵		⚖		
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
12,0	15/32"	22,00	0,87	50	730	150	2250	84,0	3,31		0,340	0,23

// 351LL



**Hot water wash down 10 bar (150 psi) - Built in nozzle**

**Tube:** white EPDM.  
**Reinforcement:** high tensile textile cords.  
**Cover:** white EPDM - heat, abrasion and ozone resistant.  
**Application:** hot and cold water wash down in paper mills and the food industry where a built in rubber nozzle is required to avoid floor and equipment damage.  
**Constant operation:** -40 °C +120 °C (-40 °F +248 °F)

↔		↔		↻		↻		⤵		⚖		
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
19,0	3/4"	31,00	1,22	10	150	40	600				0,630	0,43
25,0	1"	37,00	1,46	10	150	40	600				0,780	0,53
32,0	1 1/4"	46,00	1,81	10	150	40	600				1,140	0,77
38,0	1 1/2"	52,00	2,05	10	150	40	600				1,340	0,91

// 351LG



**Hot water wash down 10 bar (150 psi) - Built in nozzle**

**Tube:** white EPDM.  
**Reinforcement:** high tensile textile cords.  
**Cover:** green EPDM - heat, abrasion and ozone resistant.  
**Application:** hot and cold water wash down in paper mills and the food industry where a built in rubber nozzle is required to avoid floor and equipment damage.  
**Constant operation:** -40 °C +120 °C (-40 °F +248 °F)

↔		↔		↻		↻		⤵		⚖		
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
19,0	3/4"	31,00	1,22	10	150	40	600				0,600	0,41
25,0	1"	37,00	1,46	10	150	40	600				0,740	0,50
32,0	1 1/4"	46,00	1,81	10	150	40	600				1,100	0,74
38,0	1 1/2"	52,00	2,05	10	150	40	600				1,290	0,87



// 350LL



**Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)**

**FDA - arrêté du 09/11/94 D**

**Tube:** white EPDM.

**Reinforcement:** high tensile textile cords.

**Cover:** white EPDM - heat, abrasion and ozone resistant.

**Application:** saturated steam and hot water delivery in general industrial applications. Specially designed for wash down use in the food and dairy industry.

Also suitable for liquid food and alcoholic beverages.

**Constant operation:** water -40 °C +120 °C (-40 °F +248 °F)  
steam +165 °C (+330 °F)

↔		↔		↕		↕		↷		⚖	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	6	90	60	900				0,380	0,26
16,0	5/8"	26,00	1,02	6	90	60	900				0,450	0,31
19,0	3/4"	31,00	1,22	6	90	60	900				0,640	0,44
25,0	1"	37,00	1,46	6	90	60	900				0,790	0,54

// 350LE



**Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)**

**FDA - arrêté du 09/11/94 D**

**Tube:** white food grade EPDM.

**Reinforcement:** high tensile textile cords.

**Cover:** blue EPDM - heat, abrasion and ozone resistant.

**Application:** saturated steam and hot water delivery in general industrial applications. Specially designed for wash down use in the food and dairy industry.

Also suitable for liquid food and alcoholic beverages.

**Constant operation:** water -40 °C +120 °C (-40 °F +248 °F)  
steam +165 °C (+330 °F)

↔		↔		↕		↕		↷		⚖	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	6	90	60	900				0,360	0,25
16,0	5/8"	26,00	1,02	6	90	60	900				0,420	0,29
19,0	3/4"	31,00	1,22	6	90	60	900				0,590	0,40
25,0	1"	37,00	1,46	6	90	60	900				0,740	0,50
32,0	1 1/4"	46,00	1,81	6	90	60	900				0,930	0,63
38,0	1 1/2"	52,00	2,05	6	90	60	900				1,090	0,74
38,0	1 1/2"	52,00	2,05	6	90	60	900				1,090	0,74
38,0	1 1/2"	52,00	2,05	6	90	60	900				1,090	0,74
51,0	2"	67,00	2,64	6	90	60	900				1,660	1,12
51,0	2"	67,00	2,64	6	90	60	900				1,670	1,13
51,0	2"	67,00	2,64	6	90	60	900				1,670	1,13

Dimensions shown may be changed without prior notice

// 350AA



**Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)**

**Tube:** black conductive EPDM.

**Reinforcement:** high tensile textile cords.

**Cover:** black conductive EPDM - heat, abrasion and ozone resistant.

**Application:** saturated steam and hot water delivery in general industrial applications.

**Constant operation:** water -40 °C +120 °C (-40 °F +248 °F)  
steam +165 °C (+330 °F)

↔		↔		↻		↻		⌒		⌘	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	6	90	60	900				0,370	0,25
16,0	5/8"	26,00	1,02	6	90	60	900				0,430	0,29
19,0	3/4"	29,00	1,14	6	90	60	900				0,470	0,32
25,0	1"	35,00	1,38	6	90	60	900				0,590	0,40
30,0	1 3/16"	44,00	1,73	6	90	60	900				0,910	0,62
32,0	1 1/4"	46,00	1,81	6	90	60	900				0,950	0,64
38,0	1 1/2"	52,00	2,05	6	90	60	900				1,110	0,75
40,0	1 9/16"	54,00	2,13	6	90	60	900				1,160	0,78
51,0	2"	67,00	2,64	6	90	60	900				1,710	1,15

// 354AA



**Steam 6 bar (90 psi)  
EN ISO 6134/1A**

**Tube:** black conductive EPDM.

**Reinforcement:** high tensile textile cords.

**Cover:** black conductive EPDM - heat, abrasion and ozone resistant.

**Application:** saturated steam.

**Constant operation:** -40 °C +165 °C (-40 °F +330 °F)

↔		↔		↻		↻		⌒		⌘	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	25,00	0,98	6	90	60	900	130,0	5,12		0,430	0,29
19,0	3/4"	33,00	1,30	6	90	60	900	190,0	7,48		0,690	0,47
25,0	1"	40,00	1,57	6	90	60	900	250,0	9,84		0,910	0,62

// 340AA



**Steam 18 bar (270 psi) - Steel braided**

**Tube:** black conductive EPDM.

**Reinforcement:** one or two high tensile steel wire braids.

**Cover:** black conductive EPDM - heat, abrasion and ozone resistant - pin pricked.

**Application:** saturated and superheated steam.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F)  
intermittent to 232 °C (450 °F)

↔		↔		↻		↻		⤴		⚖	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	18	270	180	2610	130,0	5,12		0,400	0,27
19,0	3/4"	31,00	1,22	18	270	180	2610	190,0	7,48		0,730	0,50
25,0	1"	38,00	1,50	18	270	180	2610	250,0	9,84		0,890	0,60

// 340AH



**Steam 18 bar (270 psi) - Steel braided**

**Tube:** black conductive EPDM.

**Reinforcement:** one or two high tensile steel wire braids.

**Cover:** red EPDM - heat, abrasion and ozone resistant - pin pricked.

**Application:** saturated and superheated steam.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F)  
intermittent to 232 °C (450 °F)

↔		↔		↻		↻		⤴		⚖	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	18	270	180	2610	130,0	5,12		0,400	0,27
16,0	5/8"	26,00	1,02	18	270	180	2610	160,0	6,30		0,480	0,33
19,0	3/4"	31,00	1,22	18	270	180	2610	190,0	7,48		0,740	0,50
25,0	1"	38,00	1,50	18	270	180	2610	250,0	9,84		0,900	0,61
32,0	1 1/4"	46,00	1,81	18	270	180	2610	320,0	12,60		1,190	0,80
38,0	1 1/2"	52,00	2,05	18	270	180	2610	380,0	14,96		1,340	0,91
51,0	2"	67,00	2,64	18	270	180	2610	510,0	20,08		2,130	1,44
63,0	2 1/2"	81,00	3,19	18	270	180	2610	630,0	24,80		2,990	2,01
76,0	3"	94,00	3,70	18	270	180	2610	760,0	29,92		3,970	2,67

Dimensions shown may be changed without prior notice

// 344AH



**Steam 18 bar (270 psi) - Steel braided  
EN ISO 6134/2A**

**Tube:** black conductive EPDM.

**Reinforcement:** one or two high tensile steel wire braids.

**Cover:** red EPDM - heat, abrasion and ozone resistant - pin pricked.

**Application:** saturated and superheated steam.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F)  
intermittent to 232 °C (450 °F)

↔		↔		↻		↻		⤴		⚖		
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	25,00	0,98	18	270	180	2610	130,0	5,12		0,490	0,33
19,0	3/4"	33,00	1,30	18	270	180	2610	190,0	7,48		0,850	0,58
25,0	1"	40,00	1,57	18	270	180	2610	250,0	9,84		1,040	0,70

// 343AH



**Steam 18 bar (270 psi) - Oil resistant - Steel braided  
EN ISO 6134/2B**

**Tube:** black conductive EPDM.

**Reinforcement:** high tensile steel wire braids.

**Cover:** red special rubber compound - heat, abrasion, ozone and hydrocarbon resistant - pin pricked.

**Application:** saturated and superheated steam in applications where an oil resistant cover is required.

Black version available upon request with minimum order quantities.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F)  
intermittent to 232 °C (450 °F)

↔		↔		↻		↻		⤴		⚖		
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
19,0	3/4"	33,00	1,30	18	270	180	2610	190,0	7,48		0,910	0,62
25,0	1"	40,00	1,57	18	270	180	2610	250,0	9,84		1,110	0,75



// 341AA



**Steam 18 bar (270 psi) - CIIR - Steel braided**

**Tube:** black conductive chlorobutyl blend.

**Reinforcement:** one or two high tensile steel wire braids.

**Cover:** black conductive EPDM - heat, abrasion and ozone resistant - pin pricked.

**Application:** saturated and superheated steam.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F) intermittent to 232 °C (450 °F)

↔		↔		↻		↻		↷		⚡	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	18	270	180	2610	130,0	5,12		0,400	0,27
19,0	3/4"	31,00	1,22	18	270	180	2610	190,0	7,48		0,710	0,48
25,0	1"	38,00	1,50	18	270	180	2610	250,0	9,84		0,870	0,59
32,0	1 1/4"	46,00	1,81	18	270	180	2610	320,0	12,60		1,180	0,80
38,0	1 1/2"	52,00	2,05	18	270	180	2610	380,0	14,96		1,330	0,90
51,0	2"	67,00	2,64	18	270	180	2610	510,0	20,08		2,110	1,42

// 341AH



**Steam 18 bar (270 psi) - CIIR - Steel braided**

**Tube:** black conductive chlorobutyl blend.

**Reinforcement:** one or two high tensile steel wire braids.

**Cover:** red EPDM - heat, abrasion and ozone resistant - pin pricked.

**Application:** saturated and superheated steam.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F) intermittent to 232 °C (450 °F)

↔		↔		↻		↻		↷		⚡	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
13,0	1/2"	23,00	0,91	18	270	180	2610	130,0	5,12		0,400	0,27
19,0	3/4"	31,00	1,22	18	270	180	2610	190,0	7,48		0,720	0,49
25,0	1"	38,00	1,50	18	270	180	2610	250,0	9,84		0,880	0,60
32,0	1 1/4"	46,00	1,81	18	270	180	2610	320,0	12,60		1,170	0,79
38,0	1 1/2"	52,00	2,05	18	270	180	2610	380,0	14,96		1,330	0,90
51,0	2"	67,00	2,64	18	270	180	2610	510,0	20,08		2,040	1,38

// 345AA



**Steam 18 bar (270 psi) - CIIR - Steel braided EN ISO 6134/2A**

**Tube:** black conductive chlorobutyl blend.

**Reinforcement:** high tensile steel wire braids.

**Cover:** black EPDM - heat, abrasion and ozone resistant - pin pricked.

**Application:** saturated and superheated steam.

**Constant operation:** -40 °C +210 °C (-40 °F +410 °F) intermittent to 232 °C (450 °F)

↔		↔		↻		↻		↷		⚡	⚖	
mm	in	mm	in	bar	psi	bar	psi	mm	in	%	kg/m	lb/ft
19,0	3/4"	33,00	1,30	18	270	180	2610	190,0	7,48		0,840	0,57
25,0	1"	40,00	1,57	18	270	180	2610	250,0	9,84		1,030	0,70
51,0	2"	69,00	2,72	18	270	180	2610	510,0	20,08		2,300	1,55

## // STEAM HOSE SAFETY GUIDE

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

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

### 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.

### 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 oxidises 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.

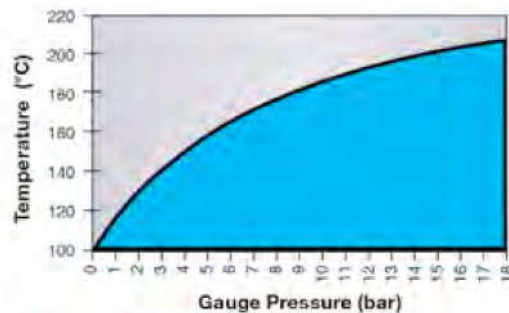
### DETERIORATION OF STEAM HOSE

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.

### TEMPERATURE OF SATURATED STEAM

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

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



Hot water

Superheated steam

Saturated steam