

DURA-POWER™

Designed for use as a recovery heater having its own storage tank. Available in upright standard models (DEN) and lowboy models (DEL).

GLASSLINED TANK

- Thirteen sizes; 6 thru 119 gallon capacity. Tank interior is coated with glass specially designed by A. O. Smith for water heater use.

ELEMENTS

- Zinc plated copper sheaths for longer life. Medium watt density means lower surface temperature to minimize scale build-up and more surface to heat water. Element sizes from 1.5 to 6 KW. Maximum input 12 KW (see chart).

STANDARD VOLTAGES

- 120, 277 single phase and 208, 240 and 480V unbalanced three-phase delta; easily converted to single-phase at terminal block (except 208V with 5500 watt elements). Single element heaters, single-phase only.

TERMINAL BLOCK

- Factory-installed. Just bring the service to heater and connect to block. Terminal block not supplied on 120V & 277 volt models. (No junction box on DEL6-20)

CONTROLS

- Temperature control (adjustable through a range of 130° to 170°F on single element and 120° to 181°F on dual element) and manual reset high temperature cutoff per element

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

SIMPLIFIED CIRCUITRY, COLOR CODED FOR EASE OF SERVICE

ANODE ROD FOR MAXIMUM CORROSION PROTECTION

CABINET HAS BONDERIZED UNDERCOAT WITH BAKED ENAMEL FINISH

TOP INLET AND OUTLET OPENINGS

DRAIN VALVE (EXCLUDES DEL 6-20)

UL APPROVED FIELD CONVERSION PROGRAM

COMPLIANCE

- Meets the standby loss Requirements of the U.S. Department of Energy and current edition of ASHRAE/IES 90.1.

LIMITED WARRANTY OUTLINE

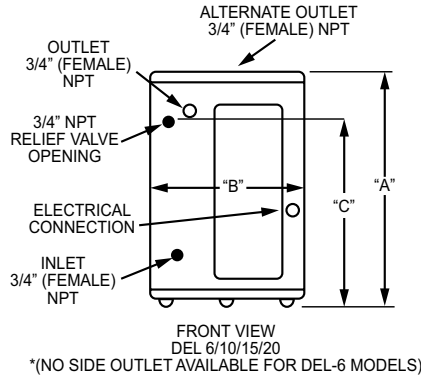
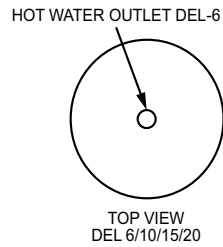
- If the tank should leak any time during the first three years, under the terms of the warranty, A. O. Smith will furnish a replacement heater; installation, labor, handling and local delivery extra. THIS OUTLINE IS NOT A WARRANTY. For complete information consult the written warranty or A. O. Smith Water Products Company.



DEN-40

DEL-30

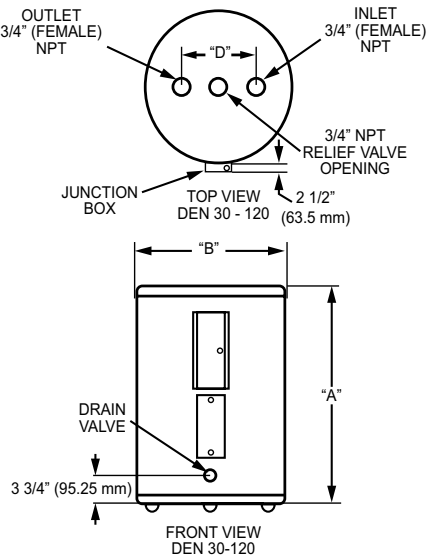
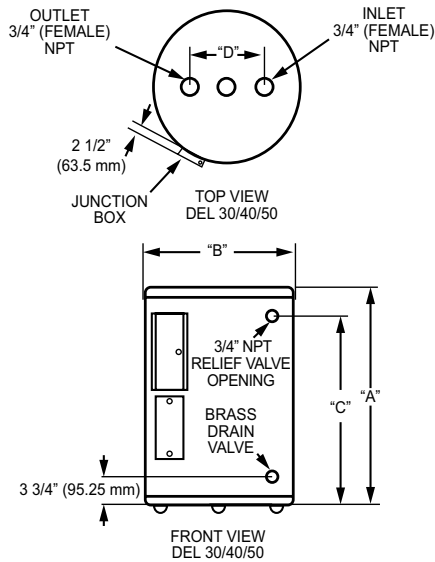




ROUGH-IN DIMENSIONS

Model Number	No. of Elements	Tank Capacity		A		B		C		D		Shipping Weight	
		US Gals	Litres	Inches	mm	Inches	mm	Inches	mm	Inches	mm	lbs.	Kg.
DEL-6	1	6	23	15-1/2	394	14-1/4	362	11	279	N/A	N/A	35	15.9
DEL-10	1	10	38	18-1/4	464	18	457	12-1/2	318	N/A	N/A	54	24.5
DEL-15	1	15	57	26	660	18	457	20-1/2	521	N/A	N/A	58	26.3
DEL-20	1	20	76	22-1/4	565	21-3/4	552	15-3/8	391	N/A	N/A	73	33.1

* No side outlet available on DEL-6 Model



ROUGH-IN DIMENSIONS

Model Number	No. of Elements	Tank Capacity		A		B		C		D		Shipping Weight	
		US Gals	Litres	Inches	mm	Inches	mm	Inches	mm	Inches	mm	lbs.	Kg.
DEL-30	2	30	114	30-7/8	784	21-3/4	552	24-1/8	613	8	203	100	45.4
DEL-40	2	40	151	32-1/4	819	24	610	25-9/16	649	8	203	125	56.7
DEL-50	2	50	189	32-1/4	819	26-1/2	673	25-1/8	638	8	203	166	75.3
DEN-30	2	30	114	34-1/2	876	20-1/2	521	21	533	8	203	98	44.5
DEN-40	2	40	151	45-1/8	1146	20-1/2	521	N/A	N/A	8	203	113	51.3
DEN-52	2	50	189	54-7/8	1394	20-1/2	521	N/A	N/A	8	203	131	59.4
DEN-66	2	66	250	60-3/4	1543	21-3/4	552	N/A	N/A	8	203	176	79.8
DEN-80	2	80	303	59-3/8	1508	24	610	N/A	N/A	8	203	211	95.7
DEN-120	2	119	450	62-7/16	1586	29-3/8	746	N/A	N/A	8	203	326	147.9



Commercial Electric Water Heaters

ELEMENT AVAILABILITY CHART (LIGHT-DUTY COMMERCIAL ELECTRIC)

Models & Elements	Voltage	Wiring	kW Input Available									
			1.5	2	2.5	3						
6-Gallon Models Single-Element	120V	-	1.5	2	2.5	3						
	208V	-	1.5	2	2.5	3						
	240V	-	1.5	2	2.5	3						
	277V	-	1.5	2	2.5	3						
	480V	-		2	2.5	3						
10-Gallon through 20-Gallon Models Single-Element	120V	-	1.5	2	2.5	3						
	208V	-	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	240V	-	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	277V	-	1.5	2	2.5	3		4	4.5	5		6
	480V	-		2	2.5	3		4	4.5	5	5.5	6
30-Gallon through 120-Gallon Models Double-Element	120V	Interlock	1.5	2	2.5	3						
		Simultaneous	3	4	5	†						
	208V	Interlock	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
		Simultaneous	3	4	5	6	7	8	9	10**	11**	†
	240V	Interlock	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
		Simultaneous	3	4	5	6	7	8	9	10	11	12**
	277V*	Interlock	1.5	2	2.5	3		4	4.5	5		6
		Simultaneous	3	4	5	6		8	9	10		12
480V	Interlock		2	2.5	3		4	4.5	5	5.5	6	
	Simultaneous		4	5	6		8	9	10	11	12	

6 gallon model not available above 3kW
 6/10/15/20 gallon models all A6 circuit (2 wire) only
 † Exceeds maximum amp draw.
 ** Simultaneous only in 3ph

ELECTRIC CHARACTERISTICS

Electric Characteristics											
Non Simultaneous and Single Element Operation 6 - 120 Gallon			Simultaneous Dual Element Operation (Single Phase Connection) 30 - 120 Gallon					Simultaneous Dual Element Operation (Unbalanced Three Phase connection) 30 - 120 Gallon			
Element Wattage	Full Load Current in Amperes (Terminals - L1, L2)			Element Wattage	Full Load Current in Amperes (Terminals - L1, L2)			Element Wattage	Full Load Current in Amperes (Terminals - L1/Terminal L2 & L3)		
Upper / Lower	208V	240V	480V	Upper / Lower	208V	240V	480V	Upper / Lower	208V	240V	480V
1500	7.2	6.3	3.2	1500/1500	14.4	12.5	6.3	1500/1500	12.4/7.2	10.8/6.3	5.4/3.2
2000	9.6	8.3	4.2	2000/2000	19.2	16.6	8.3	2000/2000	16.6/9.6	14.4/8.3	7.2/4.2
2500	12.0	10.4	5.2	2500/2500	24	20.8	10.4	2500/2500	20.8/12.0	18.0/10.4	9.0/5.2
3000/3000	14.4	12.5	6.3	3000/3000	28.8	25	12.5	3000/3000	25.0/14.4	21.6/12.5	10.8/6.3
4000/4000	19.2	16.7	8.3	4000/4000	38.4	33.3	16.6	4000/4000	33.3/19.2	28.8/16.7	14.4/8.3
4500/4500	21.6	18.8	9.4	4500/4500	43.2	37.5	18.75	4500/4500	37.4/21.6	32.4/18.8	16.2/9.4
5000/5000	24.0	20.8	10.4	5000/5000	NA	41.6	20.8	5000/5000	41.6/24.0	36.0/20.8	18.0/10.4
6000/6000	28.8	25.0	12.5	6000/6000	NA	NA	25	6000/6000	NA	43.3/25.0	21.6/12.5



Commercial Electric Water Heaters

RECOVERY CAPACITIES

Element Wattage (Upper/Lower)	Input	U. S. Gallons/Hr and Litres/Hr at Temperature Rise Indicated											
		F°	36	40	54	60	72	80	90	100	108	120	126
		kW	C°	20	22.2	30	33.3	40	44.4	50	55.5	60	66.6
Non-Simultaneous Operation													
/1500	1.5	GPH	17	15	11	10	8	8	7	6	6	5	5
		LPH	64	58	43	38	32	29	26	23	21	19	18
/2000	2	GPH	23	20	15	14	11	10	9	8	8	7	6
		LPH	85	77	57	51	43	38	34	31	28	26	24
/2500	2.5	GPH	28	25	19	17	14	13	11	10	9	8	8
		LPH	107	96	71	64	53	48	43	38	36	32	30
3000/3000	3	GPH	34	30	23	20	17	15	14	12	11	10	10
		LPH	128	115	85	77	64	58	51	46	43	38	37
4000/4000	4	GPH	45	41	30	27	23	20	18	16	15	14	13
		LPH	170	153	114	102	85	77	68	61	57	51	49
4500/4500	4.5	GPH	51	46	34	30	25	23	20	18	17	15	14
		LPH	192	173	128	115	96	86	77	69	64	58	55
5000/5000	5	GPH	56	51	38	34	28	25	23	20	19	17	16
		LPH	213	192	142	128	107	96	85	77	71	64	61
6000/6000	6	GPH	68	61	45	41	34	30	27	24	23	20	19
		LPH	256	230	170	153	128	115	102	92	85	77	73
Simultaneous Operation													
3000/3000	6	GPH	68	61	45	41	34	30	27	24	23	20	19
		LPH	256	230	170	153	128	115	102	92	85	77	73
4000/4000	8	GPH	90	81	60	54	45	41	36	32	30	27	26
		LPH	341	307	227	205	170	153	136	123	114	102	97
4500/4500	9	GPH	101	91	68	61	51	46	41	36	34	30	29
		LPH	384	345	256	230	192	173	153	138	128	115	110
5000/5000	10	GPH	113	101	75	68	56	51	45	41	38	34	32
		LPH	426	384	284	256	213	192	170	153	142	128	122
6000/6000	12	GPH	135	122	90	81	68	61	54	49	45	41	39
		LPH	511	460	341	307	256	230	205	184	170	153	146

Recovery capacities at 100° F rise equal: for non-simultaneous element operation = 4.1 gal. x kW of one element; for simultaneous element operation = 4.1 gal. x 2/3 kW of both elements. For other rises multiply element kW as previously explained by 410 and divide by temperature rise. Full load current for single phase = total watts/voltage.

SPECIFICATION

The water heaters(s) shall be Dura-Power™ Model(s) No. _____ as manufactured by A. O. SMITH or an approved equal. Heater(s) shall be rated at _____ kW, _____ volts, _____-phase, 60 cycle AC, and listed by Underwriters' Laboratories. Models shall meet the standby loss requirements of the U.S. Department of energy and current edition of ASHRAE/IES 90.1. Tank(s) shall be _____gallon capacity. Heater(s) shall have 150 psi working pressure and be equipped with extruded high density anode rod. All internal surfaces of the heater(s) exposed to water shall be glasslined with an alkaline borosilicate composition that has been fused-to-steel by firing at a temperature range of 1400°F to 1600°F. Electric heating elements shall be medium watt density with zinc plated copper sheath. Each element shall be controlled by an individually mounted thermostat and high temperature cutoff switch. The outer jacket shall be of backed enamel finish and shall enclose the tank with foam insulation. Electrical junction box with heavy duty terminal block shall be provided (except on 120V & 277V {no junction box on DEL-6 thru 20}). The drain valve shall be located in the front for ease of servicing. Heater tank shall have a three year limited warranty as outlined in the written warranty. Fully illustrated instruction manual to be included.

For technical information, call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.