

Global Desalination Capacity and Plants—January 1, 2005

Description

Desalination provides fresh water through various processes. Chapter 3 provides an update on the status of desalination worldwide. This table shows the number of plants proposed, in construction, or in operation as a function of capacity, as of January 1, 2005. In total, the plants in this database have a combined capacity exceeding 55 million cubic meters per day. In reality, however, actual operating capacity is far lower than this (see Data Tables 21 and 22). We estimate that actual operating capacity was closer to 32 million cubic meters per day at the beginning of 2005.

More than 50 percent of all desalination capacity, and over 99 percent of the numbers of plants, produce less than 100,000 cubic meters of water per day. Fewer than 70 plants, out of a total of over 10,000, are responsible for more than 45 percent of all desalination capacity, but many of the largest plants in this database are not in operation, or even under construction—only proposed (see Data Table 21).

Limitations

Extreme care should be taken in using these data, because the list includes (but does not clearly identify) plants that have been ordered but never built, built but never operated, operated but then shut down, or are still operating. No separate list of plants in operation only is available, though Table 22 provides a better sense of plants commissioned to operate.

These data were collected from a wide range of sources, from desalting plant suppliers to plant operators, and therefore depend on the accuracy of the information supplied. Plants with capacities less than 500 cubic meters per day are not included. This table includes desalination plants that use seawater, brackish water, river, pure, and other sources of water, not exclusively seawater desalination plants.

Source

Wangnick/GWI. 2005. *2004 Worldwide desalting plants inventory*. Global Water Intelligence. Oxford, England. (Data provided to the Pacific Institute and used with permission.)

DATA TABLE 20 Global Desalination Plants and Capacity, January 1, 2005

Total Capacity: cubic meters per day	55,377,299		
Number of Plants	10,597		
Plant Capacity Ranges (m³/d)	Production Capacity (m³/d)	Percent of Total Capacity	Number of Plants
up to 5000 m ³ /d:	8,458,296	15.3	9,411
5000-10,000	3,538,791	6.4	478
10,000-20,000	4,543,670	8.2	306
20,000-30,000	2,813,661	5.1	112
30,000-40,000	1,807,389	3.3	51
40,000-50,000	2,213,031	4.0	48
50,000-60,000	1,383,728	2.5	25
60,000-70,000	466,750	0.8	7
70,000-80,000	697,300	1.3	9
80000-90,000	1,095,386	2.0	13
90,000-100,000	2,559,099	4.6	27
100,000-150,000	5,279,903	9.5	43
150,000-200,000	2,431,790	4.4	14
200,000-250,000	3,246,650	5.9	14
250,000-300,000	5,584,897	10.1	20
300,000-350,000	1,004,050	1.8	3
350,000-400,000	1,541,508	2.8	4
400,000-450,000	408,600	0.7	1
450,000-500,000	2,725,800	4.9	6
500,000-550,000	0	0.0	0
550,000-600,000	1,167,000	2.1	2
600,000-650,000	0	0.0	0
650,000-700,000	0	0.0	0
700,000-750,000	730,000	1.3	1
750,000-800,000	800,000	1.4	1
800,000-850,000	0	0.0	0
<u>850,000-900,000</u>	<u>880,000</u>	<u>1.6</u>	<u>1</u>
Totals	55,377,299	100	10,597