

# BEER COLUMN CAPACITIES

M. Delevante

DIAMETER		FEED CAPACITY		OUTPUT (WITH BEER AT 7% ABV)		
INCHES	CMS.	USGPH	LPH	USPG/HR	L/HR e 60% ABV	LAA/HR
10	25.5	160	605	22.4	70.6	42.4
15	35.0	350	1324	48.0	154.0	92.0
20	51.0	670	2540	93.5	296.3	177.8
25	63.5	920	3482	128.8	406.2	243.7
30	76.5	1260	4770	176.4	556.5	334.0
35	89.0	1850	7003	259.0	817.0	490.2
40	102.0	2350	8900	327.6	1038.3	623.0
45	114.3	2900	10978	406.0	1280.8	768.5
50	127.5	3700	14000	515.4	1633.3	980.0
55	140.0	4700	17800	655.3	2076.7	1246.0
60	152.5	5720	21600	795.0	2520.0	1512.0

TO CONVERT USPG/HR TO USG/HR: FOR 60% ABV

$$\text{USPG} \times 100/120 = \text{USG. eg } 48 \text{ US pg} = 40 \text{ USG @ 60\%}$$

- CAPACITIES ABOVE ARE BASED ON A CLEAN COLUMN WITH ADEQUATELY SIZED HOLES IN TRAYS TO SUIT THE BEER FEED TYPE i.e. CORN VS MOLASSES. RYE CAN REDUCE THROUGHPUT. DOWNCOMERS MUST ALSO BE PROPERLY SIZED.
- OUTPUT AT 60% ABV (120 uspf.) IS BASED ON HAVING UP TO 8 RECTIFYING TRAYS (BUBBLE CAPS OR TUNNELS) TO ACHIEVE THIS ABV WITHOUT EXCESSIVE REFLUX. THE ABOVE DOES NOT APPLY TO A VAPOR RE-USE RECTIFIER.
- BEER COLUMN WITH 8 RECT. TRAYS SHOULD PRODUCE A FLAVORFUL SPIRIT THAT CAN BE FURTHER PURIFIED IN A BATCH OR CONTINUOUS RECTIFIER.
- NEUTRAL SPIRIT (FOR VODKA OR GIN) MAY REQUIRE A PURIFIER (HEADS) COLUMN OR EXTRACTIVE COLUMN.