

**BLACK LIQUOR NOZZLES**

**S** STANDARD ANGLE SPRAY

**FLAT SPRAY**

**OVERVIEW: BLACK LIQUOR NOZZLES**

**Ideal for: recovery boilers**

- Excellent heat and corrosion resistance
- 45824 Splash Plate Series provide uniform spray distribution from 60 to 150 gpm (227 to 568 lpm)
- VeeJet® U Series provide uniform spray distribution from 17.7 to 354 gpm (67 to 1340 lpm)

**BLACK LIQUOR NOZZLE OPTIONS**

**45824 Splash Plate Series**

- Splash plate design has a large exit orifice for maximum flow passage
- Cast from 309 stainless steel
- Uniform spray distribution from 60 to 150 gpm (227 to 568 lpm)
- Operating pressures up to 10 psi (.7 bar)



**VeeJet U Series**

- VeeJet design provides a flat fan spray pattern
- 50° spray angle at 40 psi (2.8 bar)
- Constructed of 310 stainless steel
- Uniform spray distribution from 17.7 to 354 gpm (67 to 1340 lpm)
- Operating pressures up to 500 psi (35 bar)



**QUICK REFERENCE GUIDE**

Model	Connection/Type	Connection Size in.	Capacity gpm (lpm) at 10 psi (.7 bar)*	Material
<b>45824*</b>	M	1-1/4 or 1-1/2	60-150 (227 - 568)	309 stainless steel
<b>U</b>	M	1-1/4	25-50 (95-189)	310 stainless steel

\*Field studies indicate black liquor flow rates are approx. 50% of water flow rates

FOR DETAILED NOZZLE PERFORMANCE DATA, SEE

Standard Units

Metric Units



**PERFORMANCE DATA  
STANDARD ANGLE SPRAY TIPS: 45824**

Nozzle Type/ Conn. Size (in.)		Orifice Dia. Nom. (in.)	Capacity Size	Flow Rate Capacity (gallons per minute)*
45824				10 psi
1-1/4	1-1/2			
●	●	0.750	750	60
●	●	0.875	875	80
●	●	1.000	1000	100
●	●	1.125	1125	130
●	●	1.250	1250	150

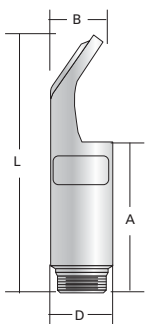
\*Reference flow rates measured at 10 psi using water. Field studies indicate black liquor flow rates are approximately 50% of water flow rates. Spray angle 130°  
Highlighted column shows the rated pressure.

**PERFORMANCE DATA  
STANDARD ANGLE SPRAY: U**

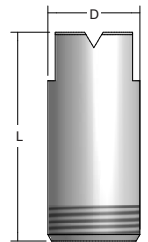
Spray Angle at 40 psi	Nozzle Type/ Conn. Size (in.)	Capacity Size	Equiv. Orifice Dia. (in.)	Flow Rate Capacity (gallons per minute)									Spray Angle (°)			
	U			5 psi	10 psi	20 psi	40 psi	80 psi	100 psi	200 psi	300 psi	500 psi	20 psi	40 psi	80 psi	200 psi
	1-1/4															
65°	●	500	.528	17.7	25	35	50	71	79	112	137	177	60	65	66	68
	●	500	.528	17.7	25	35	50	71	79	112	137	177	49	50	51	54
50°	●	750	.647	27	38	53	75	106	119	168	205	265	49	50	51	53
	●	1000	.747	35	50	71	100	141	158	224	274	354	49	50	51	53
25°	●	500	.528	17.7	25	35	50	71	79	112	137	177	24	25	26	29
	●	750	.647	27	38	53	75	106	119	168	205	265	24	25	26	28
	●	1000	.747	35	50	71	100	141	158	224	274	354	24	25	26	28
15°	●	500	.528	17.7	25	35	50	71	79	112	137	177	14	15	16	17
	●	1000	.747	35	50	71	100	141	158	224	274	354	14	15	16	17

Highlighted column shows the rated pressure.

**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Conn. Size (in.)	L (in.)	A (in.)	B (in.)	D (Dia.) (in.)	Net Weight (oz.)
	45824	1-1/4	8.28	4.84	1.39	2.00	75.2

Based on the largest/heaviest version of each type.

Nozzle	Nozzle Type	Conn. Size (in.)	L (in.)	D (Dia.) (in.)	Net Weight (oz.)
	U	1-1/4	3.75	1.69	20

Based on the largest/heaviest version of each type.