

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
45824*	M	1-1/4 or 1-1/2	60-150 (227 - 568)	309 stainless steel
U	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. (mm)	Capacity Size	Flow Rate Capacity (liters per minute)*
45824				7 bar
1-1/4	1-1/2			
●	●	19.1	750	227
●	●	22.3	875	303
●	●	25.4	1000	378
●	●	28.6	1125	492
●	●	31.8	1250	568

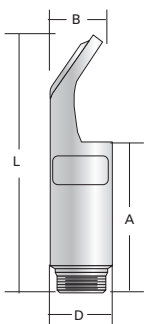
\*Reference flow rates measured at 7 bar using water. Field studies indicate black liquor flow rates are approximately 50% of water flow rates. Spray angle 130°  
Highlighted column shows the rated pressure.

**PERFORMANCE DATA  
STANDARD ANGLE SPRAY: U**

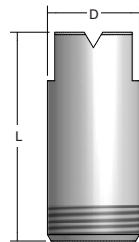
Spray Angle at 40 psi	Nozzle Type/ Conn. Size (in.)	Capacity Size	Equiv. Orifice Dia. (mm)	Flow Rate Capacity (liters per minute)									Spray Angle (°)			
	U			0.4 bar	0.7 bar	1.5 bar	3 bar	6 bar	7 bar	15 bar	20 bar	35 bar	1.5 bar	3 bar	6 bar	15 bar
	1-1/4															
65°	●	500	13.4	72	95	140	197	279	302	441	510	674	60	65	66	68
	●	500	13.4	72	95	140	197	279	302	441	510	674	49	50	51	54
50°	●	750	16.4	108	143	209	296	419	452	662	765	1011	49	50	51	53
	●	1000	19.0	144	191	279	395	558	603	883	1019	1349	49	50	51	53
25°	●	500	13.4	72	95	140	197	279	302	441	510	674	24	25	26	29
	●	750	16.4	108	143	209	296	419	452	662	765	1011	24	25	26	28
	●	1000	19.0	144	191	279	395	558	603	883	1019	1349	24	25	26	28
15°	●	500	13.4	72	95	140	197	279	302	441	510	674	14	15	16	17
	●	1000	19.0	144	191	279	395	558	603	883	1019	1349	14	15	16	17

Highlighted column shows the rated pressure.

**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Conn. Size (in.)	L (mm)	A (mm)	B (mm)	D (Dia.) (mm)	Net Weight (kg)
	45824	1-1/4	210	123	35.3	50.8	2.1

Based on the largest/heaviest version of each type.

Nozzle	Nozzle Type	Conn. Size (in.)	L (mm)	D (Dia.) (mm)	Net Weight (kg)
	U	1-1/4	95.3	42.9	0.57

Based on the largest/heaviest version of each type.