



C-169 / C-170 WA

Industrial Burner Nozzles for atomization



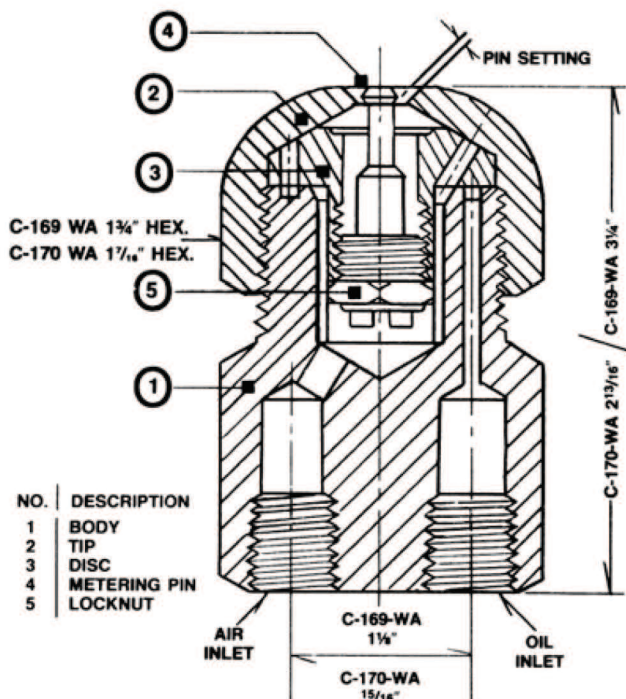
INDUSTRIAL OIL NOZZLE

The C-169-WA and C-170-WA nozzles are widely used on Industrial Burners using up to 21 psi air pressure for atomization, and oil pressure at least 2 psi higher (depending on oil flow rate desired). Excellent firing results can be obtained when these nozzles are used in combination with high velocity combustion air through properly designed Air Mixing Equipment to give the flame a rapid whirling motion.

Air and oil are fed into a common swirl chamber through separate openings to properly proportion the two, resulting in the oil being discharged in exceptionally fine spray ready for burning. Flow ratings in the table are on No. 2 fuel oil, but heavy oils can be handled satisfactorily provided they are preheated to bring the viscosity down to about 100 SSU. Flow rates shown are approximate maximums, and turndown ratios between 3 and 4 to 1 can be obtained by reducing air pressure to as low as 5 psi, keeping oil pressure always at least 2 psi higher than the air.

Best atomization is obtained with oil pressure 8 to 10 psi over the air pressure. Some Manufacturers operate at 15 psi constant air pressure and vary only the oil pressure for different flow rates and others modulate both air and oil pressures for maximum turn-down. Air requirements depend on air and oil pressures used, as any particular flow rate can be produced by an infinite number of different air-oil pressure combinations. Curve charts showing oil flow rates and air consumption at different air and oil pressures are available upon request for each size nozzle.

DIMENSIONS



C-169-WA and C-170-WA nozzles are made of cold rolled steel and can be supplied with spray angles from 50° to 100° in 10° steps. 80° spray angle is considered the standard and will be furnished unless ordered otherwise. Weight: C-170-WA 1.2 lbs.; C-169-WA 2.0 lbs. Ordering: Specify quantity, figure number, capacity size and spray angle. Note: Oil pressure must be at least 2 PSI higher than air pressure. Refer to burner manufacturer's instructions. Preheating is recommended for higher viscosity oils.

MATERIAL

Cold rolled steel

PIPE CONNECTION

1 1/2" NPT

SPRAY ANGLES

80° standard

50° - 100°

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CAPACITIES

Minimum Capacity: Gallons Per Hour				
FIG No	RATED GPH	NPT CONNECTIONS		PIN SETTING
		AIR	OIL	
C-170-WA	17	1/8"	1/8"	.020"
	30	1/8"	1/8"	.030"
C-169-WA	30	1/4"	1/4"	.030"
	40	1/4"	1/4"	.030"
	50	1/4"	1/4"	.040"
	60	1/4"	1/4"	.040"
	80	1/4"	1/4"	.040"
	100	1/4"	1/4"	.050"
	125	3/8	1/4"	.062"
	150	3/8"	1/4"	.062"
	200	3/8"	3/8"	.062"
	250	3/8"	3/8"	.062"