

TECHNICAL DATA SHEET

Note: For safe, efficient blasting, read and follow the owner's manual and seek training for everyone who will use this equipment.

Purpose

A blast nozzle accelerates the air and abrasive as the mixture exits the end of the hose. The length of the nozzle's inlet determines the pattern and velocity of the abrasive exiting the nozzle. The composition of the liner material determines its resistance to wear.

Requirements for Operation

Nozzles are sized by the diameter of their orifices in 1/16-inch increments. A No. 4 nozzle has a 4/16-inch (1/4-inch) orifice, a No. 5 nozzle has a 5/16-inch orifice, etc. The size of the nozzle orifice determines abrasive and air consumption. Air consumption is measured in cubic feet per minute (cfm) at a given pressure. See the air and abrasive consumption chart on the back of this page.

When choosing a nozzle, consider the volume of available air in cfm, the capacity of the blast machine and the inside diameter of the piping, the blast and air hoses. If too large a nozzle is used, low blast pressure and rapid wear on the blast hose will occur. If too small a nozzle is used, smooth media flow will be difficult to achieve.

Description of Operation

The operator attaches the nozzle to the nozzle holder on the coupled blast hose by turning the nozzle clockwise until the nozzle fully seats and is threaded in place. The Clemco nozzle holder keeps the nozzle firmly installed.

Description

An angle nozzle is designed to blast into tubing or pipe; structural angles inaccessible with a straight nozzle. CAM nozzles are tungsten carbide lined, and are available with one or three outlets. All CAM style nozzles are 2-3/4" in length and have three orifice diameters: 1/4", 5/16" and 3/8", all with 1-1/4" straight pipe threads.



CAM-6X1 AND 6X3 shown

With all related equipment correctly assembled and tested, the operator points the nozzle outlet at the surface to be blasted and presses the remote control handle to begin blasting. The operator holds the nozzle 3 to 6 inches from the surface and moves it smoothly at a rate that produces the desired cleanliness. Each pass should overlap slightly.

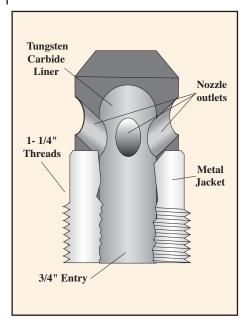
The operator must replace the nozzle once the orifice wears 1/16-inch beyond its original size.

Advantages

- Tungsten carbide liner material is the most rugged and durable and offers the best value.
- Angle nozzles are designed for blasting "blind" or otherwise hard to access surfaces.
- Expected wear life with expendable abrasives is approximately 300 hours.

Nozzles Tungsten Carbide Lined Metal Jacketed

Short, Angled Outlet, CAM Series



Replacement Parts

Description	Stock No.
NW-3 Nozzle washers	
(Pkg of 10)	

Specifications				
Nozzle Model	CAM			
Mounting Thread	1-1/4"			
Entry Diameter	3/4"			
Liner	Tungsten Carbide			
Liner Style	45° Angled outlet			
Jacket Material	Aluminum			
Length	2-3/4"			

Authorized Distributor:



Nozzle Orifice	50	Air (in cfm) Abrasive & HP requirements							
CAM 4 X 1 (1/4")	47 2.68 268 11	54 3.12 312 12	61 3.54 354 14	68 4.08 408 16	74 4.48 448 17	81 4.94 494 18	98 6.08 608 22	110 6.81 681 25	Air (cfm) Abrasive (cu.ft./hr & Lbs/hr) Compressor hp
CAM 4 X 3 (1/4")	141 8.04 804 33	162 9.36 936 36	183 10.62 1,062 42	204 12.24 1,224 48	222 13.44 1,344 51	243 14.82 1,482 54	294 18.24 1,824 66	330 20.43 2,043 75	Air (cfm) Abrasive (cu.ft./hr & Lbs/hr) Compressor hp
CAM 5 X 1 (5/16")	77 4.68 468 18	89 5.34 534 20	101 6.04 604 23	113 6.72 672 26	126 7.40 740 28	137 8.12 812 31	168 9.82 982 37	188 11.0 1,100 41	Air (cfm) Abrasive (cu.ft./hr & Lbs/hr) Compressor hp
CAM 5 X 3 (5/16")	231 14.04 1,404 54	267 16.0 1,602 60	303 18.12 1,812 69	339 20.16 2,016 78	378 22.20 2,220 84	411 24.36 2,436 93	504 29.46 2,946 111	564 33.0 3,300 123	Air (cfm) Abrasive (cu.ft./hr & Lbs/hr) Compressor hp
CAM 6 X 1 (3/8")	108 6.68 668 24	126 7.64 764 28	143 8.64 864 32	161 9.60 960 36	173 10.52 1,052 39	196 11.52 1,152 44	237 13.93 1,393 52	265 15.60 1,560 58	Air (cfm) Abrasive (cu.ft./hr & Lbs/hr) Compressor hp
CAM 6 X 3 (3/8")	324 20.04 2,004 72	378 22.92 2,292 84	429 25.92 2,592 96	483 28.80 2,880 108	519 31.56 3,156 132	588 34.56 3,456 132	711 41.79 4,179 156	795 46.80 4,680 174	Air (cfm) Abrasive (cu.ft./hr & Lbs/hr) Compressor hp

Compressed Air and Abrasive Consumption for CAM Nozzles

Chart shows air consumption in cubic feet per minute (cfm), abrasive consumption in pounds per hour and cubic feet per hour for abrasives weighing 100 pounds per cubic foot, and compressor horsepower (hp) based on 4 to 4.5 cfm per horsepower.

NOTE: Figures vary depending upon working conditions. To maintain desired air pressure as nozzle orifice wears, air consumption increases. The effects of nozzle wear on air consumption must be considered when selecting nozzles and the compressors that support them.

When nozzle orifice is 3/8-inch or larger, blast machine valves and piping must be 1-1/4-inch or larger to provide sufficient air volume.

	Ordering Information											
	Stock No.	Model No.	Orifice ID	Length	Holder	Washer	Net Wt.	Pkg'd Wt.				
1-1/4" Thread	01442 01444 01445 01447 01448 01450	CAM 4 x 1 CAM 4 x 3 CAM 5 x 1 CAM 5 x 3 CAM 6 x 1 CAM 6 x 3	1/4" x 1 1/4" x 3 5/16" x 1 5/16" x 3 3/8" x 1 3/8" x 3	2-3/4" 2-3/4" 2-3/4" 2-3/4" 2-3/4" 2-3/4"	CHE Series	NW-3 NW-3 NW-3 NW-3 NW-3 NW-3	2 lb 2 lb 2 lb 2 lb 2 lb 2 lb 2 lb	2.5 lb 2.5 lb 2.5 lb 2.5 lb 2.5 lb 2.5 lb 2.5 lb				

ISO 9001:2008 certified

Clemco is committed to continuous product improvement. Specifications are subject to change without notice.

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