CFM Requirements for Triple Outlet Angle Nozzles

Kennametal T045 tungsten carbide angle nozzles with three 45° outlets: compressed air by bore size and pressure

AIRBLAST

How to read: find your nozzle's bore in the left column and read across to your blasting pressure. Size your compressor on the **air used while blasting** figure.

Three outlets, three times the air: each outlet has the bore shown, so a triple outlet nozzle uses about three times the air of a single nozzle the same size. Every figure here is three times the single-nozzle value in our CFM Requirements chart.

Air used while blasting

cfm, air carrying abrasive, all three outlets

Typical blasting pressures

Model	Bore	mm	30 2.1	40 2.8	50 3.4	60 4.1	70 4.8	80 5.5	90 6.2	100 6.9	psi bar
T045-33	3/16"	4.8	54	66	78	90	99	114	123	135	
T045-43	1/4"	6.4	102	123	141	162	183	204	222	243	
T045-53	5/16"	7.9	159	195	231	267	303	339	378	411	
T045-63	3/8"	9.5	228	273	324	378	429	483	519	588	
T045-83	1/2"	12.7	411	495	585	672	756	840	927	1,014	

Compressor motor size

approximate electric motor hp needed to supply that air

Model	Bore	30 2.1	40 2.8	50 3.4	60 4.1	70 4.8	80 5.5	90 6.2	100 6.9	psi bar
T045-33	3/16"	3.6	8.1	10.8	13.8	16.5	21	23.7	27.9	
T045-43	1/4"	10.5	15	19.2	24.9	30.6	37.2	42.6	50.4	
T045-53	5/16"	16.5	24	30	39	48.9	58.2	70.5	81	
T045-63	3/8"	23.4	33.3	44.4	57.9	71.7	87.9	99.6	121.8	
T045-83	1/2"	42.3	60.3	80.1	102.9	126.3	153	177.9	210	

Free air through the nozzle

cfm, air only (no abrasive), all three outlets

Model	Bore	mm	5 0.3	10 0.7	15 1.0	20 1.4	25 1.7	30 2.1	35 2.4	40 2.8	45 3.1	50 3.4	55 3.8	60 4.1	70 4.8	80 5.5	90 6.2	100 6.9	psi bar
T045-33	3/16"	4.8	–	–	–	–	–	65.4	–	76.8	–	97.2	–	110.4	120.6	142.8	146.7	167.4	
T045-43	1/4"	6.4	46.2	65.4	80.1	92.4	103.5	120	134.1	147.3	161.4	174.6	189	201	228	255	278.4	309	
T045-53	5/16"	7.9	72.3	102	125.1	144.6	162	189	210	230.1	252	273	288	315	357	396	438	486	
T045-63	3/8"	9.5	103.8	147	180	207	231	270	300	331.2	361.5	390	421.2	453	513	573	636	693	
T045-83	1/2"	12.7	184.8	261	321	369	414	483	537.6	588.9	645	696	753	804	912	1,020	1,131	1,236	

Which compressor do I need?

what each triple outlet nozzle compares to, and the compressor to run it at 100 psi

Model	Bore	Air used at 100 psi, cfm	Same air as a single nozzle of	Compressor to suit, cfm
T045-33	3/16"	135	No. 5 (5/16")	205
T045-43	1/4"	243	No. 7 (7/16")	365
T045-53	5/16"	411	between No. 8 and No. 10 (1/2"–5/8")	620
T045-63	3/8"	588	between No. 10 and No. 12 (5/8"–3/4")	885
T045-83	1/2"	1,014	No. 14 (7/8")	1,525

Compressor to suit allows 50% more air than a new nozzle uses, so it keeps blasting at pressure as the nozzle wears.

About this nozzle

Kennametal T045 series, triple outlet 45°

Outlets	Three, angled at 45°, for blasting inside pipe, behind flanges and in lattice steelwork
Liner	Tungsten carbide
Nozzle thread	1-1/4" – 11-1/2 NPSM (fine), brass
Adapter	1-1/4" NPSM to 50mm coarse (contractor) thread, fitted as standard
Entry	1" (25.4 mm)
Length	79.4 mm (3-1/8"), nozzle only

All figures are approximate and are three times the single-nozzle values in our CFM Requirements chart. A worn nozzle uses more air. – = no figure listed.