

NELSON STUD WELDING

SPECIFICATION: HBA Full Base Threaded Aluminum Studs

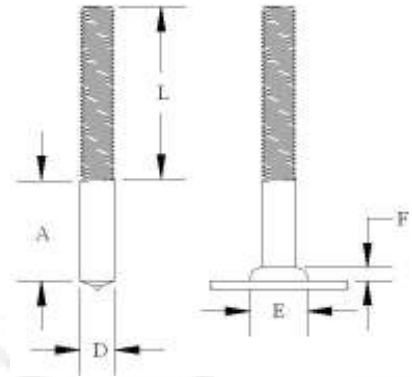
Nelson HBA threaded aluminum studs are available in thread sizes of #10-24 through 1/2-13. They are used for attaching parts to aluminum structures. They are welded using ceramic ferrules in conjunction with argon as a shielding gas. The full nominal weld base for the HBL studs gives greater weld reliability and strength than could be achieved using a pitch diameter weld base.

The shielding gas is introduced to the weld area through a gas foot assembly, #751020000, which is used for all diameters of HBA studs. Gas hose #515001001 and gas regulator #514001001 are needed to deliver and control the gas flow from a pressurized cylinder.

An aluminum Tranquil-Arc® plunge dampener kit is also needed as an accessory on the gun to control the rate of the stud's return in to the molten weld metal at the end of the weld cycle.

For similar function, please refer to Nelson [NBA Unthreaded Aluminum studs](#) and [TBA Internally Threaded Aluminum studs](#).

HBA



When ordering, specify Type, Diameter, Before Weld Length, Material, Quantity, and Part Number

Example: HBA 3/8-16 x 2-1/2"; Aluminum; 10,000 pieces; #101044056

Thread Size	Stud Diameter D	Minimum Unthreaded A	Minimum Stud Length L	Weld Flash Size		Burn Off	Flash Clearance	Required Standard Accessories	
				E	F			Ferrule	Chuck
#10-24	3/16	.312	.812	0.330	0.125	0.093	0.390	100101046	500001005
1/4-20	1/4	.312	.937	0.406	0.125	0.093	0.469	100101047	500001007
5/16-18	5/16	.343	.937	0.468	0.156	0.093	0.531	100101048	500001009
3/8-16	3/8	.390	.937	0.603	0.187	0.093	0.656	100101049	500001011
7/16-14	7/16	.468	.937	0.656	0.218	0.093	0.750	100101050	500001012
1/2-13	1/2	.515	.937	0.750	0.250	0.125	0.843	100101051	500001014

MATERIALS: HBA Studs are only available in 5356 Aluminum. For specific grade information and physical and chemical properties, conforming standards, and information on heat treating, please see [General Material Specifications](#).

THREADS: Standard external threads are UNC-2A. The standard maximum length of threads on all HBA aluminum studs is 1-1/4".

Visit our website www.NelsonStudWelding.com for a list of our standard stock products.