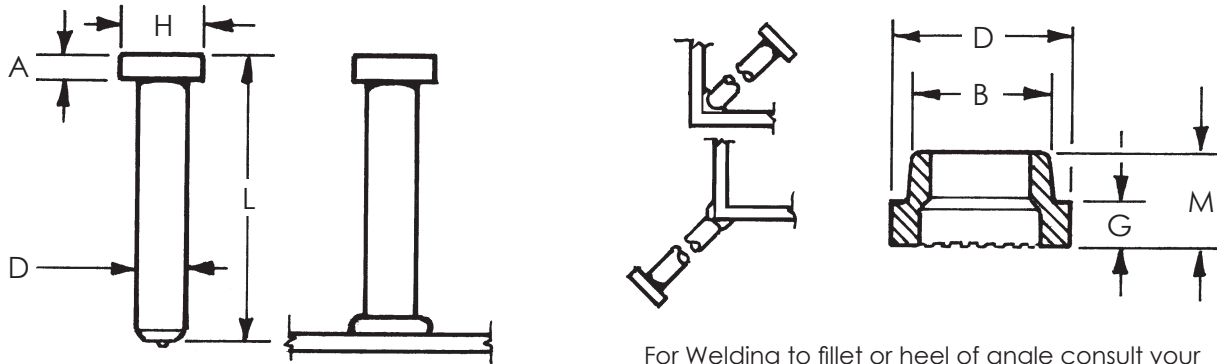


Arc Weld Studs - Concrete Anchors

HSC - HEADED SHEAR CONNECTORS - TECHNICAL DETAILS



For Welding to fillet or heel of angle consult your Sunbelt Stud Welding representative for assistance.

Stud Specifications			Ferrule Specifications				
D	H	A	No.	D	B	G	M
3/4	1-1/4	3/8	F075-F	1.218	1.030	.469	.656
3/4 *	1-1/4	3/8	F075-TD	1.335	1.210	.406	.600
7/8	1-3/8	3/8	F087-F	1.406	1.210	.545	.732
1	1-5/8	1/2	F100-F	1.610	1.406	.632	.820

* For 3/4" weld thru-deck only

Headed Shear Connectors are designed for composite construction to secure the concrete to the steel beams and to resist shear loadings between the concrete slab and steel beam.

Specifications – HSC's meet AWS Specifications D1.1, D1.5 and or D1.6. International Specifications BS5950, BS5400, DIN/ISO are available.

Material – Low carbon steel, ASTM A108 / A29, Grade C1010 to C1020. In Stainless Steel, grades 302, 304, 310 and 316 are stocked in some sizes.

Ferrules – Customer to specify ferrule type at time of order.

Length – Lengths are listed before welding. For Stud Diameters (D) 3/4" and 7/8" the length reduction is roughly 3/16" and for (D) 1" the reduction is roughly 1/4". For Weld Thru-deck the length reduction is roughly 3/8". HSC's can be made in any length above the standard minimum. The standard stock lengths are usually the most cost effective option.

Accessories – For a complete list of accessories required with each ferrule type, please see next page.

Mechanical Property Requirements		
	Type A	Type B
Tensile Strength	61,000 psi min.	65,000 psi min.
Yield Strength	49,000 psi min.	51,000 psi min.
Elongation (% in 2 in.)	17% min.	20% min.
Elongation (% in 5x dia.)	14% min.	15% min.
Reduction of Area	50% min.	50% min.
Type A Studs are general purpose studs.		
Type B Studs are headed, bent, or of other configuration that are used as an essential component in composite beam design and construction.		



Arc Weld Studs - Concrete Anchors

HSC - HEADED SHEAR CONNECTORS - ACCESSORY DETAILS

Stud Diameter	Chuck P/N	Ferrule Type	Ferrule P/N	Foot P/N	Grip P/N	Ferrule Foot Plate P/N (Dual Leg)
3/4	CH-075	Flat	F075-F	B-2C	GC-075	QN-075
		Low Profile	F075-LP	B-2C	GC-075	QN-075
		Vertical	F075-V	B-2C	GC-075	QN-075
		Inside Angle	F075-IA37	B-2C	GD-075	N/A
		Inside Angle	F075-IA50	B-2C	GD-075	N/A
		Outside Angle	F075-OA	B-2C	GC-075	QN-075
		Weld Thru Deck (WTD)	F075-TD	B-0021	B-0060-1	N/A
7/8	CH-087	Flat	F087-F	B-3C	GC-087	QN-087
		Vertical	F087-V	B-3C	GC-087	QN-087
		Outside Angle	F-087-OA	B-3C	GC-087	QN-087
		Weld Thru Deck (WTD)	F087-TD	B-0021	B-0060-4	N/A
1 inch	CH-100	Flat	F100-F	B-3C	GC-100	QN-100
		Flat	F100-F	B-0021	B-0060-4	QN-100



Arc Weld Studs - Concrete Anchors

HSC - HEADED SHEAR CONNECTORS - 3/4" STANDARD SIZES

Specifications			Packaging Detail			Weights - in pounds		
Diameter	Length	SSW Part Number (mild steel)	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet	Box Weight	Pallet Weight	1,000 Pcs. Weight
D	L							
Typical Bare Beam Sizes								
3/4	3 - 3/16	HSCM0750318	125	48	6,000	60	2,880	480
	3 - 1 1/16	HSCM0750368	100	48	4,800	55	2,640	550
	4 - 3/16	HSCM0750418	100	48	4,800	63	3,024	630
	4 - 1 1/16	HSCM0750468	75	27	2,025	51	1,377	680
	5 - 3/16	HSCM0750518	60	48	2,880	43	2,064	717
	5 - 1 1/16	HSCM0750568	60	48	2,880	47	2,256	783
	6 - 3/16	HSCM0750618	60	48	2,880	51	2,448	850
	6 - 1 1/16	HSCM0750668	80	27	2,160	75	2,025	938
	7 - 3/16	HSCM0750718	60	27	1,620	59	1,593	983
	8 - 3/16	HSCM0750818	50	27	1,350	56	1,512	1,120
	9 - 3/16	HSCM0750918	100	9	900	123	1,107	1,230
	10 - 3/16	HSCM0751018	100	9	900	137	1,233	1,370
	12 - 3/16	HSCM0751218	1,100	1	1,100	1,760	1,760	1,600
	16 - 3/16	HSCM0751618	1,000	1	1,000	2,000	2,000	2,000
For non standard sizes, please contact Sunbelt Stud Welding.								
Typical Weld Thru-Deck Sizes								
3/4	3 - 3/8	HSCM0750337	125	48	6,000	62	2,976	496
	3 - 7/8	HSCM0750387	100	48	4,800	58	2,784	580
	4 - 3/8	HSCM0750437	100	48	4,800	62	2,976	620
	4 - 7/8	HSCM0750487	75	48	3,600	51	2,448	680
	5 - 3/8	HSCM0750537	60	48	2,880	45	2,160	750
	5 - 7/8	HSCM0750587	60	48	2,880	49	2,352	817
	6 - 3/8	HSCM0750637	60	48	2,880	53	2,544	883
For non standard sizes, please contact Sunbelt Stud Welding.								



Arc Weld Studs - Concrete Anchors

HSC - HEADED SHEAR CONNECTORS - 7/8" AND 1" STANDARD SIZES

Specifications			Packaging Detail			Weights - in pounds		
Diameter	Length	SSW Part Number (mild steel)	Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet	Box Weight	Pallet Weight	1,000 Pcs. Weight
D	L							
7/8	3 - 3/16	HSCM0870318	100	27	2,700	66	1,782	660
	3 - 1 1/16	HSCM0870368	100	27	2,700	74	1,998	740
	4 - 3/16	HSCM0870418	100	27	2,700	80	2,160	800
	5 - 3/16	HSCM0870518	75	27	2,025	73	1,971	973
	6 - 3/16	HSCM0870618	50	27	1,350	57	1,539	1,140
	7 - 3/16	HSCM0870718	45	27	1,215	59	1,593	1,311
	8 - 3/16	HSCM0870818	40	27	1,080	59	1,593	1,475
	9 - 3/16	HSCM0870918	75	9	675	125	1,125	1,667
	10 - 3/16	HSCM0871018	75	9	675	135	1,215	1,800
	12- 3/16	HSCM0871218	825	1	825	1,793	1,793	2,173
1 inch	3 - 1/4	HSCM1000325	100	27	2,700	74	1,998	740
	4 - 1/4	HSCM1000425	100	27	2,700	80	2,160	800
	5 - 1/4	HSCM1000525	75	27	2,025	73	1,971	973
	6 - 1/4	HSCM1000625	50	27	1,350	57	1,539	1,140
	7 - 1/4	HSCM1000725	45	27	1,215	59	1,593	1,311
	8 - 1/4	HSCM1000825	40	27	1,080	59	1,593	1,475
	9 - 1/4	HSCM1000925	75	9	675	125	1,125	1,667
	10 - 1/4	HSCM1001025	50	9	950	125	1,125	2,500
	12- 1/4	HSCM1001225	600	1	6000	1760	1,760	2,934

For non standard sizes contact Sunbelt Stud Welding.

