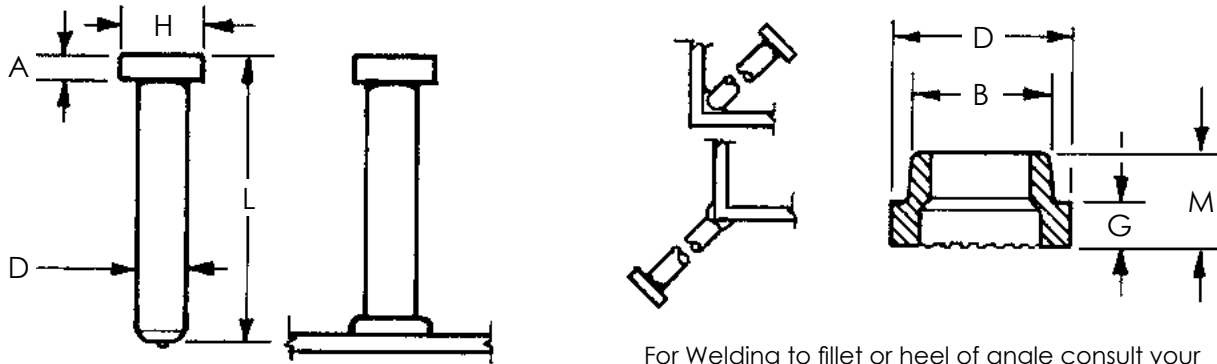


# Arc Weld Studs - Concrete Anchors

## 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	HSC0750318	125	48	6,000	60	2,880	480
	3 - 1 1/16	HSC0750368	100	48	4,800	55	2,640	550
	4 - 3/16	HSC0750418	100	48	4,800	63	3,024	630
	4 - 1 1/16	HSC0750468	75	27	2,025	51	1,377	680
	5 - 3/16	HSC0750518	60	48	2,880	43	2,064	717
	5 - 1 1/16	HSC0750568	60	48	2,880	47	2,256	783
	6 - 3/16	HSC0750618	60	48	2,880	51	2,448	850
	6 - 1 1/16	HSC0750668	80	27	2,160	75	2,025	938
	7 - 3/16	HSC0750718	60	27	1,620	59	1,593	983
	8 - 3/16	HSC0750818	50	27	1,350	56	1,512	1,120
	9 - 3/16	HSC0750918	100	9	900	123	1,107	1,230
	10 - 3/16	HSC0751018	100	9	900	137	1,233	1,370
	12 - 3/16	HSC0751218	1,100	1	1,100	1,760	1,760	1,600
	16 - 3/16	HSC0751618	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	HSC0750337	125	48	6,000	62	2,976	496
	3 - 7/8	HSC0750387	100	48	4,800	58	2,784	580
	4 - 3/8	HSC0750437	100	48	4,800	62	2,976	620
	4 - 7/8	HSC0750487	75	48	3,600	51	2,448	680
	5 - 3/8	HSC0750537	60	48	2,880	45	2,160	750
	5 - 7/8	HSC0750587	60	48	2,880	49	2,352	817
	6 - 3/8	HSC0750637	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 - 11/16	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.

