

# ARC WELD Studs

## Full Base Mild Steel

	BODY DIAMETER & THREAD PITCH						
	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10	
<b>Example Part No.</b>	FBC25-62	FBC31-62	FBC37-62	FBC50-1	FBC62-162	FBC75-162	
<b>Min Length</b>	.625"	.625"	.625"	1"	1.625"	1.625"	
<b>Max Length</b>	Most sizes are made to order.						
<b>Base</b>	<b>Length</b>	.187 ± .063"	.250 ± .063"	.265 ± .063"	.300 ± .063"	.375 ± .063"	.500 ± .063"
	<b>Diameter</b>	.250"	.313"	.375"	.500"	.625"	.750"
<b>Fillet</b>	<b>Height</b>	.12 ± .02"	.12 ± .02"	.14 ± .02"	.17 ± .02"	.19 ± .02"	.32 ± .02"
	<b>Diameter</b>	.36 ± .02"	.43 ± .02"	.49 ± .02"	.63 ± .02"	.77 ± .02"	.97 ± .02"
<b>After Weld Length Reduction (approx)</b>	.12"	.12"	.12"	.12"	.19"	.19"	

STANDARD ACCESSORIES						
<b>Chuck</b>	C25	C31	C37	C50	C62	C75
<b>Grip</b>	G25	G31	G37	G50	G62	G75
<b>Foot</b>	FTS20	FTS20	FTS20	FTS20	FTM20	FTM20
<b>Ferrule</b>	25F	31F	37F	50F	62F	75F

MECHANICAL PROPERTIES						
(see appendix tables for calculation details particularly when comparing different manufacturers)						
<b>Min Working Tensile</b>	1,074 lb	1,770 lb	2,615 lb	4,789 lb	7,628 lb	11,288 lb
<b>Min Yield Shear</b>	1,416 lb	2,213 lb	3,186 lb	5,665 lb	8,851 lb	12,746 lb
<b>Min Working Torque</b>	4.5 ft•lb	9.3 ft•lb	16.3 ft•lb	39.9 ft•lb	79.4 ft•lb	141.1 ft•lb
<b>Min Yield Torque</b>	5.4 ft•lb	11.1 ft•lb	19.6 ft•lb	47.9 ft•lb	95.3 ft•lb	169.3 ft•lb

A Full Base Stud is manufactured so the base of the stud is the same diameter as the nominal thread diameter. This gives a stud maximum shear capabilities for its diameter. A full base does not offer any increase in tensile since the threads dictate the minimum affected stress area. These studs are frequently used in applications where maximum shear is important and maximum fastener size is limited. Due to required manufacturing processes, a Full Base Stud will be more expensive than equivalent size Pitch Diameter and Full Thread Studs.



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	BODY DIAMETER & THREAD PITCH					
	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
<b>Example Part No.</b>	FBS25-62	FBS31-62	FBS37-62	FBS50-1	FBS62-162	FBS75-162
<b>Min Length</b>	.625"	.625"	.625"	1"	1.625"	1.625"
<b>Max Length</b>	Most sizes are made to order.					
<b>Base</b>	<b>Length</b>	.187 ± .063"	.250 ± .063"	.265 ± .063"	.300 ± .063"	.375 ± .063"
	<b>Diameter</b>	.250"	.313"	.375"	.500"	.625"
<b>Fillet</b>	<b>Height</b>	.12 ± .02"	.12 ± .02"	.14 ± .02"	.17 ± .02"	.19 ± .02"
	<b>Diameter</b>	.36 ± .02"	.43 ± .02"	.49 ± .02"	.63 ± .02"	.77 ± .02"
<b>After Weld Length Reduction (approx)</b>	.12"	.12"	.12"	.12"	.19"	.19"

STANDARD ACCESSORIES						
<b>Chuck</b>	C25	C31	C37	C50	C62	C75
<b>Grip</b>	G25	G31	G37	G50	G62	G75
<b>Foot</b>	FTS20	FTS20	FTS20	FTS20	FTM20	FTM20
<b>Ferrule</b>	25F	31F	37F	50F	62F	75F

MECHANICAL PROPERTIES						
(see appendix tables for calculation details particularly when comparing different manufacturers)						
<b>Min Working Tensile</b>	644 lb	1,062 lb	1,569 lb	2,873 lb	4,577 lb	6,773 lb
<b>Min Yield Shear</b>	850 lb	1,328 lb	1,912 lb	3,399 lb	5,311 lb	7,647 lb
<b>Min Working Torque</b>	2.7 ft•lb	5.5 ft•lb	9.8 ft•lb	23.9 ft•lb	47.7 ft•lb	84.7 ft•lb
<b>Min Yield Torque</b>	3.3 ft•lb	6.7 ft•lb	11.8 ft•lb	28.8 ft•lb	57.2 ft•lb	101.6 ft•lb

