

	Items	FCS	SSP
Differenia	Difficulty index of casting	FCS casting can make more difficult part, for example, thinner wall(the thinnest wall can be 2mm), longer tube and so on	SSP can't make too difficult parts because distortion is more serious than FCS, the thinnest wall for SSP casting is 6mm, but few SSP foundry can meet 6mm for series products.
	Casting weight	FCS makes lighter casting, because related equipment is designed for small parts. Weight scale is 5g to 30kg.	SSP makes heavier casting, weight scale is 100g to 100kg.
	Surface quality	Roughness value of FCS casting is Ra3.2	Roughness value of SSP casting is Ra12.6 or rougher
	Production cycle	The shortest time for one pcs of FCS casting costs 7days.	The shortest time for one pcs of SSP casting costs 3 days
	Tolerance class	Tolerance class for FCS casting is CT4-5, it depends on foundry's ability	Tolerance class for SSP is casting is CT7,8,9, it depends on quality of foundry's ability
	Raw material	Raw material of FCS is more expensive, for example, wax for FCS must be K512 imported from Japan, shell making material is full colloidal silica imported from Australia	Raw material of SSP casting is much cheaper than FCS, was is common made in China, shell making material is sodium silicate which also made in China, because sodium silicate looks like glass after it dissolves in water, so there is another name for SSP in China which is water glass.
	Technological process	Shell must be dried in constant temperature and humidity room, it takes at least 48 hours to dry, which is the main reason why FCS takes much longer then SSP	Shell is dried in ammonium Chloride solution, it is dry immediately.
	Price	Price of FCS is 3 times of SSP at least. Average price of FCS is 30ny/kg if raw material is SAE1045	Average price of SSP is 10cny/kg if raw material is SAE1045.
Similarity	Raw material	Both FCS and SSP use wasted steel, both of them can make carbon steel, alloy steel and stainless steel.	
	Technological processes	Both of them are called precision investment casting, there are 7 steps: 1.making mould. 2. making wax pattern by injecting wax into mould 3. removing burs in wax patter 4. shell making 5. dewaxing 6. injecting 7. cleaning 8.strengthening	