

Welding Consumables for Offshore structures



Semi-submerged rig

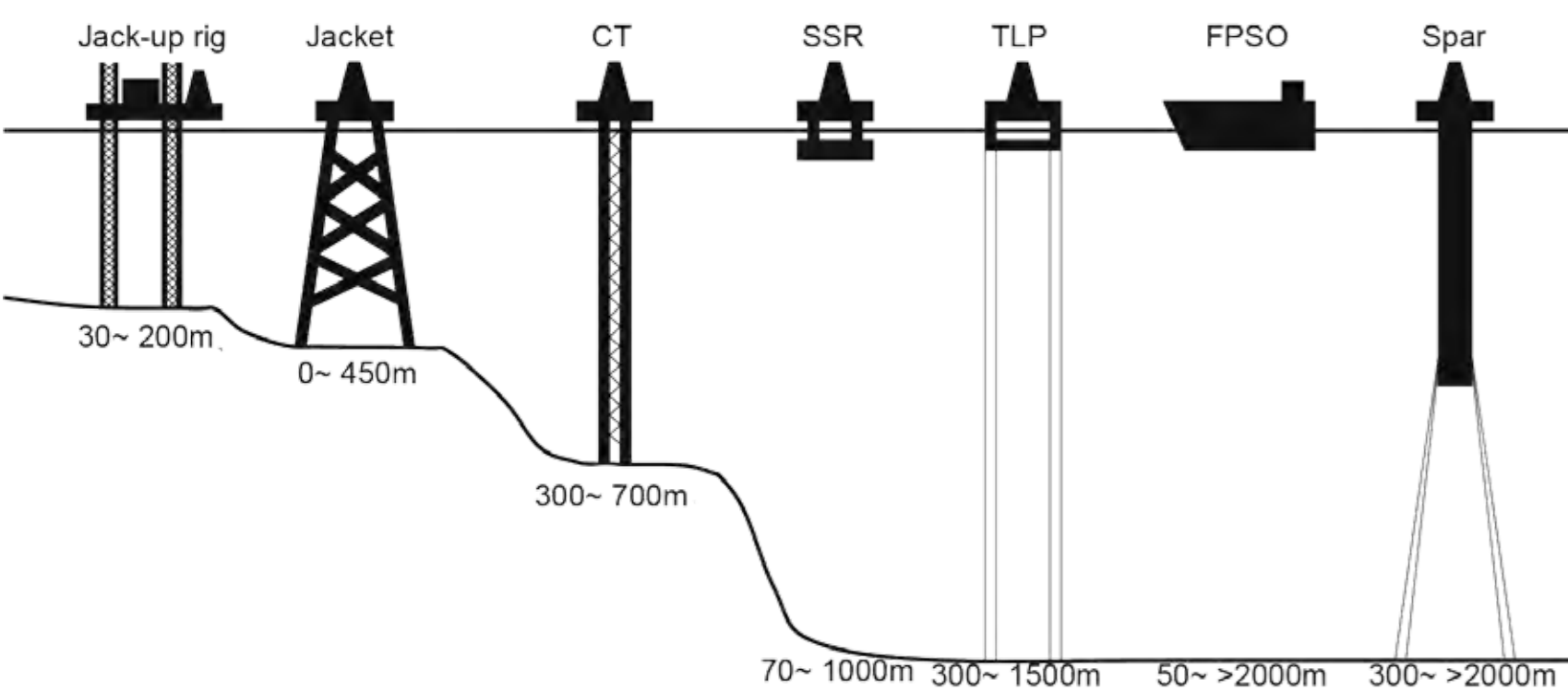


Jacket

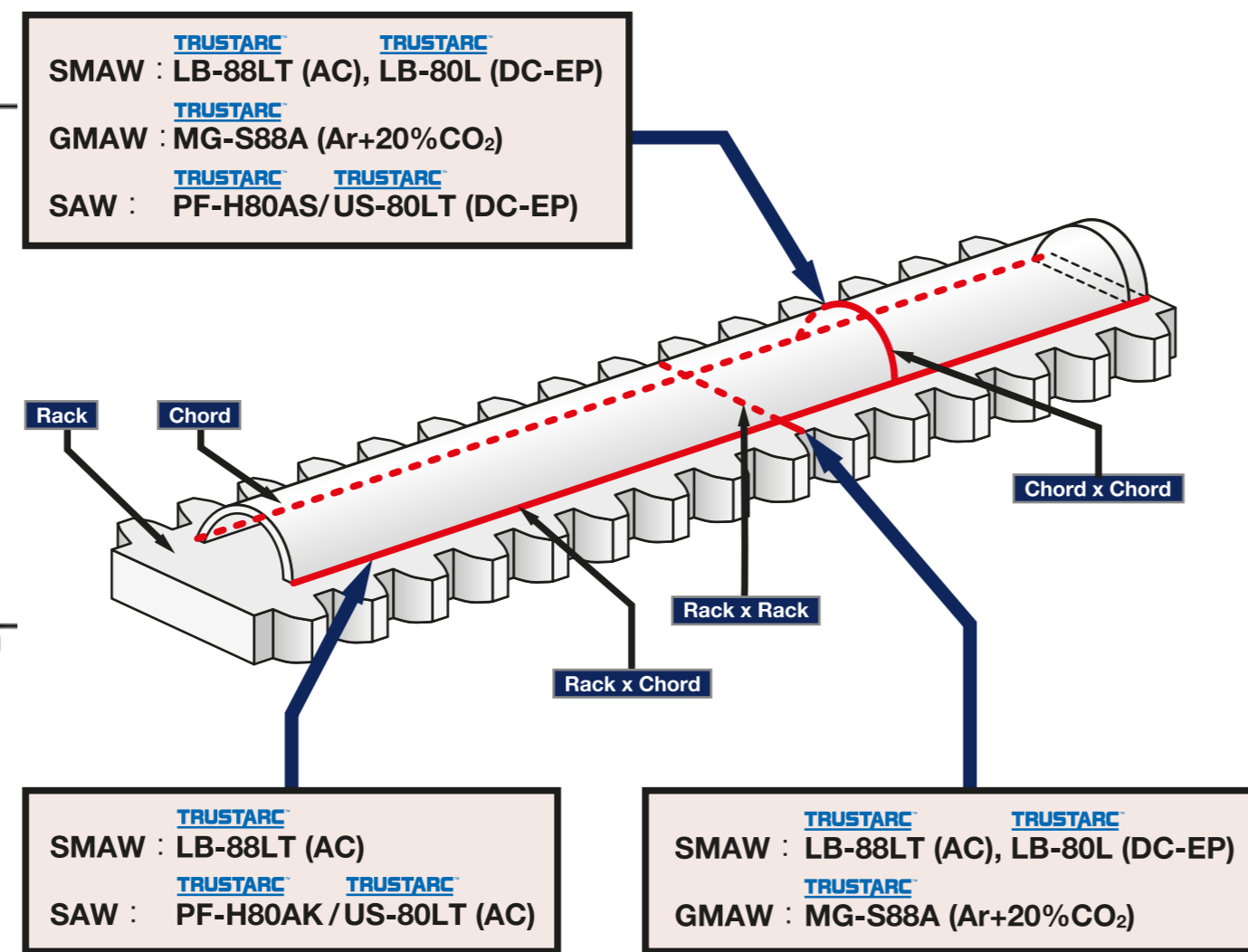


Jack-up-rig

Types of offshore structures and their working water depths



Welding parts of Jack-up rig



AWS classification and example of mechanical properties

Welding process	Welding consumable	AWS classification	YS level (MPa)	vE _{Temp. ≥ 27J} (°C)				CTOD _{Temp. ≥ 0.25mm} (°C)				Note
				-20	-40	-60	-80	0	-20	-40	-60	
SMAW	TRUSTARC LB-7018-1	A5.1 E7018-1	400	■	■	■	■	■	■	■	■	DC-EP Power Source
	TRUSTARC LB-52NS	A5.5 E7016-G	400	■	■	■	■	■	■	■	■	AC Power Source
	TRUSTARC LB-80L	A5.5 E11018-G	700	■	■	■	■	■	■	■	■	DC-EP Power Source
	TRUSTARC LB-88LT	A5.5 E11016-G	700	■	■	■	■	■	■	■	■	AC Power Source
SAW	TRUSTARC PF-H55AS/US-36J	A5.17 F7A8-EH14, F7P8-EH14	400	■	■	■	■	■	■	■	■	DC-EP Power Source
	TRUSTARC PF-H55LT/US-36J	A5.23 F8A8-EG-G, F8P8-EG-G	420	■	■	■	■	■	■	■	■	AC Power Source
	TRUSTARC PF-H80AK/US-80LT	A5.23 F12A10-EG-G	700	■	■	■	■	■	■	■	■	DC-EP Power Source
	TRUSTARC PF-H80AS/US-80LT	A5.23 F11A10-EG-G	700	■	■	■	■	■	■	■	■	DC-EP Power Source
GMAW	TRUSTARC MG-S50LT	A5.18 ER70S-G	400	■	■	■	■	■	■	■	■	Ar+20%CO ₂ shielding gas
	TRUSTARC MG-S88A	A5.28 ER120S-G	700	■	■	■	■	■	■	■	■	
FCAW	TRUSTARC DW-55L	A5.29 E81T1-K2	400	■	■	■	■	■	■	■	■	CO ₂ shielding gas
	TRUSTARC DW-55LSR	A5.29 E81T1-K2	420	■	■	■	■	■	■	■	■	
	TRUSTARC DW-62L	A5.29 E91T1-Ni2C-J	500	■	■	■	■	■	■	■	■	
	TRUSTARC DW-A81Ni1	A5.29 E81T1-Ni1M-J	420	■	■	■	■	■	■	■	■	Ar+20%CO ₂ shielding gas
	TRUSTARC DW-A55L	A5.29 E81T1-K2M	460	■	■	■	■	■	■	■	■	
	TRUSTARC DW-A55LSR	A5.29 E81T1-Ni1M	420	■	■	■	■	■	■	■	■	
	TRUSTARC DW-A62L	A5.29 E91T1-GM	500	■	■	■	■	■	■	■	■	
	TRUSTARC DW-A65L	A5.29 E91T1-K2M-J	550	■	■	■	■	■	■	■	■	
	TRUSTARC DW-A70L	A5.29 E101T-GM	620	■	■	■	■	■	■	■	■	
	TRUSTARC DW-A80L	A5.29 E111T1-GM	690	■	■	■	■	■	■	■	■	