


TYPICAL OVERALL HEAT TRANSFER COEFFICIENTS (U - VALUES)

Shell and Tube Heat Exchangers	Hot Fluid	Cold Fluid	U [W/m²C]
	Water	Water	800 - 1500
	Organic solvents	Organic Solvents	100 - 300
	Light oils	Light oils	100 - 400
	Heavy oils	Heavy oils	50 - 300
	Reduced crude	Flashed crude	35 - 150
	Regenerated DEA	Foul DEA	450 - 650
	Gases (p = atm)	Gases (p = atm)	5 - 35
	Gases (p = 200 bar)	Gases (p = 200 bar)	100 - 300
Coolers	Organic solvents	Water	250 - 750
	Light oils	Water	350 - 700
	Heavy oils	Water	60 - 300
	Reduced crude	Water	75 - 200
	Gases (p = atm)	Water	5 - 35
	Gases (p = 200 bar)	Water	150 - 400
	Gases	Water	20 - 300
	Organic solvents	Brine	150 - 500
	Water	Brine	600 - 1200
	Gases	Brine	15 - 250
Heaters	Steam	Water	1500 - 4000
	Steam	Organic solvents	500 - 1000
	Steam	Light oils	300 - 900
	Steam	Heavy oils	60 - 450
	Steam	Gases	30 - 300
	Heat Transfer (hot) Oil	Heavy oils	50 - 300
	Heat Transfer (hot) Oil	Gases	20 - 200
	Flue gases	Steam	30 - 100
	Flue gases	Hydrocarbon vapours	30 -100
Condensers	Aqueous vapours	Water	1000 - 1500
	Organic vapours	Water	700 - 1000
	Refinery hydrocarbons	Water	400 - 550
	Vapours with some non condensibles	Water	500 - 700
	Vacuum condensers	Water	200 - 500
	<i>Vaporisers</i>		
	Steam	Aqueous solutions	1000 - 1500
	Steam	Light organics	900 - 1200
	Steam	Heavy organics	600 - 900
	Heat Transfer (hot) oil	Refinery hydrocarbons	250 - 550