## Cost Breakdown - Plate Heat Exchanger Replacement

Name:	Date:

Category	Itemized Details	Cost Description	Remarks
1. Main Equipment Cost	Plate Heat Exchanger Body	Quoted based on heat transfer area (m²), number of flow channels, design pressure/temperature. Material cost differences: Plates: 304/316 SS (standard), Titanium (for seawater), Hastelloy (for aggressive corrosion)Gaskets: NBR (≤120°C), EPDM (high temp/steam), Viton (chemical resistant)	Technical Parameter Document (TPD) required
	Equipment Customization	Extra cost for non-standard design: Special inlet/outlet (side/top entry)Custom supports/footingAnti-vibration/explosion-proof design	Charged by design labor hours
2. Accessories & Auxiliary Equipment	Spare Plates (≥10% of total)	For preventive replacement in case of corrosion or blockage	Priced by actual quantity
	Spare Gaskets (≥20% of total)	EPDM/Viton gaskets are consumables	Recommend stocking based on operating conditions
	Fastener Kit	Includes bolts, O-rings, guide rods, tightening screws, etc.	Optional OEM spare parts package
	Support Frame / Anchor Bolts	Required if new unit dimensions/weight differ from the foundation	On-site survey needed
3. Transportation & Packaging	Domestic Logistics	Based on equipment volume (m³), weight (tons), and transport distance (km). (Truck, sea freight, or dedicated delivery)	Oversized load may incur additional transport fee
	Packaging & Protection	Anti-corrosion coating + reinforced wooden crate (IP65 protection rating)	Export standard packaging +15% surcharge
4. Installation & Dismantling	Old Unit Removal	Cranes (≥50 tons)Manual disassembly + safe disposal (hazardous waste if applicable)	Site cleanup included
	New Unit Installation	Hoisting and levelingPiping welding/flange matching (DN80 - DN300)Air tightness test + bolt preload inspection	Installation plan required
	Construction Consumables	Sealant, welding rods, cables, temporary supports, etc.	Settled by actual usage
5. Commissioning & Operation	Commissioning Labor	2 engineers × 3 days	Charged by technician level
	Test Run Utilities	Water/electricity/steam (24h pressure testing)Chemical cleaners (citric acid/EDTA)	Based on local utility rates
	Remote/On-site Support	Travel and service fees for manufacturer engineers	Emergency response +30% surcharge
6. Technical Services	Technical Design	Includes model selection, thermal calculation sheet, and installation drawings	Charged separately if not included
	Warranty (≥12 months)	Includes free repair of non-consumable parts	Extended warranty +5% of equipment price/year
7. Lead Time	Standard Delivery (6-8 weeks)	Normal production schedule	-
	Expedited Delivery (<4 weeks)	10-20% of equipment cost surcharge	Impacts supply chain priority
8. Other Costs	Import Duty + VAT	For imported equipment: Duty (0-8%) + VAT (13%)	HS code required
	Third-party Certification	ASME/PED (for pressure vessels)TSG report (China Special Equipment)	Based on certification body pricing
	Contingency Fee	Reserve 5-10% of total budget	For unforeseen expenses