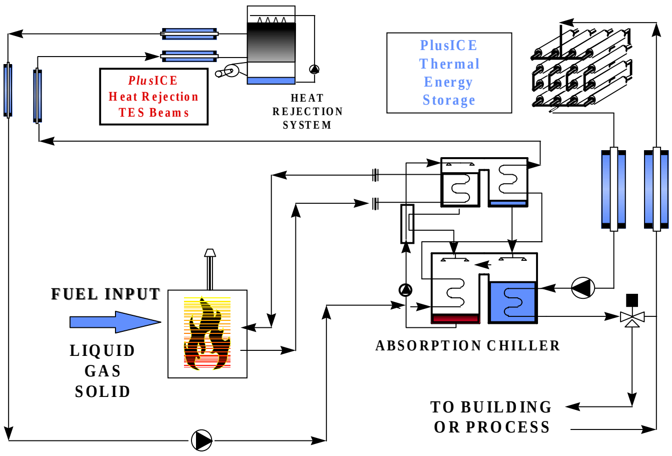
ABSORPTION CHILLER APPLICATIONS

Co-generation and Waste Heat Utilisation;

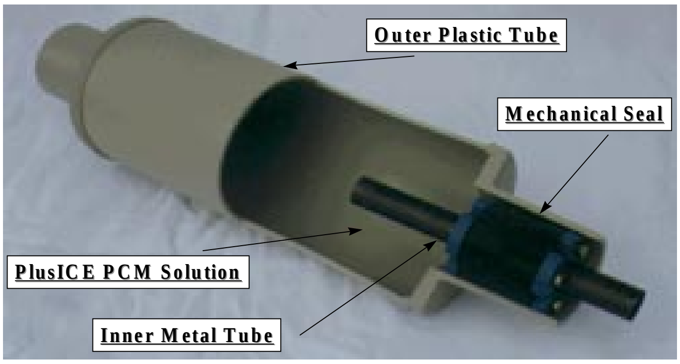
PlusICE System can be very valuable when used with a co-generation plant or industrial waste heat applications.

If the co-generator system requires a stable thermal storage load during the night periods in order to obtain attractive pay-back periods, or if the industrial process system is continuous and generates waste heat such as steam over night to satisfy the main steam circuit, then an absorption chiller and PlusICE Thermal Energy Storage (TES)combination can be utilised at night as well as off-peak periods and the stored energy can supplement the next day peak loads.



Since the most commonly used Li-Br or NH_3-water absorption chiller plants are rated to produce 5.5ºC (42ºF) chilled water, there is a natural match with charging temperature recommended for the PlusICE TES System.

BEAM CONSTRUCTION



New Horizons for Designers;

A positive temperature Eutectic TES approach can certainly permit the downsizing of the absorption chiller. It may also allow downsizing the entire co-generation package, making the entire project more cost effective.

Furthermore, if the system is designed for partial storage, the existing co-generation/waste heat drive absorption chiller can be operated during the peak electricity period for further energy savings and attractive payback periods.

Technical Support;

EPS will be happy to assist you for any feasibility or thermal storage energy management studies by using in-house computer based selections in order to reduce the time spent manually for ***"what if"*** capabilities to achieve the optimum and most attractive balance point for the thermal storage and absorption chiller system.

	Temperature		Density		Heat of Fusion		Latent Heat	
	(C)	(F)	(kg/m3)	(lb/ft3)	(Kj/kg)	(Btu/lb)	(MJ/m3)	(Btu/ft3)
A4	4	39.2	766	47.8	227	98	174	4665
E8	8	46.4	1473	92	140	60	206	5529
A8	8	46.4	773	48	220	95	170	4559
E10	10	50	1519	95	140	60	213	5701
E13	13	23.4	1780	111	140	60	249	6681
E15	15	59	1778	111	141	61	251	6721
A15	15	59	780	49	231	99	180	4831
E18	18	64.4	1490	93	150	64	224	5992
E21	21	68.9	1480	92	150	64	222	5952
E24	24	75.2	1704	106	167	72	285	7629
E27	27	80.6	1562	97	191	82	298	7999
A28	28	82.4	789	49	245	105	193	5183
E30	30	86	1374	86	200	86	275	7367
E32	32	89.6	1460	91	186	80	272	7281
E48	48	118.4	1670	104	201	86	336	8999
E58	58	136.4	1280	80	226	97	289	7756
E89	89	192.2	1550	97	163	70	253	6774
E117	117	242.6	1450	90	169	73	245	6570

A - Alkine / Aliphatic Based Solution E- Eutectic Based Solution

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