Alpha
Consulting Engineers Pte Ltd

Inspection Check List for Chiller /Condenser Water Pipe Installation

Project : _____ Contractor : _____

Inspection Refer No. : _____ Date : _____

Location : _____

S/n	Items	Complied		Remarks
		Yes	No	
1	Materials of pipes, pipe fitting, brackets/hangers and accessories installed are complied with specification and approval			
2	Type, make, dimensions and fixing intervals of brackets/hangers are complied with specification and approval, the list in Item 3 is the guideline for easy reference			
3	Nominal Pipe Dia. (mm) / Max. Span (metres) / Min. Rod Dia (mm) Up to and including 50 / 2.0 / 10 63 to 89 / 3.0 / 13 100 to 150 / 4.0 / 20 200 to 300 / 3.0 / 20 350 to 400 / 3.0 / 22 450 to 600 / 2.0 / 22			
4	Joint up to and including 65mm diameter of black mild steel pipe shall be made by screwed connections. Pipes 80mm diameter and above shall be joined by welding, Joints up to and including 65mm diameter of galvanized steel pipe is made by screwed or flanged connections. Pipes 80mm diameter and above shall be joined by flanged connections, Joints up to and including 40mm diameter of copper pipe is joined by brazing or compression fittings, 50mm diameter and above is joint by brazing connections			
5	At terminal joints to equipment flanged joints is used to facilitate maintenance, dismantling and repair.			
6	Pipe routing and position of valves and accessories are in accordance with approval shop drawing and coordinated with other services			
7	Mounting height of pipes and equipment is in accordance with approval shop drawing and proper coordinated with other services			
8	Pipe welded joints are done by certified/licence welder and welder certificates is recorded and filed			
9	Any open ended pipe or pipe connection left over night or for any considerable period shall be capped with plastic or galvanized iron sheet cap securely held			
10	Pipe sleeves is provided for pipes passing through walls, floors or any other partitions			

S/n	Items	Complied		Remarks
		Yes	No	
11	Pipe sleeves is ended 50mm above the finished floor level, and tightly caulked with ceramic fiber blanket of not less than 96kg/m3 density.			
12	Installation details of chilled water pipe support is complied with the following typical details, where applicable and unless otherwise approval - **SM(P1)-6** – Typical pipe support for bare pipe of 200mm dia. and below - **SM(P1)-10** – Typical isolated anchors to pipe bends			
13	No welded joint for galvanised pipes			
14	The first three nos. brackets/hangers of pipes which connecting to pumps, chillers, cooling tower and other equipment, etc. and also all bracket/hanger within plant room are equipped with vibration isolation by means of spring or neoprene pads of approval type			
15	Air vent / relief valve and drain cocks are installed at proper position for the purposes serves			
16	Pressure test carried out and satisfactory before proceed with thermal insulation			
17	Pipe surface is clean from dirt, water, grease and rust in prior to proceed with thermal insulation			
18	Thermal insulation with approval materials is completed			
19	Pipe jacketing with approval materials is completed			
20	Primer and final coat of painting of specified colour code or Architect approval are completed in accordance with specification and colour code of final coat complied with architect design, if any			
21	All pained pipe and accessories are completed directional sign and label			
22	All wall, flooring openings and penetration are sealed with fire rated materials / barriers			
23	Entire installation are clean from dirt, grease and rust			

Remarks / comments

Conduct by	:		Company :		Date :
Signature	:				
Inspect by	:		Company :		Date :
Signature	:				
Witness by	:		Company :		Date :
Signature	:				
Approve by	:		Company :		Date :
Signature	:				