From System First System A. No further apart than 12 inches (or four pipe diameters), whichever is smaller. Connection Full Port B. Keep this distance as short as practical. Tee Isolation C. At least 18" of straight pipe for Conventional Air Scoop. Valve Purge Valve Second System Connection Flow Tee Check To System Full Port Isolation Boiler Loop Optional Circulator Valve Full Port Isolation Purge Valve Valves Heating Circulators Air Separator & Air Vent Safety Relief -Backflow Preventer Union -Valve Optional Full Port Cold Water Line Isolation Optional Valve Full Port - Fill Valve Isolation - Expansion Tank Valves Y-Strainer (Recommended) Header Temperature Sensor (When Used) Flow (P/N 103104-01) Switch Temp/ Union Heating Drain Pressure System Valve Gauge Optional Full Port Circulator Isolation Valve System Žone Tee and Plug Valves (Recommended for future Heat Exchanger service) EN: 83-560-8500 DATE: 11/12/2013 DWN: EJL CHKD: REV: A APPD: APPD: INITIAL RELEASE. REFERENCE ASME Y14.5M-1994 FOR GEOMETRIC TOLERANCES. ALL DIMENSIONS IN INCHES. DRAWING NOT TO BE SCALED. NON-BASIC DIMENSIONAL AND ANOULAR TOLERANCES UNLESS OTHERWISE NOTED: NOTES: 1. THIS DRAWING IS USED ON MULTIPLE FIGURES IN THE APEX(TS) MANUAL. DECIMALS: X.X - ±0.1, X.XX - ±0.03, X.XXX - ±0.005. FRACTIONAL: ±1/32. ANGULAR: ±1\* OPTIONAL ZONE VALVE THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION WHICH IS THE PROPERTY OF THERMAL SOLUTIONS LLC. THIS DOCUMENT MAY NOT BE REPRODUCED, TRANSFERRED OR USED, OR ITS CONTENTS DISCLOSED, WITHOUT THE WRITTEN PERMISSION OF THE OWNER. CONTROLLED SYSTEM FIRST USE MATERIAL APEX(TS) NEAR BOILER PIPING HEATING ONLY PROPERTY OF (WITH CENTRAL HEATING CIRCULATORS) Thermal Solutions Products LLC DRAWING NUMBER DWG SIZE SHEET LANCASTER, PA 17604-3244 TS-83-150 NONE 1 OF 1