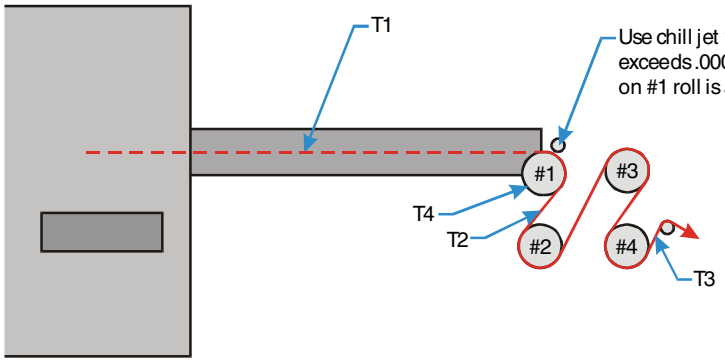
Chill Stand
Design Operating Parameters

Technical Bulletin



Total water flow to chill stand = 1.06 x 10-7 x paper wt. (lbs/3300 sq. t) x press speed (ft/min) x web width (in) x (T1-T3) = Total gpm

The parameters listed are for use with standard heatset web offset printing inks. If you have questions about the parameters, please contact MEGTEC Systems during normal working hours at 800-558-5535 or 920-336-1410.

Important: Consultation with ink suppliers, press manufacturers, and dryer manufacturers will be necessary to determine more specific parameters for your process.

Parameters	Method of Measurement	Normal Range of Values	Typical Target Value	Importance of Parameters
T-1 web temp. from dryer	Dryer I.R. System	240° F to 300° F	260° F	Determines sufficent solvent removal from ink
T-2 web temp. after #1 roll	Portable I.R.	150° F to 200° F	170° F	Inhibits solvent vapor from escaping the exposed web to the pressroom.
T-3 web temp. after #4 roll	Portable I.R.	80° F	No more than 10° F below ambient	Determines proper web cooling and solidification of ink, to prevent marking. Also inhibits non-uniform remoisturing of web which causes bindery problems.
T-4 #1 chill roll surface temp	Portable I.R. (adjust emmisivity for reflective surface)	80° F to 120° F	115° F max	Dry-picking occurs at higher temps, dependent on ink formulation
Water flow thru each roll	Gage on "in" or "out" lines, each roll or bop when more than 1 roll are piped together	20 to 50 gpm	40 gpm (highly variable primarily due to paperweight and speed, Chill Jet usage and roll internal cleanliness)	Provides heat transfer efficiency by maintaining bw roll-surface temp.
Water temp. supply to chill rolls	Gage on "in" lines, each roll	55° F to 80° F	65° F	Temp. may be increased if inks will set properly, reducing refrigeration cost
Water tenp. increases thru each roll	Gage on "in" and "out" lines, each roll	65° F to 90° F	10° F rise max	Prevents non-uniform ink cooling across web width
Web tension over the chill rolls	TECTURN tension meter or chillstand tension meter	1.5 to 4.0 bs/in	Less than 40# stock-2.5 PLI Over 40# stock-3.0 PLI	Higher tension value creates better heat transfer efficiency and less clearance for condensation

For further information, availability, please contact your nearest MEGTEC office by visiting www.megtec.com and click on parts and upgrades or email to info@megtec.com.