Paper Coating Pilot Plant

**General Specifications**
- 40” (1 m) nominal width, 26” (660 mm) maximum for airknife only
- Maximum operating speed is 4,000 fpm (1220 m/min)
- Coater supply system fill volume – 26 gallons (100 L) fill without filter, 36 gallons (136 L) with filter
- Two (2) 250 gallon (950 L) supply tanks—hot water jackets, variable speed agitator (42 gallon (160 L) fill to reach agitator)

**Coating Kitchen**
- Starch makedown batch or continuous via AP, enzyme, or thermal conversion
- Blend tank with steam for batch makedown, hot water jacket – min. to max. – one (1) 20-100 gallon (75-375 L) tank
- Three (3) high shear dispersion mixers – min. to max. – one (1) 25-50 gallon (95-190 L), one (1) 20-90 gallon (75-340 L), and one (1) 75-450 gallon (280-1700 L) tank
- Dust exhaust system over all dry material tanks

**Calendar**
- On machine, use with or without coater
- Default set-up is two hot-soft nips, one steel-to-steel, or both
- Optional four hot-soft nips also available
- Nip pressure to 2500 PLI (438 kN/m)
- Temperature to 400°F (204°C)
- Roll heating by hot oil internally and induction externally
- Soft cover Durometer 90 Shore D

**Remoisturizer**
- Water and steam to add moisture into the sheet before the calender (optional)

**Unwind**
- Two roll turret
- Shaftless
- Core sizes – 3” (75 mm) ID, 4” ID, or 6” ID
- Roll size limit – 60” (1500 mm) diameter and/or 3750 lbs (1700 kg)

**Air Floatation Dryers**
- Two zones
- Total length 38 ft (11.5 m)
- Nozzle velocity range – 4,000 to 14,000 fpm (1220 to 4270 m/min)
- Temperature to 450°F (232°C)

**Basestock Scanner**
- Measures moisture, basis weight

**Rewinder / Slitter**
- 40” (1000 mm) max. width
- Five slitters 60” (1500 mm) max. diameter out

**Scanner before Calender**
- Measures moisture and basis weight

**Infrared Dryers**
- Five natural gas fired
- Each unit 24” (610 mm) MD length
- 576,000 BTU/hr (170 kW)
- Temperature to 1800°F (980°C)
- One preheats basestock
- Four two pairs, after coater/size press

**Pond Size Press – Inclined**

**Metering Size Press**
- C1S Coater – Short Dwell
- C1S Coater – Applicator Roll
- Blade – Beveled or bent
- Rod – smooth 12.7, 20, 25, 30, and 35 mm diameter, grooved 1/2” diameter
- Airknife
- Air turns used in size press modes