Subject Index
Technical Information Papers

This document was last updated June 30, 2022

_____________A_____________

Abrasions
Selection criteria for wet end ceramics, 0502-15

Abrasion resistance
Selection criteria for wet end ceramics, 0502-15

Absorption
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Accessibility
Maintenance considerations in new construction and rebuilds, 0408-02

Acrylic fibers
see Polyacrylates, Synthetic fibers

Additives
Techniques for running “WRA” (water resistant starch adhesive), 0304-46

Adhesives
Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25
Causes and corrections of common corrugator bonding problems, 0304-32
Evaluating glue lap adhesive properties, 0304-16
Procedure for setting up a raw material trial on the corrugator, 0304-01
Starch adhesive preparation and distribution systems: housekeeping, 0304-06
Starch adhesive trial, 0304-22
Statistical process control of starch gelatinization temperature, 0304-14
Statistical process control of starch viscosity, 0304-15
Stickies definition and classification, 0603-02
Techniques for bonding modern high-performance liners, 0304-40
Techniques for running “WRA” (water resistant starch adhesive), 0304-46
Understanding wet strength: what are MRA, WRA, and WPA?, 0304-69
Understanding and troubleshooting hot melt adhesives, 0304-74
Using washup water as the vehicle in starch-based corrugating adhesive, 0304-44

After dryers
Paper machine drying rate, 0404-07

Agitation
Using washing water as the vehicle in starch based corrugating adhesive, 0304-44

Agitators
Guidelines for side-entering stock agitators, 0420-13

Air
Paper machine room ventilation guidelines, 0404-50

Air balance
see Air, Materials balance

Air flow
Guidelines for evaluation of liquid ring vacuum pump performance, 0420-12
Recommended minimum dryer pocket air requirements, 0404-17
Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
Sheet handling devices, 0404-44

Air jets
Sheet handling devices, 0404-44

Air permeability
Automated Scanning for Moisture Content and Air Permeability on Paper Machine Felts, 0502-21
Physical characterization of press fabrics: basis weight, air permeability, void volume under loading and pressure uniformity, 0404-20

Air pollution
Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Air staging
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Alignment
Checking the parallel of corrugating rolls with “NCR” paper, 0304-62

Alkali
Specific heat of caustic soda solutions, 0606-07

Alkaline sulfite pulping
Boiling point rise of spent sulfite liquors, 0607-21
Definitions of terms in the sulfite pulping process, 0607-25
Density of aqueous sodium sulfite solution, 0607-18
Density of milk of lime solution, 0607-05
Solubility of sulfur dioxide, Ca(HSO3)2; solutions, 0607-07
Sulfur burner gas strength volume, 0607-01
Viscosities of various spent sulfite liquors at 26.7°C, 0607-22

Alkalinity
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Alumina
Guidelines for Rotary Lime Kiln Refractory, 0416-27
Ammonia
   Solubility of sulfur dioxide, 0607-06

Analysis
   Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03

Angle of slide
   see Slide angle

Anilox coaters
   In-line coating at the corrugator, 0304-39

Anilox rolls
   see Flexography, Printing cylinders
   Ink metering systems for corrugated flexo presses, 0306-09

Anvil Wear
   Troubleshooting the Die Cutting Section, 0305-39

Approach flow systems
   Headbox approach piping guidelines, 0404-54

Ash
   Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
   Drainage evaluation by mass measurement, 0502-12
   Chemical cleaning guide for press fabrics, 0404-65

Atmosphere
   Testing atmospheres simulating end use conditions, 0808-05

Auditing
   Checklist for a properly planned project, 0408-01

Automatic feeders
   see Feeders

Automated Felt Scanner
   Automated Scanning for Moisture Content and Air Permeability on Paper Machine Felts, 0502-21

Automation
   Industry 4.0 Lexicon, 1103-04

Availability
   Definitions of black liquor recovery furnace availability, 0416-02

Backing Blade
   Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06

Bacteria
   Starch adhesive preparation and distribution systems: housekeeping, 0304-06

Bags
   Paper machine drying rate, 0404-07

Bar Width Reduction (BWR)
   see Product codes

Bar codes
   see Product codes

Bases
   see Hydroxides

Basis weight
   Headbox approach piping guidelines, 0404-54

Batch digesters
   Guidelines for inspecting batch digesters, 0402-22

Batch process
   Measurement of dryer condensing rates (vertical separator method), 0404-18

Bauxite
   Guidelines for Rotary Lime Kiln Refractory, 0416-27

Bearing failure
   Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Bearing failure
   Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Biocide
   Using washing water as the vehicle in starch based corrugating adhesive, 0304-44

Biomass
   Performance test procedure for boilers using biomass as fuel, 0416-18
   Sampling procedures for biomass fuel for boiler performance testing, 0416-17
   Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Biomechanics
   see Human factors

Bisulfites
   Physical and chemical properties of magnesia-base pulping solutions, 0607-04
   Solubility of sulfur dioxide, 0607-06
   Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09
   Solubility of sulfur dioxide in saturated magnesium bisulfite solution, 0607-10

Black liquor
   Field welding of pin studs in black liquor recovery boilers, 0402-15
   Recommended test procedure for black liquor evaporators, 0416-11
   Recovery boiler performance calculation – short form, 0416-01
   Response to contamination of high purity boiler feedwater, 0416-05
   Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18

Blade
   Paper machine doctor recommendations, 0404-67

Blade coaters
   see also Coaters
   In-line coating at the corrugator, 0304-39

Blade holder
   Paper machine doctor recommendations, 0404-67

Bleach plants
   Bleaching plant washer efficiency guide, 0606-23
Bleached board
- Paper machine drying rate, 0404-07
- Paper machine performance guidelines, 0404-47

Bleaching
- Boiling point rise of spent sulfite liquors, 0607-21
- Cotton in nonwovens, 1205-02
- Chlorine gas curve, 0606-02
- Definitions of terms in the sulfite pulping process, 0607-25
- Density of aqueous sodium sulfite solution, 0607-18
- Density of chlorine gas, 0606-03
- Density of milk of lime solution, 0607-05
- Energy checklist: pulp mill, 0416-24
- Heat of vaporization of liquid chlorine, 0606-04
- Recommended pulp bleaching stage designation method, 0606-21
- Relative enthalpy (heat content) of sodium hydroxide solutions, 0606-08
- Solubility of sulfur dioxide, Ca(HSO3)2 solutions, 0607-07
- Specific gravity and density of caustic soda solutions, 0606-20
- Specific gravity of sodium chloride solutions, 0606-10
- Sulfur burner gas strength volume, 0607-01
- Viscosities of various spent sulfite liquors at 26.7°C, 0607-22
- Viscosity of liquid chlorine 0606-05
- Viscosity of sodium hydroxide solutions, 0606-11

Bleaching stages
- see Bleaching

Blind-drilled rolls
- see Vacuum rolls

Blistering
- Addendum to Corrugating Defect Terminology Manual - defects related to the use of fingerless singlefacers, 0304-17

Blow boxes
- Sheet handling devices, 0404-44

Blow-through steam
- Recommended Dryer Differential Pressures, 0404-31

Blowdown
- see also Blowing
- Design engineer decisions tree: paper mill boiler feedwater, 0416-04
- Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Blowing
- Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03

Board
- Pilot paper and wet laid nonwoven machines, 0502-16

Board caliper
- see Thickness

Boiler feed water
- see Boilers, Feedwater

Boiler tubes
- Guideline for obtaining high quality radiographic testing of butt welds in boiler tubes, 0402-33
- Guidelines for evaluating quality of boiler tube butt welds with ultrasonic testing, 0402-31
- Guidelines for specification and inspection of electric resistance welded (ERW) and seamless boiler tube for critical and noncritical service, 0402-13

Boilers
- Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38
- Design engineer decisions tree: paper mill boiler feedwater, 0416-04
- Explanation of recovery boiler leak indications, 0416-23
- Evaluating reverse osmosis for treating makeup to the boiler feedwater in a pulp and paper mill, 0416-07
- Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
- Guidelines for replacement of generating bank tubes with expanded joints in two-drum boilers, 0416-08
- Guidelines for evaluating quality of boiler tube butt welds with ultrasonic testing, 0402-31
- Keys to successful chemical cleaning of boilers, 0416-06
- Performance test procedure for boilers using biomass as fuel, 0416-18
- Sampling procedures for biomass fuel for boiler performance testing, 0416-17
- Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
- Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
- Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13
- Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25
- Best Practice for Recovery Boiler Inspection (Optimizing Inspection Scope), 0416-26

Bonding
- Techniques for bonding modern high-performance liners, 0304-40

Box compression
- see Compression strength

Box flaps
- see Flaps

Box machines
- Troubleshooting a glue lap problem, 0304-10

Box plants
- see Converting plants

Boxes
- Corrugated boxplant-list of potential hazards, 0301-01
- Critical properties to consider when unitizing, 0304-72
- High vacuum sheet dewatering, 0404-60

Broke
- Broke loss calculations, 0502-10

Bronze
- Guidelines for nondestructive examination of suction roll shells, 0402-19
- Weld repairs on new suction roll shells, 0402-17
Burners
  Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Burst testers
  Calibration and maintenance of, 0304-24

Butt joints
  Guidelines for evaluating quality of boiler tube butt welds with ultrasonic testing, 0402-31

Butt welds
  Guidelines for evaluating quality of boiler tube butt welds with ultrasonic testing, 0402-31

CADCAM
  Computer-assisted machinery, 0305-02

CONEG
  see Regulations

Cadmium
  An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58

Calcination
  Physical data of calcined kaolin-water suspensions, 0106-09

Calcium base liquors
  Solubility of sulfur dioxide, Ca(HSO\(_3\))\(_2\) solutions, 0607-07

Calcium bisulfite
  Solubility of sulfur dioxide, Ca(HSO\(_3\))\(_2\) solutions, 0607-07

Calcium carbonate
  Physical data of calcium carbonate-water suspensions, 0106-01

Calcium hydroxide
  Density of milk of lime solution, 0607-05

Calculations
  see Computation

Calibration
  Basic guidelines for image analysis measurements, 0804-09
  Calibration and maintenance of the manually operated micrometer, 0304-30
  Of burst testers, 0304-24
  Suggestions for developing a box plant quality manual, 0304-49

Caliper
  see Thickness

Canadian standard freeness
  Interconversion of freeness, 0809-01

Carbon steel
  Inspection for cracking of composite tubes in black liquor recovery boilers, 0402-30

Carbonates
  Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
  Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12
  Physical data of calcium carbonate-water suspensions, 0106-01

Cartridges
  Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06

Cast iron
  Guide for increasing the maximum allowable working pressure of cast iron, ASME constructed paper machine dryers, 0420-14

Castings
  Guidelines for procurement of cast stainless steels for large pumps and valves for the pulp and paper industry, 0402-25

Caustic soda
  see Sodium hydroxide

Causticizing
  Energy checklist: pulp mill, 0416-24
  Material balance equations relating to digester requirements, 0418-02

Ceramics
  Selection criteria for wet end ceramics, 0502-15
  Use of ceramics on the forming section: diagnosing and preventing forming fabric wear, 0502-19

Certification
  Guideline for obtaining high quality radiographic testing of butt welds in boiler tubes, 0402-33

Chalk
  see Calcium carbonate

Chambered Doctor Blade
  Ink metering systems for corrugated flexo presses, 0306-09

Charting
  Short-run statistical process control: a basic charting method, 0304-70
  Statistical process control - procedures for charting warp, 0304-13

Checklist
  see Maintenance

Chemical Cleaning
  Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51

Chemical preparation
  Specific gravity and density of caustic soda solutions, 0606-20
  Specific gravity of sodium chloride solutions, 0606-10

Chemical properties
  Chlorine dioxide (ClO\(_2\)) safe storage and handling, 0606-30
  Fluoropolymer properties and applications in pulp and paper mills, 0402-37
  Magnesia-base pulping solutions, 0607-04
  Sodium chlorate (NaClO\(_3\)) safe handling and storage, 0606-31

Chemical pulps
  Boiling point rise of spent sulfite liquors, 0607-21
  Definitions of terms in the sulfite pulping process, 0607-25
  Density of aqueous sodium sulfite solution, 0607-18
  Density of milk of lime solution, 0607-05
Solubility of sulfur dioxide, Ca(HSO₃)₂ solutions, 0607-07
Sulfur burner gas strength volume, 0607-01
Viscosities of various spent sulfite liquors at 26.7°C, 0607-22

Chemical recovery
Recaulstizing material balance equations relating to digester requirements, 0418-02

Chemicals
Material safety data sheets, what to look for - how to understand them, 0304-38
Chemical cleaning guide for press fabrics, 0404-65

Chests
see Stock chests

Chip silos
see Chip bins

Chlorides
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12

Chlorine
Chlorine gas curve, 0606-02
Density of chlorine gas, 0606-03
Heat of vaporization of liquid chlorine, 0606-04
Viscosity of liquid chlorine, 0606-05

Chlorine dioxide
Safe storage and handling of, 0606-30
Specific gravity of sodium chloride solutions, 0606-10

Chrome
Tests for corrugator roll wear, 0304-53

Chromium
An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58

Clad-steel plate
see Plates

Classification
Paper grade classifications, 0404-36

Clay
Kaolin clay pigment index, 0106-06
Physical data of calcined kaolin-water suspensions, 0106-09
Physical data of hydrous Kaolin-water suspensions, 0106-02

Cleaners
Catalog of Stock Preparation Pilot Plants, 0502-20
Introduction to centrifugal cleaners, 0508-10

Cleaning
Cleaning anilox rolls: procedures and options, 0306-18
Cleanup procedures for flexo folder gluer/rotary diecutters, 0305-33
Daily, weekly, and monthly maintenance checklists, 0305-34
Dryer fabric cleaning, 0404-38
Housekeeping guidelines, 0305-32
Introduction to centrifugal cleaners, 0508-10
Keys to successful chemical cleaning of boilers, 0416-06

Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51
Paper machine shower recommendations, 0404-61
Post-fabrication cleaning of stainless steel in the pulp and paper industry, 0402-35

Cleaning chemicals
see Cleansers

Cleansers
Keys to successful chemical cleaning of boilers, 0416-06

Clogging
Nozzle maintenance and clogging, 0420-15

Clothing
see Felts, Machine clothing

Coating
Kaolin clay pigment index, 0106-06

Coating color
see Color

Coating thickness
Tests for corrugator roll wear, 0304-53

Coatings
Guidelines for thermal spray coatings installed to prevent corrosion in pulp mill process equipment, 0402-32
Tests for corrugator roll wear, 0304-53

Coefficient of friction
see Friction factor

Combination Metering System
Ink metering systems for corrugated flexo presses, 0306-09

Combined boards
Common curtain coating problems: causes, detection, and correction, 0304-26
Obtaining off the corrugator for use in statistical process control procedures, 0304-12
Total indicated runout and its impact on combined board quality, 0304-56

Compressibility
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

Compression
Corrugated caliper: why is it so important?, 0304-04
Compression resistance
see Compression strength

Compression strength
Corrugated caliper: why is it so important?, 0304-04
Obtaining a combined board caliper off the corrugator for use in statistical process control procedures, 0304-12
Statistical process control techniques to assist in meeting specification at finishing crush process control points to the paper and paperboard industries, 0304-11

Computation
Paper machine drying rate, 0404-07

Computer-assisted
see CADCAM

Concentricity
Total indicated runout and its impact on combined board quality, 0304-56
Condensate
  Application of dryer bars, 0404-35
Condensates
  Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36

Measurement of dryer condensing rates (continuous method), 0404-03
  Measurement of dryer condensing rates (vertical separator method), 0404-18
  Stripping of kraft pulping process condensates: regulations, design and operation, 0416-10
  Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
  Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
  Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13
  Yankee dryer steam condensing rates, 0404-49
  Guidelines for properly sampling steam & condensate in Yankee dryer steam systems, 0425-04

Condensation
  Dryer condensing rates (batch method), 0404-02
  Dryer condensing rates (continuous method), 0404-03

Condensing rates
  see Condensation

Conditioning
  Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51
  Testing atmospheres simulating end use conditions, 0808-05

Conductivity
  Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
  Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Conical refiners
  Conical refining intensity, 0508-07

Conservation
  Paper Machine Water Efficiency, 0502-22

Consistency
  Drainage evaluation by mass measurement, 0502-12
  Generalized method for determining the pipe friction loss of flowing pulp suspensions, 0410-14
  Optimum consistency for pumping pulp, 0410-15

Construction materials
  Sodium chlorate (NaClO₃) safe handling and storage, 0606-31

Consumption
  Paper Machine Water Efficiency, 0502-22

Contact bearings
  see Bearings

Contact technique
  Guideline for obtaining high quality radiographic testing of butt welds in boiler tubes, 0402-33

Container boards
  Friction -- slide angle, 0304-34

Contaminants
  see Impurities

Contamination
  see Pollution control

Continuous digesters
  Guidelines for inspection of continuous digesters and impregnation vessels, 0402-27

Contraction
  Flow from a 45° slice, 0410-03
  Flow from a nozzle (slice) with inclined upper lip, 0410-04
  Flow from a vertical slice, 0410-02

Control charts
  see Charting

Control systems
  Industry 4.0 Lexicon, 1103-04
  Short-run statistical process control: a basic charting method, 0304-70

Conversion factors
  Units of measurement and, 0800-01

Converting factors
  Moisture content of paper: terminology and conversion, 0808-02

Converting plants
  Boxplant quality measurement: why test?, 0304-02
  Computer-assisted machinery, 0305-02
  Corrugated boxplant - list of potential hazards, 0301-01
  Machinery considerations and selection, 0305-06

Coolers
  Guidelines for Rotary Lime Kiln Refractory, 0416-27

Copper
  The role of copper in a printing ink, 0304-61
  Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
  Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
  Tests for corrugator roll wear, 0304-53

Cores
  Determination of winder sets per reel, 0502-02
  Reel diameter for various reel spool and roll core sizes, 0502-03

Correlation
  QCS Dynamic Sensor Correlation Sampling Method, 1101-04

Corrosion
  see also Corrosion inhibitors
  Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38
  Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12
  Fluoropolymer properties and applications in pulp and paper mills, 0402-37
  Guide to the use of stainless steel pipe specifications, 0402-24
Guidelines for corrosion resistant weld metal overlay of digester vessels in alkaline pulping service, 0402-03
Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
Guidelines for inspecting batch digesters, 0402-22
Guidelines for inspection of continuous digesters and impregnation vessels, 0402-27
Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Guidelines for nondestructive examination of suction roll shells, 0402-19
Nozzle maintenance and clogging, 0420-15
Post-fabrication cleaning of stainless steel in the pulp and paper industry, 0402-35
Ultrasonic technician performance test for boiler tube thickness measurement, 0402-21
Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18
Best Practice for Recovery Boiler Inspection (Optimizing Inspection Scope), 0416-26
Corrosion inhibitors
Keys to successful chemical cleaning of boilers, 0416-06
Corrosion prevention
Guidelines for thermal spray coatings installed to prevent corrosion in pulp mill process equipment, 0402-32
Guidelines for corrosion resistant weld metal overlay of digester vessels in alkaline pulping service, 0402-03
Corrugated boards
The role of copper in a printing ink, 0304-61
Critical properties to consider when unitizing, 0304-72
Important quality parameters of a printing ink, 0304-59
Obtaining caliper off the corrugator for use in statistical process control procedures, 0304-12
Statistical process control friction-slide angle, 0304-34
Techniques to minimize twist warp, 0304-50
Warp in corrugated board, 0304-07
Corrugated boxes
see Boxes, Corrugated boards
Corrugated containers
see Boxes, Corrugated board, Folder gluers, Die cutters
Corrugated medium
An alternative method for designating flute sizes, 0302-04
Corrugating
An alternative method for designating flute sizes, 0302-04
Corrugating adhesives
see Adhesives
Corrugating machines
Checking for coating wear on corrugating rolls, 0304-73
Checking the flute depth of corrugating rolls, 0304-75
Checking the parallel of corrugating rolls with “NCR” paper, 0304-62
Computer-assisted machinery, 0305-02
Conducting a corrugator temperature audit, 0304-65
Corrugator bearing clearance checks and their impact, 0304-47
Impact of doublebacker hot plate level on board quality and how to measure it, 0304-66
Improved techniques to measure corrugator glue machine meter gaps, 0304-68
Prevention of score cracking in a box plant, 0304-37
Starch viscosity in corrugating adhesives, 0304-15
Tests for corrugator roll wear, 0304-53
Corrugating medium
Causes and corrections of common corrugator bonding problems, 0304-32
Edge crush test (ECT): its relationship to box compression and its derivation from containerboard edge stiffness, 0304-09
Paper machine performance guidelines, 0404-47
Paper machine drying rate, 0404-07
Procedure for setting up a raw material trial on the corrugator, 0304-01
Splicer defects and cures, 0304-31
Corrugating plants
see Operations
Corrugating rolls
see Rolls
Corrugator-double backer
see Corrugating machines
Corrugators
see also Corrugating machines
Procedure for setting up a raw material trial on the corrugator, 0304-01
Costs
Press section economic evaluation, 0404-22
Cotton
In nonwovens, 1205-02
Couch rolls
Paper Machine Vacuum System Selection Factors, 0502-01
Cover
Maintenance considerations in new construction and rebuilds, 0408-02
Rotary die cutter urethane anvil cover maintenance, 0305-35
Cracks
Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38
Guidelines for inspection and nondestructive testing of paper machine dryers, 0404-16
Guidelines for inspection of continuous digesters and impregnation vessels, 0402-27
Guidelines for nondestructive examination of suction roll shells, 0402-19
Inspection for cracking of composite tubes in black liquor recovery boilers, 0402-30
Creasing
Troubleshooting the Die Cutting Section, 0305-39
Crescent formers
Paper Machine Vacuum System Selection Factors, 0502-01
Cross direction
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01
Statistical process control -- procedures for charting warp, 0304-13
Troubleshooting cross-machine direction moisture profile problems, 0404-57
Warp in corrugated board, 0304-07
Crown
see Roll crown
Crush
Statistical process control techniques to assist in meeting specification at finishing crush process control points to the paper and paperboard industries, 0304-11
Cubical contents
see Volumetry
Curing
Drying and curing techniques for in-line flexographic printing, 0306-06
Curtain coating
Common curtain coating problems: causes, detection, and correction, 0304-26
Cutters
see Die cutters
Cutting
Troubleshooting the Die Cutting Section, 0305-39
Cutting dies
see Die cutters, Rotary machines
Cylinder Machines
Paper Machine Vacuum System Selection Factors, 0502-01

_____________D_____________

Damage
Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Best Practice for Recovery Boiler Inspection (Optimizing Inspection Scope), 0416-26
Dancer Rolls
Guidelines for Tension During Web Conveyance and for Winding, 0200-01
Dandy rolls
Dandy roll applications, 0404-53
Data storage
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01
Data tables
Moisture content of paper: terminology and conversion, 0808-02
Deaerators
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
Defects
Addendum to Corrugating Defect Terminology Manual -- defects related to the use of fingerless singlefacers, 0304-17
Corrugator bearing clearance checks and their impact, 0304-47
Definitions
see Nomenclature

Degradation
Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Densified liners
see Liners
Density
Density of aqueous sodium bicarbonate solution, 0607-13
Density of aqueous sodium carbonate solution, 0607-14
Density of chlorine gas, 0606-03
Milk of lime solution, 0607-05
Physical data of calcined kaolin-water suspensions, 0106-09
Physical data of calcium carbonate-water suspensions, 0106-01
Physical data of hydrous Kaolin-water suspensions, 0106-02
Sodium sulfite solution, 0607-18
Specific gravity and density of caustic soda solutions, 0606-20
Specific gravity of sodium chloride solutions, 0606-10
The Impact of Pressing on Web Densification, 0404-68
Density Gradient
The Impact of Pressing on Web Densification, 0404-68
Deposits
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12
Keys to successful chemical cleaning of boilers, 0416-06
Deterioration
see Degradation
Dewatering
see Drainage, Water removal
Diameter
Roll diameter for various reel spool and roll core sizes, 0502-03
Dictionaries
see Nomenclature
Die cutters
see also Rotary machines
Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25
Checklist: preparing die cuts for shipment, 0305-49
Cleanup procedures for flexo folder gluer/rotary diecutters, 0305-33
Drying and curing techniques for in-line flexographic printing, 0306-06
Introduction to flexo folder gluer/rotary diecutter TIPs, 0305-04
Minimizing rolling scores on lightweight and high-performance liners in diecutting operations, 0304-64
Ordering steel rule cutting dies, 0305-21
Project leader, 0305-13
Proper use of pull bands, 0305-18
Reduction or elimination of ink and/or varnish smear when printing and rotary die cutting in one pass, 0305-40
Rotary cutting die maintenance, 0305-23
Rotary die cutter urethane anvil cover maintenance, 0305-35
Dryers

- Application of dryer bars, 0404-35
- Dryer condensing rates (batch method), 0404-02
- Dryer condensing rates (continuous method), 0404-03
- Dryer condensing rates (vertical separator method), 0404-18
- Dryer fabric cleaning, 0404-38
- Dryer section performance monitoring, 0404-33
- Dryer surface temperature measurement, 0404-39
- Drying and curing techniques for in-line flexographic printing, 0306-06
- Guide for increasing the maximum allowable working pressure of cast iron, ASME constructed paper machine dryers, 0420-14
- Guidelines for inspection and nondestructive testing of paper machine dryers, 0402-16
- High-velocity dryers, 0404-05
- Design, Operation, Performance Evaluation and Inspection guidelines for Yankee hood systems, 0425-02
- Paper machine drying rate, 0404-07
- Papermaker’s formulas, 0502-17
- Press fabric record book, 0404-21
- Recommended Dryer Differential Pressures, 0404-31
- Recommended minimum dryer pocket air requirements, 0404-17
- Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
- Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07
- Steam shower applications in the forming and press section, 0404-58
- Thermocompressor Applications for Paper Drying, 0404-66
- Troubleshooting cross-machine direction moisture profile problems, 0404-57
- Yankee dryer steam condensing rates, 0404-49

Drying

- Dryer condensing rates (continuous method), 0404-03
- Dryer condensing rates (vertical separator method), 0404-18
- Dryer section performance monitoring, 0404-33
- Drying and curing techniques for in-line flexographic printing, 0306-06
- Paper machine drying rate, 0404-07
- Through drying, 0404-25

Drying rate

- see Drying

Duplex stainless steel

- see Stainless steel

Durometer

- A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20

Dust

- Paper machine room ventilation guidelines, 0404-50

Economics

- Press section economic evaluation, 0404-22

Economizers

- Guideline specification for procurement of an economizer for a recovery boiler, 0416-21
- Guidelines for operating and maintenance practices impacting an economizer on a recovery boiler, 0416-22
- Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
- Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Edge crush tests (ECT)

- Edge crush test (ECT): its relationship to box compression and its derivation from containerboard edge stiffness, 0304-09

Edge Fingers

- Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06

Efficiency

- Paper machine performance guidelines, 0404-47
- Press section monitoring, 0404-19
- Recovery boiler energy efficiency improvements, 0416-16
- Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13
- Paper Machine Water Efficiency, 0502-22

Elastomers

- A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20

Elliptical technique

- Guideline for obtaining high quality radiographic testing of butt welds in boiler tubes, 0402-33

Emissions

- Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Employee injuries

- see Human factors

Energy

- Energy checklist: pulp mill, 0416-24
- Paper machine energy conservation, 0404-63
- Recovery boiler energy efficiency improvements, 0416-16
- Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13
- Paper Machine Water Efficiency, 0502-22

Energy conservation

- Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
- Paper machine room ventilation guidelines, 0404-50

Enthalpy

- Relative enthalpy (heat content) of sodium hydroxide solutions, 0606-08

Environmental factors

- see Environments
Environments
Caustic soda (NaOH) safe storage and handling, 0606-27
Chlorine dioxide (ClO₂) safe storage and handling, 0606-30
Gaseous ozone (O₃) safe handling, 0606-28
Hydrogen peroxide (H₂O₂) safe storage and handling, 0606-24
Methanol (CH₃OH) safe storage and handling, 0606-25
Oxygen (O₂) bulk storage and safe handling, 0606-29
Sodium chlorate (NaClO₃) safe handling and storage, 0606-31
Sulfuric acid (H₂SO₄) safe storage and handling, 0606-26

Equations
Papermaker’s formulas, 0502-17

Equilibrium
Relative humidities over saturated salt solutions, 0808-03

Equipment
Starch adhesive trial, 0304-22
Quality techniques using existing equipment, 0306-11

Ergonomics
see Human factors

Erosion
Nozzle maintenance and clogging, 0420-15

Evaluation
see also Performance
Drainage evaluation by mass measurement, 0502-12

Evaporation
see also Drying
Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24

Evaporators
Energy checklist: pulp mill, 0416-24
Recommended test procedure for black liquor evaporators, 0416-11

Exhaust gas
Paper machine room ventilation guidelines, 0404-50
Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09

Exhaust hoods
Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24

Extrusion coating
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Fiber length
Cotton in nonwovens, 1205-02

Fiberboards
see Boxes, Corrugated boards

Fiberglass-reinforced plastic
see Plastic

Field tests
see Test methods

Filler
Kaolin clay pigment index, 0106-06

Film
Guidelines for Tension During Web Conveyance and for Winding, 0200-01
Quality techniques using existing equipment, 0306-11

Fan pumps
Headbox approach piping guidelines, 0404-54

Feed section
see Feeding

Feedback control
see Control systems

Feeders
Material handling considerations for flexo folder gluers, 0305-54

Feedwater
Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38
Design engineer decisions tree: paper mill boiler feedwater, 0416-04
Evaluating reverse osmosis for treating makeup to the boiler feedwater in a pulp and paper mill, 0416-07
Response to contamination of high purity boiler feedwater, 0416-05
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Felts
see also Press felts
Automated Scanning for Moisture Content and Air Permeability on Paper Machine Felts, 0502-21
Methods to minimize sheet rewet in the press section, 0404-59
Press fabric record book, 0404-21
The Impact of Pressing on Web Densification, 0404-68
Troubleshooting cross-machine direction moisture profile problems, 0404-57
Water permeability of press fabrics, 0404-43

Filter pumps
Headbox approach piping guidelines, 0404-54

Fine papers
Paper machine drying rate, 0404-07

Fingerless singlefacers
see Singlefacers

Fingerprints
Quality techniques using existing equipment, 0306-11
Fire Brick
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Flaps
Understanding and troubleshooting hot melt adhesives, 0304-74

Flat boxes
see Vacuum boxes

Flexible packaging
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Flexo folder-gluers
see Folder gluers, Die cutters, Rotary machines

Flexo ink
Printing section, 0305-38
Proofing of a flexo printing ink, 0304-60

Flexo printing
Proofing of a flexo printing ink, 0304-60

Flexography
A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20
Cleaning anilox rolls: procedures and options, 0306-18
Identifying anilox roll volume measuring equipment, 0306-15
Quality techniques using existing equipment, 0306-11
Overview of the selection process for a laser engraved ceramic anilox roll, 0306-17
Viscosity reading procedure for flexographic corrugated inks, 0304-18

Flow
Generalized method for determining the pipe friction loss of lowing pulp suspensions, 0410-14
Paper machine shower recommendations, 0404-61
Horizontal end suction centrifugal stock pumps, 0420-10

Flow measurement
Head of Stock Behind Slice (Head/Jet and Slice Flow Rate Relationships), 0410-05
Flow determination by chemical method, 0410-09
Weirs and flumes, 0410-10

Flow rates
see Flow measurement

Fluff pulp
Paper machine performance guidelines, 0404-47

Flumes
Weirs and flumes, 0410-10

Fluoropolymers
Fluoropolymer properties and applications in pulp and paper mills, 0402-37

Flutes
An alternative method for designating flute sizes, 0302-04

Fogging
Steam shower applications in the forming and press section, 0404-58

Folder gluers
Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25

Cleanup procedures for flexo folder gluer/rotary diecutters, 0305-33
Extruded glue mechanism supplement, 0305-43
Folding section, 0305-42
Introduction to flexo folder gluer/rotary diecutter TIPs, 0305-04
Installation, 0305-12
Machinery considerations and selection: yoked scoring slotting section, 0305-53
Material handling considerations for flexo folder gluers, 0305-54
Project leader, 0305-13
Proper use of pull bands, 0305-18
Reduction or elimination of ink and/or varnish smear when printing and rotary die cutting in one pass, 0305-40
Computer assisted mounting systems, 0306-02

Folding
Folding section, 0305-42

Formaldehyde
Formation
Dandy roll applications, 0404-53

Forming
Forming section monitoring, 0502-14
Paper machine doctor recommendations, 0404-67
Paper machine shower recommendations, 0404-61
Steam shower applications in the forming and press section, 0404-58

Forming fabrics
Drainage evaluation by mass measurement, 0502-12
Forming section monitoring, 0502-14
Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51
Paper Machine Vacuum System Selection Factors, 0502-01
Use of ceramics on the forming section: diagnosing and preventing forming fabric wear, 0502-19
Water permeability of press fabrics, 0404-43

Forming sections
Fourdrinier drainage performance evaluation – blow test method, 0410-07

Troubleshooting cross-machine direction moisture profile problems, 0404-57

Fossil fuels
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Fourdrinier machines
Control of stock activity on a fourdrinier table, 0410-08
Drainage performance evaluation – blow test method, 0410-07
Papermaker’s formulas, 0502-17

Free sheet
Paper machine drying rate, 0404-07

Freeness
Interconversion of, 0809-01

Friction
Generalized method for determining the pipe friction loss of lowing pulp suspensions, 0410-14
Friction factor
   Statistical process control friction - slide angle, 0304-34
Fuel oil
   Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25
Furnaces
   see Recovery furnaces

Gas
   Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09
Gauges
   see Measuring instruments
Gel temperature
   see Gels
Gelatination temperature
   see Gels
Gels
   Some questions and answers on gel temperatures and on the gel temperature test for corrugating adhesives, 0304-08
   Statistical process control of starch gelatinization temperature, 0304-14
Gin mutes
   see Cotton
Ginning
   see Cotton
Glass fibers
   Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Glossaries
   see Nomenclature
Glue
   Evaluating glue lap adhesive properties, 0304-16
   Extruded glue mechanism supplement, 0305-43
   Folding section, 0305-42
Glue lap
   see Glued joints
Glue machine
   see Gluers
Glue pattern
   see Gluing
Glued joints
   Troubleshooting a glue lap problem, 0304-10
Gluers
   Causes and corrections of common corrugator bonding problems, 0304-32
   How to prevent score cracking in a box plant, 0304-37
   Improved techniques to measure corrugator glue machine meter gaps, 0304-68
   Procedure for setting up a raw material trial on the corrugator, 0304-01
   Some questions and answers on gel temperatures and on the gel temperature test for corrugating adhesives, 0304-08
   Troubleshooting a glue lap problem, 0304-10
Gluing
   Addendum to Corrugating Defect Terminology Manual - defects related to the use of fingerless singlefacers, 0304-17
Gluing machines
   see Gluers
Grab truck
   see Lift trucks
Granite
   Roll material and surface requirements, 0404-41
Green liquors
   Recausticizing material balance equations relating to digester requirements, 0418-02
Grinders
   Grinder pulpstones – cubical contents, 0605-01
   Pulpstone speed chart, 0605-02
Grinding
   Granite roll material and surface requirements, 0404-41
   Guidelines for usage of MAP on raw Yankee surfaces, 0425-05
Ground calcium carbonate (GCC)
   see Calcium carbonate
Guards
   Maintenance considerations in new construction and rebuilds, 0408-02
Guides
   Press fabric guiding, 0404-64
Guide rolls
   Press fabric guiding, 0404-64

Halogens
   see specific term, e.g., Chlorine
Hand feel
   Objective Determination of the Haptic Properties of Tissue Products, 0808-07
Hardness
   Measuring the Pusey and Jones indentation of elastomeric roll cover materials 0420-09
   Response to contamination of high purity boiler feedwater, 0416-05
   Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
Hazards
   Corrugated boxplant-list of potential hazards, 0301-01
   Material safety data sheets, what to look for - how to understand them, 0304-38

Hazardous materials
   Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09
   Material safety data sheets – what to look for, how to understand them, 0304-38
   Stripping of kraft pulping process condensates: regulations, design and operation, 0416-10
   Understanding hazardous materials warning labels, 0304-41
Headboxes
   Flow from a 45° slice, 0410-03
   Flow from a nozzle (slice) with inclined upper lip, 0410-04
Flow from a vertical slice, 0410-02
Head of Stock Behind Slice (Head/Jet and Slice Flow Rate Relationships), 0410-05
Papermaker’s formulas, 0502-17

Heat
Paper machine room ventilation guidelines, 0404-50
Paper Machine Water Efficiency, 0502-22

Heat content
see Enthalpy

Heat of vaporization
Liquid chlorine, 0606-04

Heat recovery
Paper machine room ventilation guidelines, 0404-50

Heat transfer
Application of dryer bars, 0404-35
Recommended test procedure for black liquor evaporators, 0416-11

Heating
Conducting a corrugator temperature audit, 0304-65

Heating equipment
Steam shower applications in the forming and press section, 0404-58

Heavy metals
see Metals

High density
High density liners
see Liners

High intensity presses
Terminology for high temperature pressing, 0404-48

High performance liners
see Liners

High temperature
Terminology for high temperature pressing, 0404-48

High vacuum
High vacuum sheet dewatering, 0404-60

Hoods
Design, Operation, Performance Evaluation and Inspection guidelines for Yankee hood systems, 0425-02
Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07

Hot melts
Understanding and troubleshooting hot melt adhesives, 0304-74

Hot pressing
Terminology for high temperature pressing, 0404-48

Housekeeping
see Maintenance, Cleaning

Humidity
Dryer section performance monitoring, 0404-33
Equilibrium relative humidities over saturated salt solutions, 0808-03
Psychrometric charts, 0404-45
Recommended minimum dryer pocket air requirements, 0404-17

Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
Relative humidity tables, 0808-06
Testing atmospheres simulating end use conditions, 0808-05
Troubleshooting cross-machine direction moisture profile problems, 0404-57

Humidity measurement
Relative humidity tables, 0808-06

Humidity rooms
Paper test rooms: design considerations, 0808-04

Hydraulics
Horizontal end suction centrifugal stock pumps, 0420-10

Hydrocyclones
Introduction to centrifugal cleaners, 0508-10

Hydrogen peroxide
Hydrogen peroxide (H2O2) safe storage and handling, 0606-24

Hydroxides
Definitions of terms in the sulfite pulping process, 0607-25
Density of aqueous sodium sulfite solution, 0607-18
Density of milk of lime solution, 0607-05
Solubility of sulfur dioxide, Ca(HSO3)2 solutions, 0607-07
Sulfur burner gas strength volume, 0607-01

Hypochlorite bleaching
see Hypochlorites, Bleaching

Illumination
Basic guidelines for image analysis measurements, 0804-09

Image analysis
Basic guidelines for image analysis measurements, 0804-09

Image quality
Guideline for obtaining high quality radiographic testing of butt welds in boiler tubes, 0402-33

Impregnation
Guidelines for inspection of continuous digesters and impregnation vessels, 0402-27

Impulse drying
see Drying

Impurities
Dryer fabric cleaning, 0404-38
Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51
Stickies definition and classification, 0603-02

In-plane stiffness
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

In-process checklist
see Production

Infiltration
Paper machine room ventilation guidelines, 0404-50
Information systems
Industry 4.0 Lexicon, 1103-04

Infrared detectors
Troubleshooting cross-machine direction moisture profile problems, 0404-57

Infrared dryers
Drying and curing techniques for in-line flexographic printing, 0306-06

Ink
The role of copper in a printing ink, 0304-61
Quality parameters of a printing ink, 0304-59
Quality techniques using existing equipment, 0306-11
Reduction or elimination of ink and/or varnish smear when printing and rotary die cutting in one pass, 0305-40
Viscosity reading procedure for flexographic corrugated inks, 0304-18

Ink printing proofs
Proofing of a flexo printing ink, 0304-60

Inorganic salts
Equilibrium relative humidities over saturated salt solutions, 0808-03

Inspection
Guidelines for inspecting batch digesters, 0402-22
Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
Guidelines for inspection and nondestructive testing of paper machine dryers, 0402-16
Guidelines for routine periodic inspection and testing of cast iron Yankee and MG dryers, 0425-01
Guidelines for specification and inspection of electric resistance welded (ERW) and seamless boiler tube for critical and noncritical service, 0402-13

Inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Inspection for cracking of composite tubes in black liquor recovery boilers, 0402-30
Inspection of continuous digesters and impregnation vessels, 0402-27
Design, Operation, Performance Evaluation and Inspection guidelines for Yankee hood systems, 0425-02
Guidelines for nondestructive examination of suction roll shells, 0402-19
Paper machine reel-spool journals: guidelines for crack testing and repair or replacement, 0402-34
Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07
Ultrasonic technician performance test for boiler tube thickness measurement, 0402-21
Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18
Best Practice for Recovery Boiler Inspection (Optimizing Inspection Scope), 0416-26

Installation
Flexo folder gluers, 0305-12
Project leader, 0305-13
Press section monitoring, 0404-19
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Instruments
Forming section monitoring, 0502-14

Insulating
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Insulation
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Intensity
Conical refining intensity, 0508-07

Internal bond strength
Troubleshooting a glue lap problem, 0304-10

IR
Drying and curing techniques for in-line flexographic printing, 0306-06

Iron
Response to contamination of high purity boiler feedwater, 0416-05
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Jet dryers
Methods of evaluating high velocity dryers, 0404-05

Jet velocity
Head of Stock Behind Slice (Head/Jet and Slice Flow Rate Relationships), 0410-05

Jets
Flow from a 45° slice, 0410-03
Flow from a nozzle (slice) with inclined upper lip, 0410-04
Flow from a vertical slice, 0410-02

Joints
Troubleshooting a glue lap problem, 0304-10

Jordans
see Conical refiners

Journals (Documents)
Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06

Jumbo rolls
Reel diameter for various reel spool and roll core sizes, 0502-03

Kaolin
Kaolin clay pigment index, 0106-06

Kraft papers
Paper machine drying rate, 0404-07
Paper machine performance guidelines, 0404-47

Kraft pulping
Stripping of kraft pulping process condensates: regulations, design and operation, 0416-10
Labels
Understanding hazardous materials warning labels, 0304-41

Laboratories
Paper test rooms: design considerations, 0808-04

Laminates
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Languages
Common or local names for a nonwood fiber raw material, 0609-01

Lead
An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58

Leakage
Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09
Explanation of recovery boiler leak indications, 0416-23

LED UV
Drying and curing techniques for in-line flexographic printing, 0306-06

Lignosulfonates
Boiling point rise of spent sulfite liquors, 0607-21
Definitions of terms in the sulfite pulping process, 0607-25
Density of aqueous sodium sulfite solution, 0607-18
Density of milk of lime solution, 0607-05
Solubility of sulfur dioxide, Ca(HSO3)2 solutions, 0607-07
Sulfur burner gas strength volume, 0607-01
Viscosities of various spent sulfite liquors at 26.7°C, 0607-22

Lime
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Lime Kiln
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Lime mud
see White liquor mud

Lime reburning
Energy checklist: pulp mill, 0416-24

Lime-base solutions
see Calcium base liquors

Linerboards
Paper machine drying rate, 0404-07

Liners
Causes and corrections of common corrugator bonding problems, 0304-32
Edge crush test (ECT): its relationship to box compression and its derivation from containerboard edge stiffness, 0304-09
How to minimize rolling scores on lightweight and high-performance liners in diecutting operations, 0304-64
Paper machine performance guidelines, 0404-47
Procedure for setting up a raw material trial on the corrugator, 0304-01
Splicer defects and cures, 0304-31

Machine clothing
Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51

Machine direction
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01

Machine operation
see also Maintenance
Project leader, 0305-13

Machine rooms
Paper machine room ventilation guidelines, 0404-50

Machine speed
Pulpstone speed chart, 0605-02

Machinery
Computer-assisted machinery, 0305-02
Machinery considerations and selection, 0305-06
Project leader, 0305-13

Macro-surface variations
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

Magnesia
see Magnesium oxide

Magnesium bisulfite
Solubility of sulfur dioxide in saturated magnesium bisulfite solution, 0607-10

Magnesium bisulfite liquor
see Magnesium base liquors

Magnesium oxide
Physical and chemical properties of magnesia-base pulping solutions, 0607-04
Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09

Maintenance
Burst testers, 0304-24
Calibration and maintenance of the manually operated micrometer, 0304-30
Checking for coating wear on corrugating rolls, 0304-73
Checking the flute depth of corrugating rolls, 0304-75
Checking the parallel of corrugating rolls with “NCR” paper, 0304-62
Cleaning anilox rolls: procedures and options, 0306-18
Cleanup procedures for flexo folder gluer/rotary diecutters, 0305-33
Computer-assisted machinery, 0305-02
Daily, weekly, and monthly maintenance checklists, 0305-34
Extruded glue mechanism supplement, 0305-43
Field welding of pin studs in black liquor recovery boilers, 0402-15
Guidelines for operating and maintenance practices impacting an economizer on a recovery boiler, 0416-22
Housekeeping guidelines, 0305-32
Maintenance considerations in new construction and rebuilds, 0408-02
Need for planned maintenance, 0305-30
Nozzle maintenance and clogging, 0420-15
Rotary cutting die maintenance, 0305-23
Rotary die cutter urethane anvil cover maintenance, 0305-35
Tests for corrugator roll wear, 0304-53
Troubleshooting a glue lap problem, 0304-10
Weld repairs on new suction roll shells, 0402-17

Management
Project leader, 0305-13

Manuals
Suggestions for developing a box plant quality manual, 0304-49

Manufacturers joints
Evaluating glue lap adhesive properties, 0304-16
Folding section, 0305-42

MAP
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05

Market pulps
Paper machine performance guidelines, 0404-47

Mass
Drainage evaluation by mass measurement, 0502-12

Material safety data sheets
see Safety

Materials
Oxygen (O2) bulk storage and safe handling, 0606-29

Materials balance
Paper machine room ventilation guidelines, 0404-50

Materials handling
Caustic soda (NaOH) safe storage and handling, 0606-27
Gaseous ozone (O3) safe handling, 0606-28
Hydrogen peroxide (H2O2) safe storage and handling, 0606-24
Material safety data sheets – what to look for, how to understand them, 0304-38
Methanol (CH3OH) safe storage and handling, 0606-25
Oxygen (O2) bulk storage and safe handling, 0606-29

McKee equation
see Edge crush tests

Measurement
Conducting a corrugator temperature audit, 0304-65
Drainage evaluation by mass measurement, 0502-12
Dryer condensing rates (batch method), 0404-02
Dryer condensing rates (continuous method), 0404-03
Troubleshooting cross-machine direction moisture profile problems, 0404-57
Units of and conversion factors, 0800-01
Utilizing statistical process control techniques to assist in meeting specification at finishing crush process control points to the paper and paperboard industries, 0304-11

Measuring instruments
Gauge repeatability and reproducibility study, 0304-71

Mechanical papers
Paper machine drying rate, 0404-07

Mechanical Stop
Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06

Medium
see Corrugating medium

Melting point
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12

Mercury
An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58

Metals
An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58
Field welding of pin studs in black liquor recovery boilers, 0402-15

Methanol
Methanol (CH3OH) safe storage and handling, 0606-25
Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09
Stripping of kraft pulping process condensates: regulations, design and operation, 0416-10

Micro-surface variation
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

Micro-compressibility
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

Microbes
see Bacteria

Micrometers
Calibration and maintenance of the manually operated micrometer, 0304-30

Milk of lime solution
see Calcium hydroxide

Moisture
determination of water removal by wet presses, 0404-01
Moisture content of paper: terminology and conversion, 0808-02
Steam shower applications in the forming and press section, 0404-58

Moisture content
Automated Scanning for Moisture Content and Air Permeability on Paper Machine Felts, 0502-21
Determination of water removal by wet presses, 0404-01
Psychrometric charts, 0404-45
Troubleshooting cross-machine direction moisture profile problems, 0404-57

Moisture control
Cotton in nonwovens, 1205-02
Troubleshooting cross-machine direction moisture profile problems, 0404-57
Warp in corrugated board, 0304-07
Moisture regain
see Moisture content, Sorption
Monitoring
Press section monitoring, 0404-19
Monitors
Forming section monitoring, 0502-14
Paper test rooms: design considerations, 0808-04
Monoammonium Phosphate
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05
Monosulfite
see Neutral sulfite pulping
Motors
Paper machine room ventilation guidelines, 0404-50
Mounting
Computer assisted mounting systems, 0306-02
Mullen
see Burst strength
Multistage process
see Bleaching

Natural gas
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25
Needle punched
see Needling
Needling
Cotton in nonwovens, 1205-02
Neutral sulfite liquors
Viscosity of a neutral sulfite spent liquor (Ostwald capillary viscometer), 0607-23
Neutral sulfite pulping
Boiling point rise of spent sulfite liquors, 0607-21
Definitions of terms in the sulfite pulping process, 0607-25
Density of aqueous sodium sulfite solution, 0607-18
Density of milk of lime solution, 0607-05
Physical and chemical properties of magnesia-base pulping solutions, 0607-04
Solubility of sulfur dioxide, 0607-06
Solubility of sulfur dioxide, Ca(HSO3)2; solutions, 0607-07
Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09
Sulfur burner gas strength volume, 0607-01
Viscosities of various spent sulfite liquors at 26.7°C, 0607-22
Newsprint
Paper machine drying rate, 0404-07
Paper machine performance guidelines, 0404-47
Weight of newsprint rolls, 0502-11
Nip
Methods to minimize sheet rewet in the press section,
Nonwood plants
  Common or local names for a nonwood fiber raw material, 0609-01

Nonwovens
  Cotton in, 1205-02
  Pilot paper and wet laid nonwoven machines, 0502-16

Nonwovens machines
  Pilot paper and wet laid nonwoven machines, 0502-16

Nozzles
  Nozzle maintenance and clogging, 0420-15
  Paper machine shower recommendations, 0404-61

NSSC pulping
  Viscosity of a neutral sulfite spent liquor (Ostwald capillary viscometer), 0607-23

OEM Tolerances
  A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20

Opacifiers
  Physical data of calcium carbonate-water suspensions, 0106-01

Open time
  Troubleshooting a glue lap problem, 0304-10

Openings
  Guidelines for evaluation of liquid ring vacuum pump performance, 0420-12

Operations
  Guidelines for operating and maintenance practices impacting an economizer on a recovery boiler, 0416-22
  Machinery considerations and selection, 0305-06
  Sootblower Safety and Upgrade Guidelines, 0416-28

Optical measurement
  Basic guidelines for image analysis measurements, 0804-09

Optimization
  Press section optimization, 0404-52

Orifices
  see Openings

Osmosis
  Evaluating reverse osmosis for treating makeup to the boiler feedwater in a pulp and paper mill, 0416-07

Overfire air
  Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Overlays
  Guidelines for corrosion resistant weld metal overlay of digester vessels in alkaline pulping service, 0402-03
  Guidelines for inspecting batch digesters, 0402-22

Oxidation
  Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Oxygen
  Bulk storage and safe handling of, 0606-29

Ozone
  Safe handling of gaseous, 0606-28

Packaging
  An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58
  Understanding and troubleshooting hot melt adhesives, 0304-74

Palletization
  Checklist: preparing die cuts for shipment, 0305-49
  Material handling considerations for flexo folder gluers, 0305-54

Paper
  Guidelines for Tension During Web Conveyance and for Winding, 0200-01
  Kaolin clay pigment index, 0106-06
  Moisture content of paper: terminology and conversion, 0808-02
  Paper grade classifications, 0404-36
  Pilot paper and wet laid nonwoven machines, 0502-16
  Through drying, 0404-25

Paper grades
  Paper grade classifications, 0404-36

Paper machines
  Automated Scanning for Moisture Content and Air Permeability on Paper Machine Felts, 0502-21
  Guide for increasing the maximum allowable working pressure of cast iron, ASME constructed paper machine dryers, 0420-14
  Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06
  Guidelines for inspection and nondestructive testing of paper machine dryers, 0402-16
  Guidelines for routine periodic inspection and testing of cast iron Yankee and MG dryers, 0425-01
  Guidelines for usage of MAP on raw Yankee surfaces, 0425-05
  Paper machine clothing performance analysis, 0404-26
  Paper machine energy conservation, 0404-63
  Paper machine performance guidelines, 0404-47
  Paper machine reel-spool journals: guidelines for crack testing and repair or replacement, 0402-34
  Papermaker’s formulas, 0502-17
  Performance evaluation techniques for paper machine vacuum systems, 0404-55
  Pilot paper and wet laid nonwoven machines, 0502-16
  Press section monitoring, 0404-19
  Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
  Water permeability of press fabrics, 0404-43
  Guidelines for properly sampling steam & condensate in Yankee dryer steam systems, 0425-04

Paper mills
  Design engineer decisions tree: paper mill boiler feedwater, 0416-04
Fluoropolymer properties and applications in pulp and paper mills, 0402-37
Paper rolls
see Rolls, Wound rolls
Paper stock
Guidelines for side-entering stock agitators, 0420-13
Paperboard
Guidelines for Tension During Web Conveyance and for Winding, 0200-01
Papermakers alum
see Aluminum sulfate
Paraffin wax
Common curtain coating problems: causes, detection, and correction, 0304-26
Papermaking
Papermaker’s formulas, 0502-17
Parallelism
see Alignment
Parameters
Paper machine performance guidelines, 0404-47
Penetrants
Liquid penetrant testing of new suction roll shells, 0402-11
Performance
Dryer section performance monitoring, 0404-33
Paper machine clothing performance analysis, 0404-26
Paper machine room ventilation guidelines, 0404-50
Press fabric record book, 0404-21
Press section economic evaluation, 0404-22
Press section optimization, 0404-52
Recovery boiler performance calculation – short form, 0416-01
Performance evaluation
Methods of evaluating high velocity dryers, 0404-05
Paper machine performance guidelines, 0404-47
Performance evaluation techniques for paper machine vacuum systems, 0404-55
Performance tests
Performance test procedure for boilers using biomass as fuel, 0416-18
Sampling procedures for biomass fuel for boiler performance testing, 0416-17
Permeability
Water permeability of press fabrics, 0404-43
Chemical cleaning guide for press fabrics, 0404-65
Personnel
Project leader, 0305-13
Pilot paper machines
see Paper machines
Pilot plants
Catalog of Stock Preparation Pilot Plants, 0502-20
Pilot paper and wet laid nonwoven machines, 0502-16
Pin register
see Register
Pin register mounting
see Register, Mounting
Pin studs
see Welding
Piping
Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
Generalized method for determining the pipe friction loss of flowing pulp suspensions, 0410-14
Guide to the use of stainless steel pipe specifications, 0402-24
Headbox approach piping guidelines, 0404-54
Pipeline
Optimum consistency for pumping pulp, 0410-15
Planning
Checklist for a properly planned project, 0408-01
Installation, 0305-12
Maintenance considerations in new construction and rebuilds, 0408-02
Project leader, 0305-13
Plastics
Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Phosphates
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
Physical properties
Chlorine dioxide (ClO2) safe storage and handling, 0606-30
Chlorine gas curve, 0606-02
Density of chlorine gas, 0606-03
Heat of vaporization of liquid chlorine, 0606-04
Magnesia-base pulping solutions, 0607-04
Relative enthalpy (heat content) of sodium hydroxide solutions, 0606-08
Sodium chlorate (NaClO3) safe handling and storage, 0606-31
Specific gravity and density of caustic soda solutions, 0606-20
Specific gravity of sodium chloride solutions, 0606-10
Viscosity of liquid chlorine, 0606-05
Viscosity of sodium hydroxide solutions, 0606-11
Pigment
Kaolin clay pigment index, 0106-06
Physical data of calcium carbonate-water suspensions, 0106-01
Pilot paper machines
see Paper machines
Pilot plants
Catalog of Stock Preparation Pilot Plants, 0502-20
Pilot paper and wet laid nonwoven machines, 0502-16
Pin register
see Register
Pin register mounting
see Register, Mounting
Pin studs
see Welding
Piping
Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
Generalized method for determining the pipe friction loss of flowing pulp suspensions, 0410-14
Guide to the use of stainless steel pipe specifications, 0402-24
Headbox approach piping guidelines, 0404-54
Pipeline
Optimum consistency for pumping pulp, 0410-15
Planning
Checklist for a properly planned project, 0408-01
Installation, 0305-12
Maintenance considerations in new construction and rebuilds, 0408-02
Project leader, 0305-13
Plastics
Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Phosphates
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
Physical properties
Chlorine dioxide (ClO2) safe storage and handling, 0606-30
Chlorine gas curve, 0606-02
Density of chlorine gas, 0606-03
Heat of vaporization of liquid chlorine, 0606-04
Magnesia-base pulping solutions, 0607-04
Relative enthalpy (heat content) of sodium hydroxide solutions, 0606-08
Sodium chlorate (NaClO3) safe handling and storage, 0606-31
Specific gravity and density of caustic soda solutions, 0606-20
Specific gravity of sodium chloride solutions, 0606-10
Viscosity of liquid chlorine, 0606-05
Viscosity of sodium hydroxide solutions, 0606-11
Pigment
Kaolin clay pigment index, 0106-06
Physical data of calcium carbonate-water suspensions, 0106-01
Pilot paper machines
see Paper machines
Pilot plants
Catalog of Stock Preparation Pilot Plants, 0502-20
Pilot paper and wet laid nonwoven machines, 0502-16
Pin register
see Register
Pin register mounting
see Register, Mounting
Pin studs
see Welding
Piping
Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
Generalized method for determining the pipe friction loss of flowing pulp suspensions, 0410-14
Guide to the use of stainless steel pipe specifications, 0402-24
Headbox approach piping guidelines, 0404-54
Pipeline
Optimum consistency for pumping pulp, 0410-15
Planning
Checklist for a properly planned project, 0408-01
Installation, 0305-12
Maintenance considerations in new construction and rebuilds, 0408-02
Project leader, 0305-13
Plastics
Guidelines for inspecting used fiber-reinforced plastics (FRP) equipment, 0402-28
Refiner systems, their inspection and maintenance, 0508-06

Plastometers
Measuring the Pusey and Jones indentation of elastomeric roll cover materials 0420-09

Plates
see also Printing plates, Refiner disks
Conducting a corrugator temperature audit, 0304-65
Impact of doublebacker hot plate level on board quality and how to measure it, 0204-66

Plugging
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12

Pocket humidity
see Humidity

Polishing
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05

Polymers
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Polyvinyl Acetate
Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25

Porosity
Water permeability of press fabrics, 0404-43

Potassium
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12

Power plants
Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13

Precipitated calcium carbonate (PCC)
see Calcium carbonate

Precipitators
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12

Prefeeder
see Feeders

Preheating
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Preservatives
Starch adhesive preparation and distribution systems: housekeeping, 0304-06

Press
Methods to minimize sheet rewet in the press section, 0404-59
Multiple-out rotary diecut stacking, 0305-47
Stacking off the rotary diecutter, 0305-46

Press drying
see also Drying
Terminology for high temperature pressing, 0404-48

Press fabric
Press fabric dewatering and conditioning – suction box (Uhle box) design and vacuum requirements, 0404-27

Press fabric guiding, 0404-64

Press fabrics
Chemical cleaning guide for press fabrics, 0404-65
Press section optimization, 0404-52

Press felts
see also Felts
Physical characterization of press fabrics: basis weight, air permeability, void volume under loading and pressure uniformity, 0404-20
Press fabric guiding, 0404-64
Press fabric record book, 0404-21
Thickness of wet press fabrics, 0404-28
Water permeability of press fabrics, 0404-43

Press rolls
Granite roll material and surface requirements, 0404-41
Weld repairs on new suction roll shells, 0402-17

Press sections
Determination of water removal by wet presses, 0404-01
Press section economic evaluation, 0404-22
Press section monitoring, 0404-19
Press section optimization, 0404-52
Sheet handling devices, 0404-44
Steam shower applications in the forming and press section, 0404-58
Water permeability of press fabrics, 0404-43

Presses
Papermaker’s formulas, 0502-17

Pressing
Methods to minimize sheet rewet in the press section, 0404-59
Paper machine doctor recommendations, 0404-67
Paper machine shower recommendations, 0404-61
Physical characterization of press fabrics: basis weight, air permeability, void volume under loading and pressure uniformity, 0404-20
The Impact of Pressing on Web Densification, 0404-68

Pressure
Guide for increasing the maximum allowable working pressure of cast iron, ASME constructed paper machine dryers, 0420-14
Guidelines for routine periodic inspection and testing of cast iron Yankee and MG dryers, 0425-01
Techniques for nip impressions, 0404-46

Pressure gradient
Thermocompressor Applications for Paper Drying, 0404-66

Pressure roll
Paper Machine Vacuum System Selection Factors, 0502-01

Preventative maintenance
see Maintenance

Print section
Printing section, 0305-38

Printing
A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20
The role of copper in a printing ink, 0304-61
Important quality parameters of a printing ink, 0304-59
Proper use of pull bands, 0305-18
Quality techniques using existing equipment, 0306-11
Reduction or elimination of ink and/or varnish smear when printing and rotary die cutting in one pass, 0305-40.

Overview of the selection process for a laser engraved ceramic anilox roll, 0306-17.

Printing cylinders
Cleaning anilox rolls: procedures and options, 0306-18.
Identifying anilox roll volume measuring equipment, 0306-15.
Overview of the selection process for a laser engraved ceramic anilox roll, 0306-17.

Printing ink
see Ink

Printing papers
Paper machine drying rate, 0404-07.

Printing plates
Quality techniques using existing equipment, 0306-11.
Printing section, 0305-38.
Computer assisted mounting systems, 0306-02.

Procedures
Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07.

Processes
Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07.

Process control
Obtaining combined board caliper off the corrugator for use in statistical procedures, 0304-12.
Short-run statistical process control: a basic charting method, 0304-70.
Starch viscosity in corrugating adhesives, 0304-15.
Statistical of starch gelatinization temperature, 0304-14.
Statistical process control friction-slide angle, 0304-34.
Statistical process control -- procedures for charting warp, 0304-13.

Production
Papermaker’s formulas, 0502-17.

Profile
Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06.

Profiles
Troubleshooting cross-machine direction moisture profile problems, 0404-57.
Steam shower applications in the forming and press section, 0404-58.

Profiling Screws
Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06.

Project planning
see Planning.

Projects
see Planning.

Protective coatings
Guidelines for thermal spray coatings installed to prevent corrosion in pulp mill process equipment, 0402-32.

Psychrometric charts
see also Humidity
Psychrometric charts, 0404-45.

Pull rolls
Printing section, 0305-38.

Pulp mill equipment
Guidelines for thermal spray coatings installed to prevent corrosion in pulp mill process equipment, 0402-32.
Horizontal end suction centrifugal stock pumps, 0420-10.

Pulp mills
Fluoropolymer properties and applications in pulp and paper mills, 0402-37.

Pulpers
Catalog of Stock Preparation Pilot Plants, 0502-20.

Pulping
Density of chlorine gas, 0606-03.

Pulpstones
Grinder pulpstones: cubical contents, 0605-01.
Pulpstone speed chart, 0605-02.

Pulp
Generalized method for determining the pipe friction loss of lowing pulp suspensions, 0410-14.
Optimum consistency for pumping pulp, 0410-15.
Paper machine drying rate, 0404-07.
Pilot paper and wet laid nonwoven machines, 0502-16.

Pumping
Generalized method for determining the pipe friction loss of lowing pulp suspensions, 0410-14.
Optimum consistency for pumping pulp, 0410-15.
Horizontal end suction centrifugal stock pumps, 0420-10.

Purchase
Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25.

PVA
Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25.

Pyrometry
Dryer surface temperature measurement, 0404-39.

Quality
Ultrasonic technician performance test for boiler tube thickness measurement, 0404-21.

Quality control
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01.
Guidelines for specification and inspection of electric resistance welded (ERW) and seamless boiler tube for critical and noncritical service, 0402-13.

Quality control
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01.
Guidelines for specification and inspection of electric resistance welded (ERW) and seamless boiler tube for critical and noncritical service, 0402-13.
Liquid penetrant testing of new suction roll shells, 0402-11

Quality manual
see Quality

Radiography
Guideline for obtaining high quality radiographic testing of butt welds in boiler tubes, 0402-33

Raw materials
Procedure for setting up a raw material trial on the corrugator, 0304-01

Raw Yankee
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05

Recausticizing
see Causticizing

Reclaimed fibers
Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51

Record books
see Documentation

Recovery
Energy checklist: pulp mill, 0416-24
Best Practice for Recovery Boiler Inspection (Optimizing Inspection Scope), 0416-26

Recovery boilers
Estimating the first melting temperature of fireside deposits in recovery boilers, 0416-12
Explanation of recovery boiler leak indications, 0416-23
Field welding of pin studs in black liquor recovery boilers, 0402-15
Guideline specification for procurement of an economizer for a recovery boiler, 0416-21
Guidelines for operating and maintenance practices impacting an economizer on a recovery boiler, 0416-22
Recovery boiler energy efficiency improvements, 0416-16
Recovery boiler performance calculation – short form, 0416-01
Recovery boiler sootblowers: practical guidelines, 0416-20
Recovery boiler sootblowers: the basics, 0416-19
Ultrasonic technician performance test for boiler tube thickness measurement, 0402-21
Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18
Definitions of black liquor recovery furnace availability, 0416-02
Sootblower Safety and Upgrade Guidelines, 0416-28

Recovery furnaces
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15
Explanation of recovery boiler leak indications, 0416-23
Field welding of pin studs in black liquor recovery boilers, 0402-15
Guidelines for replacement of generating bank tubes with expanded joints in two-drum boilers, 0416-08
Inspection for cracking of composite tubes in black liquor recovery boilers, 0402-30
Recovery boiler performance calculation – short form, 0416-01

Recycled fibers
see Reclaimed fibers

Recycled paperboard
Paper machine performance guidelines, 0404-47

Recycled papers
Paper machine performance guidelines, 0404-47

Recycling
Stickies definition and classification, 0603-02

Reels
Determination of winder sets per reel, 0502-02
Paper machine reel-spool journals: guidelines for crack testing and repair or replacement, 0402-34
Reel diameter for various reel spool and roll core sizes, 0502-03
TAPPI Roll number for inventory/tracking systems and bar codes, 1004-01

Refrigeration
Guidelines for Rotary Lime Kiln Refractory, 0416-27

Register
Computer assisted mounting systems, 0306-02

Regulating systems
see Control systems

Regulations
An explanation of the toxics in packaging (formerly CONEG) heavy metal guidelines, 0304-58

Relative enthalpy
see Enthalpy

Relative humidity
see Humidity

Relief
Water quality and monitoring requirements for paper mill boilers, operating with high purity feedwater, 0416-03

Removal
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15

Repair
see Maintenance

Repeatability
How to perform a gauge repeatability and reproducibility study, 0304-71

Reporting
Press fabric record book, 0404-21
Replacement
Guidelines for replacement of generating bank tubes with expanded joints in two-drum boilers, 0416-08

Reproducibility
How to perform a gauge repeatability and reproducibility study, 0304-71

Resolution
Basic guidelines for image analysis measurements, 0804-09

Retention
Definitions, 0502-13
Fourdrinier drainage performance evaluation – blow test method, 0410-07

Reverse Angle Doctor Blade
Ink metering systems for corrugated flexo presses, 0306-09

Reverse osmosis
Evaluating reverse osmosis for treating makeup to the boiler feedwater in a pulp and paper mill, 0416-07

Reverse warp
see Warpage

Rewetting
Methods to minimize sheet rewet in the press section, 0404-59

Rider rolls
Total indicated runout and its impact on combined board quality, 0304-56

Ring crush/SCT resistance
Techniques for bonding modern high-performance liners, 0304-40

Ring crush/SCT tests
Techniques for bonding modern high-performance liners, 0304-40

Roll coaters
see also Coaters
In-line coating at the corrugator, 0304-39

Rollers
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Roll cleaning
Paper machine doctor recommendations, 0404-67

Roll coaters
see also Coaters
In-line coating at the corrugator, 0304-39

Roll core
see Cores

Roll Cover Selection
A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20

Roll crown
Techniques for nip impressions, 0404-46

Roll density
see Rolls

Roll handling
see Materials handling, Jumbo rolls

Roll identification
see Rolls

Roll length
see Rolls

Roll number
see Rolls

Roll stands
Spacer defects and cures, 0304-31

Roll tracking
see Rolls

Roll weight
see Rolls

Rolling contact bearings
see Bearings

Rolling scores
see Scores

Roller bearings
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Rolls
An alternative method for designating flute sizes, 0302-04
Checking the flute depth of corrugating rolls, 0304-75
Checking for coating wear on corrugating rolls, 0304-73
Corrugator temperature audit, 0304-65
Granite roll material and surface requirements, 0404-41
Parallel of corrugating rolls with “NCR” paper, 0304-62
TAPPI Roll number for inventory/tracking systems and bar codes, 1004-01
Techniques for nip impressions, 0404-46
Tests for corrugator roll wear, 0304-53
Total indicated runout and its impact on combined board quality, 0304-56
Weight of newsprint rolls, 0502-11

Rotary
Troubleshooting the Die Cutting Section, 0305-39

Rotary diecutter
see Rotary machines, Die cutters; see also Folder gluers

Roller bearings
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Roll number
see Rolls

Roll stands
Spacer defects and cures, 0304-31

Roll tracking
see Rolls

Roll weight
see Rolls

Rolling contact bearings
see Bearings

Rolling scores
see Scores

Roller bearings
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Rolls
An alternative method for designating flute sizes, 0302-04
Checking the flute depth of corrugating rolls, 0304-75
Checking for coating wear on corrugating rolls, 0304-73
Corrugator temperature audit, 0304-65
Granite roll material and surface requirements, 0404-41
Parallel of corrugating rolls with “NCR” paper, 0304-62
TAPPI Roll number for inventory/tracking systems and bar codes, 1004-01
Techniques for nip impressions, 0404-46
Tests for corrugator roll wear, 0304-53
Total indicated runout and its impact on combined board quality, 0304-56
Weight of newsprint rolls, 0502-11

Rotary
Troubleshooting the Die Cutting Section, 0305-39

Rotary diecutter
see Rotary machines, Die cutters; see also Folder gluers

Roller bearings
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Rolls
An alternative method for designating flute sizes, 0302-04
Checking the flute depth of corrugating rolls, 0304-75
Checking for coating wear on corrugating rolls, 0304-73
Corrugator temperature audit, 0304-65
Granite roll material and surface requirements, 0404-41
Parallel of corrugating rolls with “NCR” paper, 0304-62
TAPPI Roll number for inventory/tracking systems and bar codes, 1004-01
Techniques for nip impressions, 0404-46
Tests for corrugator roll wear, 0304-53
Total indicated runout and its impact on combined board quality, 0304-56
Weight of newsprint rolls, 0502-11

Roller bearings
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Rolls
An alternative method for designating flute sizes, 0302-04
Checking the flute depth of corrugating rolls, 0304-75
Checking for coating wear on corrugating rolls, 0304-73
Corrugator temperature audit, 0304-65
Granite roll material and surface requirements, 0404-41
Parallel of corrugating rolls with “NCR” paper, 0304-62
TAPPI Roll number for inventory/tracking systems and bar codes, 1004-01
Techniques for nip impressions, 0404-46
Tests for corrugator roll wear, 0304-53
Total indicated runout and its impact on combined board quality, 0304-56
Weight of newsprint rolls, 0502-11

Rotation
Pulpstone speed chart, 0605-02

Roundness
see Shape

Roughness
see Shape

Rubbing
see also Abrasion resistance
Runnability
Sheet handling devices, 0404-44

Safety
Caustic soda (NaOH) safe storage and handling, 0606-27
Chlorine dioxide (ClO₂) safe storage and handling, 0606-30
Corrugated boxplant-list of potential hazards, 0301-01
Gaseous ozone (O₃) safe handling, 0606-28
Housekeeping guidelines, 0305-32
Hydrogen peroxide (H₂O₂) safe storage and handling, 0606-24
Material safety data sheets, 0304-38
Methanol (CH₃OH) safe storage and handling, 0606-25
Oxygen (O₂) bulk storage and safe handling, 0606-29
Sodium chlorate (NaClO₃) safe handling and storage, 0606-31
Sulfuric acid (H₂SO₄) safe storage and handling, 0606-26
Sootblower Safety and Upgrade Guidelines, 0416-08

Safety equipment
Chlorine dioxide (ClO₂) safe storage and handling, *0606-33

Salt
see Sodium chloride

Sampling
Sampling procedures for biomass fuel for boiler performance testing, 0416-17
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
QCS Dynamic Sensor Correlation Sampling Method, 1101-04

Saturated solutions
see Solutions

Scanners
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01

Scheduling
Checklist for a properly planned project, 0408-01
Housekeeping guidelines, 0305-32
Maintenance considerations in new construction and rebuilds, 0408-02

Schopper Riegler freeness
Interconversion of freeness, 0809-01

Score breaks
How to prevent score cracking in a box plant, 0304-37

Score cracks
see Score breaks

Scores
Minimizing rolling scores on lightweight and high-performance liners in diecutting operations, 0304-64
Preventing score cracking in a box plant, 0304-37

Scoring
Machinery considerations and selection: yoked scoring slotting section, 0305-53

Screens
Catalog of Stock Preparation Pilot Plants, 0502-20

Seal water
see Sealants, Water

Seals
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03

Sealants
Guidelines for evaluation of liquid ring vacuum pump performance, 0420-12

Seamless materials
Guide to the use of stainless steel pipe specifications, 0402-24

Secondary fibers
Stickies definition and classification, 0603-02

Selection
Machine considerations and selection, 0305-06

Selective catalytic reduction
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Selective noncatalytic reduction
Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Semichemical pulps
Boiling point rise of spent sulfite liquors, 0607-21

Definitions of terms in the sulfite pulping process, 0607-25
Density of aqueous sodium sulfite solution, 0607-18
Density of milk of lime solution, 0607-05
Solubility of sulfur dioxide, Ca(HSO₃)₂ solutions, 0607-07
Sulfur burner gas strength volume, 0607-01
Viscosities of various spent sulfite liquors at 26.7°C and other temperatures, 0607-22

Sensitivity
Basic guidelines for image analysis measurements, 0804-09

Sensors
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01
QCS Dynamic Sensor Correlation Sampling Method, 1101-04

Servicing
Maintenance considerations in new construction and rebuilds, 0408-02

Setting time
Understanding and troubleshooting hot melt adhesives, 0304-74

Shafts
Paper machine reel-spool journals: guidelines for crack testing and repair or replacement, 0402-34

Shape
Total indicated runout and its impact on combined board quality, 0304-56

Sheet water content
see Moisture content

Shells
Guidelines for inspection and nondestructive testing of paper machine dryers, 0402-16
Weld repairs on new suction roll shells, 0402-17

Shock drying
Terminology for high temperature pressing, 0404-48
Showers
   Paper Machine Clothing Cleaning and Conditioning for Recycled Fiber Use, 0404-51
   Paper machine shower recommendations, 0404-61
   Press fabric dewatering and conditioning – suction box (Uhle box) design and vacuum requirements 0404-27
   Steam shower applications in the forming and press section, 0404-58
   Chemical cleaning guide for press fabrics, 0404-65

Silica
   Guidelines for Rotary Lime Kiln Refractory, 0416-27
   Response to contamination of high purity boiler feedwater, 0416-05
   Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
   Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
   Paper Machine Water Efficiency, 0502-22

Single Facers
   Procedure for setting up a raw material trial on the corrugator, 0304-01
   Addendum to Corrugating Defect Terminology Manual - defects related to the use of fingerless singlefacers, 0304-17
   Alternative method for designating flute sizes, 0302-04
   Causes and corrections of common corrugator bonding problems, 0304-32
   Checking for coating wear on corrugating rolls, 0304-73
   Checking the flute depth of corrugating rolls, 0304-75
   Parallel of corrugating rolls with “NCR” paper, 0304-62
   Preventing score cracking in a box plant, 0304-37
   Some questions and answers on gel temperatures and on the gel temperature test for corrugating adhesives, 0304-08
   Splicer defects and cures, 0304-31

Siphons
   Thermocompressor Applications for Paper Drying, 0404-66

Skid
   Material handling considerations for flexo folder gluers, 0305-54
   Recommended Dryer Differential Pressures, 0404-31

Slabbing
   Broke loss calculations, 0502-10

Slices
   Flow from a 45° slice, 0410-03
   Flow from a nozzle (slice) with inclined upper lip, 0410-04
   Head of Stock Behind Slice (Head/Jet and Slice Flow Rate Relationships), 0410-05
   Flow from a vertical slice, 0410-02

Slide angle
   Statistical process control, friction, 0304-34

Slotting
   Machinery considerations and selection: yoked scoring slotting section, 0305-53

Slurry
   Physical data of calcined kaolin-water suspensions, 0106-09
   Physical data of hydrous Kaolin-water suspensions, 0106-02
   Slushed paper stock
   see Paper stock

Smearing
   Reduction or elimination of ink and/or varnish smear when printing and rotary die cutting in one pass, 0305-40

Smog
   Nitrogen oxide emissions control from biomass and kraft recovery boilers in the pulp and paper industry, 0416-25

Smoothness
   Objective Determination of the Haptic Properties of Tissue Products, 0808-07

Sodium
   Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
   Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14

Sodium bicarbonate
   Density of aqueous sodium bicarbonate solution, 0607-13

Sodium bisulfite
   Vapor pressure of water and sulfur dioxide above sodium bisulfite solutions (25°C), 0607-12

Sodium borate
   Some questions and answers on gel temperatures and on the gel temperature test for corrugating adhesives, 0304-08

Sodium carbonate
   Density of aqueous sodium carbonate solution, 0607-14
   Specific heat of sodium carbonate solution, 0606-20
   Specific volume and density of sodium carbonate solution, 0607-16
   Viscosity of sodium carbonate solution, 0607-17

Sodium chlorate
   Safe storage of, 0606-31

Sodium chloride
   Specific gravity of sodium chloride solutions, 0606-10

Sodium hydroxide
   Caustic soda (NaOH) safe storage and handling, 0606-27
   Relative enthalpy of solution, 0606-08
   Some questions and answers on gel temperatures and on the gel temperature test for corrugating adhesives, 0304-08
   Specific gravity and density of caustic soda solutions, 0606-20
   Specific heat of caustic soda solutions, 0606-07
   Viscosity of sodium hydroxide solutions, 0606-11

Sodium sulfite
   Density of aqueous sodium sulfite solution, 0607-18

Solids content
   Physical data of calcined kaolin-water suspensions, 0106-09
   Physical data of calcium carbonate-water suspensions, 0106-01
   Physical data of hydrous Kaolin-water suspensions, 0106-02

Solubility
   Solubility of sulfur dioxide, 0607-06
Solubility of sulfur dioxide, Ca(HSO3)2 solutions, 0607-07
Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09
Solubility of sulfur dioxide in saturated magnesium bisulfite solution, 0607-10

Solutions
Equilibrium relative humidities over saturated salt solutions, 0808-03
Specific heat of caustic soda solutions, 0606-07

Sorption
Cotton in nonwovens, 1205-02

Soot blowers
Recovery boiler sootblowers: practical guidelines, 0416-20
Recovery boiler sootblowers: the basics, 0416-19
Sootblower Safety and Upgrade Guidelines, 0416-28

SPC techniques
see Statistical methods

Specialty coating pigment
see Pigment

Specialty papers
Paper machine performance guidelines, 0404-47

Specific gravity
see Density

Specific heat
Specific heat of caustic soda solutions, 0606-07
Specific heat of sodium carbonate solution, 0607-15

Specifications
Guideline specification for procurement of an economizer for a recovery boiler, 0416-21
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03

Speed
see Velocity

Spent sulfite liquors
Density of aqueous sodium sulfite solution, 0607-18

Splicers
Splicer defects and cures, 0304-31

Spools
Paper machine reel-spool journals: guidelines for crack testing and repair or replacement, 0402-34
Reel diameter for various reel spool and roll core sizes, 0502-03

Spunlaced fabric
Cotton in nonwovens, 1205-02

Spray coaters
see also Coaters
In-line coating at the corrugator, 0304-39

Squaring
see Squared papers, Trimming

Stackers
Multiple-out rotary diecut stacking, 0305-47
Stacking off the rotary diecutter, 0305-46

Stacking
Corrugated caliper: why is it so important?, 0304-04

Stacking strength
see Compression strength

Stainless steel

Guide to the use of stainless steel pipe specifications, 0402-24
Guidelines for corrosion resistant weld metal overlay of digester vessels in alkaline pulping service, 0402-03

Guidelines for nondestructive examination of suction roll shells, 0402-19
Guidelines for procurement of cast stainless steels for large pumps and valves for the pulp and paper industry, 0402-25
Inspection for cracking of composite tubes in black liquor recovery boilers, 0402-30
Post-fabrication cleaning of stainless steel in the pulp and paper industry, 0402-35
Weld repairs on new suction roll shells, 0402-17

Standard conditions
Testing atmospheres simulating end use conditions, 0808-05

Starch
Starch adhesive preparation and distribution systems: housekeeping, 0304-06
Starch adhesive trial, 0304-22
Statistical process control of starch gelatinization temperature, 0304-14
Statistical process control of starch viscosity, 0304-15
Techniques for running “WRA” (water resistant starch adhesive), 0304-46
Understanding wet strength: what are MRA, WRA, and WPA?, 0304-69
Using washup water as the vehicle in starch-based corrugating adhesive, 0304-44

Starch conversion
Statistical process control of starch gelatinization temperature, 0304-14

Statistical analysis
How to perform a gauge repeatability and reproducibility study, 0304-71
Obtaining combined board caliper off the corrugator for use statistical process control procedures, 0304-12
Starch viscosity in corrugating adhesives, 0304-15

Statistical distribution
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01

Statistical methods
Boxplant quality measurement: why test?, 0304-02
Obtaining combined board caliper off the corrugator, 0304-12

Procedures for charting warp, 0304-13
Procedures for utilizing statistical control techniques to monitor the tare weight of a run of boxes, 0304-35
Short-run statistical process control: a basic charting method, 0304-70
Statistical process control: friction - slide angle, 0304-34
Statistical process control of starch gelatinization temperature, 0304-14
Statistical process control of starch viscosity, 0304-15
Statistical process control techniques to assist in meeting specification at finishing crush process control points to the paper and paperboard industries, 0304-11
Statistical process control
  see Statistical methods
Statistical quality control
  see Statistical methods

Statistics
  Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01
  Obtaining combined board caliper off the corrugator for use in statistical process control procedures, 0304-12
  Starch viscosity in corrugating adhesives, 0304-15
  Statistical process control of starch gelatinization temperature, 0304-14

Status reports
  see Reporting

Steam
  Application of dryer bars, 0404-35
  Guide for increasing the maximum allowable working pressure of cast iron, ASME constructed paper machine dryers, 0420-14
  Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
  Guidelines for routine periodic inspection and testing of cast iron Yankee and MG dryers, 0425-01
  Response to contamination of high purity boiler feedwater, 0416-05
  Steam shower applications in the forming and press section, 0404-58
  Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
  Water quality guidelines and monitoring requirements for paper mill boilers operating with softened makeup water, 0416-14
  Yankee dryer steam condensing rates, 0404-49
  Guidelines for properly sampling steam & condensate in Yankee dryer steam systems, 0425-04

Steam chests
  Terminology for high temperature pressing, 0404-48

Steam pressure
  see Pressure gradient

Step-Up Strip
  Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06

Sterilization
  Starch adhesive preparation and distribution systems: housekeeping, 0304-06

Stickies
  Stickies definition and classification, 0603-02

Stitch bonding
  Cotton in nonwovens, 1205-02

Stock (pulp)
  Control of stock activity on a fourdrinier table, 0410-08
  Head of Stock Behind Slice (Head/Jet and Slice Flow Rate Relationships), 0410-05

Stock flow
  Control of stock activity on a fourdrinier table, 0410-08
  Optimum consistency for pumping pulp, 0410-15

Stock preparation
  Catalog of Stock Preparation Pilot Plants, 0502-20

Stones
  see Pulpstones

Storage
  Buying, Storing, and Handling P.V.A. Adhesives Used on Folder Gluers and on Sheet Laminators, 0305-25
  Caustic soda (NaOH) safe storage and handling, 0606-27
  Chlorine dioxide (ClO2) safe storage and handling, 0606-30
  Hydrogen peroxide (H2O2) safe storage and handling, 0606-24
  Methanol (CH3OH) safe storage and handling, 0606-25
  Oxygen (O2) bulk storage and safe handling, 0606-29
  Sodium chlorate (NaClO3) safe handling and storage, 0606-31
  Sulfuric acid (H2SO4) safe storage and handling, 0606-26

Strapping
  Critical properties to consider when unitizing, 0304-72
  Material handling considerations for flexo folder gluers, 0305-54

Stress
  Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38

Stress assisted corrosion
  Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38

Stress corrosion
  Guidelines for inspection of continuous digesters and impregnation vessels, 0402-27

Strippers
  Stripping of kraft pulping process condensates: regulations, design and operation, 0416-10

Stripping
  Troubleshooting the Die Cutting Section, 0305-39

Stuff boxes
  Headbox approach piping guidelines, 0404-54

Suction
  see Vacuum

Suction press rolls
  see Press rolls, Vacuum rolls

Suction presses
  Paper Machine Vacuum System Selection Factors, 0502-01

Suction rolls
  see Vacuum rolls
  Guidelines for nondestructive examination of suction roll shells, 0402-19

Sulfite liquors
  Boiling point rise of spent sulfite liquors, 0607-21
  Definitions of terms in the sulfite pulping process, 0607-25
  Density of aqueous sodium sulfite solution, 0607-18
  Density of milk of lime solution, 0607-05
  Solubility of sulfur dioxide, Ca(HSO3)2 solutions, 0607-07
  Sulfur burner gas strength volume, 0607-01
  Viscosities of various spent sulfite liquors at 26.7°C and other temperatures, 0607-22
  Horizontal end suction centrifugal stock pumps, 0420-10
Sulfite pulping
Boiling point rise of spent sulfite liquors, 0607-21
Definitions of terms in the sulfite pulping process, 0607-25
Density of aqueous sodium sulfite solution, 0607-18
Density of milk of lime solution, 0607-05
Physical and chemical properties of magnesia-base pulping solutions, 0607-04
Solubility of sulfur dioxide, Ca(HSO₃)₂ solutions, 0607-07
Solubility of sulfur dioxide, 0607-06
Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09
Solubility of sulfur dioxide in saturated magnesium bisulfite solution, 0607-10
Sulfur burner gas strength volume, 0607-01
Vapor pressure of sulfur dioxide solutions, 0607-11
Vapor pressure of water and sulfur dioxide above sodium bisulfite solutions (25°C), 0607-12
Viscosities of various spent sulfite liquors at 26.7°C, 0607-22
**Sulfite waste liquor**
see Spent sulfite liquors

**Sulfur burners**
Sulfur burner gas strength volume, 0607-01

**Sulfur dioxide**
Boiling point rise of spent sulfite liquors, 0607-21
Definitions of terms in the sulfite pulping process, 0607-25
Physical and chemical properties of magnesia-base pulping solutions, 0607-04
Solubility of sulfur dioxide, 0607-06
Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09
Solubility of sulfur dioxide in saturated magnesium bisulfite solution, 0607-10
Sulfur burner gas strength volume, 0607-01
Vapor pressure of sulfur dioxide solutions, 0607-11
Vapor pressure of water and sulfur dioxide above sodium bisulfite solutions (25°C), 0607-12
Viscosities of various spent sulfite liquors at 26.7°C, 0607-22
Viscosity of a neutral sulfite spent liquor (Ostwald capillary viscometer), 0607-23
Vapor pressure of water and sulfur dioxide above sodium bisulfite solutions (25°C), 0607-12

**Sulfuric acid**
Sulfuric acid (H₂SO₄) safe storage and handling, 0606-26

**Supervision**
Project leader, 0305-13

**Surface properties**
Granite roll material and surface requirements, 0404-41

**Surface softness**
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

**Surface speed**
see Retention, Machine speed

**Suspended solids**

**Generalized method for determining the pipe friction loss of lowing pulp suspensions, 0410-14**

**Systems**
Chloride and potassium measurement and control in the pulping and chemical recovery cycle, 0416-15

**Tare weight**
Statistical control techniques to monitor the tare weight of a run of boxes, 0304-35

**Task time**
see Time

**Technical nomenclature**
see Nomenclature

**Temperature**
Conducting a corrugator temperature audit, 0304-65
Density of aqueous sodium bicarbonate solution, 0607-13
Density of aqueous sodium carbonate solution, 0607-14
Dryer section performance monitoring, 0404-33
Dryer surface temperature measurement, 0404-39
Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24
Solubility of sulfur dioxide in magnesium bisulfite solution, 0607-09
Solubility of sulfur dioxide in saturated magnesium bisulfite solution, 0607-10
Some questions and answers on gel temperatures and on the gel temperature test for corrugating adhesives, 0304-08
Specific heat of sodium carbonate solution, 0607-15
Statistical process control of starch gelatinization temperature, 0304-14
Statistical process control of starch viscosity, 0304-15
Testing atmospheres simulating end use conditions, 0808-05
Troubleshooting cross-machine direction moisture profile problems, 0404-57
Vapor pressure of sodium carbonate solution, 0607-16
Vapor pressure of sulfur dioxide solutions, 0607-11
Viscosity of a neutral sulfite spent liquor (Ostwald capillary viscometer), 0607-23
Viscosity of sodium carbonate solution, 0607-17
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03

**Tension**
Recommended tensions in dryer fabrics, 0404-04

**Terminology**
see Nomenclature

**Test conditions**
Testing atmospheres simulating end use conditions, 0808-05

**Test equipment**
Paper test rooms: design considerations, 0808-04

**Test facilities**
Paper test rooms: design considerations, 0808-04
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03
Test methods
Guidelines for evaluation of liquid ring vacuum pump performance, 0420-12

Testing
Basic guidelines for image analysis measurements, 0804-09
Catalog of Stock Preparation Pilot Plants, 0502-20
Drainage evaluation by mass measurement, 0502-12
Forming section monitoring, 0502-14
Paper machine reel-spool journals: guidelines for crack testing and repair or replacement, 0402-34
Paper test rooms: design considerations, 0808-04
Recommended test procedure for black liquor evaporators, 0416-11
Water removal by wet presses, 0404-01

Thermal measurement
Recovery boiler performance calculation – short form, 0416-01

Thermal spray
Guidelines for thermal spray coatings installed to prevent corrosion in pulp mill process equipment, 0402-32
Guidelines for inspecting batch digesters, 0402-22

Thermobonding
Cotton in nonwovens, 1205-02

Thermocompressors
Thermocompressor Applications for Paper Drying, 0404-66

Thermography
Troubleshooting cross-machine direction moisture profile problems, 0404-57

Thermoplastics
Fluoropolymer properties and applications in pulp and paper mills, 0402-37

Thick stock
see High consistency

Thickness
Corrugated caliper: why is it so important?, 0304-04
Guidelines for Rotary Lime Kiln Refractory, 0416-27
Method for evaluating thickness of wet press fabrics, 0404-28

Obtaining combined board caliper off the corrugator for use in statistical process control procedures, 0304-12
Statistical process control techniques to assist in meeting specification at finishing crush process control points to the paper and paperboard industries, 0304-11
Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18

Through drying
Paper machine performance guidelines, 0404-47
Through drying, 0404-25

Tissue
Design, Operation, Performance Evaluation and Inspection guidelines for Yankee hood systems, 0425-02
Paper machine performance guidelines, 0404-47
Pilot paper and wet laid nonwoven machines, 0502-16
Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07

Tolerance
Corrugator bearing clearance checks and their impact, 0304-47

Total indicated runout
see also Combined boards
Total indicated runout and its impact on combined board quality, 0304-56

Total reduced sulfur
Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09

Touch
Objective Determination of the Haptic Properties of Tissue Products, 0808-07

Transport
Checklist: preparing die cuts for shipment, 0305-49
Sodium chlorate (NaClO3) safe handling and storage, 0606-31
Sulfuric acid (H2SO4) safe storage and handling, 0606-26

Trim
Broke loss calculations, 0502-10
Paper machine room ventilation guidelines, 0404-50

Trimming
Machinery considerations and selection: yoked scoring slotting section, 0305-53
Forming section monitoring, 0502-14
Glue lap problem, 0304-10
Press section monitoring, 0404-19
Recommended test procedure for black liquor evaporators, 0416-11
Steam shower applications in the forming and press section, 0404-58

Tubes
Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38
Guidelines for detection, monitoring and prevention of flow accelerated corrosion (FAC) in the pulp and paper mill, 0402-36
Guidelines for operating and maintenance practices impacting an economizer on a recovery boiler, 0416-22
Guidelines for replacement of generating bank tubes with expanded joints in two-drum boilers, 0416-08
Inspection for cracking of composite tubes in black liquor recovery boilers, 0402-30
	Keys to successful chemical cleaning of boilers, 0416-06
Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18

Tungsten carbide
Tests for corrugator roll wear, 0304-53

Tuning
see Control

Turbulence
Application of dryer bars, 0404-35

Turpentine
Collection and burning of concentrated noncondensible gases: regulations, design and operation, 0416-09

Twisting
Techniques to minimize twist warp, 0304-50
Uhle box
See also Vacuum boxes
Paper Machine Vacuum System Selection Factors, 0502-01
Press fabric dewatering and conditioning – suction box
(Uhle box) design and vacuum requirements, 0404-27

Ultrafine ground limestone
see Limestone

Ultrasonic tests
Guidelines for evaluating quality of boiler tube butt welds with ultrasonic testing, 0402-31
Guidelines for inspecting batch digesters, 0402-22
Ultrasonic testing (UT) for tube thickness in black liquor recovery boilers, 0402-18

Uncoated free sheet
Paper machine performance guidelines, 0404-47

Unitized handling
Critical properties to consider when unitizing, 0304-72

Units of measurement
Units of measurement and conversion factors, 0800-01

Unloading
Sodium chloride (NaClO3) safe handling and storage, 0606-31
Sulfuric acid (H2SO4) safe storage and handling, 0606-26

U.P.C.
see Product codes

UV
Drying and curing techniques for in-line flexographic printing, 0306-06

Vacuum
High vacuum sheet dewatering, 0404-60
Paper Machine Vacuum System Selection Factors, 0502-01
Papemaker’s formulas, 0502-17
Steam shower applications in the forming and press section, 0404-58

Vacuum boxes
High vacuum sheet dewatering, 0404-60
Paper Machine Vacuum System Selection Factors, 0502-01
Performance evaluation techniques for paper machine vacuum systems, 0404-55

Vacuum equipment
Press fabric dewatering and conditioning – suction box
(Uhle box) design and vacuum requirements, 0404-27

Vacuum factors
Paper Machine Vacuum System Selection Factors, 0502-01

Vacuum filters
Bleaching plant washer efficiency guide, 0606-23

Vacuum pumps
Guidelines for evaluation of liquid ring vacuum pump performance, 0420-12
Performance evaluation techniques for paper machine vacuum systems, 0404-55
Press fabric dewatering and conditioning – suction box
(Uhle box) design and vacuum requirements, 0404-27

Vacuum rolls
Liquid penetrant testing of new suction roll shells, 0402-11
Paper Machine Vacuum System Selection Factors, 0502-01
Techniques for nip impressions, 0404-46
Weld repairs on new suction roll shells, 0402-17

Vacuum washers
Bleaching plant washer efficiency guide, 0606-23

Valves
Guidelines for procurement of cast stainless steels for large pumps and valves for the pulp and paper industry, 0402-25
Headbox approach piping guidelines, 0404-44

Vapor pressure
Chlorine gas curve, 0606-02
Vapor pressure of sulfur dioxide solutions, 0607-11
Vapor pressure of sodium carbonate solution, 0607-16
Vapor pressure of water and sulfur dioxide above sodium bisulfite solutions (25°C), 0607-12

Variance
Calculation and partitioning of variance using paper machine scanning sensor measurements, 1101-01

Varnish
Reduction or elimination of ink and/or varnish smear when printing and rotary die cutting in one pass, 0305-40

Velocity
see also Machine speed
Pulpstone speed chart, 0605-02

Ventilation
Paper machine room ventilation guidelines, 0404-50
Recommended minimum dryer pocket air requirements, 0404-17

Guidelines for the design, operation, performance evaluation, and troubleshooting of a paper machine hood and air systems, 0404-24

Viscosity
Density of aqueous sodium sulfite solution, 0607-18
Liquid chlorine, 0606-05
Quality techniques using existing equipment, 0306-11
Statistical process control of starch viscosity, 0304-15
Viscosities of spent sulfite liquors at 26.7°C (Oswalt capillary viscometer), 0607-22
Viscosity of a neutral sulfite spent liquor (Ostwald capillary viscometer), 0607-23
Viscosity of sodium carbonate solution, 0607-17
Viscosity of sodium hydroxide solutions, 0606-11
Viscosity reading procedure for flexographic corrugated inks, 0304-18

Vision
Basic guidelines for image analysis measurements, 0804-09

Volume
Grinder pulpstones – cubical contents, 0605-01
Identifying anilox volume measuring equipment, 0306-15
Warning labels
see Hazardous materials

Warpage
Statistical process control -- procedures for charting warp, 0304-13
Techniques to minimize twist warp, 0304-50
Warp in corrugated board, 0304-07

Wash waters
Using washing water as the vehicle in starch based corrugating adhesive, 0304-44

Washers
Energy checklist: pulp mill, 0416-24
Bleaching plant washer efficiency guide, 0606-23

Washing
Bleaching plant washer efficiency guide, 0606-23
Recommended pulp bleaching stage designation method, 0606-21

Wastewater treatment equipment
see Effluent treatment

Water
see also Solubility
Design engineer decisions tree: paper mill boiler feedwater, 0416-04
Guidelines for evaluation of liquid ring vacuum pump performance, 0420-12
Vapor pressure of water and sulfur dioxide above sodium bisulfite solutions (25°C), 0607-12
Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13
Paper Machine Water Efficiency, 0502-22

Water content
see Moisture content

Water hardness
Water quality and monitoring requirements for paper mill boilers operating with high purity feedwater, 0416-03

Water permeability
Troubleshooting cross-machine direction moisture profile problems, 0404-57

Water removal
Determination of water removal by wet presses, 0404-01
High vacuum sheet dewatering, 0404-60
Methods to minimize sheet rewet in the press section, 0404-59
Paper machine drying rate, 0404-07
The Impact of Pressing on Web Densification, 0404-68

Water resistance
Techniques for running “WRA” (water resistant starch adhesive), 0304-46
Understanding wet strength: what are MRA, WRA, and WPA?, 0304-69

Water treatment
Design engineer decisions tree: paper mill boiler feedwater, 0416-04
Water treatment-related opportunities for energy conservation in a paper mill powerhouse, 0416-13

Water vapor
Paper machine room ventilation guidelines, 0404-50

Waterside cracking
Best practice guidelines for detecting and mitigating waterside cracking (stress-assisted corrosion) in power and recovery boilers, 0402-38

Wax
Common curtain coating problems: causes, detection, and correction, 0304-26

Wear resistance
see Abrasion resistance

Web breaks
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Web tension
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Webs
see also Paper webs
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Weight
Physical characterization of press fabrics: basis weight, air permeability, void volume under loading and pressure uniformity, 0404-20
Procedure for utilizing statistical control techniques to monitor the tare weight of a run of boxes, 0304-35
Weight of newsprint rolls, 0502-11

Weirs
Weirs and flumes, 0410-10

Welding
Guide to the use of stainless steel pipe specifications, 0402-24
Guidelines for corrosion resistant weld metal overlay of digester vessels in alkaline pulping service, 0402-03
Guidelines for evaluating quality of boiler tube butt welds with ultrasonic testing, 0402-31
Guidelines for inspection of continuous digesters and impregnation vessels, 0402-27
Guidelines for procurement of cast stainless steels for large pumps and valves for the pulp and paper industry, 0402-25
Field welding of pin studs in black liquor recovery boilers, 0402-15

Wet bulb temperature
Relative humidity tables, 0808-06

Wet ends
Drainage evaluation by mass measurement, 0502-12
Forming section monitoring, 0502-14
How to prevent score cracking in a box plant, 0304-37
Selection criteria for wet end ceramics, 0502-15

Wet felts
see also Felts

Wet presses
Determination of water removal by, 0404-01

Wet pressing
Terminology for high temperature pressing, 0404-48

Wet strength
Understanding wet strength: what are MRA, WRA, and WPA?, 0304-69
Wet-laid nonwovens
Pilot paper and wet laid nonwoven machines, 0502-16

White liquors
Recaucitizing material balance equations relating to digester requirements, 0418-02

White water
Drainage evaluation by mass measurement, 0502-12
Flow determination by chemical method, 0410-09
Weirs and flumes, 0410-10

Width
Weight of newsprint rolls, 0502-11

Winding
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Wire
Use of ceramics on the forming section: diagnosing and preventing forming fabric wear, 0502-19

Williams freeness
Interconversion of freeness, 0809-01

Winders
Determination of winder sets per reel, 0502-02

Wiper Roll
A guide to proper wiper roll selection for flexographic printing in the corrugated box industry, 0306-20
Ink metering systems for corrugated flexo presses, 0306-09

Wiperoll
see Flexography

Wood chips
see Chips

Wood containing papers
see Mechanical papers

Wood free papers
Paper machine drying rate, 0404-07

Work place
see Human factors

Working conditions
see Environments

Wound rolls
Reel diameter for various reel spool and roll core sizes, 0502-03
TAPPI Roll number for inventory/tracking systems and bar codes, 1004-01

Wrinkles
Guidelines for Tension During Web Conveyance and for Winding, 0200-01

Writing papers
Paper machine drying rate, 0404-07

Yankee cylinders
see Yankee dryers

Yankee dryers
Design, Operation, Performance Evaluation and Inspection guidelines for Yankee hood systems, 0425-02

Yankee dryers
Design, monitoring and maintenance guidelines for Yankee dryer bearings, 0425-03
Guidelines and Procedures for Inspections and Maintenance of Yankee Dryer Doctor Systems, 0425-06
Guidelines for usage of MAP on raw Yankee surfaces, 0425-05
Safe and Reliable Start-Up and Shut-Down of Yankee Hood Air Systems, 0425-07
Techniques for nip impressions, 0404-46
Yankee dryer steam condensing rates, 0404-49