Order M 154319.
See File 4F-162

SPECIFICATIONS

FOR

INSTALLATION OF EXTENSIBLE UNIT

FOR

ST. LAWRENCE PAPER CORPORATION

EAST ANGUS, QUEBEC, CANADA

June 8, 1959
Beloit, Wisconsin

For and in consideration of the hereinafter named amount, terms and conditions, Beloit Iron Works, hereinafter called the Builder, proposes to furnish material for the addition of an extensible unit to No. 4 machine for St. Lawrence Paper Corporation, hereinafter called the Purchaser, and in accordance with the following specifications:

HAND OF MACHINE:

When standing at the headvat looking toward the winder the drive is on the right hand side.

GENERAL:

This unit to be installed on No. 4 machine. It is to be suitable for speeds up to 2000 f.p.m. All dryer section changes are to be accomplished by Purchaser to provide sections as follows: 1st section - (14) paper, (1) Feeney, and (2) return dryers; 2nd section - (14) paper, (1) Feeney, (2) return; size press; extensible unit; 3rd section - (9)

paper and (1) return dryers. All dryers 60" in diameter.

EXTENSIBLE UNIT:

(1) 30" diameter by 132" face internally bored cast iron chromium plated dryer with cast iron heads coded for 125 p.s.i. operating steam pressure will be provided complete with anti-friction bearings and housings. Rear journal to be extended for connection to the drive. Front journal to be bored and fitted with a suitable high pressure steam joint equipped with stationary syphon and flexible connection to be mounted from front side dryer bearing housing. Steam and condensate piping to be provided by the Purchaser. An automatic control valve in the steam line together with recording controller and two isolating valves for steam supply and condensate line will be furnished. The recording controller to be mounted in the control cabinet.

DRYER DOCTOR:

A gear motor oscillated dryer doctor arranged for hand release will be provided. Doctor to be fitted with Teflon blade. Spare blade will also be furnished.

BLANKET ROLLS:

Three, 14-3/4" diameter by 132" face 3/8" rubber covered crowned steel pipe rolls will be provided. All

rolls to be of identical design mounted in anti-friction bearings. One roll to be used as a blanket stretch roll.

NIP ROLL:

One, 6-1/2" diameter by 132" face polished stainless steel roll will be provided to form the nip between the dryer and the rubber blanket. This roll will be backed up by means of (5) half micarta bushings across the width of the machine arranged at approximately equal spacing.

BLANKET GUIDE ROLL AND GUIDE:

One guide roll 11-1/4" diameter by 132" face of steel pipe rubber covered complete with anti-friction bearings and housings will be provided. Roll used in conjunction with one automatic air diaphragm guide mounted on back side and one hand operated positioner on front side. The entire automatic guide assembly arranged for easy removal during blanket change.

BLANKET STRETCHER:

One of the blanket rolls to be used as a stretch roll. This stretcher arrangement will be mounted on specially designed swing arms supported from the main dryer bearing housings and operated by means of 8" diameter double acting Miller air cylinders. Stretcher roll assembly designed so that it may be removed from swing arm mounting and attached to 16" diameter cross pipe support for easy removal during blanket changes and during operation on flat grades.

PAPER ROLLS:

Two, 9-1/8" diameter by 132" face 1/4" rubber covered steel paper carrying rolls will be provided with anti-friction bearings and suitable supporting brackets. One roll to be mounted ahead and one after the extensible unit.

MOUNT HOPE ROLL:

One, 6-1/4" diameter varibow Mount Hope roll will be provided.

PRESSURE UNITS:

The (5) water lubricated micarta lined backup units will be supported from a 16" diameter stainless steel clad main support pipe with pressure being applied by means of pivot arms mounted on each side of the pipe being acted on by 12" diameter double acting Miller air cylinders.

SHOWERS:

Three, brass pipe water showers equipped with Sprayco nozzles will be provided; two inside the blanket for blanket lubrication and one on the outside of the blanket following the guide roll for blanket cooling in case of a sheet break. This outside shower to be connected with Purchaser's sheet break detector so that shower automatically turns on when sheet is off. One brass pipe water shower header with two nozzles (one at each edge of the blanket). This shower

will be mounted outside the blanket near the guide and will operate continuously to provide cooling for the blanket edges coming in contact with the bare dryer. Two small single nozzle air showers installed ahead of the nip roll to direct water away from the blanket edges are also included. Shower control valves to be located on the front side of the unit for easy access.

ROPE CARRIER EQUIPMENT:

The necessary additional rope carrier equipment for threading the sheet through the extensible unit will be supplied.

FRAMEWORK:

The 30" dryer is supported on one pair of cast iron main frames. These frames are designed to support the pivoted arms on which is mounted a 16" diameter corrosion resistant cross pipe which in turn mounts the blanket pressure unit, blanket rolls, showers and guide.

The blanket stretch roll, being mounted on arms supported from the main dryer bearings, is removed and attached to the pressure unit supporting framework during blanket changes and for the bypass sheet run. Builder also to furnish one pair of aluminum raise blocks to support the complete blanket assembly for bypassing the unit.

Builder to furnish one pair of frame pieces for tying from the extensible unit to the first bottom after dryer with mounting surface for existing bottom dryer frame. A footwalk and ladder are included for mounting on top of these frames to provide access to the blanket grinder.

BLANKETS:

Three rubber blankets will be provided measuring 15' 8-1/2" inside circumference by approximately 1" thick with a hardness of 50 Shore Durometer Type "A". Two returnable boxes are included for shipment of the first two blankets. (One box may then be returned to Manhattan Rubber Company for shipment of the third blanket.)

BLANKET CHANGE:

After the entire blanket assembly is removed from the machine a suitable cantilever arrangement is provided to cantilever this equipment from the 16" diameter supporting pipe. Two permanent stainless steel blanket draping poles are provided to permit removal of the old blanket and installation of a new blanket. The blanket to be applied is to be supported from an overhead crane arrangement supplied by the Purchaser.

BLANKET GRINDING AND DUST EXTRACTION:

A belt grinder will be supplied complete, consisting of Curtis standard grinder heads equipped with a 2" wide abrasive belt driven by a 3 HP motor. The grinder head is mounted on a cross machine bed arranged for traveling across the blanket contacting it at a point opposite the top blanket roll.

A number 8 type "W" Roto-Clone dust extraction unit complete with 5 HP motor and V-belt drive is included. Purchaser is to provide rigid and flexible trunking from grinder to the Roto-Clone.

RELEASE AGENT SYSTEM:

Included is a motor driven pump which pumps release agent from the supply drums to a stainless steel mixing tank of steam heated design. The mixing tank complete with motor driven mixer, steam heating system and two low level warning signals are included.

One meter to gauge the quantity of release agent and one water meter to gauge the quantity of water supplied to the mixing tanks will be provided.

Two filters and two motor driven pumps, one set to act as stand-by, to supply the release agent to the shower mounted adjacent to the extensible unit dryer.

One release agent shower equipped with atomizing nozzles completely enclosed in a stainless steel trough; trough being fitted with a return line opening to the mixing tank.

All necessary controls and shutoff valves will be provided together with a solenoid return valve to work in conjunction with Purchaser's sheet break detector. All piping to be furnished by the Purchaser.

Motor controls for mixing tank supply drum and mixer motor to be mounted on the respective units. Controls for the two shower supply pump motors and their pressure regulators to be surface mounted.

DRIVE:

Purchaser to supply the main drive motor and reducer for driving the extensible unit. The main drive is to be rated at a starting torque equivalent to 164 HP at 2000 f.p.m. and 41 HP normal running load at 2000 f.p.m.

Builder to provide transfer case with crawl speed motor and reducer to give 80 f.p.m. belt speed. This drive to be rated at a starting torque equivalent to 8 HP at 80 f.p.m., 4 HP running load. Inshafts and couplings will be provided for the crawl drive and extensible unit dryer indrive.

CONTROL EQUIPMENT:

A control cabinet will be provided to include electrical a-c and air controls used in conjunction with the extensible unit as follows: (In addition to those previously described.)

Pressure regulators and gauges for front and back double acting air cylinder with switches for load and release of blanket stretch roll and nip roll loading arrangements.

Pressure gauges for air diaphragm pressure on air guide, steam pressure, and steam pressure regulator.

(2) tachometers indicating speed of extensible unit and reel including tachometer generators.

Start and stop pushbutton stations for dryer doctor oscillator.

Controls for blanket cooling shower and release agent shower.

SECOND PRESS FELT RUN CHANGES:

To accomodate installation of two additional dryers following the existing 2nd press, Builder is to furnish elevation drawings showing relocation of the felt rolls, outlines of stands required and fur-

nish a new air operated felt guide complete with air controls.

DESIGN AND CONSTRUCTION:

The parts for the machine as furnished by the Builder will be of first class design and construction, with all running parts accurately balanced to insure safe operation at speeds up to 2000' per minute. Materials and workmanship to be of the best. Castings to be well painted. All new parts of machinery to be guaranteed from the standpoint of workmanship and materials for a period of one year after installation and any parts proving defective within this period to be replaced free of charge, f.o.b. cars shipping points, all transportation and installation expense to be borne by the Purchaser.

DRAWINGS:

Builder will furnish the necessary drawings to enable Purchaser to prepare room and foundation in advance of machinery being shipped so that Purchaser can have everything in readiness when the equipment arrives at the mill.

DELIVERY:

Delivery of the machinery to be completed by the Builder June 15, 1959, or soon thereafter as possible. Delivery to be made to carrier for Purchaser's account, f.o.b. works of Builders at Beloit, Wisconsin and other shipping points, at which time and place title and

finally approved by an authorized representative of the Builder at Beloit, Wisconsin.

BELOIT IRON WORKS

By

We hereby order the above equipment at the price and on the terms specified;

ST. LAWRENCE PAPER CORPORATION
EAST ANGUS, QUEBEC, CANADA

By

The above order is hereby accepted at Beloit, Wisconsin this day of , 1959.

BELOIT IRON WORKS

By

possession of shipment will transfer to Purchaser. Delays occasioned by strikes, the elements, or other causes over which Builder has no control, excepted.

PRICE:

One Hundred Twenty-eight Thousand Five Hundred Eighty-five Dollars ($128,585.00) f.o.b. Beloit, Wisconsin and other shipping points. This price will be adjusted upward or downward at time of shipment to reflect changes in labor and material costs.

TERMS:

Thirty (30) days after shipment $115,000.00

Sixty (60) days after shipment balance of . $13,585.00

SALES TAX:

It is understood that the price at which the foregoing is sold does not include any sales, use, or similar taxes. If the Builder is compelled to pay any such taxes at time of delivery or later, the Purchaser agrees to repay the Builder the full amount thereof.

NOTE:

There are no understandings or agreements not included in this contract. This contract is not effective until