

# DynaYield™ II Chip Conditioner

High performance chip fissuring with minimum pins and fines generation

## Keep the pulping process running smoothly with better uniformity and available uptime of 98%.

Jeffrey Rader DynaYield Chip Conditioners are designed to gently fissure over-thick wood chips to assure proper pulping liquor penetration for optimum cooking and yield, with the least fines and pins generation of any other thickness reduction machine.

The chip conditioner primarily consists of two (2) rolls, with specially-designed textured stainless steel segments, which provide the surface for conditioning, fissuring, and treating the oversized, and over-thick wood chips.

The 90-degree segments are held in place with special Grade-8 fasteners. Removable covers over roll segments allow for easy segment maintenance. The two rolls, one of which is in a fixed position and the other, which is dynamic, are each driven by an AGMA Class II shaft mounted reducer and rotate toward each

other. Easily removed drive housing encloses the motor and reducer for safety.

The desired nip setting is obtained by mechanical stops between the fixed roll bearing housing and the dynamic roll bearing housing. Two (2) independent hydraulic cylinders mounted at the ends of the frame control the dynamic roll movement and applied force.

A feature of the DynaYield II is the independent cylinders at each end. With the placement of a pressure relief valve directly on the manifold block of each cylinder, there is a faster response time and less hydraulic system component wear.

## Low pins and fines generation

With normal oversize wood, the conditioner typically generates less than 1% fines and 2% pins, versus chip slicers generating between 2%-8% fines and up to 15% pins (based on -3mm RH fines and -2mm slot pins).

## Reduced maintenance costs

Due to reduction in wear parts in contact with material, and due to low speed action of the conditioning process, the wear is significantly less than in other forms of overs processing.



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## Centralized lubrication

There is a centralized lubrication stations for greasing motors, reducer, bearings, and dynamic roll slide base.

## Hydraulic Roll Positioner Power Unit (HPU)

The power unit consists of a flooded suction pumping system with accumulator mounted on a 20 U.S. gallon skid-mounted reservoir. An air/oil heat exchanger and tank heater provide temperature control in hot and cold ambient environments. A solenoid valve supplies directional control to the cylinders on the conditioner. Additional

controls provided include high temperature control switch and low fluid level switch. All control enclosures are NEMA 4 to provide all-weather protection.

## Control console

A control console operates the DynaYield Chip Conditioner unit and Hydraulic Roll Positioner Power Unit. It is enclosed in a NEMA 4 enclosure and can be remotely mounted. It has the ability to be tied into the customer's PLC. There is a speed switch on each roll for zero-speed detection. Proximity sensors give indication to operators that nip between rolls is ready for wood processing/operation.

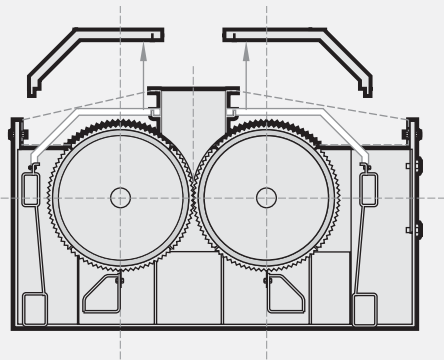
## On-site requirements

### Supplied by customer

- Model 40:  
Two 75 hp, 1,800 rpm, electric motors  
One 7.5 hp, 1,800 rpm, electric motor
- Model 60:  
Two 100 hp, 1,800 rpm, electric motors  
One 7.5 hp, 1,800 rpm, electric motor
- Model 80:  
Two 150 hp, 1,800 rpm, electric motors  
One 7.5 hp, 1,800 rpm, electric motor

### Supplied by Jeffrey Rader

- All models:  
One 1.5 kW, 1 phase, 220V, NEMA 4 heater



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