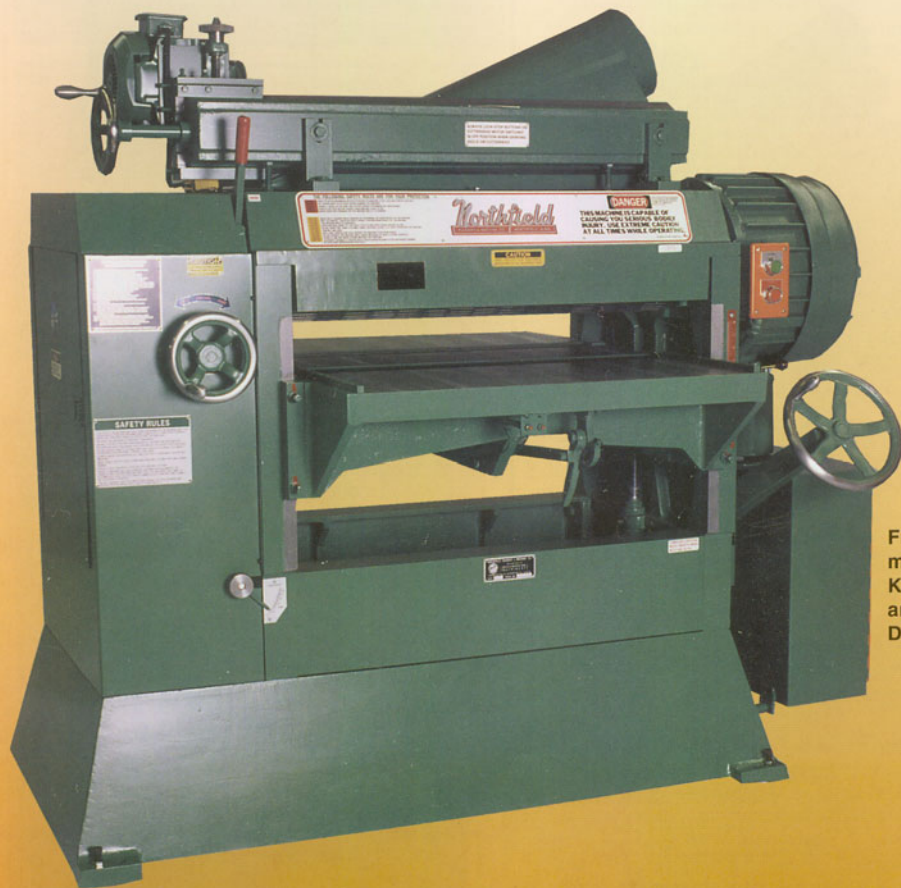


# Northfield #8 Planer-Surfacers 31"

Available with the  
Northfield Helical  
Carbide Cutterhead

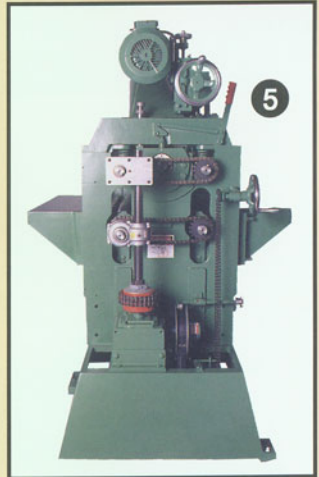


Front view of  
machine with  
Knife Grinder  
and Blower Type  
Dust Hood

A precision built machine manufactured from an exacting design utilizing ideas and components to provide the user with a machine to meet the most demanding and varied needs of today's production and vocational woodworking.

## Positive, Overload Protected Feed Mechanism

A carefully engineered feed mechanism offers speeds from 20 to 100 lineal feet per minute with built-in overload protection. A positive gear drive produces uniform power to all rolls. A safety overload clutch is provided on the drive shaft to prevent damage to the drive system. A convenient feed speed adjustment and indicator are provided to simplify machine operation. This type of drive virtually eliminates feed works related dubbing problems. The feed is also reversible by means of a drum switch, allowing the operator to BACK OUT stock once it has been fed into the machine.



## Choice of Drives

### Direct Motor or Vee-belt Drive

The feed mechanism is driven by a 2 HP totally enclosed fan-cooled motor. This machine is available in either a Direct Motor or Vee-belt drive with 7-1/2, 10, 15, 20, 25 and 30 HP TEFC motors. Direct motor drives and Vee-belt drives operate at 3600 RPM or to the customer's order. Model shown is arranged for Vee-belt drive. A 3 HP feed motor is also available.

*Note: The higher the cutterhead RPM the higher the noise level of the machine.*

## CAPACITY

These machines are designed to plane material 31" wide and from 1/16" to 8-3/4" in thickness. The cutterhead design allows a maximum cut of 3/8". Butted pieces as short as 4" and single pieces 12" may be planed.

## HEAVY ONE PIECE CAST IRON TABLE

The heavy one-piece table accurately carries all table parts for precision planing and is easily adjustable by a conveniently located hand wheel.

## LARGE BOX TYPE CAST IRON BASE

A large box-type three point mounted base of rigid design insures proper support of all components.

## EACH MACHINE IS ELECTRONICALLY BALANCED

Each NORTHFIELD machine is carefully tested with modern vibration-analyzing equipment. Even conditions hidden from view which might interfere with the smooth, long life of the machine are detected and corrected.

## Independent Motor Gear Box for Power Table Elevation

An independent gear motor with overload clutch is available as an option providing powered table elevation. A micro switch is also provided to prevent elevating the table into the cutterhead.





## Four Knife Cutterhead with Integral Micrometer Type Knife Raising Screws

The four knife cutterhead of high carbon steel is 31" long and has a 5" cutting circle. The 5/32" x 1-1/4" x 31" knives are of high speed steel and can be quickly adjusted with the micrometer type knife raising screws machined integral with the cutterhead. The cutterhead can be quickly stopped with a convenient brake.

### 1. Sectional Chipbreaker Mounted Concentrically with Head

A sectional chipbreaker of 2" ductile iron sections is concentric with the cutterhead and yields to 3/8". It rises with the sectional infeed roll on heavy cuts and is fully adjustable.



### 2. Quickly Adjustable Pressure Bar

A heavy pressure bar is located directly behind the cutterhead. It is quickly adjustable by means of spring loaded micrometer-type adjusting screws at either end of the bar. If necessary, the pressure bar can be easily removed. Hard chrome plating is available as an option.



### 3. Sectional Upper Infeed Roll

All four 4" feed rolls are power driven. The upper infeed roll is the sectional type with 2" milled ductile sections. Each section yields 5/16" and the entire roll yields 3/4". All the other feed rolls are solid steel and easily removable. The feed rolls are mounted with sealed-for-life ball bearings. To adjust the machine from rough to smooth stock a single hand lever quickly adjusts the table power feed rollers from .001 to .075.



**4. Top View** showing knife grinder with grinding wheel and stem in place. The grinding attachment can be left on the machine during operation with either a gravity type or collection system-type dust hood in place.

**5. As Standard Equipment** each machine is equipped with a conveniently placed hand brake. As an optional feature the machine may be ordered with a limit switch that shuts off power on both the cutter-head and feed motor when the hand brake is applied.

**6. Positive Cutterhead Grinding** indexing plate insures that each knife is ground in proper position.

**7. The Northfield #8 Planer-Surfacers** is shown here with a dust hood that can be attached to a central dust collection system. Model shown has the knife grinding attachment in place.

## SPECIFICATIONS

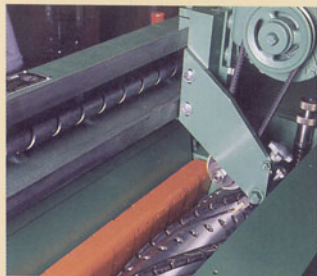
<b>Nominal Size</b> .....	31" x 8" Straight Knife 30" x 8" Helical Head	<b>Feed Speed</b> .....	20 to 100 lineal feet per minute <i>(higher or lower available in same ratio)</i>
<b>Actual Capacity</b> .....	31" x 8-3/4" Straight Knife 30" x 8-5/8" Helical Head	<b>Chipbreaker</b> .....	Ductile iron, 2" sections, concentric with head
<b>Cylinder</b> .....	5" cutting circle, 4 knife, high carbon steel, micrometer-type knife raising screws	<b>Pressure Bar</b> .....	easily adjustable with micrometer type screws
<b>Knife Size</b> .....	5/32" x 1-1/4" x 31" high speed steel	<b>Maximum Stock Width</b> .....	31" Straight Knife 30" Helical Head
<b>Drive</b> .....	Direct Motor or Vee-belt	<b>Shortest Butted Piece</b> .....	4"
<b>Brake</b> .....	Conveniently located hand brake	<b>Shortest Single Piece</b> .....	12"
<b>Motors</b> .....	CUTTERHEAD: 7-1/2, 10, 15, 20, 25 or 30 HP totally enclosed, fan cooled FEED: 2 HP totally enclosed, fan cooled	<b>Maximum stock thickness</b> .....	8-3/4"
<b>Voltage</b> .....	208 - 220/440, 550 volt 60 cycle, 3 phase standard	<b>Minimum Stock Thickness</b> .....	1/16"
<b>RPM</b> .....	DIRECT MOTOR DRIVE: 3600 VEE-BELT: 3600 (or to customer's specifications)	<b>Maximum Depth of Cut</b> .....	3/8"
<b>Lower Feed Rolls</b> .....	4" solid steel, power driven, sealed-for-life bearings	<b>Controls</b> .....	Double magnetic switch, single pushbutton, reversing switch on feed mechanism
<b>Upper Feed Rolls</b> .....	INFEED: 4" diameter, 2" milled ductile iron sections, 5/16" section yield, 3/4" roll yield, sealed-for-life ball bearings. OUTFEED: 4" solid steel, power driven, sealed-for-life ball bearings	<b>Floor Space</b> .....	66" x 50"
<b>Table Feed Roller Adjustment</b> ....	Single hand lever .001" to .075"	<b>Base</b> .....	Large box-type, three point mounted
		<b>Net Weight</b> .....	3300 lbs.*
		<b>Domestic Shipping Weight</b> .....	3500 lbs.*
		<b>Export Shipping Weight</b> .....	3800 lbs.*
		<b>Cubic Export Crate Size</b> .....	170 cu. ft.

*\*Add 200 lbs. if knife grinder is ordered with machine. Knife grinder must be ordered with Helical Cutterhead option. 10 HP minimum for Helical Head option. Machine requires approximately 1500 CFM airflow for dust collection.*

## EXTRAS

- |  |  |
|--|--|
| <input type="checkbox"/> Shavings hood for gravity exhaust system      | <input type="checkbox"/> Powerlift table                   |
| <input type="checkbox"/> Shavings hood for connection to blower system | <input type="checkbox"/> Hard chrome plated pressure bar   |
| <input type="checkbox"/> Knife grinder and jointing attachment         | <input type="checkbox"/> Digital readout                   |
| <input type="checkbox"/> Idler rollers for edge of table               | <input type="checkbox"/> 3 HP feed motor                   |
| <input type="checkbox"/> Dial type knife and roll setting gauge        | <input type="checkbox"/> Neoprene covered outfeed roll     |
| <input type="checkbox"/> Limit switch for hand brake                   | <input type="checkbox"/> Higher or lower feed speeds       |
| <input type="checkbox"/> NEMA 12 electrics with fused disconnect       | <input type="checkbox"/> Modifications to customer's order |

## *Northfield* HELICAL CARBIDE CUTTERHEAD



### Cuts Maintenance

The Northfield Helical Carbide Cutterhead offers fast maintenance compared to other helical cutterheads. Northfield's Helical Carbide Cutterhead can be jointed and hollow ground in under two hours. Machined grinding alignment grooves on cutterheads assure accurate hollow grinding on each row of bits.

### Runs Quietly

The Northfield Helical Cutterhead runs quietly, both loaded and unloaded. Cylinders are dynamically balanced and bits are arranged in helical, or spiral rows of 20° for low noise and smooth cutting.

### Overlap Bits

Individual bits, or teeth, in the Northfield Helical Cutterhead overlap. This staggered bit arrangement places the space between bits in one row, directly in the cutting path of the bits in preceding and following rows. The result is a clean cut, free of surface ridges. Each cutterhead has 24 easily replaceable bits in a row, total of 96 bits.

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