

EQUIPMENT SPECIFICATIONS

HOT STRIP MILL

26" & 49" X 48" UNITED HOT STRIP MILL
TDI REFERENCE NUMBER: 63633

MANUFACTURER: United Engineering & Foundry Co.

GENERAL SPECIFICATIONS:

MANUFACTURER:	United
ROLLING MILL DESIGN:	Roughing, Reversing
MILL TYPE:	4 High
ENTRY MATERIAL:	Carbon Steel
ENTRY PRODUCT:	Slab
ENTRY PRODUCT DIMENSIONS:	
WIDTH MAXIMUM (INCHES):	48 Inches (1,219.200 mm)
THICKNESS MAXIMUM (INCHES):	9.500 Inches (241.300 mm)
LENGTH MAXIMUM (FEET):	26 Feet (7.925 m)
FINISHED PRODUCT:	Coiled, Strip
STRIP:	
WIDTH MAXIMUM (INCHES):	48 Inches (1,219.200 mm)
COIL WEIGHT (LBS.):	22,000 Pounds
ANNUAL PRODUCTION (TPY):	2,160,000 Tpy
REHEAT FURNACE:	
QUANTITY:	2
FUEL TYPE:	Gas
FURNACE DESIGN TYPE:	Walking Beam Lift Out



FUEL CONSUMPTION:	1,000,000 cf/hr each furnace- coke oven gas or natural gas
CAPACITY (TPH):	200 Tph (181.437 mtp)
ENTRY PUSHER OPERATION:	Electro-Mechanical
HEARTH SIZE:	
LENGTH (FEET):	93 Feet (28.346 m)
WIDTH (FEET):	28 Feet (8.534 m)
NUMBER OF BURNERS:	3 zones triple fired
PEEL BAR PUSHER OPERATION:	Hydraulic
SCALE BREAKER:	
MILL SEPARATING FORCE (TONS):	Prior to Reversing Rougher Tons
ROUGHING MILL TRAIN:	
VERTICAL EDGER 1:	
WITH OR WITHOUT AWC:	Without
WORK ROLLS:	
ROLL DIAMETER (INCHES):	42 Inches (1,066.800 mm)
BEARING TYPE:	Roller
DRIVE MOTOR:	
HORSEPOWER:	1,500 HP (1,119.000 kw)
RPM:	196 Rpm
CURRENT:	DC
ROUGHING MILL 1:	
MILL TYPE:	4 High
DRIVEN:	Work rolls
SCREWDOWN:	
EXISTS:	Yes
COMPLETE:	Yes
SCREWDOWN TYPE:	Electro-Mechanical
REDUCER:	
HORSEPOWER:	14,000 HP (10,444.000 kw)
MAIN MILL MOTOR:	
QUANTITY:	2
HORSEPOWER:	7,000 HP (5,222.000 kw)
CURRENT:	DC
SHEAR:	
SHEAR MANUFACTURER:	Mesta
SHEAR DESIGN:	Flying



MATERIAL PROCESSED: Steel, Strip

CAPACITY:

 WIDTH MAXIMUM (INCHES): 48 Inches (1,219.200 mm)

OPERATION: Electro Mechanical

FINISHING MILL TRAIN:

 FINISHING STAND 1:

 WORK ROLLS:

 ROLL DIAMETER (INCHES): 26 Inches (660.400 mm)

 ROLL FACE (INCHES): 54 Inches (1,371.600 mm)

 BEARING TYPE: Roller

 BACK UP ROLLS:

 ROLL DIAMETER (INCHES): 49 Inches (1,244.600 mm)

 ROLL FACE (INCHES): 54 Inches (1,371.600 mm)

 BEARING TYPE: Oil Film

DRIVEN: Work rolls

SCREWDOWN:

 EXISTS: Yes

 COMPLETE: Yes

 SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

LINE SPEED (FPM): 260/510 Fpm

REDUCER:

 MILL DRIVE TYPE: Combination Pinion Stand/Gear Reducer

 HORSEPOWER: 7,000 HP (5,222.000 kw)

 INPUT RPM: 200/400 Rpm

 GEAR RATIO: 5.24

MAIN MILL MOTOR:

 QUANTITY: 1

 HORSEPOWER: 7,000 HP (5,222.000 kw)

 RPM: 200/400 Rpm

 CURRENT: DC

FINISHING STAND 2:

 WORK ROLLS:

 ROLL DIAMETER (INCHES): 26 Inches (660.400 mm)

 ROLL FACE (INCHES): 54 Inches (1,371.600 mm)

 BEARING TYPE: Roller



BACK UP ROLLS:

ROLL DIAMETER (INCHES): 49 Inches (1,244.600 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Oil Film

DRIVEN: Work rolls

SCREWDOWN:

EXISTS: Yes
COMPLETE: Yes
SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

LINE SPEED (FPM): 400/790 Fpm

REDUCER:

MILL DRIVE TYPE: Combination Pinion Stand/Gear Reducer
HORSEPOWER: 7,000 HP (5,222.000 kw)
INPUT RPM: 200/400 Rpm
GEAR RATIO: 3.39

MAIN MILL MOTOR:

QUANTITY: 1
HORSEPOWER: 7,000 HP (5,222.000 kw)
RPM: 200/400 Rpm
CURRENT: DC

FINISHING STAND 3:

WORK ROLLS:

ROLL DIAMETER (INCHES): 26 Inches (660.400 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Roller

BACK UP ROLLS:

ROLL DIAMETER (INCHES): 49 Inches (1,244.600 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Oil Film

DRIVEN: Work rolls

SCREWDOWN:

EXISTS: Yes
COMPLETE: Yes
SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

LINE SPEED (FPM): 595/1195 Fpm



REDUCER:

MILL DRIVE TYPE: Combination Pinion Stand/Gear Reducer
HORSEPOWER: 7,000 HP (5,222.000 kw)
INPUT RPM: 175/350 Rpm
GEAR RATIO: 2

MAIN MILL MOTOR:

QUANTITY: 1
HORSEPOWER: 7,000 HP (5,222.000 kw)
RPM: 175/350 Rpm
CURRENT: DC

FINISHING STAND 4:

WORK ROLLS:

ROLL DIAMETER (INCHES): 26 Inches (660.400 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Roller

BACK UP ROLLS:

ROLL DIAMETER (INCHES): 49 Inches (1,244.600 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Oil Film

DRIVEN: Work rolls

SCREWDOWN:

EXISTS: Yes
COMPLETE: Yes
SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

LINE SPEED (FPM): 800/1610 Fpm

REDUCER:

MILL DRIVE TYPE: Combination Pinion Stand/Gear Reducer
HORSEPOWER: 7,000 HP (5,222.000 kw)
INPUT RPM: 175/350 Rpm
GEAR RATIO: 1.486

MAIN MILL MOTOR:

QUANTITY: 1
HORSEPOWER: 7,000 HP (5,222.000 kw)
RPM: 175/350 Rpm
CURRENT: DC



FINISHING STAND 5:

WORK ROLLS:

ROLL DIAMETER (INCHES): 26 Inches (660.400 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Roller

BACK UP ROLLS:

ROLL DIAMETER (INCHES): 49 Inches (1,244.600 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Oil Film

DRIVEN: Work rolls

SCREWDOWN:

EXISTS: Yes
COMPLETE: Yes
SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

LINE SPEED (FPM): 1000/2000 Fpm

REDUCER:

MILL DRIVE TYPE: Combination Pinion Stand/Gear Reducer
HORSEPOWER: 7,000 HP (5,222.000 kw)
INPUT RPM: 175/350 Rpm
GEAR RATIO: 1.19

MAIN MILL MOTOR:

QUANTITY: 1
HORSEPOWER: 7,000 HP (5,222.000 kw)
RPM: 175/350 Rpm
CURRENT: DC

FINISHING STAND 6:

WORK ROLLS:

ROLL DIAMETER (INCHES): 26 Inches (660.400 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Roller

BACK UP ROLLS:

ROLL DIAMETER (INCHES): 49 Inches (1,244.600 mm)
ROLL FACE (INCHES): 54 Inches (1,371.600 mm)
BEARING TYPE: Oil Film

DRIVEN: Work rolls



SCREWDOWN:

EXISTS: Yes
COMPLETE: Yes
SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

LINE SPEED (FPM): 1169/2400 Fpm

REDUCER:

MILL DRIVE TYPE: Direct Drive

MAIN MILL MOTOR:

QUANTITY: 1
HORSEPOWER: 7,000 HP (5,222.000 kw)
RPM: 175/350 Rpm
CURRENT: DC

FINISHING STAND 7:

DRIVEN: Work rolls

SCREWDOWN:

SCREWDOWN TYPE: Hydraulic, Electro-Mechanical

MAIN MILL MOTOR:

QUANTITY: 1
HORSEPOWER: 7,000 HP (5,222.000 kw)
CURRENT: DC

RECOILER:

QUANTITY: 2
TYPE: Mandrel

UPCOILER / DOWNCOILER:

COIL SIZE:

COIL I.D. MAXIMUM (INCHES): 28 Inches (711.200 mm)
COIL O.D. MAXIMUM (INCHES): 76 Inches (1,930.400 mm)
COIL WIDTH MAXIMUM (INCHES): 48 Inches (1,219.200 mm)
COIL WEIGHT (TONS): 11 Tons (9.979 mt)

COMMENTS:

Original design for finishing train was to be for 66" wide material. 1700 Foot Coil Cooling conveyor available.

