The center roll is a PERITHERM ROLL, made of chilled cast iron, ground.

The bottom roll is a SWIMMING ROLL.
The roll shell is made of cast iron with MOL cover.

Rolls in the second nip seen in the web running direction:

The top roll is a SWIMMING ROLL.
Made of cast iron, with MOL cover.

The center roll is a PERITHERM ROLL, made of chilled cast iron, ground.

The bottom roll is a SWIMMING ROLL.
Made of cast iron, with MOL cover.

2. TECHNICAL DATA

2.1 PRODUCT DATA

web weight	min.	49 g/m²
	max.	220 g/m²
web width	min.	3455 mm 136"
	max.	3607 mm 142"
web temperature	approx.	70° C
web moisture	approx.	6%
web tension	min.	0,33 N/mm
	max.	1,16 N/mm

2.2 MACHINE DATA

face width	Face	3810 mm
center bearing distance	B. C.	4660 mm
Linear pressure in three roll operation	min. fl	10 N/mm
	max. fl	350 N/mm
Linear pressure in two roll operation	max. fl	250 N/mm
speed (design)	v	670 m/min
speed (production)	min. v	150 m/min
	max. v	670 m/min
distance machine center to rope pulley		1955 mm

to be confirmed by customer

2.3 TEMPERATURES

surface temperature of the heatable chilled cast iron roll	max.	200° C
surface temperature of the covered roll	max.	110° C

2.4 WEIGHTS (APPROX. VALUES)

total weight of the calender per pair of frames		46.000 kg
load per side	static	23.000 daN
	dynamic	34.500 daN

rolls include roll bearings, etc.:

PERITHERM ROLL	11.500 kg/piec
SWIMMING ROLLS each	7.400 kg/piece

2.5 ELECTRICAL RATINGS

electrical rating of the calender rolls per nip	255 kW (NRL)
thereof per	
PERITHERM ROLL	99 kW (NRL)
SWIMMING ROLLS each	78 kW (NRL)
guide roll	1.5 kW (NRL)
spreader roll	2.6 kW (NRL)
rope threading (option)	16 kW (NRL)

The indicated power requirements (NRL) are relating to the design speed. We recommend calculating the rated drive capacity (RDC) 25 % higher.

2.6 FURTHER ELECTRICAL RATINGS

doctor oscillation	6 x 0.37	kW
ventilator for removal of edge trimming residues	1 x 11	kW
	see under option	
heat exchanging unit for PERITHERM ROLL		
power requirement	2 x 30	kW
hydraulic unit, power requirement		
for the Swimming Rolls	2 x 50	kW
Compressor for edge cooling	1 x 75	kW

2.7 ENERGY AND CONSUMPTION DATA

operating voltage		575	V
frequency		60	Hz
control voltage		110	V
temperature cooling water	max.	25	°C
(differential pressure min.2,5 bar)			
temperature ambient air	max.	35	°C
temperature ambient air			
electric switch cabinet/control cabinet		5-40	°C
air moisture for ambient air			
electric switch cabinet/control cabinet		30-90	%
instrument air pressure		6	bar
compressed air for edge cooling		3	bar

COOLING WATER REQUIREMENT FOR

heat exchanging unit for the PERITHERM ROLL	17 m^3/h
hydraulic unit for the Swimming Roll	16 m^3/h

INSTRUMENT AIR REQUIREMENT
for the Swimming Roll — 16 m^3/h @ 5.5 bar

COMPRESSED AIR REQUIREMENT — 440 m^3/h

3. DRIVE CONCEPT

4. Drive side of the machine, seen in web running direction: to the left.

Revolutions per minute (RPM) of the individual rolls in relation to the design speed and nominal roll diameter.

SWIMMING-ROLLS

Drive through toothed belt and gear transmission revolution at the gear transmission drive journal	891.8 min ^ - 1

PERITHERM ROLLS

Direct Drive via roll journal revolution at the drive journal	300.4 min ^ - 1

SPREADER ROLL Direct Driven

driven via V-belt and gear transmission revolution at the gear transmission drive journal	1523 min ^ - 1

GUIDE ROLL

direct drive via roll journal revolution at the drive journal	666.5 min ^ - 1
Rope Threading System	266.6 min ^ - 1

4. SCOPE OF SUPPLY AND MACHINE SPECIFICATION

MACHINE FRAMES

2 pairs of machine frames.
Frame base adapted to specified sole plates/foundation plates, including fastening bolts.
New sole plates included.

LOADING SYSTEM

4 pairs of loading systems

ROLL BEARINGS

2 pair of bearing rings, caps, and self-aligning roller bearings for the PERITHERM ROLL.

ROLLS

4	SWIMMING ROLLS shell material cast iron, external shell diameter with MOL cover 11,5 mm thick, finished diameter	 535 558	 mm mm
4	pairs of self-aligning bearings and locking device for the Swimming Rolls		
4	bulk heads for the SWIMMING ROLLS		
4	toothed belt pulley for the Swimming Rolls		
1	pair of dummy heads for recovering for the Swimming Rolls		
2	PERITHERM ROLLS with bolted-on journals. shell material chilled cast iron, ground hardness depth min. 10mm, finished diameter	 550 HV ± 20 710 mm	
2	rotary joints for the PERITHERM ROLL with flexible hoses and connecting steel pipes mounted to the machine frame. including one cooling unit for both rotary joints		

NOTE: All technical data needs to be reconfirmed later.

ROLL CHANGING DEVICES — By others

ASSEMBLY TOOLS

1 set of assembly tools for the PERITHERM ROLL, consisting of:
hydraulic nuts for the installation of the roller bearings incl.
hand lever pump for pressure supply of the hydraulic nuts,

1 tooth belt tension indicator.

Framework Above The Calender

Framework for roll change included. Cranes by others.