DEERFIELD TISSUE LLC

PM 1 AUGUSTA

Tsunami Slot Diffuser® Headbox

D O C U M E N T A T I O N

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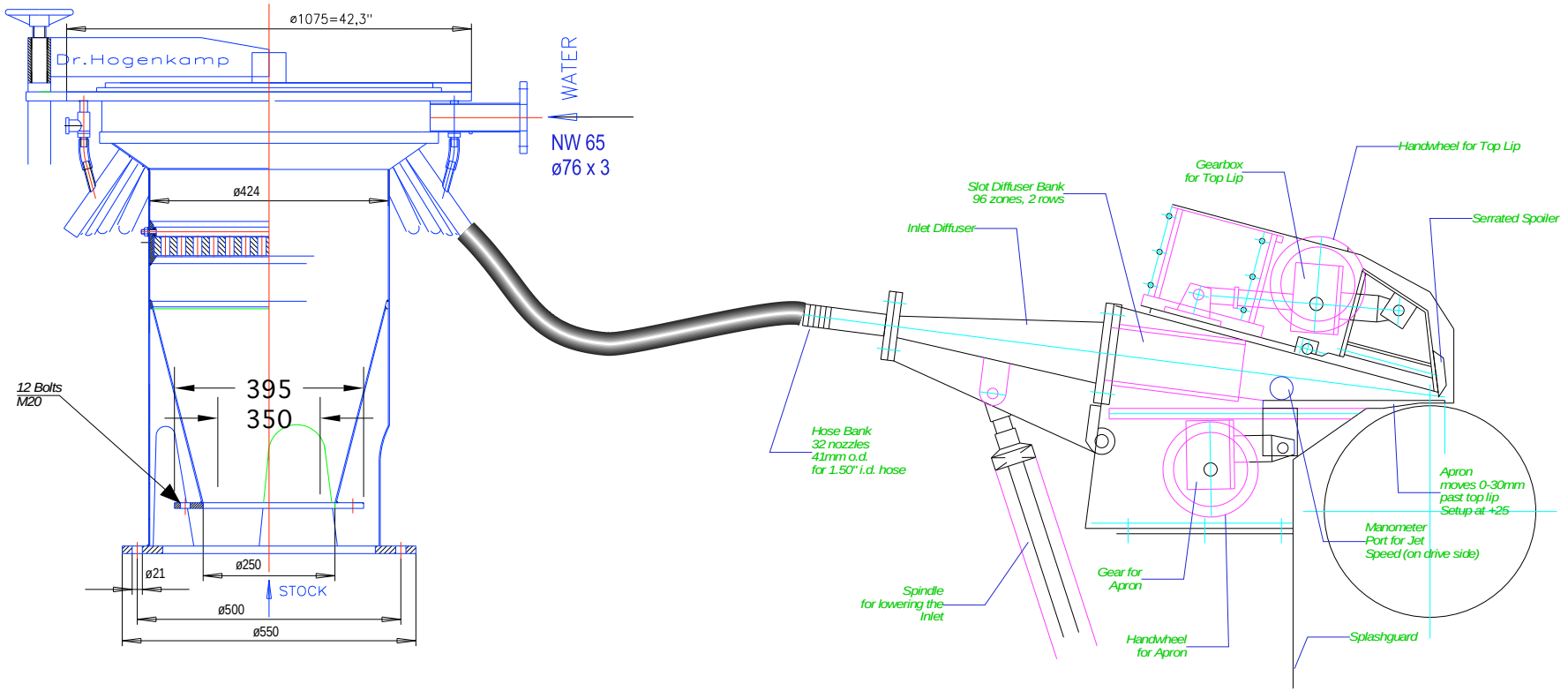
CONTENTS

PAGE

DESIGN SPECIFICATIONS

Headbox Pond Width	104.33" [2650mm]
Basis Weight Range	15 - 200 gsm
Speed Range	400-2000 fpm maximum
Consistency Range	0.20 - 1.2%
First Pass Retention	TBA
Flow Rate	1,000 - 4,000 gpm
Tonnage	60 stpd
Slice Lip Opening	1/2" operating, 2" max for cleaning
Grade	Towel, Bag, Linerboard
Furnish	Recycled or Pulp
Operation	Hydraulic Pressure
Material of Construction	316titanium stainless steel/DIN 1.4571

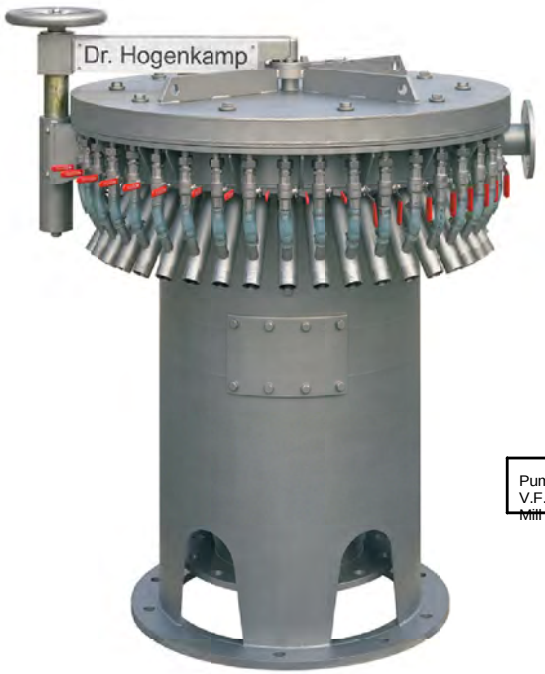
SYSTEM OVERVIEW



RADIAL HEADER

HEADBOX

RADIAL HEADER

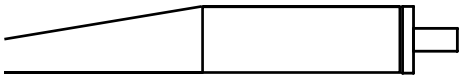


Function

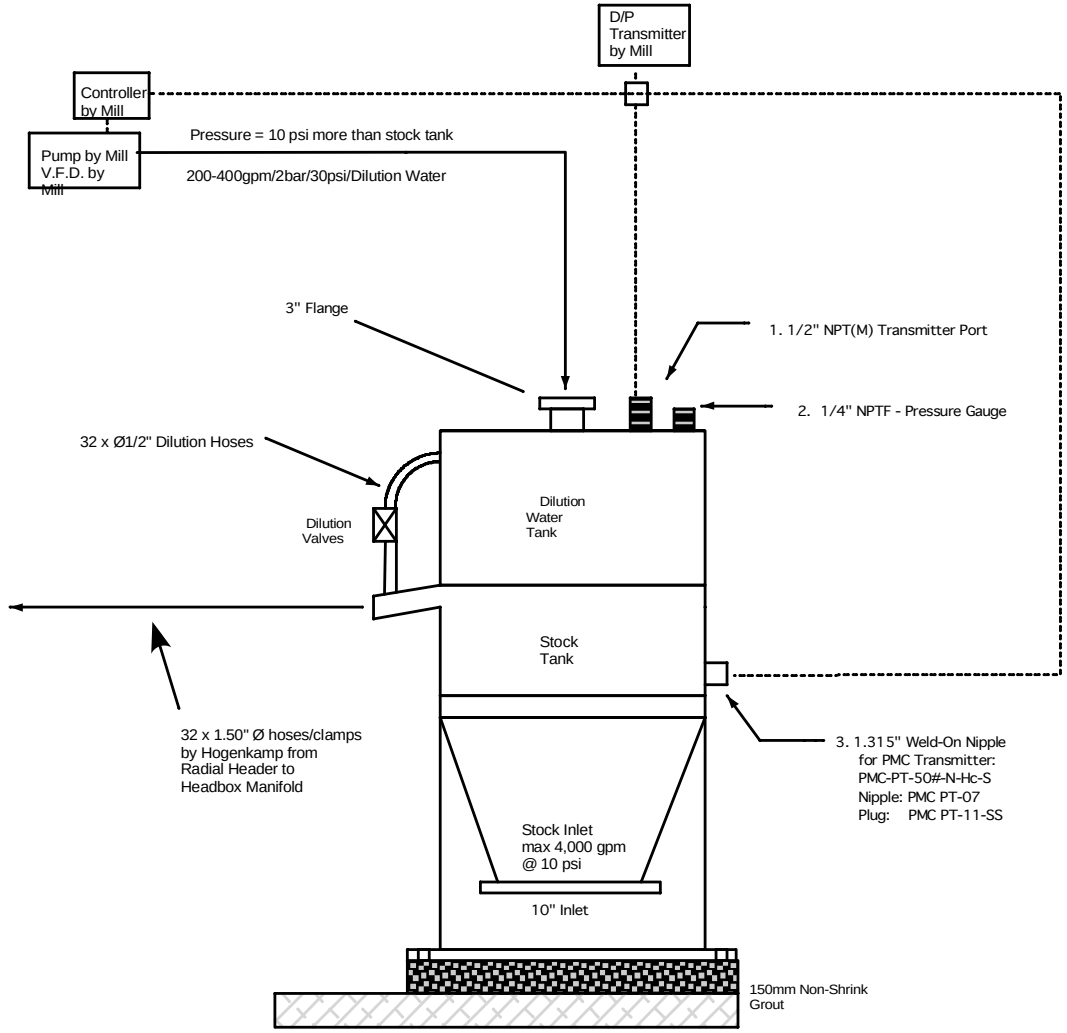
- Distribute equal amounts of pulp into 32 hoses.
- CD basis weight control.
- Dampen pulsations in flexible hoses.

Operation

- Operator adjusts 32 dilution valves to change CD basis weight in 32 zones



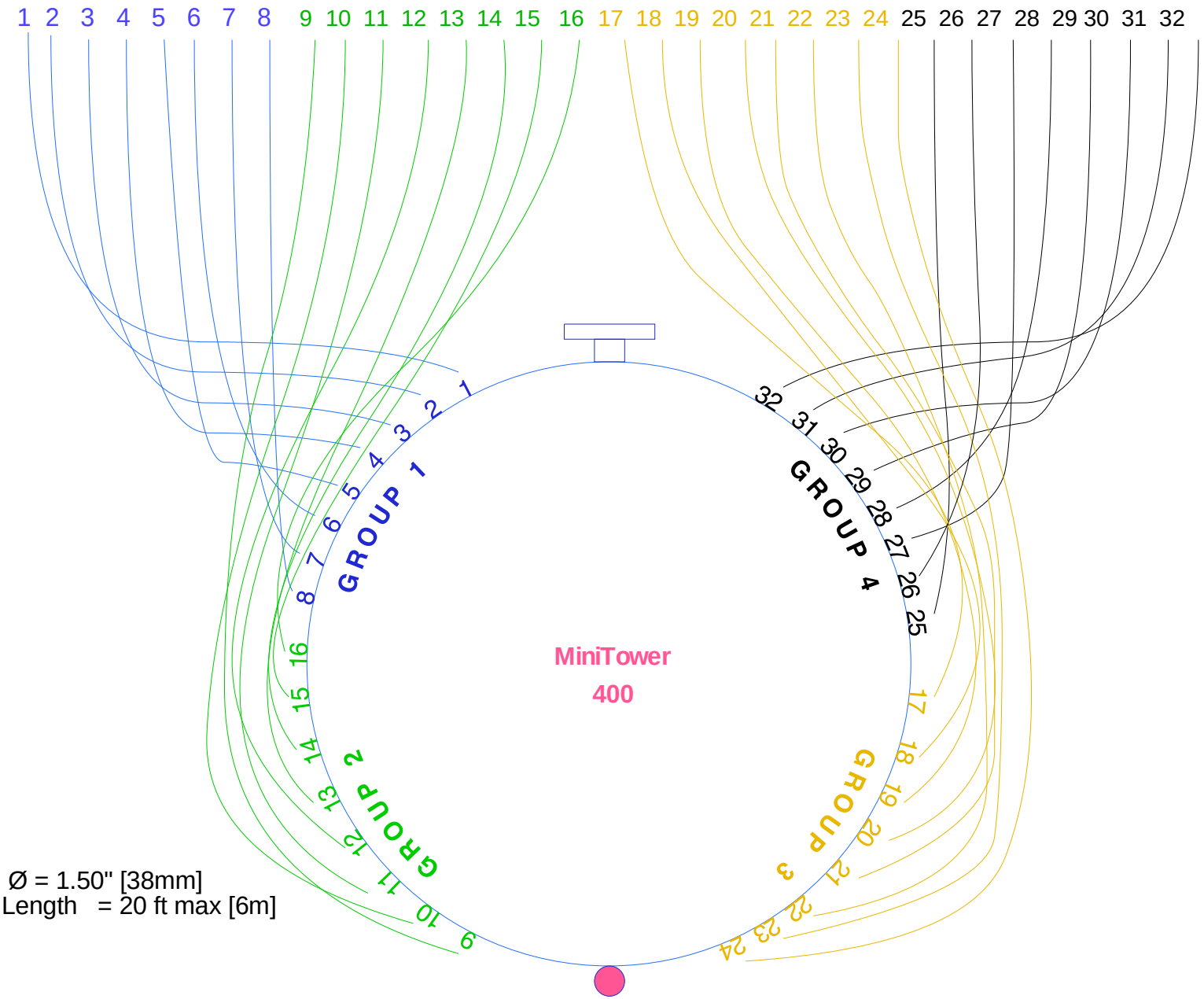
Tsunami Slot Diffuser Headbox



Drive Side
Triebseite
Lado Transmision

Deerfield Headbox - MiniTower Hose Layout

Tending Side
Führerseite
Lado Operador



NOTES

1. Hose Ø = 1.50" [38mm]
2. Hose Length = 20 ft max [6m]

HOSE

part number	inside Ø		weight	wall thickness	bending radius	pressure working-bursting		vacuum	roll lenght	volume
	mm	inch	g/m	mm	mm	kg/cm2	kg/cm2	m H2O	m	m3
PA 01 006	6		110	2,7	13	7	35	9,5	60	0,016
PA 01 008	8		130	2,7	16	7	35	9,5	60	0,020
PA 01 010	10		150	2,7	18	7	35	8,5	60	0,024
PA 01 012	12		180	2,7	23	6	30	8,5	60	0,031
PA 01 014	14		205	2,7	26	6	30	8,5	60	0,036
PA 01 016	16	5/8"	250	3	30	6	30	8,5	60	0,044
PA 01 018	18		290	3,2	32	5	25	8,5	60	0,067
PA 01 020	20	3/4"	350	3,5	34	5	25	8,5	60	0,081
PA 01 022	22		380	3,5	38	5	25	8,5	60	0,093
PA 01 025	25	1"	500	4	42	5	25	8,5	60	0,116
PA 01 030	30		585	4	50	4	20	8,5	60	0,150
PA 01 032	32	1 1/4"	650	4,2	53	4	20	8,5	60	0,171
PA 01 035	35		700	4,2	58	4	20	8,5	60	0,188
PA 01 038	38	1 1/2"	800	4,5	63	4	20	8,5	30	0,114
PA 01 040	40		870	4,6	66	4	20	8,5	30	0,125
PA 01 045	45	1 3/4"	1100	4,9	74	4	20	8	30	0,178
PA 01 050	50	2"	1235	5	82	4	20	8	30	0,218
PA 01 060	60		1700	5,9	130	3,6	18	8	30	0,285
PA 01 064	64	2 1/2"	1800	5,9	138	3,6	18	8	30	0,281

Deerfield PM1 Augusta

H E A D B O X

Function

• Flow pulp evenly onto fourdrinier

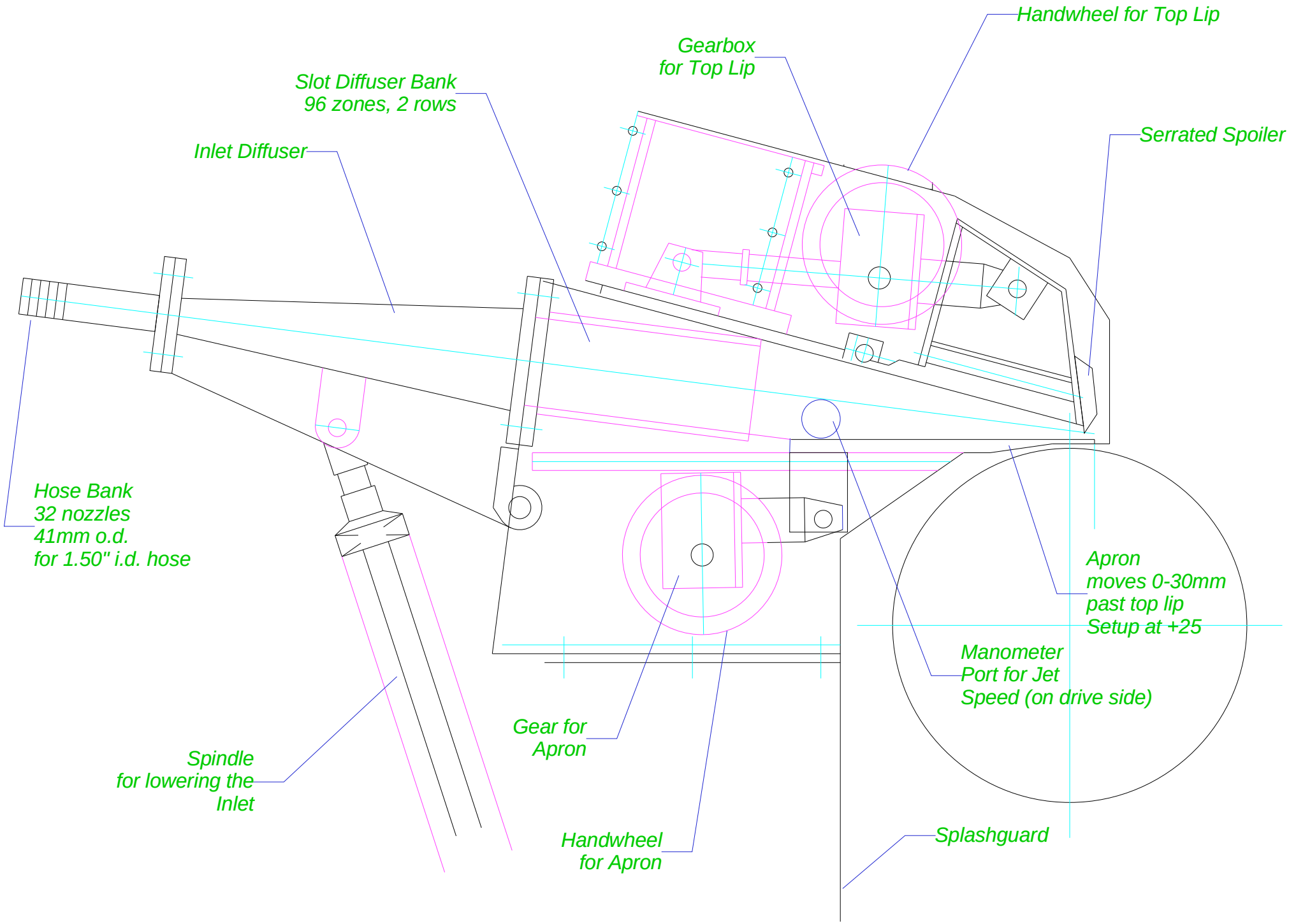
Operation

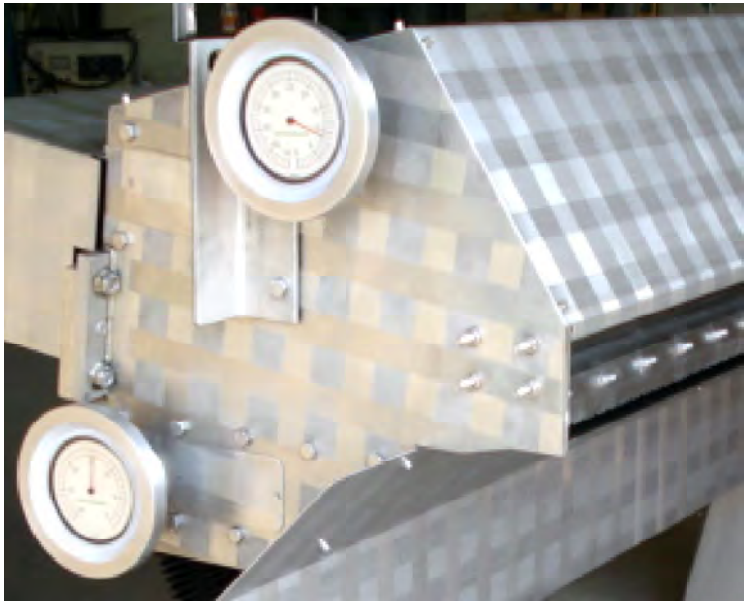
• Operator adjusts slice lip to control jet speed

• Pressure adjusted by automatic controls

• CD Basis Weight adjusted by Dilution Profiling

HEADBOX PARTS





TOP LIP CONTROL

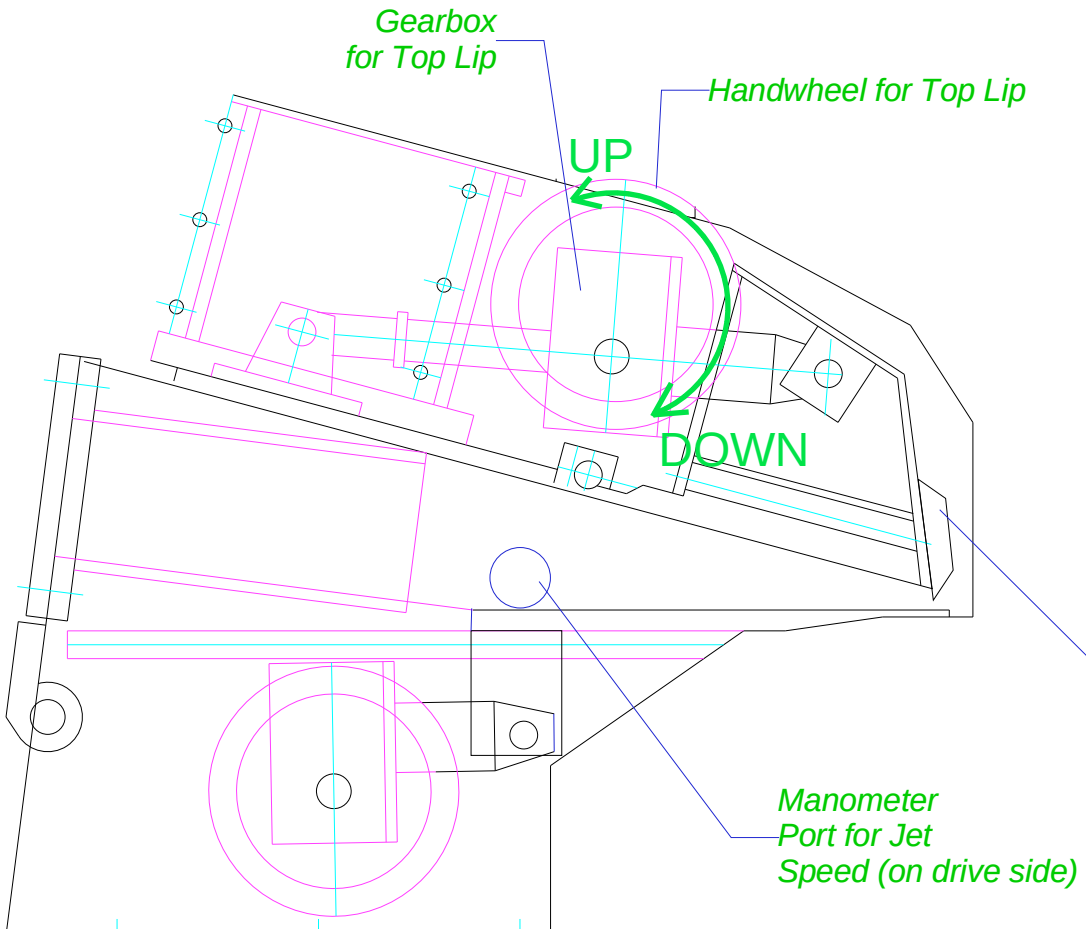
Function

• Adjust the jet speed to match the wire speed.

Operation

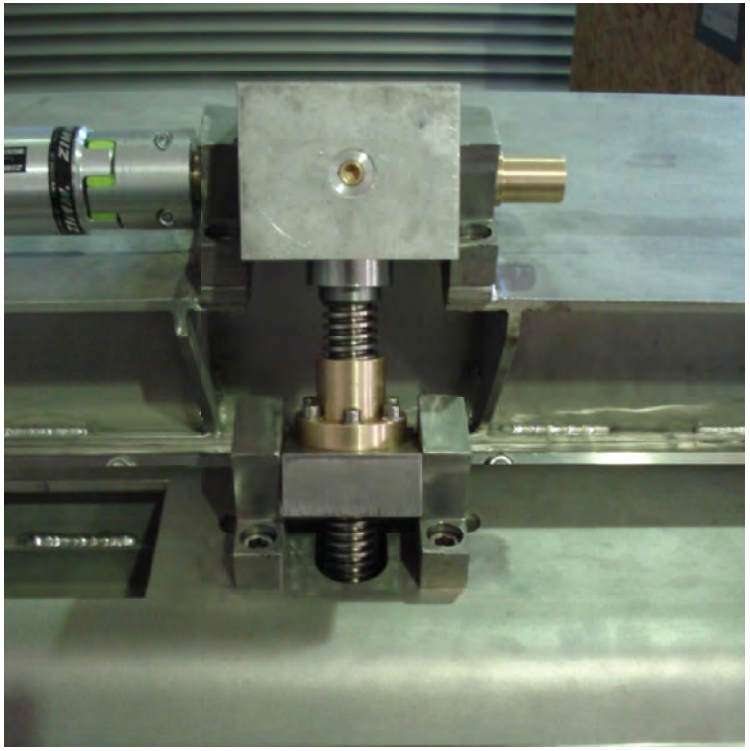
13mm [1/2"] is a normal lip opening for the towel paper grade. The operator must determine the required total head in the plexiglas manometer to create the target jet speed and then open/close the top lip until the correct total head is reached.

For continuous Jet Speed control, an electronic pressure transmitter is mounted to the bottom of the plexiglas manometer and sends total head signals to the electronic controller which then makes fine adjustments to the flow valve or fan pump motor.

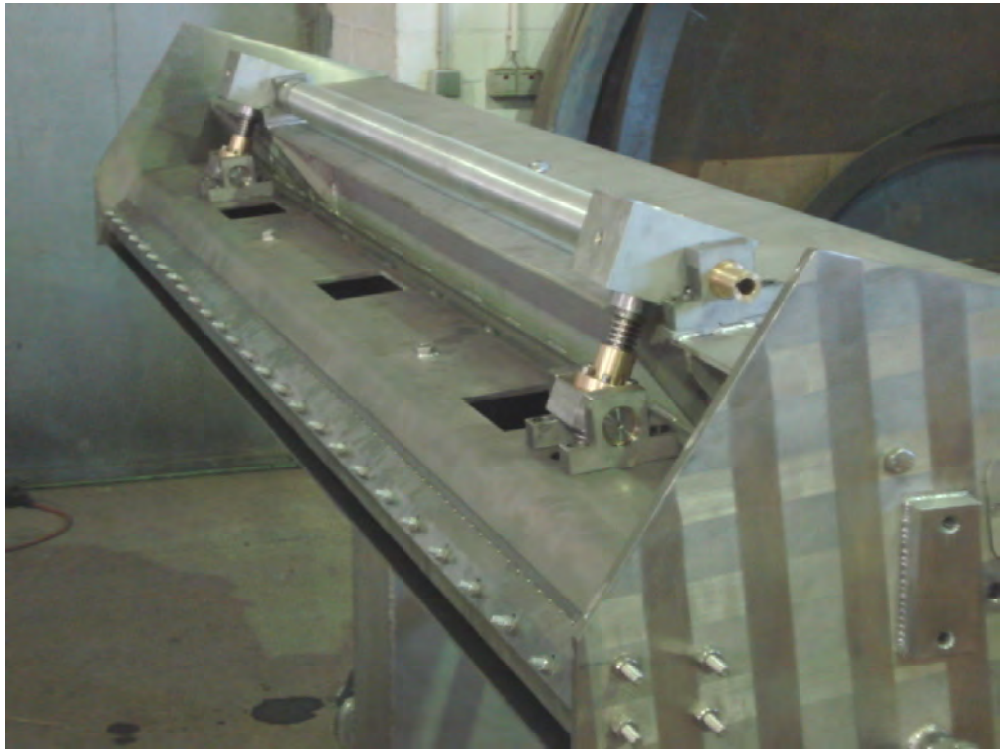


TOP LIP ASSEMBLY

Tending Side Gearbox w/ Extension shaft to Handwheel

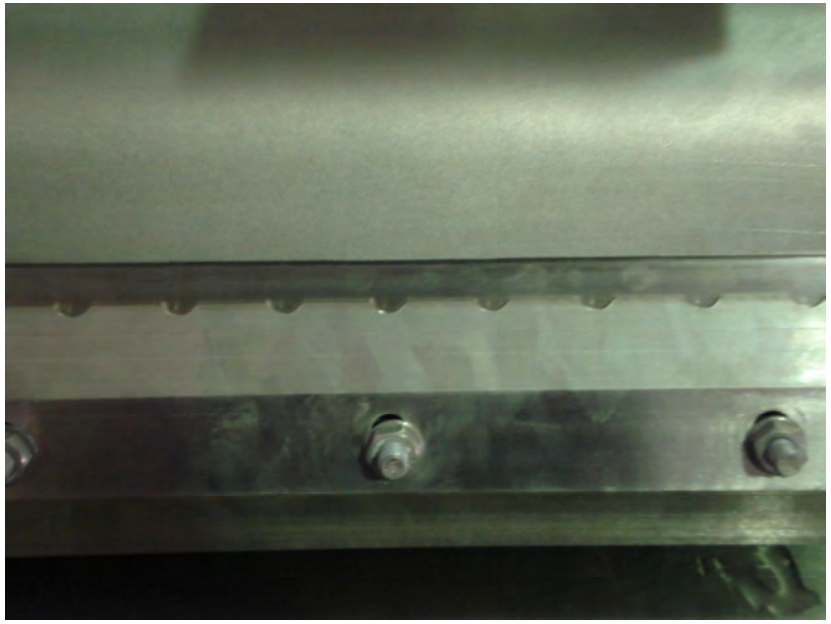


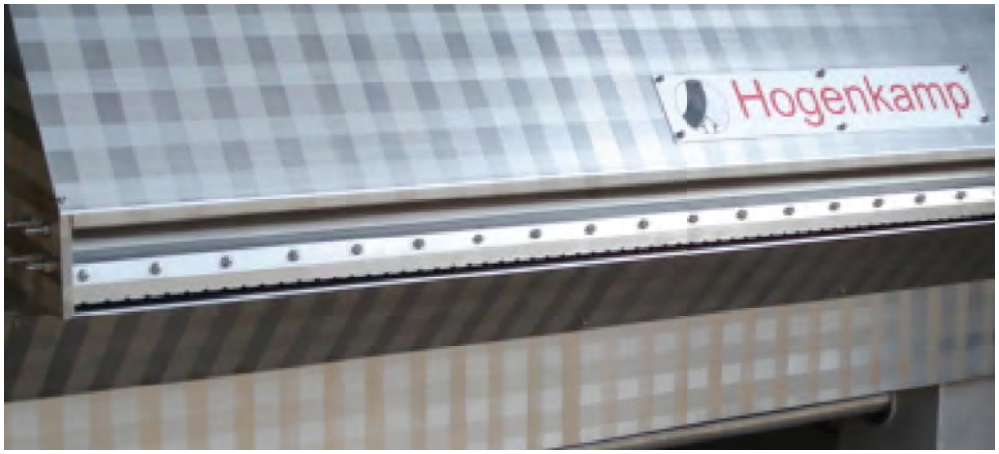
Drive Side Gearbox w/ Stub shaft.
Can be motorized in the future.



Top Lip Assembly w/ access ports to internal hinge bolts.

TOP LIP SPOILER BAR

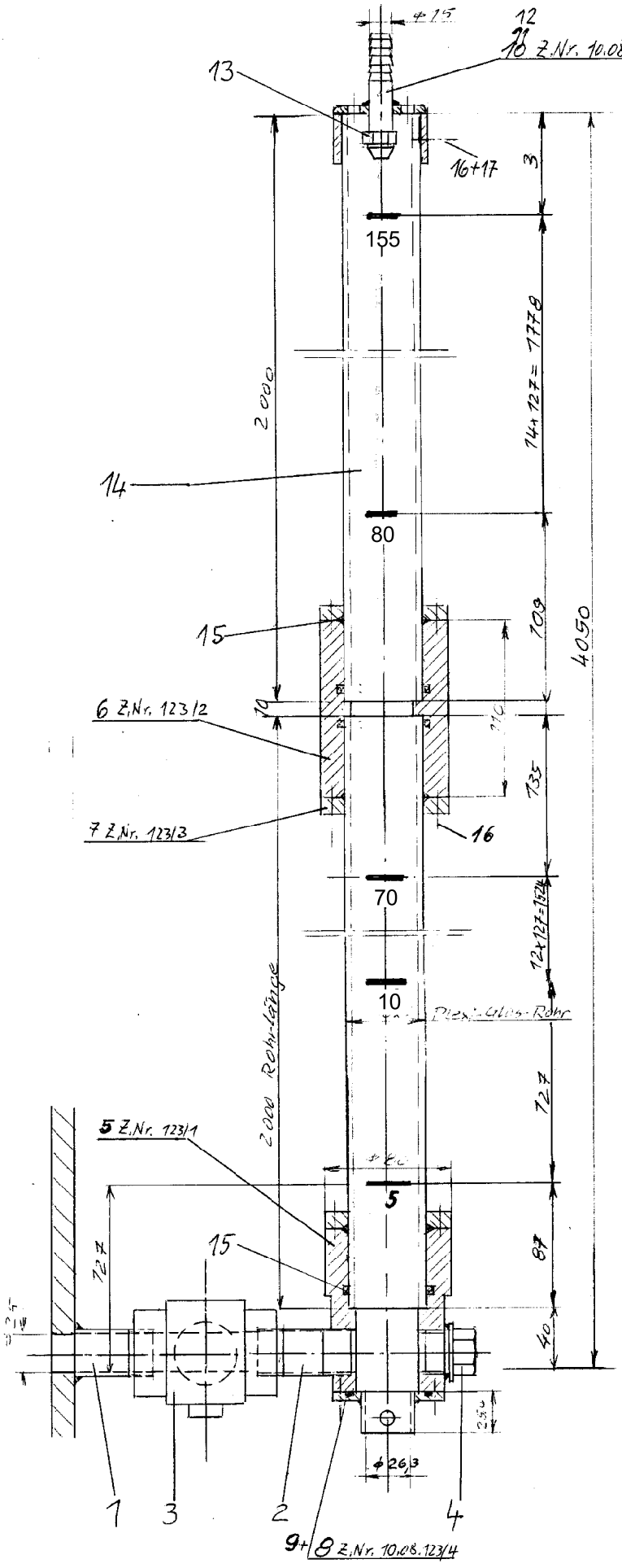




Spoiler is reversable.
Can be used straight side or serrated side into the flow.

Channels change phase over each foil.

The Top Lip Spoiler Bar adds a final jolt of turbulence to the stock as it leaves the headbox. The Hogenkamp spoiler has two edges - a flat and a serrated - which can be used as you choose according to the results of trials. The serrated edge creates peaks and troughs in the jet. When the jet passes over a foil blade, the trough jumps up and the peak drops down. This phase change action mixes the fibers and improves the formation.



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TOTAL HEAD MANOMETER

2 acrylic tubes
50 x 5 x 2000mm

Shower Nozzle
Lechler 214.184.17

17	2	Sechsk. Mu. M6		A4 DIN 934
16	18	Sechskt. Schrb. M6x16		A4 DIN 933
15	7	O-Ring 50x3	Gummi	
14	2	Plexiglasrohr Ø50x5x2000		
13	1	Lechlerdüse		214.184.17
12	1	Rohr Ø60x5x30	10.08.123/5	1.4571
11	1	Blech Ø60x5	10.08.123/5	1.4571
10	1	Rund Ø15x70	10.08.123/5	1.4571
9	1	Rohr Ø33,4x5x28	10.08.123/4	1.4571
8	1	Rund Ø80x10	10.08.123/4	1.4571
7	3	Rund Ø80x10	10.08.123/3	1.4571
6	1	Rund Ø80x113	10.08.123/2	1.4571
5	1	Rund Ø80x103		1.4571
4	1	Gew. Stopfen		1.4571 DIN 910
3	1	Muffenkugelhahn 1"	BSA	1.4408 22.3966.6.67
2	1	Doppelnippel 1"x60		1.4571
1	1	Schweißnippel 1"x50		1.4571
Lfd. Nr.	Stk.	Benennung	Z.Nr.	

Stauhöhenanzeiger-Rohr
M 1:2,5

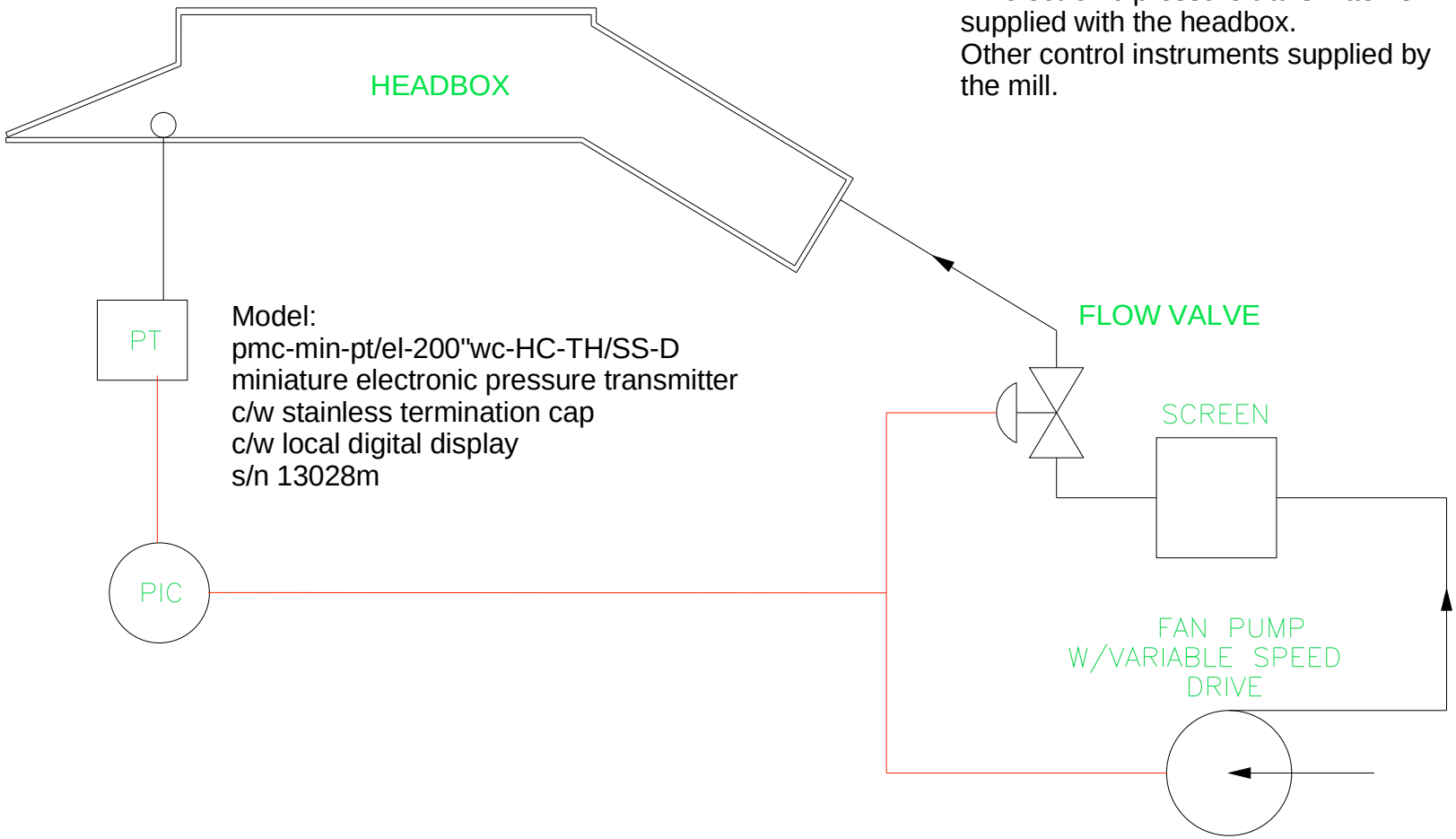
Z.Nr. Nr. 10.08.122

4.12.08

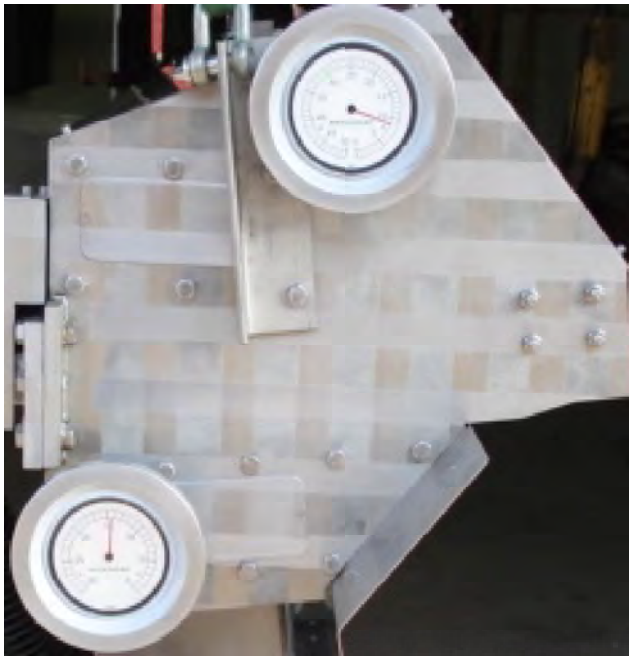
JET SPEED CONTROL

Fine continuous control of the Jet may be achieved by adjusting either the fan pump motor or the flow valve position.

An electronic pressure transmitter is supplied with the headbox.
Other control instruments supplied by the mill.



J E T VS. TOTAL HEAD, LIP OPENING



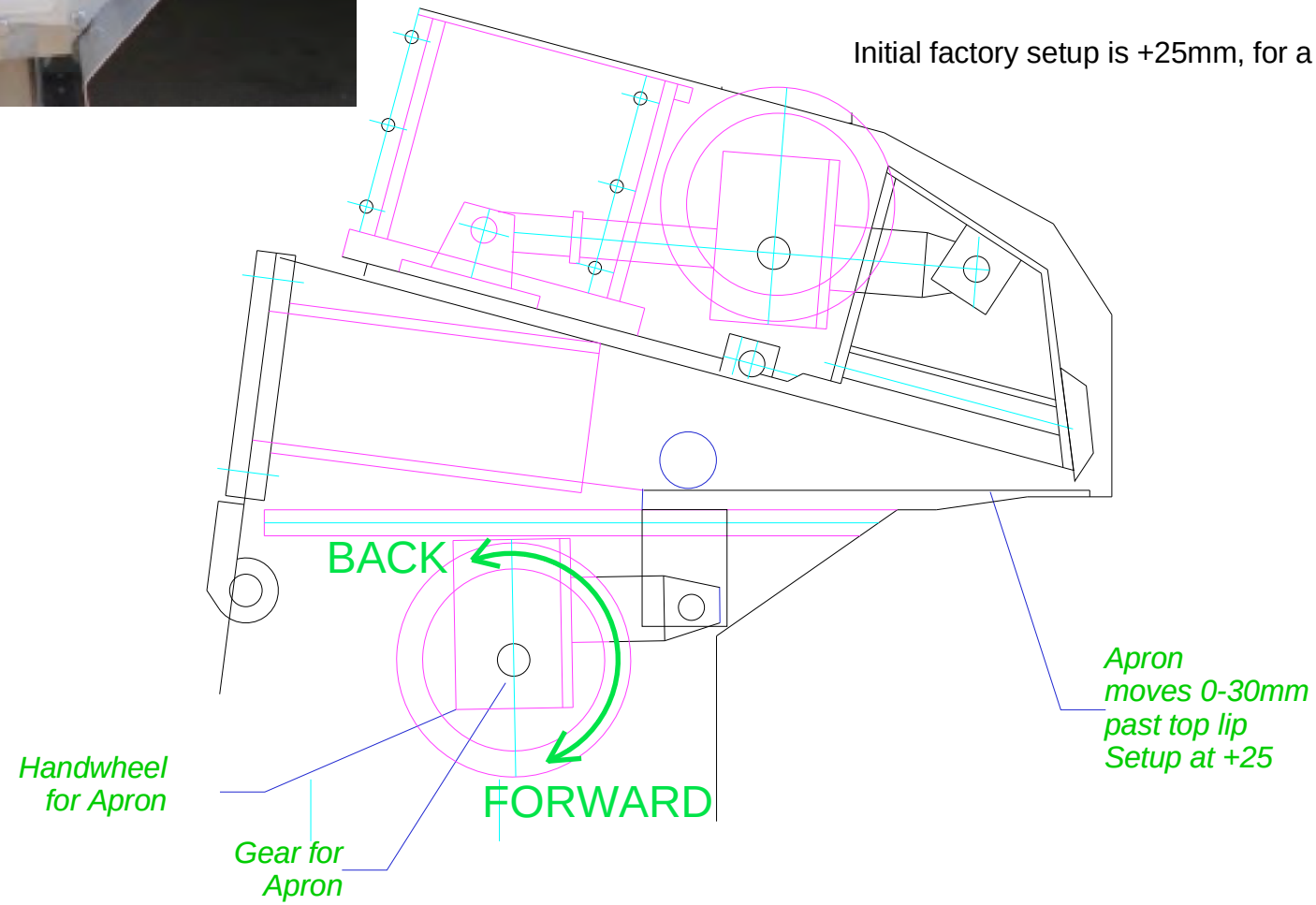
APRON

The APRON is the flat moveable stainless steel floor. It slides back and forth so as to change the jet angle and jet deposition point vis-a-vis the forming board.

With the apron forward, the jet becomes flatter, the formation usually improves and the md:cd tensile ratio usually squares up.

With the apron back, the jet pressure forms into the wire creating a faster drainage, more md tensile and less cd tensile.

Initial factory setup is +25mm, for a flat jet angle.



A T T A C H M E N T S

SUB - COMPONENT MANUALS

-	PMC	1x Transmitter 2x Seal Pressure Gage
-	ZIMM	2x Top Lip Gearbox 2x Apron Gearbox 2x Inlet Gearbox
-	SIKO	1x Top Lip Handwheel 1x Apron Handwheel