

built in proximity to the towns. In Canada all the mills making newspaper produce their own ground-wood pulp, and quite a few of them also make their own sulphite pulp. There is a decided advantage in combining the three processes, viz.:—ground-wood, sulphite pulp and paper mill, while such a plan results in a somewhat lower first cost of the plant, its main economy is in the manipulation of the raw materials.

A news-paper mill may be located at any place having good transportation facilities for the supply of raw material and for disposing of the finished product. Since in this class of manufacture, a more highly skilled grade of labor is necessary than in the production of pulp, the location of the mill with reference thereto must also be considered, especially as a low efficiency of the labor may very much increase the cost of production.

The power requirements may be followed by referring to Diagram No. 4, and following table:—

Apparatus	Approx. H.P. hours per ton finished paper	Approx. ratio of product to water when leaving apparatus	Performance of apparatus
A. Beater or refiner...	70 to 120	1:25 to 1:14	Preparing paper fibre.
B. Stuff ch.	3 to 5	"	Reservoir for paper fibre.
C. Stuff pump.	2.5 to 5	"	Pump to elevate same.
D. Stuff screens.	8 to 15	1:250	To remove impurities.
E. Circulating pump..	10 to 22	1:250	Circulate water used in formation.
F. Vacuum pump.	10.5 to 21.0		To remove water from paper web.
G. Fourdrinier part...		1:7	Formation of paper web.
H. Wet presses.		1:2.3	Mechanical removal of water.
I. Dryers.	140 to 180	Dry	Thermic removal of water.
J. Calenders.		"	Polishing paper web.
K. Reels.		"	Reeling paper web.
L. Rewinder.	8 to 16	"	Cutting paper web.
252 to 384 H.P. hours—10.5 to 16 h.p. for 24 hours.			