

CLOSED WATER-SCREW.

No.	Inside diameter of cylinder. inches.	Capacity per min. cubic feet.	Power required per 1 foot lifting height. h. p.
1.	14.4—15.2	19.42	0.06
2.	15.2—16.0	26.48	0.08
3.	16.0—17.2	31.78	0.10
4.	17.2—18.0	38.84	0.12
5.	18.0—18.4	46.61	0.13
8.	19.6—21.2	68.15	0.18
10.	21.6—22.4	83.33	0.23
12.	22.8—24.0	101.16	0.30
15.	26.0—27.2	141.21	0.40

OPEN WATER-SCREW.

No.	Inside diam. of half cylinder. inches.	Capacity per min. at 50 revolutions. cubic feet.	Power required per 1 foot lifting height. h. p.
1	20.4—24.0	88.27	0.30
2	22.0—25.6	123.58	0.42
3	25.6—28.0	190.67	0.54
4	28.0—29.6	225.98	0.60
5	29.6—31.6	282.18	0.80
6	31.6—31.0	335.44	0.90
7	34.0—35.2	388.41	1.06

Centrifugal pumps and pulsometers are occasionally used.

METHODS OF MANUFACTURE.

I. CUT PEAT.

The peat is cut out of the bog in brick-shaped blocks, which later are air dried. With the exception of the tools or machinery used for cutting the peat out of the bog, no mechanical arrangements are required.

The cut peat is, as a rule, porous,* exceedingly bulky and more dependent on favourable weather conditions for drying than machine peat (see page 33).

* The chief engineer of the firm R. Dolberg, in Rostock, Germany, made comparative tests with cut peat and machine peat from the same bog. The machine peat was made by a Dolberg machine. The raw peat contained in both cases 85% and the air-dried peat 20% moisture. A piece of the dimensions 200 x 100 x 100 mm. = 2 liters of the raw peat weighing 2 kg. contracted when dried to the dimensions 135 x 63 x 63 mm. = 0.535 liters, i.e., respectively 67.5, 63.0 and 63.0% of the original dimensions, or to 26.7% of the volume. Its weight with 20% moisture was 0.375 kg. = 18.5% of the original weight.

A piece of the machined peat of the same original dimensions contracted when dried to the dimensions 130 x 53 x 53 mm. = 0.365 liters, i.e., to respectively 65, 53 and 53% of the original dimensions, or to 18.3% of the volume. Its weight with 20% moisture was 0.375 kg. = 18.5% of the original weight. The specific weight of the cut peat was 0.7, and that of the machine peat 1.028.