

# NEW TYPE ELECTRIC WASHING MACHINE

## ( Type W 361 )

Popularity of the electric washing machine as a necessity in households is ever on the increase. In our Company, on one hand, while pushing forward mass production of our hitherto agiflow action type high class washing machine, we are at present producing in large quantities a new type washing machine having a simple construction but with superior operating features as the type to promote popularity. We hope that it will find favour with our customers same as our Type W 462. In the following, we shall describe the outline and special features of our new type electric washing machine having distinctive characteristics.

### 1. SPECIFICATION

- (1) Washing method: Rotary agitator type
- (2) Washing capacity: Normal 1 kg (Max. 1.5 kg)

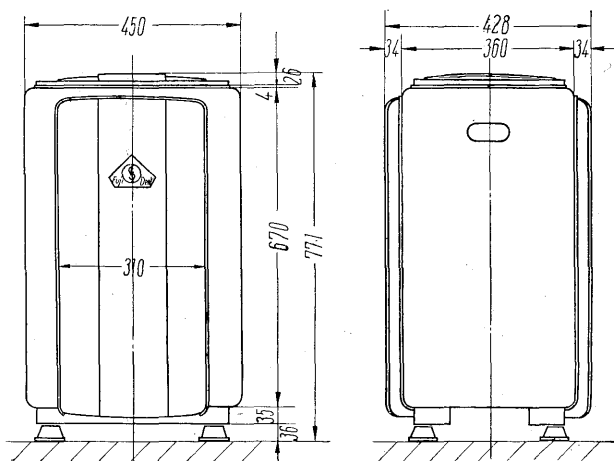


Fig. 1. Outline Dimension of Type W 361  
Electric Washing Machine

- (3) Standard Water Quantity: 30 litre
- (4) Motor: Totally enclosed type split-phase start single-phase induction motor, Output 100 W, Voltage 100 V, Current 3.3/2.9 A, Frequency 50/60 C
- (5) Weight of Finished Product: About 30 kg

### 2. ROTARY AGITATOR

Water is filled in the tank to water-line and when motor is connected to the power source,

water will begin to flow around the tank in a rapid stream owing to the constant direction continuous rotation of two rotating vanes. This stream of water upon impinging on the tank, wall begins to whirl around in a disorderly stream.

When laundry is put in, it goes round together with the stream and owing to the confused stream which permeates and penetrates through the fine fabric, dirt and soil are removed. That is to say, because laundry is immersed in water and cleansed in a water stream, efficiency is very good, it being able to wash rated quantity of 1 kg. laundry in 4 minutes to an astonishingly clean state.

### 3. CONSTRUCTION

The construction is rectangular and has a smart appearance. Because it is rectangular, it does not take much space and can be placed in a corner of a room. It has two small rotating vanes which revolve in a constant direction continuously on the side wall of washer tank and which are driven through pulley and belt by a motor mounted directly under the tank. The reason that two rotating vanes are used is for raising capacity and they are mounted face to face on the wall. Moreover, their centres are shifted about 10 mm, from one another. As described above, construction is made very simple.

### 4. SPECIAL FEATURES OF TYPE W 361

#### (1) Shape of Rotating Vane

The rotating vanes are made of bakelite which is durable in alkali solution with no fear of corrosion and the shape reminds one of a plum blossom.

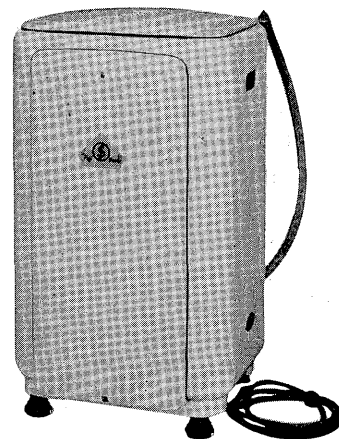


Fig. 2. Type W 361 Electric Washing Machine

som at first appearance. The special features are that, possibility of laundry touching the vanes is eliminated as much as possible and, in addition, because centrifugal force of water is made strong in order to increase the capacity, washing ability is superior and also laundry will not be damaged.

## (2) Reason that Two Rotating Vanes are Used

Washing action can be done even when there is only one rotating vane. However, in this case, because suction of water is done on one side only, laundry will collect near the rotating vane making possibility of contact great. Moreover, because rotating motion of laundry will be strong near the rotating vane but weak on the other side, there will be a tendency of the laundry being twisted. In general, with rotary agitator type washers, from the fact that laundry is washed by laundry making a rotating motion together with the water, if even a little more laundry is put in, rotating vane will rotate but the laundry will not rotate. When special care is not taken on this point, there will be fear of damaging the laundry near the rotating vanes. In Type W 361, by using two rotating vanes, rotation of the laundry is very smooth and also through this, capacity is doubled and so it is possible to wash a large quantity of laundry at one time.

Also, the reason that the centres of the two rotating vanes are shifted apart by about 10 mm. is for making the rotating motion of laundry large which helps to prevent inequalities of washing and twists.

## (3) Adoption of Special Bearings

For the rotating vanes, special bearing are used in the tank wall by which leakage of water is perfectly prevented. With the hitherto rotary agitator type, sleeve bearings are generally used in which artificial rubber is used for prevention of water leakage, but, as rotation of vanes is comparatively high being several hundred R.P.M., wear of bearings quickens wear of the artificial rubber and it has been the tendency of shortening the life by leakage of water which causes deterioration of lubricating oil circulation or corrosion of shaft after usage of short periods. However, in Type W 361, in order to make it semi-permanent, ball bearings are adopted for bearings and sealed off by water-resisting and alkali-resisting grease of superior quality. Also, by using bellows in the water-tight parts, water leakage is completely prevented.

## (4) Porcelain Tub

As the washer tank is enamelled in pure white, it looks neat and is easy to clean. Moreover, there is no fear of corrosion and the construction is robust.

## (5) Easy Handling and Long Life

Because construction is simple, faults do not occur and it will do to simply clean the tank after usage and no oiling is required. Because maintenance is so simple, the washer will withstand a long period of usage.

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# WIDE ANGLE TYPE SWITCHBOARD INSTRUMENTS

Fuji Denki's switchboard instruments are manufactured in four types as shown in Fig. 1.

- (A) 140 m/m Rectangular normal type.
- (B) 100 m/m Rectangular normal type.
- (C) 140 m/m Rectangular wide angle type.
- (D) 100 m/m Rectangular wide angle type.

(A) of above is one of our standard products. The production of (B) has started quite recently for installation in miniature switchboard and has already been introduced to our customer in the Fuji Electric Journal, Volume 27. No. 7 Japanese editions. The latter (C) and (D) belong among our most recent products and therefore is introduced in this review. It's special features are a wide deflecting angle of 250° which has never

been produced before, especially (C) is aimed to improve exactness of scale reading compared with (A), and (D) is designed to lessen the size of the switchboard and to maintain the readability of (A). Special note should be given (D) which is the smallest wide angle meter ever produced in our country.

## SPECIAL FEATURES

- (1) The scale length is in twice of that of ordinary type meters of the same dimension. The 140 m/m wide angle meter has a scale of 240 m/m and the 100 m/m wide angle meter a scale of 150 m/m assuring easy and exact reading of the scale.