



Toyo Seiki Seisaku-sho, Ltd. 5-15-4, Takinogawa, Kita-ku, Tokyo 114-8557, Japan

# No. 675 Single-screw Extruder

## Model **ER-1**

*Stand-alone laboratory extruder*



### ■ APPLICATION

The **Extruder ER-1** is stand-alone type single-screw ( $\varnothing 30\text{mm}$ ) laboratory extruder. Various kinds of die heads and film take-off devices are available as optional.


## ■ SPECIFICATIONS

Model	ER-1
Screw diameter	30mm
Screw L/D	28
Screw type	Full flight (CR:3.0)
Throughput	8kg/h
Max. torque	700N.m
Drive power	3.7kW
Speed	10 to 100rpm
Max. temperature	350°C
Temperature control	6 channels (9 channels: Optional)
Heating	C1, C2, C3, C4, CH
Cooling	<ul style="list-style-type: none"> <li>■ C1, C2, C3, C4 (Air cooling)</li> <li>■ Under the hopper (Water cooling)</li> </ul>
Hopper	10L
Pressure sensor port	1
Vent port	N/A (Non-vent type)
Operation panel	<ul style="list-style-type: none"> <li>■ Screw rotation control knob</li> <li>■ Resin pressure display</li> <li>■ Motor torque display</li> <li>■ Resin temperature display</li> <li>■ Emergency stop switch</li> <li>■ Emergency buzzer</li> </ul>
Power requirement	Three-phase, AC200V, 50Hz or 60Hz, 34.6kVA
Compressed air requirement	
Water requirement	Approx. 10L/min.
Dimensions	W940 x D1400 x H1490mm
Weight	Approx. 520kg

## ■ Options (Die Heads)

Name	Model	Main spec.	Remarks	Power requirement	Photo
Strand die	ST1	1 string type, $\phi$ 1.5, 2, 3, 4, 5, 6, 2.095mm	For extruding rod, filament	Single-phase, AC100V, 4A	
	ST3S	3 string type, $\phi$ 3mm			
T die	T25F	W=25, t=0.5~1.5 (Fish tail type)	For extruding sheet & film	Single-phase, AC100V, 4A	-----
	T60F	W=60, t=0.5~1.5 (Fish tail type)		Single-phase, AC100V, 7A	
	T120C	W=120, t=0~1.5 (Coat hanger type)		Single-phase, AC200V, 8A	
	T150C	W=150, t=0~1.5 (Coat hanger type)			
Inflation die	I25C	$\phi$ 25mm, slit 0.7 (Cross type)...for PVC	For extruding blown film	Single-phase, AC100V, 4A	
	I25S	$\phi$ 25mm, slit 0.7 (spiral type)		Single-phase, AC200V, 6A	
Tube die	TU10	$\phi$ 8x10mm (spider type)	For extruding tube	Single-phase, AC100V, 5A	-----
	TU20	$\phi$ 8x20mm (spider type)			
Wire coating die	WD	$\phi$ 2mm, wire diameter= $\phi$ 1mm (cross)	For electric wire	Single-phase, AC100V, 8A	-----
Slit die	CAPF2	W=20, L=100 t=0.5, 0.8, 1, 1.5mm (set)	For viscosity measurement	Single-phase, AC100V, 9A	
Capillary die	CAPR	Orifice $\phi$ 1x5mm, 1x10mm, 1x20mm	For die swell measurement	Single-phase, AC100V, 8A	-----
Garvey die	GD		For testing conforms to ASTM D2230 (elastomers)	Single-phase, AC100V, 4A	

## ■ Options (Film Take-off Devices)

Name	Model	Power requirement	Dimensions	Weight	Photo
Film Take-off Device	FT2W20	Single-phase, AC100V, 3A	Approx. W1200 x D720 x H1200mm		
Film & Sheet Take-off Device	FT3W20	Single-phase, AC100V, 3A	Approx. W1200 x D720 x H1200mm	Approx. 150kg	
Inflation Take-off Device	INT	Single-phase, AC100V, 2A	Approx. W800 x D800 x H2400mm	Approx. 250kg	

## ■ OPTIONS (Other than Die Heads and Film take-off devices)

	Name	Model
1	Temperature control 9 channels option	----

Specifications are subject to change without notice.

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