

# Moline Proofing Systems



***A continuous, high-volume system providing a climate controlled environment for uniform and consistent production.***

- ***Modular design allows custom size combinations to suit any application.***
- ***Easy to operate operator interface and climate control system.***
- ***Epoxy-coated wire mesh proofer trays.***
- ***Unique discharge mechanism prevents product damage during product discharge.***

**Shown:**  
**Model DT8-10R**  
Dual Zone  
8 Modules  
Right Hand Control  
With Pass-Thru Section



*The Moline Proofing System provides a continuous, climate controlled environment for the proofing of yeast raised product. The modular design allows custom size combinations to suit varying proof times and fryer capacities.*

*Climate control is provided for each zone and is simple to operate. The steam coil heating system provides rapid temperature response without hot spots. The “duct free” air distribution and power exhausting capability provide optimum process control.*

*The industrial design of these systems is renowned for durability, reliability and efficiency. Controls are centrally located and easy to use for efficient and consistent production. Epoxy-coated wire mesh trays are standard equipment*

*and the tray chain oiling system and plastic chain guides maximize smooth, continuous operation.*

*Sanitation is efficient with safety interlocked stainless steel access doors and no external open drives or gear reducers. Windows are provided at various intervals for internal visibility. Urethane o-ring discharge belting minimizes flour transfer to fryer. An optional Clean-In-Place System is available for automatic proofer tray cleaning.*

*Qualified factory-trained technicians provide on-site supervision as the equipment is uncrated, positioned and assembled. The modular design assures fast and precise installation. Call our Customer Service Department for more specific information.*



## ***Moline Machinery LLC***

114 South Central Avenue • Duluth, Minnesota, USA, 55807  
218-624-5734 (For after hours service, call 218-590-1987)  
www.moline.com • sales@moline.com



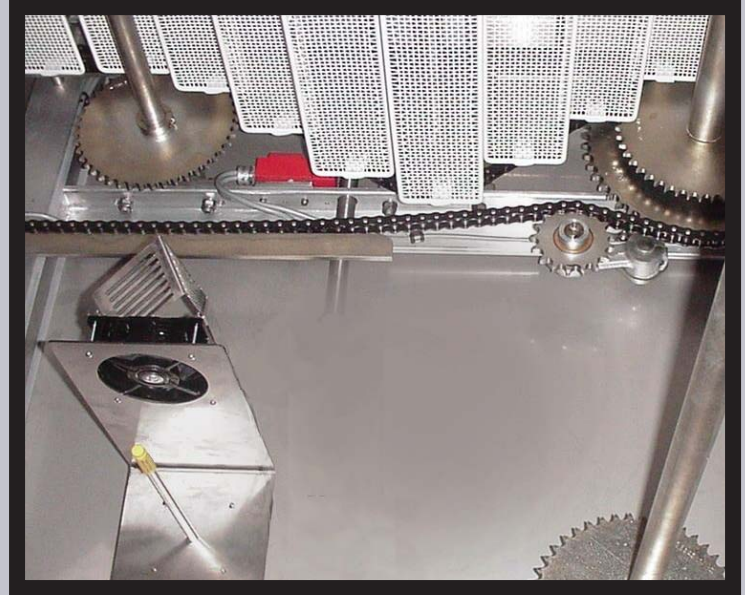
# Moline Proofing Systems

## **Proofer Features:**

- The water humidification system provides even and consistent humidity to the proofing chamber without additional heat.
- Climate control modules are provided in each zone for fast, even humidity and temperature control.
- Temperature/humidity sensor provides accurate climate control and monitoring.
- “Soft Dump” discharge mechanism provides gentle product release from proofer trays, minimizing product shape damage.

## **Proofer Options:**

- The optional pass-thru proofer sections (as shown in the proofer on the previous page) provide easy access to all proofer components.
- Variable speed air distribution fans.
- Dual zone control for variable proofing climate.
- Remote electrical control panel.
- Clean-In-Place (CIP) Unit available for efficient proofer tray sanitation.



Temperature/Humidity System



Optional Clean-In-Place Unit



DT10-10R Proofer Without Pass-Thru Module



Soft Dump Discharge Mechanism



# Moline Proofing Systems



## Formula for Sizing Proofer Output

$$\text{Units per Hour} = \frac{\text{No. of Active Trays} \times \text{No. of Units per Tray} \times 60}{\text{Total Minutes of Proof Time}}$$

## Proofer Specifications

	No. of Proofer Sections	*Overall Length	*Std. No. of Total Trays	*Std. No. of Active Trays	Climate Control	Steam Requirements	Water Requirements	** Power
<b>SINGLE ZONE</b>	6	30' 1" (9144 mm)	647	549	(1) Heating Coil 258,000 btu/hr @ 25 PSIG (76 kw/hr @ 1293 mm Hg)	400 lbs/hr @ 25 PSIG (181 kg/hr @ 1293 mm Hg) - Boiler Supplied By Customer -	1/2" NPT 5 GPM @ 40 PSI (one input)	Std: 240V/480V - 60 Hz - 3 Ph (or as required)
	7	33' 11" (10,338 mm)	776	669	(1) Humidifier Unit 21 lbs/hr @ 10 PSIG (9.5 kg/hr @ 517 mm Hg) - Based on 50% On Time -	(1) 3/4" Pipe Condensate Return (or size as required)		(2) Circulating Fans @ 1 hp (.75 kw) each = 2 hp (1.5 kw).
	8	37' 9" (11,506 mm)	905	789	(1) 2" Diameter Copper Supply Line (or size as required)	(1) 3/4" Pipe Condensate Return (or size as required)		(1) Exhaust Blower @ .5 hp (.37 kw)
	9	41' 7" (12,675 mm)	1031	906				(1) Main Drive @ 1 hp (.75 kw)
	10	45' 5" (13,843 mm)	1161	1026				(1) Disch. Conv. @ .5 hp (.37 kw)
<b>DUAL ZONE</b>	10	45' 5" (13,843 mm)	1081	946	(2) Heating Coils 516,000 btu/hr @ 25 PSIG (152 kw/hr @ 1293 mm Hg)	800 lbs/hr @ 25 PSIG (363 kg/hr @ 1293 mm Hg) - Boiler Supplied By Customer -	1/2" NPT 5 GPM @ 40 PSI (two inputs)	Std: 240V/480V - 60 Hz - 3 Ph (or as required)
	11	49' 3" (15,011 mm)	1210	1066	(2) Humidifier Units 42 lbs/hr @ 10 PSIG (19 kg/hr @ 517 mm Hg) - Based on 50% On Time -	(2) 3/4" Pipe Condensate Returns (or size as required)		(4) Circulating Fans @ 1 hp (.75 kw) each = 4 hp (3 kw).
	12	53' 1" (16,180 mm)	1339	1186				(2) Exhaust Blowers @ .5 hp (.37 kw) each = 1 hp (.75 kw).
	13	56' 11" (17,348 mm)	1468	1306				(1) Main Drive @ 1.5 hp (1.1 kw)
	14	60' 9" (18,517 mm)	1597	1426				(1) Disch. Conv. @ .5 hp (.37 kw)

\* With standard 84" infeed section. Longer infeed required for dual depositor loading.

\*\* Line to control panel provided by customer. Drive sizes may vary for different applications. All proofer trays have an effective width of 35" (889 mm).

NOTE: Information given above is for short proofers (two modules tall). For tall proofers (three modules tall), contact our Customer Service Department at 218-624-5734 or at sales@moline.com.



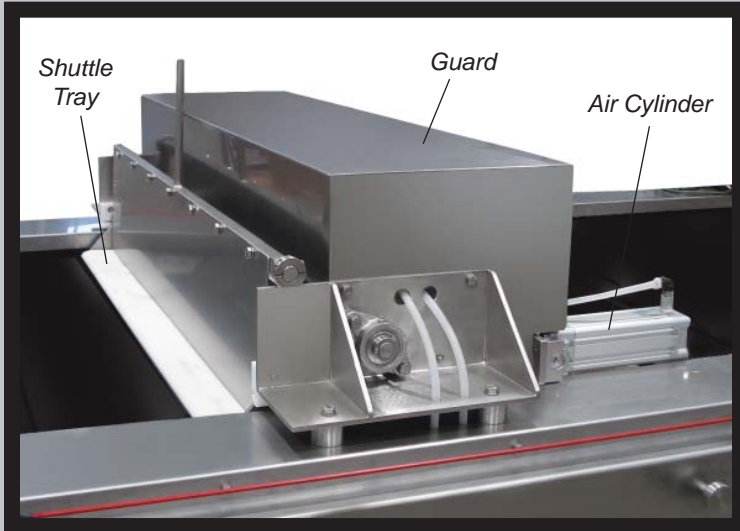
# Moline Proofing System with Shuttle

## Using a Shuttle at the Proofer Infeed

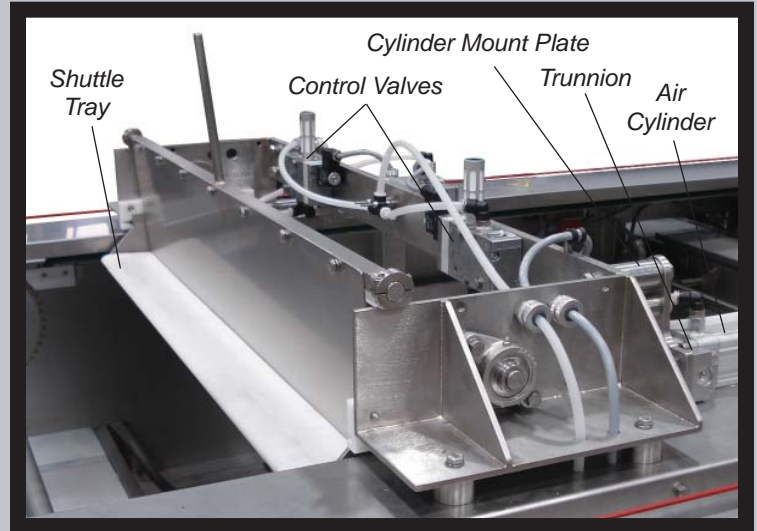
The shuttle receives product from a transfer conveyor, aligns it and continuously delivers it to the proofer trays. Synchronized timing of the transfer conveyor, shuttle and proofer trays assure accurate product placement.

The product is deposited onto the shuttle tray up against the product stop blade. When the shuttle tray retracts, the product drops onto a waiting proofer tray. The shuttle tray is activated by pneumatic cylinders mounted to the machine and a series of gears. A belt encasing the shuttle tray provides a smooth surface for product transfer.

Shuttle speed is always consistent with the speed of the proofer. When the shuttle is enabled, it immediately begins cycling once for every proofer tray (the proofer sends a signal to the solenoid on the shuttle which cycles the shuttle tray). The shuttle also contains a Delay setting which controls the amount of time before the shuttle activates after the signal comes from the proofer. This adjustment controls where the product lands on the proofer tray and is typically accessed through the proofer operator interface.



Shuttle With Guard Installed



Shuttle With Guard Removed

## Shuttle Features

- **Construction:**  
Stainless steel construction with precision machined components.
- **Available Widths:**  
Accommodates proofer infeed widths from 24" to 60".
- **Guards and Covers:**  
A guard prevents access to moving components during operation but allows easy access for sanitation when the machine is shut down.
- **Pneumatic System:**  
10 cfm @ 80 psi (4.7 liters/second @ 5.5 bar).



Shuttle Delivering Product to Proofer Trays