

Technical News Bulletin

September 2000

555 AC Servo Feeder



Introduction

The 555 AC Servo Feeder is the core component of Emhart Glass' gob forming products. The 555 AC Servo Feeder is designed to form gobs of precise weight, shape and temperature at speeds up to 250 cuts per minute. The AC Servo motor in combination with a Pentium based Microprocessor provides gob forming

control with unsurpassed operational performance. The microprocessor control permits easy configuration of feeder parameters, with quick saving and recall of critical job information. The low inertia AC Servomotor provides the high torque needed to make custom Feeder Plunger motions.

The AC Servo Feeder is available with the Metering Spout System, Versa-Cam Software and 565 AC Servo Shear.

Product Description

The 555 AC Servo Feeder can be easily configured for low, medium and high tonnage applications. The mechanism can be configured for Single, Double and Triple gob operations. The mechanism for the 555 AC Servo Feeder was developed from the proven 555 DC Servo Feeder. The major change to the mechanism is the AC Servo Motors for Plunger and Tube height. The plunger height transducer has been removed, since the AC Servo Motor has position feedback to the control. Otherwise the mechanical design remains the same. Plunger installation & adjustment as well as self-centering tube requirements are unchanged.

The new AC Servo Control is modular and compact. The control uses a PC motherboard as the primary data processor. The modular design permits component compatibility with other Emhart Glass Servo Devices. The standard Emhart Glass Hand Held Terminal can now be used to configure and diagnose the AC Servo Feeder. The new AC Servo feeder control is composed of three (3) modules. They are the General Purpose Control Module, Amplifier Module, and Data Storage Module. These modules provide fast controlled feeder motion with direct motion feedback. The direct motion feed back eliminates the need for the linear transducer inside the plunger mechanism.

The 555 AC Servo Feeder is available as an integrated forming control or a standalone control system making it easy to apply to most applications. In addition, a conversion kit will be available to "upgrade" existing DC Servo Feeders to the new AC Servo Feeder systems.

555 AC Feeder Range:

| | | |
|-----------------------|-------------------------|---------------|
| Small Feeder: | 81 Shallow & Deep Spout | 5 – 35 TPD |
| Medium Feeder: | 81 Deep or 503 Spout | 20 – 75 TPD |
| Large Feeder: | 503 or 515 Spout | 50 – 150 TPD |
| High Capacity Feeder: | 585 Spout | 120 – 200 TPD |

Features of the 555 AC Servo Feeder

Spout Casings for all Series:

- Selectable Spout Refractories
- Including Metering Spout System
- Steel Casings: 81/555
- Orifice Equipment
- Spout covers for all tube sizes

Tube Mechanism for all Series:

- AC Servo Tube Height Drive
- Self Centering Tube Holder
- Tube Quick Release Mechanism
- Tube Height Mechanism
- Selectable Tube Diameter

Plunger Mechanism:

- AC Servo Plunger Motion
- Single, Double, Triple Gob Operation
- High Torque Servomotor

AC Servo Shear Mechanism for all Series

- Parallel Shear Action
- Auto Retractor
- Selectable Accessories

AC Servo Control Modules

- Modular Compact Design
- Interchangeable with other AC Products
- Interfaces with all Emhart Glass Forming Controls

Benefits of 555 AC Servo Feeder

- Versatile tonnage range
- Wide range of Applications
- Reduced spare parts inventory
- Reduced long-term maintenance costs
- Makes use of latest Control module designs
- Flexible Versa-Cam features.
- Integrated into VLAN Forming Controls
- Available in standalone versions.

| | Major Component | Low Tonnage | Medium Tonnage | Large Tonnage | High Tonnage |
|--------------------------------|-------------------|-----------------------------------|--|--|------------------------------------|
| Equalizing Section | Front Plates | Type 81 Detachable Front Plate | Type 81 or 510 Detachable Front Plate | Type 540 Detachable Front Plate | Type 540 Detachable Front Plate |
| | Channel Widths | 16" and 26" | 26" and 36" | 36", 42" and 48" | 42", 48" and 54" |
| 555-56 Servo Plunger Mechanism | Plunger Chucks | SG – 2" DG – 2-3/4" | SG – 2-3/4" 3-1/8" DG – 2" TG – 1-3/4" 2" | SG – 2-3/4" DG – 2" 2-3/4" TG – 2" | DG – 2" 2-3/4" TG – 2" |
| Spout Assembly | Steel Casing | Type 81 | Type 81 or 503 | Type 503, 515 or 555 | Type 585 |
| | Spout Refractory | 14" wide (shallow or deep) | 18" wide (shallow or deep) 22" wide (10" glass depth) | 22" wide (10" glass depth) 24" wide (12" glass depth) | 28" wide (12" glass depth) |
| | Orifice Equipment | 5" – SG DG (3") | 7" – SG DG(3") DG(4-3/8") 8" – TG(3") | 10" – SG DG(4-3/8") TG(3") 11" –DG(5") | 12" – TG (4-3/8") |
| | Spout Sizes | 14" Wide 144 Comparable | 18" and 22" wide | 22" and 24" wide | 28" wide |
| 555-55 Tube Mechanism | Tube Diameters | 5" or 6" | 7" or 8" 9" TG Metering Spout | 8", 10", 11", 12" *10" or 11" with Metering Spout | 13" |
| 561-1 Servo Shear Mechanism | Orifice Diameters | SG DG – 3" | SG DG – 3" DG – 4-3/8" TG – 3" | SG DG – 4-3/8" DG – 5" TG – 3" | DG – 4-3/8" TG – 4-3/8" |

Ordering Information

Documents needed for AC 555 Servo Feeder

Sales Questionnaires:

| | |
|-----------|---|
| 555-55-AC | AC Revolving Tube Mechanism |
| 555-56-AC | AC Servo Feeder, Plunger Mech. |
| 555-99-M | Advanced Spout Assembly |
| 565-1 565 | AC Shear |
| 700-1-M | AC Servo Standalone Controls for Feeder and Gob Distributor |

Other Technical News Bulletins:

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|--------|-----------------------|
| TNB 71 | Metering Spout System |
| TNB 73 | 565 AC Servo Shear |

Reference Drawings

| | |
|---------|------------------------------------|
| 555-55 | Revolving Tube Mechanism |
| 555-56 | AC Servo Feeder, Plunger Mechanism |
| 81-438 | 81 Spout Assembly |
| 503-245 | 503 Spout Assembly |
| 503-48 | 515 Spout Assembly |
| 555-99 | 555 Spout Assembly |
| 555-209 | Metering Spout Assembly |
| 565-1 | 565 servo Shear Master List |
| 565-3 | 565 Shear Mechanism |
| 565-90 | Shear Spray Heads |
| 565-301 | Shear Spray System |