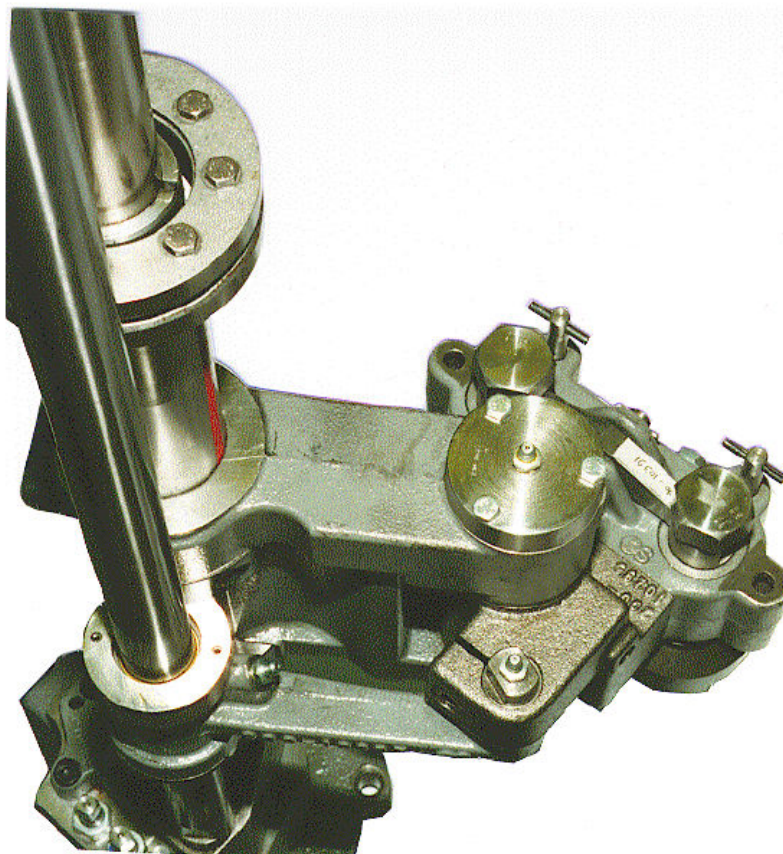


## Technical News Bulletin

May 1999

### Pantograph Baffle Arm for Type EF 4<sup>1</sup>/<sub>4</sub> and 5” Machines



EMHART GLASS' unique patented new Pantograph Baffle Arm, which is available as of now, represents a progressive engineering development for smoother, more efficient baffle operation.

## **Main Features**

- Improved alignment between blank molds and baffles
- Less force on the baffle mechanism
- No baffle arm overlap into adjacent section in the "Off-Position"  
(DG 5", TG 3" and TG 85)

## **Main Benefits**

- Less wear on mold equipment
- Prolonged service life of baffle mechanism
- Smoother baffle operation

## **Description**

EMHART GLASS' Pantograph Baffle Arm represents a progressive engineering development for smoother, more efficient baffle operation and ensures precise alignment between baffles and blank molds.

Due to the parallel movement of the baffle holder, "Settle-blow ON" can be initiated earlier in the cycle and "Baffle-OFF" later. This benefit results in increased cavity rate or prolonged blank mold contact time.

The reduced mass moment of inertia of the pantograph baffle arm itself results in significantly less force on the baffle mechanism. This factor leads to substantially less baffle mechanism wear and prolonged service life.

Quick change baffle holders enable easy conversion from DG to SG, or DG to TG operation and vice versa without the need for realignment. EMHART GLASS' unique patented design has successfully solved the problems associated with :

- Arm alignment
- Wear at various pivot points
- Equalization of settle blow pressure for individual cavities

## Components

1. Pivot Arm
2. Link Assembly
3. Mounting Parts
4. Guide Rod
5. Baffle Holder

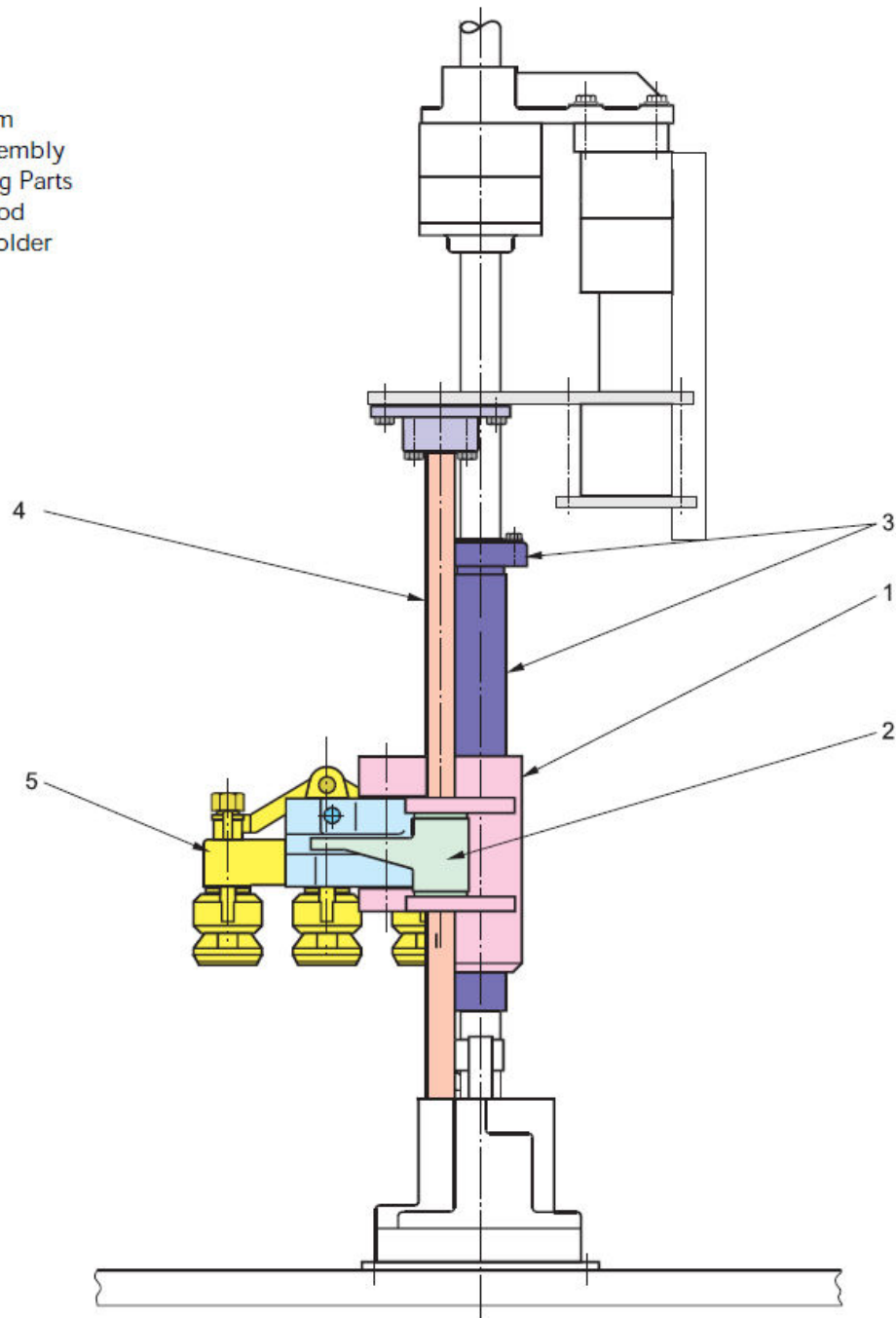
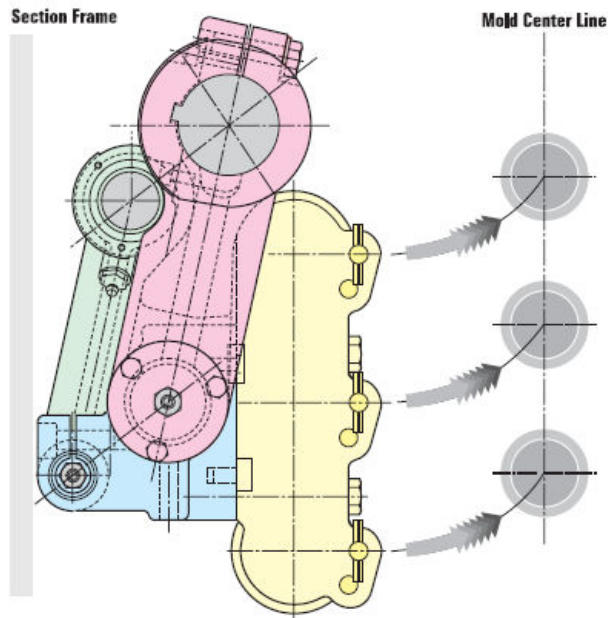


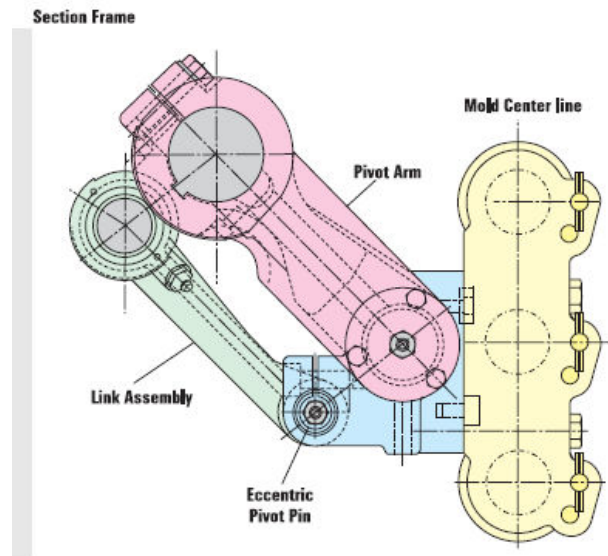
Figure 1

## Operating Principles



This top view shows the pantograph baffle in the "Off" position. When the baffle arm is actuated for down-stroke, the baffle piston rod initiates the stroke/ swing motion. The pantograph configuration of 4 pivot points and the pivot arm and the link arm of identical length ensures that the baffle holder is always parallel in relation to the blank mold centers.

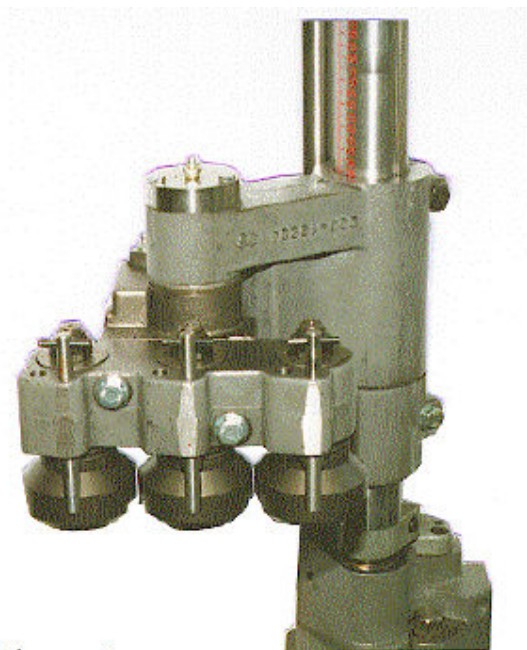
Figure 2



This view shows the pantograph baffle arm in the position over the blank molds. Precise alignment of the different baffles to the blank molds is achieved by means of an eccentric pin. Full guidance of the link assembly in the pivot arm permits optimal motion sequence of the pantograph baffle arm during piston stroke and swing movements.

Figure 3

## Quick Change Baffle Holder



The Pantograph Baffle Holder is designed as a standardized Quick-Change Accessory so that once the pantograph is aligned and adjusted, the baffle holder can be replaced without the need for new alignment.

Figure 4

### Settle Blow Air

The settle blow air routed through the baffle piston rod, pivot arm and the QC baffle holder is - because of the plenum chamber - equally distributed in blank cavities.

### Performance Characteristics

This illustration shows a view of the motion sequence of the baffle holder as seen from the blank side of the IS machine.

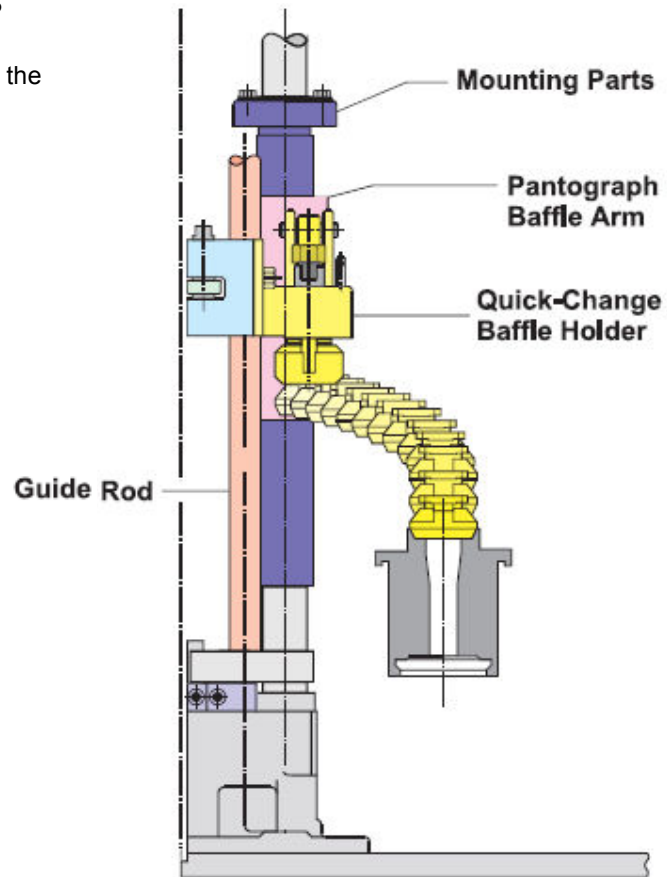


Figure 5

### Stroke/Swing Diagram

As the measurements in this graph show, there is significantly less baffle holder oscillation around the vertical axis compared with conventional arms. The major payoffs are prolonged baffle and mold equipment service life and substantially less wear, in the blank mold/baffle match areas.

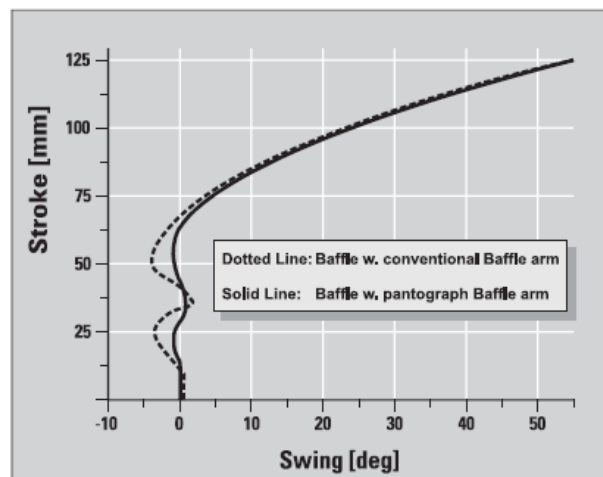


Figure 6

## Application

This Pantograph Baffle Arm system is designed for IS machine types EF 4 1/4 and EF 5".

The following Pantograph Baffle Holders are available:

SG	EF 4 1/4	+	EF 5"
DG	DG 4 1/4	+	DG 5"
TG	TG 3"	+	TG 85

## Installation Requirements

To install the pantograph baffle arm system, baffle mechanisms other than 200-248-3 must be modified.

**All information regarding pantograph installation and associated modifications is given in the drawing 200-356.**

Earlier machines may require repositioning of the deflector adjuster bracket.

## Ordering information / Price information

For detailed ordering and price information, please contact your local EMHART GLASS sales office.

## Mold Equipment

The Pantograph Baffle Holders are designed to accept baffles operated with Quick Change or conventional baffle arms.

Conventional baffles may require modification according to alteration drawing **191-B-24499** to suit the wider bearing contact area of the lock ring. The baffle holders have two lock ring mounting positions and are supplied with the lock pins assembled in the standard position, 90° to the mold parting line. The alternative position corresponds to the conventional baffle arms and may easily be established by the user if required.

**When operating Pantograph Baffle Arms together with blank side Verti-Flow it must be observed that the dimension between plenum seat on blank mold and top of baffle is 72 mm minimum.**

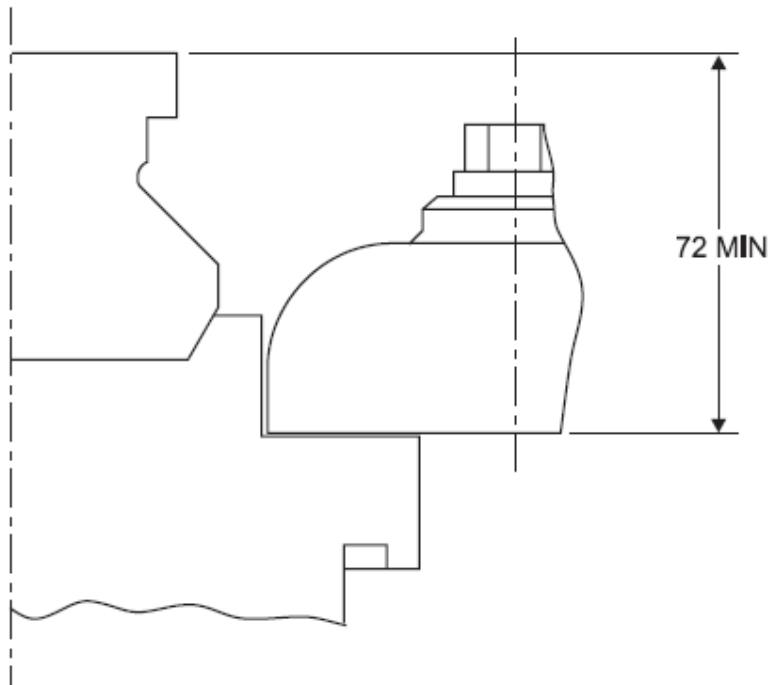


Figure 7



## Summary

### FEATURES

- Faster Baffle operation
- Improved alignment between blank molds and baffles
- Improved motion and repeatability of baffle arm
- Less force on the baffle mechanism
- No baffle arm overlap into adjacent section in the "Off-Position" (DG 5", TG 3" and TG 85)
- Equal settle blow air pressure build-up in all cavities
- Quick-Change Baffle Head (DG to SG, DG to TG and vice versa)
- Earlier settle blow "ON" at Blow and Blow or "Plunger Up" at Press and Blow

### BENEFITS

- Less wear on mold equipment
- Prolonged service life of baffle mechanism
- Smoother baffle operation
- Reduced job-change time
- Quick conversion capabilities (SG/DG/TG)
- Improved operating safety
- Compatibility with existing QC mold equipment

### NOTE

EMHART GLASS offers also a Pantograph Baffle Arm for IS machines type EF 51/2 AIS and F. Please refer to TNB No. 33 for detailed information.