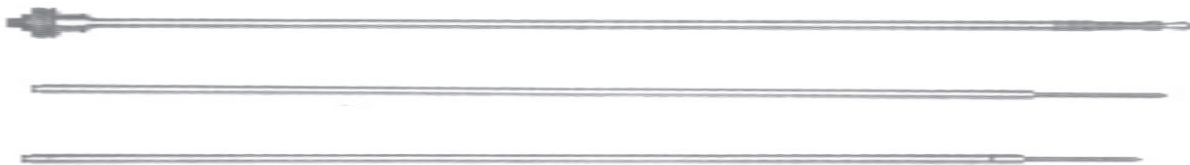


Collet Style Baffle Expander

B9765 & B10180



Tube & Pipe Cleaners ◦ Tube Testers ◦ Tube Plugs ◦ Tube Removal ◦ Tube Installation



Operating and Maintenance Instructions

TABLE OF CONTENTS

Introduction 4

Safety Guidelines 5

Receiving & Installation 6

Tool Selection Guide 7

Specifications 8

Operation Instructions 9

Parts List & Diagrams 10

Warranty 11

INTRODUCTION

Thank you for purchasing this Elliott product. More than 100 years of experience have been employed in the design and manufacture of this control, representing the highest standard of quality, value and durability. Elliott tools have proven themselves in thousands of hours of trouble-free field operation.

If this is your first Elliott purchase, welcome to our company; our products are our ambassadors. If this is a repeat purchase, you can rest assured that the same value you have received in the past will continue with all of your purchases, now and in the future.

The Elliott Baffle Expander has been designed for the following types of equipment:

Heat Exchangers

Condensers

Chillers

If you have any questions regarding this product, manual or operating instructions, please call Elliott at +1 800 332 0447 toll free (USA only) or +1 937 253 6133, or fax us at +1 937 253 9189 for immediate service.

SAFETY GUIDELINES

Read and save all instructions. Before use, be sure everyone using this machine reads and understands this manual, as well as any labels packaged with or attached to the machine.

- Know Your Elliott Tool. Read this manual carefully to learn your tool's application and limitations as well as the potential hazards specific to this tool.
- The Elliott Baffle Expander stroke is controlled by a manual control on the hydraulic power source. It is important to read and understand the manual for the hydraulic power source.
- Ensure all hydraulic connections are properly made and that the hoses are in good condition.
- Always be aware of the location of hydraulic power shut off valve.
- Always shut down the hydraulic power supply before changing tooling.
- Dress Properly. Do not wear loose clothing or jewelry. Wear a protective hair covering to contain long hair. It is recommended that the operator wear safety glasses with side shields or a full face shield eye protection. Gloves and water repellant, nonskid footwear are also recommended. Keep hands and gloves away from moving parts.
- Use Safety Equipment. Everyone in the work area should wear safety goggles or glasses with side shields complying with current safety standards. Wear hearing protection during extended use, respirator for a confined space and a dust mask for dusty operations. Hard hats, face shields, safety shoes, respirators, etc. should be used when specified or necessary. Keep a fire extinguisher nearby.
- Use Proper Accessories. Use Elliott accessories only. Be sure accessories are properly installed and maintained.
- Check for Damaged Parts. Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts or any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the tool off immediately and have the problem corrected before further use. Do not use a damaged tool. Tag damaged tools "Do Not Use" until repaired. A damaged part should be properly repaired or replaced by an Elliott service facility. For all repairs, insist on only identical replacement parts.
- Keep Hands Away from All Moving Parts.
- Do Not Overreach. Maintain Control. Keep proper footing and balance at all times.
- Stay Alert. Watch what you are doing, and use common sense. DO NOT use a tool when you are tired, distracted or under the influence of drugs, alcohol or any medication causing decreased control.
- Maintain Tool Carefully. Keep tools sharp and clean for best and safest performance. Follow instructions for lubrication, maintenance and changing accessories. Have damaged parts repaired or replaced by an Elliott service facility.
- Maintain Labels and Nameplates. These carry important information and will assist you in ordering spare and replacement parts. If unreadable or missing, contact an Elliott service facility for a replacement.

RECEIVING & INSTALLATION

Uncrating

The Elliott Baffle Expander Kit is shipped, complete with baffle expander, hydraulic ram, hose and pump. On arrival, check for external damage to the cartons. If damage is found, notify the carrier and the supplier so insurance inspectors can examine the box before it is unpacked. When opened, check the contents against the packing and parts list. Report any damage or shortage to Elliott.

Ensure that there is no packaging material left inside the openings of the hydraulic ram or any other hydraulic port.

Connecting to Hydraulic Power Supply

The Elliott Baffle Expander includes a hydraulic power source. The hydraulic power source supplied by Elliott will be either Elliott Model M5767-00 (115 Volts) or M5767-220 (230 Volts). An optional pneumatic pump is available.

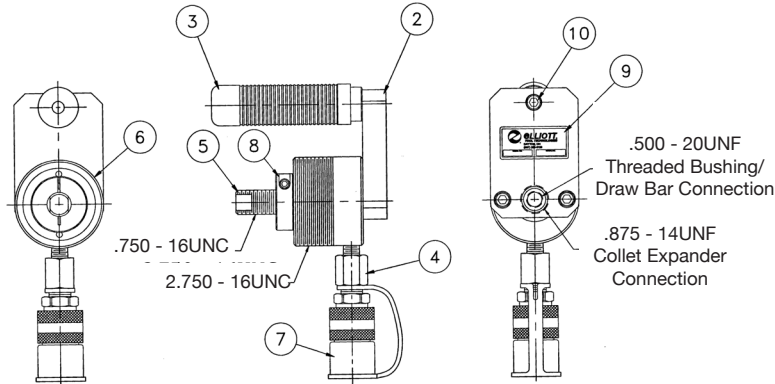
1. Position the Elliott Baffle Expander and the hydraulic power source on a flat surface.
2. Connect the 15' hydraulic hose to the ram and pump.
3. Follow the directions of the Elliott hydraulic pump manual to assure that the hydraulic pump is working properly.
4. Cycle the Baffle Expander Ram several strokes to eliminate any air in the hydraulic lines.
5. The Elliott Baffle Expander Ram is ready for installation of the baffle expander.

Connecting to Baffle Expander (Refer to page 5 - Tool Selection Guide)

1. Thread the threaded bushing (8) into the hydraulic ram. Make sure that the screwdriver slot is facing outward. Use a screw driver to final thread the bushing firmly into the hydraulic ram. Set the hydraulic ram aside until step 6.
2. Select and connect the number of 4' draw bar (5) and collet extensions (7) that will be required for your task. It is best to insert the draw bar extension into the collet extensions before assembling extensions together.
3. Thread the collet (3) onto the end of the collet extensions (7).
4. Pull out the end of draw bar extension(s) (5) assembly from the collet extension(s) to expose the flat. Use a wrench to hold the draw bar extension while threading on the draw bar (4). Use a second wrench on the draw bar flat to firmly tighten the draw bar to the draw bar extension assembly.
5. On the opposite end of the collet extension assembly, thread on the collet extension adapter (2). The complete assembly is now ready to be connected to the hydraulic ram.
6. Connect the complete assembly to the hydraulic ram by threading the collet extension adapter end of the assembly into the hydraulic ram. Tighten firmly.
7. Internally thread the draw bar extension into the threaded bushing in the hydraulic ram. Tighten firmly.
8. The Baffle Expander is now ready to use.

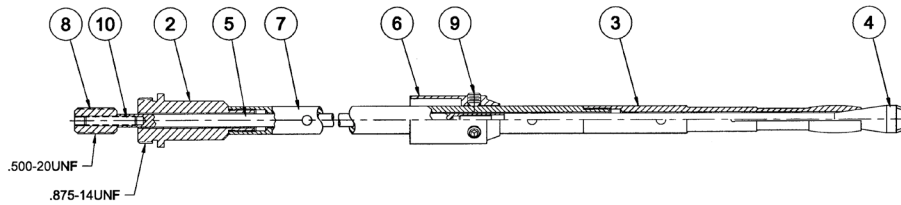
TOOL SELECTION GUIDE

Short Stroke Hydraulic Ram M5766-00



Handle Bracket (2)	Handle Assembly (3)	Adapter (4)	Threaded Adapter (5)	Hydraulic Cylinder (6)	Hose Coupling w Cap (7)	Split Collar (8)	Name Plate (9)	Cap Screw (3 Req'd) (10)	15' Hydraulic Hose (not shown)
M5766D1	M5766D2	M5766D3	M5766D5	17RH120	17-9796	212121	P709827-2	P8302-54	80RH303-4

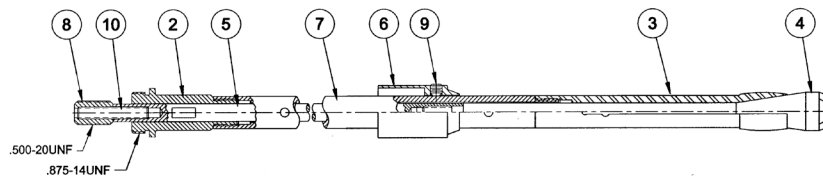
Collet Style Baffle Expanders B9765A00 (3/4" Size)



Collet Ext. (2)	Collet (3)	Draw Bar (4)	Draw Bar Extension (5)	Location Collar (6)	Collet Extension (7)	Threaded Bushing (8)	Set Screw (2 Req'd) (9)	Set Screw (10)	Set Screw* (not shown)
B9669D2	B9765AD6	B9765AD7	B9765AD8	B9765D9	B9765D11	M5223-5	128L	173AY	173AX

* One required between each Draw Bar Extension.

B10180-00 (1" Size)



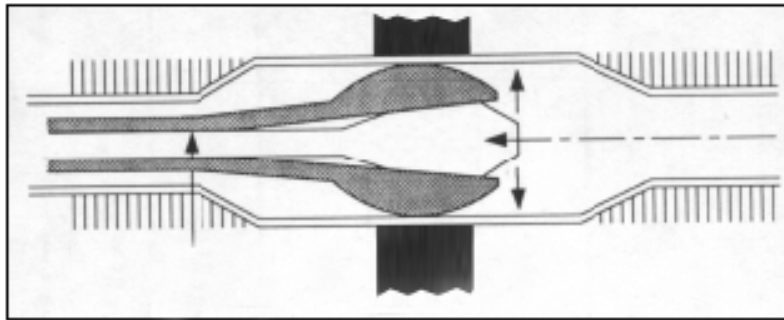
Collet Ext. Adapter (2)	Collet (3)	Draw Bar (4)	Draw Bar Extension (5)	Location Collar (6)	Collet Extension (7)	Threaded Bushing (8)	Set Screw (2 Req'd) (9)	Set Screw* (not shown)
B10180D3	B10180D8	B10180D9	B10180D5	B10180D7	B10180D6	M5223-2	128L	128DU

* One required between each Draw Bar Extension.

SPECIFICATIONS

Specifications		
RAM M5766-00		
Weight	5 lbs	
Height	9.1"	
Width	2.75"	
Length	5.4"	
PUMP M5767-00 and M5767-220		
Weight	29 lbs	
Height	15.75"	
Width	10"	
Length	12.75"	
*Electric Pump Specification	Electrical Requirements M5767-00 115V/1/50-60 Hz M5767-220 230V/1/50-60Hz	
	Horse Power 0.25	
	Max Operating Pressure (psi) 1,500	
	Flow @ Rated Press (inch³/min) 20-200	
	Weight (lbs) 29	
EXPANDER		
	3/4" B9765A00	1" B10180-00
Weight	9.4 lbs*	16.3 lbs*
Overall Length	12 ft	12 ft
* Includes (3) 4 ft. sections (Additional sections are available)		

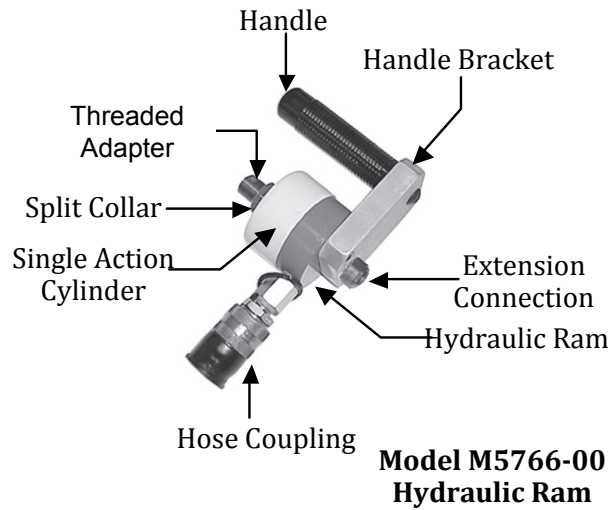
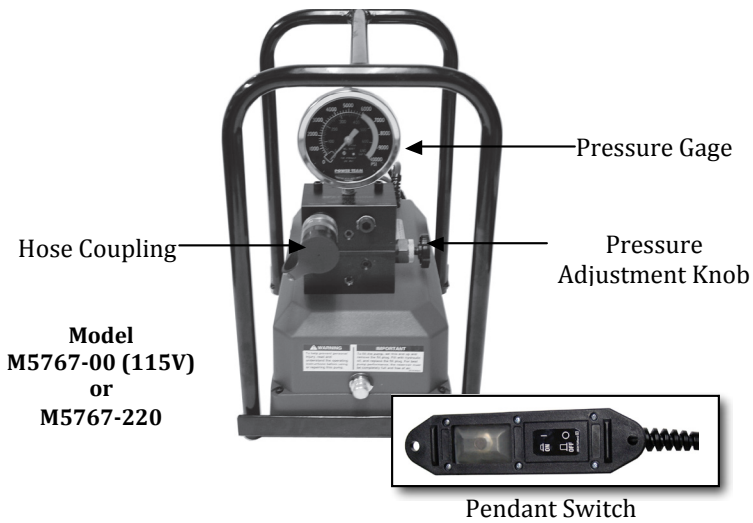
OPERATION INSTRUCTIONS



Proper Position of Collet

1. Measure the distance from the face of the tube sheet to the center of the baffle support plate being expanded.
2. Assemble the collet extensions (7) and draw bar extensions (5) as required to reach the needed length.
3. Position the location collar (6) so that the collet (3) will be properly positioned under the support plate. See diagram above.
4. The pump pressure controls the amount of tube expansion achieved. To set this pressure properly, a sample piece of tube (similar to the tube in the heat transfer vessel) will be required. Set the hydraulic pump to 400 PSI. Depress the pendant switch to the on position for 2 to 3 seconds. This will retract the draw bar (4) and expand the collet (3) and the tube sample. When the pendant switch is released, the collet expander will be returned to its minimum diameter.
5. To adjust the minimum and maximum expansion of this tool loosen the split collar (8) set screw and adjust the threaded adapter (5) either inward to increase the diameter, or outward to decrease the diameter. The entry diameter should be .005" to .015" under the minimum ID of the tube. Increase the pump pressure in 50 PSI increments until the proper expansion rate has been achieved. Note: DO NOT exceed 1,500 PSI as over-expansion and tube damage could occur. Once the proper expansion rate has been achieved, you are ready to begin expanding the tubes in the heat transfer vessel.
6. Insert the collet expander into the tube until the location collar (6) is seated against the tube sheet. Depress the pendant switch for 2 to 3 seconds to expand the tube as in step 4 above. Release the switch to return the collet expander to its minimum diameter. Note: When using 2 or more extensions, center support of tool is required.
7. At this time you can rotate the expander 30° and repeat step 6 to maximize the tube to tube support contact, or you can move to the next tube.

PARTS LIST & DIAGRAMS



**3/4" OD Kit
B9765PKG Consists Of:**
 (1) B9765A00 Baffle Expander
 (1) M5766-00 Ram w/15' Hose
 (1) M5767-00 Hydraulic Pump

**1" OD Kit
B10180PKG Consists Of:**
 (1) B10180-00 Baffle Expander
 (1) M5766-00 Ram w/15' Hose
 (1) M5767-00 Hydraulic Pump

***Wt. Includes three 4' sections.**

WARRANTY

Should any part, of Seller's own manufacture, prove to have been defective in material or workmanship when shipped (as determined by Seller), Seller warrants that it will, at its sole option, repair or replace said part f.o.b., point of manufacture, provided that Buyer notifies, in writing, of such defect within twelve (12) months from date of shipment from the manufacturing plant.

On request of Seller, the part claimed to be defective will be returned, transportation, insurance, taxes and duties prepaid, to the factory where made, for inspection. Any item, which has been purchased by Seller, is warranted only to the extent of the original manufacturer's warranty to Seller. Seller shall not be liable for any damages or delays caused by defective material or workmanship.

No allowance will be made for repairs or alterations made by others without Seller's written consent or approval. If repairs or alterations are attempted without Seller's consent, Seller's warranty is void.

THE WARRANTIES PROVIDED IN THE OBLIGATIONS AND LIABILITIES OF SELLER HEREUNDER, AND THE RIGHTS AND REMEDIES OF BUYER HEREUNDER ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND BUYER HEREBY WAIVES ALL OTHER WARRANTIES, GUARANTEES, OBLIGATIONS, CLAIMS FOR LIABILITIES, RIGHTS AND REMEDIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY FOR MERCHANTABILITY AND FITNESS FOR PURPOSE.

Seller's total liability is limited to the lower of the cost of repair or replacement.



Contact Us

Elliott Tool offers a complete line of precision tube tools to meet your needs. Contact us or your local support.

Elliott Tool Technologies, Ltd.
1760 Tuttle Avenue
Dayton, Ohio 45403-3428
Phone: +1 937 253 6133 • +1 800 332 0447
Fax: +1 937 253 9189
www.elliott-tool.com

Printed in the USA
©06/2018 Elliott Tool Technologies, Ltd.
TM-37
PL-9

Locally Supported By:

www.elliott-tool.com/support