

# Tube Facer

For 3/8" – 1-1/2" Tube OD - ETF Style



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



## Operating and Maintenance Instructions

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**ELLIOTT**  
TOOL TECHNOLOGIES



# SAFETY

1. Remove the tool from the drive motor prior to changing facer blades or facer pilots.
2. Always wear safety glasses when using this equipment.
3. The Elliott ETF Series Tube Facer is a rotating cutter. Avoid wearing loose clothing and jewelry. Wear protective hair covering to prevent long hair from getting caught in the tool.
4. Do not use this tool if it appears damaged.
5. Never use the Tube Facer, or any other power tool when under the influence of medication, drugs or alcohol that decrease concentration and impair operator control.

# OPERATION

1. Select the proper Elliott ETF Series Tube Facer for the tube size.  
(Each tube OD requires a different size Tube Facer.)
2. Each Facer is shipped with several pilots as indicated in Chart 1. Chart 1 also shows additional pilot sizes that are available. See “Tool Adjustment and Component Replacement” for installation instruction.
3. Set the Thrust Collar to the desired tube projection from the tube sheet. See “Tool Adjustment and Component Replacement” for instruction.
4. The Elliott ETF Series Tube Facer can be driven with either an electric or air powered motor. Refer to Chart 2 for recommended starting RPM speeds for the material type and size being cut.  
**NOTE:** Operating the tube facer at too high a RPM can result in “burning” the cutter blade and reducing cutter blade life.
5. Once all adjustments are made, insert the cutter into a tube to be trimmed. Activate the motor, which will rotate the facer. Apply steady forward pressure to the facer cutting into the tube end.  
**NOTE:** Do not jam the facer blade into the tube wall. That may result in a broken facer blade or damage to the tool. When the cut is complete stop the drive motor, withdraw the facer from the tube and move the tool to the next tube to be trimmed.  
**NOTE:** Use a cutting fluid to promote cutter blade life.

# PILOT SIZES

	10-11ga	12-13ga	14-15ga	16-17ga	18-19ga	20-22ga
ETF375P(xx)				16	18	20
ETF500P(xx)				16	18	20
ETF625P(xx)			14	16	18	20
ETF750P(xx)	10	12	14	16	18	20
ETF875P(xx)	10	12	14	16	18	
ETF1000P(xx)		12	14	16	18	
ETF1125P(xx)		12	14	16	18	
ETF1250P(xx)		12	14	16	18	
ETF1375P(xx)		12	14	16	18	
ETF1500P(xx)		12	14	16	18	

# RECOMMENDED STARTING RPM FOR TUBE FACERS

TUBE O.D.	TUBE MATERIAL											
	Inconel 10 SFM	Hastelloy 20 SFM	300 Series Stainless 30 SFM	Monel 40 SFM	400 Series Stainless 50 SFM	Titanium 60 SFM	Carbon Steels 80 SFM	Copper 90 SFM	Copper- Nickel 100 SFM	Red Brass 200 SFM	Admiralty Brass 225 SFM	Aluminum 250 SFM
1/4"	153	306	458	611	764	917	1222	1376	1528	3056	3438	3820
5/16"	122	244	367	489	611	733	978	1100	1222	2445	2750	3056
3/8"	102	204	306	408	509	611	815	916	1018	2037	2292	2546
7/16"	87	175	262	349	437	524	699	786	874	1746	1964	2183
1/2"	76	153	229	306	382	459	611	688	764	1528	1719	1910
9/16"	68	137	204	272	340	407	543	611	679	1358	1528	1698
5/8"	61	122	184	245	306	367	489	552	612	1222	1375	1528
11/16"	55	112	167	222	278	333	444	500	555	1111	1250	1389
3/4"	51	102	153	203	254	306	408	458	508	1019	1146	1273
13/16"	47	95	142	190	237	284	379	427	474	940	1058	1175
7/8"	44	87	131	175	219	262	349	392	438	873	982	1091
1"	38	76	115	153	191	229	306	344	382	764	859	955
1-1/8"	34	68	102	136	170	204	272	306	340	679	764	849
1-1/4"	31	61	92	123	153	183	245	274	306	611	688	764
1-3/8"	28	56	83	111	139	167	222	250	278	556	625	694
1-1/2"	25	51	76	102	127	153	204	230	254	509	573	637
1-3/4"	22	44	66	88	109	131	175	196	218	437	491	546
2"	19	38	57	76	96	115	153	172	191	382	430	477

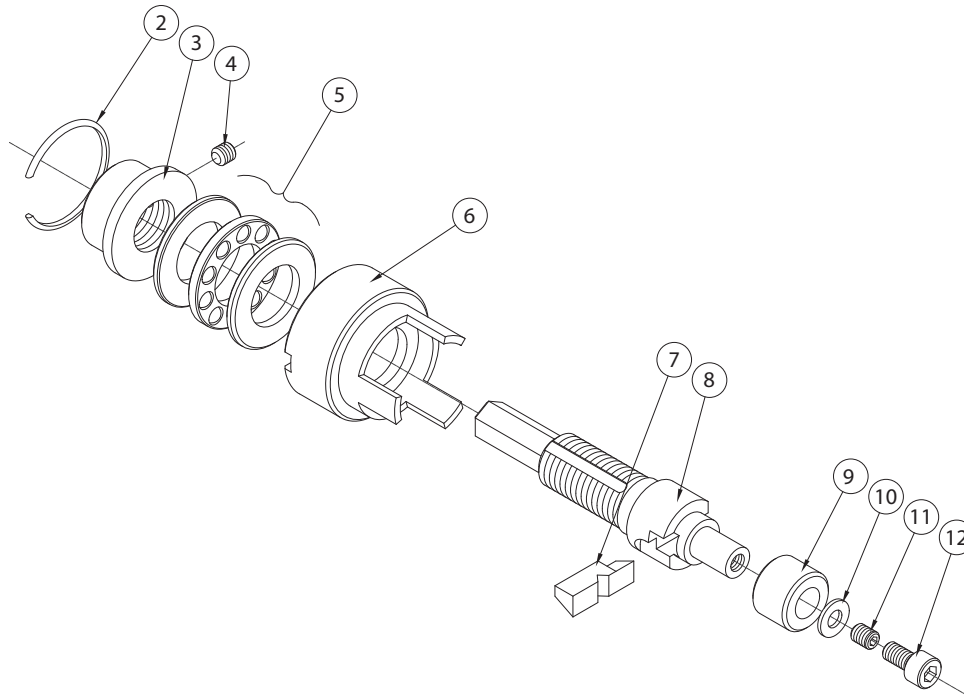
# **TOOL TIPS FOR THE ELLIOTT ETF STYLE TUBE FACER**

1. The facer blade supplied with your Elliott ETF Style Tube Facer is specially coated to provide up to three times longer life than a standard high speed steel blade. Use of cutting fluid will contribute to even greater blade life.
2. Different tube materials and tube sizes require different cutting speeds. Refer to Chart 2 for cutting speed recommendations. Excessive cutting speed will reduce the life of, or may damage the facer blade.
3. Excessive pressure when cutting (forcing rapid feed-rate) will reduce the life of the facer blade. Moderate and steady pressure is recommended.
4. Facer blades with a dull or chipped cutting edge should be replaced with a new blade.
5. Keep the facer pilot surface clean and smooth to avoid damage to tube IDs.
6. Never run this tool in a “counter clockwise” direction.
7. Tube Facers should never be operated at an angle to the tube centerline. The Elliott ETF Style Tube Facer has opposing cutting surfaces that will contribute to centering the facer assembly to the centerline of the tube, avoiding tool breakage.

## **TOOL CARE**

1. Before each use inspect your Elliott ETF Style Tube Facer for damaged or worn blade.
2. Always make sure the blade is sharp and not chipped.
3. Use a cutting fluid to reduce cycle time and increase blade life.
4. Operate your Elliott ETF Style Tube Facer at the proper speed for the material type and size being cut. This will contribute to cutter blade life.
5. After each use clean the tool and apply a light oil to prevent rust and tarnish.

# TUBE FACER PARTS LIST



Tube Facer	Tube OD Size	2 Retaining Spring	3 Thrust Nut	4 Set Screw	5 Thrust Bearing	6 Thrust Collar	7 Tool Bit	8 Body	9 Pilot	10 Washer	11 Set Screw	12 Cap Screw
ETF375	3/8" (9.5mm)	P8369B	ETF375D7	128CD	-	ETF375D5	ETF376	ETF375D9	See Below	-	-	ETF375D8
ETF500	1/2" (12.7mm)	P8368-118	ETF750D7	128KK	PC80-51103	ETF500D5	ETF506	ETF500D9		549-53	128KK	P8302-68
ETF625	5/8" (15.9mm)					ETF625D5	ETF626	ETF625D9		549-5		
ETF750	3/4" (19.1mm)					ETF750D5	ETF756	ETF750D9		549-7		
ETF875	7/8" (22.2mm)					ETF875D5	ETF876	ETF875D9		549-9	128V	P8302-119
ETF1000	1" (25.4mm)					ETF1000D5	ETF1006	ETF1000D9		549-11		
ETF1125	1-1/8" (28.6mm)					ETF1125D5	ETF1126	ETF1125D9				
ETF1250	1-1/4" (31.8mm)					ETF1250D5	ETF1256	ETF1250D9				
ETF1375	1-3/8" (34.9mm)					ETF1375D5	ETF1376					
ETF1500	1-1/2" (38.1mm)					ETF1500D5	ETF1506	ETF1500D9				

Facer ships with customer specified pilot. (Example: ETF375-18 is 3/8 facer with 18 ga pilot).

Customer specifies blade type, either non-ferrous/carbon steel or stainless steel.

Pilots are standard in even gage sizes. Special gage sizes available on request.

Wrenches are included with Tube Facer assembly.

PILOT LISTING										
Tube Size	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"	1-3/8"	1-1/2"
10-11ga				ETF750P10	ETF875P10	ETF1000P10	ETF1125P10	ETF1250P10	ETF1375P10	ETF1500P10
12-13ga				ETF750P12	ETF875P12	ETF1000P12	ETF1125P12	ETF1250P12	ETF1375P12	ETF1500P12
14-15ga			ETF625P14	ETF750P14	ETF875P14	ETF1000P14	ETF1125P14	ETF1250P14	ETF1375P14	ETF1500P14
16-17ga	ETF375P16	ETF500P16	ETF625P16	ETF750P16	ETF875P16	ETF1000P16	ETF1125P16	ETF1250P16	ETF1375P16	ETF1500P16
18-19ga	ETF375P18	ETF500P18	ETF625P18	ETF750P18	ETF875P18	ETF1000P18	ETF1125P18	ETF1250P18	ETF1375P18	ETF1500P18
20-22ga	ETF375P20	ETF500P20	ETF625P20	ETF750P20						

# **TOOL ADJUSTMENTS AND COMPONENT REPLACEMENTS**

## **ADJUSTING THE DEPTH OF CUT**

The Elliott ETF Tube Facer can be adjusted to allow the tube to project from 0" – 1/4".

1. Loosen the screw in the Thrust Nut. (Chart 3, Detail 4)
2. Thread the Thrust Nut to the desired position and tighten the set screw. (Chart 3, Detail 3)

## **REPLACING THE TUBE FACER PILOT**

Using the Allen Wrench (provided)

1. Remove the pilot screw and washer. (Chart 3, Detail 11 and 13)
2. Slip the pilot (Chart 3, Detail 10) onto the facer body (Chart 3, Detail 9).
3. Replace the pilot screw. NOTE: Just snug the pilot screw, there is no need to severely tighten.

## **REPLACING THE FACER BLADE**

Using the Allen Wrench (provided)

1. Remove the pilot screw (Chart 3, Detail 13) and the facer pilot (Chart 3, Detail 10).
2. Using the Allen Wrench, loosen the set screw inside the facer body. (Chart 3, Detail 12)  
NOTE: There is no need to remove the set screw.
3. Remove the old cutter bit and replace with a new bit. (Chart 3, Detail 8)
4. Position the bit with the notch aligned to accept the tightened set screw, then tighten the set screw.  
NOTE: Make sure the facer bit is centered and secured.
5. Replace the facer pilot and pilot screw.



## Contact Us

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

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