

**HTT**  
CENTRO AFFILATURA srl

SPECIAL DRILL-REAMERS

**FORALESA®**

FOR COMPOSITES + METALS



# CURRENTLY USED IN GLOBAL CIVIL AND MILITARY AIRCRAFT ASSEMBLY LINES.



## SOME PROGRAMS:

- Boeing  
737, 767, 787, 777, 777x
- Airbus  
A319, A320, A321
- Defence  
(JSF, EFA)



- **Reduce Machining Time**
- **Improve Hole Quality**

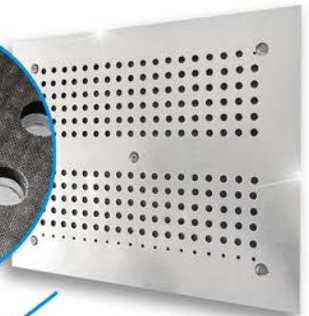


One-Shot  
technology



For many  
Stack-up  
combinations

FOR QUALITY DRILLING AND EXCELLENT HOLE FINISHING IN ONE-SHOT!



- CFRP (entrance)
- CFRP Close-up
- Titanium (exit)



## Stepped Diameters (1 - step or 2 -step)

Double-margin flute  
for smooth hole finish in one-shot

### MATERIALS

Ideal for finished holes on  
**STACKED** materials, e.g.:

- CFRP + Aluminum •
- CFRP + Titanium •
- Aluminum + CFRP •
- Titanium + CFRP •

### KEY FEATURES

- one-shot in manual
- With or without **pre-hole**
- With or without **stepped (pilot) diameters**
- Cutting or non-cutting pilot
- Patent pending



## FULLY CUSTOMIZABLE SOLUTIONS

Contact us to personalize your Foralesa® with your desired dimensions \_sales@httsrl.com.



### Most popular diameters:

CODE	ØPD1	ØPD2	ØD
FL-098-128-196-40	.098" (2.5 mm)	-	.128" (3.25 mm)
FL-128-161-196-40	.128" (3.25 mm)	-	.161" (4.09 mm)
FL-161-190-196-40	.161" (4.09 mm)	-	.190" (4.83 mm)
FL-098-128-190-196-40	.098" (2.5 mm)	.128" (3.2 mm)	.190" (4.83 mm)
FL-190-216-250-196-40	.190" (4.83 mm)	.216" (5.5 mm)	.250" (6.35 mm)
FL-250-283-312-196-40	.250" (6.35 mm)	.283" (7.2 mm)	.3125" (7.94 mm)

CL = 1.96" (50 mm) | OAL = 4.0" (101 mm)

### RECONDITIONING

- Longer tool life can be achieved through the resharpening and regenerating services of HTT

### BENEFITS

- Reduction of drilling steps (2 or more, in just 1)
- Reduction of job time
- Improvement of hole finish quality
- Faster applications
- Dramatic cost savings

# FORALESA®

IS THE ONE-SHOT TOOL FOR DRILLING STACKED COMPOSITES + METALS.

**REPLACE 2** OR MORE TOOLS WITH JUST **1** AND START

## SAVING TIME AND MONEY!

- 1 • Drill-bit – for prehole
- 2 • Drill-bit – for enlarging the hole
- 3 • Reamer – for finishing the hole

**STANDARD PROCESS**



- 1 Just **Foralesa®** ONE-SHOT Solution



**HTT PROCESS**



**REDUCE DRILLING STEPS**, IMPROVE PRODUCTIVITY AND **SAVE COSTS**,  
BY USING **HTT**'S UNIQUE **FORALESA®** DRILL-REAMER!

**FORALESA®** CAN BE USED EITHER FROM BLANK OR WITH PREHOLES.

**REDUCTION OF TOOL CODES**



**JOB TIME REDUCTION**





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do well.  
do better  
GUARANTEED SOLUTIONS  
  
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