



HYBRIDTM
MANUFACTURING
TECHNOLOGIES

AMBITTM XTRUDE-HSS with High-speed Spindle

*Combine material extrusion with
high-speed milling*

Description

This package brings milling and material extrusion to robots and gantries and includes:

- AMBIT XTRUDE-HSS deposition head
- Coupling from the XTRUDE to the spindle
- High-speed HSK spindle (up to 24K RPM) with Variable Frequency Spindle Drive (VFD) control

Equip your robot, gantry, or hexapod with the ability to switch between polymer/composite printing and milling. This equipment combination enables printing near-net at high speeds while still achieving smooth surfaces in a single setup.

Easily go from pellets to print to a finished part using a single system.



AMBITTM
XTRUDE
printing thermo-
plastic composite



AMBITTM XTRUDE with
high-speed spindle
(Image courtesy of
Autodesk)



Upper
cylindrical
section being
milled immedi-
ately after printing



Rectangular part sec-
tion showing as-deposited
bead and milled upper wall
(Courtesy of Autodesk)