

Production process	Event generator	
	ATLAS	CMS
ggF	POWHEG [79–83]	POWHEG
VBF	POWHEG	POWHEG
WH	PYTHIA8 [84]	PYTHIA6.4 [85]
$ZH (qq \rightarrow ZH \text{ or } qg \rightarrow ZH)$	PYTHIA8	PYTHIA6.4
$ggZH (gg \rightarrow ZH)$	POWHEG	See text
ttH	POWHEL [87]	PYTHIA6.4
$tHq (qb \rightarrow tHq)$	MADGRAPH [89]	AMC@NLO [78]
$tHW (gb \rightarrow tHW)$	AMC@NLO	AMC@NLO
bbH	PYTHIA8	PYTHIA6.4, AMC@NLO