## PRODUCT SELECTION GUIDE RadCAD, FloCAD, and TD Direct

R - required

O - optional

S - suggest/recommended

This guide is designed to aid in selecting which Thermal Desktop add-on products may be required and the features they will provide in the modeling process. To ensure our products meet your needs, we recommend evaluating the software and consulting with a sales representative prior to purchasing any product. Thermal Desktop requires both Autocad and SINDA/FLUINT. TD Direct also requires SpaceClaim.

	RadCAD <sup>®</sup>	FloCAD®	TD Direct <sup>®</sup>
Thermal Radiation Analysis			
Calculate form factors and radiation conductors	R		
Calculate orbital heating rates	R		
Calculate trajectory heating rates	R		
Automatic celestial tracking	R		
Terrestrial heating rates	R		
Fluid Analysis			
Single and two phase flow		R	
Support for fluid mixtures		R	
Body forces on fluid		R	
Piping systems		R	O
Cryogenics		R	
CAD Integration			
Direct modeling			R
Simplify and repair geometry			R
Midsurface thin solids			R
Volume or beam extraction			R
Generating 2D and 3D meshes			S
Curved elements			R
Advanced mesh controls			R
Matched meshing			R
Assembly-level meshing options			R
Rapid remeshing for changes in geometry			R
Tagging geometry to identify surfaces, materials, and more			R
Edit STEP and IGES geometry			R



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	RadCAD <sup>®</sup>	FloCAD®	TD Direct <sup>®</sup>
Devices, Events and Special Materials			
Heat pipes		R	0
Loop heat pipes and thermosyphons		R	0
Thermoelectric devices	O		0
Louvers	S		
Complex tanks		R	S
Heat exchangers		R	0
Phase change (PCM) and energy storage		0	
Programmable articulators	S		0
Valves: Control (PID and basic), Check, and more		R	
Transient valve behavior (opening and closing)		R	
Reducers and Expanders		R	
Orifices: choking, vena contracta, and more		R	
Loss devices		R	
Turbomachines		R	
Waterhammer and pressure waves		R	
Automatic Wye and Tee calculations		R	
Multi-segment orbits	R		
Export Capabilities*			
TSS and Trasys	R		
Import Capabilities*			
Most geometry formats			S
TSS, Nevada, Trasys, STEP-TAS	R		

<sup>\*</sup> Export and import capabilities beyond what is provided within AutoCAD.

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