



Specially developed for your machine security by HURON...



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Huron introduces

PRECIPROTECT

collision prevention technology



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PRECIPROTECT

- Is collision prevention a constant burden?
- Do you simulate your machining process?
- Do you make complex parts using three or five axis machining?
- Have you ever damaged your fixtures, your tools or a spindle?
- Does the cost of collision repairs causes capital immobilization?
- Do you wish collisions where a thing of the past



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PRECIPROTECT

PRECIPROTECT

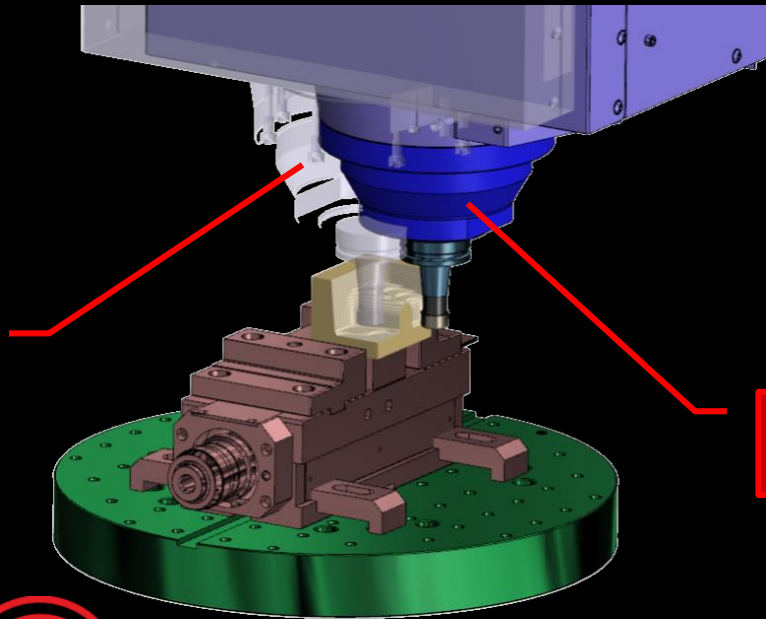
A complete virtualisation of your machine environment

The NC look-ahead provide future axis position, **PRECIPROTECT** uses these future positions to animate a complete virtual 3D model of the machine, detecting any physical contact before it really occurs.

Run in real time in all modes

- Automatic
- MDI
- JOG

**Future machine
position**



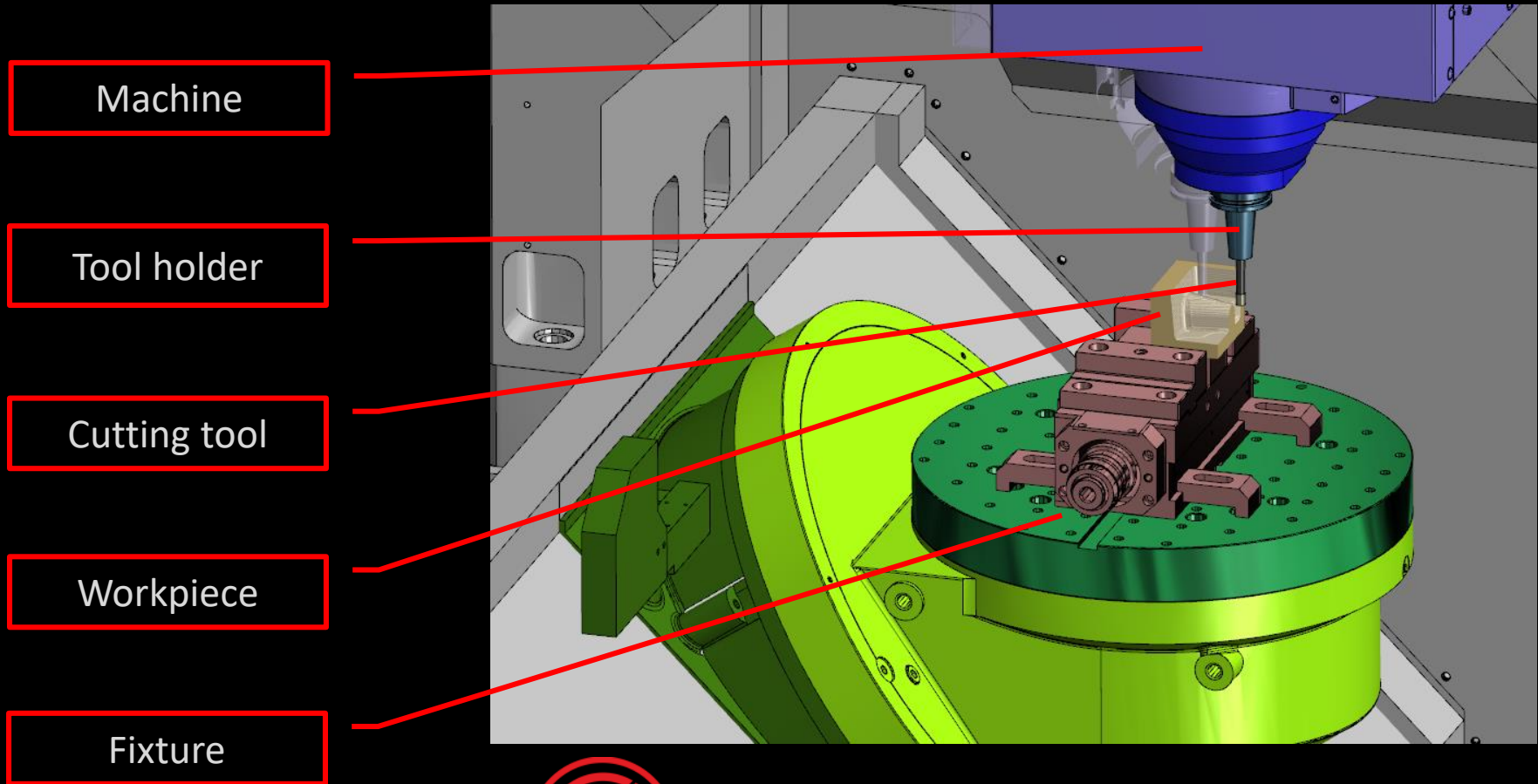
**Real machine
position**



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PRECIPROTECT

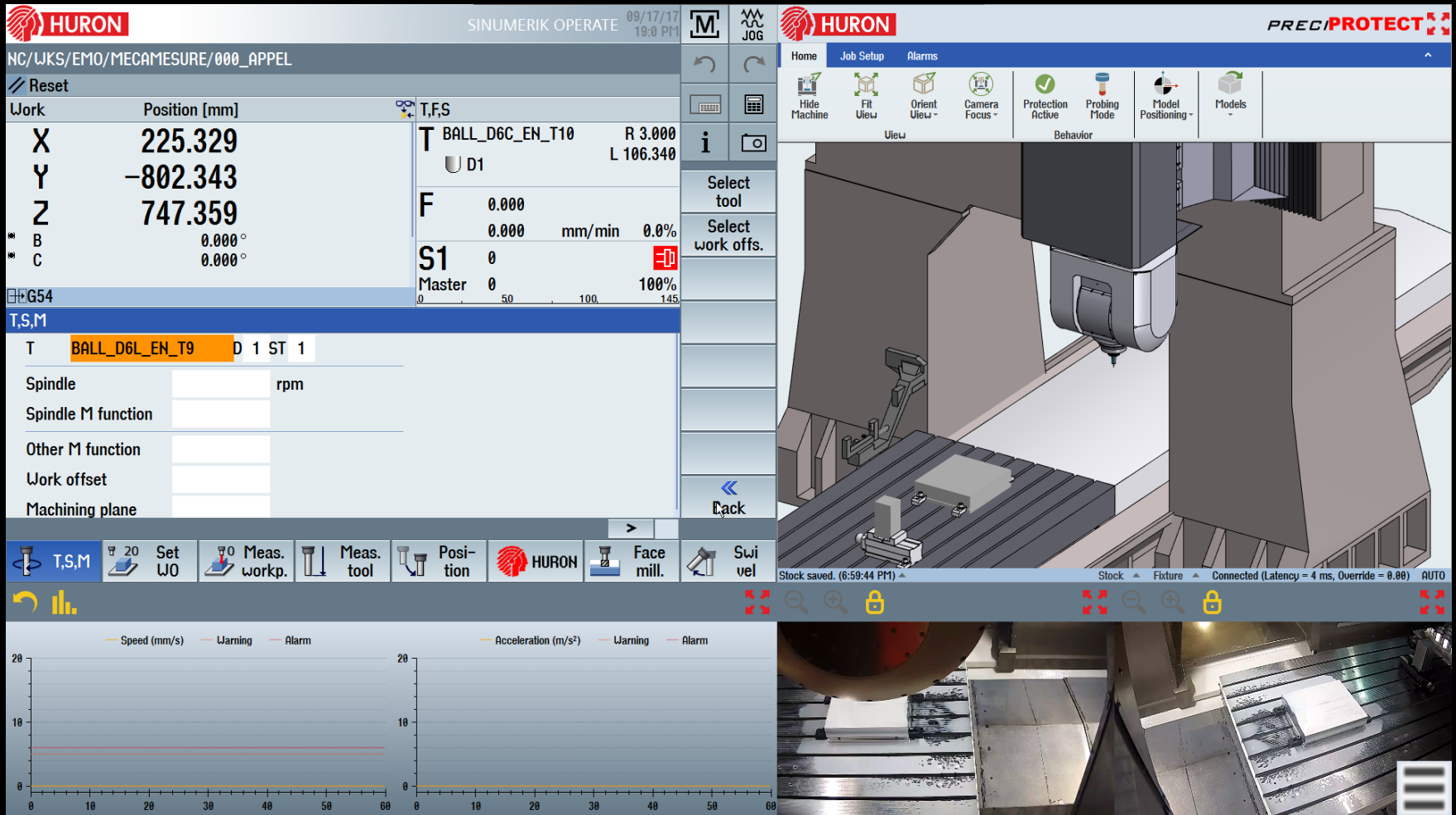
A complete virtual environment that takes into account all components



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PRECIPROTECT

Integrated in the Huron custom HMI

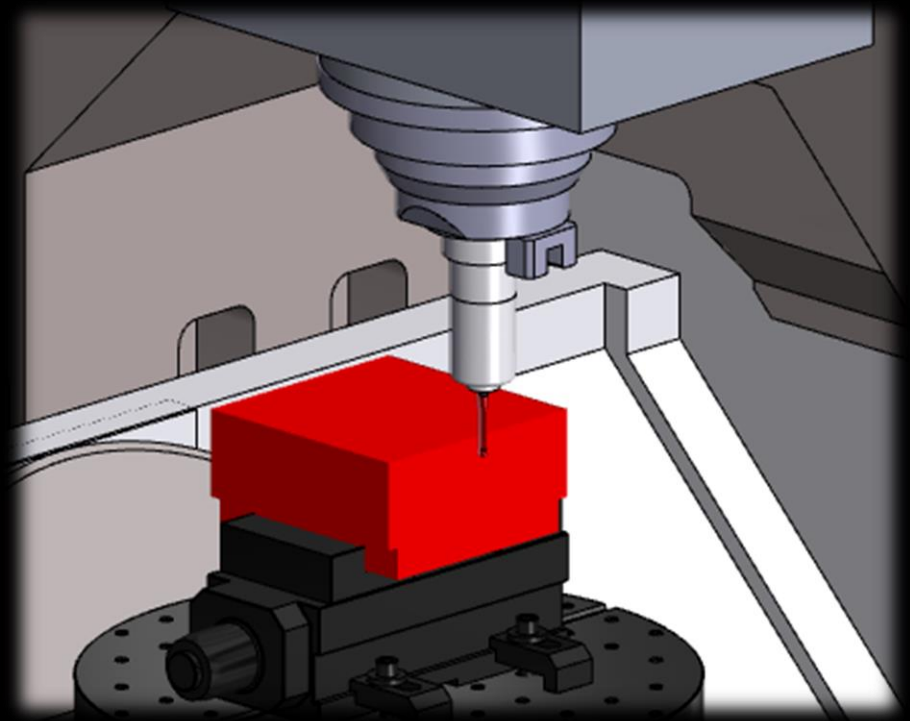
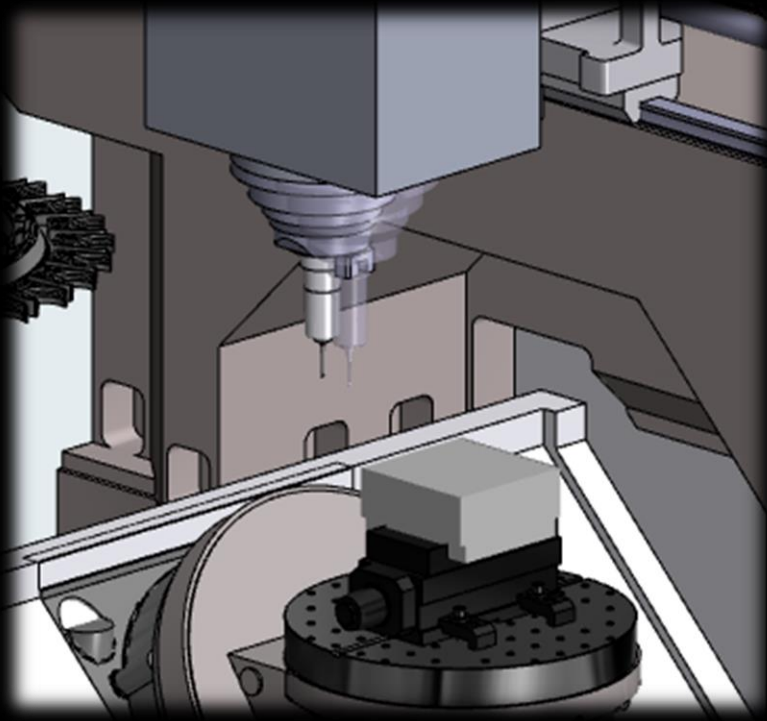


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PRECIPROTECT

Complete protection for expensive probing equipment

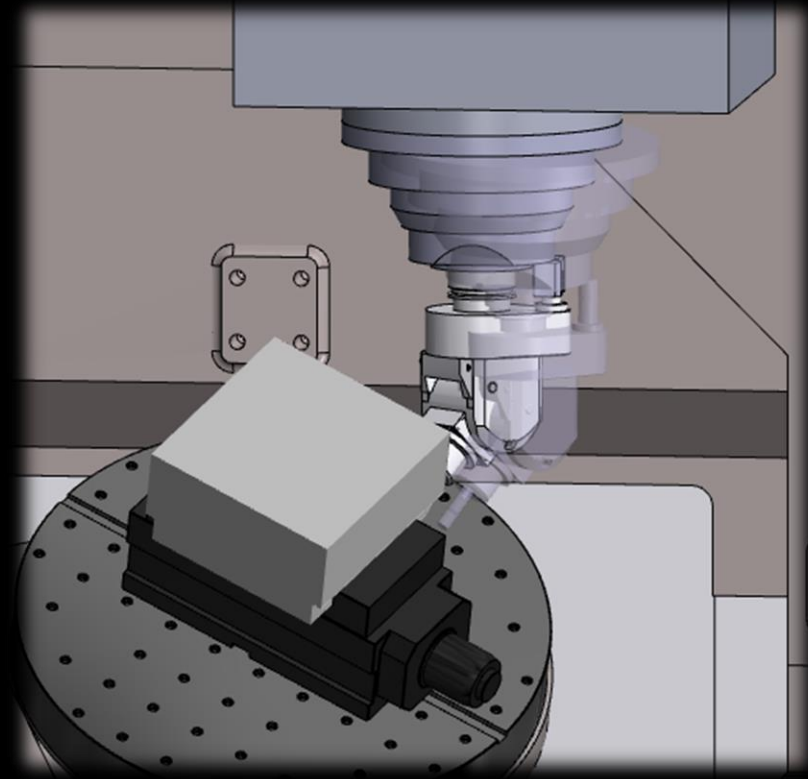
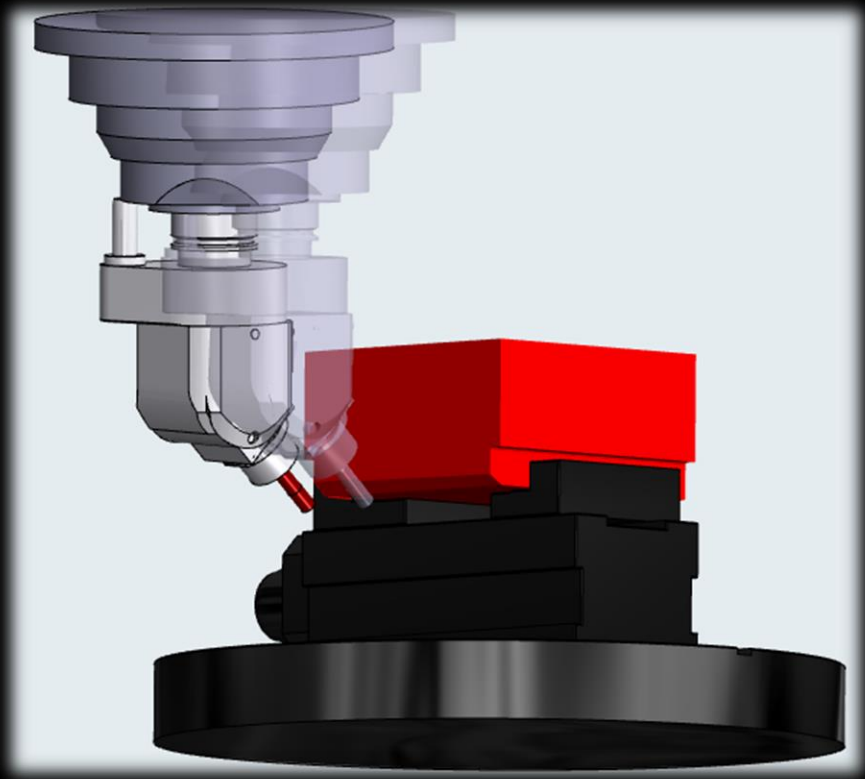
- Part probe
- Tool probe



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PRECIPROTECT

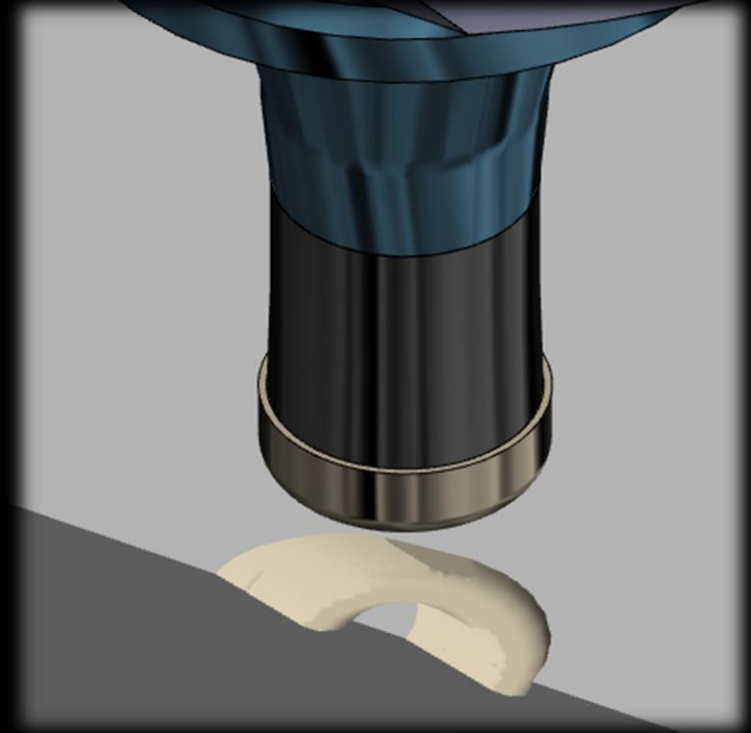
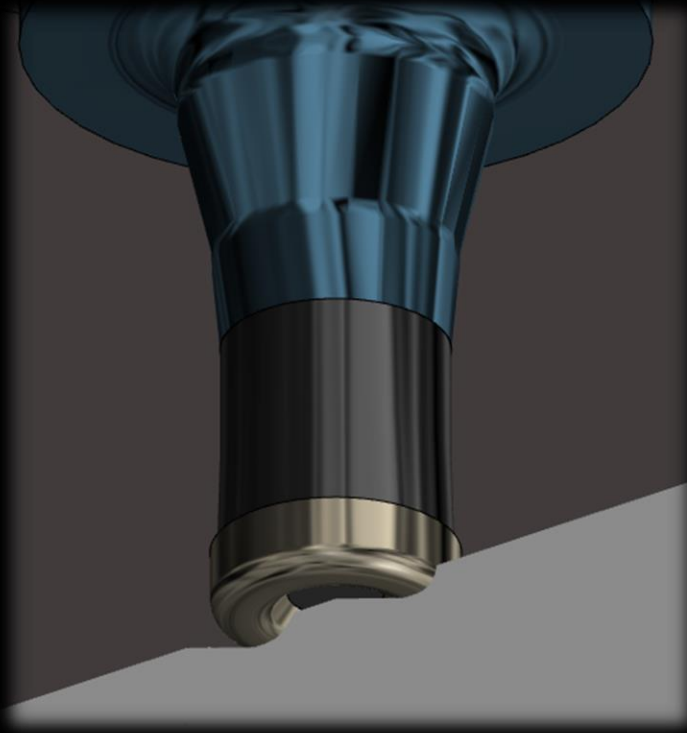
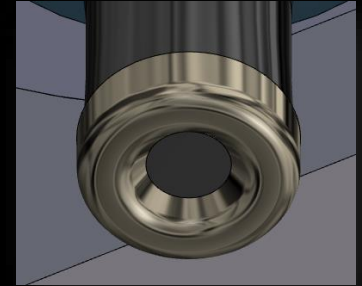
Complete support of angular heads and other spindle attachments
Detailed tool geometry description



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PRECIPROTECT

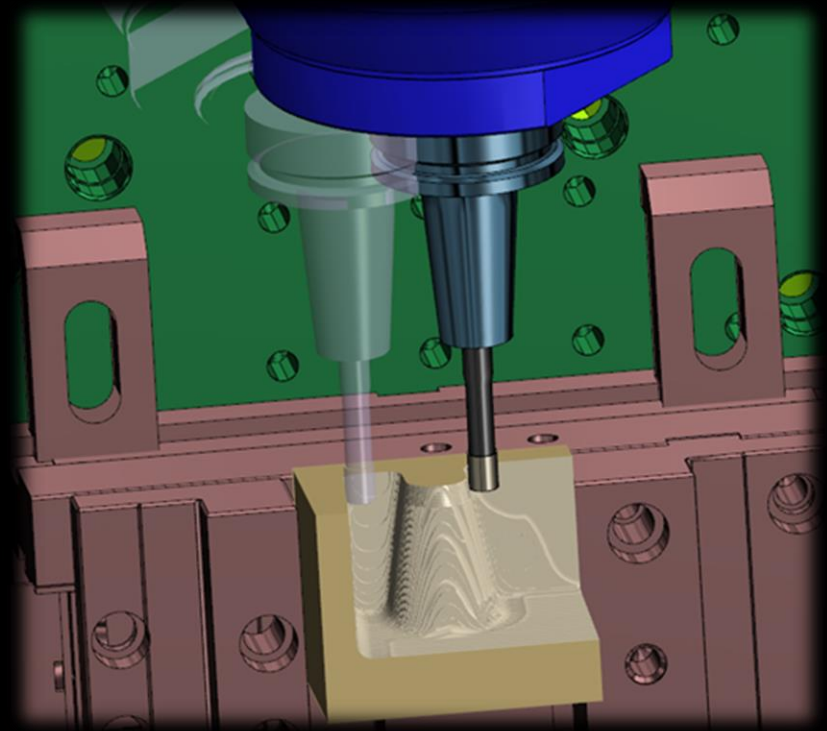
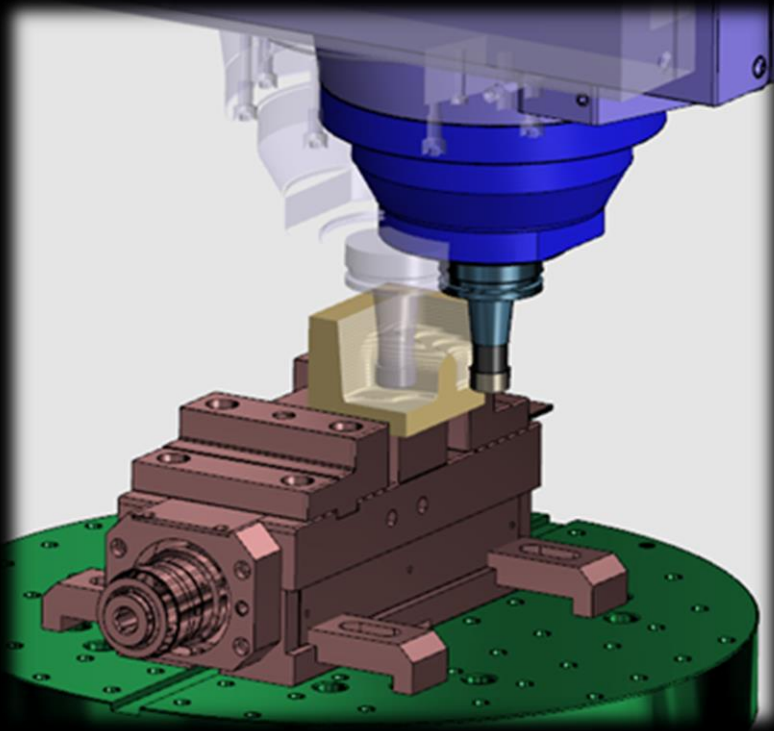
Detect collision of non center cutting tools
Support for tools with bulge



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PRECIPROTECT

Support in-process stock with material removal
Allow export of resulting 3D model



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PRECIPROTECT

○ Real time use of NC data:

- Tool offsets
- Work offsets
- Kinematic data

○ Importation of 3D geometry :

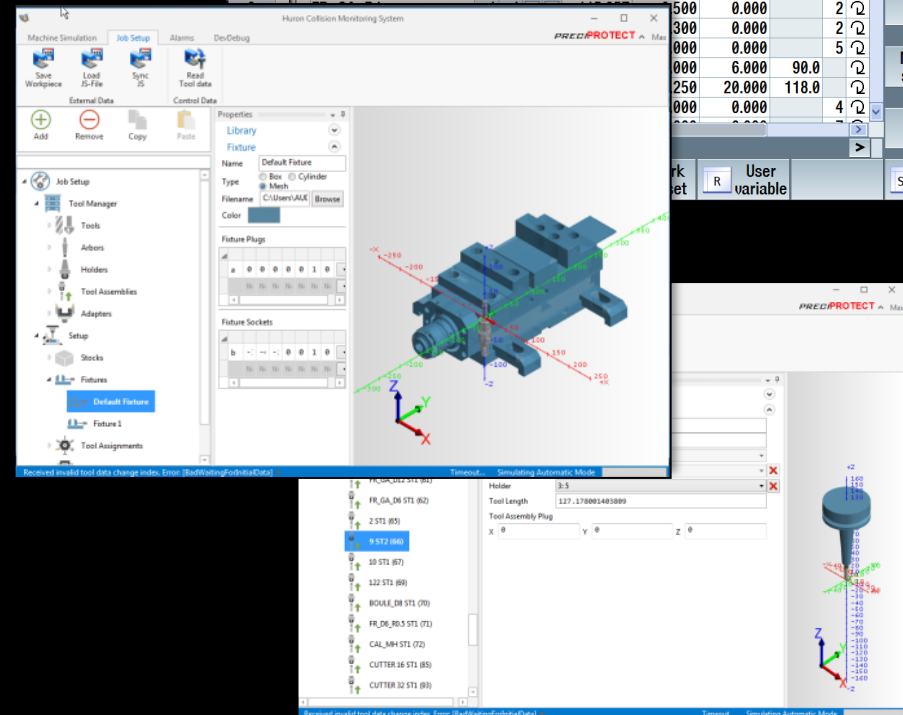
- Fixture
- Stock
- Tool holders

8086 ↓ Test and demonstration machine

Loc.	Type	Tool name	ST	D	I	O	Length	Radius	Cut ±	N	Mag1	Tool measure
1	FR_FIN_D16	1	1				161.099	7.977	0.000	6	Q	Edges
2	BOULE_D2	1	1				119.181	1.001	0.000	2	Q	
3	BOULE_D1	1	1				119.442	0.500	0.000	2	Q	
4	BOULE_D0.8	1	1				90.034	0.400	0.000	2	Q	
5	BOULE_D0.5	1	1				121.172	0.251	0.000	2	Q	
6	BOULE_D0.4	1	1				114.619	0.200	0.000	2	Q	
7	OUTIL ETALONNAGE	1	1				168.724	6.000				
8	3D_TASTER	2	1				56.927	2.963				
+	3D_TASTER	2	2				174.927	0.000				

Magazine selection

Setting data



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PRECIPROTECT

Highlights...

No collision

Préserves machine
accuracy

Protection in manual
and automatic modes

MACHINE PROTECTION



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PRECIPROTECT

Highlights...

No scrap parts

Ensure lead time is
respected

Applicable to all type
of parts

Ideal for complex &
expensive parts

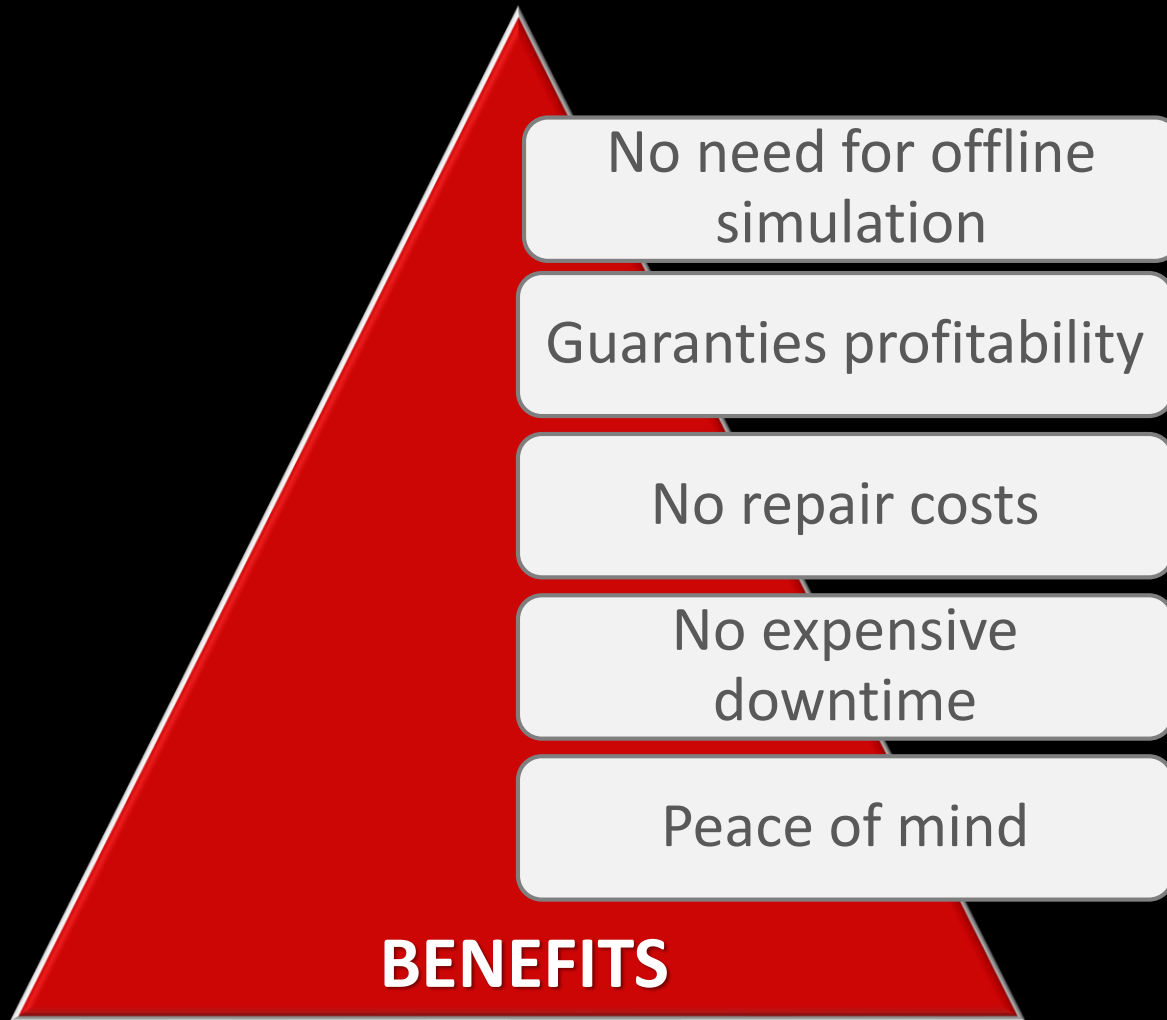
PART PROTECTION



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PRECIPROTECT

Highlights...



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PRECIPROTECT



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