2006. 9

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2. RPM RPM
3. RPM

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1. CAD
2. STL STL FDM
3.
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1. FDM
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3. PVC

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(Rapid Prototyping, RP) 20 80

RP

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1.4.2 RP

RP CAD

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CLI

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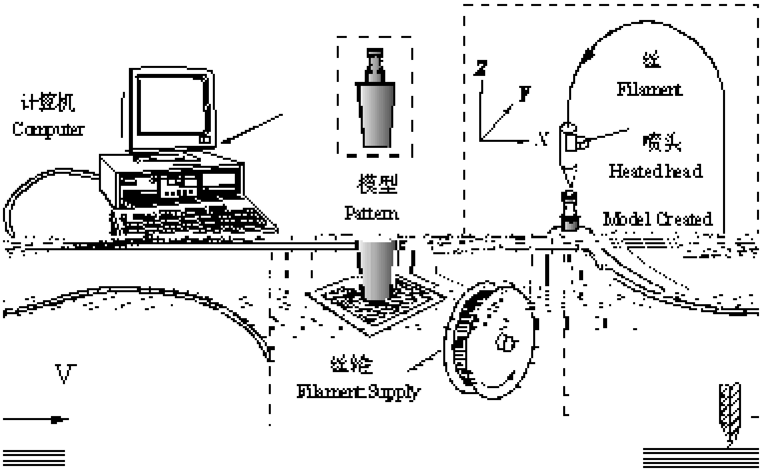

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FDM

MEM250

CATIA

*.STL _ .STL

99032_taoyifei.stl

1.5.2

_ .CLI

99032_taoyifei.cli

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CLI

220 70

100 × 100 × 1mm

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2) 80 × 80 × 50㎜

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4) 99032_taoyifei.cli

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1 CAD STL

Alibre	File -> Export -> Save As .STL -> -> Save
AutoCAD	XYZ “Faceters” -> FACETRES 1 10 (1 10) -> “STLOUT” -> -> “Y” ->
CADKey	Export Stereolithography
I-DEAS	File -> Export -> Rapid Prototype File -> ->Select Prototype Device > SLA500.dat -> absolute facet deviation 0.000395 -> Binary
Inventor	Save Copy As -> STL -> Options High
IronCAD	-> Part Properties > Rendering -> Facet Surface Smoothing 150 -> File > Export -> .STL
Mechanical Desktop	AMSTLOUT STL STL 1. Angular Tolerance —— 15

	STL 2. Aspect Ratio —— / 1 0 3. Surface Tolerance —— 0.0000 4. Vertex Spacing —— 0.0000,
ProE	1. File -> Export -> Model 2. File -> Save a Copy -> .STL 3. 0 4. Angle Control 1
ProE Wildfire	1. File -> Save a Copy -> Model -> STL (*.stl) 2. 0 3. Angle Control 1
Rhino	File -> Save As .STL
SolidDesigner (Version 8.x)	File -> Save -> STL
SolidDesigner (not sure of version)	File -> External -> Save STL STL -> Binary -> -> 0.001mm Max Deviation Distance
SolidEdge	1. File -> Save As -> STL 2. Options Conversion Tolerance 0.001in 0.0254mm Surface Plane Angle 45.00
SolidWorks	1. File -> Save As -> STL 2. Options -> Resolution -> Fine -> OK
Think3	File -> Save As -> STL
Unigraphics	1. File > Export > Rapid Prototyping -> Binary 2. Triangle Tolerance 0.0025 Adjacency Tolerance 0.12 Auto Normal Gen On Normal Display Off Triangle Display On

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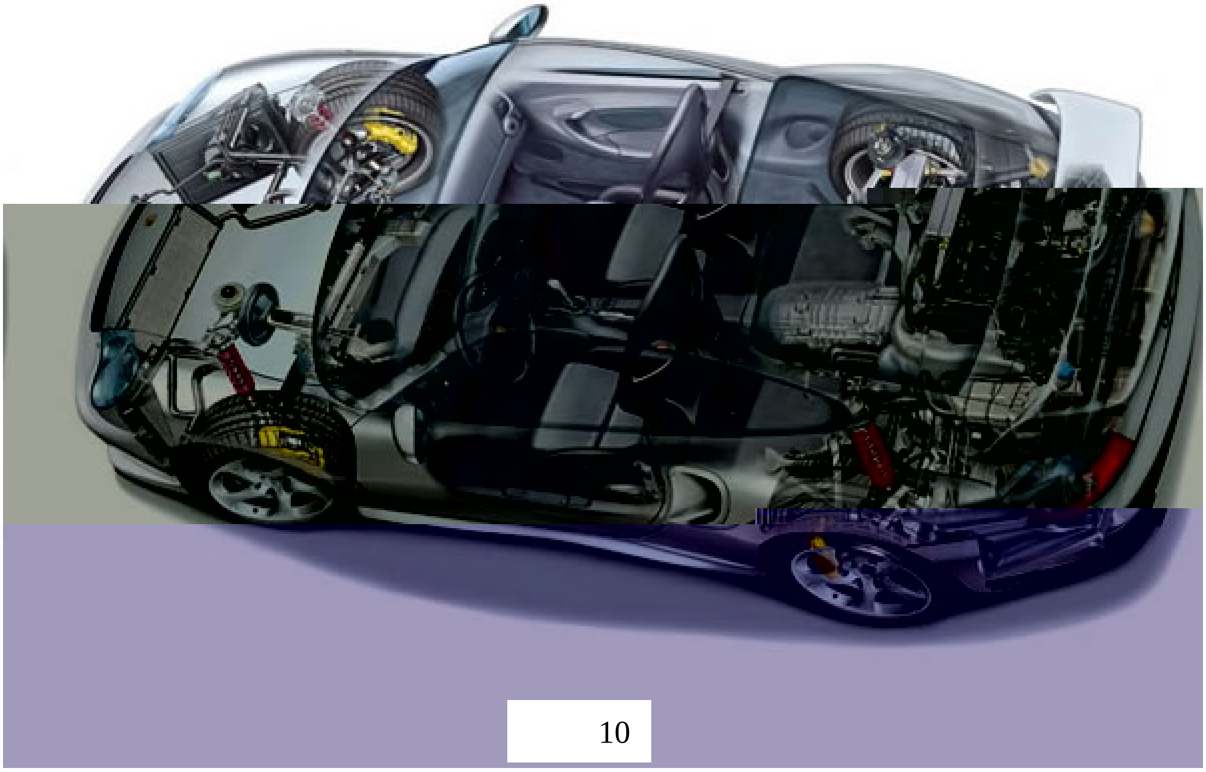

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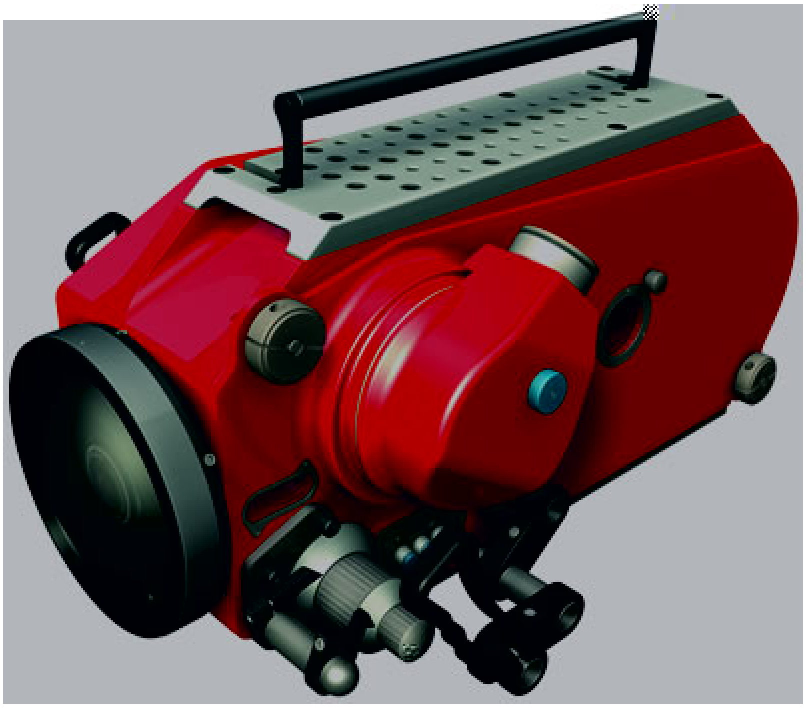
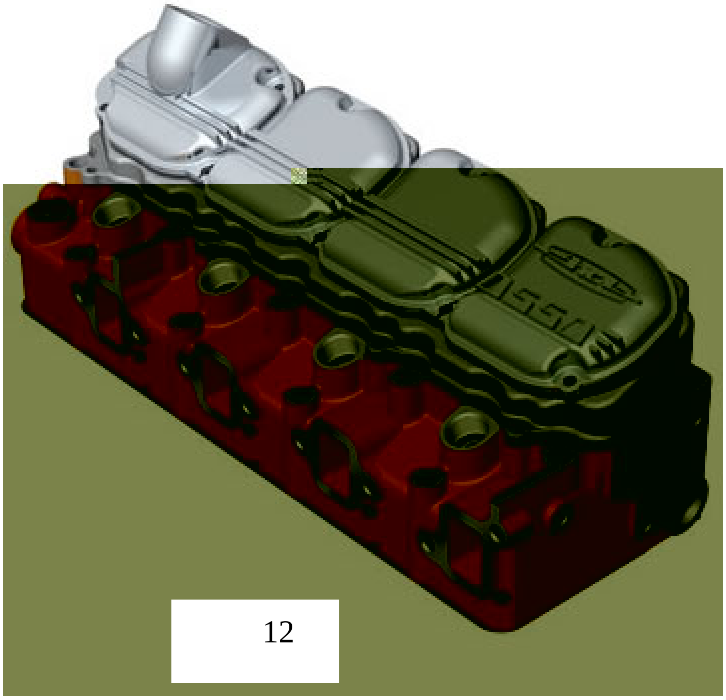


11



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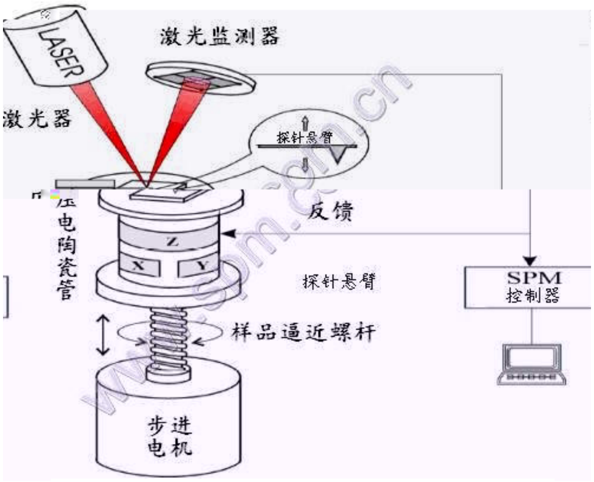

3.

Atomic Force Microscope Employing Laser Beam Deflection for Force Detection, Laser-AFM ——

1 Laser Diode Cantilever

Detector

10^{-9}

(Feedback)

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2.4.2

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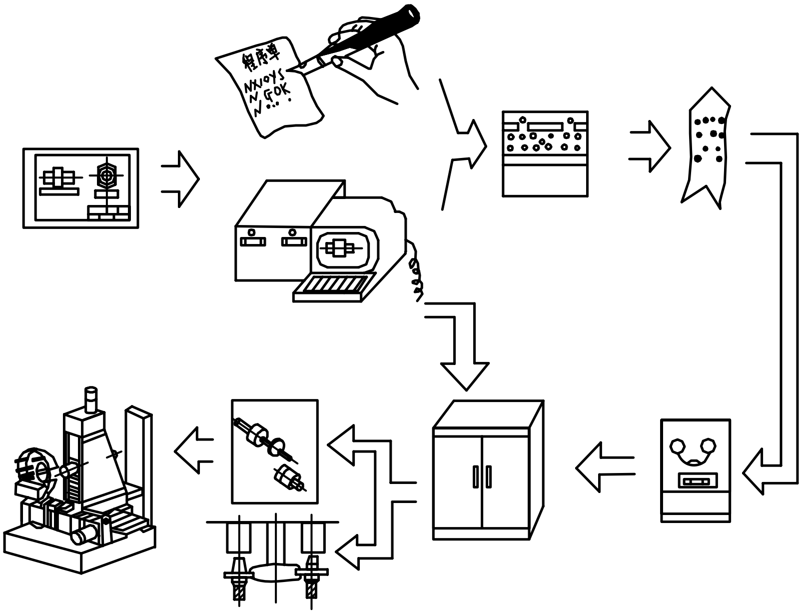

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R C RC

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8000—12000

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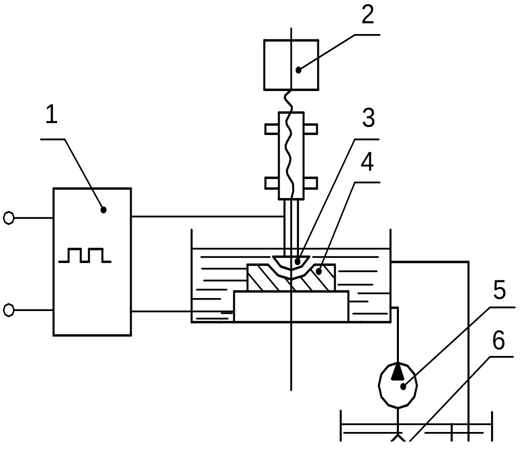

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