

CMET
A Pioneer in Rapid Prototyping

Corporate philosophy

CMET contributes to growth and development of manufacturing technology by producing high-functional and high-quality Additive Manufacturing solution

Guidelines for action

- 1. Adopting to technical innovation of manufacturing, We provide the best choice of systems, materials, and software.*
- 2. We continuously provide the high-quality and high-safety products and services*
- 3. We develop and sell the whole system to adopt needs in all part area, considering global business expansion*
- 4. We obey the social regulation and the spirit, and continue business activity with open and fair.*

CMET CMET Inc.

Nabtesco

Stereolithography system

A new proposal from CMET with its “Made-in-Japan” quality, to the manufacturing field expecting to use more of the additive manufacturing and 3D printing technologies.



RAPID MEISTER ATOMm-8000

The great large modeling area

- Build the large-scale model at once
- W800×D600×H400mm

For reasonable price

High-speed & high-accuracy scanning system

- Equipped CMET's original scanning system

Latest recoating system

Easier operability

- Triple doors for easier removal of the large-scale models
- Equipped with touch panel for easy viewing and operation



RAPID MEISTER ATOMm-4000

The middle size stereolithography machine

- Build bigger than A3 size
- W400×D400×H300mm

For reasonable price

High-speed & high-accuracy scanning system

- Equipped CMET's original scanning system

Easier operativity

- Double doors for easier removal
- Equipped with touch panel for easy viewing and operation



Awarded the “Nikkei Business Daily Awards for Excellence” at the “2013 Nikkei Superior Products and Services Awards”

| Model | ATOMm-8000 |
|------------------------|--------------------------------|
| Laser Type | Solid state laser 1.2W 80KHz |
| Scanning System | Digital scanner mirror (TSS4) |
| Maximum Scanning Speed | 45m/sec |
| Beam Diameter | Variable |
| Maximum Build Envelope | W800×D600×H400mm |
| Minimum Build Layer | 0.05mm |
| Recoating System | Vent Recoater |
| Vat | Interchangeable (Approx. 305ℓ) |
| Controller Power | AC100V Single phase 15A |
| Dimensions | W1900×D1190×H2170mm |
| Weight | 1200kg (without resin) |

| Model | ATOMm-4000 |
|------------------------|------------------------------------|
| Laser Type | Solid state laser 400mW 40KHz |
| Scanning System | Digital scanner mirror (TSS4) |
| Maximum Scanning Speed | 30m/sec |
| Beam Diameter | Variable |
| Maximum Build Envelope | W400×D400×H300mm |
| Minimum Build Layer | 0.025mm *depends on the resin used |
| Recoating System | Blade Recoater (Op. Vent Recoater) |
| Vat | Interchangeable (Approx. 80ℓ) |
| Controller Power | AC100V Single phase 15A |
| Dimensions | W1565×D1050×H1860mm |
| Weight | 550 kg (without resin) |

Stereolithography applications - Resin

TSR-890



| | |
|------------|---------------------------------|
| Appearance | Highly transparent |
| Material | Antimony free |
| Features | High transparency and toughness |

Applications Optimal for assembly and functional tests

TSR-884B ※ Asian Countries Only



| | |
|------------|--|
| Appearance | Highly transparent |
| Material | Antimony free |
| Features | Heat resistant temperature after heat treatment: above 100°C Substantially reducing the discoloration without losing transparency after heat treatment |

Applications Optimal for visualizing flow models etc

TSR-883



| | |
|------------|------------------------------|
| Appearance | Light yellow & transparent |
| Material | Antimony free, Non-hazardous |
| Features | High rigidity and durability |

Applications Rotation-test model
Master model for casting
Master model for investment casting

TSR-880



| | |
|------------|--|
| Appearance | Light white |
| Material | Antimony free |
| Features | Optimal for snap-fit models High accuracy and better vertical surface |

Applications Design assurance, assembly check, profile simulation

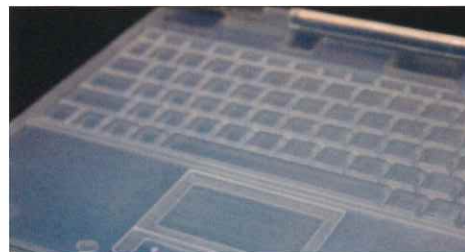
TSR-832



| | |
|------------|--|
| Appearance | Light yellow & transparent |
| Material | Non-hazardous |
| Features | ABS-like Standard-level heat resistance and toughness Available for fitting confirmation |

Applications Profile simulation, assembly check, master model for vacuum casting

TSR-831



| | |
|------------|--|
| Appearance | Light white |
| Material | Non-hazardous |
| Features | PP-like High-toughness Optimal for snap-fit models |

Applications Snap-fit, assembly check

TSR-829



| | |
|------------|--|
| Appearance | Highly transparent |
| Material | Non-hazardous |
| Features | High humidity-resistance and high transparency Optimal for visualizing flow models etc. Very little time degradation |

Applications Lens, visualization test, profile simulation of transparent products

TSR-821



| | |
|------------|--|
| Appearance | Light white |
| Material | |
| Features | High toughness – well suited for tapping and cutting work The best selling item – most suitable for multi-purpose use |

Applications Parts assembly check, interference test, design assurance

Resin list

Material Properties ※ Asian Countrys Only

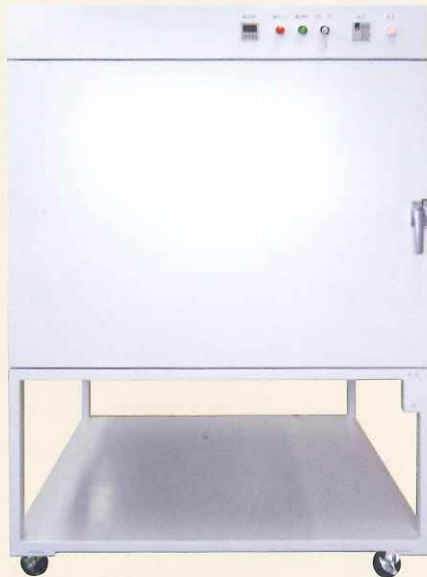
Base Material of all resin below is Epxy.

Comparison material

| | TSR-850 | TSR-890 | ※ TSR-884B | TSR-883 | TSR-880 | TSR-839 | TSR-832 | TSR-831 | TSR-829 | TSR-821 | ABS | PMMA |
|---------------------------------------|------------------|---------|------------------|---------|---------|---------|---------|---------|---------|---------|-------|-------|
| Viscosity(mPa.s) 25°C | 270 | 260 | 480 | 400 | 300 | 200 | 260 | 380 | 160 | 310 | | |
| Specific Gravity 25°C | 1.14 | 1.11 | 1.10 | 1.12 | 1.13 | 1.07 | 1.11 | 1.10 | 1.07 | 1.12 | 1.04 | 1.2 |
| Ec(mJ/cm ²) | 32 | 33 | 24 | 18 | 22 | 22 | 17 | 18 | 19 | 20-25 | | |
| Dp(mm) | 0.19 | 0.21 | 0.21 | 0.18 | 0.22 | 0.21 | 0.16 | 0.17 | 0.19 | 0.15 | | |
| Tensile strength(MPa) | 57 (50) | 43 | 51 (50) | 60 | 53 | 26 | 51 | 39 | 44 | 49 | 43 | 60 |
| Elongation at break(%) | 3.6 (1.9) | 12 | 3-12 (4.4) | 6.5 | 8.5 | 19 | 8 | 14 | 8 | 13-15 | 15-60 | 5 |
| Tensile Modulus(MPa) | 2,650 (3,080) | 2,120 | 2,370 (2,090) | 2,730 | 1,850 | 1,380 | 2,000 | 1,600 | 1,670 | 1,800 | 1,800 | 3,100 |
| Flexural Strength(MPa) | 89 (110) | 66 | 87 (79) | 98 | 78 | 47 | 80 | 62 | 68 | 70 | 70 | 100 |
| Flexural Modulus(MPa) | 2,430 (2,880) | 1,710 | 2,260 (2,080) | 2,710 | 2,350 | 1,430 | 2,300 | 1,650 | 1,840 | 2,225 | 2,250 | 3,000 |
| Izod Impact Strength (J/m,notched) | 33 (32) | 47 | 30 (25) | 37 | 46 | 52 | 31 | 49 | 34 | 48-49 | 200 | 20 |
| HDT 1.81Mpa(°C) | 47 (75) | 45 | 53 (100) | 54 | 48 | 44 | 52 | 45 | 49 | 49-52 | 80-90 | 80 |
| HDT 0.46Mpa(°C) | 53 (97) | 49 | 58 (117) | 59 | 52 | 49 | 59 | 48 | 53 | 55-56 | | |
| Hardness (ShoreD) | D85 (D86) | D81 | D87 (D86) | D84 | D80-82 | D79 | D84 | D80 | D83 | D80-82 | | |

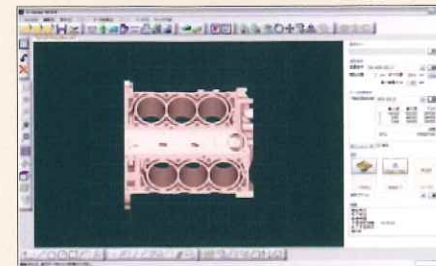
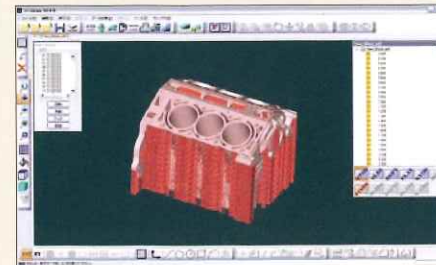
The physical properties mentioned here are typical values and are not default values. The physical property values are subject to change without prior notices.

UV Surface Processors UV 800HL



| | |
|------------------------|---|
| Dimensions | W1130xD1332xH1603mm |
| Weight | 230kg |
| Maximum model weight | 70kg |
| Maximum Work Size | W800xD600xH400mm |
| Controller Power | AC200V Single Phase 20A |
| Length of supply cable | 10m (Normal type) |
| UV Lamp | 1KW Mercury Lamp (Wavelength:300~400m) |
| Table | Rotary type |

Software C-Sirius



Improved operability

- Customizable toolbar
- CAD like mouse operation

Enhanced support data creation function

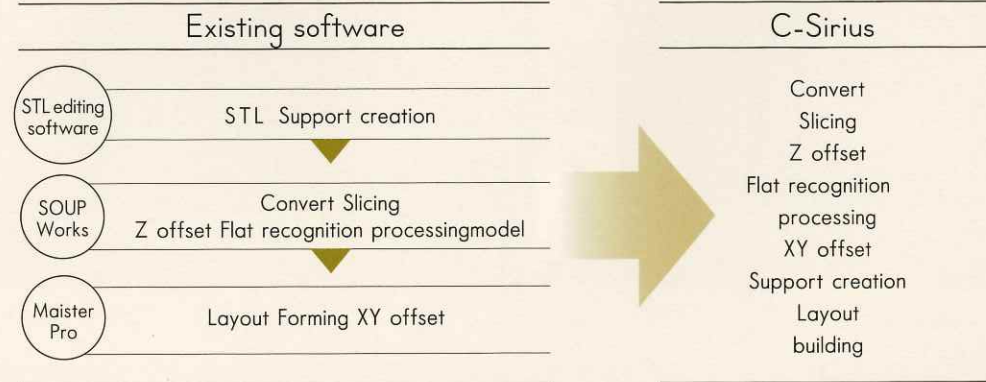
- Creates appropriate support data automatically
- Manual edition of support data

Enhanced data processing function

- Fast data processing
- Automatic data correction

Enhanced forming function

- Display of real model data in the arrangement layout
- Display function of forming history (Resin consumption quantity management etc)



Corporate Data

| | |
|----------------|--|
| Company name | CMET Inc. |
| Address | Sumitomo Fudosan Shin-yokohama Bld. 2-5-5 Shin-yokohama Kohoku-ku Yokohama, Kanagawa 222-0033 Japan. TEL: 81-45-478-5561 FAX: 81-45-478-5569 URL http : //www.cmet.co.jp e-mail : sales@cmet.co.jp |
| Established | November 02, 1990 |
| Capital | 400,000,000 Yen |
| Business field | Rapid prototyping system business Puroduction and sales of rapid prototyping systems Production and sales of photo-curable resins Technical support Maintenance |
| Stockholder | Nabtesco Corporation 93.75% ADEKA Corporation 5.00% YAC Corporation 1.25% |

History

| | |
|------|---|
| 1988 | SOUP, the first stereolithography machine in Japan is released |
| 1990 | CMET Inc. is founded |
| 1992 | SOLIFORM series released from Teijin Seiki Co.,Ltd |
| 1997 | Company name changed to NTT DATA CMET Inc. |
| 2000 | Company name changed to CMET Inc. |
| 2001 | Business tie-up with opto-imaging company belonging to Teijin Seiki |
| 2002 | Rapid Meister series released |
| 2003 | Head office and showroom relocated to Shin-Yokohama |
| 2005 | Rapid Meister RM-6000 II released |
| 2007 | Resin Development Center moved to Yokohama |
| 2010 | Rapid Meister EQ-1 released |
| 2013 | Rapid Meister ATOMm-4000 released |
| 2014 | Rapid Meister ATOMm-8000 released |
| 2015 | Sand Casting Meister series released |
| 2016 | Mini Meister series released |

The Growing Nabtesco Group



| | |
|--------------|---|
| Company Name | Nabtesco Co.,Ltd. (URL http://www.nabtesco.com) |
| Address | JA Kyosai Bldg., 7-9, Hirakawacho 2-chome, Chiyoda-ku, Tokyo 102-0093, Japan TEL: 81-3-5213-1133 FAX: 81-3-5213-1171 |
| Capital | 10,000,000,000 Yen |

Nabtesco Corporation was formed on September 29, 2003 as a holding company for Teijin Seiki Co., Ltd. (named TS Corporation from Oct. 2003 - Sept. 2004) and NABCO Ltd. In October 2004 the businesses of the two companies were integrated and a new machine manufacturing entity was born. Our products include compact reducers for industrial robots, unit brakes and valves for construction machinery, aircraft parts, braking devices for trains and commercial vehicles, ship engine control systems, automatic doors, and many other devices and systems related to motion control. We hold the top market share in many fields where motion control is used, and are actively developing new areas of business, including the stereolithography machines made by CMET Inc.

CMET

CMET Inc.

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C2018.04

