



PVI

Particle Velocity Imaging

INNOVATION

ZM

Messtechnik & Consulting

Particle Velocity Imaging



Application fields:

The PVI-system measures the velocity of small and luminous particles generated in thermal spraying processes. PVI is developed for:

- plasma spraying
- wire arc spraying
- flame spraying

The working area is research and development.

Simple and easy use of software as well as low-cost pricing for the complete system was taken into account.

Characteristics of the PVI®- system:

- "plug and measure" principle
- direct result management
- short measurement time
- small and robust camera
- quick system calibration
- on-line display for:
 - max-, min-, average velocity
 - speedometer, histogram, trend
 - single/multiple speed
- image save, data save, setting, save
- compatible for data export to Microsoft Excel®

Technical characteristics:

camera unit:

objective:	telecentric lenses
resolution:	1024(H) x 768(V)
shutter:	highspeed to lowspeed
integration:	fullframe
measurement distance:	> 15 cm
measurement volume:	~ 25 cm ³
velocity range:	0 ... 1000 m/s
camera dimensions:	25 cm (l) x 6 cm (w) x 6 cm (h)
camera mass:	936 g

camera control interface:

1 x Trigger IN (real time, PLC standard), 20 ... 24 V
18 cm (l) x 11 cm (w) x 6 cm (h)

minimal hardware requirements PC:

processor 1.0GHz, 256MB RAM, 100 MB HDD space,
graphical resolution 1024 x 768 pixel, 1x network interface
ethernet 10/100, Windows XP / 7