



MORA PRIMUS L Technical Specification

MORA PRIMUS L

Features

Features of PRIMUS L



Primus L series CMM is a multi-purpose geometric measurement instrument. Relying on the mature technology and rich experience of manufacturer, advanced finite element analysis technology is introduced into the design, we provide efficient and reliable measurement solutions for the measurement of shape and position errors of various large and medium-sized measured parts.

Single overhead structure reduces the moving weight in Y direction and ensure the stability of the machine.

The international advanced double computer system of controller system which greatly improves the reliability and anti-interference ability.



Z-axis balance cylinder is rod balance cylinder, which is much safe and more reliable than rope cylinder

X Z and Y axes are patented transmission structure, with stable transmission, low noise and high precision

It is designed by finite element analysis method. The fully closed frame mobile structure with good rigid structure and light weight. It is simple and compact structure, strong rigidity, small geometric error, large bearing capacity and good motion performance. With high precision, high performance and high stability

Possible to configure with different Renishaw contact probe systems

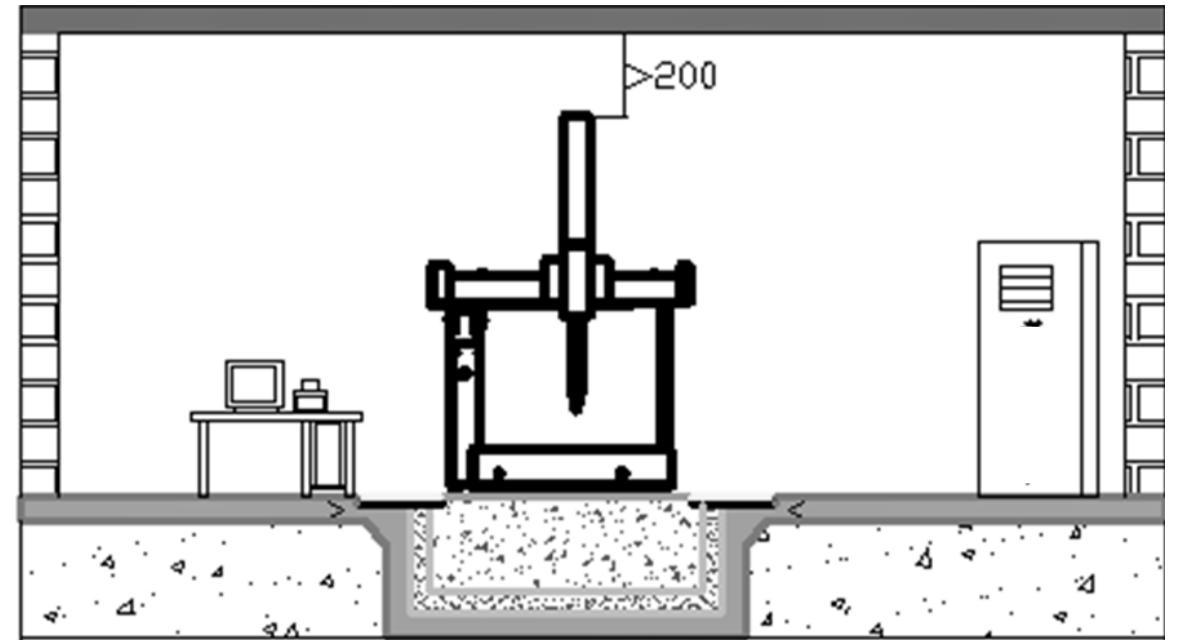
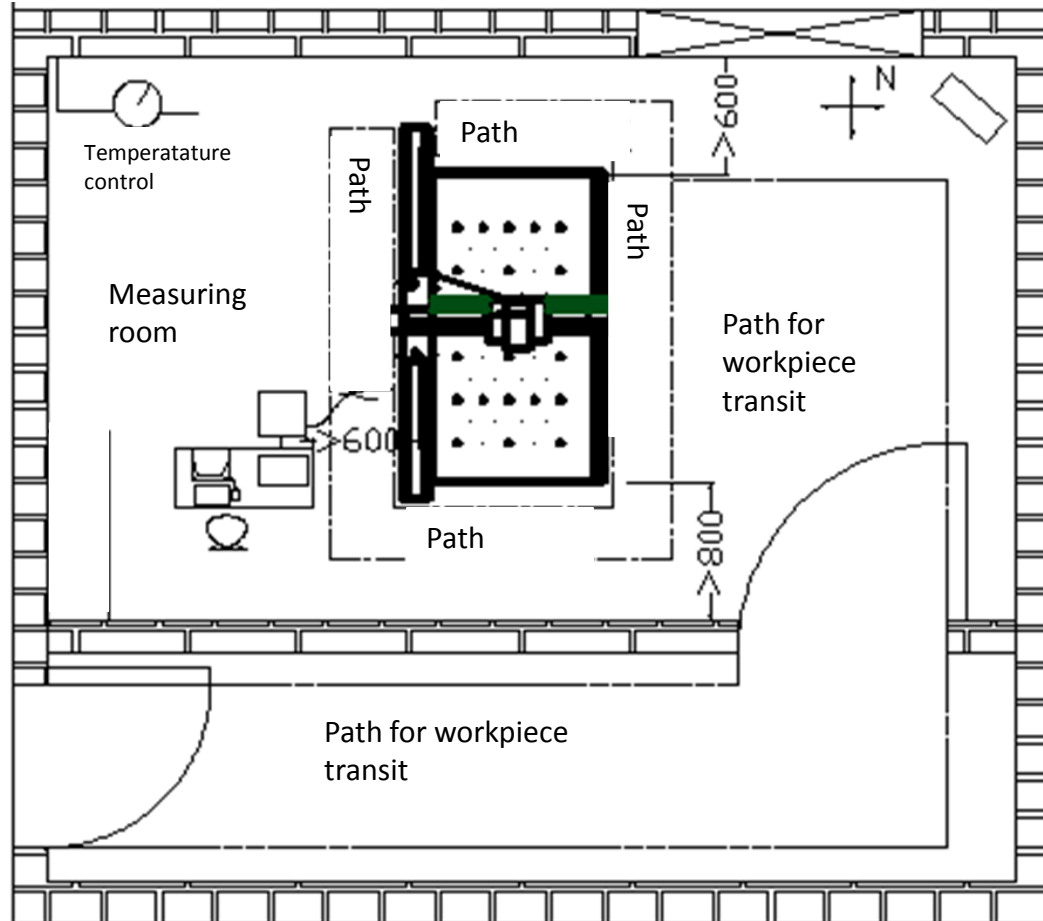
The grating scale is slot structure, easy maintenance and installation

The worktable and guide rail are all made of high-quality granite materials, which has the advantages of high precision, high stability and relatively less affected by the external environment;

Granite air bearing guide rail arrangement has a larger span in similar products, and in strict accordance with the principle of surface, line and point positioning, ensure the accuracy of the measuring machine and the installation process.

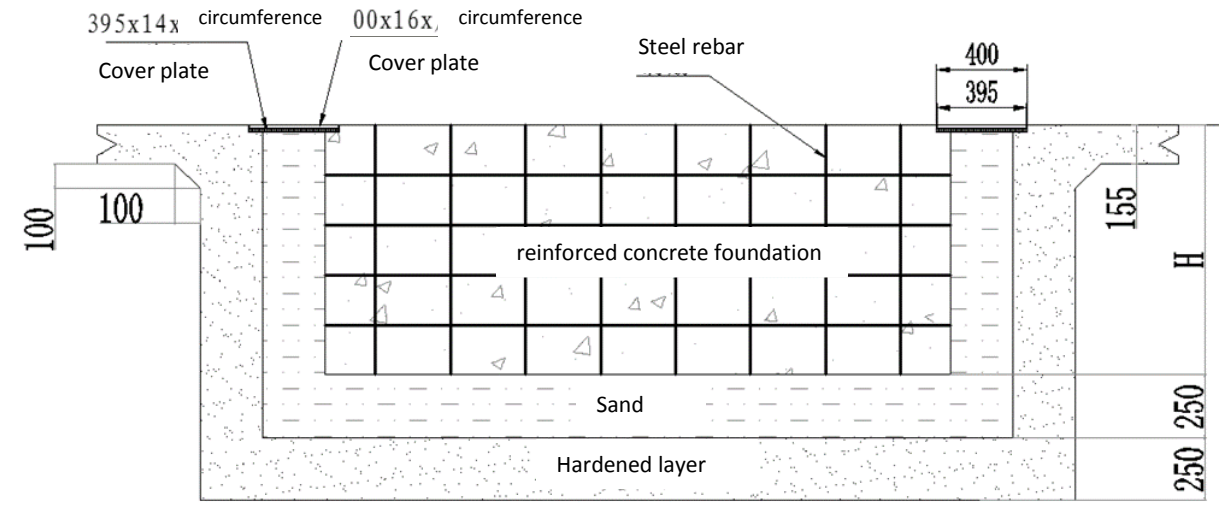
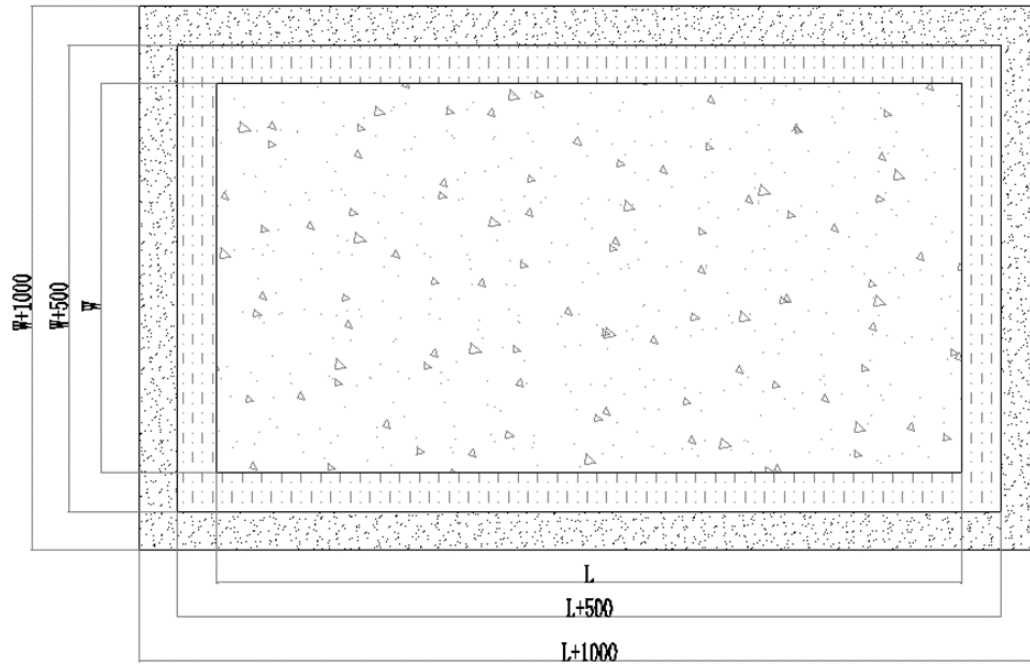
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Layout
Layout of PRIMUS L



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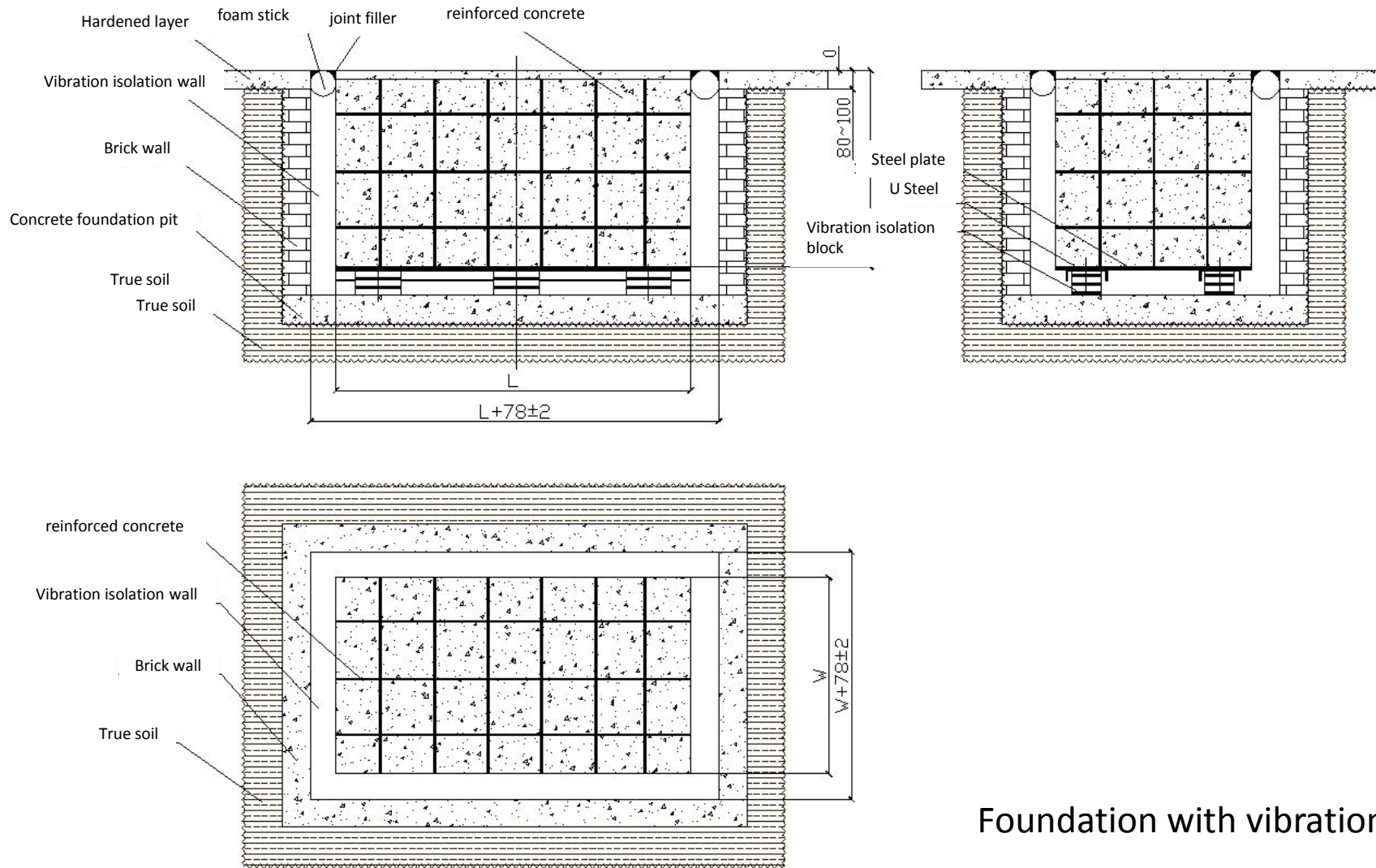
Foundation
Foundation of PRIMUS L



Foundation with vibration isolator

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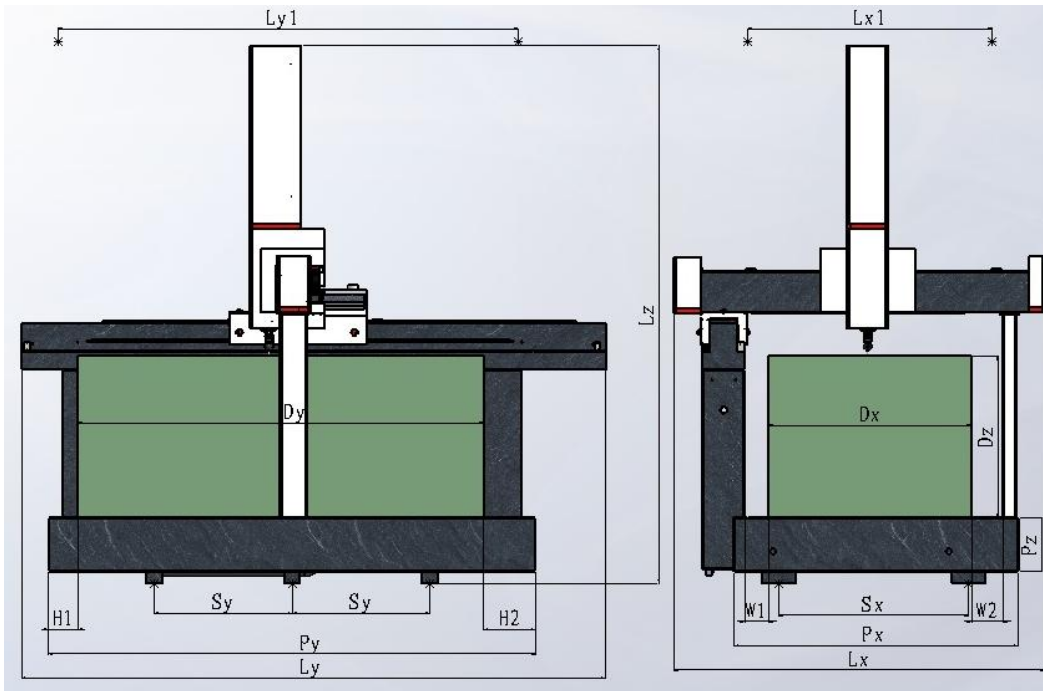
Foundation of PRIMUS L



Foundation with vibration isolator

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Size of PRIMUS L



Model	Measuring range (Dx×Dy×Dz) (mm)	Load capacity (kg)	Machine Weight (kg)	Overall size(Lx×Ly×Lz) (mm)	Z axis section (mm)
Primus L121510	1200 x 1500 x 1000	4000	6500	2450X2785X3700	110X110
Primus L122010	1200 x 2000 x 1000	4000	8050	2450X3320X3700	
Primus L122510	1200 x 2500 x 1000	4000	9260	2450X3820X3700	
Primus L152010	1500 x 2000 x 1000	4000	9250	2745X3320X3700	
Primus L152510	1500 x 2500 x 1000	5000	10500	2745X3820X3700	
Primus L153010	1500 x 3000 x 1000	6000	11950	2745X4320X3700	
Primus L152012	1500 x 2000 x 1200	4000	9350	2745X3320X4100	
Primus L152512	1500 x 2500 x 1200	5000	10600	2745X3820X4100	
Primus L153012	1500 x 3000 x 1200	6000	12150	2745X4320X4100	
Primus L153512	1500 x 3500 x 1200	6000	13550	2745X4820X4100	
Primus L153014	1500x 3000 x 1400	6000	12200	2745X4320X4500	
Primus L153514	1500 x 3500 x 1400	6000	13650	2745X4820X4500	
Primus L183010	1800 x 3000 x 1000	6000	13250	3045X4320X3700	
Primus L183510	1800 x 3500 x 1000	6000	14800	3045X4820X3700	
Primus L183012	1800 x 3000 x 1200	6000	13400	3045X4320X4100	
Primus L183512	1800 x 3500 x 1200	6000	15000	3045X4820X4100	
Primus L183014	1800 x 3000 x 1400	6000	13600	3045X4320X4500	
Primus L183514	1800 x 3500 x 1400	6000	15200	3045X4820X4500	
Primus L184014	1800 x 4000 x 1400	6000	17150	3045X5320X4500	

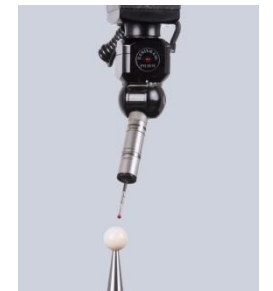
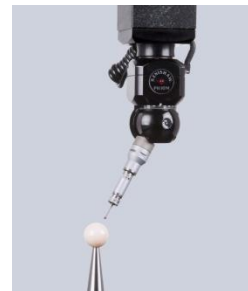
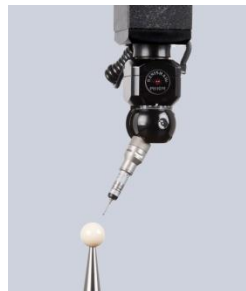
Note: the deviation of overall dimension is less than 20mm;

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System description



Type	Bridge type three coordinate measuring machine	
Operating mode	Automatic CNC mode/Handheld mode	
Default probe configuration	PH10T+TP20+SF module	
Software	NET.DIMS	
	PRIMUS L All series	
Travel speed	Axes mm/s	300
	Vector mm/s	519
Acceleration	Axes mm/s ²	1000
	Vector mm/s ²	1732





TP20 probe, 20mm stylus, Ball diameter 2mm , according to ISO 10360-2.
Environment temperature 20 °C.

121510	152510	152012	153014	152515	153016	183010	183012	183014	183515	183016
122010	153010	152512	153514	153015	154016	183510	183512	183514		183516
122510	153510	153012						184014		184016
		153512								

$MPE_E (\mu m)$	2.3+L/300	2.5+L/300	2.9+L/300	3.3+L/300	3.5+L/300	3.7+L/300	2.8+L/300	3.2+L/300	3.6+L/300	3.8+L/300	4.0+L/300
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$MPE_p (\mu m)$	2.3	2.5	2.9	3.3	3.5	3.7	2.8	3.2	3.6	3.8	4.0
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TP200 probe, 20mm stylus, Ball diameter 2mm , according to ISO 10360-2.
Environment temperature 20 °C.

121510	152510	152012	153014	152515	153016	183010	183012	183014	183515	183016
122010	153010	152512	153514	153015	154016	183510	183512	183514		183516
122510	153510	153012						184014		184016
		153512								

$MPE_E (\mu m)$	2.1+L/300	2.3+L/300	2.6+L/300	2.9+L/300	3.1+L/300	3.3+L/300	2.4+L/300	2.9+L/300	3.2+L/300	3.4+L/300	3.6+L/300
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$MPE_p (\mu m)$	2.1	2.3	2.6	2.9	3.1	3.3	2.4	2.9	2.9	3.2	3.6
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Probe and accuracy



SP25/SP80 probe, according to ISO 10360-2.
Environment temperature 20 °C.

121510	152510	152012	153014	152515	153016	183010	183012	183014	183515	183016
122010	153010	152512	153514	153015	154016	183510	183512	183514		183516
122510	153510	153012						184014		184016
		153512								

$MPE_E (\mu m)$	1.9+L/300	2.0+L/300	2.3+L/300	2.6+L/300	2.9+L/300	3.0+L/300	2.1+L/300	2.6+L/300	2.9+L/300	3.1+L/300	3.3+L/300
$MPE_P (\mu m)$	1.9	2.0	2.3	2.6	2.9	3.0	2.1	2.6	2.9	3.1	3.3
Scanning $MPE_P (\mu m)$	3.4/75s	3.4/75s	3.8/75s	4.2/75s	4.2/75s	4.5/75s	3.4/75s	3.8/75s	4.2/75s	4.2/75s	4.5/75s

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