

LY-90R/TR

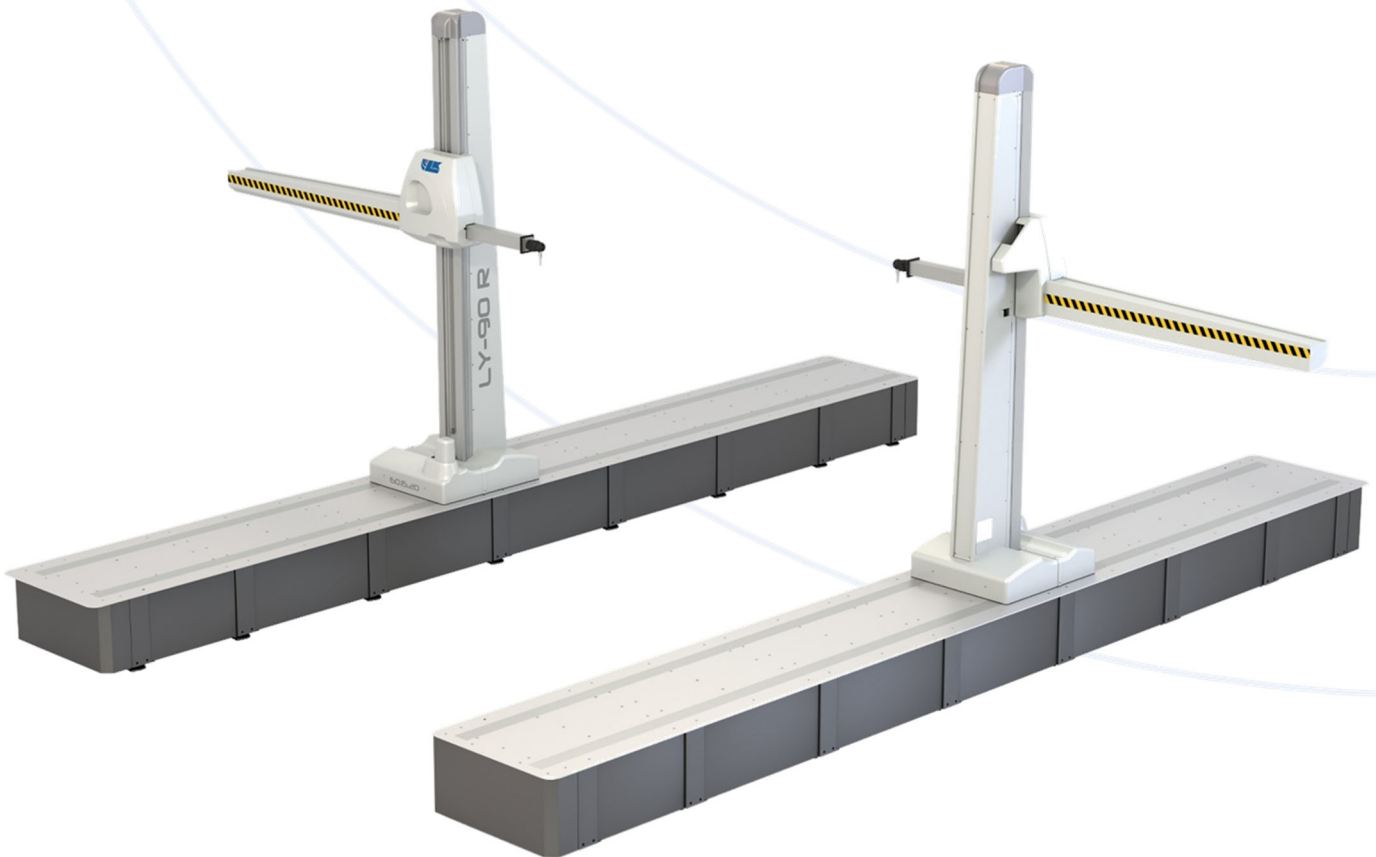
Coordinate Measuring Machine – horizontal arm on rail/twin rails

30.15.20

40.15.20

50.15.20

60.15.20



TECHNICAL DATA | Dimensions

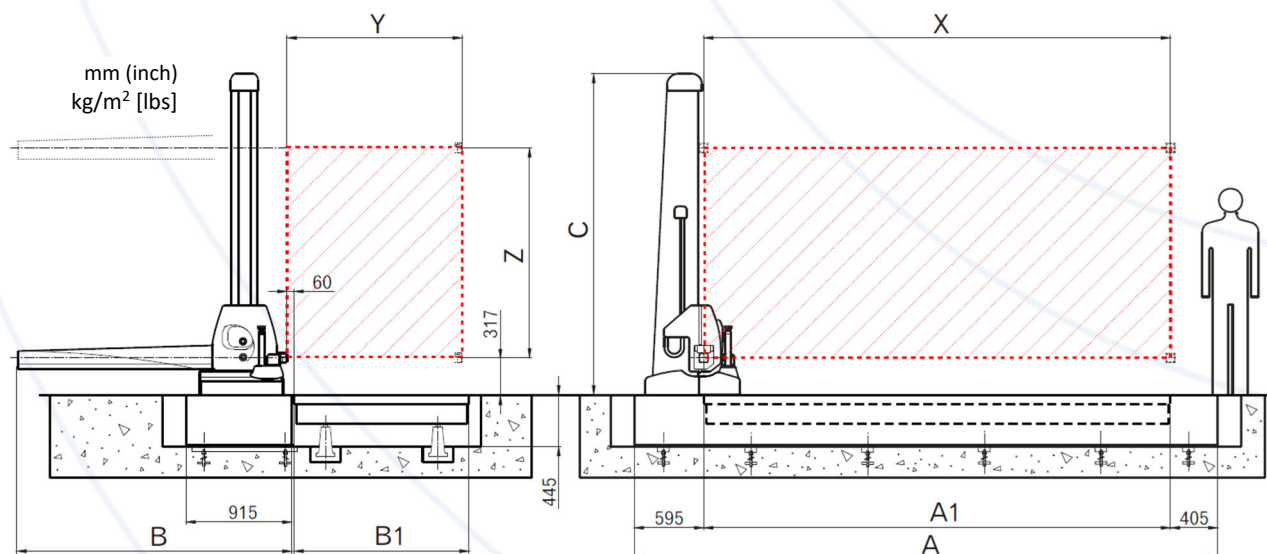
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60.15.20



	Travels			Overall					CMM Weight	
	X	Y	Z	A single(R)	A twin(TR)	B single(R)	B twin (TR)	C	single(R)	twin(TR)
30.15.20	3000 (118)	1500 (59)	2000 (79)	4070 (160)	4180 (165)	3774 (149)	7507 (296)	3421 (135)	2105 (4641)	4210 (9281)
40.15.20	4000 (157)	1500 (59)	2000 (79)	5070 (200)	5180 (204)	3774 (149)	7507 (296)	3421 (135)	2545 (5611)	5090 (11222)
50.15.20	5000 (197)	1500 (59)	2000 (79)	6070 (239)	6180 (243)	3774 (149)	7507 (296)	3421 (135)	2985 (6581)	5970 (13162)
60.15.20	6000 (236)	1500 (59)	2000 (79)	7070 (278)	7180 (283)	3774 (149)	7507 (296)	3421 (135)	3425 (7551)	6850 (15102)

TECHNICAL DATA | Performance

TOUCH PROBE ACCURACY ¹					DYNAMICS		
ISO 10360 -2:2009					ISO 10360 -5:2010		
Length measurement at 18°C to 22°C			E0 MPE E150 MPE	Probing accuracy touch probe	form PFTU MPE	Acceleration mm/s ²	Velocity mm/s
TP20 ² PH10M/T PLUS				TP20 ² PH10M/T PLUS			
xx.15.20	R	22 + 25L/1000 ≤ 60			22.0	850	520
	TR	40 + 30L/1000 ≤ 100					

Conformance is proven when all errors of indication lie within or on the accuracy specification limits MPE/MPL.

Conformance is unproven when one or more errors of indication lie outside the accuracy specification limits MPE/MPL.

¹ Touch probe accuracy specifications using manufacturer specified test lengths and test sphere with empirical qualification.

E0 MPE E150 MPE

Maximum volumetric length measurement error in microns.

PFTU MPE

Maximum single stylus form error in microns using touch point mode.

² TP20 standard force 5-way module, PS17R Ø4x20mm stainless steel shaft stylus.

TECHNICAL DATA | Probing

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PROBE HEADS

PH10M PLUS



Head type	Indexing head
Head positions	720
Angular tilt	0° to +105° in 7.5° steps
Angular rotation	0° to ±180° in 7.5° steps
Probe change rack	MRS2

TOUCH PROBES

TP20

Probe type	Touch trigger
Min. stylus diameter	0.3 (0.012)
Max. stylus length	60 (2.4)
Max. probe extension	300 (11.8)
Min. probing force	0.055 N
Stylus change rack	MCR20

LASER SCANNERS

LC15Dx

LC60Dx

L100

XC65Dx/-LS

Laser line width	15 (0.6)	60 (2.4)	100 (3.9)	3x 65 (2.6)
Points/sec	70k	75k	200k	75k
Resolution	22 µm	60 µm	42 µm	65 µm
Standoff	68	125	135	107/202

PERIPHERALS

Controller	NMC300
Controller mounting	Cabinet
Handbox	SOLO
Rotary Table	●
Automation	●

mm (inch)

● Optional

TECHNICAL FEATURES

Linear encoders	0.1µm resolution optical linear transducers
Counterbalance	Z axis counterbalance with safety brake
Motion control	D.C. servo motors
Guideway Bearings	Air bearings on Y and Z axes Mechanical bearings on X axis
Temperature compensation	Automatic temperature compensation for work piece and all axes
Anti-vibration	Passive elastomer anti-vibration as standard

ENVIRONMENTAL REQUIREMENTS

Ambient temperature	Standard temperature range: 18°C to 22°C
Temperature gradient	Standard temperature range: 1°C/h 2°C/24h 0.5°C/m
Relative humidity	20% to 80% non-condensing
Acceptable Vibration (acceleration between peaks)	30 mm/s ² from 1 and 10 Hz 15 mm/s ² from 10 and 20 Hz 50 mm/s ² from 20 and 100Hz

SUPPLY REQUIREMENTS

Power supply	Voltage: 230 V Frequency: 50Hz Max. Current: 10 A Installed Power: 1400 W
Air consumption	90 normal litres per minute (14 l/min at 0.55 MPa)
Air supply	Min. air supply pressure 0.55 MPa / 5.5 Bar / 80 psi

WARRANTY

	12 months warranty as standard Terms and conditions apply see LK Metrology website for full details
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