

Accuracy requirement for CCE (Level I)

Level 級別	Purpose 目的	Tolerance	Confidence level 置信水平	HKIU 會員種類
I	Header	N/A	95%	Operation: O/MHKIUS (管綫專業監理員/師) Checker: M/FHKIUS (管綫專業 監理師/管綫專業監理師 (院士)) Endorsement: RPUS (管綫專業監察 師)
	Details (Specified Mean)	N/A	90%	
	Details (Specified Tolerance)	N/A	85%	
	Dimensions	± 20mm or 10%	90%	
	Instruction	± 20mm or 10% Dia	90%	
	Clock	± 1-hour marking	90%	
	Speed	≤0.2m/s	90%	
	Height	Centre±10%	90%	

QA/QC: Office 5% or min.1 pipe;

On Site (subject to instruction and payment): 1% or min.1 pipe

Accuracy requirement for CCE (Level II)

Level 級別	Purpose 目的	Tolerance	Confidence level 置信水平	HKIU 會員種類
II	All level I requirements and:			Operation: O/MHKIUS (管綫專業監理員/師) Checker: M/FHKIUS (管綫專業 監理師/管綫專業監理師 (院士)) Endorsement: RPUS (管綫專業監察 師)
	X & Y coordinates	± 20mm	95%	
	Z coordinates	± 20mm		
	Depths	± 20mm	90%	
	Manhole Connectivity	N/A	90%	

QA/QC: Office 5% or min.1 pipe;

On Site (subject to instruction and payment): 1% or min.1 pipe

Accuracy requirement for CUS (精確度要求)

Level 級別	Purpose 目的	Tolerance 公差(mm)	Confidence level 置信水平	HKIUS 會員種類
0	Routing 綫路探測 Statutory (法例要求)	N/A	N/A	Associate 或較低 (助理管綫監理員)
I	計劃階段(Planning)	$\pm 300\text{mm}$ or $0.3d$ (whichever is higher)	80%	O/MHKIUS (管綫專業監理員/師)
II	設計階段(Design)	$\pm 250\text{mm}$ or $0.2d$ (whichever is higher)	85%	O/MHKIUS (管綫專業監理員/師)
III	工作階段(Works)	$\pm 200\text{mm}$ or $0.15d$ (whichever is higher)	90%	M/FHKIUS 管綫專業監理師/管綫專業監理師 (院士)
IV	調研(Investigation)	upto $\pm 165\text{mm}$	upto95%	RPUS (管綫專業監察師)
V	Underground BIM	$\pm 200\text{mm}$ or better	Level 3 or 4	RPUS (管綫專業監察師)

Accuracy requirement for WLD (精確度要求)

Level 級別	Purpose 目的	Tolerance 公差	Confidence level 置信水平	HKIU 會員種類
0	Acoustic Method on City Mains	1.5m Radius or 5% of the survey length	90%	Operation: O/MHKIUS (管綫專業監理員/ 師) Checker: M/FHKIUS (管綫專業監理師/管綫專業監理師 (院士)) Endorsement: RPUS (管綫專業監察師)
I	Gas Mixture Method	1.5m Radius or 5% of the survey length	90%	
II	Combined Method	1m Radius or 5% of the survey length	90%	
III	Live Tapping Method	1m Radius or 5% of the survey length	90%	
QA/QC: Office 5% or min. 1 segment; On Site (subject to instruction and payment): 1% or min. 1 MH				

Accuracy requirement for MHICS (精確度要求)

Level 級別	Purpose 目的	Tolerance 公差	Confidence level 置信水平	HKIU 會員種類
I	Grid	1000mm	95%	Operation: O/MHKIUS (管綫專業監理員/師) Checker: M/FHKIUS Endorsement: RPUS (管綫專業監察師)
	Location	300mm	95%	
	Relative Levels	20mm	90%	
	Pipe Size	20mm	90%	
	Others	50mm	90%	
QA/QC: Office 5% or min. 1 MH; On Site (subject to instruction and payment): 1% or min. 1 MH				