

flexitrax™ C550c

Technical specification

90/C550C-TECH-SPEC/01



flexitrax C550c technical specification

flexitrax C550c controller	
Battery capacity	Internal Li-Ion Battery (4S2P) - 14.68V, 6.4Ah (93.95Wh)
Battery run-time	Up to one day's typical usage, 7.5hrs view only / 5hrs continuous recording*
Connectivity	USB 2.0 (x3), HDMI video out, Analog video In (PAL/NTSC), Headphones out, Microphone in, Rod/Camera/Drum connectivity and 802.11 b/g/n WiFi
Construction	High impact ABS and powder-coated, zinc-plated mild steel
Controllers	flexitrax C550c command module with integrated controls for the crawler, camera, lights and sonde, and powered drum and powered elevator where fitted
	Optional pendant controller for deployment phase
Environmental Protection	flexitrax C550c controller: IP55
	Power supply/charger: IP54 rated for indoor use
Input power requirements	10-30V, 60W
Power sources	Power from drum, external mains PSU or internal battery
Power supply	Mains Input: 100-240VAC, 50-60Hz, 1.7A
	DC Output: 16V, 3.75A, 60W
Recording formats	Video: H.264. Audio: MP3. File format: MP4
Report File Formats	Basic reports, MSCC3 & 4: docx
	MSCC5: docx and Xml
	WinCan: Xml
	Video: MP4
Image: JPEG	
Storage	Integral 128Gb and support of USB flash storage
Temperature	Storage: 4°F to 176°F / -20°C to +80°C
	Operating: 14°F to 122°F / -10°C to +50°C
	Charging: 32°F to 104°F / 0°C to +40°C
Weight	16lb/7.25kg

*May vary depending on power management settings chosen, ambient conditions, accessories attached, recording time and other factors

Pendant controller	For use in crawler deployment
Controls	Crawler, drum, camera, sonde
Construction	Linear Medium Density Polyethylene (LMDPE) and mild steel
Ingress protection	IP64
Weight	1.5lbs/0.7kg
Dimensions	9.8 x 3.1 x 1.6" / 250 x 80 x 40mm

Drums and PSU	Powered drum	Manual drum system	
		Manual drum	Power supply
Cable lengths available	330', 495', 660', 820', 1000' / 100m, 150m, 200m, 250m, 305m		–
Connectivity	Direct pushrod connection, power, controller and pendant	Power supply	Direct pushrod connection, power, controller and pendant
Power supply	110-240V 50-60Hz 1.2kVA Inverter or generator to have sine-wave output	P350 Power supply	110-240V 50-60Hz 1.2kVA Inverter or generator to have sine-wave output
Construction	Powder coated steel chassis / frame with steel and Aluminum enclosure Stainless steel and Aluminum cable management mechanism		Powder coated steel chassis/frame with steel and Aluminum enclosure
Dimensions	24.4 x 16 x 27" 619 x 405 x 691mm	17.5 x 10.6 x 22.4" 445 x 270 x 570mm	16.5 x 7.7 x 16.5" 418 x 195 x 420mm
Ingress protection	IP53		
Weight (dependent on cable length)	130 to 154lbs/60 to 75kg	44 to 77lbs/20 to 35kg	37.5lbs/17kg

Crawlers	P354 small crawler	P356 medium crawler
Centred pipe inspection diameter range (with appropriate accessories)	5 – 15" / 125 – 381mm	7 – 60" / 175 – 1524mm
Construction	Brass and Stainless Steel	
Ingress protection	IP68	
Ingress sealing	Rated to a depth of 330' / 100m of water	
Sonde frequency	Selectable 512Hz / 640Hz / 8kHz / 33kHz	
Inclinometer accuracy	±0.2°	
Steering	Fixed	Steerable
Motor(s)	1 x 50W GP32C Maxon motor	2 x 50W GP32C Maxon motor
Weight	12lbs / 5.4kg 16.3lbs / 7.4kg with Crawler Weight Kit	31.5lbs / 14.3kg
Dimensions (without wheels attached)	9.8 x 3.2 x 2.7" / 250 x 82 x 69mm	13.6 x 5 x 3.3" / 345 x 128 x 84mm

Elevators	Fixed elevator	Large manual elevator	Powered elevator	Powered elevator and compact cradle	Powered elevator and cradle
Centred pipe inspection diameter – P354 crawler	12" / 305mm	–	–	–	–
Centred pipe inspection diameter – P356 crawler	15" / 380mm	12" – 24" / 305mm – 610mm	12" – 36" / 305mm – 900mm	30" – 54" / 775 – 1360mm	36" – 60" / 900 – 1500mm
Construction	Stainless steel / Anodized Aluminum	Stainless steel / Anodized Aluminum	Stainless steel / Anodized Aluminum	Stainless steel / Anodized Aluminum	Stainless steel / Anodized Aluminum
Weight	0.9lbs / 0.4 kg	9.9lbs / 4.5 kg	12.8lbs / 5.8 kg	46lb / 20.8 kg	61lb / 27.8kg
Dimensions @ maximum elevation	2.5 x 1.9 x 2.9" / 114 x 48 x 67 mm	9 x 3.6 x 16.5" / 230 x 90 x 420mm	15 x 4.3 x 16.5" / 380 x 110 x 420mm	690 x 419 x 617mm / 27.2 x 16.5 x 24.3"	29.1 x 21 x 28" / 739 x 534 x 712mm

Lighthouse	Provides additional light for large or dark pipes
Lighting	8 White LEDs, ≥ 850 Lumen
Construction	Stainless Steel and Aluminum
Ingress protection	IP68
Ingress sealing	Rated to a depth of 330' / 100m of water
Weight	4.0lbs / 1.8 kg
Dimensions	Ø5.4 x 2.5" / Ø136 x 63mm

Cameras	Forward-view	Pan-Tilt	Pan-Tilt-Zoom
Functions	Forward view only	Pan 270° / Rotate 360°	Pan 270° / Rotate 360°
Zoom	-	-	10x optical, 32x digital
Resolution	≥ 690TV Lines	≥ 690TVL	≥ 700TVL
Sensitivity	< 1.0Lux	< 1.0Lux	0.125Lux @ f1.8
On-camera lighting	≥ 200lm	≥ 210lm	≥ 840lm
Focal Range	10 mm to ∞		10 cm (WIDE) to ∞
Construction	Stainless Steel	Stainless Steel and Anodized Aluminum	Stainless Steel and Anodized Aluminum
Dimensions	Ø2.4 x 2.7" / Ø62 x 68mm	Ø5.3 x 2.7" / Ø134 x 68mm	Ø6.9 x 4" / Ø175 x 100mm
Weight	1.3lbs / 600g	4.0lbs / 1.8 kg	4.6lbs* / 2.1kg

*Note, check for compatibility when using Pan-Tilt-Zoom camera with P354 crawler

Crawler wheels and spacers	Types available	
Solid wheels	Choice of: Soft compound (high grip) or Hard compound (more durable) tires	
	Small: 2½"/62mm Ø P354: for 4"/100mm pipes P356: for 6"/150mm pipes	Medium: 4¼"/110mm Ø P354: for 6"/150mm pipes P356: for 8"/200mm pipes
Pneumatic wheels	7"/177mm treaded tyres for use in larger pipes P356: for pipes larger than 15"/375mm Ø	
Dual pneumatic wheels	Stack pneumatic tires 2-wide for additional grip or to raise camera position	
Rasp wheels	Abrasive style wheels provide additional traction in slippery or relined pipes	
	Small	Medium

Wheel spacers	To space wheels out, providing centering in specific pipe sizes	
For Rasp wheels	Small, with spacers: P354: for 6"/150mm pipes	Medium, with spacers: P354: for 8"/200mm pipes P354: for 9"/230mm pipes P356: for 8"/200mm pipes P356: for 9"/230mm pipes
For medium wheels	P356: for 9"/230mm pipes	

Link cables	To connect P350 system modules together, lengths available:
Controller to PSU/Powered drum	3'/1m 16'/5m
PSU to manual drum	3'/1m 10'/3m 32'/10m 82'/25m 164'/50m
Controller to flexiprobe® P540c pushrod	16'/5m

Approvals	
CE	LVD 2006/95/EC, MD 2006/42/EC, EMC 2004/108/EC, RTTE 99/5/EC
FCC	CFR47 Part 15B
Standards	EN 61010-1:2010, IEC61010-1:2010
RoHS	Compliant

Crawler-Wheel-Elevator Configurations

Notes:

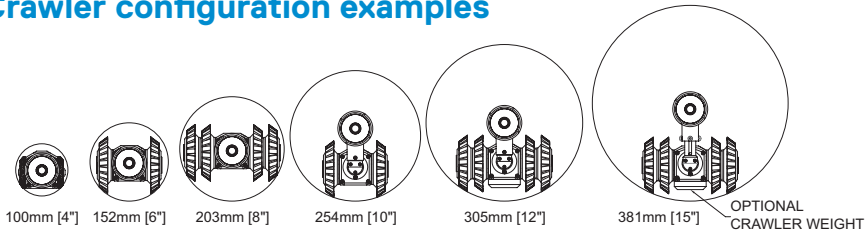
Larger and double stack wheels should be used where possible for maximum stability.

4" / 100mm pipes (P354) and 6" / 150mm pipes (P356) must have no non-ovality.

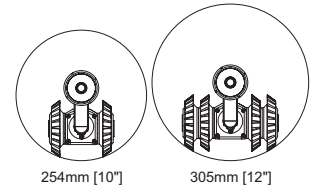
Standard wheels	P354 options		P356 options	
Pipe size	Wheels	Elevator	Wheels	Elevator
4" / 100mm	Small standard	None	n/a	n/a
6" / 152mm	Medium standard	None	Small standard	None
8" / 203mm	Double-stacked medium standard	None	Medium standard	None
10" / 254mm	Medium standard	Fixed	Double-stacked medium standard	None
	Medium standard	Adjustable		
12" / 305mm	Double-stacked medium standard	Fixed	Medium standard	Fixed
	Double-stacked medium standard	Adjustable	Medium standard	Adjustable
			Medium standard	Large adjustable
15" / 381mm	Double-stacked medium wheels	Adjustable	Medium standard	Large adjustable
			Large standard	Fixed
			Large standard	Adjustable
18" / 457mm	n/a	n/a	Large standard	Adjustable
			Large standard	Large adjustable
			Double-stacked large standard	Adjustable
			Double-stacked large standard	Large adjustable
21" / 533mm	n/a	n/a	Large standard	Large adjustable
			Double-stacked large standard	Large adjustable
24" / 610mm	n/a	n/a	Large standard	Large adjustable
			Double-stacked large standard	Large adjustable
12-30" / 305-762mm	n/a	n/a	Medium standard	Powered
15-34" / 381-864mm	n/a	n/a	Large standard	Powered
18-36" / 457-915mm	n/a	n/a	Double-stacked large standard	Powered

Grit wheels	P354 options – no elevator required		P356 options – no elevator required	
Pipe size	Wheels	Wheel adaptor	Wheels	Wheel adaptor
6" / 152mm	Small grit	3-groove	n/a	n/a
8" / 203mm	Large grit	4-groove	Large grit	1-groove
9" / 229mm	Large grit	5-groove	Large grit	2-groove

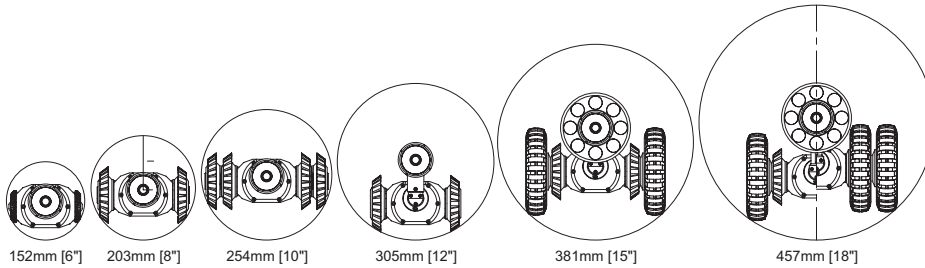
Crawler configuration examples



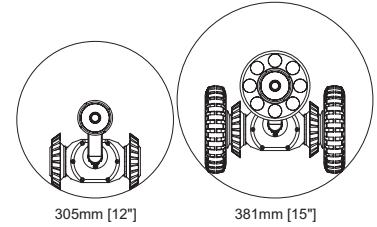
P354 CRAWLER (ADJUSTABLE ELEVATOR) CONFIGURATIONS
(100mm [4"] - 381mm [15"] PIPE)



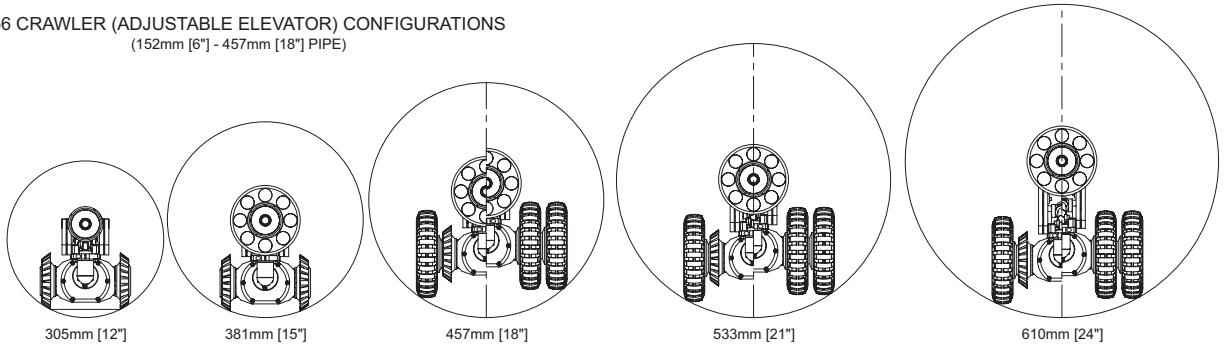
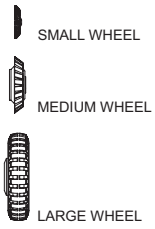
P354 CRAWLER (FIXED ELEVATOR) CONFIGURATIONS
(254mm [10"] - 305 [12"] PIPE)



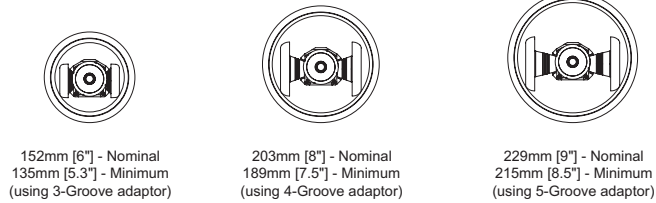
P356 CRAWLER (ADJUSTABLE ELEVATOR) CONFIGURATIONS
(152mm [6"] - 457mm [18"] PIPE)



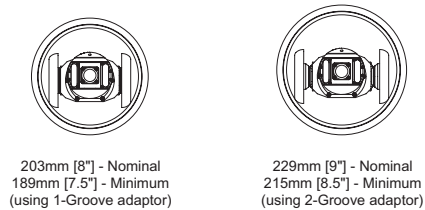
P356 CRAWLER (FIXED ELEVATOR) CONFIGURATIONS
(305mm [12"] - 381mm [15"] PIPE)



P356 CRAWLER (LARGE ADJUSTABLE ELEVATOR) CONFIGURATIONS
(305mm [12"] - 610mm [24"] PIPE)

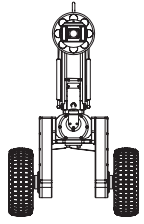


P354 CRAWLER RASP WHEEL CONFIGURATIONS
(152mm [6"] - 229mm [9"] PIPE)

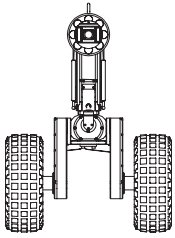


P356 CRAWLER RASP WHEEL CONFIGURATIONS
(203mm [8"] - 229mm [9"] PIPE)

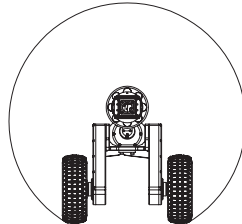
Crawler configuration examples (continued)



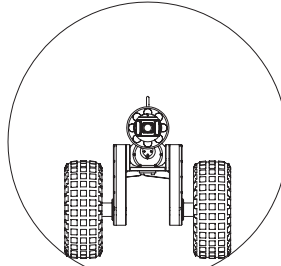
COMPACT CRADLE
PIPE RANGE 762mm TO 1219mm [30" TO 48"]



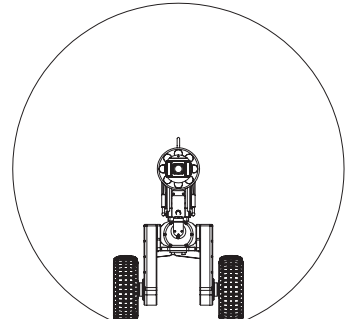
LARGE CRADLE
PIPE RANGE 914mm TO 1524mm [36" TO 60"]



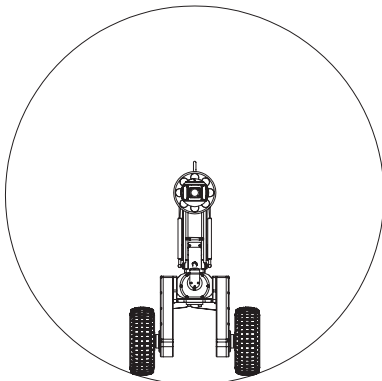
762mm [30"]



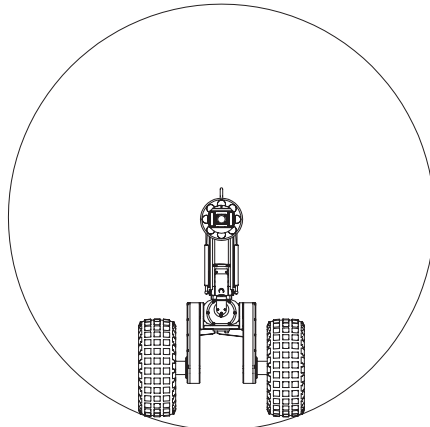
914mm [36"]



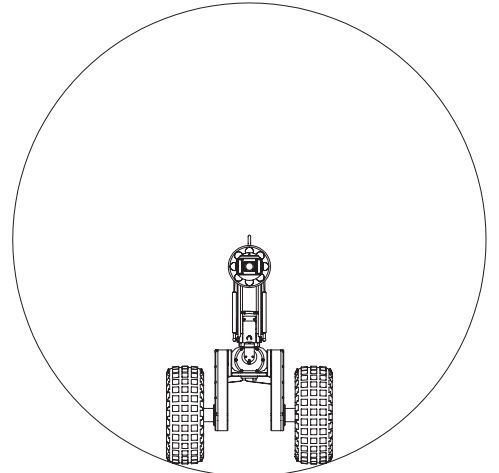
1067mm [42"]



1219mm [48"]



1372mm [54"]



1524mm [60"]

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As the world's leading manufacturer of water, wastewater, and stormwater inspection equipment, CUES provides the necessary tools for both pipeline inspection and repair. For 50+ years, CUES has manufactured the most rugged and reliable pipeline inspection equipment in the industry.

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