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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.

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## X Series Diesel / Gasoline / LPG Counterbalanced Forklift Trucks

with capacities of 1,500 to 3,800kg

The World of Hangcha



# X Series

Diesel / Gasoline / LPG  
Counterbalanced  
Forklift Trucks



## Innovation design

The X series is the new series of internal combustion counterbalance forklift truck developed by Hangcha independently, adopting the world advanced technologies based on the original products. Through the comprehensive upgrading of appearance molding, energy conservation, environmental friendly, comfort, security and reliability, it will become the world-class forklift truck which can meet your overall demands.

### Strong appearance and visual impact

The appearance of full truck is developed under the cooperation with professional industrial design company by adopting the appearance design methods of brand-new concept. The streamlined surface modeling design brings smooth lines, elegant appearance, vigorous and steady surface as well as the outstanding inherence, possessing the powerful visual impact.

The truck is small, exquisite and concise. which adopting the newly designed parts with opening mould at large area, the appearance of full vehicle will be more humanized.



The new designed mast increase forward visibility 15%



Noise ↓ 3dB



Legroom ↑ 30%



High pressure common rail electronic-controlled engine provide lower failure rate (Common rail engine)



Floating structure decrease the vibration by 10%



Exhaust emission ↓ 35% (Common rail engine)



Grade-speed ability ↑ 10% (Common rail engine)



Aluminous plate-fin radiator provides stronger structure



Prolong the service life of steering axle 20%



Fuel consumption ↓ 10% (Common rail engine)



Better cold starting performance (Common rail engine)



Water temp ↓ 10 C, oil temp ↓ 10%

## Energy conservation and Environmental friendly



The high pressure common rail electronic-controlled engine which adopts high pressure multiple injections technology to ensure the strong power take-off, lower emission and better cold starting performance; saving the 10% of energy consumption.



The whole truck adopts LED lights as shiner and new-type panoramic retroreflector to ensure energy conservation and power saving as well as greatly improve the performance and service life of luminaires at the same time.

The truck all adopt the environmental friendly material to reduce environmental hazards.

## Maintenance

Integral locking pin structure on the hood can be opened without tool, which is convenient for daily repair and maintenance.



Adoption of new generation integrated electric box makes maintenance and repair convenient, layout becomes more reasonable and with better water-proof performance.

The enlarged opening angle of hood and increase of left and right hood side plates can provide you with convenient and rapid maintenance mode.



Newly-developed LCD instrument has more comprehensive functions and more stable performance and entirely displays the full truck state, fault code and other important information, which can make the operator more intuitively and conveniently have a better knowledge of truck state and make the maintenance conveniently.

## Fully improved reliability And security



1. The radiator adopts aluminous plate-fin radiator with better performance and higher structural strength independent oil radiator, optimized oil and water heat dissipation channel and double ventilation holes on counterweight can greatly improve cooling efficiency and reliability of overloaded operation and ensure reliable operation of the engine.

2. 2.0~3.8t roller bearing on the steering axle king pin adopts large size tapered roller bearing (TRB), larger steering cylinder and bumper block assemblies on the top, which can prolong the service life of bearing and highly improve the reliability of steering axle.

3. Overhead guard adopts special-shaped steel tube, which can reinforce the strength and improve sealing of the cab.

4. Optimized hydraulic breather structure and integrated with return oil filter can prolong the service life of hydraulic pressure system.



# Comfort

Option of the most advanced full floating structure in the world can minimize the vibration of full truck and support more superior buffer, micro-motion and starting functions at the same time. With several imported engines, they can constitute more perfect engine-transmission system.

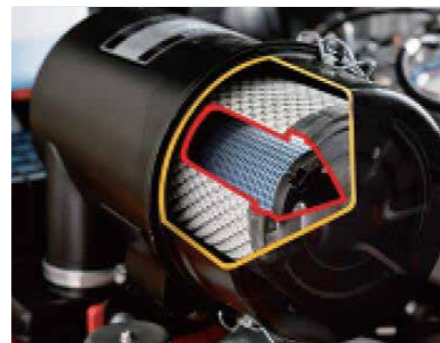
*Reduce the caster angle of instrument stand and adopt the integral hood to greatly increase the space underfoot; The orthodrome of overhead guard fore leg will expand the driving space;*



Adopt the new-type of box iron. Increase the inside width of inner mast and the spacing between lifting cylinders. The lowering of instruments in the cabin will greatly increase the forward visibility; The rear visibility will also be greatly improved through the optimization design of counterweight.



The design of steering wheel of small diameter and electro-hydraulic reversing as well as the car-type double-handle combination switch will greatly improve the driving comfort.



Optimized air intake and exhaust system, high-capacity exhaust silencer and high-effect intake muffler will reduce the noise of full truck by 3dB and reduce the vibration by 20%.



## Intelligentized management system (option)

*Reserved plug of extending function of Intelligent module is on the wire bundles that makes truck management more convenient and rapid.*

## Standard Specification

- / Cover of tilt cylinder
- / Traction device
- / LED working light
- / Hydraulic oil filter
- / Electric Flameout
- / Seat with belt
- / Skidproof pedal
- / Air filter
- / Hydraulic oil dipstick
- / Mast speed limiting valve
- / Full hydraulic power steering
- / Wide view duplex mast
- / Standard forks
- / Standard overhead guard
- / Rear combination LED light
- / Panoramic rearview mirror
- / Filf folder
- / Adjustable steering column
- / Pre-heating indicator
- / Engine fuel pressure warning
- / Neutral switch
- / Engine hood spring
- / Dipstick
- / Pneumatic tyres
- / Standard load backrest
- / Horn
- / Fuel gauge
- / LCD display
- / Cable parking brake
- / Tilt cylinder self-locking valve
- / Fork carriage mounting class II(III)
- / Timer
- / Load safety valve
- / Charging indicator
- / Water temperature gauge
- / Reversing buzzer
- / Return oil filter
- / Hand grip
- / Integrated controller
- / Oil-water separator
- / Engine fault warning
- / Rubber pedal
- / 2nd hydraulic function
- / Transmission oil temperature warning
- / Dynamic load sensing system (for desel engine)

## Optional Mast

- / Duplex wide view full free mast
- / Trilex wide view full free mast
- / Special duplex wide view mast
- / Wider fork carriage
- / Special forks

## Options

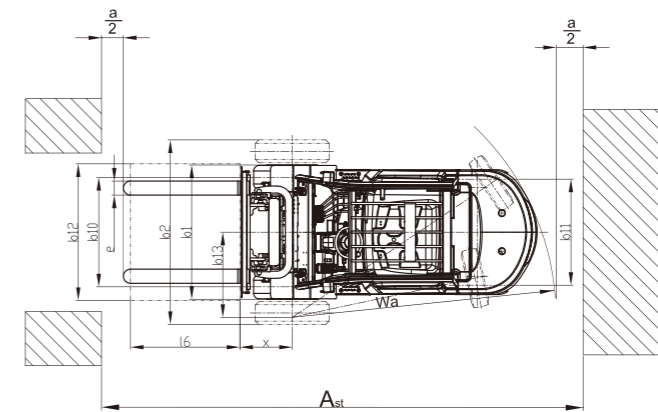
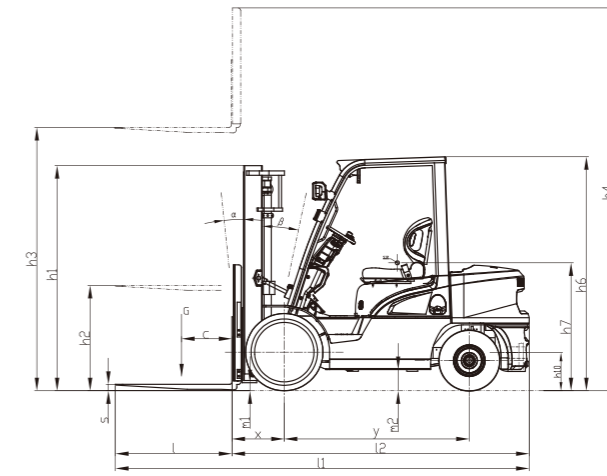
- / Dual driving wheel
- / Cabin
- / High-positioned exhaust system
- / Customer painting
- / Cabin heater
- / LED rear working light
- / Hood lock
- / Double heat insulating pad and leather cover
- / Net cover of radiator
- / Solid tyre
- / Non-mark tyre (white/green)
- / Middle-positioned exhaust system
- / Sparkle arrester
- / Suspension seat
- / Purified exhaust system
- / Fuel tank lock
- / Speed meter
- / Auxilliary hydraulic valve
- / Extinguisher
- / Reversing assist grip with horn button
- / Counter weight net
- / Height of overhead guard
- / Dual air filter
- / Milometer
- / Speed limiter (Electronic-Controlled engine)
- / Emergency switch
- / Fan protector
- / Over-speed alarm
- / Warning light
- / OPS system
- / Waterproof cover on the guard
- / Toolbox

## Optional Attachments

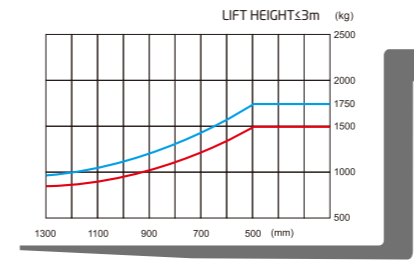
- / Paper roll clamp
- / Rotating bale clamp
- / Load stabilizer
- / Multi-drum clamp
- / Bale clamp
- / Drum clamp
- / Dumping clamp
- / Crane arm
- / String pole
- / Weigher system
- / Sideshifter
- / Rotating forks
- / Fork extensioner
- / Load release device
- / Carton clamp
- / Push-pull device
- / Bucket
- / Hook
- / Lengthened fork

# X Series Diesel / Gasoline / LPG Counterbalanced Forklift Trucks

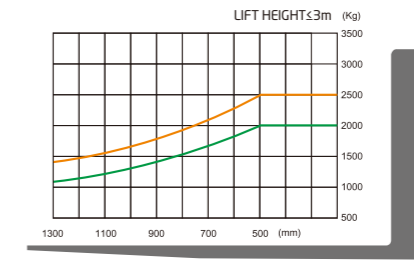
		HANGCHA GROUP CO.,LTD.								
Distinguishing mark	1.1	Manufacturer								
	1.2	Manufacturer's type designation								
Weight	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas								
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker								
Tyres, chassis	1.5	Rated capacity/rated load								
	1.6	Load centre distance								
Dimensions	1.8	Load distance, centre of drive axle to fork								
	1.9	Wheelbase								
Performance data	2.1	Service Weight								
	2.2	Axle loading, laden front/rear								
Combustion-engine	2.3	Axle loading, unladen front/rear								
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane								
Addition data	3.2	Tyre size, front								
	3.3	Tyre size, rear								
Performance data	3.5	Wheels, number front / rear (x = driven wheels)								
	3.6	Tread, front								
Combustion-engine	3.7	Tread, rear								
	4.1	Tilt of mast/fork carriage forward/backward								
Dimensions	4.2	Height, mast lowered								
	4.3	Free lift								
Performance data	4.4	Lift								
	4.5	Height, mast extended								
Dimensions	4.7	Height of overhead guard (cabin)								
	4.8	Seat height relating to SIP								
Performance data	4.1.2	Coupling height								
	4.19	Overall length								
Dimensions	4.20	Length to face of forks								
	4.21	Overall width								
Performance data	4.2.2	Fork dimensions								
	4.2.3	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B								
Dimensions	4.24	Fork-carriage width								
	4.25	Distance between fork-arms								
Performance data	4.31	Ground clearance, laden, below mast								
	4.3.2	Ground clearance, centre of wheelbase								
Dimensions	4.3.4.1	Aisle width for pallets 1000 x 1200 crossways								
	4.3.4.2	Aisle width for pallets 800 x 1200 lengthways								
Performance data	4.35	Turning radius								
	4.36	Minimum pivoting point distance								
Performance data	5.1	Travel speed, laden/unladen								
	5.2	Lift speed, laden/unladen								
Performance data	5.3	Lowering speed, laden/unladen								
	5.5	Drawbar pull, laden/unladen								
Performance data	5.7	Gradeability, laden/unladen								
	5.10	Service brake								
Performance data			Parking brake							
	Combustion-engine	7.1	Engine manufacturer/type							
7.2		Engine power								
Performance data	7.3	Rated speed								
	7.4	Number of cylinders/displacement								
Performance data	7.9	Vehicle electrical system voltage								
	7.10	Battery voltage/nominal capacity								
Performance data			Rated torque							
			Transmissions Manufacturer							
Performance data			Transmissions Type							
			Stage FWD/RVS							
Addition data	10.1	Operating pressure for attachments								
	10.2	Oil volume for attachments								
Performance data	10.3	Hydraulic Tank - capacity (drain & refill)								
	10.4	Fuel tank capacity								
Performance data	10.7	Sound pressure level at the driver's seat								



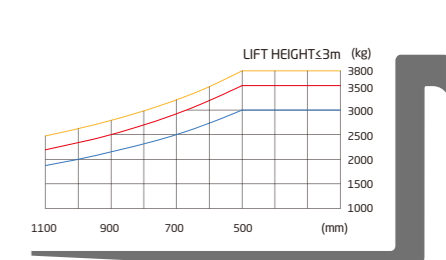
Ast=L6+X+wa+a a=200mm



1.5/1.75t



2.0/2.5t



3.0~3.8t

## Optional Engine / Transmission

Engine	Engine manufacturer/type		XINCHAI/4D27XG30	YANMAR/4TNE92	ISUZU/C240NKFC	XINCHAI/4D27XG40	XINCHAI/4D32XG40	XINCHAI/4D32XG30	XINCHAI/C490BPG	CUMMINS/QSF2.8T3NA49	YANMAR/4TNE98	mitsubishi/S4S-DPEU2	GCT/GK21	GCT/GK25	GCT/GK21 LPG	GCT/GK25 LPG	
	Manufacturer's type designation		W91	W32	W10	G71J	G72J	W92	G2	W43	W33	W55	W21	W22	W51	W52	
Transmission	Drive		Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Gasoline Gasoline/LPG	Gasoline Gasoline/LPG	Gasoline Gasoline/LPG	LPG	LPG	
	Emission STD		UNECE Stage IIIA	StagellIA	StagellIA	/	/	UNECE Stage IIIA	/	StagellIA	StagellIA	StagellIA	StagellIA	StagellIA	StagellIA	StagellIA	StagellIA
Rated capacity/rated load	Engine power		kW/r/min	34/2500	32.8/2450	35.4/2500	34/2500	36.8/2500	36.8/2500	40/2650	36/2500	42.1/2300	35.3/2250	31.2/2250	37.4/2300	29/2250	35/2400
	Rated torque		Nm/r/min	140/1600-1800	149/1600	139.9/1800	140/1600-1800	186/1600-1800	186/1600-1800	160/1800-2000	186/1100-1500	206/1700	177/1700	143.7/1600	176.5/1600	140/1600	170/1600
Transmission	Number of cylinders/displacement		ml	4/2670	4/2659	4/2369	4/2670	4/3168	4/3168	4/2670	4/2800	4/3319	4/3331	4/2065	4/2488	4/2065	4/2488
	Transmission	Powershift		CHINA	X	X	✓	✓	✓	X	✓	X	✓	✓	✓	X	X
		F(CHINA)	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	
		OKAMURA(JAPAN)	B	X	✓	✓	X	X	X	✓	✓	✓	✓	✓	✓	✓	
Rated capacity/rated load		Q (kg)	1500-1750	1500-1750	1500-3000	1500-1750	2000-3800	2000-3800	2000-3800	2000-3800	2000-3800	2000-3500	1500-2500	2000-3800	1500-1750	2000-3800	

## 1.5-1.75t X series mast:(Pneumatic)

Type	Model	Max. fork height	Overall height				Free lift		Front Overhang		Tilt range F/R (°)	Capacity Load capacity at 500mm			
			Lowered	Extended		Without backrest	With backrest	1.5t	1.75t	Single tire		Dual tire			
				Without backrest	With backrest					1.5t		1.75t	1.5t	1.75t	
															mm
Wide view mast	XR15/18M200	2000	1495	2658	2955	155	155	405	410	6/6	1500	1750	1500	1750	
	XR15/18M250	2500	1745	3158	3455	155	155	405	410	6/12	1500	1750	1500	1750	
	XR15/18M270	2700	1845	3358	3655	155	155	405	410	6/12	1500	1750	1500	1750	
	XR15/18M300	3000	1995	3658	3955	155	155	405	410	6/12	1500	1750	1500	1750	
	XR15/18M330	3300	2145	3958	4255	155	155	405	410	6/12	1500	1750	1500	1750	
	XR15/18M360	3600	2345	4258	4555	155	155	405	410	6/12	1500	1750	1500	1750	
	XR15/18M400	4000	2595	4658	4955	155	155	405	410	6/12	1500	1650	1500	1700	
	XR15/18M430	4300	2745	4958	5255	155	155	405	410	6/6	1450	1600	1450	1650	
	XR15/18M450	4500	2845	5158	5455	155	155	405	410	6/6	1400	1550	1400	1600	
	XR15/18M480	4800	2995	5458	5755	155	155	405	410	6/6	1350	1500	1350	1550	
Wide view full free duplex mast	XR15/18U250	2500	1760	3184	3445	1076	815	417	422	6/12	1500	1750	1500	1750	
	XR15/18U270	2700	1860	3384	3645	1176	915	417	422	6/12	1500	1750	1500	1750	
	XR15/18U300	3000	2010	3684	3945	1326	1065	417	422	6/12	1500	1750	1500	1750	
	XR15/18U330	3300	2160	3984	4245	1476	1215	417	422	6/12	1500	1750	1500	1750	
	XR15/18U360	3600	2310	4284	4545	1626	1365	417	422	6/12	1500	1750	1500	1750	
	XR15/18U400	4000	2560	4684	4945	1876	1615	417	422	6/12	1500	1650	1500	1700	
	XR15/18N400	4000	1960	4694	4955	1276	1015	425	430	6/6	1400	1550	1400	1600	
	XR15/18N430	4300	2060	4994	5255	1376	1115	425	430	6/6	1350	1500	1350	1550	
	XR15/18N450	4500	2110	5194	5455	1426	1165	425	430	6/6	1300	1450	1300	1500	
	XR15/18N470	4700	2210	5394	5655	1526	1265	425	430	6/6	1250	1400	1250	1450	
Wide view full free triplex mast	XR15/18N480	4800	2260	5494	5755	1576	1315	425	430	6/6	1250	1400	1250	1450	
	XR15/18N500	5000	2360	5694	5955	1676	1415	425	430	6/6	1200	1350	1250	1450	
	XR15/18N550	5500	2560	6194	6455	1876	1615	425	430	3/6	950	1050	1150	1300	
	XR15/18N600	6000	2810	6694	6955	2126	1865	425	430	3/6	700	750	1050	1150	

With sideshifter minus 150Kg,with integral sideshifter minus 100kg.

## 2.0-2.5t X series mast:(Pneumatic)

Type	Model	Max. fork height	Overall height				Free lift		Front Overhang		Tilt range F/R (°)	Capacity Load capacity at 500mm			
			Lowered	Extended		Without backrest	With backrest	2.0t	2.5t	Single tire		Dual tire			
				Without backrest	With backrest					2.0t		2.5t	2.0t	2.5t	
															mm
Wide view mast	XR25M250	2500	1749	3207	3546	160	160	460	460	6/12	2000	2500	2000	2500	
	XR25M270	2700	1849	3407	3746	160	160	460	460	6/12	2000	2500	2000	2500	
	XR25M300	3000	1999	3707	4046	160	160	460	460	6/12	2000	2500	2000	2500	
	XR25M330	3300	2149	4007	4346	160	160	460	460	6/12	2000	2500	2000	2500	
	XR25M360	3600	2349	4307	4646	160	160	460	460	6/12	2000	2500	2000	2500	
	XR25M400	4000	2599	4707	5046	160	160	460	460	6/12	2000	2500	2000	2500	
	XR25M430	4300	2749	5007	5346	160	160	460	460	6/6	1950	2400	2000	2500	
	XR25M450	4500	2849	5207	5546	160	160	460	460	6/6	1900	2300	1950	2400	
	XR25M480	4800	2999	5507	5846	160	160	460	460	6/6	1850	2250	1900	2300	
	XR25M500	5000	3099	5707	6046	160	160	460	460	6/6	1800	1900	1850	2250	
Wide view full free duplex mast	XR25M550	5500	3349	6207	6546	160	160	460	460	3/6	1450	1600	1700	1900	
	XR25M600	6000	3599	6707	7046	160	160	460	460	3/6	1000	1050	1500	1750	
	XR25U250	2500	1764	3179	3546	1025	619	470.5	470.5	6/12	2000	2500	2000	2500	
	XR25U270	2700	1864	3379	3746	1125	719	470.5	470.5	6/12	2000	2500	2000	2500	
	XR25U300	3000	2014	3679	4046	1225	819	470.5	470.5	6/12	2000	2500	2000	2500	
	XR25U330	3300	2164	3979	4346	1425	1019	470.5	470.5	6/12	2000	2500	2000	2500	
	XR25U360	3600	2314	4279	4646	1575	1169	470.5	470.5	6/12	2000	2500	2000	2500	
	XR25U400	4000	2564	4679	5046	1825	1419	470.5	470.5	6/12	2000	2500	2000	2500	
	XR25N400	4000	1964	4739	5046	1285	918	477.5	477.5	6/6	1950	2500	1950	2500	
	XR25N430	4300	2064	5039	5346	1385	1018	477.5	477.5	6/6	1900	2400	1950	2450	
Wide view full free triplex mast	XR25N450	4500	2114	5239	5546	1435	1068	477.5	477.5	6/6	1850	2300	1850	2400	
	XR25N470	4700	2214	5439	5746	1535	1168	477.5	477.5	6/6	1800	2250	1850	2300	
	XR25N480	4800	2264	5539	5846	1585	1218	477.5	477.5	6/6	1750	2100	1800	2300	
	XR25N500	5000	2364	5739	6046	1685	1318	477.5	477.5	6/6	1700	1900	1800	2250	
	XR25N550	5500	2564	6239	6546	1885	1518	477.5	477.5	3/6	1450	1600	1700	1900	
	XR25N600	6000	2814	6739	7046	2135	1768	477.5	477.5	3/6	1000	1050	1500	1750	
	XR25N650	6500	3014	7239	7546	2335	1968	477.5	477.5	3/6	750	800	1200	1450	
	XR25N700	7000	3264	7764	8046	2500	2218	477.5	477.5	3/6	500	550	1000	1150	

With sideshifter minus 150Kg,with integral sideshifter minus 100kg.

## 3.0/3.5/3.8t X series mast:(Pneumatic)

Type	Model	Max. fork height	Overall height						Free lift				Front Overhang		Tilt range F/R (°)	Capacity Load capacity at 500mm						
			Lowered	Extended			Without backrest	With backrest	3t	3.5t/3.8t	3t	3.5t/3.8t	3t	3.5t/3.8t		Single tire		Dual tire				
				3t	3.5t/3.8t	Without backrest										With backrest	3t	3.5t	3.8t	3t	3.5t	3.8t
Wide view mast	XR30/35M250	2500	1804	1919	3267	3342	165	170	165	170	475	480	6/12	3000	3500	3800	3000	3500	3800			
	XR30/35M270	2700	1904	2019	3467	3542	165	170	165	170	475	480	6/12	3000	3500	3800	3000	3500	3800			
	XR30/35M300	3000	2054	2169	3767	3842	165	170	165	170	475	480	6/12	3000	3500	3800	3000	3500	3800			
	XR30/35M330	3300	2204	2319	4067	4142	165	170	165	170	475	480	6/12	3000	3500	3800	3000	3500	3800			
	XR30/35M360	3600	2404	2469	4367	4442	165	170	165	170	475	480	6/12	3000	3500	3800	3000	3500	3800			
	XR30/35M400	4000	2654	2769	4767	4842	165	170	165	170	475	480	6/12	3000	3500	3800	3000	3500	3800			
	XR30/35M430	4300	2804	2919	5067	5142	165	170	165	170	475	480	6/6	3000	3500	3800	3000	3500	3800			
	XR30/35M450	4500	2904	3019	5267	5342	165	170	165	170	475	480	6/6	3000	3200	3500	3000	3300	3700			
	XR30/35M480	4800	3054	3169	5567	5642	165	170	165	170	475	480	6/6	2850	3000	3100	2900	3150	3300			
	XR30/35M500	5000	3154	3269	5767	5842	165	170	165	170	475	480	6/6	2650	2850	3000	2700	2900	3200			
Wide view full free duplex mast	XR30/35M550	5500	3404	3519	6267	6342	165	170	165	170	475	480	3/6	2250	2300	2500	2400	2700	2800			
	XR30/35M600	6000	3654	3769	6767	6842	165	170	165	170	475	480	3/6	1650	1850	2000	2200	2400	2550			
	XR30/35U250	2500	1834	1934	3316	3391	1018	689	485.5	490.5	6/12	3000	3500	3800	3000	3500	3800					
	XR30/35U270	2700	1934	2034	3516	3591	1118	789	485.5	490.5	6/12	3000	3500	3800	3000	3500	3800					
	XR30/35U300	3000	2084	2184	3816	3891	1218	889	485.5	490.5	6/12	3000	3500	3800	3000	3500	3800					