

# PANDROL VIPA FAMILY

## INSTALLATION REFERENCE LIST



Year	Country	Authority	No	Type	Build	Rail	Track	Fixed To	Description	Axle	Speed	Curvature
1982	Hong Kong	MTRC Tsuen Wan Line (Viaduct)	9000	VIPA DRS		BS90A			Top Down Wet Pour – 1435 mm track gauge	17 T	80 kph	280 m
1984	Hong Kong	MTRC Island Line Viaduct	3700	VIPA DRS		60E1 (UIC60)			Top Down Wet Pour – 1435 mm track gauge	17 T	80 kph	280 m
1984	Hong Kong	MTRC Island Line Tunnel	4000	VIPA DRS		60E1 (UIC60)			Top Down Wet Pour – 1435 mm track gauge	17 T	80 kph	280 m
1987	Singapore	Singapore Mass Rapid Transit (SMRT) Trains Ltd. East West Line (Tunnel) / North South Line.	60000	VIPA DRS		60E1 (UIC60)			Embedded Sleeper – 1435 mm track gauge	17 T	90 kph	300 m
1987	UK	DLR Canary Warf to Crossharbour	8000	VIPA DRS		39E1 (BS80A)			Wet Pour Top Down – 1435 mm track gauge	9 T		40 m
1989	Hong Kong	MTRC Kwun Tong Line Viaduct	3200	VIPA DRS		BS90A			Top Down Wet Pour – 1435 mm track gauge	17 T	80 kph	280 m
1990	UK	DLR Tower Gateway to Shadwell	4500	VIPA DRS		39E1 (BS80A)			Wet Pour Top Down – 1435 mm track gauge	9 T		40 m
1991	Belgium	SNCB	700	VIPA DRS		60E1 (UIC60)			Steel Bridge – 1435 mm track gauge	22.5 T	130 kph	Tangent
1994	UK	DLR Poplar to Beckton	18000	VIPA DRS		39E1 (BS80A)			Wet Pour Top Down – 1435 mm track gauge	9 T		40 m
1997	Hong Kong	MTRC Hong Kong Airport Line	1000	VIPA DRS		60E1 (UIC60)			Turnouts – 1435 mm track gauge	17 T	130 kph	280 m
1998	Brazil	Sao Paulo Metro Co.	15000	VIPA DRS		TR57			Wet Pour Top Down – 1435 mm track gauge	21 T	90 kph	300 m ML 150 m SL
1998	Slovenia	Slovenian Railways	600	VIPA DRS		60E1 (UIC60)			Embedded Sleeper – 1435 mm track gauge	22.5 T	120 kph	280 m
1998	Australia	Victoria Rly (PCT)	20	VIPA F1		AS60						
1998	Brazil	Sao Paulo Metro	15300	VIPA F1		TR57			Line 'E' on fixed slab			
1999	Australia	Brisbane Underground	500	VIPA F1	New	AS53	Slab	Concrete				
1999	Australia	Westnet	4300	VIPA F1	New	AS60	Slab	Concrete	North Eastern Extension			
1999	Malaysia	Malaysian Railways	240	VIPA F1	New	60E1 (UIC60)	Slab	Concrete	North Butterworth Container	20 T		

Year	Country	Authority	No	Type	Build	Rail	Track	Fixed To	Description	Axle	Speed	Curvature
1999	Philippines	Manilla Metro MRT3	1200	VIPA F1	Retrofit	54E1 (UIC54)	Slab	Steel	Gvodalope steel bridge	9 T		Tangent
2000	Denmark		180	VIPA SP	Retrofit	60E1 (UIC60)	Slab		Orusund Tunnel		180 kph	Tangent
2000	Italy	ATM, Milan	18	VIPA SP	Retrofit	50E5 (50UNI)	Slab	Wood	Installed on adapted wooden sleepers in floating slab, 12/2000. UNI 50 in in AREA 115 rail seat	22 T	< 50 kph	170 m
2000	Slovenia	Slovenia Rlys	150	VIPA F1	Retrofit	49E1 (S49)	Slab	Wood	Presnica – Koper Line	22.5 T		
2000	Sweden	Banverket	20	VIPA F1	New	50E3 (BV50)	Slab	Steel	Kristinehamn 12.5 m steel bridge			
2000	Sweden	Banverket	500	VIPA F1	New	60E1 (UIC60)	Slab	Steel	Karlstad 150 m Steel Bridge	22 T		
2000	Sweden	Banverket	740	VIPA F1	New	60E1 (UIC60)	Slab	Steel	Karlstad / Deje. Steel Bridge	22 T		
2000	Sweden	Gothenburg Tramway	66	VIPA F1	New	50E3 (BV50)	Slab	Steel	Kvillebacken, Gothenburg			
2000	Sweden			VIPA F1	New	60E1 (UIC60)	Slab	Steel				
2001	Brazil	Sao Paulo Metro	5240	VIPA F1	New	60E1 (UIC60)	Slab		Line 5, Fixed slab	21 T		
2001	Hong Kong	MTRC	2500	VIPA F1	New	60E1 (UIC60)	Slab	Concrete	Tseung Kwan O Project	17 T		
2002	Norway	Jernbaneverket	280	VIPA SP	Retrofit	54E3 (S54)	Slab	Steel	Nidelv Bridge. Trondheim. Vipa baseplate assemblies 10208 (280 + 376 ZLR on steel deck) 10223 (170 on timber bearers)	22 T		Tangent
2002	Norway	Jernbaneverket	376	VIPA SP	Retrofit	54E3 (S54)	Slab	Steel	Nidelv Bridge. Trondheim. Rail Free. Vipa baseplate assemblies 10208 (280 + 376 ZLR on steel deck) 10223 (170 on timber bearers)	22 T		Tangent
2002	Norway	Jernbaneverket	170	VIPA SP	Retrofit	54E3 (S54)	Slab	Wood	Nidelv Bridge. Trondheim. Fixed. On wood bearers. Vipa baseplate assemblies 10208 (280 + 376 ZLR on steel deck) 10223 (170 on timber bearers)	22 T		Tangent
2002	USA	BART	420	VIPA SP	Retrofit	115RE	Slab	Concrete	Oakland California viaduct 09/2002			
2002	Philippines	Manilla Metro	82500	VIPA F1	New	54E1 (UIC54)	Slab	Concrete	LRT 2			
2002	Sweden	Banverket	170	VIPA F1	Retrofit	60E1/50E3	Slab	Steel	Karlstad / Deje. 170 Rail free	22 T		
2002	Sweden	Banverket	992	VIPA F1	Retrofit	60E1/50E3	Slab	Steel	Forsmo. 267 m Steel Bridge	22 T		
2002	Sweden	Banverket	400	VIPA F1	Retrofit	60E1/50E3	Slab	Steel	Kil / Karlstad 120 m Steel Bridge	22 T		
2003	UK	CTRL	150	VIPA SP	New	60E1 (UIC60)	Ballast	Wood	St Pancras Station. Transitions at platform ends, Euroterminal	22.5 T	30 kph	
2003	UK	CTRL	50	VIPA SP	New	60E1 (UIC60)	Slab	Concrete	St Pancras Station. IBJs, Euroterminal	22.5 T	30 kph	
2003	USA	Charlotte	450	VIPA SP	New	115RE	Slab	Concrete		22 T		
2003	USA	Charlotte	1950	VIPA SP	New	115RE	Slab	Concrete				
2004	Argentina	BA Metro	300	VIPA SP	Retrofit	54E1 (UIC54)	Slab	Concrete	Sewer Pipe	14 T	50 kph	200 m
2004	Italy	ATM, Milan	280	VIPA SP	New	60E1 (UIC60)	Slab	Wood	Milan North – Milan Massivo slab?	12.5 T	< 50 kph	170 m
2004	UK	DLR	7930	VIPA SP	New	39E1 (BS80A)	Slab	Concrete	City Airport Extension – Amec Spie. EVA rail pad for curves	10.5 T	80 kph	65 m

Year	Country	Authority	No	Type	Build	Rail	Track	Fixed To	Description	Axle	Speed	Curvature
2004	UK	DLR	13910	VIPA SP	New	39E1 (BS80A)	Slab	Concrete	City Airport Extension – Amec Spie. Rubber rail pad	10.5 T		65 m
2004	UK	DLR	8290	VIPA SP	New	39E1 (BS80A)	Slab			10.5 T	80 kph	65 m
2004	UK	Network Rail	8	VIPA SP	New	60E1 (UIC60)	Slab	Concrete	Thameslink Box Tunnel. IBJs	22.5 T	50 kph	
2004	UK	Network Rail	64	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Thameslink Box Tunnel. Transitions	22.5 T	30 kph	
2004	UK	Network Rail	250	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Concrete	Stockport Pedestrian Subway	25 T	30 kph	
2004	USA	LIRR	40	VIPA SP		115RE			Long Island rail road			
2004	Philippines	Manilla Metro LRT2	56600	VIPA F1	New	54E1 (UIC54)	Slab	Concrete	Plinth Construction	17 T		250 m
2004	Philippines	Manilla Metro LRT2	8600	VIPA F1	New	54E1 (UIC54)	Slab	Concrete	Plinth – HDPE Rail pad	17 T		100 m
2004	Philippines	Manilla Metro LRT2	6500	VIPA F1	New	54E1 (UIC54)	Slab	Concrete	ZLR	17 T		250 m
2004	Philippines	Manilla Metro LRT2	8600	VIPA F1	New	54E1 (UIC54)	Slab	Concrete	Checkrail assembly	17 T		100 m
2005	Denmark	DSB	102	VIPA SP	Retrofit	60E1 (UIC60)	Ballast	Concrete	Oresund Link Transitions. EVA / LDPE baseplate pad			Tangent
2005	Denmark	DSB	72	VIPA SP	Retrofit	60E1 (UIC60)	Ballast	Concrete	Oresund Link Transitions. EVA baseplate pad			Tangent
2005	Denmark	DSB	246	VIPA SP	Retrofit	60E1 (UIC60)	Ballast	Concrete	Oresund Link Transitions. EVA / LDPE baseplate pad			Tangent
2005	France	SNCF	60	VIPA SP	Retrofit	50E6 (U50)	Slab	Steel	Gavignot Bridge	22 T		
2005	France	SNCF	470	VIPA SP	Retrofit	50E6 (U50)	Slab	Wood	Hauboudin Bridge	22 T		
2005	France	SNCF	375	VIPA SP		50E6 (U50)			Pont Haubourdin (Lille)	22 T		
2005	Norway	Oslo Sporveier	410	VIPA SP	Retrofit	54E3 (S54)	Slab	Concrete	Curved bridge near Ekraveien station, Line 2	15 T		150 m
2005	Romania	CFR	160	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Steel	Cosmestio Bridge Trail			Tangent
2005	Sweden	Banverket	1436	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Wood	Arsta Bridge	22.5 T	100 kph	
2005	Sweden	Banverket	64	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Wood	Arsta Bridge. Rail free	22.5 T	100 kph	
2005	UK	DLR	13586	VIPA SP		39E1 (BS80A)	Slab			10.5 T	80 kph	120 m
2005	UK	London Underground	14670	VIPA SP	New	54E1 (UIC54)	Slab	Concrete	PiccEx	11 T		200 m
2005	UK	Network Rail	1150	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Concrete	Merseyrail Phase 1: Burrowing junction	25 T	32 kph	222 m
2005	UK	Network Rail	16450	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Hex Ex	25 T	90 mph	
2005	UK	Network Rail	20	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Concrete	Preston Park subway	25 T	90 mph	
2005	Hong Kong	MTRC Disneyland Rail Tunnel	2500	VIPA DRS		60E1 (UIC60)			Embedded Sleeper – 1435 mm track gauge	17 T	80 kph	280 m
2006	Brazil	Sao Paulo Metro	1500	VIPA SP	New	TR57	Slab	Concrete	Sao Paulo Line 2	17.5 T	100 kph	300 m
2006	Brazil	Sao Paulo Metro	16500	VIPA SP	New	TR57	Slab	Concrete	Sao Paulo Line 2	17.5 T	100 kph	300 m
2006	Denmark	Arkhil	16	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Concrete	Ballerup Station			

Year	Country	Authority	No	Type	Build	Rail	Track	Fixed To	Description	Axle	Speed	Curvature
2006	Denmark	Banedanmark	2105	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Concrete	Strandmoellebridge	25 T		Tangent
2006	Denmark	Banedanmark	50	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Concrete	Strandmoellebridge (rail free)	25 T		Tangent
2006	Denmark	Railnet Denmark	74	VIPA SP	Retrofit	60E1 (UIC60)	Slab	Concrete	Arhus Bridge			447 m
2006	Sweden	Oresundbro Konsortiet	180	VIPA SP		60E1 (UIC60)			Oresund tunnel	22.5 T	160 kph	
2006	Switzerland	SBB	214	VIPA SP	Retrofit	54E1 (UIC54)	Slab	Wood	Burgdorf Bridge - VIPA SP trial, wooden sleepers on steel bridge, rail free (ZLR)	22.5 T		
2006	UK	Network Rail	3500	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Levens Viaduct	25 T	100 mph	Tangent
2006	UK	Network Rail	1900	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Concrete	Merseyrail Phase 2: Liverpool Central Station	22.5 T		
2007	UK	DLR	10974	VIPA SP		39E1 (BS80A)	Slab			10.5 T	80 kph	100 m
2007	UK	Network Rail	332	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Steel	Selby Canal Bridge			
2007	UK	Network Rail	1102	VIPA SP		56E1 (BS113A)				25 T		
2008	UK	DLR	1926	VIPA SP	New	39E1 (BS80A)	Slab			10.5 T	80 kph	110 m
2008	UK	Network Rail	496	VIPA SP		56E1 (BS113A)	Slab			25 T		
2008	United Arab Emirates	Dubai municipality Dubai Metro	361500	VIPA DRS		54E1 (UIC54)			Wet Pour Top Down – 1435 mm track gauge	14 T	100 kph	250 m
2009	UK	Corus	100	VIPA SP	New	56E1 (BS113A)	Slab	Steel	Trial installation	25 T	30 mph	Tangent
2009	UK	DLR	1044	VIPA SP	New	39E1 (BS80A)	Slab	Concrete	Docklands Light Rail – 3 Car	13 T	50 mph	60 m
2009	UK	Manchester Tram	306	VIPA SP	New	39E1 (BS80A)	Slab	Concrete	Manchester Metrolink	11 T	50 mph	40 m
2009	UK	Network Rail	844	VIPA SP	New	60E1 (UIC60)	Slab	Concrete	Kings Cross platform Y	25 T	15 mph	200 m / Tangent
2009	UK	Network Rail	360	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Depot inspection pit	25 T	5 mph	Tangent
2009	UK	Network Rail	1603	VIPA SP		56E1 (BS113A)	Slab			25 T		
2010	France	SNCF	450	VIPA SP		50E6 (U50)			Railtech France			
2010	UK	DLR	14	VIPA SP	New	39E1 (BS80A)	Slab	Concrete				
2010	UK	Manchester Tram	802	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Metrolink ph. 3a extension	12 T	50 mph	140 m
2010	UK	Network Rail	700	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Kings Cross platform Y	22.5 T		
2010	UK	Network Rail	84	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Merseyrail Loop, Liverpool	18 T	40 mph	300 m
2010	UK	Network Rail	1058	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Glasgow Central Station	25 T	15 m	Tangent
2010	UK	Network Rail	1659	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Goole swing bridge	25 T	60 mph	Tangent
2010	UK	Network Rail	80	VIPA SP	New	56E1 (BS113A)	Slab	Concrete		25 T		

Year	Country	Authority	No	Type	Build	Rail	Track	Fixed To	Description	Axle	Speed	Curvature
2010	UK	Network Rail	3228	VIPA SP	Retrofit	56E1 (BS113A)		Steel	Arnside Viaduct (sister structure to Leven viaduct on same route)	25 T	80 kph	Tangent
2010	UK	Network Rail	1100	VIPA SP		56E1 (BS113A)	Slab		Manchester Metrolink Phase 3A Oldham to Rochdale (Northern Extension)	11 T		110 m
2010	UK	Network Rail	76	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	East London Line project – Dalston curve	25 T	80 kph	302 m
2010	UK	Network Rail	24	VIPA SP	New	56E1 (BS113A)	Ballast	Wood	Glasgow Central new platforms - transitions	25 T	30 kph	Tangent
2011	Denmark	Banedanmark	572	VIPA SP		60E1 (UIC60)		Concrete	AARSLEFF Ringbanebroerne, Copenhagen			
2011	Denmark	Banedanmark	1342	VIPA SP		60E1 (UIC60)		Steel	Lillebæltsbroen, Storstrømsbroen and Limfjordsbroen Bridges			
2011	Russia		7500	VIPA SP	New	R65	Slab	Wood	Nizhny Novgorod Metro			
2011	UK	Manchester Tram	417	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Oldham wernmeth Curve	11 T	15 mph	32 m
2011	UK	Network Rail	3140	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Arnside Viaduct	25 T	60 mph	Tangent
2011	UK	Network Rail	36	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Concrete	Shenfield pedestrian subway lid	25 T	15 mph	Tangent
2011	UK	Network Rail	30	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Liverpool train depot carriage wash	25 T	10 mph	Tangent
2011	UK	Network Rail	40	VIPA SP		56E1 (BS113A)	Slab	Concrete	Reading Station pedestrian subway	25 T	60 mph	Tangent
2011	UK	Network Rail	48	VIPA SP		56E1 (BS113A)	Ballast	Concrete	Reading Station			
2011	UK	Network Rail	28	VIPA SP		56E1 / 60E1			Shenfield Station (Essex)			
2011	Turkey	Kadikoy Kartel Istanbul	130000	VIPA DRS		54E1 (UIC54)			Wet Pour Top Down – 1435 mm track gauge	16 T	80 kph	220 m
2011	Hong Kong		10014	VIPA F1		60E1 (UIC60)			MTR Contract Number 715 West			
2011	Sweden	Trafikverket	980	VIPA F1		50E3 (BV50)						
2012	Denmark	Banedanmark	7800	VIPA SP	Retrofit	60E1 (UIC60)		Steel	LILLEBAELTSBROEN			
2012	Denmark	Banedanmark	250	VIPA SP		60E1 (UIC60)			Ramboll			
2012	UK	Network Rail	26	VIPA SP		56E1 (BS113A)	Slab	Concrete	Reading station pedestrian subway	25 T	60 mph	Tangent
2012	UK	Network Rail	6	VIPA SP				Steel	Selby Swing Bridge			
2012	UK	Network Rail	36	VIPA SP	Retrofit	56E1 (BS113A)	Slab		Kew Gardens pedestrian subway	25 T	80 kph	Tangent
2012	UK (N-Ireland)	NIR	820	VIPA SP	Retrofit	56E1 (BS113A)	Ballast	Wood	Coleraine lifting bridge over River Bann	18 T	60 kph	Tangent
2012	India	Chennai Metro phase 1 and 2	277500	VIPA DRS		60E1 (UIC60)			Wet Pour Top Down – 1435 mm track gauge	17 T	80 kph	120 m
2012	India	Chennai Railways MRTS Phase 2	21849	VIPA DRS		60E1 (UIC60)			Wet Pour Top Down – 1676 mm track gauge	22 T	110 kph	300 m
2012	Hong Kong		42000	VIPA F1		60E1 (UIC60)			Southern Island Line (SIL)			
2012	Hong Kong		8800	VIPA F1		60E1 / 54E1	Slab	Concrete	Kwun Tong Line Extension	17 T	80 kph	300 m

Year	Country	Authority	No	Type	Build	Rail	Track	Fixed To	Description	Axle	Speed	Curvature
2012	Sweden	Trafikverket	290	VIPA F1		60E1 (UIC60)			Nassjo and Kiruna			
2013	Denmark	Banedanmark	150	VIPA SP		60E1 (UIC60)						
2013	France	SNCF	174	VIPA SP		60E1 (UIC60)	Slab		Slovenia BCh			
2013	Italy	Rome Metro	16	VIPA SP	Retrofit	50E5 (50UNI)	Slab		Roma Metropolitan			
2013	UK	DLR	1592	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Crossrail Portal	11 T	50 mph	150 m
2013	UK	London Underground	38	VIPA SP	Retrofit	56E1 (BS113A)	Slab	Concrete	Chorleywood pedestrian subway	13 T	30 mph	Tangent
2013	UK	Network Rail	760	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Mersey Rail Loop Phase 7	18 T	40 mph	300 m
2013	UK	Network Rail	120	VIPA SP	Retrofit	56E1 (BS113A)		Steel	Spring Bank West, Hull	25 T	30 mph	Tangent
2013	UK	Crossrail	1502	VIPA SP	New	56E1 (BS113A)	Slab	Concrete	Crossrail – Pudding mill Lane DLR Station re-alignment	11 T	80 kph	160 m
2013	France		504	VIPA DFC	New	60E1 (UIC60)	Ballast	Concrete	RIVAS Track Trail	22 T		None
2013	Singapore		60	VIPA DFC	New	60E1 (UIC60)	Slab		Trial on North South Line			
2014	UK	Network Rail	615	VIPA SP	Retrofit	56E1 (BS113A)		Steel	Selby Swing Bridge			
2014	UK	Network Rail	952	VIPA SP		56E1 (BS113A)			Chorley Tunnel			
2014	UK	Network Rail	1634	VIPA SP		39E1 (BS80A)			Manchester Victoria			
2014	India	Kolkata Metro Rail Co. Ltd. Phase 1 and 2	90000	VIPA DRS		60E1 (UIC60)			Wet Pour Top Down – 1435 mm track gauge	16 T	80 kph	117 m
2014	India	Delhi Metro Rail Corp. Phase 3 CT2R	263000	VIPA DRS		60E1 (UIC60)			Top Down Wet Pour – 1435 mm track gauge	16 T	95 kph	100 m
2014	Thailand	Bangkok MRTA Purple Line	180000	VIPA DRS		60E1 (UIC60)			Wet Pour Top Down – 1435 mm track gauge	16 T	80 kph	100 m
2014	Thailand	Bangkok MRTA Green Line	100000	VIPA DRS		60E1 (UIC60)			Embedded Sleeper – 1435 mm track gauge	16 T	80 kph	100 m
2014	Malaysia	Kuala Lumpur KV MRT	361000	VIPA DRS		60E1 (UIC60)			Embedded Sleeper – 1435 mm track gauge	14 T	100 kph	150 m
<b>Total</b>			<b>234186</b>									