

HiPace™ 2300

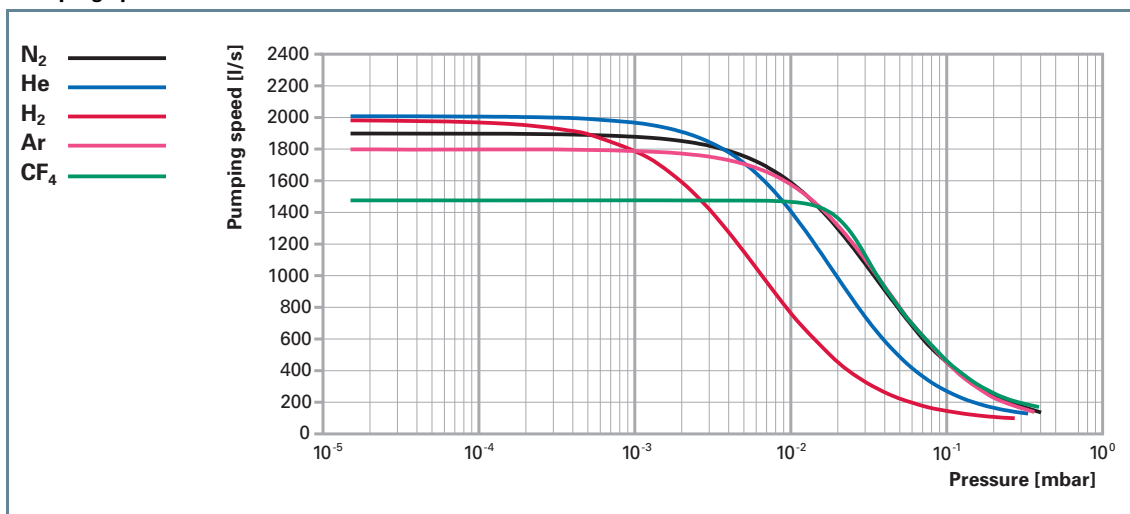
Powerful turbopumps with pumping speeds of up to 2050 l/s.



- ▶ High pumping speeds for both light and heavy gases
- ▶ High process integrity, resistant to particulate matter
- ▶ High gas throughputs, even for heavy gases

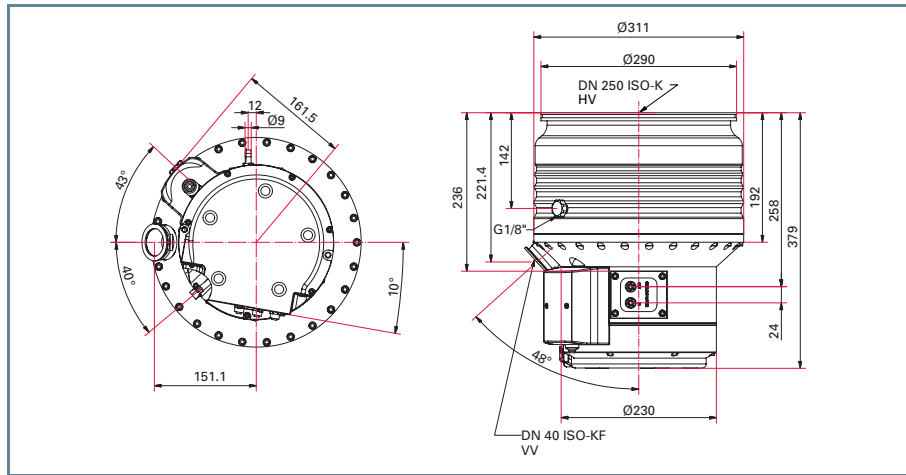
C=Corrosive gas version
U=Upside-down installation orientation

Pumping speed

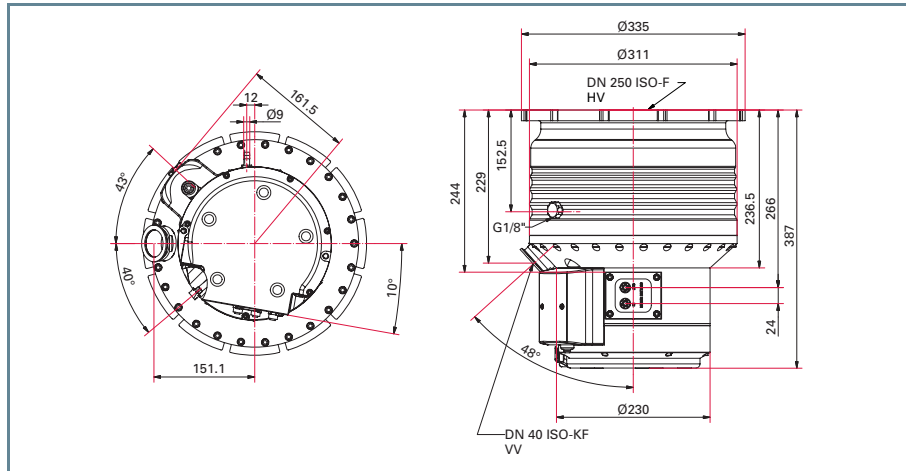


HiPace™ 2300

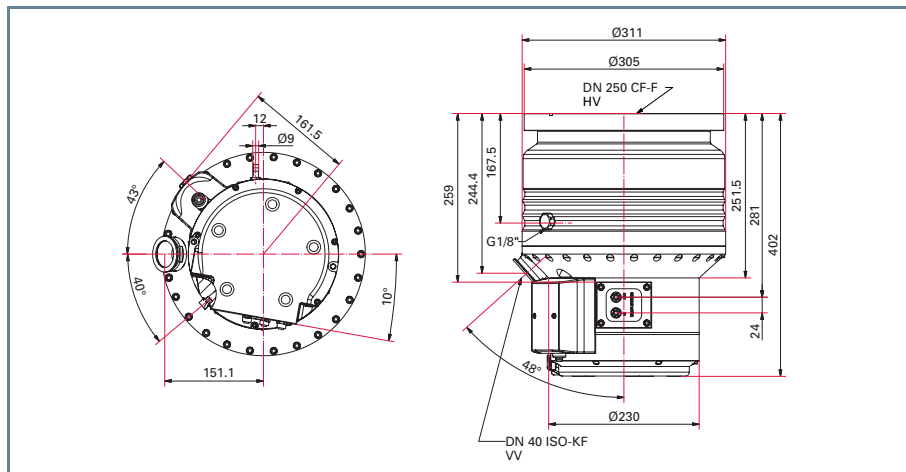
Dimensions



HiPace™ 2300 with TC 1200, DN 250 ISO-K



HiPace™ 2300 with TC 1200, DN 250 ISO-F



HiPace™ 2300 with TC 1200, DN 250 CF-F

Technical data	HiPace™ 2300 with TC 1200, DN 250 ISO-K	HiPace™ 2300 with TC 1200, DN 250 ISO-F	HiPace™ 2300 with TC 1200, DN 250 CF-F	HiPace™ 2300 U, with TC 1200, DN 250 ISO-K, upside down version	HiPace™ 2300 U, with TC 1200, DN 250 ISO-F, upside down version
Connection nominal diameter					
Flange (in)	DN 250 ISO-K	DN 250 ISO-F	DN 250 CF-F	DN 250 ISO-K	DN 250 ISO-F
Flange (out)	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF
Venting connection	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"
Pumping speed					
Pumping speed for H ₂	1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s
Pumping speed for He	2050 l/s	2050 l/s	2050 l/s	2050 l/s	2050 l/s
Pumping speed for N ₂	1900 l/s	1900 l/s	1900 l/s	1900 l/s	1900 l/s
Pumping speed for Ar	1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s
Pumping speed for CF ₄	1450 l/s	1450 l/s	1450 l/s	1450 l/s	1450 l/s
Compression					
Compression ratio for H ₂	2 · 10 ⁴	2 · 10 ⁴	2 · 10 ⁴	2 · 10 ⁴	2 · 10 ⁴
Compression ratio for He	3 · 10 ⁵	3 · 10 ⁵	3 · 10 ⁵	3 · 10 ⁵	3 · 10 ⁵
Compression ratio for N ₂	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸
Compression ratio for Ar	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸
Compression ratio for CF ₄	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸
Fore Vacuum max. for N₂					
	1.8 mbar	1.8 mbar	1.8 mbar	1.8 mbar	1.8 mbar
Gas throughput					
Gas throughput at full rotational speed for H ₂	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s
Gas throughput at full rotational speed for He	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s
Gas throughput at full rotational speed for N ₂	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s
Gas throughput at full rotational speed for Ar	16 mbar l/s	16 mbar l/s	16 mbar l/s	16 mbar l/s	16 mbar l/s
Gas throughput at full rotational speed for CF ₄	14 mbar l/s	14 mbar l/s	14 mbar l/s	14 mbar l/s	14 mbar l/s
Ultimate pressure with OnTool™ DryPump	< 1 · 10 ⁻⁷ mbar	< 1 · 10 ⁻⁷ mbar	< 1 · 10 ⁻⁷ mbar	< 1 · 10 ⁻⁷ mbar	< 1 · 10 ⁻⁷ mbar
Rotation speed ±2%	31500 rpm	31500 rpm	31500 rpm	31500 rpm	31500 rpm
Run-up time	4 min	4 min	4 min	4 min	4 min
Cooling method, standard	Water	Water	Water	Water	Water
Cooling water consumption	100 l/h	100 l/h	100 l/h	100 l/h	100 l/h
Cooling water temperature	15-35 °C	15-35 °C	15-35 °C	15-35 °C	15-35 °C
Permissible magnetic field max.	7 mT	7 mT	7 mT	7 mT	7 mT
Sound pressure level	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50
Protection category	IP 54	IP 54	IP 54	IP 54	IP 54
Interfaces	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote
Weight	34 kg	35 kg	47 kg	34 kg	35 kg
Order number pump	PM P03 920	PM P03 921	PM P03 922	PM P03 923	PM P03 924

HiPace™ 2300 U, with TC 1200, DN 250 CF-F, upside down version	HiPace™ 2300 C, with TC 1200, DN 250 ISO-K, corrosive	HiPace™ 2300 C, with TC 1200, DN 250 ISO-F, corrosive	HiPace™ 2300 C, with TC 1200, DN 250 CF-F, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 ISO-K, upside down version, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 ISO-F, upside down version, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 CF-F, upside down version, corrosive
DN 250 CF-F	DN 250 ISO-K	DN 250 ISO-F	DN 250 CF-F	DN 250 ISO-K	DN 250 ISO-F	DN 250 CF-F
DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF	DN 40 ISO-KF
G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"
1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s
2050 l/s	2050 l/s	2050 l/s	2050 l/s	2050 l/s	2050 l/s	2050 l/s
1900 l/s	1900 l/s	1900 l/s	1900 l/s	1900 l/s	1900 l/s	1900 l/s
1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s	1850 l/s
1450 l/s	1450 l/s	1450 l/s	1450 l/s	1450 l/s	1450 l/s	1450 l/s
2·10 ⁴	2·10 ⁴	2·10 ⁴	2·10 ⁴	2·10 ⁴	2·10 ⁴	2·10 ⁴
3·10 ⁵	3·10 ⁵	3·10 ⁵	3·10 ⁵	3·10 ⁵	3·10 ⁵	3·10 ⁵
> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸
> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸
> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸	> 1·10 ⁸
1.8 mbar	1.8 mbar	1.8 mbar	1.8 mbar	1.8 mbar	1.8 mbar	1.8 mbar
> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s	> 30 mbar l/s
20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s
20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s	20 mbar l/s
16 mbar l/s	16 mbar l/s	16 mbar l/s	16 mbar l/s	16 mbar l/s	16 mbar l/s	16 mbar l/s
14 mbar l/s	14 mbar l/s	14 mbar l/s	14 mbar l/s	14 mbar l/s	14 mbar l/s	14 mbar l/s
< 1·10 ⁻⁷ mbar	< 1·10 ⁻⁷ mbar	< 1·10 ⁻⁷ mbar	< 1·10 ⁻⁷ mbar	< 1·10 ⁻⁷ mbar	< 1·10 ⁻⁷ mbar	< 1·10 ⁻⁷ mbar
31500 rpm	31500 rpm	31500 rpm	31500 rpm	31500 rpm	31500 rpm	31500 rpm
4 min	4 min	4 min	4 min	4 min	4 min	4 min
Water	Water	Water	Water	Water	Water	Water
100 l/h	100 l/h	100 l/h	100 l/h	100 l/h	100 l/h	100 l/h
15-35 °C	15-35 °C	15-35 °C	15-35 °C	15-35 °C	15-35 °C	15-35 °C
7 mT	7 mT	7 mT	7 mT	7 mT	7 mT	7 mT
≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)
IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote
47 kg	34 kg	35 kg	47 kg	34 kg	35 kg	47 kg
PM P03 925	PM P03 926	PM P03 927	PM P04 194	PM P03 928	PM P03 929	PM P04 195

Accessories	HiPace™ 2300 with TC 1200, DN 250 ISO-K	HiPace™ 2300 with TC 1200, DN 250 ISO-F	HiPace™ 2300 with TC 1200, DN 250 CF-F	HiPace™ 2300 U, with TC 1200, DN 250 ISO-K, upside down version	HiPace™ 2300 U, with TC 1200, DN 250 ISO-F, upside down version
Order number pump	PM P03 920	PM P03 921	PM P03 922	PM P03 923	PM P03 924
Control units					
DCU - Display Control Unit	PM 061 348-T	PM 061 348-T	PM 061 348-T	PM 061 348-T	PM 061 348-T
HPU - Handheld Programming Unit	PM 051 510-T	PM 051 510-T	PM 051 510-T	PM 051 510-T	PM 051 510-T
Accessories for HPU	PM 061 005-T	PM 061 005-T	PM 061 005-T	PM 061 005-T	PM 061 005-T
Mains cable DCU/TPS/TCP, 3 m					
230 V AC mains cable with Euro-style safety plug	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA
115 V AC mains cable with UL plug	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE
208 V AC mains cable with UL plug	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB
Venting accessories					
Venting valve	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291
Air drier TTV 001	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121
Heating accessories					
Heating jacket 230 V AC, Euro-style safety plug			PM 061 563-T		
Heating jacket 208 V AC, UL plug			PM 061 564-T		
Heating jacket 115 V AC, UL plug			PM 061 565-T		
Backing pump control					
Backing pump relay box, single phase 5 A	PM 061 374-T	PM 061 374-T	PM 061 374-T	PM 061 374-T	PM 061 374-T
Backing pump relay box, single phase 20 A	PM 061 375-T	PM 061 375-T	PM 061 375-T	PM 061 375-T	PM 061 375-T
TVV 001 backing vacuum safety valve, 230 V AC	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205
TVV 001 backing vacuum safety valve, 115 V AC	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206

HiPace™ 2300 U, with TC 1200, DN 250 CF-F, upside down version	HiPace™ 2300 C, with TC 1200, DN 250 ISO-K, corrosive	HiPace™ 2300 C, with TC 1200, DN 250 ISO-F, corrosive	HiPace™ 2300 C, with TC 1200, DN 250 CF-F, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 ISO-K, upside down version, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 ISO-F, upside down version, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 CF-F, upside down version, corrosive
PM P03 925	PM P03 926	PM P03 927	PM P04 194	PM P03 928	PM P03 929	PM P04 195
PM 061 348-T	PM 061 348-T	PM 061 348-T	PM 061 348-T	PM 061 348-T	PM 061 348-T	PM 061 348-T
PM 051 510-T	PM 051 510-T	PM 051 510-T	PM 051 510-T	PM 051 510-T	PM 051 510-T	PM 051 510-T
PM 061 005-T	PM 061 005-T	PM 061 005-T	PM 061 005-T	PM 061 005-T	PM 061 005-T	PM 061 005-T
P4 564 309 HA	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA	P4 564 309 HA
P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE
P4 564 309 HB	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB	P4 564 309 HB
PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291
PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121
PM 061 563-T			PM 061 563-T			PM 061 563-T
PM 061 564-T			PM 061 564-T			PM 061 564-T
PM 061 565-T			PM 061 565-T			PM 061 565-T
PM 061 374-T	PM 061 374-T	PM 061 374-T	PM 061 374-T	PM 061 374-T	PM 061 374-T	PM 061 374-T
PM 061 375-T	PM 061 375-T	PM 061 375-T	PM 061 375-T	PM 061 375-T	PM 061 375-T	PM 061 375-T
PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205
PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206

Accessories	HiPace™ 2300 with TC 1200, DN 250 ISO-K	HiPace™ 2300 with TC 1200, DN 250 ISO-F	HiPace™ 2300 with TC 1200, DN 250 CF-F	HiPace™ 2300 U, with TC 1200, DN 250 ISO-K, upside down version	HiPace™ 2300 U, with TC 1200, DN 250 ISO-F, upside down version
Order number pump	PM P03 920	PM P03 921	PM P03 922	PM P03 923	PM P03 924
General accessories					
Sealing gas	PM Z01 313	PM Z01 313	PM Z01 313	PM Z01 313	PM Z01 313
Sealing gas throttle	PM Z01 318	PM Z01 318	PM Z01 318	PM Z01 318	PM Z01 318
Coated centering ring	PM 016 225-U	PM 016 225-U		PM 016 225-U	PM 016 225-U
Coated centering ring with protection screen	PM 016 227-U	PM 016 227-U		PM 016 227-U	PM 016 227-U
Coated centering ring with integrated splinter shield	PM 016 226-U	PM 016 226-U		PM 016 226-U	PM 016 226-U
Protection screen			PM 016 345		
Splinter shield			PM 016 324		
Vibration dampers	PM 006 670-X		PM 006 671-X	PM 006 670-X	
USB converter	PM 061 207-T	PM 061 207-T	PM 061 207-T	PM 061 207-T	PM 061 207-T
Interface cable, 3 m, M 12	PM 061 283-T	PM 061 283-T	PM 061 283-T	PM 061 283-T	PM 061 283-T
Yconnector, M12, for RS-485	P 4723 010	P 4723 010	P 4723 010	P 4723 010	P 4723 010
Yconnector, M12 for accessories	P 4723 012	P 4723 012	P 4723 012	P 4723 012	P 4723 012
Mounting materials					
Mounting kit including coated centering ring, bracket screws	PM 016 415-T			PM 016 415-T	
Coated centering ring, with protection screen, clamping screws	PM 016 417-T			PM 016 417-T	
Coated centering ring with splinter shield, bracket screws	PM 016 416-T			PM 016 416-T	
Coated centering ring, hexagon bolts		PM 016 480-T			PM 016 480-T
Coated centering ring with protection screen, hexagon bolts		PM 016 482-T			PM 016 482-T
Coated centering ring with splinter shield, hexagon bolts		PM 016 481-T			PM 016 481-T
Coated centering ring, stud screws		PM 016 485-T			PM 016 485-T
Coated centering ring with protection screen, stud screws		PM 016 487-T			PM 016 487-T
Coated centering ring with splinter shield, stud screws		PM 016 486-T			PM 016 486-T
Set of hexagon bolts			PM 016 694-T		
Set of stud screws			PM 016 695-T		

HiPace™ 2300 U, with TC 1200, DN 250 CF-F, upside down version	HiPace™ 2300 C, with TC 1200, DN 250 ISO-K, corrosive	HiPace™ 2300 C, with TC 1200, DN 250 ISO-F, corrosive	HiPace™ 2300 C, with TC 1200, DN 250 CF-F, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 ISO-K, upside down version, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 ISO-F, upside down version, corrosive	HiPace™ 2300 UC, with TC 1200, DN 250 CF-F, upside down version, corrosive
PM P03 925	PM P03 926	PM P03 927	PM P04 194	PM P03 928	PM P03 929	PM P04 195
PM Z01 313	PM Z01 313	PM Z01 313	PM Z01 313	PM Z01 313	PM Z01 313	PM Z01 313
PM Z01 318	PM Z01 318	PM Z01 318	PM Z01 318	PM Z01 318	PM Z01 318	PM Z01 318
	PM 016 225-U	PM 016 225-U		PM 016 225-U	PM 016 225-U	
	PM 016 227-U	PM 016 227-U		PM 016 227-U	PM 016 227-U	
	PM 016 226-U	PM 016 226-U		PM 016 226-U	PM 016 226-U	
PM 016 345			PM 016 345			PM 016 345
PM 016 324			PM 016 324			PM 016 324
PM 006 671-X	PM 006 670-X		PM 006 671-X	PM 006 670-X		PM 006 671-X
PM 061 207-T	PM 061 207-T	PM 061 207-T	PM 061 207-T	PM 061 207-T	PM 061 207-T	PM 061 207-T
PM 061 283-T	PM 061 283-T	PM 061 283-T	PM 061 283-T	PM 061 283-T	PM 061 283-T	PM 061 283-T
P 4723 010	P 4723 010	P 4723 010	P 4723 010	P 4723 010	P 4723 010	P 4723 010
P 4723 012	P 4723 012	P 4723 012	P 4723 012	P 4723 012	P 4723 012	P 4723 012
	PM 016 415-T			PM 016 415-T		
	PM 016 417-T			PM 016 417-T		
	PM 016 416-T			PM 016 416-T		
		PM 016 480-T			PM 016 480-T	
		PM 016 482-T			PM 016 482-T	
		PM 016 481-T			PM 016 481-T	
		PM 016 485-T			PM 016 485-T	
		PM 016 487-T			PM 016 487-T	
		PM 016 486-T			PM 016 486-T	
PM 016 694-T			PM 016 694-T			PM 016 694-T
PM 016 695-T			PM 016 695-T			PM 016 695-T