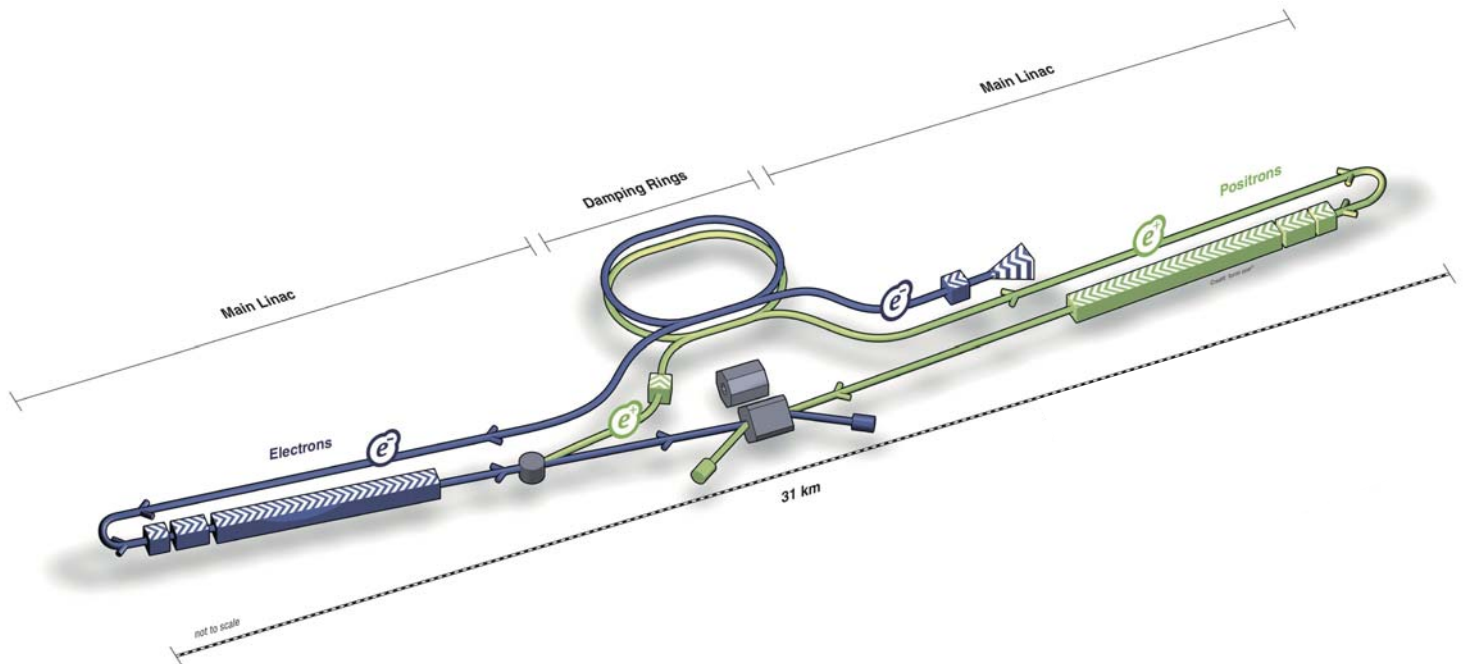




Specification of ILC Accelerator



ILC Scheme | ©www.form-one.de

Beam Parameters	Collision Energy	500 giga-electron-volts (500 GeV = 250 GeV + 250 GeV)
	Luminosity	$2 \times 10^{34} \text{ cm}^{-2} \text{ s}^{-1}$
	Bunch population	2×10^{10}
	Number of bunches	1312
	Bunch spacing	554 ns
	Number of collision	6560 s^{-1}
	Number of beam acceleration	5 s^{-1}
	Acceleration gradient	31.5 MV/m
Accelerator unit	Beam size at collision point	Width 474 nm Thickness 5.9 nm
	Number of acceleration cavity unit	14742
	Number of cryomodules	1701
	Number of klystrons in distributed klystron system	378
Cryomodule	Size of cryomodule	1m diameter, 12m length
	Cryomodule type	
	Type 1 Type 2	9 units of 9-cell acceleration cavities 8 units of 9-cell acceleration cavities + 1 unit of superconducting quadrupole magnet
Operation	Frequency of pulsed RF	1.3 GHz
	Power of pulsed RF	190 kW/cavity
	Operation temperature of acceleration cavity	2 K
Size of accelerator	Circumference of Damping ring	3.2 km
	Length of main linac	11 km (electron linac) + 11 km (positron linac)
Collision experiment	Number of Detectors	2 (push-pull alternation)