Application

Drop Lift Application

1. Drop Lift System

One type of a lift application where in a manufacturing process a drop lift is used to lift the object up or down. (example: automobile manufacturing line)

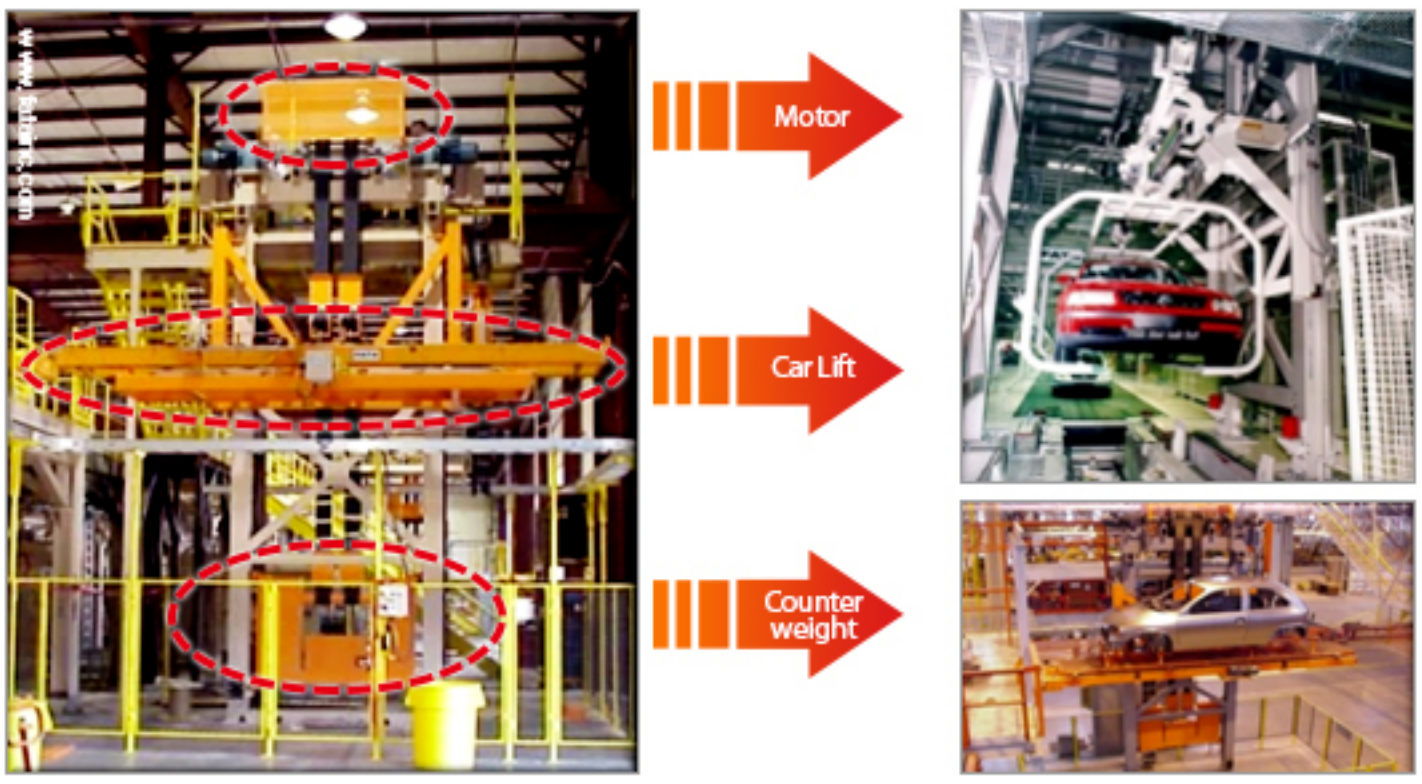
2. System Characteristics

1) The process where automobile parts such as car frame, engine, doors, etc are moved from floor 1→2 / floor 2 →1

2) Regenerative energy either exists or do not exist at all
(Down operation with load and empty load up – Regenerative energy exists
Up operation with load and empty load down – No regenerative energy)

3) DBU and DBR is recommended process regenerative energy

3. System Structure



XX Motor Company D/L Application

1. Summary

One type of application in an automobile production plant where it is used to deliver the frame of the car, modules, or engines etc. up or down in the manufacturing process.

2. Applied Product

SV0370iS7-4NO 1ea

3. Applied Functions

	DRV group	Setting	DRV group	Setting	DRV group	Setting	DRV group	Setting
Parameters	09: Ctrl Mode	V/F	50: Step Freq.-1	8.0Hz	01: ACC. Pattern	S-curve	32: Relay 2	BR control
	14: Motor Cap.	15.0kW	50: Step Freq.-2	33.0Hz	02: DEC. Pattern	S-curve		
			50: Step Freq.-3	10.0Hz	41: BR Rls Curr	12%		
					42: BR Rls Dly	0.5s		
					44: BR Rls Fwd Fr.	0.9Hz		
					45: BR Rls Rev Fr.	0.9Hz		
					46: BR Eng Dly	0.6s		
					47: BR Eng Fr.	1.0Hz		

1) Step Frequency control
- Low, middle, high step frequency is used through digital input signal

2) BR Control: iS7 function to control the mechanical brake of the lift

3) V/F pattern: S-curve pattern used to apply smooth operation during accel and decel.