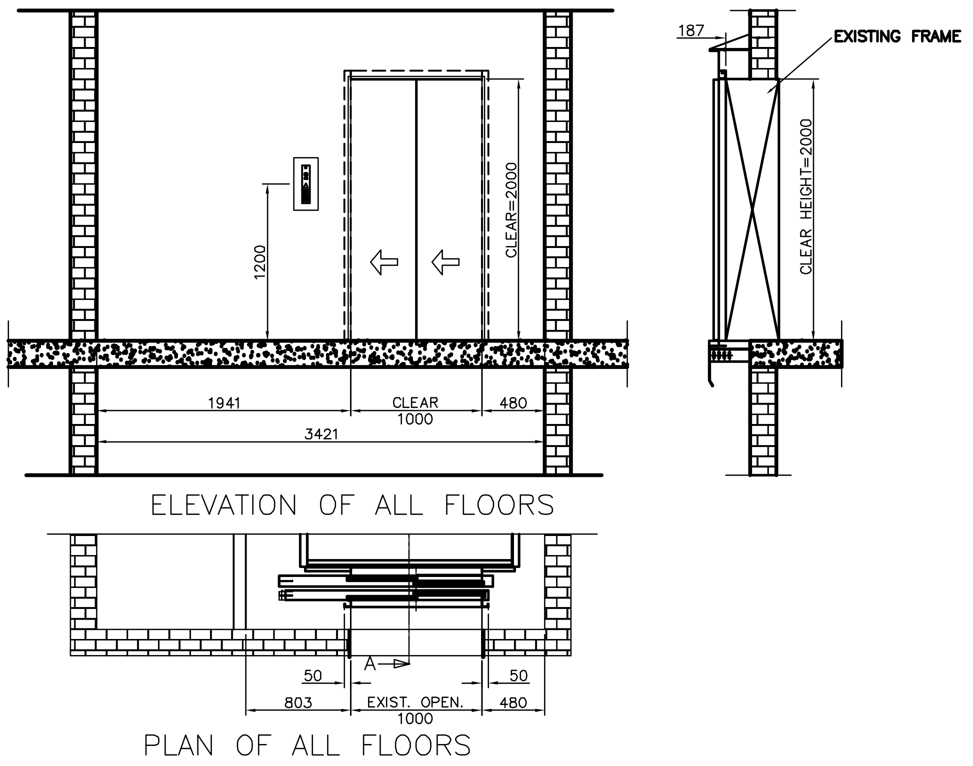
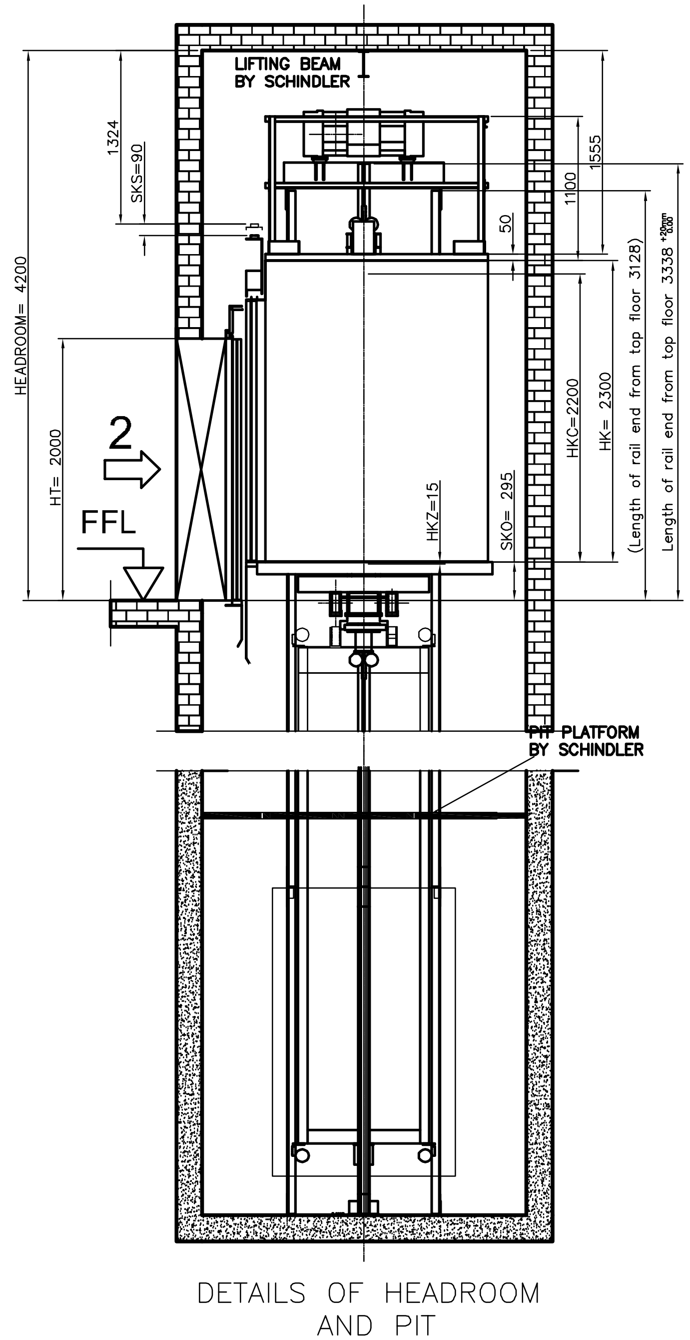
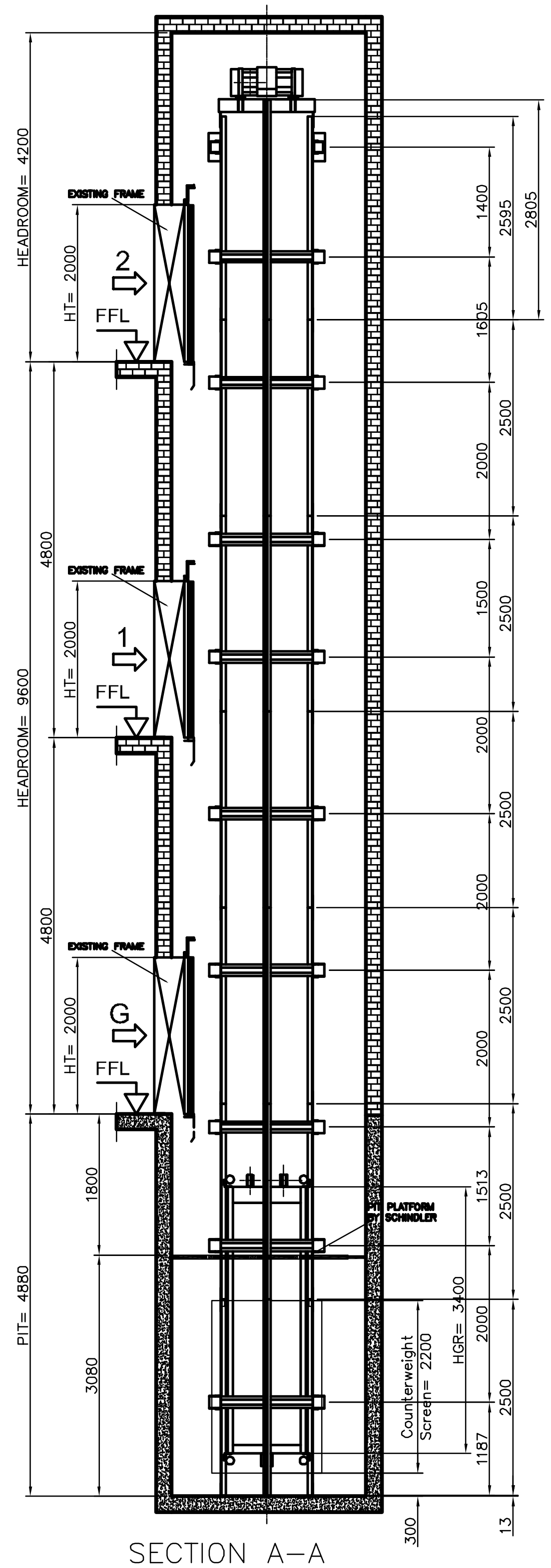


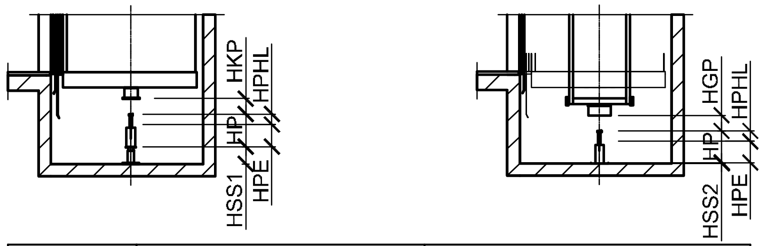




Bracket Selection

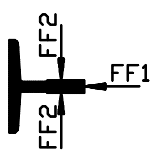
HF max = 2000	Car side	Counterweight side
Type	10 × Z-BCL2	1 × L2-A AL2
		9 × □-BCL NBC2

Car position at bottom floor / **Car position at top floor**



	Car buffer	Counterweight buffer
	HYF210A	HYF210A
(HP)	600	600
HPH/HPHL	210 / 210	210 / 210
HKP/HGP	70	85
HSS1/2	3935	0
HPE	390	390
Quantity	1	1

Guide shoe forces



Car
FF1 = 2291 N
FF2 = 1725 N
Counterweight
FF1 = 713 N
FF2 = 64 N

Builder (Owner) to provide:

a. General information:
1. All forces indicated on the layout drawing do not include safety factor.
2. No material will be ordered until the drawings have been approved.

b. Shaft
1. Walls must be smooth and complete.
2. The layout allows for a hoist way plumbness tolerance of -0/+25mm.
3. Overall shaft travel must be accurate (see layout drawing).
4. Where a brick walled shaft is used, pad stone must be provided for fixing of guide rails, min 200mm deep.
5. Cut outs for overhead steel must be complete and level (see layout drawing).
6. Lifting hooks must be provided (see layout drawing) & tagged with safe working load.

c. Pit
1. Must be clean,
2. Must be dry at all times.
3. Must be accurate according to the layout drawing.
4. Datum lines for tile grid and finished floors levels are to be provided at each lift door opening. (1m above F.F.L.)

d. Landings
1. Control and indication cutouts must be provided (see layout drawing).
2. Door rough openings must be done to layout drawing sizes. After installation completion landing door frames must be built in by Builder. All landing entrances to be barricaded to avoid any unauthorised access.
4. All recess cut outs must be completed (see layout drawing).

e. Environment Data.
e. 1. Ventilation:
1. Holes for ventilation and a weather proof cover must be provided on top of the shaft, (see layout drawing).
2. The machine room & shaft shall be suitably ventilated. (SANS 50081-1 - EN81-1, 6.3.5)
3. The ambient temperature in the machine room & shaft is to be maintained between 0C° and +40C°. Forced ventilation may be needed. Temperature sensor is advised.
4. Minimum 25 air changes per hour in the motor room and shaft.
5. Stale air from other parts of the building shall not be extracted into machine room or shaft.
6. If the shaft needs to be further ventilated a minimum area of 1% of the horizontal section of the shaft are provided (Near to the converter, not above the drive)
7. The electric equipment shall be protected as far as it is reasonably practicable from dust, harmful fumes and humidity.

e. 2. General:
1. Maximum humidity is 95%.
2. Maximum altitude of installation above sea level 2 000m.
3. Storage on site. Approximately $60m^2$ per lift safe/secure under cover storage with clear access and as close to the shaft as possible will be provided. Any damage, pilferage or theft once the material is unloaded at your site and no safe/secure under cover storage was provided, will be to your account.

f. Electrical (owner)
Below applies per lift & in accordance to the OHS Act.
1. The main isolator circuitry to be protected with a motor rated circuit breaker on the consumer's distribution board with an ampere rating higher than the lift isolator.
2. The distribution board is to be fed from a supply other than the lift main power supply. It is not permissible to use one phase of the 3-phase supply.
3. 3 Phase power, 400V, 3 PHASE, 50Hz, (for amps see machine information), Neutral and earth (±5% on the V & Hz). must be positioned at the top floor terminated in a lock out system isolator (see layout drawing).
4. 220V, Single phase, 50Hz. A sub-distribution board shall be provided and connected, incorporating a earth leakage and circuit breakers for shaft lights, shaft plug, shaft fan with thermostat where applicable, and a 15 Amp circuit breaker for the car light. This board must be mounted with in reach and not inside the shaft.
5. 10mm Square Earth cable on the full length of the shaft to be installed.
6. Single phase waterproof socket in the pit (see layout drawing).
7. Single phase socket on the upper part of the shaft (see layout drawing).
8. Single socket on top of the cabin.
9. Shaft lighting to be fitted. Minimum 50 Lux throughout the shaft and minimum 200 Lux on the machine, pulley and controller area.
10. Water proof pit lighting to be fitted.
11. Ensure that electrical installations do not interfere with the lift mechanisms.
12. See "Machine" information for electrical supply.
13. An earth point needs to be made in the shaft pit. All guide rails must have a physical (metallic) connection with this earth point, installed by the electrician of the construction site.
14. Intercom system - Route and cabling (2 pair twisted screen cable per lift) for lift intercom, from lift controller to the required master station location to be supplied and installed. If a dial-out system was specified a telephone line must be supplied at the lift controller and line installation. (Schindler Lifts can not be held liable for any telephone cost's for this system.)
15. If Emergency Operation of the installation under emergency power conditions are specified, it is agreed that Schindler will provide the lift controller with the necessary equipment and software to achieve the required operation. But the power supply and installation of the emergency standby generator with a voltage free contact at the lift controller to be supply by the customer.
16. Voltage free signals for the fire homing (BMS system) and the Emergency power (generator) are to be provided.
No construction work will commence by Schindler if the above has not been provided.

APPROVAL OF THESE ARRANGEMENT AND CONDITIONS.
NAME : ....
SIGNED : ....DATE : ....

Gearless machine type	PML160
Hoisting motor type	BS440
Hoisting motor power (PMN)	8.30 KW
Nominal current INN	30.5 A
Starting current INA	37.1 A
Fuse	25 A
Cos phi	0.98
Generation of heat	1.00 kW
Min.cross section	10 mm^2
Max.length	T.B.A
Diameter traction sheave	125 mm
Contact angle	179
Belt quantity	2
STM	PV60

LAYOUT RE-APPROVED 15.11.17

Power, Small Power Supply and communication cable
Length of supply cable for controller cabinet has to stand out min.1m over the rough floor
min 100
200
90
Finished

Basic Cable Layout
Well entrances point for cable
Traveling Cable
Logic circuit
Safety circuit

Principle diagram suspension ropes
counterweight
car
Well

Principle diagram overspeed governor
Safety gear
Tension pulley

Product	3300	5400	5500	2000	6000	7000
CWT screen - Bot	140mm	300mm	300mm	300mm	300mm	NA
- Top	2000mm	2500mm	2500mm	2500mm	2500mm	NA

Schindler

SCHINDLER LIFTS (SA.)(PTY.) LTD.
COPYRIGHT: THE CONTENTS OF THIS DRAWING MAY BE REPRODUCED OR COPIED ONLY WITH THE WRITTEN CONSENT OF SCHINDLER LIFTS (SA)(PTY) LTD.

R	DATE	DESCRIPTION REVISION	NAME
R5			
R4			
R3			
R2	11.11.17	FOR RE-APPROVAL	DRAWN BY: DENNIS
R1	12.04.17	APPROVED	DRAWN BY: DENNIS
R0	25.04.16	FOR APPROVAL	DRAWN BY: DENNIS / CHECKED BY : ANUP

Legend :
LOP Landing operating panel
LIP Landing indicator panel
COP Car operating panel
HS Hoistway height
HT Clear door height
GBP Overspeed governor
SCH Light switch and socket outlet
SKO Car overtravel above
HSK Well headroom
SKU Car overtravel below
TK Clear car depth
BK Clear car width
HSG Depth of well pit
BT Clear width door
BS Hoistway width
TS Depth of hoistway
HSE Distance floor

Shoe Force
Car guide rail: T89
Counterweight guide rail: T89
FF1 Car = N
FF2 Car = N
FF1 Counterweight= N
FF2 Counterweight= N

FORCES: (kN) 1KN=100KG

F6 = 0.0	F6 = 0.0	F8 = 0.0
F9 = 94.258	F10 = 72.871	F11 = 35.028
F12 = 35.028	F13 = 23.160	F14 = 23.160

DIN A1 — A1
SCALE: 1:20

STATIC FORCES:
F8,F16,F17 & F18 OCCURS SIMULTANEOUSLY ON THE PIT BASE.
IMPACT FORCES:
F9 & F10 OCCURS ON TESTING OR EMERGENCY SITUATIONS, BUT NEVER OCCUR SIMULTANEOUSLY.

LIFT: 'PE2749'

TYPE : Schindler 5500AP MML
LOAD : 1150 kg 15 PASSENGERS
SPEED : 1.60 m/s
CONTROL : MX-GC
TRAVEL : 9.60 m
NO.STOPS : 3 (G;1;2)
SUPPLY : 400 VAC 3 PH 50 HZ

UNION BUILDING

FILE NO:	CONTRACT NO:	DRAWING NO:	ALT.NO.
02205	SAMOD/NIR-00179	NIRM179-06	02