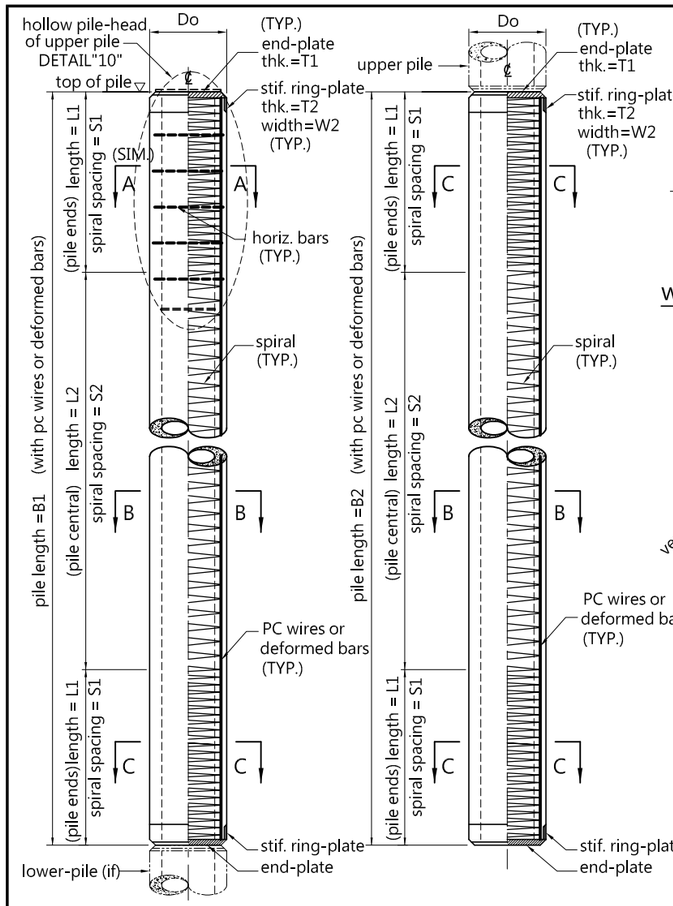
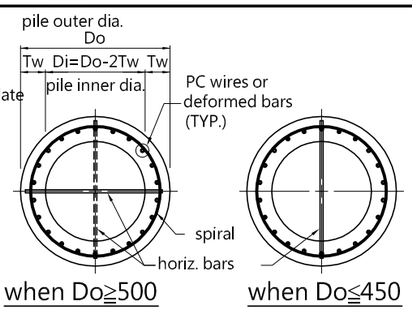
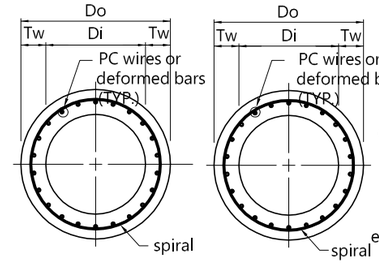
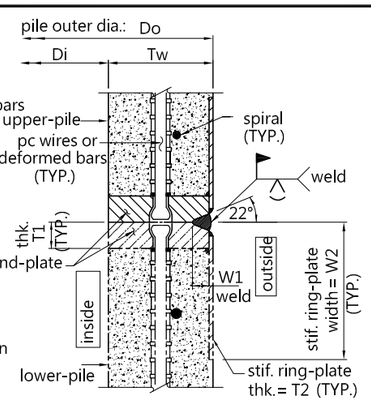


upper-pile (or single pile)

lower-pile





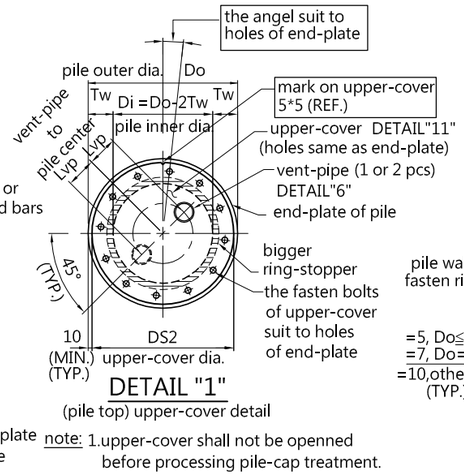


pile conection & end-plate detail

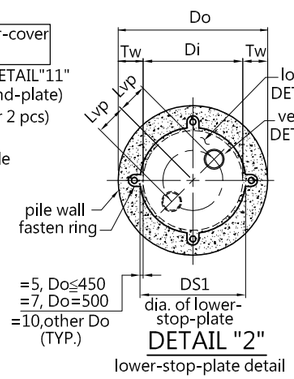
upper-pile connect to lower-pile (site construtions)

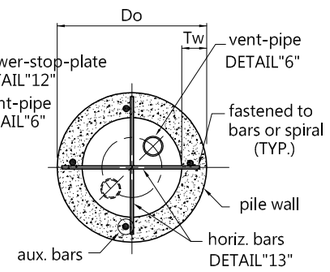
Table 2: pile body dimensions (2)

outer dia.	spiral of pile body: both ends length	both ends pitch	centeral pitch	spiral dia. (min.)	end-plate thk. (min.)	stif. ring-plate thk. (min.)	stif. ring-plate width (min.)
Do	L1	S1	S2		T1	T2	W2
(mm)	(mm)	(mm)	(mm)	BWG.(mm)	(mm)	(mm)	(mm)
400	1,500	@50	@100	#10(3.404)	19	2.3	150
450	1,500	@50	@100	#8 (4.191)	19	2.3	150
500	1,500	@50	@100	#8 (4.191)	19	2.3	150
600	1,500	@50	@100	#8 (4.191)	19	2.3	150
700	1,500	@50	@100	#5 (5.588)	22	3.2	150
800	1,500	@50	@100	#5 (5.588)	25	3.2	200
900	1,500	@50	@100	#5 (5.588)	25	3.2	200
1,000	1,500	@50	@100	#5 (5.588)	25	3.2	200
1,100	1,500	@50	@100	#5 (5.588)	25	5.0	250
1,200	1,500	@50	@100	#5 (5.588)	25	5.0	250



note: 1.upper-cover shall not be openned before processing pile-cap treatment.





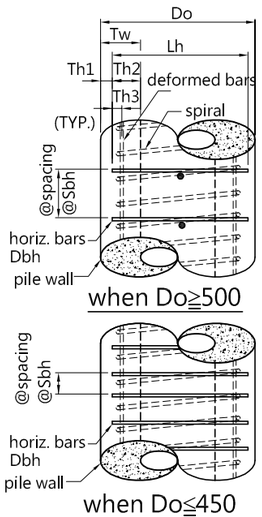
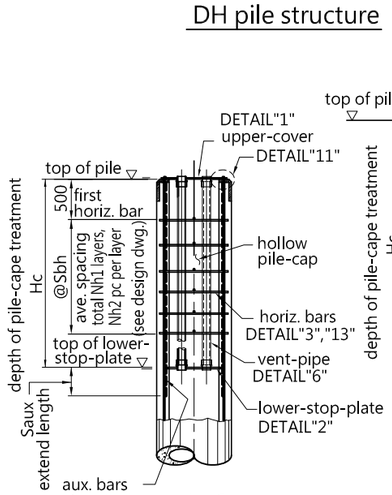


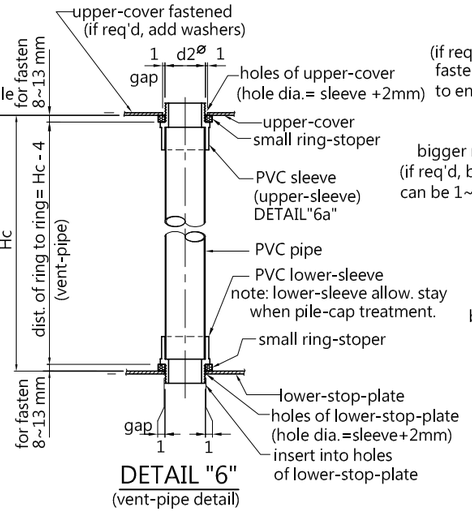
Table 4: horiz. bars of pile head of DH pile

outer dia.	wall thk.	horiz. bars of pile head: num. layer	dia. @spacing	length	cover thk.	depth into wall	bar-end to deformed bars
Do	Tw	*pc	Dbh@Sbh	Lh	Th1	Th2	Th3
(mm)	(mm)		mm@mm	(mm)	(mm)	(mm)	(mm)
400	75	12*1	D16 @100	340	30	45	7
450	80	12*1	D16 @100	390	30	50	10
500	90	6*2	D16 @240	440	30	60	15
600	100	6*2	D16 @200	540	30	70	20
700	110	6*2	D19 @200	620	40	70	15
		6*4	D16 @200	640	30	80	25
800	120	6*2	D19 @200	720	40	80	20
		6*4	D16 @200	740	30	90	30
900	130	6*4	D19 @200	820	40	90	25
1,000	140	6*4	D19 @200	920	40	100	30
1,100	150	6*4	D19 @200	1,020	40	110	35
1,200	160	6*4	D19 @200	1,120	40	120	40

notes:
1. horiz. bars embedded into pile wall, 2-bars per layer. And shall be place like "#" type, if 4-bars per layer. when Do≦450 · horiz. bars placed like "I" type.
2. The horiz. bars cover thk.: 30mm (not great then D16), or 40 (not less than D19).
3. The above spacing of horiz. bars (Sbh) is suggest for 6-layers bars.

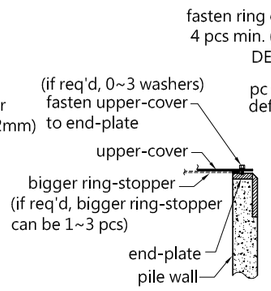
DH pile structure

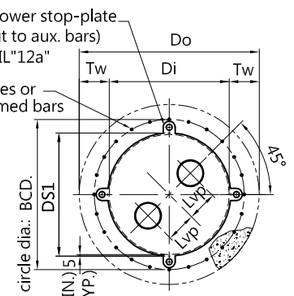


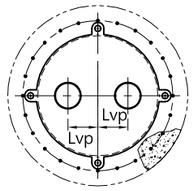


PVC pipe OD.* t	small ring-stoper t *OD.*ID.	holes of upper-/lower- plate
mm*mm	mm*mm*mm	(mm)
3" 89*2.1t	15t*116OD*86ID.	91⌀
2" 60*1.8t	15t* 87OD*57ID.	62⌀

notes: 1.vent-pipe & upper-cover fabricated in shop, and fatened on end-plate.
2.if req'd, small ring-stopers can be 1-3 pcs. if req'd, small ring-stopers can be different thickness.



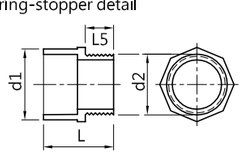




note: can use in DETAIL"1","2","3","12" to avoid conflict of vent-pipe and horiz. bars.

Notes:
1. All dimensions are in "mm", unless otherwise noted.
2. The pile materials shall confirm to the following:
   (1) concrete 28-days compressive strength > 800 kg/cm²
   (2) The wires/deformed bars conform to CNS 9272(type D) or CNS 3332-G3073, and yielding strength not less than 13,500 kg/cm², ultimate strength not less than 15,500 kg/cm².
   (3) bars material conform to CNS 560-A2006 SD280W or SD420W.
   reinf. dia. { D≦16mm, yielding strength not less than 2,800 kg/cm² (SD280W); D≧19mm, yielding strength not less than 4,200 kg/cm² (SD420W)
   (4) steel plate shall confirm to CNS 2473-G3039,CNS 13812 SN400 or ASTM A36, and min. yielding strength 2,520 kg/cm².
   (5) electron for end-plates shall confirm to AWS E70XX.
3. pile fabrication and material shall confirm to CNS 2602.
4. pile grade is TYPE C ,effective concrete pre-stress is 80 kg/cm.
5. DH pile apply to "implanted pile construction method". DH pile apply to TAIWAN's spec.
6. DH pile contains the hollow pile-cap and the horizontal bars (reinforcement) of the pile-cap. DH pile outer dia. is not less than 400mm .
7. DH pile of dia. Do ≧ 1,100 must be customized products,

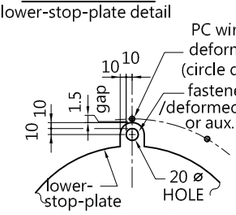
NOTES for ENGLISH VERSION: The english version is translated from traditional version, some professional spec./materials/ dimensions may has difference with your country/site.



dia.	d2 (mm)	d1 (mm)	L (mm)
3"	89.31⌀	105⌀	104
2"	60.63⌀	73⌀	73

DETAIL "6a"
PVC sleeve detail

notes:
1.PVC sleeve dimension for reference, the market components can be used, but shall suit to PVC pipe & small ring-stoper.
2. usualy, PVC sleeve detail is PVC male adapter.



Note: The numbers of fasten ring of lower-stop-plate
4 pcs (min.), when Do≦700
6 pcs (min.), when Do≧800

SAMPLE DRAWING

C6(E)	English version	2017-05-21			
REV.	DESCRIPTION	DATE	BY	APPR.	

Dehan Intelectual Technology Co., Ltd.
www.dehantech.com

DH advanced quick pre-stressed concrete pile std. dwg. (1/4) - Pile Dimensions

DWN.				
DESN.				
CHK.				
APPR.				
DWG.NO.	PLV1A-001	UNIT	mm	
		SCALE	NONE	

Table 1 : pile body dimensions (1)

pile outer dia.	pile wall thk.	concrete pre-stress		concrete: fc'≧800 kg/cm² pc wires or deformed bars					concrete: fc'≧500 kg/cm² pc wires or deformed bars					CNS standard bending moment		concrete cross area	pile unit weight
		grade	eff. pre-stress	dia.	q'ty	bar area	fab. length	allow. axial load	dia.	q'ty	bar area	fab. length	allow. axial load	cracking	rupture		
Do	Tw			Dbw	Nw	Aw	Lmax	Pa	Dbw	Nw	Aw	Lmax	Pa	Mcr	Mcu	Ac	
(mm)	(mm)		(kg/cm²)	(mm)	(支)	(cm²)	(M)	(ton)	(mm)	(支)	(cm²)	(M)	(ton)	(ton-m)	(ton-m)	(cm²)	(kg/m)
400	75	A	40	-	-	-	-	-	9.2	6	3.8	6~10	72	5.5	8.3	765	199
		B	60	9.2	9	5.76	6~12	118	9.2	9	5.8	6~12	69	6.5	10.4		
		C	80	9.2	12	7.68	6~15	114	9.2	12	7.7	6~16	66	7.5	13.5		
		D	100	13.0	8	10.00	6~15	110	11.0	12	10.8	6~16	60	9.0	18.0		
450	80	A	40	-	-	-	-	-	9.2	7	4.5	6~10	88	7.5	11.3	930	242
		B	60	9.2	10	6.40	6~14	143	9.2	10	6.4	6~14	85	9.2	14.8		
		C	80	9.2	16	10.24	6~15	137	9.2	16	10.2	6~16	78	11.0	19.8		
		D	100	13.0	10	12.50	6~16	134	11.0	14	12.6	6~16	73	12.5	25.0		
500	90	A	40	-	-	-	-	-	9.2	9	5.8	6~10	110	10.5	15.8	1,159	301
		B	60	9.2	12	7.68	6~14	180	9.2	12	7.7	6~14	105	12.5	20.0		
		C	80	9.2	18	11.52	6~17	173	9.2	18	11.5	6~16	99	15.0	27.0		
		D	100	13.0	12	15.00	6~18	167	11.0	18	16.2	6~18	91	17.0	34.0		
600	100	A	40	-	-	-	-	-	9.2	12	7.7	6~14	150	17.0	25.5	1,571	408
		B	60	9.2	18	11.52	6~16	242	9.2	18	11.5	6~16	142	21.5	34.4		
		C	80	9.2	24	15.36	6~18	235	9.2	24	15.4	6~18	136	25.0	45.0		
		D	100	13.0	17	21.25	6~18	225	11.0	24	21.6	6~18	121	29.0	58.0		
700	110	A	40	-	-	-	-	-	9.2	15	9.6	6~14	195	27.0	40.5	2,039	530
		B	60	9.2	22	14.08	6~16	313	9.2	22	14.1	6~16	183	33.0	52.8		
		C	80	9.2	30	19.20	6~18	306	9.2	30	19.2	6~18	177	38.0	68.4		
		D	100	13.0	22	27.50	6~18	293	11.0	30	27.0	6~18	163	45.0	90.0		
800	120	A	40	-	-	-	-	-	9.2	19	12.2	6~14	243	40.0	60.0	2,564	666
		B	60	9.2	30	19.20	6~18	392	9.2	30	19.2	6~18	233	50.0	80.0		
		C	80	9.2	38	24.32	6~18	385	9.2	38	24.3	6~18	218	55.0	99.0		
		D	100	13.0	27	33.75	6~18	370	11.0	38	34.2	6~18	204	65.0	130.0		
900	130	A	40	-	-	-	-	-	11.0	16	14.4	6~18	300	55.0	82.5	3,131	817
		B	60	13.0	18	22.50	8~18	486	11.0	24	21.6	6~18	284	66.0	104.0		
		C	80	13.0	24	30.00	8~18	469	13.0	24	30.0	6~18	270	75.0	135.0		
		D	100	13.0	30	37.50	8~18	456	13.0	30	37.5	6~18	258	85.0	170.0		
1,000	140	A	40	-	-	-	-	-	11.0	20	18.0	6~16	360	75.0	112.5	3,764	983
		B	60	13.0	22	27.50	8~16	584	11.0	30	27.0	6~16	342	90.0	144.0		
		C	80	13.0	30	37.50	8~16	566	13.0	30	37.5	6~16	322	105.0	189.0		
		D	100	13.0	39	48.75	8~16	548	13.0	39	48.8	6~16	305	120.0	240.0		
1,100	150	A	40	-	-	-	-	-	-	-	-	-	-	-	-	4,478	1,164
		B	60	13.0	26	32.50	8~14	692	-	-	-	-	-	115	184		
		C	80	13.0	35	43.75	8~14	671	-	-	-	-	-	135	243		
		D	100	13.0	46	57.50	8~14	648	-	-	-	-	-	155	310		
1,200	160	A	40	-	-	-	-	-	-	-	-	-	-	-	-	5,175	1,359
		B	60	13.0	30	37.50	8~12	809	-	-	-	-	-	145	232		
		C	80	13.0	41	51.25	8~12	783	-	-	-	-	-	170	306		
		D	100	13.0	54	67.50	8~12	731	-	-	-	-	-	200	400		

Notes: 1. Effective concrete pre-stress:
Type A ≒ 40 kg/cm²
Type B ≒ 60 kg/cm²
Type C ≒ 80 kg/cm²
Type D ≒ 100 kg/cm²
Type E ≒ 120 kg/cm²

2. Unit weight of pile : 2,600 kg/m³

3. The pile length, numbers & dia. of wires/deformed bars are to determined by design dwg. or contract.

(suggest only & to be determined by engineer)

Table 3 : DH pile hollow pile-head dimensions

(note: for single pile or upper pile only)

outer dia.	wall thk.	lower stop-plate		vent-pipes			upper stop-plate			pile-head aux. bars	hollow pile-head depth	horiz. bars of hollow pile-head			allow. tension of pile core			
		thk.	dia.	pcs	dia.	distance from vent-pipe to pile center	plate thk.	bolt circle dia.	bolt numbers			quantity		bars dia. @spcing	yielding strength	core concrete strength (kg/cm²) fc'≧800		fc'≧500	
												layers	bars per layer (cross)			yielding tension	suggest tension FS=1.5	yielding tension	suggest tension FS=1.5
Do	Tw	TS1	DS1	Nvp	Dvp	Lvp	TS2	DS2			Hc	Nh1	Nh2	Dbh@Sbh	Fyh	Tah	Tahs	Tah	Tahs
(mm)	(mm)	(mm)	(mm)	(pc)		(mm)	(mm)	(mm)	(pc)	pc-mm	(mm)		(pc)	mm@mm	(kg/cm²)	(ton)	(ton)	(ton)	(ton)
400	75	4.5	260	2	2"ø	75	4.5	380	4	4-D10	2,000	6	2	D16@200	2,800	133	89	79	53
450	80	4.5	300	2	2"ø	80	4.5	430	5	4-D10	2,000	6	2	D16@200	2,800	133	89	79	53
500	90	4.5	334	2	2"ø	90	4.5	480	6	8-D10	2,000	6	2	D16@200	2,800	133	89	79	53
600	100	4.5	420	2	3"ø	100	4.5	570	7	8-D10	2,000	6	2	D16@200	2,800	133	89	93	62
700	110	4.5	500	2	3"ø	110	4.5	660	8	8-D10	2,000	6	2	D19@200	4,200	185	123	110	73
												6	2*2	D16@200	2,800	365	238	212	141
800	120	4.5	580	2	3"ø	120	4.5	750	9	12-D10	2,000	6	2	D19@200	4,200	212	141	126	84
												6	2*2	D16@200	2,800	401	267	238	159
900	130	6	660	2	3"ø	140	6	840	10	12-D13	2,000	6	2*2	D19@200	4,200	476	317	283	189
1,000	140	6	740	2	3"ø	160	6	930	10	12-D13	2,000	6	2*2	D19@200	4,200	529	353	315	210
1,100	150	9~10	820	2	3"ø	180	9~10	1,020	12	12-D13	3,000	8	2*2	D19@200	4,200	>529	>353	>315	>210
1,200	160	9~10	900	2	3"ø	200	9~10	1,110	12	12-D13	3,000	8	2*2	D19@200	4,200	>529	>353	>315	>210

notes: 1. The yieldinf tension of pile-cap, Tah = min. value of below (USD. method)
(1) (horiz. bars layers *bars per layer *2 ends) * bar's section area *bar's yielding strength
(2) (horiz. bars layers* bars per layer* ends) *(extend depth into pile wall *bar's dia.)*(0.85*pile wall concrete strength - pre-stress)
suggestion: design tension T < Min (horiz. bars allow.tensionTahs , verti. anchor bars' allow. tension Tavs) (see Table 5)

2. (fab. in shop) the depth(Hc), horiz. bars, concrete strength, pre-stress of upper-pile pile-cap treatment are to be determined by design engineer.

3.The test value of pile-cap is to be determined by design engineer, it should ref. to pile's actual allow. tension.
(not: ultimated tension, yielding tension, allow. tension, or recommend tension)

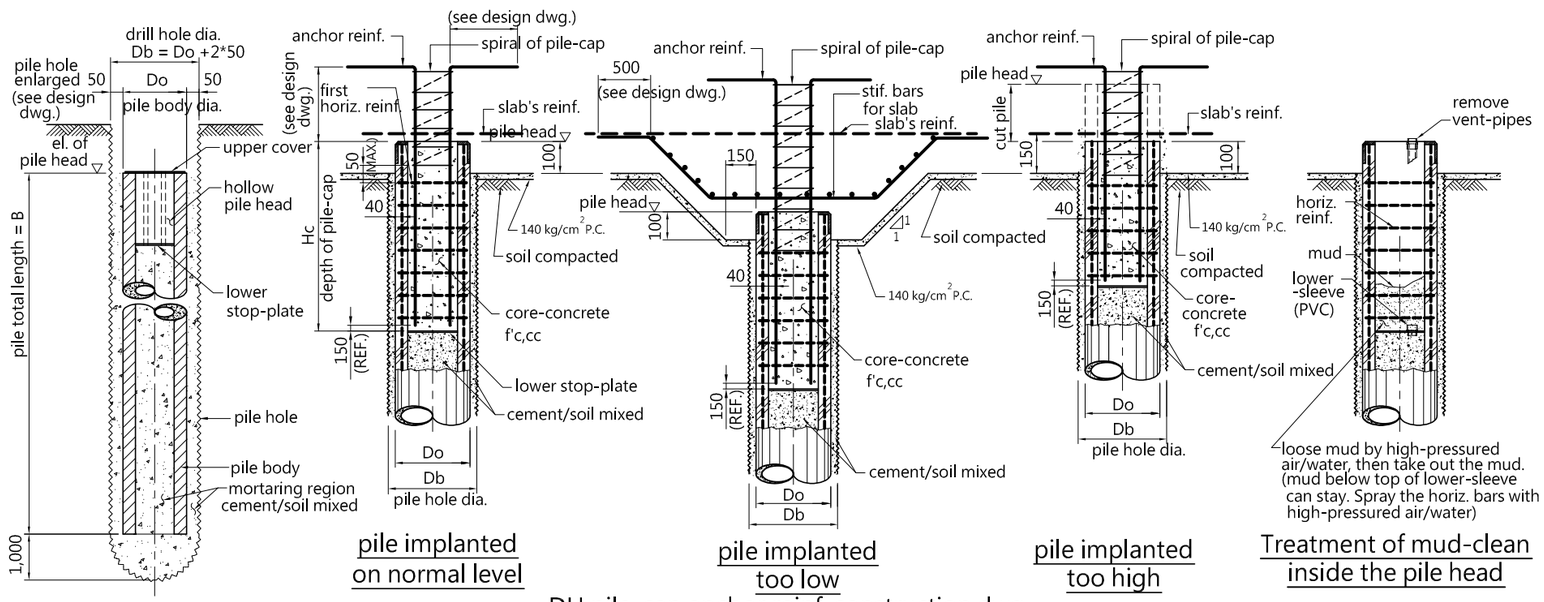
(suggest only & to be determined by engineer)

Table 5: DH pile-cap treatment (site construction)

outer dia.	treatment of pile-cap (upper/single pile)							
	vertical anchor bars of pile-head			anchor tension			pile-cap spiral	core concrete strength
	pcs. (Min.)	dia.	yielding strength	yielding tension	suggest tension FS=1.0	suggest tension FS=1.5	dia. @spacing	
Do	Nv	Dbv	Fyv	Tav	Tavs			f'c,cc
(mm)	(pc)	(mm)	(kg/cm²)	(ton)	(ton)		mm@mm	(kg/cm²)
400	4	D22	4,200	65	65		D10@100	210 Min.
450	8	D19	4,200	65	65		D10@100	210 Min.
500	8	D19	4,200	96	96		D10@100	210 Min.
600	8	D19	4,200	96	96		D13@100	210 Min.
700	12	D22	4,200	196	196		D13@100	210 Min.
800	12	D22	4,200	196	196		D13@100	210 Min.
900	16	D25	4,200	341	341		D13@100	210 Min.
1,000	16	D25	4,200	341	341		D13@100	210 Min.
1,100	16	D25	4,200	341	341		D13@100	210 Min.
1,200	16	D25	4,200	341	341		D13@100	210 Min.

註: 1. 樁頭垂直錨定鋼筋之降伏拉力 Tav =(由下二式取小值)(USD.法)
(1) (垂直錨定筋支數*鋼筋斷面積) * 鋼筋降伏強度。
(2) 垂直錨定筋在混凝土中的錨定拉力

2. 樁頭處理的垂直錨定筋/及螺旋spiral之規格數量、填芯混凝土強度(f'c,cc)等，皆由設計工程師選定。



mortaring into pile hoe
(site, pile work)

pile implanted on normal level

pile implanted too low

pile implanted too high

Treatment of mud-clean inside the pile head

DH pile-cap anchor reinf. construction dwg.
(site, civil work)

Notes: 1.water (rain) in the hollow pile-cap shall be drained before grouting of core-concrete.
2.The grouting of core-concrete can be independent or with fdn. concrete togather.
3.The lower-sleeve can stay on the lower-stop-plate, also lifted.
4.Design engineer should decide:
(1) dia. & spacing of spiral of core-concrete in pile-cap & bove pile-top.
(2) spiral coulb be repaced by circle ties.

SAMPLE DRAWING

Dehan Intelectual Technology Co., Ltd.
www.dehantech.com

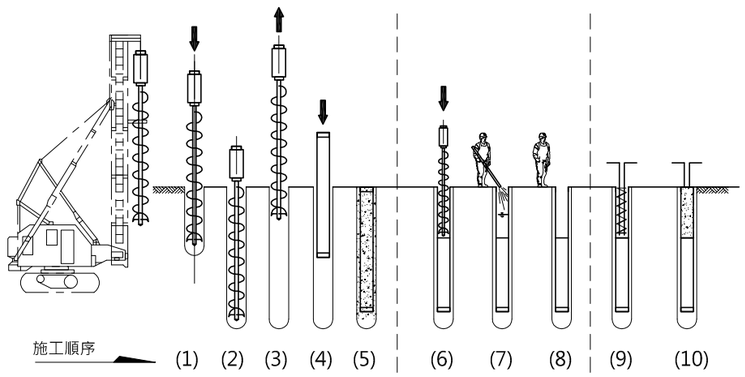
DH advanced quick pre-stressed concrete pile std. dwg. (2/4) - Pile Dimensions

DWN.					
DESN.					
CHK.					
APPR.					
DWG.NO.	PLV1A-002			UNIT	mm
				SCALE	NONE

REV.	DESCRIPTION	DATE	BY	APPR.
C6(E)	English version	2017-05-21		

Comparison of construction method between DH & traditional pre-stressed concrete pile (1): - Construction steps

Traditional pile:

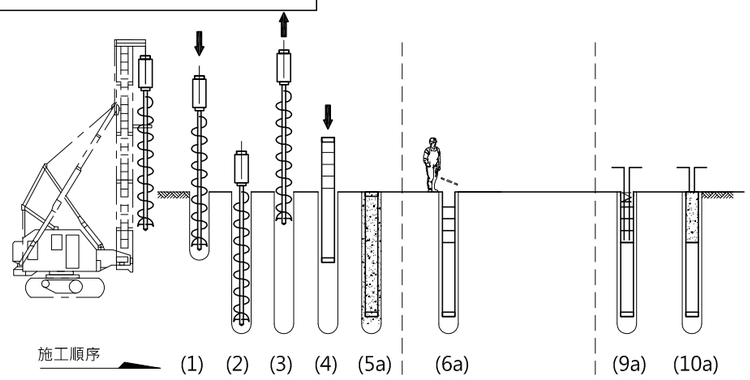


Construction steps of traditional pile:

(1) : drilling the ple hole.
(2) : discharge soil & drill to the design depth.
(3) : drilling completed, pull out the screw tool.
(4) : fill in the cement mortar, then implanted pile.
(5) : the pile into the design depth, and curing.
In standard situation, the pile hole curing need 28 days to follow-up process.

(6) : with a large machine to screw the core hole on pile top.
(7) : drill to pile head processing depth. Manual cleaning pile wall surface with high pressure water washing and hand washing.
(8) : clean water in the core-hole of pile head, and spoil. Usually need a large area of the pile head hole clearance work is completed before proceeding.
(9) : put vertical anchor bars into the pile head hole.
(10) : grouting "expansive concrete" and curing.

DH pile:



Construction steps of DH pile:

(1) : drilling the ple hole.
(2) : discharge soil & drill to the design depth.
(3) : drilling completed, pull out the screw tool.
(4) : fill in the cement mortar, then implanted pile.
(5a) : the pile into the design depth.
(The curing work in the pile hole is in conjunction with steps 6a-10a)

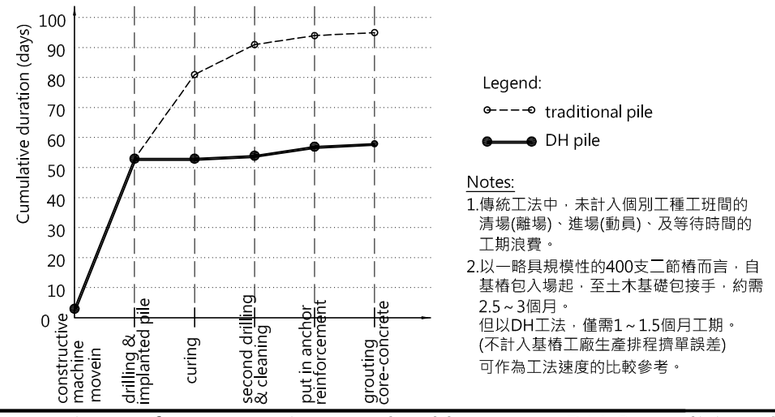
(6a) : Quickly remove the upper cover/PVC vent-pipes with pneumatic or electric tools, the clean hollow of pile head, and the horizontal reinforcement embedded in the pile wall are immediately exposed. Large equipment and disturbance are not necessary. Usually, each pile can be applied separately about 12 to 24 hours after pile implanted.
(9a) : put vertical anchor bars into the pile head hole.
(10a) : grouting the concrete, and curing.

Notes:
1. About 12 to 24 hours after DH piles implanted, the cover on pile-top can be openned , then process the follow-up works.
2. With the pre-formed hollow pile head in the factory, a lot of works for traditional pile can be saved, such as pile hole curing, the second times of drilling core hole & spoil. Rapidly open the pile cover and reveal the hollow pile head, process rapidly the follow-up formwork/reinforcement/concrete and other works, the duration can be shorted.
3. With other methods (such as ultra- or super- quick method), duration can be accelerated. Site construction enviroment is more clean and tidy.

Comparison of construction method between DH & traditional pre-stressed concrete pile (2):

(example for reference)

The piling speed varies according to the soil/pile diameter. And it does not include the accelerated integration of civil engineering, and other super-(ultra-) quick construction method.
Example: Single building, 600 ~ 600mm * 24ML implanting speed about 12 / day (each work group).



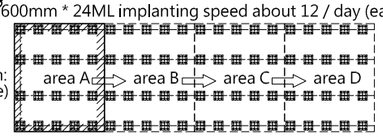
Notes:
1.傳統工法中，未計入個別工種工班間的清場(離場)、進場(動員)、及等待時間的工期浪費。
2.以一略具規模性的400支二節樁而言，自基樁包入場起，至土木基礎包接手，約需2.5～3個月。
但以DH工法，僅需1～1.5個月工期。
(不計入基樁工廠生產排程擠單誤差)
可作為工法速度的比較參考。

Comparison of construction method between DH & traditional pre-stressed concrete pile (3): - To accelerate the integration with fdn. construction

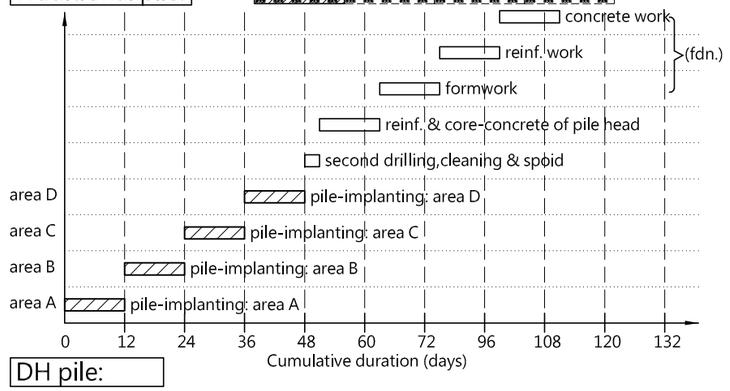
(example for reference)

The piling speed varies according to the soil/pile diameter. And it does not include the accelerated
The speed of fdn. construction varies according to the base terrain, excavation condition, scale and integration of different types of work.
Example: Single building, 600 ~ 600mm * 24ML implanting speed about 12 / day (each work group).

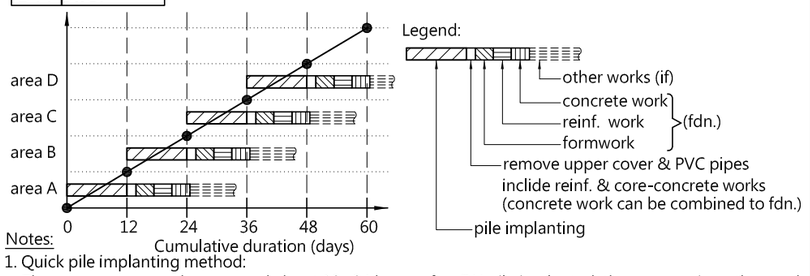
Construction is divided into four districts in order.
Work area allocation: (example)



Traditional pile:



DH pile:



Notes:
1. Quick pile implanting method:
The upper-cover can be removed about 12~24 hours after DH pile implanted, then processing other works.
2. Super- & Ultra- quick pile implanting method:
With furtherly the comprehensive construction, sequential partition excavation, pile-implanting, civil, backfill etc.,
To accelerate the integration of follow-up fdn. construction, shorten the construction duration, and reduce the earthwork space requirements.

Introduction of super quick-construction method of DH-pile:

This construction method is not shown in this drawing.

Introduction of ultra quick-construction method of DH-pile:

This construction method is not shown in this drawing.

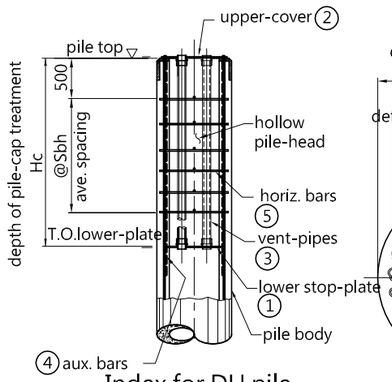
SAMPLE DRAWING

Dehan Intelectual Technology Co., Ltd.
www.dehantech.com

DH advanced quick pre-stressed concrete pile std. dwg. (3/4) - Construction method

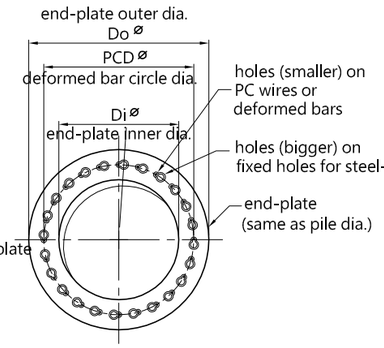
DWN.					
DESN.					
CHK.					
APPR.					
DWG.NO.	PLV1A-003		UNIT	mm	
			SCALE	NONE	

REV.	DESCRIPTION	DATE	BY	APPR.
C6(E)	English version	2017-05-21		

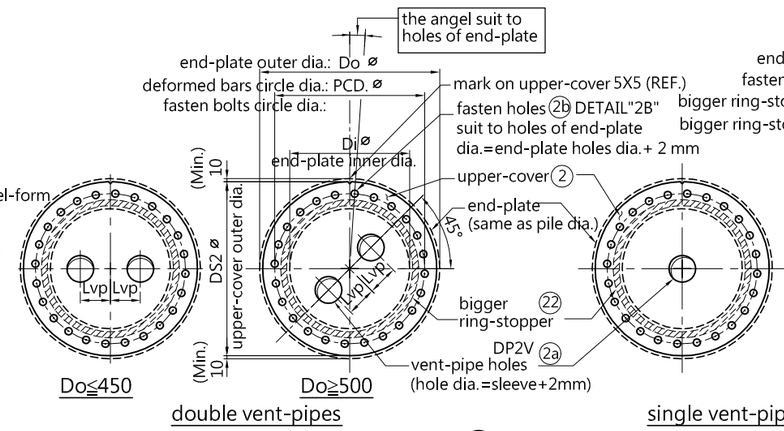


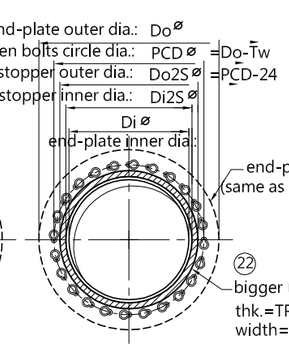
Index for DH pile
pile-head components

note: fabricated in shop.



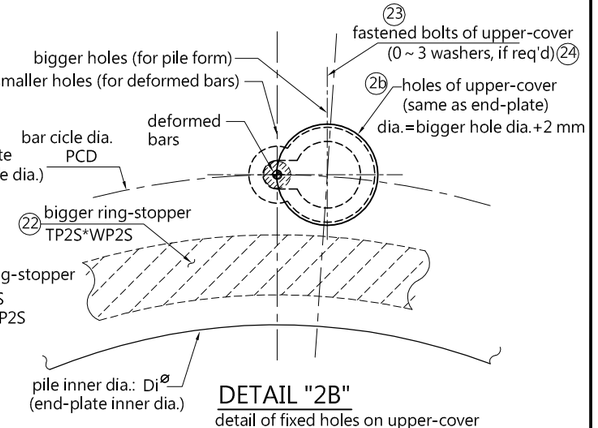
end-plate





② upper-cover

㉒ 阻水緩衝環片



DETAIL "2B"

detail of fixed holes on upper-cover

note: hole size suit to end-plate holes.

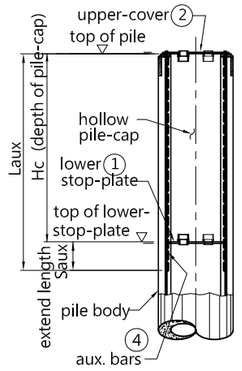
Table 3-1: lux bars of DH pile

pile outer dia.	aux. bars ④ depth of pile-cap	bars	bar dia.	extend length	total length
Do	Hc		Dbaux	Saux	Laux =Hc+Saux
(mm)	(mm)	pc	(mm)	(mm)	(mm)
400	2,000	4	D10	250	2,250
450	2,000	4	D10	250	2,250
500	2,000	4	D10	250	2,250
600	2,000	4	D10	250	2,250
700	2,000	4	D10	250	2,250
800	2,000	4	D10	250	2,250
900	2,000	4	D13	350	2,350
1,000	2,000	4	D13	350	2,350
1,100	2,000	4	D13	350	2,350
1,200	2,000	4	D13	350	2,350

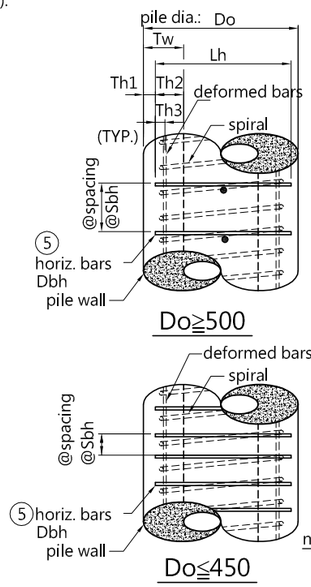
Table 3-2: dimensions for upper-cover, ring-stoper, lower stop-plate of DH pile

pile outer dia.	pile inner dia.	pile wall thk.	upper-cover ② plate thk.	outer dia.	fasten bolts ②3 bolts (Min.)	bolt circle dia.	hole for vent ②a holes	hole dia.	dist. from center	big ring-stoper ㉒ thk.	width	outer dia. =PCD-24	inner dia.	lower stop-plate ① plate thk.	circle dia.	holes for vent ①a holes	hole dia.	dist. from center
Do	Di	Tw	TP2	DS2		PCD		DP2V	Lvp	TP2S	WP2S	Do2S	Di2S	TS1	DS1		DP1V	Lvp
(mm)	(mm)	(mm)	(mm)	(mm)	(pc)	(mm)	(pc)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(pc)	(mm)	(mm)
400	250	75	4.5	380	4	325	2	62⌀	75	15	20	301	261	4.5	260	2	62⌀	75
450	290	80	4.5	430	4	370	2	62⌀	80	15	22.5	346	301	4.5	300	2	62⌀	80
500	320	90	4.5	480	6	410	2	62⌀	90	15	45	386	346	4.5	334	2	62⌀	90
600	400	100	4.5	570	6	500	2	91⌀	100	15	45	476	386	4.5	420	2	91⌀	100
700	480	110	4.5	660	8	590	2	91⌀	110	15	45	566	476	4.5	500	2	91⌀	110
800	560	120	4.5	750	8	680	2	91⌀	120	15	45	656	566	4.5	580	2	91⌀	120
900	640	130	6	840	10	770	2	91⌀	140	15	45	746	656	6	660	2	91⌀	140
1,000	720	140	6	930	10	860	2	91⌀	160	15	45	836	746	6	740	2	91⌀	160
1,100	800	150	9~10	1,020	12	950	2	91⌀	180	15	45	926	836	9~10	820	2	91⌀	180
1,200	880	160	9~10	1,110	12	1,040	2	91⌀	200	15	45	1,016	926	9~10	900	2	91⌀	200

notes: 1. The thickness of end-plate excluded from length of aux. bars (Laux).



④ aux. bars

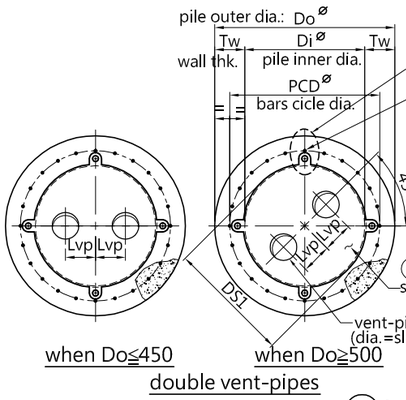


⑤ horiz. bars of pile-head

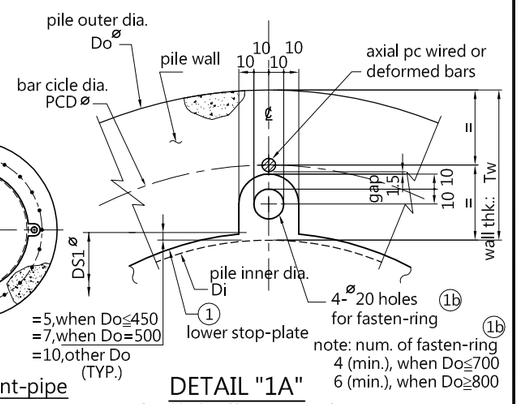
Table 4: horiz. bars of DH pile

pile outer dia.	pile wall thk.	horiz. bars of pile-head ⑤ nums. layers	dia. @spacing	length	cover thk.	depth into wall	dist of bar-end to deformed bar
Do	Tw		Dbh@Sbh	Lh	Th1	Th2	Th3
(mm)	(mm)	*pcs	mm@mm	(mm)	(mm)	(mm)	(mm)
400	75	12*1	D16 @100	340	30	45	7
450	80	12*1	D16 @100	390	30	50	10
500	90	6*2	D16 @200	440	30	60	15
600	100	6*2	D16 @200	540	30	70	20
700	110	6*2	D19 @200	620	40	70	15
		6*4	D16 @200	640	30	80	25
800	120	6*2	D19 @200	720	40	80	20
		6*4	D16 @200	740	30	90	30
900	130	6*4	D19 @200	820	40	90	25
1,000	140	6*4	D19 @200	920	40	100	30
1,100	150	6*4	D19 @200	1,020	40	110	35
1,200	160	6*4	D19 @200	1,120	40	120	40

notes: 1. horiz. bars embedded into pile wall, 2-bars per layer. And shall be place like "#" type, if 4-bars per layer. when Do≦450 · horiz. bars placed like "I" type.
2. The horiz. bars cover thk.: 30mm (not great then D16), or 40 (not less than D19).
3. The above spacing of horiz. bars (Sbh) is suggest for 6-layers bars.



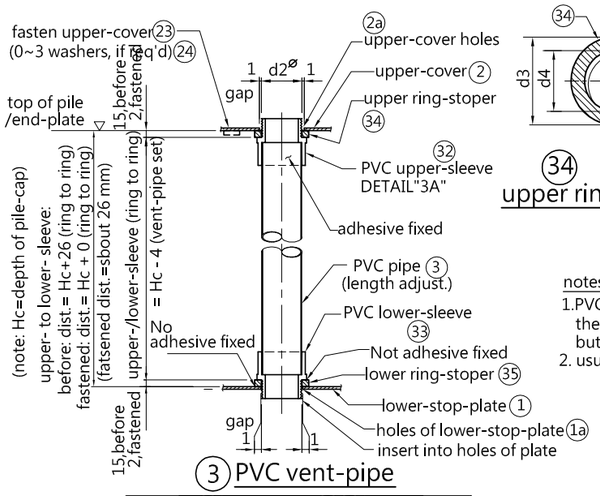
① lower stop-plate



DETAIL "1A"

fixed hole of lower stop-plate

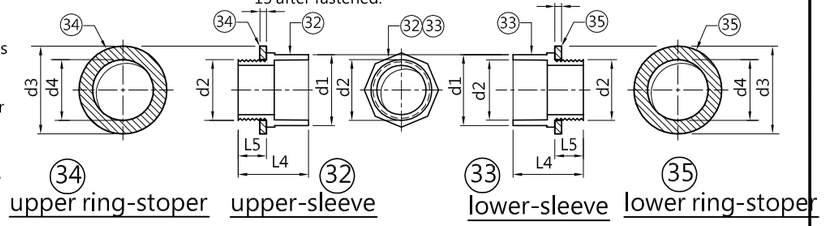
note: num. of fasten-ring
4 (min.), when Do≦700
6 (min.), when Do≧800



③ PVC vent-pipe

PVC pipe ③ OD.* t	ring-stoper ㉞㉟ t *OD.*ID.	holes of plates ②a ①a
mm*mm	mm*mm*mm	(mm)
3" 89*2 t	15 t *116 OD.*86 ID.	91⌀
2" 60*1.8 t	15 t * 87 OD.*57 ID.	62⌀

notes: 1.PVC sleeve dimension for reference, the market components can be used, but shall suit to PVC pipe & small ring-stoper.
2. if use 2" PVC sleeve, dimensions of other components dimnsion shall be changed.



DETAIL "3A"

PVC sleeve detail

dia.	PVC sleeve ㉜㉝ d2	d1	L4	ring-stoper ㉞㉟ 外徑 d4	內徑 d3
	(mm)	(mm)	(mm)	(mm)	(mm)
3"	89.31⌀	105⌀	104	86 ⌀	116⌀
2"	60.63⌀	73⌀	73	57 ⌀	87⌀

notes:
1.PVC sleeve dimension for reference, the market components can be used, but shall suit to PVC pipe & small ring-stoper.
2. usualy, PVC sleeve detail is PVC male adapter.

SAMPLE DRAWING

Dehan Intelectual Technology Co., Ltd.
www.dehantech.com

DH advanced quick pre-stressed concrete pile std. dwg. (4/4) - Components

DWN.					
DESN.					
CHK.					
APPR.					
C6(E)	English version	2017-05-21			
REV.	DESCRIPTION	DATE	BY	APPR.	

DWG.NO. PLV1A-004 UNIT mm SCALE NONE