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We Make Your Living Comfortable



OFFICE EQUIPME

PVC, HDPE, P

RETE

REAT



CONCRETE DIVISION

PT. TJAKRINDO MAS

MANUFACTURER OF HIGH QUALITY PRESTRESSED CONCRETE PRODUCT

WE ARE A SAFE AND BEST QUALITY CONCRETE AND
ASPHALT HOTMIX COMPANY

**THE BEST
QUALITY**

Email : tjakrindobeton@yahoo.co.id

tjmbeton@gmail.com

Website : www.tjakrindomasbeton.com



Voided Slab
Proyek Jalan Baru Kolektor Type 2 (Jl. Merr) Surabaya - Jawa Timur

VISION

Oriented to customer satisfaction both at home and abroad,
by providing a variety of products as needed,
quality and value added with competitive prices and timely delivery.

MISSION

Through leadership,
innovation, focus and teamwork,
to increase value to our customers,
employees and shareholders.

MANUFACTURER
PRESTRESSED
CONCRETE
PRODUCT
HIGH QUALITY



Balok PC-I Girder Jembatan
Proyek Pembangunan Jembatan Bendungan D.I Keminjoro
Bantul - Yogyakarta



Corrugated Prestressed Concrete Sheet Pile (CCSP)
Proyek Pengendalian Banjir - RGS Pekalongan Paket I & Paket II



Canterary Pole (Tiang Listrik Kereta Api)
Railway Facility Construction for BEKASI to CIKARANG
MINISTRI OF COMMUNICATION DIRECTORATE GENERAL OF RAILWAYS



Spun Pole (Tiang Listrik Beton)
Pengadaan Tiang Listrik Beton Seluruh Indonesia (PE. PLN)



Concrete Railways Sleepers
Proyek Pembangunan Jalur Kereta Api Track Lintas Sulawesi Lebar Sepur 1435



Box Culvert Top Bottom
Proyek Saluran Diversi Gunung Sari 17 Lokasi Jl Raya Sememi - Benowo
Pemkot Surabaya



Voided Slab
Proyek Jalan Baru Kolektor Type 2 (Jl.Merr) Surabaya - Jawa Timur

DESIGN AND MANUFACTURING REFERENCE

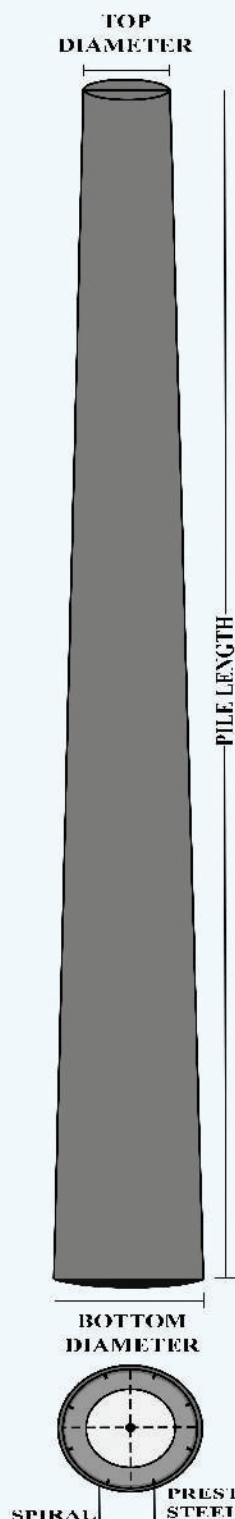
SPLN 93 : 1991 Prestress Concrete Poles for Electrical Distribution Line
 SPLN 121 : 1996 Prestress Concrete Poles for Telecommunication Line
 SPLN D3.019-2 : 2013 Electric Pole Specifications and Complete
 SNI 03 - 2847 - 2013 Indonesian Standards Code for Concrete

"PRESTRESSED CONCRETE SPUN POLES"

PRODUCT SPECIFICATION

Class	Type		Outside Diameter		Weight (kg/pcs)
	Length (m)	Horizontal Load (daN)	Top (mm)	Bottom (mm)	
Electrical Distribution Line PC Poles					
CP	9	100	157	277	604
		200	157	277	610
		350	190	310	880
CP	11	200	190	337	1077
		350	190	337	1084
		500	190	337	1095
CP	12	200	190	350	1228
		350	190	350	1236
		500	190	350	1245
CP	13	350	190	363	1491
		500	190	363	1502
CP	14	350	190	376	1737
		500	190	376	1756
Segmental Electrical Distribution Line PC Poles					
S-CP	16 - 23	500	190	350	1865 - 2950
S-CP	16 - 23	800	220	400	2600 - 4000

* Concrete Compressive Strength Cube 500 kg/cm²



Product Application

"CATENARY PRESTRESSED CONCRETE POLES"

DESIGN AND MANUFACTURING REFERENCE

JIS A 5373 : 2004

JIS G 3536, 1999

SNI 03 - 2847 - 2013

SNI 15 - 2049 - 2004

Precast Prestressed Concrete Product

Uncoated stress relieved steel wires and strands for Prestressed Concrete

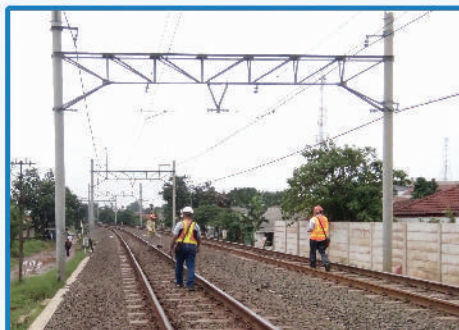
Indonesian Standards Code for Concrete

Portland Cement

PRODUCT SPECIFICATION

Length L (m)	Height of Supporting Point L1 (m)	Height of Load point L1 (m)	Crack Test Bending Moment at Supporting Point kN-m			Wall Thickness (mm)			Unit Weight (mm)		
			Type N								
			Diameter (mm)			Diameter (mm)			Diameter (mm)		
			300	350	400	300	350	400	300	350	400
8	1.4	6.35	65	50 65	-	60	60	-	944	1136	-
9	1.5	7.25	65	50 65	-	60	60	-	1062	1278	-
10	1.7	8.05	65	50 65 70	-	60	60	-	1180	1420	-
11	1.9	8.85	65	50 65 70	110	60	60	65	1298	1562	1958
12	2.0	9.75	65	50 65 70	110	60	60	65	1416	1704	2136
13	2.2	10.55	-	65 75	110	-	60	65	-	1846	2314
14	2.4	11.35	-	75	-	-	60	65	-	1988	2492

* Concrete Compressive Strength Cube 500 kg/cm²



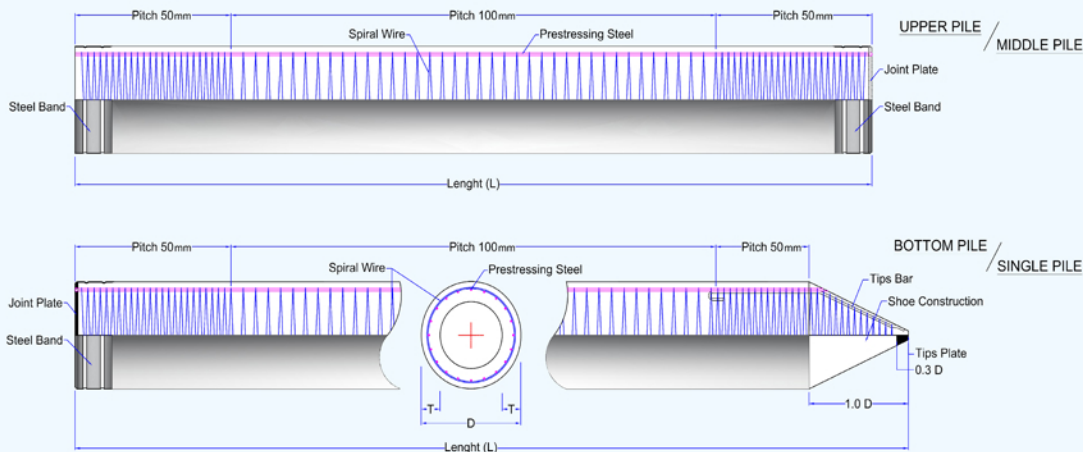
Product Application

"PRESTRESSED CONCRETE SPUN PILE"

DESIGN AND SPECIFICATION OF MATERIAL

JIS A 5373-2004
 JIS G 3137-1994
 JIS G 3536-1999
 SNI 2847-2013

Prestressed Concrete Product
 Small Size Deformed Steel Bar For Prestressed Concrete
 Uncoated stress-relieved steel wires and strands for Prestressed Concrete
 Indonesian Standart Code for Concrete



PRODUCT APLICATION

PRODUCT SPECIFICATION

Size D (mm)	Class	Wall Thickness (T) (mm)	Length Spun Pile (L) (mm)	Cross Section (cm ²)	Section Inertia (cm ²)	Calculated Bending Moment		Allowable Axial Load ton	Unit Weight (Kg/m)
						Crack t.m	Ultimate t.m		
300	A	60	6 - 13	453	35,243	2.50	3.75	72.6	118
	B					3.50	6.30	67.5	
	C					4.00	8.00	65.4	
350	A	65	6 - 15	582	62,131	3.50	5.25	93.10	151
	B					5.00	6.30	86.00	
	C					6.00	9.00	85.00	
400	A	75	6 - 15	766	106,434	5.50	8.25	121.10	199
	B					7.50	13.50	114.00	
	C					9.00	18.00	111.00	
450	A	80	6 - 15	930	166,485	7.50	11.30	149.00	242
	B					11.00	19.80	139.00	
	C					12.50	25.00	134.00	
500	A	90	6 - 15	1160	255,194	10.50	15.70	185.00	301
	B					15.00	27.00	174.00	
	C					17.00	34.00	169.00	
600	A	100	6 - 18	1570	516,250	17.00	25.00	252.00	408
	B					25.00	45.00	238.00	
	C					29.00	58.00	229.00	
800	A	120	6 - 18	2563	1,527,095	40.00	63.60	415.00	666
	B					55.00	108.00	390.00	
	C					65.00	129.00	367.00	
1000	A	140	6 - 18	3782	3,589,571	75.00	112.50	614.00	893
	B					105.00	159.70	575.00	
	C					120.00	229.90	552.90	

* Concrete Compressive Strenght Cube According to Request

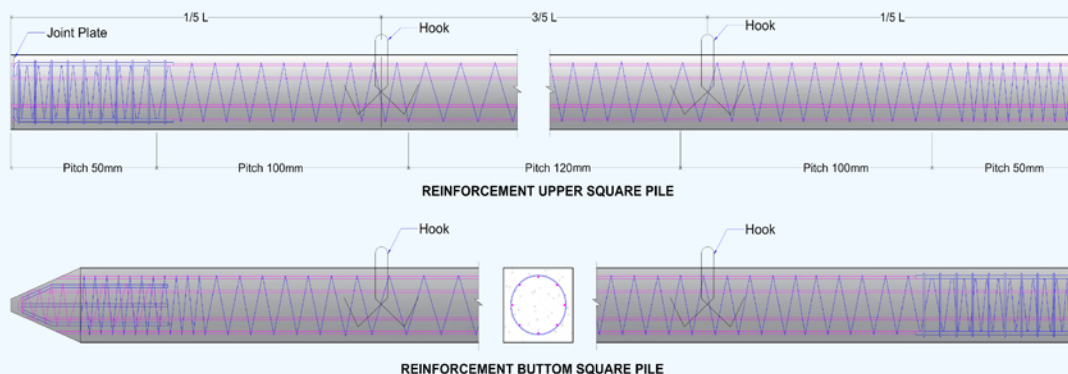
** Dimension Custom for According to Request

"PRESTRESSED CONCRETE SQUARE PILE"

DESIGN AND SPECIFICATION OF MATERIAL

JIS A 5373-2004
JIS G 3137-1994
JIS G 3536-1999
SNI 2847-2013

Prestressed Concrete Product
Small Size Deformed Steel Bar For Prestressed Concrete
Uncoated stress-relieved steel wires for Prestressed Concrete
Indonesian Standart Code for Concrete



PRODUCT SPECIFICATION

Size	Weight	Area	Class	Length	Bending Moment		Axial Load
					Moment Design	Moment Ultimated	
(cm)	(kg/m)	(cm ²)		(m)	(TM)	(TM)	(TON)
20x20	100	400	A	6 - 9	1.1	1.8	49
			B	6 - 12	1.2	2.5	48
25x25	157	625	A	6 - 10	1.9	3.2	78
			B	6 - 11	2.2	5.3	77
30x30	225	900	A	6 - 11	3.1	6.3	115
			B	6 - 12	3.6	8.4	111
35x35	306	1225	A	6 - 11	5.0	9.0	155
			B	6 - 12	5.5	10.7	152
			C	6 - 12	5.8	10.8	151
40x40	400	1600	A	6 - 12	6.0	12.5	205
			B	6 - 12	7.5	13.5	203
			C	6 - 13	7.9	16.0	200
45x45	506	2025	A	6 - 12	8.1	15.1	266
			B	6 - 13	12.9	21.0	248
			C	6 - 13	13.4	27.0	246
50x50	625	2500	A	6 - 13	16.0	27.0	318
			B	6 - 13	16.5	28.5	312
			C	6 - 14	17.5	30.0	307

* Concrete Compressive Strenght Cube 500 Kg/cm²



PRODUCT APLICATION

"CORRUGATED PRESTRESSED CONCRETE SHEET PILES"

DESCRIPTION

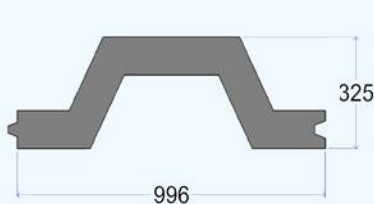
Type of Sheet Piles : Corrugated Prestressed Concrete Sheet Piles
 Method of Installation : Vibro Hammer

DESIGN AND MANUFACTURING REFERENCES

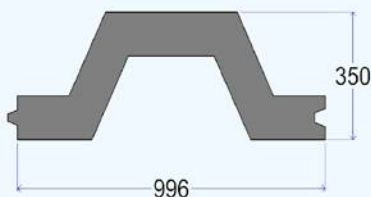
JIS A 5373-2010
 SNI 1154 - 2016
 SNI 2847-2002

Prestressed Concrete Product
 Strands for Prestressed Concrete
 Indonesian Concrete Code

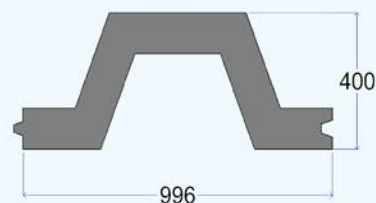
PRODUCT SHAPE



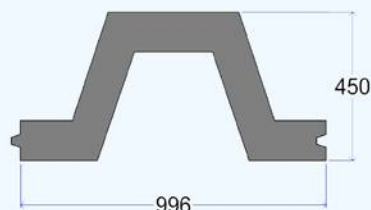
W-325



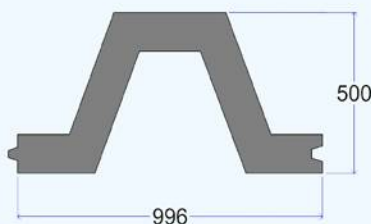
W-350



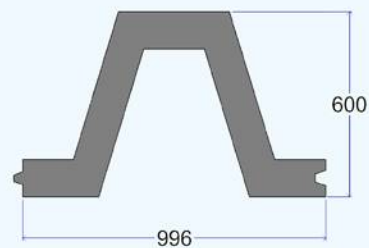
W-400



W-450



W-500



W-600

PRODUCT SPECIFICATION

Type	Width (mm)	Height (mm)	Class	Crack Moment (ton.m)	Unit Weight (kg/m)	Length (m)
W-325	996	325	A	12.23	320	8 - 13
			B	13.25		8 - 14
W-350	996	350	A	16.30	368	8 - 15
			B	17.23		10 - 15
W-400	996	400	A	20.38	400	10 - 16
			B	23.47		11 - 16
W-450	996	450	A	27.51	455	11 - 17
			B	31.59		12 - 17
W-500	996	500	A	35.66	480	12 - 17
			B	40.76		13 - 18
W-600	996	600	A	50.95	525	14 - 20
			B	60.12		15 - 21

* Concrete Compressive Strenght $f_c' = 62$ Mpa (Cube 700 kg/cm²)

"FLAT PRESTRESSED CONCRETE SHEET PILES"

DESCRIPTION

Type of Sheet Piles : Flat Prestressed Concrete Sheet Piles
Method of Installation : Diesel Hammer (flat type)

DESIGN AND MANUFACTURING REFERENCES

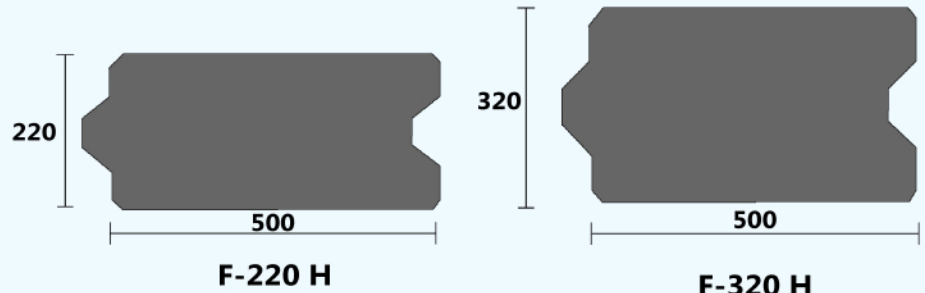
JIS A 5373-2010
SNI 1154 - 2016
SNI 2847-2002

Prestressed Concrete Product
Strands for Prestressed Concrete
Indonesian Concrete Code

PRODUCT SHAPE

FPC-320 . 6S-A

PC Stand Diameter :
A = PC Strand Ø 9,53mm
B = PC Strand Ø 12,7mm
C = PC Strand Ø 15,2mm
Number of Strand
Height of Sheet Pile
Sheet Pile Type



PRODUCT SPECIFICATION

Classification	Type	Height H (mm)	Width H (mm)	Moment Crack (ton.m/0,5m)	Moment (ton.m/0,5m) Capacity	Moment (ton.m/0,5m) Breaking	Length (m)	Unit Weight (kg/m)
F 220 H	A	220	500	1,50	3,20	4,00	4 - 7	271
	B			1,84	4,70	5,88	4 - 7	
F 320 H	A	320	500	3,20	5,01	6,26	4 - 8	396
	B			3,92	7,41	9,26	4 - 9	

Classification	Type	Height H (mm)	Width H (mm)	Moment Crack (ton.m/0,5m)	Moment (ton.m/0,5m) Temporary	Moment (ton.m/0,5m) Permanent	Length (m)	Unit Weight (kg/m)
F 220 H	6S-A	220	500	3,38	2,85	1,54	4 - 9	271
	8S-A			3,85	3,32	2,01	4 - 10	
	10S-A			4,30	3,77	2,46	4 - 10	
	6S-B			4,48	3,95	2,64	4 - 11	
	8S-B			5,22	4,69	3,38	4 - 11	
	10S-B			5,89	5,36	4,05	4 - 12	
	6S-C			5,39	4,86	3,55	4 - 12	
	8S-C			6,31	5,78	4,47	4 - 13	
F 320 H	6S-A	320	500	6,24	5,12	2,32	4 - 10	396
	8S-A			6,98	5,86	3,06	4 - 11	
	10S-A			7,70	6,58	3,78	4 - 12	
	12S-A			8,39	7,27	4,47	4 - 12	
	14S-A			9,07	7,95	5,15	4 - 12	
	16S-A			9,73	8,61	5,81	4 - 13	
	6S-B			7,98	6,86	4,06	4 - 12	
	8S-B			9,21	8,09	5,29	4 - 13	
	10S-B			10,37	9,25	6,45	4 - 13	
	12S-B			11,48	10,36	7,56	4 - 14	
	14S-B			12,53	11,41	8,61	4 - 15	
	16S-B			13,52	12,40	9,60	4 - 15	
	6S-C			9,51	8,39	5,59	4 - 13	
	8S-C			11,12	10,00	7,20	4 - 14	
	10S-C			12,62	11,50	8,70	4 - 15	

* Concrete Compressive Strenght (Class A) Cube 350 kg/cm²
* Concrete Compressive Strenght (Class B) Cube 500 kg/cm²

"L - GUTTER PRECAST"

DESIGN AND SPECIFICATION OF MATERIAL

JIS A 5373 - 2004

JIS G 3536-1999

SNI 2847-2013

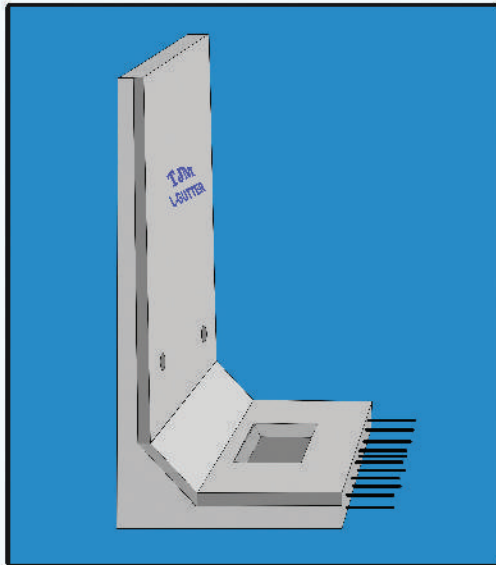
SNI 15 - 2049 - 2004

Precast Prestressed Concrete Product

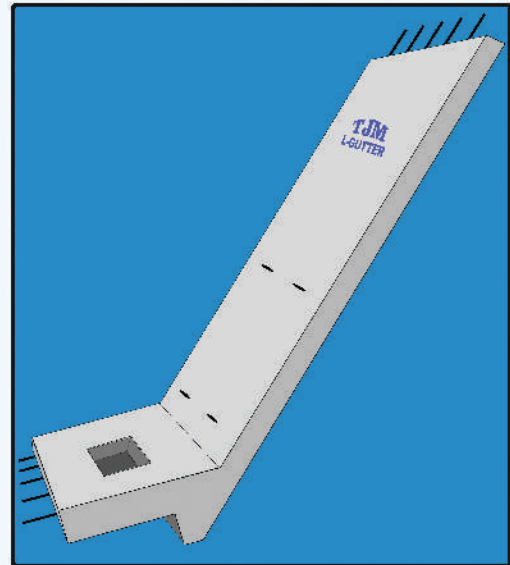
Uncoated stress-relieved steel wires and strands for Prestressed Concrete

Indonesian Standart Code for Concrete

Portland Cement



STAND-UP L-GUTTER



SLOPING L-GUTTER

PRODUCT SPECIFICATION

Volume (Height)	Type L-Gutter			
	Stand-up	Sloping	Non Prestressed	Prestressed
H 1500	-	✓	✓	-
H 2000	✓	✓	✓	-
H 3000	✓	✓	✓	-
H 4000	✓	✓	-	✓
H 5000	-	✓	-	✓
H 6000	-	✓	-	✓

* Concrete Compressive Strength Cube 350 Kg/cm² (Non Prestressed)

** Concrete Compressive Strength Cube 500 Kg/cm² (Prestressed)

*** Custom Dimension on Request



Product Application



"LINING PRECAST"

DESIGN AND SPECIFICATION OF MATERIAL

JIS G 3536-1999

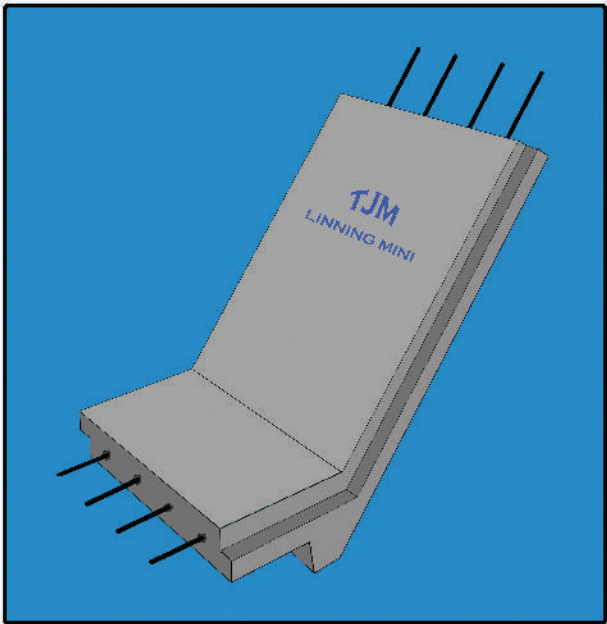
SNI 2847-2013

SNI 15 - 2049 - 2004

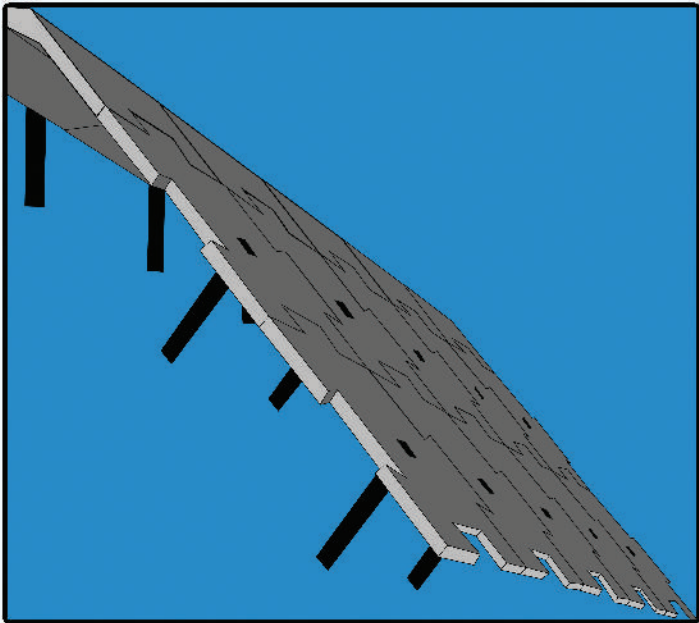
Uncoated stress-relieved steel wires and strands for Prestressed Concrete
 Indonesian Standart Code for Concrete
 Portland Cement

Volume (Height)	Type Lining Mini			
	Stand-up	Sloping	Non Prestressed	Prestressed
H 700	-	✓	✓	-
H 800	-	✓	✓	-
H 900	-	✓	✓	-
H 1000	-	✓	✓	-

* Concrete Compressive Strenght Cube 350 Kg/cm²
 ** Custom Dimension on Request



LINING MINI



LINING PUZZLE

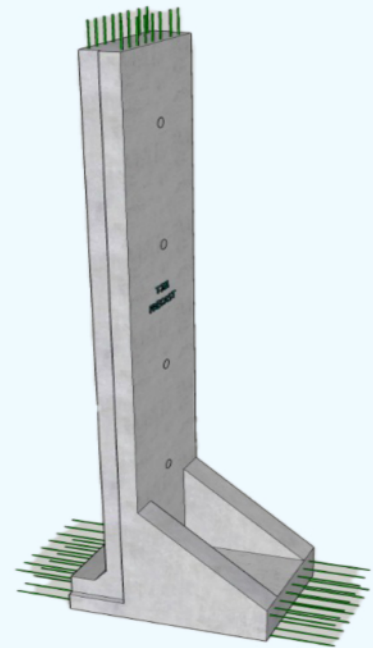
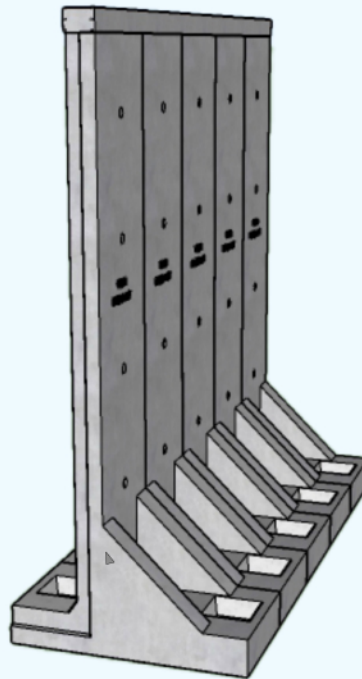
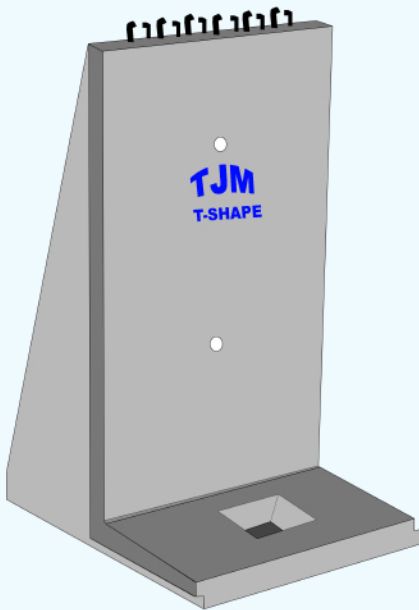
Type	Width (mm)	Concrete Compressive Strenght
Lining Puzzle	1000x1000	fc' = 28 Mpa (Cube 350 kg/cm²)

"T-SHAPE"

DESIGN AND SPECIFICATION OF MATERIAL

JIS A 5373 - 2004
 JIS G 3536-1999
 SNI 2847-2013
 SNI 15 - 2049 - 2004

Precast Prestressed Concrete Product
 Uncoated stress-relieved steel wires and strands for Prestressed Concrete
 Indonesian Standart Code for Concrete
 Porland Cement



PRODUCT SPECIFICATION

Volume (Height)	H (mm)	L (mm)	P (mm)	Type	
				Non Prestressed	Prestressed
H 1500	1500	1200	1500	✓	✓
H 2000	2000	1200	1500	✓	✓
H 2500	2500	1200	1500	✓	✓
H 3000	3000	1200	1500	✓	✓
H 3500	3500	1200	1500	✓	✓
H 4000	4000	1200	1500	✓	✓
H 4500	4500	1200	1500	✓	✓
H 5000	5000	1200	1500	✓	✓
H 5500	5500	1200	1500	✓	✓
H 6000	6000	1200	1500	✓	✓

* Concrete Compressive Strenght Cube 350 Kg/cm² (Non Prestressed)
 ** Concrete Compressive Strenght Cube 500 Kg/cm² (Prestressed)
 *** Custom Dimension on Request



Product Aplication

"CONCRETE PIPES"

DESCRIPTION

Type of Pipes : RC Pipes (Reinforced Concrete Pipes)
NRC Pipes (Non Reinforced Concrete Pipes)
System of Joints : Socket joints with rubber rings

DESIGN AND MANUFACTURING REFERENCES

JIS A 5332 - 1980 *Rolled Reinforced Concrete Pipes*
JIS A 5333 - 1983 *Core Type Prestressed Concrete Pipes*
SNI 03-2847 - 2002 *Indonesia Standard Code of Concrete*

The Best Concrete Precast Products for **Reliability**
Closed Drainage Channels.



Concrete Pipes Specification

Type Product RCP	Strength Concrete fc' (Mpa)	Diameter		Wall Thickness (mm)	Length of Segment (mm)	Allowable Axial load (Ton)	Cross Section Moment		
		Out (mm)	In (mm)				Crack kN.m	Yield kN.m	Ultimate kN.m
NRCP 600. 55. 2400	29.1	710	600	55	2400	108.4	NA	NA	18.08
NRCP 800. 65. 2400	29.1	930	800	65	2400	169.2	NA	NA	38.16
NRCP 1000. 75. 2400	29.1	1150	1000	75	2400	242.7	NA	NA	70.00
RCP 600. 55. 2400	29.1	710	600	55	2400	108.4	14.72	17.84	26.48
RCP 600. 70. 2400	41.5	740	600	70	2400	201.7	27.84	32.24	50.16
RCP 800. 65. 2400	29.1	930	800	65	2400	169.2	26.72	27.36	41.68
RCP 800. 84. 2400	41.5	968	800	84	2400	319.3	39.87	49.84	79.20
RCP 1000. 75. 2400	29.1	1150	1000	75	2400	242.7	37.82	47.28	70.48
RCP 1000. 108. 2400	41.5	1216	1000	108	2400	514.6	71.49	89.36	142.72
RCP 1200. 100. 2400	41.5	1400	1200	100	2400	559.0	154.18	192.72	306.40
RCP 1300. 140. 2400	41.5	1580	1300	140	2400	866.9	211.90	264.88	471.28

* Custom Dimension on Request

"BOX CULVERT"

DESIGN AND SPECIFICATION OF MATERIAL

JIS A 5373 - 2004

JIS G 3536-1999

SNI 2847-2013

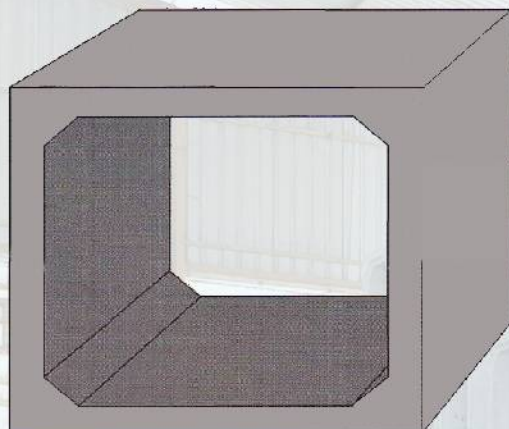
SNI 15 - 2049 - 2004

Precast Prestressed Concrete Product

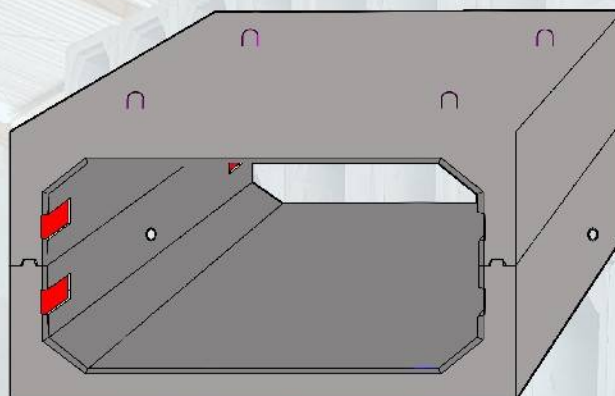
Uncoated stress-relieved steel wires and strands for Prestressed Concrete

Indonesian Standart Code for Concrete

Portland Cement



Box Culvert Monolite



Box Culvert Top Bottom

Box Culvert Specification

Volume	Gandar (ton)					Type			
	5	10	15	20	40	Top Bottom	Monolite	Non Prestressed	Prestressed
1000x1000x1200	✓	✓	✓	✓	✓	✓	✓	✓	-
1500x1500x1200	✓	✓	✓	✓	✓	✓	✓	✓	-
2000x2000x1200	✓	✓	✓	✓	✓	✓	✓	✓	-
3000x3000x1200	✓	✓	✓	✓	✓	✓	-	-	✓
3500x3500x1200	✓	✓	✓	✓	✓	✓	-	-	✓
4000x3500x1200	✓	✓	✓	✓	✓	✓	-	-	✓
5000x3500x1200	✓	✓	✓	✓	✓	✓	-	-	✓
7000x3500x1200	✓	✓	✓	✓	✓	✓	-	-	✓

* Concrete Compressive Strenght Cube 350 Kgf/cm² (Non Prestressed)

** Concrete Compressive Strenght Cube 500 Kgf/cm² (Prestressed)

*** Custom Dimension on Request



Product Aplication

"U-DITCH + COVER"

DESIGN AND SPECIFICATION OF MATERIAL

ASTM C33 - 1999

SNI 2847-2013

SNI 15 - 2049 - 2004

Standart Specification for Concrete Agregates

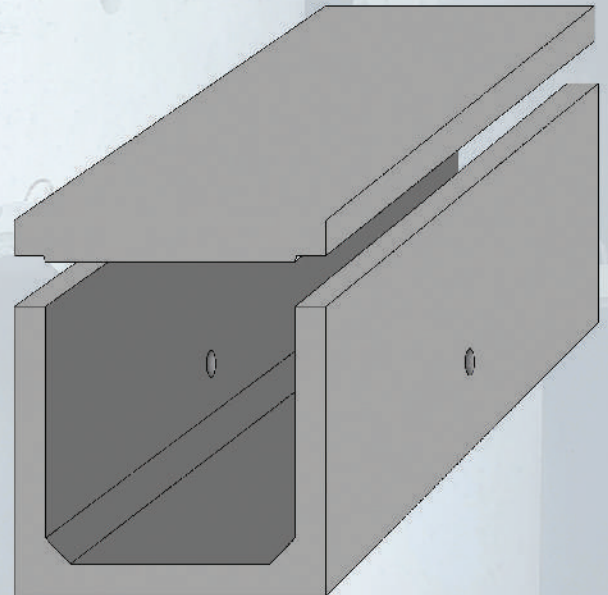
Indonesian Standart Code for Concrete

Porland Cement

U-ditch + Cover Specification

Type	U-DITCH				COVER		
	Gandar (ton)				Gandar (ton)		
	5	10	15	20	5	10	20
300x300x1200	✓	✓	✓	-	✓	✓	-
300x400x1200	✓	✓	✓	-	✓	✓	-
300x500x1200	✓	✓	✓	-	✓	✓	-
400x400x1200	✓	✓	✓	-	✓	✓	-
400x500x1200	✓	✓	✓	-	✓	✓	-
400x600x1200	✓	✓	✓	-	✓	✓	-
500x500x1200	✓	✓	✓	-	✓	✓	-
500x600x1200	✓	✓	✓	-	✓	✓	-
500x700x1200	✓	✓	✓	-	✓	✓	-
600x600x1200	✓	✓	✓	-	✓	✓	-
600x700x1200	✓	✓	✓	-	✓	✓	-
600x800x1200	✓	✓	✓	-	✓	✓	-
800x800x1200	✓	✓	✓	✓	✓	✓	✓
800x900x1200	✓	✓	✓	✓	✓	✓	✓
800x1000x1200	✓	✓	✓	✓	✓	✓	✓
1000x1000x1200	✓	✓	✓	✓	✓	✓	✓
1000x1100x1200	✓	✓	✓	✓	✓	✓	✓
1000x1200x1200	✓	✓	✓	✓	✓	✓	✓
1200x1200x1200	✓	✓	✓	✓	✓	✓	✓
1200x1300x1200	✓	✓	✓	✓	✓	✓	✓
1200x1400x1200	✓	✓	✓	✓	✓	✓	✓
1500x1500x1200	✓	✓	✓	✓	✓	✓	✓
1500x1600x1200	✓	✓	✓	✓	✓	✓	✓
1500x1700x1200	✓	✓	✓	✓	✓	✓	✓
2000x2000x1200	✓	✓	✓	✓	✓	✓	✓
2000x2100x1200	✓	✓	✓	✓	✓	✓	✓
2000x2200x1200	✓	✓	✓	✓	✓	✓	✓

* Concrete Compressive Streight Cube 350 Kg/cm² (Normal)
 ** Custom Dimension on Request



Product Application

PRECAST CONCRETE I - GIRDER

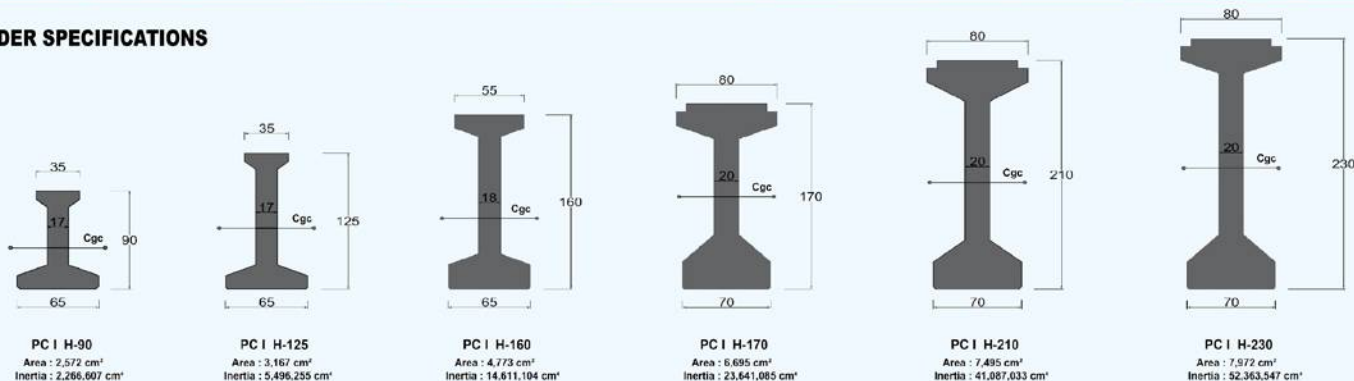
DESCRIPTION

Type of Girder : PC I Girder
 Prestressing System : Post-tension, Pretension
 Production System : Segmental, Non-segmental

DESIGN AND MANUFACTURING REFERENCES

SNI 1725:2016 Recommendation for Design Loads of Highway Bridges
 ACI 318M-14 Building Code Requirements for Structural Concrete
 JIS A 5373-2010 Precast Prestressed Concrete Products
 AASHTO LRFD 2002 Design Specifications for Highway Bridges
 SNI 1726:2012 Design Specifications for Earthquake-resistant Structures

PC-I GIRDER SPECIFICATIONS



Span (m)	PCI H-90				PCI H-125				PCI H-160				PCI H-170				PCI H-210				PCI H-230			
	Beam Spacing / f _c '		Beam Support Reaction		Beam Spacing / f _c '		Beam Support Reaction		Beam Spacing / f _c '		Beam Support Reaction		Beam Spacing / f _c '		Beam Support Reaction		Beam Spacing / f _c '		Beam Support Reaction		Beam Spacing / f _c '		Beam Support Reaction	
	(cm / MPa)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	(cm / MPa)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	(cm / MPa)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	(cm / MPa)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	(cm / MPa)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	(cm / MPa)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)
10	185/40	120.96	308.43	429.38																				
11	185/40	133.05	318.80	451.85																				
12	185/40	145.15	327.44	472.59																				
13	185/40	157.24	334.75	491.99																				
14	185/40	169.34	341.02	510.36																				
15	185/40	181.43	346.45	527.88																				
16	140/40	158.97	351.20	510.17	185/40	205.43	351.20	556.63																
17					185/40	218.27	355.40	573.67																
18					185/40	231.11	359.79	590.90																
19					185/40	243.95	370.61	614.56																
20					185/40	256.79	381.43	638.22																
21					185/40	269.63	392.26	661.88																
22					140/50	234.95	370.65	605.59	185/40	326.64	403.08	729.72												
23					140/60	245.63	372.90	618.53	185/40	341.49	413.90	755.39												
24									185/40	356.33	424.72	781.06												
25									185/40	371.18	435.55	806.73												
26									185/40	386.03	446.37	832.39												
27									185/40	400.87	457.19	858.06												
28									185/40	415.72	468.01	883.73												
29									185/40	430.57	478.84	909.40												
30									140/50	380.62	384.48	765.09	185/40	522.71	489.66	1012.37								
31									140/50	393.30	385.70	779.00	185/40	540.14	495.07	1035.21								
32													185/40	557.56	500.48	1058.04								
33													185/40	574.98	505.89	1080.88								
34													185/40	592.41	511.30	1103.71								
35													185/50	609.83	516.71	1126.55	185/40	644.83	516.71	1161.5				
36													185/60	627.26	522.13	1149.38	185/40	663.26	522.13	1185.4				
37													185/60	644.68	527.54	1172.22	185/40	681.68	527.54	1209.2				
38													185/60	662.10	532.95	1195.05	185/40	700.10	532.95	1233.1				
39													140/60	595.29	407.41	1002.69	185/40	718.53	538.36	1256.9				
40													140/60	610.55	411.5	1022.05	185/50	736.95	543.77	1280.7	185/40	756.95	543.77	1300.7
41													140/60	625.8	415.6	1041.4	185/50	755.37	549.18	1304.6	185/40	775.87	549.18	1325.1
42																	185/50	773.80	554.59	1328.4	185/40	794.8	554.59	1349.4
43																	185/50	792.22	560.00	1352.2	185/40	813.72	560	1373.7
44																	185/60	810.65	565.42	1376.1	185/40	832.65	565.42	1398.1
45																	185/60	829.07	570.83	1399.9	185/50	851.57	570.83	1422.4
46																	140/60	748.13	436.07	1184.2	185/50	870.49	576.24	1446.7
47																	140/60	764.40	440.17	1204.6	185/50	889.42	581.65	1471.1
48																	140/60	780.66	444.26	1224.9	185/50	908.34	587.06	1495.4
49																	140/60	796.92	448.36	1245.3	185/60	927.26	592.47	1519.7
50																	140/70	813.19	452.45	1265.6	185/60	946.19	597.88	1544.1
51																					140/60	854.95	456.55	1311.5
52																					140/60	871.72	460.64	1332.4
53																					140/60	888.48	464.74	1353.2
54																					140/60	905.24	468.83	1374.1
55																					140/70	922.01	472.93	1394.9

* Concrete Grade of C50/60

PRECAST CONCRETE VOIDED SLAB

DESCRIPTION

Type of Girder : PC Voided Slab
Prestressing System : Pretension
Production System : Non-segmental

DESIGN AND MANUFACTURING REFERENCES

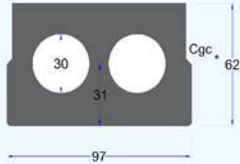
SNI 1725:2016
ACI 318M-14
JIS A 5373-2010
AASHTO LRFD 2002
SNI 1726:2012

Recommendation for Design Loads of Highway Bridges
Building Code Requirements for Structural Concrete
Precast Prestressed Concrete Products
Design Specifications for Highway Bridges
Design Specifications for Earthquake-resistant Structures



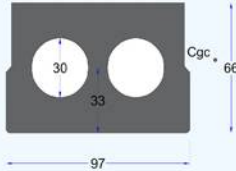
PC VS-57/97

Area : 4,397 cm²
Inertia : 1,411,137 cm⁴



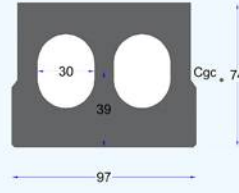
PC VS-62/97

Area : 4,420 cm²
Inertia : 1,785,519 cm⁴



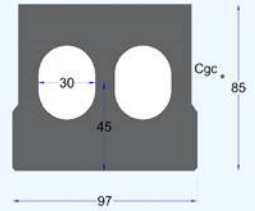
PC VS-66/97

Area : 4,784 cm²
Inertia : 2,170,299 cm⁴



PC VS-74/97

Area : 5,032 cm²
Inertia : 2,977,600 cm⁴



PC VS-85/97

Area : 6,031 cm²
Inertia : 2,270,573 cm⁴

PC VOIDED SLAB SPECIFICATIONS

Span (m)	PC-VS 57/97 Beam Support Reaction			PC-VS 62/97 Beam Support Reaction			PC-VS 66/97 Beam Support Reaction			PC-VS 74/97 Beam Support Reaction			PC-VS 85/97 Beam Support Reaction		
	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)	V _{DL} (kN)	V _{LL} (kN)	V _U (kN)
6	49.68	253.50	423.07	50.08	253.50	423.55									
7	57.96	271.61	460.15	58.42	271.61	460.71									
8	66.24	285.19	490.96	66.77	285.19	491.60	70.65	285.19	496.26						
9	74.51	295.75	517.60	75.11	295.75	518.32	79.48	295.75	523.56						
10	82.79	304.20	547.16	83.46	304.20	542.11	88.31	308.43	553.78	98.01	308.43	565.42			
11	91.07	318.80	573.53	91.81	318.80	574.41	97.14	318.80	580.81	107.81	318.80	593.62			
12	99.35	327.44	597.51	100.15	327.44	598.47	105.97	327.44	605.45	117.61	327.44	619.42			
13				108.50	334.75	620.68	114.80	334.75	628.25	127.41	334.75	643.38			
14							123.63	341.02	649.60	137.21	341.02	665.90			
15							132.47	346.45	669.80	147.02	346.45	687.26	152.75	343.83	689.47
16										156.82	351.20	707.67	163.29	348.90	711.22
17										166.62	355.40	727.32	173.82	353.36	732.11
18													184.36	357.31	752.30
19													194.89	360.84	771.90
20													205.43	364.00	790.99
21													215.96	366.85	809.66
22													226.50	369.44	827.96
23													237.03	371.80	845.94
24													247.57	373.96	863.65
25													258.10	375.94	881.11

* Concrete Grade of 50 - 80 Mpa

** For Span can be Custom as requested



Product Application

TJM

"BREAK WATER CONCRETE"

DESCRIPTION

Type of Break Water Product : Tetrapod (Concrete Armour unit on Breakwaters)
 Akmond Block (Concrete Armour unit on Breakwaters)
 Accropode (Concrete Armour unit on Breakwaters)
 Cube (Concrete Armour unit on Breakwaters)

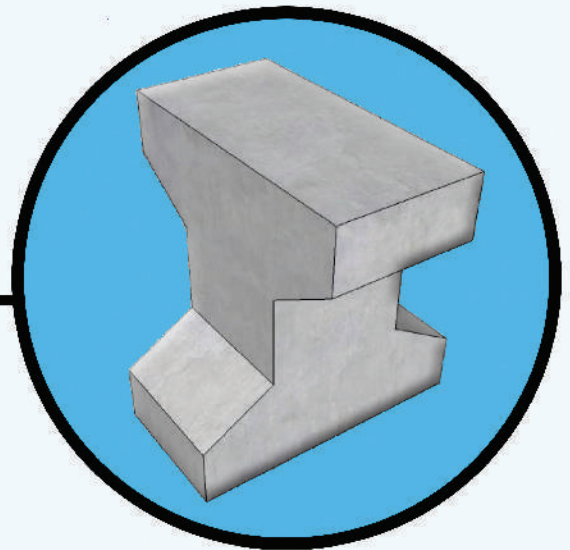


TETRAPOD SPECIFICATION

Armor Type	Weight (ton)	Width (mm)	Concrete Compressive Streight
Tetrapod 0.5T	0.5	900	fc' = 28 Mpa (Cube 350 kg/cm ²)
Tetrapod 1.0T	1.0	1130	
Tetrapod 2.0T	2.0	1420	
Tetrapod 4.5T	4.5	1870	
Tetrapod 6.0T	6.0	2050	

AKMOND BLOCK SPECIFICATION

Armor Type	Weight (ton)	Height (mm)	Wide (mm)	Concrete Compressive Streight
Akmond Block	2.7	1550	1400x680	fc' = 28 Mpa (Cube 350 kg/cm ²)



PRODUCT APPLICATION



DESIGN AND MANUFACTURING

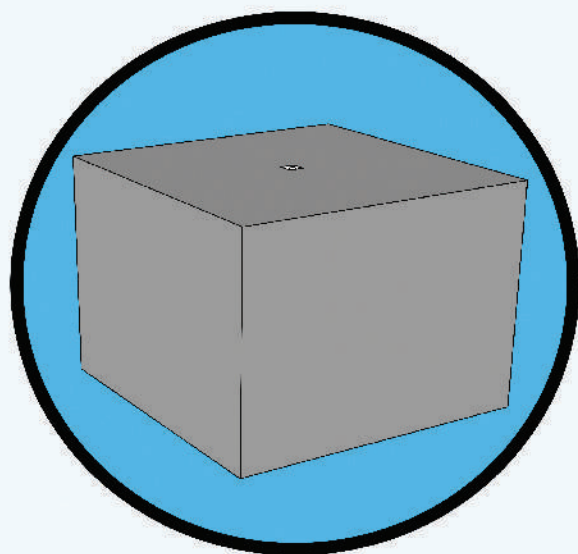
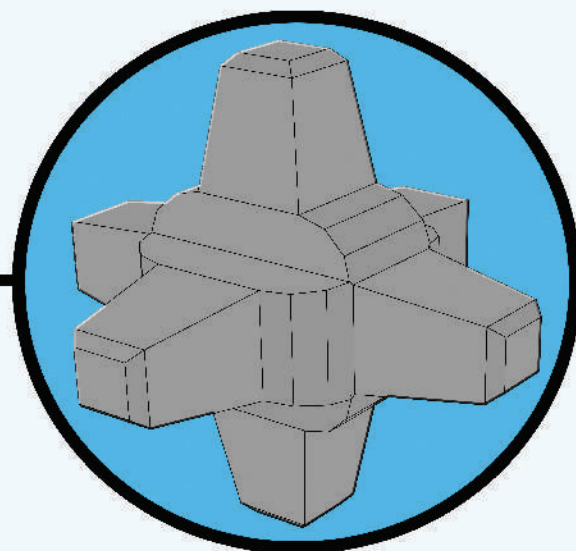
SNI 03-2847 - 2002

Indonesia Standart Code of Concrete

"BREAK WATER CONCRETE"

ACCROPODE SPECIFICATION

Armor Type	Weight (ton)	Width (mm)	Concrete Compressive Strenght
Accropode	9.5	3250	$f_c' = 28 \text{ Mpa}$ (Cube 350 kg/cm^2)



CUBE SPECIFICATION

Armor Type	Weight (ton)	Wide (mm)	Concrete Compressive Strenght
Cube Type 1	14.4	2000x2000x1500	$f_c' = 28 \text{ Mpa}$ (Cube 350 kg/cm^2)
Cube Type 2	10.8	2000x1500x1500	
Cube Type 3	2.4	1000x1000x1000	



PRODUCT APLICATION

"CONCRETE RAILWAYS SLEEPERS"

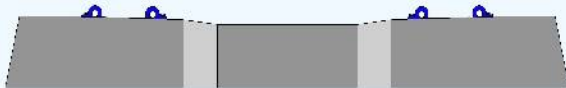
REFERENCE DESIGN

PBI - 1971
 PUBBI - 1982

American Concrete Institute (ACI) 318

American Railway Engineering Association (AREA) Chapter 10 Part 1 - 1996

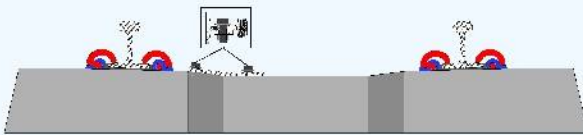
American Railway Engineering Association & Maintenance of way Association (AREMA) Chapter 30 Part 4 - 2002



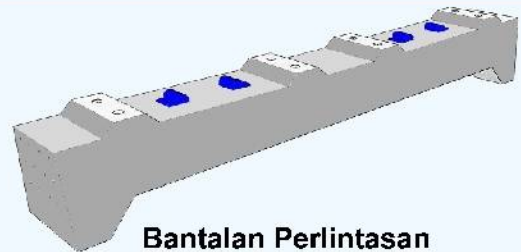
TYPE 1067 s/d 1087



TYPE 1435 s/d 2740



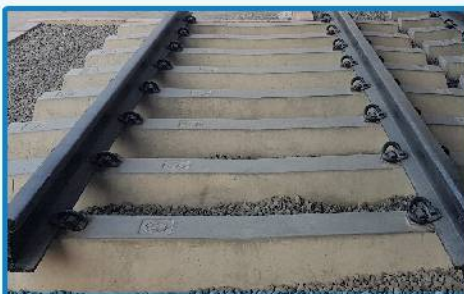
Bantalan Rel System Gongsol



Bantalan Perlintasan

SPECIFICATION OF RAILWAYS SLEEPER TJM

DESCRIPTION	UNIT	TYPE			
		1067 s/d 1087	Gongsol	1435 - 2440	1435 - 2740
		Length			
STANDART					
Track Gauge	mm	1067, 1072, 1077 1082, 1087	1072, 1077 1082, 1087	1435 - 2440	1435 - 2740
Design Axle Load	Ton	18	18	22.5 - 25	25
Train Speed (max)	Km/h	120	120	200	200



PRODUCT APPLICATION



ASPHALT MIXING PLANT (AMP)

Mixing aggregate with hot asphalt that produces **HOT MIX** with **HIGH QUALITY** and **QUANTITY** which is always ready to be applied as needed and customer request.

Hot Mix Type		Symbol	Thicknes (cm)
Latasir Kelas A		SS - A	1,5
Latesir Kelas B		SS - B	2,0
Lataston	Lapis Aus	HRS - WC	3,0
	Lapis Pondasi	HRS - Base	3,5
Lataston	Lapis Aus	HRS - Senjang (WC)	3,0
	Lapis Pondasi	HRS - Senjang (Base)	3,5
Lataston	Lapis Aus	HRS - Semi (WC)	3,0
	Lapis Pondasi	HRS - Semi (Base)	3,5
Lataston	Lapis Aus	AC - WC	4,0
	Lapis Antara	AC - BC	6,0
	Lapis Pondasi	AC - Base	7,5



PRODUCT APLICATION

Voided Slab
Proyek Jalan Baru Kolektor Type 2 (Jl.Merr) Tahap II
Surabaya - Jawa Timur

PT. TJAKRINDO MAS

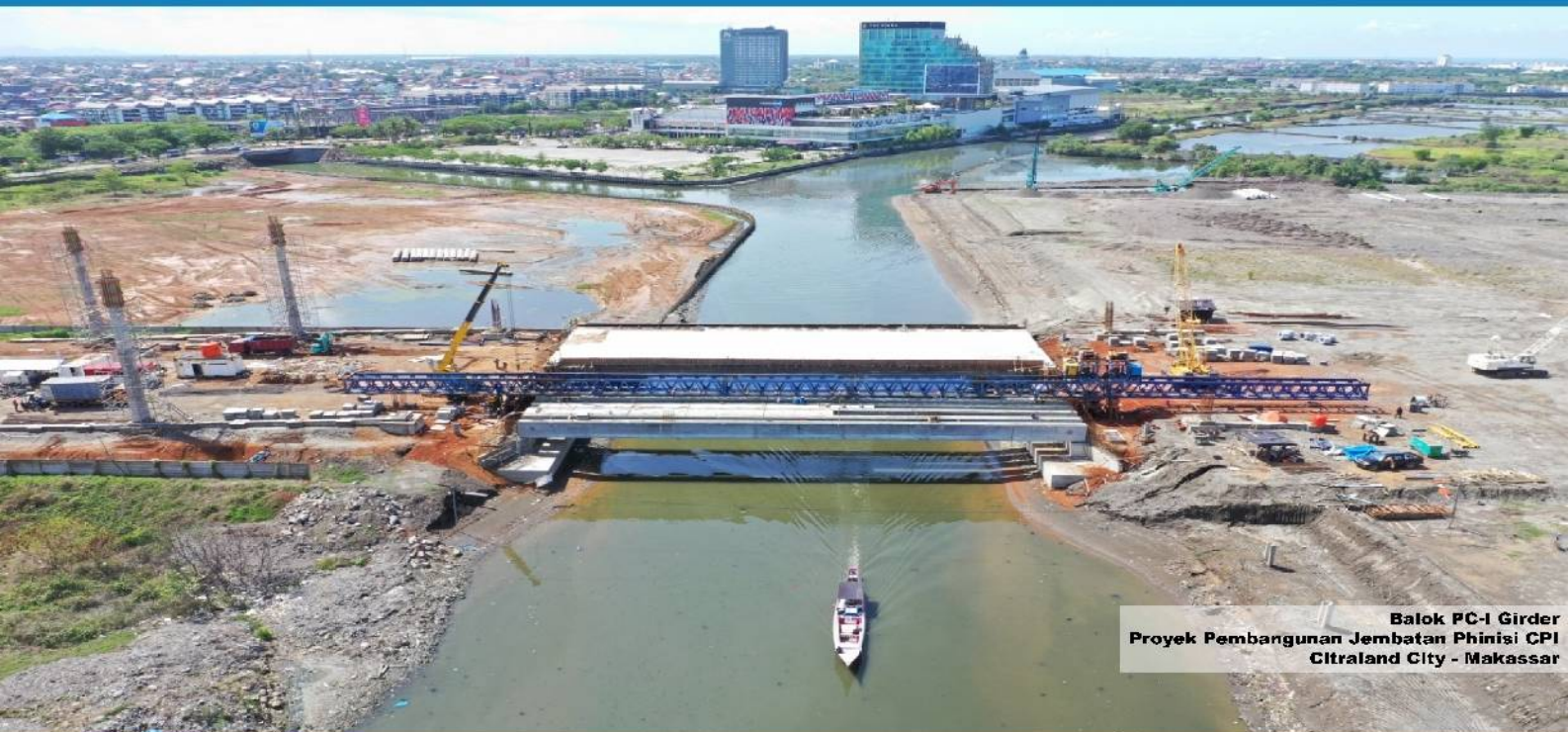
PT Tjakrindo Mas Concrete Division

Always strives to meet needs and give satisfaction to
customers with quality products.
Please leave your suggestions, input, or criticism.



PT TJAKRINDO MAS

Head Office :Jalan Raya Kepatihan 168-A Menganti, Gresik, Jawa Timur - Indonesia (61174) ;Telp : (031) 7993818 (hunting); Fax: (031) 7994



Balok PC-1 Girder
Proyek Pembangunan Jembatan Phinisi CPI
Citriland City - Makassar

ISO :



PT. TJAKRINDO MAS



Segmen Hot Mix
Proyek Jalan Tol KLSM (Krian-Lugundi-Samar-Munyar)
Grande - Jawa Timur



Balok Voided Box
Proyek Jembatan Lelaki Sala - Jawa Tengah



PLANT TJM GRESIK

Jl. Raya Kepatihan 168A, Kec. Menganti
Kab. Gresik - Jawa Timur



PLANT TJM GOWA MAKASSAR

Jl. Poros Malino KM28 Dusun Batu Alam Romangloe Bonto Maranno
Gowa Makassar - Sulawesi Selatan



PLANT TJM GORONTALO

Jl. Solo (belakang Pertamina), Desa Timuato, Kec. Telaga Biru
Gorontalo - Sulawesi Utara



Head Office/ Factory :

Jalan Raya Kepatihan 168-A Menganti (61174)

Gresik - Jawa Timur - Indonesia

Telp : (031) 7993818 (hunting)

Fax: (031) 7994870

Email : tjakrindobeton@yahoo.co.id and tjmbeton@gmail.com

Website : www.tjakrindomasbeton.com

Factory Makassar :

Jl. Malino Km.28, Bontomaranu Kab.Gowa
Makassar - Sulawesi Selatan - Indonesia

Telp : (0411) 8988770

Email : tjakrindobeton.mks@yahoo.com

Factory Gorontalo :

Ds. Timuato Kec.Telaga Biru - Kab.Gorontalo
Gorontalo - Indonesia

Telp : 085240417026

Email : tjakrindobeton.gto@yahoo.com

