

COIL AND PLATE SPRING

A. COIL SPRING



We make and produce any kind of precision spring **just for a special order**. Send us your technical drawing and product specification !!!!

Material and Diameter :

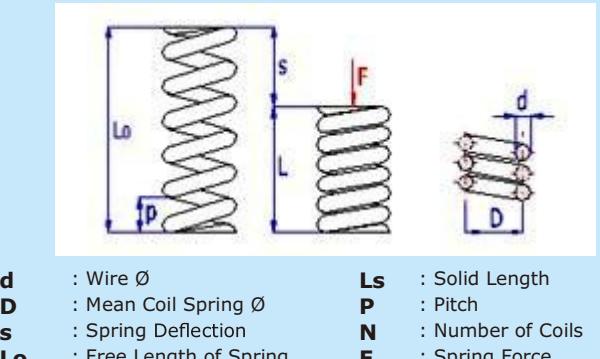
Carbon steel wire or stainless steel wire with range of steel spring wire from $\varnothing 0.4$ mm until $\varnothing 38$ mm. Material Standard according to DIN, JIS, SAE, AISI, or equivalent

Any Kinds of Coil Spring :

Compression Spring, Extension Spring or Torsion Spring, Valve Spring (Pump, Gas, Hydraulic, Pneumatic), Conical Spring, etc. We can produce in big shape of spring wire \varnothing for heavy duty work



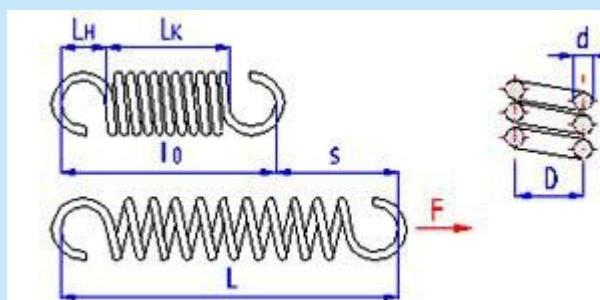
COMPRESSION SPRING DETAIL & TERMINOLOGY



d : Wire Ø
D : Mean Coil Spring Ø
s : Spring Deflection
L : Free Length of Spring

Ls : Solid Length
P : Pitch
N : Number of Coils
F : Spring Force

EXTENSION SPRING DETAIL & TERMINOLOGY



d : Wire Ø
D : Mean Coil Spring Ø
OD : Outside Coil Spring Ø
LH : Length of Hook

Lk : Length over coil
Ls : Length Inside Hook
S : Spring Deflection
F : Spring Force

B. PLATE SPRING

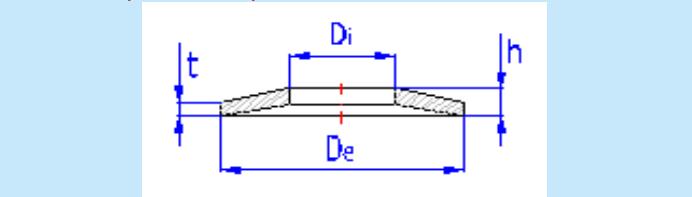
We make and produce any kind of precision (sheet) plate springs **just for a special order**. Send us your technical drawing and your product specification ...!

Any Kinds of Plate Spring :

Disk spring (also known as belleville spring), spring washer or wave spring washer, spiral spring, tension plate spring, rolling helical plate for feeding support, and many other shapes of plate spring according to special order from user. We also receive order to supply (sheet) plate spring material for industrial needs.



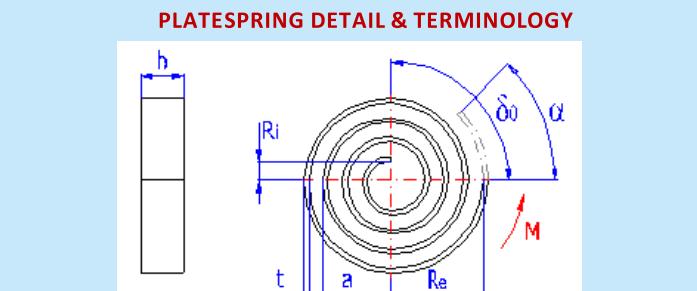
DISK (BELLEVILLE) SPRING DETAIL & TERMINOLOGY



Di : Inside Ø
De : Outside Ø
t : Plate Thikness
h : Overall Height

Ls : Free Spring Length
L : Solid Length Spring
F : Spring Force

Ls : Free Spring Length
L : Solid Length Spring
S : Length over coil
F : Spring Force



h : Height of Plate Strip
Ri : Inner Radius
Re : Outer Radius
t : Thickness of Spring Strip
a : Space Between Coil
alpha : Angular Deflection
delta : Leg angle of free Spring
M : Loading of Spring

SPRING ENGINE MOUNTING & SPRING PIPE HANGER



LOAD SELECTION OF VIBRATION ISOLATOR

There are many types and designs of our spring mounting to proper costumer needs to effectively isolate reducing vibration and noise; and the most important is firstly in calculating load on isolator, as bellow:

Number of Mounting Point	Maximum Load = Machine Weight x Factor
4	30%
6	25%
8	20%
10	15%
12	8%

Example

Machine Weight = 5000 kgs

Mounting Point (Stand) consist of : 6 (six) points
So, Max. Load on each Isolator = $5000\text{ kgs} \times 25\% = 1250\text{ kgs}$

FUNCTION or USEFUL OF SPRING MOUNTING

- ◆ **To isolate** or **reduce** the transmission of noise and vibration from engine or mechanical equipment to building structure, such as in hotel, commercial and office building, industrial building, hospital, etc.
- ◆ **To solve** the toughest at shock transmission problem, such as in operation of punch presses, doing heavy blanking operation, die cast machines, machine tool, and other industrial machinery.
- ◆ **To protect** mechanical or electrical equipment and building structure from damaging effect of continuously engine operation that producing vibratory force.
- ◆ **To create** the comfortable working or living environment, and free from severe vibration or structure borne noise, and free from occupant complaint.



Damped Spring Mounting Application for Metal Stamping Machine

DAMPED SPRING MOUNTING



Prepare for Installation

APPLICATION

Spring mounting can be applied to the engine or mechanical equipment, as below :

- Generator Engine Set
- Metal Stamping Presses Machine
- Engine base on Oil Refinery Construction
- Pumping Unit
- Refrigeration Machines
- Laundry Machine in the Hotels
- Air Compressor
- Cooling Towers and Chillers
- Grain Vibrator
- Laboratory Equipment
- More Kinds of Industrial Equipment, etc.



Many Types Of Pipe Spring Hanger



Our Company is now a leading player in the field of vibration control engineering and machine mounting methods. One of our mounting products is Damped Spring Mounting that's used for heavy duty operation, like as metal stamping, punch, rock crusher, marine, mining vibrator equipment, etc. We can produce and supply damped spring Mounting from: **50 tons** till **1500 tons** of work capacity.

If you would any further information regarding to our products and services, and to get free technical assistance, please contact us directly.

FLOOD PROTECTION GATE FOR COMMERCIAL AND OFFICE BUILDING, RESIDENTIAL AREAS, ETC.

Acede Flood Protection Gate are designed to protect your private and commercial building or residential area from flash flooding, such as:

- Residential properties
- Office and commercial building
- Hotel and Hospital Building
- Factory building & warehouse
- General or Public Infrastructure.
- Etc.

Acede Flood Protection System consists of :

- gates
- doors
- windows
- Parking area in ground floor
- Engine System & Electrical Room
- Field, etc.

Acede Flood Protection System can be generally applied for :

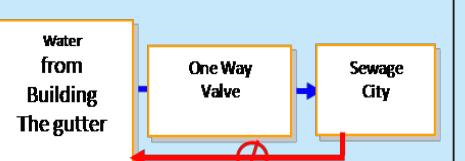
- gates
- doors
- windows
- Parking area in ground floor
- Engine System & Electrical Room
- Field, etc.



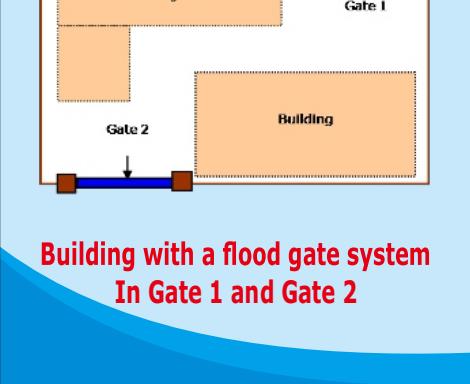
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Flood Protection Gate Installation Pantai Mutiara Residential-Jakarta



Flood Protection Gate Installation. Protect from flood of sea water tide - Jakarta
It's important, that the flood protection system has closed relationship with one way water valve control system. The water from building and the gutter flow out to sewage city, by using one way valve control.



Water from Building The gutter
One Way Valve
Sewage City



Building with a flood gate system In Gate 1 and Gate 2

Flood Protection Gate Installation In Office / Commercial Building In Jl. Sudirman Jakarta

See our Special Blog : <http://floodprotectiongate.blogspot.com/>

Company Overview

Mechanical Engineering, Machinery, And Innovation Technology

We can design, calculate, and make the mechanical parts and products to support industrial companies. The following services are in our expert :

- Technical Component (Spare Part) for industrial requirement, especially for import substitution parts.
- Iron Casting & Machining Product.
- Supporting machine for industrial needs. (We've made much supporting machines for industrial companies, such as : Machine for wire straightening, press steel wire, machine for Abaca fiber process)
- We are working on a range of projects, from ongoing machine testing for customers (higher education institutions and government agencies or the Ministry) - to development of commercial renewable energy generation in any remote Islands
- Etc.

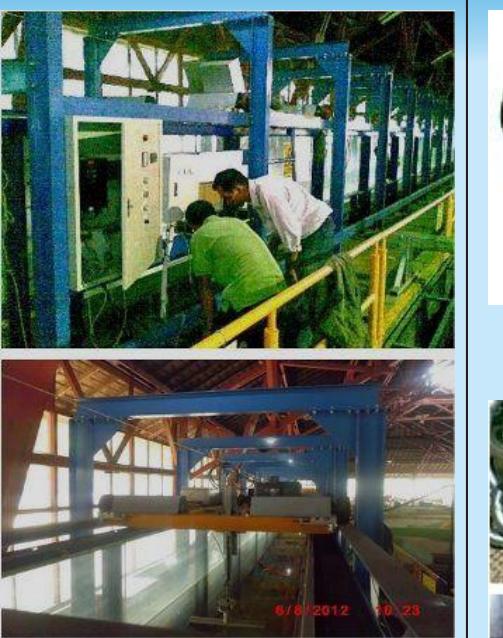
The following products bellow are samples those we've made.



WAVEMAKER PROJECT
We design and manufacture for lab equipment
User : Ocean Engineering Program
Bandung Institute of Technology



Mechanical Part for Industrial Needs



TOWING TANK PROJECT
We design and manufacture for lab equipment
User : Ocean Engineering Program
Bandung Institute of Technology



WAVEMAKER PROJECT
We design and manufacture for lab equipment
User : Ocean Engineering Program
Bandung Institute of Technology



Testing Devices for Highway Strength

Collaboration Project between
PT. Prima Springs Mfg and
Center for Research and
Development Road and Bridge –
The Ministry of Public Work RI - 2010



Heavy Duty Chain for Mining Industrial Needs
Special Order Only



Heavy Duty Chain for Timber
User : PT. Sumber Karya Lestari Pratama
Jakarta



Water Pressure Regulator
Reducing & saving water consumption :
30 ~ 45%,
for Hotel, Commercial Building or apartement

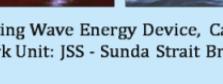
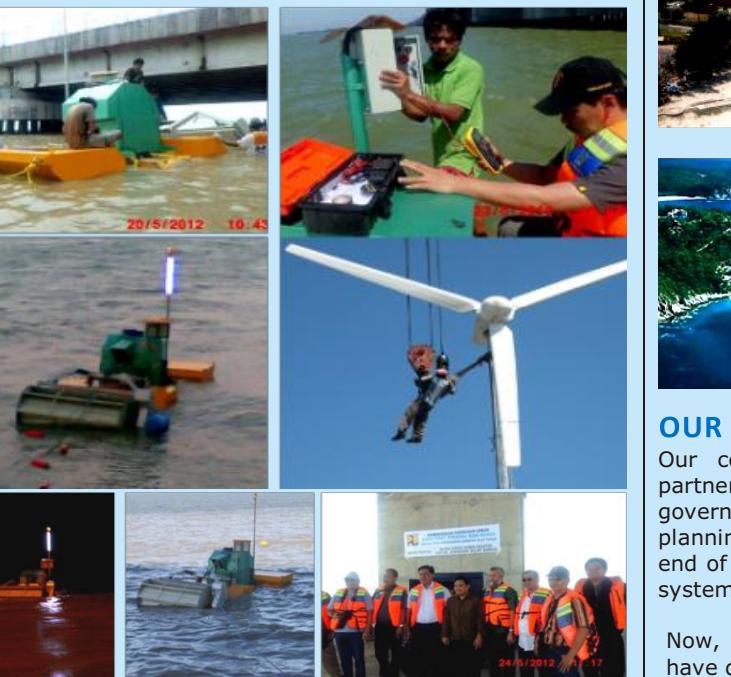
Material : Stainless steel & Brass

Water pressure regulators are commonly installed in commercial and industrial buildings which the water tank storage is located in top level of the building. the water pressure flowing to all appliances and outlets within the pipe line with high pressure. We use Water pressure regulators to reduce and provides an inexpensive means of supplying lower, more functional water pressure to outlets and appliances.

Renewable Energy Technology Division (Ocean Energy, Wind Turbine & River Current Energy)

Our Experience Project

PT. Prima Springs Mfg are working on a range of projects, from ongoing machine testing for customers (higher education institutions and government agencies or the Ministry) - to development of commercial renewable energy generation in any remote Islands



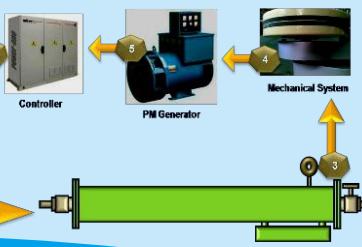
Testing Wave Energy Device, Capacity 10kW, in Suramadu Bridge - Surabaya Work Unit: JSS - Sunda Strait Bridge, Bina Marga, Ministry of Public Works RI May 2012



Wave Energy Device, Buoy Type
Lab Capacity of 0.2 kW
Wave Lab - Ocean Engineering Program
Bandung Institute Of Technology
May 2008



Wind Turbine Installation, 10kW - Around Suramadu Bridge - JSS Project Work Unit: JSS - Sunda Strait Bridge, Bina Marga, Ministry of Public Works RI May 2012



Technology of Conversion System

Ocean Energy Device for Coastal EcoTourism

brings more benefits than just green electricity



OUR SERVICES

Our company, with pleasure, will provide services to all partners, both institutes of higher education, university, government agencies or private companies, to make the initial planning of the implementation of renewable energy - until the end of the process of making the renewable power generation systems.

Now, in our renewable energy division of the company, we have developed sustainable energy which is derived from :

- ocean energy (wave and current),
- river currents and
- wind energy.

We can serve you for :

- consultation on the implementation of renewable energy
- planning and feasibility studies of renewable energy
- energy system for green building concept
- Design, construction and manufacturing work for renewable energy development.

Sustainable energy system for :

- Rural Area, Remote Islands, The outer and The Border
- Coastal Resort / Coastal Tourism Development
- Green Port Development Concept
- Coastal Protection and Coastal Community Development
- Electrical Power for Public (Mass) Transportation
- Electrical Power for Inter-Island Bridge

Etc.

Please don't hesitate to contact us !!!



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www.primasprings-mfg.com

Our company, with pleasure, will provide services to all partners (costumers) with the following our product and service:

A SPRING INDUSTRY Coil and Plate Springs (Design & Manufacturing)



B SPRING ENGINE MOUNTING & SPRING PIPE HANGER



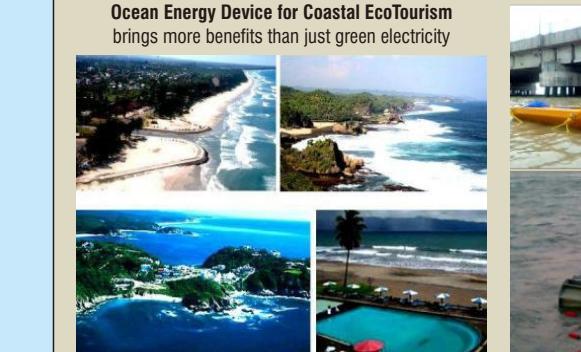
C FLOOD PROTECTION GATE for Commercial & Office Building and Residential Areas



D MECHANICAL ENGINEERING, MACHINERY & INNOVATION TECHNOLOGY



E RENEWABLE ENERGY TECHNOLOGY (Ocean Energy, Wind Turbine & River Current Energy) (Design & Manufacturing)



PT. PRIMA SPRINGS MFG
プリマスプリング製造業

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