Introduction to our Engineering capabilities
In service of the Industrial world for over two decades

Perkasa is a known brand of Texmaco Group, that stands for a range of products of Open Die Forgings, Fabrication facilities, Heavy Engineering & range of Industrial Gears, Shafts & Gear Boxes.

We aim to provide one-stop facilities to OEM & Tier 1 suppliers across industries including Power, Oil & Gas, Mining & Construction, Cement, Sugar, Chemicals & Petrochemicals, Steel, Fertilizer, Automotive and Pulp & Paper industries.

We are backed by a strong manufacturing base & expertise in design, manufacture & inspection / testing of Oil field equipment, Pressure Vessels, Heat Exchangers, Industrial equipment, Reactors, Columns, metal works and a wide range of straight, spiral & helical gears and shafts.

Our manufacturing setups are accredited with the International Certifications including the ISO 9001 : 2008 Certification for Quality Management Systems, and by American Society of Mechanical Engineers (ASME) S, U & U2 stamps.
Works strategically located 130 km near Jakarta

Group Corporate Center & Marketing Office, Jakarta

Perkasa Heavyndo Engineering, Subang, West Java

PT Perkasa Heavyndo Engineering
(A Texmaco Group Company)
Subang, West Jawa, INDONESIA

TITLE: Engineering GROWTH!
Date: 9-Oct-11
Slide No.: 4
Fully integrated manufacturing operations

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Gears Capabilities
Heavy Engg Capabilities
Certifications
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PT Perkasa Heavyindo Engineering
(A Texmaco Group Company)
Subang, West Jawa, INDONESIA

TITLE: Engineering GROWTH!
Date: 9-Oct-11
Slide No.: 5
## Capability to handle large assignments

<table>
<thead>
<tr>
<th>Details</th>
<th>Subang Works</th>
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<tr>
<td>Total covered area</td>
<td>60,000 sq. m.</td>
</tr>
<tr>
<td>Total fabrication area</td>
<td>40,000 sq. m.</td>
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<tr>
<td>Typical bay size</td>
<td>22/30 m x 252 m</td>
</tr>
<tr>
<td>Lifting weight in covered area</td>
<td>150 ton (single lift)</td>
</tr>
<tr>
<td>Lifting height in covered area</td>
<td>13.5 m x 17.5 m</td>
</tr>
<tr>
<td>Road transport (height x width)</td>
<td>4.5m x 4.5m</td>
</tr>
</tbody>
</table>
Committed to engineering industrial growth

**MISSION:** To meet and exceed the requirements of plant & process industries across the globe, which need Quality Open Die Forgings, Gears & Shafts and Heavy Engineering products.

**VISION:** To profitably and sustainably achieve leading share of business in the supply of industrial plant and process equipment and achieve a 15% compounded annual growth.

**VALUES:** Our organization is centered around the core values of Integrity, Innovation and Growth which form the basis of our quality objectives & policy.

**QUALITY:** We will constantly and continuously improve our processes and quality of our products, bearing in mind that quality is never enough.
Ability to deliver all kinds of industrial gears
Some of our gear products for various applications

Worm wheel pairs up to 1.5 m OD, Module 16
Spur/helical gears up to 3m dia, Module 30 (soft)
Sprockets up to 3 m dia and 3 inch pitch
Herring-bone gears up to 650 mm dia, Module 8

Pinions up to 600 mm dia, 1.5 m length, Module 16
Internal gears up to 600 mm ID, Module 8 (hard)
Straight Bevel Gears up to 500 mm dia, Module 16
Spiral Bevel Gears up to 750 mm dia, Module 16
Not just gears, but complete gear box solutions

- Spur/Helical/Bevel Gear Box up to power 5300 kW
- Replacement, repair and testing of gear boxes
- Foot mounted type gear box for hydro power appl.
- Vertical mounted gear box for agricultural application
- Bevel Helical Gear Box for cooling tower application
- Re-conditioning & Testing of gear box comelier
- Complete manufacturing including housing
- Complete manufacturing of GB-spiral & bevel gears
Extensive capabilities to produce all kinds of gears

- Gear Cutting Machine
- Gear Broaching Machine
- Spline Hobbing Machine

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Bevel gears manufacturing & testing capabilities
Complete range of heat treatment facilities

- **Sealed Quench Furnace**
  - Max. F 650mm, Height 650mm, Length 1,110mm
  - Cross Weight 650Kg

- **Pit Type Furnace**
  - Max. F 880mm, Height 1500mm
  - for carburizing and carbo-nitriding

- **Pusher Type Furnace**
  - Max. F 650mm, Height 650mm, Length 550mm
  - Cross Weight 400Kg/Hr

- Full hardening
- Nitriding
- Tempering
- Stress relieving
- Case carburising
- Nitrocarburising
- Annealing
- Carbonitriding
- Toughening
- Normalising

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### Heavy Engineering Infrastructure

<table>
<thead>
<tr>
<th>Bay No</th>
<th>Size</th>
<th>Lifting Height</th>
<th>Lifting Weight</th>
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<tbody>
<tr>
<td>1</td>
<td>22m x 252m</td>
<td>13.5m</td>
<td>10 tons</td>
</tr>
<tr>
<td>2</td>
<td>22m x 252m</td>
<td>13.5m</td>
<td>10 tons</td>
</tr>
<tr>
<td>3</td>
<td>22m x 252m</td>
<td>13.5m</td>
<td>16 tons</td>
</tr>
<tr>
<td>4</td>
<td>22m x 252m</td>
<td>13.5m</td>
<td>25 tons</td>
</tr>
<tr>
<td>5</td>
<td>22m x 252m</td>
<td>13.5m</td>
<td>50 tons</td>
</tr>
<tr>
<td>6</td>
<td>30m x 272m</td>
<td>17.5m</td>
<td>50/50 tons</td>
</tr>
<tr>
<td>7</td>
<td>22m x 252m</td>
<td>17.5m</td>
<td>25/80 tons</td>
</tr>
<tr>
<td>8</td>
<td>30m x 252m</td>
<td>17.5m</td>
<td>50/150 tons</td>
</tr>
<tr>
<td>9</td>
<td>30m x 252m</td>
<td>13.5m</td>
<td>20 tons</td>
</tr>
</tbody>
</table>

#### Turning Rolls (Tank Rotator)
- 10 T : 3 sets
- 15 T : 6 sets
- 30 T : 4 sets
- 50 T : 3 sets
- 100 T : 3 sets

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PT Perkasa Heavyndo Engineering  
(A Texmaco Group Company)  
Subang, West Java, Indonesia  

**Title:** Engineering GROWTH!  
**Date:** 9-Oct-11  
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Heavy Engineering Capabilities to meet all your needs

MATERIAL PREPARATION
- CNC Flame / Plasma Cutting: 300 mm in CS & 50 mm in SS
- Power Hacksaw: 200 mm
- Band saw: 400 mm Cutting Dia

HEAT TREATMENT FURNACE
- Furnace Capacity: 150 Tons
- Size (L x W x H) in meters: 22 x 5.5 x 5.5

FABRICATION
- Plate Rolling: 4,000 x 240 mm (Hot)
  4,000 x 120 mm (Cold)
- Hydraulic Press: 4,000 Tons
  Horizontal Actuation
- Press Brake: 2,500 Tons x 4,000 mm Wide
- Pipe Bending Machine: Dia 139 x 6 mm Thk
  Min Bend Radius 600 mm
- Dish Forming Machine: 30 mm Thk x Dia 5,000 mm
  18 mm Thk x Dia 4,000 mm
Heavy Engineering Capabilities to meet all your needs

MACHINING FACILITY

- **CNC Turning Capacity**: Dia 2,100 x 10,000 mm
- **Facing Lathe**: Dia 2,500 x 1,000 mm
- **Vertical Turning Lathe**: Dia 7,020 x 5,700 mm
- **CNC Milling and Boring**: 100 Ton Table Capacity
- **X, Y & Z Axis Traverse**: Spindle Dia 160 mm
- **Horizontal Boring**: 6,000 x 3,800 x 1,600 mm
- **Cylindrical Grinding**: 12,000 x 3,800 x 1,600 mm
- **Surface Grinding**: Dia 900 x 4,350 mm
- **Gear Hobbing Machine**: 1,200 x 500 mm Table Size
  - Maximum Diameter: 8,000 mm
  - Maximum Module Cut: 50 Module
- **Slotting Machine**: 300 mm Stroke 1000 mm dia

WELDING FACILITY

- **Submerged Arc Welding**: 1,000 A, 5 mtrs Boom Travel
- **Narrow Gap Welding**: 6 mtrs Boom Lift
- **Flux Cored Arc Welding (MIG)**: 20 Nos
- **Welding Rectifiers 500 A (SMAW)**: 100 Nos
- **Welding Manipulators/Positioners**: 40 Tons, 3800mm dia
- **Welding Tank Rotators**: 100 Tons
Shearing & Punching machines

- 2100 mm X 8 mm th
- 2100 mm X 10 mm th
- 2500 mm X 25 mm th
- Max Thickness : 4 mm

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Forming & fabrication capabilities

- Verrina Press Brake
  - Maximum Dimension: 4000 mm X 25 mm

- Haeusler Plate Rolling
  - Cold: 120mm x 4 m

- Wallace 2000 Tonnes Hydraulic Press Brake

- DISH HEAD FORMING
  - Maximum Diameter: 5000 mm
  - Maximum Thickness: 30 mm

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Vertical Boring Machines

Turning Mining Rings on the 7020 mm Craven Brothers Vertical Boring Machines
Horizontal boring machines

CNC Horizontal Boring Machine
a. Scheiss Froriep: Max : 10 m x 4.5 m x 1.2 m
b. Skoda W 160 HA Max : 10 m x 3 m x 1.6 m
c. Skoda W 160 HA (with Rotary Table): 2 Nos
Maximum Dimension : 5 m X 2.5 m X 1.6 m

Conventional Horizontal Boring Machine
a. Skoda W 160 HA (with Rotating table)
• Maximum Dimension : 6 m x 3.5 m x 1.6 m
b. Asquith
• Maximum Dimension : 10 m x 4.2 m x 1.0 m
Heavy machining facilities
CNC Boring Machines

SKODA HORIZONTAL BORING MACHINES (CNC)
CAPACITY: SPINDLE DIA. 160 mm
X, Y & Z AXIS TRAVERSE: 12,000 mm x 3,800 mm x 1,600 mm
Turning bays

LATHE AND TURNING BAY (CRAVEN AND HELIGANSTGAD)
CNC TURNING CAPACITY: DIA 2,100 mm x 10,000 mm
FACING LATHES: DIA 2,500 mm x 1,000 mm
CYLINDER GRINDING: DIA 900 mm x 4,350 mm
SURFACE GRINDING: DIA 1,200 mm x 500 mm
Machining Bays

BAY WITH SHIESFRORIB GEAR HOBBING MACHINES, CRAVEN BROS. VBM & SKODA HBMs
Fabrication shop Bay No. 6

PART OF 60,000 m² FABRICATION SHOP
PROJECT IN PHOTO IS FOSTER-WHEELER COAL CRUSHERS FOR PHILIPPINES (SHIPPED IN 1998)
Complete Arc & TIG Welding Facilities

Narrow Gap Submerged Arc Welding: Column Rotation: 360°, Maximum Job Area: 7m x 6m

Welding Titanium using the JETLINE Plasma / TIG welding system
Heat Treatment capabilities

For Stress Relieving:
- Dimension: 22 m x 5.5 m x 5.5
- Gross Charge Weight: 150 MT

For annealing:
- Dimension: 12.5 m x 5.0 m x 2.0 m
- Gross Charge Weight: 35 MT
Heavy Engineering projects undertaken

- Feed Water Heater as turbine auxiliaries
- Turbine fixed Blades as turbine components
Generic steel mill equipment

Subang, West Jawa, INDONESIA

PT Perkasa Heavyndo Engineering
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Large products

Fluidized Bed Monomer Reactor
- Weight: 90 Tons
- Length: 32 meters
- Diameter: 4.2 meters

Tubular combustion chamber
- Size: 3.5 m Dia x 12 m Length
- Material: A 106 Grade B Pipe
- Total Weight: 38,700 Kgs
Heat exchangers, Pressure Vessels & Elbows

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Oxidizers, Columns & Condensers
40 ton condenser housings
Pressure vessels, Slug catcher, Ejectors, Stator frames
Urea stripper, Inert gas tanks, Dumper buckets
International Quality Certifications

Certification

ISO 9001:2008
Scope of supply:
- Desain, Pembuatan, dan Pengujian Pabrikasi dan Aneks Pabrikasi
- Pengujian dan Uji pada Pabrikasi dan Aneks Pabrikasi
- Pelatihan dan Peralatan

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ASME Stamps: for manufacture of boilers & pressure vessels

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Subang, West Java, INDONESIA

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Complete state-of-the-art testing facilities

About us
- Destructive & Non destructive tests
- Computerized spectroscope (Hilger)
- Computerized micro-structure image analyzer
- Carbon & sulphur determinator (Leco)
- Hardness (Rockwell, Brinnel, Vickers)
- Wet chemical analysis
- Ultrasonic tester
- Contour & Coordinate Measuring
- Roundness & cylindricity test
- Gear profile projector (up to 100x)
- CNC gear test

Gears Capabilities
- Gear noise test
- 3 axes CMM (Zeiss – Dea Scirocco)
- Gear profile projector (Starret Sigma)
- GEAR noise tester (Hurth)
- CNC gear tester (Hoffler)
- Spur, helical, worm & bevel gears
- Roundness & cylindricity tester
- Surface tester (profile, roughness, waviness)
- Din standard gears (shaved & ground)
- Tensile testing

Heavy Engg Capabilities

Certifications

Testing Facilities

Customers

Contact us
Some of our customers across the world

(Note: This is not the complete list)

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Some of our customers across the world

(Note: This is not the complete list)
## Experience List

<table>
<thead>
<tr>
<th>No</th>
<th>Customer Name</th>
<th>Products supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ABB INDONESIA</td>
<td>GAS TURBINE COMPONENTS</td>
</tr>
<tr>
<td>2</td>
<td>BETHLEHEM CORPORATION</td>
<td>COAL CRUSHER, HEAT EXCHANGER</td>
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<td>3</td>
<td>CHIYODA CORPORATION</td>
<td>PRESSURE VESSELS</td>
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<td>4</td>
<td>DORR OLIVER</td>
<td>PETROCHEMICAL EQUIPMENTS</td>
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<td>5</td>
<td>EXXON MOBIL</td>
<td>PRESSURE VESSELS</td>
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<td>6</td>
<td>HITACHI ZOSEN MECH CORP.</td>
<td>ASH MELTING FURNACE</td>
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<td>7</td>
<td>ISPAT INDO</td>
<td>COMBUSTION CHAMBER / ELBOW</td>
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<td>HANAZONO</td>
<td>SUCTION POT HEAD/HEAD PLATE/PUMP COLUMN</td>
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<td>9</td>
<td>KVAERNER CHEMETICS</td>
<td>OIL DRILL EQUIPMENT PARTS</td>
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<tr>
<td>10</td>
<td>NAGOAKA</td>
<td>INTERNALS FOR UOP REACTOR</td>
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<td>NIGATA</td>
<td>TANKS, HE, PRESSURE VESSELS</td>
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<td>PERTAMINA UP IV</td>
<td>TITANIUM TUBLE BUNDLES</td>
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<td>PERTAMINA UP V</td>
<td>HEAT EXCHANGER PARTS</td>
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## Experience List

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<td>POLY PRIMA</td>
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<td>18</td>
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<td>REACTORS, SILOS, PRESSURE VESSELS</td>
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<td>POLYSINDO EKA PERKASA</td>
<td>MIXERS, HEAT EXCHANGERS</td>
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<td>REKAYASA INDUSTRIES</td>
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<td>SEMEN BOSOWA</td>
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<td>SOUTH PACIFIC VISCOSE</td>
<td>PRESSURE VESSELS, HEAT EXCHANGERS</td>
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<td>TAMBANG TIMAH INDUSTRIES</td>
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<td>COLUMNS / PRESSURE VESSEL</td>
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<td>PERTAMINA</td>
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<td>THYSSENKRUPP, GERMANY</td>
<td>BUCKET WHEEL EXCAVATOR</td>
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<td>TOTAL FINA ELF</td>
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<td>EJECTOR</td>
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<td>SEBBA</td>
<td>DUMP TRUCK BODY</td>
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PT Perkasa Heavyndo Engineering  
(A Texmaco Group Company)  
Subang, West Jawa, INDONESIA  

**TITLE:** Engineering GROWTH !  
**Date:** 9-Oct-11  
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Thank you for your interest... we are ready to serve you!

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