



PT. AREZDA PURNAMA LOKA

Manufacturing

SEALING PRODUCTS



FINNED TUBES



HEAT EXCHANGERS



COMPRESSED FIBER JOINTING SHEETS



"Quality is Our Concern"

... and we strive for customers' satisfaction

01. SPIRAL WOUND GASKET (SWG)



SHAPES: OBOURND SQUARE PEAR OVAL DIAMOND ROUND

TYPES:

Basic, Inner Ring, Outer Ring, Outer-Inner Ring.

SIZES:

All sizes available for ANSI, API, JIS, JPI, MSS.SP44, DIN Flanges.

MATERIALS:

All kinds of materials from Stainless Steel, Titanium, Nickel Monel, Inconel, Asbestos/Non-Asbestos/PTFE/Dechlorinated/Expanded Graphite Paper/Tape, to SPCC materials are available for the HOOP, FILLER, INNER RING, and OUTER RING.

APPLICATION:

To seal Oil, Water, Steam, Air, Gas, and other liquids in flanges, valves, H.E., and other equipment.

EXHAUST PIPE GASKET for Automotive

Manufactured as per customer's request.

NOTE:

<INGI> SWGs are manufactured as per international standards. Please consult our engineers for your specials needs.



02. RING JOINT GASKET (RTJ)



TYPES are available in various shapes:

Oval, Octagonal, BX, RX, Flat, and other types as follows



SIZES:

All sizes available to fit ANSI, API, JIS, JPI, MSS.SP44, DIN Flanges.

MATERIALS:

A wide selection of materials available from Soft Iron, Soft Steel, Low Carbon Steel, 4-6 Chrome (F5), SS304/304L, 316/316L, 347, 410, Monel, Inconel, Incoloy, Copper, Aluminium, Titanium, to Nickel.

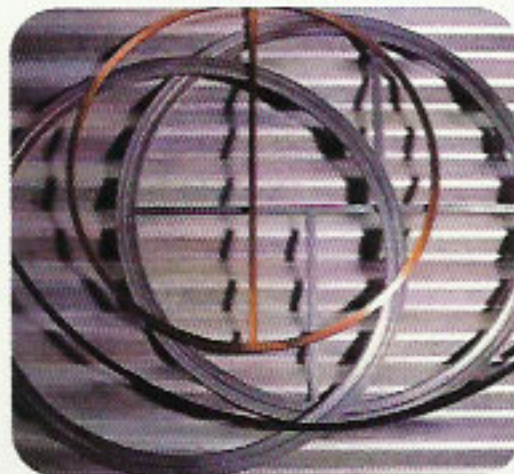
APPLICATION:

In pipe flanges, pressure vessels, valve bonnets, and other equipment where high pressure and temperatures are needed.

NOTE:

Consult our engineers for further specifications.

03. HEAT EXCHANGER GASKET (H.E. GASKET)



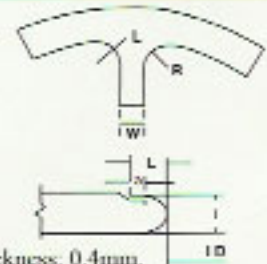
SHAPES and TYPES:

Available with Complicated Partition Bars from "H.E.1 to H.E.28" (Please refer to our specialized catalog for complete illustration of its shapes).

SIZES: (standar dimensions)

Thickness: 3.0mm, R: 10mm min, W: 7mm min

I: 2.0-3.0mm, L: 2.5mm min, a: 2.0mm min, Metal Thickness: 0.4mm.



MATERIALS:

JACKET materials available from Soft Iron, Low Carbon Steel, Stainless Steel, Copper, Aluminium, Monel, to Titanium. FILLER materials available as per customers' request as to either asbestos or nonasbestos.

APPLICATION:

All kinds of Heat Exchangers.

NOTE:

Other specifications available upon request.

04. FLEXIRING PACKING (PALL RING)



Also called METAL TOWER RANDOM PACKING.

TYPES:
R (Reinforced) and F (Flat).

SIZES:
(standard dimensions).
Diameter and Height: 1/2", 5/8", 1", 1.1/2", 2", 3".
Thickness: 0.3mm, 0.4mm, 0.5mm, 0.6mm, 1mm.

MATERIALS:
Carbon Steel, Stainless Steel (SS.304,316,410), Aluminium Alloys, Titanium.

APPLICATION:
Crude Vacuum and Atmospheric Towers, CO2 Absorbers, Air Pollution Control Scrubbers, Liquid Extraction Columns, Quench Columns, FCC Main Fractionators Absorbers and Strippers, VOC Stripping, Dehumidification, Dehydration, and Denaturation, Demethanizers and Light Ends Fractionators, Water Treatment Facilities, Chemical Reaction Absorbers and Strippers, Naphta Fractionators.

NOTE:
Other specifications available upon request.



FLAT TYPE

05. TUBE INSERT



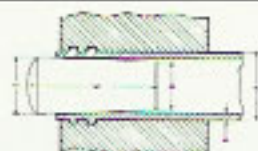
Also called:
TUBE PROTECTOR.

SIZES:
(see table).

MATERIALS:
Poly Propylene,
Polyamide 6 or 11 or 12,
PTFE (Teflon),
Nylon, etc.

APPLICATION:
To protect tube ends at the inlet of Condensers and Heat Exchangers against erosion and abrasion to prolong the life of tubes.

NOTE:
Tube Inserts with other materials and dimensions can be manufactured on request.



SIZES

Tube Sizes	Protector Length		
	Nylon	Polypropylene	TFE
5/8" X 10 BWG	6"	6"	4"5/8"
5/8" X 18 BWG	6"	6"	6"
3/4" X 18 BWG	4"5/8"	4"5/8"	4"5/8"
3/4" X 16 BWG	6"	6"	4"5/8"
7/8" X 18 BWG	6"	6"	4"5/8"
1" X 18 BWG	6"	6"	4"5/8"
1" X 16 BWG	6"	6"	4"5/8"
1" X 14 BWG	-	-	6"
1" X 10 BWG	-	-	4"5/8"
2" X 0 BWG	4"	4"	-

06. TUBE PLUG



SIZES:
Available for 3 sizes of tube diameters: 11-14, 12-17, and 15-20. Other sizes available.

MATERIALS:
Brass, SS.316, Alloy R-405,
Alloy 600, Carbon Steel,
Nickel, etc.

APPLICATION:
To plug the leaking tubes at tube ends in Condensers and Heat Exchangers to prolong the use of the equipment.

NOTE:
Special (non standard) Tube Plugs could be manufactured on request.

TABLE OF DIMENSIONS

A Tube O.D.	B Tube Wall Gauge	C Length	D Diameter	E Diameter
1/2	11 to 14	1.55	.280	.395
1/2	15 to 20	1.55	.271	.457
5/8	11 to 14	1.57	.405	.491
5/8	15 to 20	1.58	.490	.582
3/4	11 to 14	1.58	.530	.678
3/4	12 to 17	2.09	.540	.692
3/4	15 to 20	1.59	.621	.707
7/8	11 to 14	1.60	.666	.747
7/8	15 to 20	1.62	.740	.822
1	11 to 14	1.63	.780	.866
1	12 to 17	2.11	.794	.938
1	15 to 20	1.63	.871	.957

Dimensions are in inches, for reference only, and subject to change.

07. CORRUGATED METAL GASKET

**TYPES:**

Filler or Non Filler (solid).
Available in circular and slightly non circular shape.

SIZES: example

as per ANSI, API pipe flanges
T (gasket thickness): 3.0mm min. W (gasket width): 15.0mm min
t (corrugation height) 1.0 +/-0.3mm. P (corrugation pitch): 6.0mm.

MATERIALS:

JACKET: Carbon Steel, Stainless Steel, or others as requested.
FILLER: Asbestos/Nonasbestos materials available.

APPLICATION :

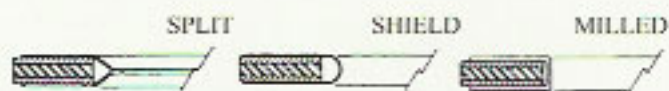
To seal Steam, Water, Hot Water, Hydrocarbon, Lubricants, Organic Solvents, Cryogenic Lines, in Heat Exchangers, Autoclaves, Boilers, etc.

NOTE:

Compliance with specification: API 601 (Double Jacketed Corrugated).



08. ENVELOPE GASKET

**TYPES:****SIZES:**

Available for ANSI, API, JIS, JPI, MSS.SP44, DIN Flanges.

MATERIALS:

ENVELOPE: PTFE (Teflon).
FILLER: Asbestos/Nonasbestos materials available.

APPLICATION:

Strong Acids, Strong Alkalis, Cryogenic Fluid Oxygen, Chlorine Gas, Organic Solvents, in piping systems and equipment lined with glass, rubber or plastic, and glass or porcelain flanges where contamination or coloring not allowed.

NOTE:

Variety of filler materials available. Gasket is made to international standards.

09. FLAT RING GASKET

**TYPES:**

FF (Full Face), RF (Raised Face)

SIZES:

Available for ANSI, API, JIS, DIN, MSS, or other flange standards.
Or may be manufactured according to your specifications.

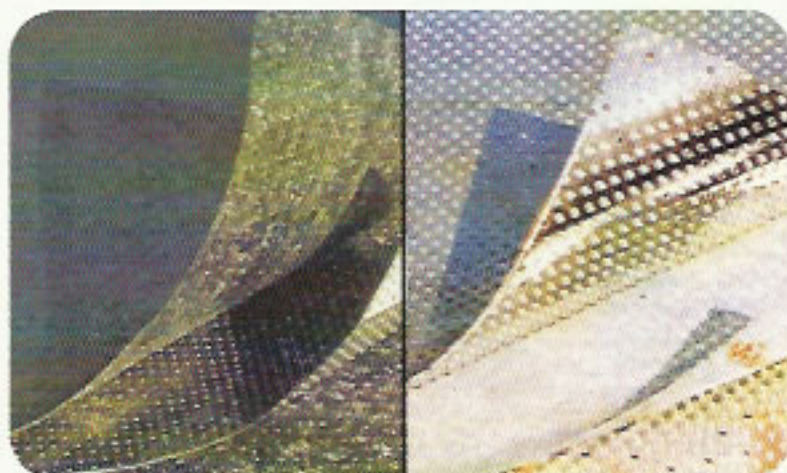
MATERIALS: complete range available

Metal, Nonmetal, Metal-Nonmetal available like: Carbon Steel, Aluminium, Stainless Steel, Bronze, Brass, Asbestos/Nonasbestos Jointing Sheets, Graphited, with/without wire reinforcement, Pure Graphite, Rubber, NBR, Teflon/PTFE, ect.

NOTE:

When ordering please specify: Gasket Material/Usage (media/temp./pressure), Flange Standard. For nonstandard items, gasket dimensions/drawing needed. Gasket with O.D. bigger than gasket materials are fabricated with joints. Please consult our technical sales dept. for expert advice and recommendation.

10. STEEL BESTOS & POWER BESTOS



SIZES:

Thickness: 1.2mm, 1.4mm, 1.6mm.
Width: 390mm (and also 500mm for Steel Bestos).
Length: 1.200mm.

MATERIALS:

Beater Sheet and CAF (Compressed Asbestos Fiber).

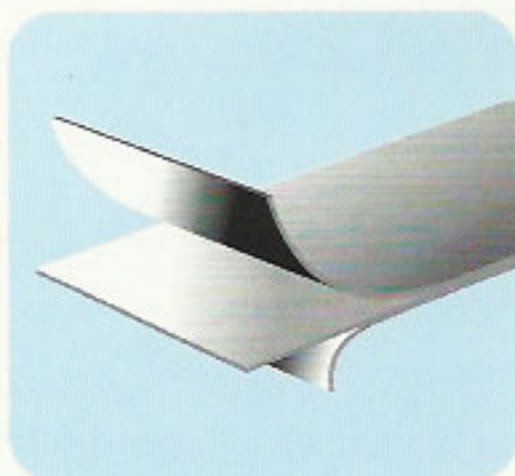
APPLICATION:

Automotive.

NOTE:

Please consult our engineers for your special needs.

11. GRAPHITE LAMINATE



<INGI> Graphite Laminate

is produced by bonding two flexible graphite sheets either to each other or to a central metal insert. The 2-stage adhesive is applied in tightly controlled process that ensure an adhesive quantity below 1% of graphite and an even adhesive distribution. This method guarantees the preservation of the outstanding properties of flexible graphite.

AVAILABILITY		GRAPHITE SHEET	HOMOGENEOUS GRAPHITE LAMINATE	METAL-INSERTED GRAPHITE LAMINATE Steel 316 or Aluminium 0.10mm	
Thickness	mm	0.25 0.38 0.50* 0.75	1.0* 1.5* 2.0* 3.0*	0.60 0.85	1.0 1.50
	inch	0.010 0.015 0.020 0.030	0.050 0.060 0.080 0.124	0.025 0.033	0.040 0.060
Graphite	g/cm ³	1.12 and 1.44 (resl. 0.75)	1.12	1.12	1.12
Density	lbs/ft ³	70 90	70	70	70
Availability		Rolls	Sheet	Rolls, Sheet	Sheet
Roll Size: 1 m wide 30.5 m long		Sheet size: 1000 x 1000 mm			
39.4 inch 100.0 long		39.4 x 39.4 inch			
OTHER DIMENSION, THICKNESS AND METAL-INSERT ON REQUEST					

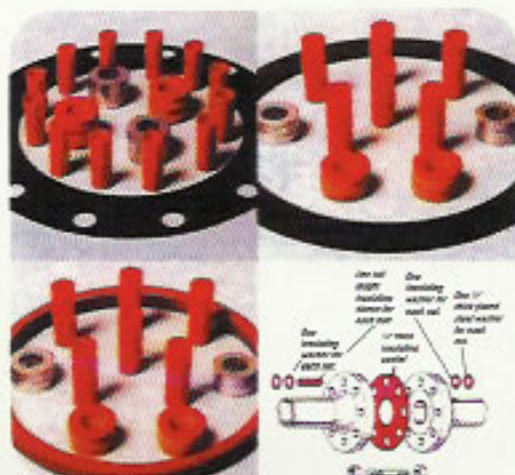
Application:

- ◆ Sealing material for high and low temperatures highly corrosive and aggressive media, high performance engines (e.g. cylinder head and exhaust manifold gaskets), sensitive flanges (enamel, glass, graphite), low flange loads.
- ◆ Lining material for protection against hot and low corrosive gasket.
- ◆ Electrical contact and heat conductive material.

Note:

Other dimension, thickness and metal-insert are on request.

12. FLANGE INSULATION GASKET



TYPES:

E (Full Face), F (Raised Face), D (Ring Groove).

SIZES:

Each set of Flange Insulation Gaskets available for flange sizes from 1" up to 24".

MATERIALS:

For E and F types: 1/8" thick Neoprene Faced Reinforced Phenolic, Plain Reinforced Phenolic or Special CAF. For D type: Reinforced Phenolic only.

APPLICATION:

For flange insulating, designed to assist in combating the effects of corrosion found in flanged pipe systems, by offering precision made components from a range of proven high quality materials, as a long term solution to this problem.

NOTE:

Consult our technical department for size details/complete specifications.

13. SUPER SEAL Expanded PTFE-Joint Sealant



SIZES:

Dimension (mm)			Recommended Flange Sizes Ø up to
Width	Thickness/Approx.	Length/Spool Approx.	
3	1.5	30 mtr.	50 mm
5	2	20 mtr.	200 mm
7	2.5	15 mtr.	500 mm
10	3	8 mtr.	1000 mm
12	4	5 mtr.	1500 mm
17	6	5 mtr.	>1500 mm
20	7	5 mtr.	
25	5	5 mtr.	

MATERIAL:

100% pure PTFE, Asbestos Free, Tasteless, Odorless.
High Resistance to Various Media, Excellent Chemical Stability. Particularly popular in the chemical industries.

APPLICATION:

Corrosive acids, caustics, solvents, gases, molten metal, etc, except molten alkali metals and elementary & gaseous fluorine. Typical applications: Centrifuges, Ceramic Joints, Column, Compressors, Dryers, Duct Flanges, Evaporators, Filters, Fume Ducts, Gear Boxes, Glass Joint, Heat Exchangers, Manhole Covers, Manways, Mixers, Pipe Flanges, Pump & Valve Casting, Water System, etc.

pH: 0-14, **Temp.:** -240°C + 260°C, **Pressure:** Up to 100 bar, depending on temperature & installation condition.

14. CARBON MECHANICAL PRODUCTS



TYPES:

Packing Rod Seals: Radial-Tangent Type A & C, Double-Tangent Type B & C
Compressor Piston Rings: Straight-Cut, Angle-Cut, Two-Segment, Pressure-Balance Segmental, Rider Rings: Uncut, Angle Cut, Special Angle Cut (Pressure Relieved), Twin-Ring.

SIZES:

Standard and non-standard sizes available.

MATERIALS:

A certain compound of Glass Fibers, Molybdenum, Carbon, Virgin TFE, Bronze, and Graphite.

APPLICATION:

For new and existing reciprocating compressors.

NOTE:

Please consult our engineers to suit your needs.

15. GRAPHITE FOIL



As Universal Adhesive Tape.

TYPES:

INGI 6390: 1/4", INGI 16393: 1/2", INGI 6396: 3/4", INGI 6399: 1".

SIZES:

1/4", 1/2", 3/4", 1".

MATERIALS:

Pure Graphite (99.5%-99.9% Carbon).

APPLICATION:

Excellent sealing in Pumps, Valves, and Flanges at high pressure and temperature (200 to 649°C), and chemical resistant. Non lubricating agents or other additives, non process contaminating.

NOTE:

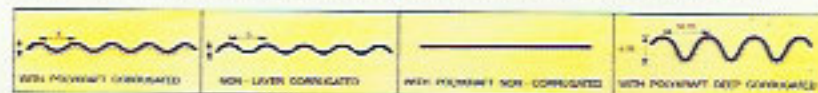
Please consult our engineers for other application or your special needs.

16. ALUMINIUM ROLL JACKETING



TYPES:

Corrugated (narrow/deep), Non-Corrugated, With/Without Polycraft Layer



SIZES: (standard dimensions)

Narrow Corrugation: Thickness: 0.4mm to 1.6mm,
Width: 914mm to 1,220mm, Length: Up to 30,000mm.

Deep Corrugation:

Thickness: 0.4mm to 0.8mm, Width: 839mm, Length: Up to 3,000mm.

MATERIALS:

Aluminium, or Aluminium with Polycraft Paper.

APPLICATION:

Protection over insulation on Tank Farms, Heat Exchangers, LPG Storage Units, Acid Tanks, Food Processing Plants, Sewage/Waste Water Treatment Plants, etc.

NOTE:

Other Sizes and specifications available upon request.

17. ALUMINIUM BANDING STRIP



TYPE:

Strip in coil (up to 700 meters in length).

SIZES: (made to sizes)

Thickness: From 0.2mm up to 3mm (or as requested).

Width: From 10mm up to "your request". **Length:** Up to 700 meters.

MATERIALS:

Aluminium (please consult our engineers for "Alloy and Temper" of Aluminium).

APPLICATION:

For banding or packaging purposes.

NOTE:

Other materials like STAINLESS STEEL, available on request.

and **SLITTING SERVICE:** (not cut-to-length)

We also accept slitting work only, from Aluminium, Stainless Steel, Carbon Steel, or other steel products in coils, into strip of different sizes.

18. GLAND PACKING



VARIOUS TYPES of Gland Packings (*Rope, Tape, Cloth, Sheet, Mold, Braided*) with different **sizes** and **materials** for different **application** are available as described below:

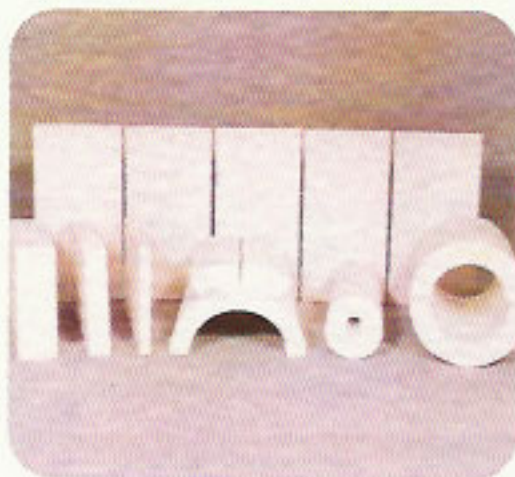
Twisted Asbestos Rope/Asbestos Tape/Asbestos Cloth/Cotton Braided Packing/Asbestos Braided Packing/Graphite Sheet, Mold, Tape Packing/Pure PTFE Fiber Braided Packing/GFO Fiber Braided Packing/Aramid Fiber Braided Packing/Carbonized Fiber Braided Packing/Aramid & PTFE Fiber Braided Packing/GFO & PTFE Fiber Braided Packing/Hatch Cover Packing/Chemical Gasket & Tape/High Pressure Packing/Super Pure Graphite Packing, etc.

They may also come in combination with following added-up characteristics such as: Metallic/Lubricated/PTFE Impregnated/Inconel or Brass Wire Reinforced/Heat, Oil, Chemical Resistance/PTFE or GFO Reinforced, etc.

NOTE:

Non asbestos materials available. Please specify your inquiry.

19. CALCIUM SILICATE Blocks & Pipe Covers



TYPES:
Block, Pipe Cover.

SIZES: (in mm)
According to International Standards. Special sizes/thickness available on request.
Block: 900x600, 900x150, 600x150, with Thickness: 25, 40, 50, 65, 75, 90, 100
Pipe Cover: For pipe dia. 1/2" to 36" in two longitudinal sections, with Length: 900, and Thickness: 50 and 75.

MATERIALS:
Hydrated Calcium Silicate reinforced with non-asbestos fiber (4 to 5 times stronger than Fibrous material, and vibration proof, with 25 years maintenance free). Also available with polyurethane material.

APPLICATION: from 800 to 980°C
Boiler, Steam & Process Pipelines, Ducts, Turbines, Fuel Oil Lines & Chimney, Reformer, Gas Cracker, Heater, Blast Furnaces Stoves, Bustle Pipe, Soaking Pits, Furnaces, Shields, Waste Heat Recovery System, Preheater Cyclones, Precalcinator, Kiln, Firing Hood, Grate Cooler, Reduction Cells/Pots, Alumina Calciner, Regenerators & Annealing Lehrs, etc., in Power Plants, Fertilizer, Refinery, Petrochemical, Iron & Steel, Sponge Iron, Cement, Aluminium, Ceramic & Glassware, and Industries, Furnaces, etc.

20. PTFE (TEFLON) PRODUCTS



OTHER FORMS OF PTFE PRODUCTS:



Tough Braided PTFE: excellent in chemical and heat resistance with special lubricants



Braided PTFE: Packing exclusively for Hatch Cover

Trade Mark: <INLON>

Various types and sizes of PTFE products available for various application. PTFE products come in either Finished and Semi-Finished Products. Finished Products are for equipment parts such as Valve Seats, Gasket, Bearings Seals, O-Rings, etc. Semi-Finished Products are such as Teflon Sheets, Blocks, Rods, Pipes, Coating, etc.

ADVANTAGES:
Thermal stability, non-friction and non-stick properties, chemical and electrical resistance, sliding and wear properties, maximum service temperature up to 260°C.

NOTE:
Custom-made special size may be ordered in virgin PTFE and various filled compositions.

21. ROCKWOOL



TYPES: Blanket: LD & HD, Felt: LD & HD, Pipe Cover & Lamella Mats.

SIZES: (all standard sizes available)

Types:	Width:	Length:	Thickness:
-Blanket: LD	1.0m	5.0m	25mm
LD	1.0m	3.3m	75mm
HD	1.0m	10.0m	25mm
-Felt, LD/HD	0.5m	1.0m	25, 50, 75, 100mm
-Pipe cover, dia	1/8" to 12"	1.0m	25, 30, 40, 50, 65, 75mm
-Lamella Mats, dia	14" (+)	1.0m	25, 30, 40, 50, 65, 75mm

MATERIALS: Rockwool laminated with Wiremesh/Aluminium Foil/Kraft Paper.

APPLICATION:
For industrial heat/refrigeration insulation, such as in valves, joints, big pipes, storage tanks, boilers, heaters, chillers, flame-proof windows, turbines, metal structures, piping, and other heating/refrigeration/air conditioning equipment.

NOTE:
Please refer to our specialized catalog for exact sizes and technical details.

22. RUBBER/NEOPRENE SHEET



TYPES:
Rubber Sheet, Rubber Sheet Insert, Neoprene Sheet, Neoprene Sheet Insert.

SIZES: (standard per coil)
Width: As required with max. 1.2 meter (48")
Thickness: 1.6 (1/16"), 3.2 (1/8"), 4.8 (3/16"), 6.4 (1/4"), 8.0 (5/16"), 9.5 (3/8"), 12.8 (1/2"), 16.0 (5/8"), 19.0 (3/4"), 25.4 (1").

MATERIALS:
Natural Rubber or Natural Rubber with Fabric/Nylon Insert, and Neoprene or Neoprene with Fabric/Nylon Insert.

APPLICATION:
As general packing/gasketing/sealing for gases/liquid/solid media, including oil and ozone. Anti acid, and oil/heat/abrasive resistant.

NOTE:
Please consult our engineers for optimum choice according to its types and grades.

23. EXPANSION JOINT



Trade Mark: <INGI-FB> **TYPES:** Flair Square, Flair Round, Belt Type

SIZES:
Manufactured as per requirement.

MATERIALS:
For non-metallic expansion joints, layers of Glass Fiber Cloth and PTFE are standard materials. Additional layers as thermal insulation will be added depending on requirements.

APPLICATION:
Air Conditioners, Deodorizers, Gas Outlets, Desulphurization and Denitration Equipment, in the Power Plants, Oil Refineries, Steel Plants, Incinerator Plants for waste treatment, Exhaust Gas Treatment Plants.

NOTE:
Above products are made available in cooperation with FB Industrial Co. Ltd.Japan.

24. SEALING TECHNOLOGY PRODUCTS

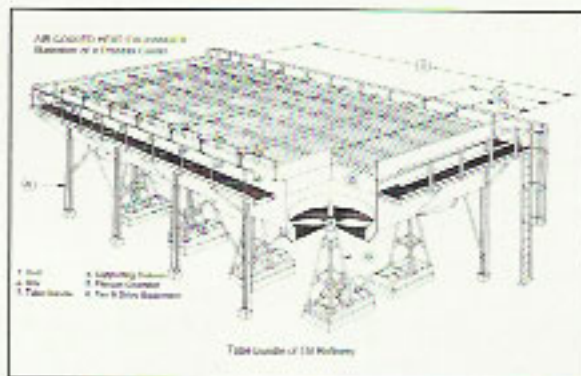


A wide range of sealing items
in kinds, types, styles, sizes, materials, grades, application, etc.
is on the selection

Please contact us for your
SEALING INQUIRIES
and let's show you
OUR SOLUTION
to your sealing problems

FINNED TUBES For Heat Exchangers

A wide selection of Finned Tubes is practicable from following "L", "LL", "KL", "EXTRUDED", and "WELDED" Types in compliance with thermal design and process fluid requirement. And various special materials for base tubes are available to suit a particular corrosive fluid. Spiral, Individually fixed fins, Serrated, and Oval finned tubes are also in the selection.



MACHINE CAPACITY

- Tube Length : Up to 60'
- Tube O.D. : 5/8" to 2"
- Fin Height : 1/4" to 1"
- Fins Per Inch : 5 to 13 FPI
- Fin Type : L, LL, KL, Extruded.

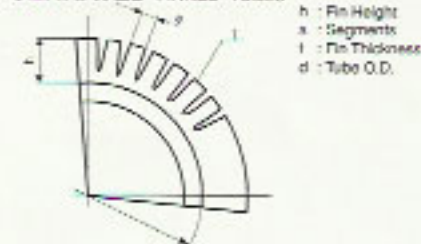
TUBE MATERIALS

- Stainless Steel 316/L
- Stainless Steel 304
- Copper Nickel
- Carbon Steel
- Aluminium
- Titanium
- Copper
- Brass,
- etc.

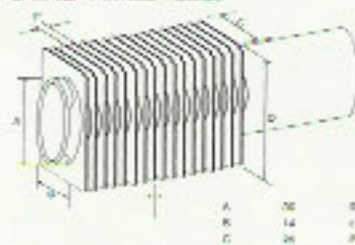
FIN MATERIALS

- Aluminium A. 1050 (99.5% Purity)
- Other Aluminium
- Stainless Steel
- Carbon Steel
- Copper
- etc.

SERRATED FINNED TUBES



OVAL FINNED TUBES



Characteristics

- Most suitable for thermal medium heater
- Suitable for steady service like thermal oil
- Little static pressure loss in stream

Application

- Various heat exchangers for fiber industries

APPLICATION OF FINNED TUBES

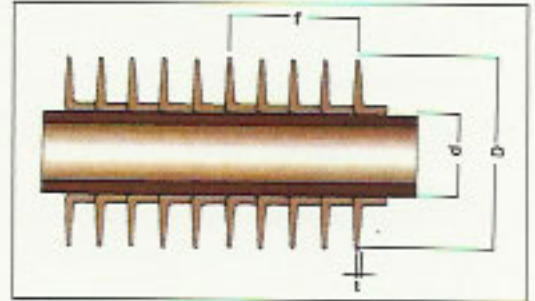
- Air-Fin Coolers for chemical, iron and steel plants
- Air-Cooled Heat Exchangers in the oil refineries (for liquid/gas)
- Refrigeration and Air Conditioning Equipment
- Water Cooling Towers in a power plant
- Air Pollution Control Equipment
- Waste Heat Recovery Equipment
 - High Pressure Steam Heaters
 - Heaters of Drying Equipment
 - Downtherm Air Heaters
- Fired Heaters

KL[®] -Type is our registered trade mark

DIVISION

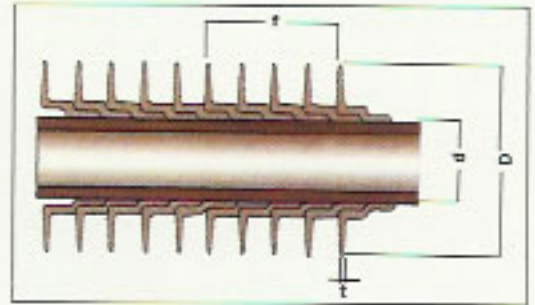
L-Type Finned Tube *(Wrapped-On Fin)*

The "L-footed Fin" is a circular fin wrapped under tension around the base tube. The feet of the fins cover the whole surface between fins. The L-foot provides a large contact area ensuring a Good path for heat transfer from base tube surface to fin.



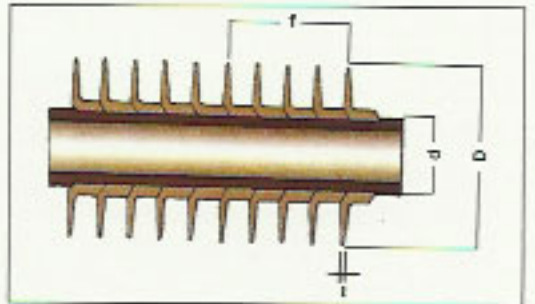
LL-Type Finned Tube *(Overlapped Fin)*

The "Overlapped L-footed Fin" is fabricated with a relatively greater amount of fin material in the foot, ensuring full coverage of the base tube and prohibiting any contact of the ambient with the base tube.



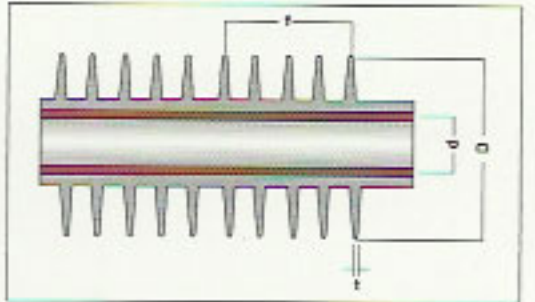
KL[®] Type Finned Tube *(Wrapped-On Knurled Footed Fin)*

The "Knurled L-footed Fin" is similar to L-footed fin, unless with greater design temperature. The foot of the fin is knurled simultaneously with inner tube, ensuring a tight contact between the fins and the inner tube.



EXTRUDED-Type Finned Tube *(Bimetal Finned Tube)*

The "Extruded Fin" is made by covering the base tube with another aluminium tube. The fin-tube contact is obtained by cold extrusion operation of the aluminium by way of finning machine.



WELDED-Type Finned Tube

The "Welded Fin" is made by spot welding of the fins to the base tube. The welded-type of finned tube is usually applicable to larger diameter of tubes, with thicker fin material. As it is tailor made, your specifications and/or technical drawing is necessary.

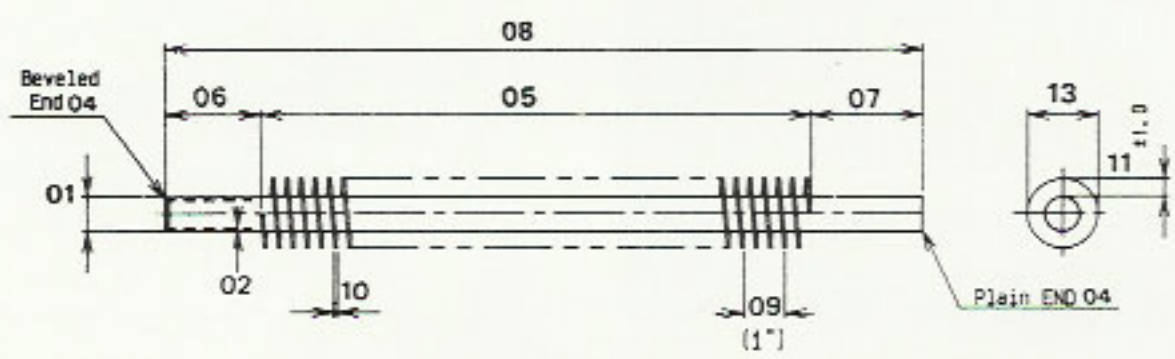


d - Tube O.D. D - Finned Tube O.D. f - Fins Per Inch t - Fin-Stock Thickness

Please use this form for your FINNED TUBE inquiry

<INGI> FINNING SPECIFICATIONS

Customer : _____ Our Ref. : _____
 Att. : _____ Date : _____
 Fax/Tel. : _____ Page : _____
 Reference : _____
 Delivery : _____



No.	DESCRIPTION	UNIT	mm	inch	NOTE
01	TUBE O.D. (before finning)				
02	TUBE WALL THICKNESS				
03	TUBE MATERIAL				
04	BEVELED OR SQUARE - CUT ENDS				
05	FINNED LENGTH				
06	BARE ONE END				
07	BARE OPPOSITE END				
08	OVERALL LENGTH OF TUBE				
09	FINS PER INCH				
10	FIN - STOCK THICKNESS				
11	FIN HEIGHT				
12	FIN MATERIAL				
13	O.D. OF FINNED TUBE				
14	FIN TYPE				
15	QUANTITY REQUIRED, IN PCS/EA				

REMARKS :

PT. Arczda Purnama Loka

Tel. : (62-21) 6297243, 6396942, 6390224, Fax : 6498978.

H.E. DIVISION

1. Shell & Tube Heat Exchangers

- Straight - Type
- U - Type



Straight - Type



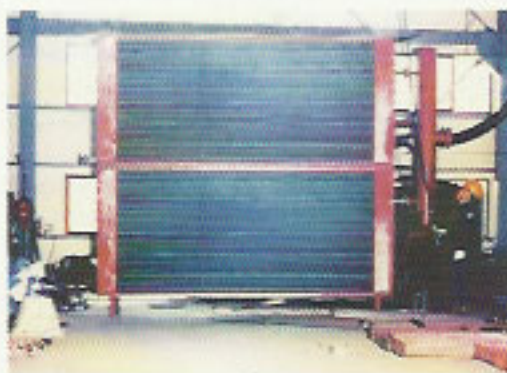
U - Type

2. Air - Cooled Heat Exchangers

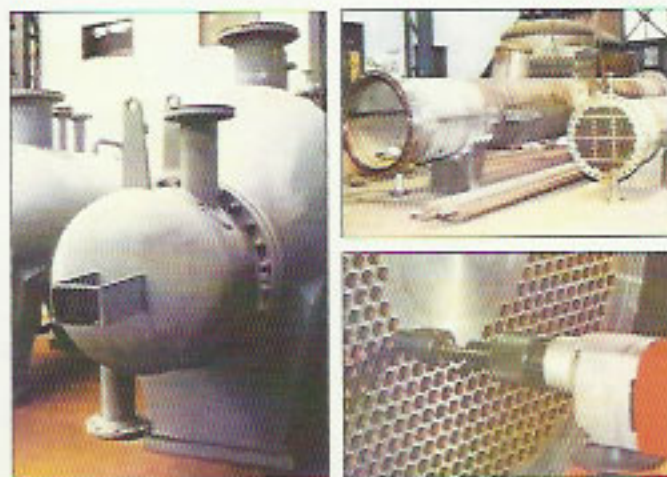
- Individual - Type
- Compact - Type (*Flat & Box Type*)



Individual - Type



Compact - Type



Manufacturing Workshop of Heat Exchangers

<INGI> Heat Exchangers

are manufactured according to international standards as per TEMA, ASME, and/or other specifications as per customers' requirements.

We serve different kinds of industries like Oil & Gas Refineries, Petrochemical & Chemical, Pulp & Paper Industries, Fertilizer/Power/Cement/Steel/Sugar Plants, and Other Process Industries.

"Please refer to our specialized "heat exchangers catalog" for further technical details or contact our H.E. DIVISION for your heat transfer requirements"

<Kingi-GENERAL>

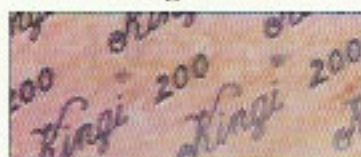


Color: Black

Standards: ASTM F104-71-SAE J.90.B.F112700.

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.3 to 3mm
- ◆ RECOMMENDED : Temperature : 350°C/662°F
- SERVICE Pressure : 350 psi (24 bar)
Media : Steam, Gases, Water, and Other
Non-Aggressive Media.

<Kingi-200>

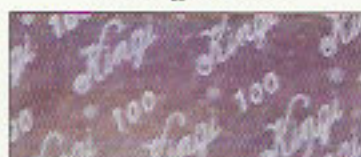


Color: Red

Standards: BS2815B, I200/DIN3754, I6MN/DIN86075, ASTM D1170-62T, ASTM F104-71, P1161A.

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.3 to 3mm
- ◆ RECOMMENDED : Temperature : 400°C/752°F
- SERVICE Pressure : 600 psi (41 bar)
Media : Steam, Gases, Water, and Other
Non-Aggressive Media.

<Kingi-100>



Color: Black

Standards: BS2815A, BS1832, D1170, D1161A, F104-F112751, DIN3754 T1400

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.3 to 3mm
- ◆ RECOMMENDED : Temperature : 510°C/951°F
- SERVICE Pressure : 1,900 psi (131 bar)
Media : Steam, Gases, Water, and Other
Non-Aggressive Media.

<Kingi-Oilet>

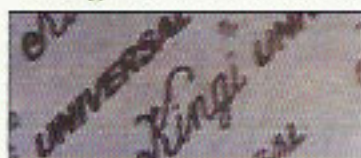


Color: Black

Standards: BS2815A, BS1832, I10/DIN3754, DIN3535, ASTM D1170-62T, ASTM F104-71, P1141A.

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.3 to 3mm
- ◆ RECOMMENDED : Temperature : 500°C/932°F
- SERVICE Pressure : 1,900 psi (131 bar)
Media : Petrol, Oils of all types incl. Chlorinated
Hydrocarbons and Aromatic.

<Kingi-UNIVERSAL>

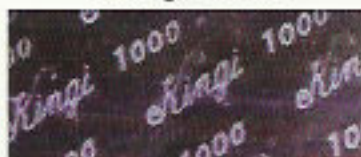


Color: Blue

Standards: BS2815, BS F125, BS1832 IC/DIN3754, ASTM F104-71 ASTM D1170-62T P1141A.

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.3 to 3mm
- ◆ RECOMMENDED : Temperature : 550°C/1022°F
- SERVICE Pressure : 2,000 psi (138 bar)
Media : Extreme Pressures, virtually all media
inch. Hydrocarbons, Alkalis, medium strength Acids.

<Kingi-1000>



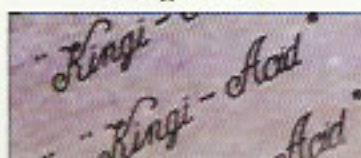
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Standards: BS2815A

WIRE INSERT REINFORCEMENT

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.8 to 3mm
- ◆ RECOMMENDED : Temperature : 550°C/1022°F
- SERVICE Pressure : 2,900 psi (200 bar)
Media : For Extreme Pulsating Pressure, and
High Temperatures.

<Kingi-Acid>



Color: White

Standards: I6S/DIN3754, DIN3535, NF T48.0001-Cat.E.

- ◆ DIMENSION : Sheet Size : 1.5x2meter
Thickness : 0.3to 3mm
- ◆ RECOMMENDED : Temperature : 150°C/302°F
- SERVICE Pressure : 150 psi (10 bar)
Media : For Strong Organic and Inorganic Acids.

<KINGI SIL>

K-4430



Standards: International Standards of Manufacturing Process & Testing Procedure

- ◆ **DIMENSION** : Sheet Size : 1.5x2meter
Thickness : 0.4 to 5mm
- ◆ **RECOMMENDED SERVICE** : Max. Temp. : 430°C/806°F (liquid temperature)
Max. Pressure : 100 bar (1450 psi)
Media : Air, Water, Saturated Steam (250°C/482F), Oils, Fuels, and Gases.
- ◆ **Excellent Chemical Resistance**
- ◆ **3XA Anti-Stick Finish** on both sides to ease flange separation.

<KINGI SIL>

K-4400



Standards: International Standards of Manufacturing Process & Testing Procedure

- ◆ **DIMENSION** : Sheet Size : 1.5x2meter
Thickness : 0.4 to 5mm
- ◆ **RECOMMENDED SERVICE** : Max. Temp. : 400°C/752°F
Max. Pressure : 100 bar (1450 psi)
Media : Water, Gases, Hydrocarbon Alkalis, and medium strength Acids.
- ◆ **Outstanding Creep Resistance** at high temperatures and high loads & max. safety
- ◆ **3XA Anti-Stick Finish** on both sides to ease flange separation.

<KINGI SIL>

K-4408W



Standards: International Standards of Manufacturing Process & Testing Procedure

- ◆ **DIMENSION** : Sheet Size : 1.5x2meter
Thickness : 0.4 to 5mm
- ◆ **RECOMMENDED SERVICE** : Max. Temp. : 400°C/752°F
Max. Pressure : 100 bar (1450 psi)
Media : Water, Gases, Hydrocarbon Alkalis, and medium strength Acids.
- ◆ **"Wire Reinforced"** formulated for pulsating pressure applications
- ◆ **3XA Anti-Stick Finish** on both sides to ease flange separation.

<KINGI SIL>

K-4210



Standards: International Standards of Manufacturing Process & Testing Procedure

- ◆ **DIMENSION** : Sheet Size : 1.5x2meter
Thickness : 0.4 to 5mm
- ◆ **RECOMMENDED SERVICE** : Max. Temp. : 350°C/662°F
Max. Pressure : 60 bar (870 psi)
Media : Oils, Steam, Water, and Gases
- ◆ **Good Alternative for traditional CAF jointing sheet.**
- ◆ **3XA Anti-Stick Finish** on both sides to ease flange separation.

APPLICATION of jointing sheets:

Piping, Pipe Flanges and Valve Bonnets in Thermal or Nuclear Power Plants, Refineries, Chemical Plants, Steel Plants, and Vessels. Covers and Joints in Towers, Tanks, Boilers, Pressure Vessels, and Heat Exchangers, Furnaces, and other various types of industrial machinery like in pumps, internal combustion engines, gasoline/diesel engines, compressors, etc.

NOTE:

Above information should be used as guidance only. Actual serviceable limits depend upon the relationship between temperatures, pressures, media to be sealed, flange and assembly conditions, etc.

Please refer to our specialized brochures for detailed characteristics of each type of above jointing sheets and consult our technical department for expert advice & recommendations of your specific application.

OTHER INSULATION PRODUCTS

Among a wide variety of insulation materials, Ceramic, Glass Fiber, Asbestos, Calcium Silicate, Rockwool, PTFE, Graphite, and Polyurethane are the common ones. Given below are our **Asbestos**, **Glass Fiber**, and **Ceramic** insulation materials. As a general rule, Asbestos withstands temperature up to 400°C, combined with metal/wire reinforcement, **Asbestos** will withstand temperature up to 500°C. **Glass Fiber** withstands temperature up to 600-700°C, while **Ceramic** withstands temperature up to 1260°C. Please consult our engineers for expert advice and recommendations of your industrial insulation needs.

ASBESTOS CLOTH



ASBESTOS TAPE



ASBESTOS ROPE LAGGING



ASBESTOS ROUND ROPE ASBESTOS SQUARE PACKING



ASBESTOS YARN



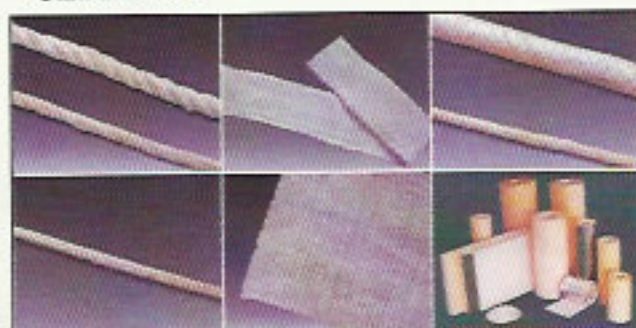
BRAIDED ASBESTOS



GLASS FIBER

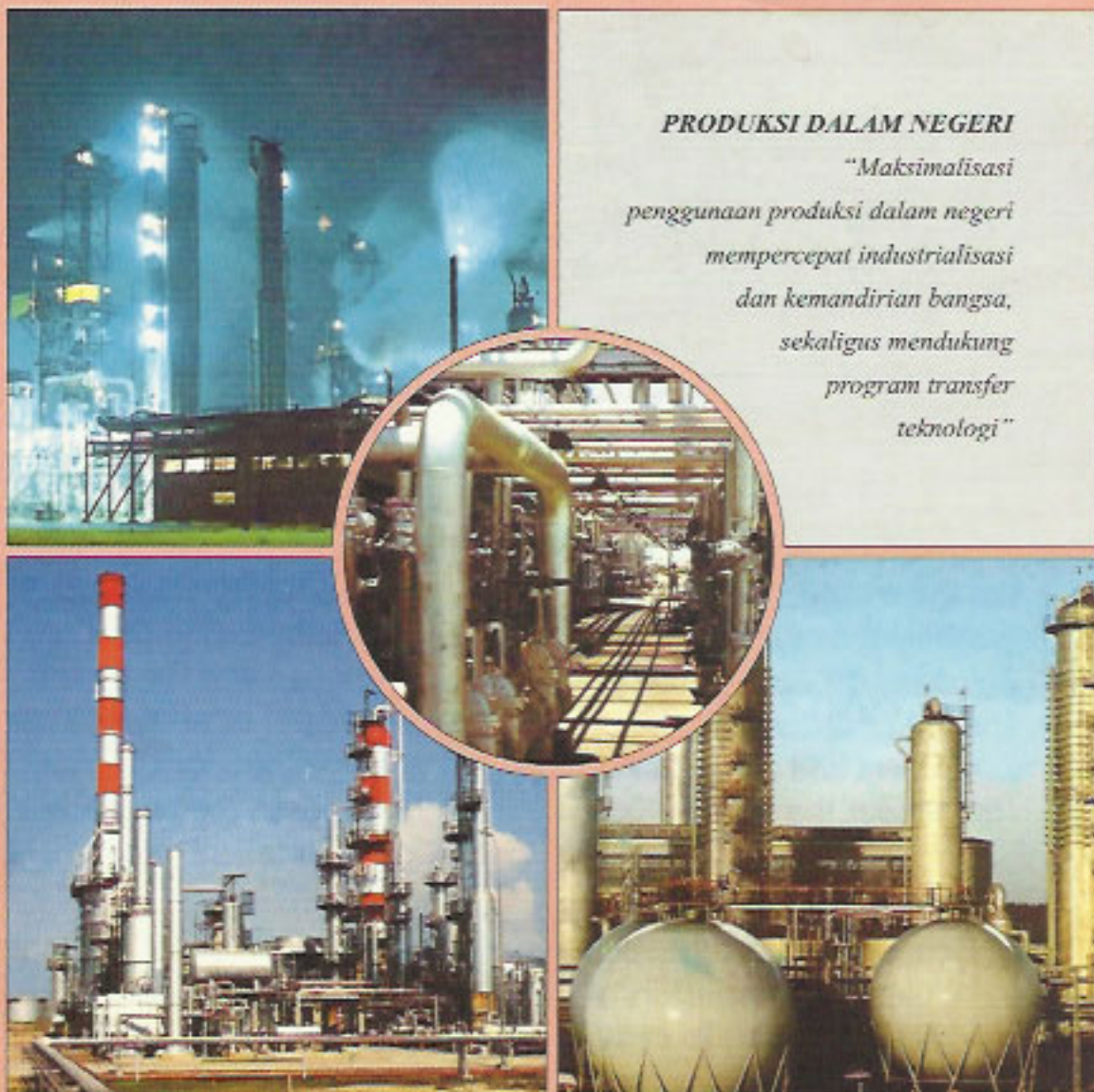


CERAMIC



<INGI> Products

for the Petroleum, Petrochemical,
Chemical, and Other Process Industries



PRODUKSI DALAM NEGERI

*"Maksimalisasi
penggunaan produksi dalam negeri
mempercepat industrialisasi
dan kemandirian bangsa,
sekaligus mendukung
program transfer
teknologi"*



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Email : ingi@arezdagasket.com

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never the less users must satisfy themselves that the items chosen or purchased are suitable for the intended uses and application.