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OUR PRODUCTS OVERVIEW:

DISTRIBUTOR PRODUK:

- Heat Exchanger dan Purifier Alfa Laval
- Chemical MOTTOCHEM dan MOTTOTRON
- Accu Quick Start
- Pelumas CASTROL Marine
- Raychem Cable Ties SUS

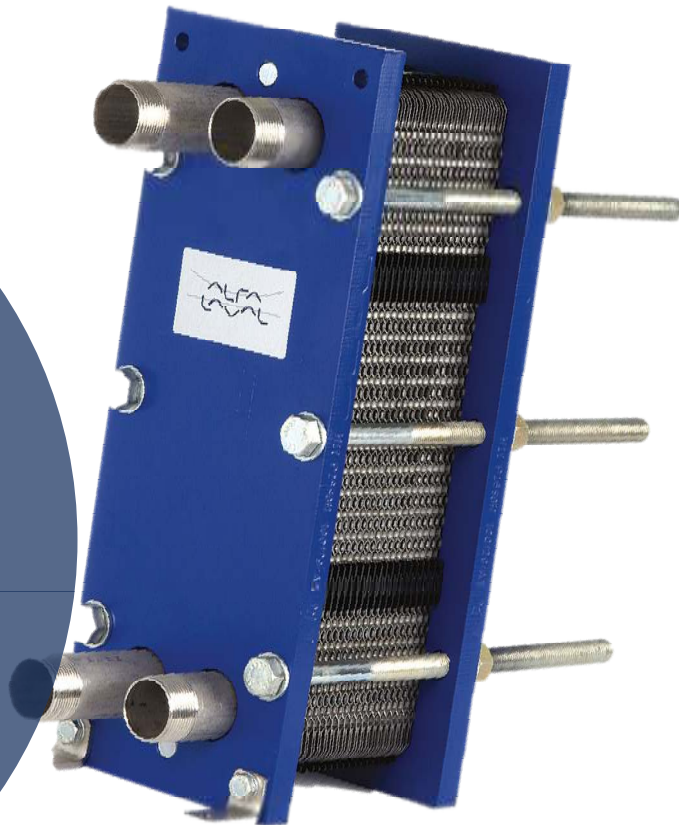
PEMBUATAN KOMPONEN:

Fabrikasi:

- Heavy Duty Radiator
- Oil Cooler
- Air Cooler
- Steam Heater
- dll



ALFA LAVAL



HEAT EXCHANGER



Heat Exchanger (HE) adalah alat yang digunakan untuk memindahkan panas dari sistem ke sistem lain tanpa perpindahan massa dan bisa berfungsi sebagai pemanas maupun sebagai pendingin. Biasanya, medium pemanas dipakai adalah air yang dipanaskan sebagai fluida panas dan air biasa sebagai air pendingin (*cooling water*). Penukar panas dirancang sebisa mungkin agar perpindahan panas antar fluida dapat berlangsung secara efisien. Pertukaran panas terjadi karena adanya kontak, baik antara fluida terdapat dinding yang memisahkannya maupun keduanya bercampur langsung (*direct contact*). Penukar panas sangat luas dipakai dalam industri seperti kilang minyak, pabrik kimia maupun petrokimia, industri gas alam, refrigerasi, pembangkit listrik, dll.

GASKETS

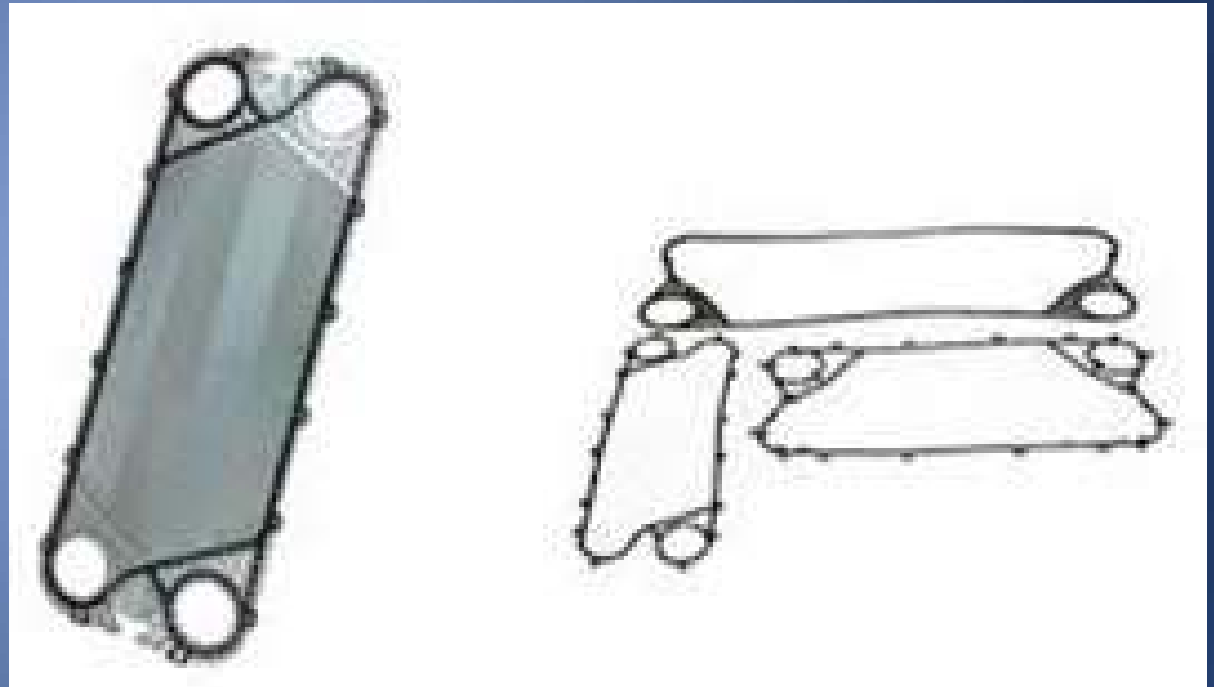
Gasket yang digunakan adalah:

- **Type gasket ada 2 :**

1. Glued Type = pemasangan menggunakan lem.
2. Para clip/Loc in/ Eco lock/Clip on = tidak menggunakan lem hanya tinggal tekan dorong pada tempat yang tersedia di platnya.

- **Jenis Gaskets :**

1. NBR (cocok untuk semua aplikasi dengan temperature max 120 dC)
2. HT-NBR (cocok untuk semua aplikasi dengan temperature max 130 dC)
3. HNBR (cocok untuk semua aplikasi dengan temperature max 150 dC)
4. EPDM(cocok untuk semua aplikasi kecuali Oli dengan temperature max 160 dC)
5. VITON (cocok untuk semua aplikasi dengan temperature max 190 dC)



PURIFIER / SEPARATOR

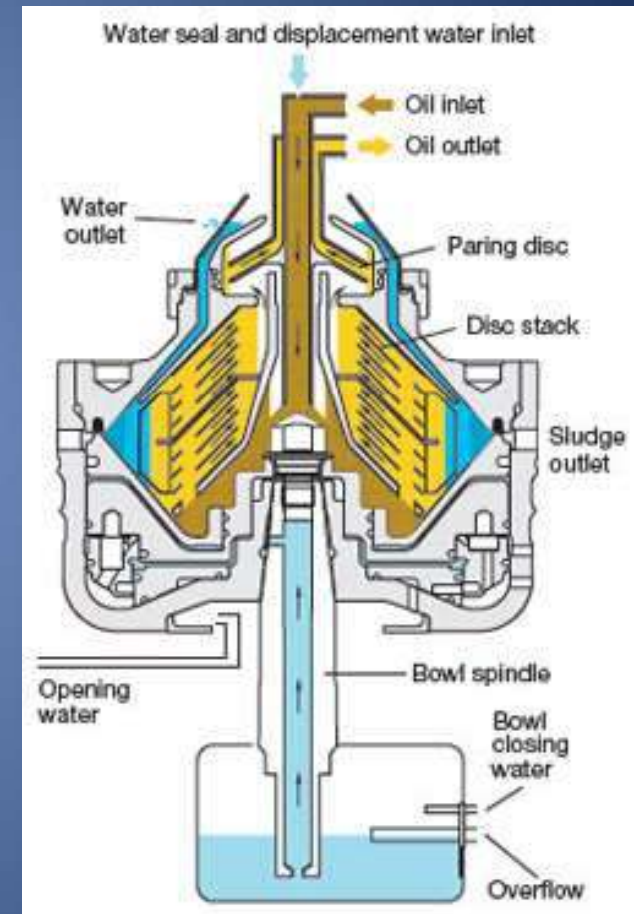
Purifier / Separator adalah suatu pesawat bantu yang digunakan untuk pemisahan dua cairan yang berbeda berdasarkan berat jenisnya.

Keuntungan-keuntungan Menggunakan Purifier / Separator adalah:

1. Lumpur-lumpur dapat dipisahkan dengan mudah dan dibuang dengan cara diblow up.
2. Gerakan pembuangan lumpur dilakukan dalam suatu waktu yang singkat dengan pembersih yang tinggi.
3. Proses pembersihan jauh lebih efisien dan ekonomis dibanding dengan metode gravitasi.

Kegunaan Purifier / Separator :

- **Pemisah Minyak Pelumas (Lube Oil Separator)**
- **Pembersih Bahan Bakar (Fuel Oil Separator)**
- **Separator Air Berminyak (Oil Water Separator)**





CHEMICAL





CHEMICAL

- Super Power Cleaner
- Cooper Cleaner
- Anti Foam
- Neutralizer Acid
- Aluminum Coating & HT Paint
- Clear Insulating Varnish
- Red Insulating Varnish
- Silicone Mould Release
- Silicone Oil
- Silicone Emulsion 303
- Silicone Emulsion 305
- Cleaning Solvent
- Solvent Degreaser
- Hot Tank Cleaner
- BO ALKALINE
- Engine Flush
- PASSIVATOR
- Welders Anti Spatter Liquid

- Cutting Oil
- Neat Cutting Oil (Transparent)
- Synthetic Cutting Oil
- HD Cutting Oil
- Tapping Oil
- Compressor Oil
- HT Oil
- High Temp Grease (Mollybdenum)
- White Food Grease
- MP Grease (Lithium Complex)
- Silicone Grease
- Anti Seize (Cooper)
- Spray Booth Grease
- Open Gear & Wire Grease

- Scale Remover
- Heavy Duty Scale Remover (Silica Remover)
- Scale Remover Powder
- Stainless Cleaner
- Soot Remove
- Radiator Cleaner
- Rust Remover
- Rust Inhibitor
- Air Con Coil Cleaner
- Air Con Coil Cleaner Alkaline
- Aluminum Cleaner
- Stainless Steel Pickling Paste
- Drain Opener
- Super Degreaser
- Heavy Duty Cleaner
- Liquid Rig Wash
- Multi Purpose Cleaner (MPC)
- Super Steam Cleaner

- Waterless Hand Cleaner
- Peeleble Coating
- Oil & Grease Emulsion(OGE)
- Carbon & Varnish Remover
- Mould & Rubber Matrix Cleaner (MATRIGEL)
- Clear Dry Coating
- Rust Preventive Film
- Oil Spill Dispersant (OSD)
- Paint Remover Jelly
- Paint Remover Dipping
- Concrete Sealer
- Ink Remover
- Rust Preventive Oil
- Rust Preventive Compound
- Penetrating Oil
- Fuel Oil Treatment (FOT)
- Rust Converter (WHITE)
- Electric Motor Cleaner
- Fast Dry Safety Solvent
- Corrosion Inhibitor
- High Temp. Radiator Coolant
- Radiator Coolant



CHEMICAL





HIGH QUALITY

QS
QUICKSTART

EXCELLENT PERFORMANCE
HIGH CAPACITY & BEST QUALITY

JAPAN STANDARD - DIN STANDARD

ISO 9001 Certified
ISO/TS 16949 Certified

SNI

APPLICATION

INSTRUCTIONS FOR STORAGE AND INSTALLATION

STORAGE

- Keep batteries upright.
- Do not expose to direct sunlight.
- Keep battery clean and store in a cool & dry place.
- First In - First Out (FIFO) storage procedure must be applied.

BATTERY REPLACEMENT :



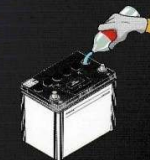
* Loosened cable may cause explosion, secure it tightly.

MAINTENANCE



CLEANING

Keep the battery top cover dry clean and free from corrosion. Examine vent holes and exhaust tube to ascertain they are free from dirt or fold.



ADDING DISTILLED WATER

If electrolyte level is lower than the "LOWER LEVEL" add some distilled water until reaches the "UPPER LEVEL" mark.



WHEN IS ADDITIONAL CHARGING REQUIRED ?

If the gravity of electrolyte is lower than 1.220.

GENERAL INFORMATION ON BATTERY SAFETY

Battery acid can cause burns

Use extreme care when handling acid. If electrolyte is spilled or splashed onto clothing or body, wash with water and neutralize with a solution of baking soda and water. Electrolyte splashed into eyes is extremely dangerous. If this occurs, gently open eyes and wash with cool clean water for 5 minutes, call a doctor for further examination.

If electrolyte is swallowed

Drink large amount of water or milk and follow with milk of magnesia, beaten eggs or vegetable oil, call a doctor for further examination.

If it is necessary to prepare electrolyte

Always add concentrated acid to water - never water to acid. Store electrolyte in plastic containers with sealed cover.

Explosive battery

Batteries generate explosive gases during vehicle operation and when charged separately. Flames, sparks, burning cigarettes or other ignition sources must be kept away at all times.

Caution, always shield eyes when working near battery.

When charging batteries, work in well ventilated area, never in a closed room. Always turn battery charger or ignition off before disconnecting a battery.

▼ JIS Battery Specification



OLD JIS	NEW JIS	VOLT (V)	CAPACITY		RESERVE CAPACITY (min.)	CCA SAE (Amp) at -18°C	DIMENSION (mm)				CELL LAYOUT	HANDLE	TERMINAL SHAPE	ACID VOLUME APPROX. (L)
			20 HR (Ah)	5 HR (Ah)			LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT				
NS40	32B20R	12	32	26	37	225	196	127	203	226	1	MOVE	B	2.8
NS40L	32B20L	12	32	26	37	225	196	127	203	226	0	MOVE	B	2.8
NS40Z	36B20R	12	35	28	45	260	196	127	203	226	1	MOVE	B	2.6
NS40ZL	36B20L	12	35	28	45	260	196	127	203	226	0	MOVE	B	2.6
NT60-S4	38B20R	12	38	30	55	275	196	127	203	226	1	MOVE	B	2.6
NT60-S4L	38B20L	12	38	30	55	275	196	127	203	226	0	MOVE	B	2.6
N40	32C24R	12	40	32	45	250	236	128	202	225	1	MOVE	A	3.5
N40L	32C24L	12	40	32	45	250	236	128	202	225	0	MOVE	A	3.5
NS60	46B24R	12	45	36	58	295	236	128	202	225	1	MOVE	B	3.3
NS60L	46B24L	12	45	36	58	295	236	128	202	225	0	MOVE	B	3.3
NS60S	46B24RS	12	45	36	58	295	236	128	202	225	1	MOVE	A	3.3
NS60LS	46B24LS	12	45	36	58	295	236	128	202	225	0	MOVE	A	3.3
NX100-6	55B24R	12	50	40	65	300	236	128	202	225	1	MOVE	B	3.2
NX100-6L	55B24L	12	50	40	65	300	236	128	202	225	0	MOVE	B	3.2
NX100-6S	55B24RS	12	50	40	65	300	236	128	202	225	1	MOVE	A	3.2
NX100-6LS	55B24LS	12	50	40	65	300	236	128	202	225	0	MOVE	A	3.2
	55D23R	12	60	48	82	340	227	172	201	221	1	MOVE	A	4.3
	55D23L	12	60	48	82	340	227	172	201	221	0	MOVE	A	4.3
N50	48D26R	12	50	40	72	290	256	172	204	227	1	MOVE	A	5.5
N50L	48D26L	12	50	40	72	290	256	172	204	227	0	MOVE	A	5.5
N50Z	55D26R	12	60	48	82	340	256	172	204	227	1	MOVE	A	5.3
N50ZL	55D26L	12	60	48	82	340	256	172	204	227	0	MOVE	A	5.3
NS70	65D26R	12	65	52	93	400	256	172	204	227	1	MOVE	A	5.0
NS70L	65D26L	12	65	52	93	400	256	172	204	227	0	MOVE	A	5.0
NX110-5	80D26R	12	68	54	103	490	256	172	204	227	1	MOVE	A	4.9
NX110-5L	80D26L	12	68	54	103	490	256	172	204	227	0	MOVE	A	4.9
N70	65D31R	12	70	56	115	425	304	172	205	228	1	MOVE	A	6.1
N70L	65D31L	12	70	56	115	425	304	172	205	228	0	MOVE	A	6.1
N70Z	75D31R	12	75	60	118	450	304	172	205	228	1	MOVE	A	6.0
N70ZL	75D31L	12	75	60	118	450	304	172	205	228	0	MOVE	A	6.0
NX120-7	95D31R	12	80	64	135	565	304	172	205	228	1	MOVE	A	5.7
NX120-7L	95D31L	12	80	64	135	565	304	172	205	228	0	MOVE	A	5.7
N100	95E41R	12	100	80	150	525	406	174	210	232	1	DROP DOWN	A	8.1
N120	115F51	12	120	96	200	625	507	180	210	237	3	ROPE	A	9.0
N150	145G51	12	150	120	250	725	508	222	209	237	3	DROP DOWN	A	13.0
N200	190H52	12	200	160	370	875	517	279	219	246	3	DROP DOWN	A	15.1



MARINE LUBRICANTS

Pelumas dapat didefinisikan sebagai suatu zat yang berada diantara dua permukaan yang bergerak secara relatif agar dapat mengurangi gesekan antar permukaan tersebut.

Sistem pelumasan ini memiliki beberapa fungsi dan tujuan, antara lain:

Mengurangi gesekan serta mencegah keausan dan panas, dengan cara yaitu oli membentuk suatu lapisan tipis (*oil film*) untuk mencegah kontak langsung permukaan logam dengan logam.

Sebagai media pendingin, yaitu dengan menyerap panas dari bagian-bagian yang mendapat pelumasan dan kemudian membawa serta memindahkannya pada sistem pendingin.

Sebagai bahan pembersih, yaitu dengan mengeluarkan kotoran pada bagian-bagian mesin.

Mencegah karat pada bagian-bagian mesin.

Mencegah terjadinya kebocoran gas hasil pembakaran.

Sebagai perantara oksidasi.

PRODUCT CASTROL MARINE

- | | |
|------------------------------|--|
| • Cylinder Oils | : Cyltech 70 |
| • 2-Stroke Crankcase | : CDX 30 |
| • Diesel Engine Oils (HFO) | : TLX Plus 304, TLX Plus 404 |
| • Diesel Engine Oils (MDO) | : MHP 153, MHP 154 |
| • Diesel Engine Oils (Multi) | : Vecton 15W/40 |
| • Gearboxes | : Alpha SP 100, 150, 220, Alphasyn 220 |
| • Hydraulic Oils | : Hyspin AWH M 15,32,46,68,100 |
| • Refrigeration Oils | : Aircol 299 |
| • Compressor Oils | : Aircol PD, Aircol SN, Aircol SR |
| • Turbine Oils | : Perfecto 68 |
| • Grease | : Spheerol SX 2 |

MARINE LUBRICANTS

Lubricant Content



Base oil	> 75%
Detergent 1	4.0 – 15%
Detergent 2	2.0 – 10%
Dispersant	1.0 – 5.0%
Anti-oxidant	0.5 – 2.0%
Anti-wear	0.5 – 1.5%
Anti-rust	0.5 – 1.5%
Corrosion inhibitor	0.5 – 1.0%
Pour point depressant	< 0.5%
Anti foam	ppm

IT'S MORE THAN JUST OIL. 

ADDITIVES

- Detergent : Pembersih & Penetral
- Dispersant : Mengontrol Pembentukan Jelaga / Lumpur
- Anti - Wear : Mengurangi Friction / Gesekan
- Anti-Oxidant : Mengurangi Laju Oksidasi
- Anti-Foam : Mencegah Pembentukan Busa
- Corrosion Inhibitor : Mencegah Korosi
- VI Improver : Meningkatkan Kestabilan Viskositas

MARINE LUBRICANTS

“Mendapatkan biaya pelumasan yang ekonomis”



IT'S MORE THAN JUST OIL. 



Raychem RPG



RAYCHEM



R-Loc®
One Stop Solution for all Clamping Requirements....

Raychem RPG Pvt. Ltd. 
(A Tyco Electronics - RPG Enterprises JV)



R-Loc®
Cable Lugs & Wire Connectors

Raychem RPG (P) Ltd. 
(A TE Connectivity - RPG Enterprises JV)

A large, solid dark blue circle is centered on the page. Inside the circle, the word "FABRIKASI" is written in white, bold, uppercase letters.

FABRIKASI

FIN HEAT EXCHANGER

High Quality



OIL FIN HEAT EXCHANGER



STEAM FIN HEAT EXCHANGER



AFTER COIL & OIL COOLER FOR AIR COMPRESSOR



PLATE HEAT EXCHANGER



EVAPORATOR & CONDENSER

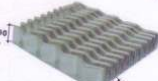
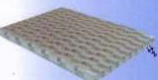


SPECIAL ORDER !!

AFTER COOLER ALL ALUMINUM

HIGH QUALITY




SPECIAL ORDER !!

FIN HEAT EXCHANGER

HIGH QUALITY

- OIL
- GAS
- STEAM
- WATER
- REFRIGERANT






SPECIAL ORDER !!

FIN HEAT EXCHANGER

HIGH QUALITY

Application for :

- ⇒ Evaporator
- ⇒ Condenser
- ⇒ Water Cooler
- ⇒ Hot Water
- ⇒ Air Cooler
- ⇒ Etc.



SPECIAL ORDER !!

ENGINE MOUNTED RADIATOR



HORIZONTAL REMOTE RADIATOR



PULLEY DRIVEN FAN RADIATOR



SHELL & TUBE HEAT EXCHANGER



VERTICAL REMOTE RADIATOR



OIL COOLER



PARTNERSHIP

- ❖ PT. CHAROEN POKPHAND INDONESIA
- ❖ PT. ALUMINDO LIGHT METAL INDUSTRY
- ❖ PT. JINDAL STAINLESS INDONESIA
- ❖ PT. PLN ROPPA
- ❖ PT. ADIPRIMA SURAPRINTA
- ❖ PT. DAYA RADAR UTAMA
- ❖ PT. YAKULT INDONESIA PERSADA
- ❖ PT. PAL INDONESIA
- ❖ PT. DUA KELINCI
- ❖ PT. MERATUS LINE
- ❖ PT. KUALIMAS
- ❖ PT. KARUNIA ALAM SEGAR



CHAROEN POKPHAND INDONESIA



THANK YOU
