Cutting-edge Technology / Second-to-none Service

Oil Flushing Equipment

Dual High-degree Vacuum Technology
Electro-absorption Technology

Oil Flushing Equipment
SYT
www.cleanoil.co.kr

Cutting-edge Technology / Second-to-none Service

Oil Flushing Equipment

Dual High-degree Vacuum Technology

Electro-absorption Technology

Dual high-degree vacuum chamber

Developmental History

Established in 1993 and having developed oil flushing equipment with all-out efforts,
Samyoung Fil-tech Co., Ltd. developed oil flushing equipment for weapon system (1995),
Being affiliated with Korean Ministry of Environment and Korea Institute of Machinery and Materials for next-gen oil flushing equipment development (2003),
Completed development of oil flushing equipment with "Dual High-degree Vacuum Electro-absorption Technology" (2005) to roll out the product in 2006.

Samyoung's SYVE/SYVEF Series are the best solution for oil contamination by flushing out contaminants and moisture to better grease your machineries, boosting the performance, enhancing the durability, and working as a preventive measure for mechanical malfunction. You can also enjoy the longer-lasting oil not only for higher productivity and lower maintenance cost but for eco-friendliness by wasting less oil.

Use

- Power Plant, Paper Mill, and for any other machineries involving high-revolution bearing vulnerable to abrasion, thermal binding, etc.
- Servo valve, cylinder, and any other hydraulic parts vulnerable to abrasion, breakdown, and thermal binding
- High-pressure pump (Vane pump, etc.) vulnerable to abrasion, breakdown, and thermal binding
- Heavy equipment for shipbuilding construction and industrial plant needing pipe flush-out.
- Insulating oil flush-out for transformer
- Industrial machineries needing particular clarity of oil
- Oil reuse and recycle

Oil Flushing Equipment SYT

Corporate History

Jul. 1993 Established: Samyoung Tech Co., Ltd (103-1, Hannam-dong Yongsan-gu, Seoul)
Jun.1999 Changed: Corporate Name (Samyoung Tech – Samyoung Fil-tech)

Oct. 2000 Capital Increase (KRW 50 million – KRW 200 million)
Oct. 2002 Designated: As Emerging Small Business Exporter (No. 2002-203, by Small and Medium Business Administration)

Jun. 2004 Environmental Equipment Quality Authenticated: "Hydraulic Oil Flushing Equipment" (No. 2004-07, by Ministry of Commerce, Industry and Energy)
Sep. 2004 Designated: As Advanced Technology Bearer (No. 3377, by Korea Technology Finance Corporation)
Nov. 2004 Won: Venture Design Awards (No. 151, by Korea Institute of Design Promotion)

Jun. 2005 Authenticated: CLEAN Factory (No. 15075, by Ministry of Labor)
Sep. 2005 Performance Authenticated: "Flushing Equipment" (No. 11-05, by Small and Medium Business Administration)
Oct. 2005 Headquarter Relocation (555-4, Gasan-dong, Geumcheon-gu – Unit 2-1118, Lotte IT Castle, 550-1, Gasan-dong, Geumcheon-gu)
Nov. 2005 Won: Commendation for Industrial-Educational Collaborative Tech Development (No. 2192, by Seoul Metropolitan City)

Jan. 2006 NEP Authenticated: "Hydraulic Oil Flushing Equipment" (No. NEP-2004-007 (EEC) 2004-07, by Ministry of Commerce, Industry and Energy)
Mar. 2006 Registered: As Tech Innovation Small Business (No. 06-01013, by INNOBIZ)
Sep. 2006 Won: Commendation for Tech Innovation (No. 62277, by Minister of Commerce, Industry and Energy)
Nov. 2006 Won: Commendation for Tech Development and Utilization (No. 63051, by Minister of Commerce, Industry and Energy)
Nov. 2006 Authenticated: For R&D Department (No. 20065919, Korean Industrial Technology Association)

Mar. 2007 Authenticated: ISO 14001:2004 / KS A 14001:2004 Environmental Administration System (No. ESC070937)
Mar. 2007 Won: WETEX 2007 Prize of Honors for Exhibitor (United Arab Emirate)
May 2007 Authenticated: For Corporate Research Center (No. 20071866, Korean Industrial Technology Association)
May 2007 Contracted: MOU for Middle-east Asian promotion of product (w/ Shanfari Group of Oman)
Jun. 2007 Authenticated: for "Electro-absorptive Oil Recycler" (No. NEP-2004-007 (EEC) 2004-07, by Ministry of Commerce, Industry and Energy)
Jun. 2007 Won: Grand Prize for Environmental Administration '07 (No. 8308, by Minister of Commerce, Industry and Energy)
Aug. 2007 Contracted: Exclusive Promotion Right in European Continent (Schuller Consulting of Germany)
Aug. 2007 Contracted: Exclusive Promotion Right in China (Shanghai Nat' l Development Institution)
Aug. 2007 Designated: As INNO-BIZ (No. 4001-0217, by Ministry of Commerce, Industry and Energy)
Oct. 2007 Authenticated: Venture Company No. 20070103597 (R&D Company), by Korea Technology Finance Corporation
Dec. 2007 Capital Increase (KRW 200 million - KRW 1 billion)
Dec. 2007 Authenticated: Cooperative Small and Medium Business (No. 2007-004, by Korea Midland Power Co., Ltd.)

Mar. 2008 Authorized: CE Mark for "Oil Flushing Equipment" (No. F690501 / SP-MS000545)
May 2008 Affiliated to Inha University Industrial-Educational Collaboration Cluster
May 2008 Contracted: Oil Recycling Project (w/ KORAIL)
Jul. 2008 Authorized: ISO9001:2000 KS A ISO 190012007 Quality Management System (No. QA080233)
Nov. 2008 Authorized: Operational Performance of Flushing Equipment (No. 11-143, by Small and Medium Business Administration)

Jun. 2009 Contracted: Material Recycling, Oil Recycling Equipment, and Electronic Railbike Development (w/ KORAIL)
Jul. 2009 Authenticated: As Authorized Repairer (by Korea East · West Power Co., Ltd. / Korea Western Power Co., Ltd. / Korea Midland Power Co., Ltd. / Korea South-East Power Co.Ltd. / Korea Southern Power Co., Ltd.)

Apr. 2010 Authenticated: Excellent Procurer of "Flushing Equipment" (No. 2010015, by Public Procurement Service)
May 2010 Designated: KOTRA-assured Brand (No. 2010-142-01, by KOTRA, Ministry of Knowledge & Economy)
Aug. 2010 Designated: As One-KEPCO Exporter (No. 2010-205, by KEPCO)

Apr. 2011 Designated: As one of 50 "WP-TCPS Cooperative Company" (No. 2001-15, by Korea Western Power Co., Ltd.)
May 2011 Designated: As Cooperative Small and Medium Business (by Korea Midland Power Co., Ltd.)
Dec. 2011 Designated: As MAIN-BIZ (No. 110101-04901, by Small and Medium Business Administration)

Oct. 2012 Contracted: Industrial-Educational Collaboration with Kwandong University (No. 2012-20)
Dec. 2012 Authenticated: Compact-type Oil Flushing Equipment Manufacture Technology (NET) by Ministry of Commerce, Industry and Energy (No. 0713)

Certificate


NET
(Ministry of Knowledge Economy)


Excellent Procurer


CE


KOTRA assured Brand


One-KEPCO Exporter
(Korea Electric Power Corporation)


Commendation for Industrial-Educational Collaboration (Seoul)


Awarded for practical use of new technology
(Ministry of Commerce, Industry and Energy)


Awarded for excellent technical innovation
(Ministry of Commerce, Industry and Energy)


Awarded for environmental industry export promotion
(Ministry of Commerce, Industry and Energy)


by Korea East West Power Co., Ltd.
Accredited for qualified equipment


by Korea Western Power Co., Ltd.
Accredited for qualified equipment


by Korea Midland Power Co., Ltd.
Accredited for qualified equipment


by Korea South-East Power Co. Ltd.
Accredited for qualified equipment


by Korea Southern Power Co., Ltd.
Accredited for qualified equipment

R&D History

Period	Project	Title
1994. 10~1995. 09	Ministry of National Defense Equipment Localization	Development of Hydraulic Flushing Equipment for K-1 Tank
1997. 07~1998. 06	Ministry of National Defense Equipment Localization	Development of Hydraulic Flushing Equipment for K-9 Self-propelled Gun
1997. 04~1999. 03	Japanese Ministry of International Trade and Industry	Oil Flushing Equipment
1999. 03~1999. 12	Ministry of National Defense Equipment Localization	K-1 Tank Transmission Members (23 units)
1999. 03~2000. 05	Ministry of National Defense Equipment Localization	K-1 Tank Transmission Members (4 units)
2000. 06~2003. 03	Ministry of National Defense Equipment Localization	Damping Oil Exchange Unit
2002. 06~2005. 05	Ministry of Environment Next-gen Eco-friendly Tech Development '02	High-performance Lubricant Purifier using Vacuum and Static
2002. 07~2003. 04	Industrial-Educational Cooperative Tech Development '02	Dry-type Bullet Remover using Index
2003. 04~2004. 03	Small and Medium Business Tech Innovation '03	Precipitator
2003. 06~2005. 05	Ministry of National Defense Equipment Localization	K-1 Tank Transmission Members (32 units)
2004. 05~2005. 02	Industrial-Educational Cooperative Tech Development '04	Nano-defusing Photo-functional Polymer
2004. 07~2005. 04	Industrial-Educational Cooperative Tech Development '04	Power-driven Fuel Pump and Fuel Controller
2005. 07~2006. 04	Industrial-Educational Cooperative Tech Development '04	Nano-hybrid Tech for Photo-functional Polymer
2005. 06~2006. 05	Reliability-based Technology Promotion '05	Reliability Promotion for Hydraulic Flushing Equipment
2005. 07~2006. 06	Small and Medium Business Tech Innovation '05	Hydraulic Track Repairer
2006. 08~2007. 07	Industrial-Educational Cooperative Tech Development '04	Nano-defusing Transparent Electro-conductive Oxide Film for Shielding Electromagnetic Wave Nano-defusing Photo-functional Polymer
2007. 01~2007. 02	Cooperative Development with Korea East West Power Co., Ltd.	Research on Removal of Oil Additives and Change in Oil Property upon Flushing
2009. 06~2010. 05	Purchase-contracted Product Development '09	Turbine Oil Conditioner (Boryeong2 Power Plant, Korea Midland Power)
2009. 12~2011. 11	Supporting business for improvement of products in small and middle size companies	Improvement of function and quality by promoting the stability of Hydraulic Flushing Equipment
2010. 06~2012. 05	Small and Medium Business Tech Development Project '10	Mobile Oil Purifier

Intellectual Property Rights

Sort	Registry Detail	Title	State
Patent of Invention	No. 138026 (1998. 02. 16)	Industrial Oil Recycling Method and Equipment	Registered
〃	No. 0407159 (2003. 11. 13)	Lubricant Purification Method and Equipment	Registered
〃	No. 0407161 (2003. 11. 13)	Dehydration Method and Equipment for Lubricant	Registered
〃	No. 0417769 (2004. 01. 27)	Contaminant Removal Method and Equipment for Lubricant	Registered
〃	No. 10-0751490 (2007. 08. 16)	Oil Purifier	Registered
〃	No. 10-0771581 (2007. 10. 24)	Hydraulic Track Repairer	Registered
〃	No. 10-0863154 (2008. 10. 07)	Mobile Oil Purifier	Registered
〃	No. 10-0935829 (2009. 12. 30)	Oil Purifier equipped with Dual Packing	Registered
〃	No. 10-0939956 (2010. 01. 26)	Tar Remover	Registered
〃	No. 12-0070687 (2011. 07. 15)	Oil Recycler	Pending
Utility Model	No. 20-043212 (2006. 11. 22)	Electric Wrench and Torque Controlling Circuit	Registered

SYVE, SYVEF Model

Features

- Dual High-degree Vacuum Technology
- Electro-absorption Technology
- Extra-vacuum Power (not less than 30 Torr.abs)
- Flushes extra-stickiness (460 cst at Max.)
- Equipped with Moisture Auto-discharger to prevent condensation
- Equipped with Oil Leakage Detector to warn and shutdown in times of need
- Adopts Off-line maintenance to retain productivity
- Features unmanned auto-control operation
- Made out of STS304 / STS 316 for equipment body, piping, members, etc.
- Made out of Viton / Teflon for seals, hoses, etc.
- Operation mode choosable among particle removal / dehydration / combination
- Removal process detectable via transparency panel
- Equipped with Digital Indicator for degree of contamination (NAS/ISO) and moisture (%) *Optional

Performance

- Complete removal (with in Degree 5 @ NAS) of Sub-micron (0.05 um) contaminants with use of Electro-absorption
- Complete removal of moisture (up to 200 ppm) with use of Dual High-degree Vacuum
- Complete removal of varnish and oxide
- Improves Total acid value
- Improves Kinematic Viscosity
- Complete removal of free moisture / liquefied moisture / gas / etc.
- Extends oil life by preventing oxidation
- Without necessity of oil additives for precise flushing
- Helps retaining the good condition of oil in prevention of malfunction and maintenance necessity
- Reasonable cost of maintenance

Equipment Specification
(SYVE, SYVEF Model)

01. Frontal View

02. Rear View

SYVE Model

Sort		Model			
		SYVE1	SYVE2	SYVE3	SYVE4
Dimension (mm)	Width	1,150	1,250	1,550	1,550
	Length	1,350	1,450	1,450	1,450
	Height	1,790	1,820	2,020	2,080
Weight (MAX.)		590kg	760kg	960kg	1,100kg

SYVEF Model for Synthetic(EHC, HPU) / Phosphate Ester Oils only

Sort		Model			
		SYVEF1	SYVEF2	SYVEF3	SYVEF4
Dimension (mm)	Width	1,150	1,250	1,550	1,550
	Length	1,350	1,450	1,450	1,550
	Height	1,790	1,820	2,020	2,080
Weight (MAX.)		640kg	810kg	960kg	1,150kg
Primary Filter		$\beta 5 \geq 200$ (5㎛ Particle Filtering Efficiency 99.5% or Higher)			
Secondary Filter		$\beta 2 \geq 200$ (2㎛ Particle Filtering Efficiency 99.5% or Higher)			

Common Specification

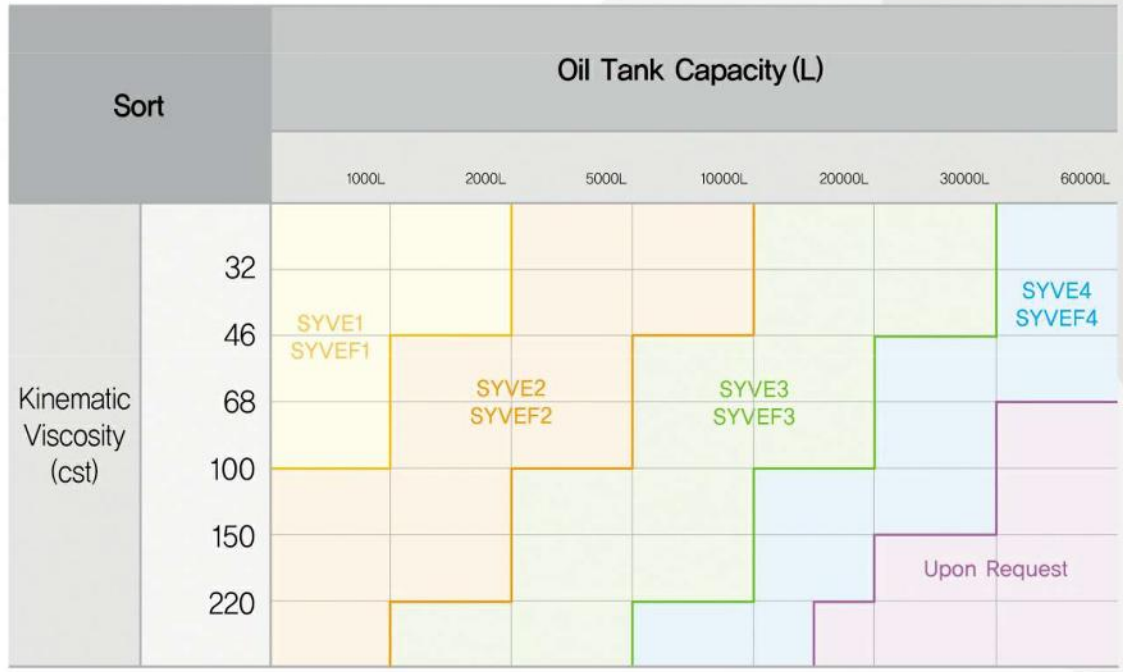
(SYVE, SYVEF Model)

Sort	Model			
	SYVE1	SYVE2	SYVE3	SYVE4
	SYVEF1	SYVEF2	SYVEF3	SYVEF4
Power	(further variation available, upon consultation) 220V / 380V / 440V, 3PHASE, 60HZ			
Air pressure	5kg / ㎠ not less than (operates manually)			
Power consumption (MAX.)	12Kw	15Kw	25Kw	30Kw
Color Painted	Power-coated Yellow-green (Std. Coating of Samyoung)			
Noise Level (MAX.)	70db			
Operating Power	AC220V / DC24V			
Viscosity Scope (MAX.)	460cst			
Heater Capacity	7.5Kw	7.5Kw	15Kw	15Kw
Vacuum Level (MAX.)	30Torr.abs			
Heat Temperature (MAX.)	70℃			
Inlet Pipe Diameter	PT 1"	PT 1"	PT 1-1/4"	PT 1-1/4"
Outlet Pipe Diameter	PT 1"	PT 1"	PT 1-1/4"	PT 1-1/4"
Flux Capacity (MAX.)	2,160LPH (36.0ℓ / min)	4,210LPH (70.2ℓ / min)	5,160LPH (93.6ℓ / min)	7,020LPH (117.0ℓ / min)
Flushing Method	Dual High-degree Vacuum and Electro-absorption Technology			
Preferable Tank Capacity	2000L, at most	1,000~10,000L	2,000~30,000L	5,000~60,000L
Real time pollution level, moisture measuring device (optional)	Pollution level (NAS/ISO), moisture (%)			

Operation Condition
(SYVE, SYVEF Model)

Sort		Model			
		SYVE1	SYVE2	SYVE3	SYVE4
		SYVEF1	SYVEF2	SYVEF3	SYVEF4
Test Condition	Oil	ISO VG 32			
	Oil Temp.	60℃			
	Consecutive Operation	4hr			
	Oil Amount	100L	200L	300L	400L
Performance	Filtering Capacity	within 5 Degree @ NAS (ISO 16/14/11)			
	Moisture	within 200ppm (0.02%)			
	Solution Gas Removal	not less than 99.5%			

Standard Performance
(SYVE, SYVEF Model)



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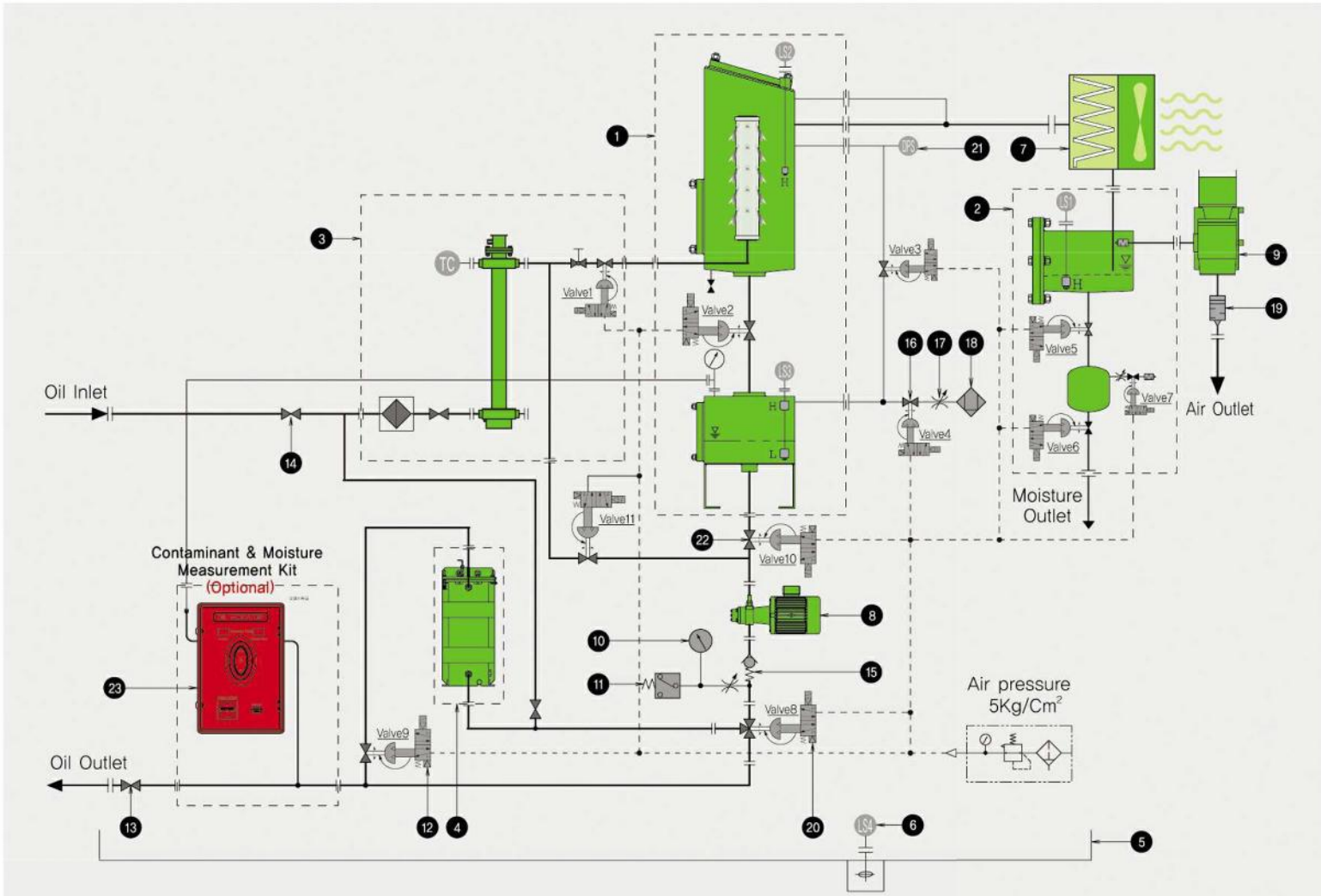
Oil Flushing Equipment

Dual High-degree Vacuum Technology
Electro-absorption Technology

Control Panel

System Flow Diagram



❶ Vacuum Tank Unit
❷ Condenser Tank Unit
❸ Heater Unit
❹ Oil Purifier
❺ Base Unit
❻ Oil Leakage Protector
❼ Cooler
❽ Pump & Motor
❾ Vacuum Pump
❿ Pressure Gauge
⓫ Pressure Switch
⓬ Pneumatic Ball Valves (3PCS)
⓭ Ball Valve (3PCS)
⓮ Ball Valve (3PCS)
⓯ Check Valve
⓰ Pneumatic Ball Valve (1PCS)
⓱ Needle Valve
⓲ Air Breather
⓳ Mist Trap
⓴ Pneumatic Tri-directional Valve (1PCS)
㉑ Digital Vacuum Gauge
㉒ Pneumatic Ball Valves (3PCS)
㉓ Pollution level and moisture measuring device (optional)

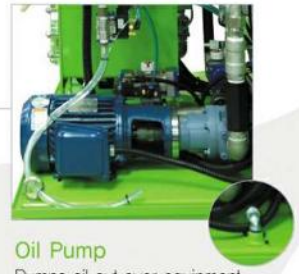
Equipment Detail
(Front)

Real-time Measurement Kit (Optional)
Indicates real-time status of contaminant (NAS / ISO) and moisture (%)

Dual High-Vacuum Chamber
Removes moisture out of oil by way of Dual High-Vacuum Method

Control Panel
Manually controls equipment operation and oil flushing

Moisture Condensation Automatic System
Condenses steam to flush out



Oil Pump
Pumps oil out over equipment

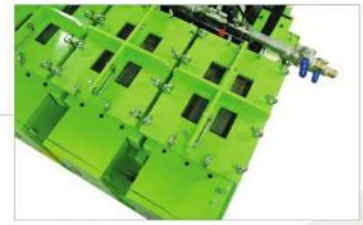
Oil Leakage Detector
Warns upon oil leakage to shut down equipment

Equipment Detail
(Rear)

Vacuum Pump
Create a vacuum inside of equipment

Auto-control Panel
Auto-controls equipment operation

Heater Unit
Heats oil up to remove moisture fast.



Electro-absorptive Particle Remover
Capable of Sub-micron particle removal by way of Corona Discharge

Cutting-edge Technology / Second-to-none Service

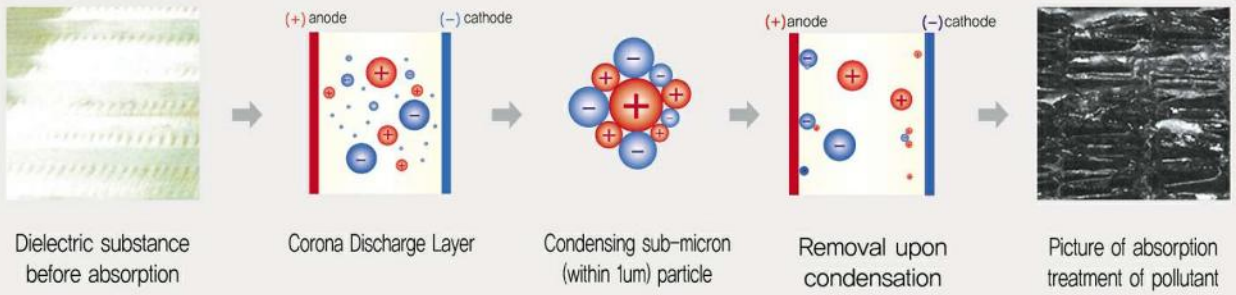
Oil Flushing Equipment

Dual High-degree Vacuum Technology
Electro-absorption Technology

Real-time Measurement Kit (Optional)

Core Technologies

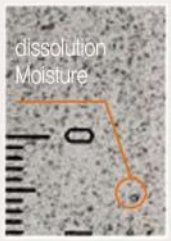
(Dual High-degree Vacuum and Electro-absorption Technology)



Dielectric substance before absorption | Corona Discharge Layer | Condensing sub-micron (within 1um) particle | Removal upon condensation | Picture of absorption treatment of pollutant

01. Particle Removal (Patent No. 0417769)

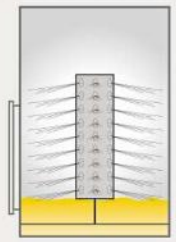
- Electrically generates Corona Discharge Layer
- Electrifies particles by way of Corona Discharge (metal particles to anode / non-metal particles to cathode)
- Condenses sub-micron particles by electrification
- Electrically takes condensed particles away



Moisture in Water

Lowers boiling point (to 40 degree Celsius)

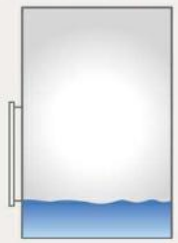
Vacuum Chamber



Evaporation (Separation)

Evaporation (at 30Torr.abs)

Condensation Chamber



Condensation / Auto-discharge

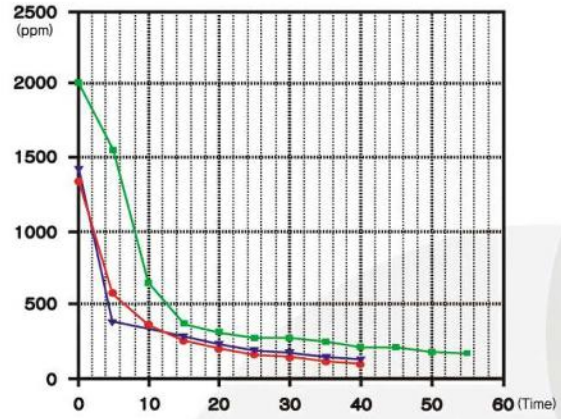
02. Moisture Removal (Patent No. 0407161)

- Vacuum pump creates a vacuum (at 30 Torr.abs) within chamber
- Vacuum lowers boiling points to 40 degree Celsius
- Evaporation of moisture inside oil
- Chamber condenses steam to discharge

Performance Test

01. Outline

- Date : Mar. 3rd, 2005
- Location : Korea Institute of Machinery and Materials
- Testing Agency : Korea Institute of Machinery and Materials
- Test Equipment : SYVE 2
- Measuring Instrument : WOM.9001 / CM-20 (U.S.)
- Oil Used : ISO VG32
- Oil Quantity : 200L
- Oil Temperature : 60 degree Celsius



Variation by Flushing Time

02. Contamination Level

Flushed for		Start	After 11min	After 23min	After 36min
Particle Size (㎛)	5 or greater	201,318	57,847	10,822	3,183
	10 or greater	50,141	1,0811	1,923	630
	15 or greater	19,563	3,870	607	348
	25 or greater	5,051	778	180	146
	50 or greater	573	101	45	45
	100 or greater	35	6	2	2
Result (MIL-STD-124A)		Level 300	Level 300	Level 200	Level 200
Result (ISO4406)		18 / 15	16 / 12	14 / 10	12 / 09
Result (NAS1638)		NAS Degree10	NAS Degree9	NAS Degree7	NAS Degree6

Variation by Flushing Time

03. Moisture Level

Flushed for	Start	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
Primary(■)-PPM	2,000	1,565	690	395	287	232	238	229	197	229	195	189
Secondary(▼)-PPM	1,458	410	321	243	220	205	199	186	178	-	-	-
Tertiary(●)-PPM	1,401	573	345	221	198	190	175	164	160	-	-	-

Variation by Flushing Time

Continuous-duty Test for Oil

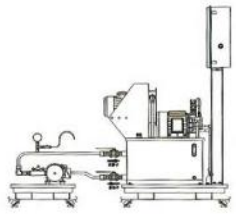
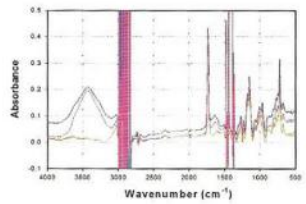
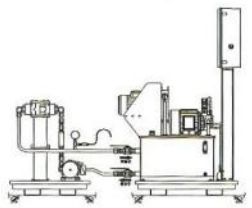
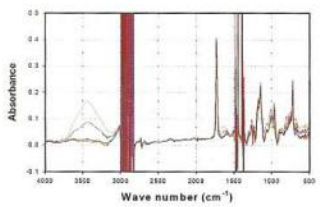
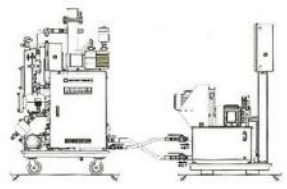
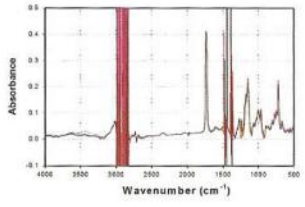
01. Outline

- Date : Jun 1st, 05 ~ May 31st, 06
- Location : Samyoung Fil-tech Co., Ltd. R&D Center
- Testing Agency : Korea Institute of Machinery and Materials / Samyoung Fil-tech Co., Ltd.
- Oil Used : ISO VG 32
- Continuous-duty: 2800-hr
- Data Source : Reliability Development R&D Report (Ministry of Commerce, Industry and Energy, Jun. 30, 2005)

02. Test Condition

#	Condition	Value	Flushing Time & Specimen Sampling						
1	Oil Capacity	400L	Flushing Time	Sampling Frequency	Specimen Sampled	Sampling Quantity	Amount Sampled Period & Amount Sampled		
2	In-tank Oil Temperature	60℃	24hr	every 8hr	4	500cc	Commencement	1	6
3	Flusher Oil Temperature	60℃					8-hr	2	6
4	Power	3-phase 380volt					16-hr	3	6
5	Vacuum Level	-98.0~-101.0Kpa					24-hr	4	6
6	Applied Pressure	Max. 0.5Mpa					Total	4	24
7	Air Pressure	Max. 5kg/㎠							

03. Representation

Test Condition	Item	Result
Equipment 1. Unequipped		
Equipment 2. Filter-equipped		
Equipment 3. Flusher-equipped		

04. Result

- Detected oil degradation from Equipment 1, varying peak points
- Detected oil degradation from Equipment 2, much improved from Equipment 1, varying peak points
- Confirmed capability for continuous use of oil after 2800-hr use, with corresponding peak points and graphic representation.

05. Conclusion

- In case of flushing the oil by attaching an oil-flushing equipment, it can be continuously used by only supplementing the oil, with no need for replacement.

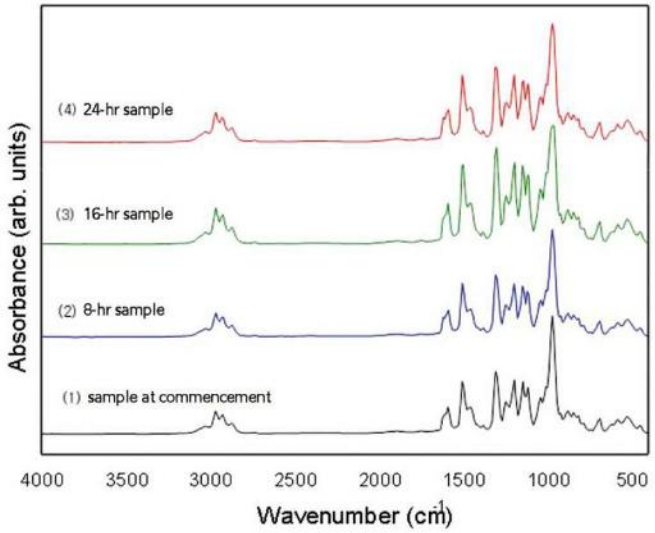
Test Equipment

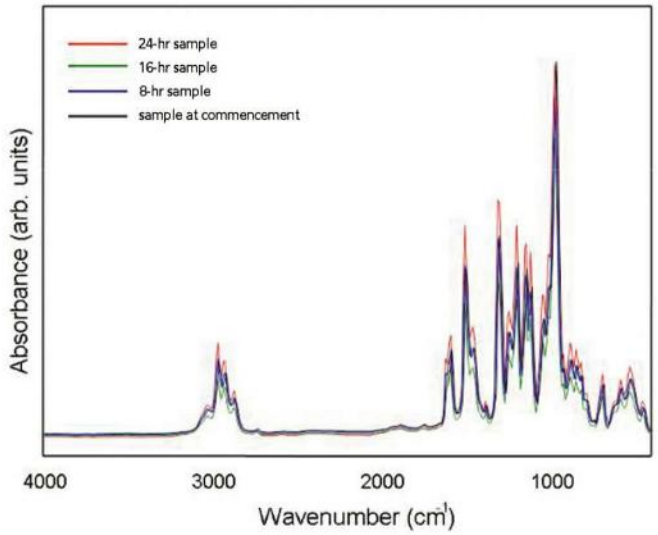
Oil Property Research

01. Outline

- Date : Jan 17th, 07 ~ Feb 07, 07
- Location : Samyoung Fil-tech Co., Ltd. R&D Center
- Testing Agency : Korea East · West Power Co., Ltd. / Dangjin Power Plant / Yonsei University / Korea Institute of Machinery and Materials / Korea Institute of Petroleum Management / Samyoung Fil-tech Co., Ltd.
- Test Equipment : SYEF 3
- Name of Reagent : EHC HPU Oil (REOLUBE Turbo Fluid 46XC, product of Great Lakes)
- Data Source : Research Result (Korea East · West Power Dangjin Power Plant, Feb. 10th, 07)

02. Variation in Oil Additive





- Peak absorbance values (Y-axis) irrelevant to the amount of oil additive remainder as specimen amount varies by sample
- Peaks for all samples corresponding with each other, within every wave length (400-400cm-1), specifying the state retaining original oil property.

03. Oil Clarity Variation / Gas Removal

#	Item	Rep. Oil Std.	Rep. Oil Value	Point of Replacement	Used Oil Value	Flushing Progression			
						0hr	8hr	16hr	24hr
1	Contamination NAS (ISO)	-	NAS 6(-/15/12)	NAS 6≦	NAS 7	NAS 8	NAS 4	NAS 4	NAS 4
2	Moisture ppm (%)	≦1,000 (≦0.1)	300 (0.03)	≦1,000 (≦0.1)	532.6	562	239	84	55
3	Total Acidity Value (mgKOH/g)	≦ 0.10	0.08	0.20≦	0.0089	1.1	0.1	0.1	Less Than 0.1
4	Dissolved Chlorine ppm	≦ 50	7	100≦	17	N/A	N/A	N/A	N/A

04. Conclusion

- Confirmed no degradation upon continuous duty
- Confirmed improvement in total acidity value
- Confirmed complete removal of chlorine
- Confirmed non-removal of additives by way of precise flushing
- Authenticated feasibility of continuous use of oil by way of flushing.

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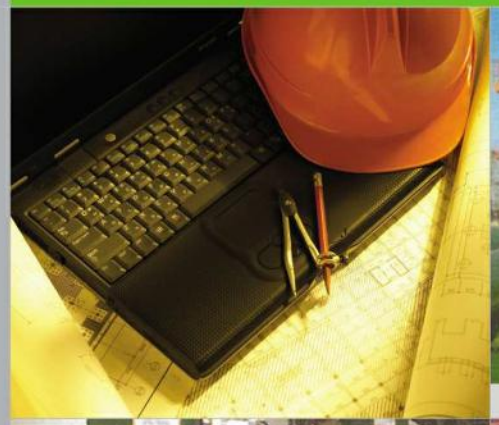

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Oil Flushing Equipment SYT

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