Flokal

Engineered products for the modern industry

Introducing Flokal BV

•1992. Foundation of company. Providing services to the semiconductor industry in the mass flow and pressure control area's
•As from 1992 till present time Flokal BV became International Company with sub-divisions in many countries of the whole world
•Flokal BV is a manufacturer and distributor of products for the modern industry

Flokal's subdivisions worldwide

Portfolio overview 2013

- Mass Flow Meter/Controller (MFM/MFC) production and Services
- Liquid Vapor Controller (LVC) production and Services
- CDG vacuum gauges Services
- Power Supply, Readout Units Services
- Pressure/Vacuum System Services
- Robot Services

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Dorpenweg 27 5371 KS Deursen. The Netherlands.
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Our customers

ABB Switzerland, AMIS Belgium, Angstrem Russia, Apnano Israel, Micro System Switzerland, ASM Belgium, ASM USA, ASM Netherlands, Bosch Germany, Belling China, Nanoscience USA, BodyCoat Netherlands, BP Solar Spain, Cener Spain, Canberra Belgium, Colibrys Switzerland, Centroterm Germany, Cerelics Singapore, China Resources China, Draka Comteq Netherlands, Dimes Netherlands, Dow Netherlands, Draka Spain, Electrovac Germany, Elmos Germany, EM Microelectronics Switzerland, FBFC – International Belgium, FHG Dresden Germany, FHG Furtwangen Germany, Forschungszentrum Julich Germany, GE Healthcare USA, HK Prima China, Hong Kong Gas China, Hong Kong University China, Imec Belgium, IMS Duisburg Germany, LPT Germany, Philips Böblingen Germany, Philips Hamburg Germany, Philips Nijmegen Netherlands, Philips Drachten Netherlands, P-WTS-Co China, Sensonor Norway, Technion Israel, Vishay Germany, X-Fab Germany, Tempress Netherlands, ZMD Germany, OCS Germany, Enterprise Ireland, Instituto Trentino di Cultura Italy, Institut Mikroelktr Stuttgart Germany, KU Nijmegen Netherlands, TU Delft Netherlands, Micro chemical systems Switzerland, Microsens Switzerland, Ocmetic Finland, OTB Netherlands, Semco France, Qualiflow France, Serono Switzerland, VTI Finland, Wonince Singapore, TU Berlin Germany, Universiteit Utrecht Netherlands, AECL Canada, Prema Germany … and others

CKD/MKS(HPS) Valve and other Valve Refurbishment

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Warranty: 6 months, but basically life time is the same as original CKD or MKS dependent on loading and temperature in process

Products	details	customer price	Remarks
CKD Normal type	Standard Refurbish	2,000EURO	If controller is shipped with valves, calibration and match will be free of charge. **SSV attached valve: add 500,00**EURO **S-AF coating: add 300,00**EURO
	Bellows	2,000EURO	
	Heater	2,000EURO	
	Housing if replaced	2,000EURO	
CKD High temp type	Standard Refurbish	4000EURO	
	Bellows	2,000EURO	
	Heat Jacket	2,000EURO	
	Housing if replaced	2,000EURO	
Conversion	Normal to high temp	12000EURO	
CKD/MKS controller	repair	upto2,600EURO	
	replacement PCBs	upto2,600EURO	
MKS valve	refurbish	upto2500EURO	
Sub or lift assembly	refurbishemnt	upto2000~3000EURO	

1. Warranty: 6 month standard, but actual life time is the same as CKD or MKS
2. Round trip shipping fee is responsible to cutomers
3 Lead time after receiving valves is max 5 ~7working days
4. Certificate sheet will be sent to customer prior to ship valves
5. Analysis report before refurbishment will be sent to customers for price estimation
6. Calibration data will be sent to customers for instant use

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Part numbers Example – CKD , MKS(HPS), Bu Any valves will be fine

System №	Valve №	Controller №	remarks
VEC – S8 – X0113	VEC – V8 – X0107 VEC – V8 – X0109	VEC – C8 – X0101 VEC – C8 – X0111	+ any Types for normal valve
VEC – S8 – X0133	VEC – V8 – X0109	VEC – C8 – X0111	
VEC – S8 – X0201	VEC- V8 – X0201	VEC- C8 – X0201	
VEC – SHA8 – X0301	VEC – VH8 – X0301	VEC – CA8 – X0301	+ any types for High temperature
VEC – SHA8 – X0302	VEC – VH8 – X0302	VEC – CA8 – X0302	
VEC – SH8G – X0301	VEC – VH8G – X0301	VEC – CA8G – X0301	
VEC – SH8G – X0302	VEC – VH8G – X0302	VEC – CA8G – X0302	
VEC – SHA8 – X0305	VEC – VH8 – X0305	VEC – CA8 – X0305	
VEC – SHA8G – X0305	VEC – VH8G – X0305	VEC – CA8G – X0305	
VEC – SHA8 – X0307	VEC – VH8 – X0307	VEC – CA8 – X0307	
VEC – SHA8 – X0307-1	VEC – VH8 – X0307-1	VEC – CA8 – X0308-1	

Model	Part number(spec)	remarks
MKS (HPS) Valve	93-8646	Heater Jacket Type
	99D0835	Normal Type
MKS Main Valve	100996194 / DU12L-3 / DT33 22 / DT5 33 / 58806 / 65798	

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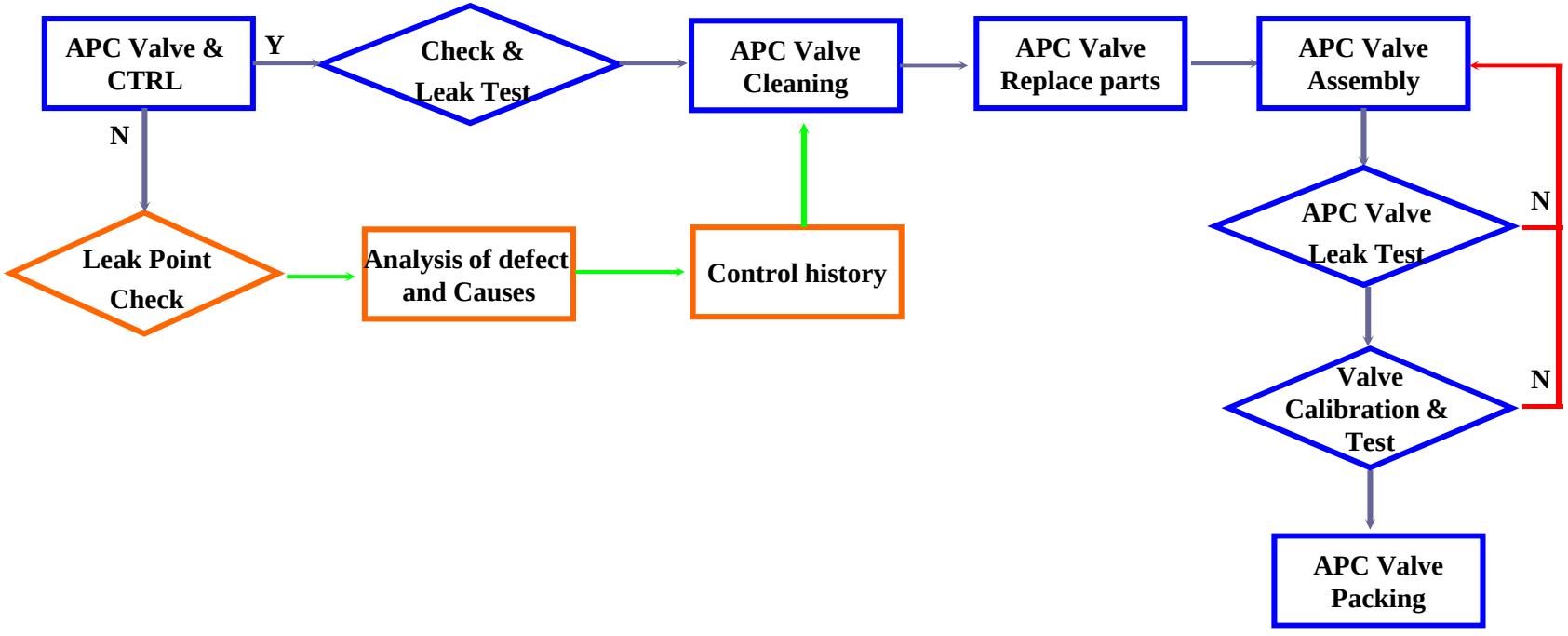
Valve Overhaul Flow



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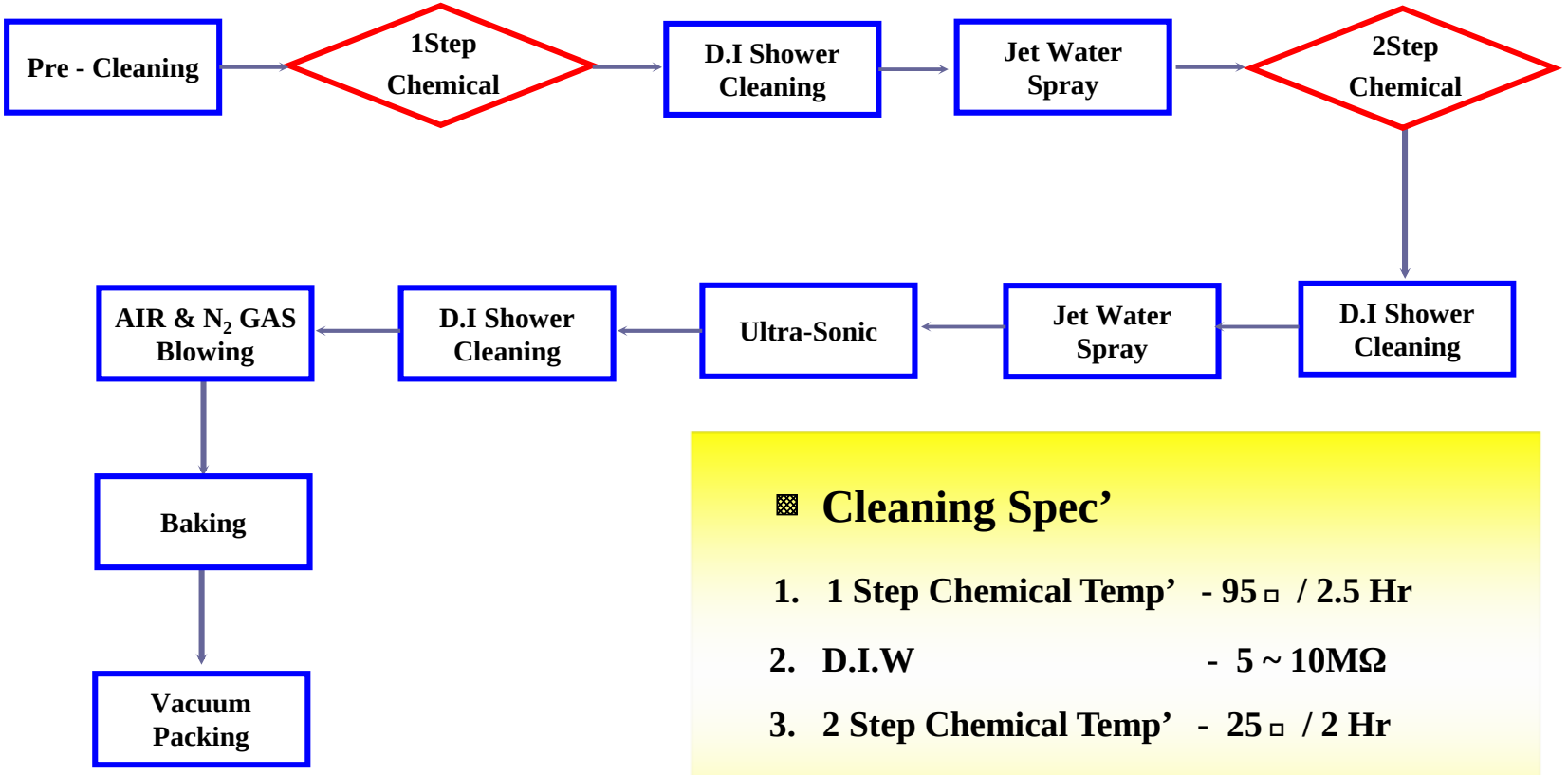
Valve cleaning Flow



▩ Cleaning Spec'

1. 1 Step Chemical Temp' - 95 □ / 2.5 Hr
2. D.I.W - 5 ~ 10MΩ
3. 2 Step Chemical Temp' - 25 □ / 2 Hr
4. Ultra-Sonic - 100kHz / 1 Hr
5. AIR & N2 GAS Blowing - 90 □ / 10 Hr

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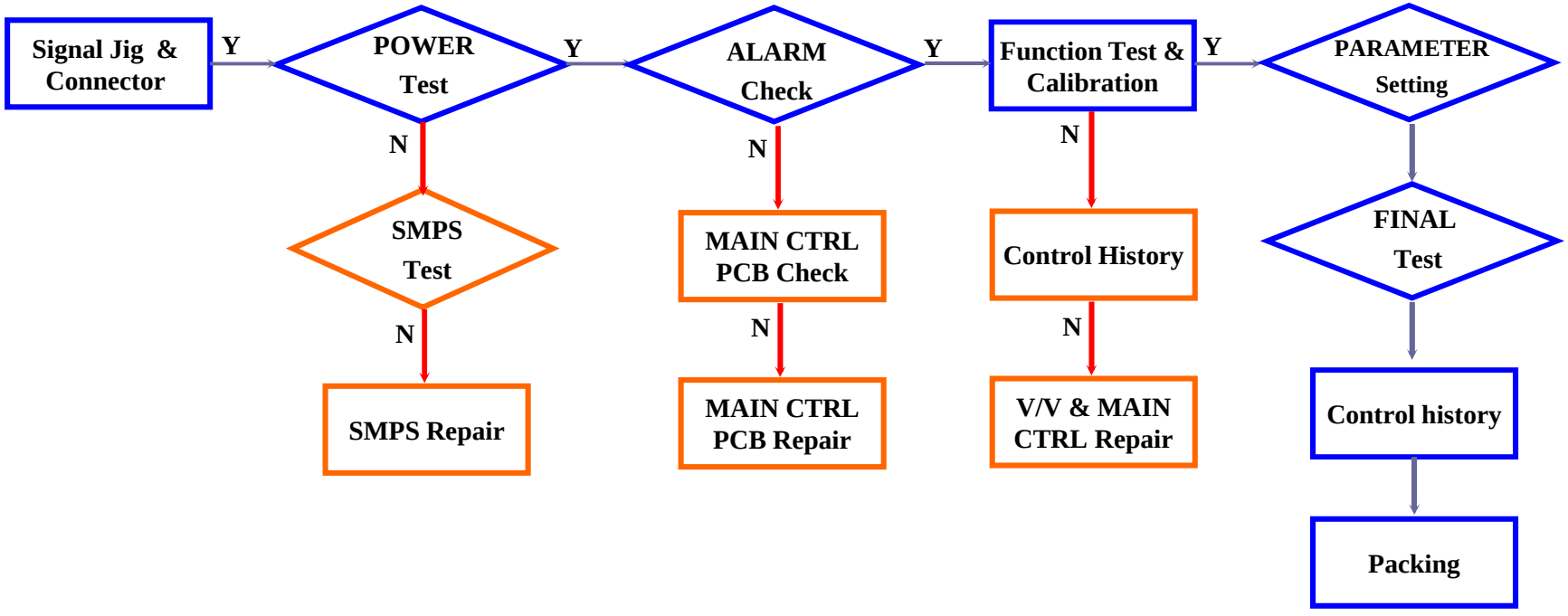
Function Test Flow



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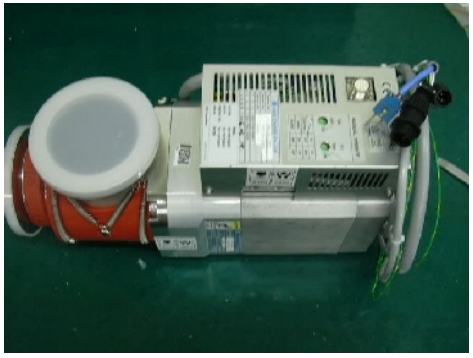
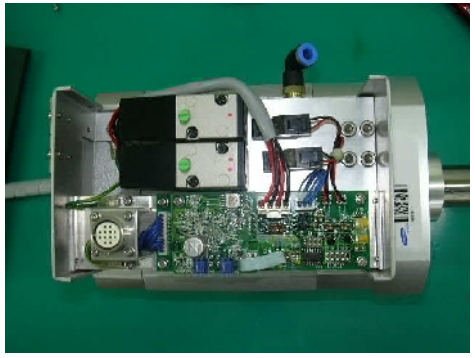
Valve & Part picture (CKD – Valve)



〔 Valve 〕



〔 Valve Control 〕

〔 Valve 〕

〔BF Diaphragm〕

〔Valve Bellows 〕

〔 Sol -Valve 〕

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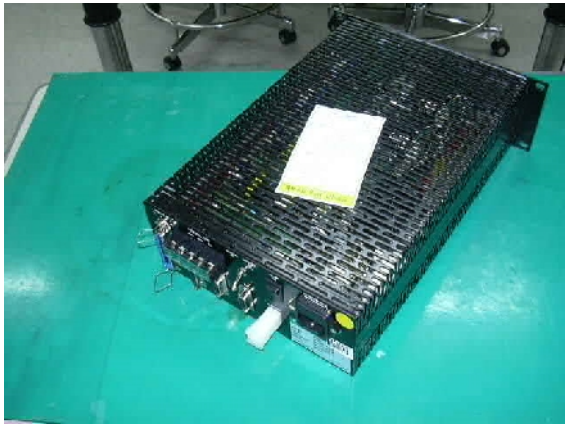
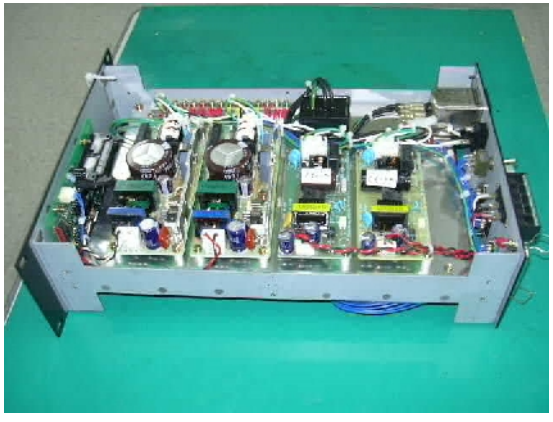
Controller & Part picture (CKD)



[Controller]



[Digital Board] [Analog Board] [SMPS Board]

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Valve & Part picture (MKS - HPS)

1	Main Bellows
2	Slow Pumping Bellows
3	Slow Valve Spring
4	Slow Valve Bracket Bolt
5	Slow Valve Cover (Cap)
6	Slow Valve Block
7	Slow Valve Seal Bracket
8	Bellows Spring Bracket

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Overhaul Part List/set - CKD

#	Part name	Spec	#	unit	Remarks
1	Valve Bellows	ASL - 350	1	EA	Normal, High temp
2	BF Diaphragm	M6 / 50	1	EA	Normal, High temp
3	Solenoid Valve	EV-07	2	EA	
4	Solenoid Valve	3PM219 – 00 – M1 - 3	2	EA	
5	Potentiometer	S13FLP50A	1	EA	
6	Heater - Jacket	100V / 170W, 40W	1	EA	Normal
7	Heater - Jacket	100V / 205W, 50W, 40W	1	EA	High temp
8	Inner Heater	100V / 102W	1	EA	High Temp
9	Cartridge Heater	100V / 25W (100V / 15W)	1	EA	Normal, High temp
10	O – Ring (Viton)	P-80, G-125, G-25, G-70, P-8, P-30	1	SET	Normal, High temp
11	PCB Board 류	Special	1	SET	Valve & CTRL’
12	SMPS Board	Special	1	SET	CTRL’
13	Cleaning	Special	1	SET	
	Other parts	Bellows Cap, Valve Actuator, Valve Housing, Diaphragm Unit, etc			

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Overhaul Part List/set – HPS

#	Part name	Spec	#	Unit	Remarks
1	Valve Bellows	SUS 304 (mold Type)	1	EA	
2	Slow Pumping Bellows	SUS 304 (Welder Type)	1	EA	
3	Slow Valve Bracket Bolt	SUS 316	1	EA	
4	Slow Valve Cover (Cap)	AL 6061	1	EA	Plated
5	Slow Valve Block	AL6061 , Teflon	1	SET	
6	Slow Valve Seal Bracket	Ulten	1	EA	
7	Valve Bellows Spring Bracket	Ulten	1	EA	
8	O - Ring	AS586-016, 111, 120, 121, 234, 243, 246	1	SET	
9	Cleaning	Special	1	SET	

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Other Overhaul valves

〔 APC Controller- Normal 〕

〔 APC Controller- Heating 〕

〔 IRIE Valve - Normal 〕

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Ten (10) good reasons to choose FLOKAL's Service Center

- ✓More then 20 years experience in Semiconductor Industry
- ✓Familiar with all manufacturers/brands
- ✓Independent and certified organization
- ✓Using primary calibration-standards
- ✓Spare parts in stock
- ✓Clean-room facility
- ✓Each calibration is provided with a calibration certificate
- ✓Fast turn around
- ✓Fair, competitive prices
- ✓The calibration facility

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Thank you very much for your attention

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