



BROCHURE

YADi Quick Response Center



Service



Speedy



Satisfy







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STEADY PROGRESS WITH THE TIMES



ABOUT US

YADi Quick Response Center, established in May 2011, is dedicated to maintenance of high-end control valves, localization of imported valve parts, customization of valve equipment and tools, and technology consulting of control valves. It has a professional maintenance team working hard with technical capabilities.

Adhering to the "6S" work and service concept, standardized management and high standards of quality control, YADi provides clients with complete solutions to special valve problems and good experience in special valve maintenance.

With the establishment of quick response centers in Shandong, Northwest, Xinjiang, Guangdong, etc., as well as the full utilization of network tools and modern logistics, YADi will become a reliable partner for high-end clients.



Contact (at any time)



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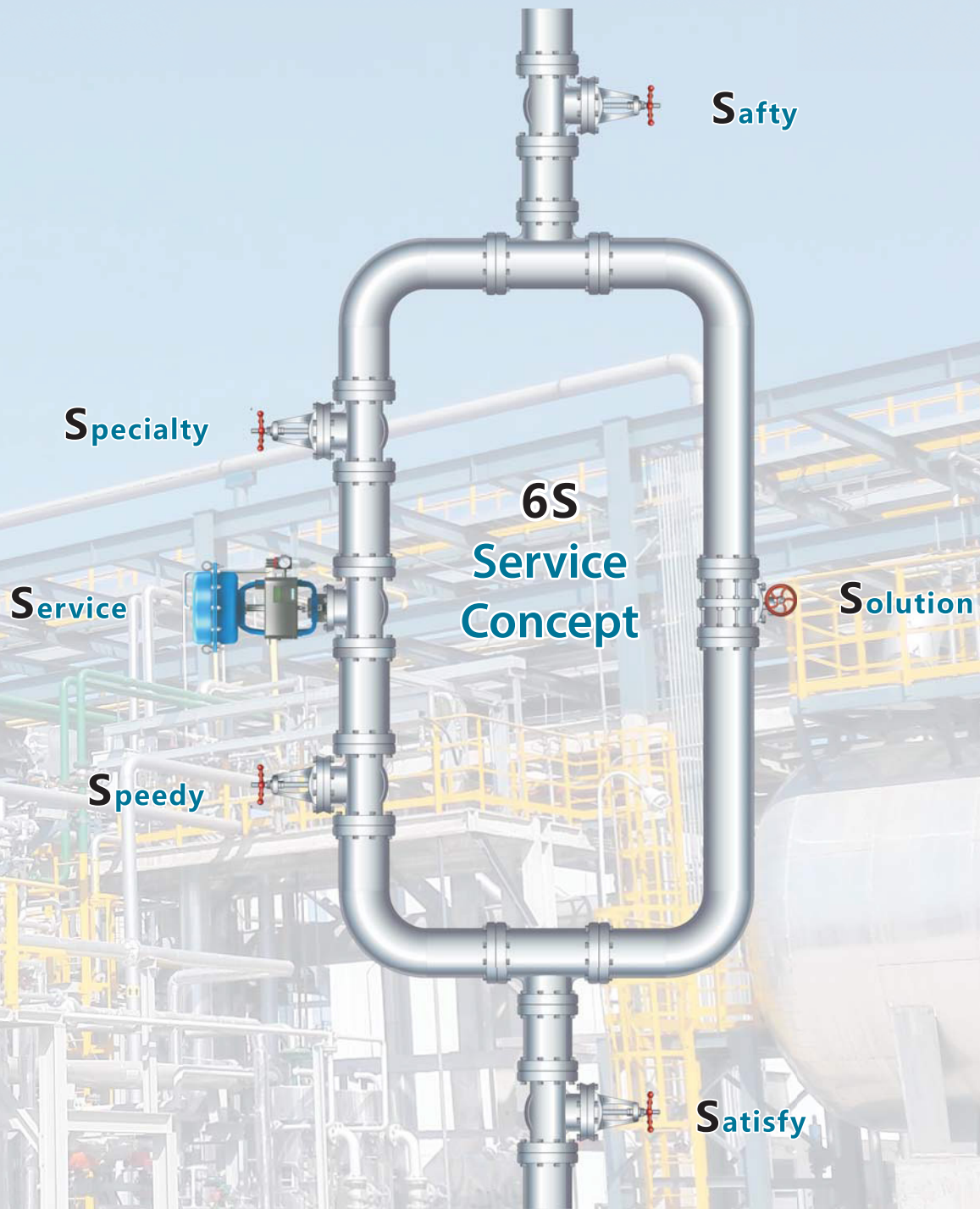
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SCOPE



Maintenance and Technological Transformation of Control Valves	Customization of Spare Parts and Maintenance Tools	Free Technical Support Related to Valves
<p>Imported valves: covering all regulating valves, butterfly valves, gate valves, ball valves, self-operated valves, steam conditioning valves, etc.</p> <p>Valves for special conditions: high temperature and pressure, low temperature, particle erosion, strong corrosion, large rangeability, small flow, etc.</p> <p>Maintenance capabilities: repair, structural transformation and functional upgrading.</p>	<p>Design and manufacturing of spare parts such as valve parts, seals and valve bodies</p> <p>Customization of special tools for valve disassembly, grinding, testing and commissioning</p>	<p>Conventional technological consulting on selection, installation, use and maintenance of control valves.</p> <p>Fault analysis of control valve operation, maintenance or transformation programs, and solutions to special test requirements.</p>

| CONCEPT



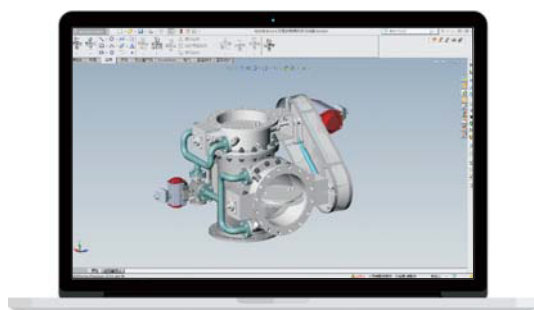
MANUFACTURING

YD-TMS-1011	Regulation on Product Development Management	YD-TDS-1036	Design Standard of Flexible Graphite Seal Ring
YD-TMS-1012	Regulation on Special Design Management	YD-TDS-1037	YD401G Normal-pressure Valve Design Standard
YD-TMS-1013	Regulation on Technical Review	YD-TDS-1060	YADi Material Selection Guide
YD-TDS-1000	Design & Inspection Specification of General Dimensional Tolerance, etc.	YD-TDS-1038	Technological Agreement on High-pressure Valve Forgings
YD-TDS-1001	Collection of Design References of Valve Industry	YD-TDS-1039	YD401G High-pressure Valve Design Standard
YD-TDS-1002	Common Valve Terminology Standard	YD-TDS-1040	YD100E Economical Valve Design Standard
YD-TDS-1003	Valve Temperature and Pressure Standard	YD-TDS-1041	YD100S High-pressure Valve Design Standard
YD-TDS-1004	Valve Flange Connection Standard	YD-TDS-1042	YD100C High-pressure Valve Design Standard
YD-TDS-1005	Standard of Valve Flanges	YD-TDS-1043	YD101V High-pressure Valve Design Standard
YD-TDS-1006	Focal Length Standard of Valve Flanges	YD-TDS-1044	YD102V/112V High-pressure Valve Design Standard
YD-TDS-1007	Calculation Standard of Valve Body Design	YD-TDS-1045	YD100V High-pressure Valve Design Standard
YD-TDS-1008	Calculation Standard of Bonnet Design	YD-TDS-1048	Disc Spring Design Standard
YD-TDS-1009	Calculation Standard of Stuffing Box Design	YD-TDS-1049	Packing Gland Design Standard
YD-TDS-1010	Valve Stem Design Standard	YD-TDS-1050	High-temperature Valve Design Standard
YD-TDS-1011	Bearing Design Standard	YD-TDS-1051	Desuperheater Nozzle Design Standard
YD-TDS-1012	Material Standard of Valve Industry	YD-TDS-1052	Spray Calculation and Design Standard of Desuperheater
YD-TDS-1013	Valve Design Diameter Standard	YD-TDS-1053	YD500F Design Standard
YD-TDS-1014	Valve Performance Test Standard	YD-TDS-1054	YD401G Quality Control Manual of Normal-pressure Gate Valve
YD-TDS-1015	YD100S Normal-pressure Valve Design Standard	YD-TDS-1055	YD401G Quality Control Manual of High-pressure Gate Valve
YD-TDS-1016	YD100C Normal-pressure Valve Design Standard	YD-TDS-1059	Cv Calculation Standard

Complete R&D System

Due to technological accumulation in more than one decade, YADi has developed a complete R&D development, gained rich experience in coping with high temperature, low temperature, high pressure, strong corrosion, particle erosion, hydrogenation, poisoning, small flow, large rangeability and steam cooling, and compiled the appropriate design standards and calculation programs to solve technical problems encountered in special valve maintenance.

Strong Design Capabilities



YADi has its own design team that is pragmatic but innovative. The team members are always engaged in control valve maintenance, and quite familiar with the design structures and concepts of imported valves. In addition to efficient maintenance and structural transformation, special equipment and tools have been developed.



Superior Manufacturing Conditions

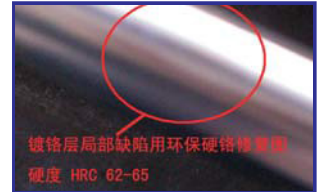
YADi has a complete set of machining, welding, hard surface treatment, heat treatment and testing equipment for manufacturing of control valves. It is famous for its superb process and machining level, and able to complete high-quality machining involved in control valve maintenance.

EQUIPMENT CONDITION



Precision Surveying and Drawing Tools

The use of traditional precision gauges and advanced surveying and drawing tools such as CMM is a guarantee of repair or remaking of damaged parts in their original sizes.



Professional Defect Repair Technology

Due to the introduction of pulse cold welding and brush electroplating, minor defects of valve trims can be repaired efficiently and safely, without secondary damage.



Efficient Sealing Surface Repair

The dedicated planar, spherical and online grinding equipment is unprecedentedly conducive to repair of sealing surfaces.



OVERHAUL PARTS



Complete Inventory

Conventional raw materials for valve parts are available in the inventory. For special specifications or materials, supplies engaged in long-term cooperation can guarantee rapid delivery. Metal parts of valves can be manufactured as needed.



Seal Inventory

Seals of general specifications, such as the packing, wound gaskets, graphite gasket and O-ring, are available in the inventory. YADi is also able to manufacture special seals such as C-rings, metal O-rings, self-sealing graphite rings and balanced seals.

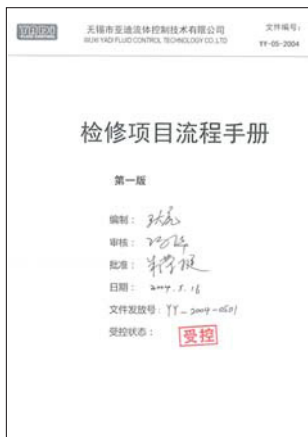




Accessory Inventory

Positioner, solenoid valves and gas-controlled accessories are available in the inventory.

QUALITY CONTROL



特殊质量控制点一览表		控制点	控制措施	责任人	备注
阀门检修	阀门检修	1. 检修前必须进行安全交底, 确认检修范围, 做好隔离措施, 防止误操作。	检修人员	检修负责人	
阀门检修	阀门检修	2. 检修过程中, 必须严格按照检修方案进行, 不得擅自更改。	检修人员	检修负责人	
阀门检修	阀门检修	3. 检修完成后, 必须进行验收, 确认检修质量, 合格后方可投用。	检修人员	检修负责人	
阀门检修	阀门检修	4. 检修过程中, 必须做好安全监护, 防止发生安全事故。	检修人员	检修负责人	
阀门检修	阀门检修	5. 检修过程中, 必须做好环境保护, 防止污染环境。	检修人员	检修负责人	

Strict Process Quality Control

YADi has established a complete quality assurance system for maintenance, in which the quality plan involves control requirements of each stage of maintenance, the maintenance manual provides explicit guidelines for maintenance, process data are recorded in the maintenance record sheet and database, and the maintenance report comprehensively summarizes the maintenance process and provides details for clients.

PERFORMANCE

Wuxi Yadi Inspection and Maintenance Project List (For Imported Products)

NO.	Customer	Project	Valve Brand	Specification	Media	Problems
1	Sinopec Corp. Anqing Branch	TV-23471	SWV (Korea)	SWV CL150 CF8 DN750	water 528 °C	Valve is stuck, stem is damaged
2	Sinopec Zhenhai Refining & Chemical Company	CCI steam conditioning valve trim maintenance	CCI (U.S.A)	VLB-90BTC CL2500 A182-F22 DN200 x DN300	134bara 510 °C ultra-high pressure steam	Valve plug and cage are damaged, can not be used
3	Sinopec Zhenhai Refining & Chemical Company	DN100 Oxygen valve maintenance	MASONILAN (U.S.A)	CL900 DN100	high pressure oxygen	Serious seat cavitation , the actuator seal ring damaged
4	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	Fisher safety valve maintenance	Fisher (U.S.A)	63G CL300 WCC DN200	150 °C hot oil	sealing parts aged, valve cage and seat loose
5	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	wax oil hydrogenation unit orbit ball valve maintenance	Orbit (U.S.A)	CL300 WCB DN80		sealing surface between ball and valve seat is damaged
6	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	Hydrocracker Units	SCHUF (Germany)	SCHUF CL1500 DN150		Stem lower scratched, sealing surface between valve plug and seat wear
7	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	Hydrocracker Units	Flowsolve (U.S.A)	Flowsolve CL2500 DN150		Valve body stacked a large number of welding rod, valve plug and bonnet are stuck.Plug and steam are damaged.
8	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	2# coking unit valve maintenance	KOSO (Japan)	KOSO PN40 DN450	tar coal cinder 435 °C	shaft sleeve is stuck, and unreasonable air circuit
9	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	2# coking unit valve maintenance	Kinder (U.S.A)	Kinder CL300 DN100		sealing surface between ball and seat is damaged
10	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	lubricating oil hydrogenation unit valve inspection and maintenance	Flowsolve (U.S.A)	Mark One CL1500 DN50	hydrogen	sealing surface and balance sealing ring are damaged, plug surface is damaged from stacking,stem is damaged, and the inner wall of cage is completely damaged.
11	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	lubricating oil hydrogenation unit valve inspection and maintenance	Kammer (Germany)	Kammer CL2500 DN50		steam and sealing surface are damaged seriously. Serious cavitation informed in the bottom of plug and seat .

PERFORMANCE

Wuxi Yadi Inspection and Maintenance Project List (For Imported Products)

NO.	Customer	Project	Valve Brand	Specification	Media	Problems
12	Sinopec Maoming Company	HORA steam conditioning valve technical improvement	HORA (Germany)	1632-39 CL2500 A182-F22 DN200/400	125BAR 520℃ ultra-high pressure steam	Valve plug and cage are damaged
13	Sinopec Great Wall Energy and Chemical Co.,Ltd.	FCV-03 Fisher EHD high pressure valve inspection and maintenance	Fisher (U.S.A)	Fisher CL2500 WC9 DN150	high pressure steam 545℃	Valve steam damaged,C-ring wear and rupture, valve cage and seat is completely ruptured
14	Sinopec Great Wall Energy and Chemical Co.,Ltd.	Tyco high pressure ball valve inspection and maintenance	Tyco (U.S.A)	FCT CL1500 304 DN80	high pressure nitrogen	Connection short shaft deformation, the switch is not in place, seat and ball wear
15	Sinopec Great Wall Energy and Chemical Co.,Ltd.	acetic acid flash tank ZWICK butterfly valve maintenance	ZWICK (Germany)	TRI-CON CL150 CF3M DN400	124.6℃ high concentration acetic acid (GAS)	Serious corrosion on seal ring, valve disc, and valve shaft
16	Sinopec Shanghai Petrochemical Co.,Ltd.	eccentric control valve maintenance	YAMATAKE (Japan)	VFR CL150 SCS16A DN100	PTA slurry (containing HAC)	Severe valve seat and spherical corrosion, hand wheel can not move
17	Sinopec Shanghai Petrochemical Co.,Ltd.	Fisher control valve inspection and maintenance	Fisher (U.S.A)	8510B CL150 CF3M DN300	WG (TA PRO.GAS)	Damaged on valve disc and seal ring
18	Sinopec Hainan Refining & Chemical Company	RDS angle valve maintenance	MASONEILAN (U.S.A)	RDS CL2500 A182-F347 DN150	16.2MPag 360℃ HOT OIL	Internal leakage, blow-by on actuator, no signal on positioner
19	Nanjing Yangzi Eastman Chemical Ltd.	FlowsERVE high pressure angle valve maintenance	FlowsERVE (U.S.A)	Mark one CL2500 WC9 DN15/DN25	340℃ H2	Damaged on seal surface and IP transverter
20	Wilson (Nanjing) Clean Energy Co., Ltd.	Orbit ball valve maintenance	Orbit (U.S.A)	CL300 WCC DN25	3.3Mpag 232℃ Hydrocarbon/N2	Damaged on valve shaft, valve seat and ball
21	Guizhou Xinsheng Coal Chemical Co.,Ltd.	coal-based gasification unit control valve inspection and maintenance	Fisher (U.S.A)	ET series control valve		Corrosion on valve trim, serious damage on balance seal ring and seal surface. Cage is stuck.
22	Guizhou Xinsheng Coal Chemical Co.,Ltd.	coal-based gasification unit control valve inspection and maintenance	SAMSON (Germany)	3246-7 series low temperature angle valve		Re-processing the connecting groove, the valve guide surface damage
23	Anqing Yingde Gases Corporate	air separation production unit 2 sets of butterfly valve maintenance	OHL (Germany)	OHL PN10 DN1000/PN10 DN800		Valve rust, the actuator fork is broken.

PERFORMANCE

Wuxi Yadi Control Valve Localization Reference List

No.	Customer	Project	Service Content	Specification	Remark
1	BASF-YPC Company Limited	phase II power plant steam extension and renovation	Steam Conditioning Valve	YD710H CL1500 A182-F11 DN250	repalce HORA
2	BASF-YPC Company Limited	phase II power plant steam extension and renovation	High Pressure Gate Valve	YD401G CL1500 A182-F22 DN200	repalce HOPKINSON
3	BASF-YPC Company Limited	AA/AE Acrylic acid and ester combined unit	desuperheater	YD720H CL900 A182-F22 DN50	repalce SAMSON
4	BASF-YPC Company Limited	AA/AE Acrylic acid and ester combined unit	Large rangeability Labyrinth Velocity Control Valve (actual rangeability 25:1)	YD103V CL900 A105 DN80	repalce SAMSON
5	BASF-YPC Company Limited	LDPE low density high pressure polyethylene unit	hot water flash tank control valve	YD100V CL600 316 DN100	repalce SAMSON
6	Nanjing Yangzi Eastman Chemical Ltd.	C5 petroleum resin project hydrogenation unit	high pressure hydrogen angel valve	YD110S CL2500 A182-F22 DN25	repalce Flowserve
7	Sinopec Yangzi Petrochemical Co.,Ltd.	Arene plant 350 unit	catalyst particle gas transportation	YD100G CL300 WCB DN25	repalce Masoneilan
8	Sinopec Shanghai Gaoqiao Petrochemical Co.,Ltd.	lubricating oil hydrogenation unit	high pressure multi-stage angle valve	YS112V CL2500 A105 DN50	repalce Flowserve
9	Sinopec Zhenhai Refining Co.,Ltd.	II power station , III power station	limestone slurry V ball	YD200V CL150 316L/ENP DN25 ceramic plug/bushing	repalce Fisher

PERFORMANCE

Wuxi Yadi Control Valve Localization Reference List

No.	Customer	Project	Service Content	Specification	Remark
10	Shenhua Ningxia Coal Industry Group Co., Ltd.	4 million tons per year indirect coal liquefaction project	air separation ultra-high pressure steam venting valve	YD116V CL2500 F91 DN300	repalce LESLIE
11	Shanxi Coal Chemical Group Shennu Tianyuan Chemical Co.,Ltd.	500000 tons/year coal tar lightweight project	hydrogenation unit venting gate valve	YD401G CL2500 A105 DN100	repalce HOPKINSON
12	Shanxi Coal Chemical Group Shennu Tianyuan Chemical Co.,Ltd.	500000 tons/year coal tar lightweight project	hydrogenation unit control angel valve	YD112V CL2500 A105 DN50	repalce Masoneilan
13	Hualu Engineering & Technology Co.,Ltd	Guizhou Jinchí Chemical Tongzi Coal Chemical	desuperheater	YD720H CL300 WCB DN150	repalce YARWAY
14	Shandong Qingyuan Asphalt Technology Co., Ltd.	200000T/a lubricant base oil purification project	hydrogenation unit high pressure gate valve	YD401G PN160 A105 DN80	repalce HOPKINSON
15	Shandong FangYu Lubricating Oil Co., Ltd.	300000T/a lubricant base oil purification project	hydrogenation unit high pressure gate valve	YD401G CL1500 A105 DN100	repalce HOPKINSON
16	Twolions (Zhangjiagang) Fine Chemicals Co.Ltd.	owned power plant expansion and renovation project	Steam Conditioning Valve	YD710H CL1500# A105 DN200	repalce Spirax-Sarco

REPAIR CASE

Client: Sinopec Zhenhai Refining & Chemical Company
Installation section: boiler blow-down section of 4th power station
Process parameters: high-pressure steam of 13.1MPa and 540°C
Valve information: start exhaust valve of DN150, Class2500, WC9, manufactured in 2009



Fault

1. Serious leakage occurred inside the valve.
2. The flow could not be controlled when the small opening controller sends a signal.

Damage



The stem part exposed to the packing was damaged as a result of strain.



The C-ring was worn or broken.



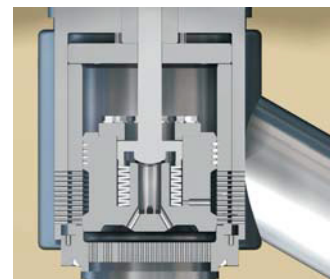
The valve seat was subject to through type cracking.



The periphery of the sleeve was subject to non-through type cracking.

Solution

The original valve trim was damaged seriously, so the causes were analyzed. Such damage was mainly caused by vibration under medium impact and dramatic temperature change in startup and shutdown during long-term operation. If the valve trim was repaired without structural change, similar problems would still occur in a period. Therefore, the valve structure was upgraded into a pilot type structure with large and small elements (as shown on the right). This not only guarantees Class VI leakage, but also makes the small opening controllable. At the same time, the whole set of seals were replaced.



Results

The repaired valve was put into use in November 2013. Up to now, it has been running steadily according to the site requirements, without internal leakage.



REPAIR CASE

Client: Wison (Nanjing) Clean Energy Co., Ltd.

Installation section: olefin cracking unit

Process parameters: liquid low-carbon olefin of 3.3MPa and 232 °C

Valve information: track ball valve of DN25, Class300 and CF8M, manufactured in February 2013



Fault

1. The valve was stuck in the small opening position and produced abnormal sound when opened.
2. The serious leakage occurred inside the valve in the fully closed position, up to 5000ml/min.

Damage



The sealing surface of the ball was damaged seriously.



The stem surface was worn seriously.



The end of guide pin was worn or the guide slot of the stem was deformed.



The sealing surface of the seat was scratched.

Solution

The amount of valve trim expansion after heating was calculated, and the gap between two seals was controlled until the valve was not stuck. The stem, dowel pin or seat is damaged seriously, so they were manufactured again with Inconel alloy. Surfacing with stellite was conducted on the scratched part of the surface of the valve element, followed by grinding repair.



Results

Parts were remanufactured or repaired according to high quality requirements. The self-made low-temperature devices that are light and reliable were used, so disassembly was finished in 5 minutes. The valve was put into use in December 2014. Up to now, it has been running reliably according to the site requirements, with little leakage.



REPAIR CASE

Client: Sinopec Shanghai Gaoqiao Branch

Installation section: bottom outlet of hydrocracking device D-3103

Process parameters: hot polymer oil of 15.7Mpa and 210 C

Valve information: high-pressure angle valve of DN150, Class2500 and CF8M, manufactured in January 2004



Fault

1. The valve packing leakage did not meet the standard.
2. The small opening could not be adjusted.

Damage



The sealing surface of the valve element was subject to serious cavitation and corrosion.



The sleeve was subject to serious cavitation or completely damaged.



The stem part exposed to the packing was damaged as a result of strain.

Solution

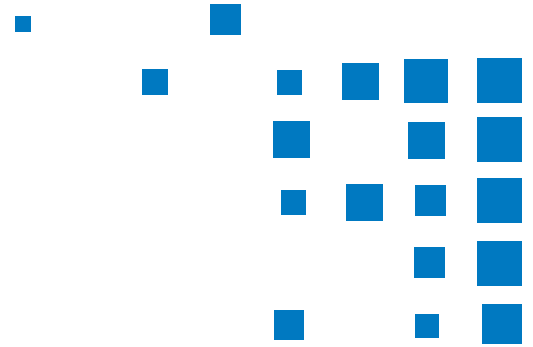
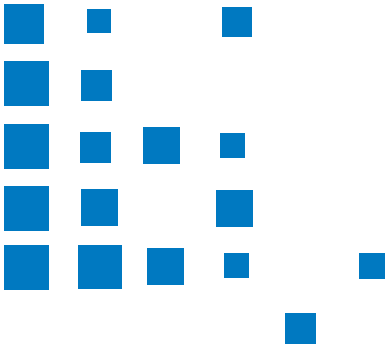
The valve opening was always 20% to 30% on the site, which accelerated erosion of valve trim. Therefore, the opening was adjusted to 40% to 50% for normal operation, by surveying the original size of valve trim, calculating the rated Cv value for opening reduction, and adding the diversion spacer, in order to reduce medium erosion to the valve trim.

The original valve trim was made of 440C. According to the characteristics of hydrocracking unit, the medium contains a small amount of H₂S, which is corrosive. Therefore, the trim material was upgraded into Ni50, to extend the valve life.

Results

In total, 19 identical valves were repaired during maintenance of the hydrocracking unit in September 2014. Following delivery, the on-site equipment was successfully started at a time. This valve has been in good conditions since it was put into use in September 2014. This is highly praised by the client.





Safty



Specialty

Solution

