




○ 주펌프 1호기

PUMP PERFORMANCE TEST CERTIFICATE					 RIVENTA		
THERMODYNAMIC TEST PROCEDURE							
<b>1. Site Information</b>							
Customer:	서울시 상수도 사업본부			File Name:	20190418_1122		
Site Name:	보광 가압장			System Name:	SUPPLY		
Pump No:	남산 주1호기			Date:	18-04-2019 11:23:00		
Tested By:	CGS			Witnessed by:			
<b>2. Pump Details</b>							
Manufacturer:				Duty Head:	48	m	
Type:	양흡입			Duty Flow Rate:	1920	m <sup>3</sup> /hr	
Serial No:				Test Speed:		rpm	
<b>3. Motor Details</b>							
Manufacturer:				Rated Power:	340	kW	
Frame Size:				Speed:	1189	rpm	
Serial No:				Voltage:		V	
<b>4. FREEFLOW Pump Test Data</b>							
Point	Differential Head (m)	Electrical Power (kW)	Hydraulic Efficiency (%)	Flow Rate (m <sup>3</sup> /hr)			
1	39.9	353.1	75.7	2323.0			
2	39.9	354.5	79.1	2434.2			
3	40.0	354.7	78.5	2410.2			
4	39.9	355.5	76.4	2357.9			
5	40.0	354.5	77.5	2380.1			
6							
7							
8							
<b>5. OEM Pump Type / Test Data</b>							
Point	Differential Head (m)	Electrical Power (kW)	Hydraulic Efficiency (%)	Flow Rate (m <sup>3</sup> /hr)			
1							
2							
3							
4							
5							
6							
7							
8							
<b>6. Condition Monitoring Results</b>				<b>7. Test Conditions</b>			
DRIVE END VIBRATION (mm/s)	HORIZONTAL		D. E. AVRG (mm/s)	D. E. BEARING TEMP (°C)	TEST MEDIUM:	Water	
	VERTICAL				AIR TEMPERATURE:	0	°C
	AXIAL				RELATIVE HUMIDITY:	0	%
NON DRIVE END VIBRATION (mm/s)	HORIZONTAL		D. E. AVRG (mm/s)	N. D. E BEARING TEMP (°C)	ATMOSPHERIC PRESSURE:	0	mbar
	VERTICAL						
	AXIAL						
<b>Comments:</b>							
Pool Innovation Centre Pool, Recluth, Cornwall TR15 3PL, UK		RIVENTA Ltd www.riventa.com			Tel: 01209 311384 e:info@riventa.com		

○ 주펌프 2호기

PUMP PERFORMANCE TEST CERTIFICATE					 RIVENTA		
THERMODYNAMIC TEST PROCEDURE							
<b>1. Site Information</b>							
Customer:	서울시 상수도 사업본부	File Name:	20190417_1532				
Site Name:	보광 기압장	System Name:	SUPPLY				
Pump No:	남산 주2호기	Date:	17-04-2019 15:32:37				
Tested By:	CGS	Witnessed by:					
<b>2. Pump Details</b>							
Manufacturer:		Duty Head:	48	m			
Type:	양흡입	Duty Flow Rate:	1920	m <sup>3</sup> /hr			
Serial No:		Test Speed:		rpm			
<b>3. Motor Details</b>							
Manufacturer:		Rated Power:	345	kW			
Frame Size:		Speed:	1189	rpm			
Serial No:		Voltage:		V			
<b>4. FREEFLOW Pump Test Data</b>							
Point	Differential Head (m)	Electrical Power (kW)	Hydraulic Efficiency (%)	Flow Rate (m <sup>3</sup> /hr)			
1	37.5	344.9	79.6	2533.6			
2	37.5	347.8	80.5	2586.9			
3	37.5	348.5	79.5	2557.0			
4	37.6	346.7	79.8	2549.2			
5							
6							
7							
8							
<b>5. OEM Pump Type / Test Data</b>							
Point	Differential Head (m)	Electrical Power (kW)	Hydraulic Efficiency (%)	Flow Rate (m <sup>3</sup> /hr)			
1							
2							
3							
4							
5							
6							
7							
8							
<b>6. Condition Monitoring Results</b>				<b>7. Test Conditions</b>			
DRIVE END VIBRATION (mm/s)	HORIZONTAL		D. E. AVR (mm/s)	D. E. BEARING TEMP (°C)	TEST MEDIUM:	Water	
	VERTICAL				AIR TEMPERATURE: <input checked="" type="checkbox"/>	0	°C
	AXIAL				RELATIVE HUMIDITY: <input checked="" type="checkbox"/>	0	%
NON DRIVE END VIBRATION (mm/s)	HORIZONTAL		D. E. AVR (mm/s)	N. D. E BEARING TEMP (°C)	ATMOSPHERIC PRESSURE: <input checked="" type="checkbox"/>	0	mbar
	VERTICAL						
	AXIAL						
Comments:							
Pool Innovation Centre Pool, Recknath, Cornwall TR15 3PL, UK		RIVENTA Ltd www.riventa.com			Tel: 01209 311284 e: info@riventa.com		

○ 주펌프 3호기

PUMP PERFORMANCE TEST CERTIFICATE					 RIVENTA	
THERMODYNAMIC TEST PROCEDURE						
<b>1. Site Information</b>						
Customer:	서울시 상수도 사업본부		File Name:	20190417_1354		
Site Name:	보광 기암장		System Name:	SUPPLY		
Pump No:	남산 주3호기		Date:	17-04-2019 13:54:45		
Tested By:	CGS		Witnessed by:			
<b>2. Pump Details</b>						
Manufacturer:			Duty Head:	48	m	
Type:	양흡입		Duty Flow Rate:	1920	m <sup>3</sup> /hr	
Serial No:			Test Speed:	rpm		
<b>3. Motor Details</b>						
Manufacturer:			Rated Power:	345	kW	
Frame Size:			Speed:	1189	rpm	
Serial No:			Voltage:	V		
<b>4. FREEFLOW Pump Test Data</b>						
Point	Differential Head (m)	Electrical Power (kW)	Hydraulic Efficiency (%)	Flow Rate (m <sup>3</sup> /hr)		
1	39.1	285.0	76.1	1924.9		
2	39.1	284.4	76.3	1926.9		
3	39.1	285.4	76.1	1929.2		
4	39.0	285.0	76.0	1927.1		
5						
6						
7						
8						
<b>5. OEM Pump Type / Test Data</b>						
Point	Differential Head (m)	Electrical Power (kW)	Hydraulic Efficiency (%)	Flow Rate (m <sup>3</sup> /hr)		
1						
2						
3						
4						
5						
6						
7						
8						
<b>6. Condition Monitoring Results</b>				<b>7. Test Conditions</b>		
DRIVE END VIBRATION (mm/s)	HORIZONTAL		D.E. AVR (mm/s)	D.E. BEARING TEMP (°C)	TEST MEDIUM: Water	
	VERTICAL				AIR TEMPERATURE: 0 °C	
	AXIAL				RELATIVE HUMIDITY: 0 %	
NON DRIVE END VIBRATION (mm/s)	HORIZONTAL		D.E. AVR (mm/s)	N.D.E BEARING TEMP (°C)	ATMOSPHERIC PRESSURE: 0 mbar	
	VERTICAL					
	AXIAL					
Comments:						
<small>Pool Innovation Centre Pool, Redruth, Cornwall TR15 3PL, UK</small>		<small>RIVENTA Ltd www.riventa.com</small>			<small>Tel: 01209 311244 e: info@riventa.com</small>	