

# SULZER

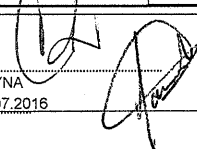
Tipo: **6x8x18B BBT-D**  
 Type  
 Item Cliente No.: **022-P-042**  
 Client's Item No.  
 Client's/Destino: **KP ENGINEERING**  
 Client/Destination

No. de Orden: **100209046-0040**  
 Order No.  
 No. de Serie: **537287**  
 Sulzer Serial. No.:  
 Curva de prueba: **M-11422**  
 Test Curve:

Reporte de prueba **244/16**  
 Test Report No.

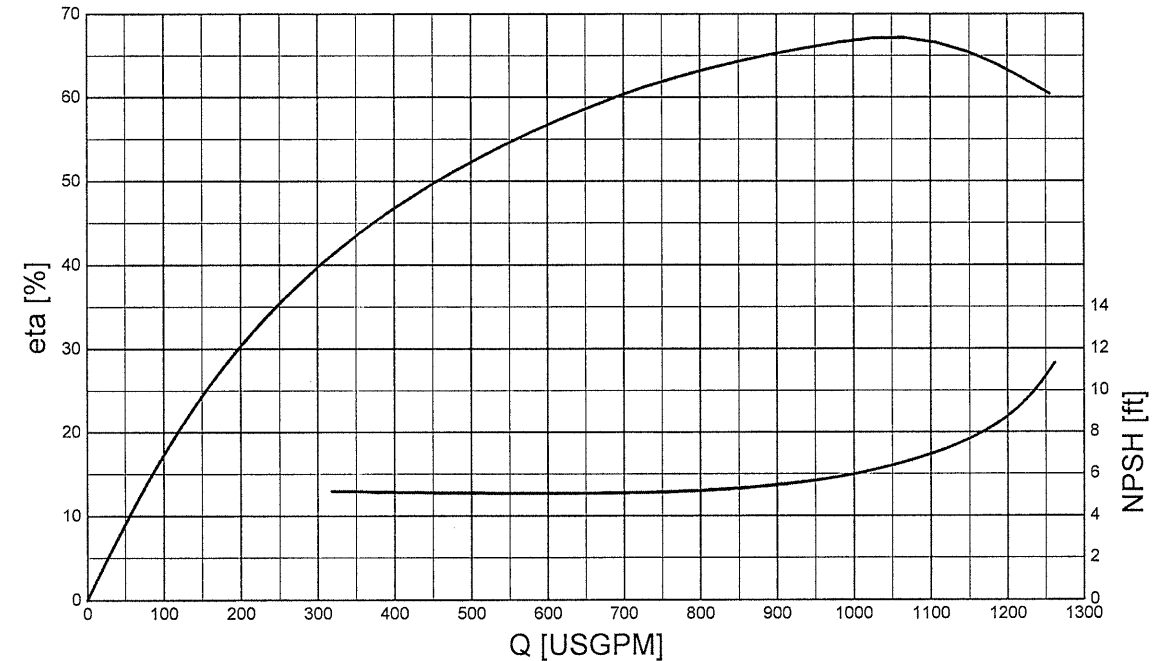
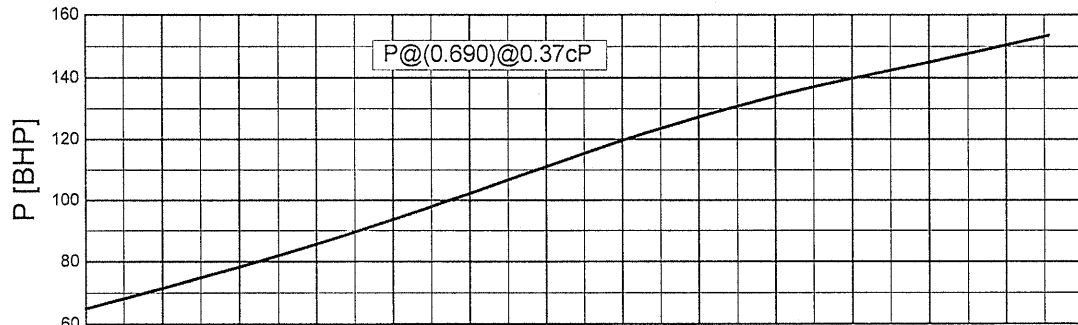
<b>Datos de punto de operación</b> Data at guarantee point $Q_N$ 984.00 USGPM $H_N$ 530.00 ft $P_N$ 138.00 BHP $\eta_N$ 65.70 % $A_N$ 0.69 SG $n_N$ 1785 rpm $NPSH$ 6.20 ft $\vartheta_N$ 150.00 °F		Drive / Motor: <b>1-ML-132</b> 1st gear drive / 1. Getriebe: 2st gear drive / 2. Getriebe:	No./Nr.: <b>1-ML-132</b> No./Nr.: No./Nr.:
Tacometro Medidor de potencia Medidor de flujo	Tachometer Power measuring Pump capacity meter	Pepper & Fuchs Visolux F & R 0-30 PSI CAP -103 L-1	Nr. No.: <b>1-ML-109128S</b> Nr. No.: Nr. No.: <b>Venturi 4"</b>
Medidor de Ps Medidor de Pd	Inlet pressure meter Outlet pressure meter	F & R -14.7 - 150 PSI Suct Loop1 F & R 0-1000 PSI Disch Loop1	Nr. No.: <b>CAP-102</b> Nr. No.: <b>CAP-100</b>
Sensor Temp. de liquido	Temp.sensing test liquid	PT2 100 H2O Loop1	Nr. No.: <b>PT1002</b>
Diametros de succión y descarga $p_s / p_d$ <b>8</b> <b>6</b> in in	No. De Pasos No. De Venas Modelo Impulsor	No. Stages No. Vanes Impeller Pattern	Dia.Maximo Impulsor Dia.Impulsor Prueba
Presión Barométrica: mean barometric press.	11.18 p.s.i.	2 5 <b>0613BBTD-21&amp;19</b>	Imp. Max Dia. <b>18.00"</b> Imp. Test Dia. <b>16.90"</b>

Measurement no.	Lecturas No.		1	2	3	4	5	6	7	8	9
Motor speed	Velocidad de Motor	$n_M$ rpm	1793.7	1792.3	1791.6	1792.2	1794.1	1794.0	1795.5	1795.6	1795.9
Pump speed	Velocidad de Bomba	$n_P$ rpm	1793.7	1792.3	1791.6	1792.2	1794.1	1794.0	1795.5	1795.6	1795.9
Outlet pressure	Presión de Descarga	$P_d$ p.s.i.	208.81	178.65	252.45	220.13	262.30	229.49	311.44	277.74	313.89
Inlet pressure	Presión de Succión	$P_s$ p.s.i.	21.9	-5.7	22.2	-7.8	22.4	-7.9	23.6	-7.9	23.9
Velocity head difference	Hv Dif. de velocidades	$(v_e^2 - v_s^2) / 2g$ ft	2.131	2.148	1.499	1.471	1.287	1.311	0.135	0.137	0.000
Pressure head outlet	Presión de carga de salida	$H_d$ ft	484.08	414.15	585.16	510.27	607.94	532.27	721.71	644.05	727.35
Pressure head inlet	Presión de carga de entrada	$H_s$ ft	50.72	-13.32	51.57	-17.98	51.92	-18.21	54.71	-18.36	55.50
Pump head	Carga total	H ft	435.49	429.61	535.08	529.72	557.31	551.79	667.14	662.54	671.85
Net. Pos. Suct. Head	Carga Net. Pos. Succ.	NPSH ft		11.41		6.41		5.95		5.26	
Pump capacity	Capacidad de la Bomba	Q USGPM	1273.45	1278.58	1067.92	1058.00	989.77	998.95	320.62	323.11	0.00
Efficiency	Eficiencia	$\eta$ %	60.41		67.24		66.54		40.97		0.00
Electric power	Potencia Eléctrica	$P_{el}$ BHP	240.04		222.61		217.25		139.47		105.94
Motor efficiency	Eficiencia de motor	$\eta_{Mot}$ %	96.20		96.04		96.00		94.18		92.72
Motor power output	Potencia de salida del Motor	$P_{Mot}$ BHP	230.91		213.80		208.55		131.35		98.23
Pwr loss 1st gear drive	Perdidas Pot. reductor 1	$P_{V1}$ BHP									
Pwr loss 2nd gear drive	Perdidas Pot. reductor 2	$P_{V2}$ BHP									
Pump input	P Entrada a la Bomba	P BHP	230.91		213.80		208.55		131.35		98.23
Values converted to $n_N$ and i stages			Valores corregidos $n_N = 1785.0$								
Efficiency	Eficiencia	$\eta$ %	60.41		67.24		66.54		40.97		0.00
Pump capacity	Capacidad de la Bomba	Q USGPM	1255.63	1261.70	1054.23	1044.05	975.70	984.79	315.63	318.25	0.00
Pump head	Carga Din. Tot.	H ft	423.39	418.34	521.46	515.84	541.57	536.26	646.55	642.75	651.57
Net. Pos. Suct. Head	Carga Net. Pos. Succ.	NPSH ft		11.32		6.36		5.89		5.20	
Pump input at $p_N$	P Entrada a Bomba $p_N$	P BHP	153.55		142.66		138.56		86.91		65.06

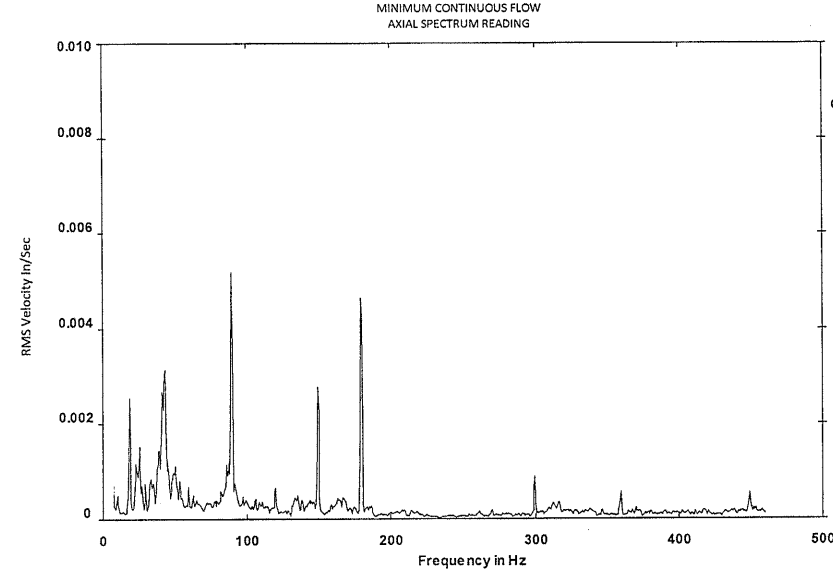
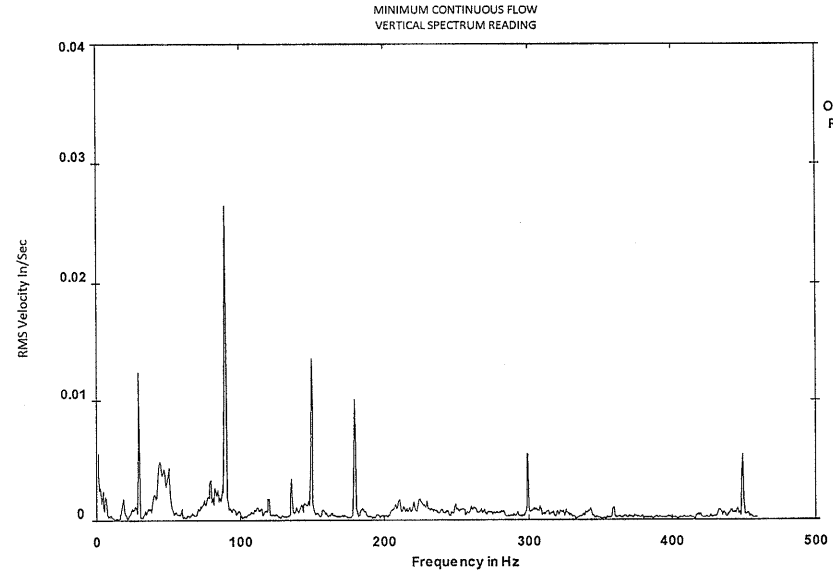
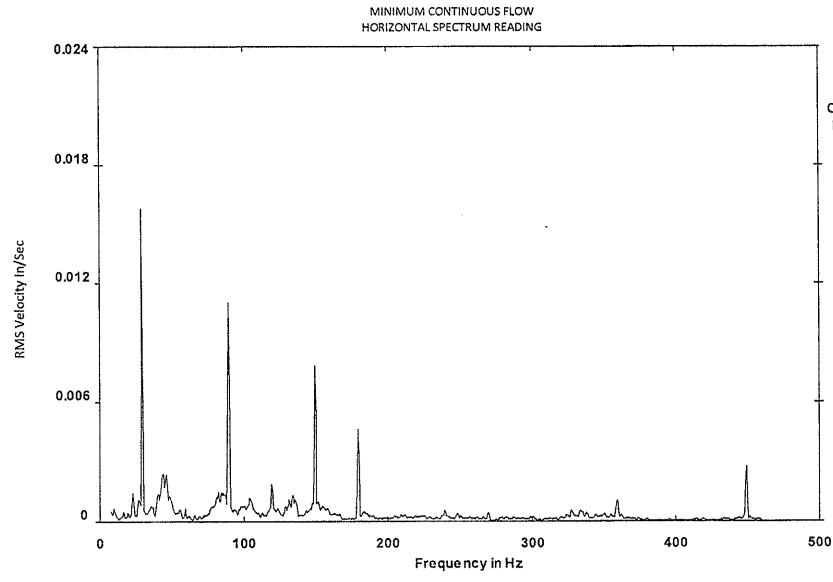
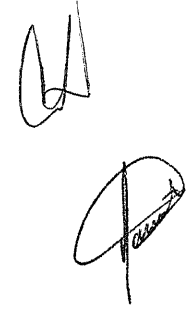
Probado por:   
 Tested by  
 Fecha: Date **07.07.2016**  
 Atestiguado por:  
 Witnessed by  
 Fecha: Date

Observaciones: **TRIM DIAMETER AFTER TEST TO: 16.77"**  
 Remarks  
 Temperatura de Soporte:  
 Bearing temperature: **96.00 °F** Brg Hsg DE  
**104.00 °F** Brg Hsg NDE  
**RATED POINT**

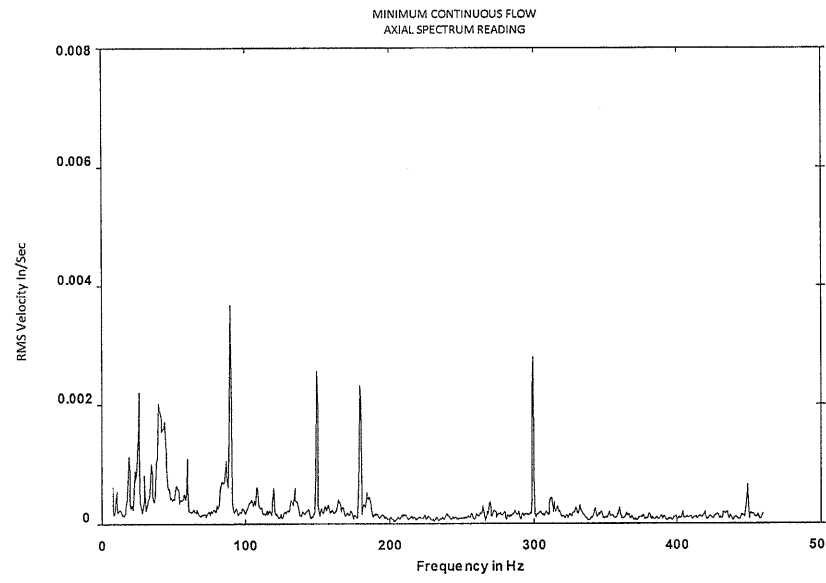
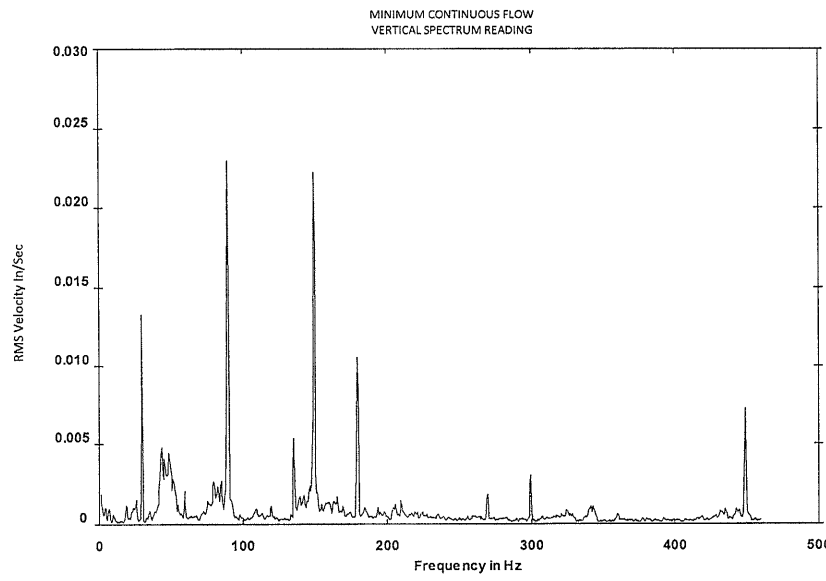
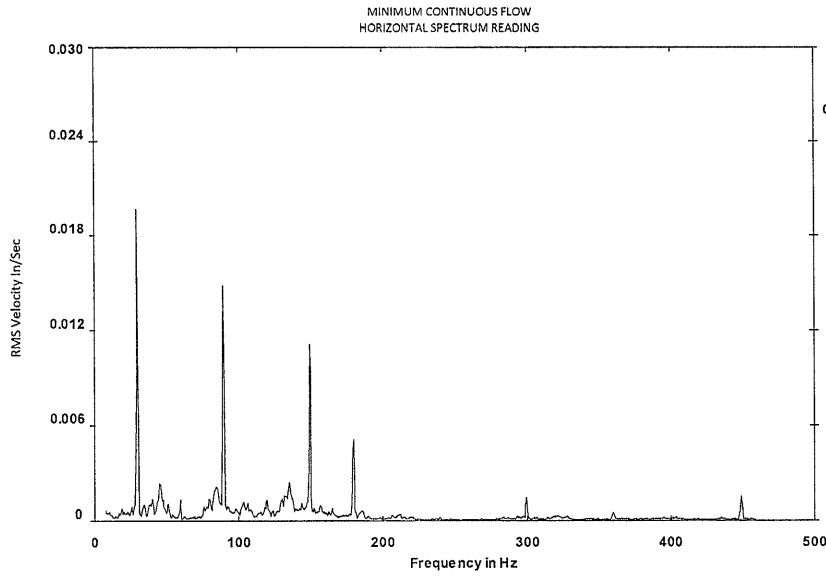
<b>SULZER</b>		Dibujo No. Drawing-No.		No. Orden 100209046-0040	
Curva de Prueba Test Curve <b>M-11422</b>		EY10434 EY10435		0613BBTD-21 0613BBTD-19	
Cliente Customer <b>KP ENGINEERING</b>		Impulsor Impeller		Sulzer Comm.Nr.	
Orden Compra Order No. <b>J1422-B-009</b>		Difusor Diffuser		Tipo Type <b>6x8x18B BBT-D</b>	
No. Identif. Ident No. <b>022-P-042</b>		Gehäuse Casing			
No. Serie. Serial No. <b>537287</b>		D2 Diseño. D2 design. $\varnothing$ 16.77"		Venas. Vane $\varnothing$ 16.77"	
Nombre Name <b>REYNA</b>		D2 min. D2 min. $\varnothing$ 14.38"		Reporte No. Test Report No. <b>244/16</b>	
Fecha Date <b>07.07.2016</b>		D2 max. D2 max. $\varnothing$ 18.00"		n= 1785 1/min. i= 2 Pasos Stages	
				DN <sub>s</sub> 8" DN <sub>d</sub> 6"	



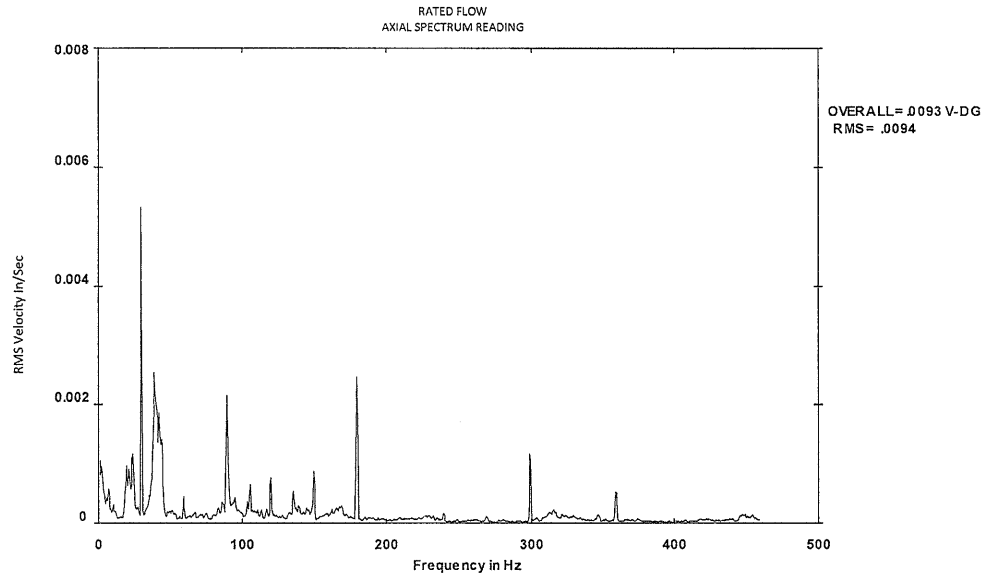
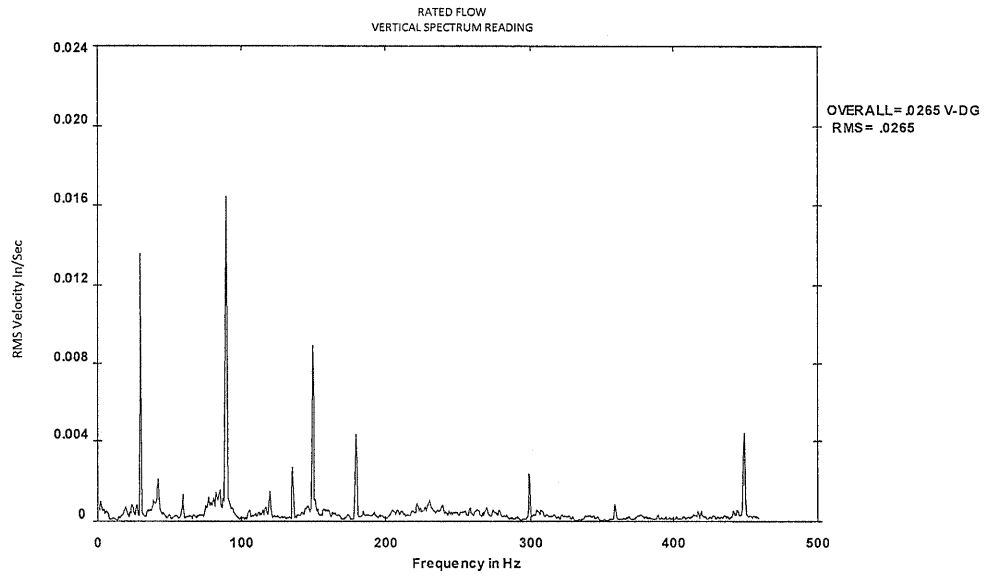
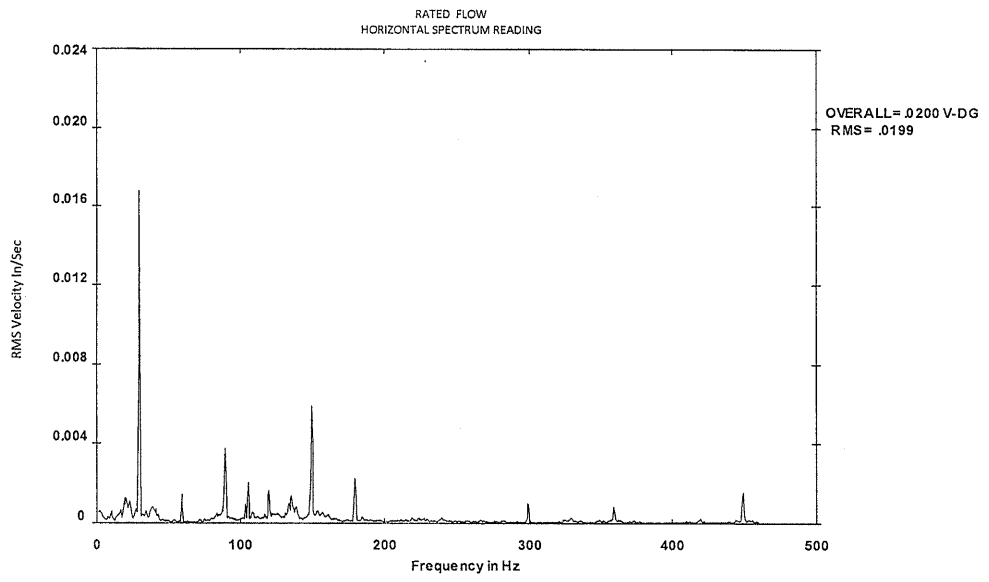
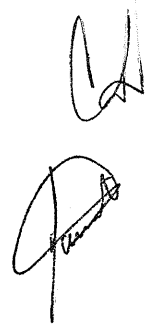
100209046-0040  
6x8x18B BBT-D  
315.63 USGPM  
1796 RPM  
DRIVEN END



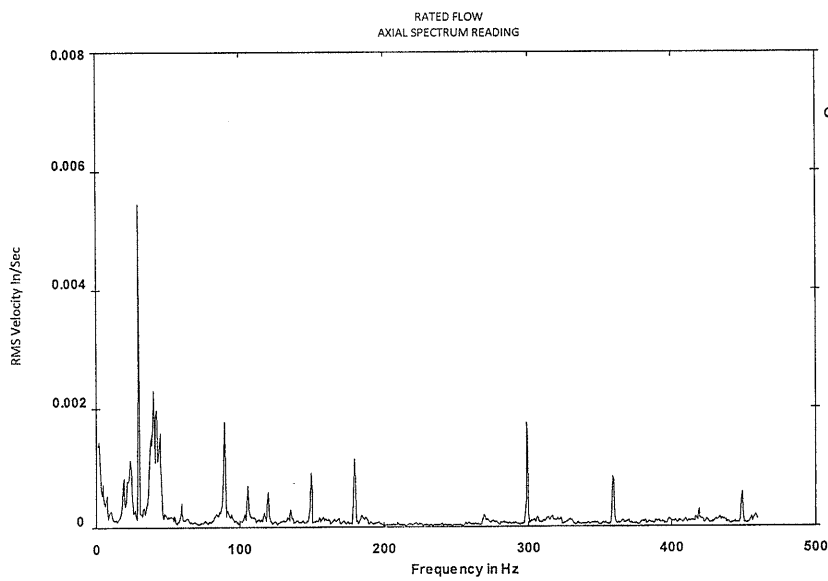
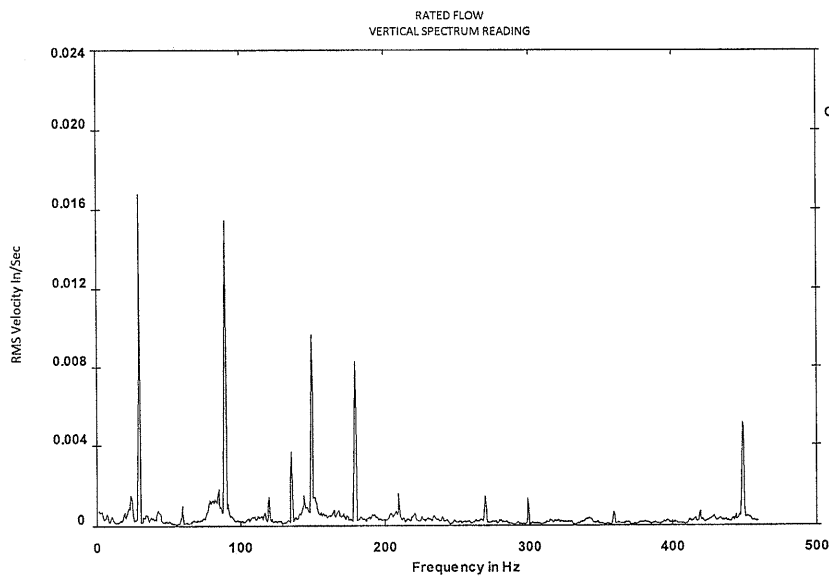
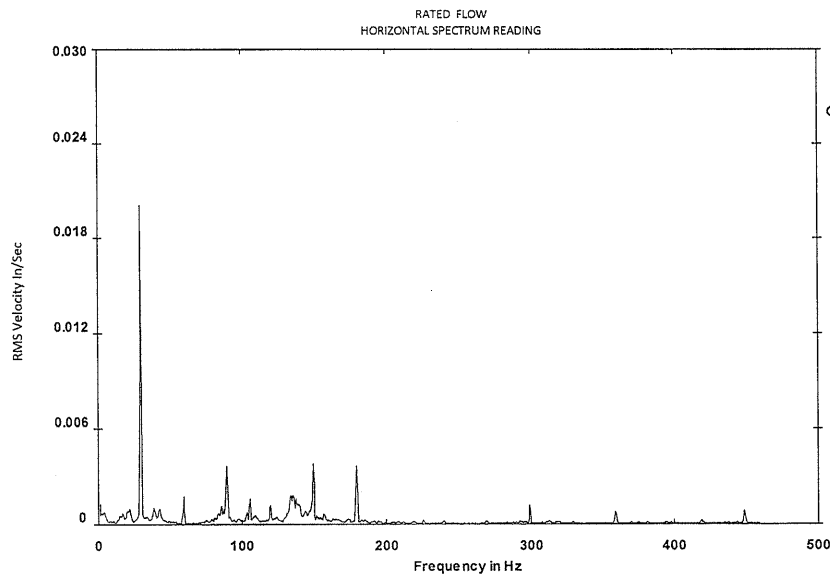
100209046-0040  
6x8x18B BBT-D  
315.63 USGPM  
1796 RPM  
NON DRIVEN END



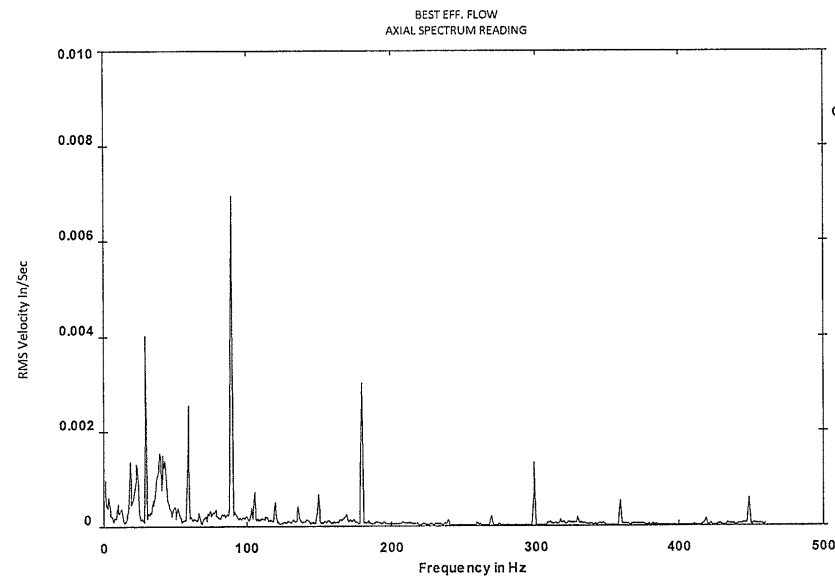
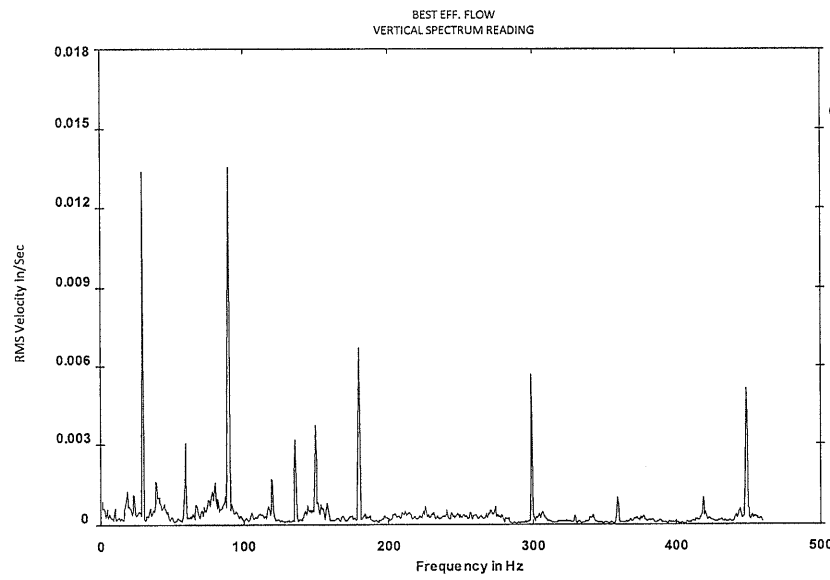
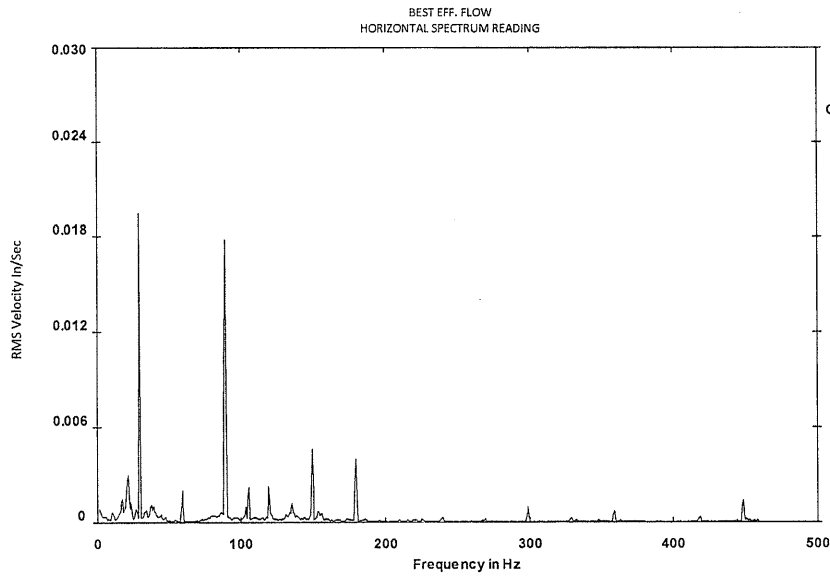
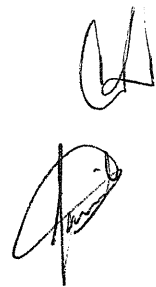
100209046-0040  
6x8x18B BBT-D  
975.70 USGPM  
1794 RPM  
DRIVEN END



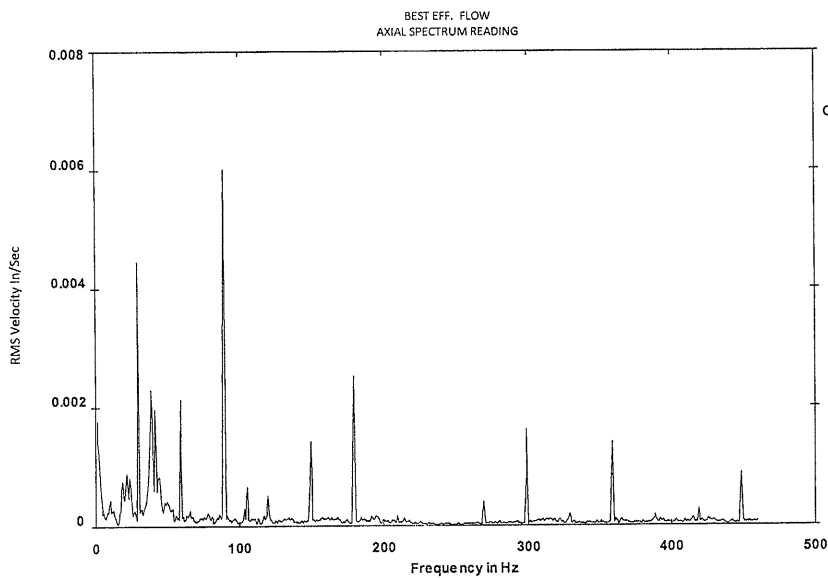
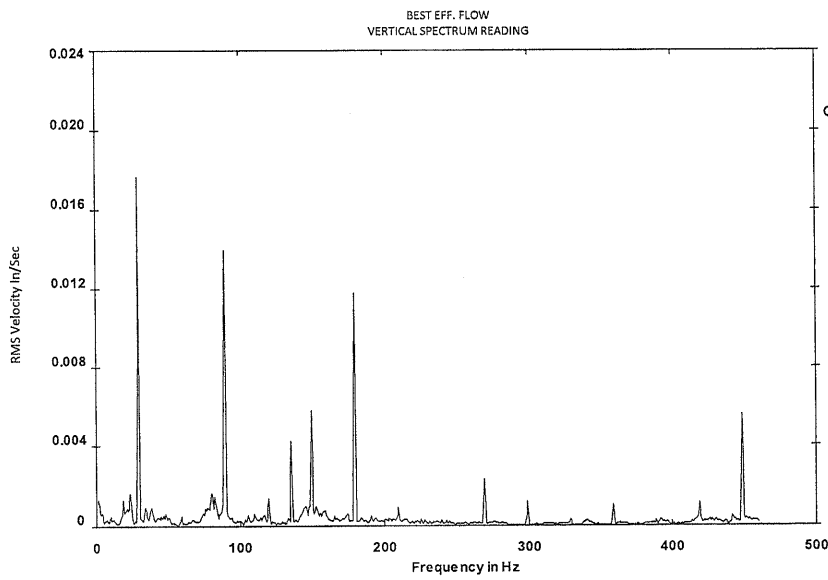
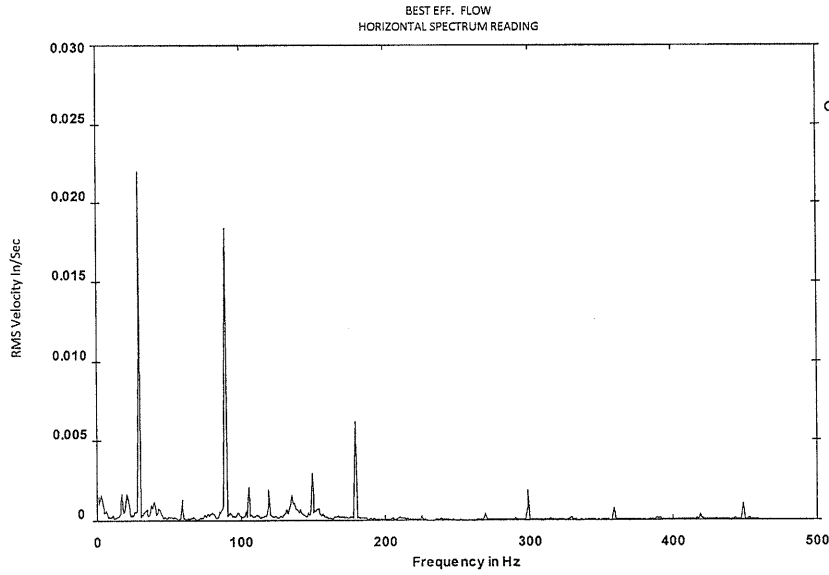
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6x8x18B BBT-D  
975.70 USGPM  
1794 RPM  
NON DRIVEN END



100209046-0040  
6x8x18B BBT-D  
1054.23 USGPM  
1791 RPM  
DRIVEN END

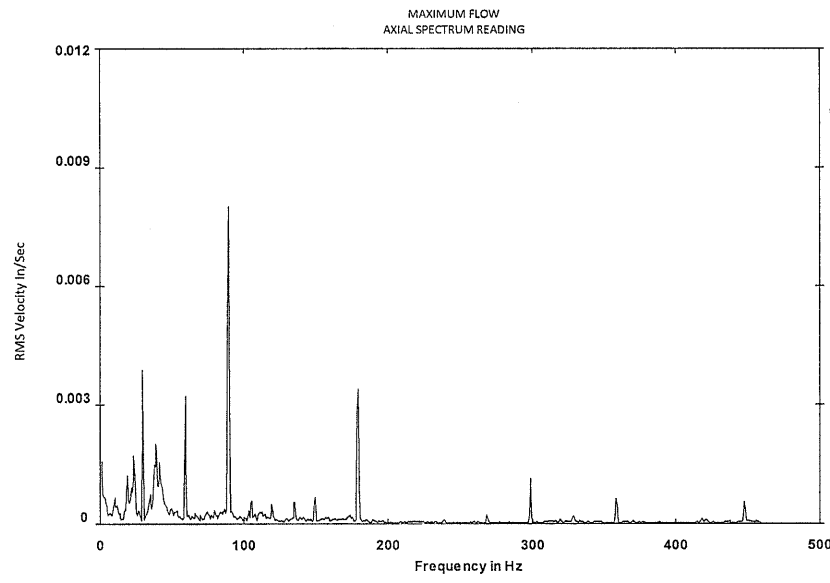
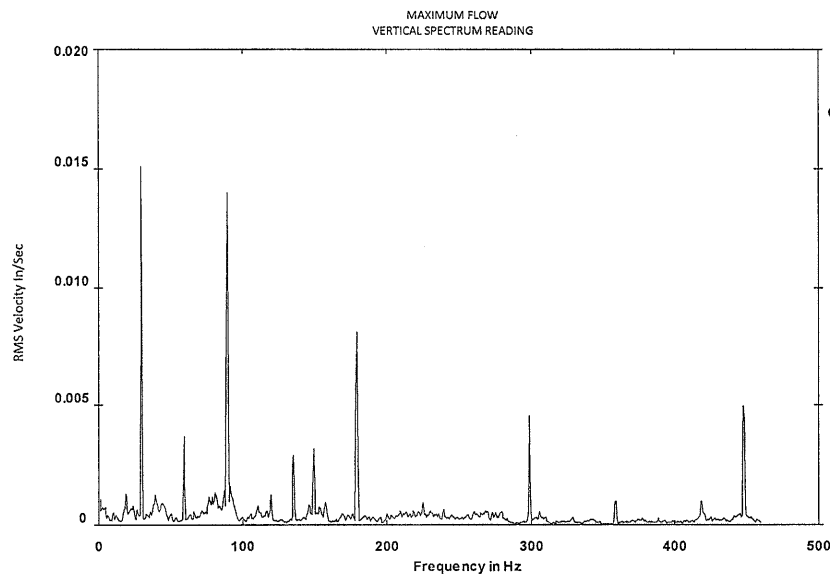
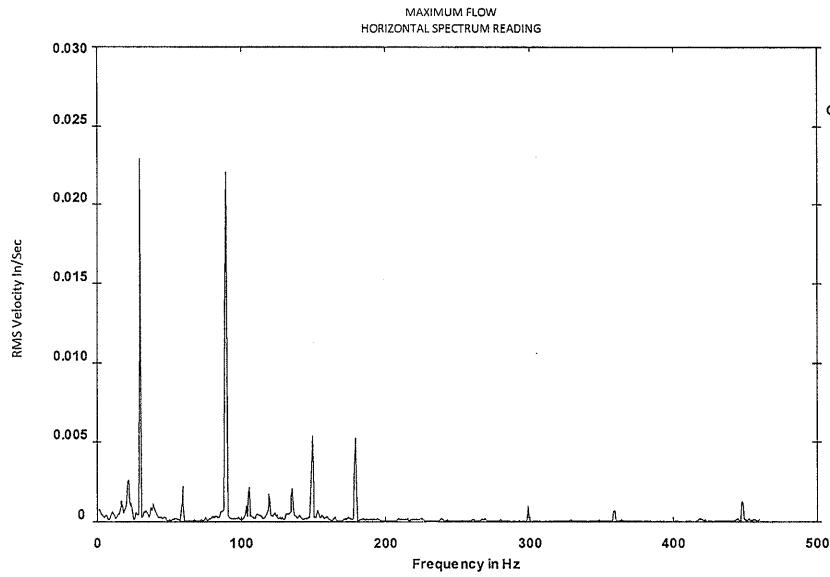
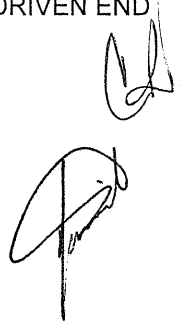


100209046-0040  
6x8x18B BBT-D  
1054.23 USGPM  
1791 RPM  
NON DRIVEN END

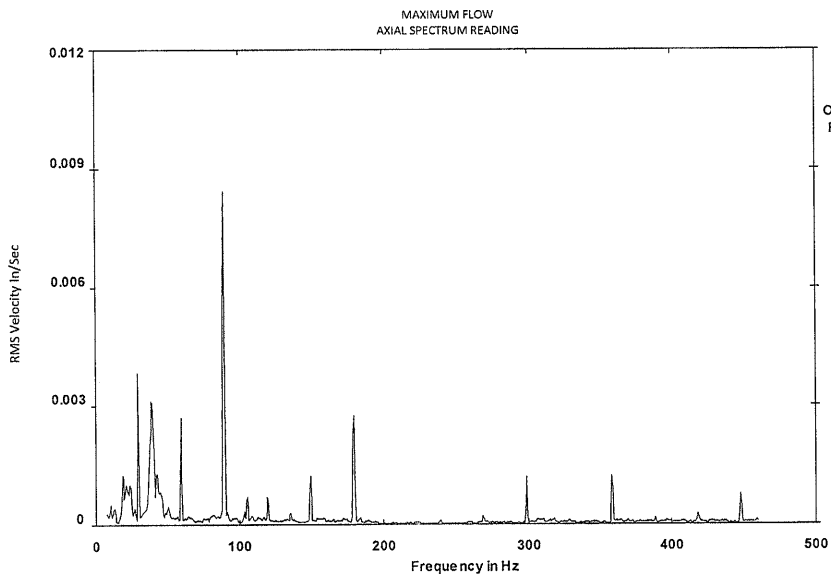
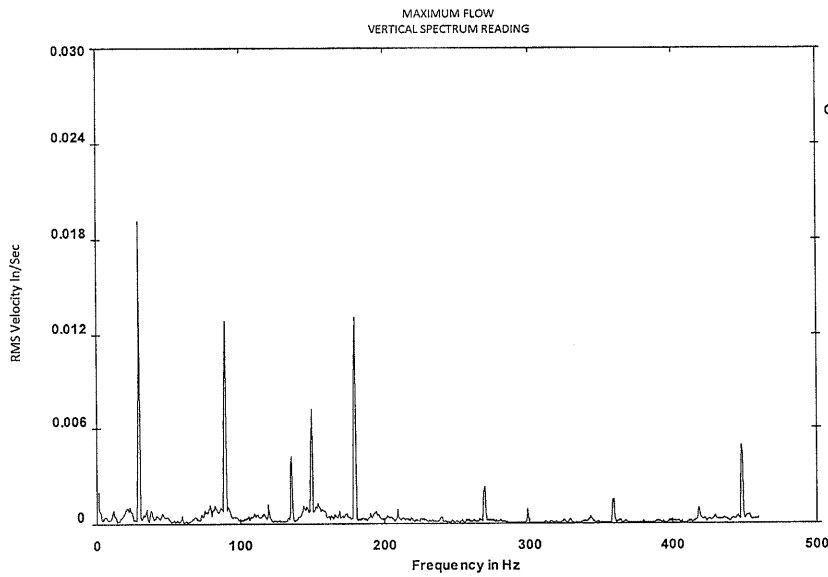
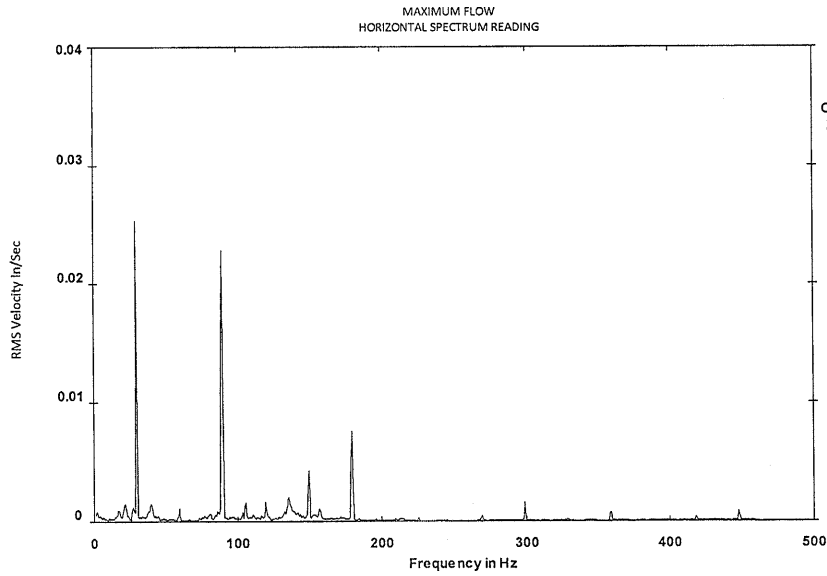
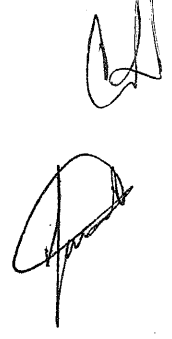




100209046-0040  
6x8x18B BBT-D  
1255.63 USGPM  
1793 RPM  
DRIVEN END



100209046-0040  
6x8x18B BBT-D  
1255.63 USGPM  
1793 RPM  
NON DRIVEN END



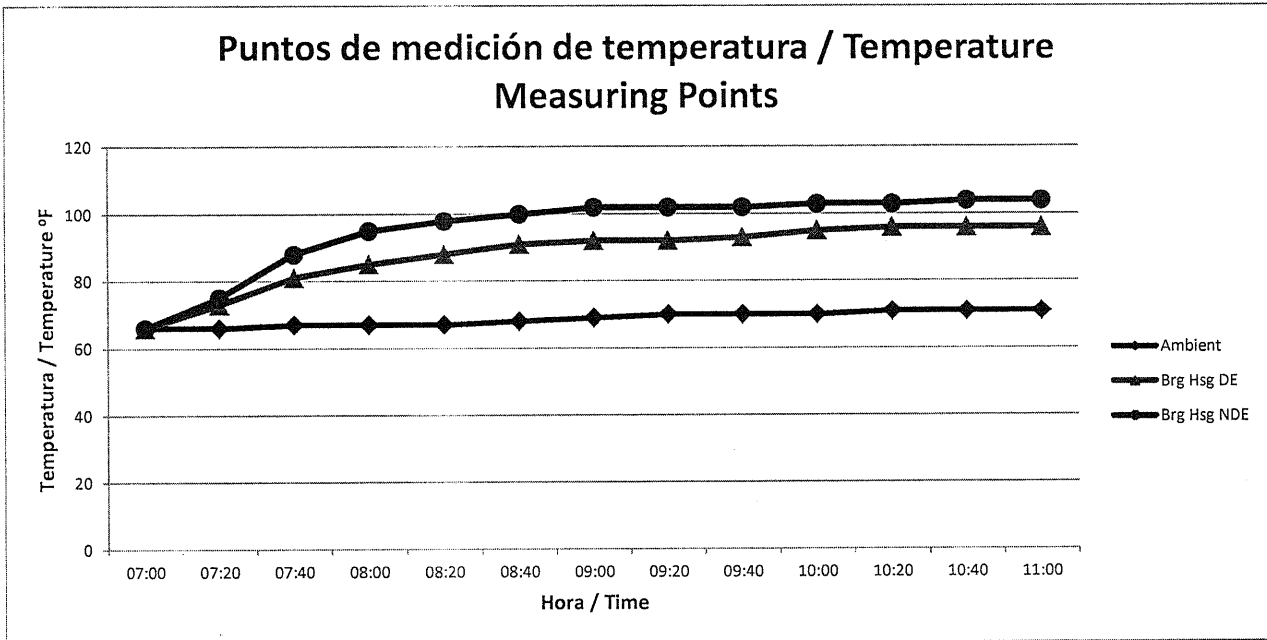


Tipo: 6x8x18B BBT-D  
 Type: 6x8x18B BBT-D  
 Item Cliente No:  
 Client's Item No: 022-P-042  
 Cliente/Destino: KP ENGINEERING  
 Client/Destination:

No. de Orden: 100209046-0040  
 Order No:  
 No. de Serie: 537287  
 Sulzer Serial. No.:  
 Curva No: M-11422  
 Curve No:

Reporte Prueba No.: 244/16  
 Test Report No.:

Puntos de medición de temperatura Temperature Measuring Points			
Hora: Time:	Ambiente	Soporte Extremo Accionado	Soporte Extremo no Accionado
	Ambient	Bearing Housing Driven End	Bearing Housing Non Driven End
	°F	°F	°F
07:00	66	66	66
07:20	66	73	75
07:40	67	81	88
08:00	67	85	95
08:20	67	88	98
08:40	68	91	100
09:00	69	92	102
09:20	70	92	102
09:40	70	93	102
10:00	70	95	103
10:20	71	96	103
10:40	71	96	104
11:00	71	96	104



Probado por: REYNA  
 Tested by: REYNA  
 Fecha: 07.07.2016  
 Date: 07.07.2016

Testificado por: [Signature]  
 Witnessed by: [Signature]  
 Fecha: [Signature]  
 Date: [Signature]

F-BP-003