



# Combined State Binder Group

Round Robin 2003 Data  
sorted by  
Equipment Manufacturer

December 9, 2003

**COMBINED STATE BINDER GROUP ROUND ROBIN 2003  
VISCOSITY by MANUFACTURER**

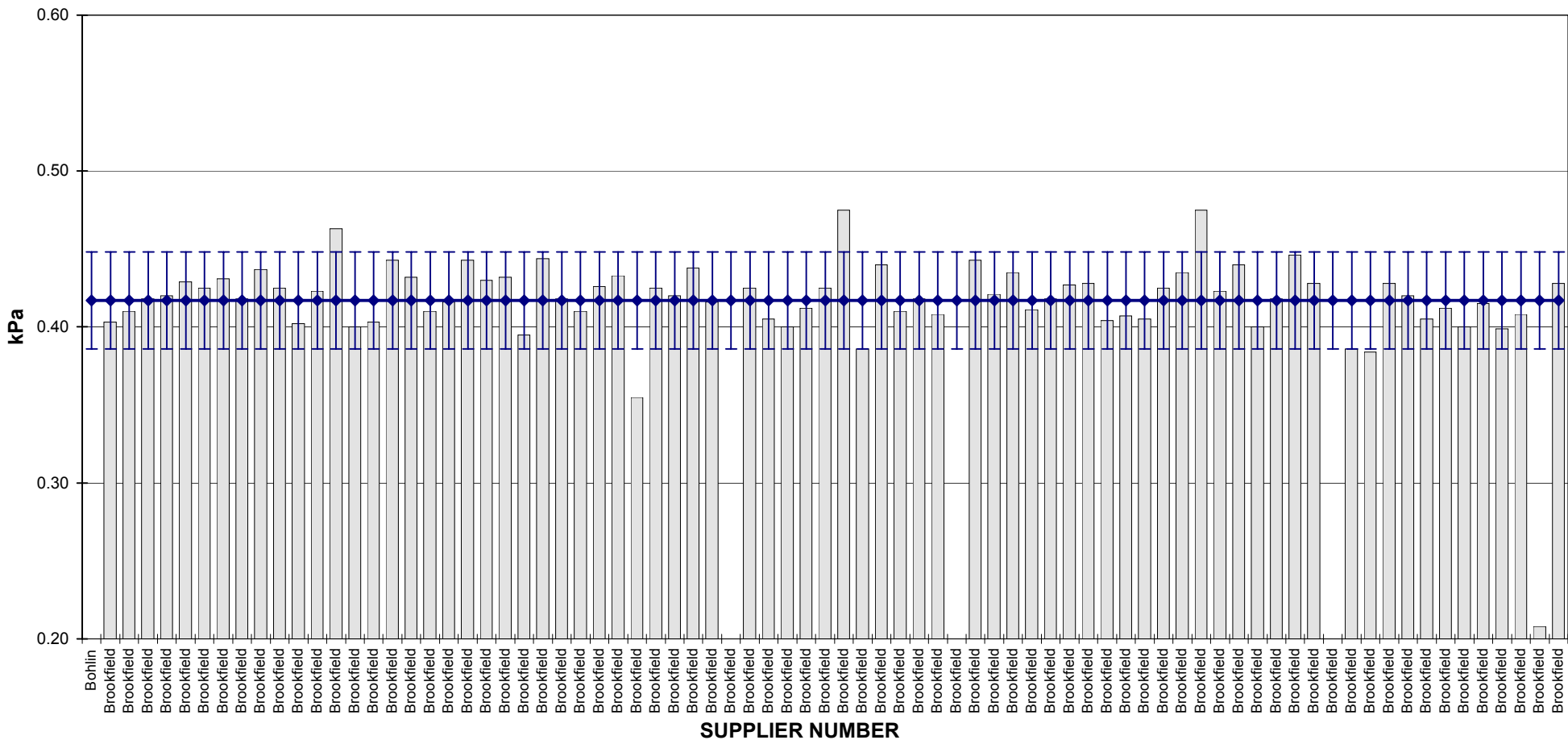
<b>Equipment Manufacturer</b>	<b>2003-2 Rotational Viscosity (Pa.s) @135°C</b>	<b>2003-3 Rotational Viscosity (Pa.s) @135°C</b>	<b>2003-4 Rotational Viscosity (Pa.s) @135°C</b>
Bohlin	0.396	0.987	
Brookfield	0.38	1.022	0.403
Brookfield	0.39	1.095	0.41
Brookfield	0.388	1.117	0.418
Brookfield	0.337	1.055	0.42
Brookfield	0.398	1.127	0.429
Brookfield	0.387	1.088	0.425
Brookfield	0.381	1.096	0.431
Brookfield	0.385	1.114	0.418
Brookfield	0.388	1.106	0.437
Brookfield	0.398	1.125	0.425
Brookfield	0.382	1.096	0.402
Brookfield	0.388	1.082	0.423
Brookfield	0.4	1.167	0.463
Brookfield	0.383	1.05	0.4
Brookfield	0.375	1.017	0.403
Brookfield	0.413	1.375	0.443
Brookfield	0.376	1.076	0.432
Brookfield	0.372	1.02	0.41
Brookfield	0.378	1.13	0.416
Brookfield	0.392	1.03	0.443
Brookfield	0.395	1.128	0.43
Brookfield	0.38	1.075	0.432
Brookfield	0.385	1.012	0.395
Brookfield	0.381	1.106	0.444
Brookfield	0.388	1.055	0.418
Brookfield	0.393	1.095	0.41
Brookfield	0.38	0.105	0.426
Brookfield	0.398	1.125	0.433
Brookfield	0.342	1.115	0.355
Brookfield	0.39	1.175	0.425
Brookfield	0.39	1.082	0.42
Brookfield	0.381	1.113	0.438
Brookfield	0.385	1.088	0.416
Brookfield	0.375	0.953	
Brookfield	0.388	1.129	0.425
Brookfield	0.375	1.02	0.405
Brookfield	0.368	1.188	0.4
Brookfield	0.317	1.23	0.412
Brookfield	0.398	1.135	0.425
Brookfield	0.378	1.152	0.475
Brookfield	0.365	0.938	0.386
Brookfield	0.394	1.098	0.44
Brookfield	0.39	1	0.41
Brookfield	0.385	1.032	0.418
Brookfield	0.385	1.095	0.408
Brookfield	0.335	1.183	
Brookfield	0.389	1.02	0.443
Brookfield	0.375	0.1186	0.421
Brookfield	0.393	1.115	0.435
Brookfield	0.39	0.99	0.411
Brookfield	0.386	1.191	0.418
Brookfield	0.349	1.1	0.427
Brookfield	0.388	1.09	0.428
Brookfield	0.377	1.012	0.404
Brookfield	0.373	1.045	0.407
Brookfield	0.382	1.054	0.405
Brookfield	0.388	1.127	0.425
Brookfield	0.41	1.125	0.435
Brookfield	0.425	1.237	0.475
Brookfield	0.385	1.085	0.423
Brookfield	0.41	1.005	0.44
Brookfield	0.374	1.014	0.4
Brookfield	0.388	1.042	0.418
Brookfield	0.4	1.192	0.446
Brookfield	0.381	1.095	0.428
Brookfield	0.38	0.96	
Brookfield	0.366	0.952	0.386
Brookfield	0.365	0.93	0.384
Brookfield	0.383	1.118	0.428
Brookfield	0.37	1.06	0.42
Brookfield	0.367	1.088	0.405
Brookfield	0.275	0.116	0.412
Brookfield	0.375	1.112	0.4
Brookfield	0.385	1.045	0.415
Brookfield	0.37	0.997	0.399
Brookfield	0.392		0.408
Brookfield	0.392	0.845	0.208
Brookfield	0.393	1.077	0.428
<b>Average</b>	0.3811	1.0431	0.4171
<b>Std. Dev.</b>	0.0205	0.2025	0.0311
<b>Coef. of Var.</b>	5.370	19.416	7.461





COMBINED STATE BINDER GROUP ROUND ROBIN 2003-4  
by VISCOMETER MANUFACTURER

ROTATIONAL VISCOSITY







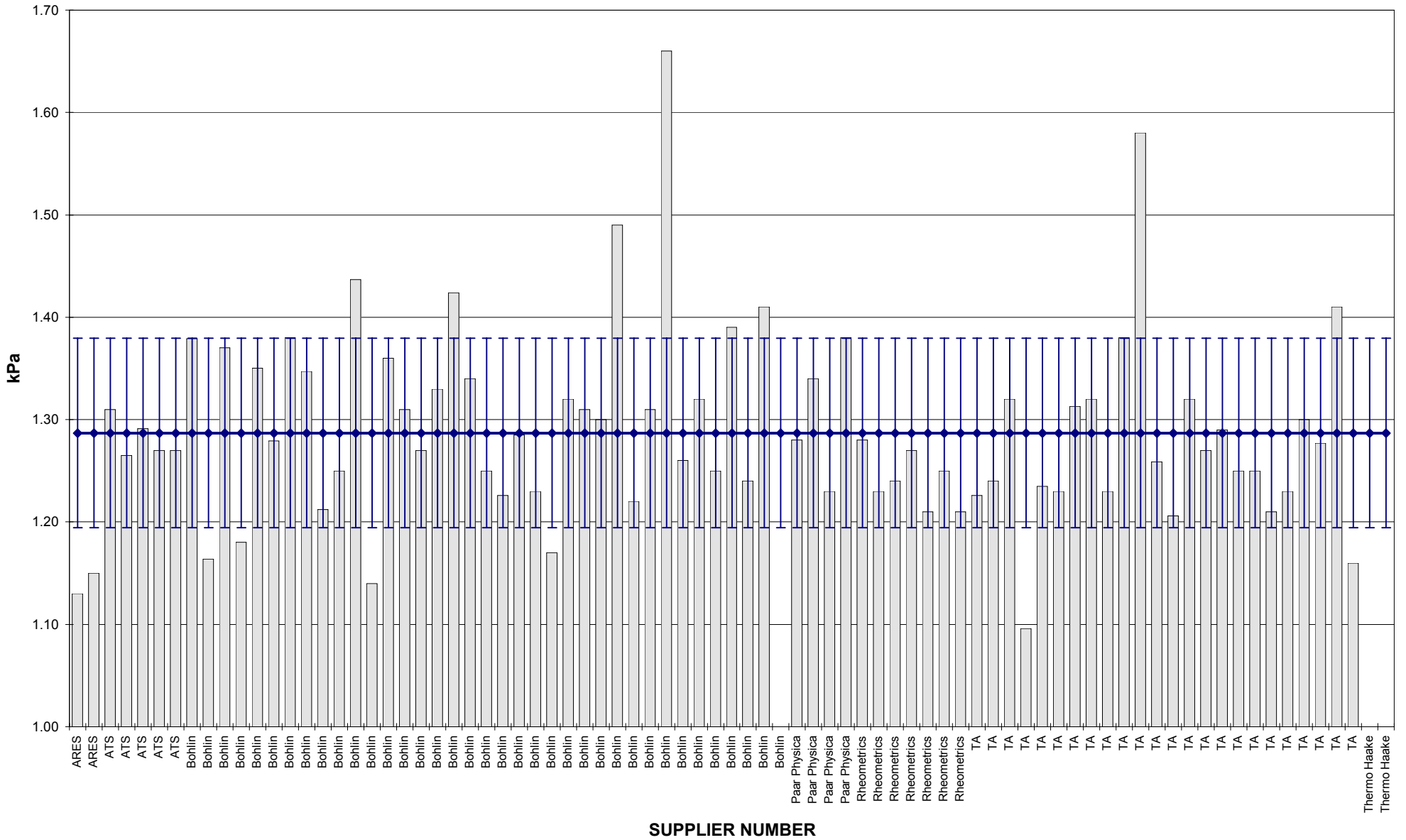






COMBINED STATE BINDER GROUP ROUND ROBIN 2003-2  
by DSR MANUFACTURER

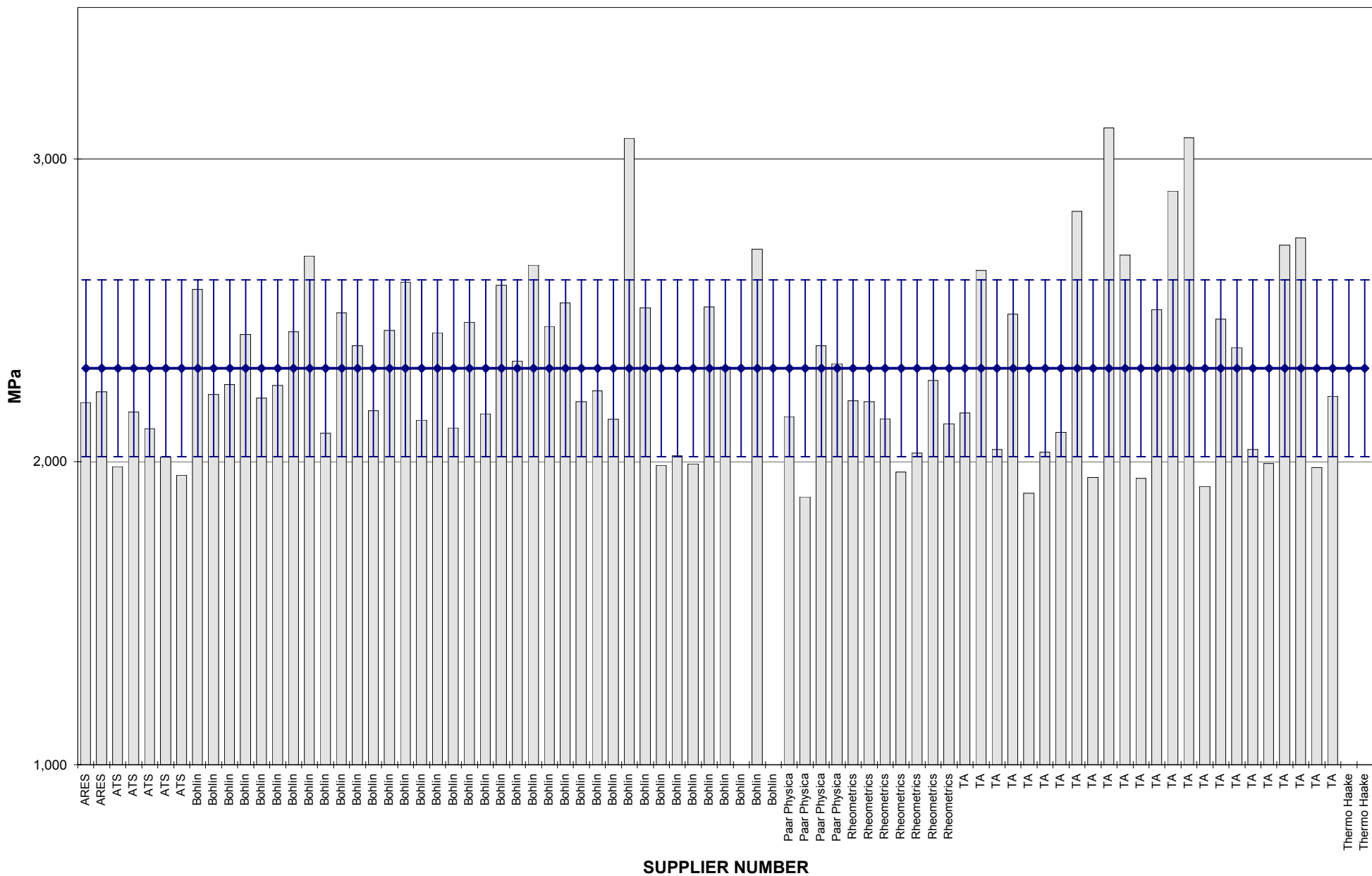
DSR - UNAGED





COMBINED STATE BINDER GROUP ROUND ROBIN 2003-2  
by DSR MANUFACTURER

PAV DSR















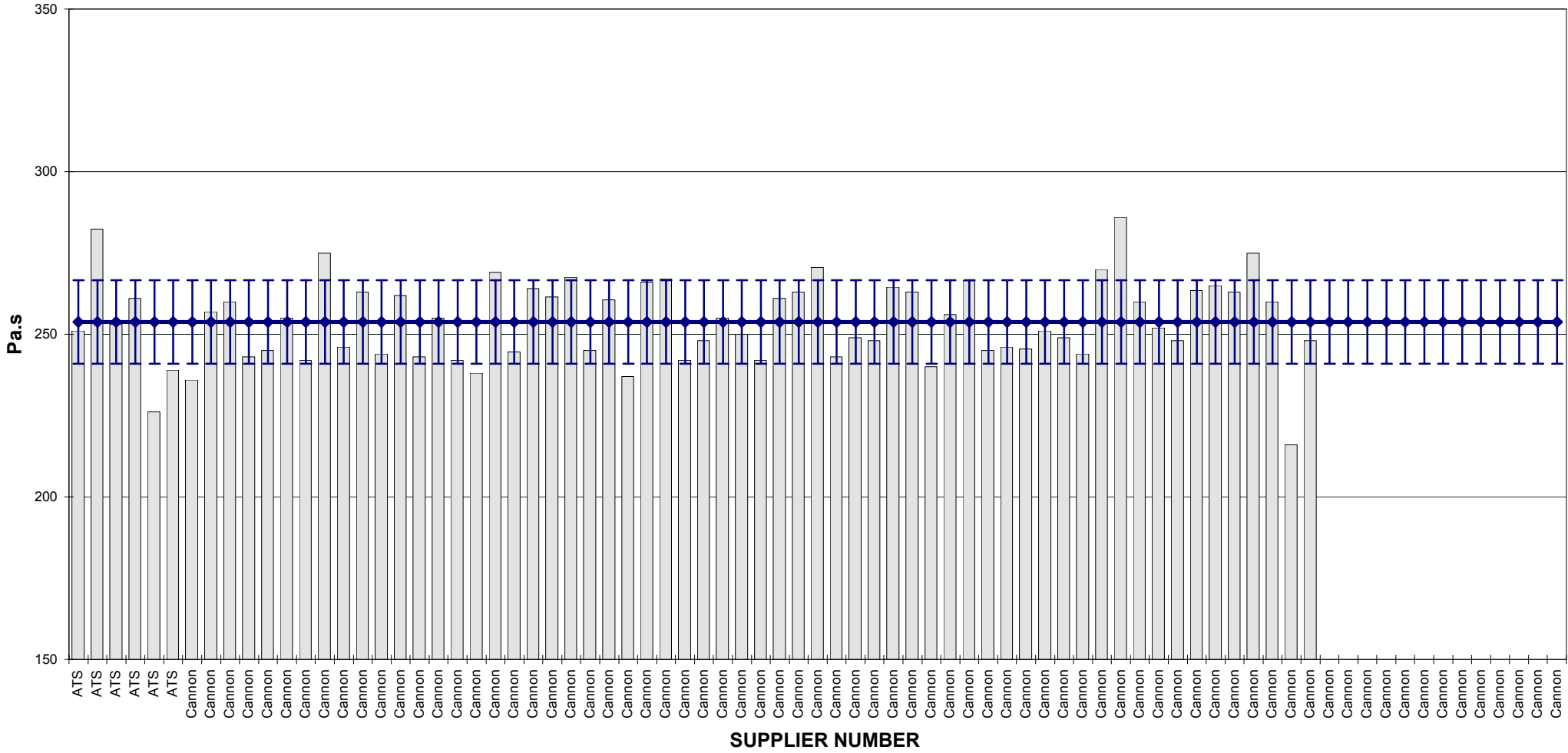


**COMBINED STATE BINDER GROUP ROUND ROBIN 2003  
BBR RESULTS by MANUFACTURER**

Equipment BBR	2003-1 BBR S- value	2003-1 BBR m-value	2003-2 BBR S-value	2003-2 BBR m-value	2003-3 BBR S-value	2003-3 BBR m- value	2003-4 BBR S-value	2003-4 BBR m- value
ATS	251	0.331	233	0.338	259	0.323	288	0.334
ATS	282	0.320	242	0.344	260	0.319	287	0.333
ATS	253	0.323	241	0.343	268	0.316	262	0.344
ATS	261	0.325	237	0.311	252	0.323	264	0.333
ATS	226	0.336	246	0.334				
ATS	239	0.326	238	0.329				
Cannon	236	0.314	235	0.327	251	0.312	276	0.327
Cannon	257	0.301	260	0.316	268	0.302	272	0.321
Cannon	260	0.310	234	0.325	258	0.316	279	0.323
Cannon	243	0.310	237	0.322	240	0.325	272	0.323
Cannon	245	0.311	240	0.314	240	0.316	270	0.320
Cannon	255	0.312	248	0.317	254	0.304	297	0.316
Cannon	242	0.312	240	0.314	233	0.315	269	0.313
Cannon	275	0.307	237	0.330	258	0.305	270	0.324
Cannon	246	0.310	231	0.314	246	0.311	268	0.316
Cannon	263	0.301	250	0.315	259	0.303	274	0.322
Cannon	244	0.319	231	0.324	255	0.316	256	0.328
Cannon	262	0.314	239	0.318	271	0.310	277	0.323
Cannon	243	0.322	241	0.325	253	0.309	281	0.327
Cannon	255	0.311	229	0.322	227	0.315	270	0.327
Cannon	242	0.319	233	0.325	239	0.314	283	0.333
Cannon	238	0.316	230	0.320	246	0.316	270	0.325
Cannon	269	0.308	252	0.312	259	0.303	281	0.311
Cannon	245	0.315	301	0.306	263	0.312	288	0.325
Cannon	264	0.310	237	0.317	286	0.309	270	0.328
Cannon	262	0.310	236	0.319	249	0.313	276	0.323
Cannon	268	0.302	249	0.315	252	0.311	281	0.316
Cannon	245	0.312	235	0.301	263	0.302	283	0.311
Cannon	261	0.308	232	0.312	260	0.299	284	0.313
Cannon	237	0.304	237	0.322	234	0.314	270	0.318
Cannon	266	0.314	248	0.314	253	0.309	268	0.320
Cannon	267	0.314	257	0.307	254	0.299	263	0.311
Cannon	242	0.310	240	0.323	260	0.320	243	0.318
Cannon	248	0.314	220	0.330	254	0.311	285	0.316
Cannon	255	0.306	238	0.316	231	0.305	269	0.323
Cannon	250	0.315	232	0.315	244	0.311	275	0.324
Cannon	242	0.313	231	0.323	236	0.317	276	0.322
Cannon	261	0.320	228	0.336	269	0.300	261	0.317
Cannon	263	0.312	234	0.311	234	0.315	281	0.336
Cannon	271	0.302	239	0.324	244	0.312	278	0.320
Cannon	243	0.314	231	0.327	242	0.314	265	0.332
Cannon	249	0.316	247	0.304	229	0.317	283	0.319
Cannon	248	0.326	247	0.312	240	0.319	269	0.328
Cannon	265	0.312	246	0.325	262	0.305	273	0.322
Cannon	263	0.320	265	0.324	250	0.312	271	0.322
Cannon	240	0.318	236	0.310	270	0.321	286	0.331
Cannon	256	0.312	227	0.326	242	0.312	264	0.322
Cannon	267	0.310	250	0.250	236	0.307	268	0.328
Cannon	245	0.324	251	0.318	264	0.314	273	0.327
Cannon	246	0.311	232	0.313	251	0.306	268	0.323
Cannon	246	0.311	231	0.320	242	0.318	271	0.322
Cannon	251	0.318	239	0.320	245	0.316	254	0.314
Cannon	249	0.328	242	0.311	261	0.311	261	0.320
Cannon	244	0.312	225	0.323	255	0.304	270	0.327
Cannon	270	0.310	235	0.309	230	0.310	266	0.319
Cannon	286	0.306	218	0.310	253	0.304	216	0.350
Cannon	260	0.308	251	0.321	253	0.307	282	0.323
Cannon	252	0.313	228	0.324	244	0.316	248	0.320
Cannon	248	0.320	230	0.331	237	0.326	267	0.328
Cannon	264	0.311	242	0.332	241	0.312	248	0.334
Cannon	265	0.323	237	0.314	237	0.303	262	0.317
Cannon	263	0.312	250	0.312	249	0.317	262	0.316
Cannon	275	0.311	251	0.310	243	0.304	269	0.316
Cannon	260	0.310	237	0.318	249	0.310	262	0.310
Cannon	216	0.330	241	0.319	261	0.315	280	0.324
Cannon	248	0.310	256	0.319	245	0.303	263	0.332
Cannon			242	0.320	258	0.303	283	0.328
Cannon			247	0.318	239	0.314	288	0.314
Cannon			229	0.333	266	0.322	280	0.330
Cannon			259	0.328	267	0.320	293	0.326
Cannon			255	0.322	261	0.300	298	0.328
Cannon			252	0.316	264	0.303	288	0.312
Cannon			244	0.318	233	0.323	284	0.320
Cannon			219	0.317	205	0.312	272	0.323
Cannon			234	0.317	242	0.308	252	0.321
Cannon					262	0.310	292	0.308
Cannon							291	0.302
Cannon							208	0.334
Cannon							325	0.314
<b>Average</b>	253.7733	0.3142	240.3107	0.319	250.1351	0.31	272.3604	0.323
<b>Std. Dev.</b>	12.8024	0.0073	12.0337	0.012	13.1621	0.01	16.1388	0.008
<b>Coef. of Var.</b>	5.045	2.320	5.008	3.669	5.262	2.146	5.926	2.485

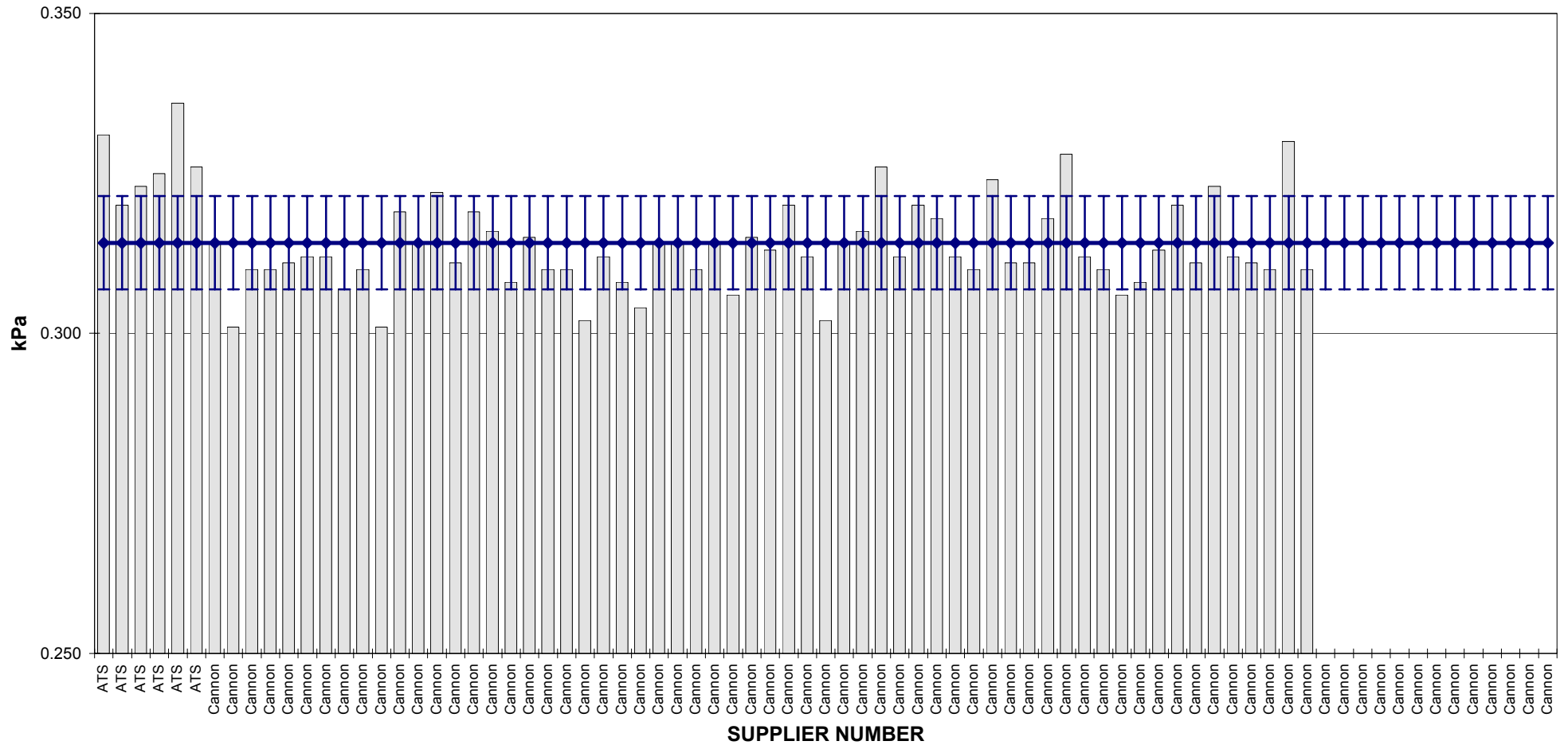
COMBINED STATE BINDER GROUP ROUND ROBIN 2003-1  
by BBR MANUFACTURER

BBR S-value



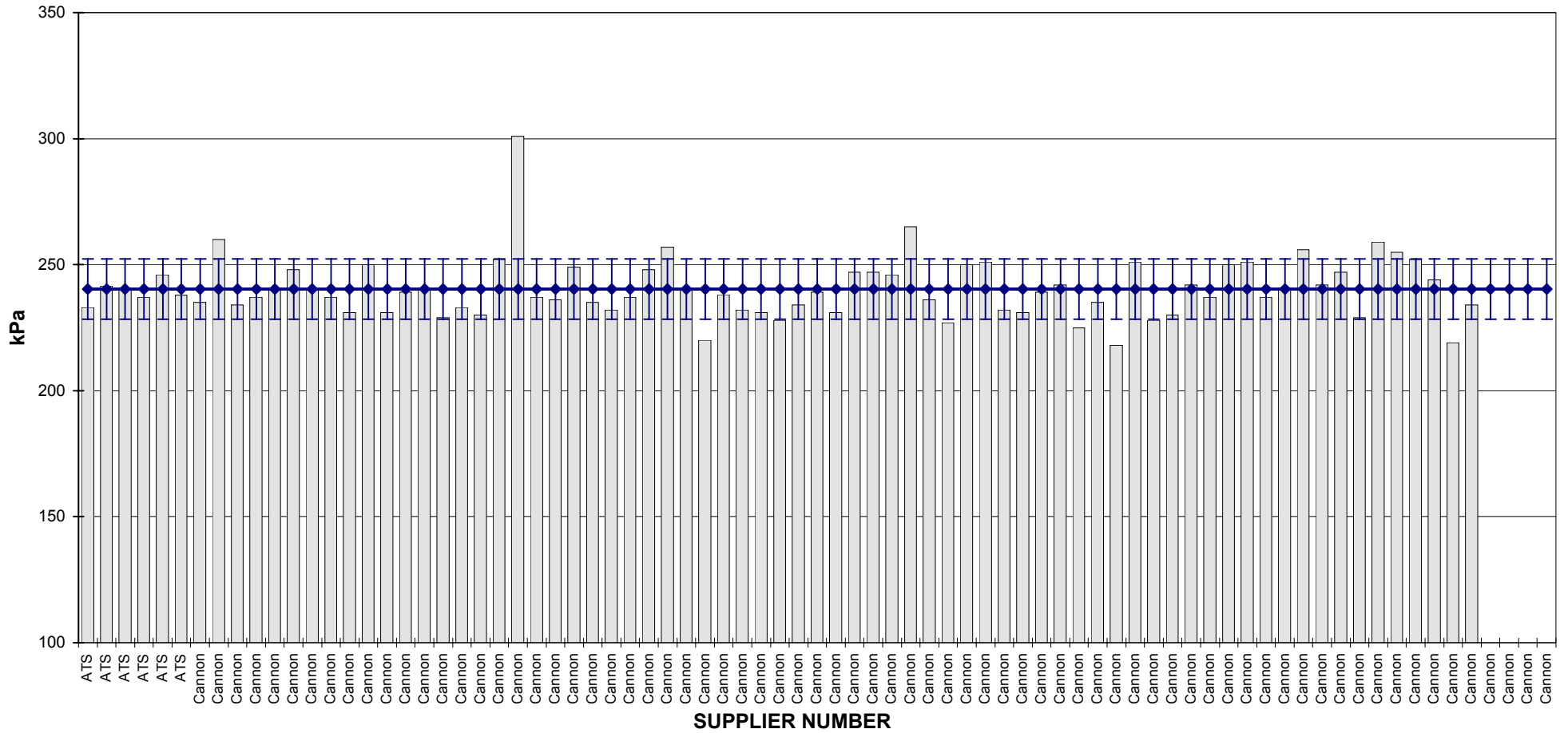
COMBINED STATE BINDER GROUP ROUND ROBIN 2003-1  
by BBR MANUFACTURER

BBR m-value



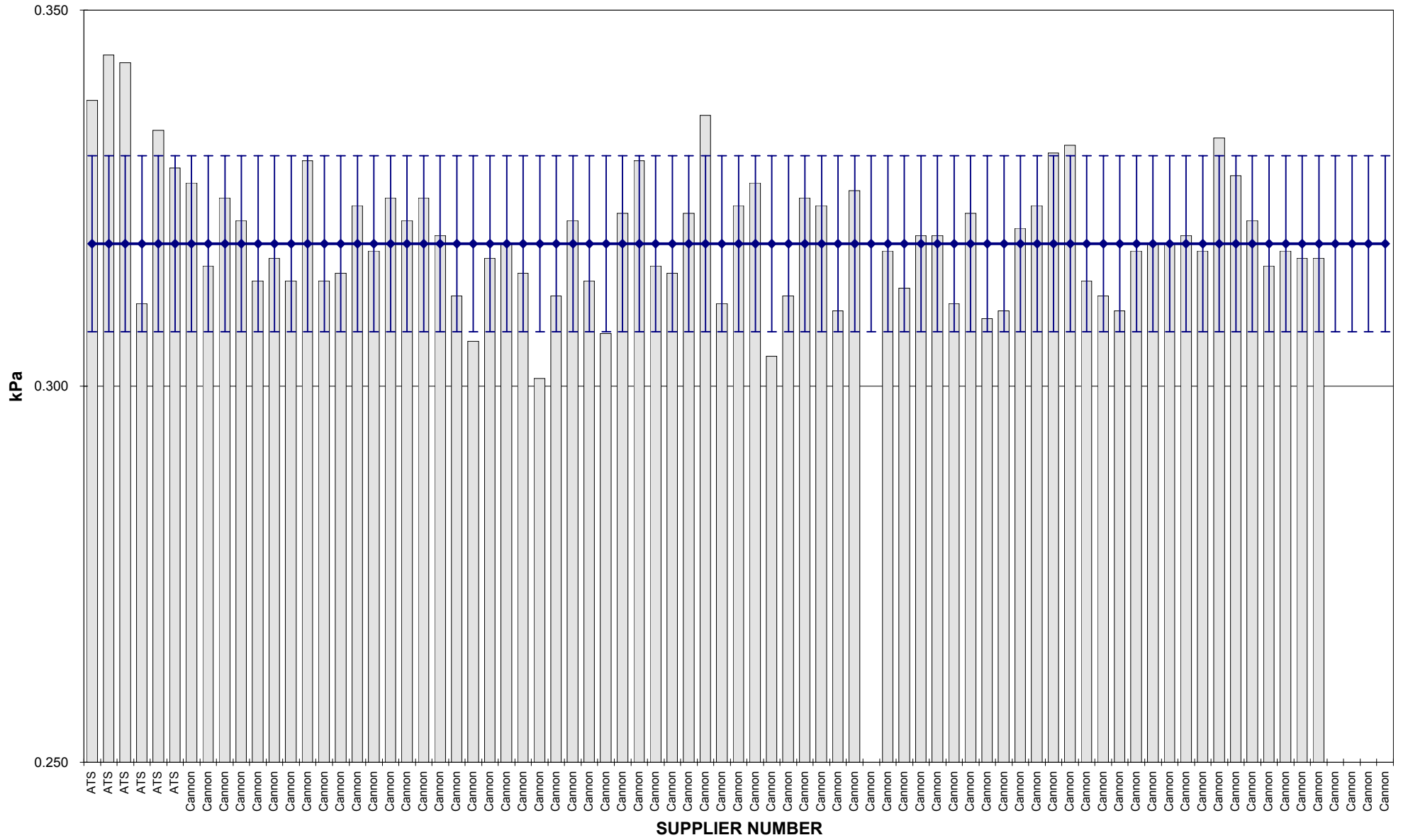
COMBINED STATE BINDER GROUP ROUND ROBIN 2003-2  
by BBR MANUFACTURER

BBR S-value



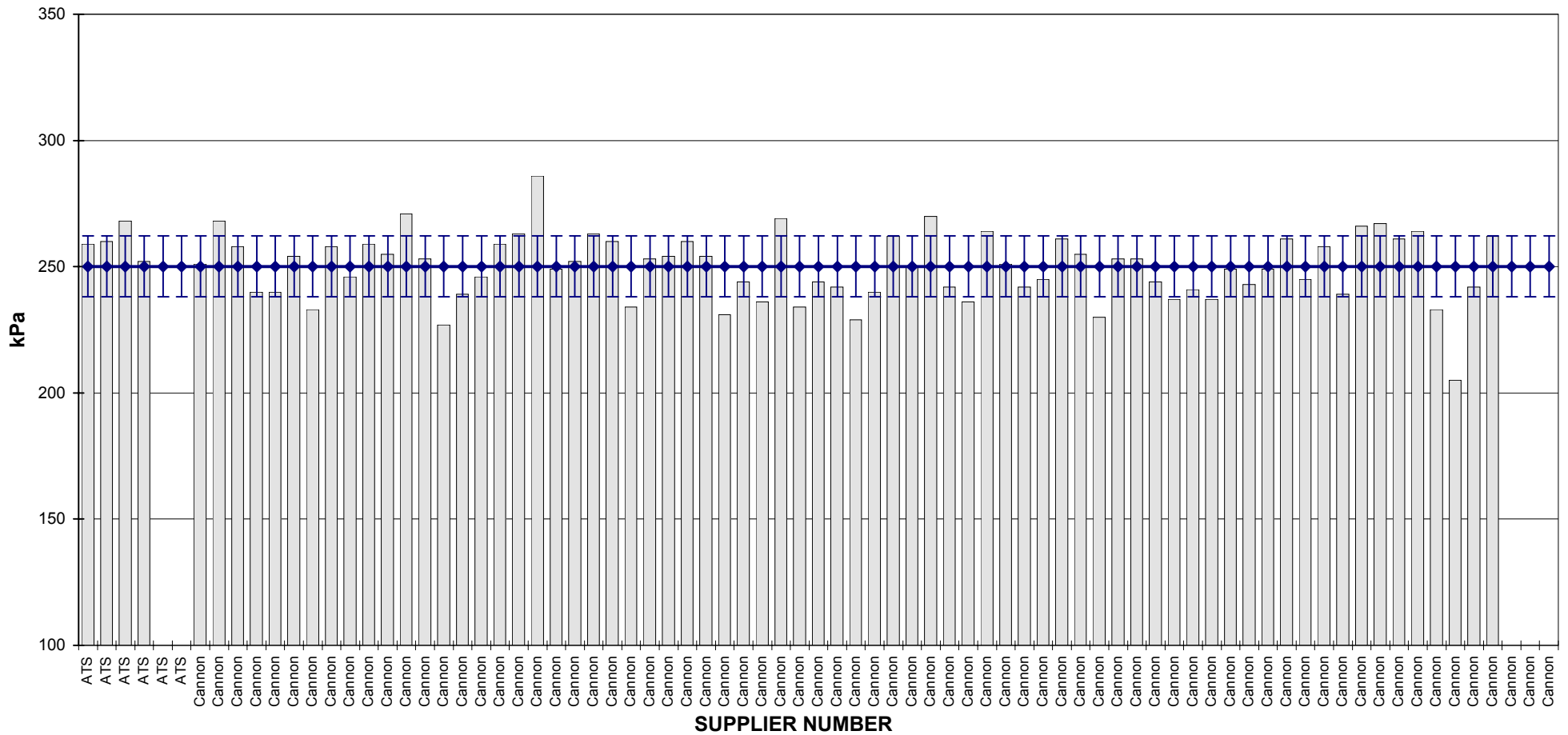
COMBINED STATE BINDER GROUP ROUND ROBIN 2003-2  
by BBR MANUFACTURER

BBR m-value



COMBINED STATE BINDER GROUP ROUND ROBIN 2003-3  
by BBR MANUFACTURER

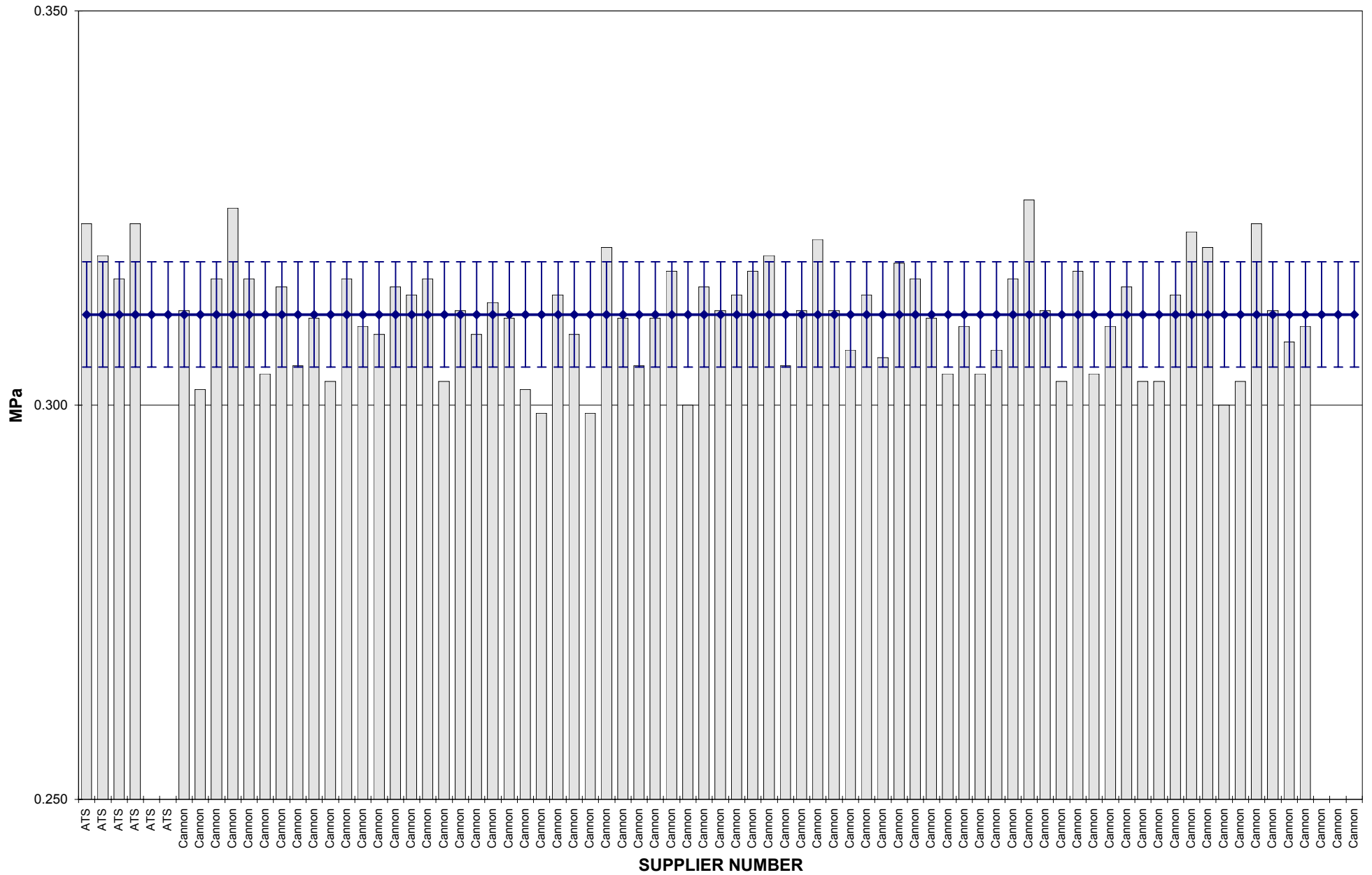
BBR S-value





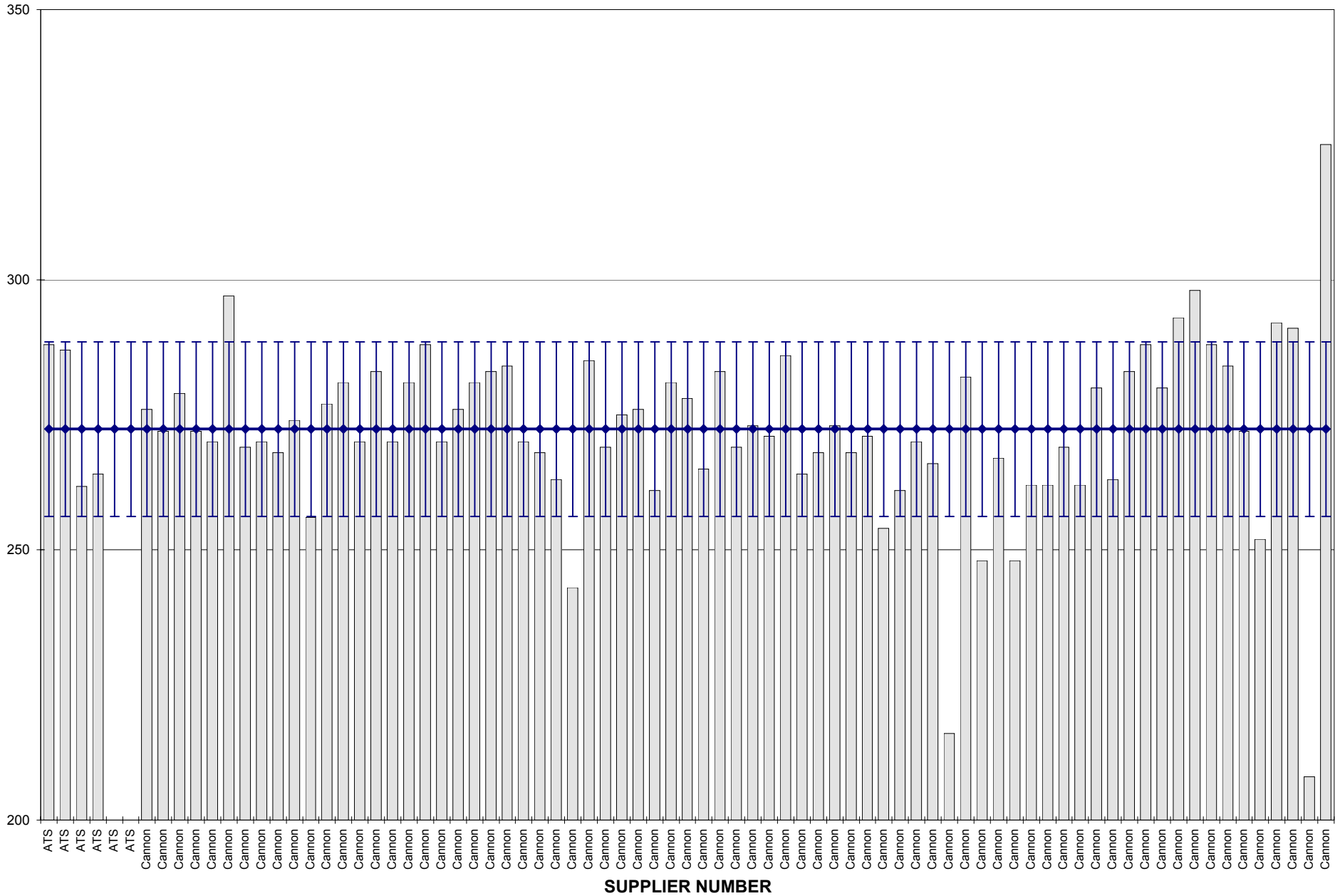
COMBINED STATE BINDER GROUP ROUND ROBIN 2003-3  
by BBR MAUNUFACTURER

BBR m-value



COMBINED STATE BINDER GROUP ROUND ROBIN 2003-4  
by BBR MANUFACTURER

BBR S-VALUE



COMBINED STATE BINDER GROUP ROUND ROBIN 2003-4  
by BBR MAUNFACTURER

BBR m-value

