



**Rheometer
Services
Inc.**

rs5000-S5 Torque Rheometer



The **rs5000-S5 Torque Rheometer** is designed for use with all **RSI** mixers, extruders and most competitors attachments. All control functions of the torque rheometer are achieved via the **SYSTEM 5** PC based control/data acquisition system. Interchangeable, auto-range detect, direct in-line torque measurement provides the highest accuracy/resolution available. These features make the **rs5000-S5** the most powerful and versatile torque rheometer on the market.

SYSTEM ARCHITECTURE

The **rs5000-S5 Torque Rheometer** incorporates state of the art Allen-Bradley PLC industry standard technology. This eliminates the extended down time associated with single source, proprietary hardware. It also expands the system capabilities in regard to high speed/high resolution data and enhanced safety features not found in other torque rheometers currently available. A single high speed Ethernet connection to the PC provides all communications with the instrument.



TORQUE MEASUREMENT

The **rs5000-S5 Torque Rheometer** is equipped with a state of the art in-line torque load cell providing the highest level of torque repeatability & accuracy available.

TEMPERATURE CONTROLS

The **rs5000-S5 Torque Rheometer** is the first torque rheometer to utilize industry standard Allen-Bradley *Flex I/O* PLC technology for providing unprecedented control of process temperature, melt temperature and independent air cooling channels. 6 temperature control zones, 2 melt temperature zones and 4 independent cooling zones are provided with additional zones available.

SPEED CONTROL

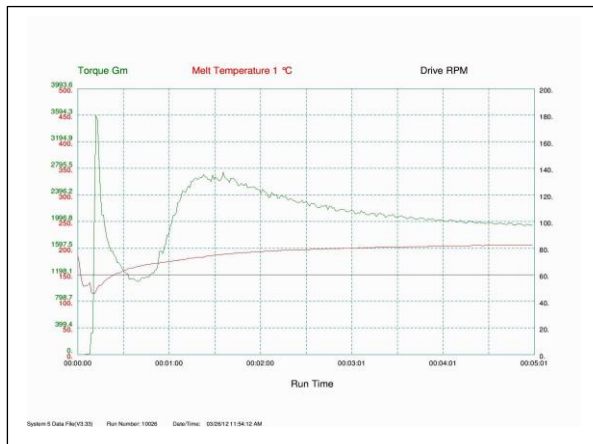
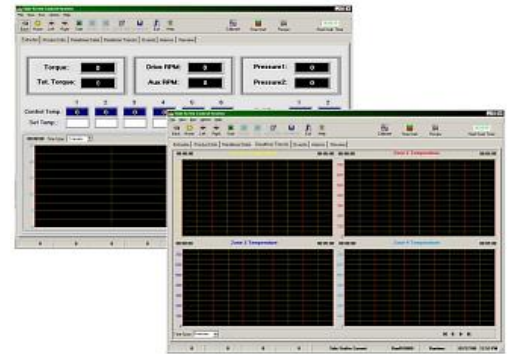
The **rs5000-S5 Torque Rheometer** incorporates state of the art AC drive technology with closed loop control to ensure optimum speed control. The computer programmable speed control, with multi ramp capability, is made available by means of the **SYSTEM 5** control software. The user also has the option of a selectable manual speed control via a 10 turn potentiometer.

PRESSURE INDICATION

The **rs5000-S5 Torque Rheometer** is compatible with all standard range pressure transducers. 2 pressure zones are standard with up to 8 available.

SYSTEM 5 SOFTWARE FEATURES:

- Unlimited recipe storage
- Custom process View
- 8 hour runtime maximum
- User defined alarm limits for all process parameters
- Digital and graphic display of all process parameters
- Auto alarm logging
- Event marker with user comments
- Powerful data review/report generator
- Time, date and operator stamps on all alarm and event markers
- User and administrator access levels protect vital system settings.



Run Data	
Z1 = Zone 1 Temperature °C	A1 = Drive RPM
Z2 = Zone 2 Temperature °C	A2 = Aux RPM %
Z3 = Zone 3 Temperature °C	A3 = Pressure 1 psi
Z4 = Zone 4 Temperature °C	A4 = Pressure 2 psi
Z5 = Zone 5 Temperature °C	A5 = Torque Gm
Z6 = Zone 6 Temperature °C	A6 = Melt Temperature 1 °C
Z7 = Melt Temperature 2 °C	A7 = Drive RPM
Z8 = Melt Temperature 3 °C	A8 = Aux RPM %
Z9 = Zone 7 Temperature °C	
Z10 = Zone 8 Temperature °C	
Z11 = Zone 9 Temperature °C	
Z12 = Zone 10 Temperature °C	
Z13 = Zone 11 Temperature °C	
Z14 = Zone 12 Temperature °C	
Z15 = Zone 13 Temperature °C	
Z16 = Zone 14 Temperature °C	
Z17 = Zone 15 Temperature °C	
Z18 = Zone 16 Temperature °C	
Z19 = Zone 17 Temperature °C	
Z20 = Zone 18 Temperature °C	
Z21 = Zone 19 Temperature °C	
Z22 = Zone 20 Temperature °C	
Z23 = Zone 21 Temperature °C	
Z24 = Zone 22 Temperature °C	
Z25 = Zone 23 Temperature °C	
Z26 = Zone 24 Temperature °C	
Z27 = Zone 25 Temperature °C	
Z28 = Zone 26 Temperature °C	
Z29 = Zone 27 Temperature °C	
Z30 = Zone 28 Temperature °C	
Z31 = Zone 29 Temperature °C	
Z32 = Zone 30 Temperature °C	
Z33 = Zone 31 Temperature °C	
Z34 = Zone 32 Temperature °C	
Z35 = Zone 33 Temperature °C	
Z36 = Zone 34 Temperature °C	
Z37 = Zone 35 Temperature °C	
Z38 = Zone 36 Temperature °C	
Z39 = Zone 37 Temperature °C	
Z40 = Zone 38 Temperature °C	
Z41 = Zone 39 Temperature °C	
Z42 = Zone 40 Temperature °C	
Z43 = Zone 41 Temperature °C	
Z44 = Zone 42 Temperature °C	
Z45 = Zone 43 Temperature °C	
Z46 = Zone 44 Temperature °C	
Z47 = Zone 45 Temperature °C	
Z48 = Zone 46 Temperature °C	
Z49 = Zone 47 Temperature °C	
Z50 = Zone 48 Temperature °C	
Z51 = Zone 49 Temperature °C	
Z52 = Zone 50 Temperature °C	
Z53 = Zone 51 Temperature °C	
Z54 = Zone 52 Temperature °C	
Z55 = Zone 53 Temperature °C	
Z56 = Zone 54 Temperature °C	
Z57 = Zone 55 Temperature °C	
Z58 = Zone 56 Temperature °C	
Z59 = Zone 57 Temperature °C	
Z60 = Zone 58 Temperature °C	
Z61 = Zone 59 Temperature °C	
Z62 = Zone 60 Temperature °C	
Z63 = Zone 61 Temperature °C	
Z64 = Zone 62 Temperature °C	
Z65 = Zone 63 Temperature °C	
Z66 = Zone 64 Temperature °C	
Z67 = Zone 65 Temperature °C	
Z68 = Zone 66 Temperature °C	
Z69 = Zone 67 Temperature °C	
Z70 = Zone 68 Temperature °C	
Z71 = Zone 69 Temperature °C	
Z72 = Zone 70 Temperature °C	
Z73 = Zone 71 Temperature °C	
Z74 = Zone 72 Temperature °C	
Z75 = Zone 73 Temperature °C	
Z76 = Zone 74 Temperature °C	
Z77 = Zone 75 Temperature °C	
Z78 = Zone 76 Temperature °C	
Z79 = Zone 77 Temperature °C	
Z80 = Zone 78 Temperature °C	
Z81 = Zone 79 Temperature °C	
Z82 = Zone 80 Temperature °C	
Z83 = Zone 81 Temperature °C	
Z84 = Zone 82 Temperature °C	
Z85 = Zone 83 Temperature °C	
Z86 = Zone 84 Temperature °C	
Z87 = Zone 85 Temperature °C	
Z88 = Zone 86 Temperature °C	
Z89 = Zone 87 Temperature °C	
Z90 = Zone 88 Temperature °C	
Z91 = Zone 89 Temperature °C	
Z92 = Zone 90 Temperature °C	
Z93 = Zone 91 Temperature °C	
Z94 = Zone 92 Temperature °C	
Z95 = Zone 93 Temperature °C	
Z96 = Zone 94 Temperature °C	
Z97 = Zone 95 Temperature °C	
Z98 = Zone 96 Temperature °C	
Z99 = Zone 97 Temperature °C	
Z100 = Zone 98 Temperature °C	
Z101 = Zone 99 Temperature °C	
Z102 = Zone 100 Temperature °C	
Z103 = Zone 101 Temperature °C	
Z104 = Zone 102 Temperature °C	
Z105 = Zone 103 Temperature °C	
Z106 = Zone 104 Temperature °C	
Z107 = Zone 105 Temperature °C	
Z108 = Zone 106 Temperature °C	
Z109 = Zone 107 Temperature °C	
Z110 = Zone 108 Temperature °C	
Z111 = Zone 109 Temperature °C	
Z112 = Zone 110 Temperature °C	
Z113 = Zone 111 Temperature °C	
Z114 = Zone 112 Temperature °C	
Z115 = Zone 113 Temperature °C	
Z116 = Zone 114 Temperature °C	
Z117 = Zone 115 Temperature °C	
Z118 = Zone 116 Temperature °C	
Z119 = Zone 117 Temperature °C	
Z120 = Zone 118 Temperature °C	
Z121 = Zone 119 Temperature °C	
Z122 = Zone 120 Temperature °C	
Z123 = Zone 121 Temperature °C	
Z124 = Zone 122 Temperature °C	
Z125 = Zone 123 Temperature °C	
Z126 = Zone 124 Temperature °C	
Z127 = Zone 125 Temperature °C	
Z128 = Zone 126 Temperature °C	
Z129 = Zone 127 Temperature °C	
Z130 = Zone 128 Temperature °C	
Z131 = Zone 129 Temperature °C	
Z132 = Zone 130 Temperature °C	
Z133 = Zone 131 Temperature °C	
Z134 = Zone 132 Temperature °C	
Z135 = Zone 133 Temperature °C	
Z136 = Zone 134 Temperature °C	
Z137 = Zone 135 Temperature °C	
Z138 = Zone 136 Temperature °C	
Z139 = Zone 137 Temperature °C	
Z140 = Zone 138 Temperature °C	
Z141 = Zone 139 Temperature °C	
Z142 = Zone 140 Temperature °C	
Z143 = Zone 141 Temperature °C	
Z144 = Zone 142 Temperature °C	
Z145 = Zone 143 Temperature °C	
Z146 = Zone 144 Temperature °C	
Z147 = Zone 145 Temperature °C	
Z148 = Zone 146 Temperature °C	
Z149 = Zone 147 Temperature °C	
Z150 = Zone 148 Temperature °C	
Z151 = Zone 149 Temperature °C	
Z152 = Zone 150 Temperature °C	
Z153 = Zone 151 Temperature °C	
Z154 = Zone 152 Temperature °C	
Z155 = Zone 153 Temperature °C	
Z156 = Zone 154 Temperature °C	
Z157 = Zone 155 Temperature °C	
Z158 = Zone 156 Temperature °C	
Z159 = Zone 157 Temperature °C	
Z160 = Zone 158 Temperature °C	
Z161 = Zone 159 Temperature °C	
Z162 = Zone 160 Temperature °C	
Z163 = Zone 161 Temperature °C	
Z164 = Zone 162 Temperature °C	
Z165 = Zone 163 Temperature °C	
Z166 = Zone 164 Temperature °C	
Z167 = Zone 165 Temperature °C	
Z168 = Zone 166 Temperature °C	
Z169 = Zone 167 Temperature °C	
Z170 = Zone 168 Temperature °C	
Z171 = Zone 169 Temperature °C	
Z172 = Zone 170 Temperature °C	
Z173 = Zone 171 Temperature °C	
Z174 = Zone 172 Temperature °C	
Z175 = Zone 173 Temperature °C	
Z176 = Zone 174 Temperature °C	
Z177 = Zone 175 Temperature °C	
Z178 = Zone 176 Temperature °C	
Z179 = Zone 177 Temperature °C	
Z180 = Zone 178 Temperature °C	
Z181 = Zone 179 Temperature °C	
Z182 = Zone 180 Temperature °C	
Z183 = Zone 181 Temperature °C	
Z184 = Zone 182 Temperature °C	
Z185 = Zone 183 Temperature °C	
Z186 = Zone 184 Temperature °C	
Z187 = Zone 185 Temperature °C	
Z188 = Zone 186 Temperature °C	
Z189 = Zone 187 Temperature °C	
Z190 = Zone 188 Temperature °C	
Z191 = Zone 189 Temperature °C	
Z192 = Zone 190 Temperature °C	
Z193 = Zone 191 Temperature °C	
Z194 = Zone 192 Temperature °C	
Z195 = Zone 193 Temperature °C	
Z196 = Zone 194 Temperature °C	
Z197 = Zone 195 Temperature °C	
Z198 = Zone 196 Temperature °C	
Z199 = Zone 197 Temperature °C	
Z200 = Zone 198 Temperature °C	
Z201 = Zone 199 Temperature °C	
Z202 = Zone 200 Temperature °C	
Z203 = Zone 201 Temperature °C	
Z204 = Zone 202 Temperature °C	
Z205 = Zone 203 Temperature °C	
Z206 = Zone 204 Temperature °C	
Z207 = Zone 205 Temperature °C	
Z208 = Zone 206 Temperature °C	
Z209 = Zone 207 Temperature °C	
Z210 = Zone 208 Temperature °C	
Z211 = Zone 209 Temperature °C	
Z212 = Zone 210 Temperature °C	
Z213 = Zone 211 Temperature °C	
Z214 = Zone 212 Temperature °C	
Z215 = Zone 213 Temperature °C	
Z216 = Zone 214 Temperature °C	
Z217 = Zone 215 Temperature °C	
Z218 = Zone 216 Temperature °C	
Z219 = Zone 217 Temperature °C	
Z220 = Zone 218 Temperature °C	
Z221 = Zone 219 Temperature °C	
Z222 = Zone 220 Temperature °C	
Z223 = Zone 221 Temperature °C	
Z224 = Zone 222 Temperature °C	
Z225 = Zone 223 Temperature °C	
Z226 = Zone 224 Temperature °C	
Z227 = Zone 225 Temperature °C	
Z228 = Zone 226 Temperature °C	
Z229 = Zone 227 Temperature °C	
Z230 = Zone 228 Temperature °C	
Z231 = Zone 229 Temperature °C	
Z232 = Zone 230 Temperature °C	
Z233 = Zone 231 Temperature °C	
Z234 = Zone 232 Temperature °C	
Z235 = Zone 233 Temperature °C	
Z236 = Zone 234 Temperature °C	
Z237 = Zone 235 Temperature °C	
Z238 = Zone 236 Temperature °C	
Z239 = Zone 237 Temperature °C	
Z240 = Zone 238 Temperature °C	
Z241 = Zone 239 Temperature °C	
Z242 = Zone 240 Temperature °C	
Z243 = Zone 241 Temperature °C	
Z244 = Zone 242 Temperature °C	
Z245 = Zone 243 Temperature °C	
Z246 = Zone 244 Temperature °C	
Z247 = Zone 245 Temperature °C	
Z248 = Zone 246 Temperature °C	
Z249 = Zone 247 Temperature °C	
Z250 = Zone 248 Temperature °C	
Z251 = Zone 249 Temperature °C	
Z252 = Zone 250 Temperature °C	
Z253 = Zone 251 Temperature °C	
Z254 = Zone 252 Temperature °C	
Z255 = Zone 253 Temperature °C	
Z256 = Zone 254 Temperature °C	
Z257 = Zone 255 Temperature °C	
Z258 = Zone 256 Temperature °C	
Z259 = Zone 257 Temperature °C	
Z260 = Zone 258 Temperature °C	
Z261 = Zone 259 Temperature °C	
Z262 = Zone 260 Temperature °C	
Z263 = Zone 261 Temperature °C	
Z264 = Zone 262 Temperature °C	
Z265 = Zone 263 Temperature °C	
Z266 = Zone 264 Temperature °C	
Z267 = Zone 265 Temperature °C	
Z268 = Zone 266 Temperature °C	
Z269 = Zone 267 Temperature °C	
Z270 = Zone 268 Temperature °C	
Z271 = Zone 269 Temperature °C	
Z272 = Zone 270 Temperature °C	
Z273 = Zone 271 Temperature °C	
Z274 = Zone 272 Temperature °C	
Z275 = Zone 273 Temperature °C	
Z276 = Zone 274 Temperature °C	
Z277 = Zone 275 Temperature °C	
Z278 = Zone 276 Temperature °C	
Z279 = Zone 277 Temperature °C	
Z280 = Zone 278 Temperature °C	
Z281 = Zone 279 Temperature °C	
Z282 = Zone 280 Temperature °C	
Z283 = Zone 281 Temperature °C	
Z284 = Zone 282 Temperature °C	
Z285 = Zone 283 Temperature °C	
Z286 = Zone 284 Temperature °C	
Z287 = Zone 285 Temperature °C	
Z288 = Zone 286 Temperature °C	
Z289 = Zone 287 Temperature °C	
Z290 = Zone 288 Temperature °C	
Z291 = Zone 289 Temperature °C	
Z292 = Zone 290 Temperature °C	
Z293 = Zone 291 Temperature °C	
Z294 = Zone 292 Temperature °C	
Z295 = Zone 293 Temperature °C	
Z296 = Zone 294 Temperature °C	
Z297 = Zone 295 Temperature °C	
Z298 = Zone 296 Temperature °C	
Z299 = Zone 297 Temperature °C	
Z300 = Zone 298 Temperature °C	
Z301 = Zone 299 Temperature °C	
Z302 = Zone 300 Temperature °C	
Z303 = Zone 301 Temperature °C	
Z304 = Zone 302 Temperature °C	
Z305 = Zone 303 Temperature °C	
Z306 = Zone 304 Temperature °C	
Z307 = Zone 305 Temperature °C	
Z308 = Zone 306 Temperature °C	
Z309 = Zone 307 Temperature °C	
Z310 = Zone 308 Temperature °C	
Z311 = Zone 309 Temperature °C	
Z312 = Zone 310 Temperature °C	
Z313 = Zone 311 Temperature °C	
Z314 = Zone 312 Temperature °C	
Z315 = Zone 313 Temperature °C	
Z316 = Zone 314 Temperature °C	
Z317 = Zone 315 Temperature °C	
Z318 = Zone 316 Temperature °C	
Z319 = Zone 317 Temperature °C	
Z320 = Zone 318 Temperature °C	
Z321 = Zone 319 Temperature °C	
Z322 = Zone 320 Temperature °C	
Z323 = Zone 321 Temperature °C	
Z324 = Zone 322 Temperature °C	
Z325 = Zone 323 Temperature °C	
Z326 = Zone 324 Temperature °C	
Z327 = Zone 325 Temperature °C	
Z328 = Zone 326 Temperature °C	
Z329 = Zone 327 Temperature °C	
Z330 = Zone 328 Temperature °C	
Z331 = Zone 329 Temperature °C	
Z332 = Zone 330 Temperature °C	
Z333 = Zone 331 Temperature °C	
Z334 = Zone 332 Temperature °C	
Z335 = Zone 333 Temperature °C	
Z336 = Zone 334 Temperature °C	
Z337 = Zone 335 Temperature °C	
Z338 = Zone 336 Temperature °C	
Z339 = Zone 337 Temperature °C	
Z340 = Zone 338 Temperature °C	
Z341 = Zone 339 Temperature °C	
Z342 = Zone 340 Temperature °C	
Z343 = Zone 341 Temperature °C	
Z344 = Zone 342 Temperature °C	
Z345 = Zone 343 Temperature °C	
Z346 = Zone 344 Temperature °C	
Z347 = Zone 345 Temperature °C	
Z348 = Zone 346 Temperature °C	
Z349 = Zone 347 Temperature °C	
Z350 = Zone 348 Temperature °C	
Z351 = Zone 349 Temperature °C	
Z352 = Zone 350 Temperature °C	
Z353 = Zone 351 Temperature °C	
Z354 = Zone 352 Temperature °C	
Z355 = Zone 353 Temperature °C	
Z356 = Zone 354 Temperature °C	
Z357 = Zone 355 Temperature °C	
Z358 = Zone 356 Temperature °C	
Z359 = Zone 357 Temperature °C	
Z360 = Zone 358 Temperature °C	
Z361 = Zone 359 Temperature °C	
Z362 = Zone 360 Temperature °C	
Z363 = Zone 361 Temperature °C	
Z364 = Zone 362 Temperature °C	
Z365 = Zone 363 Temperature °C	
Z366 = Zone 364 Temperature °C	
Z367 = Zone 365 Temperature °C	
Z368 = Zone 366 Temperature °C	
Z369 = Zone 367 Temperature °C	
Z370 = Zone 368 Temperature °C	
Z371 = Zone 369 Temperature °C	
Z372 = Zone 370 Temperature °C	
Z373 = Zone 371 Temperature °C	
Z374 = Zone 372 Temperature °C	
Z375 = Zone 373 Temperature °C	
Z376 = Zone 374 Temperature °C	
Z377 = Zone 375 Temperature °C	
Z378 = Zone 376 Temperature °C	
Z379 = Zone 377 Temperature °C	
Z380 = Zone 378 Temperature °C	
Z381 = Zone 379 Temperature °C	
Z382 = Zone 380 Temperature °C	
Z383 = Zone 381 Temperature °C	
Z384 = Zone 382 Temperature °C	
Z385 = Zone 383 Temperature °C	
Z386 = Zone 384 Temperature °C	
Z387 = Zone 385 Temperature °C	
Z388 = Zone 386 Temperature °C	
Z389 = Zone 387 Temperature °C	
Z390 = Zone 388 Temperature °C	
Z391 = Zone 389 Temperature °C	
Z392 = Zone 390 Temperature °C	
Z393 = Zone 391 Temperature °C	
Z394 = Zone 392 Temperature °C	
Z395 = Zone 393 Temperature °C	
Z396 = Zone 394 Temperature °C	
Z397 = Zone 395 Temperature °C	
Z	