

MANUFACTURER	PRAIRIETEK	PROLOGICA	QUANTUM	QUANTUM	QUANTUM
DRIVE	240	W320B	40AT Go.Drive	40AT ProDrive	40S Go.Drive
DISK/TREND GROUP	4	5	4	4	4
MARKET	OEM	Captive, OEM	OEM	OEM	OEM
MEDIA: Generic type	Fixed	Fixed	Fixed	Fixed	Fixed
Nominal disk diameter	65 mm OD	95 mm OD	65 mm OD	95 mm OD	65 mm OD
Recording medium	20 mm ID Thin Film	25 mm ID Thin Film	20 mm ID Thin Film	25 mm ID Thin Film	20 mm ID Thin Film
DRIVE: Heads	MIG	Ferrite	Thin Film	Ferrite	Thin Film
Interface	PC AT/XT	ST412	PC AT	PC AT	SCSI
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 42.8	U: 25.5	F: 42	F: 42	F: 42
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	F: 17,408	U: 10,416	*	*	*
Data surfaces per spindle	4	4	2	3	2
Heads per data surface	1	1	1	1	1
Tracks per surface	615	612	957	834	957
Track density (TPI)	1350	805	1801	1000	1801
Maximum linear density (BPI)	38452 BPI	13014	46900 BPI	22050 BPI	46900 BPI
Recording code	25634 FCI 2,7 RLL	MFM	35175 FCI 1,7 RLL	14700 FCI 2,7 RLL	35175 FCI 1,7 RLL
Rotational speed (RPM)	3307	3555	3600	3662	3600
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rack & Pinion, Stepping Motor	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Dedicated Surf.	Embedded	Optical Encoder	Embedded
Average positioning time (msec)	28	48	19	19	19
Average rotational delay (msec)	9.1	8.45	8.3	8.2	8.3
Average access time (msec)	37.1	56.45	27.3	27.2	27.3
Data transfer rate (KBytes/sec)	1250	625	4000 max.	4000 max.	4000 max.
FIRST CUSTOMER SHIPMENT	4Q89	4/89	3/91	5/88	3/91
COMMENTS	25.4 mm high Ramp loaded heads	Usable with RLL controller	15.7 mm high *Varies by zone Ramp loaded heads	41.3 mm high *Varies by zone	15.7 mm high *Varies by zone Ramp loaded heads

## 1990 DISK/TREND REPORT

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE	40S ProDrive	52AT ProDrive LPS	52S ProDrive LPS	80AT Gem	80AT Go.Drive
DISK/TREND GROUP	4	5	5	5	5
MARKET	OEM	OEM	OEM	OEM	OEM
MEDIA: Generic type	Fixed	Fixed	Fixed	Fixed	Fixed
Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	65 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	20 mm ID Thin Film
DRIVE: Heads	Ferrite	MIG	MIG	Thin Film	Thin Film
Interface	SCSI	PC AT	SCSI	PC AT	PC AT
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 42	F: 52	F: 52	F: 84	F: 82
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	*	*	*	*	*
Data surfaces per spindle	3	2	2	2	4
Heads per data surface	1	1	1	1	1
Tracks per surface	834	1219	1219	1678	957
Track density (TPI)	1000	1330	1330	1801	1801
Maximum linear density (BPI)	22050 BPI	29307 BPI	29307 BPI	37724 BPI	46900 BPI
Recording code	14700 FCI 2,7 RLL	19538 FCI 2,7 RLL	19538 FCI 2,7 RLL	28293 FCI 1,7 RLL	35175 FCI 1,7 RLL
Rotational speed (RPM)	3662	3662	3662	3600	3600
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Optical Encoder	Optical Encoder	Optical Encoder	Embedded	Embedded
Average positioning time (msec)	19	17	17	19	19
Average rotational delay (msec)	8.2	8.2	8.2	8.3	8.3
Average access time (msec)	27.2	25.2	25.2	27.3	27.3
Data transfer rate (KBytes/sec)	4000 max.	4000 max.	4000 max.	4000 max.	4000 max.
FIRST CUSTOMER SHIPMENT	1/88	2/90	2/90	3/91	3Q91
COMMENTS	41.3 mm high *Varies by zone	25.4 mm high *Varies by zone	25.4 mm high *Varies by zone	19.8 mm high *Varies by zone Ramp loaded heads	19 mm high *Varies by zone Ramp loaded heads

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE	80AT ProDrive	80S Gem	80S Go.Drive	80S ProDrive	105AT ProDrive LPS
DISK/TREND GROUP	5	5	5	5	6
MARKET	OEM	OEM	OEM	OEM	OEM
MEDIA: Generic type	Fixed	Fixed	Fixed	Fixed	Fixed
Nominal disk diameter	95 mm OD	95 mm OD	65 mm OD	95 mm OD	95 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	20 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	Ferrite	Thin Film	Thin Film	Ferrite	MIG
Interface	PC AT	SCSI	SCSI	SCSI	PC AT
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 84	F: 84	F: 82	F: 84	F: 105
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	*	*	*	*	*
Data surfaces per spindle	6	2	4	6	4
Heads per data surface	1	1	1	1	1
Tracks per surface	834	1678	957	834	1219
Track density (TPI)	1000	1801	1801	1000	1330
Maximum linear density (BPI)	22050 BPI	37724 BPI	46900 BPI	22050 BPI	29307 BPI
Recording code	14700 FCI 2,7 RLL	28293 FCI 1,7 RLL	35175 FCI 1,7 RLL	14700 FCI 2,7 RLL	19538 FCI 2,7 RLL
Rotational speed (RPM)	3662	3600	3600	3662	3662
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Optical Encoder	Embedded	Embedded	Optical Encoder	Optical Encoder
Average positioning time (msec)	19	19	19	19	17
Average rotational delay (msec)	8.2	8.3	8.3	8.2	8.2
Average access time (msec)	27.2	27.3	27.3	27.2	25.2
Data transfer rate (KBytes/sec)	4000 max.	4000 max.	4000 max.	4000 max.	4000 max.
FIRST CUSTOMER SHIPMENT	5/88	3/91	3Q91	1/88	--
COMMENTS	41.3 mm high *Varies by zone	19.8 mm high *Varies by zone Ramp loaded heads	19 mm high *Varies by zone Ramp loaded heads	41.3 mm high *Varies by zone	25.4 mm high *Varies by zone

## 1990 DISK/TREND REPORT

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE	105S ProDrive LPS	105S ProDrive	120AT ProDrive	120S ProDrive	160AT Gem
DISK/TREND GROUP	6	6	6	6	6
MARKET	OEM	OEM	OEM	OEM	OEM
MEDIA: Generic type	Fixed	Fixed	Fixed	Fixed	Fixed
Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	95 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	MIG	MIG	Thin Film	Thin Film	Thin Film
Interface	SCSI	SCSI	PC AT	SCSI, SCSI-2	PC AT
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 105	F: 105	F: 120	F: 120	F: 168
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	*	*	*	*	*
Data surfaces per spindle	4	6	5	5	4
Heads per data surface	1	1	1	1	1
Tracks per surface	1219	1019	1123	1123	1678
Track density (TPI)	1330	1225	1414	1414	1801
Maximum linear density (BPI)	29307 BPI	22055 BPI	27746 BPI	27746 BPI	37724 BPI
Recording code	19538 FCI	14700 FCI	20810 FCI	20810 FCI	28293 FCI
Rotational speed (RPM)	2,7 RLL	2,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
PERFORMANCE					
Actuator type	3662	3662	3605	3605	3600
Servo type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Average positioning time (msec)	Optical Encoder	Optical Encoder	Dedicated Surf.	Dedicated Surf.	Embedded
Average rotational delay (msec)	17	19	14.3	14.3	19
Average access time (msec)	8.2	8.2	8.3	8.3	8.3
Data transfer rate (KBytes/sec)	25.2	27.2	22.6	22.6	27.3
FIRST CUSTOMER SHIPMENT	4000 max.	4000 max.	4000 max.	4000 max.	4000 max.
COMMENTS	2/90	--	4Q89	3Q89	3/91
	25.4 mm high	41.3 mm high	41.3 mm high	41.3 mm high	19.8 mm high
	*Varies by zone	*Varies by zone	*Varies by zone	*Varies by zone	*Varies by zone
					Ramp loaded heads

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	160S Gem	170AT ProDrive	170S ProDrive	210AT ProDrive	210S ProDrive
DISK/TREND GROUP	6	6	6	6	6
MARKET	OEM	OEM	OEM	OEM	OEM
MEDIA: Generic type	Fixed	Fixed	Fixed	Fixed	Fixed
Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	95 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
Interface	SCSI	PC AT	SCSI, SCSI-2	PC AT	SCSI, SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 168	F: 168	F: 168	F: 210	F: 210
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	*	*	*	*	*
Data surfaces per spindle	4	7	7	7	7
Heads per data surface	1	1	1	1	1
Tracks per surface	1678	1123	1123	1156	1156
Track density (TPI)	1801	1414	1414	1454	1454
Maximum linear density (BPI)	37724 BPI	30000 BPI	27746 BPI	30000 BPI	30000 BPI
Recording code	28293 FCI 1,7 RLL	22500 FCI 1,7 RLL	20810 FCI 1,7 RLL	22500 FCI 1,7 RLL	22500 FCI 1,7 RLL
Rotational speed (RPM)	3600	3605	3605	3605	3605
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Dedicated Surf.	Dedicated Surf.	Dedicated Surf.	Dedicated Surf.
Average positioning time (msec)	19	14.3	14.3	14.3	14.3
Average rotational delay (msec)	8.3	8.3	8.3	8.3	8.3
Average access time (msec)	27.3	22.6	22.6	22.6	22.6
Data transfer rate (KBytes/sec)	4000 max.	4000 max.	4000 max.	4000 max.	4000 max.
FIRST CUSTOMER SHIPMENT	3/91	4Q89	1Q89	3Q89	4Q89
COMMENTS	19.8 mm high *Varies by zone Ramp loaded heads	41.3 mm high *Varies by zone	41.3 mm high *Varies by zone	41.3 mm high *Varies by zone	41.3 mm high *Varies by zone

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	RICOH
DRIVE	330AT ProDrive	330S ProDrive	425AT ProDrive	425S ProDrive	RH5130
DISK/TREND GROUP	7	7	8	8	1
MARKET	OEM	OEM	OEM	OEM	OEM
MEDIA: Generic type	Fixed	Fixed	Fixed	Fixed	5.25" Cartridge
Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	130 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	40 mm ID Oxide Coated
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film	Ferrite
Interface	PC AT	SCSI	PC AT	SCSI	ST412
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 331.2	F: 331.2	F: 425.8	F: 425.8	--
REMOVABLE	--	--	--	--	U: 12.75
Capacity per track (Bytes)	*	*	*	*	U: 10,416
Data surfaces per spindle	7	7	9	9	2
Heads per data surface	1	1	1	1	1
Tracks per surface	1511	1512	1511	1512	612
Track density (TPI)	1695	1695	1695	1695	612
Maximum linear density (BPI)	36923 BPI	36923 BPI	36923 BPI	36923 BPI	10894
Recording code	27692 FCI 1,7 RLL	27692 FCI 1,7 RLL	27692 FCI 1,7 RLL	27692 FCI 1,7 RLL	MFM
Rotational speed (RPM)	3600	3600	3600	3600	3473
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rack & Pinion, Stepping Motor
Servo type	Dedicated Surf.	Dedicated Surf.	Dedicated Surf.	Dedicated Surf.	Embedded
Average positioning time (msec)	14**	14**	14**	14**	98 (including settling)
Average rotational delay (msec)	8.3	8.3	8.3	8.3	8.6
Average access time (msec)	22.3	22.3	22.3	22.3	106.6
Data transfer rate (KBytes/sec)	4000 max.	5000 max.	4000 max.	5000 max.	625
FIRST CUSTOMER SHIPMENT	--	--	--	--	3Q85
COMMENTS	41.3 mm high *Varies by zone **13 msec. average read positioning	41.3 mm high *Varies by zone **13 msec. average read positioning	41.3 mm high *Varies by zone **13 msec. average read positioning	41.3 mm high *Varies by zone **13 msec. average read positioning	41.3 mm high DMA license