



# BLOCKMate Blockers

# What to look for in a blocker?

- **Speed:** In today's optical manufacturing world, as blocking is a non-value-add activity, the *need for high throughput* is critical
- **Automation:** Needs to be capable of *operating in a full conveyor line with full automation*, no manual labor and little process variability
- **Cost Effectiveness:** As a no value-add activity, it's essential to keep *blocking cost per job and alloy usage low*
- **Consistency and accuracy:** Alloy flows consistently to create a uniform and accurate blocking surface and lens positioning
- **Range:** Needs to work on a *maximal range of base curves, thicknesses and diameters* of semi-finished lenses
- **Durability and Reliability:** Like any other manufacturing equipment in your laboratory, your blocker needs to be *reliable and run with a minimal amount of downtime*

# Features of the DAC BLOCKMate Blockers

- **Speed:** Offers the best throughputs on the market
  - **BLOCKMate 2:** 110 to 130 lenses per hour (can reach 150 with just SV without video recognition combined with reduced cooling time and small blocking rings)
  - **BLOCKMate 4:** 220 to 240 lenses per hourSpeed varies depending on cooling downtime and camera lens type recognition time
- **Automation:** Works with *completely automatic conveying* with no need for human intervention. Blocking chucks and alloy can be easily refilled while the machine is operating on the **BLOCKMate 4**
- **Consistency:** An independent linear handling system that allows for minimal, but accurate motions
- **Durability and Reliability:** A machine with a proven track record and very little preventative maintenance required. It also features a removable conveyor for easy accessibility and maintenance



# Features of the DAC BLOCKMate Blockers

- **Cost Effectiveness**

- DAC BLOCKMate is **15% more affordable** than its main competition on the market
- On both models, the new **Pulse Filling Technology**, ensures optimized blocking with minimized loss of alloy

- **Range: Best in the market for automated surface blocking**

- Lenses from **55 to 85 mm in diameter**
- **Up to 6° of prism**
- **Front curve: from 0 BC up to 22 diopters**
  - **blocking ring of 50/10 mm and lens index of 1.8 to block 22D FC**
  - **On a 53/10 blocking ring, smallest front radius is 40 mm**
- **Block diameters: from 50 to 68**
- **Block heights from: 7 to 10 mm**



# DAC BLOCKMate: Other Considerations

## DAC BLOCKMate 2

- **Dimensions:** w x d x h: 1,965 x 1,310 x 2,200 mm (77 x 52 x 87 in)
- **Weight:** 700 kg / 1,550 lb
- **Alloy tank capacity:** 8.9 L
- **Electrical Requirements:**
  - Voltage: 100 to 120 V, single phase (US), 240V (EUR)
  - Frequency: 50/60 HZ
  - Power: 2.5 kVA
- **Air Requirements:**
  - Pressure: 6 bar / 87 psi compressed air
  - Air Rate: 75 L/min / 2,6 cfm
  - Hose connection:  $\varnothing$  6mm or  $\varnothing$  8mm
- **Water:**
  - Temperature: 12<sup>o</sup> C (53.5<sup>o</sup> F)
  - Flow rate: 3.0 L/min
  - Max pressure: 2 bars (29 PSI)
  - Hose connection:  $\varnothing$  6mm or  $\varnothing$  8 mm

# DAC BLOCKMate: Other Considerations

## DAC BLOCKMate 4

- **Dimensions:** w x d x h 2,700 x 1,950 x 2,200 mm (106 x 77 x 87 in) incl. block piece feeder & signal light
- **Weight:** 1,100 kg / 2,430 lb
- **Alloy tank capacity:** 2 x 8.9 L
- **Electrical Requirements:**
  - Voltage: 100 to 120 V, single phase (US), 240 V (EUR)
  - Frequency: 50/60 HZ
  - Power: 3.0 kVA
- **Air Requirements:**
  - Pressure: 6 bar / 87 psi compressed air
  - Air Rate: 140 L/min / 5.0 cfm
  - Hose connection:  $\varnothing$  6mm or  $\varnothing$  8mm
- **Water:**
  - Temperature: 12<sup>o</sup> C (53.5<sup>o</sup> F)
  - Flow rate: 6.0 L/min
  - Max pressure: 2 bars (29 PSI)
  - Hose connection:  $\varnothing$  6mm or  $\varnothing$  8 mm



# DAC BLOCKMate 2: Configuration

Part #	Part name	Comment / use
01-053-071	DAC BlockMate 2	
02-071-894	Adjustment gauge, BlockMate line	Calibration Gauge used to check the alignment of the blocking station (plano / rotation)
02-071-895	Adjustment kit, BlockMate line	Kit used to calibrate the camera system and the mechanical relations between camera center and blocking stations
02-071-897	Transformer / UL Wiring Kit, BlockMate line	Required in the US to convert from 240V 3 phases to 120 Single phase
02-071-899	Customer-kit BASIC, BlockMate 2	Wearers part kit including Silicon hose, Seal set for swivel axis, hollow and index screws, filter and silencing assemblies, suction cups, vacuum filters...
02-071-900	Blocking ring 2-stop 1 canal ø50	Blocking ring 50 Diameter, you can also pick 53, 58, 63, 68
02-071-901	Crate, BlockMate 2	
Recommended options		
02-071-893	Block destacker, BlockMate line	Stack and destack up to 300 blockpieces on a special blockpiece palette. Available as stacker (for Auto Deblocker) or destacker (for Auto Blocker). blockpieces will be stacked on 30 arbors, each can be equipped with up to 10 blockpieces. Can grab up to 6 blockpieces at once
02-071-898	Rejection conveyor, BlockMate line	Optimal for increased through put as it kicks out trays with block reading or availability errors and move on to the next one (already integrated in base machine for Blockmate 4)
02-071-896	Measuring Equipment, BlockMate line	Kit used to measure blocked lenses to check whether they are blocked exactly centered or decentered (Optional but recommended)

# DAC BLOCKMate 4: Configuration

Part #	Part name	Comment / use
01-053-072	DAC BlockMate 4	
02-071-894	Adjustment gauge, BlockMate line	Calibration Gauge used to check the alignment of the blocking station (plano / rotation)
02-071-895	Adjustment kit, BlockMate line	Kit used to calibrate the camera system and the mechanical relations between camera center and blocking stations
02-071-897	Transformer / UL Wiring Kit, BlockMate line	Required in the US to convert from 240V 3 phases to 120 Single phase
02-071-902	Customer-kit BASIC, BlockMate 4	Wearers part kit including Silicon hose, Seal set for swivel axis, hollow and index screws, filter and silencing assemblies, suction cups, vacuum filters...
02-071-900	Blocking ring 2-stop 1 canal ø50	Blocking ring 50 Diameter, you can also pick 53, 58, 63, 68
02-071-903	Crate, BlockMate 4	
Recommended options		
02-071-893	Block destacker, BlockMate line	Stack and destack up to 300 blockpieces on a special blockpiece palette. Available as stacker (for Auto Deblocker) or destacker (for Auto Blocker). blockpieces will be stacked on 30 arbors, each can be equipped with up to 10 blockpieces. Can grab up to 6 blockpieces at once
02-071-896	Measuring Equipment, BlockMate line	Kit used to measure blocked lenses to check whether they are blocked exactly centered or decentered (Optional but recommended)



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