



ALPINE AIR JET SIEVE® e200 LS
THE LAST WORD IN PARTICLE SIZE ANALYSIS



HOSOKAWA ALPINE





ALPINE Air Jet Sieve® e200 LS

Easier to use, faster and more reliable:
enter a new age with the world's
market leader.

Delivery scope:

Whether eControl Basic, Professional or Ultimate – select the software package that is tailored perfectly to your needs. The functions can be upgraded any time to a higher-level version. The software includes a comprehensive package of accessories.



ALPINE Air Jet Sieve e200 LS

- incl. Multi PSU power pack
- incl. class-L vacuum cleaner **NEW**
- incl. sieve adapter eLS
- incl. slotted nozzle
- incl. Plexiglas cover
- incl. suction filter
- incl. hammer, brush, power connection cable and "RS485" power connections
- incl. operating manual

incl.
vacuum
cleaner

Technical Specifications

Analysis range	(ø 200/203 mm)	20 µm to 4 mm
	(ø 76 mm)	10 µm to 2.5 mm
Navigation	High-resolution, resistive 6.4" TFT touch screen	
Power cable (m)	3.0	
Mains connection (V/~-/Hz/A)	100 - 250/1/50-60/15-10	
Underpressure (Pa)	1500 - 5500	
Air flow rate (m³/h)	30 - 115	
Speed (rpm)	18	
Weight incl. power pack (kg)	20	
Protection class (IP)	54	
Dimensions LxBxH (mm)	503 x 370 x 380	



THE AIR JET SIEVE. An ALPINE invention. For more than 50 years now, our technology has counted as *THE* standard in the field of particle size analysis.

And to make sure that this remains so in the future, we make continual improvements to our air jet sieve. The result: ALPINE's Air Jet Sieve e200 LS. What lies behind the ergonomic design is a combination of faster and simpler operating comfort with a much higher analysis reliability. The innovative accessories are complemented by the three software packages available: **eControl Basic**, **Professional** and **Ultimate**. They cover the entire range of modern particle analysis. And in doing so, fulfil your high requirements.

The basic functions

Alongside the standard equipment of ALPINE's Air Jet Sieve e200 LS sets standards:

- The software can be upgraded to a higher version at any time
- Innovative and high-resolution 6.4" TFT touch screen
- Intuitive operation thanks to the easily understandable menu structure
- Operating comfort with individual language selection
- Fully automatic identification of the test sieve mesh widths*
- Easily comprehensible information regarding system data and settings
- Direct connection of a laboratory balance via interface
- USB, Ethernet and RS232C data interfaces are standard
- Integrated 1-GB analysis protocol memory
- Ergonomic industrial design



Exemplary: clearly laid-out TFT colour display with touch screen



eControl Basic

Upgrade Option

eControl Basic is the first choice in production or for quick individual analyses.

No. 397475 €

eControl Professional

Upgrade Option

eControl Professional is indispensable for everyday routine tasks in the laboratory.

No. 397476

eControl Ultimate

eControl Ultimate offers maximum operating comfort and analysis reliability.

No. 397477

*Only in combination with original ø-203-mm ALPINE test sieves



ALPINE Air Jet Sieve® e200 LS Three software packages, one aim: highest possible efficiency as a result of the demand-oriented range of functions.

Whether standardised analysis methods or individualised management and configuration of data, options and many other parameters — the three software packages for the ALPINE Air Jet Sieve e200 LS are tailored to cover all analysis demands perfectly.

Even if you decide on the basic software package: our special software upgrades allow you to extend the range of functions at any time.



Upgrade
Option

ALPINE Air Jet Sieve® e200 LS eControl Basic No. 397475

Your perfect start in the world of air jet sieving. The software and range of functions can be upgraded at any time to eControl Professional or eControl Ultimate (at an extra charge)

- includes all basic functions
- intuitive in operation
- fast-track analysis evaluations (in table form)
- manual underpressure preselection
- laboratory balance interface with Sartorius TE series
- results are evaluated against the setpoint value specifications (in table form)



Intuitive menu guidance
makes for easy and
reliable operation



ALPINE Air Jet Sieve® e200 LS eControl Professional No. 397476

This is the all-rounder for both simple and demanding sieving analyses. Extended application range with many additional functions. Can be upgraded to eControl Ultimate at any time (at an extra charge).

Upgrade
Option



- includes all basic functions
- includes the full function range of eControl Basic
- automatic underpressure control with allocation of underpressure and sieving time
- sieve identification for each test sieve for underpressure and sieving time
- laboratory balance communication via RS 232 interface
- export and print function of analysis reports
- LIMS-capable software link
- sieve set management SOPs



Graphical evaluation
plotted in a cumulative curve

ALPINE Air Jet Sieve® e200 LS eControl Ultimate No. 397477

The last word in air jet sieving. Maximum operating reliability and highest operating comfort under observance of different regulations – especially those of the pharmaceuticals industry.

- includes all basic functions
- includes the full range of functions of eControl Basic and Professional
- the results are evaluated against the setpoint value specifications (in table and graph form)
- individual assignment of underpressure and sieving time parameters per test sieve using RFID technology
- intelligent determination of the sieving time using eTimeSave (coming soon)
- Ethernet connection for printer, remote control and network
- print-out of analysis protocols (PDF / hard copy) with individual company logo



Representation of residual fines
concentration and relevant
information

The ALPINE Air Jet Sieve
e200 LS with Ethernet
connection for printer, remote
control and network



1. ALPINE Air Jet Sieve e200 LS



e200 LS eControl Ultimate

No. 397477

e200 LS eControl Professional

No. 397476

e200 LS eControl Basic

No. 397475

BASIC FUNCTIONS

Sieving result: undersize or residue in %	•	•	•
Individual language selection	•	•	•
System data indication / unit settings	•	•	•
Timer with pause function	•	•	•
Change units of measurement (mesh width, underpressure)	—	—	•
Sieving "Lite" for basic operation Start/Stop	•	—	—

INTERFACES

Lab. balance interface for Sartorius TE 802	•	•	•
Lab. balance communication with RS 232 interfaces	—	•	•
Ethernet connection for printer, remote control and network	—	•	•

SIEVE IDENTIFICATION

Automatic identification of test sieve mesh width	•	•	•
Individual assignment of underpressure and sieving time parameters to every test sieve	—	•	•

DATA EVALUATION

Open/save sieving analyses	—	•	•
Tabular evaluation	•	•	•
Graphic evaluation (cumulative curve)	—	•	•
Choice of different graphics (cumulative curve, RRSB, histogram)	—	—	•
LIMS-capable software link	—	•	•
Data export of analysis protocol CSV / PDF	—	•	•
Plotting of up to 5 sieving analyses in a graph	—	•	•
Calculation of D10 / D50 / D90 values	—	•	—
Calculation of 3 different D(x) values, with individually adjustable values	—	—	•
Print-out of the analysis protocols (PDF / hard copy)	—	•	•
Print-out of the analysis protocols (PDF / hard copy) with individual company logo	—	—	•

ANALYSIS QUALITY

Manual underpressure preselection	•	—	—
Automatic underpressure control	—	•	•
Sieve set management (SOPs)	—	•	•
Analysis evaluation against setpoint specifications (tabular)	•	•	•
Analysis evaluation against setpoint specifications (graph)	—	—	•
eTimeSave: determination of the ideal sieving duration per sieving analyse (coming soon)	—	—	•
RMM - real mesh method evaluation (coming soon)	—	—	•

DATA SECURITY - OPTIONAL

User administration with password management and event logging	—	• ^p	• ^p
21 CFR Part 11 conform, Electronic Records, Audit Trail	—	• ^p	• ^p

STANDARD ACCESSORIES

Vacuum cleaner, dust class L – 230 V; 50/60 Hz	•	•	•
Cover eLS 203 mm	•	•	•
Suction filter eLS	•	•	•
Adapter for ALPINE test sieves ø 203 mm	•	•	•
Hammer	•	•	•
Brush	•	•	•
Multi-PSU power pack	•	•	•
Power connections RS485	•	•	•
Power connection cable	•	•	•

e200 LS eControl-Software Upgrades

UPGRADES	Order no.
Upgrade from Basic to Professional	404317
Upgrade from Professional to Ultimate	404318
Upgrade from Basic to Ultimate	404319

Optional Accessories / Variants - additional charge

DUST EXTRACTION	Order no.
High-performance industrial vacuum cleaner type L - 120 V; 50/60 Hz	397362*
High-performance industrial vacuum cleaner type H - 230 V; 50/60 Hz	397360*
Side channel compressor with frequency converter	424344*

Accessories

DUST COLLECTION	Order no.
ALPINE small filter, dust class L, type 150/36	336197
ALPINE small filter, dust class M, type 150/36	360753
ALPINE high-performance cyclone GAZ 120	408808
PERIPHERAL UNITS	Order no.
Sartorius TE 802 laboratory balance - 230 V; 50/60 Hz	308073
Mettler Toledo JP802 G/M laboratory balance - 230 V; 50/60 Hz	424347
Brother HL-2250 laser printer - 230 V; 50/60 Hz	403087
SIEVING	Order no.
ALPINE micro-precision unit	424370
SIEVE HOLDER	Order no.
Adapter for test sieves ø 200 mm "ALPINE A200LS" and "Haver & Boecker"	396531
Adapter for test sieves ø 200 mm "Retsch"	396532
Adapter for test sieves ø 203 mm / 8" "W.S. Tyler"	398251
Adapter for test sieves ø 203 mm / 8" "Haver & Boecker"	398292
Adapter for test sieves ø 203 mm / 8" "Retsch"	398375
Plexiglas cover, type 200 for "A200LS test sieves"	009883
SIEVE HANDLING	Order no.
ALPINE sieve holder, type 203 SH	354369
Ultrasonic cleaning unit, type TS 540 - 230 V; 50/60 Hz	016319
Stainless steel basket for TS 540	370512
Cover for TS 540	370510
Ultrasonic cleaning unit, type S 300 H - 230 V; 50/60 Hz	253339
Stainless steel basket for S 300 H	395226
Cover for S 300 H	395228
Cleaning concentrate RW 77 – 5 litres	011893

Spare parts for standard accessories

STANDARD ACCESSORIES	Order no.
Plexiglas cover type 203	340463
Suction filter type 120	401477
Standard adapter for ø 203 mm test sieves	396530
Hammer	009932
Brush	328110
Multi-PSU power pack	397421
Power connections RS485	402615

Spare parts & operating supplies

VACUUM CLEANERS	Order no.
5 spare fleece filter bags, dust class L - VPE	380059
5 spare safety filter bags, dust class H - VPE	387015
Cloth filter for vacuum cleaner L	324816
Spare filter element, dust class L	317304
Spare filter element, dust class H	314852
Spare hose for dust class L and H - incl. sleeve	311929

DUST EXTRACTION

DUST EXTRACTION	Order no.
Spare star filter 1.3 m ² dust class L for small filter 150/36	345988
Spare star filter 1.3 m ² GORE® dust class M for small filter 150/36	345987
Spare hose for small filter 150/36 dust classes L and M - incl. sleeve	345747
Screw-cap jar for high-performance cyclone GAZ 120 incl. lid	009968
Spare wire spiral hose for high-performance cyclone GAZ 120	007087

LABORATORY BALANCES

LABORATORY BALANCES	Order no.
Spare cable for Sartorius	226033
Spare cable for Mettler Toledo	251850
Spare sample pan ø 130 mm	279119

Service

MAINTENANCE CONTRACTS	Order no.
Basic and full-service maintenance contracts	on request
DATA SECURITY	Order no.
Pharma-package eControl Plus	424873
Qualification documentation	414639
Qualification service	on request

„•“ = included in package
 „—“ = not included in package
 „^p“ = optional package, order no. 424873
 * = Additional charge compared with the vacuum cleaner (dust class L – 230 V; 50/60 Hz) already included in the package. Unit price on request.



ALPINE Air Jet Sieve® e200 LS accessories

Individualisation and maintaining quality with ALPINE's huge range of accessories.

Tailor the possibilities of ALPINE's Air Jet Sieve e200 LS exactly to your analysis requirements and local conditions. Make use of the practical accessories, operating supplies and spare parts as well as the unique range of services to guarantee ongoing analysis quality for many years to come.

2.1 Dust extraction: vacuum cleaners

High-performance industrial vacuum cleaner, type L

No. 397358

Sturdy and highly efficient vacuum cleaner for the reliable generation of the working air

- **Dust class L (max. permeability 1% as defined in EN 60335-2-69)**
- **Washable PET fleece filters reduce maintenance costs**
- **Container volume 30 litres**
- **Holder for ALPINE Multi PSU power pack**

Technical specifications

Output Pmax (W)	1500
Output Piec (W)	1200
Mains connection (V/~/Hz/A)	230/1/50-60/16
Air flow rate (l/min.)	3700
Underpressure (mbar/kPa)	250/25
Noise level (dB(A))	59
Max. container volume (l)	30
Weight (kg)	10
Dimensions	450 x 380 x 595 mm (LxWxH)

Delivery scope of high-performance industrial vacuum cleaner L

- **incl. antistatic suction hose DN 32 x 2000 mm (ø x L)**
- **incl. connection cable 2.5 m with special connector**
- **incl. 1x dust bag**
- **incl. 1x filter element**

Note: This vacuum cleaner is included in the delivery scope of ALPINE's Air Jet Sieve e200 LS! Upgrade possible at any time for an additional charge.





120 Volt

High-performance industrial vacuum cleaner type L – 120 V

No. 397362

Sturdy and highly efficient vacuum cleaner for the reliable generation and cleaning of the working air

- **Dust class L (max. permeability 1% as defined in EN 60335-2-69)**
- **Washable PET fleece filters reduce maintenance costs**
- **Container volume 30 litres**
- **Holder for ALPINE Multi PSU power pack**

Technical specifications

Output Pic (W)	1000
Mains connection (V/~/Hz/A)	120/1/60/15
Air flow rate (l/min.)	3700
Underpressure (mbar/kPa)	250/25
Noise level (dB(A))	59
Max. container volume (l)	30
Weight (kg)	10
Dimensions	450 x 380 x 595 mm (LxWxH)

Delivery scope of high-performance industrial vacuum cleaner L

- **incl. antistatic suction hose DN 32 x 2000 mm (ø x L)**
- **incl. connection cable 2.5 m with special plug**
- **incl. 1x dust bag**
- **incl. 1x filter element**

Note: Other 120-V vacuum cleaners for ALPINE's Air Jet Sieve e200 LS available upon request!

Upgrade Option

High-performance industrial vacuum cleaner type H

No. 397360

Protective filter system for toxic dusts

- **Dust class H (max. permeability 0.005% as defined in EN 60335-2-69)**
- **Approved for operation with toxic dusts of class H**
- **Container volume 30 litres**
- **Holder for ALPINE Multi PSU power pack**

Technical specifications

Output Pmax (W)	1500
Output Pic (W)	1200
Mains connection (V/~/Hz/A)	230/1/50-60/16
Air flow rate (l/min.)	3700
Underpressure (mbar/kPa)	250/25
Noise level (dB(A))	59
Max. container volume (l)	30
Weight (kg)	10
Dimensions	450 x 380 x 595 mm (LxWxH)

Delivery scope of type H high-performance industrial vacuum cleaner

- **incl. antistatic suction hose DN 32 x 2000 mm (ø x L)**
- **incl. connection cable 2.5 m with special plug**
- **incl. 1x safety dust bag**
- **incl. 1x H-class filter element**

Note: Certified H-class filter with collection efficiency certificate.

Upgrade Option

Side channel compressor with frequency converter

No. 424344

Suitable for continuous operation as well as being a reliable alternative for processing large quantities of product.

- **Reliable and long-lasting, practically maintenance-free**
- **Highly robust at low weight**
- **Completely configured for simple connection to the e200 LS**

Technical specifications

Mains power (V/~/Hz/A)	400/2/86/5.5
Weight (kg)	22
Operating noise in dB(A)	74
Dimensions	324 x 285 x 401 mm (LxWxH)

Delivery scope

- **incl. suction hose DN 32 x 2000 mm**
- **incl. control box (CBX)**
- **incl. integrated frequency converter**

Note: operation without a filter is not permitted!

We recommend ordering our small filter type 150/36 at the same time.



2.2 Dust collection: small filter & high-performance cyclone

ALPINE small filter, dust class L, type 150/36

No. 336197



For active dedusting of the process air

- Dust class L
- Star filter with 1.3 m² filter surface
- Mechanical filter cleaning
- Capacity approx. 25 litres

Dimensions 360 x 630 mm (ø x H)

Delivery scope ALPINE small filter, dust class L, type 150/36

- incl. antistatic suction hose DN 32 x 2000 mm (ø x L)

ALPINE small filter, dust class M, type 150/36

No. 360753

For reliable avoidance of fine dust

- Dust class M
- GORE® star filter with 1.3 m² filter surface
- Mechanical filter cleaning
- Capacity approx. 25 litres

Dimensions 360 x 630 mm (ø x H)

Delivery scope ALPINE small filter, dust class M, type 150/36

- incl. antistatic suction hose DN 32 x 2000 mm (ø x L)

ALPINE high-performance cyclone GAZ 120

No. 408808



Permits reliable and clean recovery of the fines

- Almost complete recovery of the fines
- No contamination caused, e.g. by filter lint
- Suitable for material quantities up to 1 litre
- Stainless steel design, can be dismantled and washed

Dimensions 275 x 155 x 770 mm (LxBxH)

Delivery scope ALPINE high-performance cyclone GAZ 120

- incl. stand
- incl. 1-litre screw-cap jar
- incl. electrically conductive wire spiral hose, abrasion-proof, largely smooth on inside, DN 32 x 2000 mm (ø x L)



2.3 Peripheral units: laboratory balances and printer

Sartorius laboratory balance

No. 308073



Compatible high-precision laboratory balance to 810 g with weighing pan that is ideally suited to all test sieves up to ø 220 mm

- **Max. capacity: 810g**
- **Reading resolution: 0.01g**
- **Special stainless steel weighing pan ø 220 mm**

Connection	230 V, 50/60 Hz
Dimensions	270 x 200 x 299 mm (LxWxH)
Delivery scope Sartorius TE 802 laboratory balance	
	<ul style="list-style-type: none"> • incl. 1 serial data cable • incl. sample pan ø 130 mm

Brother HL-2250 laser printer

No. 403087

Compatible Laser Printer with network connectivity built-in as standard

- **10/100 BaseTX PrintServer**
- **Paper capacity up to 250 sheets**
- **Plug & Play connection to e200 LS**

Connection	230 V, 50/60 Hz
Dimensions	361 x 368 x 170 mm (LxWxH)
Delivery scope Brother HL-2250N laser printer	
	<ul style="list-style-type: none"> • incl. 1 data cable LAN • incl. 1 toner cartridge TN-2110

Mettler Toledo JP802 G/M laboratory balance

No. 409756

Compatible high-precision laboratory balance to 820 g in a high quality aluminium cast housing

- **Max. capacity 820 g**
- **Reading resolution: 0.01g**
- **High-performance MonoBloc weighing cell**
- **Adjust your balance with just one Keystroke**

Connection	230 V, 50/60 Hz
Dimensions	290 x 184 x 84 mm (LxWxH)
Delivery scope Mettler Toledo JP802 G/M laboratory balance	
	<ul style="list-style-type: none"> • incl. 1 special serial data cable • incl. sample dish ø 130 mm



2.4 Sieving: Test Sieves with Frame made from Stainless Steel

ALPINE test sieves

No.: see table



Stainless steel sieves from 20 µm to 4000 µm with RFID eliminate mix-ups

- fully automatic sieve identification by means of RFID chip
- incl. transponder in plastic clip
- high-quality, stainless steel design
- incl. certificate of conformity 2.1 as defined in DIN EN 10204

Sieve deck	stainless steel
Sieve frame	stainless steel
Standards	DIN ISO 3310, BS 410, ASTM E11
Dimensions	ø 203 mm

Special feature: RFID technology saves having to manually input the sieve mesh width and prevents sieve insert errors!
Inspection certificate 3.1 on request.

Inspection certificate 3.1 for ALPINE test sieves

No.: see table



Delivery scope: individual test certificate 3.1 as per DIN EN 10204

- incl. computer screen analysis
- incl. record of results (tabular and graph form)

ALPINE test sieves ø 203 mm Certificate of Conformity 2.1 (DIN EN 10204)

DIN ISO 3310 ø 203 mm		ASTM E 11 ø 203 mm	
Mesh width	No.	Mesh width no.#	No.
20 µm	409067	635	409276
25 µm	409087	500	409277
32 µm	409088	450	409278
36 µm	409089	--	--
38 µm	409092	400	409279
40 µm	409095	--	--
45 µm	409096	325	409281
50 µm	409097	--	--
53 µm	409098	270	409282
56 µm	409099	--	--
63 µm	409101	230	409283
71 µm	409102	--	--
75 µm	409103	200	409284
80 µm	409104	--	--
90 µm	409105	170	409285
100 µm	409106	--	--
106 µm	409108	140	409286
112 µm	409109	--	--
125 µm	409110	120	409288
140 µm	409111	--	--
150 µm	409112	100	409289
160 µm	409113	--	--
180 µm	409114	80	409290
200 µm	409115	--	--
212 µm	409116	70	409366
224 µm	409117	--	--
250 µm	409118	60	409292
280 µm	409120	--	--
300 µm	409121	50	409294
315 µm	409122	--	--
355 µm	409125	45	409295
400 µm	409126	--	--
425 µm	409127	40	409296
450 µm	409129	--	--
500 µm	409131	35	409297
560 µm	409132	--	--
600 µm	409133	30	409298
630 µm	409134	--	--
710 µm	409135	25	409299
800 µm	409137	--	--
850 µm	409138	20	409301
900 µm	409139	--	--
1000 µm	409140	18	409302
1120 µm	409141	--	--
1180 µm	409142	16	409304
1250 µm	409143	--	--
1400 µm	409144	14	409305
1600 µm	409145	--	--
1700 µm	409146	12	409306
1800 µm	409147	--	--
2000 µm	409148	10	409307
2240 µm	410574	--	--
2360 µm	410575	8	409308
2500 µm	409150	--	--
2800 µm	410576	7	409309
3150 µm	409151	--	--
3350 µm	410577	6	409310
3550 µm	410578	--	--
4000 µm	409153	5	409311

ALPINE test sieves ø 203 mm Inspection Certificate 3.1 (DIN EN 10204)

DIN ISO 3310 ø 203 mm		ASTM E 11 ø 203 mm	
Mesh width	No.	Mesh width no.#	No.
20 µm	409069	635	409313
25 µm	409154	500	409314
32 µm	409156	450	409315
36 µm	409157	--	--
38 µm	409158	400	409316
40 µm	409159	--	--
45 µm	409161	325	409317
50 µm	409163	--	--
53 µm	409164	270	409319
56 µm	409165	--	--
63 µm	409167	230	409320
71 µm	409169	--	--
75 µm	409170	200	409322
80 µm	409173	--	--
90 µm	409174	170	409324
100 µm	409175	--	--
106 µm	409176	140	409325
112 µm	409177	--	--
125 µm	409178	120	409327
140 µm	409179	--	--
150 µm	409180	100	409328
160 µm	409181	--	--
180 µm	409182	80	409329
200 µm	409183	--	--
212 µm	409185	70	409331
224 µm	409186	--	--
250 µm	409187	60	409332
280 µm	409188	--	--
300 µm	409189	50	409333
315 µm	409190	--	--
355 µm	409191	45	409334
400 µm	409192	--	--
425 µm	409197	40	409335
450 µm	409198	--	--
500 µm	409199	35	409336
560 µm	409200	--	--
600 µm	409201	30	409337
630 µm	409202	--	--
710 µm	409203	25	409338
800 µm	409204	--	--
850 µm	409205	20	409339
900 µm	409206	--	--
1000 µm	409207	18	409341
1120 µm	409208	--	--
1180 µm	409209	16	409342
1250 µm	409210	--	--
1400 µm	409212	14	409343
1600 µm	409213	--	--
1700 µm	409214	12	409344
1800 µm	409215	--	--
2000 µm	409216	10	409346
2240 µm	410579	--	--
2360 µm	410580	8	409347
2500 µm	409217	--	--
2800 µm	410581	7	409348
3150 µm	409218	--	--
3350 µm	410582	6	409349
3550 µm	410583	--	--
4000 µm	409219	5	409350



2.5 Sieving: Special sieves and micro-sieving units; ALPINE special sieves

ALPINE Special sieves

No. see table



- High-quality stainless steel design
- Incl. certificate of conformity 2.1 as per DIN EN 10204

Sieve frame	Stainless steel
Standard	DIN ISO 3310-1, -3
Dimensions	ø 76 mm (3")
Effective high	25 mm
Note:	No sieve identification possible! Inspection certificate 3.1 on request

Micro-sieving unit for e200 LS

No. 424370



The micro-sieving unit is suitable for use with special sieves of 76 mm in diameter. Every e200 LS air jet sieve can be converted for operation with micro-precision sieves by means of this micro-sieving unit.

Adapter material	Stainless steel
Nozzle material	Stainless steel
Lid material	PMMA
Delivery scope micro-sieving unit	76 mm
•	incl. short slotted nozzle
•	incl. adapter to accommodate ALPINE Ø 76 mm special sieves
•	incl. Plexiglas lid Ø 76 mm
Note:	Suitable for mini batches of feed material.

**ALPINE special sieves ø 76 mm
incl. certificate of conformity 2.1
(DIN EN 10204)**

Mesh width	Stainless steel metal wire cloth as per DIN ISO 3310-1 76 x 25 mm Metal wire cloth	Electroformed sheet as per DIN ISO 3310-3 76 x 25 mm
	No.	No.
10 µm	-	424372
16 µm	-	424373
20 µm	424397	424374
25 µm	424398	424375
32 µm	424399	-
36 µm	424401	-
38 µm	424402	-
40 µm	424403	-
45 µm	424404	-
50 µm	424405	-
53 µm	424406	-
56 µm	424407	-
63 µm	424408	-
71 µm	424409	-
75 µm	424410	-
80 µm	424411	-
90 µm	424412	-
100 µm	424413	-
106 µm	424414	-
112 µm	424415	-
125 µm	424416	-
140 µm	424417	-
150 µm	424418	-
160 µm	424419	-
180 µm	424420	-
200 µm	424421	-
212 µm	424422	-
224 µm	424427	-
250 µm	424428	-
280 µm	424429	-
300 µm	424430	-
315 µm	424431	-
355 µm	424432	-
400 µm	424433	-
425 µm	424434	-
450 µm	424435	-
500 µm	424436	-
560 µm	424437	-
600 µm	425384	-
630 µm	424438	-
710 µm	424439	-
800 µm	424440	-
850 µm	424441	-
900 µm	424442	-
1000 µm	424443	-
1120 µm	424444	-
1180 µm	424445	-
1250 µm	424446	-
1400 µm	424447	-
1600 µm	424448	-
1700 µm	424449	-
1800 µm	424450	-
2000 µm	424451	-
2240 µm	424452	-
2360 µm	424453	-
2500 µm	424454	-



2.6 Sieve holder: adapters & covers

Universal sieve

Whether Alpine's previous model of test sieve or another make entirely: with the different sieve adapters, all test sieves currently on the market can be used in ALPINE's air jet sieve e200 LS. Handling is simple, fast and cost-effective.

**Adapter for test sieves \varnothing 200 mm
"ALPINE A200 LS" and "Haver & Boecker"**

No. 396531

Permits the use of existing Alpine sieves and sieves of a different make

- Significant cost savings as opposed to buying new sieves
- Available for sieves of all ALPINE air jet sieve forerunner models (A200 LS)
- For \varnothing 200 mm sieves made by Haver & Boecker


Adapter for test sieves \varnothing 200 mm "Retsch"

No. 396532

Adapter for test sieves \varnothing 203 mm / 8" "W.S. Tyler"

No. 398251

Adapter for test sieves \varnothing 203 mm / 8" "Haver & Boecker"

No. 398292

Adapter for test sieves \varnothing 203 mm / 8" "Retsch"

No. 398375

Plexiglas cover, type 200 for "A200LS test sieves"

No. 009883

Suitable for test sieves of the A200 LS generation

2.7 Sieve handling: storage & cleaning

ALPINE sieve holder, type 203 SH

No. 354369



Secure and space-saving storage of your valuable test sieves

- for up to 5 test sieves
- optimum storage
- space-saving design
- clear arrangement of sieve sizes
- simple assembly

Dimensions: 300 x 253 x 167 mm (LxWxH)

Note: suitable for old and new sieve generations
up to \varnothing 203 mm x 45 mm in width!



Ultrasonic cleaning unit, type TS 540

No. 016319



Professional test sieve cleaning

- **tried-and-tested ultrasonic system**
- **reliable cleaning**
- **simple handling**

Technical specifications

Ultrasound frequency (kHz)	35
Power consumption (W)	160
HF peak power (W)	320
Mains connection (V~/Hz/A)	230/1/50-60/16
Tank inside dimensions D / H (mm)	240 / 145
Max. capacity (litres)	6.4
Weight (kg)	4.4
Material (tank)	stainless steel
Material (housing)	stainless steel
Dimensions	280 x 300 x 285 mm (LxWxH)
Delivery scope ultrasound cleaning unit, type TS 540	

- **incl. operating manual**

Note: designed for the intensive cleaning of analysis and micro-precision sieves.

Stainless steel basket for TS 540

No. 370512

Inside dimensions	ø 215 mm
Material	stainless steel

Note: special accessory to permit cleaning small components such as the e200 LS nozzle.

Cover for TS 540

No. 370510

Ultrasonic cleaning unit, type S 300 H

No. 253339

Professional cleaning of up to 5 test sieves

- **tried-and-tested ultrasonic system**
- **simple handling**
- **LED indication of set time and remaining time**
- **temperature-controlled cleaning process of up to 5 test sieves**

Technical specifications

Ultrasound frequency (kHz)	37
Total power consumption (W)	1500
Effective ultrasound output (W)	300
Max. ultrasound peak power (W)	1200
Heating power (W)	1200
Mains connection (V~/Hz/A)	230/1/50-60/16
Tank inside dimensions LxBxH (mm)	300 x 505 x 200
Max. capacity (litres)	28
Weight (kg)	11.0
Material (tank)	stainless steel
Material (housing)	stainless steel
Liquid run-off	3/8"
Protection class	IP 20
Dimensions: 340 x 568 x 321 mm (LxWxH)	
Delivery scope: ultrasound cleaning unit type S 300 H	
• incl. "EU" connection cable	
• incl. operating manual	

Stainless steel basket for S 300 H

No. 395226

Inside dimensions	455 x 250 mm
Material	stainless steel

Note: special accessory to permit cleaning small components such as the e200 LS nozzle.

Cover for S 300 H

No. 395228

Cleaning concentrate RW 77

No. 011893

Reliably removes all kinds of contaminants, regardless of whether slight or stubborn

- **Reliable removal of resin, carbon black, grease, oil, wax, pigments, paint bloom, silicon oil, flux powder, oxides and non-ferrous heavy metals**
- **Ideal for metal, glass, ceramic, plastic, rubber, etc.**

Contents: 5 litres



Air Jet Sieve® e200 LS spare parts & supplies

The ALPINE Air Jet Sieve is irreplaceable.
But not its spare parts and supplies.

Order any especially stressed components and disposables at the same time you order your air jet sieve!
Whether filter elements, cables, hoses or test sieves — we offer you a wide range of products to ensure the long-term reliability and cost-effective application of your ALPINE air jet sieve.

3. Spare parts & supplies

3.1 Machine

Plexiglas cover type 203

No. 340463

Specially coated for quick cleaning after analysis



Suction filter type 120

No. 394193

Effective noise reduction and process air cleaning

Adapter for ø 203 mm test sieve series

No. 396530

Easy and quick accommodation of all test sieves

Hammer

No. 009932

For tapping off any deposits from the Plexiglas cover

Brush

No. 328110

Natural bristle brush for cleaning test sieve and cover

Multi-PSU power pack

No. 397421

Wide-voltage-range power pack from 100 – 250 V 50/60 Hz

Power connection RS485

No. 402615

Connects the Multi-PSU power pack with the e200 LS



3.2 Vacuum cleaners

Spare fleece filter bag, dust class L

No. 380059

5 to a package, standard design

Spare safety filter bag, dust class H

No. 387015

5 to a package, multi-layer design

Cloth filter for vacuum cleaner L

No. 324816

For the reliable filtering of difficult dust

- for extremely fine, hygroscopic or adhesive dust
- especially suitable for cement powder
- polymer-coated needle felt

Note: substitute for fleece filter bag, dust class L No. 380059

Spare filter element, dust class L

No. 317304

PET fleece, washable

Spare filter element, dust class H

No. 314852

Paper/glass fibre

Spare hose for dust classes L and H

No. 311929

incl. sleeve, antistatic, DN 32 x 2000 mm (ø x L)

3.3 Dust collection

Spare star filter 1.3 m² dust class L for small filter 150/36

No. 345988

Spare star filter 1.3 m² GORE-TEX[®] dust class M for small filter 150/36

No. 345987

Spare hose for small filter 150/36 dust classes L and M

No. 345747

incl. sleeve, antistatic, DN 32 x 2000 mm (ø x L)

Screw-cap jar for high-performance cyclone GAZ 120

No. 009968

incl. screw cap

Spare wire spiral hose for high-performance cyclone GAZ 120

No. 007087

electrically conductive, abrasion-proof, largely smooth on inside DN 32 x 2000 mm (ø x L)

3.4 Laboratory balances

Spare cable for Sartorius

No. 226033

Spare cable for Mettler Toledo

No. 251850

Spare sample pan ø 130 mm

No. 279119



ALPINE Air Jet Sieve® e200 LS – Service

**Fast service instead of worry lines:
with ALPINE's spare parts and maintenance options.**

Quality and reliability for users and analysis results take priority. Which is why the ALPINE air jet sieve e200 LS has been the last word in particle size analysis for more than 50 years. If in spite of this, you experience problems: our spare parts and maintenance options are there to assist you - quickly and without hassle

4.1 Maintenance contracts

The ALPINE air jet sieve e200 LS is a particle size analyser that is used in many cases for quality assurance applications. The DIN ISO 9000 ff. standard mandates that these types of analysers be tested at regular intervals.

Basic maintenance contract

Price on demand

Performance scope

- Annual inspection of the analyser in your factory
- General check for function and damage
- Pressure test
- Test run
- Preparation of a system log
- A basic maintenance contract excludes inspection of the sieves, free exchange of defective parts and the provision of a complimentary analyser during repairs.

Full-service maintenance contract

Price on demand

Performance scope

- Annual inspection of the analyser in our Augsburg factory
- General check for function and damage
- Pressure test
- Test run
- Preparation of a calibration report
- Loan of an air jet sieve during maintenance
- Shipping/return of the units within the EU
- Replacement of defective parts. If we determine during annual maintenance that any parts are defective, we will exchange them free of charge
- Problems in between maintenance procedures
- Quickest possible reaction - either spare parts are shipped to you or an air jet sieve is placed free of charge at your disposal during any necessary repairs.
- Inspection of analysis sieves

Included in the annual maintenance of the unit is also the inspection of 4 commonly used sieves. More sieves can be inspected at a surcharge. Alpine's full-service maintenance package guarantees a high availability of the e200 LS and moreover gives you the assurance that the analyses carried out on your products are of maximum precision.



4.2 Data security

Pharma package eControl Plus

No. 424873

The e200 LS is especially suited to the needs of the pharmaceuticals industry. The analyser is on the one hand protected against unauthorised use, and on the other hand, all operating actions are documented.

Requirements for software validation broken down into
ISPE GAMP 5 FDA 21 CFR Part 11 EC GMP Annex 11 conform

- **User administration for different users with different authorisation levels**
- **Password management for log-on authorisation**
- **Audit trail – monitoring of user activities and event logging**
- **Data management & access authorisation for the customer's network**

This system was validated by the Albstadt-Sigmaringen University and is approved for use in GMP-regulated environments.

Qualification documentation for e200 LS

No. 414639

The qualification is the "documented proof that the equipment, systems and units in the installed or modified design correspond to the approved design and to the manufacturer's recommendations." (ZLG – Aide Memoire 2010.)

- **Qualification master plan**
- **Risk analysis/evaluation**
The critical factors of the device or system and process were determined by the risk analysis and the requisite activities were based on this. The selected methods were recorded in the document:
"Failure mode and effect analysis FMEA."
- **Qualification templates for:**
 - **Design qualification (DQ)**
 - **Installation qualification (IQ)**
 - **Operation qualification (OQ)**
 - **Performance qualification (PQ)**
- **Software validation as per GAMP 5 and 21 CFR Part 11 (only optional for eControl Ultimate)**
- **Document set: complete package without test execution.**

Qualification service

Price on demand

If required, we can offer a host of other services for the e200 LS such as personnel training, test runs and site acceptance test (SAT).



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HOSOKAWA ALPINE Aktiengesellschaft

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