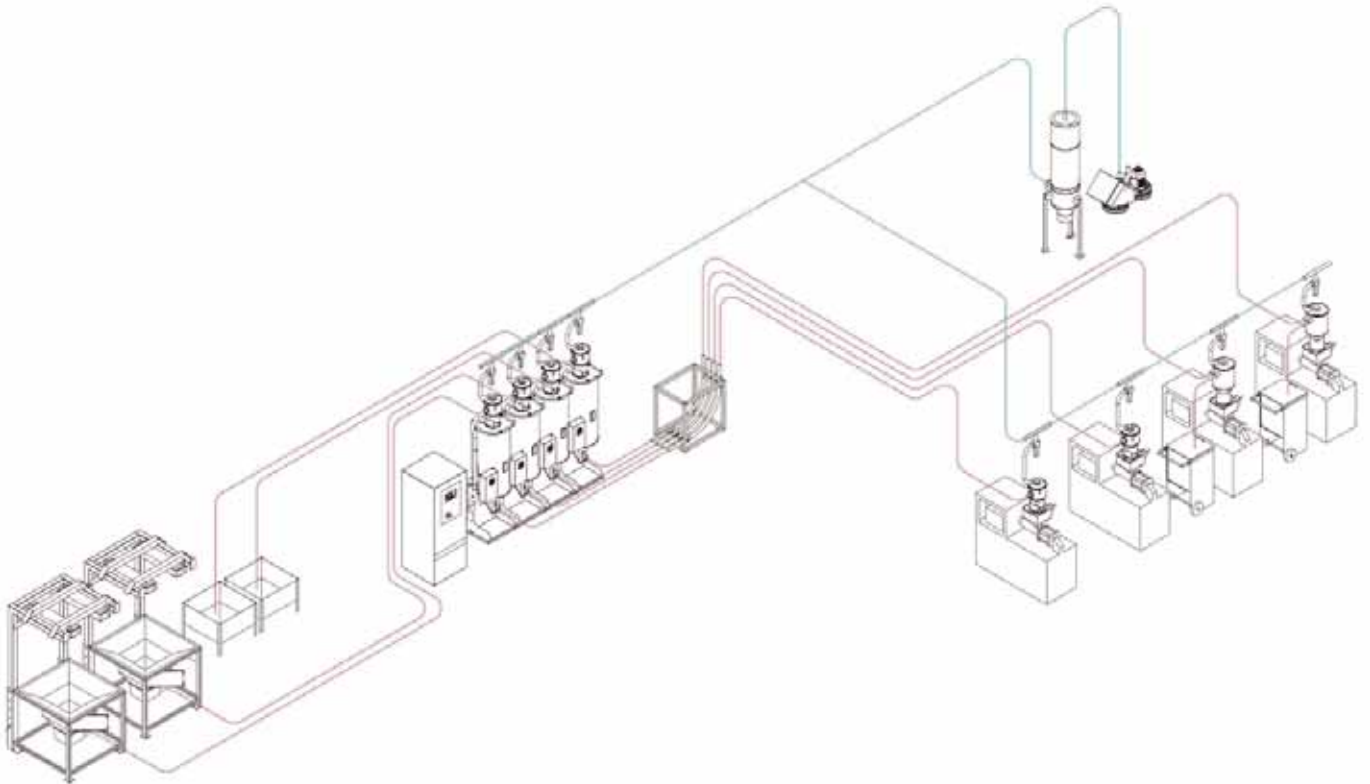


# System Components

Vacuum stations, Central filter systems,  
Vacuum receivers & Piping systems



# System Components

## Introduction

Labotek centralised systems are recognized for their high level of durability and performance. Labotek's advanced technology offers frequency controlled vacuum stations and dust separation technologies reduce energy requirements dramatically.

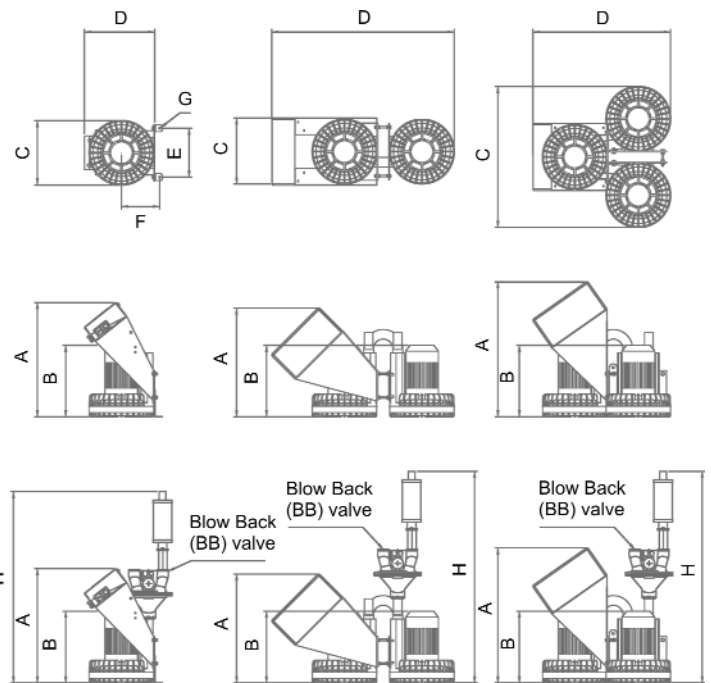
Labotek systems are quiet, maintenance free and modularly constructed with a number of blowers connected in series that maintains a deep vacuum at low air speed. Vacuum receivers type SVR are supplied in stainless steel AISI 304, with spring return vacuum valves. Vacuum receivers from Labotek can be equipped with internal or external dosing valves for regrind.

## Vacuum Stations

Labotek Vacuum stations are used either as single, double, triple or even larger execution. This is in order to maintain a deep vacuum at lowest possible airspeed, achieving gentle conditions for the polymer being conveyed.

The blowers are maintenance free and operate below 69 dBa. Labotek blowers are available from 0.4 kW up to 20.4 kW, with endless combination options. Even in the unlikely event of a blower failure, the remaining blower(s) will continue operation at a lower capacity, hereby avoiding costly production stops.

Type		A	B	C	D	E	F	G	H
1xLT3	-	498	290	240	420	184	170	Ø 11	-
1xLT4	-	475	265	290	420	225	185	Ø 11	-
1xLT5	-	665	395	340	375	260	-	Ø 11	-
1xLT6	-	685	430	390	425	290	-	Ø 11	-
2xLT6	-	650	430	400	1100	-	-	-	-
3xLT6-I	-	650	430	840	1150	-	-	-	-
1xLT5	BB	665	395	340	375	260	-	Ø 11	1105
1xLT6	BB	685	430	390	425	290	-	Ø 11	1140
2xLT6	BB	650	430	400	1100	-	-	-	1260
3xLT6	BB	650	430	840	1150	-	-	Ø 11	1260



Part no.	Description	Frequency control
101701	SVS 1 x Blower LT6	-
206760	SVS 1 x Blower LT6	Yes
101703	SVS 2 x Blower LT6	-
206761	SVS 2 x Blower LT6	Yes
101705	SVS 3 x Blower LT6	-
206762	SVS 3 x Blower LT6	Yes
101713	SVS 1 x Blower, Blow back	-
101715	SVS 2 x Blower, Blow back	-
101717	SVS 3 x Blower, Blow back	-

## Frequency Inverters

Conveying air speed may be controlled via our frequency inverter range. The frequency controller is set in % air speed; herewith each station may have its own individual air speed setting, depending on material being conveyed.

Huge energy savings are obtained, raw materials are gently conveyed increasing the life span of pipe systems and hoses.

## Central Filters

Labotek has four different filtration systems as standard. Processors may choose between either self purifying filter, dust cyclone, blow back valve, or compressed air filter cleaning.

Dust cyclone is used in medium to high dust applications, where a simple and efficient system is required. The dust cyclone is supplied with brackets for wall mounting. Dust collectors are either 3, 10 or 20 litres.

Self purifying filter is selected where dust levels are high and processors are looking for a premium filter solution. The filter is supplied on floor stand with stainless steel filter construction, 4 m<sup>2</sup> filter surface and a quick purge system in base of filter for emptying of collected dust.



Compressed air filter cleaning



Dust Cyclone



Blow Back Valve



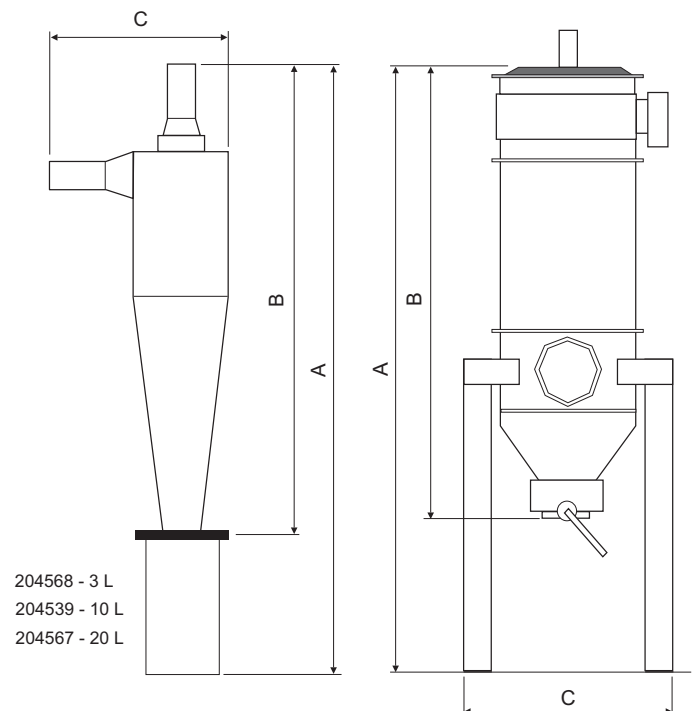
Self purifying Filter

The Blow back valve is designed by Labotek; the valve changes the direction of the air stream, which turns the vacuum to pressure, which cleans the filter in the vacuum receiver after and/or before each conveying cycle.

At the same time the blow back valve enables a fast purge of the vacuum receiver after conveying cycle, resulting in higher conveying capacities.

## Cyclone & Selfcleaning Filter

Part no.	Ø	Description	A	B	C
204568	Ø 50	Cyclone 3 L	1117	861	325
204539	Ø 50	Cyclone 10 L	1117	861	325
204567	Ø 50	Cyclone 20 L	1117	861	325
208804	Ø 50	Self purifying filter	1840	1375	763
208805	Ø 65	Self purifying filter	1840	1375	763



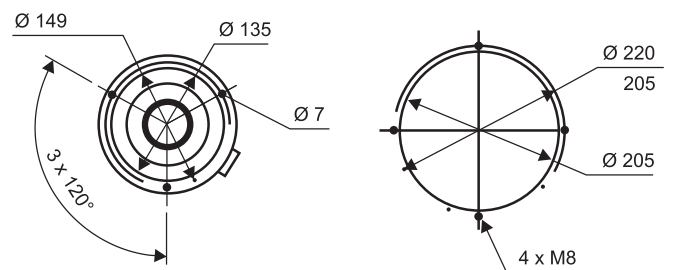


## Vacuum Receivers

Labotek Vacuum Receivers type AVR & SVR are supplied in sizes from 1 litres up to 200 litres. The AVR is made for small consumptions such as Colors & Additives. AVR is made from aluminium. The SVR range is made in stainless steel grade AISI 304.

Receivers are modular and allow users to change configuration as the requirements changes.

This receiver is among the most flexible available in the market. Level control in receiver is controlled via bottom flap magnet read switch, optionally the receivers may be equipped with high level sensor. The receivers have numerous filter types to select from, such as cartridges, coarse wire screens and others, enabling the receiver to adapt into almost any conveying application.



Mounting Pattern: AVR 1 L Mounting Pattern: SVR 4-50 L

Part no.	Description	Litres	A (mm)	B (mm)
208967	AVR	1	120	335
204564	SVR 4	4	275	555
204565	SVR 8	8	275	610
204566	SVR 16	16	340	670
204583	SVR 26	26	340	790
204593	SVR 50	50	340	1100
206825	SVR 50 / Ø 400	50	420	917
204627	SVR 75	75	420	1284
204628	SVR 100	100	420	1404
204629	SVR 150	150	600	1287
204630	SVR 200	200	600	1512

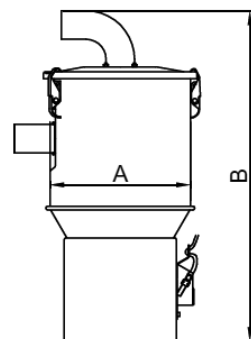
Labotek uses a unique vacuum valve which is remotely installed, separate from the vacuum receiver, hereby there are no pneumatic installations on the vacuum receiver.

This gives an extremely simple and durable vacuum receiver design which is easy to clean and maintain.

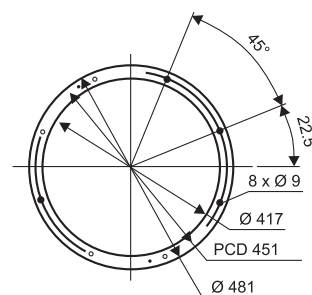
The vacuum valve is fitted with large internal spring, which always secures a positive seal in the vacuum line, eliminating risk of vacuum leaks.



Vacuum Valve & EI-box



Vacuum receiver SVR 4-50



Mounting Pattern: SVR 75-200 L & SVR 50 / Ø 400



Vacuum receiver SVR 75-200



## IDV

The integrated Dosing Valve type IDV is a unique built-in dosing system for non critical proportioning of two materials into the same receiver.



SVR with IDV and Vacuum Valve

## RS2000

RS2000 is an external mounted proportioning valve, for non critical dosing of two materials into same receiver.



RS2000

The RS2000 unit is made in lightweight aluminium housing and features a glass window.

## Coupling Stations

A coupling station is used when a number of different raw materials are transferred to the same production machine.

Labotek coupling stations are available in numerous combinations, even with a control monitoring function.

All fittings are made in stainless steel AISI 304 or optionally in glass execution for minimizing wear, when conveying glass reinforced materials. Labotek coupling stations are tailored to each application, our unique pipe fittings are not welded together, making it possible to expand/replace single parts.

Labotek pipe supports are supplied in 40x40 square tube with holes made through flow drill technique, securing a tidy pipe installation where all pipes are fully aligned and secure.



Vacuum receivers type SVR and insulated hoppers

## Piping Systems

Labotek piping systems are available in a number of different types of materials, based on standard pipe dimensions Ø 38, Ø 50 & Ø 65 mm, in either aluminium or stainless steel AISI 304.

Bends are made of stainless steel AISI 304, or alternatively of glass, if glass-reinforced raw materials are used.

Line cleaning valves and closed loop systems are used for the efficient emptying of pipes, protecting raw materials from absorbing unwanted moisture during conveying.




Example, Coupling station, 20 inlets/60 outlets


Coupling station examples



# Pipes and Fittings


Dimensions	Dim.	Alu	AISI 304
Pipe L = 6 m	Ø 38	-	408200
Pipe L = 6 m	Ø 50	-	408201
Pipe L = 6 m	Ø 65	-	408202
Pipe L = 6 m	Ø 38	408203	-
Pipe L = 6 m	Ø 50	408204	-
Pipe L = 6 m	Ø 65	408205	-


Bend 45°	Dim.	R	AISI 304
	Ø 38	250	544007
	Ø 38	500	544008
	Ø 50	250	544009
	Ø 50	500	544010
	Ø 65	500	544011
	<b>Glass</b>		
	Ø 56*	500	544002


Bend 90°	Dim.	R	AISI 304
	Ø 38	250	544012
	Ø 38	500	544013
	Ø 50	250	544014
	Ø 50	500	544015
	Ø 65	250	544029
	<b>Glass</b>		
	Ø 56*	500	544003


\*) Dimension to fit Ø 50 pipe




Description	Dim.	AISI 304
 Coupling Station	Ø 50	207011
Coupling Station	Ø 65	207013
Coupling Station, Glass	Ø 50	207012

Description	Dim.	AISI 304
 Pipe Cleaning Valve	Ø 38	203459
Pipe Cleaning Valve	Ø 50	203178
Pipe Cleaning Valve	Ø 65	203184

Description	Dim.	AISI 304
 T-Branch	Ø 38	544019
T-Branch	Ø 50	544020
T-Branch	Ø 65	544021
T-Branch	Ø 50 / 65	544046

Description	Dim.	AISI 304
 Pipe Coupling	Ø 38	501300
Pipe Coupling	Ø 50	501304
Pipe Coupling	Ø 65	544043
Pipe Coupling for Glass bend	Ø 56 / 50	544001

Description	Dim.	AISI 304
 Quick Coupling	Ø 38	204711
Quick Coupling	Ø 50	204713
Quick Coupling	Ø 65	



## Material Hoppers

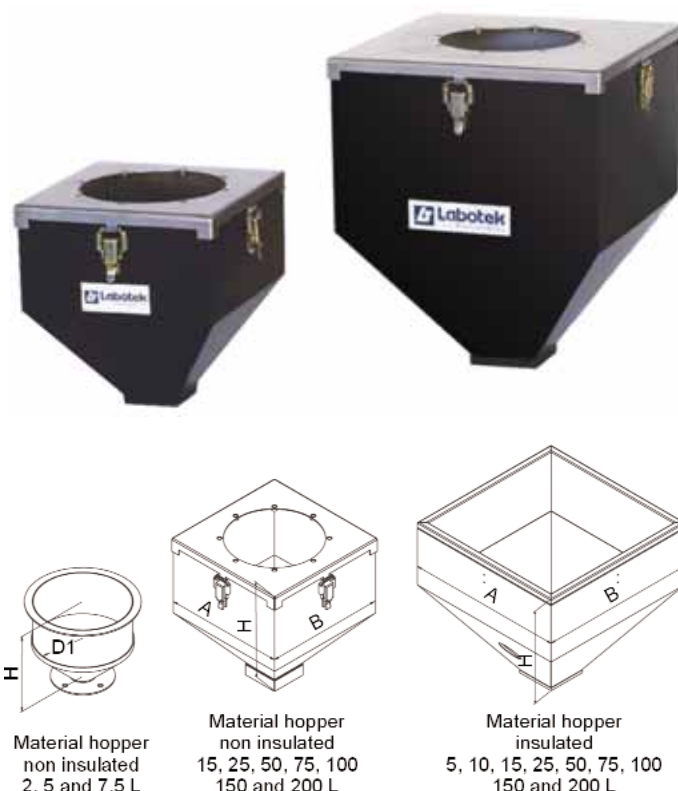
Labotek manufactures a wide selection of Material hoppers in either square or round design, with raw material contact surfaces in stainless steel AISI 304.

The series are supplied in unsulated and insulated versions, where 20 mm insulation thickness maintains material temperature while waiting on machine troat.

The range spans from 2 up to 200 litres as standard, however we are able to produce Material hoppers upon request.

The insulated Material hoppers also features sight glass lid prepared for Labotek vacuum receivers and standard flange for production machine. A purge valve is available as option.

Labotek also offers an adjustable capacitive level sensor inside insulated Material hoppers, size 5-200 litres.



Type [L]	D1	A	B	H	Lid for SVR4-50	Lid (w. door) for SVR4-50	Lid for SVR75-200	LT-no.
<b>Non Insulated Material Hopper</b>								
2	Ø 200	-	-	96,5	-	-	-	205115
5	Ø 200	-	-	183,5	-	-	-	205116
7,5	Ø 200	-	-	263,5	-	-	-	205117
15	-	286	286	334	x	-	-	204192
25	-	398	398	477	x	x	-	204193
50	-	398	398	625	x	x	-	204489
75	-	595	595	580	-	x	x	204490
100	-	595	595	670	-	x	x	204491
150	-	595	595	825	-	x	x	204492
200	-	595	595	965	-	x	x	204494
<b>Insulated Material Hopper</b>								
5	-	286	286	245	x	-	-	200113
10	-	286	286	305	x	-	-	204449
25	-	398	398	478	x	x	-	204456
50	-	398	398	682	x	x	-	204460
75	-	595	595	580	-	x	x	205100
100	-	595	595	663	-	x	x	205102
150	-	595	595	830	-	x	x	205104
200	-	595	595	998	-	x	x	205106



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