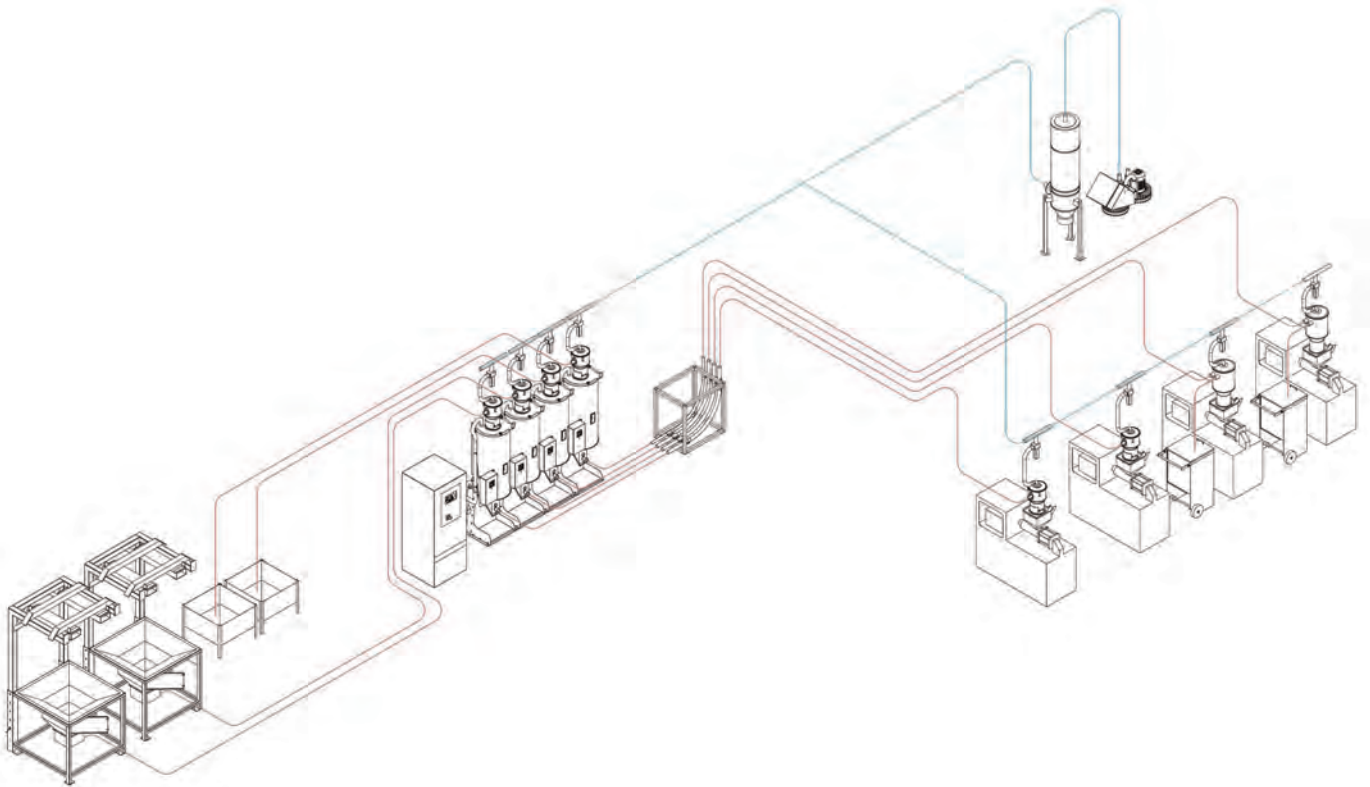


# System Components

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.

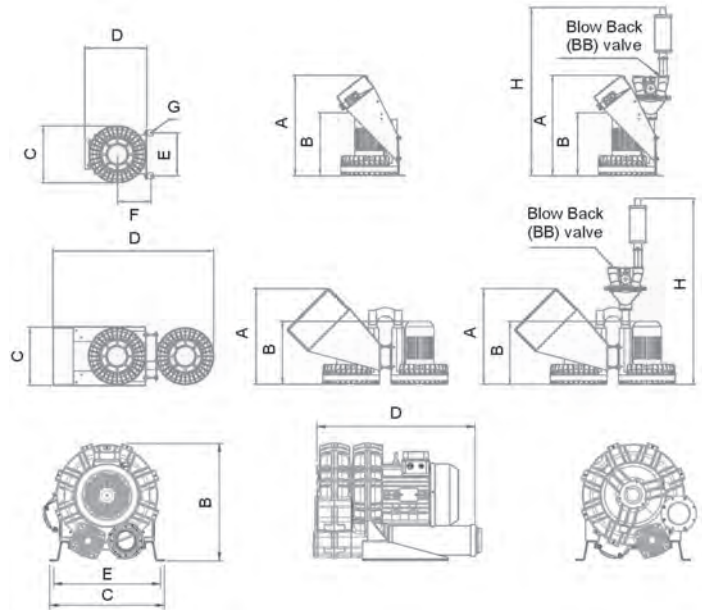
Labotek systems are quiet, maintenance free and modularly constructed with one or two blowers connected in series that maintains a deep vacuum at low air speed. Vacuum receivers type SVR are supplied in stainless steel AISI 304, with spring return vacuum valves. Vacuum receivers from Labotek can be equipped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

## Vacuum Stations

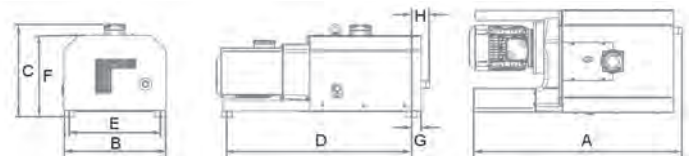
Labotek Vacuum stations are used either as single, or double, or dry claw pump executions. This is in order to maintain a deep vacuum at lowest possible airspeed, achieving gentle conditions for the polymer being conveyed.

The blowers are maintenance free. Labotek blowers are available from 0.4 kW, with endless combination options.

Type	kW	A	B	C	D	E	F	G	H
LT3	0.4	498	290	240	420	184	170	Ø 11	
LT4	1.1	475	265	290	420	225	185	Ø 11	
LT5	1.3	665	395	340	375	260		Ø 11	
LT6	3.4	685	430	390	425	290		Ø 11	
2xLT6	6.8	650	430	390	400	290			
SVS NG	5.5		481	470	650	438			
LT5	1.3	BB	665	395	340	375	260	Ø 11	1105
LT6	3.4	BB	685	430	390	425	290	Ø 11	1480
2xLT6	6.8	BB	650	430	400	1100	290		1330
SVS NG	5.5	BB	481	470	950	438			781



Type	A	B	C	D	E	F	G	H	I	Weight
CP 25	1144	515	449	1025	446	403	33	86	159	240
CP 30	1097	515	449	905	446	403	80	123	159	285
CP 40	1312	515	544	1025	446	403	33	86	144	320
CP 50	1312	515	544	1025	446	403	33	86	144	325



Part no.	Description	Frequency control
101700	SVS LT5 1.5 kW	No
101701	SVS LT6 3.4 kW	No
101713	SVS LT6 3.4 kW Blow Back	No
206760	Frequency Control up to 4 kW	Yes
101732	SVS 5.5 kW NG	No
101733	SVS 5.5 kW NG Blow Back	No
101703	SVS 2xLT6 3.4 kW	No
101715	SVS 2xLT6 3.4 kW Blow Back	No
101729	SVS CP25 5 kW	No
101726	SVS CP30 6 kW	No
206761	Frequency Control up to 7.5 kW	Yes
101727	SVS CP40 7.5 kW	No
101734	SVS CP50 9.2 kW	No
206762	Frequency Control up to 11 kW	Yes



Example vacuum station LT6

Example vacuum station CP30

## 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.

## Labo-Sync

The Labo-Sync technology allows more synchronous conveying cycles simultaneously. The major advantages are higher output and higher reliability, as there is always backup vacuum available. Other important parameter is significant energy savings through the use of frequency inverters maintaining the constant vacuum level required to convey to several vacuum receivers at the same time. Smaller vacuum receivers are also an obvious benefit from the Labo-Sync systems, which are offered with Labo-Net control systems.

## 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, large filter surface and a quick purge system in base of filter for emptying of collected dust.

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



Compressed air filter cleaning



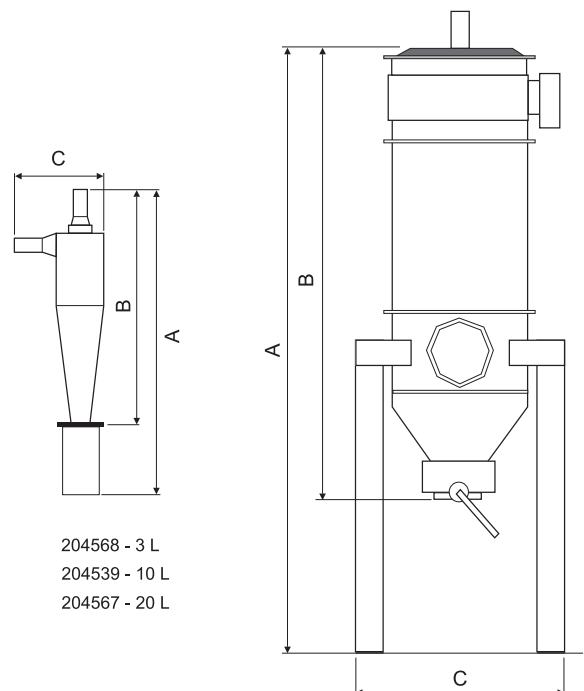
Dust Cyclone



Blow Back Valve



Self purifying Filter

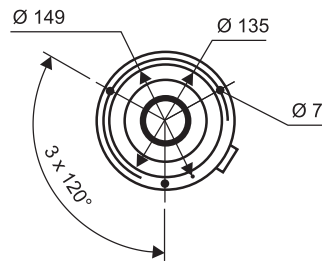




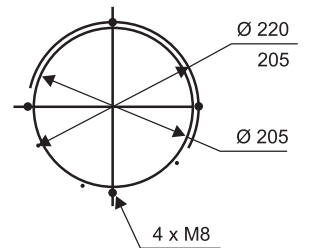
## Vacuum Receivers

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

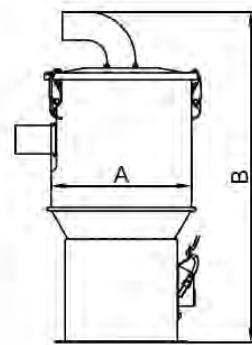
Part no.	Description	Litres	A (mm)	B (mm)
208967	AVR	1	120	335
204564	SVR 4	4	245	530
204565	SVR 8	8	245	570
204566	SVR 16	16	310	650
204583	SVR 26	26	310	790
204593	SVR 50	50	310	1087
206825	SVR 50 / Ø 400	50	420	917
204627	SVR 75	75	420	1284
204628	SVR 100	100	420	1404
204629	SVR 150	150	600	1287
204630	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.

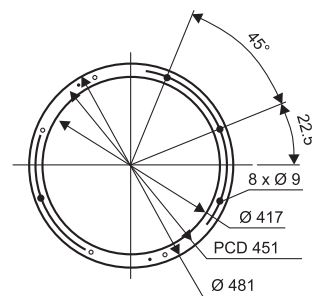
The vacuum valve is fitted with large internal spring, which always secures a positive seal in the vacuum line, eliminating risk of vacuum leaks.



Vacuum Valve & EI-box



Vacuum receiver SVR 4-50



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



Vacuum receiver SVR 75-200



Local on/off

## 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.



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.



Coupling station with optional control monitoring feature

## Piping Systems

Labotek piping systems are available in a number of different types of materials, based on standard pipe dimensions  $\varnothing$  38,  $\varnothing$  50 &  $\varnothing$  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	LT #
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	LT #
	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


Bend 90°	Dim.	R	LT #
	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


\*) Dimension to fit Ø 50 pipe




Description	Dim.	LT #
 Coupling Station	Ø 50	207011
Coupling Station	Ø 65	207013
Coupling Station, Glass	Ø 50	207012

Description	Dim.	LT #
 Pipe Cleaning Valve	Ø 38	203459
Pipe Cleaning Valve	Ø 50	203178
Pipe Cleaning Valve	Ø 65	203184

Description	Dim.	LT #
 T-Branch	Ø 38	544019
T-Branch	Ø 50	544020
T-Branch	Ø 65	544021
T-Branch	Ø 50 / 65	544046

Description	Dim.	LT #
 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.	LT #
 Quick Coupling	Ø 38	204711
Quick Coupling	Ø 50	204713
Quick Coupling	Ø 65	





Vacuum receivers type SVR and insulated hoppers

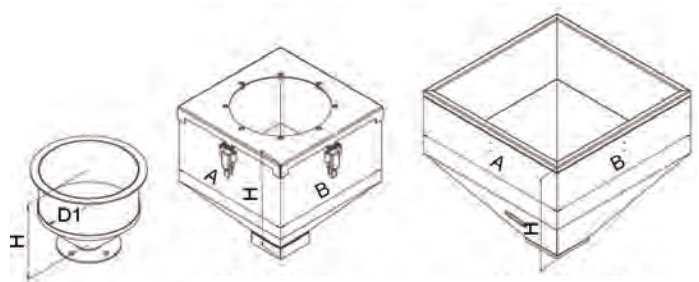
## Material Hoppers

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 uninsulated and insulated versions, where 20 mm insulation thickness maintains material temperature while waiting on machine throat.

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.



Material hopper non insulated  
2, 5 and 7.5 L

Material hopper non insulated  
15, 25, 50, 75, 100  
150 and 200 L

Material hopper insulated  
5, 10, 25, 50, 75,  
100, 150 and 200 L

Type [L]	D1	A	B	H	Lid for SVR4-50	Door for SVR75-200	Lid for SVR75-200	LT #
<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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