

Fan

Depending on the drill, a 6" or 8" fan with a 110 mm or 140 mm hose system generates the necessary air flow for seed or fertiliser transport.

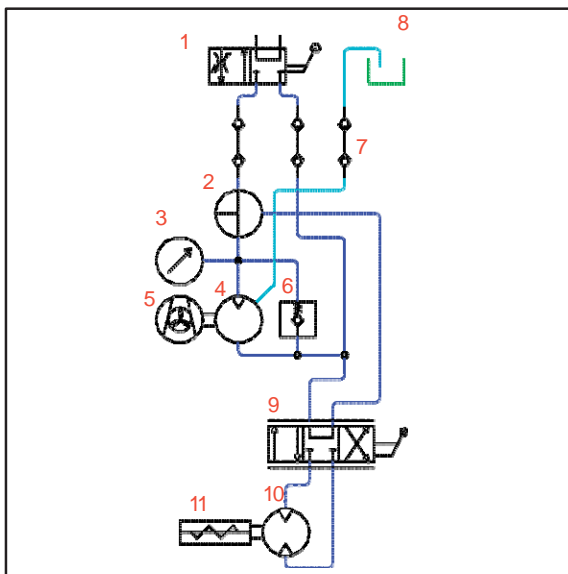
The fans are hydraulically driven by the tractor hydraulics.

The tractor must be equipped with a flow-control valve to drive the fan.

The hydraulic pump must deliver sufficient oil to prevent the fan speed dropping, even when the tractor speed drops or other hydraulic functions are activated.

This would weaken the air flow and the seed hoses could be blocked.

The version with filling auger is equipped with a three-way valve in the fan hydraulics, to be able to switch between both hydraulic drives.



1. Control unit with flow control valve
2. Three-way valve
3. Pressure gauge
4. Hydraulic fan motor
5. Fan
6. Check valve
7. Hydr. coupling
8. Return line (max. 5 bar)
9. Hydraulic control unit for filling auger
10. Hydraulic motor for filling auger
11. Filling auger



Fan with direct drive

Technical data fan 6"

Displacement:	10 cm ³
Operating pressure:	60 - 120 bar
Fan speed:	up to approx. 5000 rpm
Pressureless leak oil line required	

Technical data fan 8"

Displacement:	19 cm ³
Operating pressure:	80 - 180 bar
Fan speed:	up to approx. 5000 rpm
Pressureless leak oil line required	

Function

The oil flow is returned through the control valve, the hydraulic fan motor and the return line.

The leak oil from the fan motor flows through a hose back into the hydraulic oil tank.

The leak oil line must be connected to the tractor free of pressure!



The maximum working pressure is 5 bar!

Higher pressure in the leak oil line may cause damage to the hydraulic motor. If possible, return the leak oil directly into the tank.

The pressure gauge shows the pressure in the hydraulic circuit. The fan speed increases proportionately with the hydraulic pressure. This should be between 60 and max. 120 / 180 bar. Above 129 / 180 bar the speed only increases insignificantly and the hydraulic motor could be damaged.

The required rotary speed depends on the hitched machine, the number and length of the hoses.

After switching off the hydraulic system, the check valve enables afterrunning of the fan motor.

Adjusting the air quantity

The fan air flow must be adapted to the seed. For this purpose adjust the oil quantity for the fan speed on the flow control valve and thereby match the air quantity to the drill conditions.

The seed must thereby not remain in the hoses, but it must also not be blown out of the seed bed.

With high air quantities the seed distribution is slightly more accurate, therefore do not reduce the air quantity any more than necessary.



Check the seed placement at the start of work and then regularly during drilling.

Checks and maintenance

- > Ensure a return flow pressure of max. bar in the leak oil line
- > Set the fan speed, but do not exceed a permanent pressure of 120/180 bar.
- > Clean the air intake grill at regular intervals to prevent a restriction in air flow and resulting blockage.
- > Clean any dirt or deposits from the fan blades to prevent unbalance and damage to impeller and bearing.
- > Retighten the clamping taper on the fan shaft (see chapter Fan Flange).

Matching the air quantity

(Depending on the pneumatic equipment) In case of significant weight differences of the quantities to be placed, e.g. with rape and fertiliser, it may be necessary to match the air quantity to the placement quantity.

For this purpose loosen the nut on the seed hose and slightly adjust the valve.

The higher air quantity must be directed to the higher placement quantity.



Seed hose with air valve (Fig. similar)

The correct distribution must be determined by field tests and should be checked when starting and during work.

The air valve must be adjusted before starting sowing. This setting must be checked every day.



After sowing reset the valve to middle position.

Fan speeds

The required fan speed is quite different, depending on hitched up machine and working width, design of the hydraulic system, single and twin hopper, fan size, seed and fertiliser quantity. Travel speed, weight and shape of fertiliser in form of ganules or powder and other factors also have an influence on the required air quantity.

The table can therefore only serve as a rough guide and the correct speed may deviate from the specified speed by up to 500 revolutions.



The correct speed must always be

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termined by testing in the field.

For uniform transverse distribution you should always aim at the highest possible speed, whereby the seed or fertiliser should not be blown out of the seed bed.

				Number of coul- ters		Wheat		Rape	
		Pronto		Seed	Fertiliser	Fan	Valve	Fan	Valve
6 Meter	Sealgut HSA	VS22		40	---	4000	---	2800	---
	Sealgut HSA	VS23		2 x 20	---	4000	---	2800	---
6 Meter	Fesid HSA	VS24		40	20	4000 - 4500	middle	3500	restricted
	Fesid HSA	VS25		2 x 20	2 x 10	4000 - 4500	middle	3500	restricted
8 Meter	Sealgut HSA	VS26		2 x 28	---	4000 - 4200	---	2800	---
	Fesid HSA	VS27		2 x 28	28	3700 - 4000	middle / open	3200 - 3500	restricted
8 Meter	Fesid HSA	VS28		2 x 28	2 x 14	3700 - 4000	middle / open	3200 - 3500	restricted
	Sealgut HSA	VS29		2 x 30	---	4000 - 4300	---	2800	---
9 Meter	Fesid HSA	VS30		2 x 30	30	3700 - 4000	middle / open	3200 - 3500	restricted
	Fesid HSA	VS31		2 x 30	2 x 15	3700 - 4000	middle / open	3200 - 3500	restricted
12 Meter	Sealgut HSA	VS32		2 x 40	---	3500 - 3700	---	2500	---
	Fesid HSA	VS33		2 x 40	2 x 20	3800 - 4200	middle / open	3000	restricted

		Sprinter		Number of coul- ters		Wheat		Rape	
				Seed	Fertiliser	Fan	Valve	Fan	Valve
6 Meter	Saatgut		20	---	3500	---	2700	---	
	Saatgut HSK		2 x 10	---	3500	---	2700	---	
	Flüssigdüngemittel		20	---	3500	---	2700	---	
	Flüssigdüngemittel HSK		2 x 10	---	3500	---	2700	---	
	Festdüngemittel		20	20	4000	middle	3500	restricted	
	Festdüngemittel HSK		2 x 10	2 x 10	4000	middle	3500	restricted	
8 Meter	Saatgut		28	---	4000	---	2500	---	
	Saatgut HSK		2 x 14	---	4000	---	2500	---	
	Flüssigdüngemittel		28	---	4000	---	2500	---	
	Flüssigdüngemittel HSK		2 x 14	---	4000	---	2500	---	
	Festdüngemittel		28	28	4000	middle	4000	restricted	
	Festdüngemittel HSK		2 x 14	2 x 14	4000	middle	4000	restricted	
9 Meter	Saatgut		30	---	3700 - 4000	---	2700	---	
	Saatgut HSK		2 x 15	---	3700 - 4000	---	2700	---	
	Flüssigdüngemittel		30	---	3700 - 4000	---	2700	---	
	Flüssigdüngemittel HSK		2 x 15	---	3700 - 4000	---	2700	---	
	Festdüngemittel		30	30	4300 - 4500	middle	4000	restricted	
	Festdüngemittel HSK		2 x 15	2 x 15	4300 - 4000	middle	4000	restricted	
12 Meter	Saatgut		2 x 20	---	4000	---	2800	---	
	Flüssigdüngemittel		2 x 20	---	4000	---	2800	---	
	Festdüngemittel		2 x 20	2 x 20	3700 - 4000	middle / open	3200	restricted	