### OPERATING CONDITIONS FOR THE USE OF AIR TOOLS

## Operating conditions for the use of air tools

Before connecting the air supply line to the machine, clean the air pipe and the air hose by slightly blowing air into the pipe/hose; this will remove any dirt particles. Make sure to wear your safety googles!

Verify that all air lines have a sufficient cross-section (as mentioned in technical specifications of our products) and that there are no throttled areas, bends or kinks. If the air supply line is longer than 2 meters, the next larger hose I.D. should be installed, to avoid a loss of power.

Our tools should be operated with lubricated air only. Best results are achieved, when machine is lubricated with 1-2 drops of oil per  $1m^3$ . The air supply to the machine needs to be filtered.

The maintenance unit, the valves and the silencers have to be selected according to the air consumption of the machine (mentioned in technical specifications of our products). Install components, which have a measurement that will limit the pressure drop – when measured from the maintenance unit to the machine – to less than 0.5 bar (7.25 PSI). Check flow-pressure directly on the machine. The pressure regulator needs to be adjusted to an airflow of (max.) 6.3 bar/90 PSI. A higher pressure leads to increased wear and tear. An air pressure below 6.3 bar reduces the power output and speed of the machine.

It is necessary to ensure the quality of the compressed air at the required pressure, as well as the volume required for the respective air tools. When using oilfree air, a performance reduction occurs & maintenance requirements increase!

#### Connect the machine as follows:

- For standard operation, connect to a maintenance unit consisting of filter with water separator, pressure regulator and oiler.
- The standard filter efficiency for maintenance units is 25 μm. If a higher air quality is required, please use a filter insert with a higher filter efficiency.

With regard to air quality according to ISO 8573-1 we recommend:

	Class	Residual Dust		Residual Water		Residual Oil
		particle size µm	max. concentration mg/m³	max. concentration g/m³	pressure dew-point °C	content mg/m³
Lubricated air	-/4/4	25	10	6	+3	5
Oil-free air	6/3/3	5 *)	5	0,88	-20	1

 $<sup>^{\</sup>star}$ ) Filter grade 8  $\mu m$  is sufficient for DEPRAG machines which are operated oilfree.

### General safety tips to observe when connecting our air tools

- Check regularly that the (measured) speed of the machine is not higher than specified on its tag (or in our technical specifications). Do not exceed the maximum allowable operating speed.
- Never remove factory installed guards from tools and ensure they are in good condition and properly adjusted (inspect regularly). Guards need to be correctly aligned to deflect sparks and debris away from the operator.
- Check that only abrasive products as specified by the manufacturer are used and are in good condition. Never exceed the maximum allowed radial speed of the abrasive material. The abrasive product must be designed for your tool and it's application.
- Ensure that the abrasive product dimensions are compatible with the machine and that the abrasive product fits the spindle. An unsuitable product can produce excessive debris, dust, vibration and noise. Prior to operating the tool, make sure that the abrasive product is securely clamped.
- Verify that the abrasive product is not wobbling or loose prior to starting tool operation. Carefully idle the machine without applying any load.
- Always wear impact-resistant safety goggles, hearing protection, safety gloves and personal protective clothing such as an apron and helmet.
- Schedule regular maintenance for your tools & the air supply with all its connections coordinate your maintenance by considering the level of usage of your tools and the application where your tool is used.

# RULES OF CONNECTING AIR TOOLS TO AN AIR DISTRIBUTION GRID

- The compressed air entering the tool must be dry and clean
- Vane motors must be oiled, using a special air lubrication oil (see DEPRAG oil)
- Tooth- and turbine motors do not use air-line lubrication
- Tools should be used with maintenance units, consisting of filter, oiler and regulator
- Correctly choose a maintenance to ensure sufficient air flow
- The maintenance unit should be visibly installed for easy verification of the oil level and its overall functionability
- Use an air hose that has the correctly sized interior diameter (ID)
- Maximum recommended distance of a tool from its maintenance unit is 5 meters (use a hose with a larger ID for longer distances)

We offer a variety of air connection accessories. Our experienced sales staff can help you choose the correct connection to ensure the right performance of your DEPRAG tools. Please contact our product specialists!

