1/4IN MEDIUM DIE GRINDER MEULE À MATRICE MOYENNE 1/4 PO AMOLADORA
DE TROQUEL
MEDIA 1/4 PULG

## **AWARNING**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- · lead from lead-based paints,
- · crystalline silica from bricks, cement and other masonry products, and
- · arsenic and chromium from chemically-treated lumber.

The risk of exposure to these types of chemicals varies depending on how frequently you work with certain chemicals. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles.

## **A AVERTISSEMENT**

Les travaux de construction effectués à l'aide d'un outil électrique, comme le sablage, le sciage, le meulage et le perçage, produisent de la poussière qui contient des produits chimiques. De tels produits sont reconnus comme cancérigènes. Ils peuvent aussi causer des anomalies congénitales ou nuire d'une autre manière à la reproduction.

Voici quelques exemples de ces produits chimiques :

- le plomb contenu dans les peintures à base de plomb;
- la silice cristallisée contenue dans les briques, le ciment et d'autres produits de maçonnerie;
- l'arsenic et le chrome contenus dans le bois de sciage traité avec des produits chimiques.

Les risques d'exposition à ces produits chimiques varient selon la fréquence d'utilisation de certains matériaux. Pour réduire l'exposition, il est recommandé de travailler dans un endroit bien aéré et de porter de l'équipement de protection approuvé tel qu'un masque antipoussière spécialement conçu pour filtrer les particules microscopiques.

## **A** ADVERTENCIA

El polvo ocasionado por del lijado neumático, el aserrado, la rectificación, la perforación y

otras actividades de construcción puede contener sustancias químicas conocidas como agentes causantes del cáncer, defectos de nacimiento y otros daños reproductivos. Algunos ejemplos de dichas sustancias químicas son:

- · plomo de pintura a base de plomo,
- · la silica cristalina proveniente del ladrillo, cemento y otros productos de mampostería, y
- el arsénico y el cromo proveniente de maderos tratados con sustancias químicas

El riesgo de ser expuesto a estos tipos de sustancias guímicas varía según la frecuencia con

la cual usted trabaja con ciertas sustancias químicas. Para disminuir la posibilidad de exposición a dichas sustancias químicas, usted debe trabajar en un área bien ventilada y con equipo aprobado de seguridad, tal como las mascarillas de polvo las cuales son diseñadas específicamente para filtrar las partículas microscópicas.



## TABLE OF CONTENTS

Specifications	03
Warning Information, Owner And User Responsibility	04
Air Supply	05
Lubrication	05
Operating Instructions	05-06
Troubleshooting	06-07
Warranty Information	07
Exploded Parts Diagram	08
Parts List	09

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#### **SPECIFICATIONS**

Horsepower0.5HP	Sound Level82dBa
Overall Length7in	Vibration Level
Width	Air Consumption3.1CFM
Weight1.3lb	Air Inlet Thread Size1/4in-18 NPT
RPM22,000 RPM	Recommended Hose Size3/8in I.D.
Collet1/4in	Recommended Air Pressure90psi (6.2 bar)

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#### **WARNING INFORMATION**



SAVE THIS MANUAL FOR FUTURE REFERENCE.



THIS INSTRUCTION MANUAL CONTAINS IMPORTANT SAFETY INFORMATION. READ THIS INSTRUCTION MANUAL CAREFULLY AND UNDERSTAND ALL INFORMATION BEFORE OPERATING THIS TOOL.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Carlyle for replacements. If the operator is not fluent in English, the product and safety instructions shall be read and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code of Portable Air Tools (ANSI B186.1) and any other applicable safety codes and regulations.



For safety, top performance and maximum durability of parts, operate this tool at 90psig; 6.2 bar max air pressure with 3/8in diameter air supply hose.



Always wear impact-resistant eye, face and hand protection when operating or performing maintenance on this tool (users and bystanders).



High sound levels can cause permanent hearing loss. Use hearing protection as recommended by your employer or OSHA regulation.



Operators and maintenance personnel must be physically able to handle the bulk, weight and power of this tool.



Keep tool out of reach of children.



Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions over extended periods of time may be harmful to your hands and arms. Discontinue use of tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.



Air under pressure can cause severe injury. Never direct air at yourself or others. Always turn off the air supply, drain hose of air pressure and detach tool from air supply before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool. Failure to do so could result in injury.



Whip hoses can cause serious injury. Always check for damaged, frayed or loose hoses and fittings, and replace immediately. Do not use quick detach couplings at tool. See instructions for correct set-up.



Do not operate a damaged or worn tool. Do not use quick-detach couplings at tool. See instructions for correct set-up.

Do not point or indulge in any horseplay with this tool.



Slipping, tripping and/or falling while operating air tools can be a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.

Keep body working stance balanced and firm. Do not overreach

when operating the tool.

Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.



Tool shaft may continue to rotate briefly after throttle is released. Avoid direct contact with accessories during and after use. Gloves will reduce the risk of cuts or burns.

Keep the tool in efficient operating condition.

Note direction of rotation BEFORE operating this tool.

Correct grinding wheel mounting is necessary to prevent injury from broken wheels. Do not use chipped or cracked grinding wheels. Grinding wheels should be a free fit on the spindle to prevent stress at the hole. Use only wheel collars that come with the Grinder for mounting the grinding wheel. Flat washers or other adapters may over stress the wheel. Always use heavy paper blotter discs between the wheel collar and the grinding wheel. Tighten the wheel on the spindle to prevent spin off when the Grinder is turned off.

Daily measure the Grinder speed with a tachometer to make sure its not greater than the RPM marked on the grinding wheel. NEVER USE A GRINDING WHEEL MARKED WITH A HIGHER SPEED LOWER THAN THE GRINDER SPEED.



RPM of the accessory must exceed tool rpm. Use accessories rated at 18,000 rpm or higher.

Never mount a cut off wheel, router cutter or drill bit on Grinder.

Always use the required wheel guard to prevent injury from broken grinding wheel parts. If a guard has withstood a wheel breakage, discontinue its use and replace it with a new guard, as it could be damaged. Position the guard between the grinding wheel and the operator. Use barriers to protect others from wheel fragments and grinding sparks.

After mounting a new point, start the Die Grinder under bench and run for a few seconds. If the Die Grinder starts to vibrate when first fitting a mounted point or during operation, immediately remove from service. If Die Grinder is dropped, replace bonded abrasive mounted point grinding wheel, rotary file or carbide burr.

Do not force tool beyond its rated capacity.

Do not lock, tape or wire the "on/off" safety lever in the "on" position, as the lever must be free to return to the "off" position when released.



Do not carry tool by the hose. Protect the hose from sharp objects and heat.



Keep away from rotating end of tool. Do not wear jewelry or loose clothing. Secure long hair. Scalping can occur if hair is not kept away from tool and accessories. Choking can occur if neckwear is no kept away from tool and accessories.

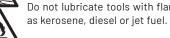


This tool must not be used in explosive atmospheres.

This tool is not insulated against electric shock.



Do not lubricate tools with flammable or volatile liquids such



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#### **WARNING INFORMATION**

Use replacement parts and accessories recommended by Carlyle Tools.

Servicing and repairs should only be made by an authorized service center.

Do not use (or modify) the tool for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.

Do not remove any labels. Replace damaged labels.

Failure to heed these warnings may result in personal injury and/or property damage.



**WARNING:** This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

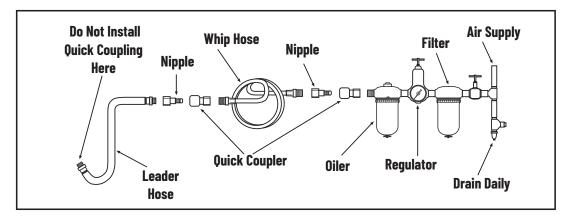
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#### **AIR SUPPLY**

Tools operate on a wide range of air pressures. It is recommended that air pressure measures 90 PSI at the tool with the trigger fully depressed and no load applied to the tool. Low pressure (under 90 psig; 6.2 bar) reduces the speed of all air tools. Low air pressure not only wastes time, but also costs money. Higher pressure (over 90 psig; 6.2 bar) raises performance beyond the rated capacity of the tool, which will shorten tool life and could cause injury. The recommended hookup procedure can be viewed in the above figure.

Always use clean, dry air. Dust, corrosive fumes, and/or water in the air line will cause damage to the tool. Drain the air tank daily. Clean the air inlet filter screen at least once per week.

The air inlet used for connecting the air supply has standard 1/4" NPT American Thread. Line pressure should be increased to compensate for unusually long air hoses (over 25 feet). Minimum hose diameter should be 3/8" I.D. Fittings should have the same inside dimensions and should be tightly secured. Ensure an accessible emergency shut off valve has been installed in the air supply line and make others aware of its location.



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#### LUBRICATION

Lubricate the air motor daily with NAPA air tool oil. If no air line oiler is used, run 1/2 oz. of oil through the tool. The oil can be squirted into the tool air inlet or into the hose at the nearest connection to the air supply, then run the tool.

**WARNING:** After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. The exhaust port must be covered with a towel before applying air pressure to prevent serious injury.

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#### **OPERATION**

Always turn off the air supply, drain hose of air pressure and detach tool from air supply before installing, removing or adjusting any part or accessory on this tool, or before performing any maintenance on this tool.

Bonded abrasive mounted point grinding wheels, rotary files and carbide burrs can be mounted providing their speed rating exceeds the speed of the Die Grinder. The shank size of the mounted accessory must match the collet size fitted in the Die Grinder. Insert the shank of the mounted point as far as possible into the collet and tighten the nut using the supplied wrenches. Minimum shank gripping length must be 10mm.

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#### **OPERATION**

After mounting a new point, start the Die Grinder under bench and run for a few seconds. If the Die Grinder starts to vibrate when first fitting a mounted point or during operation, immediately remove from service. If Die Grinder is dropped, replace bonded abrasive mounted point grinding wheel, rotary file or carbide burr.

When using the Die Grinder, be careful not to exert excessive force which could be hazardous and cause mounted spindle to bend or break.

NOTE: During operation, safety goggles should always be worn to guard against flying debris (users and bystanders).

Correct bonded abrasive mounted point grinding wheels, rotary files and carbide burrs are necessary to prevent injury from broken accessories. Do not use chipped or cracked bonded abrasive mounted point grinding wheels, rotary files and carbide burrs. Tighten the bonded abrasive mounted point grinding wheels, rotary files and carbide burrs on the collet to prevent spin off when the Die Grinder is turned off.



#### **TROUBLESHOOTING**

#### **IMPACT WRENCHES**

**TOOL DOES NOT RUN OR RUNS SLOWLY, AND/OR AIR FLOWS ONLY SLIGHTLY FROM EXHAUST** — This condition is probably caused by insufficient air pressure, contaminants blocking the airflow or operation of motor parts, or a power regulator which has vibrated to a closed position. YOU SHOULD: Check the air supply for sufficient pressure. Check the air inlet strainer for blockage. Pour a generous amount of air tool oil into air inlet. Operate tool in short bursts, in both forward and reverse directions. Repeat if necessary. If tool performance does not improve, the tool should be serviced by an authorized service center.

**TOOL WILL NOT RUN, EXHAUST AIR FLOWS FREELY**. This condition is probably caused by one or more rotor vanes stuck on accumulated sludge or varnish; motor rusted.

YOU SHOULD: Pour a generous amount of air tool oil into air inlet. Operate tool in short bursts in both forward and reverse directions. Lightly tap the motor housing with a plastic mallet. Detach the air supply. Try to free the motor by turning the drive shaft manually, if possible. If the tool remains jammed, it should be serviced by an authorized service center.

SOCKETS WILL NOT STAY ON. This condition is probably caused by a worn socket retainer ring or a soft backup o-ring YOU SHOULD: Wear safety goggles. Detach the air supply. Using external retaining ring pliers, remove the old retaining ring. While holding the square drive with an appropriate wrench, use a small screwdriver to pry old retainer ring out of its groove. Always pry the ring away from your body, because it can be propelled outward at high velocity. Replace the backup o-ring and retainer ring with correct new parts (see breakdown). Place the retaining ring on a table and press the tool anvil into the ring with a rocking motion. Snap the ring into the groove by hand.

**PREMATURE ANVIL WEAR.** This is probably cased by using chromed sockets, which are not designed for use with impact tools, or worn sockets YOU SHOULD: Stop using chrome sockets. Chrome sockets have a hard exterior surface and a soft core, which leads to a warped but very hard drive hole when used with impact tools. Chrome sockets will wear wrench anvils quickly and present a danger of splitting or breakage which can lead to injury or death.

TOOL SLOWLY LOSES POWER BUT RUNS AT FULL SPEED WHEN NOT UNDER LOAD. This condition is probably caused by worn clutch parts, inadequate lubrication, or worn engaging cam.

YOU SHOULD: FOR OIL LUBED WRENCHES: Check for presence of clutch oil (where oil is specified for the clutch) and remove oil fill plug. Tilt to drain all of the oil from the clutch case. Refill the case with NAPA air tool oil or that recommended by the manufacturer in the specified amount. Also check for excess clutch oil. Clutch cases only need to be filled 50%, and overfilling can cause drag on high speed clutch parts. A typical 1/2" Drive oil lubed wrench only requires 1/2 ounce of clutch oil. FOR GREASE LUBED WRENCHES: Check for excess grease by rotating drive shaft by hand. It should rotate freely, and excess grease is usually expelled automatically.

**TOOL WILL NOT SHUT OFF.** This condition is probably cause by a broken or maligned throttle valve 0-ring, or a bent or jammed throttle valve stem. YOU SHOULD: Remove the throttle assembly and install a new o-ring. Lubricate the assembly with air tool oil and operate the trigger briskly. If operation cannot be restored, the tool should be serviced at an authorized service center.

#### **AIR RATCHETS**

**MOTOR RUNS. SPINDLE DOESN'T TURN, OR TURNS ERRATICALLY** — This condition is probably caused by worn teeth on the ratchet or pawl, a broken or weak pawl pressure spring, or weak drag springs which fail to hold the spindle while the pawl advances.

YOU SHOULD: Have replacement parts installed by an authorized service center.

**TOOL DOESN'T RUN, RATCHET HEAD INDEXES CRISPLY BY HAND**— This condition is probably caused by the accumulation of dirt or sludge in motor parts YOU SHOULD: Pour a generous amount of air tool oil into the air inlet. Operate the throttle in short bursts. With the tool engaged on a bolt, alternately tighten and loosen the bolt by hand. If the tool remains jammed, it should be serviced at an authorized service center



#### **TROUBLESHOOTING**

#### **AIR DRILLS**

**TOOL WILL NOT RUN, RUNS SLOWLY, AIR FLOWS SLIGHTLY FROM EXHAUST, SPINDLE TURNS FREELY** — This condition is probably caused by a blocked air passage or jammed motor parts.

YOU SHOULD: Check the air inlet for blockages. Pour a generous amount of air tool oil into air inlet. Operate the trigger in short bursts. Detach the air supply. Turn the empty and closed drill chuck by hand. Reconnect air supply. If the tool's performance does not improve, it should be serviced by an authorized service center.

**TOOL WILL NOT RUN. AIR FLOWS FREELY FROM EXHAUST. SPINDLE TURNS FREELY.** This condition is probably caused by a broken rotor vane or jammed or broken gears.

YOU SHOULD: Pour a generous amount of air tool oil into air inlet. Operate the trigger in short bursts. Detach the air supply. Turn the empty and closed drill chuck by hand. Reconnect air supply. If the tool's performance does not improve, it should be serviced by an authorized service center.

#### TOOL SEIZED. SPINDLE WILL NOT

TURN — This condition is probably caused by a broken rotor vane or jammed or broken gears. YOU SHOULD: Have the tool serviced by an authorized service center.

**TOOL WILL NOT SHUT OFF** — The throttle valve o-ring has probably come unseated.

YOU SHOULD: Replace the o-ring (see breakdown) or have tool serviced by an authorized service center.

#### **AIR HAMMERS**

**TOOL WILL NOT RUN** – This condition is probably caused by a clogged cycling valve or throttle valve.

YOU SHOULD: Check the air inlet for blockages. Pour a generous amount of

air tool oil into air inlet. Operate the trigger in short bursts with the chisel in place and against a solid surface. Detach the air supply. Tap the nose or barrel lightly with a plastic mallet, reconnect the air supply, and repeat above steps. If the tool is still seized, insert a 6" piece of 1/8" diameter rod in the nozzle and lightly tap to loosen the piston in the rear direction. Reconnect air supply and repeat above steps.

CHISEL STUCK IN NOZZLE— This condition is probably caused by a deformed shank.

YOU SHOULD: Have tool serviced by an authorized service center.

NOTE: DISASSEMBLY OF THIS TOOL BY ANY OTHER THAN AN AUTHORIZED SERVICE CENTER WILL VOID THE WARRANTY ON THIS TOOL.

#### **SANDERS/GRINDERS**

**TOOL HAS NO POWER OR RUNS SLOWLY.** This condition is probably caused by insufficient air pressure, contaminants blocking the air flow, or speed regulator that has vibrated to a closed or off position.

YOU SHOULD: Check the air supply at the compressor and air lines to the tool for sufficient air pressure. Check the air inlet strainer for blockage and make sure speed regulator is in the open or on position. If power is not restored the tool should be serviced by an authorized service center.

**TOOL SEIZED. PAD/SPINDLE WILL NOT TURN.** This condition is probably caused by a broken rotor vane, jammed or broken gears, or seized bearing. YOU SHOULD: Have the tool repaired by an authorized service center.

TOOL WILL NOT SHUT OFF/RUNS CONTINUOUSLY. The throttle valve seat has become loose or damaged.

YOU SHOULD: Replace o-ring or valve seat (see breakdown for proper parts) or have tool serviced by an authorized service center.

SANDS/GRINDS UNEVENLY. This condition is usually caused by loose pad/disc connection or worn or damaged pad/disc.

YOU SHOULD: Check pad/disc connection, ensure that connection is secure and tight. Replace worn or damaged pad/disc.



#### **WARRANTY**

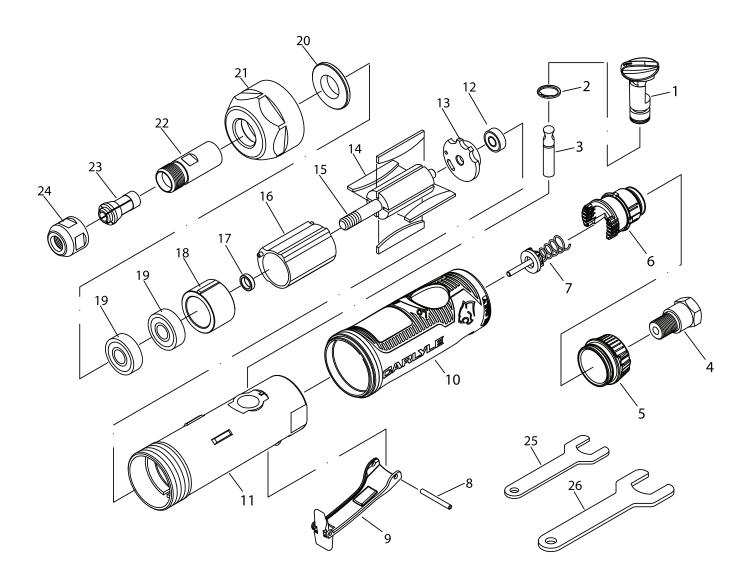
#### Important: DO NOT RETURN PRODUCT TO PLACE OF PURCHASE.

**WARRANTY POLICY:** This Carlyle Air Tool is warranted against defects in material and workmanship for a period of One (1) Year from the date of original purchase. We will replace, at our option, any part which proves to be defective in material or workmanship. Repairs or replacements are warranted as described above for the duration of the original warranty period. In the unlikely event a replacement unit is required during this One (1) year period, return the unit to your local NAPA Auto Parts Store for a replacement. This warranty does not apply to products which have been subjected to abuse, misuse, modification, neglect, lack of maintenance, use in a production-related service, or repaired by anyone other than an Authorized Carlyle Air Tool Service Center.

For complete listing of Authorized Master Repair Centers, see enclosed Customer Warranty Repair Form, or visit www.toolwarrantyrepair.com PLEASE REVIEW ALL WARNING INSTRUCTIONS PRIOR TO OPERATION. SAVE THIS MANUAL FOR FUTURE REFERENCE.

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#### **EXPLODED TOOL PARTS DIAGRAM**



## 1/4IN MEDIUM DIE GRINDER



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#### **TOOL PARTS LIST**

REF#	PART#	DESCRIPTION	ОТY
1	RS103001	REGULATOR SET	1
2	RS288304	SNAP RING	1
3	RS103002	VALVE STEM SET	1
4	RS54004	AIR INLET	1
5	RSC0305	EXHAUST SLEEVE SET	1
6	RS103004	CONE MUFFLER	1
7	RS103005	VALVE SET	1
8	RS621011	SPRING PIN	1
9	RS120040	LEVER	1
10	RS260010	PROTECTING RUBBER	1
11	RS710109	HOUSING	1
12	RS30516	BEARING	1
13	RS710113	REAR PLATE	1
14	RS288320	ROTOR BLADE (EACH)	4
15	RS61016	ROTOR	1
16	RS103007	CYLINDER SET	1
17	RSC0317	BEARING SPACER	1
18	RS61019	FRONT PLATE	1
19	RS30524	BEARING (EACH)	2
20	RS288027	WASHER	1
21	RS53027	CLAMP NUT	1
22	RS288029	SPINDLE	1
23	RS520129	COLLET	1
24	RS20636	COLLET NUT	1
25	RS31535	STOP SPANNER (14MM)	1
26	RS20639	STOP SPANNER (19MM)	1
NS	RSCPTDG14PWL	PRODUCT WARNING LABEL	1



# CARLYLE®

## BUILT DIFFERENT

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