ROTAIR®

SCREW
SUPERSILENT
for civil engineering

PORTABLE COMPRESSORS

DS | MDVN | MDVS | VRK | VRH

GENERAL CATALOGUE

SCREW SET ENTIRELY DESIGNED AND MANUFACTURED BY ROTAIR

WITH GROUND PROFILE
OF ROTAIR EXCLUSIVE PATENTED
MANUFACTURE AND DESIGN

FOR OWN USE AND B2B APPLICATIONS.

The asymmetric profile with oil injection is created by means of high pressure grinding that ensures excellent performance of the set in the compression stage, reducing the required energy dispersion to a minimum. The installed screw sets are of direct transmission type without geared rev multiplier. This solution reduces wear of the screw set and overheating, ensures reduced noise emissions and fuel consumption savings.

DELIVERING **WORLD CLASS**
Compressed Air Solutions

ROTAIR®

supersilent ›

MDVS

powerful › compact

120 J - 120 P

SKID ADAPTOR

› Design with modern, slender and aggressive line.

› Electro-galvanized bodywork and chassis with advanced painting procedure to grant an excellent preservation through time.

› Compact dimensions for easy handling and optimum dimensions / delivered power ratio.

› Light weight for the compressor class.

› Filters "spin-on" type for quick maintenance.

› Full accessibility for easy and rapid maintenance and service.

› Exclusive pneumatic control system, developed by ROTAIR, to adjust automatically engine revs, depending on the air to be delivered. This system is highly reliable and ensures fuel consumption saving.

› Start/stop "INTELLIGENT SYSTEM", exclusive from ROTAIR, to prevent the risk of incorrect procedures during specific functioning.

› Air/oil separator filter, highly oversized, can guarantee an excellent air/oil separation.

Technical Data

dimensions ›
L = 4524 mm / 178.12"
W = 1975 mm / 77.76"
H = 2191 mm / 86.26"

weight ›
1920 kg / 4233 lbs (without brakes)
2020 kg / 4453 lbs (with brakes)

MDVS 120 J

dimensions ›
L = 4524 mm / 178.12"
W = 1975 mm / 77.76"
H = 2191 mm / 86.26"

weight ›
1920 kg / 4233 lbs (without brakes)
2020 kg / 4453 lbs (with brakes)

MDVS 120 P

(•)= Possibility to have also other operating pressures up to 14/15 bar and Dual Pressure

COMPRESSOR

	MDVS 120 J			MDVS 120 P		
Operating pressure (•)	7 bar 102 psi	10 bar 145 psi	12 bar 174 psi	7 bar 102 psi	10 bar 145 psi	12 bar 174 psi
Free air delivery	12000 l/min 424 cfm	11000 l/min 388 cfm	10000 l/min 353 cfm	12000 l/min 424 cfm	10500 l/min 370 cfm	9500 l/min 335 cfm
Minimum working pressure	5,5 bar - 80 psi			5,5 bar - 80 psi		
Drive system engine-airend	Direct Drive			Direct Drive		
Compressor cooling system	Air / Oil			Air / Oil		
Oil cooling capacity	29 lt - 6.38 UK gal			29 lt - 6.38 UK gal		
Air outlet temperature	40°C - 105°F + Ambient temperature			40°C - 105°F + Ambient temperature		
Outlet valves	3 x 3/4"+ 1 x 2"			3 x 3/4"+ 1 x 2"		
Noise level EECno 2000/14	> 99 LWA			> 99 LWA		
Battery capacity	12V cc - 950A-132Ah (EN)			12V cc - 950A-132Ah (EN)		
Fuel tank capacity	150 lt - 33 UK gal			150 lt - 33 UK gal		
Consumes	14,9 lt/h - 3.28 UK gal/h (10 working hours)			15,2 lt/h - 3.34 UK gal/h (9,9 working hours)		

DIESEL ENGINE / ENVIRONMENTAL CONDITIONS

Engine make	JCB	PERKINS
Engine type	444 - TCA	1104C-44TA
Engine system	4 strokes - Inline	4 strokes - Inline
Emissions	Stage II / Tier 2	Stage II / Tier 2
Displacement	4400 cc	4400 cc
N. cylinders	4	4
Aspiration	Turbo Intercooler	Turbo Intercooler
Max engine power @2200 RPM	93 kW - 126 HP	97 kW - 132 HP
Max engine speed	2200 RPM	2200 RPM
Min engine speed	1600 RPM	1600 RPM
Cooling system	Water	Water
Cooling system capacity	22 lt - 4.84 UK gal	25 lt - 5.5 UK gal
Lubrication system	Oil	Oil
Lubrication system capacity	14 lt - 3.08 UK gal	8 lt - 1.76 UK gal
Max ambient temperature	50°C - 122°F	50°C - 122°F
Max altitude	1800 m a.s.l.	1800 m a.s.l.
Min working temperature	-10°C / 14°F	-10°C / 14°F

› The air and oil filters of the compressor and the air and oil filters of the engine are independent.

› Single stage oversized air filter for compressor part, to guarantee good filtering of the air intake by airend. As option, two-stage air filter for engine part.

› Fuel pre-filter with water seperation and second filter to clean fuel in very dusty conditions.

› Combined radiator allowing both compressor oil cooling and engine liquid cooling.

ROTAIR®

ROTAIR®

Different features or tech specs may apply for the European version of this model

supersilent ›

MDVS

powerful › compact

125-C

» | SKID ADAPTOR

› Design with modern, slender and aggressive line.

› Electro-galvanized bodywork and chassis with advanced painting procedure to grant an excellent preservation through time.

› Compact dimensions for easy handling and optimum dimensions / delivered power ratio.

› Light weight for the compressor class.

› Filters "spin-on" type for quick maintenance.

› Full accessibility for easy and rapid maintenance and service.

› Exclusive pneumatic control system, developed by ROTAIR, to adjust automatically engine revs, depending on the air to be delivered. This system is highly reliable and ensures fuel consumption saving.

› Start/stop "INTELLIGENT SYSTEM", exclusive from ROTAIR, to prevent the risk of incorrect procedures during specific functioning.

› Air/oil separator filter, highly oversized, can guarantee an excellent air/oil separation.

Technical Data

dimensions ›
L = 3957 mm / 155.79"
W = 1890 mm / 74.41"
H = 1840 mm / 72.44"

weight ›
1970 kg / 4343 lbs (without brakes)
2245 kg / 4949 lbs (with brakes)

MDVS 125-C

COMPRESSOR (•)= Possibility to have also other operating pressures up to 14/15 bar and Dual Pressure

Operating pressure (•)	7 bar 102 psi	10 bar 145 psi	12 bar 174 psi
Free air delivery	12000 l/min 424 cfm	11000 l/min 388 cfm	10000 l/min 353 cfm
DUAL PRESSURE			
Minimum working pressure	5,5 bar - 80 psi		
Drive system engine-airend	Direct Drive		
Compressor cooling system	Air / Oil		
Oil cooling capacity	29,5 lt - 6.49 UK gal		
Air outlet temperature	40°C - 105°F + Ambient temperature		
Outlet valves	3 x 3/4"+ 1 x 2"		
Noise level EECno 2000/14	< 99 LWA		
Battery capacity	2 x 12V cc - 680A-74Ah (EN)		
Fuel tank capacity	200 lt - 43.99 UK gal		
Consumes	15,4 lt/h - 3.39 UK gal/h (11,2 working hours)		

DIESEL ENGINE / ENVIRONMENTAL CONDITIONS

Engine make	CUMMINS
Engine type	QSF 3.8
Engine system	4 strokes - Inline
Emissions	Stage IV / Tier 4 Final
Filtration	DOC + SCR
Displacement	3800 cc
N. cylinders	4
Aspiration	Turbo Intercooler
Max engine power @3000 RPM	97 kW - 130 HP
Max engine speed	2200 RPM
Min engine speed	1200 RPM
Cooling system	Water
Cooling system capacity	24 lt - 5.28 UK gal
Lubrication system	Oil
Lubrication system capacity	15,6 lt - 3.43 UK gal
Max ambient temperature	50°C - 122°F
Max altitude	1800 m a.s.l.
Min working temperature	-10°C / 14°F

› The air and oil filters of the compressor and the air and oil filters of the engine are independent.

› Single stage oversized air filter for compressor part, to guarantee good filtering of the air intake by airend. As option, two-stage air filter for engine part.

› Fuel pre-filter with water seperation and second filter to clean fuel in very dusty conditions.

› Combined radiator allowing both compressor oil cooling and engine liquid cooling.

ROTAIR®

NEW TYPE

NEW ENGINE

Join To Live EXPERIENCE

ask for *TRY IT!*

supersilent ›

MDVS

powerful › compact

170 J

» | SKID ADAPTOR

› Design with modern, slender and aggressive line.

› Electro-galvanized bodywork and chassis with advanced painting procedure to grant an excellent preservation through time.

› Compact dimensions for easy handling and optimum dimensions / delivered power ratio.

› Light weight for the compressor class.

› Filters "spin-on" type for quick maintenance.

› Full accessibility for easy and rapid maintenance and service.

› Exclusive pneumatic control system, developed by ROTAIR, to adjust automatically engine revs, depending on the air to be delivered. This system is highly reliable and ensures fuel consumption saving.

› Start/stop "INTELLIGENT SYSTEM", exclusive from ROTAIR, to prevent the risk of incorrect procedures during specific functioning.

› Air/oil separator filter, highly oversized, can guarantee an excellent air/oil separation.

Technical Data

dimensions
L = 4524 mm / 178.12"
W = 1975 mm / 77.76"
H = 2191 mm / 86.26"

weight
2200 kg / 4850 lbs

MDVS 170 J

COMPRESSOR					
Operating pressure	7 bar 102 psi	10 bar 145 psi	12 bar 174 psi	14 bar 203 psi	15 bar 218 psi
Free air delivery	17000 lt/min 600 cfm	15000 lt/min 530 cfm	13400 lt/min 474 cfm	12000 lt/min 423 cfm	11100 m^3/min 388 cfm
Minimum working pressure	5,5 bar - 80 psi				
Drive system engine-airend	Direct Drive				
Compressor cooling system	Air / Oil				
Oil cooling capacity	39,5 lt - 8.69 UK gal				
Air outlet temperature	40°C - 105°F + Ambient temperature				
Outlet valves	3 x 3/4"+ 1 x 2"				
Noise level EECno 2000/14	> 99 LWA				
Battery capacity	12V cc - 950A-132Ah (EN)				
Fuel tank capacity	150 lt - 33 UK gal				
Consumes	20 lt/h - 4.4 UK gal/h (7,5 working hours)				
Diesel Engine / Environmental Conditions					
Engine make	JCB				
Engine type	TCAE-120KW				
Engine system	4 strokes - Inline - Direct Injection				
Emissions	Stage III A / Tier 3				
Displacement	4400 cc				
N. cylinders	4				
Aspiration	Turbo Intercooler				
Max engine power @3000 RPM	120 kW - 162 HP				
Max engine speed	2200 RPM				
Min engine speed	1600 RPM				
Cooling system	Water				
Cooling system capacity	22 lt - 4.84 UK gal				
Lubrication system	Oil				
Lubrication system capacity	14 lt - 3.08 UK gal				
Max ambient temperature	50°C - 122°F				
Max altitude	1800 m a.s.l.				
Min working temperature	-10°C / 14°F				

- The air and oil filters of the compressor and the air and oil filters of the engine are independent.
- Single stage oversized air filter for compressor part, to guarantee good filtering of the air intake by airend. As option, two-stage air filter for engine part.
- Fuel pre-filter with water seperation and second filter to clean fuel in very dusty conditions.
- Combined radiator allowing both compressor oil cooling and engine liquid cooling.

supersilent ›

MDVS

powerful › compact

255 C - 255 D

SKID ADAPTOR

› Design with modern, practical line.

› Electro-galvanized bodywork and chassis with advanced painting procedure to grant an excellent preservation through time.

› Sizing for easy handling and optimum dimensions / delivered power ratio.

› Oil filter "spin-on" type for quick maintenance.

› Full accessibility for easy and rapid maintenance and service.

› Exclusive pneumatic control system, developed by ROTAIR, to adjust automatically engine revs, depending on the air to be delivered. This system is highly reliable and ensures fuel consumption saving.

› Start/stop "INTELLIGENT SYSTEM", exclusive from ROTAIR, to prevent the risk of incorrect procedures during specific functioning.

› Air/oil separator filter, highly oversized, can guarantee an excellent air/oil separation.

Technical Data

dimensions ›
L = 6142 mm / 241.83"
W = 1960 mm / 77.17"
H = 2220 mm / 87.4"

weight ›
3200 kg / 7065 lbs (without brakes)
3250 kg / 7165 lbs (with brakes)

MDVS 255 C

dimensions ›
L = 6142 mm / 241.83"
W = 1960 mm / 77.17"
H = 2220 mm / 87.40"

weight ›
3300 kg / 7275 lbs (without brakes)
3350 kg / 7385 lbs lbs (with brakes)

MDVS 255 D

(•)= Possibility to have also other operating pressures up to 14/15 bar and Dual Pressure

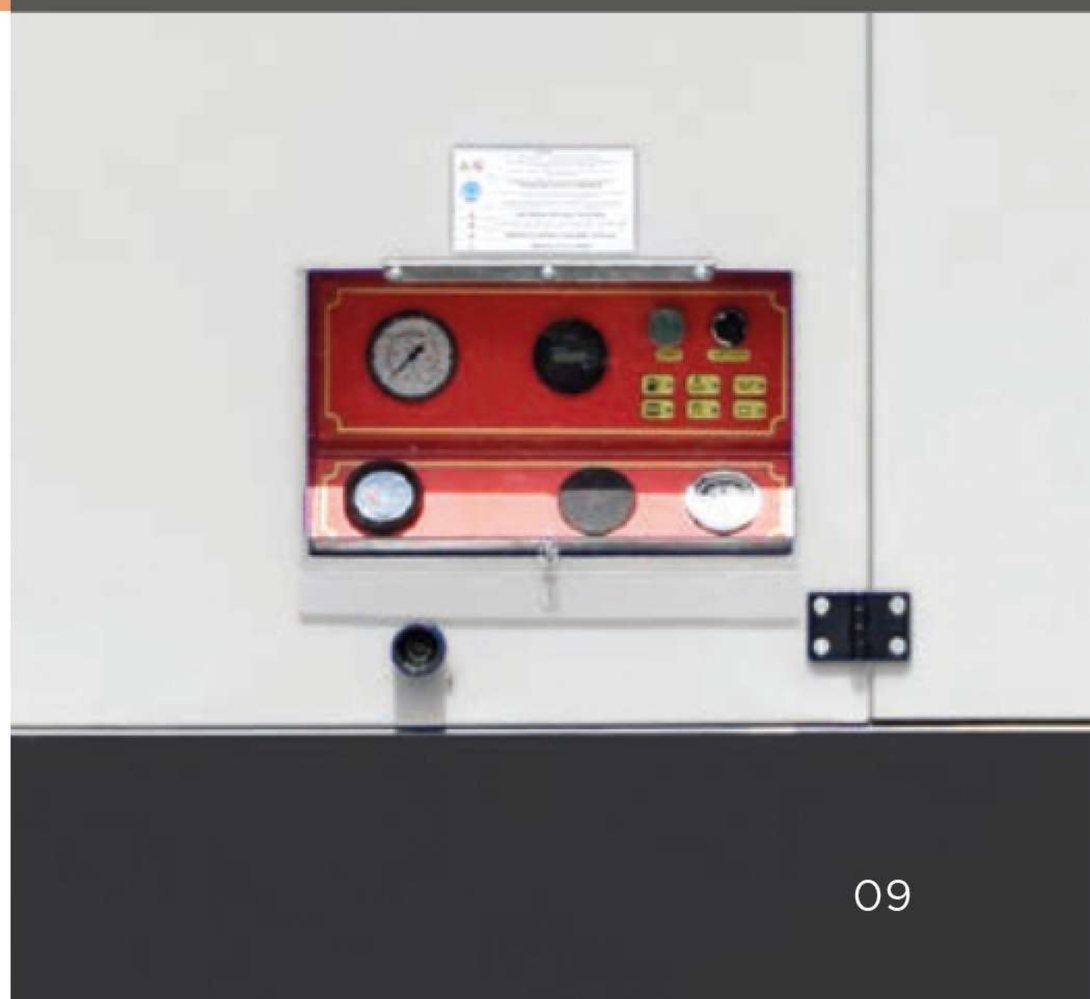
COMPRESSOR						
Operating pressure (•)	8 bar 116 psi	10 bar 145 psi	12 bar 174 psi	8 bar 116 psi	10 bar 145 psi	12 bar 174 psi
Free air delivery	25,3 m³/min 893 cfm	22,7 m³/min 802 cfm	20,5 m³/min 723 cfm	25,3 m³/min 893 cfm	22,7 m³/min 802 cfm	18 m³/min 636 cfm
Minimum working pressure	5,5 bar - 80 psi			5,5 bar - 80 psi		
Drive system engine-airend	Direct Drive			Direct Drive		
Compressor cooling system	Air / Oil			Air / Oil		
Oil cooling capacity	62,5 lt - 13.75 UK gal			62,5 lt - 13.75 UK gal		
Air outlet temperature	40°C - 105°F + Ambient temperature			40°C - 105°F + Ambient temperature		
Outlet valves	3 x 3/4"+ 1 x 2"			3 x 3/4"+ 1 x 2"		
Noise level EECno 2000/14	> 100 LWA			> 100 LWA		
Battery capacity	12V cc - 750A-100Ah (EN)			12V cc - 750A-100Ah (EN)		
Fuel tank capacity	380 lt - 83.59 UK gal			380 lt - 83.59 UK gal		
Consumes	32,9 lt/h - 7.24 UK gal/h (11,5 working hours)			31,9 lt/h - 7.02 UK gal/h (11,9 working hours)		
DIESEL ENGINE / ENVIRONMENTAL CONDITIONS						
Engine make	CUMMINS			DEUTZ		
Engine type	QSB6.7			BF6M 1013FC		
Engine system	4 strokes - Inline			4 strokes - Inline		
Emissions	Stage III A / Tier 3			Stage II / Tier 2		
Displacement	6700 cc			7100 cc		
N. cylinders	6			6		
Aspiration	Turbo Intercooler			Turbo Intercooler		
Max engine power	194 kW - 262 HP (@ 2200 RPM)			190 kW - 257 HP (@ 2300 RPM)		
Max engine speed	2200 RPM			2300 RPM		
Min engine speed	1400 RPM			1300 RPM		
Cooling system	Water			Water		
Cooling system capacity	33 lt - 7.26 UK gal			34 lt - 7.48 UK gal		
Lubrication system	Oil			Oil		
Lubrication system capacity	14 lt - 3.08 UK gal			14,5 lt - 3.19 UK gal		
Max ambient temperature	50°C - 122°F			50°C - 122°F		
Max altitude	1800 m a.s.l.			1800 m a.s.l.		
Min working temperature	-10°C / 14°F			-10°C / 14°F		

› The air and oil filters of the compressor and the air and oil filters of the engine are independent.

› Single stage oversized air filter for compressor part, to guarantee good filtering of the air intake by airend. As option, two-stage air filter for engine part.

› Fuel pre-filter with water seperation and second filter to clean fuel in very dusty conditions.

› Combined radiator allowing both compressor oil cooling and engine liquid cooling.



ROTAIR®

we are focused on

SAND BLASTING MODE

AFTER COOLED SANDBLASTING

All models of **ROTAIR** compressors have specific aftercooled versions.
They feature an additional cooler to cool down compressed air and a specific condensate separator, that drains the water produced by the thermic exchange of the cooler.

This gives a cooler output of compressed air (ambient +12 ± 2°C) and significantly lowers the humidity of the air, although not removing completely the moisture from air, as this depends mainly on the environmental conditions.

INBUILT ADDITIONAL COOLER AND SPECIFIC CONDENSATE SEPARATOR

for cool and dry air

specifically
designed **for...**

The aftercooled versions are called "**SANDBLASTING**" because the main use of these machines finds its operation in the sandblasting sector. These machines are indicated for all operations that are sensitive to humidity of the air output: optic fibre laying, use of pneumatic tools that are sensitive to humidity. **ROTAIR** also offers an **EXTERNAL "BS" AFTER-COOLER SYSTEM**, easy to connect through an air pipe kit and is electrically powered by the compressor.

It enables standard compressors, from 2000 to 8500 lt/min (71 to 300 cfm) to work in sandblasting and other humidity-sensitive operations. Air output temperature is extremely low: ambient +2°C. Humidity in air suffers a drastic diminution. The unit is on wheels, easy to transort and to handle, built to meet the most exigent and severe working conditions.

ROTAIR OFFERS
A BROAD PANEL OF TRAILERS, TO MAKE COMPRESSORS EFFECTIVELY PORTABLE.

The undercarriage of a portable compressor is composed of:

AXLE
The part connecting compressor to the ground, includes suspension system, wheels and all related parts. Suspensions can be assured with springs (sprung axle) or leaf springs (leaf spring axle). Wheels are of different size, to match the weight of the machine and according to the type of towing.

LIGHTS
System of rear lights and reflectors

BRAKING SYSTEMS
Can be with no braking system at all, simple parking brake or repulsion braking system.

DRAWBAR
The drawbar is the rigid connection between compressor and towing vehicle. It can be at fixed height (gooseneck bend or straight angles) or adjustable through joints, usually 2. It can have a foot stool or a jockey wheel.

CONNECTION
This is the mean to connect physically the drawbar to the towing vehicle. It can be through tow eyes or ball concection, both of different diameter.

STANDARD TRAILER - MDVN	So-called "gooseneck" for the peculiar shape of the drawbar. Is always without brakes. Enables slow towing (max 25 km/h) on work field but not on public roads.
TRAILER WITH BRAKES – MDVN	Has adjustable drawbar, repulsive braking system, lights. Enables compressor to be towed on public roads, if homologated.
STANDARD TRAILER – MDVS	Has adjustable drawbar. Is without repulsive braking system, but has a parking brake. Enables slow towing (max 25 km/h)on work field but not on public roads.
TRAILER WITH BRAKES – MDVS	Has adjustable drawbar, repulsive braking system, lights. Enables compressor to be towed on public roads, if homologated.
TRAILER WITH PARKING BRAKE	All types of axles and drawbars can be equipped with parking brake, a lever that blocks the wheels when the machine must be static.
SKID ADAPTOR	Portable compressors can be delivered "ON SKID", which means without wheels but on a base with four support feet.

ROTAIR has a special SKID ADAPTOR, used to prepare the machine for standard skid delivery, that can be provided as separate attachment and be used to transform a towable compressor into a skid compressor. Viceversa: by removing the skid adaptor and installing an undercarriage with all its parts, the original skid machine can become towable.

ON ROAD HOMOLOGATION / To circulate on public roads, towed by a vehicle, a portable compressor needs to have several characteristics.

EUROPE:
European Union has uniformed the legislation to enable towing of trailers, among those portable compressors. To be towed on public roads, a trailer shall respond to Directive 2007/46/CE. The manufacturer shall undergo a process of internal homologation by one European Ministry of transports and all machines to be towed shall be examined and approved. The exam includes the presence of all elements requested by the Directive (among others: braking system where needed, lights, reflectors, etc..). This done, the manufacturer will be issued, for each towable model, a unique reference number, that will be engraved on the chassis of the machines deemed to be towed and integrated into the specific documentation of the machine. This number, communicated by the end Customer to the Office of Circulation of the European Country where the machine will be put into operation, will enable the road homologation process without need of further presentation of documents or physical inspection and assessment by the competent Authority.

OTHER COUNTRIES.
For other Countries outside Europe, the local legislation shall be followed. ROTAIR can provide, upon request, the specific documents and drawings that could be requested for a national road homologation. The Dealer or end Customer shall provide the specifications that the machines shall respect to be homologated. In some cases, the Dealer could modify the machines, upon authorization of ROTAIR, to conform them to the norms of the reference Country.

FEATURED HIGHLIGHTS

EXCLUSIVE ROTAIR INTELLIGENT SYSTEM

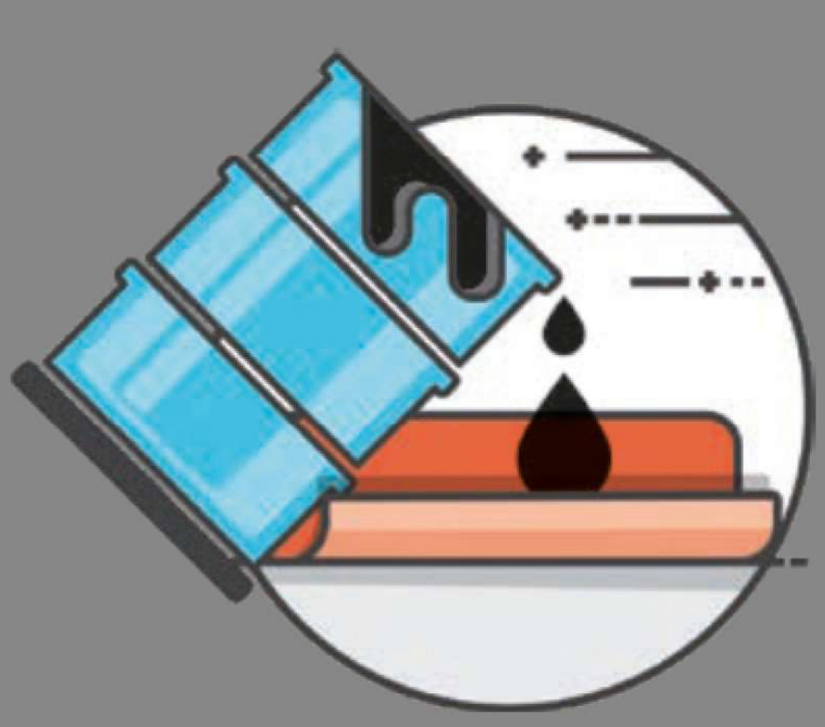
THE "**INTELLIGENT SYSTEM**" ENABLES A PRE-HEATING OF THE ENGINE WITHOUT OVERLOADING IT, THE AIREND WILL START WORKING ONLY WHEN THE PERFECT CONDITIONS ARE REACHED.

THE SAME IN TURNING OFF THE MACHINE AFTER A DEPRESSURISATION PHASE OF THE HYDRAULIC CIRCUIT, NO HAMMERING OF THE AIREND DUE TO ITS INERTIAL MOVEMENT, BUT A GRADUAL TURN-OFF.

No more need to start the machine with the air exit open (and risks of forgetting it)

All this brings:

- *A correct lubrication to the screw set and the engine, even in extremely cold temperature conditions.*
- *A better functioning and a higher durability of all the components of the machine.*
- *An increase of the separator filter lifetime and no oil in the air during the next compressor's starts (and no black smoke from the exhausts pipe while turning the machine on).*



BUNDED CHASSIS ADAPTER

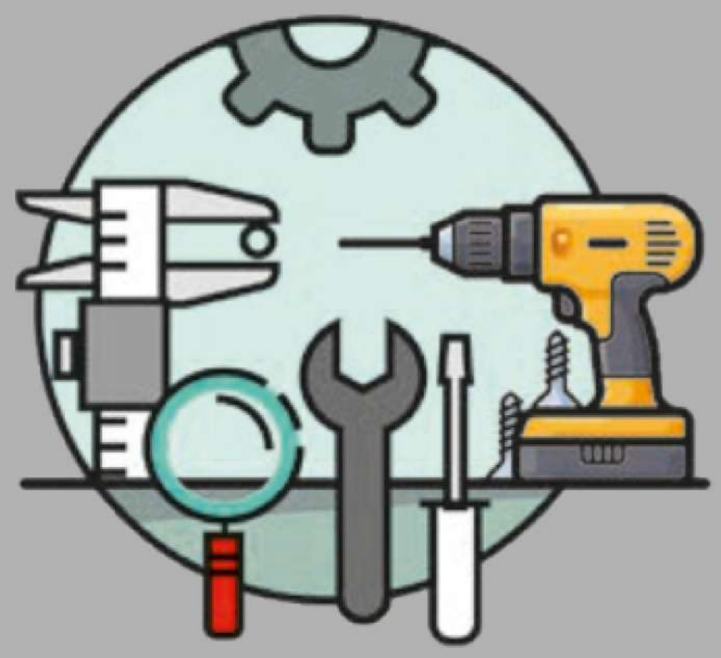
This exclusive device, only for ROTAIR portable compressors, offers the possibility to have your compressor protected from accidental spills of fluids on the ground.

Removable yet solidly fixable to the compressor, it is the ultimate option where anti-spill is mandatorily required.

It is so intelligent that it enables forklift handling of the compressor.

EASY MAINTENANCE

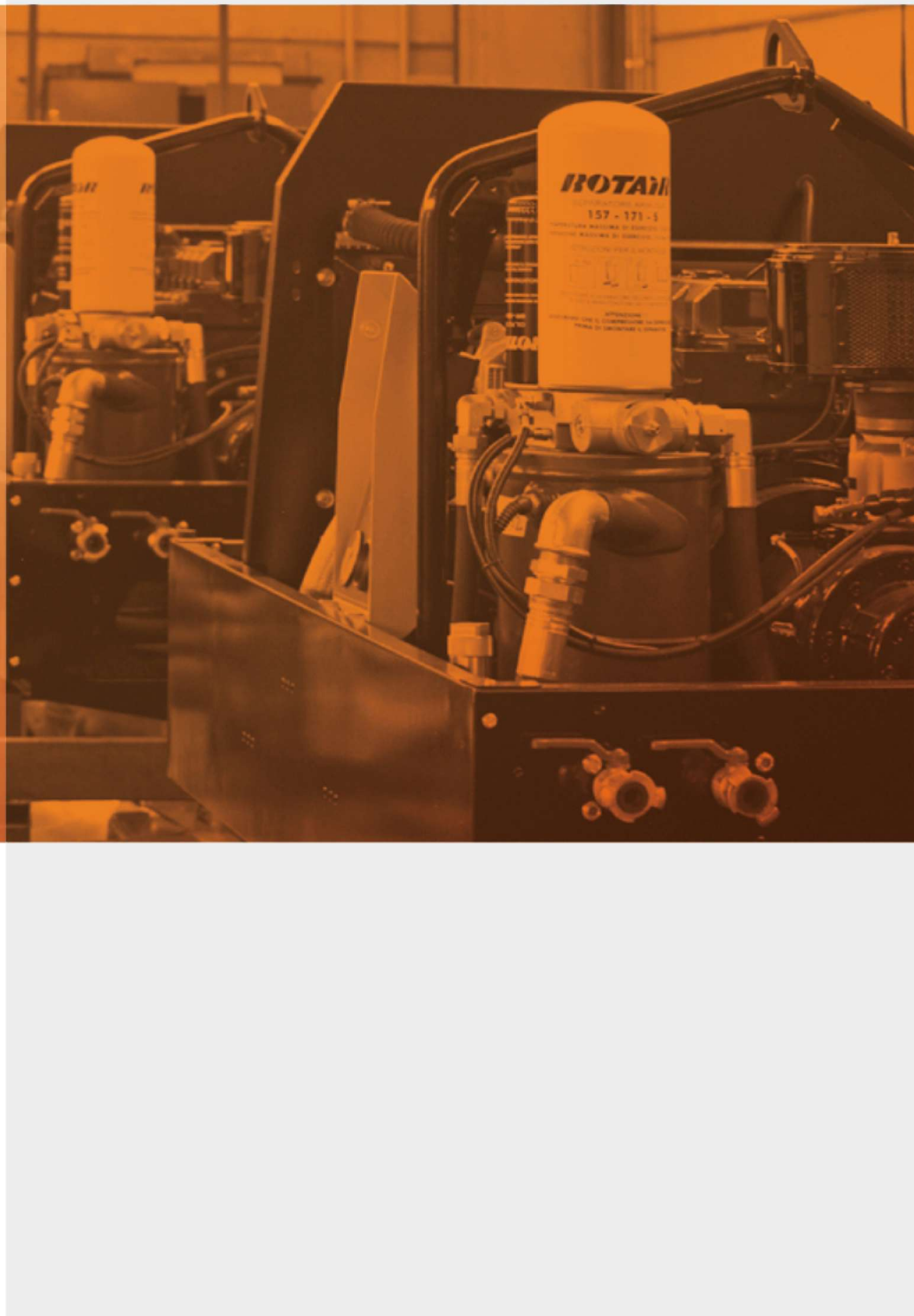
FULL ACCESSIBILITY FOR EASY AND RAPID MAINTENANCE AND SERVICE



ROTAIR®

PORTABLE

COMPRESSORS



WARRANTY, DURATION and **RELIABILTY**

are assured with
THE EXCLUSIVE USE
of original spare parts.

GENUINE SPARE PARTS PROGRAM

DELIVERING **WORLD CLASS**
Compressed Air Solutions

ROTAIR®

GENERAL CATALOGUE

PORTABLE COMPRESSORS

SCREW SUPERSILENT
for civil engineering
&
MUCH **MORE**

ROTAIR®

VIA BERNEZZO, 67
12023 › **CARAGLIO (CN)** › ITALY

Tel: +39 **0171.619676**
Fax: +39 **0171.619677**

www.rotairspa.com
info@rotairspa.com

Company certified
ISO 9001:2015

ISO 9001
BUREAU VERITAS
Certification

ROTAIR - A brand of **ELGi Equipments Ltd.**

lingamdesign.it | 04.2021