

# **OEM Solutions**

#### Mission Critical Air for Mining & Underground Construction

Global Presence, Local Expertise

(**B**) Ingersoll Rand. GHH RAND. TAMPOTOP

# Your partner, not just your supplier

## Who is Ingersoll Rand OEM Solutions?

Ingersoll Rand OEM Solutions is a combination of three iconic OEM compressor brands: Ingersoll Rand, GHH RAND<sup>®</sup>, and Tamrotor. Together we provide a comprehensive screw compressor portfolio from airends to complete compressor modules. OEM Solutions is part of Ingersoll Rand's Industrial Technologies & Services Business. We work directly with Original Equipment Manufacturers (OEMs) who use compressed air inside their own products. Our customers purchase the main components of our industrial air compressors and we help them integrate them into their products. We provide solutions for various applications in many markets including construction and mining, industrial, ground support equipment, oil and gas, and fire and rescue.

## Forming strong industry partnerships

We are dedicated to forming long-term, meaningful relationships with our customers across industries around the globe, improving operational and cost efficiencies and promoting understanding and teamwork.

#### Application solutions backed by expert engineers

History, expertise, and dedication to serving our customers are the reasons why key players in industries across the world choose Ingersoll Rand OEM solutions. We have built unique relationships with many professions across various industries and gained intimate knowledge, allowing us to refine our product range and services to offer a range of flexible solutions for our industry partners.

# **Customised solutions** for Mining & Underground Construction

Mining and Construction equipment often works in harsh environments with low or high ambient temperatures and high relative humidity as well as dust, rain, snow and ice. Even the type of ground and bedrock can vary dramatically. Some places where this equipment is operated can be corrosive, especially when the mine or site is near the ocean or desert.

Ingersoll Rand's OEM portfolio has the solution for these environments. We have over 60 years of experience with Tamrotor products in the construction and mining industry and many more with Ingersoll Rand and GHH Rand. We have a huge range of products which will perfectly meet the requirements of your onboard compressor:

- Small foot print
- Operation at various angles
- Operation in high seismic loading conditions
- Hydraulic or electrically driven
- Durable and reliable operation
- Easy maintenance with high quality manuals
- Compliance with regulations

Our air end portfolio consists of single & double stage, oil free & oil lubricated air ends for various needs. We also offer integrated air ends and complete compressor modules with superior reliability and durability. Decentralized placing is quite typical in these environments and the selected product can be a customized set of CT packages and air ends with different components. Tell us your application and requirements and our application engineers will help you find the perfect match.

#### Shotcrete spraying and explosives charging

Compressed air is the perfect medium for spraying shotcrete onto the surfaces of mined tunnels. Equipment for ANFO or emulsion explosives charging benefits significantly from an onboard compressor, eliminating the need for an external pressure airline and making the process more agile and cost-efficient.

#### For this function we recommend...

- IR air ends, for shotcrete spraying especially CF128G (10-12 m<sup>3</sup>/min, 5-7 barg / 353-424 cfm, 73-102 psig) and for explosives charging CF75G (4-6 m<sup>3</sup>/min, 7 barg / 141-212 cfm, 102 psig)
- Tamrotor CT series, for shotcrete spraying especially CT25 (10-12 m<sup>3</sup>/min, 5-7 barg / 353-424 cfm, 73-102 psig) and for explosives charging CT12 (4-6 m<sup>3</sup>/min, 7 barg / 141-212 cfm, 102 psig)



#### End of borehole air flushing

After a borehole is drilled into a substrate, air flushing is recommended to remove debris with compressed air. End of the borehole air flushing is accomplished utilizing the same Tamrotor CT-series compressor used for shank lubrication and air mist flushing. For this function we recommend...

- IR air ends CE55G/CE55ni (0,6-2,6 m<sup>3</sup>/ min, 5-7 barg / 25-92 cfm, 73-102 psig)
- Tamrotor CTN3-CT6 series (1-3 m<sup>3</sup>/min, 5-7 barg / 35-106 cfm, 73-102 psig) - possibility for low pressures to save energy

#### Rock Drills' shank lubrication in underground drilling

With great endurance and dependability, the rock drills' shank adapter must continually withstand and transmit up to 6,300 blows per minute from the piston. The shank adapter is lubricated continuously during operation, and compressed air is used to transmit the lubricant. Commonly, shank lubrication requires compressed air with 0,7m<sup>3</sup>/min (25cfm) capacity at 7 bar (101 psig). In many cases, our solutions can take care of flushing and shank lubrication. For this function we recommend...

 0,7m<sup>3</sup>/min (25cfm) capacity at 7 bar -Tamrotor air ends: EN2, EN3, tempests: TN2, TN3, CTN's: CTN2, CTN3

## Air mist flushing in underground drilling

In top hammer drilling, water is conventionally used to cool down the hydraulics, rock drill, rock tools, and moving cuttings and dust from the drilled hole. Flushing water is taken from the mine's water network and pumped through the mining equipment and the drilling tools. The challenge is that the water used as the flow is around 50 litres per minute per rock drill. Our OEM compressors can help you to reduce water consumption and increase productivity. For this function we recommend...

- IR air ends, CF55G- CF128G
  (2,5-12 m<sup>3</sup>/min / 88-424 cfm)
- Tamrotor CT6-CT25 (2,5-12 m³/min / 88-424 cfm)

## Down the hole (DTH)

Down the hole (DTH) and In the hole (ITH) applications require pressured air flow to run the hammer. Pressured air is medium for energy transfer for the rock drill. Pressure and air flow in typical DTH applications is from 24bar and 18m<sup>3</sup>/min to 28m<sup>3</sup>/min and 30 bar. Water well drilling requires even higher pressures.

#### For this function we recommend...

- IR air ends, 226mm, 285mm, 350mm, 2x285mm (13- 107 m³/min, 7-10 barg, 100-150 psig / 450-3800 cfm, 17-34 barg, 250-500 psig), CF1000H, HR2.0 and the HR2.5
- Tamrotor air ends: EN40SI, EN55, E75, E175 ja 321 (13-74 m<sup>3</sup>/min, 7-10 barg / 8-44 cfm, 102-145 psig)

In addition to these, we also have solutions for waterwell drilling, blast hole, crawler drills, portable compressors, geothermal, seismic, and exploratory drilling. Contact us via our webpage and we will tell you more!

# Our brands



Ingersoll Rand Airends were born in the construction and mining industry. They are designed to offer extremely durable and robust performance alongside a long service life in the toughest of environments. We are dedicated to providing unique compressed air solutions and building long-term value for customers through trusted technology, application expertise, and integrated compressor options. Our customers around the world have come to depend on Ingersoll Rand airends in the construction and mining industries.

MODEL	MAX POWER CONSUMPTION COUPLING kW/hp	MAX VOLUME FLOW m³min/cfm	MAX PRESSURE bar(g)/psi(g)	WEIGHT kg/lbs
IR2x285	680 / 911.9	116 / 4097	11.5 / 167	2,744 / 6050
IR285	365 / 496	61/2154	13 / 189	1,182 / 2606
IR226	220 / 295	37 / 1307	15.5 / 225	981 / 2163

These are just a sample from our product portfolio of units that suit these applications. For further information on the whole range, please contact us.





GHH RAND<sup>®</sup> is a pioneer in the design and manufacture of truly innovative oil-free and oil-injected screw compressors and industrial compressed air solutions. Our airend portfolio consists of oil-free single and double stage airends and oil-injected airends. Our unique knowledge and experience within the oil-free arena continue to be relied upon across the globe, providing the highest levels of quality that can be integrated into your packaged solutions.

CF1000H

MODEL	MAX POWER CONSUMPTION COUPLING kW/hp	MAX VOLUME FLOW m³min/cfm	MAX PRESSURE bar(g)/psi(g)	WEIGHT kg/lbs
CF1000H	354 / 474.7	29 / 1024	36 / 522	645 / 1422
HR2	270 / 362.1	27.2 / 961	25 / 363	771 / 1699
HR2.5	350 / 469.4	36 / 1271	25 / 363	884 / 1949
CF90	101 / 140.4	10 / 445	11.5 / 232	85 / 253.5
CE177G	200 / 268.2	36.4 / 1285	14 / 203	565 / 1245.6
CF128G	198 / 265.5	20.8 / 735	16 / 232	280 / 617.3

These are just a sample from our product portfolio of units that suit these applications. For further information on the whole range, please contact us.

## Tamrotor

Tamrotor has special expertise for semi-integrated units and self-contained compressor packages for mobile applications. Tamrotor brings together our complete OEM competencies into one brand to offer customers a wide range of compression technologies to suit a multitude of applications. With over 50 years of experience in the field, Tamrotor customers don't only get the benefit of our state-of-the-art manufacturing techniques

or our extensive product portfolio, they can also rely on the expertise of our highly experienced engineers.

EN3, CT3 & T6+

Model	Motor Power kW/hp	Capacity at 7 barg (101.5 psig) pressure m³/min (cfm)	Pressure Range cfm	Speed Range (rpm)	Net Weight kg/lbs
TN3	4-15 / 5-20	0.5-2.3 (18-80)	5-14 / 73-205	2500-10000	76 / 168
TN4	4-27 / 5-37	0.7-2.9 (25-102)	5-14.5 / 73-210	2510-10050	52 / 115
T6+	7.5-30 / 10-40	0.9-4.5 (28-205)	3-14 / 44-205	2000-8000	102 / 225
TN8	7.5-49 / 10-67	1.2-5.3 (42-187)	5-14.5 / 73-210	1890-7560	98 / 216
T12+	15-45 / 20-60	1.1-7.3 (37-258)	3-14 / 44-205	1000-6500	180 / 400
T25	22-75 / 30-100	2.6-13 (93-448)	3-14 / 44-205	1200-5600	230 / 500

Model	Motor Power kW/hp	Capacity at nominal pressure m³/min	Capacity at nominal pressure cfm	Net Weight kg/lbs
CTN2 Electric/Hydraulic	5.5-8 / 7.5-10	0.5-1.05	18-37	57-129 / 251-284
CTN3 Electric/Hydraulic drive	7.5-11 / 10-15	0.7-1.6	25-57	135-265 / 440-585
CTN4 Hydraulic drive	8-20 / 11-27	0.7-2.7	25-95	101.5 /
CTN6 Electric/Hydraulic drive	15-23 / 20-31	1.6-3.7	57-124	190-330 / 680-730
CT12	30-50 / 40-67	3.7-6.8	130-240	240-420 / 730-930
CT25	45-75 / 60-100	3.3-12.2	187-431	450-900 / 1300-2000

These are just a sample from our product portfolio of units that suit these applications.

For further information on the whole range, please contact us.



# How can we help you?

We connect with our customers for life by delivering proven expertise, productivity, and efficiency improvements that provide real value to them and their business. Wherever you are and whatever your application requirements, you can be assured that the Ingersoll Rand OEM Solutions portfolio has the perfect solution tailored to you.

We have a broad network of "authorized parts and service resellers" serving the North American and Latin American countries. We also maintain stock of original spare parts, replacement airends and have a comprehensive range of rebuild kits for our entire product portfolio in order to meet your demand. Our dedicated team of specialists can also help you with any specific requirements you may have.

#### More information

https://oem-solutions.ingersollrand.com/en-us https://www.tamrotor.fi

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