



> Advanced air pipe systems

The background of the entire page is a blue-tinted photograph of an industrial facility, likely a factory or warehouse. A complex network of white air pipes is visible, running horizontally and vertically across the space. In the bottom left corner, there is a technical line drawing of a mechanical component, possibly a valve or a filter, with the 'transair' logo integrated into its design.

Introduction

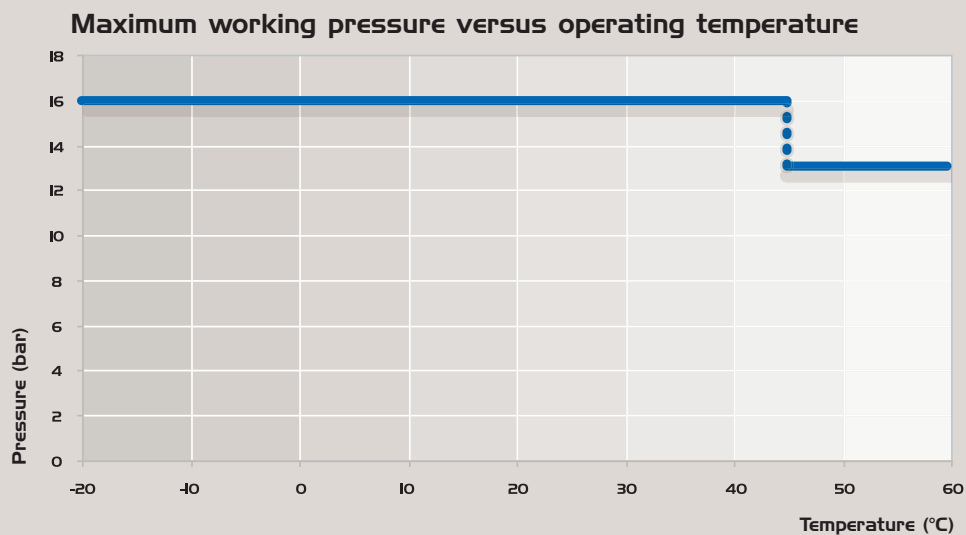
> Technical specifications

> Fluids

- Compressed air (dry, wet, lubricated)
- Vacuum
- Inert gases (argon, nitrogen)
- Other fluids: please consult us

> Maximum working pressure

13 bar from -20°C to +60°C
16 bar from -20°C to +45°C



> Vacuum level

98,7 % (13 mbar absolute pressure)

> Working temperature

from -20°C to +60°C

> Storage temperature

from -40°C to +80°C

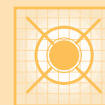
> Resistance to

- corrosion
- aggressive environments
- mechanical shocks
- thermal variations
- U.V.
- compressor oil carry over

> Environment

Materials are 100% recyclable.
For silicone free applications: please consult us.

> Sizing



Select the TRANSAIR® diameter for your application based on required flow against pressure drop.

Estimated values for: a closed loop network, a pressure of 8 bar with 5% pressure drop. Velocity is not taken into account.

Flow rate			Length										Compressor (Kw)
			164ft	328ft	492ft	984ft	1640ft	2460ft	3280ft	4265ft	5249ft	6561ft	
Nm³/h	NI/min	cfm	50m	100m	150m	300m	500m	750m	1000m	1300m	1600m	2000m	
10	167	6	16,5	16,5	16,5	16,5	16,5	16,5	16,5	25	25	25	1,5 - 7,5
30	500	18	16,5	16,5	16,5	25	25	25	25	25	25	40	
50	833	29	16,5	25	25	25	25	25	40	40	40	40	
70	1167	41	25	25	25	25	40	40	40	40	40	40	7,5 - 30
100	1667	59	25	25	25	40	40	40	40	40	40	63	
150	2500	88	25	40	40	40	40	40	40	63	63	63	
250	4167	147	40	40	40	40	63	63	63	63	63	63	30 - 75
350	5833	206	40	40	40	63	63	63	63	63	63	76	
500	8333	294	40	40	63	63	63	63	63	76	76	76	
750	12500	441	40	63	63	63	63	76	76	76	76	100	75 - 315
1000	16667	589	63	63	63	63	63	76	76	100	100	100	
1250	20833	736	63	63	63	63	63	100	100	100	100	100	
1500	25000	883	63	63	63	76	76	100	100	100	100	100*	> 315
1750	29167	1030	63	63	76	76	76	100	100	100	100*	100*	
2000	33333	1177	63	76	76	76	100	100	100	100*	100*	100*	
2500	41667	1471	63	76	76	76	100	100*	100*	100*	100*	100*	> 315
3000	50000	1766	76	76	76	100	100	100*	100*	100*	100*	100*	
3500	58333	2060	76	76	100	100	100*	100*	100*	100*	100*	100*	
4000	66667	2354	76	100	100	100	100*	100*	100*	100*	100*	100*	> 315
4500	75000	2649	76	100	100	100*	100*	100*	100*	100*	100*	100*	
5000	83333	2943	76	100	100	100*	100*	100*	100*	100*	100*	100*	
5500	91667	3237	100	100	100	100*	100*	100*	100*	100*	100*	100*	> 315
6000	100000	3531	100	100	100*	100*	100*	100*	100*	100*	100*	100*	

*Pressure drop >5%

> Example

- Main network length (ring main): 300 metres
- Compressor power: 30 kW
- Required flow rate: 250 Nm³/h (147 cfm)
- Working pressure: 8 bar

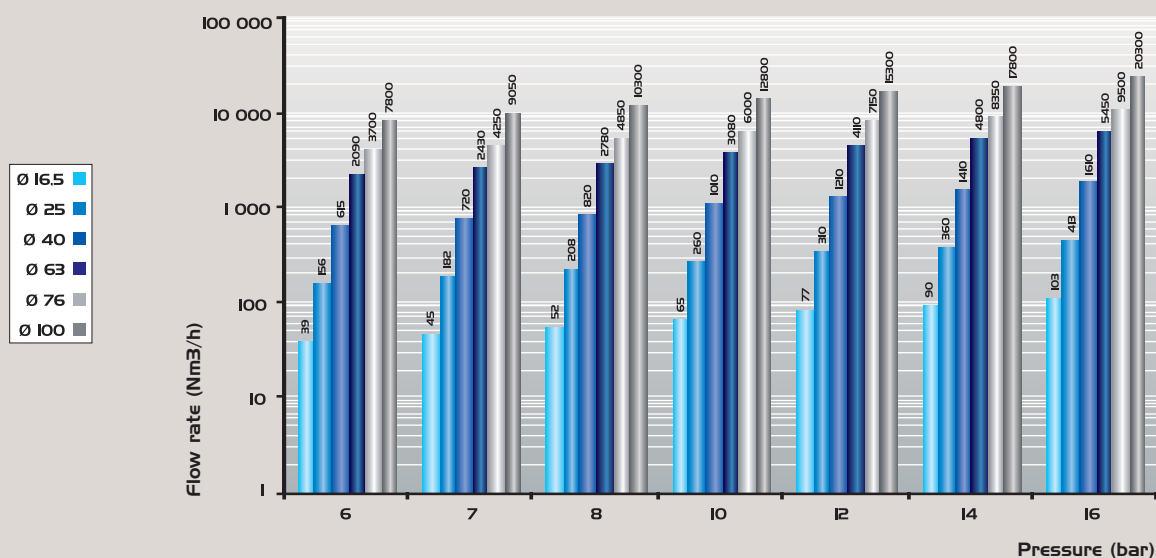
• The most suitable Transair® diameter is: Ø 40.

To size your air pipework system, you can also use the TRANSAIR® FLOW CALCULATOR. For more information, refer to page 4 of this catalogue.

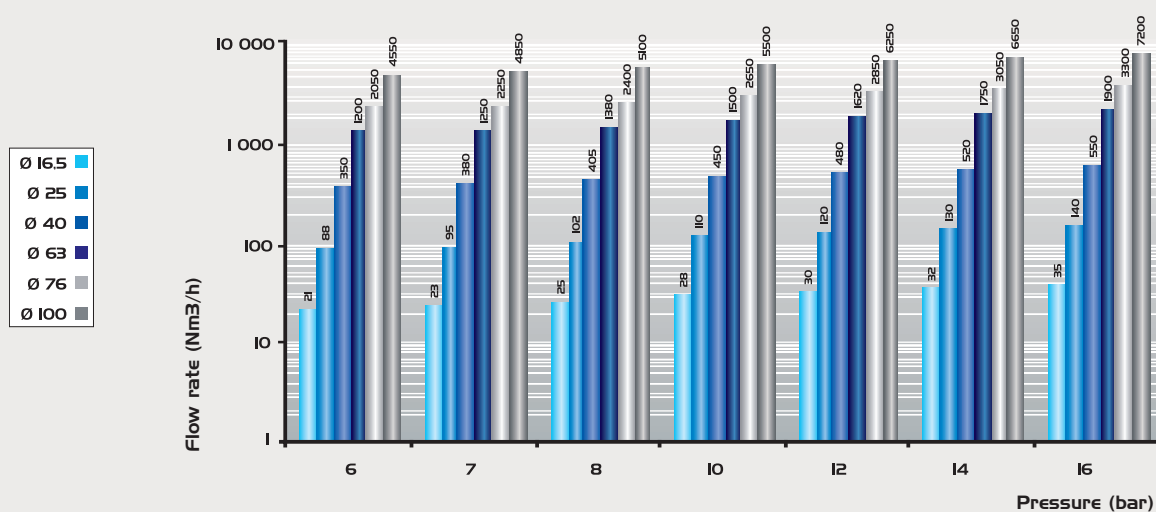
> Flow rates and pressure drop

Measurements provided by the official French testing body CETIM - Centre Technique des Industries Mecaniques.
Charts are based on a 30m straight Transair® line.

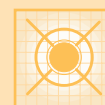
Maximum flow rate with 5% pressure drop (To convert to cfm, use a coefficient of 0.588.)



Maximum flow rate with 0.1 bar pressure drop. (To convert to cfm, use a coefficient of 0.588.)



>Transair® Flow Calculator



The TRANSAIR® FLOW CALCULATOR helps you to choose the most suitable diameter for your installation. Enter the flow of your compressor, the system pressure rating and the total equivalent length of the system. Select ring main or straight line layout, enter your preferred unit of calculation and then click for an immediate indication of the most suitable Transair® diameter (with a pressure drop of less than 5%).



>Example

- > Flow rate: 1 445 Nm³/h (850 cfm) at 7,5 bar (109 psi)
- > Ring main: 545 metres
- > The recommended TRANSAIR® diameter is Ø76mm
(pressure drop of 0,10 bar = less than 5 %)

>Download

The new TRANSAIR® FLOW CALCULATOR from our web site :
www.transair.legris.com

> Safety

> Fire resistance

All TRANSAIR® components are non-flammable with no propagation of flame.

- pipe-to-pipe and stud connectors, ball valves and butterfly valves : conform to UL94HB standard
- fixture clips : conform to UL94V-2 standard
- flexible hoses : conform to ISO 8030 norm for compressed air applications, and to EN 12115 norm for vacuum applications
- pipe lacquer finish classified M0

> Electrical conductivity

In areas of potential risk, the earthing and electrical continuity of metallic components are obligatory. The Transair® system can be used in such environments by undertaking the appropriate precautions. For more information, please consult us.

> CE conformity

Transair® conforms to European standard 97/23 CEE - §3.3 (equipment under pressure).



DECLARATION OF CE CONFORMITY Supplied in conformity with the **DIRECTIVE on EQUIPMENT UNDER PRESSURE** **97/23/CEE**

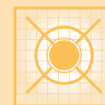
We hereby declare that all Transair® connectors manufactured by LEGRIS S.A. should be considered as piping components which designed according to sound working practice. "Piping includes in particular a pipe or system of pipes, tubing, fittings, expansion joints, hoses, or other pressure-bearing components as appropriate" – cf acceptance by the «pressure working group» dated 28/01/1999 and by the GTP Commission dated 27/11/1998.

Products designed according to the code of practice.

Product description: Transair® connectors Ø 16.5 - Ø 25 - Ø 40 - Ø 63 - Ø 76 - Ø 100

Applicable approvals: AFAQ Certificate of Approval, EN ISO 9001

> Certification and Guarantee



> Certification ISO 9001 version 2000



Legris S.A. is certified ISO 9001 version 2000 and operates a Quality Management System in order to ensure the level of quality and service that is expected by its customers.

> TÜV certification



A product certified TÜV is a pledge of safety and quality. The Group TÜV thus certifies independent test results – in particular, the properties of the products and the standards whereby they were examined.

> QUALICOAT certification



QUALICOAT certification is a guarantee of the quality of the lacquer finish applied to Transair® aluminium pipe.

> ASME B31.1



TRANSAIR® meets the requirement of ASME B31.1.

- which stipulates "the minimum requirements for the design, materials, fabrication, erection, test and inspection of power and auxiliary piping systems for industrial institutional plants".

**All TRANSAIR® components
are guaranteed for 10 years.**



- TRANSAIR® GUARANTEE -

Legris SA agrees to replace free of charge any Transair® component which does not function due to a manufacturing or material defect, within a period of 10 years from the date of the installation.

The present guarantee is valid on condition that :

- Legris SA is given reasonable access to examine the products at issue.
- A material or an assembly defect in the fitting or other Transair® component must be clearly and obviously identified.

Excluded from this guarantee, which is limited to the cost of product replacement, are defects outside the control of Legris SA, in particular:

- Defects resulting from shocks, vibrations or wear due to contact with any element external to the Transair® installation.
- Defects due to installation not complying with Legris SA's guidelines and recommendations.
- Defects due to an installation being used outside the technical limits defined by Legris SA.
- Defects caused by product modifications not approved in advance by Legris SA.

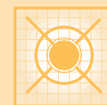
Claims under this Guarantee should be addressed in writing simultaneously to the distributor of the Transair® products concerned and to Legris SA, 74, rue de Paris, BP 70411 - 35704 Rennes Cedex 7 France, and its subsidiary

Site owner
 Exact address
 Number
 Street Town / City
 Post Code
 Country
 Building type: New
 Extension
 Modification

> Material

	Ø 16,5 - Ø 25 - Ø 40	Ø 63		Ø 76 - Ø 100
1003A	lacquered aluminium	lacquered aluminium	TA03	lacquered aluminium
1006A	lacquered aluminium	lacquered aluminium	TA06	lacquered aluminium
1001E air	hose and coating : black SBR reinforcement : synthetic braiding	hose and coating : black SBR reinforcement : synthetic braiding	EW05	seal: EPDM
1001E vacuum	hose and coating : black SBR / NBR reinforcement : spiral steel wire	hose and coating : black SBR / NBR reinforcement : spiral steel wire	FP01	hose and connector: black SBR/NBR reinforcement : spiral steel wire
4002 - 4012	engineering grade plastic	body: engineering grade plastic nut: treated aluminium	RP01	body and pushing ring : engineering grade plastic - seal: NBR
4089 - 4099 - 4230	body: treated brass nut: engineering grade plastic	-	RR01	clamp : treated steel cartridge : engineering grade plastic seal : NBR
4981	body: plated brass seal: PTFE and nitrile	-	RR05	treated brass
6602 - 6604	engineering grade plastic	treated aluminium	RR61	body: iron (EN 1563) - seal : NBR screw : treated stainless steel lining : elastomer
6605	body : treated brass nut : polymer HR / NBR	body : treated brass nut: treated aluminium / NBR	RX02	stainless steel 304
6606	engineering grade plastic	treated aluminium	RX12	stainless steel 304
6612	engineering grade plastic	treated aluminium	RX04	stainless steel 304
6621	treated aluminium	-	RX23	stainless steel 304
6625	engineering grade plastic	treated aluminium	RX24	stainless steel 304
6651	body : treated brass nut: engineering grade plastic	-	RX64	stainless steel 304
6661	body: engineering grade plastic insert : brass	body : engineering grade plastic insert : brass	RX66	stainless steel 304
6662	engineering grade plastic	polymère HR	RX30	stainless steel 304
6666	body : treated aluminium nut: engineering grade plastic	treated aluminium	VR02	body: iron disc and shaft : stainless steel
6676	engineering grade plastic	body : treated aluminium nut : polymer HR	VR03	nickel-plated brass
6680 - 6681	body: treated brass nut: engineering grade plastic	-	Bracket	zinc steel - rubber EPDM
6685 - 6686	treated brass	-	For all silicone free applications : please consult us.	
EA98	body : treated iron ball valve : plated brass	-		
RA69	engineering grade plastic	-		
RA65	body: engineering grade plastic insert : brass	-		
Clip - Spacer	engineering grade plastic	engineering grade plastic		
Adaptor	brass	-		
Fixture accessories	galvanized steel - brass			
Column	anodized aluminium			
Module	aluminium			
Composite coupler	body : polymer HR / Zamac - sleeve : polymer HR - spring and ball bearings : stainless steel - seal : nitrile - probe : treated steel			
Metal coupler	body : anodized duralumin - sleeve: treated nickel-plated steel - spring : stainless steel - seal : nitrile - probe : treated steel, treated brass			
Hose reel	plastic/metal case - fixing : metal			
Blow gun	reinforced polyamide - treated aluminium - insert brass			
Connections accessories	plated brass			
Anti whip-lash strap	steel			

> Transair® Technology

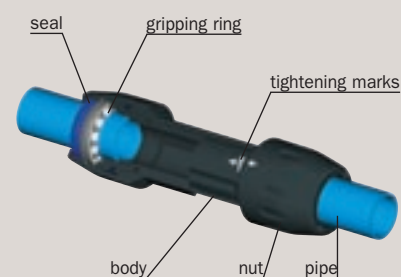


Innovative technology at the heart of TRANSAIR® enables rapid and easy assembly: quick connection of components to the aluminium pipe.

This technology takes into account the specific requirements of each diameter and provides the user with an optimum safety coefficient and easy connection.

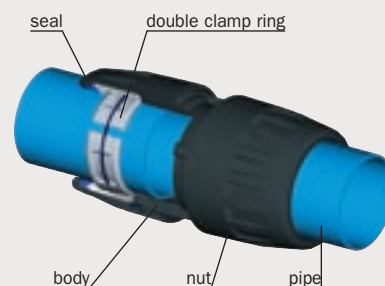
> Ø 16,5
> Ø 25
> Ø 40

Pipe-to-pipe and stud connectors in Ø 16,5, Ø 25 et Ø 40 can be immediately connected to Transair® pipe - simply push the pipe into the connector up to the connection mark. The gripping ring of each fitting is then automatically secured and the connection is safe.



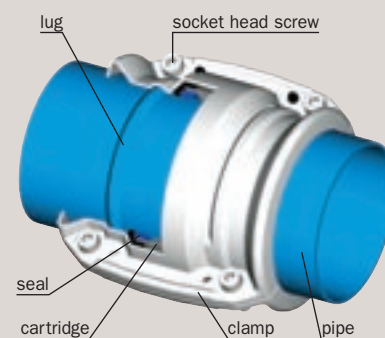
> Ø 63

Pipe-to-pipe and stud connectors in Ø 63 can be quickly connected to Transair® aluminium pipe by means of a double clamp ring. This secures the connection between the nut and the pipe - tightening of the nuts secures the final assembly.



> Ø 76
> Ø 100

Pipe-to-pipe and stud connectors in Ø 76 et Ø 100 can be quickly connected to Transair® aluminium pipe. Position the pipes to be connected within the Transair® cartridge and close/tighten the Transair® clamp.



> Services

A number of additional Transair® services help you throughout your projects.

> Project assistance



Understanding, Proximity, Responsiveness. Field support

TRANSAIR® technical-commercial teams are at your disposal to study and help design your air network. In particular, they assist you in your project with :

- Information on the TRANSAIR® products and services,
- Guidance and training on how to assemble the system,
- Advice on “best practice” in order to reduce your consumption of energy,
- Ongoing assistance and follow-up.
- On-site advisory presence at construction and installation locations.

Internally

Our CUSTOMER SERVICE teams will co-ordinate a quick response to your requirements.

> Commercial service - France & International

- Product availability
- Order processing and follow-up
- Delivery time-phasing and modification
- Technical information

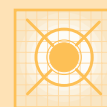
> Costing service

- Advice
- Design software

> Wherever you are in the world, you can contact us :

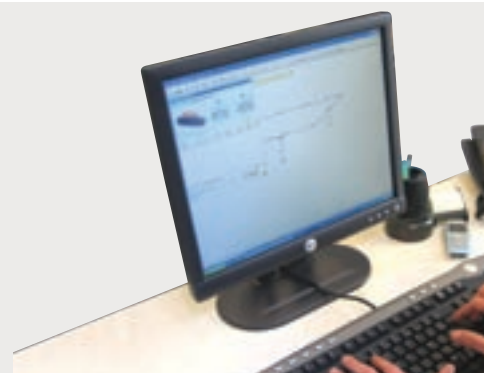
- by phone
- by fax
- by post
- by e-mail

To find the address of your nearest TRANSAIR® contact, please see the INDEX of this catalogue.



> Transair design software

- Installation sizing
- System layout and drawing
- Shopping list
- Available on CDROM



> Web site

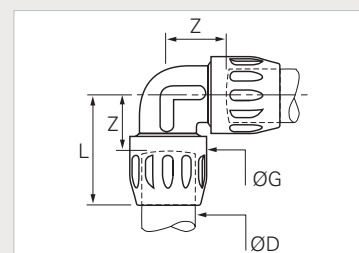
- Practical information
- Downloadable literature files: catalogues, information on new products, introductory leaflet, instruction guidelines, newsletter.

www.transair.legris.com



> CAD drawings

All TRANSAIR® CAD drawings are available on a CDROM - in formats DWG, DXF and PS.



> Specification sheets

Formal technical specifications for the TRANSAIR® system are available in either Word or PDF format and can be directly integrated into your own documents.

> System benefits

COMPLETELY ADAPTABLE

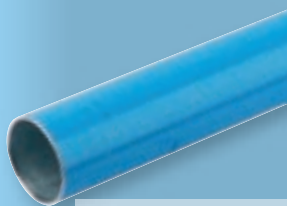
- > Dismountable and reusable components



EASIER

HANDLING

- Pipes and fittings are supplied ready for immediate installation
- > NO PREPARATION REQUIRED
- Quick assembly - no need to weld, glue or crimp
- > TIME SAVING
- Easy to assemble
- > NO IN-DEPTH TRAINING REQUIRED



- Lightweight, easy to cut pipe material
- > EASIER WORKING ON SITE
- Immediate Start-up
- > SYSTEM QUICKLY READY FOR TEST AND USE

ENERGY SAVINGS

- Consistent high quality internal surface
- > CLEAN AIR
- Full flow connection and low friction internal surface of the pipe
- > HIGH FLOW RATE PERFORMANCE
- Calibrated pipe diameter
- > OPTIMUM SEALING

HIGH RESISTANCE TO

- > corrosion
- > aggressive environments
- > mechanical shocks
- > thermal variations
- > U.V.
- > compressor oil carry over

COMPONENTS GUARANTEED FOR 10 YEARS

SAFETY

- > non-flammable materials

Legris has a policy of continual product development and, therefore, reserves the right to modify any products shown in this catalogue, without notification. All dimensions are indicative.

> Part Numbers Addresses



LEGRIS SA – HEAD OFFICE

BP 70411
35704 RENNES cedex 7
tel : + 33 2 99 25 55 00
fax : + 33 2 99 25 55 99
transair@legris.com

ARGENTINA

Automacion Micromecanica SAIC

Mariano Moreno 6548
1875 Wilde - Buenos Aires
tel : + 54 11 4206 6285
fax : + 54 11 4206 6281
micro@micro.com.ar

AUSTRALIA

Legris Australasia Pty Ltd

Unit 10
8 MC Lachlan Avenue
ARTAMON N.S.W. 2064
tel : + 61 2 943 643 00
fax : + 61 2 943 965 11
Legrisaustralia@legris.com

AUSTRIA

Legris Austria & Eastern Europe

Aredstrasse 29
2544 Leobersdorf
tel : +43 2256 65331
fax +43 2256 65332
legris.cee@legris.com

BELGIUM + LUXEMBOURG

Legris Belgium sa

Chaussée d'Alsemberg 454
1653 Dworp
Tel : 02/333 09 99
Fax : 02/332 11 27
legris.be@legris.com

BRAZIL

Legris do Brasil Ltda

Av. Imperado Pedro II
n.1201-SBC
09770-420 SAO PAULO
tel : + 55 11 4332 9200
fax : + 55 11 4332 5579
legrisbrasil@legris.com.br

CHINA

Legris Wuxi

Fluid Control Systems Co.Ltd
No 50 Chunhui Zhong Road
XiShan Economic Development Zone
Wuxi 214101, JiangsuProv.,P.R. China(CN)
tel : + 86 510 826 5656
fax : + 86 510 826 6922
legrisswx@public1.wx.js.cn

CZECH REPUBLIC

Legris SRO

Brnenska 668
66 442 MODRICE
tel : + 420 547 216 304
fax : + 420 547 216 301
legris@volny.cz

DENMARK

Legris Danmark A/S

Kohavevej 3 B
2950 Vedbæk
tel : + 45 98 204 111
fax : +45 98 204 311
legris.danmark@legris.com

FRANCE

Legris Transair France

74, rue de Paris
35704 Rennes cedex 7
tel : + 33 2 99 25 55 00
fax : + 33 2 99 25 56 47
transairfrance@legris.com

GERMANY

Legris GmbH

Kurhessenstrasse 15
64546 MÖRFELDEN-WALLDORF
tel : + 49 6105 910 924
fax : + 49 6105 910 913
info.gmbh@legris.com

HOLLAND

Legris BV

Postbus 74, 1380 AB Weesp
Pampuslaan 112
NL – 1382 JR WEESP
tel : + 31 29 44 80 209
fax : + 31 29 44 80 294
legris.bv@legris.com

HUNGARY

Legris Hungaria

Györfy István u. 1/b
1089 Budapest
HUNGARY
tel : +36 1 30 30 568
fax : +36 1 30 30 568
legris.hungary@legris.com

ICELAND

Sindra Stal hf.

Klettagöroum 12
104 REYKJAVIK
tel : + 354 575 0000
fax : + 354 575 0010
aj@sindri.is

INDIA

Legris India Pvt. Ltd

99, Pace-City-I Sector 37
122001 GURGAON
tel : + 91 124 637 2998
fax : + 91 124 637 2997
legris.india@legris.com

ISRAEL

Ilan and Gavish Automation Service Ltd

26 Shenkar St. Qiryat-arie 49513
P.O. Box 10118-PETACH TIKVA 49001
tel : + 972 3 922 1824
fax : + 972 3 924 0761
iandg@internet-zahav.net

ITALY

Legris SpA

Via Idiomi, 3/6
20090 ASSAGO (MI)
tel : + 39 02 488613 11
fax : + 39 02 488613 13
transair.italia@legris.com

IVORY COAST

Poly Service Technique

15 BP 450 - ABIDJAN 450
tel : + 225 24 75 17
fax : + 225 24 79 28
pst.ci@aviso.ci

JAPAN

NITTO KOHKI

9-4 Nakaikegami 2-Chome
Ohta-Ku
TOKYO 146-8555
tel : (03) 3755-1111
fax : (03) 3754-4131
kouho@nitto-kohki.co.jp

MOROCCO

AFIT

6-7, rue des Batignolles
21700 CASABLANCA
tel : + 212 22 40 53 44
fax : + 212 22 24 52 54
afit.casa@techno.net.ma

POLAND

Legris Poland

ul. Łubinowa 4a bud. M2
03-878 WARSZAWA
tel : +48 22 678 91 91
fax : +48 22 678 91 91
legris.poland@legris.com

PORTUGAL

Legris Lda

Rua Dr. Carlos Silva Mouta, 238
Castelo da Maia
4475-634 SANTA MARIA AVIOSO
Tel : +351 22982 1922
Fax : +351 22982 1924
legris.lda@legris.com

SCANDINAVIA

Legris Scandinavia AB

Box 33
S-230 53 ALNARP
tel : + 46 (0) 40 415700
fax : + 46 (0) 40 532100
legris.scandinavia@legris.com

SINGAPORE

Legris SE Asia Pte Ltd

8 Jalan Kilang Timor 01-04
Kawalram House
159305 SINGAPOUR
tel : + 65 6271 6088
fax : + 65 6274 9978
Legrisea@legris.com

SOUTH AFRICA

Legcon Demcon

P.O. Box 38621
Booyens 2016
JOHANNESBURG
tel : + 27 11 683 8335
fax : + 27 11 683 1080
legcon@cybertrade.co.za

SPAIN

Legris Cenrasa

Pol. Ind. La Ferreria
C/ Alimentacio, 2-4
08110 MONTCADA Y REIXAC
tel : + 34 93 575 06 06
fax : + 34 93 575 38 07
legris.cenrasa@legris.com

SWITZERLAND

Legris AG

J. Renferstrasse 9
2504 Biel/Bienne
tel.: +41 32 344 10 80
fax : +41 32 344 10 70
legris.ch@legris.com

TAIWAN

Legris Taiwan Company Ltd

1&2F, No. 240 Gao Gung Road
TAICHUNG, Taiwan, R.O.C.
tel : + 886 4 226 395 39
fax : + 886 4 226 395 13
legris@legris.com.tw

TURKEY

MERT

Tersane Caddesi 43
Karakoy
ISTANBUL
tel : + 90 212 252 84 35
fax : + 90 212 245 63 69
mertlogistik@turk.net

UNITED KINGDOM

Legris Limited

1210 Lansdowne Court
Gloucester Business Park
Hucclecote
GLOUCESTER
GL3 4AB
tel : + 44 (0) 1452 623 500
fax : + 44 (0) 1452 623 501
salesuk@legris.com

UNITED STATES OF AMERICA

Legris Incorporated

7205 E. Hampton Avenue
MESA - AZ 85208
tel : + 1 (480) 830 0216
fax : + 1 (480) 325 7556
transair@legris-usa.com

www.transair.legris.com