

RG 
Richard Geiss GmbH



RICHARD GEISS GMBH
SOLVENTS FOR THE CHEMICAL AND
PHARMACEUTICAL INDUSTRY

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Richard Geiss GmbH

As an owner-managed family business in its third generation, we stand for tradition and responsibility and are proud to be one of Europe's leading specialists in the field of solvent recovery.

What used to be offered to customers as a pure disposal service has now evolved into the toll distillation of solvent mixtures and the return of fresh-quality distillates.

Specific customer requirements for solvent quality are always taken into account.

The use of our distillates makes an important contribution to environmental protection by saving finite resources. Hazardous waste materials are avoided and CO₂ emissions are reduced.

COMPANY

- FOUNDED IN 1959 BY RICHARD GEISS
- NUMBER OF EMPLOYEES: 110

SERVICES

- ACCEPTANCE AND PROCESSING OF HALOGENATED AND NON-HALOGENATED SOLVENTS
- SALE OF HIGH-PURITY DISTILLATES
- TOLL DISTILLATION
- SUPPORT AND APPLICATION ADVICE
- SAFETY SYSTEMS FOR SOLVENTS
- LABORATORY SERVICE (IN-HOUSE LABORATORY)
- PROJECTING AT PILOT PLANTS
- TANK AND GENERAL CARGO LOGISTICS (IN-HOUSE VEHICLE FLEET)
- TANK STORAGE AND TANK CONTAINER MANAGEMENT

TOTAL CAPACITY OF DISTILLATION SYSTEMS

- 50,000 TONNES / YEAR

SYSTEM TECHNOLOGY

- RECTIFICATION COLUMNS
- THIN-FILM EVAPORATORS
- AGITATOR BUBBLES
- ROTARY KILNS
- AGITATOR TANKS
- THERMAL CHAMBER FOR VISCOUS SOLVENTS
- EXHAUST SYSTEM FOR HALOGENATED AND NON-HALOGENATED SOLVENTS

STORAGE CAPACITY

- TANK STORAGE FACILITY FOR NON-HALOGENATED SOLVENTS: 1,100 m³
- TANK STORAGE FACILITY FOR HALOGENATED SOLVENTS: 1,400 m³
- TANK CONTAINER STORAGE FACILITY FOR 36 TANK CONTAINERS: 1,080 m³
- CONTAINER STORAGE FACILITY: 1,200 m³

PRODUCTION OF HIGH-QUALITY DISTILLATES IN THE FIELD OF HALOGENATED AND NON-HALOGENATED ORGANIC SOLVENTS

SEPARATION OF SOLVENT MIXTURES INTO HIGH-GRADE MONO-FRACTIONS (DISTILLATES), SUCH AS TETRAHYDROFURAN (THF) / TOLUENE

RECOVERY OF SOLVENTS WITH SOLID CONTENT (USING OUR FACILITIES SUCH AS AGITATOR BUBBLE AND THIN-FILM EVAPORATOR)

SEPARATION OF MIXTURES OF HALOGENATED AND NON-HALOGENATED SOLVENTS, SUCH AS METHYLENE CHLORIDE (DICHLOROMETHANE) / IPA OR METHYLENE CHLORIDE (DICHLOROMETHANE) / ETHYL ACETATE

DRYING OF SOLVENTS DOWN TO THE PPM RANGE

CONSISTENTLY HIGH QUALITY OF THE RECOVERED SOLVENTS WITH CORRESPONDING SPECIFICATIONS (ONGOING QUALITY CONTROL IN THE IN-HOUSE LABORATORY)

CONTINUOUS THREE-SHIFT OPERATION OF THE PLANTS

SCREEN-BASED OPERATION OF THE ENTIRE PLANT USING A STATE-OF-THE-ART PLC CONTROLLER

(INTERIM) STORAGE OF FRESH AND USED SOLVENTS IN THE TANK OR TANK CONTAINER STORAGE FACILITY AND JUST-IN-TIME DELIVERY

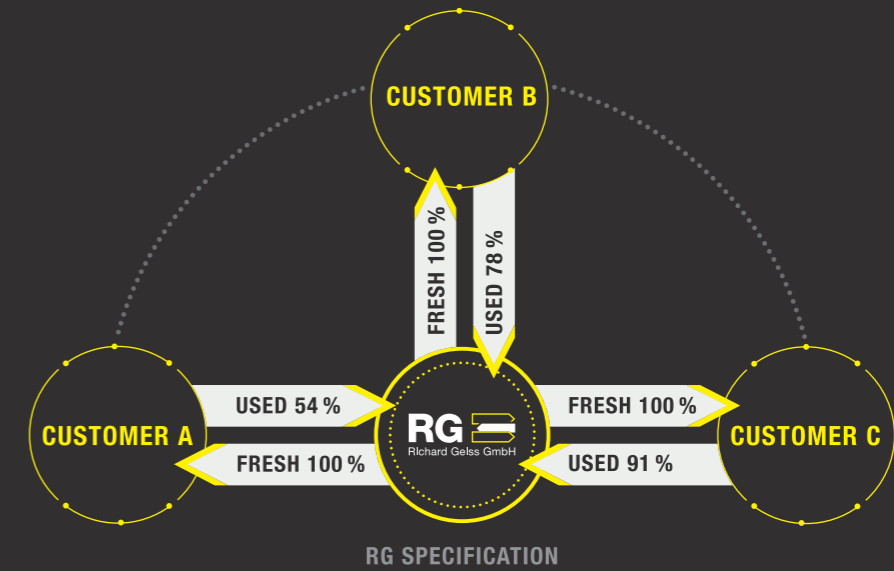


SOLVENT	PURITY	WATER CONTENT
ACETONE	≥ 99,5 %	max. 1 % or 0,6 %
ACETONITRILE (ACN)	≥ 99,5 %	max. 200, 500, 1.000 ppm
DIMETHYLFORMAMIDE (DMF)	≥ 99,0 %	1.000, 3.000 ppm
ETHANOL (ETHYL ALCOHOL)	≥ 99,0 %*	≤ 6 and ≤ 8 %
ETHYL ACETATE (ETAC)	≥ 99,0 %	1.000 ppm
ISOPROPYL ALCOHOL (IPA T)	≥ 99,5 %, ≥ 99,7 %	1.000 ppm
ISOPROPYL ALCOHOL (IPA D)	≥ 99,0 %	max. 12 %
ISOPROPYL ACETATE (IPAC)	≥ 99,5 %	1.000 ppm
METHANOL	≥ 95 %	max. 10 %
METHYL ETHYL KETONE (MEK)	≥ 99,0 %, ≥ 99,5 %	500, 1.000 ppm
METHYL ISOBUTYL KETONE (MIBK)	≥ 99,0 %	500 ppm
METHYL TERT-BUTYL ETHER	≥ 99,0 %	1.000 ppm
N-METHYLPYRROLIDONE (NMP)	≥ 99,5 %, 99,7 % and 99,8 %	500, 1.000 ppm
N-PROPANOL	≥ 99,0 %, 99,5 %	1.000 ppm
TETRAHYDROFURAN	≥ 99,5 %, 99,8 %	300, 500 ppm
TOLUENE	≥ 99,0 %, 99,5 %	max. 400 ppm
METHYLENE CHLORIDE/DICHLOROMETHANE	≥ 99,0 %, 99,5 %	max. 400, 300 ppm

* incl. denaturant, fully denatured (2-propanol/MEK and Bitrex)



- TAKEOVER OF USED SOLVENTS BY RICHARD GEISS GMBH BY OFFSETTING OR AGAINST PAYMENT.
- AFTER DISTILLATION: SALE OF THE RECOVERED SOLVENT OF SPECIFIC QUALITY. RETURN TO THE ECONOMIC CYCLE.



- THE CUSTOMER RECEIVES THE SPECIFIED RECOVERED SOLVENT FROM THE RECOVERED SOLVENT POOL OF RICHARD GEISS GMBH IN PROPORTION TO THE CALCULATED YIELD.
- THE YIELD LOSS RESULTING FROM DISTILLATION CAN BE COMPENSATED FROM THE POOL.

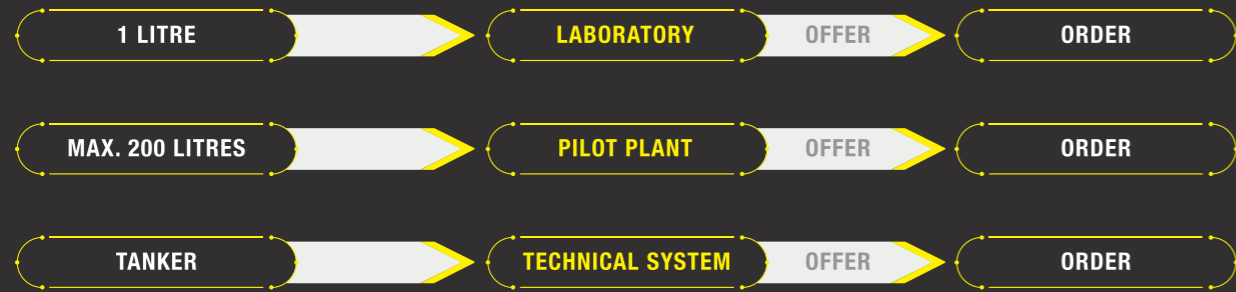


- ON RETURN DELIVERY, THE CUSTOMER RECEIVES THE ACTUAL YIELD OF THEIR USED SOLVENT.
- THE QUALITY OF THE RECOVERED SOLVENT IS INDIVIDUALLY SPECIFIED IN ADVANCE (RICHARD GEISS GMBH AND CUSTOMER). IT MAY THEREFORE DEVIATE FROM THE USUAL GEISS (POOL) SPECIFICATION.
- THE DEVIATION RESULTS FROM THE PURITY LEVEL SPECIFIED BY BOTH PARTIES.

Projecting is the preparation of a distillation task requested by a customer. For this purpose, Richard Geiss has various distillation equipment at its disposal. The trial distillation is aimed at making realistic predictions as to feasibility, quality and costs.

Depending on the choice of the distillation equipment, the customer can also be provided with different distillate volumes (1 litre up to 25,000 litres) for use tests or sampling.

The legal requirements for the storage of solvents are at least as stringent as those for their disposal. Environmental protection and the safe handling of solvents are important, which is why the sophisticated safety systems of Richard Geiss GmbH even exceed the statutory requirements.



CERTIFICATES AND APPROVALS

- QM 9001
- UM 14001
- AMS 45001
- EFB (WASTE MANAGEMENT FACILITY)
- SQAS
- APPROVAL TO PRODUCE BRANDY AND ENERGY PRODUCTS USING THE COMPANY'S OWN TAX WAREHOUSE
- LICENCE FOR DENATURATION



THE SAFETY SYSTEM

AN INNOVATIVE SOLUTION

- MULTIPLE EXHAUST AIR TREATMENT SYSTEMS (EXHAUST AIR SPECIFICALLY TAILORED TO THE TYPE OF SOLVENT, CHLORINATED OR NON-CHLORINATED)
- FLOOR PROTECTION USING COLLECTION TRAYS ACCORDING TO THE FRESCO-1 SYSTEM (BY THE COMPANY QUINING)
- SECURE AREAS WITH VIDEO SURVEILLANCE AND FENCING
- 24-HOUR CENTRAL MANNED CONTROL ROOM
- IN-HOUSE FIRE PREVENTION CENTRE STORING 7,000 LITRES OF EXTINGUISHING FOAM AND UP TO 250 m³/h WATER FOR FIREFIGHTING
- FIRE TRAILER WITH 2,000 LITRES OF EXTINGUISHING FOAM AND FOAM WATER CANNON
- ADDITIONAL COOLING OF TANK STORAGE SECTIONS BY SPRINKLING



