



**Design:
Individual
Construction:
Industrial**



ALCO Construction System TRELEMENT









Design: Individual Construction: Industrial

The uniformity and monotony of densely built-up areas gives rise to a desire for individual architectural style. Yet it has never been as difficult as today to apply individual architecture. Constantly rising costs make prefabrication a necessity.

But do we have to renounce individual design for the sake of an industrial method of construction?

In our opinion: no. The solution is:
ALCO Construction System TRELEMENT.

The solution is: ALCO Construction System TRELEMENT

An amazingly simple construction principle

The ALCO Construction System TRELEMENT combines all the advantages of industrialized construction with individual freedom of design.

A few construction elements prefabricated in large cost-saving series of high-grade aluminium alloy offer unsurpassed possibilities for functional and individual design. Exclusivity, solidity and creative design supplement each other in an ideal manner.

By using the ALCO Construction System TRELEMENT the planner is relieved of technical problems and thus able to concentrate entirely on function and esthetics. The system offers him possibilities of creating exciting lay-outs, which harmonize with the site and the surrounding scenery.

The structural frame consists of three basic aluminium components only: column, beam and connector. The beams meeting at an angle of 60° are screw-joined to the columns and connectors.

The principle of this system is thus a grid of equilateral triangles (length of side 2.3 m) instead of the conventional rectangle. It presents a new and exciting approach to the planning of buildings — interesting and dynamic plan forms emerge.

The construction, material, and arrangement of the walls can be chosen at will. Prefabricated elements simplify the operation. The star-shaped columns are given their own part with regard to function and design of the whole.

ALCO Construction System TRELEMENT plus JUNIOR SystemBau:

The economical solution to the problems of contemporary building

The system:

- combines all the advantages of industrialized construction with optimal freedom of design.
- economy of scale through production of large series
- little time needed for erection
- no cranes or other lifting tackle required on site
- the possibility of subsequent extension, reduction, alteration, even removal and re-erection of the buildings
- unrestricted choice of material and arrangement of the walls
- exclusive and of high quality
- proves its worth anew daily with the construction of office and administration buildings, schools and kindergartens, computer centres, motels, restaurants, shopping centres, exhibition buildings, leisure and community centres, luxury bungalows etc. etc.

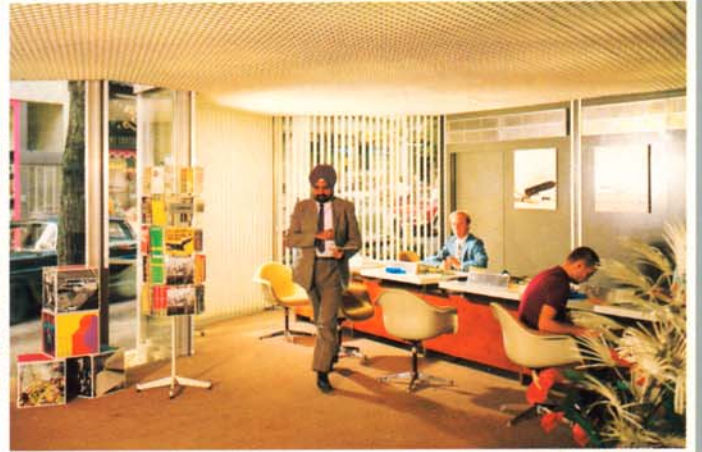
The company:

- many years of experience in different areas of the building industry
- 20 subsidiaries in Europe and in the Middle East
- every TRELEMENT project benefits from the group's long accumulated international experience
- fixed prices and completion dates
- turn-key execution of your project
- we work as general contractors — your advantage: all problems will be solved by us.

Let us solve your problems for you.



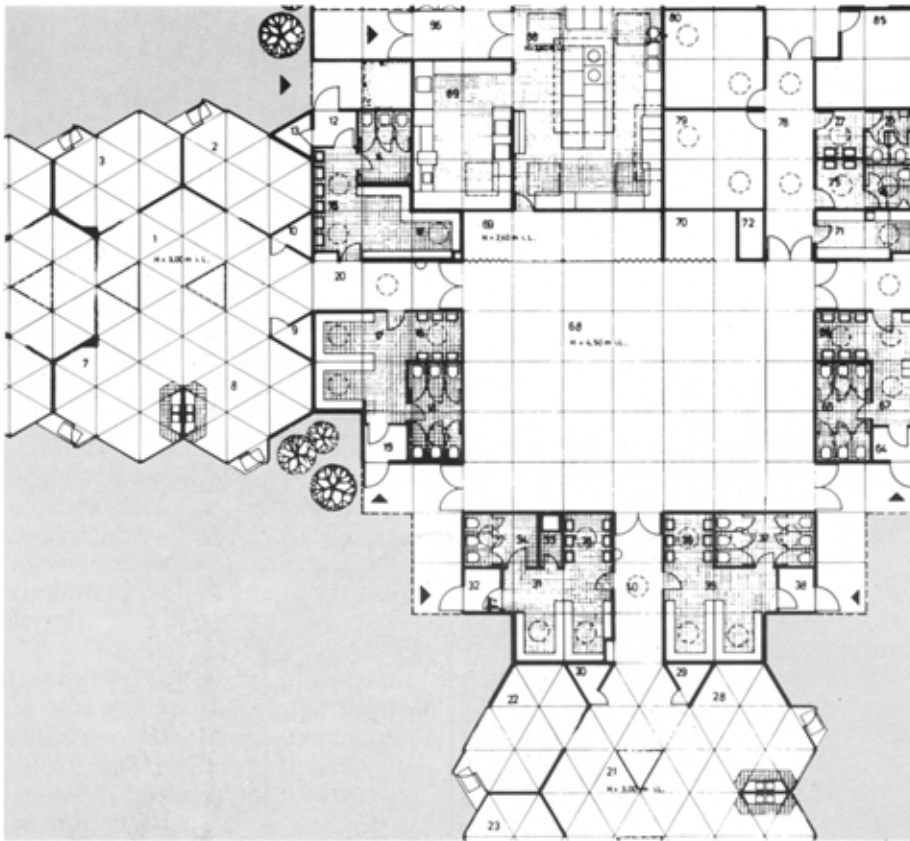






JUNIOR SystemBau





**The individual
solution for
every building
problem.
Turnkey.**



ALCO Construction Systems



ALCO RRS Construction System Rectangular – grid steel

This system is ideal for single and double storey buildings with a conventional rectangular layout.

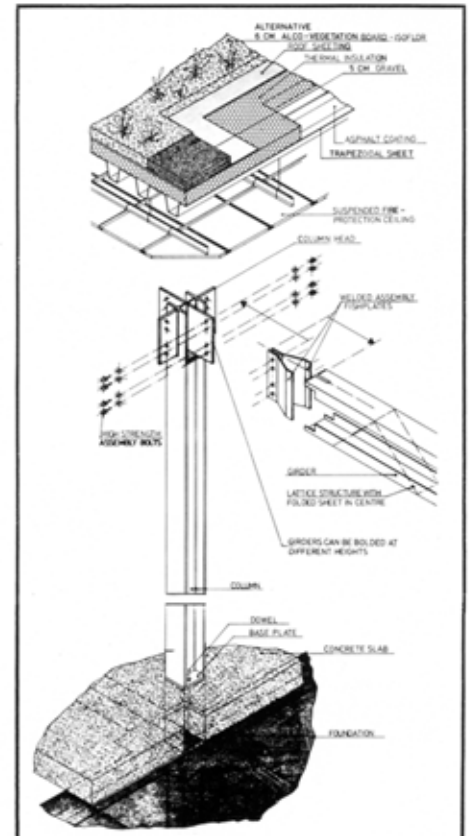
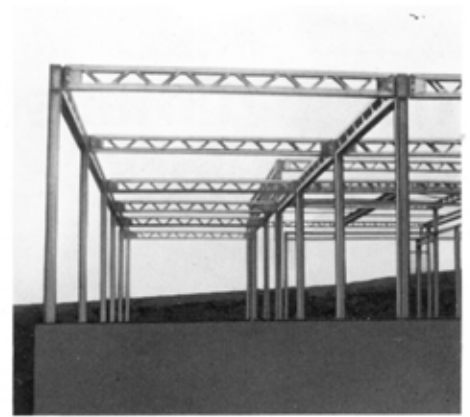
The design basis is the European grid, i.e. 1200 mm, (for a column grid 4800 mm). RRS is a design consisting of corrosion protected rolled sections as columns with welded base plates and head flanges to which e.g. lattice girders are bolted as horizontal framework members. The flanges may be bolted on at various construction heights so that terrace structures, intermediate ceilings and similar requirements can be met without any problem.

The maximum span is approx. 20 metres.

As with all ALCO construction systems the foundations are isolated or continuous footing foundations, foundation slabs, basement ceiling slabs or pedestal storeys.

Non-loadbearing wall elements, windows and doors in a variety of designs, materials and sizes are available for the exterior facade and interior layout.

According to the needs of location and purpose the construction requirements regarding fire protection, thermal insulation and soundproofing can be met for structures built in the ALCO RRS construction system too.



ALCO RRA Construction System Rectangular – grid aluminium

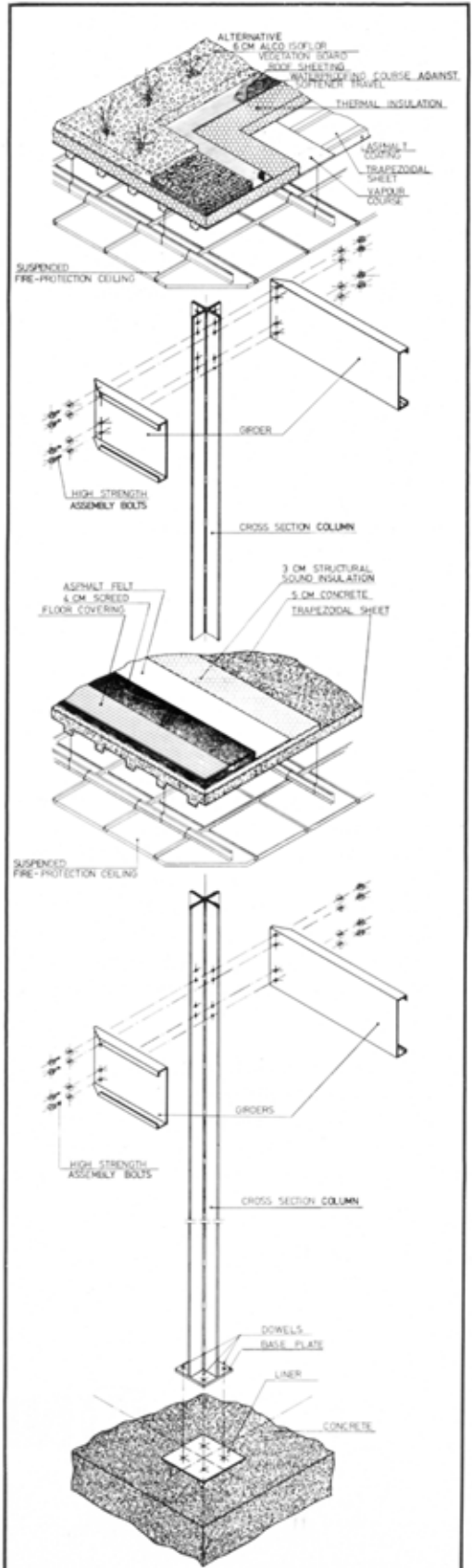
'RRA' is a new development for those projects for which the proven advantages of the ALCO Trelement construction system are desired, but for which for architectural or functional reasons the rectangular form is preferred.

The skeleton consists of aluminium. This means a low transport weight, makes lifting gear on the site superfluous and facilitates assembly – ideal conditions for structures in distant, underdeveloped or inaccessible regions. (The same construction material, used for a satellite observation station in Zaire, was brought to the site via helicopter.)

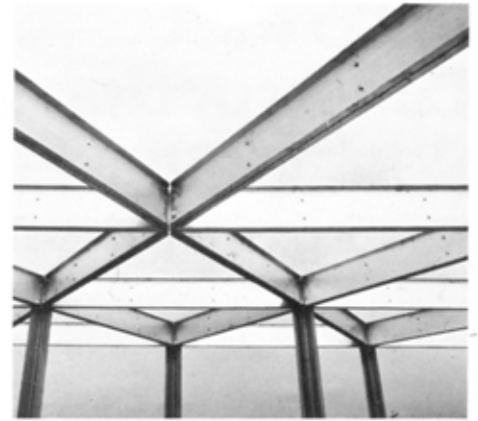
The fact that structures in this system can be modified at any time, dismantled and erected elsewhere, makes it particularly suitable e.g. for residential camps on large construction sites.

In 1977 14 schools, some of them double storey structures, with altogether approximately 40,000 m² useful floor area were constructed in Saudi Arabia in accordance with the ALCO RRA construction system.

The structural and static basis of the design is such that with the European grid (1200 mm) and a column grid of 2400 mm or 3600 mm optimum spans can be achieved like those possible with the hexagonal forms of the ALCO Trelement structural system.



ALCO 'Trelement' Construction System



Individual design, variability, flexibility and exclusiveness together with high economy and functionalism are the criteria which have brought the ALCO Trelement construction system its extraordinary international marketing success.

The principle is a grid of equilateral triangles with a side length of 2300 mm or 2500 mm on which an aluminium skeleton structure consisting of 3 elements is erected for construction at-grade.

As with all ALCO construction systems the wall structure, materials and distribution can be selected practically at will. Industrially pre-fabricated elements facilitate the interior finish.



Turnkey – that's not just a catchword for us. When we hand over the key to your building you can move in at once. Turnkey construction – for us that means short construction time, fixed schedules and guaranteed fixed prices. This is a logical consequence of the matured ALCO construction systems.

By the way:

With ALCO construction systems you can not only build troublefree to an exactly predetermined quality but you can also expand, reduce or modify the structure at any time.

Our customer service is at your unrestricted service for such tasks at any time.

It does not matter whether you, your architect or we handled the planning – we build quickly, exactly and beautifully for you. With ALCO construction systems.

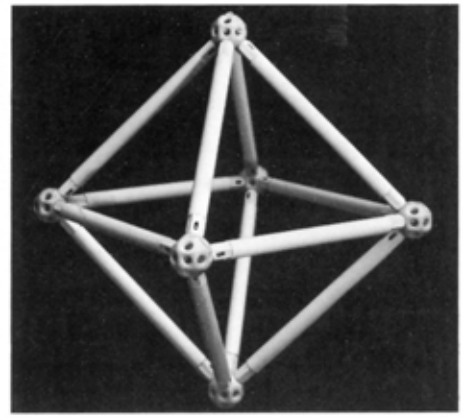
Branches in: Düsseldorf, Goslar, Hamburg, Hanover, Karlsruhe, Munich, Belgium, France, Iran, The Netherlands, Austria

JUNIOR SystemBau



ALCO MERO

Three-dimensional framework



Sports halls, supermarkets, exhibition halls etc. often require spans which cause considerable expense in traditional steel structures.

ALCO MERO three-dimensional framework is the ideal solution for such cases. It forms inherently rigid framework plates in hot galvanised or colour coated steel joints and members which do not require any horizontal lateral or stabilising bracing at roof level. The three-dimensional framework can be used on its own or in conjunction with all ALCO construction systems.



Framework plates are also an architectural design element of great beauty in room structures.

ALCO complete system

Projects comprising different types of buildings are also carried out by JUNIOR SystemBau, for instance when production or warehouse facilities are to be erected in conjunction with an administration building in the ALCO construction system.

In such cases an industrial shed of the Hoesch System supplements the JUNIOR SystemBau range in a formally acceptable and economically advantageous manner.

An example for the ALCO Complete System is the glass production shed and warehouse illustrated which has been combined with an exhibition facility (in this case in the ALCO Trelement construction system).

Exterior facilities such as e.g. gardens and the complete interior furnishings down to the china form a part of our complete system too.

