# Overview of all synthesis attachments

Code	Name	Description	Colour	Ident. No.
H 135.3	Carrier plate	Ø 135 mm	Green	3904000
H 135.310	*Quarter, 20 ml reaction vessel	4 bore holes (Ø 28 mm, 24 mm deep)	Black	3904100
H 135.311	*Quarter, 30 ml reaction vessel	4 bore holes (Ø 28 mm, 30 mm deep)	Green	3904200
H 135.312	*Quarter, 40 ml reaction vessel	4 bore holes (Ø 28 mm, 42,8 mm deep)	Orange	3904300
H 135.313	*Quarter, 4 ml reaction vessel	9 bore holes (Ø 15,2 mm, 19 mm deep)	Gold	3904400
H 135.314	*Quarter, 8 ml reaction vessel	8 bore holes (Ø 17,75 mm, 25,5 mm deep)	Blue	3904500
H 135.315	*Quarter, 16 ml reaction vessel	4 bore holes (Ø 21,6 mm, 31,7 mm deep)	Red	3904600



H 135.3 Carrier plate



H 135.310 Quarter 20 ml



H 135.311 Quarter 30 ml



H 135.312 Quarter 40 ml



H 135.313 Quarter 4 ml



H 135.314 Quarter 8 ml



H 135.315 Quarter 16 ml

Code	Name	Suitable inserts	Colour	Ident. No.
H 135.4	*Reaction block, 100 ml round flask	H 135.410, H 135.411, H 135.412	Black	3904700
H 135.5	*Reaction block, 500 ml round flask	H 135.510, H 135.511, H 135.512	Purple	3905100
H 135.6	*Reaction block, 1.000 ml round flask	H 135.610	Blue	3905600
H 135.410	*Insert, 10 ml round flask		Gold	3904800
H 135.411	*Insert, 25 ml round flask		Blue	3904900
H 135.412	*Insert, 50 ml round flask		Red	3905000
H 135.510	*Insert, 200 ml round flask		Turquoise	3905200
H 135.511	*Insert, 250 ml round flask		Clear	3905300
H 135.512	*Insert, 300 ml round flask		Black	3905400
H 135.610	*Insert, 500 ml round flask		Purple	3905500



H 135.4 Reaction block 100 ml



H 135.410



H 135.411 Insert 25 ml



H 135.412 Insert 50 ml



H 135.5 Reaction block 500 ml



H 135.510



H 135.511 Insert 250 ml



H 135.512 Insert 300 ml



H 135.6 Reaction block 1.000 ml



H 135.610

\*Glassware not included

All attachments can be used in conjunction with the following IKA® devices: RCT basic, RET basic, RET control/t, RET control-visc.



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Subject to technical change. Contents of supplied package may vary.

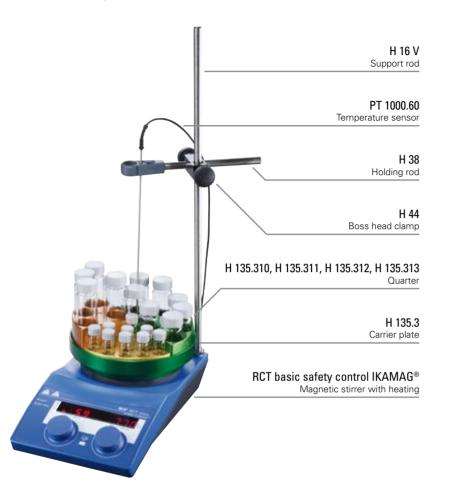


# **Synthesis Attachments**





## Quarter System



The carrier plate can be fitted with four identical or differing aluminium quarters, allowing up to 36 reaction vessels to be processed at the same time. The aluminium quarters guarantee optimal heat transfer throughout the process with no interference to the magnetic field. This ensures that all the containers are processed at the same temperature and that the contents are uniformly mixed. The different colours used for the various quarters makes them easier to distinguish.

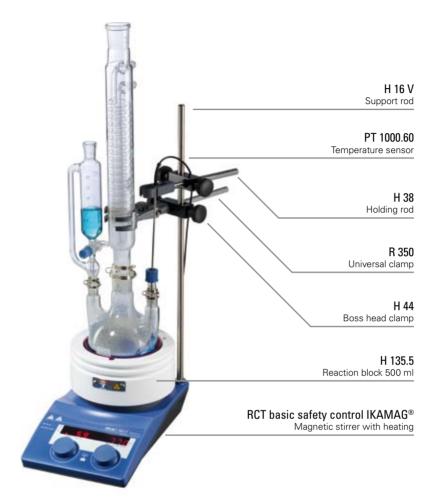
- Multiple synthesis with only one magnetic stirrer
- Uniform mixing in every vessel
- High-precision thermal conduction directly into the quarters
- Same temperature in all vessels
- Wide range of applications thanks to exchangeable quarters
- Safe and clean working

Ident. No. RCT Synthesis Package 1 8025100

#### **APPLICATIONS // Quarter System**

- Synthesis of/research into: pharmaceuticals, dyes, surfactants, plastics, catalysts, perfumes and aromatic substances, pesticides, and natural materials
- Crystallisations
- Thermal analyses (e.g. solubilisation, hydrolisation)
- Medical: Incubation and activation of cultures, enzyme reactions, Immunoassays, etc.
- Determining melting points and flash points

### Reaction Block System



The reaction block allows synthesis to be carried out in round flasks at temperatures of up to 180 °C and replaces processes using sand and oil baths. This system ensures optimal heat transfer from the heating plate directly into the medium. Uniform mixing is also guaranteed because there is no interference to the magnetic field from the aluminium blocks. The Teflon coating prevents burning and ensures that working with the system is safe. Reaction blocks are available in three standard sizes. These can be adapted to various flask sizes using the appropriate inserts.

- Synthesis in round flasks at up to 180 °C
- Uniform mixing
- High-precision thermal conduction directly into the reaction block
- Teflon coating protects against burning
- Wide range of applications thanks to exchangeable inserts
- Safe and clean working

Ident. No. RCT Synthesis Package 2 8025200

#### **APPLICATIONS** // Reaction Block System

- Synthesis of/research into: pharmaceuticals (e.g. aspirin), pesticides (e.g. cyclopentadiene), dyes (e.g. flourescein), surfactants (e.g. curd soap), plastics, catalysts, perfumes and aromatic substances (e.g. pentyl ester of acetic acid), and natural materials (e.g. cellulose using the Acetosolv method)
- Laboratory synthesis of biodiesel (e.g. from rapeseed oil)
- Grignard reactions
- Synthesis of benzoic acid
- Carrying out extractions
- Evaporation of solid material
- Crystallisations
- Performing simple distillations