



Application

KOMPAnion-MER plants are designed for reclaiming of metals from pre-treatment and pre-rinsing processes in individual streams. They also can be employed for the conversion of chlorides in the presence of concentrated metal sulphates.

The application is possible to (list non-exhaustive):

- Rinse water from still rinses
- Rinse water from pre rinses
- Concentrate (diluted) has to be treated together with rinse water

Rinse water containing peroxide has to be pre-treated.

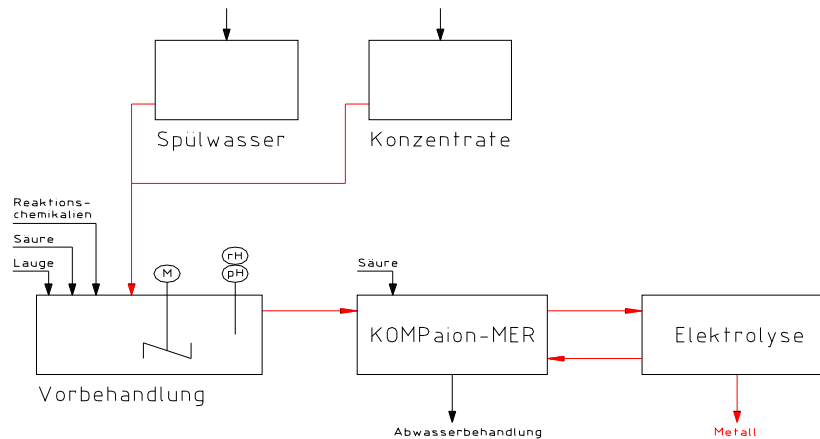
Process Characteristics

The partial flow containing the metal to be recovered is collected separately from the other waste water streams.

The collected rinse water is pumped through a two-stage ion exchanger.

The resin of the ion exchanger is charged nearly to the full load state; thereafter, the regeneration is started.

By means of multi level regeneration process, which enables the repeated use of the regeneration acid, a high concentrated metal salt solution is produced.



Type	MER 2-15	MER 4-25	MER 6-32	MER 8-40
Capacity m ³ /hr	2	4	6	9
Piping material	PVC or PPH			
Length mm	3800	3800	4800	4800
Width mm	800	800	900	1000
Height mm	2000	2000	2200	2200

Length, width and height without the necessary collecting tank

Description of the plant

The KOMPaion-MER-Line plants include the following assembly groups:

- Pre filtration (sand or cartridge filter)
- Ion exchange stage, 2 columns with cation exchange resin
- Regeneration stage

In the KOMPaion-MER-Line ion exchange plants, the advantages of the series train configuration are used. The primary exchanger is operated until the complete depletion of the resin and after that has to be regenerated. During the regeneration of the primary exchanger, the second column captures every ion leakage. Once regenerated, the previously primary exchanger is placed behind the other column and thus becomes the secondary exchanger and vice versa.

The operation of the plant is divided in following main steps:

- Loading: removal of ions from rinse water
- Regeneration: re-activation of the depleted active exchange groups with acid

Advantages

- In the case of copper recycling, the copper sulfate solution can be decoppered with electrolysis. Then the regeneration acid can be reused for the regeneration of the ion exchanger
- Low investment costs through simple design
- Modern control concept at central PLC unit
- Especially clear and dead room free tube battery

Gütling Wassertechnologie
 Merowingerstraße 7
 D - 70736 Fellbach
 Tel.: + 49 (0) 711/518550 – 0
 Fax: + 49 (0) 711/518550 – 220
 www.guetling.com
 guetling@veoliawater.com