

HYDROCHLORIC ACID REGENERATION UNIT WITH MULTIACID

TOWARDS ZERO
LIQUID DISCHARGE
HOT DIP GALVANIZING



HYDROCHLORIC ACID REGENERATION UNIT WITH MULTIACID: A STEP AHEAD IN SPENT ACID RECYCLING

HOW IT WORKS:

HCl pickling baths can be regenerated with Multiacid in a dedicated machine, following these steps:

1. Spent liquor storage
2. Suspended solids filtering
3. Processing with Multiacid
4. Insoluble iron oxide filtering
5. Regenerated acid storage
6. Full regenerated tank back to the process



THE BEST SOLUTION FOR:

- High spent acid disposal costs;
- Costly or poor supply of fresh HCl;
- Uncertain availability of disposal;
- Special environmental requirements;
- Heavy taxation on wastes



MULTIACID

MULTIACID is Soprin's answer to spent acid regeneration issue.

MULTIACID is an hydrochloric pickling baths regenerator.

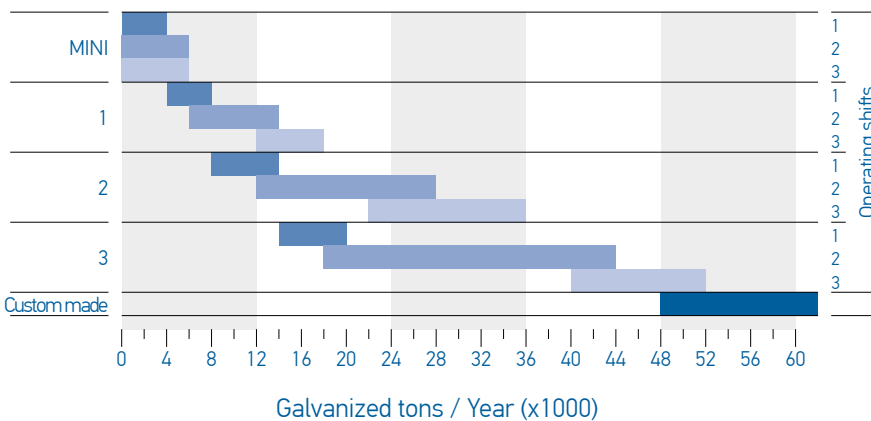
MULTIACID acts directly on ferrous chloride in the spent liquor, reversing pickling reaction and breaking iron-chlorine chemical bond, giving back hydrochloric acid and an insoluble iron oxide that can be easily separated by filtration.

ADVANTAGES OF USING HYDROCHLORIC ACID REGENERATION UNIT (H.A.R.U.)

- 95% reduction of new HCl acid purchasing costs;
- No more spent liquor disposal;
- No more spent HCl tank trucks to be dispatched to treatment centers;
- Steady pickling efficiency, since process parameters remain optimal;
- Easy and safe process, which doesn't generate any emission;
- Zero liquid volume balance, since Multiacid is a crystalline salt which doesn't increase the volume of processed liquor.

SELECTION TABLE

A complete built-in container size unit, plug and play designed to be ready for start up.



LEGEND:

- 1 Filtering / Deoiling device
- 2 Reactor
- 3 Loading hopper
- 4 Filtering unit
- 5 Cake washing system
- 6 Regenerated acid buffer
- 7 Control panel
- 8 Cake discharge hopper

SOLID RESIDUE



TECHNICAL SPECIFICATIONS:

	MINI	1	2	3
Batch volume [liters/gallons]	750/198	2500/660	5000/1320	7500/1980
Installed power [kW]	5	10	15	18
Voltage	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
Compressed air requirement [NI/min]	1000	1500	2000	2000
Compressed air minimum pressure [bar/psi]	6/87	6/87	6/87	6/87

Notes (technical specifications may vary):

- US standard voltage available on request
- Additional heating system requires 22 kW more power

	MINI	1	2	3
Dimensions L x W x H [mm/ft]	2438 x 1219 x 1422 8' x 4' x 4'8" (2 units)	6096 x 2438 x 2591/ 20' x 8' x 8'6"	6096 x 2438 x 2591/ 20' x 8' x 8'6" (2 units)	6096 x 2438 x 2591/ 20' x 8' x 8'6" (2 units)
Empty weight [kg/lbs]	Unit 1: 320/704 Unit 2: 700/1543	9500/20944	9500/20944 (2 units)	9500/20944 (2 units)
Full load weight [kg/lbs]	Unit 1: 2000/4400 Unit 2: 800/1760	13500/29744	13500/29744 (2 units)	13500/29744 (2 units)

CONNECTIONS	MINI	1	2	3
Spent acid	DN32	DN40	DN40	DN40
Regenerated acid	DN32	DN40	DN40	DN40
Water	¾"	1"	1"	1"
Compressed air	¾"	1"	1"	1"



soprin

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