

NORAM
SULFURIC ACID
Products and Services

NORAM SX[®] ACID DISTRIBUTORS



The purpose of the acid distributor is to distribute acid uniformly at the top of the tower for optimum absorption efficiency of the packing. The acid distributor should be able to operate continuously and reliably for long periods, at varying loads, without becoming plugged, creating acid spray or affecting tower pressure drop. Installation should be easy, maintenance should be low. Finally a cost effective, long service life is desired.

All acid plants and towers are unique, and that is why not all these demands can be satisfied with one and the same distributor. Depending on the specific operational data, required performance and cost, varying demands is set for the acid distributor. By evaluating each individual case the most effective distributor solution meeting any client's requirements can be proposed.



NORAM SX® Trough Acid Distributor



NORAM SX® SMART™ Acid Distributor

All main parts of the distributors are manufactured from NORAM SX® resulting in an extremely low corrosion, lightweight equipment with service lives of 20+ years.

The **NORAM SX® Pipe Acid Distributor** is a cost effective design with very reliable performance. An acid header and pipe arms with orifices distributes the acid on top of the packing. Attention is paid to minimize gas velocity and acid spray formation. The design permits a very easy installation and is particularly suitable for replacement of old acid distributors. Its uniform “flat” configuration creates additional space to add more packing.

The **NORAM SX® Trough Acid Distributor** is a high efficiency design with very uniform and well dispersed acid distribution. Troughs with evenly spaced downcomer tubes distribute the acid through gravity flow into the packing for optimum performance and minimal spray formation. The design prevents debris in the acid from obstructing the downcomer tubes and the acid flow in the troughs can be inspected performance towers.

The **NORAM SX® SMART™ Acid Distributor** is a proprietary, multipurpose design comprised of radial pipes equipped with FEP downcomer tubes. The design provides a flexible, uniform acid flow, minimizing gas flow restriction and acid spray formation. Particularly suitable for new towers where external inspection ports can allow inspection and cleaning of the distributor without tower entry.



NORAM ENGINEERING AND CONSTRUCTORS LTD.

Suite #1800 – 200 Granville Street
Vancouver, British Columbia, Canada, V6C1S4
Tel: 604-681-2030 Fax: 604-683-9164

E-mail: acid@noram-eng.com Website: www.noram-eng.com

Ask about the products and services
NORAM supplies to the sulfuric acid industry:

NORAM PLANTS, PROCESSES, SYSTEMS, AND PROCESS EQUIPMENT

NORAM PLANT UPGRADE AND DEBOTTLENECKING ENGINEERING STUDIES
NORAM/CPPE HYBRID SULFURIC ACID PROCESS (HSAP)
NORAM CLEAN START™ PROCESS
NORAM PLANT PREHEATING SYSTEMS
NORAM'S TURBOSCRUBBER FOR GAS SCRUBBING
NORAM STAINLESS STEEL CATALYTIC CONVERTERS
NORAM RF™ RADIAL FLOW GAS-TO-GAS HEAT EXCHANGERS
NORAM SF™ SPLIT FLOW GAS-TO-GAS HEAT EXCHANGERS
NORAM BRICK-LINED ACID TOWERS
NORAM SULFUR & SPENT ACID BURNERS
NORAM CELLCHEM SULFUR BURNERS
NORAM ANODICALLY PROTECTED ACID COOLERS
NORAM SX® ACID COOLERS
NORAM SX® TOWERS AND NORAM SX® PUMP TANKS

NORAM EQUIPMENT INTERNALS, PERIPHERALS AND ANCILLARY EQUIPMENT

NORAM HP™ SADDLE PACKING FOR ACID TOWERS
NORAM SMART™ ACID DISTRIBUTORS FOR ACID TOWERS
NORAM TROUGH ACID DISTRIBUTORS FOR ACID TOWERS
NORAM SX® CHIPGUARD CG™ ACID STRAINER
NORAM ENTRAINMENT MITIGATION DEVICE (EMD)
NORAM ACID DILUTION SYSTEMS
NORAM SX® MATERIAL
NORAM SX® ACID DISTRIBUTORS
NORAM SX® PIPING
NORAM SX® VALVES
NORAM GAS DUCTING
NORAM DAMPER
NORAM SULFUR GUNS

NORAM ENGINEERING AND CONSTRUCTORS LTD.

Suite #1800 – 200 Granville Street
Vancouver, British Columbia, Canada, V6C1S4
Tel: 604-681-2030 Fax: 604-683-9164
E-mail: acid@noram-eng.com Website: www.noram-eng.com