



HAZEMAG Rapid Dryer | HRD





HRD | thermally-mild drying

Application

The thermal drying (wafer vaporisation) in the rapid dryer provides for diverse application in a wide spectrum of materials including:

Clay and loam, limestone chippings, puzzuolana, iron ore, aluminium hydroxide, gypsum (natural, chemical, flue gas), fluorspar, bauxite, ...

These materials mostly comprise moist filter cake (25 - 30 % moisture) or pasty products and must be dried down to given values of moisture, defined by following steps of the material processing.

Process | Procedure

Hot gas and feed material are passing the dryer in parallel flow. The feed material is mechanical agitated with the flow blades mounted on the two shafts. Therefore the material is optimally broken up and dispersed. This results in a thermally-mild drying within short time, without overheating the material and thereby causing material damages.

Hot gas

Generally, drying gases are provided by a hot gas generator fuelled with oil or naturalgas. The hot flue gas temperature is between 932 °F and 1,472 °F.

Structure

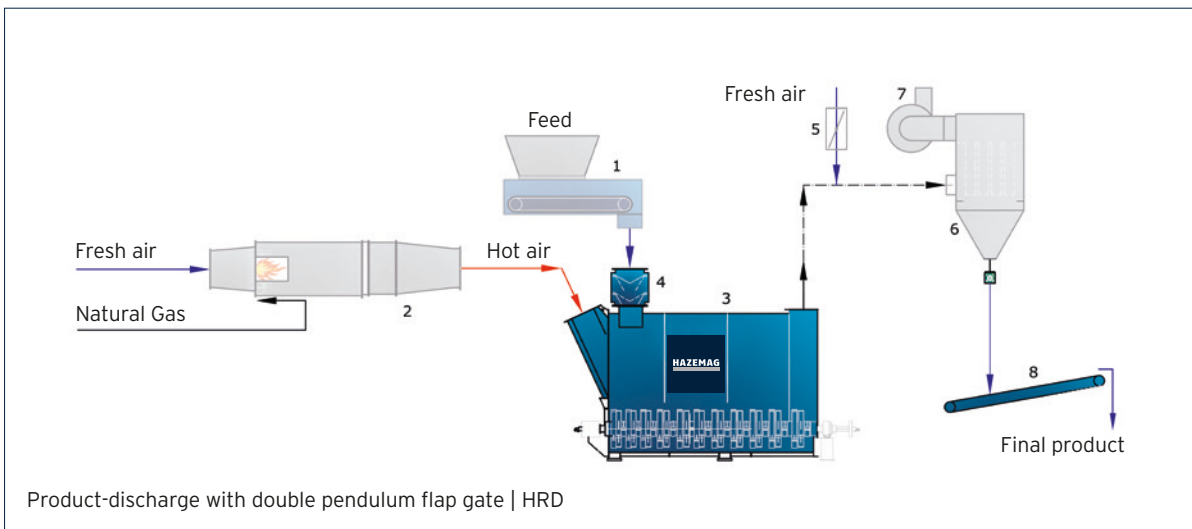
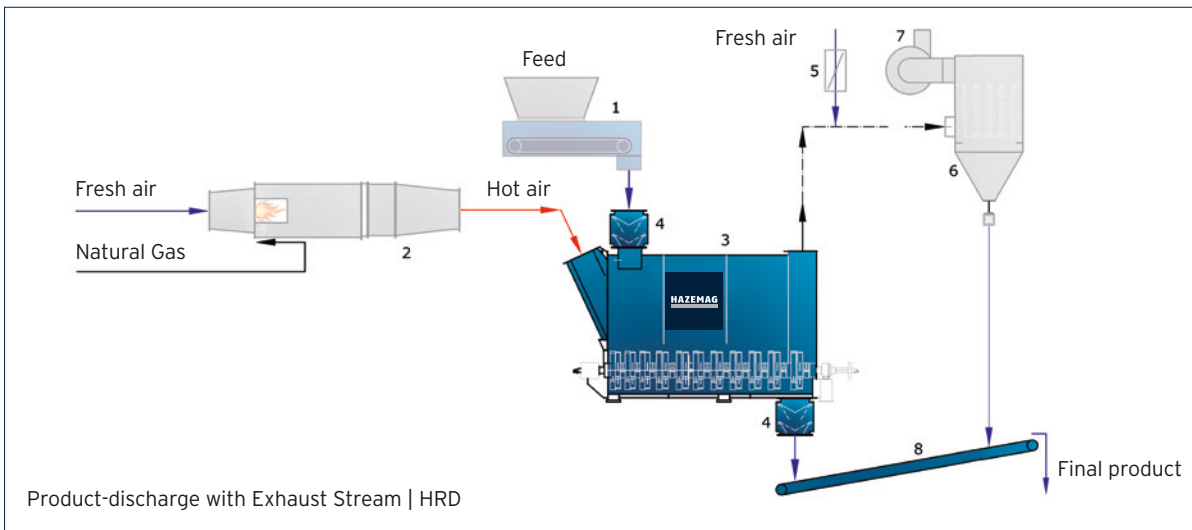
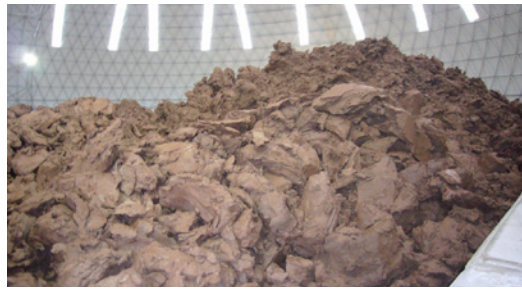
The rapid dryer consists of frame, housing lower part, housing upper part, hot gas nozzles, exhaust gas nozzles and drive units.

In the housing lower part two rotating agitator shafts are assembled. The dryer is partially protected against wear with a lining in the interior compartment. The agitator shafts are equipped with throw arms on which throw blades are bolted. The shaft bearings at the reeder side are cooled with water, if required. Internal height adjustable compartment walls control the dwell time of the feed material.

Type	Agitator Shaft Dimensions [Inch]	max. Water Vaporisation* [lb/h]
HRD 0630	25 x 120	1,500
HRD 0637	25 x 150	1,800
HRD 0837	30 x 150	3,000
HRD 0940	35 x 160	6,200
HRD 0946	35 x 180	8,400
HRD 1051	40 x 200	11,200
HRD 1061	40 x 240	14,600
HRD 1261	50 x 240	22,000/29,800
HRD 1861	70 x 240	37,500/46,300
HRD 2170	85 x 280	59,500

* depending on feed material size distribution and density







Rapid Dryer HRD – HAZEMAG is the specialist