

Overview of processes in different industrial sectors structured by typical temperature ranges

Sector	Process	20	40	60	80	100	120	140	160	180	200	[°C]
Paper	Drying											90 - 240
	Boiling											110 - 180
	Bleaching											40 - 150
	De-inking											50 - 70
Food & Beverages	Drying											40 - 250
	Evaporation											40 - 170
	Pasteurisation											60 - 150
	Sterilization											100 - 140
	Boiling											70 - 120
	Distillation											40 - 100
	Blanching											60 - 90
	Scalding											50 - 90
	Concentration											60 - 80
	Tempering											40 - 80
	Smoking											20 - 80
Chemicals	Distillation											100 - 300
	Compression											110 - 170
	Thermoforming											130 - 160
	Concentration											120 - 140
	Boiling											80 - 110
	Bioreactions											20 - 60
Automotive	Resin moulding											70 - 130
	Paint Drying											160 - 200
Metal	Drying											60 - 200
	Pickling											20 - 100
	Degreasing											20 - 100
	Electroplating											30 - 90
	Phosphating											30 - 90
	Chrome plating											20 - 80
	Purging											40 - 70
Plastic	Injection moulding											90 - 300
	Pellets drying											40 - 150
	Preheating											50 - 70
Mechanical engineering	Surface treatment											20 - 120
	Cleaning											40 - 90
Textile	Colouring											40 - 160
	Drying											60 - 130
	Washing											40 - 110
	Bleaching											40 - 100
Wood	Gluing											120 - 180
	Pressing											120 - 170
	Drying											40 - 150
	Steaming											70 - 100
	Cocking											80 - 90
	Staining											50 - 80
	Pickling											40 - 70
Other sectors	Hot water											20 - 110
	Preheating											20 - 100
	Washing/cleaning											30 - 90
	Space heating											20 - 80

Source: Adapted from: Arpagaus ed al. "High temperature heat pumps: Market overview, state of the art, research status, refrigerants and application potentials" 2017