

Dehydration Systems for Fruits & Vegetables







TAREND Dehydration systems operate at low energy levels and reduce labor costs significantly.

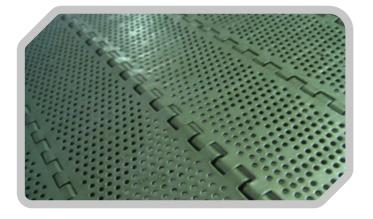
Growing demand for dried fruits and vegetables is increasing the need of using efficient dyring systems.

TAREND with its 30+ years experience is providing economic, hygienic and efficient solutions. TAREND Dehydration systems allow its users to dry almost all kinds of fruits, vegetables and herbs such as apples, apricots, grapes, tomatoes, carrots, onions, persley and many others.

TAREND Dehydration systems are continuous, multistage and belt type dryers. Products are carried on a perforated stainless steel belt and dried with heated forced air.

This unique system prevents aflatoxin and bacteria existence which allows users to dry products in hygienic conditions.





TAREND Dehydration systems are designed and manufactured based on below parameters.

- Product type and size
- Required capacity for dried product (kg/hour)
- Inlet / outlet moisture level of the product
- Type of Energy source to be used

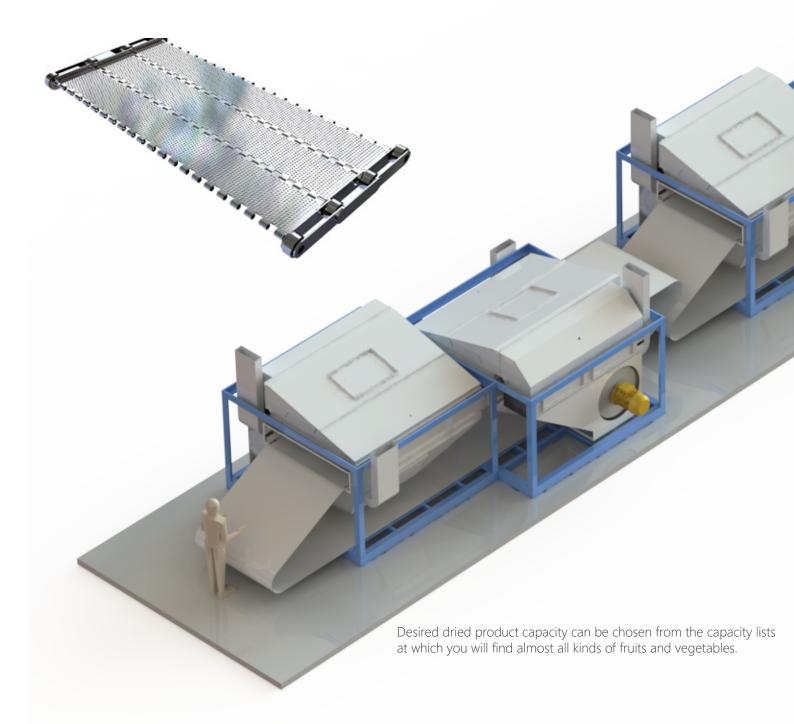
Dehydration Systems

TAREND Dehydration Systems can be provided with single, double or triple drying stages. Each stage is composed of modular 2.5 meters long drying units. Number of drying units in each stage is set according to the desired output capacity (kg/hour). A single drying unit has 120.000 kcal/hour energy capacity. Since the system is composed of modular drying units, it is possible to add up to 10 drying units to a single stage to increase the capacity.

Stages are connected to each other with a connection belt. Products pass through outside atmosphere on connection belt which improves drying quality and throughput times.

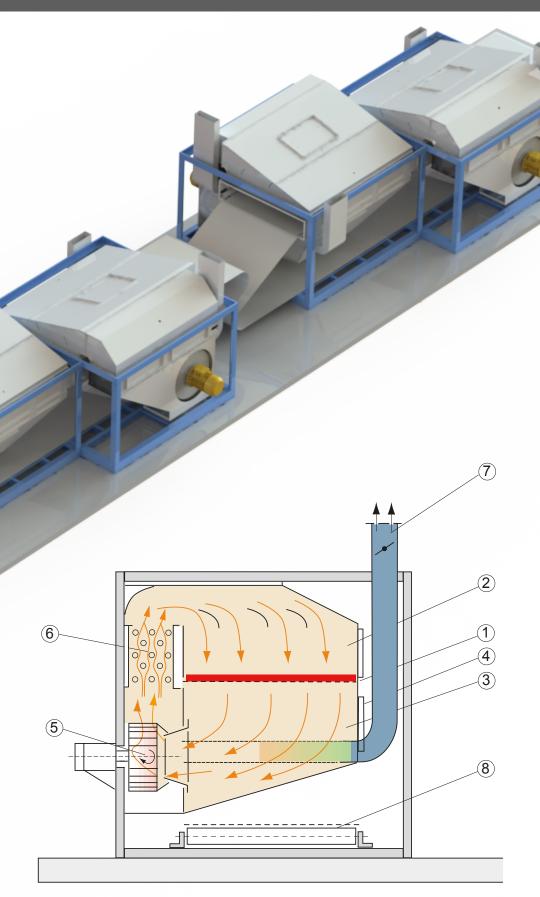
Perforated stainless steel belt is used in TAREND Dehydration systems. Belt is supported by chains at both ends and by wheels in the middle. Wheel support allows the belt to carry heavy loads. Perforated structure of the belt helps the air to ventilate through the products and improves overall drying.

Automatic cleaning system which is placed on the return strand of the belt allows easy cleaning of the system.



Highlights

- ▶ Hygienic and clean manufacturing technology which prevents aflatoxin and bacteria existence
- ▶ High efficiency with low energy consumption
- ▶ Reduced labor cost
- ▶ Flexible design which allows to work with different energy sources



Sectional View of a drying unit

- 1. Perforated Stainless Steel Belt
- 2. Upper air chamber
- 3. Lower air chamber
- 4. Cleaning door
- 5. Fan
- 6. Heat Exchanger
- 7. Exhaust Air
- 8. Belt Return Strand

Dehydration Systems

Raw Materials

All materials with direct contact to products are made of stainless steel to ensure hygiene of the system. We propose 3 options to our customers for the body of the drying units; stainless steel, galvanized steel and painted steel. While stainless steel body has the longest product life, painted steel body is the most cost effective solution.

Control

Each drying unit has a temperature sensor which allows to control the air temperature at each drying unit and it enables to achieve optimum time/temperature curves with each product.

Energy Source

TAREND Deyhdration Systems can work with almost all kinds of energy sources such as LPG, diesel, coal, geothermal and many more. To minimize heat loss and fuel consumption, drying units are isolated with polyurethane sanwich panels. To enable the easy maintenance, a cleaning door is available on the panel of each drying unit.

Cooling Unit

High temperature of the final products need a certain period of time for cooling before final packing process. Cooling unit at the end of the system speeds up cooling process and increase overall efficiency.



Triple Stage Dryers Capacities

		%	% ә	T 2-2-2	.2	T 3-3-3	.3	T 4-4-4	4	T 5-5-5	2	1 6-6-6		T-7-7 T	-	T 8-8-8	-	6-6-6 T	T 10	T 10-10-10		T 11-11-11	T 12	T 12-12-12
Product	Size	oruteioN	nutsioN	kg / hour	'n	kg / hour	'n	kg / hour	'n	kg / hour		kg / hour		kg / hour	ķ	kg / hour	, k	kg / hour	kg	kg / hour	kg ,	kg / hour	kg /	kg / hour
		VI †əlul	I təltuO	Inlet 0	Outlet	Inlet 0	Outlet	Inlet	Outlet	Inlet	Outlet In	Inlet Ou	Outlet Inl	Inlet Outlet	et Inlet	t Outlet	et Inlet	t Outlet	t Inlet	t Outlet	t Inlet	Outlet	Inlet	Outlet
Apples	Diced (10 mm)	88	9	830	106 1.	1.245	159 1	1.660	212	2.075	265 2.4	2.490 3	318 2.9	2.905 371	3.320) 424	3.735	5 477	4.150) 530	4.565	583	4.980	989
Apples	O-ring (6 mm)	98	18	367	63	551	95	734	126	918	1.1	1.101	189 1.2	1.285 221	1.468	3 252	2 1.652	284	1.835	315	2.019	347	2.202	378
Apricots	Halved	35	21	820	673 1.	1.230	1.010	1.640	1.346	2.050 1	1.683 2.4	2.460 2.0	2.019 2.8	2.870 2.356	6 3.280	0 2.692	3.690	0 3.029	4.100	3.365	4.510	3.702	4.920	4.038
Apricots	Halved	82	23	313	73 4	470	110	979	146	783	183 9.	939 2.	219 1.0	1.096 256	1.252	2 292	1.409	9 329	1.565	365	1.722	405	1.878	438
Beans	Cut (25 mm)	92	9	1.308	111	1.962	167 2	2.616	222	3.270	278 3.9	3.924	333 4.5	4.578 389	5.232	444	5.886	900 200	6.540) 555	7.194	611	7.848	999
Cabbages	Cut (30 mm)	93	9	701	52 1.	1.052	78 1	1.402	104	1.753	130 2.1	2.103	156 2.4	2.454 182	2.804	4 208	3.155	5 234	3.505	260	3.856	286	4.206	312
Carrots	Diced (10 mm)	92	9	1.365	116 2.	2.048	174 2	2.730	232	3.413	290 4.0	4.095	348 4.7	4.778 406	5.460	7 464	6.143	3 522	6.825	280	7.508	638	8.190	969
Cauliflowers	Cut (10 mm)	90	2	669	74 1.	1.049	111	1.398	148	1.748	185 2.0	2.097	222 2.4	2.447 259	2.796	5 296	3.146	.6 333	3.495	370	3.845	407	4.194	444
Celery	Diced (10 mm)	95	9	902	38	1.059	57 1	1.412	76	1.765	95 2.1	2.118 1.	114 2.4	2.471 133	2.824	4 152	3.177	7 171	3.530	061 (3.883	209	4.236	228
Chilli-Peppers	Cut (10 mm)	91	9	884	85 1.	1.326	128	1.768	170	2.210	213 2.6	2.652	255 3.0	3.094 298	3.536	5 340	3.978	.8 383	4.420) 425	4.862	468	5.304	510
Eggplants	Diced (10 mm)	95	9	1.447	77 2.	2.171	116 2	2.894	154	3.618	193 4.3	4.341 23	231 5.0	5.065 270	5.788	308	3 6.512	2 347	7.235	385	7.959	424	8.682	462
Garlic	Cut (10 mm)	99	∞	484	179	726	569	896	358	1.210	448 1.4	1.452 53	537 1.6	1.694 627	1.936	5 716	5 2.178	908 8.	2.420	995	2.662	985	2.904	1.074
Grapes	Whole	80	17	009	145	006	218	1.200	290	1.500	363 1.8	1.800 43	435 2.1	2.100 508	2.400) 580	0 2.700	0 653	3.000) 725	3.300	798	3.600	870
Grapes	Whole	51	17	231	136	347	204	462	272	578	340 6	693 40	408 80	809 476	924	544	1.040	.0 612	1.155	2 680	1.271	748	1.386	816
Leeks	Cut (8 mm)	90	9	986	105 1.	1.479	158 1	1.972	210 2	2.465	263 2.9	2.958 3	315 3.4	3.451 368	3.944	4 420	0 4.437	7 473	4.930) 525	5.423	578	5.916	630
Marrows	Sliced (3 mm)	94	9	930	55 1.	1.395	83	1.860	110	2.325	138 2.7	2.790	165 3.2	3.255 193	3.720) 220	0 4.185	5 248	4.650) 275	5.115	303	5.580	330
Onions	O-ring (4 mm)	83	9	688	124 1.	1.032	186	1.376	248	1.720	310 2.0	2.064	372 2.4	2.408 434	2.752	2 496	3.096	6 558	3.440) 620	3.784	682	4.128	744
Orange Peel	Diced (7 mm)	91	9	1.368	128 2.	2:052	192 2	2.736	256	3.420	320 4.1	4.104 38	384 4.7	4.788 448	5.472	512	5 6.156	925 9	6.840	040	7.524	704	8.208	768
Peaches	Diced (10 mm)	98	∞	902	107 1.	1.059	161	1.412	214	1.765	268 2.1	2.118 33	321 2.4	2.471 375	2.824	4 428	3 3.177	7 482	3.530) 535	3.883	589	4.236	642
Peppers	Diced (10 mm)	93	9	1.248	93 1.	1.872	140 2	2.496	186	3.120	233 3.7	3.744 2.	279 4.3	4.368 326	4.992	372	5.616	6 419	6.240) 465	6.864	512	7.488	558
Parsley	Chopped	88	9	479	61 7	719	95	958	122	1.198	153 1.4	1.437	183 1.6	1.677 214	1.916	5 244	4 2.156	6 275	2.395	305	2.635	336	2.874	366
Pineapples	Diced (10 mm)	82	24	1.325	314 1.	1.988	471 2	2.650	628	3.313	785 3.9	3.975	942 4.6	4.638 1.099	9 5.300) 1.256	5.963	3 1.413	6.625	5 1.570	7.288	1.727	7.950	1.884
Potatoes	Diced (10 mm)	80	9	1.140	243 1.	1.710	365 2	2.280	486	2.850	909	3.420 7.	729 3.9	3.990 851	4.560) 972	5.130	1.094	5.700	1.215	6.270	1.337	6.840	1.458
Pumpkins	Diced (10 mm)	95	9	1.231	1.	1.847	99	2.462	132	3.078	165 3.6	3.693	198 4.3	4.309 231	4.924	4 264	4 5.540	.0 297	6.155	330	6.771	363	7.386	396
Red Beets	Diced (10 mm)	85	9	1.140	182	1.710	273 2	2.280	364	2.850	455 3.4	3.420 5	546 3.9	3.990 637	4.560) 728	3 5.130	0 819	5.700	910	6.270	1.001	6.840	1.092
Spinaches	Cut (30 mm)	93	9	897	67 1.	1.346	101	1.794	134	2.243	168 2.6	2.691 20	201 3.1	3.140 235	3.588	3 268	3 4.037	7 302	4.485	335	4.934	369	5.382	402
Tomatoes	Diced (10 mm)	96	10	1.028	46 1.	1.542	69	2.056	95 3	2.570	115 3.0	3.084	138 3.5	161	4.112	184	4 4.626	6 207	5.140) 230	5.654	253	6.168	276





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