

Dehydration Systems for Fruit & Vegetables



TAREND is an innovative supplier of turn-key solutions for the sorting, dehydrating and packing of fresh fruit and vegetables. Company was founded in 1981 and expanded its product range by combining years of production experience with the existing perfectionist approach and high quality concept.

TAREND is the market leader in Turkey in sorting technology. Working together with many satisfied customers in Turkey, **TAREND** has also been doing considerable business in the Middle East, North Africa and European countries.

TAREND's strongest characteristic is emphasising on the R&D process with the objective of designing products for the future. Combining TAREND's superior engineering skills with unique designs makes life easy.

TAREND is a customer oriented company and customer satisfaction is top priority for the company. While providing the best solutions; we can still keep our prices at globally very competitive levels. TAREND has kept high quality and cost-effective production, service warranty and the customer satisfaction as its priorities since the establishment.

Dehydration Systems



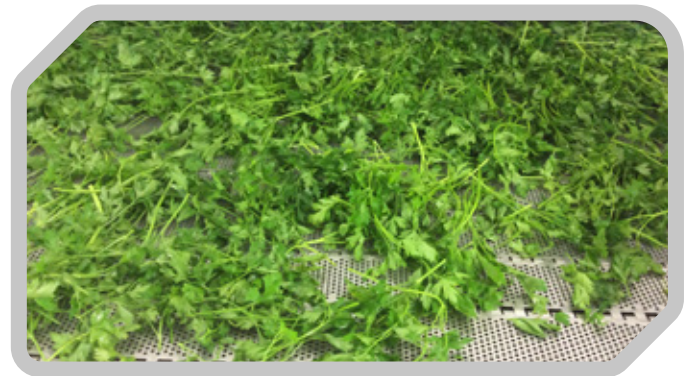
TAREND Dehydration systems operate at low energy levels and reduce labor costs significantly.

Growing demand for dried fruit and vegetables is increasing the need of using efficient drying 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 fruit, 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

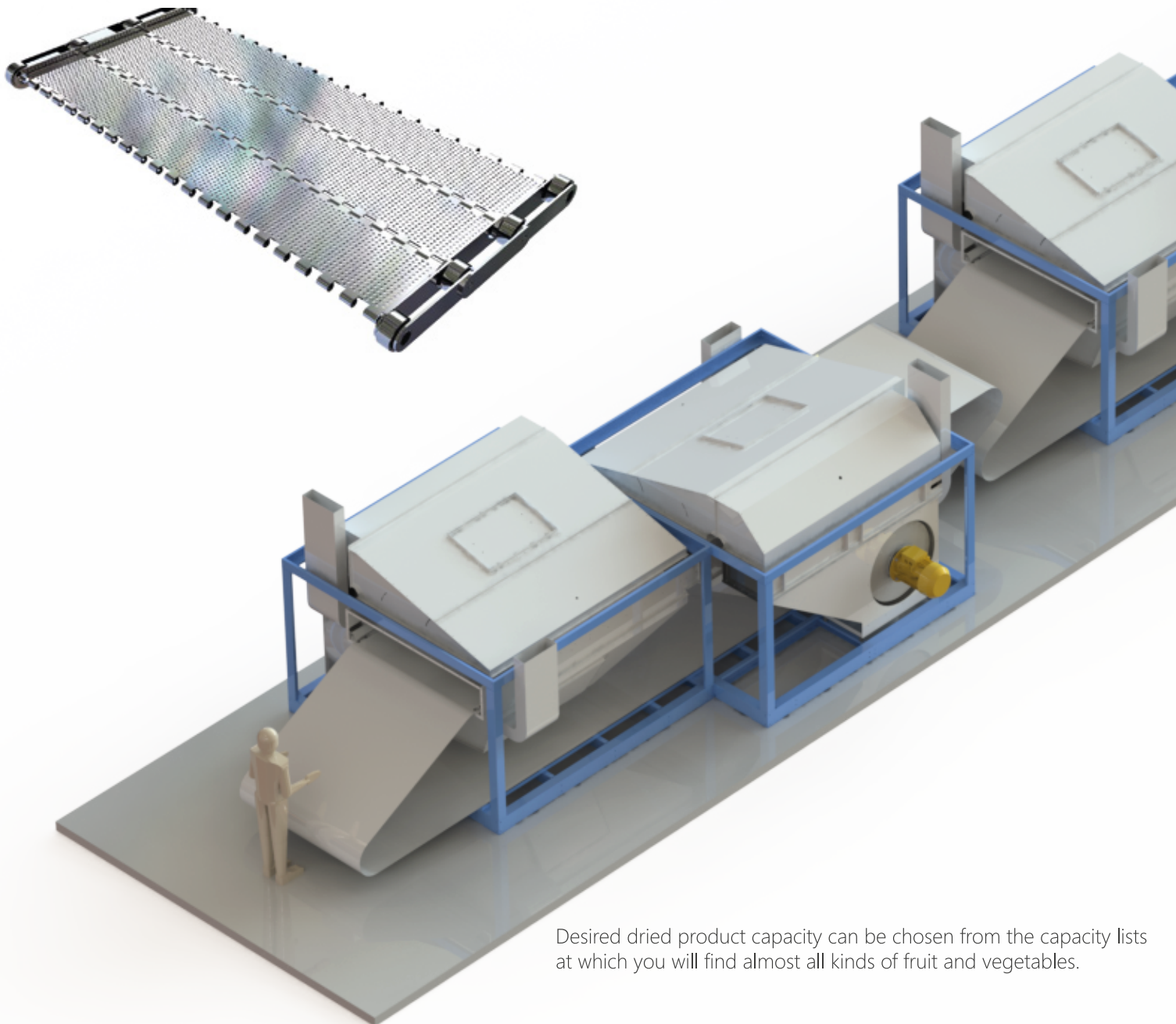
Dehydration Systems

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.

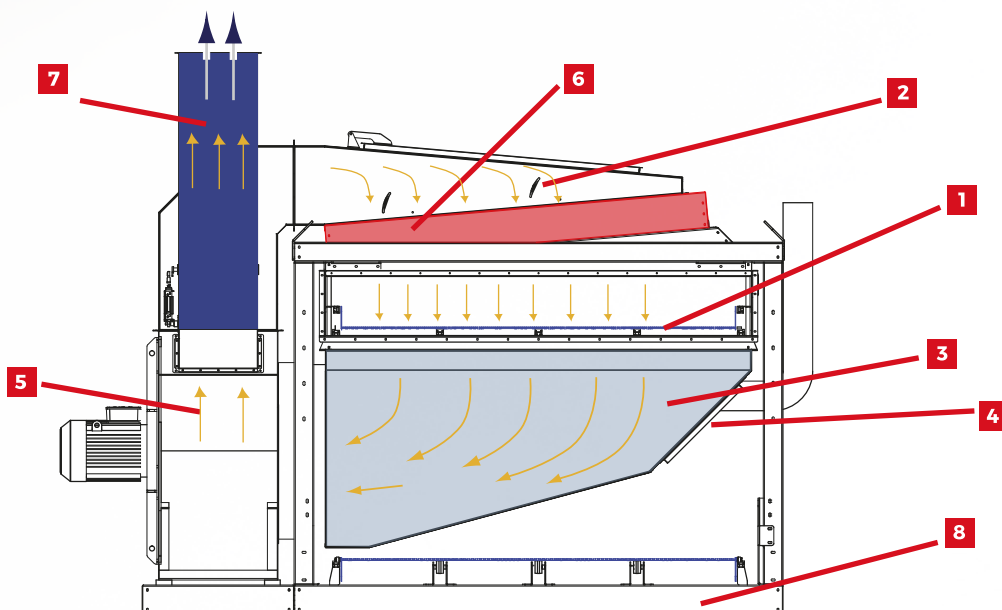
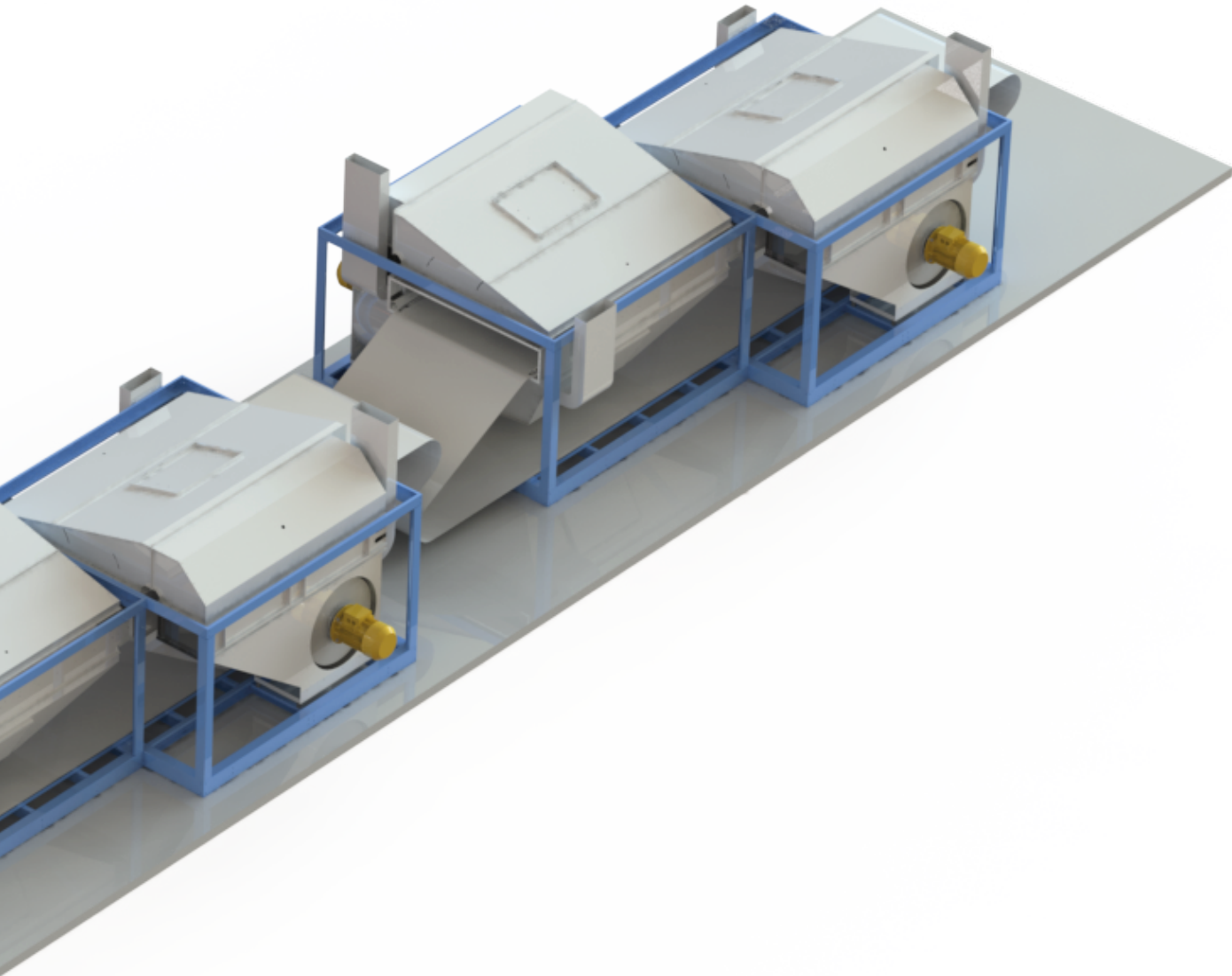
Automatic cleaning system which is placed on the return strand of the belt allows easy cleaning of the system.



Desired dried product capacity can be chosen from the capacity lists at which you will find almost all kinds of fruit and vegetables.

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

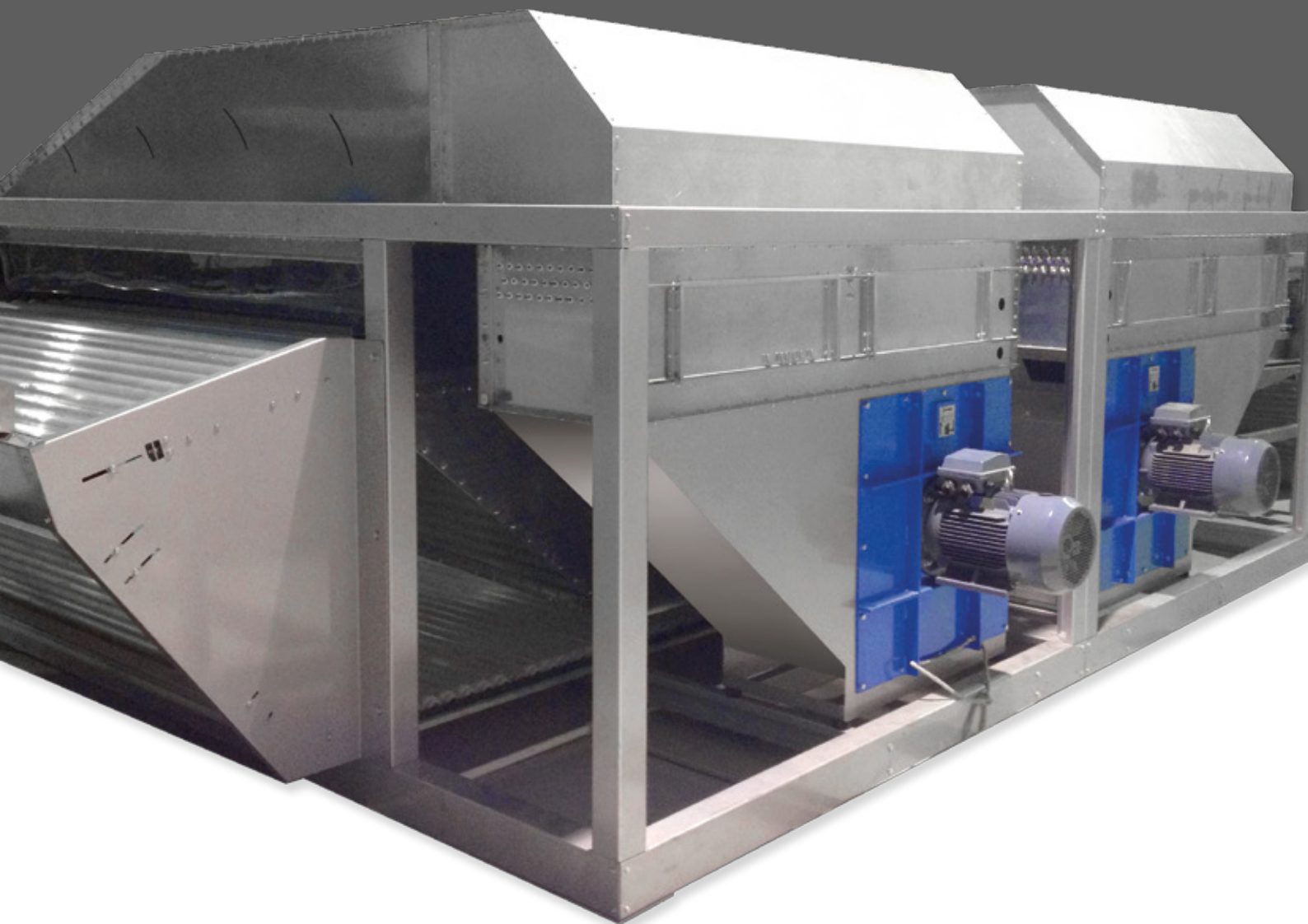
Each drying unit has a temperature sensor which allows to control the air temperature at each drying unit and it enables to achieve optimum time/temperature curves with each product.

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

Product	Size	Inlet Moisture %		T 2-2-2		T 3-3-3		T 4-4-4		T 5-5-5		T 6-6-6		T 7-7-7		T 8-8-8		T 9-9-9		T 10-10-10		T 11-11-11		T 12-12-12	
		Inlet Moisture %	Outlet Moisture %	kg / hour		kg / hour		kg / hour		kg / hour		kg / hour		kg / hour		kg / hour		kg / hour		kg / hour		kg / hour		kg / hour	
				Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
Apples	Diced (10 mm)	88	6	830	106	1,245	159	1,660	212	2,075	265	2,490	318	2,905	371	3,320	424	3,735	477	4,150	530	4,565	583	4,980	636
Apples	O-ring (6 mm)	86	18	367	63	551	95	734	126	918	158	1,101	189	1,285	221	1,488	252	1,652	284	1,835	315	2,019	347	2,202	378
Apricots	Halved	35	21	820	673	1,230	1,010	1,640	1,346	2,050	1,683	2,460	2,019	2,870	2,356	3,280	2,692	3,690	3,029	4,100	3,365	4,510	3,702	4,920	4,038
Apricots	Halved	82	23	313	73	470	110	626	146	783	183	939	219	1,096	256	1,252	292	1,409	329	1,565	365	1,722	402	1,878	438
Beans	Cut (25 mm)	92	6	1,308	111	1,962	167	2,616	222	3,270	278	3,924	333	4,578	389	5,232	444	5,886	500	6,540	555	7,194	611	7,848	666
Cabbages	Cut (30 mm)	93	6	701	52	1,052	78	1,402	104	1,753	130	2,103	156	2,454	182	2,804	208	3,155	234	3,505	260	3,856	286	4,206	312
Carrots	Diced (10 mm)	92	6	1,365	116	2,048	174	2,730	232	3,413	290	4,095	348	4,778	406	5,460	464	6,143	522	6,825	580	7,508	638	8,190	696
Cauliflowers	Cut (10 mm)	90	5	699	74	1,049	111	1,398	148	1,748	185	2,097	222	2,447	259	2,796	296	3,146	333	3,495	370	3,845	407	4,194	444
Celery	Diced (10 mm)	95	6	706	38	1,059	57	1,412	76	1,765	95	2,118	114	2,471	133	2,824	152	3,177	171	3,530	190	3,883	209	4,236	228
Chilli-Peppers	Cut (10 mm)	91	6	884	85	1,326	128	1,788	170	2,210	213	2,652	255	3,094	298	3,536	340	3,978	383	4,420	425	4,862	468	5,304	510
Eggplants	Diced (10 mm)	95	6	1,447	77	2,171	116	2,894	154	3,618	193	4,341	231	5,065	270	5,788	308	6,512	347	7,235	385	7,959	424	8,682	462
Garlic	Cut (10 mm)	66	8	484	179	726	269	968	358	1,210	448	1,452	537	1,694	627	1,936	716	2,178	806	2,420	895	2,662	985	2,904	1,074
Grapes	Whole	80	17	600	145	900	218	1,200	290	1,500	363	1,800	435	2,100	508	2,400	580	2,700	653	3,000	725	3,300	798	3,600	870
Grapes	Whole	51	17	231	136	347	204	462	272	578	340	693	408	809	476	924	544	1,040	612	1,155	680	1,271	748	1,386	816
Leeks	Cut (8 mm)	90	6	986	105	1,479	158	1,972	210	2,465	263	2,958	315	3,451	368	3,944	420	4,437	473	4,930	525	5,423	578	5,916	630
Marrows	Sliced (3 mm)	94	6	930	55	1,395	83	1,860	110	2,325	138	2,790	165	3,255	193	3,720	220	4,185	248	4,650	275	5,115	303	5,580	330
Onions	O-ring (4 mm)	83	6	688	124	1,032	186	1,376	248	1,720	310	2,064	372	2,408	434	2,752	496	3,096	558	3,440	620	3,784	682	4,128	744
Orange Peel	Diced (7 mm)	91	6	1,368	128	2,052	192	2,736	256	3,420	320	4,104	384	4,788	448	5,472	512	6,156	576	6,840	640	7,524	704	8,208	768
Peaches	Diced (10 mm)	86	8	706	107	1,059	161	1,412	214	1,765	268	2,118	321	2,471	375	2,824	428	3,177	482	3,530	535	3,883	589	4,236	642
Peppers	Diced (10 mm)	93	6	1,248	93	1,872	140	2,496	186	3,120	233	3,744	279	4,368	326	4,992	372	5,616	419	6,240	465	6,864	512	7,488	558
Parsley	Chopped	88	6	479	61	719	92	958	122	1,198	153	1,437	183	1,677	214	1,916	244	2,156	275	2,395	305	2,635	336	2,874	366
Pineapples	Diced (10 mm)	82	24	1,325	314	1,988	471	2,650	628	3,313	785	3,975	942	4,638	1,099	5,300	1,256	5,963	1,413	6,625	1,570	7,288	1,727	7,950	1,884
Potatoes	Diced (10 mm)	80	6	1,140	243	1,710	365	2,280	486	2,850	608	3,420	729	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	6	1,231	66	1,847	99	2,462	132	3,078	165	3,693	198	4,309	231	4,924	264	5,540	297	6,155	330	6,771	363	7,386	396
Red Beets	Diced (10 mm)	85	6	1,140	182	1,710	273	2,280	364	2,850	455	3,420	546	3,990	637	4,560	728	5,130	819	5,700	910	6,270	1,001	6,840	1,092
Spinaches	Cut (30 mm)	93	6	897	67	1,346	101	1,794	134	2,243	168	2,691	201	3,140	235	3,588	268	4,037	302	4,485	335	4,934	369	5,382	402
Tomatoes	Diced (10 mm)	96	10	1,028	46	1,542	69	2,056	92	2,570	115	3,084	138	3,598	161	4,112	184	4,626	207	5,140	230	5,654	253	6,168	276

Above mentioned capacities refer to actual results obtained from industrial dryers. However capacities may change according to the quality and the variety of the raw product, to the initial and final humidity of the product, to the raw material preparation process, to the size of the product and to the climatic conditions.



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