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Turkish Plastics Processing Machinery Industry Follow-Up Report - 2019



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# **TURKISH PLASTICS PROCESSING MACHINERY INDUSTRY FOLLOW-UP REPORT**

**2019 / 9**

**PREFACE**

The plastic industry is one of the most important actors of the Turkish economy. Today, the contribution of the plastics industry to the country's economy is gradually increasing with the total production exceeding 9 million tons, and 35 billion dollars' worth of turnover, the approaching direct exports of 5 billion dollars and the annual growth of 12% for the last 10 years.

Our industry, with its production capacity, has reached the second place in Europe and the sixth place in the world. As PAGEV, we continue to lead the industry successfully in the framework of the "Unifying Power" mission of the Turkish Plastics Industry.

We also know that having the right and reliable data and information is the most important part of the solution when we sign the indispensability of Plastics in our lives and sign our work to tackle our industrial problems with concrete steps based on scientific evidence. In this direction we constantly investigate, collect new data, compile and report them. We present our reports that we believe are important for the development of our industry and our booklets containing important information to the plastics industry representatives, stakeholders and public institutions.

As PAGEV, we prepared a report set that will contribute to the industry in a serious way in the face of our long and dedicated researches. With our reports, we made booklets with the comments of our expert reporters about the point where the Turkish Plastics Industry is in the right and reliable light, common problems and what should be the search for concrete solutions. We believe that our reports and information set will benefit all our stakeholders, especially our members, and will guide the plastics world. At the same time, we are pleased that our public institutions have reached the most up-to-date and accurate information about the plastics industry.

On the other hand, with our sector reports in English, we think that our colleagues will be able to share the potential of our country's plastics industry with the most up-to-date business partners in the global marketplace.

Hereby, presenting our current reports and information files relating with our industry, we would like to thank all our colleagues who have contributed to this day's achievement of our industry, who has taken a position as a locomotive mission in the development of our country.

**Best regards,  
Yavuz EROĞLU  
PAGEV President**

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## **EXECUTIVE SUMMARY**

In the last 5 years covering the years 2014 - 2018, the plastics industry has invested an average of 850 million dollars in machinery and equipment per year. In this period, presses and other machines shared 37% of total investments, injection 22%, extrusion 18%, thermoforming 4%, blow molding 2% and parts and components 17% .

In the nine months of 2019, 377 million dollars of production, 290 million dollars of imports, 146 million dollars of exports and 521 million dollars of domestic sales ( machinery investment of the plastics industry ) has been realized.

In this period, industry gave 144 million dollars of foreign trade deficit and 56% of the investment has been met by imports and export coverage of imports realized as 50%

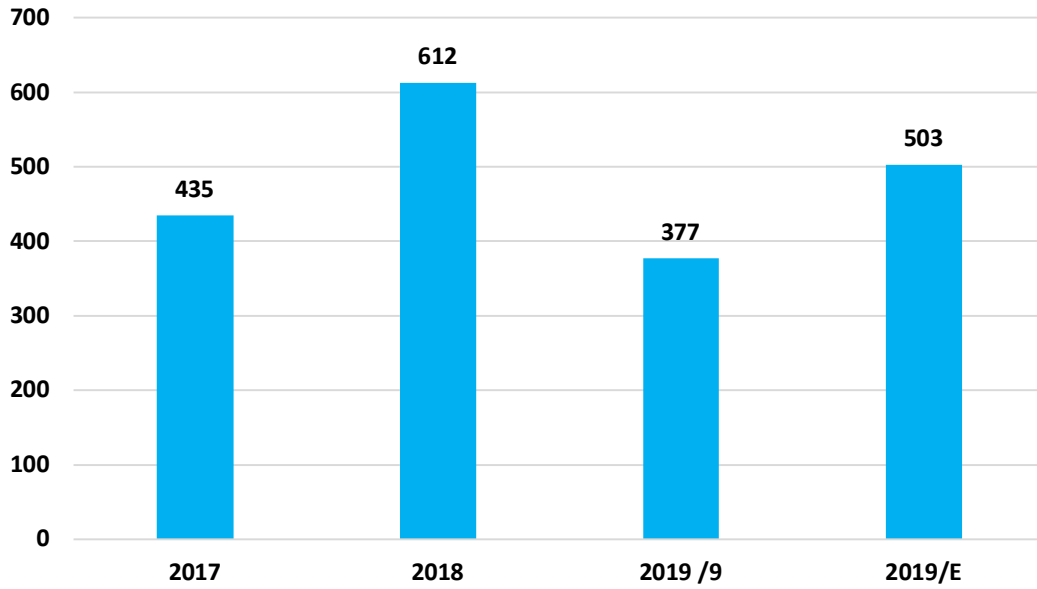
At the end of 2019, plastic processing machinery production is expected to be 503 million dollars, imports 347 million dollars, exports 195 million dollars, domestic sales 694 million dollars. In this period, the industry is expected to give 192 million dollars of foreign trade deficit.



## 1. PRODUCTION

The production of plastic processing machines which was 526 million dollars in the 9 months of 2018, realized as 449 million dollars in the peer period of 2019 decreasing by 15% compared to the peer period of 2018.

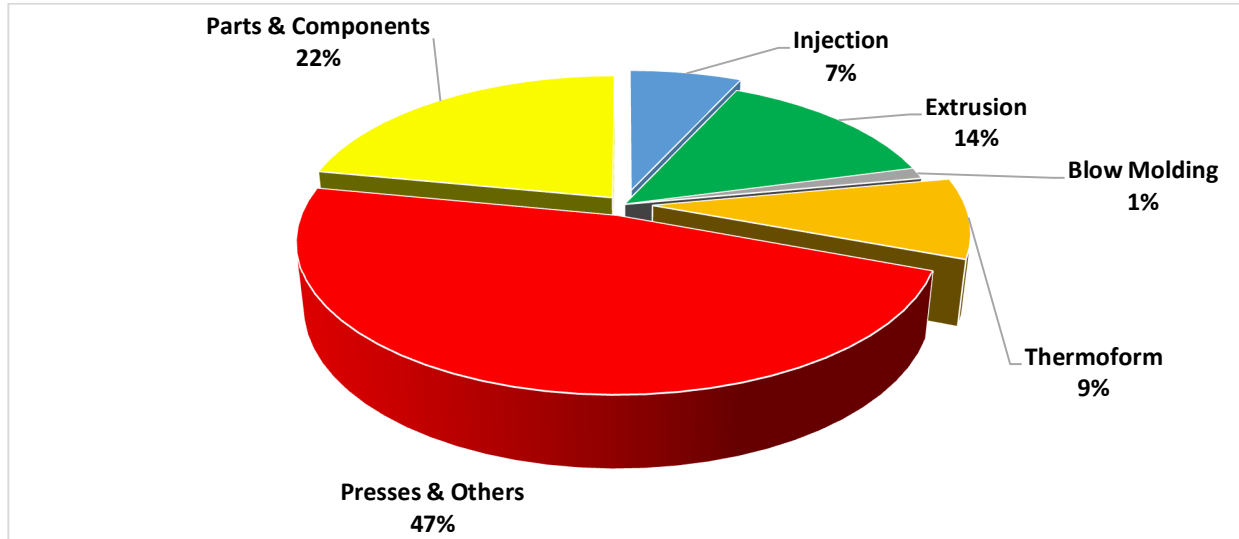
If the same trend continuous, production is expected to realize as around 503 million dollars at the end of 2019



**Graphic 1: Plastics Processing Machines Production (Million \$ )**

Source: Turk Stat & ITC Trade Statistics

In this period, injection machines accounted for 7% extrusion machines 14%, blow molding machines 1%, thermoforming machines 9%, presses and other machines 47 % and parts and components 22% of total plastic processing machines production.

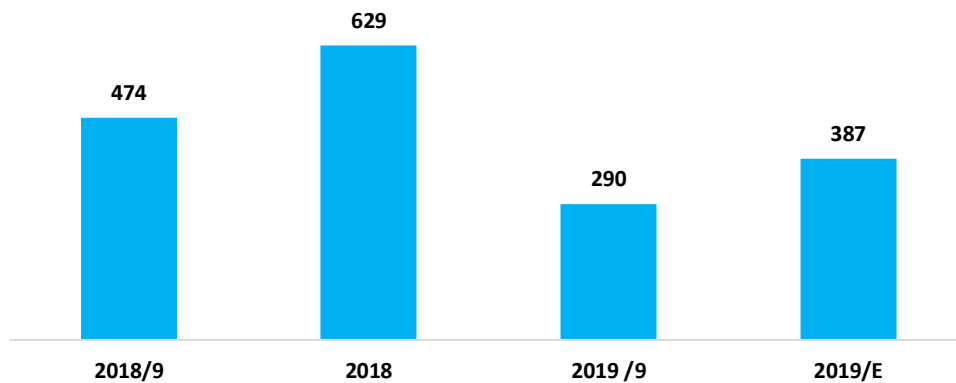
**Graphic 2: Share of Machines in Total Production (2019/9)**

Source: Turk Stat &amp; ITC Trade Statistics

## 2. FOREIGN TRADE

### 3.1. IMPORTS

Imports of plastic processing machines which was 474 million dollars in the 9 months of 2018 realized as 290 million dollars in the peer period of 2019 decreasing by 39% with respect to the peer period of the 2018. If the same trend continuous, imports are expected to realize as round 387 million dollars at the end of 2019 decreasing by 39% with respect to 2018.

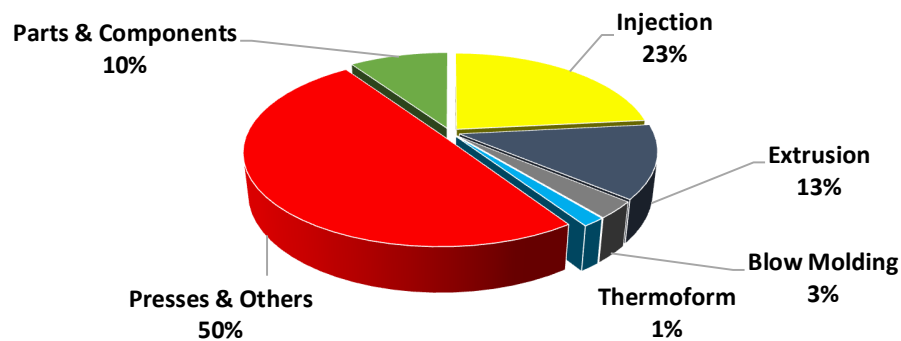
**Graphic 3: Peer Period Comparison of Plastics Processing Machines Imports (Million \$)**

Source: Turk Stat &amp; ITC Trade Statistics

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In the 9 months of 2018, injection machines accounted for 23% extrusion machines 13%, blow molding machines 3%, thermoforming machines 1%, presses and other machines 50% and parts and components 10% of total plastic processing machines imports.

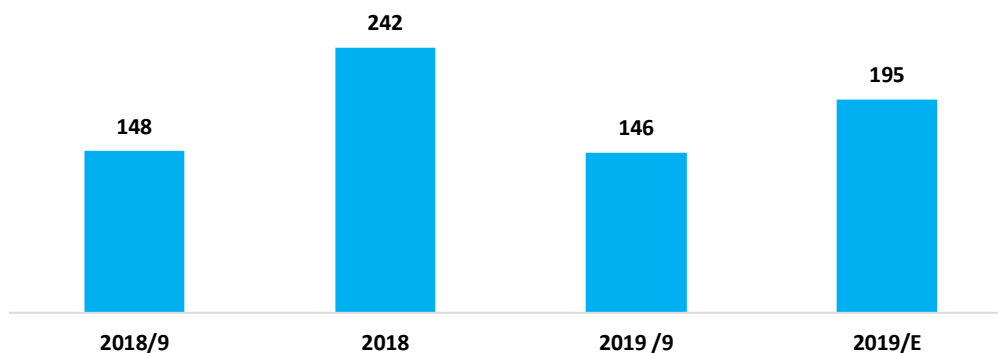


**Graphic 4: Share of Machines in Total Machine Imports (2019/9)**

Source: Turk Stat & ITC Trade Statistics

### 3.2. EXPORTS

Exports of plastic processing machines which was 148 million dollars in the nine months of 2018 realized as 146 million dollars in peer period of 2019 decreasing by 1%. If the same trend continuous, exports are expected to realize as around 195 million dollars at the end of 2019 decreasing by 20% with respect to 2018.

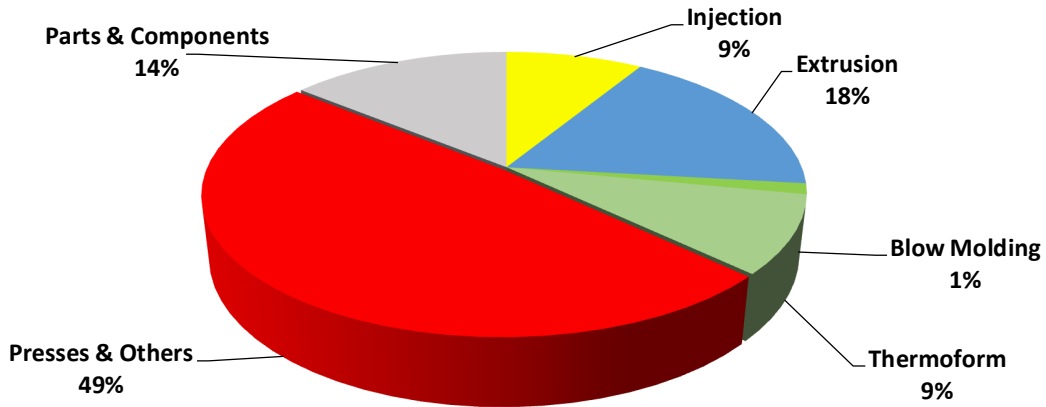


**Graphic 5: Peer Period Comparison of Plastics Processing Machines Exports (Million \$)**

Source: Turk Stat & ITC Trade Statistics



In this period, injection machines accounted for 9% extrusion machines 18%, blow molding machines 1%, thermoforming machines 9%, presses and other machines 49% and parts and components 14% of total plastic processing machines exports.



**Graphic 6: Share of Machines in Total Machine Exports (2019/9)**

Source: Turk Stat & ITC Trade Statistics

### **3.3. FOREIGN TRADE BY COUNTRIES**

In the 9 months of 2019, imports of plastic processing machines and parts and components from 10 countries accounted for 93% of total imports. In this period, Germany, China and Italy took the first three places in the total imports of plastic processing machines. The share of these 3 countries in total imports is about 69%.

On the other hand, exports of plastic processing machines and parts and components to 10 countries accounted for 50% of total exports in this period. In 9 months of 2019, the Russian Federation, India and Algeria took the first three places in the total export of plastic processing machines. The share of these 3 countries in total exports is 22%.





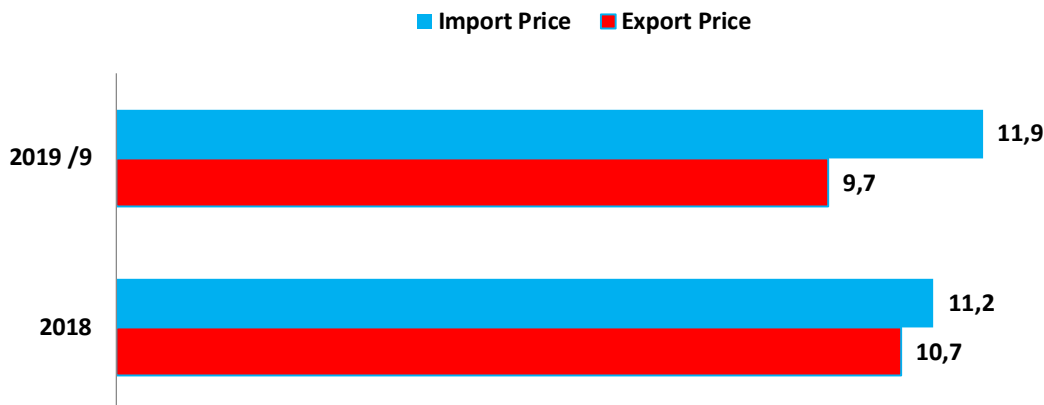
Imports			Exports		
Countries	1000 \$	%- Share	Countries	1000 \$	%- Share
Germany	85.485	29	Russian Fed.	11.701	8
China	84.147	29	India	11.599	8
Italy	31.936	11	Algeria	8.419	6
Japan	19.136	7	Spain	7.393	5
Austria	17.887	6	Germany	6.774	5
Taiwan	9.347	3	Bulgaria	5.933	4
France	7.221	2	Iran	5.624	4
Switzerland	5.511	2	Iraq	5.569	4
S. Korea	4.903	2	Uzbekistan	5.470	4
USA	4.735	2	Egypt	4.875	3
<b>Total 10</b>	<b>270.309</b>	<b>93</b>	<b>Total 10</b>	<b>73.357</b>	<b>50</b>
<b>Others</b>	<b>19.604</b>	<b>7</b>	<b>Others</b>	<b>74.053</b>	<b>50</b>
<b>Total</b>	<b>289.913</b>	<b>100</b>	<b>Total</b>	<b>147.410</b>	<b>100</b>

**Table 1: Plastics Processing Machines Foreign Trade by Countries (2019/9)**

Source: Turk Stat & ITC Trade Statistics

### 3.4. IMPORT AND EXPORT PRICES

In the 9 months of 2019, average unit import prices of plastics processing machines realized as 11,9 \$/Kg, increasing by 6% with respect to 2018.



**Graphic 7: Import and Export Unit Prices (\$/Kg)**

Source: Turk Stat & ITC Trade Statistics

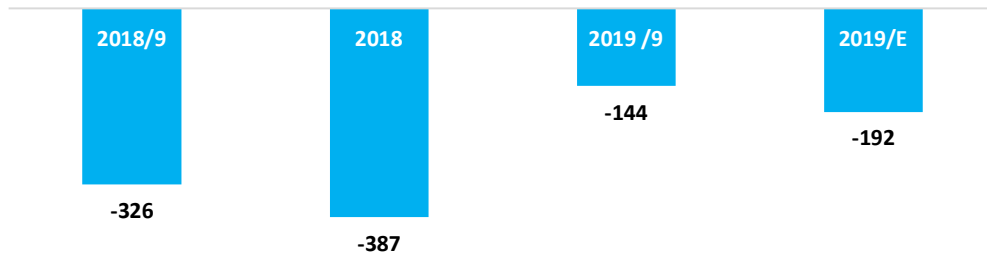
In the 9 months of 2019, average unit export prices of plastics processing machines realized as 9,7 \$/Kg, decreasing by 9% with respect to 2018. In this period, the average unit export prices realized 18% below the unit import prices .

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### 3.5. FOREIGN TRADE DEFICIT

Foreign trade deficit of plastic processing machines which was 326 million dollars in the 9 months of 2018 realized as 144 million dollars in the nine months of 2019 decreasing by 56% with respect to the peer period of 2018. If the same trend continuous, foreign trade deficit is expected to realize as around 192 million dollars at the end of 2019 decreasing by 51% with respect to the same period of the previous year.

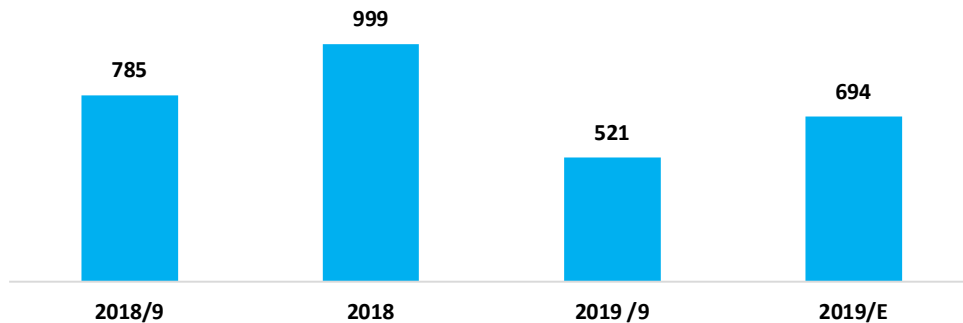


**Graphic 8: Foreign Trade Deficit in Plastics Processing Machines (Million \$)**

Source: Turk Stat & ITC Trade Statistics

### 4. DOMESTIC SALES ( MACHINERY INVESTMENTS OF PLASTICS INDUSTRY )

Domestic sales ( machinery investments of the plastics industry ) of plastic processing machines which was 785 million dollars in the nine months of 2018 realized as 521 million dollars in the nine months of 2019 decreasing by 34% with respect to the peer period of 2018. If the same trend continuous, domestic sales are expected to realize as around 694 million dollars at the end of 2019 decreasing by 31% with respect to the same period of the previous year.



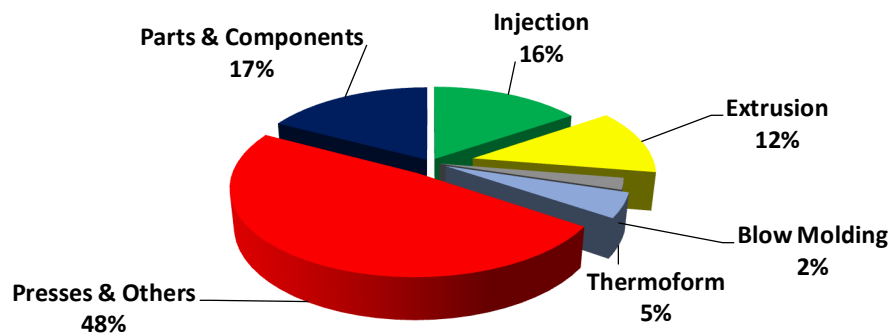
**Graphic 9: Peer Period Comparison of Plastics Processing Machines Domestic Sales (Million \$)**

Source: Turk Stat & ITC Trade Statistics

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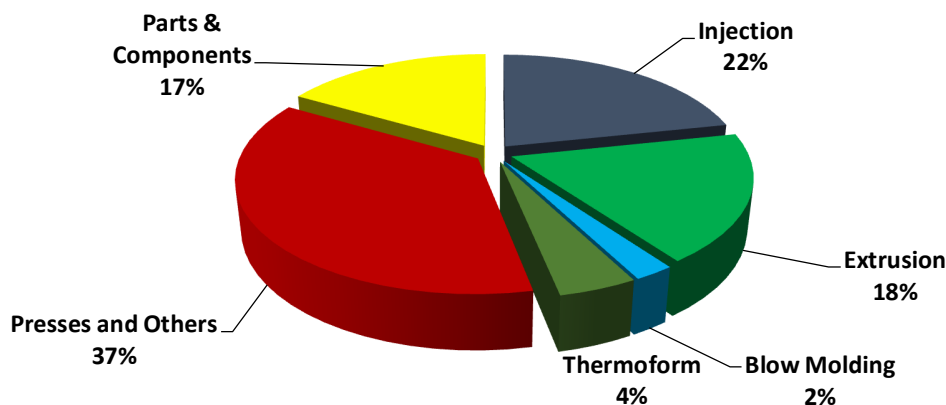
In 9 months of 2019, 37% of the machinery investments of the plastics industry were made by presses and other machines, 21% by injection, 17% by extrusion, 2% by blow molding machines, 5% by thermoforming machines and 18% by parts and components.



**Graphic 10: Breakdown of Machinery Investments of Plastics Industry (2019/9)**

Source: Turk Stat & ITC Trade Statistics

In the last 5 years covering the years 2014 - 2018, the plastics industry has invested an average of 850 million dollars in machinery and equipment per year. In this period, presses and other machines shared 37% of total investments, injection 22%, extrusion 18%, thermoforming 4%, blow molding 2% and parts and components 17% .



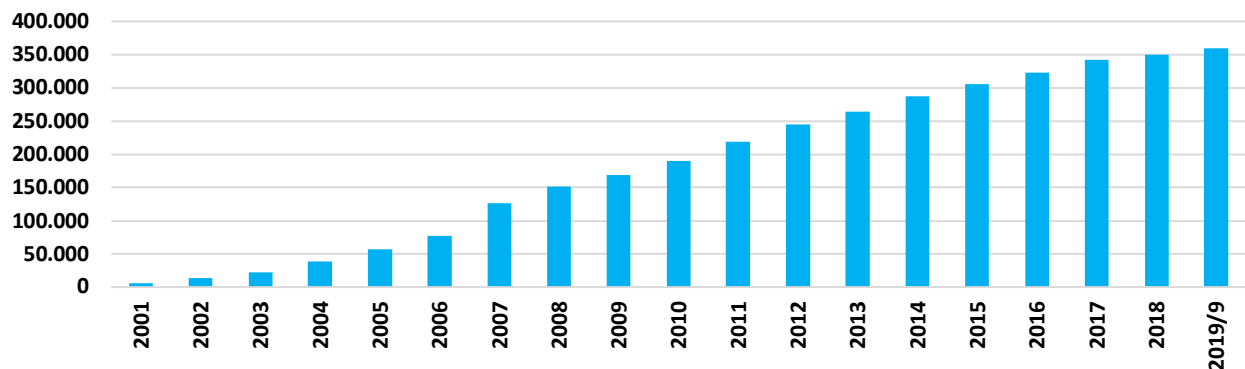
**Graphic 11: Breakdown of Machinery Investments of Plastics Industry for the Last 5 Years**

Source: Turk Stat & ITC Trade Statistics



## 5. MACHINERY PARK

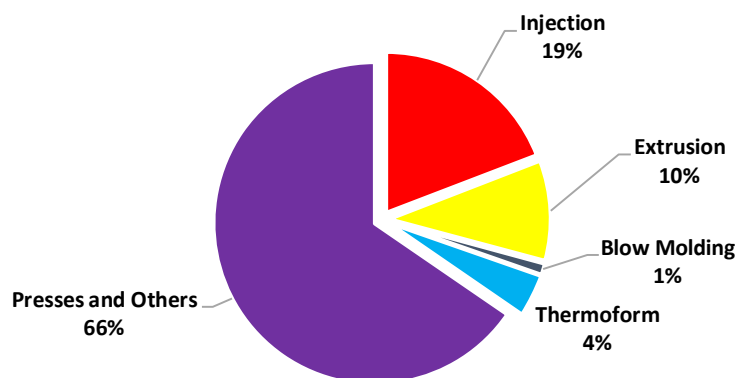
The process capacity of Turkish plastics industry, which had 2.5 million tons of processing capacity and 5.688 machine parks in 2001, reached to 9,5 million tons by the nine months of. 2019. The machinery park of the industry realized as about 360 thousand units in this period.



**Graphic 12: Plastics Industry Machinery Park**

Source: Turk Stat & ITC Trade Statistics

As of the nine months of 2019, 19% of the Turkish plastics processing machinery park consists of 19% injection, 10% extrusion, 1% blow molding, 4% thermoform and 66% presses and other machines.



**Graphic 13: Machinery Park of Plastics Industry by Machine Types**

Source: Turk Stat & ITC Trade Statistics

As of the nine months of 2019, 31% of the total processing machinery park of the Turkish plastics industry is sold by domestic producers while 69% of it has been imported.

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Machinery Group	Units			% Share	
	Production	Imports	Total Park	Production	Imports
Injection Machines	4.895	63.900	68.795	7	93
Extrusion Machines	4.882	31.229	36.111	14	86
Blow Molding Machines	599	3.506	4.105	15	85
Thermoform Machines	5.684	9.582	15.266	37	63
Presses and Other Machines	96.329	138.933	235.262	41	59
<b>Total</b>	<b>112.388</b>	<b>247.150</b>	<b>359.538</b>	<b>31</b>	<b>69</b>

**Table 2: Machinery Park of Plastics Industry**

Source: Turk Stat &amp; ITC Trade Statistics

Share of imported machines in total machine park realized as; 93% in injection machines, 87% in extrusion machines, 87% in blowing machines, 64% in thermoforming machines and 59% in others.

In other words, the share of domestically produced machineries within the total park is; 7% in injection machines, 13% in extrusion machines, 13% in blow molding machines, 36% in thermoforming machines and 41% in presses and other machines.

10 countries share 96.5% of total imported machines park. China shared 43.7%, Germany 18.1%, Italy 9.6%, %8.9 Taiwan and Austria 6.2% in the imported machines park.

Injection		Extrusion		Blow Molding		Thermoform	
Countries	% Share	Countries	% Share	Countries	% Share	Countries	% Share
China	43.7	China	63.3	Italy	30.5	Germany	21.0
Germany	18.1	Germany	13.8	Germany	21.5	China	18.8
Italy	9.6	Italy	7.3	China	9.4	Italy	14.9
Taiwan	8.9	Taiwan	4.3	France	8.4	Taiwan	10.0
Austria	6.2	Austria	3.9	Japan	7.2	France	5.7
Switzerland	2.8	S.Korea	1.6	Taiwan	4.5	Israel	5.1
France	2.7	India	1.1	UK	4.0	Switzerland	4.5
Japan	2.4	Japan	0.8	Switzerland	3.5	USA	4.2
S.Korea	1.2	USA	0.8	Austria	3.0	S.Korea	3.4
India	0.9	UK	0.7	Belgium	2.8	Austria	2.8
<b>10 Countries</b>	<b>96.5</b>	<b>10 Countries</b>	<b>97.5</b>	<b>10 Countries</b>	<b>94.9</b>	<b>10 Countries</b>	<b>90.4</b>
<b>Others</b>	<b>3.5</b>	<b>Others</b>	<b>2.5</b>	<b>Others</b>	<b>5.1</b>	<b>Others</b>	<b>9.6</b>

**Table 3: Imported Machinery Park by Countries**

Source: Turk Stat &amp; ITC Trade Statistics

10 countries shared 97,5% in imported extrusion machinery park while, 63.3% of the park is made up of China, 13.8 % of Germany, 7.3% of Italy, 4.3% of Taiwan and 3.9% of Austrian machinery.

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10 countries shared 94.9% in imported blow molding machinery park while, 30.5% of the park is made up of Italy, 21.5 % of Germany, 9.4% of China, 8.4% of Italy and 7.2% of Japanese machinery.

10 countries shared 90,4% in imported thermoform machinery park while, 21% of the park is made up of Germany, 18.8 % of China, 14.9% of Italy, 10% of Taiwan and 5.7% of France machinery.

## 6. SUPPLY AND DEMAND AND 2019 EXPECTATIONS

### 6.1. TOTAL INDUSTRY

In the nine months of 2019, 377 million dollars of production, 290 million dollars of imports, 146 million dollars of exports and 521 million dollars of domestic sales ( machinery investment of the plastics industry ) has been realized.

	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	459	612	377	503	-18	-18
<b>Imports</b>	474	629	290	387	-39	-39
<b>Exports</b>	148	242	146	195	-1	-20
<b>Domestic Sales</b>	785	999	521	694	-34	-31
<b>Foreign Trade Deficit</b>	-326	-387	-144	-192	-56	-51
<b>Imports / Domestic Sales ( % )</b>	60	63	56	56		
<b>Exports/Imports ( % )</b>	31	39	50	50		

**Table 4: Plastics Processing Machines Supply & Demand Balance (Million \$)**

Source: Turk Stat & ITC Trade Statistics

In this period, industry gave 144 million dollars of foreign trade deficit and 56% of the investment has been met by imports and export coverage of imports realized as 50%

At the end of 2019, plastic processing machinery production is expected to be 503 million dollars, imports 347 million dollars, exports 195 million dollars, domestic sales 694 million dollars. In this period, the industry is expected to give 192 million dollars of foreign trade deficit.

### 6.2. PLASTICS INJECTION MACHINES

In the nine months of 2019, 26 million dollars of production, 68 million dollars of imports, 13 million dollars of exports and 81 million dollars of domestic sales ( Injection machines investment of the plastics industry ) has been realized in plastics injection machines.

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In this period 84% of the investment has been met by imports and export coverage of imports realized as 19%

At the end of 2019, plastic injection machinery production is expected to be 34 million dollars, imports 90 million dollars, exports 17 million dollars, domestic sales 107 million dollars. In this period, the industry is expected to give 73 million dollars of foreign trade deficit.

	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	25	33	26	34	4	4
<b>Imports</b>	133	163	68	90	-49	-45
<b>Exports</b>	13	16	13	17	-1	4
<b>Domestic Sales</b>	145	179	81	107	-44	-40
<b>Foreign Trade Deficit</b>	-120	-147	-55	-73	-54	-50
<b>Imports / Domestic Sales ( % )</b>	92	91	84	84		
<b>Exports/Imports ( % )</b>	10	10	19	19		

**Table 5: Injection Machines Supply & Demand Balance (Million \$)**

Source: Turk Stat & ITC Trade Statistics

In the nine months of 2019, injection machines imports from the first 10 countries accounted to 99% of total imports. China received a share of 58, Germany 12% and Austria 10% in total imports

In the same period, 63% of the exports of plastics injection machines destined to 10 countries. Iraq, Bulgaria, and Algeria with a total of 34% share, have been the biggest markets to which Turkey has exported plastics injection machines.

<b>Imports</b>			<b>Exports</b>		
<b>Countries</b>	<b>1000 \$</b>	<b>% - Share</b>	<b>Countries</b>	<b>1000 \$</b>	<b>% - Share</b>
China	39.213	58	Iraq	2.107	16
Germany	8.403	12	Bulgaria	1.150	9
Austria	6.454	10	Algeria	1.146	9
Japan	3.726	6	Turkmenistan	1.055	8
Switzerland	2.786	4	Uzbekistan	691	5
Taiwan	2.498	4	Russian Fed.	627	5
Italy	1.817	3	Kosovo	382	3
Slovakia	1.423	2	Poland	377	3
S. Korea	717	1	Georgia	304	2
France	287	0	Netherlands	283	2
<b>10 Total</b>	<b>67.324</b>	<b>99</b>	<b>10 Total</b>	<b>8.123</b>	<b>63</b>
<b>Others</b>	<b>418</b>	<b>1</b>	<b>Others</b>	<b>4.714</b>	<b>37</b>
<b>Total</b>	<b>67.741</b>	<b>100</b>	<b>Total</b>	<b>12.837</b>	<b>100</b>

**Table 6: Plastics Injection Machines Imports & Exports by Countries (2019/9)**

Source: Turk Stat & ITC Trade Statistics

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**6.3. PLASTICS EXTRUSION MACHINES**

In the nine months of 2019, 53 million dollars of production, 37 million dollars of imports, 26 million dollars of exports and 63 million dollars of domestic sales (extrusion machines investment of plastics industry) were realized in the plastics extrusion machines. In the same period, foreign trade deficit of extrusion machines realized as 14 million dollars.

It can be observed that the 58 % of the domestic sales (extrusion machines investment of the industry) was met by imports and export coverage ratio of imports has been realized as 72% in the same period.

The expectations for 2019 are; 70 million dollars of production, 49 million dollars of imports, 35 million dollars of exports, 84 million dollars of domestic sales and 14 million dollars of foreign trade deficit.

	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	75	99	53	70	-29	-29
<b>Imports</b>	90	127	37	49	-59	-61
<b>Exports</b>	35	50	26	35	-25	-29
<b>Domestic Sales</b>	130	177	63	84	-51	-52
<b>Foreign Trade Deficit</b>	-55	-77	-10	-14	-81	-82
<b>Imports / Domestic Sales ( % )</b>	69	72	58	58		
<b>Exports/Imports ( % )</b>	39	39	72	72		

**Table 7: Supply & Demand Balance in Extrusion Machines ( Million \$)**

Source: Turk Stat & ITC Trade Statistics

In the 9 months of 2019, 98% of the total imports of plastic extrusion machines were made from 10 countries. Italy accounted for 29% China 28% and Austria 17% of total imports.

In the same period, 59% of the plastic extrusion machines exports were made to 10 countries, while the Russian Federation, Uzbekistan and Belarus accounted for a 31% share of the plastic extrusion machines exports, forming the top 3 export markets.

Imports			Exports		
Countries	1000 \$	% - Share	Countries	1000 \$	% - Share
Italy	10.701	29	Russian Fed.	4.238	16
China	10.159	28	Uzbekistan	2.327	9
Austria	6.120	17	Belarus	1.544	6
Taiwan	2.570	7	Algeria	1.472	6

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Germany	2.436	7	Poland	1.154	4
S. Korea	1.199	3	Egypt	1.052	4
India	855	2	Bulgaria	1.021	4
Serbia	728	2	Iran	1.009	4
UK	529	1	Greece	860	3
Slovakia	525	1	S. Arabia	818	3
<b>10 Total</b>	<b>35.822</b>	<b>98</b>	<b>10 Total</b>	<b>15.495</b>	<b>59</b>
<b>Others</b>	<b>859</b>	<b>2</b>	<b>Others</b>	<b>10.912</b>	<b>41</b>
<b>Total</b>	<b>36.681</b>	<b>100</b>	<b>Total</b>	<b>26.407</b>	<b>100</b>

**Table 8: Plastics Extrusion Machines Imports & Exports by Countries (2019/9)**

Source: Turk Stat & ITC Trade Statistics

#### 6.4. BLOW MOLDING MACHINES

In the nine months of. 2019, 5 million dollars of production, 9 million dollars of imports, about 1 million dollars of exports and 12 million dollars of domestic market sales (blow molding machines investment of plastics industry) were realized. The industry gave 8 million dollars of foreign trade deficit in this period.

In 2019, the production of plastic blow molding machines is expected to increase to 6 million dollars, imports to 11 million dollars, exports to 2 million dollars, domestic sales to 15 million dollars and the sector is expected to give a foreign trade deficit of 9 million dollars.

	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	2	3	5	6	82	82
<b>Imports</b>	11	18	9	11	-22	-36
<b>Exports</b>	1,1	1	1	2	-9	82
<b>Domestic Sales</b>	12	20	12	15	-2	-24
<b>Foreign Trade Deficit</b>	-10	-17	-8	-9	-24	-45

**Table 9: Supply & Demand Balance in Blow Molding Machines (Million \$)**

Source: Turk Stat & ITC Trade Statistics

In the 9 months of 2019, Turkey imported blow molding machines only from 9 countries and France received 30%, China 19% Germany 17% and Italy 12% in total blow molding machines imports.

Imports			Exports		
Countries	1000 \$	%- Share	Countries	1000 \$	%- Share
France	2.594	30	Iraq	547	30
China	1.627	19	Russian Fed.	451	25

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Germany	1.454	17	Egypt	306	17
Italy	1.065	12	Ukraine	258	14
India	829	10	S. Arabia	71	4
Austria	417	5	Ethiopia	50	3
Japan	296	3	Algeria	43	2
Poland	225	3	Lebanon	35	2
Tunisia	67	1	Moldova	19	1
			Romania	12	1
			<b>10 Total</b>	<b>1.792</b>	<b>99</b>
			<b>Others</b>	<b>16</b>	<b>1</b>
<b>Total</b>	<b>8.572</b>	<b>100</b>	<b>Total</b>	<b>1.808</b>	<b>100</b>

**Table 10: Plastic Blow Molding Machines Exports by Countries (2019/9)**

Source: Turk Stat & ITC Trade Statistics

In this period, Turkey realized 99% of exports of total 1,8 billion dollars blow molding machines to 10 countries and Iraq, Russian Federation and Egypt as the main export partners shared 72% of total exports .

#### **6.5. THERMOFORM MACHINES**

In the nine months of 2019, 33 million dollars of production, 5 million dollars of imports, 13 million dollars of exports and 24 million dollars of domestic market sales (thermoform machines investment of plastics industry) realized. On the other hand, foreign trade surplus of thermoform machines realized as 8 million dollars in this period.

It can be observed that the 19% of the domestic sales (thermoform machines investment of the industry) was provided by imports in the same period.

In 2019, production of plastic thermoforming machines is expected to increase to 44 million dollars, imports to 6 million dollars, exports to 17 million dollars, domestic sales to 32 million dollars, and the sector's foreign trade surplus of 11 million dollars.

	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	51	67	33	44	-35	-35
<b>Imports</b>	11	14	5	6	-58	-56
<b>Exports</b>	19	27	13	17	-31	-35
<b>Domestic Sales</b>	43	54	24	32	-43	-41
<b>Foreign Trade Deficit</b>	8	13	8	11	6	-12
<b>Imports / Domestic Sales ( % )</b>	26	26	19	19		

**Table 11: Supply & Demand Balance in Thermoform Machines (Million \$)**

Source: Turk Stat & ITC Trade Statistics

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In the 9 months of 2019, 99% of the imports of thermoforming machines realized from 10 countries 32% of which was from China, 12% from Italy.

In the same period, 72% of total thermoforming machines exports destined to 10 countries and Iran and Egypt had a total of 30% share in total exports.

Imports			Exports		
Countries	1000 \$	% - Share	Countries	1000 \$	% - Share
China	1.665	36	Iran	2.428	19
Italy	1.492	32	Egypt	1.433	11
S. Korea	586	13	Germany	1.061	8
Taiwan	382	8	Russian Fed.	851	7
Germany	138	3	Algeria	824	6
Netherland	113	2	Croatia	626	5
India	103	2	Indonesia	598	5
USA	47	1	Albania	562	4
Japan	44	1	Poland	529	4
Sweden	20	0	Pakistan	498	4
	<b>4.591</b>	<b>99</b>	<b>10 Total</b>	<b>9.410</b>	<b>72</b>
	<b>46</b>	<b>1</b>	<b>Others</b>	<b>3.671</b>	<b>28</b>
<b>Total</b>	<b>4.637</b>	<b>100</b>	<b>Total</b>	<b>13.081</b>	<b>100</b>

**Table 12: Thermoform Machines Imports and Exports by Countries 2019/9)**

Source: Turk Stat & ITC Trade Statistics

## 6.6. PRESSES AND OTHER MACHINES

In the nine months of 2019, 178 million dollars of production, 144 million dollars of imports, 71 million dollars of exports and 251 million dollars of domestic market sales (presses and other machines investment of plastics industry) realized in presses and other machines industry. In this period foreign trade deficit realized as 73 million dollars.

It can be observed that the 57% of the domestic sales (presses and other machines investment of the industry) was provided by imports and export coverage of imports ratio realized as 49% in this period.

In 2019, production of presses and other machines is expected to increase to 238 million dollars, imports to 192 million dollars, exports to 95 million dollars, domestic sales to 335 million dollars and the sector is expected to have a foreign trade deficit of 97 million dollars.



	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	228	304	178	238	-22	-22
<b>Imports</b>	191	265	144	192	-24	-27
<b>Exports</b>	63	122	71	95	13	-22
<b>Domestic Sales</b>	356	448	251	335	-29	-25
<b>Foreign Trade Deficit</b>	-128	-143	-73	-97	-43	-32
<b>Imports / Domestic Sales ( % )</b>	54	59	57	57		
<b>Exports/Imports ( % )</b>	33	46	49	49		

**Table 13: Supply & Demand Balance in Presses and Other Machines (Million \$)**

Source: Turk Stat & ITC Trade Statistics

In 9 months of 2019, imports from 10 countries accounted for 94% of the total presses and other machines imports. Germany, China and Japan accounted for approximately 73% of the total presses' imports.

In this period, 56% of total presses exports were realized to 10 countries. Exports to India accounted for 14% of total exports.

Imports			Exports		
Countries	1000 \$	% - Share	Countries	1000 \$	% - Share
Germany	64.475	46	India	10.140	14
China	24.515	17	Spain	6.550	9
Japan	13.861	10	Algeria	4.372	6
Italy	13.130	9	Russian Fed.	4.275	6
Austria	3.741	3	S. Africa Rep.	3.260	4
Taiwan	2.967	2	Romania	2.927	4
Thailand	2.921	2	Bulgaria	2.775	4
France	2.368	2	USA	2.604	4
USA	2.188	2	Germany	1.978	3
Switzerland	2.157	2	Egypt	1.848	3
<b>10 Total</b>	<b>132.322</b>	<b>94</b>	<b>10 Total</b>	<b>40.729</b>	<b>56</b>
<b>Others</b>	<b>8.367</b>	<b>6</b>	<b>Others</b>	<b>31.860</b>	<b>44</b>
<b>Total</b>	<b>140.689</b>	<b>100</b>	<b>Total</b>	<b>72.589</b>	<b>100</b>

**Table 14: Presses and Other Machines Imports and Export by Countries (2019/9)**

Source: Turk Stat & ITC Trade Statistics

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**6.7. PARTS & COMPONENTS**

In the 9 months of 2019, 83 million dollars of production, 28 million dollars of import, 21 million dollars of exports and 90 million dollars of domestic market sales were realized in the parts and components sector. In this period, foreign trade deficit was 7 million dollars.

In the said period, it was seen that 31% of domestic sales (parts and parts investment of the sector) was met with imports and the ratio of exports to imports was realized as 74%.

In 2019, production is expected to increase to 110 million dollars, imports to 37 million dollars, exports to 28 million dollars, domestic sales to 120 million dollars and the sector is expected to have a foreign trade deficit of 10 million dollars.

	2018/9	2018	2019/9	2019/E	% Increase 2019/2018 (9M)	% Increase (E) 2019/2018
<b>Production</b>	79	105	83	110	5	5
<b>Imports</b>	36	43	28	37	-22	-12
<b>Exports</b>	18	26	21	28	15	5
<b>Domestic Sales</b>	97	121	90	120	-7	-1
<b>Foreign Trade Deficit</b>	-18	-16	-7	-10	-60	-40
<b>Imports / Domestic Sales ( % )</b>	37	35	31	31		
<b>Exports/Imports ( % )</b>	50	62	74	74		

**Table 15: Supply & Demand Balance in Parts and Components (Million \$)**

Source: Turk Stat & ITC Trade Statistics

In the 9 months of 2019, parts and components imports from 10 countries constituted 94% of total imports. Germany, China and Italy accounted for 73% of total parts imports.

In the same period, 56% of total parts and component exports were realized to 10 countries. Germany has a 14% share in the total export of parts and components.

<b>Imports</b>			<b>Exports</b>		
<b>Countries</b>	<b>1000 \$</b>	<b>% - Share</b>	<b>Countries</b>	<b>1000 \$</b>	<b>% - Share</b>
Germany	8.579	46	Germany	3.087	14
China	6.969	17	Çorlu EU.Free Zone	1.445	9
Italy	3.733	10	Russian Fed.	1.259	6
USA	2.402	9	Romania	1.114	6
France	1.961	3	S. Arabia	1.066	4
Austria	1.155	2	Italy	944	4
Taiwan	929	2	Bulgaria	903	4
S. Korea	765	2	Iraq	841	4

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Japan	689	2	India	668	3
Switzerland	568	2	Algeria	561	3
<b>10 Total</b>	<b>27.748</b>	<b>94</b>	<b>10 Total</b>	<b>11.887</b>	<b>56</b>
<b>Others</b>	<b>3.844</b>	<b>6</b>	<b>Others</b>	<b>8.801</b>	<b>44</b>
<b>Total</b>	<b>31.592</b>	<b>100</b>	<b>Total</b>	<b>20.688</b>	<b>100</b>

**Table 16: Parts and Components Imports and Exports by Countries (2019/9)**

Source: Turk Stat &amp; ITC Trade Statistics

## 7. MAIN PROBLEMS OF THE INDUSTRY

General problems in the machinery manufacturing industry, can also be applied to the plastic processing machines industry. In addition to these general problems, the major problems faced by the plastics processing machines can be summarized as follows;

- There is no national strategy for plastic processing machines. The sector has no specific vision
- Turkey, as for plastic processing machinery has a very serious investing plastics industry. Thus, Turkey is one of the world's most important market in this area. But 70% of the market is dominated by imported machines.
- The developments in the plastics processing machines and their accessories and parts industry, despite significantly developing the plastics industry and the propensity to invest following the similar pattern, is under constant pressure of the cheap imports conducted in China. Imports receives a higher margin in sharing the increasing demand.
- The lack of a state strategy for the plastic processing machinery sector, adequate protection of domestic producers and provide competitive advantages of plastic products manufacturer, they choose the second-hand imports of machinery.
- There is a serious place problem in the sector. Machine and component manufacturers generally operate in physically small and inadequate spaces. If they want to move to larger places, they must bury already limited working capital in high rent. The need for organized and rent-free industrial land is at an advanced stage in the sector.
- Turkey is a net importer in the plastics processing machines trade and machines exported are far from providing high added value when compared their unit prices.
- R - D, P & D, industrial design and product development efforts are insufficient in the industry.
- Patents and trademark investments are not enough in the industry.
- Industry's international technical compliance is insufficient.
- Equity capital and working capital of the companies are inadequate.
- Energy costs are high.
- The industry needs for the marketing customer relationship management.

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AYDINLIK BİR GELECEK  
GÜZEL BİR ÜLKE VE  
DAHA YAŞANILABİLİR  
BİR DÜNYA İÇİN  
AMBALAJ ATIKLARINI  
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