### ISC Statistics 2016 - International Fluid Power Statistics

#### National Home Sales, excluding aerospace

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	·						
			CETOP area <sup>a)</sup>	China	Japan	Taiwan	USA
HYDR	AULICS	in 1.000 national currency	in 1.000 EUR	in 1.000 CNY	in 1.000 JPY	in 1.000 TWD	in 1.000 USD
Valves			1.759.000	7.907.900	56,163,000	2.396.625	1.597.541
Pumps			1.158.000	10.064.600	38.094.000	1.459.296	2.285.201
	Reciprocating types (axial and ra	dial piston)	773.000	3.029.650	26.725.000	486.661	1.384.752
	Rotary types (gear, vane, orbital,		385.000	7.034.950	11.369.000	972.635	900.449
Actuato	ors		1.800.000	21.017.555	83.682.000	1.109.989	3.215.016
	Cylinders		1.312.000	15.148.250	33.066.000	642.491	2.347.184
	Motors		482.000	4.405.830	48.717.000	384.006	754.499
	Other actuators		6.000	1.463.475	1.899.000	83.492	113.333
	including elements sold separatel		408.000	991.055	5.661.000	149.634	834.954
	,	blies (hose with connectors attached)	1.612.000	3.081.000	13.136.000	532.891	1.637.112
Accum			102.000	379.990	2.601.000	94.365	97.381
	ydraulic products (see note)		885.000	2.824.250	6.568.000	843.682	1.297.075
	nce to ISC/CETOP Trend survey	reporting		6.170.000	-13.136.000		-468.338
	Components Hydraulics*		7.724.000	52.436.350	192.769.000	6.586.482	10.495.942
Assemi	blies		1.032.000	5.083.650	25.044.000	503.546	
Electro	nic controls sold separately to f	luid power	88.000			318.462	
Total H	lydraulics		8.844.000	57.520.000	217.813.000	7.408.490	10.495.942
'Among	g that: Electro-Hydraulics comp	onents	4.000		6.854.000		
PNEU	MATICS						
Valves			1.162.000	6.930.000	42.297.062	1.786.344	797.741
Actuato	ors		1.076.000	8.557.500	65.029.866	2.034.632	813.652
	Cylinders		1.027.000	7.959.000	62.510.350	1.765.235	766.394
	Motors		49.000	598.500			-27.356
	Other actuators				2.519.516	269.397	74.614
	RLs, including components sold s		302.000	2.488.500	14.966.272	1.063.621	621.341
		blies (hose with connectors attached)	524.000	1.533.000	7.566.402	1.553.876	536.408
	oneumatic products (see note)		582.000	945.000	69.824.564	614.833	350.215
Differer	nce to ISC/CETOP Trend survey	reporting		1.690.000			-136.977
Total C	Components Pneumatics*		3.646.000	22.144.000	199.684.166	7.053.306	2.982.380
Asseml	blies		117.000	546.000		543.392	
Electro	nic controls sold separately to f	luid power	14.000			243.317	
Total P	Pneumatics		3.777.000	22.690.000	199.684.166	7.840.015	2.982.380
'Among	g that: Electro-Pneumatics com	ponents	1.000				
Total I	Fluid Power		12.621.000	80,210,000	417.497.166	15.248.505	13.478.322
Total F	Fluid Power 2015		12.558.000	77.357.000	425.476.000	15.747.012	14.809.521
Total H	vdraulics 2015		8.843.000	56.130.000	231.956.000	7.753.522	11.521.341
Total P	neumatics 2015		3.715.000	21.227.000	193.520.000	7.993.490	3.288.180
Percent	tage of the national home sales co	vered by the assocation:				•	
		Hydraulics	80%	55%	90%	80%	85%
		Pneumatics	85%	70%	97%	80%	65%
Inoraca		2016/2015 (notional outropsy)	0.5%	0 70/	4 00/	2.00/	0.00
	se/decrease Fluid Power in %		0,5%	3,7%	-1,9%	-3,2%	-9,0%
	e/decrease Hydraulics in % 2016		0,0%	2,5%	-6,1%	-4,5%	-8,9%
increase	e/decrease Pneumatics in % 201	6/2015 (national currency)	1,7%	6,9%	3,2%	-1,9%	-9,3%

<sup>a)</sup>CETOP area: Belgium, Czech Republic, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

"Other hydraulic products" and "Other pneumatic products": include manifolds, reservoirs, intensifiers, gauges, sensors, sealing devices and replacement parts. For hydraulic / pneumatic systems, please refer to the hydraulic / pneumatic assemblies category.

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	CETOP area <sup>a)</sup>	China	Japan	Taiwan	USA	Total
HYDRAULICS	in 1.000 EURO	in 1.000 EURO	in 1.000 EURO	in 1.000 EURO	in 1.000 EURO	in 1.000 EURO
Valves	1.759.000	1.075.583	467.246	67.206	1.443.257	4.812.292
Pumps	1.158.000	1.368.924	316.922	40.921	2.064.505	4.949.272
Reciprocating types (axial and radial piston)	773.000	412.074	222.338	13.647	1.251.018	2.672.07
Rotary types (gear, vane, orbital, screw and other types)	385.000	956.850	94.584	27.274	813.487	2.277.195
Actuators	1.800.000	2.858.676	696.190	31.126	2.904.523	8.290.514
Cylinders	1.312.000	2.060.370	275.092	18.017	2.120.502	5.785.980
Motors	482.000	599.253	405.300	10.768	681.632	2.178.954
Other actuators	6.000	199.053	15.799	2.341	102.388	325.580
Filters, including elements sold separately	408.000	134.797	47.097	4.196	754.317	1.348.407
Bulk connectors, bulk hose and assemblies (hose with connectors attached)	1.612.000	419.058	109.285	14.943	1.479.006	3.634.292
Accumulators	102.000	51.684	21.639	2.646	87.976	265.945
Other hydraulic products (see note)	885.000	384.137	54.642	23.658	1.171.809	2.519.246
Difference to ISC/CETOP Trend survey reporting		839.205	-109.285		-423.108	306.812
Total Components Hydraulics*	7.724.000	7.132.063	1.603.735	184.697	9.482.286	26.126.781
Assemblies	1.032.000	691.446	208.353	14.120		1.945.919
Electronic controls sold separately to fluid power	88.000			8.930		96.930
Total Hydraulics	8.844.000	7.823.509	1.812.088	207.748	9.482.286	28.169.630
*Among that: Electro-Hydraulics components	4.000		57.022			61.022
PNEUMATICS						
Valves	1.162.000	942.575	351.889	50.092	720.698	3.227.255
Actuators	1.076.000	1.163.937	541.014	57.055	735.073	3.573.079
Cylinders	1.027.000	1.082.533	520.053	49.500	692.379	3.371.465
Motors	49.000	81.404			-24.714 <sup>1</sup>	105.690
Other actuators			20.961	7.554	67.408	95.923
FRs / FRLs, including components sold separately and air dryers	302.000	338.470	124.511	29.826	561.334	1.356.142
Bulk connectors, bulk hose and assemblies (hose with connectors attached)	524.000	208.509	62.948	43.574	484.604	1.323.635
Other pneumatic products (see note)	582.000	128.533	580.903	17.241	316.393	1.625.070
Difference to ISC/CETOP Trend survey reporting		229.863			-123.748	106.115
Total Components Pneumatics*	3.646.000	3.011.888	1.661.266	197.788	2.694.354	11.211.295
Assemblies	117.000	74.263		15.238		206.501
Electronic controls sold separately to fluid power	14.000			6.823		20.823
Total Pneumatics	3.777.000	3.086.151	1.661.266	219.848	2.694.354	11.438.619
*Among that: Electro-Pneumatics components	1.000					1.000
Total Fluid Power	12.621.000	10.909.660	3.473.354	427.596	12.176.639	39.608.249

Percentage of the national home sales covered by the assocation:

Hydraulics	80%	55%	90%	80%	85%
Pneumatics	85%	70%	97%	80%	65%
**1 EUR =		7,3522	120,2	35,66	1,1069
		CNY	JPY	TWD	USD

\*\* Source: Euro-reference rate of the European Central Bank: Annual average of 2016

a) CETOP area: Belgium, Czech Republic, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

"Other hydraulic products" and "Other pneumatic products": include manifolds, reservoirs, intensifiers, gauges, sensors, sealing devices and replacement parts. For hydraulic / pneumatic systems, please refer to the hydraulic / pneumatic assemblies category.

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	CETOP area <sup>a)</sup>	China	Japan	Taiwan	USA	Total
HYDRAULICS	in 1.000 USD	in 1.000 USD	in 1.000 USD	in 1.000 USD	in 1.000 USD	in 1.000 USD
Valves	1.947.037	1.190.563	517.195	75.443	1.597.541	5.327.778
Pumps	1.281.790	1.515.262	350.801	45.937	2.285.201	5.478.990
Reciprocating types (axial and radial piston)	855.634	456.125	246.106	15.319	1.384.752	2.957.935
Rotary types (gear, vane, orbital, screw and other types)	426.157	1.059.137	104.695	30.617	900.449	2.521.055
Actuators	1.992.420	3.164.268	770.612	34.941	3.215.016	9.177.257
Cylinders	1.452.253	2.280.623	304.499	20.225	2.347.184	6.404.784
Motors	533.526	663.313	448.626	12.088	754.499	2.412.052
Other actuators	6.641	220.331	17.488	2.628	113.333	360.422
Filters, including elements sold separately	451.615	149.207	52.131	4.710	834.954	1.492.617
Bulk connectors, bulk hose and assemblies (hose with connectors attached)	1.784.323	463.856	120.967	16.775	1.637.112	4.023.032
Accumulators	112.904	57.209	23.952	2.970	97.381	294.416
Other hydraulic products (see note)	979.607	425.201	60.484	26.558	1.297.075	2.788.924
Difference to ISC/CETOP Trend survey reporting		928.916	-120.967		-468.338	339.611
Total Components Hydraulics*	8.549.696	7.894.480	1.775.175	207.334	10.495.942	28.922.626
Assemblies	1.142.321	765.362	230.626	15.851		2.154.159
Electronic controls sold separately to fluid power	97.407			10.025		107.432
Total Hydraulics	9.789.424	8.659.842	2.005.800	233.210	10.495.942	31.184.217
*Among that: Electro-Hydraulics components	4.428		63.117			67.545
PNEUMATICS						
Valves	1.286.218	1.043.336	389.506	56.232	797.741	3.573.033
Actuators	1.191.024	1.288.362	598.848	64.048	813.652	3.955.934
Cylinders	1.136.786	1.198.256	575.646	55.567	766.394	3.732.650
Motors	54.238	90.106			-27.356 <sup>1</sup>	116.988
Other actuators			23.202	8.480	74.614	106.296
FRs / FRLs, including components sold separately and air dryers	334.284	374.653	137.822	33.481	621.341	1.501.580
Bulk connectors, bulk hose and assemblies (hose with connectors attached)	580.016	230.799	69.678	48.914	536.408	1.465.814
Other pneumatic products (see note)	644.216	142.273	643.002	19.354	350.215	1.799.060
Difference to ISC/CETOP Trend survey reporting		254.436			-136.977	117.459
Total Components Pneumatics*	4.035.757	3.333.858	1.838.855	222.029	2.982.380	12.412.880
Assemblies	129.507	82.202		17.105		228.815
Electronic controls sold separately to fluid power	15.497			7.659		23.156
Total Pneumatics	4.180.761	3.416.061	1.838.855	246.794	2.982.380	12.664.851
*Among that: Electro-Pneumatics components	1.107					1.107
Total Fluid Power	13.970.185	12.075.902	3.844.656	480.003	13.478.322	43.849.068

Percentage of the national home sales covered by the assocation:

Hydraulics Pneumatics	80% 85%		90% 97%		85% 65%
**1 USD =	0,9034 EUR	6,6422 CNY	108,5916 JPY	31,7675 TWD	

\*\* Source: European Central Bank: Annual average of 2016

<sup>a)</sup>CETOP area: Belgium, Czech Republic, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

"Other hydraulic products" and "Other pneumatic products": include manifolds, reservoirs, intensifiers, gauges, sensors, sealing devices and replacement parts. For hydraulic / pneumatic systems, please refer to the hydraulic / pneumatic assemblies category.

## Explanations concerning the 2016 ISC data

Countries	Comments on data by country
USA	1) Exports of Pneumatic Motors was larger than Imports of Pneumatic Motors. Add in the fact that Pneumatic Motors production total in the U.S. isn't a very large figure to begin with and that is why we ended up with a negative figure when calculating consumption of Pneumatic Motors.

# CETOP, General Secretariat

Domestic turnover of member companies by products plus estimation for companies not participating in the surveys.

### China, CHPSA

Counted on sales

### Japan, JFPA

Sold in our country, either from domestic production or from imports, whole market, not only member companies.

# Taiwan, TFPA

Production+Import-Export

# USA, NFPA

U.S. Production minus exports plus imports