## **FLOW CONTROL**

# Industry In-Sight"

**FOURTH QUARTER 2018** 









#### IN THIS REPORT

Introduction	1
Current Events / Trends	3
Mergers & Acquisitions Activity	5
Public Equity and Valuation Analysis	7
Economic Indicators	19



## Introduction

BY G. COOK JORDAN, JR.

#### Who is JKC and What Do We Do?

Jordan Knauff & Company (JKC) was founded in 2001 to undertake a distinct mission: to assemble and maintain a staff of top-notch investment banking personnel and offer their knowledge and experience to provide the best available investment banking services to middle-market companies, the entrepreneurs that lead them and the financial entities that transact with them. On a combined basis, over the course of their careers our employees have completed over 200 transactions as investors, owners, operators, investment bankers, buyers of middle-market businesses or sellers of middle-market businesses across a variety of industries. The majority of our firm's broad transaction experience has been with private companies owned by one shareholder, a partnership, a family or private equity investors.

Experience has taught us that the owners and executives of middle-market businesses tend to have very different needs and goals in capital transactions from those that are common to capital events related to larger companies. Our personnel apply their considerable expertise to accomplish important goals: delivery of successful outcomes for our clients. Pursuant to that, we direct and manage all aspects of the capital transaction process, assist our clients with the management of important constituents (employees, customers, vendors and lenders), act as a teammate to other important client advisors (legal counsel, accountant, tax advisor) and collaborate with transaction counsel in the negotiations with the parties on the other side of the transaction.

#### The Services We Provide

#### Sell Companies

Representation of owners who are seeking the sale of their business – ranging from the sale of part of the equity of a company to a full liquidity transaction involving the sale of the entire business. In either case, our objective is to transfer the inherent value of the business into an exchange which yields the best price and structure that meet the specific transaction goals of our client.

#### Raise Debt and Equity Capital

 We represent clients in the raising of all forms of capital: senior debt, mezzanine debt and equity capital. Proceeds may be typically used for a variety of applications, including: funding growth, recapitalization, expansion of assets, acquisitions or partial liquidity for shareholders.

Experience has taught us that the owners and executives of middlemarket businesses tend to have very different needs and goals ... than... larger companies.

#### Acquisition Advisory

Assistance to clients in the successful closing of an acquisition. Pertinent services include: valuation, optimization of structure, direction of the due diligence process and negotiation of transaction documents. Acquisition advisory services encompass work on a standalone target or a series of acquisitions that form a strategic consolidation plan.

#### Strategic Business Services

- A suite of consulting projects designed specifically for middlemarket business owners and executives to enable them to make better decisions about their companies or industries. Services include:
  - Company Specific Valuations
  - Capital Road Maps<sup>®</sup>
  - Strategic Industry Analyses

#### Areas of Expertise

Our team of professionals has notable experience in a broad portfolio of industries. While each project is evaluated on a case-by-case basis and the firm has the capabilities to service middle-market companies in almost any industry, JKC has significant expertise in the following industries:

#### Manufacturing & Distribution

- Manufacturing / Valued Added Manufacturing
- Manufacturing Process Technology
- Distribution / Value Added Distribution

#### Building Products & Services

- Windows & Doors
- Pre-fabricated Forms and Components
- Caulks & Sealants
- Flooring Products

#### Energy Logistics & Distribution

- Natural Gas Liquids: Direct to Consumer, Wholesale & Midstream
- Consumer, vynolesale & Midstream
- Light Fuels
- Lubricants
- Petro Chemicals

#### Flow Control

- Pumps, Valves & Filtration
- Water Management
- Related Technology

#### **Business Services**

Real Estate

#### **Closing Thoughts**

Thank you for taking the time to review this quarterly publication. We hope that you will find it to be relevant and informative. With that purpose in mind, we would welcome any thoughts or comments that you may have about it. Visit our research library at www.jordanknauff.com/research-library to view our previous Flow Control quarterly publications, as well as our other industry publications.

If you desire more information about our firm and its mission, please contact any member of our team listed on the back cover of this report. Our website is www.jordanknauff.com and our main telephone number is (312) 254-5900. ... please contact any member of our team listed on the back cover of this report.



## **Current Events / Trends**

BY G. COOK JORDAN, JR. LORI A. CALLAWAY

#### Gardner Denver Acquires MP Pumps

Gardner Denver Holdings Inc. acquired MP Pumps Inc. in December for approximately \$58 million in cash. The acquisition will provide further access to the specialty industrial pumps market and leverage Gardner Denver's distribution network, commercial, operational and R&D capabilities. The acquisition also fulfills its strategy of acquiring mission critical technologies with strong aftermarket potential. MP Pumps will become part of Gardner Denver's Industrials segment.

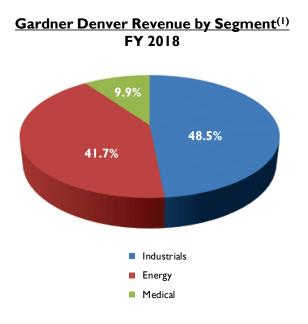
Based in Fraser, Michigan, MP Pumps manufactures specialty industrial pumps and associated aftermarket parts for use in a variety of industrial end markets. MP Pumps was founded in Detroit in 1942, and provides pumps for the following markets:

- Industrials end suction and self-priming models with focus on stainless steel and high temperatures for manufacturing, process, filtration and maintenance applications.
- Transportation circulation pumps for every transportation need from school buses to motor coaches and aftermarket.
- Agriculture pumps for mixing, blending, distribution, storage and application of agricultural chemicals, fuel and diesel exhaust fluid.
- Marine ABS approved bronze, cast iron and stainless steel models for bilge, fire, cooling, air conditioning, baitwell and grey-black water applications.
- Petroleum self-priming and end suction pumps for bio-diesel, fuel oil, kerosene, aviation gasoline, diesel, jet fuel, ethanol and E85.
- Ware Wash stainless steel pumps for every application from glass washers to flight type machines, pulpers and waste handling.

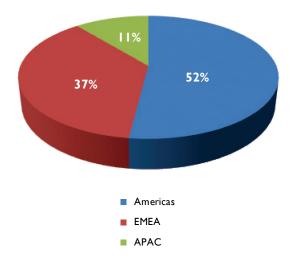
In November, Gardner Denver acquired DV Systems Inc. of Ontario, Canada. DV Systems manufactures rotary screw and piston compressors and aftermarket parts, including 5 to 200 HP air compressors used across a variety of industries such as automotive, industrial, wood-working, pharmaceutical, agricultural, and food and beverage.

Gardner Denver is a global provider of flow control and compression equipment and associated aftermarket parts, consumables and services for end markets within the industrial, energy and medical industries. The company offers a broad range of compressor, pump, vacuum and blower products and services. With 6,700 employees worldwide, it operates 39 manufacturing facilities and more than 30 service and repair centers across six continents.





Gardner Denver Revenue by Geography<sup>(1)</sup> Q3 2018 LTM



(1) Source: Gardner Denver Holdings Inc.



## Mergers & Acquisitions Activity

BY DAVID A. KAKAREKA

Flow Control M&A activity continues to be resilient as evidenced by the recent transactions listed below.

#### TABLE II: SELECTED VALVE M&A TRANSACTIONS: 4Q 2018(1)

Announced Date	Target	Acquirer(s)
12/19/2018	Hydraulik Nord Fluidtechnik Gmbh & Co. KG	Danfoss Power Solutions Inc.
12/12/2018	Advanced Engineering Valves	Emerson
11/13/2018	Dakota Fluid Power Inc.	SBP Holding LP
11/2/2018	Bolland y Cia. SA	PECOM Servicios Energia SA
11/1/2018	Nippon Oil Pump Co., Ltd.	CITIC Capital Partners
10/8/2018	VAG GmbH	AURELIUS Equity Opportunities SE & Co. KGaA

#### TABLE III: SELECTED PUMP M&A TRANSACTIONS: 4Q 2018(1)

nnounced Date	Target	Acquirer(s)
12/13/2018	MP Pumps, Inc.	Gardner Denver Holdings, Inc.
12/5/2018	JEC Ltd.	Verder Holding BV
11/13/2018	Dakota Fluid Power, Inc.	SBP Holding LP
11/1/2018	Nippon Oil Pump Co., Ltd.	<b>CITIC Capital Partners</b>
10/31/2018	Pumps Business of Wartsila Corporation	Solix Group

#### TABLE IV: SELECTED FILTER M&A TRANSACTIONS: 4Q 2018(1)

nnounced Date	Target	Acquirer(s)
12/10/2018	BWA Water Additives UK Ltd.	Italmatch Chemicals SpA
12/3/2018	NovaTek AB	Flowrox Oy
12/1/2018	AMS Technologies Ltd.	Newater Technology, Inc.
10/17/2018	Luwa Air Engineering AG	Nederman MikroPul LLC
10/3/2018	Sofape Fabricante de Filtros Ltda	H.I.G. Capital LLC
10/2/2018	Atlas High Purity Solutions Business of Quench USA, Inc.	East Range Partners LLC

<sup>(</sup>I) Source: S&P Capital IQ and JKC research.

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## **Public Equity and Valuation Analysis**

BY DAVID A. KAKAREKA

#### Wall Street Valve Watch

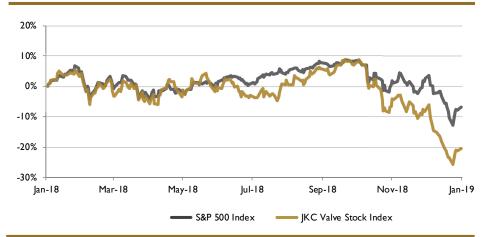
The JKC Valve Stock Index was down 20.4% over the last 12 months, while the broader S&P 500 Index lost 6.2%.

Through the first ten months of 2018, dry natural gas production in the U.S. was 11% higher compared to the same period in 2017, and the U.S. Energy Information Administration expects that production for the entire year will reach record levels. Driven by natural gas fired plants replacing coal fired plants in the electricity fuel mix, domestic consumption of natural gas increased in 2018 with consumption 17% higher than 2017 levels through the first ten months of the year. <sup>(1)</sup>

In addition, continued increases of U.S. natural gas exports by pipeline to Mexico and additional LNG export capacity that came online during the year resulted in the U.S. exporting more natural gas than it imported for the second year in a row. The average annual Henry Hub natural gas spot price increased to \$3.16 per MMBtu, \$0.15 above the 2017 average. Prices increased gradually much of the year, with significant price increases in October and November, before declining at the end of December.

On Wall Street the Dow Jones Industrial Average lost 8.7%, the S&P 500 Index fell 9.2%, while the NASDAQ Composite lost 9.5%, marking the worst ever December for the markets after the Great Depression. The Dow, S&P 500 and NASDAQ Composite fell 5.6%, 6.2% and 3.9%, respectively, in 2018. All three major stock indexes recorded their worst yearly performance since 2008. Investors were concerned about a number of issues including, tariffs, the Federal Reserve Bank's monetary policy, falling crude oil prices and an expected global economic slowdown, all contributing to significant market volatility throughout the year.

#### CHART I: JKC VALVE STOCK INDEX<sup>(2)</sup>



<sup>(1)</sup> See Economic Indicators section of this report for more detailed information on these indicators.

... continued increases of natural gas exports ... resulted in the U.S. exporting more natural gas than it imported for the second year in a row.

<sup>(2)</sup> Source: S&P Capital IQ and JKC research. Local currency converted to USD using historical spot rates. The JKC Valve Stock Index includes a select list of publicly-traded companies involved in the valve industry weighted by market capitalization.

#### Valve Companies

As shown in Tables V and VI, as of December 31, 2018, domestic and international Valve companies were trading at median total enterprise value / latest twelve months ("TEV/LTM") EBITDA multiples of 10.4x and 8.7x, respectively, while both groups have median EBITDA margins of 17.1% and 12.5%, respectively. The median stock price as a percentage of the 52-week high for both groups is 70% and 65%, respectively, of their 52-week highs. With the exception of a few companies, we believe both groups are fairly well capitalized.

#### TABLE V: SELECTED DOMESTIC VALVE COMPANIES(1)

(US\$ in millions, except per share data)

		LTM		Stock Price	% of 52-Week	Market	Total Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> /
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	12/31/2018	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Badger Meter Inc. (BMI)	\$434	\$62	14.2%	\$49.21	86.2%	\$1,433	\$1,458	3.4x	23.7x	0.1x
CIRCOR International Inc. (CIR)	١,080	110	10.2	21.30	38.8	423	1,154	1.1	10.4	6.6
Crane Co. (CR)	3,346	596	17.8	72.18	70.3	4,291	5,014	١.5	8.4	1.0
Curtiss-Wright Corp. (CW)	2,375	487	20.5	102.12	71.2	4,472	5,040	2.1	10.4	1.2
Dover Corp. (DOV)	6,992	1,190	17.0	70.95	65.1	10,382	13,454	1.9	11.3	2.3
Emerson Electric Co. (EMR)	١7,739	3,641	20.5	59.75	75.0	37,413	41,123	2.3	11.3	1.3
Flowserve Corp. (FLS)	3,833	474	12.4	38.02	66.9	4,975	5,967	1.6	12.6	1.8
General Electric Co. (GE)	121,615	13,049	10.7	7.57	39.1	65,845	184,103	1.5	14.1	6.8
Honeywell International Inc. (HON)	41,802	9,011	21.6	132.12	78.8	97,807	104,589	2.5	11.6	0.6
ITT Corporation (ITT)	2,745	470	17.1	48.27	76.6	4,227	3,859	1.4	8.2	(0.9)
Mueller Water Products, Inc. (MWA)	931	162	17.5	9.10	70.9	1,438	1,539	1.7	9.5	1.5
Parker Hannifin Corporation (PH)	14,518	2,597	17.9	149.14	70.1	19,739	23,861	1.6	9.2	1.7
Schlumberger Limited (SLB)	32,815	6,836	20.8	36.08	44.9	49,964	64,899	2.0	9.5	2.2
SPX Flow Inc. (FLOW)	2,090	251	12.0	30.42	55.4	1,294	1,921	0.9	7.6	2.2
TechnipFMC plc (FTI)	12,553	(367)	(2.9)	19.58	55.9	8,818	7,360	0.6	NM	NM
Watts Water Technologies, Inc. (WTS)	1,565	240	15.4	64.53	69.1	2,200	2,422	1.5	10.1	0.6
Xylem Inc. (XYL)	5,207	958	18.4	66.72	80.9	,99	14,132	2.7	14.8	2.1
Median			17.1%		70.1%			1.6x	10.4x	1.6x
Mean			15.4		65.6			1.8	11.4	1.9

<sup>(1)</sup> Source: S&P Capital IQ and JKC research.

<sup>(2)</sup> Revenues and EBITDA are for the latest twelve months as of 12/31/18.

<sup>(3)</sup> Total enterprise value is defined as market capitalization *plus* total debt *less* cash and cash equivalents.

<sup>(4)</sup> Net debt is defined as total debt less cash and cash equivalents.



#### TABLE VI: SELECTED INTERNATIONAL VALVE COMPANIES(1)

(US\$ in millions, except per share data)

		LTM		Stock Price 5	% of 52-Week High	Market	Total Enterprise	TEV / LTM		Net Debt <sup>(4)</sup> /
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin			Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Aalberts Industries NV (AALB)	\$3,106	\$496	16.0%	\$33.26	64.5%	\$3,678	\$4,557	1.5x	9.2x	l.7x
Alfa Laval AB (ALFA)	4,453	803	18.0	21.34	75.9	8,951	9,932	2.2	12.4	1.0
Georg Fischer AG (FI-N)	4,654	538	11.6	799.32	55.4	3,272	3,812	0.8	7.1	0.9
Hisaka Works Ltd. (6247)	265	29	10.9	7.49	65.6	224	90	0.3	3.1	(4.4)
Hitachi Ltd. (6501)	86,443	10,886	12.6	26.76	62.2	25,835	37,621	0.4	3.5	0.2
IMI plc (IMI)	2,316	416	18.0	12.03	65.0	3,262	3,834	1.7	9.2	1.4
Kitz Corp. (6498)	1,210	151	12.5	7.82	76.5	746	929	0.8	6.2	1.2
KSB Aktiengesellschaft (KSB)	2,487	115	4.6	316.01	54.3	549	575	0.2	5.0	(1.4)
Kubota Corp. (6326)	16,821	2,275	13.5	14.23	65.9	17,515	23,569	1.4	10.4	2.2
Lupatech S.A. (LUPA3)	30	(43)	(144.7)	0.47	38.6	7	63	2.1	NM	(1.0)
Metso Corp. (METSO)	3,427	425	12.4	26.22	71.0	3,933	4,109	1.2	9.7	0.5
Okano Valve Manufacturing Co. (6492)	71	5	6.5	20.15	76.3	35	34	0.5	7.4	0.3
Saint Gobain (SGO)	47,159	4,769	10.1	33.39	60.0	18,199	29,279	0.6	6.1	2.0
SMC Corp. (6273)	5,488	1,914	34.9	302.97	59.5	20,365	15,564	2.8	8.1	(2.5)
Spirax-Sarco Engineering plc (SPX)	1,425	362	25.4	79.53	74.2	5,852	6,328	4.4	17.5	1.4
The Weir Group PLC (WEIR)	3,180	478	15.0	16.54	55.6	4,284	5,000	1.6	10.5	1.5
Velan, Inc. (VLN)	345	10	2.9	6.49	43.2	140	113	0.3	11.3	(2.8)
Median			12.5%		64.5%			1.2x	8.7x	0.9x
Mean			4.7		62.6			1.3	8.5	0.1

Source: S&P Capital IQ and JKC research.
Revenues and EBITDA are for the latest twelve months as of 12/31/18.
Total enterprise value is defined as market capitalization *plus* total debt *less* cash and cash equivalents.
Net debt is defined as total debt *less* cash and cash equivalents.

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#### Wall Street Pump Watch

The JKC Pump Stock Index was down 25.7% over the last twelve months, while the S&P 500 Index lost 6.2% over the same time period.

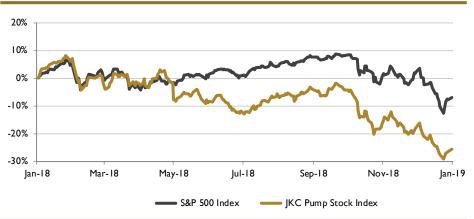
The Institute for Supply Management's Purchasing Managers' Index (PMI) December PMI registered 54.1%, a decrease of 5.2 percentage points from the November reading of 59.3%, its largest one-month drop in a decade. The New Orders Index registered 51.1%, a decrease of 11 percentage points from the November reading of 62.1%. The Production Index registered 54.3%, a 6.3 percentage point decrease compared to the November reading of 60.6%. Only two sub-indices rose over the month with export orders growing 0.6% and customer inventories rising 0.2%.<sup>(1)</sup>

The U.S. economy gained 312,000 new jobs in December, the largest increase since February. Employment gains for November and October were also revised up by a combined 58,000 jobs. The U.S. added an average of 254,000 jobs a month in the fourth quarter of 2018, the largest increase since 2016. In December health care providers added 50,000 people, professional firms filled 43,000 positions, manufacturers added 32,000 jobs and construction firms added 32,000 to payrolls.

U.S. factory orders declined 0.6% in November, the second straight monthly decline. The weakness was felt in the non durable goods side as durable goods orders increased 0.7%, a recovery from the 4.3% decline in October. Shipments of non-defense capital goods, excluding aircraft, fell in November, the third decline in the past four months.

On Wall Street the Dow Jones Industrial Average lost 8.7%, the S&P 500 Index fell 9.2%, while the NASDAQ Composite lost 9.5%, marking the worst ever December for the markets after the Great Depression. The Dow, S&P 500 and NASDAQ Composite fell 5.6%, 6.2% and 3.9%, respectively, in 2018. All three major stock indexes recorded their worst yearly performance since 2008. Investors were concerned about a number of issues including, tariffs, the Federal Reserve Bank's monetary policy, falling crude oil prices and an expected global economic slowdown, all contributing to significant market volatility throughout the year.

#### CHART II: JKC PUMP STOCK INDEX<sup>(2)</sup>



<sup>(1)</sup> See Economic Indicators section of this report for more detailed information on these indicators.

All three major stock indexes recorded their worst yearly performance since 2008.

<sup>(2)</sup> Source: S&P Capital IQ and JKC research. Local currency converted to USD using historical spot rates. The JKC Pump Stock Index includes a select list of publicly-traded companies involved in the pump industry weighted by market capitalization.

#### **Pump Companies**

Domestic Pump companies (as listed in Table VII) and international Pump companies (in Table VIII) were trading at median TEV/LTM EBITDA multiples of 12.1x and 9.7x, respectively, as of December 31, 2018. As you can see, both groups are similarly leveraged with a median net debt/LTM EBITDA ratio of 1.5x for domestic Pump companies compared to 0.5x for international Pump companies. In our assessment, both groups are extremely well capitalized and could afford to take on additional indebtedness.

#### TABLE VII: SELECTED DOMESTIC PUMP COMPANIES(1)

(US\$ in millions, except per share data)

				Stock	% of		Total			Net Debt <sup>(4)</sup> / EBITDA
		LTM		Price	52-Week High	Market	Enterprise	TEV /	LTM	
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	12/31/2018		Сар	Value <sup>(3)</sup>	Revenues	EBITDA	
Ampco-Pittsburgh Corp. (AP)	\$469	\$17	3.5%	\$3.10	19.8%	\$39	\$106	0.2x	6.4x	3.8x
Baker Hughes Inc. (BHGE)	22,877	2,690	11.8	21.50	56.9	11,038	36,389	1.6	13.5	1.3
Colfax Corporation (CFX)	3,667	458	12.5	20.90	49.7	2,449	3,522	1.0	7.7	2.1
Crane Co. (CR)	3,346	596	17.8	72.18	70.3	4,291	5,014	1.5	8.4	1.0
Curtiss-Wright Corp. (CW)	2,375	487	20.5	102.12	71.2	4,472	5,040	2.1	10.4	1.2
Danaher Corp. (DHR)	19,893	4,819	24.2	103.12	93.0	72,277	82,130	4.1	17.0	1.9
Dover Corp. (DOV)	6,992	1,190	17.0	70.95	65.1	10,382	13,454	1.9	.3	2.3
Energy Recovery, Inc. (ERII)	75	12	١5.7	6.73	63.1	362	277	3.7	23.7	(7.3)
Flowserve Corp. (FLS)	3,833	474	12.4	38.02	66.9	4,975	5,967	1.6	12.6	1.8
Franklin Electric Co. Inc. (FELE)	1,298	172	13.3	42.88	83.3	2,004	2,183	1.7	12.7	0.9
General Electric Co. (GE)	121,615	13,049	10.7	7.57	39.1	65,845	184,103	1.5	4.	6.8
Gorman-Rupp Co. (GRC)	414	65	١5.7	32.41	84.7	846	745	1.8	11.4	(0.7)
Graco Inc. (GGG)	1,653	476	28.8	41.85	84.2	6,965	7,098	4.3	14.9	0.3
IDEX Corp. (IEX)	2,484	659	26.5	126.26	80.0	9,685	10,042	4.0	15.2	0.6
Illinois Tool Works Inc. (ITW)	l 4,768	4,065	27.5	126.69	70.7	42,036	47,855	3.2	11.8	1.4
Ingersoll-Rand Co. Ltd. (IR)	ا 5,668	2,325	14.8	91.23	85.2	22,411	25,514	1.6	11.0	1.4
ITT Corporation (ITT)	2,745	470	17.1	48.27	76.6	4,227	3,859	1.4	8.2	(0.9)
National Oilwell Varco, Incorporated (NOV)	8,453	898	10.6	25.70	52.4	9,853	11,344	1.3	12.6	1.4
Pentair, Inc. (PNR)	2,965	562	19.0	37.78	50.5	6,559	7,293	2.5	13.0	1.3
Roper Technologies Inc. (ROP)	5,191	1,763	34.0	266.52	85.2	27,566	32,419	6.2	18.4	2.6
Schlumberger Limited (SLB)	32,815	6,836	20.8	36.08	44.9	49,964	64,899	2.0	9.5	2.2
SPX Flow Inc. (FLOW)	2,090	251	12.0	30.42	55.4	1,294	1,921	0.9	7.6	2.2
Standex International Corp. (SXI)	882	130	4.7	67.18	58.8	862	1,052	1.2	8.1	1.5
United Technologies Corp. (UTX)	66,501	11,256	16.9	106.48	73.9	91,933	120,346	1.8	10.7	3.5
Weatherford International Ltd. (WFT)	5,744	666	11.6	0.56	12.7	560	8,234	1.4	12.4	11.1
Xylem Inc. (XYL)	5,207	958	18.4	66.72	80.9	11,991	14,132	2.7	14.8	2.1
Median			16.3%		68.6%			1.7x	12.1x	1.5x
Mean			17.2		64.4			2.2	12.2	1.8

(I) Source: S&P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 12/31/18.

(3) Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

(4) Net debt is defined as total debt less cash and cash equivalents.



#### TABLE VIII: SELECTED INTERNATIONAL PUMP COMPANIES<sup>(1)</sup>

(US\$ in millions, except per share data)

				Stock	% of		Total			
		LTM		Price	52-Week	Market	Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> / EBITDA
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	12/31/2018	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	
Alfa Laval AB (ALFA)	\$4,453	\$803	18.0%	\$21.34	75.9%	\$8,951	\$9,932	2.2x	12.4x	1.0x
Andritz AG (ANDR)	6,812	436	6.4	45.94	75.0	4,639	4,264	0.6	9.8	(0.9)
DMW Corp. (6365)	160	19	11.9	19.40	85.2	84	6	0.0	0.3	(3.5)
Ebara Corp. (6361)	5,015	516	10.3	22.52	52.1	2,292	١,970	0.4	3.8	(0.6)
FLSmidth & Co. A/S (FLS)	2,798	253	9.0	44.96	65.4	2,241	2,541	0.9	10.0	1.2
Gevelot SA (ALGEV)	104	28	26.9	204.95	82.9	158	(29)	NM	NM	0.5
GUD Holdings Ltd. (GUD)	280	61	21.8	7.92	72.3	685	751	2.7	12.3	1.7
Hyundai Heavy Industries Co. Ltd. (A009540)	11,560	(198)	(1.7)	115.43	81.3	8,163	9,479	0.8	NM	NM
John Wood Group plc (WG)	8,081	435	5.4	6.45	63.2	4,339	5,882	0.7	13.5	3.7
Kirloskar Brothers Ltd. (500241)	427	23	5.4	2.19	35.3	174	212	0.5	9.2	0.0
KSB Aktiengesellschaft (KSB)	2,487	115	4.6	316.01	54.3	549	575	0.2	5.0	(1.4)
Kubota Corp. (6326)	16,821	2,275	13.5	14.23	65.9	17,515	23,569	1.4	10.4	2.2
Metso Corp. (METSO)	3,427	425	12.4	26.22	71.0	3,933	4,109	1.2	9.7	0.5
Nikkiso Co. Ltd. (6376)	1,440	157	10.9	8.41	59.3	599	1,414	1.0	9.0	5.1
Pfeiffer Vacuum Technology AG (PFV)	742	118	15.9	124.91	65.9	1,233	۱,198	1.6	10.2	(0.3)
SKF AB (SKF B)	9,452	۱,37۱	14.5	15.13	66.8	6,887	8,168	0.9	6.0	0.5
Spirax-Sarco Engineering plc (SPX)	1,425	362	25.4	79.53	74.2	5,852	6,328	4.4	17.5	1.4
Sulzer, Ltd. (SUN)	3,277	332	10.1	79.32	55.8	2,701	3,254	1.0	9.8	0.7
Teikoku Electric Mfg.Co.,Ltd. (6333)	201	35	17.6	11.74	71.8	232	153	0.8	4.3	(2.2)
The Weir Group PLC (WEIR)	3,180	478	15.0	16.54	55.6	4,284	5,000	1.6	10.5	1.5
Torishima Pump Manufacturing Co. Ltd. (6363)	450	32	7.2	8.49	76.4	231	237	0.5	7.3	0.8
Tsurumi Manufacturing Co. Ltd. (6351)	377	49	13.0	17.55	86.7	439	312	0.8	6.4	(2.6)
Median			12.1%		<b>68.9</b> %			0.9x	9.7x	0.5x
Mean			12.4		67.8			1.2	8.9	0.4

Source: S&P Capital IQ and JKC research.
Revenues and EBITDA are for the latest twelve months as of 12/31/18.
Total enterprise value is defined as market capitalization *plus* total debt *less* cash and cash equivalents.
Net debt is defined as total debt *less* cash and cash equivalents.

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#### Wall Street Filter Watch

The JKC Filter Stock Index was down 20.1% over the last twelve months, while the S&P 500 Index lost 6.2%.

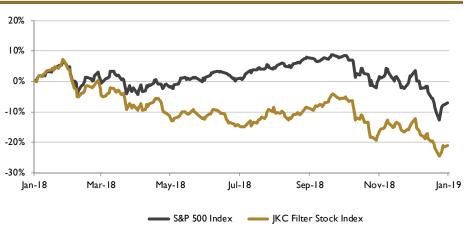
Contracts for new, single-family home sales increased almost 17% to a 657,000 seasonally adjusted annual rate in November according to estimates from the Census Bureau. On a year-to-date basis, new single-family home sales, despite a second half slowdown, were running 2.7% higher than the total for 2017 through November. Total U.S. existing home sales decreased 6.4% in December after two consecutive months of increases. Compared to a year ago, sales decreased 10.3% in December, the lowest level since November 2015. First-time buyers declined slightly to 32% from 33% in November, but remained unchanged from a year ago.<sup>(1)</sup>

U.S. auto sales increased 2.2% in December, capping a year that saw overall volume rise 0.6%. Overall, light-truck sales rose 6.9% for the month and 7.7% in 2018, while car deliveries slid 8.2% in December and 13% for the year, marking the fifth straight annual decline in car volume. U.S. sales at FCA US, American Honda and Nissan Motor Co. rose during December, while Ford Motor Co., General Motors Co. and Toyota Motor Corp. posted declines.

FCA US sales rose 14% for the month, driven by gains of 10% at Jeep, 37% at Ram and 17% at Dodge. For the year, Ford sales dropped 3.5% behind an 18% decline in car deliveries. GM's U.S. sales dipped an estimated 3.7% last month and fell 1.6% during the year, with every brand posting lower volume.

On Wall Street the Dow Jones Industrial Average lost 8.7%, the S&P 500 Index fell 9.2%, while the NASDAQ Composite lost 9.5%, marking the worst ever December for the markets after the Great Depression. The Dow, S&P 500 and NASDAQ Composite fell 5.6%, 6.2% and 3.9%, respectively, in 2018. All three major stock indexes recorded their worst yearly performance since 2008. Investors were concerned about a number of issues including, tariffs, the Federal Reserve Bank's monetary policy, falling crude oil prices and an expected global economic slowdown, all contributing to significant market volatility throughout the year.

#### CHART III: JKC FILTER STOCK INDEX<sup>(2)</sup>



<sup>(</sup>I) See Economic Indicators section of this report for more detailed information on these indicators.

Contracts for new, single-family home sales increased almost 17% to a 657,000 seasonally adjusted annual rate in November.

<sup>(2)</sup> Source: S&P Capital IQ and JKC research. Local currency converted to USD using historical spot rates. The JKC Filter Stock Index includes a select list of publicly-traded companies involved in the filter industry weighted by market capitalization.

#### Filter Companies

As of December 31, 2018, domestic and international Filter companies (listed in Table IX and Table X, respectively) were trading at medians of 11.6x and 9.7x, respectively, of TEV/LTM EBITDA with median LTM EBITDA margins of 17.9% and 11.9%, respectively. With the exception of a few companies, both the domestic and international Filter companies are conservatively capitalized.

#### TABLE IX: SELECTED DOMESTIC FILTER COMPANIES(1)

(US\$ in millions, except per share data)

Company		LTM			% of 52-Week High	Market	Total Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> /
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin			Cap	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
3M Co. (MMM)	\$32,765	\$8,358	25.5%	\$190.54	73.3%	\$110,949	\$122,351	3.7x	14.6x	l.4x
Cantel Medical Corp. (CMD)	885	164	18.6	74.45	56.9	3,106	3,237	3.7	19.7	0.8
CECO Environmental Corp. (CECE)	317	24	7.5	6.75	73.5	236	288	0.9	12.1	2.2
Corning Inc. (GLW)	11,290	2,886	25.6	30.2 I	82.6	24,180	29,974	2.7	10.4	1.3
Crane Co. (CR)	3,346	596	17.8	72.18	70.3	4,291	5,014	1.5	8.4	1.0
Cummins Inc. (CMI)	23,771	3,472	14.6	133.64	68.8	21,390	23,317	1.0	6.7	0.3
Donaldson Company Inc. (DCI)	2,791	466	۱6.7	43.39	73.0	5,549	6,072	2.2	13.0	1.1
Eaton Corporation (ETN)	21,609	3,874	17.9	68.66	76.4	29,757	36,594	1.7	9.4	1.8
Entegris, Inc. (ENTG)	1,550	436	28.1	27.90	70.5	3,942	4,298	2.8	9.9	1.0
ESCO Technologies Inc. (ESE)	781	141	18.1	65.95	92.3	1,709	1,917	2.5	13.6	1.3
General Electric Co. (GE)	121,615	13,049	10.7	7.57	39.1	65,845	184,103	1.5	14.1	6.8
Honeywell International Inc. (HON)	41,802	9,011	21.6	132.12	78.8	97,807	104,589	2.5	11.6	0.6
Illinois Tool Works Inc. (ITW)	14,768	4,065	27.5	126.69	70.7	42,036	47,855	3.2	11.8	1.4
Lydall Inc. (LDL)	754	91	12.0	20.3 I	39.2	354	647	0.9	7.1	3.2
Parker Hannifin Corporation (PH)	14,518	2,597	17.9	149.14	70.1	19,739	23,861	1.6	9.2	1.7
Pentair, Inc. (PNR)	2,965	562	19.0	37.78	50.5	6,559	7,293	2.5	13.0	1.3
Tenneco Inc. (TEN)	9,874	856	8.7	27.39	41.8	2,215	3,623	0.4	4.2	1.6
Watts Water Technologies, Inc. (WTS)	1,565	240	15.4	64.53	69.1	2,200	2,422	1.5	10.1	0.6
Xylem Inc. (XYL)	5,207	958	18.4	66.72	80.9	,99	14,132	2.7	14.8	2.1
Median			17.9%		70.5%			2.2x	11.6x	I.3x
Mean			18.0		67.3			2.1	11.2	1.7

<sup>(1)</sup> Source: S&P Capital IQ and JKC research.

<sup>(2)</sup> Revenues and EBITDA are for the latest twelve months as of 12/31/18.

<sup>(3)</sup> Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

<sup>(4)</sup> Net debt is defined as total debt less cash and cash equivalents.



#### TABLE X: SELECTED INTERNATIONAL FILTER COMPANIES<sup>(1)</sup>

(US\$ in millions, except per share data)

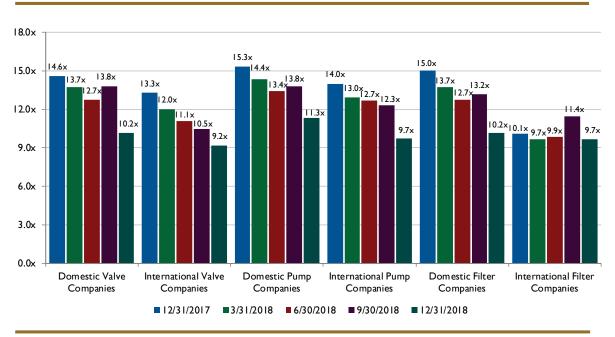
		LTM		Stock Price	% of 52-Week	Market	Total Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> /
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	12/31/2018	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Ahlstrom-Munksjo Oyj (AMI)	\$2,602	\$270	10.4%	\$13.88	60.3%	\$1,600	\$2,134	0.8×	7.9x	4.3x
Alfa Laval AB (ALFA)	4,453	803	18.0	21.34	75.9	8,951	9,932	2.2	12.4	1.0
Amiad Filtration Systems Ltd (AFS)	109	7	6.7	2.88	81.9	65	78	0.7	10.6	1.4
Andritz AG (ANDR)	6,812	436	6.4	45.94	75.0	4,639	4,264	0.6	9.8	(0.9)
Asahi Kasei Corp. (3407)	19,313	3,024	15.7	10.30	64.0	14,379	17,069	0.9	5.6	1.0
Daikin Industries Ltd. (6367)	22,012	3,345	15.2	106.59	74.6	31,177	32,300	1.5	9.7	0.3
Denso Corp. (6902)	48,943	5,834	11.9	44.60	67.8	34,553	34,894	0.7	6.0	(0.3)
Faurecia SA (EO)	23,617	1,941	8.2	37.86	43.0	5,193	6,146	0.3	3.2	0.3
FLSmidth & Co. A/S (FLS)	2,798	253	9.0	44.96	65.4	2,241	2,541	0.9	10.0	1.2
GEA Group AG (GIA)	5,481	436	8.0	25.86	54.3	4,668	4,793	0.9	11.0	0.3
GUD Holdings Ltd. (GUD)	280	61	21.8	7.92	72.3	685	751	2.7	12.3	1.7
Ibiden Co., Ltd. (4062)	2,759	370	13.4	4.	82.4	1,971	1,626	0.6	4.4	(0.9)
Johnson Matthey plc (JMAT)	18,802	878	4.7	35.67	72.3	6,848	8,176	0.4	9.3	1.5
NGK Insulators Ltd. (5333)	4,188	959	22.9	13.59	64.7	4,373	4,759	1.1	5.0	0.6
Nitto Denko Corp. (6988)	7,581	1,406	18.5	50.52	51.9	7,923	5,290	0.7	3.8	(1.8)
Porvair plc (PRV)	154	20	12.9	5.28	73.2	242	239	1.6	12.0	(0.4)
Sartorius AG (SRT)	1,738	446	25.7	107.63	67.4	7,943	9,230	5.3	20.7	2.4
Siemens AG (SIE)	95,081	10,459	11.0	111.90	77.8	90,512	114,784	1.2	11.0	2.5
Toray Industries Inc. (3402)	21,400	2,501	11.7	7.04	67.9	11,257	19,591	0.9	7.8	3.0
Median			I I. <b>9</b> %		67.9%			0.9x	9.7x	1.0x
Mean			13.3		68.0			1.3	9.1	0.9

Source: S&P Capital IQ and JKC research.
Revenues and EBITDA are for the latest twelve months as of 12/31/18.
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#### THE FLOW CONTROL INDUSTRY - QUARTERLY UPDATE

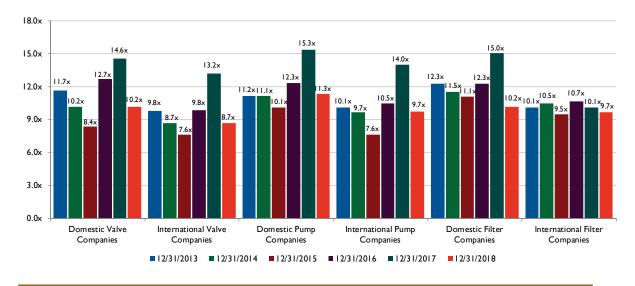
#### Valuation Trends over Time

Quarterly median TEV/LTM EBITDA valuation multiples have generally decreased over last quarter levels for domestic companies and international companies. Annual multiples for domestic and international companies are generally at lower levels than last year at this time.



#### CHART IV: QTRLY MEDIAN TEV/LTM EBITDA VALUATION MULTIPLES(1)





(1) Source: S&P Capital IQ and JKC research.



## Economic Indicators – Valves and Pumps<sup>(1)</sup>

BY DAVID A. KAKAREKA

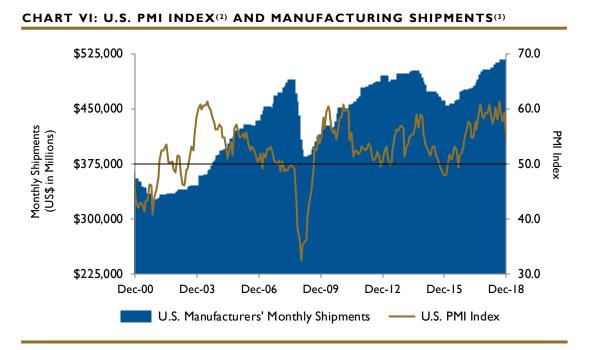
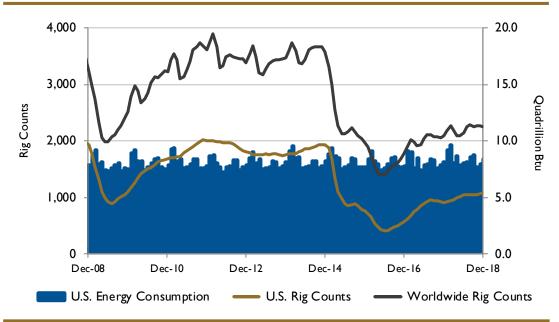


CHART VII: U.S. ENERGY CONSUMPTION<sup>(4)</sup> AND RIG COUNTS<sup>(5)</sup>



<sup>(1)</sup> Economic indicators used in Public Equity and Valuation Analysis section of this report.

<sup>(2)</sup> Source: Institute for Supply Management Manufacturing Report on Business®. A PMI Index above 50 represents expansion within the manufacturing sector compared with the prior month.

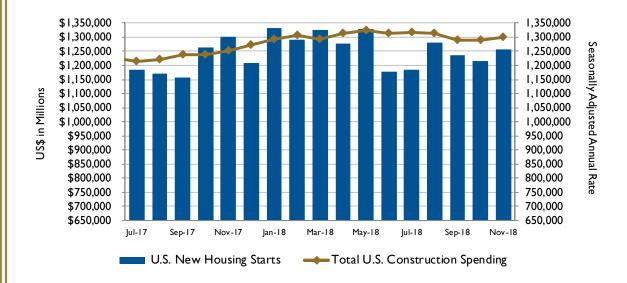
<sup>(3)</sup> Source: U.S. Census Bureau; Manufacturers' Shipments, Inventories and Orders Survey.

<sup>(4)</sup> Source: U.S. Energy Information Administration, Short-term Energy Outlook.

<sup>(5)</sup> Source: Baker Hughes Inc.

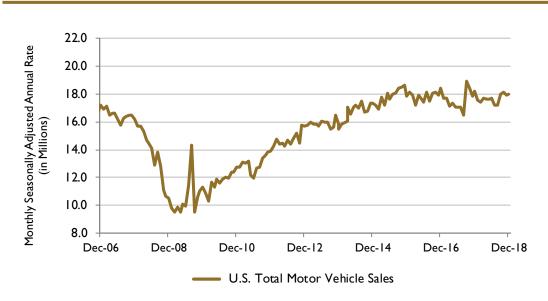
## **Economic Indicators** — Filters<sup>(1)</sup>

BY DAVID A. KAKAREKA



#### CHART VIII: U.S. HOUSING STARTS AND CONSTRUCTION SPENDING<sup>(2)</sup>

#### CHART IX: U.S. MOTOR VEHICLE SALES(3)



<sup>(1)</sup> Economic indicators used in Public Equity and Valuation Analysis section of this report.

<sup>(2)</sup> Source: U.S. Census Bureau; Manufacturing, Mining and Construction Statistics.

<sup>(3)</sup> Source: U.S. Department of Commerce, Bureau of Economic Analysis.

### JORDAN KNAUFF & COMPANY

#### FLOW CONTROL TEAM



G. COOK JORDAN, JR. Managing Principal Office (312) 254-5901 cj@jordanknauff.com



**DAVID A. KAKAREKA** Vice President of Transaction Management Office (312) 254-5907 dkakareka@jordanknauff.com



LORIA. CALLAWAY Vice President of Research and Publications Office (312) 254-5914 Icallaway@jordanknauff.com

#### ABOUT JORDAN KNAUFF & COMPANY

Jordan Knauff & Company was founded in 2001 to undertake a distinct mission: to assemble and maintain a staff of top-notch investment banking personnel and offer their knowledge and experience to provide the best available investment banking services to middle-market companies, the entrepreneurs that lead them and the financial entities that transact with them. On a combined basis, over the course of their careers our employees have completed over 200 transactions as investors, owners, operators, buyers, sellers and investment bankers of middle-market businesses across a variety of industries. The majority of our firm's broad transaction experience has been with private companies owned by one shareholder, a partnership, a family or private equity investors.



200 West Madison Street, Suite 980 Chicago, Illinois 60606-3414 tel: (312) 254-5900 ■ fax: (312) 254-5999 email: info@jordanknauff.com ■ web: www.jordanknauff.com

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