COMPREHENSIVE CASE

The Frankfurt Pump Company GmbH (FPC)

The Frankfurt Pump Company (FPC) was founded in 1965 in Frankfurt am Main, Germany, by Heinz Hoffman, a mechanical engineer. FPC initially manufactured specialty tools for the oil and gas industry. The specialty tools provided capital for Hoffman to design and manufacture a quality high-pressure patented pump. By the mid-1970s, the patented FPC pump enjoyed a reputation as the best high-pressure injection pump available. The pump was particularly well suited to the requirements of secondary oil and gas recovery with steam injection. FPC soon captured a dominant market position in the oil and gas industry. After Hoffman's death in 1979, his son Frederick, was in charge of the rapidly growing company. However, Frederick had interests in car racing and sold the company in 1985 to a group of eight investors. The company's growth and high profits continued, and its pump was still considered the best quality high-pressure pump in 1990, when the company was sold for the second time to a major coal company. In 1991, the coal company was losing money and needed the cash FPC Pump was generating, but in 1993, the coal company sold FPC for 2.5 times what it had paid for it. The buyer was one of the largest steel companies in the United States. FPC Pump was again sold in 1999 to a large multinational integrated oil company based in Europe. Division sales for 1999-2002 are shown in Exhibit 1.

Exhibit 1: Divisional Sales by Type of Account (in millions of euro)

	1999	2000	2001	2002
Stocking distributor	€15.2	€19.0	€25.1	€18.5
Nonstocking distributor	4.1	5.2	7.3	4.1
Direct Sales	9.9	13.7	18.7	9.7
Interdivisional	1.1	1.0	1.4	2.3
Reverse Osmosis	0.6	0.9	1.2	2.4
	€30.9	€39.8	€53.7	€37.0

Note: Stocking and nonstocking distributors sold both pumps and parts. The remaining types of accounts were nearly all pump unit sales.

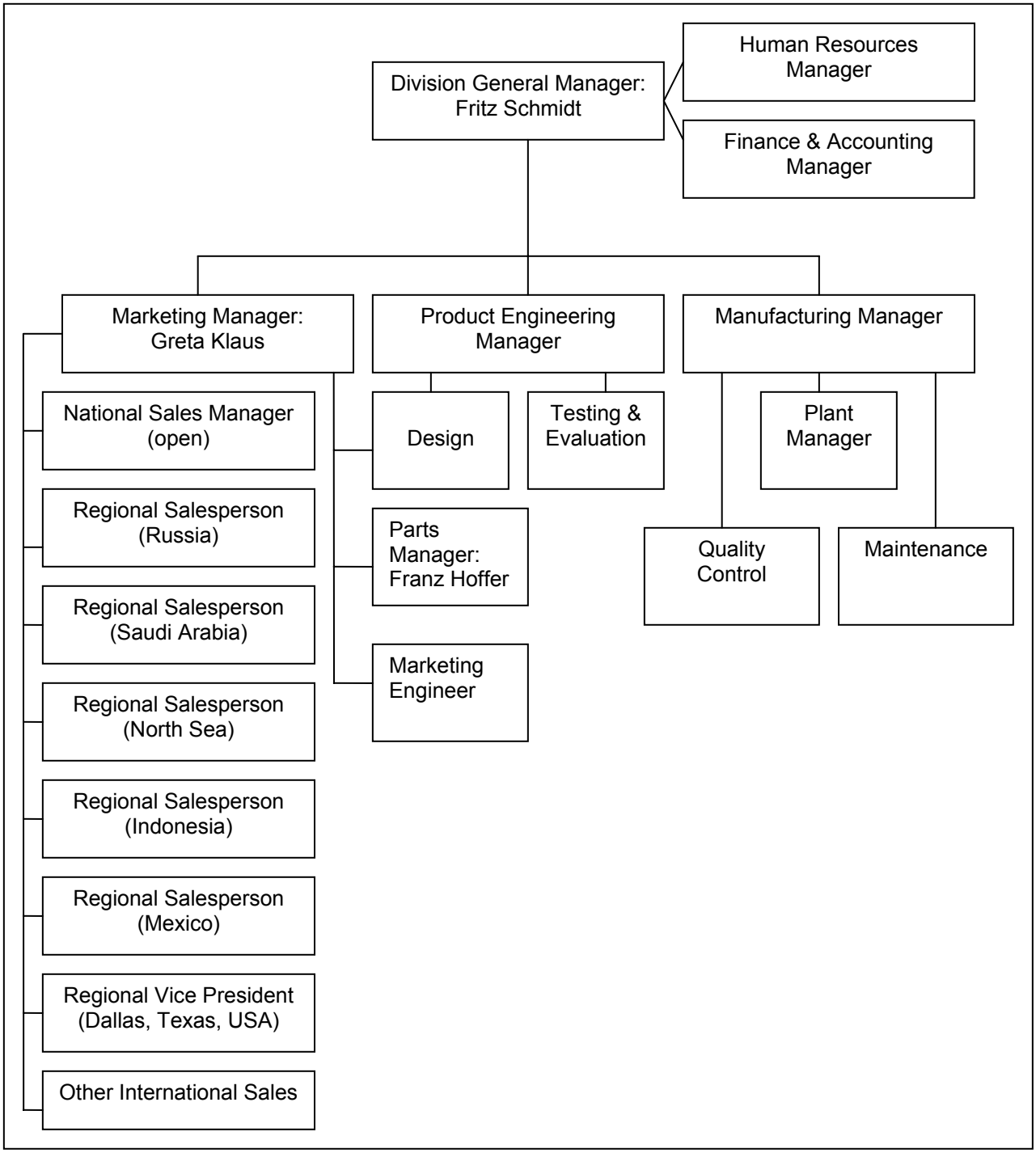
FPC's pumps were regarded as the "standard of oil patch high-pressure injection pumps." The pumps were widely recognized as the best engineered for high pressure steam injection and corrosion problems in the oil fields. The company was managed by leading engineers.

The frequent buying and divesting of FPC Pump had many negative effects on the business. Initially, the division was primarily bought as a financial "cash cow," which meant it was milked for cash, with little reinvestment. Much of the company's manufacturing was inefficient, and FPC

was believed to be a high-cost producer. The new owners knew little about the high-pressure injection pump business, which had no technical manufacturing, or marketing unity with their other operations. Relationships with customers and distributors were neglected, especially when energy booms allowed FPC to ride the growth curve and sell all it could produce.

With a sharp decline in new orders and a rapidly diminishing backlog, the oil company parent saw the need for a new management team. In 2002 it hired a bright and aggressive 39-year-old general manager, Fritz Schmidt, from another company to build up the existing business and to find new uses for FPC pumps. Schmidt was the first non-engineer to head the division. He had had 15 years of experience selling specialty piping to oil at gas companies. The organizational chart is shown in Exhibit 2. As soon as Schmidt obtained an understanding of the company, he was going to take a hard look to see if it was properly organized around market opportunities. One of the first personnel changes Schmidt made was to dismiss the marketing vice president and hire Greta Klaus, an engineer and a woman he had worked with three years earlier.

Exhibit 2: FPC Pump Division Organization



PRODUCT LINES

FPC was the largest manufacturer of high-pressure injection pumps. The pumps and parts had been made at the original location since 1970. As the company grew, adjacent land was acquired and extensions added to the original building.

A centrifugal pump line FPC manufactured was usually selected for applications that require high pressure. FPC's pumps had a high volumetric efficiency and consumed less energy than other types of pumps. The rated or recommended speed of pumps is important when a design engineer selects a pump to go into a new installation. Most pump manufacturers use the term "rated" speed interchangeably with "recommended" speed. The customer's design engineer selects a rated speed that will provide sufficient suction and discharge performance in moving the material. The recommended speeds of the FPC lines of pumps are shown in Exhibit 3.

Exhibit 3: Recommended Speeds of FPC Pumps

Pump Series	Stroke	Recommended Speed	Maximum Speed
E-10, E-50, E-100, E-200	2 3/16”	400 RPM	500 RPM
E-330, E-300	3 1/8”	400 RMP	500 RPM
E-125	3 ½”	400 RPM	500 RPM
E-100	4 ½”	400 RPM	500 RPM
E-165	4 ½”	360 RPM	400 RPM
E-160	6 1/8”	324 RPM	360 RPM
E-250, E-360, E-600	7 1/8”	324 RPM	360 RPM

Because FPC pumps were well engineered, they were often operated at much higher RPMs than competitive pumps, which would fail or need parts more frequently. FPC pumps were the only ones that held up in the severe operating conditions of the South African gold mines. The head of engineering stated:

> *Our pumps can be run at the highest RPMs with no problems. We use the highest-quality Timken bearings and have the strongest crankshafts. A helicopter literally drop-shipped one of our pumps into an oil-gathering field in Kazakhstan with no damage whatsoever. Our 100 percent inspection is another check to make sure no defects leave our shipping dock.*

FPC had 16 product lines or series, as shown in Exhibit 4. Within each of the 16 series there were two or three different models, for a total of 48 different pumps. Exhibit 4 also shows the quarterly shipments of all pumps for the 2000-2002 period. One FPC oilfield distributor described FPC's product line as:

> *...the best and broadest in the industry. But at €12,000 to €100,000 per pump, depending on the size, I can't stock many of them. Some of them are hot items and others rarely ever fit a customer's steam injection pumping requirements.*

Exhibit 4: 2000-2003 Quarterly Pump Unit Shipments

	2000					*2001*					*2002*					*2003*
Pump Series	**1st**	**2nd**	**3rd**	**4th**	**Total**	**1st**	**2nd**	**3rd**	**4th**	**Total**	**1st**	**2nd**	**3rd**	**4th**	**Total**	**1st**
E-10/E-15										25	3	13	9	30	55	41
E-50 series	58	26	39	76	199	84	107	37	36	264	31	20	9	10	70	7
E-100 series	79	28	67	77	251	73	58	56	41	228	36	14	8	8	66	20
E-200 series	42	42	79	59	222	70	97	75	47	299	41	33	15	22	111	26
SE-200 series	36	27	14	19	96	23	50	21	41	135	84	53	53	54	244	76
E-300 series	118	97	69	75	359	112	115	95	114	436	176	101	26	33	347	34
SE-300 series	11	6	10	17	44	18	19	38	32	107	4	2	2	3	11	2
6X-100 series	-	-	5	9	14	13	29	41	40	123	32	16	8	11	67	7
6X-125 series	52	37	89	59	237	58	65	50	69	242	49	16	25	8	98	9
6X-160 series	12	3	2	5	22	12	16	11	15	54	14	8	5		27	
6X-165 series	-	-	1	3	4	6	8	18	28	60	30	9	4	6	49	2
6X-250 series		2	1	2	5	7	1	8	4	20	7	5			12	1
6X-300 series	-	-	-	-	-	-	-	-	-	-	3	2	3	1	9	2
6X-360 series	1	3	3		7	1	1	1	5	8	1		8	3	12	
6X-600 series											1		2		3	
3L-450/5L-750						1		3	1	5	1	1		1	3	
TOTAL	**409**	**271**	**380**	**401**	**1461**	**478**	**566**	**454**	**508**	**2006**	**513**	**293**	**177**	**200**	**1184**	**227**

Note: The major difference among these lines is the size of the basic design. The E-10 is the smallest model and the 3L is the largest.

Competition

In addition to FPC, four other companies produced high-pressure injection pumps. Two were divisions of major steel companies that also owned large chains of oil field supply stores. The third competitor, Oilflo, was the only one that carried a full line, which competed with FPC across the board. Oilflo was founded in the mid-1960s. Located in Dallas, Texas, it was a privately held firm with sales believed to be about 35 percent less than FPC's. The fourth competitor was a U.K. manufacturer of industrial pumps that recently began selling in the oil field market.

Many more competitors produced parts for high-pressure oil field pumps. In addition to the four producers of pumps that also produced parts, there were 18 to 20 pump parts suppliers. Most of these were small two- to five-person firms. However, four of the parts firms were believed to be €20 to €30 million businesses. These suppliers were called "parts pirates." The parts suppliers did little or no repair or service work, but were essentially small machine shops that made standard parts for the more popular models of high-pressure injection pumps.

Product Warranty and Guarantee

All FPC pumps are guaranteed for one year from the date the end user received the product. The pumps are repaired or replaced free of charge within the one-year period. All FPC pumps are sold with a warranty card. Often the warranty card was filled out by the distributor and contained only the distributor's name. The distributor usually did not identify the end user by name or location because of concern that the customer and FPC might do business directly and bypass the distributor. Even if the end user did complete the warranty card, the customer sometimes bought the pump as a spare for one or two years and did not immediately place it in service. This situation caused FPC to have a problem enforcing its one-year warranty. Exhibit 5 shows the reverse side of a prepaid postcard that was intended to activate the warranty and provide end-user information to FPC. There was no warranty on parts due to the lack of a serial number and the errors caused by independent repair people in the field.

Exhibit 5: FPC Pump Warranty Activation

Pump Figure No._____ Serial No. _____
Distributor _____
Address _____
End User _____
Location _____
Date shipped from factory _____
Date shipped from distributor _____
Date pump installed on location _____

If pump was altered in any manner from the way it was shipped from the factory, please describe alterations below:

_____
_____
_____

Since FPC pumps were engineered to perform above the recommended speeds, there were few warranty claims. But since most of the warranty cards were inaccurately or not completed, FPC had little knowledge of where its pumps were operating and what material was being pumped at each location.

END USERS

Oil and Gas Systems

The largest current use of FPC pumps was in the oil and gas industry. Steam flooding was a specific technique for which most FPC pumps were used in oil and exploration. Steam flooding is a method of secondary oil recovery where steam is pumped down and forces more oil out of the well. Steam flooding injection oil recovery systems always require a high-pressure pump. Natural gas plants treat gas by taking the hydrogen sulfide and water out of the gas. High-pressure injection pumps are used for this purpose. Natural gas by-products like LPG are then injected into a pipeline, and high-pressure injection pumps are also used to perform this task. Since relatively fewer new oil or gas installations were being constructed, the oil pump injection business was more concentrated in the replacement population of existing pumps and pump parts. This situation created a lot of excess production capacity at FPC's large production facility.

Car Wash Systems

Automated high-pressure car wash systems need high-pressure pumps. Two of the largest automated car wash builders were located near FPC’s factory. In the early 1990s, FPC pumps were designed into many of the original car wash equipment systems. FPC was a major factor in the car wash pump market. But as the automatic car wash business became more cost-sensitive, FPC lost most of the OEM business to lower-priced pumps and was subsequently "designed out' of most new systems. The average car wash system needs water pumped at 700 to 800 PSI, whereas FPC pumps operated at 2000 PSI. FPC's engineering manager, stated:

> *We could have built low-pressure pumps for car washes, but we were more interested in the high-pressure needs of oil and gas. We once had a committee to rethink this market. We never had anyone do a study or take responsibility for the car wash market. The pump we sold to car washes was the same one that went to the oil and gas folks. We never had the car wash replacement pump or parts business. Once in a while we'd get a phone call here in Frankfurt from one of the car wash people, but we didn't have distributors to serve that replacement market. They do a lot of car washing in the snow and frost belt, where people take salt off their cars. Those aren't the same areas or distributors as where there are oil fields. Furthermore, after we'd sell the car wash builders a pump, we had no idea where they were shipping and installing the finished system, which might later need parts or a replacement pump.*

Reverse Osmosis Market

FPC had had an interest in the reverse osmosis market for the last 15 years. Reverse osmosis (RO) is a process in which salt or brackish water is pumped with high pressure against a membrane filter. The fresh water migrates to one side of the membrane, and the salt water stays on the other side. The company that developed the membrane came to FPC for the first pumps used to test the membranes. When the membrane producer's design engineers wrote technical papers in this area, they referred to the FPC pumps. That helped establish FPC's name in the RO market, where high pressure was necessary. Some FPC pump sales had been going to RO systems builders for the last five years, as shown in Exhibit I. Since this was also a different market for FPC, it did not have distributors that repaired pumps or supplied parts. A few replacement unit and part orders were received by telephone. About 90 percent of the RO sales were direct, and not through distributors. The size and growth prospects of the commercial RO market were not known to FPC.

Additional End Users

Over the years, a few FPC pumps had been sold as sewer cleaning pumps in municipal waste systems. This was believed to be a very price-sensitive market. A long-time FPC engineer stated:

> *We have received inquiries for a lot of strange applications that are foreign to us. That's how the car wash systems business came in, through the window. Since the pumping of oil and gas is what we know best, other applications took a low priority.*

The marketing manager, Greta Klaus, walked into the room and heard the last part of the conversation and added:

> *We don't even have good market data on the oil and gas market we are supposed to know. I just wish we had market shares by geographic oil and gas regions. Since we sell to distributors who build systems for oil and gas end users, we don't have enough contact and feedback from our ultimate customers. Our distributors don't know where many of the customers are either, especially if they didn't sell them the original pump, and we are really in the dark about the location and size of the parts market for high-pressure injection pumps.*

Oil and Gas OEM Installations

The large oil companies have engineering departments that write specifications and sometimes specify a brand to the pump distributor that builds the OEM system. The high-pressure injection oil field pumping system typically consists of a pump, a diesel or electric motor, and a V-belt chain drive all mounted on a "skid." The specifying of the type and size of pump is guided by what is being pumped, how much per day, and at what pressure. The OEM system builder uses the end user's technical performance

parameters to select the pump brand. The pump manufacturer had to call on both the end user and the OEM builder to sell the system.

THE AFTERMARKET

The repair and replacement pump purchase was somewhat less formal than the OEM buying decision. However, the larger oil company maintenance departments would frequently specify the general type of pump and quantity desired and then put the business out to bid for quotes. If a large end user had 20 pumps of one brand in an oil field, the 21st would most likely be the same brand to reduce repair problems and the number of parts needed. The smaller independent company maintenance departments usually bought one pump at a time from the pump distributor they had bought from before. Normally they did not ask for quotes from multiple distributors. They also did not plan the purchase and usually waited until the last minute to repair or replace a pump. During the oil boom years, customers did not have the time to conduct preventive maintenance on their high-pressure injection pumping systems. They waited until the pressure fell or visible leaks occurred. A few large oil companies were now beginning to conduct preventive maintenance on all their equipment.

When a high-pressure system breaks down, the oil company needs a replacement pump or part immediately because the cost of downtime could be between €6,000 to €15,000 per hour in a secondary recovery well. Either the oil company's maintenance personnel or an independent pump service firm did the repair work. Approximately 70 percent of the repair work was done by independent repair firms. Since competitive high-pressure units and parts were interchangeable, the repair person did not have to specify original equipment and part brand names.

OEM Pump Demand

The number of OEM oil pump installations is a function of the price of oil and the resulting amount of exploration activity. The number of geophysical survey teams prospecting for oil and gas is an early leading indicator of new oil and gas construction. The oil and gas equipment repair or aftermarket, however, is more dependent on the number of in-place and operating pumping jacks and offshore platforms. The demand for aftermarket replacement equipment material and parts is considerably less cyclical than it is for items going into oil and gas OEM equipment. When an independent repair firm inspected a faulty high-pressure injection pump in the field, it usually informed the oil firm of the cost of the needed repairs. As the cost of repairs approached the cost of a new pump, the repair firm suggested that a new pump be installed. A pump repair was an oil firm maintenance expense item, but a new pump was usually categorized as a capital equipment appropriation.

Pump and Component Parts Aftermarket

The size of the pump and component parts aftermarket depends on the in-place pump population and age of each unit. Since FPC had the largest oil field population of any

manufacturer of high-pressure injection pumps, there was considerable potential for replacement pumps and parts. Due to the incomplete warranty card information, FPC did not have information on the location or age distribution of in-place units. To help FPC's planning, the engineering department had attempted to determine the average life of a pump and the wear-out life for parts. But due to wide variances caused by differences in viscosity, the chemical content of the crude oil, suction pressures, and the RPMs at which the oil firm operated the machine, it was very difficult to identify "average life" and recommend repair and replacement schedules. However, it was common for FPC's high-pressure injection pumps to be in continuous operation for 20 to 35 years.

Pumping speeds, suction conditions, and nature of the fluid being pumped determined the life of these parts. FPC produced nearly 800 parts, many of which were different sizes of the same basic design. FPC's wide product line created the need for a larger number of parts. Most of the parts made by the five competitors were interchangeable. This interchangeability also created an attractive opportunity for parts pirates and allowed distributors to sell products to the parts pirates.

The fluid end parts were the major part of a pump repair bill. In a typical repair situation, 20 to 30 percent of the cost was labor, with possibly some machine shop time, and the remaining 70 to 80 percent was for parts, usually always at the fluid end. For example, a purchase price of €15,000 for a new high-pressure injection pump would require yearly fluid end parts costing between €1,500 and €3,200. The plungers would cost €450 to €600 each, and a pump would have three or five of them. Valves for the pump would cost approximately €90 each, times three or five per pump. Packing was €150 to €180 for the pump. Every two or three years, a major overhaul was usually needed. Over a conservative 20-year pump life, it was common for the parts cost to be two or three times the initial purchase cost.

Historically, all the major manufacturers of high-pressure injection pumps neglected the parts market. As one FPC pump distributor stated:

> *The previous management at FPC was more interested in selling pumps or metal tonnage rather than pursuing parts. Some producers saw the pump parts business as a nuisance, and therefore let in the parts pirates. I never understood why they all favored the higher revenue but lower profit margin pump business over the higher margin parts business.*

FPC employed a man by the name of Franz Hoffer to manage the aftermarket parts business. He was 59 years old and had been an FPC salesman for 29 years before taking this position. Hoffer was also independently wealthy from the sale of his FPC stock in 1985 to the group of investors.

Parts “Pirates”

The higher profit margin in parts, the large pump population needing parts, and neglect by the major pump producers attracted a large number of parts pirates to the injection pump business. Many pirates were previously employed in the machine shops or sales areas of the pump sales and service distributors. It was easy to enter the parts market, since it only required a machining tool, usually a used one, and a small inventory of metal stock from which to machine parts. Most were located in the center of major oil field

areas in simple structures with two or three employees. One pump distributor described the parts pirates:

> *These bootleggers are everywhere. Most were once pump repair service people who saw the prices, profit, and potential in the parts side of this business. They also know where all the pumps are in the area. They sell to anyone. They literally have little over their heads; often there is only an old barn or open shed with a roof to shelter them from the sun. They play havoc with parts prices. We can't buy parts from FPC at the prices the parts pirates sell them for and still make an attractive profit.*

The parts pirates were in many cases producing at 50 to 60 percent below FPC's current costs, and an increasing number of their parts were of excellent quality, A small number of the parts pirates in the oil fields were beginning to do pump repair work, often working through the night or the entire weekend to put a pump back in operation for an oil producer.

Since these independent parts suppliers were low-cost producers, they sold most of their output to distributors at prices that were 30 to 50 percent below the prices distributors paid the five major producers. The pirates published parts substitution sheets to make it easy for distributor counter people to substitute their products for the manufacturers' items. This situation encouraged many FPC distributors to stock the lower-priced parts as well. The pump producers often "shared the shelf" with competitive parts producers. FPC had no policy or position on this common occurrence.

The independent parts producers sold to three types of accounts. The bulk of their production was sold to the same specialty pump distributors FPC sold its pumps through. The parts producers also sold a significant amount of their output to the five injection pressure pump manufacturers. Finally, a small but increasing amount of the high-volume parts were sold by the independents to the oil field supply houses. The oil field supply houses were considered general stores in the oil production field, selling a wide range of maintenance and supply items. They did little repair work and were essentially similar to a "walk-in auto supply distributor." Pump salespeople referred to the supply houses as "Rope, dope, and soap stores." FPC did not sell parts directly to the supply houses, but rather sold to its distributors, who in turn were supposed to resell the high-volume items to the supply houses. Some FPC distributors sold parts to supply houses on a consignment basis. When Greta Klaus asked one FPC distributor why he sold parts to supply houses on consignment, the distributor stated:

> *It's nice to have samples of what you're selling. They only have our more popular parts. They usually sell the samples and then we ship them more. This is no different than what your non-stocking distributors do when they repeatedly sell the pump demos you give them on consignment.*

The FPC distributors had relatively few parts sales to the supply houses. Since the FPC distributors did not separately report pump and parts sales by account to FPC, the precise amount of distributor sales of parts to supply houses was unknown.

On April 30, 2003, the FPC Pump Company parts manager, Franz Hoffer, was called into Fritz Schmidt’s office to discuss the reasons why the FPC parts business had declined for

the last three quarters. Hoffer said he would prepare a memo on the situation within a week. Exhibit 6 shows Hoffer's response, dated 5 May, 2003.

Exhibit 6: Parts Business Memo

5 May, 2003

To: Fritz Schmidt, Division General Manager

From: Franz Hoffer, Parts Manager

Subject: Reasons for and Possible Solutions to our Parts Decline

Reasons for Parts Decline

I. *Parts Pirates*
Like FPC's pumps business, the parts pirates' business has tapered off. To counter this lower level business situation, the pirates have put on a concentrated effort to penetrate distributors, supply stores, and service shops.

2. FPC Parts Suppliers
Some of the same suppliers that sell us OEM parts are making very strong efforts at penetrating our markets (i.e., setting up master distributors and contacting our distributors in an effort to sell to them). The discounts given to their master distributors are approximately the same given to us and other OEMs.

3. *Lack of Distributor Inventory*
The distributor, in most cases, does not have the proper inventory mix of parts in stock to sell what the customer wants.

4. *Distributors Not Selling to Supply Stores*
This is the situation with a majority of our distributors. They feel they cannot sell to supply stores at a 20 percent discount. Therefore, the parts pirates are getting this business.

5. *Lack of Distributor Training*
Many distributors lack technical pump knowledge and therefore miss sales opportunities.

6. *Lack of FPC and Distributor Salespeople in the Field*
Companies and distributors that have salespeople in the field are making the contacts. This includes both old and new contacts.

Possible Solutions to Parts Sales Decline

I. Sell direct to supply stores, giving them a 20 percent discount off list.
2. Take a stronger stand with distributors regarding the carrying and selling of parts made by parts pirates.
3. Sell parts on consignment to distributors and/or supply stores. This would be a fixed amount.
4. Hold a meeting with the Distributor Council to discuss their problems and possible solutions.
5. Redesign parts for lower costs and improve performance.
6. Have more sales concentration in the areas of our large pump population.
7. Have distributors hire separate outside sales parts personnel.
8. Conduct an in-depth analysis of each of our distributors and determine who needs help, who should be dropped, and where we need to add new ones.

DISTRIBUTION

FPC Sales Force

FPC Pump had six salespeople who were responsible for both pumps and parts sales in their territories. The six were based in St. Petersburg, Russia; Riyadh, Saudi Arabia; Edinburgh, Scotland; Jakarta, Indonesia; Mexico City, Mexico; Dallas, Texas, USA. They were also responsible for sales through distributors and sales served direct by FPC's factory .The salespeople spent most of their time calling on the direct accounts. They sometimes helped FPC's pump distributors call on end-use customers. FPC did not have an established policy regarding which accounts should be sold direct or through a distributor. If a distributor located a customer whose technical problems it was not able to solve or one geographically outside its area, FPC did not compensate the distributor for the lead. FPC's Scottish salesman said:

> *It really angers the distributors when we sell any account direct or don't pay them for a sale outside their geographic area. It causes some distributors to play down our line and not pass on leads to us when they are not in their territory. However, FPC does not have a history of taking a distributor account and selling it direct. But an OEM, regardless of its annual purchase, can approach FPC and usually be sold direct. There is no set rule.*

It took about seven to ten months for a new salesperson to learn the FPC line and trouble-shooting expertise in oil and gas applications. The FPC salespeople were considered good trouble-shooters and were known for conducting excellent technical seminars for design engineers and maintenance personnel. The salespeople were paid on a combined base and commission schedule for pump sales. The sale of parts was not in the quota or compensation plan. Their quotas were set every year on aggregate pump sales, whether they were sold through distributors or direct. FPC's salespeople were paid a commission on what the distributor bought. Some distributors believed this compensation method encouraged the salespeople to overload distributors with pump inventories. Since 2001, most of FPC's stocking distributors had large inventories. The marketing manager, division general manager, and marketing engineer each spent 15 to 20 percent of his or her time in the field working with customers and distributors.

The FPC salespeople spent most of their time with direct OEM accounts. The marketing manager, Greta Klaus, believed there was a need for a sales incentive system for both pumps and parts, but she was not sure what the percentage should be between the two.

Pump Distributors

Greta Klaus described the typical FPC distributor as follows:

> *Since FPC makes a high-quality technical pump, we need very specialized distributors. These guys are both systems fabricators and component and parts distributors. They provide engineering, fabrication, parts, replacement units, and repair service for oil and gas operators. They can build a system for the customer or sell the components to end users. They put the pumps, torque converters,*

> *clutches, couplings, drive unit and controls on a platform or skid. They also sell compressors, diesel and electric engines, and all that is needed to build the system. Our pump distributors have engineers who go in and evaluate an end user's requirements and specifications before submitting a price quotation. The fabricators, engineers, and draftsmen work closely with the customer in all stages of a job. Every situation is carefully analyzed to assure that the proper components are on the skid.*
>
> *The fabricators' engineers prepare a schematic flow and bills of material for each job. On more complex projects, in-depth conferences are held between the client's engineering personnel and the fabricator's engineers. The distributors usually have testing facilities to test and break in the completed system.*

The specialty distributors usually had one to three outside salespeople and an inside salesperson. All had a parts counter for walk-in business. One distributor described its business as follows:

> *We are a very technical distributor that performs a lot of value-added. We are not just order takers or inside salesclerks. We have graduate engineers who design a system from a concept or a customer's specs. We then fabricate the appropriate package, install it, and service it until it's running to the customer's satisfaction. We have a counter, but we are not an auto parts store that does everything across a counter with catalogs.*

All of FPC's stocking distributors are shown in Exhibit 7 along with their annual purchases from FPC (2000-2002), the year-end dollar value of their FPC pumps and parts, inventory, and the number of branch locations. Where there are multiple or branch locations for one distributor, they are usually in different cities or states. The 16 distributors in Exhibit 7 account for the majority of FPC distributor sales. The average stocking FPC distributor had annual total sales (systems, components, parts) of between €10 and €50 million. The remainder of FPC distributor sales were through nonstocking distributors.

Exhibit 7: FPC Pump Stocking Distributors

PUMPS AND PARTS					
Distributor's Main Location	**Sales**			**Inventory**	**Number of Branches**
	2000	2001	2002		(12/30/02)
1. Oil & Gas Equipment St. Petersburg, Russia	€ -	€ -	€ 349,700	€ 215,700	1
2. Bakersfield Pump Co. Bakersfield, CA, USA	-	-	161,000	5,400	1
3. Eastern Pump & Supply Astana, Kazakhstan	324,540	851,329	817,210	46,210	4
4. Cook Industries Edinburgh, Scotland	2,082,100	3,315,900	2,504,400	934,530	7
5. United Industries London, England	178,710	132,201	205,604	36,370	2
6. Western Equipment Kiev, Ukraine	215,901	355,216	423,404	66,410	1
7. Jakarta Pump & Supply Jakarta, Indonesia	344,770	489,276	1,778,701	469,270	1
8. Maracaibo Engine & Equipment Maracaibo, Venezuela	379,110	697,117	1,551,501	83,090	1
9. Oil Service Mannheim, Germany		188,624	1,243,060	154,156	1
10. Lopensa Equipment Mexico City, Mexico	455,333	657,845	645,761	205,650	9
11. Flow Equipment Jeddah, Saudi Arabia	486,650	716,100	740,799	115,110	3
12. LaPine Equipment Longview, TX, USA	74,203	277,701	1,340,234	67,515	1
13. Saudi Industries Riyadh, Saudi Arabia	815,090	1,374,267	1,715,100	569,450	6
14. Gulf Supply Dubai, UAE	-	1,397,401	2,375,400	835,170	6
15. Fluid Pumps Bakersfield, CA, USA	115,217	287,171	1,077,191	172,660	1
16. Rucker Engine & Pump	374,104	360,991	413,876	148,420	1

Oklahoma City, OK, USA					

Many of the FPC distributors stocked nothing and sold very little each year. The non-stocking distributors had all the FPC catalogs and literature. FPC had no distributor stocking policy for pump units or parts. If a non-stocking distributor got an order, it would still collect the 20 percent standard commission on FPC pumps. When the marketing manager asked one distributor in he didn't stock FPC products, the distributor replied:

> *We must know the business is out there before we'll put anything in stock. Plus, FPC has many dead lines and parts that never sell. That really impacts a distributor who lives on inventory turnover. Without knowing the market potential for their product lines, they can't tell us what and how much to inventory.*

The Gulf Supply distributor, with six branches and headquarters in Dubai, commented:

> *I wish FPC was able to have the oil field maintenance people come in and demand FPC pumps and parts. As it is now, they usually come in, say what their pumping requirements are, and our counter people can sell them whatever they think will do the job. FPC provides very little direction to its distributors and does even less for end users. Just email or call FPC in Frankfurt for technical help sometime. Sometimes no one calls back for days. FPC comes around and makes promises, but nothing happens. They have not set policies for distributors. Some of the manufacturers of rotary and low-pressure pumps we carry have very clear rules on how to work with and help distributors*.

Distributor Territory Coverage

In the early 1990s, FPC rarely had more than one distributor in larger geographic areas. But as oil and gas drilling expanded and the older in-place pumps needed more repair and parts, and as more distributors wanted to represent FPC, additional distributors were signed up.

Greta Klaus described the distributor territory coverage:

> *In many geographic areas, we now have double or overlapping coverage and in some areas little or none. But I like dual coverage because if we drop one or he drops us, we still have a guy there carrying our lines.*

FPC had no mechanism for resolving the inevitable conflict that occurs when one FPC distributor opens or acquires a branch where another FPC distributor already has a branch. FPC did not provide any distributor with protection or assurance that there would be no other distributor nearby. None of its distributors had specific territories or designated areas of geographic responsibility.

Greta Klaus asked many FPC distributors two questions: How large a geographic radius can you travel to effectively and profitably service? How far does the typical walk-in customer drive to buy from you? The answer to the first question was usually stated in terms of driving times. Based on the distributor responses, it appeared that a 100- to 125-km radius was about the maximum for a one-day service job. The drive there would take about 1½ hours, work on the pump would take 3 to 5 hours, and a return trip was another 1½ hours. Longer distances were inefficient for the pump service distributor and increased the downtime cost of a problem oil well. The maximum driving time and radius for walk-in customers was about 75 km.

Most of FPC's larger distributors, especially those with multiple locations, believed FPC had too many distributors in many markets that were now competing for a smaller total amount of business. This was less of a problem in boom times, when every distributor had a lot of business.

Distributor Relationship

Klaus was aware she had serious problems with distributors. She decided to spend the next week in the field traveling with FPC salespeople. One salesperson stated:

> *We are lucky these distributors stay with us. Many would leave if they had another product line with FPC's quality image and customer acceptance.*

Klaus traveled with the U.S. salesman for a day, and at dinner that evening the rep summarized to her how he thought distributors in his territory viewed FPC:

> *The distributors in California see all the end users as their private customers, rather than as our common customer. Many of the distributors out here don't like me to call on end users in their territory. Even though we don't have a history of taking distributor accounts direct, most won't even show me "their" customer or mailing lists. However, when there is a technical problem at an end user, then it's an FPC problem and not theirs. The better distributors are just beginning to see us as partners.*

In June 2003, Greta Klaus decided to call a distributors' meeting, which all FPC salespeople would also attend. FPC had not held a distributor council meeting for many years. She called the meeting to get to know the distributors better and to get feedback from them. All but one stocking distributor attended the meeting. A summary of the meeting was put into the Distributor Council minutes (Exhibit 8).

Exhibit 8: Minutes: Distributor Council Meeting

I. FPC should clean up its distribution situation.

2. What is FPC's policy on selling to nonstocking distributors?

3. FPC's distribution policy appears ruthless and arbitrary.

4. Distributors need direction from FPC to expand market applications for existing pumps, i.e., sewage, mining, reverse osmosis.

5. New application case histories that solve common application problems in expanding markets need to be written and shared with distributors.

6. Need a clear written definition of what an OEM is, along with an OEM policy statement.

7. A quarterly distributor newsletter might be published by FPC, including:
   a. Case histories.
   b. Competitive information.
   c. Distributor personnel changes.
   d. FPC personnel changes.
   e. New distributor appointments.
   f. Service tips.
   g. Application photos and stories.

8. The council thought there should be a limited number of OEMs and that:
   a. Before signing on an OEM, current distributors need to be given a chance to see if they can meet the OEM's needs.
   b. If FPC decides to sign on a OEM even if the local distributor can meet its needs, the distributor needs to receive some type of compensation.

9. If a particular distributor is not doing the job expected, it should be canceled with sufficient notice. FPC should not just surround an existing distributor with more distributors to get the coverage needed. FPC should be careful not to over saturate an area with distributors.

10. What is FPC's intention for the reverse osmosis market? Will this be a direct market or a distributor market?

II. Marketing Communications
   a. FCP must improve “user friendliness” of its website.
   b. Direction should be toward testimonials/applications, with reprints available for distributors to use.
   c. Co-op advertising programs in regional and local publications and trade shows were suggested.
   d. When responses are received from ads or the website, all distributors in that particular geographic area should be sent copies of the request for information.

PRICING AND PROFIT MIX

FPC had a company target of 30 to 40 percent gross margin on pumps; the floor was a 30 percent gross margin. Specialty Pump orders were to be priced at a 65 percent gross margin. There were no quantity discounts for OEM or distributor sales. For parts, FPC had a 70 percent gross margin pricing objective and was the highest priced parts supplier. Recent competitive action by pirates had caused FPC to price all parts at a 60 percent gross margin. Historically, a 40 percent of FPC sales were from parts, but 60 percent of profits. In 2003, FPC believed parts would be about 60 percent of sales and 80 percent of profits. OEMs that were sold direct by FPC were given discounts of 20 percent for both parts and pumps.

FPC's pump distributors received a discount of 35 percent on parts and 20 percent on pumps. A typical pump unit sale by a distributor in 2002 sold at a suggested list price of €15,000. Many distributors believed their 20 percent discount from list price on pumps was insufficient. The typical pump distributor's total profit was approximately 40 percent from parts, and 30 to 40 percent from parts and service work. The remaining 20 to 30 percent came from pump unit sales. Greta Klaus and Fritz Schmidt were considering a quantity discount of 5 percent for distributors that placed a combined pump and parts order of €300,000 or more. Klaus was concerned that the quantity discounts might encourage distributors to hold back orders until they had accumulated enough for the discount.

The FPC suggested resale price for distributor parts to the supply houses was 20 percent off list. That left the distributor with 15 percent from the 35 percent discount. Many distributors believed it would be costly for them to sell to supply houses from their stock. To solve this concern, Klaus was considering shipping direct to the supply houses and then providing the distributor with 10 percent for doing the paperwork. However, because of the parts pirates' low prices, it was doubtful that FPC's prices could be at all competitive with the no-brand parts. The supply houses generally did not stress a brand, for which FPC could receive a premium. The supply houses were often disloyal buyers that sold fast-turnover pump parts on a generic basis. Some pirates were selling private label parts to the supply houses at 50 percent below FPC's supply house list price. If FPC sold parts direct to the supply houses, it was concerned about receiving more complaints from distributors, since the FPC parts were very profitable for the distributors.

Price on Application Program (POA)

To be more competitive, FPC announced a new distributor pricing program on 1 May, 2003, which was already bringing many complaints from distributors. As part of the POA program, if a distributor had a prospect for a new pump, it could call the factory to see what price FPC would allow to be competitive. For example, if a competitor submitted a €13,000 price for a pump that normally sold at list for €16,000, FPC would usually meet or match it and give the distributor a 15 percent commission on the sale price. The

stocking distributors complained that the program was reducing the value of their inventory, and many now wanted rebates. Many of the POA prices to the end user were less than the cost of the pump to the distributor. The POA program temporarily stopped the use of all pump price sheets.

On 12 July, 2003, Greta Klaus met with Schmidt to discuss the POA program and other marketing issues. Klaus first commented:

> *We aren't really managing our sales and distribution. Many of the distributors are managing us and acting more like reps than distributors. In fact, in some territories we have competition between our distributors; if they sell someone else parts, we are competing with our own distributors. We need to agree on firm policies and put them into a new distribution agreement. This means we will have to evaluate, cancel, restrict, and add new distributors. There will be a lot of hot tempers because we've kept so many on for decades. We will also have inventory return problems. If our distributors don't give us the coverage, penetration, and customer service, why keep them?*

Schmidt:

> *Our sales and distribution emphasis should follow our product-market strategy. We must get this sorted out fast because this morning I got bad news from our accountant. This last quarter the first red ink in FPC's history appeared on the books. The loss isn't as bad as it looks, because most of it is due to depreciation charges. The fact that they paid two times book value for this business caused management to write up the assets and now write off large depreciation expenses. But our cash flow is still not healthy. We are extending payables from 30 to 60 days. We really can't lay off any more people. The burden is on you to improve out top line so we can show a better bottom line.*

Klaus:

> *I believe we need a full look at our strategies and resulting policies. I will begin a detailed analysis immediately and have specific recommendations to you in no more than 30 days.*

Adapted from Hlavacek and Ames (1986), used by permission of Random House, Inc.